

Lee County Board Of County Commissioners

Agenda Item Summary

Blue Sheet No. 20031369

1. **REQUESTED MOTION:**

**ACTION REQUESTED:** Approve Change Order No. 1 to Contract #2318, with Hardesty & Hanover, LLP, for CN-02-14 Sanibel Island Causeway Improvements, Causeway Reconstruction and Replacement of Structure A, for a total not-to-exceed amount of \$589,239.64.

**WHY ACTION IS NECESSARY:** Board approval required.

**WHAT ACTION ACCOMPLISHES:** Allows for a design change from a rehabilitation bridge to a total bridge replacement for the Causeway Reconstruction and Replacement of Structure A.

2. **DEPARTMENTAL CATEGORY:**

09. Transportation

COMMISSION DISTRICT #:

C9A

3. **MEETING DATE:**

01-06-2004

4. **AGENDA:**

- CONSENT
- ADMINISTRATIVE
- APPEALS
- PUBLIC
- WALK ON
- TIME REQUIRED:

5. **REQUIREMENT/PURPOSE:**  
(Specify)

- STATUTE
- ORDINANCE
- ADMIN. CODE AC-4-4
- OTHER

6. **REQUESTOR OF INFORMATION:**

- A. COMMISSIONER
- B. DEPARTMENT Transportation
- C. DIVISION
- BY: Scott Gilbertson, Director

7. **BACKGROUND:**

On the Board meeting of January 7, 2003, the Board entered into a contract for CN-02-14 Sanibel Island Causeway Improvements, Causeway Reconstruction and Replacement of Structure A, with Hardesty & Hanover, LLP, for a contract amount of \$799,894.63.

Approval is required for this Change Order No. 1 under CN-02-14 Sanibel Island Causeway Improvements, Causeway Reconstruction and Replacement of Structure A, with Hardesty & Hanover, Contract #2318, for a design change from a rehabilitation bridge to a total bridge replacement in the not-to-exceed amount of \$589,239.64.

The design fee negotiated for these services is competitive with other similar projects we have negotiated recently and in line with industry standards.

Funds will be available from account string: 20580742121.506510

Attachment: 1. CO#1 for Execution (2 originals)

8. **MANAGEMENT RECOMMENDATIONS:**

9. **RECOMMENDED APPROVAL:**

| A<br>Department<br>Director    | B<br>Purchasing<br>or Contracts | C<br>Human<br>Resources | D<br>Other | E<br>County<br>Attorney       | F<br>Budget Services          |                               |                               | G<br>County Manager           |
|--------------------------------|---------------------------------|-------------------------|------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
|                                |                                 | N/A                     |            |                               | OM                            | Risk                          | GC                            |                               |
| <i>[Signature]</i><br>11-19-03 | <i>[Signature]</i><br>11/13     |                         |            | <i>[Signature]</i><br>12/9/03 | <i>[Signature]</i><br>12-9-03 | <i>[Signature]</i><br>12/9/03 | <i>[Signature]</i><br>12-9-03 | <i>[Signature]</i><br>1-13-03 |

10. **COMMISSION ACTION:**

- APPROVED
- DENIED
- DEFERRED
- OTHER

Rec. by CoAtty  
Date: 12-9-03  
Time: 8:45  
Forwarded To:  
Budget  
12/9/03 11:30am

RECEIVED BY  
COUNTY ADMIN: *[Signature]*  
12/9/03  
1:00pm SGT  
COUNTY ADMIN  
FORWARDED TO:  
*[Signature]*

LEE COUNTY PROFESSIONAL SERVICE/SERVICE PROVIDER AGREEMENT  
CHANGE ORDER/SUPPLEMENTAL TASK AUTHORIZATION

Change Order NO: 1  
 Supplemental Task Authorization

(A Change Order or Supplemental Task Authorization Requires Approval by the Department Director for Expenditures Under \$25,000 or Approval by the County Manager for Expenditures Between \$25,000 and \$50,000 or Approval by the Board of County Commissioners for Expenditures over \$50,000)

CONTRACT/PROJECT NAME: Sanibel Island Causeway Improvements:  
Causeway Reconstruction and Replacement of  
Structure A (Bridge NO. 124043)

CONSULTANT: Hardesty & Hanover, LLP PROJECT NO.: 5807  
SOLICIT NO.: CN02-14 CONTRACT NO.: 2318 ACCOUNT NO.: 20580742121.506510  
REQUESTED BY: PWW DATE OF REQUEST: September 2003

Upon the completion and execution of this Change Order or Supplemental Task Authorization by both parties the Consultant/Provider is authorized to and shall proceed with the following:

EXHIBIT "CO-1A": SCOPE OF PROFESSIONAL SERVICE: DATED: October 27, 2003  
EXHIBIT "CO-1B": COMPENSATION & METHOD OF PAYMENT DATED: October 27, 2003  
EXHIBIT "CO-C1": TIME AND SCHEDULE OF PERFORMANCE DATED: October 27, 2003  
EXHIBIT "CO-D1": CONSULTANT'S/PROVIDERS ASSOCIATED  
SUB-CONSULTANT(S)/SUB-CONTRACTORS: DATED: October 27, 2003  
EXHIBIT "CO-E1": PROJECT GUIDELINES AND CRITERIA: DATED: October 27, 2003

It is understood and agreed that the acceptance of this modification by the CONSULTANT/PROVIDER constitutes an accord and satisfaction.

RECOMMENDED:  
By: [Signature] 10/8/03  
Department Director Date

ACCEPTED:  
By: [Signature]  
Consultant/Provider  
(Print Name) TIMOTHY J. NOLES

COUNTY APPROVAL:  
By: \_\_\_\_\_  
Department Director  
(Print Name) \_\_\_\_\_  
(Under \$25,000)

By: [Signature] 12/8/03  
Contracts/Mgmt Date

Date Accepted: 11-5-03  
Corporate Seal

Date Approved: \_\_\_\_\_  
By: \_\_\_\_\_  
County Manager (Between  
(\$25,000 and under \$50,000)  
Date Approved: \_\_\_\_\_

APPROVED:  
By: \_\_\_\_\_  
\*County Attorney's Office Date

By: \_\_\_\_\_  
Chairman  
Board of County Commissioners  
Date Approved: \_\_\_\_\_

\*County Attorney signature needed for over Board level expenditures only.

**EXHIBIT CO-1A**

**SCOPE OF PROFESSIONAL SERVICES**

**SANIBEL ISLAND CAUSEWAY IMPROVEMENTS**

**SANIBEL CAUSEWAY RECONSTRUCTION and REPLACEMENT of  
STRUCTURE SPAN A (Bridge No. 124043)**

**SECTION 1.00 CHANGE(S) TO PROFESSIONAL SERVICES**

The "Scope of Professional Services" as set forth in Exhibit "A" of the Professional Services Agreement, or Service Provider Agreement, referred to hereinbefore is hereby supplemented, changed or authorized, so that the CONSULTANT shall provide and perform the following professional services, tasks, or work as a change to the scope of services previously agreed to and authorized:

Engineering Services to design the replacement of the Sanibel Island Causeway (CR 867) Approach Roadways & Structure A (Bridge No. 124043) over Okeechobee Waterway. Elements of work, objectives, and requirements are included in the Scope of Services attached (pp. A3-A30).

**SECTION 2.00 TASKS**

Pursuant to the GENERAL SCOPE of the BASIC SERVICES stated herein above, the CONSULTANT shall perform all services and/or work necessary to complete the following task(s) and/or provide the following item(s) which are enumerated to correspond to the task(s) and/or items set forth in EXHIBIT "B" entitled "COMPENSATION AND METHOD OF PAYMENT".

**Phase 1:**

**TASK No. CO1:** Repair & Rehabilitation of Span A:  
Execution of Rehabilitation Engineering Services for Span 'A' and Prelim. Eng. Services in preparation for fixed bridge.

**Phase 2:**

**TASK No. CO2** Design Survey:  
Section VII: Design/Right of Way Surveys

**TASK No. CO3** Geotechnical Services:  
Section IX: Geotechnical Services

**Phase 3 (30% Plan Completion)**

**Phase 4 (90% Plan Completion)**



CHANGE ORDER AGREEMENT No.: 1

Date: OCTOBER 27, 2003

## **SCOPE OF SERVICES**

**Group 3.2, 4.2, 7.1, 8.1, 8.2, 8.4, 9.1, 9.2, 9.4, 9.5**

**Sanibel Island Causeway Improvements  
Causeway Reconstruction and Replacement of Structure Span A**

**Lee County**

**FOR**

**Lee County Board of County Commissioners  
Lee County Department of Transportation  
P.O. Box 398  
Fort Myers, Florida 33902-0398**

**October 2003**

**CONTRACT NUMBER: 2318**

**CHANGE ORDER NO. 1**

**SCOPE OF SERVICES FOR CONSULTING ENGINEERING SERVICES  
HIGHWAY DESIGN**

This Exhibit forms an integral part of the agreement between the Lee County Department of Transportation (hereinafter referred to as the DEPARTMENT) and Hardesty & Hanover, LLP (hereinafter referred to as the CONSULTANT) relative to the transportation facilities described as follows:

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**SECTION I. PURPOSE**

The purpose of this Scope is to describe the scope of work and the responsibilities of the CONSULTANT and the DEPARTMENT in connection with the design and preparation of a complete set of construction plans for the proposed improvements to this transportation facility.

The CONSULTANT shall perform those engineering services required to prepare a set of contract plans to include roadway, structures, signing and pavement markings, landscaping and/or right-of-way. It shall be the CONSULTANT's responsibility to use the best engineering judgment, practices and principles possible during the prosecution of the work commissioned under this contract. It will be imperative for the CONSULTANT to display economical structural solutions for the given conditions. The CONSULTANT shall be aware that as the project is developed, certain minor modifications and/or improvements to the original recommendations may be required. The CONSULTANT is to incorporate these refinements into the design and will consider this effort to be an anticipated and integral part of the work. This will not be a basis for any supplemental fee request(s).

The CONSULTANT shall demonstrate good project management practices while working on this project. These include communication with the DEPARTMENT and others as necessary, management of time and resources, and documentation. The CONSULTANT shall set up and maintain throughout the design of the project a contract file in accordance with DEPARTMENT procedures.

The DEPARTMENT will provide contract administration, management services, and technical reviews of all work associated with the development and preparation of the contract plans. The DEPARTMENT will provide job specific information and/or functions as outlined in this contract.

**SECTION II. PROJECT OBJECTIVES**

**A. General Objectives**

The general objective is for the CONSULTANT to prepare a set of plans and specifications to be used by the Contractor to build the project. Elements of work may include roadways, structures, geotechnical activities, surveys, drainage, signing and pavement markings, utility relocation, landscaping, design surveys, right-of-way surveys, right-of-way maps, maintenance of traffic, cost estimates, environmental permits, environmental mitigation plans, quantity computation booklets, and all necessary incidental items for a complete project.

Close coordination between disciplines must be maintained to produce the most feasible alternatives in the design of the project. This will be an English unit project.

