



Birchard Ohlinger <bohlinger@keywestcity.com>

FW: South Roosevelt BLVD

1 message

Toghiani, Ali <Ali.Toghiani@dot.state.fl.us> Tue, Aug 27, 2013 at 9:40 AM

To: Manny Sauleda <MSauleda@metriceng.com>, "Gatanis, Vicki" <Vicki.Gatanis@dot.state.fl.us>

Cc: Birchard Ohlinger <bohlinger@keywestcity.com>, "Desdunes, Harold" <Harold.Desdunes@dot.state.fl.us>, "Alvarez, Teresita" <Teresita.Alvarez@dot.state.fl.us>

Vicki/Birchard

This is the final negotiated supplement for South Roosevelt BLVD for the total amount of \$223,154.00K. The rates used are the rates in the original contract. The lap funds have to be programmed ASAP. The city needs to send a letter of request for the supplement.

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Task Work Order No. Metric Engineering

SCOPE OF SUPPLEMENTAL SERVICES (#2)
SOUTH ROOSEVELT BOULEVARD
CITY OF KEY WEST
PROJECT NUMBER: GR 0603

A. Scope of Services

The City of Key West is proposing to reconstruct South Roosevelt Boulevard (State Road A1A) from a point on Bertha Street to a point approximately 400 linear feet east of Smather's Beach where it transitions to an existing reconstructed project that was completed by the Florida Department of Transportation (FDOT).

Project Limits – The limits will be from Station 44+00 to Station 49+00 or any point that provides for a logical transition. This Project is funded by the FDOT. The project will improve the existing roadbed, drainage, seawall and markings.

The project will be implemented as follows:

- Phase I – The Consultant will prepare preliminary plans and submit for City/FDOT approval.
- Phase II, Plans Production – Once the preliminary plans have been approved, SZA will proceed to the production of final construction documents. Plans Reviews at 90% PD&E and 100% (Production) completed plans will occur. The review entities will be the City and FDOT per the Local Agency program requirements.
- Phase III, Post Design – Post Design services will be part of the larger project. Work effort will be negotiated after the submittal of the 100% contract documents.
- Phase IV, Construction – The Consultant will provide construction inspection services or construction monitoring for the City. This effort will be separately negotiated with the City as part of the larger project.

LAP Coordination & Funding – The Consultant will provide Local Agency Program coordination between the City and FDOT throughout the design and the construction of this project. The consultant will prepare the necessary forms for FDOT for FDOT approval and programming of the funds in the FDOT system as the project evolves.

Contract Documents

Roadway Plans – Roadway Plans will be prepared in FDOT format at 1"=40'.

Drainage & Permitting – All drainage analysis and plans will be performed per FDOT standards. The Consultant will prepare all permit applications, coordinate with the permitting agencies and if needed submit directly to the agencies. Permitting agencies include:

- South Florida Water Management District

- Department of Environmental & Resource Management
- Army Corps of Engineers
- United States Coast Guard

All of the agency permitting and plan review fees will be included in the consultant's fee proposal.

Landscaping – Landscaping will be provided only as mitigation for construction impacts to existing landscaping.

Seawall Plans – Roadway plans will include seawall construction plans and coastal analysis.

Lighting – This work under the LAP agreement no longer includes any lighting work, it has been deleted from the contract.

Signalization – This work under the LAP agreement does not include any signalization work.

Utility Services – The Consultant will coordinate utility coordination services for the City with FDOT. The Consultant expects to coordinate the effort with eight (8) separate utility companies.

Public Involvement – The Consultant will prepare and execute a Community Awareness Plan (CAP) for this project in accordance with FDOT criteria. It is anticipated that a Level III cap will be required for this project. This may be included in the larger project.

Survey Services – The original Survey will be updated as well. An estimated fee is included in the proposal for this effort. Parcel sketches will also be prepared.

Geotechnical Services – This effort includes obtaining soil tests, percolation tests for drainage and borings for the sea walls.

Subsurface Utility Services – Since previous data is available, we estimated that few vacuum excavation locations may be required.

B. Cost Estimates and Reports

The consultant will prepare construction cost estimates, time of completion and cash flow time-lien projections, engineering costs, inspection costs, and permitting costs.

C. Deliverables will consist of:

1. Roadway Plans in electronic format (Micro-station/GEOPAK in PEDDS and EDI)
2. Commission presentation in electronic format (Power Point)
3. Project Technical Specifications

Phase Reviews – The consultant will provide electronic copies of plans and documents to the City and FDOT for reviews. The Consultant will coordinate the FDOT reviews for the City.

D. Time of Completion

This Task Order is estimated to be completed within 1 year from the written Notice to Proceed (NTP) date. It is understood that permitting issues may take longer.

E. Compensation

Compensation will not exceed \$223,153.84 based on the attached fee proposal. Since this Task will be performed with the FDOT LAP funds, the proposed fee has been approved by the FDOT.

Scope of Supplemental Services for South Roosevelt Boulevard

The general scope of the supplemental services for South Roosevelt consists of the following:

These scope items are based on Design criteria and derived from the FDOT Activity 3, 4, 5, 6, 7, 19, 20, 23, 24, 27 and 29. Typical section to be revised to meet current FDOT Design Standards and PPM requirements. New pavement design to be submitted based on 18kip requirements and current FDOT Pavement Design Manual. Project to incorporate Pedestrian Crosswalk Study prepared by ATEC for the FDOT. The drainage design is to be updated to the latest standards and permits to be obtained from the SFWMD. Roadway lighting will be removed from the Contract Plans. Plans will be submitted to the City and FDOT for review; submittals consist of 90%, PS&E and Production.

Activity 3

- Two public meetings to be held prior: one to 90% and second prior to PS&E.
- Two progress meetings at FDOT and one at the City of Key West, plus three other meetings.
- Three phase review meetings
- Two field review meetings

Activity 4

- A revised typical section package will be prepared and submitted to the City of Key West and FDOT for review and approval. The revised typical section will include the sidewalk located on the north side of South Roosevelt Blvd, revised FDOT right of way line location, new sea wall location, revised traffic data information and revised design exception/variation list.
- The original package included only one design variation request (not specified). Design variations for bike path, border width, base clearance and curve length will be submitted for review and approval. Thus three additional design variations will be required.
- A new pavement design package using the latest methodology will be submitted for review and approval. The Department will provide traffic data, pavement cores and 18kip report. The original pavement design package utilized the design for the adjacent SR A1A (South Roosevelt Blvd). That pavement design package did not utilize the 18kip loads.
- The plans, cross sections, MOT and quantities will be revised based on the updated typical section, pavement design, latest FDOT design standards, Plans Preparation Manual and MUTCD. Notes will be revised to reflect latest FDOT requirements. Utilities will be updated to reflect latest contact information. The plans will also incorporate the results of the pedestrian mobility

/ crosswalk study. Three new pedestrian crossings will be provided. Curb ramps will be updated to the latest standards.

- Electronic delivery was not required per City of Key West contract requirements. FDOT CADD standards have changed significantly since the project was awarded. Project will now be Let by the Department, as such all design files must utilize the latest Microstation/GEOPAK version and latest CADD standards must be adhered to. New microstation files will be created and line work re-done to meet current FDOT CADD and Electronic Delivery standards. Design files will also incorporate the latest updates to the typical section, pavement design, pedestrian crossings, utilities and design standards and PPM.
- Three new pedestrian crossings will be added.
- Sharrows to be utilized for bicycle traffic requirements.
- One additional field review will be conducted.
- Three additional progress meetings will be attended at FDOT.

Activity 5

- Current roadway and drainage plans in the Contract Plans (typical section, general notes, roadway plans and profiles, cross section, drainage structures to be revised based on activities 4 and 6.

Activity 6

- Drainage plans and structures to be revised based on latest FDOT standards and PPM requirements.
- The plans, drainage structure sheets and quantities will be revised based on the updated typical section. Notes will be revised to reflect latest FDOT requirements.
- Electronic delivery was not required per City of Key West contract requirements. FDOT CADD standards have changed significantly since the project was awarded. Project will now be Let by the Department, as such all design files must utilize the latest Microstation/GEOPAK version and latest CADD standards must be adhered to. New microstation files will be created and line work re-done to meet current FDOT CADD and Electronic Delivery standards.

Activity 7

- New Utility contacts to be made with utility companies and updated mark-ups to be incorporated into the plans set. Utility Work Schedules to be obtained. (Previous utility contact

was 8 years ago.) Utility contacts to be made by FDOT. Metric to incorporate updated utilities obtained by the FDOT, as well as attending a Preliminary Utility Meeting, a utility field review and a Utility Design Meeting.

Activity 19

- The signing and pavement marking design will be revised based on the updated roadway alignment and pedestrian crosswalk study as well as current FDOT, PPM and MUTCD requirements. New signage and pavement markings for pedestrian crossings will also be provided.
- Quantities to be updated to incorporate the new signage and pavement markings for pedestrian crossings as well as revisions to design standards and PPM.
- Electronic delivery was not required per City of Key West contract requirements. FDOT CADD standards have changed significantly since the project was awarded. Project will now be Let by the Department, as such all design files must utilize the latest Microstation/GEOPAK version and latest CADD standards must be adhered to. New microstation files will be created and line work re-done to meet current FDOT CADD and Electronic Delivery standards. New signage and pavement markings for pedestrian crossings will also be drawn.

