

EXHIBIT "B"
SCOPE OF SERVICES

TO BE PROVIDED BY HALFF ASSOCIATES, INC.
TO
COLLIN COUNTY, TEXAS
FOR
PARK BOULEVARD EXTENSION
BOND PROJECT #07-099

A. PROJECT DESCRIPTION

The COUNTY proposes to construct Park Boulevard from FM2514 (Parker Road) to SH78 which consists of approximately 13,300 linear feet of a 4-lane divided concrete pavement section that will accommodate an ultimate 6-lane facility within a 120' wide right of way. Services by the CONSULTANT shall include all aspects of the work set forth in the following scope of services.

The parameters for planning and design of the improvements shall include all or part of the following as authorized by Collin County:

1. Preliminary design of Park Boulevard as a new location facility from Paul Wilson Road to Skyview Road at a point approximately 2,000 feet east of Paul Wilson Road. Designs shall include work extending 200' north and south along and within the existing Paul Wilson Road right of way for intersection improvements that will not include traffic signal design. Design shall include the termination and abandonment of a portion of Skyview by use of a new cul-de-sac. CONSULTANT shall coordinate with North Texas Municipal Water District (NTMWD) and Oncor Transmission (ONCOR) to determine acceptability of alignment for Park Boulevard across existing NTMWD and ONCOR facilities. Designs for the relocation or adjustment of any existing utilities impacted by Park Boulevard construction are not included.
2. Preliminary Design of Park Boulevard as an expansion of existing Skyview Drive and Forrest Ross Road from a point approximately 2,000' east of Paul Wilson Road to Spencer Street.. CONSULTANT shall coordinate with NTMWD regarding the reconstruction of the existing treatment plant access driveways and design intersection improvements to match the existing alignment and elevation within 50' of the proposed Park Boulevard right of way. CONSULTANT shall coordinate with the United States Army Corps of Engineers (USACE) regarding 404 permit requirements and develop mitigation strategies to address impacts to the USACE property and Lavon Lake storage volumes as a result of the proposed Park Boulevard construction. Designs shall include necessary structural and grading improvements to be accomplished within the proposed right of way. Designs shall include grading only improvements at one off-site location on adjacent ONCOR right of way if allowed by USACE and by ONCOR. CONSULTANT shall prepare customary

documentation, including Final design plans as described in section B below, for USACE required permits, submit permits for approval and address all documentation comments from USACE. CONSULTANT shall prepare an Environmental Assessment (EA) of the project in compliance with USACE requirements. Designs shall include the reconstruction of the existing intersections with Lynda Lane and Skyview Drive to match existing pavement alignments and elevations within 50' of the proposed Park Boulevard right of way. Designs shall include the reconstruction of Skyview Drive between proposed Park Blvd Extension and the USCAE entrance to East Fork Park as a 4-lane collector. CONSULTANT shall coordinate with North Texas Municipal Water District (NTMWD) and shall prepare customary documents to determine acceptability of alignment for Park Boulevard across existing NTMWD facilities.

3. CONSULTANT shall evaluate the possibility of a future grade separation of Park Blvd at the KCS rail crossing and provide a design sketch for review by City of Wylie and NTMWD.
4. Survey scope shall include parcel descriptions for modified right of way and/or abandonments but survey for and preparation of subdivision plats is not included.
5. Designs shall include replacement of existing sidewalks and barrier free ramps. New sidewalks and ramps shall be installed to meet CITY requirements along with ADA and TDLR requirements.
6. Typical scale of full-size plans is to be: 1"=20' Horizontal; 1"=5' Vertical.
7. Submittals to the COUNTY of work-in-progress shall be at 30%, 65%, 90%, and 100% stages of completion. For each stage of review, two (2) full size (22" X 34") and four (4) half size (11" X 17") sets of drawings will be furnished to the COUNTY along with a CD containing PDFs of the plan sheets.
8. Standards and typical construction details of the City of Wylie and TxDOT may be referred to in the specifications and on the drawings. Special details that are not included as a standard shall be included in both plans and specifications.
9. Assist the COUNTY in preparing applications/letters/plan sets to be distributed to any entity for review purposes.

The CONSULTANT shall perform the necessary engineering and related technical services for the Planning and Design Services, including necessary Additional Services, for development of County authorized segments of this Project according to the following sections of this Contract.