**B. Specific Project Objectives**

The CONSULTANT shall investigate and review project concepts (typical sections, alignments, etc.) developed from any prior studies including the Sanibel Causeway Improvements Project Development and Environment Study Final Preliminary Engineering Report. These reports may not dictate the final design of this project. The CONSULTANT shall maintain close coordination with the Lee County Department of Transportation Project Manager and Bridge Engineer.

The primary project objective is to design replacements for the existing Sanibel Island Causeway (CR 867) Structure A (Bridge Number 124043), designing the roadway approaches to the structure, and providing for removal of the existing bridge.



Existing Bridge (Span A) No. 124043 is 2078 ft. long and 28 feet from curb to curb, with a 3'-1-1/2" safety curb with post and beam traffic rail and a concrete deck. The existing bridge consists of 38 pre-stressed concrete approach spans supported on concrete pile bents, a double leaf bascule span over the navigable channel, and two flanking spans consisting of a steel superstructure and supported on a reinforced concrete bascule piers. This structure was built in 1963.

The new structure will be on an offset east alignment. The alignment offset shall be determined with consideration to constructability and maintenance of traffic. The structure shall be designed and constructed to place the superstructure out of the splash zone. The low member superstructure elevation must be at least twelve feet (12') above the Mean High Water (MHW) elevation as established by the Bridge Hydraulic Report. Turnarounds (u-turns) underneath the bridge shall be provided at the east and west ends of the bridge if feasible.

Provide at least the minimum one hundred foot (100') horizontal and seventy foot (70') vertical clearances for the navigable channel. Coordinate with the U.S. Coast Guard, U.S. Army Corp of Engineers and marine users for input regarding the navigation clearances.

The new bridge lengths will be established from recommendations provided in the Bridge Hydraulics Report with considerations for constructability and roadway realignment.

A scour protection plan must be developed for the bridge ends, which will be compatible with existing recreational use and minimizes the use of bulkheads and seawalls.

The bridge shall provide two 12 ft. lanes with 8 ft. shoulders for a 40 ft. clear roadway width (no sidewalk shall be provided on the bridge structures).

The design speed for this project is fifty miles per hour (50 mph).

A crash tested open barrier wall similar to the Kansas Corral or open steel railing shall be considered for use on the bridges.

Lee County desires to use the debris from the demolition of the existing structures in its artificial reef program. See the Final PER for other commitments that must be met. This includes rumble strips on the bridge shoulders and sea grass mitigation as required for permits. Note, no construction staging shall occur within the limits of the Sanibel Park or within Piping Plover Critical Habitat adjacent to Bridge A.

### **SECTION III. ROADWAY PLANS PACKAGE**

#### **A. General**

The CONSULTANT shall prepare the Roadway Plans Package. This work effort includes the roadway design and drainage analysis needed to prepare a complete set of Roadway Plans, Drainage Plans, Traffic Control Plans, Environmental Permits and other necessary documents.

#### **B. Design Analysis**

1. Typical Section Package - The CONSULTANT shall prepare a Typical Section Design Package. This package shall include the following:

- Transmittal letter
- Location Map(s)

- Typical Section(s) (including bridge sections)

The signed and sealed typical section design package shall be submitted to the DEPARTMENT for approval at the earliest possible date and prior to the Phase I roadway plan submittal stage.

2. Geometrics - The CONSULTANT shall design the geometrics for the project using the design standards that are most appropriate. The designer shall place great emphasis on the PD&E however shall address all external influences, design consistency and driver expectancy, aesthetics, pedestrian and bicycle use, ADA requirements, elder road user policy, access management, and recreational use.

The design elements shall include, but are not be limited to, the horizontal and vertical alignments, lane widths, shoulder widths, cross slopes, borders, sight distance, side slopes and ditches, lane transitions, and safety features. The geometric design developed by the CONSULTANT shall be an engineering solution that is not merely an adherence to the minimum AASHTO and/or FDOT standards.

3. Pavement Design Package - The CONSULTANT will be responsible for pavement design.
4. Design Documentation, Computation Book and Quantities - The CONSULTANT shall submit to the DEPARTMENT design notes and computations to document the design conclusions reached during the development of the construction plans.

The design notes and computations shall be recorded on standard size computation sheets, fully titled, numbered, dated, indexed and signed by the designer and the checker. Computer output forms and other oversized sheets shall be folded to the standard size. The data shall be in a hardback folder.

One copy of the design notes and computations shall be submitted to the DEPARTMENT with each phase submittal. When the plans are submitted for final review, the design notes and computations corrected according to DEPARTMENT review comments shall be resubmitted. At the project completion, a final set of design notes and computations, signed and sealed by the CONSULTANT, shall be submitted with the record set of plans.

The design notes and calculations shall include, but are not be limited to the following data:

- a. Design standards used for the project
- b. Geometric design calculations for horizontal alignment that is not included in the quantity computation booklet
- c. Vertical geometry calculations
- d. Traffic, capacity, lane closure analysis and operational analysis
- e. Drainage computations
- f. Earthwork calculations not included in the quantity computation booklet
- g. Calculations showing cost comparisons of various alternatives considered

- h. Documentation of decisions reached resulting from meetings, telephone conversations or site visits
  - i. Calculations of quantities
  - j. All permit support documentation
  - k. Justification for any variation from standards
  - l. Pavement design calculations
5. Summary of Bid Pay Items and Specifications Package– Florida Department of Transportation pay items may be used for a Summary of Bid Pay Items in the plans. The Phase III submittal shall have all pay items identified with quantities. The Phase IV submittal shall have final quantities with a final construction cost estimate and construction time. The Summary of Bid Pay Items shall provide for each component set of plans (i.e., Roadway, Signing and Marking, etc.). The Specification Package must be submitted for review with the Phase III submittal.

**C. Drainage Analysis**

- 1. The CONSULTANT shall be responsible for designing a drainage and stormwater management system. All design work shall be in compliance with the FDOT's Drainage Manual and the requirements of the regulatory agencies. This work will include the engineering analysis necessary to design any or all of the following: cross drains, French drains, roadway ditches, outfall ditches, storm sewers, retention/detention facilities, other drainage systems and elements of systems as required for a complete analysis.
- 2. The objective is to obtain approved stormwater treatment/attenuation design. The exact number of drainage basins, outfalls and water management facilities (retention/detention areas, weirs, skimmers, etc.) will be the CONSULTANT's responsibility.
- 3. This service shall include, but is not limited to the following:
  - a. Determination of the volume of storm water to be attenuated. Locate and assess suitable land areas for storm water management. Utilize existing ditches and outfalls as much as possible.
  - b. Coordinate with local government offices regarding local regulations, restrictions, and possible joint use with the DEPARTMENT. Obtain information concerning present or future development that could impact the design.
  - c. Provide preliminary plans during Phase Submittals for review by the DEPARTMENT and revise as necessary.
- 4. The CONSULTANT shall provide a signed and sealed Drainage Design Report. It shall be a record set of all drainage computations, both hydrologic and hydraulic. The CONSULTANT shall include all support data such as soil borings and percolation tests as provided by the Geotechnical Engineer.
- 5. The CONSULTANT will be responsible for delineating all wetlands and endangered species habitat as required by the permitting agencies.

6. The CONSULTANT shall furnish to the DEPARTMENT all supporting data (reports, drainage tabulations, risk analysis, related correspondence, etc.) compiled during the performance of services described in this section. The DEPARTMENT will also be notified in adequate time to schedule a representative to attend all related conferences.

7. Bridge Hydraulic Report

The CONSULTANT shall provide a Bridge Hydraulics Report (BHR) and Bridge Hydraulics Recommendation Sheet (BHRS) for the bridge structures, including a scour analysis. Information from prior studies and reports may be used to assist in the bridge scour analysis.

The BHR and BHRS shall be submitted with the BDR.

The CONSULTANT may use data from the "Modeling 3-D Circulation in Charlotte Harbor Final Report" hydraulic model to model the bridge and waterway. The critical events will be evaluated and the scour analysis shall be performed in accordance with HEC-18. Structure lengths to be considered include: the minimum physical bridge length, the minimum hydraulic length, and length meeting minimum environmental criteria. The recommended bridge and HEC-20 length shall be determined based upon the minimum hydraulic structure, environmental length, safety, maintenance, constructability, and cost. The intent is to obtain a permissible recommended bridge length that meets FHWA and FDOT design criteria.

**D. Roadway Plans**

The CONSULTANT shall prepare the roadway plans in a standard format. The following will be included: Key Map, Typical Section sheet(s) with notes, Cross Section sheet(s), Summary of Quantities sheet(s), Drainage Structure Sheet(s), Plan/Profile Sheet(s), Intersection Detail sheet(s), Summary of Pay Items, miscellaneous construction details, and any other detail sheets necessary to convey the intent and scope of the project for the purposes of construction.

**E. Drainage Plans**

The CONSULTANT shall prepare plan sheets, notes, and details to include the following: Drainage Map sheet(s), Drainage Structure sheet(s), Summary of Drainage Structure sheet(s), Lateral Ditch and Outfall Plan sheet(s), Lateral Ditch and Outfall Cross Section sheet(s) if needed, Bridge Hydraulics Recommendation sheet(s), Retention/Detention Plan sheet(s) if needed, Special Drainage Detail sheet(s), and Erosion Control Details.

**F. Traffic Control Plan**

1. Traffic Control Analysis - The CONSULTANT shall design a safe and effective Traffic Control Plan to move marine, vehicular and pedestrian traffic during all phases of construction. The areas shall include, but are not limited to, construction phasing of roadway base and asphalt, bridge construction, utility relocation, drainage structures, ditches, front slopes, back slopes, drop offs within clear zone, traffic monitoring sites, ingress and egress to existing property owners and businesses, signing and pavement markings, and signal and detour quantity tabulations. Special consideration shall be given to the construction of the drainage system when developing the construction phases. Positive drainage must be maintained at all times.

The CONSULTANT shall investigate the need for peak hour constraints when excessive traffic may require the ceasing of construction and/or all lanes remaining open during certain hours of the day, possibility of night work, temporary traffic signals, and the use of materials such as sheet piling in the analysis. The Traffic Control Plan shall be prepared by a certified designer who has completed a FDOT approved training course, and in accordance with the FDOT's Roadway and Traffic Design Standards and the FDOT Plans Preparation Manual.

The CONSULTANT shall consider the local impact of any lane closures or alternate routes. When the need to close a road is identified during this analysis, the CONSULTANT shall notify the DEPARTMENT's Project Manager as soon as possible. Proposed road closings must be reviewed and approved by the DEPARTMENT. Diligence shall be used to minimize negative impacts by appropriate specifications, recommendations or plans development. Local impacts to consider will be local events, holidays, peak seasons, detour route deterioration and other eventualities. It shall be the CONSULTANT's responsibility to obtain local authorities' permission for use of detour routes not on state highways.

2. Traffic Control Plans - The CONSULTANT shall prepare plan sheets, notes, and details to include the following: Typical Section sheet(s), General Notes and Construction Sequence sheet(s), Typical Detail sheet(s), Tabulation of Quantities sheet(s), Traffic Control Plan sheet(s), Signing and Pavement Marking sheet(s), and Temporary Signalization sheet(s).

The CONSULTANT shall prepare additional plan sheets such as cross sections, profiles, drainage structures as necessary for proper construction and implementation of the traffic control plan.