Activity 20

- The signing and pavement marking plans to be revised based on activity 19.

Activity 23

- The lighting design has been deleted from the contract plans.

Activity 24

- The lighting plans have been deleted from the contract plans.

Activity 27.01 & 27.02

- Primary control points will be set and established. Horizontal Control will be established on the Florida State Plane Coordinate System, East Zone, and North American Datum (NAD) of 1983 / 1990 Adjustment. Vertical Control will be established on NGVD 1929. Includes analysis and processing of all field-collected data.

- Note: PNC sheets will be prepared as part of the Right of Way Control Survey and Maps Scope.

Activity 27.03

- The Historic survey baseline and right of ways will be established as per Department Right of Way Maps, platted and / or dedicated rights of way for South Roosevelt and all intersecting side-streets. Survey baselines will be placed in Topo file, PNC sheet and the survey database. A Geopak .GPK file will be submitted as part of the survey data-base. The beginning and end stations of the Survey baseline will be set along with all PI's, PC's and PT's.

Activity 27.06

A new DTM and Topographic Survey will be performed the project area including some the details stated below. All above ground features, improvements, break-lines, high and low points will be located with sufficient density of points (a minimum of a 50-ft. grid will be established) in order to create a DTM. A Micro-station file will be delivered along with Geopak files (tin).

1. Verify existing walls for the entire project area, including top of wall and adjacent sidewalk elevations.
2. Verify and or Locate existing steps to beach, including steps and sidewalk elevations.
3. Extend Topo and DTM survey +/- 50-ft. along all intersecting side-streets.
4. Extend DTM and Topo, including existing wall, 200-ft. east to tie in to project performed by Metric Eng.

Activity 27.08

- Check Sections will be performed to verify the DTM.

Activity 27.11

- Locate toe of wall or perform soundings at gap of wall at east end of project. Existing toe of wall exists for +/- 400-ft.

Activity 27.12

- New Drainage structures will be located. The survey will identify the type of structure, rim elevation, pipe invert elevation, pipe materials, direction, size and condition.
- *Note: In case were structure is full of water and or sediment, MGCV will visit said structures a maximum of 2 visits; if structures is still un-accessible, said structure will be noted as such in survey.*

Activity 27.19

- Perform field locations of section corners, 1/4-section corners, and fractional corners as well as block closures, monument lines, etc., in order to establish the Miami – Dade County or public

right of way lines and in order to establish survey baseline, right of way lines and complete the right of way control survey.

Right of Way Mapping Scope of Services:

- Right of Way Control survey and Right of Way Maps will be prepared in accordance with all applicable DEPARTMENT Manuals, Procedures, Handbooks, and Florida Statutes. The following tasks will be performed and submitted:

Master CADD File

- 29.1 Alignment
- 29.2 Section and 1/4 Section Lines
- 29.3 Subdivisions / Property Lines
- 29.4 Existing Right of Way
- 29.6 Parent Tract Properties / Existing Takes

Sheet Files

- 29.10 Control Survey Cover Sheet
- 29.11 Control Survey Key Sheet
- 29.12 Control Survey Detail Sheet
- 29.13 R/W Map Cover Sheet
- 29.14 R/W Map Survey Key Sheet
- 29.15 R/W Map Survey Detail Sheet

Activity 29.22

- Prepare parcel sketches (5) for proposed right of way takes, transfers and or easements.

Activity 29.29

- Prepare legal descriptions (5) to accompany parcel takes, transfers and or easements.

Activity 29.28

- Review title searches and prepare report.
- *Note: Title searches to be performed and provided by FDOT.*

Notes:

1. Right of Way Control and Right of Way Map detail sheet will be prepared in 1:40 scale.
2. If additional tasks are required beyond the aforementioned items, MGVS will provide an additional fee estimate.
3. A surveyors report will be prepared; signed and sealed copies will be provided for all design survey tasks.

Project Information Sheet

Financial Project Identification Number: 250548-4-52-01 Federal Aid Project Identification Number: N/A

Name of Prime / Subconsultant: Metric Engineering County: Monroe

Project Description: South Roosevelt Blvd

Begin Milepost: _____ End Milepost: _____ Project Length: _____ Miles

Number of Lanes: _____ Typical Section: _____ (Urban / Rural / Int. :) Lane Configuration: _____ (Divided / Undivided)

Project Type: _____ (Minor / Major) Access Management Classification: _____ Roadway Classification: _____ (NHS/FIHS/Off Sys.):

CAP Level: _____ TCP Level: _____ Survey Level: _____

Variances: 1. _____ Exceptions: 1. _____
 2. _____ 2. _____
 3. _____ 3. _____
 4. _____ 4. _____
 5. _____ 5. _____

Proposed Design Contract Time: _____ months

Project Preliminary Design Specifics:

Roadway	_____	<===Roadway Plan Type (Plan/Profile, Plan Only, etc.)
Drainage	_____	<===Number of Drainage Structures
Utility Coordination	_____	<===Number of Effected Utilities
Structures - Bridges	_____	<=== Bridge Structures? (Y/N, number)
Structures - Retaining Walls	_____	<=== Retaining Walls? (Y/N, number)
Structures - Misc. Structures	_____	<=== Miscellaneous Structures? (Y/N, number)
Permits	_____	<===Permits Required (WMD, ACOE, Local Permits, etc.)
Signing and Pavement Marking	_____	<===Signing & Pavement Marking Plans Required? (Y / N)
Signalization Intersections	_____	<===Number of Intersections Requiring Signals:
Non-Signalized Intersections	_____	<===Number of Non-Signalized Intersections
Traffic Control	_____	<===Number of phases requiring detailed phase drawings
Landscaping	_____	<===Landscaping Plans Required? (Y / N)
Right-of-Way	_____	<===Right Of Way Plans Required? (Y / N)
Lighting	_____	<===Lighting Plans Required? (Y / N)
Architecture	_____	<===Architectural Plans Required? (Y / N)
Geotech	_____	<===Geotechnical Consultant Services Required? (Y / N)
Survey	_____	<===Survey Consultant Services Required? (Y / N)
JPAs	_____	<===JPAs Prepared by Consultant? (Y / N, if so how many?)
Mitigation Plan	_____	<===Mitigation Plans Required? (Y / N)
Noise Barriers	_____	<===Noise Walls Plans Required? (Y / N)
Specifications Package	_____	<===Specifications Package to be Prepared by Consultant? (Y / N)

Scope of Service Summary

Below is our scope of service and summary for South Roosevelt Blvd in the City of Key West, Monroe County, Florida, and Financial Management number 250548-4. This scope items are based on Design criteria and derived from the FDOT Activity 3, 4, 5, 6, 7, 19, 20, 23 and 24.

The project consist of the reconstruction of South Roosevelt Boulevard from Station 10+82.01 to station 51+97.25. Typical section to be revised to meet current FDOT Design Standards and PPM requirements. New pavement design to be submitted based on 18kip requirements and current FDOT Pavement Design Manual. Project to incorporate Pedestrian Crosswalk Study prepared by ATEC for the FDOT. The drainage design is to be updated to the latest standards and permits to be obtained from the SFWMD. Roadway lighting will be removed from the Contract Plans. Plans will be submitted to the City and FDOT for review; submittals consist of 60%, 90%, PS&E and Production.

Activity 3

- Two public meetings to be held prior: one to 60% and second prior to PS&E.

Activity 4

- A revised typical section package will be prepared and submitted to the City of Key West and FDOT for review and approval. The revised typical section will include the sidewalk located on the north side of South Roosevelt Blvd, revised FDOT right of way line location, new sea wall location, revised traffic data information and revised design exception/variation list.
- The original package included only one design variation request (not specified). Design variations for bike path, border width, base clearance and curve length will be submitted for review and approval. Thus three additional design variations will be required.
- A new pavement design package using the latest methodology will be submitted for review and approval. The Department will provide traffic data, pavement cores and 18kip report. The original pavement design package utilized the design for the adjacent SR A1A (South Roosevelt Blvd). That pavement design package did not utilize the 18kip loads.
- The plans, cross sections, MOT and quantities will be revised based on the updated typical section, pavement design, latest FDOT design standards, Plans Preparation Manual and MUTCD. Notes will be revised to reflect latest FDOT requirements. Utilities will be updated to reflect latest contact information. The plans will also incorporate the results of the pedestrian mobility / crosswalk study. Three new pedestrian crossings will be provided. Curb ramps will be updated to the latest standards.