B. TASK DESCRIPTIONS – SCOPE OF SERVICES

I. Preliminary Engineering

- A. Data Collection - Obtain pertinent utility plans, street plans, plats, right-of-way maps, existing easement information, contour maps, and other features within and pertaining to the Project area from the COUNTY and City of Wylie. The CONSULTANT will also coordinate with franchise utilities in the area and

obtain record information where available. Existing Project conditions shall also be documented using digital photography and/or video. Perform site visit to obtain necessary information/confirm information obtained from other sources.

1. Subsurface Utility Engineering

- a. Halff will perform SUE in accordance with ASCE CI/ASCE 38-02 “Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data.”
 - b. Locating (Vacuum Excavation) – Level A: Up to ten (10) test holes will be performed on the various utilities as identified by the appropriate utility owner. Halff will dig an approximately 12” x 12” test hole, record the depth, take a digital picture of the identified utility and the tape measurement between the utility and the top of the ground, backfill and compact the hole, and restore the surface to its original condition. An iron rod with cap or “x-cut” will be set to mark the location of the test hole.
 - c. Designating – Level B: Halff will designate, mark and field survey up to 20,000 linear feet of utilities, if tonable and/or accessible, in support of the proposed project designs using geophysical prospecting equipment and reference to established survey control. Designating (Quality Level B) Services are inclusive of Quality levels C and D.
 - d. Traffic Control: Halff will provide routine/ordinary traffic control consisting of cones and free-standing signage for this project. The scope does not include lane closure(s), flag person(s), arrow board(s) and changeable message board(s). Halff will use standard Texas Manual on Uniform Traffic Control Devices (TMUTCD) traffic control details when appropriate.
- B. Pre-Design Conference - Meet with COUNTY engineering staff to review Project requirements, design criteria, communication procedures, Project scheduling, personnel, and other pertinent matters that may impact the Project. Additional meetings will be scheduled throughout the length of the Project.
- C. Preliminary Engineering Design – Prepare preliminary engineering plans with submittals at thirty percent (30%) and sixty-five percent (65%) completion. The preliminary engineering design phase will include the following:
1. Utilizing information obtained from the data collection (Section I.A) and the field survey (Section V.A), the CONSULTANT will prepare preliminary plans including the following:
 - a. Approximate locations of existing utilities, infrastructure, buildings, property lines, landscaping, and other pertinent information.
 - b. Establish preliminary horizontal and vertical alignments for paving improvements.

- c. Delineate drainage areas and make evaluations as to the extent of drainage facilities required for the project.
 - d. Establish preliminary locations for drainage, water, and sewer lines.
 - e. Establish right-of-way and easement needs. Final documents for right-of-way and/or easement acquisition shall be provided along with the sixty-five percent (65%) plan submittal.
 - f. Determine any conflicts with private property including fences, mailboxes, driveways, sidewalks, landscaping, etc., and provide preliminary replacement or alternate design options if required.
 - g. Preliminary engineering plan sheets shall meet COUNTY and City of Wylie standard criteria.
2. Work with affected franchise utilities to obtain accurate information for horizontal and vertical data of existing facilities and identify those to be protected or relocated.
 3. Prepare updated estimated construction quantities and opinion of probable construction costs for thirty percent (30%) and sixty-five percent (65%) submittals.

II. Final Engineering

- A. Final Engineering Design – Incorporating comments from the COUNTY, franchise utilities, and other interested parties, prepare final engineering plans and specifications with submittals at ninety percent (90%) and one-hundred percent (100%) completion. The final engineering design phase will include the following:
 1. Revise and complete preliminary drawings consisting of drawings for grading, paving, drainage and bridge layouts in project areas subject to USACE approval.
 2. Prepare lake volume mitigation site grading plan.
 3. Final engineering plan sheets shall meet COUNTY standard criteria.
- B. Project Manual – prepare document that delineates required special conditions, and technical specifications using COUNTY standard specifications.
- C. Final Submittal – Prepare updated estimated construction quantities and opinion of probable construction costs and submit two (2) sets of full size (22" X 34"), ten (10) half size (11" X 17") sets of the engineering plans and five (5) sets of the project manual, along with revised estimates and a CD containing PDFs of the plan sheets to the COUNTY for review.
 1. Submittals will occur at ninety percent (90%) and one hundred percent (100%) completion stages.