#### **G. Stormwater Pollution Prevention Plans**

The CONSULTANT shall prepare plan sheets, notes, and details to include the following: Typical Sections, General Notes and Construction Sequence sheets, Erosion Control Detail Sheets, and tabulation of Quantities. The narrative portion of the SWPPP shall detail appropriate controls needed for each phase of construction. The Erosion Control Details should clearly indicate how and where controls are to be employed. Consideration should be given to issues relating to maintaining work zone drainage. A tabulation of devices and locations shall be provided in the Summary of Quantities. The plans shall be in accordance with the FDOT's procedures, manuals, design memos, and guidelines.

#### **H. Utilities**

1. Utility Plans
  - a. The CONSULTANT shall furnish two (2) copies of the Phase I (30%) plans for each utility located within the project limits. The Phase I (30%) plans shall depict all existing utilities for the initial contact and verification by each Utility Company in accordance with the s procedure manual, design memorandums and guidelines.
  - b. The CONSULTANT shall submit two (2) copies of the Phase II (60%) utility relocation plans for each Utility located within the project limits. The Phase II (60%) plans shall depict all existing utilities from Phase I (30%) contact and drainage design.
  - c. The CONSULTANT shall furnish two (2) copies of the Phase III (90%) utility relocation plans for each Utility located within the project limits. One (1) of the sets must be a full set of Phase III (90%) plans and the other can be a partial set, that will include plan and profile, drainage and cross sections.

- d. The CONSULTANT shall furnish two (2) copies of the Phase IV (100%) plans for each Utility located within the project limits.
- e. If revisions to the design are made after the plans have been made available to the Utility Companies, the CONSULTANT is responsible to provide two (2) copies of the revised plans for each Utility Owner located within the project. The only utility owner identified to remain is Comcast cable. All other utilities servicing the bridge tender will be removed.
- f. Coordination with Utility Companies - After the DEPARTMENT has approved the 60% plans submittal, the DEPARTMENT will then schedule a Utility Pre-Design Conference that the CONSULTANT shall attend and will be responsible for providing technical data. The purpose will be to determine the effects the project has on existing and proposed facilities. This allows the utility representatives to provide input into the development of the roadway plans. The CONSULTANT shall have the minutes of each utility meeting recorded for submission to the DEPARTMENT.

2. Utility Location Services

The CONSULTANT shall provide Levels of locate up through Level "A."

Existing major underground utilities suspected to be located within three (3) ft. of proposed construction operations shall be identified and located. Any underground utility determined to be threatened by construction activities shall be considered for Level "A" locate information. The CONSULTANT shall obtain Level "A" locate from the utility owner for major utilities within three (3) ft.

If the utility owners cannot provide Level "A" locate, they shall provide up through Level "B". Then, it shall be the CONSULTANT's responsibility to provide Level "A" locate information for major utilities identified and include the information in the construction plans.

Among the known utilities with installations along the causeway are:

- Comcast Cable
- Media One
- Sprint

I. Environmental Services / Permits

- 1. Preliminary Project Research - The CONSULTANT shall perform preliminary project research and shall be responsible for early identification of and coordination with the appropriate regulatory agencies to assure that design efforts are properly directed toward permit requirements.
- 2. Agency Coordination (Includes all Phases) - The CONSULTANT will be responsible for all coordination work with the permit agencies.
- 3. Establish Wetland Jurisdictional Lines - The CONSULTANT is responsible for establishing the wetland jurisdictional lines. These lines shall be tied to a baseline for reference and reviewed by the DEPARTMENT and the permitting agency(s). Wetland jurisdictional lines must be confirmed in the field by the regulatory agencies. The wetland jurisdictional lines shall be identified and

submitted to the DEPARTMENT for review with the Phase I submittal, and prior to coordinating with the permitting agency(s). A separate set of plans, included in the Construction plans, will be dedicated to clearly show the wetland delineation lines as well as cross-hatched wetland areas that require removal and areas that should remain undisturbed. On projects with utility relocations, the wetland delineation lines and wetland areas (disturbed and undisturbed) must be shown in the plans at the time of the utility pre-design meeting (Phase II Plans). Any mechanical clearing and grubbing in jurisdictional wetlands will require environmental permits.

4. Agency Field Review - The CONSULTANT shall be responsible for coordinating regulatory agency field reviews.
5. Permit Preparation – The CONSULTANT shall prepare Permit Application Packages to include SFWMD Environmental Resource Permit, NPDES/EPA Permit and required plans, FDEP General Permit for Stormwater Discharge from Construction Activities that Disturb Five or More Acres of Land, US Coast Guard Section 9/10 permit, ACOE 404 permit and City of Sanibel development permit (if necessary). The CONSULTANT shall be responsible and accountable for providing all information, signed and sealed plans, documentation, and calculations necessary to secure any required permits including a site-specific erosion control plan.
6. The CONSULTANT shall prepare an erosion control plan that complies with the stormwater permit requirements and Stormwater Pollution Prevention Plan (SWPPP) as required under the National Pollutant Discharge Elimination System (NPDES) and under Chapter 403.0885, Florida Statutes. The CONSULTANT shall refer to Volume 1, Chapter 11 of the FDOT Plans Preparation Manual for information in regards to the SWPPP and FDEP Rule 62-25 (F.A.C.) for requirements of the erosion control plan. Areas especially prone to erosion, such as high fill areas, must be given special attention (i.e. sod, temporary matting, slope drains, etc.) to reduce environmental impacts. Detailed limits of the erosion control items will be necessary.
7. Mitigation Coordination and Meetings - The CONSULTANT shall quantify wetland impacts and bring them to the attention of the Project Manager. Once a mitigation plan has been approved by the Project Manager, the CONSULTANT will be responsible for coordinating the proposed mitigation plan with the environmental agencies.
8. The CONSULTANT shall prepare a mitigation plan to be included as a part of the Environmental Resource and 404 permit applications. Prior to the development of alternatives, the CONSULTANT shall meet with the Project Manager to determine the County's policies in proposing mitigation. The CONSULTANT shall proceed in the development of a mitigation plan based upon the general guidelines provided by the Project Manager.

The CONSULTANT shall investigate the following methods of mitigation:

- Monetary participation in offsite regional mitigation plans
- Monetary participation in a private mitigation bank
- Creation/restoration on public lands
- Creation/restoration on right-of-way purchased by the County
- Creation/restoration on existing County right-of-way

In the event that physical creation or restoration is the only feasible alternative to offset wetland impacts, the CONSULTANT shall collect all the data and information necessary to prepare alternative mitigation plans that will be acceptable to all permitting agencies and commenting agencies who are processing or reviewing the permit applications for the project.

Prior to the selection of a final mitigation site(s), the CONSULTANT shall provide the following services in the development of alternative mitigation plans.

- Preliminary jurisdictional determination for each proposed site
  - Selection of alternative sites
  - Coordination of alternative sites with the Project Manager and environmental agencies
  - Written narrative listing potential sites with justifications for both recommended and non-recommended sites.
9. The CONSULTANT shall develop mitigation plans to be included as part of the construction plans for the overall project. These plans shall include (at a minimum) the following sheets:
- Cover Sheet
  - Quantities Sheet
  - Typical and Specific Notes Sheets
  - Geometry Plan View Sheet
  - Grading Plan View Sheet
  - Cross-sections Sheet
  - Planting Plan View Sheet
  - Typical Planting Sections Sheet
  - Plant Specification and Notes Sheet
  - Structures Sheets (if needed)
  - Erosion Control Sheet
  - Geotechnical Sheets

In addition, the CONSULTANT shall develop Special Provisions and Specifications, as needed, for construction of the mitigation plan. These Provisions and Specifications shall be included in the overall project contract documents.

10. Contamination – The CONSULTANT shall evaluate the project limits for possible contamination sites. All underground fuel tanks and monitoring wells within the proposed right-of-way are to be located and shown on the plans. Throughout the design process, the CONSULTANT shall relay to the DEPARTMENT any findings of contaminated soil, monitoring wells, or any features (particularly springs or sinks) relating to contamination or hazardous material. Any tank indicated to have been properly abandoned according to FDEP and EPA rules must be located within the existing or proposed right-of-way. All piping and pumps in association with the tanks shall also be located and identified by the survey.
11. The CONSULTANT shall be responsible for coordinating with the DEPARTMENT's Project Manager prior to beginning the design plans to determine if any special commitments have been made.
12. At the Pre-Construction Conference, the Engineer-of-Record (EOR) must be prepared to discuss erosion control, environmentally sensitive areas, and any known risk or special permit requirements on sensitive and major projects.
13. The CONSULTANT shall provide for agency coordination and mitigation for project impacts on threatened and endangered species as identified in the Final Preliminary Engineering Report and referenced Biological Assessment Report.



**SECTION IV. STRUCTURE PLANS PACKAGE**

The CONSULTANT shall prepare a Structures Plans Package. This work effort will utilize the LRFD design method in the analysis and design necessary to evaluate alternatives and prepare a complete set of construction plans and other necessary documents.

**A. Bridge Development Report (BDR):**

BDR Analysis and Report:

The CONSULTANT shall use the Bridge Development Report prepared by URS Southern Inc. for adjacent structures Spans B & C as the document that identifies an economical, maintainable, and aesthetically pleasing and safe structure as required in Chapter 26 of the FDOT Plans Preparation Manual (Volume 1). The CONSULTANT shall provide an abbreviated BDR verifying the recommendations of the BDR for Spans B & C is viable for Span A. Any non-concurrence will be documented.

**B. 30% BRIDGE PLANS**

The CONSULTANT shall prepare 30% plans to be submitted with the BDR for one or more of the alternatives considered during the BDR effort. The DEPARTMENT shall select the alternative(s) to be implemented for the final design after the evaluation and approval of the BDR are completed.

The CONSULTANT shall prepare 30% plan sheets, notes and details to include the following: key map (if not included in roadway plans), general notes, general plan and elevation, bridge hydraulic sheet, typical bridge section, foundation layout sheet, pier/bent sheet and wall control drawings. The 30% Bridge Plans Package shall be submitted with the Phase II Roadway Plans Package. The Bridge submittals shall include all appropriate items and preliminary reports shown in Chapter 26 of the FDOT Plans Preparation Manual.

Bridge Geometry and Structure Design Analysis:

The CONSULTANT shall design the geometry for the project using design standards that are most appropriate with proper consideration given to the design traffic volumes, design speed, capacity and levels of service, functional classification, design consistency and driver expectancy, aesthetics, pedestrian and bicycle concerns, ADA requirements, elder road user policy, access management, and the type of construction and/or scope of work. The design elements shall include, but are not be limited to, the horizontal and vertical alignments, lane widths, shoulder widths, cross slopes, front and side slopes, lane transitions, and super-elevation. Structure design analysis elements shall include, but are not be limited to, foundations, end bents, intermediate piers, caps, footings, superstructure elements, traffic railing barriers and walls.

**C. 90% BRIDGE PLANS**

The 90% Bridge Plans Package shall be prepared by the CONSULTANT and submitted with the Phase III Roadway Package. This work effort includes the design analysis needed to prepare a complete set of 90% Bridge Plans and other necessary documents pursuant to the FDOT Plans Preparation Manual.