- Electronic delivery was not required per City of Key West contract requirements. FDOT CADD standards have changed significantly since the project was awarded. Project will now be Let by the Department, as such all design files must utilize the latest Microstation/GEOPAK version and latest CADD standards must be adhered to. New microstation files will be created and line work re-done to meet current FDOT CADD and Electronic Delivery standards. Design files will also incorporate the latest updates to the typical section, pavement design, pedestrian crossings, utilities and design standards and PPM.
- Three new pedestrian crossings will be added.
- Sharrows to be utilized for bicycle traffic requirements.
- Two additional field reviews will be conducted.
- Ten additional progress meetings will be attended (Five in Key West and five at FDOT.)
-

Activity 5

- Current roadway and drainage plans in the Contract Plans (typical section, general notes, roadway plans and profiles, cross section, drainage structures to be revised based on activities 4 and 6.

Activity 6

- Drainage plans and structures to be revised based on latest FDOT standards and PPM requirements.
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Activity 20

- The signing and pavement marking plans to be revised based on activity 19.

Activity 23

- The lighting design has been deleted from the contract plans.

Activity 24

- The lighting plans have been deleted from the contract plans.

Project Staff Hour Summary

Name of Consultant:

Metric Engineering

South Roosevelt Blvd
250548-4-52-01

		Project Staff Hours													
Activity No.	Activity	Enter Firm Name	Enter Name Sub 1	Sub 2	Sub 3	Sub 4	Sub 5	Sub 6	Sub 7	Sub 8	Sub 9	Sub 10	Sub 11	Sub 12	Total Hours
3	Project Common and General Tasks	292													292
4	Roadway Analysis	492													492
5	Roadway Plans	155													155
6	Drainage Analysis	0													0
7	Utilities	40													40
8	Env. Permits, Compliance & Clearances	0													0
9	Structures - Summary, Misc. Tasks, Dwgs.	0													0
10	BDR	0													0
11	Temporary Bridge	0													0
12	Short Span Concrete Bridge	0													0
13	Medium Span Concrete Bridge	0													0
14	Structural Steel Bridge	0													0
15	Segmental Concrete Bridge	0													0
16	Movable Span	0													0
17	Retaining Walls	0													0
18	Miscellaneous Structures	0													0
19	Signing & Pavement Marking Analysis	106													106
20	Signing & Pavement Marking Plans	30													30
21	Signalization Analysis	0													0
22	Signalization Plans	0													0
23	Lighting Analysis	0													0
24	Lighting Plans	0													0
25	Landscape Architecture Analysis	0													0
26	Landscape Architecture Plans	0													0
27	Survey - Field and Office Support	0													0
28	Photogrammetry	0													0
29	Mapping	0													0
30	Geotechnical	0													0
31	Architecture Development	0													0
32	Noise Barriers Impact Design Assessment	0													0
33	ITS Analysis	0													0
34	ITS Plans	0													0
Project Total		1,115	0	0	0	0	0	0	0	0	0	0	0	0	1,115
27	Survey Field Crew Days	0													0

- Notes: 1. Staff hours for prime consultant come directly from each discipline's worksheet.
 2. Staff hours for subconsultants are to be entered manually into columns D through O.
 3. For workbooks prepared by subconsultants, their project hours will be totaled in column C.

ESTIMATE OF WORK EFFORT FOR TECHNICAL PROPOSALS - GRAND TOTAL

Financial Project Number: 250548-4-52-01

Project Name: South Roosevelt Blvd

FAP Number: N/A

Date: 8/26/2013

Name of Consultant: Metric Engineering

WORK ACTIVITY	Hours from "Summary" sheet	EMPLOYEE CLASSIFICATION												TOTAL STAFF HOURS		ON CADD	
		Grand Total	Chief Engineer	Project Manager	Sr. Engineer	CADD	Staff Classification 5	Staff Classification 6	Staff Classification 7	Staff Classification 8	Staff Classification 9	Staff Classification 10	Staff Classification 11	Staff Classification 12	RANGE		
		Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours			PERCENT
3. Project General and Project Common Tasks	292	15	29	117	131	0	0	0	0	0	0	0	0	292	321		
4. Roadway Analysis	492	25	49	197	221	0	0	0	0	0	0	0	0	492	541		
5. Roadway Plans	155	8	16	62	70	0	0	0	0	0	0	0	0	156	172		
6. Drainage Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7. Utilities	40	2	4	16	18	0	0	0	0	0	0	0	0	40	44		
8. Environmental Permits, Compliance & Clearances	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
9. Structures - Misc. Tasks, Dwgs, Non-Tech.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
10. Structures - Bridge Development Report	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
11. Structures - Temporary Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
12. Structures - Short Span Concrete Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
13. Structures - Medium Span Concrete Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
14. Structures - Structural Steel Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
15. Structures - Segmental Concrete Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
16. Structures - Movable Span	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
17. Structures - Retaining Walls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
18. Structures - Miscellaneous	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
19. Signing & Pavement Marking Analysis	106	5	11	42	48	0	0	0	0	0	0	0	0	106	117		
20. Signing & Pavement Marking Plans	30	2	3	12	14	0	0	0	0	0	0	0	0	31	34		
21. Signalization Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
22. Signalization Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
23. Lighting Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
24. Lighting Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
25. Landscape Architecture Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
26. Landscape Architecture Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
27. Survey (Field & Office Support)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
28. Photogrammetry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
29. Mapping	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
30. Geotechnical	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
31. Architecture Development	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
32. Noise Barriers Impact Design Assessment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
33. Intelligent Transportation Systems Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
34. Intelligent Transportation Systems Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
TOTALS	1115	57	112	446	502	0	0	0	0	0	0	0	0	1,117	1,229		

Notes:
 1. This worksheet provides the distribution of the grand total staff hours for a project.
 2. Percentages for staff hour distribution by classification are entered below in rows 56 to 84 of this sheet.
 3. Total Staff Hours (column P) may not match staff hours from Summary worksheet (column C) due to rounding. Staff hours calculated for employee classifications are to be adjusted so totals in columns C and P match.
 4. Formulas under "Total Staff Hours Range" (columns P & Q) may be adjusted to provide desired range.
 5. This spreadsheet to be provided in Technical Proposals for Districts that require a breakdown of hours by classification.

Field Survey Estimate:
 0 4-man crew days (Prime Consultant) 1,117 | 1,229

Form Revised 3/28/05

ESTIMATE OF WORK EFFORT FOR TECHNICAL PROPOSALS - GRAND TOTAL

Financial Project Number: 250548-4-52-01

Project Name South Roosevelt Blvd

FAP Number: N/A

Date: 8/26/2013

Name of Consultant: Metric Engineering

Staff Hour Distribution Percentages - Grand Total														
	Hours from "Summary" sheet Grand Total	Chief Engineer	Project Manager	Sr. Engineer	CADD	Staff Classification 5	Staff Classification 6	Staff Classification 7	Staff Classification 8	Staff Classification 9	Staff Classification 10	Staff Classification 11	Staff Classification 12	Total
3. Project General and Project Common Tasks	292	5.0%	10.0%	40.0%	45.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.00%
4. Roadway Analysis	492	5.0%	10.0%	40.0%	45.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.00%
5. Roadway Plans	155	5.0%	10.0%	40.0%	45.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.00%
6. Drainage Analysis	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%
7. Utilities	40	5.0%	10.0%	40.0%	45.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.00%
8. Environmental Permits, Compliance & Clearances	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%
9. Structures - Misc. Tasks, Dwgs, Non-Tech.	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%
10. Structures - Bridge Development Report	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%
11. Structures - Temporary Bridge	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%
12. Structures - Short Span Concrete Bridge	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%
13. Structures - Medium Span Concrete Bridge	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%
14. Structures - Structural Steel Bridge	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%
15. Structures - Segmental Concrete Bridge	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%
16. Structures - Movable Span	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%
17. Structures - Retaining Walls	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%
18. Structures - Miscellaneous	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%
19. Signing & Pavement Marking Analysis	106	5.0%	10.0%	40.0%	45.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.00%
20. Signing & Pavement Marking Plans	30	5.0%	10.0%	40.0%	45.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.00%
21. Signalization Analysis	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%
22. Signalization Plans	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%
23. Lighting Analysis	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%
24. Lighting Plans	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%
25. Landscape Architecture Analysis	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%
26. Landscape Architecture Plans	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%
27. Survey (Field & Office Support)	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%
28. Photogrammetry	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%
29. Mapping	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%
30. Geotechnical	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%
31. Architecture Development	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%
32. Noise Barriers Impact Design Assessment	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%
33. Intelligent Transportation Systems Analysis	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%
34. Intelligent Transportation Systems Plans	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%

Note: This spreadsheet to be used in Technical Proposal for Districts requiring the Grand Total hours be provided along with percentage distribution by classification.