2. Supply one (1) set of plans (hardcopy) and bid documents (both hard copy and electronic copy) to COUNTY purchasing department prior to advertisement.

III. Special Services

- A. Surveying for Engineering Design – Perform necessary surveying operations for the complete design of the Project as outlined in this Exhibit A, Scope of Services. Surveying for design shall include the following:
 1. Establish horizontal and vertical control using City of Wylie criteria.
 2. Tie right-of-way lines and corners, property lines and corners, trees three (3) inches in diameter and larger, fence lines, and other visible surface features.
 3. Topographic Information including cross sections of the existing ground features as needed for design.
 4. Horizontal and vertical location of all existing facilities within the Project limits including existing paving, driveways, sidewalks, buildings, mailboxes, landscaping, etc.
 5. Tie existing visible franchise utilities and appurtenances, and public utilities such as water valves, fire hydrants, manholes, etc.
 6. Tie underground utilities if exposed.
 7. Provide detailed tree survey (where applicable).
- B. Right-of-Way / Easement Documents – The CONSULTANT’s scope of work does not include revision of existing right of way documents to correct accuracy deficiencies. Surveying for ROW shall include the following:
 1. Prepare metes and bounds descriptions for the acquisition of all modified right-of-way and additional easements necessary for the construction of the Project. Submit three (3) copies of right-of-way documents to the COUNTY at the sixty-five percent (65%) plan submittal.
 2. Establish proposed easement and right-of-way corners on the ground (one-time).
 3. Provide individual Right-of-Way Parcel Maps for modified right-of-way and additional easements showing adjacent properties with ownership and existing and proposed right-of-way and easements.
 4. Provide Right-of-Way staking at 100 ft stations and property corners for franchise utility relocation purposes (one time per parcel as needed).

C. Geotechnical Investigation – Provide geotechnical investigation through sub-contract services with a qualified geotechnical engineering firm on an as-needed basis.

D. Environmental Services –

1. Preliminary Information

CONSULTANT will develop the preliminary information listed below as requested in the USACE Memorandum regarding Non-Recreational Outgrant Policy dated March 30, 2009 (NROP), which is applicable to real estate outgrant requests for use of USACE Civil Works lands for activities such as roadways. The scope of work for the items below is limited to that portion of the Project that is crossing and/or immediately adjacent to USACE parcels required for the roadway.

- a. Identify applicant, including the point of contact for processing with the County, to whom the proposed outgrant would be assigned.
- b. Describe the existing and proposed facility.
- c. Identify the purpose and need for the proposed facility.
- d. Justify placement of the proposed facility on government property, including a description of alternative locations/routes that were considered off of project lands. Provide rationale for why other alternatives were either not considered viable or were not selected for detailed analysis.
- e. State the duration for which the proposed outgrant is requested, including the duration of the temporary license that would be needed for construction.
- f. Generally describe the location and dimensions of the requested outgrant area to include preliminary plans.
- g. Provide basic construction methods and timeline.
- h. Provide preliminary discussion of anticipated impacts to the natural and human environment based on a limited review to identify obvious environmental constraints in the project area.
- i. Deliverables
 - Electronic version of the Non-Recreational Outgrant Request document in Adobe Acrobat format, and up to six (6) hard copies upon request, for review by the USACE and the County.

2. Detailed Information

CONSULTANT will provide information specifically enumerated below as the anticipated USACE requirements necessary to comply with the NROP section describing Detailed Information. The scope of work for the items below is limited to that portion of the Project that is crossing and/or immediately adjacent to USACE parcels required for the roadway.

- a. Coordinate with State and Federal resource agencies and third parties as necessary to receive general concurrence with Consultant's evaluation of impacts related to implementation of the Project.
- b. Provide a detailed Site Plan of the Project that includes available existing contour data, property lines, fences, roads, structures, monuments, trails, parks, natural resources and environmental resources.
- c. Prepare a document summarizing the general parameters of mitigation measures shown on the Project site plan and include proper tabulation of property, improvement and natural resource values that are impacted by the Project within the specific NROP request area.
- d. Evaluate existing vegetation and provide preliminary recommendations for storm water pollution prevention techniques, details and revegetation species.