The CONSULTANT shall prepare 90% bridge plans for the substructure and superstructure alternative selected by the DEPARTMENT. The 30% bridge plans review comments and written responses shall be documented at the time of Phase III submittal.

The bridge design must include the approach slabs. The CONSULTANT shall prepare an erosion protection plan for bridge approaches, embankments and foundation construction. Wetland jurisdictional lines shall be delineated on the plan and elevation sheet.

#### **D. FINAL BRIDGE PLANS**

The CONSULTANT shall prepare and submit plan sheets, notes, and details to include, but not limited to, the following: key map, general index, structures standard sheets, stage construction sequence sheet, bridge hydraulic recommendation sheet (BHRS), boring log sheet, finished grade sheet, pile layout sheet, substructure (abutments & piers) sheets, superstructure sheet, superstructure detail sheet, framing plan, prestressed beam and schedule, rebar schedule sheet, miscellaneous detail sheet, roadway lighting sheet, and approach slab sheet.

##### **1. Design Calculations**

The CONSULTANT shall submit to the DEPARTMENT all reports, design and quantity calculation prepared during the development of the plans. The design calculations submitted shall adequately address the complete design of all bridge components. These calculations shall be neatly and logically presented on 8½ by 11 inch paper (where possible) and shall be signed and sealed by a registered professional engineer. A cover sheet indexing the contents of the calculations shall be included and all pages must be numbered.

##### **2. Load Ratings**

The CONSULTANT shall be responsible for performing Load Ratings in accordance with AASHTO specifications and FDOT procedure 850-010-035. The FDOT's SALOD and BARS programs may be used for load ratings. Load ratings will be performed for all seven Florida legal truck types and the HS-20 design truck. The CONSULTANT will submit the Load Capacity Information sheet, a hard copy of the data and a copy of the input data on diskette with the 90% plans submittal. At final plans submittal a signed and sealed copy of the load rating shall be sent to the DEPARTMENT for transmittal to the FDOT District 7 Structures and Facilities Maintenance Engineer.

##### **3. Bridge Number**

The CONSULTANT shall request a new bridge number from the FDOT District 7 Structures Facilities and Maintenance Engineer.

#### **E. Retaining Wall Plans**

The CONSULTANT shall prepare final plans for permanent retaining (Mechanically Stabilized Earth walls).

#### **SECTION V. SPECIFICATION PACKAGE**

The CONSULTANT shall prepare and provide a complete Specifications Package, including Technical Special Provisions for all items of work not covered by the FDOT Standard Specifications, Supplemental Specifications or

Recurring Special Provisions. The current Supplemental Specifications and Special Provisions are accessible on the FDOT Internet website at the State Specifications Office web page:  
<http://www11.myflorida.com/specificationsoffice/> under the Standard Specifications for Road and Bridge Construction & Implemented Modifications.

#### **SECTION VI. SIGNING AND PAVEMENT MARKINGS**

The CONSULTANT shall prepare plan sheets, notes, and details to include the following: Key Sheet, Tabulation of Quantities sheet(s), General Note sheet(s), Plan Sheet(s) only as necessary, Guide Sign Detail sheet(s), Metal/Concrete Pole detail(s) as applicable, and Service Point detail(s). Signs and pavement markings shall be designed in accordance with the elder road user policy. Existing roadway signs that are over three (3) years old will qualify for replacement by the time of construction in accordance with the Routine Maintenance Performing Standards.

The CONSULTANT shall evaluate the use of rumble strips or reflective pavement markings, and in deck lighted pavement stripes to delineate the travel lanes from the shoulders.

Pavement markings for the project will be detailed through the use of notes and tabulation if the project is consistent of a typical pavement marking. In the event pavement markings are particular to an intersection or urban setting then the CONSULTANT shall detail the markings for that area in a clear manner for construction.

If necessary, the CONSULTANT shall also provide for lighted overhead signing (truss or cantilever) and/or overhead span wire signing, if appropriate.

In an urban setting curb/gutter and signing and pavement markings shall be detailed.

The CONSULTANT shall be responsible for the design of any sign support to be built integrally with the structures included in this Scope. The CONSULTANT shall show all details (anchor bolt size, bolt circle, bolt length, etc.) as well as all design assumptions (wind loads, moments, torsion, etc.) used in arriving at those details.

The FDOT's Structures Design office has computer programs available to the CONSULTANT for the design of cantilever and truss supports.

#### **SECTION VII. DESIGN SURVEY**

##### **A. General**

The CONSULTANT shall perform all survey services necessary to prepare the engineering design and construction plans. Survey services and deliverable data must be in accordance with the DEPARTMENT's current procedures, including special instructions and directions issued in writing by the DEPARTMENT. Survey services must also comply with all pertinent Florida Statutes (F.S.) and applicable rules in the Florida Administrative Code (F.A.C.). All field survey data will be furnished in a digital format, readily available for input and use in CADD Design files.

##### **B. Design Survey**

Any of the above Survey Services necessary for this project shall be conducted utilizing ENGLISH UNITS, shall be tied to the Florida State Plane coordinate System on N.A.D 1983/90 horizontal datum and N.G.V.D. 1929 vertical datum, and shall be performed by the CONSULTANT.

All survey work must comply with minimum technical standards for surveyors, pursuant to Chapter 472.027, F.S., and any special instructions from the DEPARTMENT. This work also must comply with the FDEP rules, Chapter 18-5 F.A.C., pursuant to Chapter 177 F.S., when applicable.

Unless otherwise directed by the DEPARTMENT, all survey work must be submitted in Electronic Field Book (EFB) Format or Cadastral Electronic Field Book (CEFB) Format.

**C. Bridge Survey**

1. Verify existing plans/drawings.
2. Verify existing structures and conditions.
3. Verify skew and/or curve from existing plans.
4. Verify vertical and horizontal clearances with existing plans.

The above items will be provided in field book format only.

**D. Hydrographic Survey**

Provide Hydrographic Survey cross sections 500' up and downstream of Span "A". Cross sections will start and end 1500' +/- each side of the approximate centerline of the channel. Cross sections will be taken every 50' for the first 250' then every 100' thereafter. A cross section at each face of the bridge will also be provided.

**B. Geotechnical Survey**

Survey locations of Geotechnical borings

**B. Jurisdictional Survey**

Locate flagged and approved Wetland, Sea Grass or Jurisdictional lines. Provide signed sealed Special Purpose Jurisdictional Line Survey.

**SECTION VIII. PUBLIC INFORMATION MEETINGS**

**A. Development of Community Awareness Plan (CAP):**

The CONSULTANT will prepare a Community Awareness Plan. The objective of the plan is to notify local governments, affected property owners, tenants, and the public of the DEPARTMENT's proposed construction and the anticipated impact of that construction. In addition to the benefits of advance notification, the process should allow the DEPARTMENT to resolve controversial issues during the design phase.

**B. Coordinate Meeting with Local Officials**

Meetings shall be held with the City of Sanibel City Council to present the pier, railing and color alternatives. After architectural alternatives have been selected by the City Council, a Public Information Meeting will be scheduled to take input on the alternatives. The results of the public meeting will then be presented to Lee County Management and Planning for their consideration.

**C. Public Information Meeting:**

The CONSULTANT shall provide all support necessary for the DEPARTMENT to hold one (1) Public Information meeting. The Public Information meeting will be held to receive input on the pier, railing and color alternatives selected by the Sanibel City Council.

1. The CONSULTANT shall prepare and/or provide:
  - a. Agenda for the meetings
  - b. Provide three (3) sets of the architectural renderings of the proposed pier spacing, pier, rail and color alternatives for information purposes
  - c. Letters for notification of elected and appointed officials/residences/tenants/owners
  - d. Letters for notification to impacted residences/tenants/owners
  - e. News releases prior to the meeting
  - f. Graphics and displays
  
2. The purpose of the meeting is to to solicit public input to develop a consensus on the architectural elements of the bridges.

This meeting will be advertised and conducted by the CONSULTANT as an information meeting. Any press release will be sent out by the CONSULTANT and will indicate the meeting is a DEPARTMENT activity.

Both the CONSULTANT's and DEPARTMENT's responsibilities are specified for meetings as follows:

- a. A copy of the agenda including the project number, date, meeting place, and items to be addressed shall be submitted to the Design Project Manager, the DEPARTMENT's Public Information Director, and incorporated into the project Community Awareness Plan (CAP).
- b. All media releases and general (mass) public announcements for property owners and business operators will be prepared by the CONSULTANT and reviewed by the DEPARTMENT's Public Information Director and the Design Project Manager.
- c. Notification will be made to elected and appointed officials by personal letter. The CONSULTANT will prepare the letter for signature by the DEPARTMENT's Director. The CONSULTANT will mail the letter no less than 15 days before the meeting. Letters shall be on DEPARTMENT letterhead.
- d. Property Owner/Business Operator Notification - An announcement, prepared by the CONSULTANT, will be written and sent no less than 10 days before the meeting to all property owners/business operators whose property or business lies adjacent to the project limits. The CONSULTANT will pay for the postage.
- e. News releases will be prepared by the CONSULTANT and shall be published during the week of the Public Information Meeting. Two (2) newspaper ads will be published, the first shall be seven (7) days in advance of and the second will be one (1) day before the meeting. The CONSULTANT shall pay for the ad.

- f. The CONSULTANT shall conduct the meeting. The CONSULTANT will provide an overview/description of the type work to be done, impacts to the businesses, and the Maintenance of Traffic Scheme. The public will then have the opportunity to ask questions.
- g. The CONSULTANT shall provide three (3) sets of the plans. The meeting will require a knowledgeable CONSULTANT staff to answer questions that may arise.
- h. The CONSULTANT shall coordinate all activities listed and actions to be taken with the DEPARTMENT's Public Information Director and the Project Manager.
- i. The Public Information Meeting is anticipated to be held after county review of the Phase II submittals.

**D. Public Involvement Data Collection**

The CONSULTANT will collect the following data:

- a. Mailing List Preparation: The CONSULTANT will prepare a mailing list of businesses, public officials, institutions and other interested parties early in the design process. Media to be used for news releases and advertisements will be identified and placed on the list. The mailing list will be submitted to the DEPARTMENT for review or approval. Information from this list will also be used in the CAP plan.
- b. Elected and appointed officials (city, state, federal, county) and community leaders in the area will be identified and placed on the mailing list of officials and interested parties. This will include as applicable (but not limited to):
  - \* Any affected or possibly affected parties\* Elected and appointed officials in the area(City, County, State)\* Possible permit and review agencies\* Media in the project area (to be used for news releases, advertisements or any concerns \* Any person or institution expressing an interest in the projectThe CONSULTANT shall be responsible for determining the appropriate meeting site. The site shall meet ADA standards.

Room size will be based on the number of mail outs. The proposed meeting site shall be presented to the DEPARTMENT for approval prior to the CONSULTANT negotiating use of site.
- d. The collection of public input occurs throughout the life of the project and requires maintaining of files, newspaper clippings, and letters. In addition to collecting public input data, the CONSULTANT shall assist the COUNTY in preparing responses to any public inquiries as a result of the Public Involvement Process.