ESTIMATE OF WORK EFFORT AND COST - PRIME CONSULTANT

Name of Project: South Roosevelt Blvd
 County: Monroe
 FPN: 250548-4-52-01
 FAP No.: N/A

Consultant Name: Metric Engineering
 Consultant No.: enter consultants proj. number
 Date: 8/26/2013
 Estimator: insert name

Staff Classification	Hours From "SH Summary - Firm"	Chief Engineer	Project Manager	Sr. Engineer	CADD	Staff Classification 5	Staff Classification 6	Staff Classification 7	Staff Classification 8	Staff Classification 9	Staff Classification 10	Staff Classification 11	Staff Classification 12	SH By Activity	Salary Cost By Activity	Average Rate Per Task
		\$57.68	\$41.34	\$43.27	\$22.26	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			
3. Project General and Project Common Tasks	292	15	29	117	131	0	0	0	0	0	0	0	0	292	\$10,043	\$34.39
4. Roadway Analysis	492	25	49	197	221	0	0	0	0	0	0	0	0	492	\$16,911	\$34.37
5. Roadway Plans	155	8	16	62	70	0	0	0	0	0	0	0	0	156	\$5,364	\$34.38
6. Drainage Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
7. Utilities	40	2	4	16	18	0	0	0	0	0	0	0	0	40	\$1,374	\$34.34
8. Environmental Permits, Compliance & Clearances	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
9. Structures - Misc. Tasks, Dwg, Non-Tech.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
10. Structures - Bridge Development Report	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
11. Structures - Temporary Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
12. Structures - Short Span Concrete Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
13. Structures - Medium Span Concrete Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
14. Structures - Structural Steel Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
15. Structures - Segmental Concrete Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
16. Structures - Movable Span	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
17. Structures - Retaining Walls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
18. Structures - Miscellaneous	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
19. Signing & Pavement Marking Analysis	106	5	11	42	48	0	0	0	0	0	0	0	0	106	\$3,629	\$34.24
20. Signing & Pavement Marking Plans	30	2	3	12	14	0	0	0	0	0	0	0	0	31	\$1,070	\$34.52
21. Signalization Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
22. Signalization Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
23. Lighting Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
24. Lighting Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
25. Landscape Architecture Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
26. Landscape Architecture Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
27. Survey (Field & Office Support)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
28. Photogrammetry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
29. Mapping	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
30. Geotechnical	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
31. Architecture Development	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
32. Noise Barriers Impact Design Assessment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
33. Intelligent Transportation Systems Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
34. Intelligent Transportation Systems Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
Total Staff Hours	1,115	57	112	446	502	0	0	0	0	0	0	0	0	1,117		
Total Staff Cost		\$3,287.76	\$4,630.08	\$19,298.42	\$11,174.52	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$38,390.78	\$34.37

Survey Field Days by Subconsultant
 4 - Person Crew:

Notes:

- This sheet to be used by Prime Consultant to calculate the Grand Total fee.
- Manually enter fee from each subconsultant. Unused subconsultant rows may be hidden.

Misc Galed
 8/26/2013

SALARY RELATED COSTS:			\$38,390.78
OVERHEAD:	228.86%		\$87,861.14
OPERATING MARGIN:	27%		\$10,365.51
FCCM (Facilities Capital Cost Money):	0.70%		\$267.20
EXPENSES:	0.00%		\$0.00
Survey (Field - if by Prime)	0	4-man crew days @ \$ - / day	\$0.00
SUBTOTAL ESTIMATED FEE:			\$136,884.63
Subconsultant: BCC			\$7,760.00
Subconsultant: MG Vera			\$78,509.21
Subconsultant: Sub 3			\$0.00
Subconsultant: Sub 4			\$0.00
Subconsultant: Sub 5			\$0.00
Subconsultant: Sub 6			\$0.00
Subconsultant: Sub 7			\$0.00
Subconsultant: Sub 8			\$0.00
SUBTOTAL ESTIMATED FEE:			\$223,153.84
Geotechnical Field and Lab Testing			\$0.00
SUBTOTAL ESTIMATED FEE:			\$223,153.84
Optional Services			\$0.00
GRAND TOTAL ESTIMATED FEE:			\$223,153.84

Check = \$38,390.78

Project Activity 3: Project Common and Project General Tasks

Estimator:
Updated 080818

South Roosevelt Blvd
250548-4-52-01

Task No.	Task	Units	No of Units	Hours/ Unit	Total Hours	Comments
3.1	Public Involvement					
3.1.1	Community Awareness Plan	LS	1	16	16	
3.1.2	Notifications	LS	1	0	0	
3.1.3	Prepare Mailing Lists	LS	1	0	0	
3.1.4	Median Modification Letters	LS	1	0	0	
3.1.5	Driveway Modification Letters	LS	1	0	0	
3.1.6	Newsletters	LS	1	0	0	
3.1.7	Renderings and Fly Throughs	LS	1	0	0	
3.1.8	PowerPoint Presentation	LS	1	0	0	
3.1.9	Public Meeting Preparations	LS	1	48	48	Two public Meetings (one at beginning and one at end of project - 32 hrs prep first meeting, 16 hrs prep second meeting)
3.1.10	Public Meeting Attendance/Followup	LS	1	32	32	2 people x 2 meetings x 8 hrs per meeting
3.1.11	MPO Meetings	LS	1	0	0	
3.1.12	Web Site	LS	1	0	0	
3.1 Public Involvement Subtotal					96	
3.2	Joint Project Agreements	EA	0	0	0	
3.3	Specifications Package Preparation	LS	1	0	0	
3.4	Contract Maintenance	LS	1	108	108	18 months at 6 hrs/mo; includes EDMS input
3.5	Value Engineering (Multi-Discipline Team) Review	LS	1	0	0	
3.6	Prime Consultant Project Manager Meetings	LS	1	88	88	See listing below

Project Activity 3: Project Common and Project General Tasks

Task No.	Task	Units	No of Units	Hours/ Unit	Total Hours	Comments
3.7	Plans Update	LS	1	0	0	
3.8	Post Design Services	LS	1	0	0	
3.9	Electronic Delivery	LS	1	0	0	
3.10	Other Project General Tasks	LS	1	0	0	
3. Project Common and Project General Tasks Total					292	

3.6 - List of Project Manager Meetings

Roadway Analysis	EA	0	0	0	
Drainage	EA	1	6	6	
Utilities	EA	0	0	0	
Environmental	EA	1	6	6	
Structures	EA	0	0	0	
Signing & Pavement Marking	EA	0	0	0	
Signalization	EA	0	0	0	
Lighting	EA	0	0	0	
Landscape Architecture	EA	0	0	0	
Survey	EA	0	0	0	
Photogrammetry	EA	0	0	0	
ROW & Mapping	EA	2	6	12	
Geotechnical	EA	0	0	0	
Architecture	EA	0	0	0	
Noise Barriers	EA	0	0	0	
ITS Analysis	EA	0	0	0	
Progress Meetings	EA	6	6	36	2 Meetings at FDOT and 1 Meetings at Key West + 3 other meetings
Phase Reviews	EA	3	4	12	Meetings at FDOT
Field Reviews	EA	2	8	16	
Total Project Manager Meetings		15		88	

Project Activity 3: Project Common and Project General Tasks

Task No.	Task	Units	No of Units	Hours/ Unit	Total Hours	Comments
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Notes:

1. If the hours per meeting vary in length (hours) enter the average in the hour/unit column.
2. Do not double count agency meetings between permitting agencies.
3. Project manager meetings are calculated in each discipline sheet and brought forward to column D except for Photogrammetry.

Project Activity 4: Roadway Analysis

Estimator:

South Roosevelt Blvd
250548-4-52-01

Task No.	Task	Units	No of Units	Hours/ Unit	Total Hours	Comments
4.1	Typical Section Package	LS	1	16	16	
4.2	Pavement Design Package	LS	1	40	40	mid-range
4.3	Access Management	LS	1	0	0	
4.4	Horizontal/Vertical Master Design Files	LS	1	120	120	3 submittals: 90%, PS&E, Final. (Upgrade to new microsta/CADD stds)
4.5	Cross Section Design Files	LS	1	80	80	
4.6	Traffic Control Analysis	LS	1	0	0	No Lane Closures anticipated
4.7	Master TCP Design Files	LS	1	32	32	
4.8	Design Variations and Exceptions	LS	1	72	72	3 new variations (3 * 24 hrs), 1 paid in original contract: Bike path, base clearance & border width & curve length design variations
4.9	Design Report	LS	1	0	0	
4.10	Computation Book & Quantities	LS	1	24	24	
4.11	Cost Estimate	LS	1	20	20	
4.12	Technical Special Provisions	LS	1	0	0	
4.13	Other Roadway Analysis	LS	1	0	0	
Roadway Analysis Technical Subtotal					404	
4.14	Field Reviews	LS	1	8	8	1 field reviews x 1 person x 8 hrs
4.15	Technical Meetings	LS	1	30	30	Meetings are listed below
4.16	Quality Assurance/Quality Control	LS	%	5%	20	
4.17	Independent Peer Review	LS	%	0%	0	
4.18	Supervision	LS	%	5%	20	
Roadway Analysis Nontechnical Subtotal					78	
4.19	Coordination	LS	%	2%	10	
4. Roadway Analysis Total					492	