3. Jurisdictional Determination/Verification

CONSULTANT will perform a jurisdictional determination/verification for the proposed project. The jurisdictional determination is the first step in determining if a Section 404 permit from the USACE is required. An on-the-ground jurisdictional determination will be performed for the project area to identify the limits of waters of the United States, including wetlands. The jurisdictional determination will employ the use of GPS surveying techniques to map the edge of jurisdictional areas. Necessary wetland data forms will be completed and on-site photographs will be taken for representative sites. A jurisdictional determination report consistent with the USACE "Procedures for Jurisdictional Determinations" (dated March 24, 2003) in addition to the "Interim Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Great Plains Region (Version 2.0)" will be prepared describing the methodology and results of the investigation, so that the report may satisfy the jurisdictional determination requirement for a permit application. Jurisdictional Determination reports prepared for Department of the Army permit applications to document the process should include the following:

- a. Purpose of the investigation, defining limits of the investigations;
- b. Methods, including:
 - description of the approach used to delineate wetlands and other waters of the United States; and
 - description of the conventions used to map the limits of waters of the United States.

c. Results, including:

- a vicinity map or maps, (preferably USGS 7.5 minute or other smaller scale topographic maps) depicting the location of the site and showing the limits of the site investigated;
- a narrative addressing the size of the site in square feet and/or acres; a description of any physical features;
- a characterization of hydrology addressing direction, source, frequency, and duration of on-site drainage;
- identification of any named waterways on or in the vicinity of the site; and other pertinent information on hydrology;
- a characterization of vegetative communities and dominant species occurring within each community type;
- a characterization of soils present on the project site using information derived from county soil surveys, evaluation of soil samples, and other sources;
- a comparison of the soils, vegetative, and hydrologic conditions between wetland and upland areas, a description of riparian and other buffer features around water features;
- preparation of wetland determination data forms;
- photographs taken from several locations throughout the project site;
- current and historic aerial photographs; and
- any other relevant historic permit information or maps.

d. Conclusions, including:

- a description of, and map depicting, potential waters of the United States (water features that have an ordinary high water mark or are wetlands) present in the study area, including:
 - i. wetland type(s), e.g. emergent, forested, scrub-shrub, etc. and
 - ii. other water type(s), e.g. perennial, intermittent, or ephemeral stream, reservoir, pond, etc., as appropriate.

e. Deliverables

- Bound copies (up to six hard copies) of the jurisdictional determination report to satisfy the requirement for a permit application for submittal to the USACE Fort Worth District.

4. USACE Section 404 Permit Application and Preconstruction Notification (PCN)

Half will prepare Section 404 permit applications for project impacts that do not exceed thresholds allowed by nationwide permits. Activities that do not qualify for authorization under the nationwide permit program may qualify for authorization by standard individual permit (IP), which would require additional services under a supplemental work authorization.

5. Environmental Assessment (EA)

CONSULTANT will prepare an EA in accordance with the Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500 - 1508) and USACE regulations implementing the National Environmental Policy Act of 1969 (NEPA), as established in 33 CFR 230 and Engineering Regulation 200-2-2, as well as applicable USACE Fort Worth District guidelines. The EA will involve the following tasks and objectives:

a. Review and Incorporate Background Information - Review information concerning the proposed action provided by the County and incorporate appropriate information into the EA. Review relevant studies and any prior agency coordination related to the proposed action.

b. Need and Purpose of the Proposed Action - Consult and coordinate with the County to define the need and purpose of the proposed action. Briefly describe the history of the planning process.

c. Description of Alternatives - Consult and coordinate with the County to define and summarize the history and process involved to create and eliminate the project alternatives. Briefly identify the reasons alternatives were eliminated from detailed study. Describe the various alternatives considered and eliminated leading to the preferred alternative. The no-action alternative (i.e., do nothing) will also be discussed to serve as a baseline for determining environmental consequences.

d. Data Review for Environmental Criteria - Collect and review data, maps, and literature to document the Existing/Affected Environment within the project study area. Obtain available information from appropriate local, state, and federal agencies. The data collected will include, but is not limited to the following Social, Economic, Natural, and Physical environmental resources:

- Land use (i.e., park, wildlife management area, etc.)
- Socio-economic conditions (employment, demographics, etc.)
- Community growth and development
- Relocations and displacements
- Public facilities and services
- Public health and safety
- Utility relocations
- Environmental justice
- Community cohesion
- Air quality
- Noise
- Water quality