**E. Newsletter**

The CONSULTANT shall prepare two (2) newsletters during the course of the design. The newsletters will be mailed by the CONSULTANT to elected officials, property owners, businesses and interested persons included on a mailing list compiled by the CONSULTANT. The first newsletter will announce the Public Information Meeting. The second newsletter will announce receipt of the US Coast Guard permit and anticipated construction date. COUNTY review prior to mailing is required.

**F. Correspondence**

Within three (3) days of the receipt or mailing of all written correspondence between the CONSULTANT and any party pertaining specifically to this project, copies shall be provided to the COUNTY for their records.

**SECTION IX. GEOTECHNICAL SERVICES**

The CONSULTANT shall be responsible for a geotechnical investigation as specified hereinafter. All work performed by the CONSULTANT shall be in accordance with FDOT standards, the Soils and Foundations Handbook, related directives, Federal Highway Administration Checklist and Guidelines for review of Geotechnical Reports and Preliminary Plans and Specifications, FDOT Standard Indexes for Work Zone Traffic Controls and Pavement Coring and Evaluation Procedure.

Prior to beginning the investigation and after the Notice to Proceed is given, the CONSULTANT shall submit a detailed investigation plan and schedule. The CONSULTANT shall schedule a meeting with the DEPARTMENT to finalize the investigation plan one week after its submission. The investigation plan shall include, but is not be limited to, the proposed boring locations and depths, and all existing geotechnical information from available sources to generally describe the surface and subsurface conditions of the projects site. Testing frequencies may vary from the guidelines contained in this section when agreed to by the DEPARTMENT and the Consultant.

The CONSULTANT shall notify the DEPARTMENT in adequate time to schedule a representative to attend all related conferences.

**A. Field Investigation – Roadway**

The soils investigation for roadways shall be prepared using the following guidelines:

1. One 5 ft. auger boring per 100 ft. per lane pair. Borings shall be performed along the proposed roadway alignment, proposed detour alignments, approaches to structures and any affected portions of side streets. (New construction and widening of 6 ft. or greater.)
2. One auger boring to 5 ft. below the bottom of cross drain extensions that are 36 in. in diameter or larger.
3. One 20 ft. auger boring per 500 ft. of alignment, if an enclosed storm sewer system is proposed.
4. Soil samples for laboratory soil testing will be obtained on a minimum frequency of 3 samples per stratum per mile.
5. Limerock Bearing Ratio (LBR) samples shall be obtained at a frequency of 3 per mile per stratum.
6. A minimum of two auger borings with a minimum depth of 5 ft. below the deepest elevation of the pond per acre of pond and a minimum of two field permeability tests per pond or one field permeability test per acre of pond (whichever is greater). The tests should be evenly distributed between the anticipated confining strata and the anticipated permeable strata.

7. Double ring infiltrometer tests, as necessary, for proposed swale areas.
8. Auger borings and permeability tests (exfiltration) as necessary in exfiltration trench areas.
9. Use U.S.G.S. and S.C.S. maps to identify areas of organic soils.
10. Determine the vertical and horizontal extent of compressible strata (i.e. muck, peat, clay, etc.).
11. Pavement cores will be obtained as directed at the scope meeting or at 500 feet interval or minimum of three cores, where asphalt pavement rehabilitation is proposed.

For the convenience of the CONSULTANT, continuous SPT borings may be substituted for any auger boring at the contract unit rate for auger borings.

**B. Field Investigation -- Structures**

The geotechnical investigation for structural foundations includes bridges, temporary and permanent retaining walls, temporary and permanent sheet piling, major sign and signal foundations, and high embankment fills. The investigation shall be prepared using the following guidelines:

1. Standard Penetration Test (SPT) borings at each bridge bent/pier location, or at the interval of 100 ft.
2. SPT borings at an interval of 150 ft. along proposed (permanent or temporary) retaining and sheet piling wall locations.
3. At least one SPT boring at proposed major sign and major signal foundations.
4. SPT borings are to be sampled on 2.5 centers. All SPT borings shall include collection of soil consistency data from the ground surface to termination depth. All soil strata encountered shall be classified using the Unified Soil Classification System.
5. Continuous SPT borings to a depth of 15 ft. below proposed foundation bearing elevation.
6. When cohesive soils are encountered at the bridge approach borings, undisturbed samples of cohesive soils shall be obtained in accordance with FDOT standards.
7. Rock coring when rock is encountered. A SPT shall be performed at the bottom of each core run. Core runs shall be of 4-inch diameter or larger and shall not be longer than 5 ft.
8. Additional specialized field testing as required by needs of project.

Field sampling and testing is also to include the testing of soils and/or water for the determination of environmental class for the substructure and superstructure. However, corrosion series tests will not be performed for mast arm foundations except when high chloride levels are expected.

**C. Laboratory Testing**

All laboratory testing will be performed in accordance with Florida Sampling and Testing Methods or AASHTO or ASTM or by related directives. Laboratory testing will include the following as required by the needs of the project:



1. Organic Content
2. Moisture Content
3. Sieve Analysis (#10, #40, #60 & #200 for soil survey)
4. Particle Size Analysis with Hydrometer
5. Specific Gravity
6. Torvane Sensitivity and Pocket Penetrometer in all undisturbed samples before sealing the tubes.
7. Atterberg Limits for soil classification
8. Consolidation with an unload/reload cycle near the existing effective overburden pressure
9. Triaxial and/or direct shear
10. Corrosion Series at proposed bridges and for new culverts and storm sewers
11. Limerock Bearing Ratio
12. Aggregate Gradation
13. Unconfined compression and tensile testing of rock cores

**D. Roadway Report**

The roadway report shall include, but not be limited to:

1. Copies of U.S.G.S. and S.C.S. maps with project limits and beginning/ending station shown
2. A preliminary report of tests sheet which summarizes the laboratory test results, the soil stratification (i.e. soils grouped into layers of similar materials) and construction recommendations relative to the FDOT Standard Indices. The preliminary report shall be submitted as part of the 30% roadway plan submittal.
3. Estimated seasonal high and/or low groundwater levels, as required for design purposes
4. Design LBR
5. A description of the site and subsoil conditions, design recommendations and a discussion of any special considerations (i.e. removal of unsuitable material, recompression of weak soils, estimated settlement time/amount, groundwater control, etc.)
6. Evaluation of embankment slope stability and settlement and the roadway embankment protection from design storm. Scour elevations will be provided by others for use in the embankment protection design.

7. Appendices containing stratified soil boring profiles, laboratory test data sheets, design LBR calculation/graphs, and any other pertinent information

In addition to the roadway report, the roadway design CONSULTANT will also plot the stratified boring profiles on the original roadway cross-sections and have the geotechnical SUBCONSULTANT review for correctness. A Final Report shall be submitted prior to the 90% roadway plan submittal. The Final Report shall include responses to all comments the DEPARTMENT may have had during the review of the Preliminary Report.

**E. Structures Report**

The structures report shall contain the following discussions as appropriate for the assigned project phase:

1. Summary of structure background data
2. Evaluation of structure foundation alternatives including the following:
  - prestressed concrete piling (24 and 30 inch square)
  - drilled shafts (36 and 48 inch diameter)
  - other feasible foundations types
3. Recommendation for most practical foundations types will be given along with the basis for selection
4. Analysis of allowable and/or ultimate foundation capacity and settlement potential for all feasible alternatives. Foundation capacity analyses shall be performed using FDOT approved methods. For pile foundations, provide graphs of Estimated Davisson Capacity and Ultimate Side Friction versus tip elevation and a preliminary Pile Data Table. For drilled shaft foundations, provide graphs of Ultimate Capacity and Ultimate Side Friction versus tip elevation and a preliminary Drilled Shaft Data Table. . Design scour elevations will be provided by others for inclusion in the foundation analyses.
5. The structural engineer will evaluate the lateral load analysis. The geotechnical engineer will provide a table containing all geotechnical input parameters necessary for the analyses. The Structural engineer will coordinate with the geotechnical engineer to insure that the geotechnical and structural model is correct.
6. Evaluation of external stability for conventional retaining walls and mechanically/reinforced earth wall systems in accordance with the Structures Design Guidelines
7. Evaluation of temporary or permanent wall systems, if necessary
8. Report of Core Boring sheet(s), including environmental classification and specialized construction requirements
9. Summary of soil test results
10. Evaluation of lateral earth pressures on underground structures, if necessary (i.e. box culverts, retaining wall, etc.)

12. Evaluation of anticipated effects from vibration due to driving of any proposed new piling adjacent to existing structures and/or utilities. This evaluation should also consider the affects of future pile driving operations. If piling for future widening will be required in close proximity to proprietary retaining walls, this piling shall be installed in advance of these walls. The CONSULTANT shall provide recommendations relative to measures to be taken to monitor, reduce and mitigate construction vibration, which may affect surrounding facilities. The DEPARTMENT will determine if future widening is needs to be considered.
13. Construction information addressing the following items:
  - a. Estimated maximum driving resistance anticipated for pile foundations
  - b. Recommendations for footing or shaft installation, or other site preparation soils-related construction considerations with plan sheets, as necessary
14. Preliminary draft special provisions required for construction that are not addressed in the FDOT's Standard Specifications.
15. Appendices containing SPT boring profiles, data from any specialized field tests, laboratory test data sheets, engineering analysis notes/calculations, a complete FHWA check list and any other pertinent information
16. The report shall be clear and easy to follow. All pertinent information shall be easy to find. The text and design summary, tables, shall be in the body of the report. Report of Core Boring sheets and foundation capacity curves along with all other information shall be organized in appendices. A preliminary report for structures shall be submitted with the 30% structures plans. A Final Report for Structures shall be submitted prior to 90% structural plan submittal. It shall contain responses to all comments the DEPARTMENT may have had after reviewing the Preliminary Report for Structures.

#### **F. Plans Review**

The prime CONSULTANT shall provide the geotechnical SUBCONSULTANT the opportunity to review plans as they are being developed.

The CONSULTANT shall be responsible for a geotechnical analysis foundation reports based on the field investigation performed under Project No. 5814 (Spans B & C) as specified hereinafter. All work performed by the CONSULTANT shall be in accordance with FDOT standards, the Soils and Foundations Handbook, related directives, Federal Highway Administration Checklist and Guidelines for review of Geotechnical Reports and Preliminary Plans and Specifications, FDOT Standard Indexes for Work Zone Traffic Controls and Pavement Coring and Evaluation Procedure.

### **SECTION X. PROJECT REQUIREMENTS AND PROVISIONS FOR WORK**

#### **A. Governing Regulations**

The services performed by the CONSULTANT shall be in compliance with all applicable FDOT Manuals and Guidelines. The FDOT Manuals and Guidelines incorporate, by requirement or reference, all applicable State and Federal regulations. The current edition, including updates, of the following FDOT Manuals and Guidelines shall be used in the performance of this work. It shall be the CONSULTANT's

responsibility to acquire and utilize the necessary manuals that apply to the design work required to complete this project.