Project Activity 4: Roadway Analysis

Task No.	Task	Units	No of Units	Hours/ Unit	Total Hours	Comments
Technical Meetings						
	Typical Section	EA	0	0	0	
	Pavement	EA	0	0	0	
	Access Management	EA	0	0	0	
	15% Line and Grade	EA	0	0	0	
	Driveways	EA	0	0	0	
	Local Governments (cities, counties, MPO)	EA	0	0	0	
	Work Zone Traffic Control	EA	0	0	0	
	30/60/90/100% Comment Review Meeting:	EA	0	0	0	
	Other Meetings	EA	0	0	0	
	Subtotal Technical Meetings				0	
	Progress Meetings (if required by FDOT)	EA	3	6	18	3 Meetings at FDOT
	Phase Review Meetings	EA	3	4	12	Meetings at FDOT: 90% , PSE, Final
	Total Meetings				30	

Carries to 4.15

Note: Project Manager attendance at progress, phase and field review meetings are manually entered on General Task 3

Project Activity 5: Roadway Plans

Estimator:

South Roosevelt Blvd
250548-4-52-01

Task No.	Task	Scale	Units	No. of Units	Hours/ Unit	No. of Sheets	Total Hours	Comments
5.1	Key Sheet		Sheet	1	4	1	4	
5.2	Summary of Pay Items Including Quantity Input		Sheet	0	0	0	0	
5.3	Drainage Map		Sheet	0	0	0	0	
5.4	Interchange Drainage Map		Sheet	0	0	0	0	
5.5	Typical Section Sheets		Sheet	1	12	1	12	
5.6	General Notes/Pay Item Notes		Sheet	1	8	1	8	
5.7	Summary of Quantities		Sheet	1	8	1	8	
5.8	Box Culvert Data Sheet		Sheet	0	0	0	0	
5.9	Bridge Hydraulics Recommendation Sheets		Sheet	0	0	0	0	
5.10	Summary of Drainage Structures		Sheet	0	0	0	0	
5.11	Optional Pipe/Culvert Material		Sheet	0	0	0	0	
5.12	Project Layout		Sheet	0	0	0	0	
5.13	Plan/Profile Sheet		Sheet	8	4	8	32	
5.14	Profile Sheet		Sheet	0	0	0	0	
5.15	Plan Sheet		Sheet	0	0	0	0	
5.16	Special Profile		Sheet	0	0	0	0	
5.17	Back of Sidewalk Profile Sheet		Sheet	4	6	4	24	
5.18	Interchange Layout Sheet		Sheet	0	0	0	0	
5.19	Ramp Terminal Details (Plan View)		Sheet	0	0	0	0	
5.20	Intersection Layout Details		Sheet	0	0	0	0	

Project Activity 5: Roadway Plans

Task No.	Task	Scale	Units	No. of Units	Hours/ Unit	No. of Sheets	Total Hours	Comments
5.21	Miscellaneous Detail Sheets		Sheet	0	0	0	0	
5.22	Drainage Structure Sheet (Per Structure)		EA	0	0		0	
5.23	Miscellaneous Drainage Detail Sheets		Sheet	0	0	0	0	
5.24	Lateral Ditch Plan/Profile		Sheet	0	0	0	0	
5.25	Lateral Ditch Cross Sections		EA	0	0		0	
5.26	Retention/Detention Ponds Detail Sheet		Sheet	0	0	0	0	
5.27	Retention Pond Cross Sections		EA	0	0		0	
5.28	Cross-Section Pattern Sheet		Sheet	0	0	0	0	
5.29	Roadway Soil Survey Sheet		Sheet	1	1	1	1	
5.30	Cross Sections		EA	50	0.25		13	
5.31	Traffic Control Plan Sheets		Sheet	12	2	12	24	
5.32	Traffic Control Cross Section Sheets		EA	0	0		0	
5.33	Traffic Control Detail Sheets		Sheet	3	3	3	9	
5.34	Utility Adjustment Sheets		Sheet	0	0	0	0	
5.35	Selective Clearing and Grubbing		Sheet	0	0	0	0	
5.36	Erosion Control Plan		Sheet	0	0	0	0	
5.37	SWPPP		Sheet	3	2	3	6	
5.38	Project Control Network Sheet		Sheet	0	0	0	0	
5.39	Environmental Detail Sheets		LS	0	0		0	
5.40	Utility Verification Sheet (SUE Data)		Sheet	0	0	0	0	
Roadway Plans Technical Subtotal						35	141	
5.41	Quality Assurance/Quality Control		LS	%	5%		7	

Project Activity 5: Roadway Plans

Task No.	Task	Scale	Units	No. of Units	Hours/ Unit	No. of Sheets	Total Hours	Comments
5.42	Supervision		LS	%	5%		7	
5. Roadway Plans Total						35	155	

Project Activity 7: Utilities

Estimator:

South Roosevelt Blvd
250548-4-52-01

Task No.	Task	Units	No of Units	Hours/ Unit	Total Hours	Comments
7.1	Kickoff Meeting	LS	1	0	0	
7.2	Identify Existing UAO(s)	LS	1	0	0	By FDOT
7.3	Make Utility Contacts	LS	1	0	0	By FDOT
7.4	Exception Coordination	LS	1	0	0	
7.5	Preliminary Utility Meeting	LS	1	4	4	1 meeting, 1 person, 4 hrs
7.6	Individual/Field Meetings	LS	1	8	8	1 meeting, 1 person, 4 hrs
7.7	Collect and Review Plans and Data from UAO(s)	LS	1	0	0	
7.8	Subordination of Easements Coordination	LS	1	0	0	
7.9	Utility Design Meeting	LS	1	4	4	1 meeting, 1 person, 4 hrs
7.10	Review Utility Markups and Work Schedules, and Processing of Schedules and Agreements	LS	1	16	16	8 companies @ 2 hrs each
7.11	Utility Coordination/Followup	LS	1	8	8	
7.12	Utility Constructability Review	LS	1	0	0	
7.13	Additional Utility Services	LS	1	0	0	
7.14	Processing Utility Work by Highway Contractor (UWHC)	LS	1	0	0	
7.15	Contract Plans to UAO(s)	LS	1	0	0	
7.16	Certification/Close-Out	LS	1	0	0	
7.17	Other Utilities	LS	1	0	0	
7. Utilities Total					40	

Project Activity 7: Utilities

Technical Meetings		
Kickoff	EA	0
Preliminary Meeting	EA	1
Individual UAO Meetings	EA	1
Field Meetings	EA	0
Design Meeting	EA	1
Other Meetings	EA	0
Total Technical Meetings		3

Project Activity 19: Signing and Pavement Marking Analysis

Estimator:

South Roosevelt Blvd
250548-4-52-01

Task No.	Task	Units	No. of Units	Hours/ Units	Total Hours	Comments
19.1	Traffic Data Analysis	LS	1	0	0	
19.2	No Passing Zone Study	LS	1	0	0	
19.3	Reference and Master Design File	LS	1	50	50	Upgrade to new microstation/CADD stds, new ped signs & crosswalks, new signing inventory
19.4	Multi-Post Sign Support Calculations	EA	1	0	0	
19.5	Sign Panel Design Analysis	EA	1	0	0	
19.6	Sign Lighting/Electrical Calculations	EA	1	0	0	
19.7	Quantities	LS	1	8	8	
19.8	Computation Book	LS	1	0	0	
19.9	Cost Estimate	LS	1	8	8	
19.10	Technical Special Provisions	LS	1	0	0	
19.11	Other Signing and Pavement Marking	LS	1	0	0	
Signing and Pavement Marking Analysis Technical Subtotal					66	
19.12	Field Reviews	LS	1	16	16	1 review x 2 people x 8 hours
19.13	Technical Meetings	LS	1	16	16	Meetings are listed below
19.14	Quality Assurance/Quality Control	LS	%	5%	3	
19.15	Independent Peer Review	LS	%	0%	0	
19.16	Supervision	LS	%	5%	3	
Signing and Pavement Marking Analysis Nontechnical Subtotal					38	
19.17	Coordination	LS	%	2%	2	
19. Signing and Pavement Marking Analysis Total					106	

Project Activity 19: Signing and Pavement Marking Analysis

Technical Meetings				
Sign Panel Design	EA	0	0	0
Queue Length Analysis	EA	0	0	0
Local Governments (cities, counties)	EA	0	0	0
Other Meetings	EA	0	0	0
Subtotal Technical Meetings				0
Progress Meetings	EA	1	4	4
Phase Review Meetings	EA	3	4	12
Total Meetings				16

Carries to 19.13

Note: Project Manager attendance at progress, phase and field review meetings are manually entered on General Task 3

Project Activity 20: Signing and Pavement Marking Plans

Estimator:

South Roosevelt Blvd
250548-4-52-01

Task No.	Task	Scale	Units	No of Units	Hours/ Unit	No. of Sheets	Total Hours	Comments
20.1	Key Sheet		Sheet	1	2	1	2	
20.2	Summary of Pay Items Including CES Input		LS	1	0		0	
20.3	Tabulation of Quantities		Sheet	1	6	1	6	
20.4	General Notes/Pay Item Notes		Sheet	1	4	1	4	
20.5	Project Layout		Sheet	0	0	0	0	
20.6	Plan Sheet		Sheet	8	2	8	16	
20.7	Typical Details		EA	0	0		0	
20.8	Guide Sign Worksheet(s)		EA	0	0		0	
20.9	Traffic Monitoring Site		EA	0	0		0	
20.10	Cross Sections		EA	0	0		0	
20.11	Special Service Point Details		EA	0	0		0	
20.12	Special Details		LS	1	0		0	
20.13	Interim Standards		LS	1	0		0	
Signing and Pavement Marking Plans Technical Subtotal						11	28	
20.14	Quality Assurance/Quality Control		LS	%	5%		1	
20.15	Supervision		LS	%	5%		1	
20. Signing and Pavement Marking Plans Total						11	30	

ESTIMATE OF WORK EFFORT AND COST - PRIME CONSULTANT

Name of Project: State Rd. A1A / South Roosevelt Blvd.
 County: Monroe County
 FPN: 250548-4
 FAP No.:

Consultant Name: BCC Engineering, Inc.
 Consultant No.: enter consultants proj. number
 Date: 8/22/2013
 Estimator: Luis Rodriguez, PE

Staff Classification	Total Staff Hours From *SH Summary Firm*	Project Manager	Project Eng.	Staff Engineer	CADD Specialist	Admin.	Staff Classification 6	Staff Classification 7	Staff Classification 8	Staff Classification 9	Staff Classification 10	Staff Classification 11	Staff Classification 12	SH	Salary	Average
														By Activity	Cost By Activity	Rate Per Task
3. Project General Tasks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
4. Roadway Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
5. Roadway Plans	15	2	5	5	4	1	0	0	0	0	0	0	0	17	\$1,660	\$97.65
6. Drainage Analysis	63	6	19	19	16	3	0	0	0	0	0	0	0	63	\$6,100	\$96.83
7. Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
8. Environmental Permits	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
9. Structures - Misc. Tasks, Dwgs, Non-Tech.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
10. Structures - BDR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
11. Structures - Temporary Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
12. Structures - Short Span Concrete	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
13. Structures - Medium Span Concrete	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
14. Structures - Structural Steel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
15. Structures - Segmental Concrete	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
16. Structures - Movable Span	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
17. Structures - Retaining Walls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
18. Structures - Miscellaneous	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
19. Signing & Marking Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
20. Signing & Marking Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
21. Signalization Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
22. Signalization Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
23. Lighting Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
24. Lighting Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
25. Landscape Architecture Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
26. Landscape Architecture Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
27. Survey (Field & Office Support)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
28. Photogrammetry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
29. Mapping	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
30. Geotechnical	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
31. Architecture Development	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
32. Noise Wall Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
Total Staff Hours	78	8	24	24	20	4	0	0	0	0	0	0	0	80		
Total Staff Cost		\$1,080.00	\$2,880.00	\$2,280.00	\$1,300.00	\$220.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$7,760.00	\$97.00

Check = \$7,760.00

Form Revised 3/28/05

Survey Field Days by Subconsultant
 4 - Person Crew:

SALARY RELATED COSTS:

\$7,760.00

SUBTOTAL ESTIMATED FEE:

\$7,760.00

Subconsultant: Sub 1	\$0.00
Subconsultant: Sub 2	\$0.00
Subconsultant: Sub 3	\$0.00
Subconsultant: Sub 4	\$0.00
Subconsultant: Sub 5	\$0.00
Subconsultant: Sub 6	\$0.00
Subconsultant: Sub 7	\$0.00
Subconsultant: Sub 8	\$0.00
Subconsultant: Sub 9	\$0.00
Subconsultant: Sub 10	\$0.00
Subconsultant: Sub 11	\$0.00
Subconsultant: Sub 12	\$0.00

SUBTOTAL ESTIMATED FEE:

\$7,760.00

Geotechnical Field and Lab Testing

\$0.00

SUBTOTAL ESTIMATED FEE:

\$7,760.00

Optional Services

\$0.00

GRAND TOTAL ESTIMATED FEE:

\$7,760.00

Notes:

1. This sheet to be used by Prime Consultant to calculate the Grand Total fee.
2. Manually enter fee from each subconsultant. Unused subconsultant rows may be hidden.

Project Activity 5: Roadway Plans

Estimator:

State Rd. A1A / South Roosevelt Blvd.
250548-4

Task No.	Task	Scale	Units	No. of Units	Hours / Unit	No. of Sheets	Total Hours	Comments
5.1	Key Sheet		Sheet	0	0	0	0	
5.2	Summary of Pay Items-including Quantity Input		Sheet	0	0	0	0	
5.3	Drainage Map		Sheet	0	0	0	0	
5.4	Interchange Drainage Map		Sheet	0	0	0	0	
5.5	Typical Section Sheets		Sheet	0	0	0	0	
5.6	General Notes/Pay Item notes		Sheet	0	0	0	0	
5.7	Summary of Quantities		Sheet	0	0	0	0	
5.8	Box Culvert Data Sheet		Sheet	0	0	0	0	
5.9	Bridge Hydraulics Recommendation Sheets		Sheet	0	0	0	0	
5.10	Summary of Drainage Structures		Sheet	1	4	1	4	
5.11	Optional Pipe/ Culvert Material		Sheet	0	0	0	0	
5.12	Project Layout		Sheet	0	0	0	0	
5.13	Plan/Profile Sheet		Sheet	0	0	0	0	
5.14	Profile Sheet		Sheet	0	0	0	0	
5.15	Plan Sheet		Sheet	0	0	0	0	
5.16	Special Profile		Sheet	0	0	0	0	
5.17	Back of Sidewalk Profile Sheet		Sheet	0	0	0	0	
5.18	Interchange Layout Sheet		Sheet	0	0	0	0	
5.19	Ramp Terminal Details (Plan View)		Sheet	0	0	0	0	
5.20	Intersection Layout Details		Sheet	0	0	0	0	
5.21	Miscellaneous Detail Sheets		Sheet	0	0	0	0	

Project Activity 5: Roadway Plans

Task No.	Task	Scale	Units	No. of Units	Hours / Unit	No. of Sheets	Total Hours	Comments
5.22	Drainage Structure Sheet (per Structure)		EA	20	0.25	20	5	
5.23	Miscellaneous Drainage Detail Sheets		Sheet	1	4	1	4	
5.24	Lateral Ditch Plan/Profile		Sheet	0	0	0	0	
5.25	Lateral Ditch Cross sections		EA	0	0	0	0	
5.26	Retention/Detention Ponds Detail Sheet		Sheet	0	0	0	0	
5.27	Retention Pond Cross Sections		EA	0	0	0	0	
5.28	Cross-section Pattern Sheet		Sheet	0	0	0	0	
5.29	Roadway Soil Survey Sheet		Sheet	0	0	0	0	
5.30	Cross Sections		EA	0	0		0	
5.31	Traffic Control Plan Sheets		Sheet	0	0	0	0	
5.32	Traffic Control Cross Section Sheets		EA	0	0	0	0	
5.33	Traffic Control Detail Sheets		Sheet	0	0	0	0	
5.34	Utility Adjustment Sheets		Sheet	0	0	0	0	
5.35	Selective Clearing and Grubbing		Sheet	0	0	0	0	
5.36	Erosion Control Plan		Sheet	0	0	0	0	
5.37	SWPPP		Sheet	0	0	0	0	
5.38	Project Control Network Sheet		Sheet	0	0	0	0	
5.39	Interim Standards		LS	1	0		0	
5.40	Utility Verification Sheet (SUE data)		Sheet	0	0	0	0	
Roadway Plans Technical Subtotal						22	13	
5.41	Quality Assurance/Quality Control		LS	%	5%		1	
5.42	Supervision		LS	%	5%		1	
5. Roadway Plans Total						22	15	

Project Activity 6: Drainage Analysis

Estimator:
Form Revised 6/6/05

State Rd. A1A / South Roosevelt Blvd.
250548-4

Task No.	Task	Units	No of Units	Hours / Unit	Total Hours	Comments
6.1	Determine Base Clearance Water Elevation	Per Location	0	0	0	
6.2	Pond Siting Analysis and Report	Per Basin	0	0	0	
6.3	Design of Cross Drains	EA	0	0	0	
6.4	Design of Roadway Ditches	Per Ditch Mile	0	0	0	
6.5	Design of Outfalls	EA	0	0	0	
6.6	Design of Stormwater Management Facility (Offsite Pond)	EA	0	0	0	
6.7	Design of Stormwater Management Facility (Roadside Ditch as Linear Pond)	Per System	0	0	0	
6.8	Design of Flood Plain Compensation Area	Per Encroachment	0	0	0	
6.9	Design of Storm Drains	EA	0	0	0	
6.10	Optional Culvert Material	LS	0	0	0	
6.11	French Drain Systems	Per 1000 Feet of French Drain	0	0	0	
6.12	Drainage Wells	EA	0	0	0	
6.13	Drainage Design Documentation Report	LS	1	0	0	
6.14	Preparation of Bridge Hydraulic Report	EA	0	0	0	
6.15	Temporary Drainage Analysis	LS	0	0	0	

Project Activity 6: Drainage Analysis

Task No.	Task	Units	No of Units	Hours / Unit	Total Hours	Comments
6.16	Cost Estimate	LS	1	0	0	
6.17	Technical Special Provisions	LS	1	0	0	
6.18	Other Drainage Analysis	LS	1	56	56	Includes modifications to drainage report to comply with new D6 criteria for presenting information (nodal link diagram), ICPR modeling, name convention, etc. (40 Hours) Review of drainage design to bring up to 2013 standards (16 hours).
Drainage Analysis Technical Subtotal					56	
6.19	Field Reviews	LS	1	0	0	
6.20	Technical Meetings	LS	1	0	0	Meetings are listed below
6.21	Quality Assurance/Quality Control	LS	%	5%	3	
6.22	Independent Peer Review	LS	%	0%	0	
6.23	Supervision	LS	%	5%	3	
Drainage Analysis Nontechnical Subtotal					6	
6.24	Coordination	LS	%	2%	1	
6. Drainage Analysis Total					63	

Technical Meetings

PM Attendance at Meeting Required?