- Water resources, including surface water and ground water
- Waters of the United States, including wetlands
- Floodplains and flood storage criteria
- Navigation
- Visual/Aesthetics
- Geology and soils
- Prime and unique farmland
- Parks and recreation
- Wildlife habitat (terrestrial and aquatic)
- Threatened and endangered species
- Vegetation
- Wild and scenic rivers
- Cultural resources - historic structures and archeological resources
- Hazardous, toxic, and radioactive wastes (HTRW)
- Energy needs and resources
- Construction impacts
- Controversy
- Indirect and cumulative effects

e. Field Surveys - A field visit will be conducted to verify land use and other existing conditions within the study area. It has been assumed that the project area will be accessible and appropriate right-of-entry to perform the tasks included in this scope of work will be coordinated and obtained by the County.

f. Evaluate Environmental Consequences - Evaluate and compare the environmental consequences of implementing the no-action alternative and the preferred alternative. Details concerning certain resource studies are provided below:

- Air Quality - A qualitative discussion of the impacts to air quality resulting from the proposed action will be performed. A detailed, quantitative air quality analysis, such as emissions modeling and data analysis for construction equipment, is not anticipated to be required for this project.

- Noise – Discuss potential noise impacts. Collect, analyze and input traffic data for the facility. Identify existing and proposed land use in the project area to locate representative receivers, and establish existing noise levels. Model existing and predicted traffic noise levels using Traffic Noise Model (TNM) 2.5. Model traffic noise contours for undeveloped land using TNM 2.5. Evaluate and document feasibility of noise abatement measures and placement of noise barrier(s).

- Jurisdictional Waters of the United States - A survey to determine the presence or absence of jurisdictional waters of the United States

and an evaluation of applicable Section 404 permit requirements is included in this scope of work including a PCN for all sites that meet Nationwide Permit (NWP) No. 14 requirements. Navigational clearance under Section 9 and Section 10 of the Rivers and Harbors Act of 1899 is not anticipated for this project.

- Socio-economic Conditions – Document the general population and income characteristics of the immediate project area, and identify public facilities/services and business operations in the study area likely to be affected by the proposed project. Identify potential relocations and displacements. A qualitative discussion concerning impacts, if any, in the immediate area will also be presented. A qualitative discussion of the potential economic benefits of the proposed project will be presented for comparison to the overall projected cost (i.e., operation and maintenance, etc.) of the project.
- Wildlife Habitat – Document vegetation and potential wildlife habitat in the study area using the TPWD Wildlife Habitat Appraisal Procedure (WHAP), and evaluate potential impacts. The WHAP allows a holistic (i.e. not species-specific) evaluation of wildlife habitat that can be applied at the statewide level. The WHAP provides a quantifiable and repeatable characterization of wildlife habitat. WHAP assumes that measuring habitat structure and composition is sufficient to define the habitat suitability for wildlife, and that a positive relationship exists between vegetative diversity and wildlife species diversity. Determine and delineate land cover types for the area that would be disturbed by project construction. Establish field sampling sites and collect data to provide a representative characterization of the study area. Document the methodology, cover type descriptions, habitat variable measurements, habitat suitability indices, and baseline habitat units for the project area.
- Threatened/Endangered Species - Review current species lists from the TPWD and the United States Fish and Wildlife Service (USFWS) for Collin County, and request a search from the Texas Natural Diversity Database (TXNDD). The TXNDD is a record of occurrences for rare plant and animal resources that is based upon the best available information maintained by TPWD. The TXNDD data is to support determinations of potential species occurrence for the study area, and provide specific information where available. Perform a walk through to make visual observations of the areas to be disturbed by construction. Supplemented by general observations from the visual survey, the literature review and database search will provide conclusions regarding whether preferred habitat or designated critical habitat for any listed species is present within the project area, whether any listed species is likely to occur, and whether there is a potential effect to listed species. Recommendations will be made if additional

surveys or species assessments and/or coordination with TPWD and USFWS appears warranted based on the limited investigation described above.