1. Florida Department of Transportation Plans Preparation Manual
2. Florida Department of Transportation Roadway and Traffic Design Standards
3. Florida Department of Transportation Bicycle Facilities Planning and Design Handbook
4. Florida Department of Transportation Pedestrian Facilities Planning and Design Handbook
5. Florida Department of Transportation Right-of-Way Mapping Handbook
6. Florida Department of Transportation Right-of-Way Mapping CADD Handbook
7. Florida Department of Transportation Location Survey Manual
8. Florida Department of Transportation EFB User Guide (Electronic Field Book)
9. Florida Department of Transportation Drainage Manual
10. Florida Department of Transportation Crossdrain Handbook
11. Florida Department of Transportation Soils and Foundations Handbook
12. Florida Department of Transportation LRFD Structures Design Guidelines
13. Florida Department of Transportation CADD Roadway Standards Manual
14. Florida Department of Transportation Roadway CADD Handbook
15. AASHTO Load and Resistance Factor Design Specifications for Bridges
16. MUTCD
17. American Disabilities Act
18. Elder Road User Act
19. MUTS Manual
20. Florida Department of Transportation Structures CADD Manual
21. Florida Department of Transportation Structures Detailing Manual
22. Florida Department of Transportation Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Street and Highways
23. Florida Department of Transportation Stormwater Management Manual
24. Florida Department of Transportation Basis of Estimates Handbook
25. Florida Department of Transportation Standard Drawings for Structures
26. Federal Highway Administration Best Management Practices for Erosion and Sediment Control

27. Florida Department of Transportation Utility Accommodation Manual
28. Florida Department of Transportation Flexible Pavement Design Manual

The following provisions shall apply:

1. Roadway Improvements

All plans and design are to be prepared in accordance with the latest standards adopted by AASHTO, FDOT Standard Specifications, FDOT current memorandums, and the current editions of the FDOT Roadway Plans Preparation Manual, FDOT Flexible Pavement Design Manual, FDOT Drainage Manual and shall be accurate, legible, complete in design, and drawn to the appropriate scale, and furnished in reproducible form on material acceptable to the DEPARTMENT.

2. Drainage Services

All drainage plans and designs are to be prepared in accordance with current FDOT memorandums, FDOT Drainage Manual, 23 CFR 650, and other CONSULTANT Plans Submittal Requirements.

3. Environmental Services

- a. Stormwater and Surface Water

Plans shall be prepared in accordance with Chapter 62-25 F.A.C., Regulation of Stormwater Discharge. Surface water management aspects of the plans shall be in accordance with Chapter 14-86, F.A.C., as applicable. Chapter 62-25, F.A.C. is administered by the FDEP, and FDOT administers Chapter 14-86, F.A.C.

The requirements of 40 CFR 122.26 shall also be considered. The Stormwater Pollution Prevention shall meet the requirements of the DEPARTMENT and the Environmental Protection Agency/NPDES (National Pollutant Discharge Elimination System) permit for construction sites.

In addition to these State and Federal permitting requirements, any stormwater management permitting required by local governments for FDOT and DEPARTMENT projects shall be prepared in accordance with their specific regulations.

- b. Permits

All applicable data shall be prepared in accordance with Chapter 403, F.S., as implemented in Chapter 62, F.A.C. The data shall also be in accordance with Federal Regulations; Rivers and Harbors Act of 1899; Section 404 of the Clean Water Act; and parts 114 and 115, Title 33, Code of Federal Regulations. In addition to these State and Federal permitting requirements, any dredge and fill permitting required by local governments for FDOT and DEPARTMENT projects shall be prepared in accordance with their specific regulations.

4. Geotechnical Services

Work shall be performed in accordance with the FDOT Soils and Foundations Handbook with all tests performed as specified in the manual using the appropriate AASHTO and ASTM standard testing methods.

5. Structure Plans

All plans and designs are to be prepared in accordance with the latest AASHTO LRFD Design Specifications, FDOT Standard Specifications, Structures Design Guidelines, Structures Detailing Manual, and directions from the State Structures Design Engineer, FDOT District Structures Design Office and/or Lee County Department of Transportation.

6. **Signing and Marking Plans**

All plans are to be prepared in accordance with the latest design standards and practices (Manual on Uniform Traffic Control Devices), FDOT Standard Specifications, Indexes, FDOT Plans Preparation Manual, and instructions issued by the DEPARTMENT to the CONSULTANT. All plans shall be accurate, legible, complete in design and drawn to the scale as directed by the DEPARTMENT and furnished in reproducible form.

7. **Utilities**

All work shall be in accordance with the FDOT's Utility Manual, Standard Specifications, current memorandums, Plans Preparation Manual, and instructions as issued by the DEPARTMENT to the CONSULTANT, and shall be accurate, legible, complete in design, drawn to the appropriate scale and furnished in reproducible form on material acceptable to the DEPARTMENT.

8. **Construction Contract Duration**

The CONSULTANT shall establish the construction contract duration for the subject project. A guideline has been created by the FDOT and may be used by the CONSULTANT.

9. **Structure Load Ratings**

At final plans submittal, a signed and sealed copy of load ratings shall be prepared for the FDOT District 7 Structures and Facilities Office and transmitted to the DEPARTMENT Project Manager.

**B. Project Schedule**

The CONSULTANT shall submit a project schedule as part of the negotiation process to be negotiated and approved by the DEPARTMENT.

**C. Key Personnel**

The CONSULTANT's work shall be performed and directed by the key personnel identified in the proposal presentations by the CONSULTANT. Any changes in the indicated personnel shall be subject to review and approval by the DEPARTMENT's Project Manager.

**D. Progress Reporting**

The CONSULTANT may be requested to meet with the DEPARTMENT periodically and to provide written progress reports, which describe the work performed on each task. Progress reports shall be delivered to the DEPARTMENT on a monthly basis. Upon receipt of the monthly invoice, the Project Manager will make judgment on whether work of sufficient quality and quantity has been accomplished by comparing the reported percent complete against actual work accomplished.

**E. Meetings and Presentations**

The CONSULTANT shall attend a Notice-To-Proceed Meeting with DEPARTMENT representatives, where relevant project information will be provided by the DEPARTMENT, along with procedures for administering the contract. The CONSULTANT and his staff shall also be available with no more than a five (5) workday notice to attend meetings or make presentations at the request of the DEPARTMENT.

Such meetings and presentations may be held at any hour between 8:00 A.M. and 10:00 P.M. on any day of the week. The CONSULTANT shall attend all Pre-Construction and Utility meetings.

**F. Quality Control**

The CONSULTANT shall be responsible for the professional quality, technical accuracy and coordination of all surveys, designs, drawings, specifications and other services furnished by the CONSULTANT under this contract.

The CONSULTANT shall provide a Quality Control Plan, which describes the procedures to be utilized to verify, independently check, and review all design drawings, specifications, and other documentation prepared as a part of the contract. The CONSULTANT shall submit a Quality Control Plan within 20 (twenty) calendar days of the written Notice to Proceed. The responsible Professional Engineer or Professional Surveyor that performs the Quality Control design review will sign a statement certifying that the review was conducted.

The CONSULTANT shall, without additional compensation, correct all errors or deficiencies in the designs, drawings, specifications and/or other services.

**G. Correspondence**

Copies of all written correspondence between the CONSULTANT and any party pertaining specifically to this contract shall be provided to the DEPARTMENT for their records within one (1) week of the receipt or mailing of said correspondence.

**H. Professional Endorsement**

The CONSULTANT shall furnish to the DEPARTMENT, upon final plans acceptance, the original contract plans package, one set of record prints, one set of special provisions and all reference and support documents utilized in the preparation of the contract plans package. The record prints, the special provisions and all reference and support documents shall be professionally endorsed (signed, sealed and certified) by the CONSULTANT's Professional Engineer in responsible charge of the project's design. The professional endorsement shall be performed in accordance with the rules of the Board of Professional Engineers.

**I. Liaison Office**

The DEPARTMENT and the CONSULTANT will designate a Liaison Office and a Project Manager who shall be the representative of their respective organization for the Project.

**J. Additional Services**

At the DEPARTMENT's option, the CONSULTANT may be requested to provide additional services. The fee for these services shall be negotiated in accordance with the terms detailed in the Standard Consultant Agreement or supplemental agreements for a fair, competitive and reasonable cost, considering the scope and complexity of the project(s).

**K. Submittals**

The CONSULTANT shall be responsible for detailed plans checking as outlined in the FDOT Plans Preparation Manual. This includes showing a checklist of the items listed in the FDOT Plans Preparation Manual for each submittal that has been completed. Plans must meet the minimum contents of a particular phase submittal prior to submission for review. The CONSULTANT shall provide copies of the required documents as directed by the DEPARTMENT.

The CONSULTANT's schedule should allow for a four-week review time for all scheduled submittals.

**L. Computer Automation**

The project will be developed utilizing Computer Aided Drafting and Design (CADD) systems. The FDOT makes available software to help assure quality and conformance with policy and procedures regarding CADD. It is the responsibility of the CONSULTANT to meet the requirements in the FDOT CADD Manual. The CONSULTANT will submit final documents and files as described therein. Additional related information is found in the FDOT Plans Preparation Manual.

**SECTION XI. METHOD OF COMPENSATION**

Payment for the work accomplished will be in accordance with DEPARTMENT procedures for Standard Consultant Agreements for Professional Services. Invoices shall be submitted in a format prescribed by the DEPARTMENT. The DEPARTMENT's Project Manager and the CONSULTANT shall monitor the cumulative invoiced billings to insure the reasonableness of the billings compared to the project schedule and the work accomplished and accepted by the DEPARTMENT.

**SECTION XII. OTHER SPECIAL AREAS (MISCELLANEOUS ITEMS)**

**A. Plans Update and Maintenance**

The CONSULTANT shall perform engineering analyses and/or make revisions to original reproducible or special provisions, as requested by the DEPARTMENT, to reflect additions, deletions and/or modifications prior to and subsequent to letting. Whenever original reproducible are changed, the CONSULTANT shall submit to the DEPARTMENT one (1) set of signed and sealed prints of the revised sheets with the revised reproducible. This requirement is in addition to any other reproduction and delivery instruction given by the DEPARTMENT in specific instances.

**B. Post-Design Services**

These services are intended to address changed conditions that occur following acceptance of final plans. The CONSULTANT shall provide to the DEPARTMENT additional services as required to satisfactorily complete construction. These services are intended to deal with changed conditions or services not covered and are not intended for instances of CONSULTANT errors and/or omissions. The fee(s) for these services shall be established if and when said services are required.

**C. Construction Assistance**

The CONSULTANT shall provide to the DEPARTMENT qualified representation during the construction phase to deal with issues concerning the intent and interpretation of the construction contract plans and documents prepared in the work. Should changed conditions be encountered in the field and when requested by the DEPARTMENT, the CONSULTANT shall respond in a timely manner with suitable engineering solutions, which take into account the changed conditions.

On site appearance of CONSULTANT shall be made during construction at the request of the DEPARTMENT or its designated representative.

From time to time during construction the CONSULTANT may be requested by the DEPARTMENT or its designated representative to review contractor proposed field changes or to respond with a recommended solution to remedy particular field situations not covered by the plans and specifications.

The CONSULTANT is required to attend Pre-Utility and Pre-Construction meetings on the project. The CONSULTANT may be required to attend Partnering Meetings if the project is identified as a partnering project.