					Yes / No	Number
Base clearance water elevation	EA	0	0	0	no	0
Pond Siting	EA	0	0	0	no	0
Agency	EA	0	0	0	no	0
Local Governments (cities, counties)	EA	0	0	0	no	0
FDOT Drainage	EA	0	0	0	no	0
Other meetings	EA	0	0	0	no	0
Subtotal technical meetings				0		
Progress Meetings (if required by FDOT)	EA	0	0	0		
Phase Review Meetings	EA	0	0	0		

Project manager meetings = **0**

Project Activity 6: Drainage Analysis

Task No.	Task	Units	No of Units	Hours / Unit	Total Hours	Comments
	Total Meetings				0	Carries to Task 3, Project General

Carries to 6.20

Project Information Sheet

Financial Project Identification Number: 250548-4 Federal Aid Project Identification Number: _____

Name of Prime / Subconsultant: Manuel G. Vera & Assoc., Inc. County: Monroe

Project Description: South Roosevelt Blvd. from Sta. 10+00 to Sta. 52+00

Begin Milepost: _____ End Milepost: _____ Project Length: 0.8 Miles

Number of Lanes: 4 Typical Section: Urban (Urban / Rural / Int.) Lane Configuration: Divided (Divided / Undivided)

Project Type: Major (Minor / Major) Access Management Classification: _____ Roadway Classification: _____ (NHS/FIHS/Off Sys.):

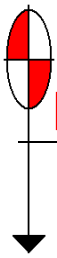
CAP Level: _____ TCP Level: _____ Survey Level: _____

Variances: 1. _____ Exceptions: 1. _____
 2. _____ 2. _____
 3. _____ 3. _____
 4. _____ 4. _____
 5. _____ 5. _____

Proposed Design Contract Time: _____ months

Project Preliminary Design Specifics:

- Roadway _____ <===Roadway Plan Type (Plan/Profile, Plan Only, etc.)
- Drainage _____ <===Number of Drainage Structures
- Utility Coordination _____ <===Number of Effected Utilities
- Structures - Bridges _____ <=== Bridge Structures? (Y/N, number)
- Structures - Retaining Walls _____ <=== Retaining Walls? (Y/N, number)
- Structures - Misc. Structures _____ <=== Miscellaneous Structures? (Y/N, number)
- Permits _____ <===Permits Required (WMD, ACOE, Local Permits, etc.)
- Signing and Pavement Marking _____ <===Signing & Pavement Marking Plans Required? (Y / N)
- Signalization Intersections _____ <===Number of Intersections Requiring Signals:
- Non-Signalized Intersections _____ <===Number of Non-Signalized Intersections
- Traffic Control _____ <===Number of phases requiring detailed phase drawings
- Landscaping _____ <===Landscaping Plans Required? (Y / N)
- Right-of-Way _____ <===Right Of Way Plans Required? (Y / N)
- Lighting _____ <===Lighting Plans Required? (Y / N)
- Architecture _____ <===Architectural Plans Required? (Y / N)
- Geotech _____ <===Geotechnical Consultant Services Required? (Y / N)
- Survey _____ <===Survey Consultant Services Required? (Y / N)
- JPAs _____ <===JPAs Prepared by Consultant? (Y / N, if so how many?)
- Mitigation Plan _____ <===Mitigation Plans Required? (Y / N)
- Noise Barriers _____ <===Noise Walls Plans Required? (Y / N)
- Specifications Package _____ <===Specifications Package to be Prepared by Consultant? (Y / N)



Revised July 29, 2013

Metric Engineering, Inc.
13940 SW 136th Street
Suite 200
Miami, FL 33186

Project: South Roosevelt Blvd.
Monroe County Florida
FM #: 250548-4

Below is our scope of services for the Design Survey of the above referenced project. This scope items are based on Design Survey criteria and are derived from the FDOT Project Activity 27 and 29: Survey Man-Hour spread sheet, attached hereto. In addition to the specific scope items, all work shall be accomplished in accordance with the criteria established by the Departments Highway Field Specifications, Survey Handbook (Survey Procedure Topic No. 550-030-101a) (Chapter 20, sec 23 (3)(a), F.S.), CADD Production Criteria Handbook and must comply with the Minimum Technical Standards for Land Surveyors Rule 5J-17 F.A.C., Florida Statue 472.027, the latest's addition of the District VI Survey Standards and Guidelines and any special instructions.

Project Limits:

South Roosevelt Blvd. from sta. 10+82.01 to sta. 51+97.25.

Design Survey Scope of Services

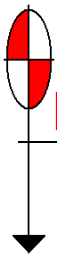
27.01 & 27.02 Horizontal and Vertical Control

Primary control points will be set and established. Horizontal Control will be established on the Florida State Plane Coordinate System, East Zone, and North American Datum (NAD) of 1983 / 1990 Adjustment. Vertical Control will be established on NGVD 1929. Includes analysis and processing of all field-collected data.

Note: PNC sheets will be prepared as part of the Right of Way Control Survey and Maps Scope.

27.03 Survey Baseline

The Historic survey baseline and right of ways will be established as per Department Right of Way Maps, platted and / or dedicated rights of way for South Roosevelt and all intersecting side-streets. Survey baselines will be placed in Topo file, PNC sheet and the survey database. A Geopack .GPK file will be submitted as part of the survey data-base. The beginning and end stations of the Survey baseline will be set along with all PI's, PC's and PT's.



27.06 Topographic Survey & DTM

A new DTM and Topographic Survey will be performed the project area including some the details stated below. All above ground features, improvements, break-lines, high and low points will be located with sufficient density of points (a minimum of a 50-ft. grid will be established) in order to create a DTM. A Micro-station file will be delivered along with Geopack files (tin).

1. Verify existing walls for the entire project area, including top of wall and adjacent sidewalk elevations.
2. Verify and or Locate existing steps to beach, including steps and sidewalk elevations.
3. Extend Topo and DTM survey +/- 50-ft. along all intersecting side-streets.
4. Extend DTM and Topo, including existing wall, 200-ft. east to tie in to project performed by Metric Eng.

27.08 Cross-Sections

Check Sections will be performed to verify the DTM.

27.11 Outfall Survey / Canal Soundings

Locate toe of wall or perform soundings at gap of wall at east end of project. Existing toe of wall exists for +/- 400-ft.

27.12 Drainage Survey

New Drainage structures will be located. The survey will identify the type of structure, rim elevation, pipe invert elevation, pipe materials, direction, size and condition.

Note: In case were structure is full of water and or sediment, MGVA will visit said structures a maximum of 2 visits; if structures is still un-accessible, said structure will be noted as such in survey.

27.19 Sectional Survey & 27.20 Subdivision Locations for Survey Baseline & Right of Way Lines

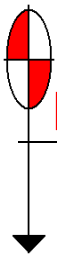
Perform field locations of section corners, 1/4-section corners, and fractional corners as well as block closures, monument lines, etc., in order to establish the Miami – Dade County or public right of way lines and in order to establish survey baseline, right of way lines and complete the right of way control survey.

Right of Way Mapping Scope of Services:

Right of Way Control survey and Right of Way Maps will be prepared in accordance with all applicable DEPARTMENT Manuals, Procedures, Handbooks, and Florida Statutes. The following tasks will be performed and submitted:

Master CADD File

- 29.1 Alignment
- 29.2 Section and 1/4 Section Lines
- 29.3 Subdivisions / Property Lines
- 29.4 Existing Right of Way
- 29.6 Parent Tract Properties / Existing Takes



Sheet Files

- 29.10 Control Survey Cover Sheet
- 29.11 Control Survey Key Sheet
- 29.12 Control Survey Detail Sheet
- 29.13 R/W Map Cover Sheet
- 29.14 R/W Map Survey Key Sheet
- 29.15 R/W Map Survey Detail Sheet

29.22 Parcel Sketches

Prepare parcel sketches (5) for proposed right of way takes, transfers and or easements.