- Cultural Resources – This scope of work is based on the understanding that the proposed cultural resource services will be conducted to comply with the Antiquities Code of Texas (13 TAC 26 and Title 9, Chapter 191, Subchapters A-F of the Texas Natural Resources Code, as amended) due to the County being a political subdivision of the State of Texas. The cultural resources services will also be conducted to complete the requirements of Section 106 of the National Historic Preservation Act (NHPA) (16 U.S. Code § 470f) and its implementing regulations (36 CFR Part 800), due to the involvement of the USACE. This scope of work is based on the typical level of effort and extent of jurisdiction of similar projects performed in compliance with the Antiquities Code of Texas and Section 106 of the NHPA. A records review will be conducted utilizing the records at the Texas Archeological Research Laboratory (TARL) to identify recorded archeological or historic sites within and in the vicinity of the project area. Federal and State lists of recorded historic properties such as the National Register of Historic Places (NRHP), State Archeological Landmarks (SAL), and Official Texas Historic Markers will also be reviewed. Consultation with the USACE and the THC, acting on behalf of the State Historic Preservation Officer (SHPO), will be conducted. Based on the requirements of the NHPA, consultation with the USACE is necessary in order to determine if the proposed action is an undertaking, as defined by 36 CFR Part 800.16 in the Section 106 process of the NHPA. The USACE, serving as the federal responsible entity, in consultation with the THC will determine the level of effort and extent of jurisdiction, or the area of potential effects (APE), for further cultural resources investigations, if needed.
- Hazardous Materials - Hazardous materials sites will be identified in the project area through field surveys and review of historic aerial photography. Field surveys will consist of a visual survey of the project area to ascertain existing conditions, looking specifically for potential hazardous material concerns such as aboveground or underground tanks, drums, impoundments, waste piles, and landfills. If site inspections warrant, additional information such as State and Federal databases will be reviewed. The information reviewed will be sufficient to establish whether there are potential HTRW concerns that would affect the proposed project.
- Indirect and cumulative effects – A qualitative discussion of the direct and indirect impacts of the proposed project along with impacts on environmental resources from other past, present, and reasonably foreseeable future actions will be presented in the EA.

g. Avoidance, Minimization, and Mitigation - List and discuss the avoidance, minimization, and potential mitigation, if any, for the project. Generally discuss how mitigation would eliminate or minimize harm to the natural and human environment. General mitigation options for impacted environmental resources will be provided. Identify required permits and approvals for the project.

h. Deliverables

- Electronic version of the draft EA document in Adobe Acrobat format, and up to six (6) hard copies upon request, for review by the USACE and the County. Comments received will be addressed and the document will be re-submitted for approval.

- Final EA document to the USACE and the County upon completion of the public involvement process. The number of copies of the final EA is to be determined as requested by the County and the USACE (not to exceed 15 hard copies). A digital copy of the final EA will also be provided in Adobe Acrobat format. The schedule for final project completion will be dependent upon the government agency review and public comment process.

6. Public Involvement

a. Once the EA for the proposed project has been determined by the USACE to be satisfactory for further processing, prepare a draft Notice of Availability of the EA and submit to the County and the USACE for publication in a local newspaper and/or distribution to adjacent property owners and appropriate local, state, and federal government officials. It is assumed the County would place the public notice for publication as appropriate and would be responsible for associated fees.

b. Review comments received during the public comment period, and prepare responses to comments in coordination with the County and the USACE.

IV. Project Work Authorization

The work described in this scope of services is intended to be authorized by the COUNTY in phases as described below:

A. Phase 1 – The work authorized in Phase 1 shall be limited to the Project area between Paul Wilson Road and SH78. Phase 1 shall consist of required planning, environmental evaluation and design necessary to establish documentation and coordination requirements for USACE to consider

approval of project designs across USACE lands. Primary scope elements shall include the following:

1. Project start-up activities including data collection and determination of project design criteria
2. Preliminary information as described in scope item E.1. above;
3. Jurisdictional waters of the US (WOUS) determination and report.
4. Establishment of Survey control network and recovery of existing ROW corners. Field ties to critical surface features and WOUS limits.