CHANGE ORDER AGREEMENT No.: 1

Date: OCTOBER 27, 2003

**D. Review of Shop Drawings**

The CONSULTANT shall review and comment on Shop Drawing submittals until the submittal is in compliance with the design intent.

**EXHIBIT CO-1B****COMPENSATION AND METHOD OF PAYMENT****For****CAUSEWAY RECONSTRUCTION and REPLACEMENT of  
STRUCTURE A (Bridge No. 124043)  
SANIBEL ISLAND CAUSEWAY IMPROVEMENTS****SECTION 1.00 CHANGE(S) IN COMPENSATION**

The compensation the CONSULTANT, or SERVICE PROVIDER, shall be entitled to receive for providing and performing the changed or authorized services, tasks, or work as set forth and enumerated in the Scope of Services set forth in this CHANGE ORDER OR SUPPLEMENTAL TASK AUTHORIZATION AGREEMENT, Exhibit "CO1-A", attached hereto shall be as follows:

NOTE: A Lump Sum (L.S.) or Not-to-Exceed (N.T.E.) amount of compensation to be paid the CONSULTANT should be established and set forth below for each task or sub-task described and authorized in Exhibit "CO1-A". In accordance with Professional Services Agreement Article 5.03(2) "Method of Payment", tasks to be paid on a Work-in-Progress payment basis should be identified (WIPP).

| Task Number | Sub Task Title   | Amount of Compensation | Indicate Basis of Compensation on LS or NTE | If Applicable Indicate (W.I.P.P.) |
|-------------|--|------------------------|---|-----------------------------------|
|             | <b>Original Contract Deduct</b>                                    | <b>\$670,049.91</b>    |   |                                   |
|             | <b>REPAIR &amp; REHAB OF SPAN A</b>                                | <b>\$0</b>             |   |                                   |
|             | a. <b>Previously Billed</b><br><b>(\$115,278.28)</b>               |                        |   |                                   |
|             | b. <b>Demobilization &amp; Prelim Eng.</b><br><b>(\$13,000.00)</b> |                        |   |                                   |
|             | c. <b>Expenses</b><br><b>(\$1,566.44)</b>                          |                        |   |                                   |
|             | <b>DESIGN SURVEY</b>   | <b>\$ 33,923.30</b>    | NTE   | W.I.P.P.                          |
|             | <b>GEOTECHNICAL SERVICES</b>                                       | <b>\$ 109,722.00</b>   | NTE   | W.I.P.P.                          |
|             | <b>ROADWAY PLANS</b>   | <b>\$ 423,664.88</b>   | NTE   | W.I.P.P.                          |
|             | <b>STRUCTURES PLANS</b>  | <b>\$ 567,786.00</b>   | NTE   | W.I.P.P.                          |
|             | <b>PROJECT MANAGEMENT</b>  | <b>\$ 93,780.00</b>    | NTE   | W.I.P.P.                          |
|             | <b>PUBLIC INVOLVEMENT</b>  | <b>\$ 14,463.94</b>    | NTE   | W.I.P.P.                          |
|             | <b>EXPENSES</b>  |                        | LS  | W.I.P.P.                          |
|             | H&H; LLP   | \$ 5,547.70            |   |                                   |
|             | HNTB Inc.  | \$ 8,901.73            |   |                                   |
|             | Cella Inc.   | \$ 1,500.00            |   |                                   |
|             | <b>TOTAL</b>   | <b>\$589,239.64</b>    |   |                                   |

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**SECTION 2.00 SUMMARY OF CHANGE(S) IN COMPENSATION**

Pursuant to and in consideration of the change(s) in the Scope of Professional Services set forth in the CHANGE ORDER or AGREEMENT, Exhibit "CO1-A", the compensation the COUNTY has previously agreed to pay to the CONSULTANT, as set forth in Exhibit "B" of the Professional Services Agreement, shall be changed to be as follows:

| Section/Task Number | Section/Task Name                          | Compensation In the Basic Agreement | Adjustment(s) By Previous CO or STA Nos. | Adjustment(s) Due to this CO -1 | Summary of Changed Compensation |
|---------------------|--|-------------------------------------|--|---------------------------------|---------------------------------|
| 1A                  | Bascule Span Prelim Eng.                   | \$62,080.00                         | 0.00                                     | (\$406.58)                      | \$61,673.42                     |
| 1B                  | Approach Span Rdwy. Prel. Eng.             | \$39,514.27                         | 0.00                                     | (\$29,104.34)                   | \$10,409.93                     |
| 1C                  | Cathodic Prot. System Analysis             | \$38,438.82                         | 0.00                                     | (\$810.98)                      | \$37,627.84                     |
| 1D                  | Geotechnical Services                      | \$49,677.75                         | 0.00                                     | (\$49,677.75)                   | \$0                             |
| 2A                  | Bascule Span Final Plans                   | \$247,390.00                        | 0.00                                     | (\$247,390.00)                  | \$0                             |
| 2B                  | Approach Span Final Plans                  | \$182,635.54                        | 0.00                                     | (\$182,635.54)                  | \$0                             |
| 2C                  | Cathodic Prot. Final Plans                 | \$52,398.56                         | 0.00                                     | (\$52,398.56)                   | \$0                             |
| 2D                  | Approach Span Widening                     | \$73,851.33                         | 0.00                                     | (\$73,851.33)                   | \$0                             |
| 3                   | Public Involvement                         | \$14,463.94                         | 0.00                                     | (\$14,463.94)                   | \$0                             |
| 4                   | Expenses                                   | \$39,444.42                         | 0.00                                     | (\$19,310.89)                   | \$20,133.53                     |
| CO1                 | Repair & Rehab Span A (Demob & Prelim Eng) |                                     |  | \$0                             | \$0                             |
| CO2                 | Design Survey                              |                                     |  | \$33,923.30                     | \$33,923.30                     |
| CO3                 | Geotech. Services.                         |                                     |  | \$ 109,722.00                   | \$ 109,722.00                   |
| CO4                 | Roadway Plans                              |                                     |  | \$ 423,664.88                   | \$ 423,664.88                   |
| CO5                 | Structures Plans                           |                                     |  | \$ 567,786.00                   | \$ 567,786.00                   |
| CO6                 | Project Management                         |                                     |  | \$ 93,780.00                    | \$ 93,780.00                    |
| CO7                 | Public Involvement                         |                                     |  | \$ 14,463.94                    | \$ 14,463.94                    |
| CO8                 | Expenses                                   |                                     |  | \$15,949.43                     | \$15,949.43                     |
| Total               |  | \$799,894.63                        |  | \$589,239.64                    | \$1,389,134.27                  |

**EXHIBIT CO-1B (Continued)****Section 3.00 ADDITIONAL SERVICES**

The COUNTY shall compensate the CONSULTANT for such ADDITIONAL SERVICES as are requested and authorized in writing for such amounts or on such a basis as may be mutually agreed to in writing by both parties to this Agreement. The basis and/or amount of compensation to be paid the CONSULTANT for ADDITIONAL SERVICES requested and authorized in writing by the COUNTY shall be as set forth in Article 3.11 of this Agreement.

Should it be mutually agreed to base compensation for ADDITIONAL SERVICES on an hourly rate charge basis for each involved professional and technical employee's wage rate classification, the applicable hourly rates to be charged are as set forth and contained in ATTACHMENT NO. 1 hereto dated **OCTOBER 2003**, entitled "CONSULTANT'S PERSONNEL HOURLY RATE SCHEDULE".

**ATTACHMENT NO. 1 TO EXHIBIT CO-1B**

**CONSULTANT'S PERSONNEL HOURLY RATE SCHEDULE \*\*\***

For

**CAUSEWAY RECONSTRUCTION and REPLACEMENT of  
STRUCTURE A (Bridge No. 124043)  
SANIBEL ISLAND CAUSEWAY IMPROVEMENTS**

CONSULTANT OR SUB-CONSULTANT NAME Hardesty & Hanover, LLP

| (1)<br>Project Position or Classification<br>(Function to be Performed) | (2)<br>Current Direct*<br>Payroll Average<br>Hourly Rate | (3)<br>Multiplier** | (4)<br>Hourly Rate<br>To Be Charged<br>(Column 2x3) |
|---|--|---------------------|---|
| CADD Tech   | \$20.00  | 2.8                 | \$ 56.00  |

\*NOTE: Direct Payroll hourly rate means the actual gross hourly wage paid.

\*\*NOTE: Indicate applicable multiplier for indirect personnel costs, general administrative and overhead costs, and profit.

\*\*\*NOTE: A separate personnel hourly rate schedule should also be attached for each Sub-Consultant listed in Exhibit "D".

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**ATTACHMENT NO. 1 TO EXHIBIT CO-1B**

**CONSULTANT'S PERSONNEL HOURLY RATE SCHEDULE \*\*\***

For

**CAUSEWAY RECONSTRUCTION and REPLACEMENT of  
STRUCTURE A (Bridge No. 124043)  
SANIBEL ISLAND CAUSEWAY IMPROVEMENTS**

CONSULTANT OR SUB-CONSULTANT NAME : HNTB Corporation

| (1)<br>Project Position or Classification<br>(Function to be Performed) | (2)<br>Current Direct*<br>Payroll Average<br>Hourly Rate | (3)<br>Multiplier** | (4)<br>Hourly Rate<br>To Be Charged<br>(Column 2x3) |
|---|--|---------------------|---|
| Project Manager   | \$45.00  | 2.83                | \$127.35  |

\*NOTE: Direct Payroll hourly rate means the actual gross hourly wage paid.

\*\*NOTE: Indicate applicable multiplier for indirect personnel costs, general administrative and overhead costs, and profit.

\*\*\*NOTE: A separate personnel hourly rate schedule should also be attached for each Sub-Consultant listed in Exhibit "D".

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**ATTACHMENT NO. 1 TO EXHIBIT CO-1B****CONSULTANT'S PERSONNEL HOURLY RATE SCHEDULE \*\*\***For**CAUSEWAY RECONSTRUCTION and REPLACEMENT of  
STRUCTURE A (Bridge No. 124043)  
SANIBEL ISLAND CAUSEWAY IMPROVEMENTS**CONSULTANT OR SUB-CONSULTANT NAME UNIVERSAL ENGINEERING SCIENCES INC.

| (1)<br>Project Position or Classification<br>(Function to be Performed) | (2)<br>Current Direct*<br>Payroll Average<br>Hourly Rate | (3)<br>Multiplier** | (4)<br>Hourly Rate<br>To Be Charged<br>(Column 2x3) |
|---|--|---------------------|---|
| Senior Engineer   | \$31.25  | 2.72                | \$85.00   |
| Staff Engineer  | \$20.67  | 2.90                | \$60.00   |
| CADD Drafting   | \$16.25  | 2.58                | \$42.00   |
| Technical Secretary   | \$ 8.00  | 3.00                | \$24.00   |

\*NOTE: Direct Payroll hourly rate means the actual gross hourly wage paid.

\*\*NOTE: Indicate applicable multiplier for indirect personnel costs, general administrative and overhead costs, and profit.

\*\*\*NOTE: A separate personnel hourly rate schedule should also be attached for each Sub-Consultant listed in Exhibit "D".

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ATTACHMENT NO. 1 TO EXHIBIT CO-1BCONSULTANT'S PERSONNEL HOURLY RATE SCHEDULE \*\*\*

For

CAUSEWAY RECONSTRUCTION and REPLACEMENT of  
STRUCTURE A (Bridge No. 124043)  
SANIBEL ISLAND CAUSEWAY IMPROVEMENTSCONSULTANT OR SUB-CONSULTANT NAME AIM ENG. & SURVEYING, Inc.

| (1)<br>Project Position or Classification<br>(Function to be Performed) | (2)<br>Current Direct*<br>Payroll Average<br>Hourly Rate | (3)<br>Multiplier** | (4)<br>Hourly Rate<br>To Be Charged<br>(Column 2x3) |
|---|--|---------------------|---|
| Senior PLS  | \$38.25  | 3.1                 | \$118.57  |
| PLS   | \$30.05  | 3.1                 | \$93.15   |
| CADD Tech   | \$23.14  | 3.1                 | \$71.73   |
| Survey (4-man crew)   |  |                     | \$1,138.00/Day                                      |

\*NOTE: Direct Payroll hourly rate means the actual gross hourly wage paid.

\*\*NOTE: Indicate applicable multiplier for indirect personnel costs, general administrative and overhead costs, and profit.

\*\*\*NOTE: A separate personnel hourly rate schedule should also be attached for each Sub-Consultant listed in Exhibit "D".

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**ATTACHMENT NO. 2 TO EXHIBIT CO-1B**  
**NON-PERSONNEL REIMBURSABLE EXPENSES AND COSTS**  
**FOR**  
**CAUSEWAY RECONSTRUCTION and REPLACEMENT of**  
**STRUCTURE A (Bridge No. 124043)**  
**SANIBEL ISLAND CAUSEWAY IMPROVEMENTS**

CONSULTANT OR SUB-CONSULTANT NAME: **AIM ENG. & SURVEYING INC.**

(A separate Attachment No. 2 should be included for each Sub-Consultant)

| ITEM   | BASIS OF CHARGE               |
|--|-------------------------------|
| Telephone (Long Distance)  | Actual Cost                   |
| Postage and Shipping   | Actual Cost                   |
| Commercial Air Travel  | Actual Cost (Coach)           |
| Vehicle Travel Allowance (or)  | \$0.29/Mile                   |
| Vehicle Rental/Gas   | Actual Cost                   |
| Lodging (Per Person)   | Actual Cost or NTE<br>\$85.00 |
| Meals: (Breakfast)   | NTE \$3.00                    |
| (Lunch)  | NTE \$6.00                    |
| (Dinner)   | NTE \$12.00                   |
| Reproduction (Photocopy) 8 1/2" x 11"  | \$0.15/Page                   |
| 8 1/2" x 14"   | \$0.20/Page                   |
| 11" x 14"  | \$0.35/Page                   |
| Reproduction (Blue/White Prints)   | \$0.20/Sq. Ft.                |
| Printing/Binding   | Actual Cost                   |
| Mylar Sheets   | Actual Cost                   |
| Photographic Supplies & Services   | Actual Cost                   |
| Tolls  | Actual Cost                   |
| *List other specific project related reimbursables (i.e. film/developing):   |                               |
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| <b>NOTE: Receipts or in-house logs are required for all non-personnel reimbursable expenses unless exempt (such as meals).</b>   |                               |
| Administrative Services Fee – Applicable only when specifically authorized by the County, for administering the procurement of special additional services, equipment, reimbursables etc. not covered under the costs and/or changes established in the Agreement. |                               |

NOTE: N.T.E. indicates Not-To-Exceed

**ATTACHMENT NO. 2 TO EXHIBIT CO-1B**

**NON-PERSONNEL REIMBURSABLE EXPENSES AND COSTS**  
**FOR**  
**CAUSEWAY RECONSTRUCTION and REPLACEMENT of**  
**STRUCTURE A (Bridge No. 124043)**  
**SANIBEL ISLAND CAUSEWAY IMPROVEMENTS**

CONSULTANT OR SUB-CONSULTANT NAME: **UNIVERSAL ENGINEERING SCIENCES INC.**

(A separate Attachment No. 2 should be included for each Sub-Consultant)

| ITEM   | BASIS OF CHARGE            |
|--|----------------------------|
| Telephone (Long Distance)  | Actual Cost                |
| Postage and Shipping   | Actual Cost                |
| Commercial Air Travel  | Actual Cost (Coach)        |
| Vehicle Travel Allowance (or)  | \$0.29/Mile                |
| Vehicle Rental/Gas   | Actual Cost                |
| Lodging (Per Person)   | Actual Cost or NTE \$85.00 |
| Meals: (Breakfast)   | NTE \$3.00                 |
| (Lunch)  | NTE \$6.00                 |
| (Dinner)   | NTE \$12.00                |
| Reproduction (Photocopy) 8 1/2" x 11"  | \$0.15/Page                |
| 8 1/2" x 14"   | \$0.20/Page                |
| 11" x 14"  | \$0.35/Page                |
| Reproduction (Blue/White Prints)   | \$0.20/Sq. Ft.             |
| Printing/Binding   | Actual Cost                |
| Mylar Sheets   | Actual Cost                |
| Photographic Supplies & Services   | Actual Cost                |
| Tolls  | Actual Cost                |
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| *List other specific project related reimbursables (i.e. film/developing):   |                            |
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| <b>NOTE: Receipts or in-house logs are required for all non-personnel reimbursable expenses unless exempt (such as meals).</b>   |                            |
| Administrative Services Fee – Applicable only when specifically authorized by the County, for administering the procurement of special additional services, equipment, reimbursables etc. not covered under the costs and/or changes established in the Agreement. |                            |

NOTE: N.T.E. indicates Not-To-Exceed

**EXHIBIT CO-1C**

**TIME AND SCHEDULE OF PERFORMANCE**

**For**  
**SANIBEL ISLAND CAUSEWAY IMPROVEMENTS**  
**CAUSEWAY RECONSTRUCTION and REPLACEMENT of**  
**STRUCTURE A (Bridge No. 124043)**

**Section 1.00 CHANGES FOR THIS CHANGE ORDER AGREEMENT**

The time and schedule of completion for the various phases or tasks required to provide and perform services, tasks, or work set forth in this CHANGE ORDER AGREEMENT, Exhibit CO-A, entitled Scope of Professional Services attached hereto is as follows:

| Phase and/or Task Reference As Enumerated in EXHIBIT "CO1-A" | NAME OR TITLE Of Phase and/Task                                   | Number Of Calendar Days For Completion Of Each Phase And/or Task | Cumulative Number Of Calendar Days For Completion From Date of Notice to Proceed |
|--|---|--|--|
| <b>PHASE 2</b>   | TASK NO. CO2: DESIGN/ROW SURVEY<br>TASK NO. CO3: GEOTECH SERVICES | 60<br>90   | 60<br>90   |
| <b>PHASE 3</b>   | TASK NO. CO4 & CO5: BDR & 30% PLANS                               | 90   | 90   |
| <b>PHASE 4</b>   | TASK NO. CO4 & CO5: 90% PLANS                                     | 150  | 240  |
| <b>PHASE 5</b>   | TASK NO. CO4 & CO5: FINAL PLANS                                   | 90   | 330  |
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**TIME AND SCHEDULE OF PERFORMANCE**

for

**SANIBEL ISLAND CAUSEWAY IMPROVEMENTS  
CAUSEWAY RECONSTRUCTION and REPLACEMENT of  
STRUCTURE A (Bridge No. 124043)****SECTION 2.00 SUMMARY OF THE IMPACT OF CHANGE(S) IN PROFESSIONAL SERVICES ON THE  
OVERALL PROJECT TIME AND SCHEDULE OF PERFORMANCE**

Pursuant to and in consideration of the changes in the Scope of Professional Services in this CHANGE ORDER AGREEMENT, Exhibit "CO-A1", the time and schedule the COUNTY and the CONSULTANT, has previously agreed to for all of the work to be done under this Professional Services Agreement, or Service Provider Agreement, shall be changed to be as follows:

| Phase and/or Task Reference As Enumerated in EXHIBIT 'A' and EXHIBIT 'CO1-A' | Name or Title of Phase and/or Task | Number of Calendar Days For Completion of Each Phase and/or Task | Cumulative Number of Calendar Days For Completion From Date of Notice to Proceed |
|--|------------------------------------|--|--|
| <b>EXHIBIT A</b>   |                                    |  |  |
| PHASE 1  | PRELIMINARY ENGINEERING            | 260  | 260  |
| <b>EXHIBIT CO-1A</b>   |                                    |  |  |
| PHASE 2  | SURVEY & GEOTECHNICAL              | 90   | 350  |
| PHASE 3  | 30% PLANS                          | 90   | 350  |
| PHASE 4  | 90% PLANS                          | 150  | 500  |
| PHASE 5  | FINAL PLANS                        | 90   | 590  |
|  |                                    |  |  |
|  |                                    |  |  |
|  |                                    |  |  |
|  |                                    |  |  |

**EXHIBIT CO-1D**

**CONSULTANT'S ASSOCIATED SUB-CONSULTANT(S) AND SUBCONTRACTOR(S)**

**For  
SANIBEL ISLAND CAUSEWAY IMPROVEMENTS  
CAUSEWAY RECONSTRUCTION and REPLACEMENT of  
STRUCTURE A (Bridge No. 124043)**

CONSULTANT, or SERVICE PROVIDER, intends to engage the following sub-consultant(s) and/or sub-contractor(s) to assist the CONSULTANT, or SERVICE PROVIDER, in providing and performing the services, tasks, or work required under this CHANGE ORDER, or SUPPLEMENTAL TASK AUTHORIZATION AGREEMENT.

| Service and/or Work to be Provided or Performed | Name and Address of Individual or Firm   | Disadvantaged, Minority or Women Business Enterprise. (If Yes, Indicate Type) |    |      | Sub-Consultant Services are Exempted from Prime Consultant's Insurance Coverage |    |
|---|--|---|----|------|---|----|
|   |  | Yes   | No | Type | Yes   | No |
| Geotechnical Engineering Services               | Universal Engineering Serices<br>1205 D Elizabeth Street<br>Punta Gorda, FL 33950                |   | X  |      | X   |    |
| Surveying/ROW                                   | AIM Engineering & Surveying Inc.<br>5300 Lee Blvd.<br>PO Box 1235<br>Lehigh Acres, FL 33970-1235 |   | X  |      | X   |    |

**EXHIBIT CO- 1E**

**PROJECT GUIDELINES AND CRITERIA**  
**For**  
**SANIBEL ISLAND CAUSEWAY IMPROVEMENTS**  
**CAUSEWAY RECONSTRUCTION and REPLACEMENT of**  
**STRUCTURE A (Bridge No. 124043)**

As a change, to the Project Guidelines and Criteria, Criteria, set forth in the Professional Services Agreement, Exhibit "E", the COUNTY has established the following Guidelines, Criteria, Goals, Objectives, Constraints, Schedule, Budget and/or Requirements which shall serve as a guide to the CONSULTANT in performing the professional services tasks, or work to be provided pursuant to the professional services set forth hereinbefore in CHANGE ORDER Exhibit "CO-A1", attached here to:

**NONE.**

CMO:036  
09/25/01