B. Phase 2 – The work authorized in Phase 2 shall be limited to the Project area between Paul Wilson Road and SH78. Phase 2 shall consist of required planning, environmental evaluation and design necessary to establish documentation that enumerates mitigation requirements, compensation and detailed design work that must be accomplished for USACE to conditionally approve a specific outgrant parcel request for roadway purposes. Primary scope elements shall include the following:

1. Resource agency and stakeholder coordination.;
2. Preparation of a detailed site plan, roadway schematic and summary document for resolution of mitigation and compensation requirements related to the proposed outgrant parcel.;
3. Preparation of a USACE Environmental Assessment document if required.
4. Field survey for required environmental resources and outgrant parcel legal descriptions with exhibits.
5. Preliminary culvert sizing and roadway grading using cross section generated earthwork quantities to determine impacts to Lavon Lake storage volumes. Prepare preliminary grading plans for compensatory grading site and determine all necessary temporary construction easement impacts on USACE lands.

C. Phase 3 – The work authorized in Phase 3 shall be limited to the Project area between Paul Wilson Road and SH78. Phase 3 shall consist of coordination and design work that is authorized to meet USACE requirements for execution of Collin County's outgrant parcel request. Primary scope elements shall include the following:

1. Design of paving, grading, drainage and bridge layouts for the portions of the Project roadway that impact USACE outgrant parcel.
2. Subsurface utility engineering activities necessary to support roadway design work limits.
3. Survey for design necessary to support roadway design work limits.
4. Geotechnical exploration, lab testing and engineering recommendations necessary to support roadway design work limits.
5. Final grading plans for compensatory excavation site include haul road and SWPPP.

V. Exclusions

The scope of services identified herein specifically excludes the following items, however, these items can be provided if necessary with a revision to scope of work and fees as agreed between COUNTY and CONSULTANT in writing:

- A. Plats;
- B. Title Searches;
- C. Legal opinions, audits and financial reports;
- D. Phase I Environmental Site Assessments in accordance with ASTM standards or any surveys/investigations involving sampling and laboratory analysis (e.g., hazardous materials sampling and analysis, asbestos surveys, and lead-based paint surveys);
- E. Preparation and coordination of a Section 404 individual permit application and supporting documentation;
- F. Preparation of final compensatory mitigation construction plans and technical specifications including performance of mitigation monitoring and preparation of mitigation monitoring reports;
- G. Performance of biological surveys other than those specifically included in the above scope of work. It is anticipated that the proposed action would not lead to a determination of effects other than "no effect" or "may affect, not likely to adversely affect" for federally listed species under regulations implementing the Endangered Species Act. This scope of work does not include formal Section 7 consultation with the USFWS under the Endangered Species Act, such as preparing a Biological Assessment for the project and agency consultation to allow the USFWS to formulate a Biological Opinion;
- H. Performance of a historic resources structure survey and subsurface archeological investigations. If the records review and initial coordination results in the need for a cultural resource survey (e.g., visual inspection, shovel testing, etc.) of the proposed project area, a research design will need to be prepared in order to obtain a Texas Antiquities Permit for the cultural resource survey as required by the Antiquities Code of Texas. Archeological backhoe trenching of areas with deep soil deposits, project area modification surveys, and National Register of Historic Places (NRHP) eligibility testing and mitigation are not included in this scope of work;
- I. Section 408 (33 USC 408) coordination and documentation. Due to the federal interest established by the USACE ownership of lands associated with Lavon Lake in the project area, the USACE may have authority under Section 408 to ensure the proposed action would not change the federal flood control work's authorized scope, purpose, or functionality or increase risks to public

safety. In the event the proposed action is determined by the USACE to be subject to Section 408, additional documentation and coordination efforts beyond this scope of work may be necessary;

- J. Private property owner meetings or noise workshops;
- K. Public hearing;
- L. Preparation of National Environmental Policy Act documentation in accordance with FHWA and TxDOT implementing regulations and guidelines;
- M. Fees for permits, document reviews and bid advertising.
- N. Floodplain reclamation plans or analysis;
- O. Designs for Trench Safety;
- P. Railroad shoo-fly designs;
- Q. Masonry screen wall, Sound attenuation wall and/or privacy fence designs;
- R. Trail Design;
- S. Landscape Architecture and Irrigation design;
- T. Axle-load or PVR based pavement section designs;
- U. Materials quality control and testing services during construction;
- V. Full-time Construction Inspection;
- W. Project manuals, bid schedules and design plans for bidding and/or construction;
- X. Improvements outside the Project limits;
- Y. Items listed as COUNTY responsibilities on Exhibit "D" which is attached hereto and incorporated herein by reference and made a part hereof as if repeated verbatim.