29.29 Legal Descriptions

Prepare legal descriptions (5) to accompany parcel takes, transfers and or easements.

29.28 Title Search Report

Review title searches and prepare report.

Note: Title searches to be performed and provided by FDOT.

Notes:

1. Right of Way Control and Right of Way Map detail sheet will be prepared in 1:40 scale.
2. If additional tasks are required beyond the aforementioned items, MGV will provide an additional fee estimate.
3. A surveyors report will be prepared; signed and sealed copies will be provided for all design survey tasks.

Cost and Man-hour breakdown

Please refer to FDOT Project Activity 27: Survey Man-Hour spreadsheet for our man-hour breakdown and to the FDOT Fee sheet attached here-to.

We look forward to providing our services and please contact me if you have any questions or require additional information.

Sincerely,
Manuel G. Vera & Associates, Inc.

Manuel G. Vera Jr. PSM

ESTIMATE OF WORK EFFORT AND COST - SUBCONSULTANT

Name of Project: South Roosevelt Blvd. from Sta. 10+00 to Sta. 52+00
 County: Monroe
 FPN: 250548-4
 FAP No.:

Consultant Name: Manuel G. Vera & Assoc., Inc.
 Consultant No.: enter consultants proj. number
 Date: 7/29/2013
 Estimator: insert name

Staff Classification	Total Staff Hours From *SH Summary Firm*	Senior Surveyor	Surveyor Mapper	Survey Intern	Cadd/Comp Technician	Survey Technician	Staff Classification 6	Staff Classification 7	Staff Classification 8	Staff Classification 9	Staff Classification 10	Staff Classification 11	Staff Classification 12	SH By Activity	Salary Cost By Activity	Average Rate Per Task
		\$52.00	\$42.00	\$32.00	\$30.90	\$18.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		
3. Project General and Project Common Tasks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
4. Roadway Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
5. Roadway Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
6. Drainage Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
7. Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
8. Environmental Permits, Compliance & Clearances	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
9. Structures - Misc. Tasks, Dwgs, Non-Tech.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
10. Structures - Bridge Development Report	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
11. Structures - Temporary Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
12. Structures - Short Span Concrete Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
13. Structures - Medium Span Concrete Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
14. Structures - Structural Steel Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
15. Structures - Segmental Concrete Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
16. Structures - Movable Span	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
17. Structures - Retaining Walls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
18. Structures - Miscellaneous	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
19. Signing & Pavement Marking Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
20. Signing & Pavement Marking Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
21. Signalization Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
22. Signalization Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
23. Lighting Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
24. Lighting Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
25. Landscape Architecture Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
26. Landscape Architecture Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
27. Survey (Field & Office Support)	195	20	40	40	80	15	0	0	0	0	0	0	0	195	\$6,742	\$34.57
28. Photogrammetry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
29. Mapping	318	30	60	120	84	24	0	0	0	0	0	0	0	318	\$10,948	\$34.43
30. Geotechnical	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
31. Architecture Development	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
32. Noise Barriers Impact Design Assessment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
33. Intelligent Transportation Systems Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
34. Intelligent Transportation Systems Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
Total Staff Hours	513	50	100	160	164	39	0	0	0	0	0	0	0	513		
Total Staff Cost		\$2,600.00	\$4,200.00	\$5,120.00	\$5,067.60	\$702.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$17,689.60	\$34.48

Check = \$17,689.60

SALARY RELATED COSTS:		\$17,689.60
OVERHEAD:	121.13%	\$21,427.41
OPERATING MARGIN:	32.00%	\$5,660.67
FCCM (Facilities Capital Cost Money):	0.424%	\$75.00
EXPENSES:	15.41%	\$2,725.97
SUBTOTAL ESTIMATED FEE:		\$47,578.65
Survey (Field)	31 3-man crew d:	\$ 997.76 / day \$30,930.56
Survey (Field)	0 4-man crew d:	\$ - / day \$0.00
SUBTOTAL ESTIMATED FEE:		\$78,509.21
Optional Services		\$0.00
GRAND TOTAL ESTIMATED FEE:		\$78,509.21

Notes:

1. This sheet to be used by Subconsultant to calculate its fee.

Project Activity 27: Survey
M.G. Vera Assoc., Inc

December 21, 2012

Estimator: Manuel G. Vera Jr.
 FINAL 06/08/10

South Roosevelt Blvd. from Sta. 10+00 to Sta. 52+00
 250548-4

Task No.	Task	Units	No of Units	Field Crew Days/Unit	Crew Days	Field Support Hours / Crew Days	Field Support Hours	Office Support Hours / Crew Days	Office Support Hours	Comments
27.01	Horizontal Project Control (HPC)									
	2-Lane Roadway	Mile			0.00		0.00		0.00	Establish or recover HPNC, for the purpose of establishing horizontal control on the Florida State Plane Coordinate System 83/90.
	Multi-lane Roadway	Mile	1.00	2.00	2.00	1.00	2.00	4.00	8.00	
	Interstate	Mile			0.00		0.00		0.00	
27.02	Vertical PC / Bench Line									
	2-Lane Roadway	Mile			0.00		0.00		0.00	Establish, verify and / or recover existing Vertical Project Network Control (VPNC), for the purpose of establishing vertical control on NAVD 1988 vertical datum.
	Multi-lane Roadway	Mile	1.00	1.00	1.00	1.00	1.00	4.00	4.00	
	Interstate	Mile			0.00		0.00		0.00	
27.03	Alignment and Existing R/W Lines									Establish Historic survey baseline as per Department Right of Way Maps. The beginning and end stations of the Survey baseline will be set along with all PI's, PC's and PT's.
		Mile	1.00	1.00	1.00	1.00	1.00	6.00	6.00	
27.04	Aerial Targets			Units/Day						
	2-Lane Roadway	EA			0.00		0.00		0.00	
	Multi-lane Roadway	EA			0.00		0.00		0.00	
	Interstate	EA			0.00		0.00		0.00	
27.05	Reference Points	"A"		Units/Day						
	2-Lane Roadway	EA			0.00		0.00		0.00	
	Multi-lane Roadway	EA			0.00		0.00		0.00	
	Interstate	EA			0.00		0.00		0.00	
	Reference Points	"B"		Units/Day						
	Non Alignment Points/Approximate	EA			0.00		0.00		0.00	
27.06	Topography/DTM (3D)									Topo/DTM will be performed from R/W to R/W. Survey will extend 50-ft. from radius return on all minor and 300-ft on major intersecting streets. Additional 500-ft. of Topo for MOT purposes at both ends of the
		Mile	1.00	8.00	8.00	1.00	8.00	5.00	40.00	
27.07	Planimetric (2D)									
		Mile			0.00		0.00		0.00	
27.08	Roadway Cross-Sections/Profiles									Check Cross Sections will be performed at 1000-ft intervals
		Mile	1.00	1.00	1.00	1.00	1.00	4.00	4.00	
27.09	Side Street Surveys									
27.10	Underground Utilities									
	Designates	Mile/Site			0.00		0.00		0.00	
	Locates	Point			0.00		0.00		0.00	
	Survey		0%	0.00	0.00		0.00		0.00	
27.11	Outfall Survey									Locate soundings along area of wall gap.
		Mile	1.00	2.00	2.00	1.00	2.00	5.00	10.00	

Project Activity 27: Survey
M.G. Vera Assoc., Inc

December 21, 2012

Task No.	Task	Units	No of Units	Field Crew Days/Unit	Crew Days	Field Support Hours / Crew Days	Field Support Hours	Office Support Hours / Crew Days	Office Support Hours	Comments
27.12	Drainage Survey			Units/Day						Drainage structures will be located. The survey will identify the type of structure, rim elevation, pipe invert elevation, pipe materials, direction, size and condition.
		EA	20.00	20.00	1.00	1.00	1.00	4.00	4.00	
27.13	Bridge Survey									N/A
	Minor / Major	EA			0.00		0.00		0.00	
27.14	Channel Survey									
		EA			0.00		0.00		0.00	
27.15	Pond Site Survey									
		EA			0.00		0.00		0.00	
27.16	Mitigation Survey									
		Mile			0.00		0.00		0.00	
27.17	Jurisdiction Line Survey									
		Mile			0.00		0.00		0.00	
27.18	Geotechnical Support			Units/Day						N/A
		EA			0.00		0.00		0.00	
27.19	Sectional / Grant Survey									Locate section corners as needed in order to establish survey baseline.
		Corner			0.00		0.00		0.00	
		Mile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
27.20	Subdivision Location									Survey subdivisions as needed in order to establish survey baseline.
		Block	10	0.5	5.00	1.00	5.00	4.00	20.00	
27.21	Maintained R/W									
		Mile			0.00		0.00		0.00	
27.22	Boundary Survey									Perform Boundary surveys as needed for Right of Way Control Survey.
		EA	5.00	1.00	5.00	1.00	5.00	4.00	20.00	
27.23	Water Boundary Survey									
		EA			0.00		0.00		0.00	
27.24	R/W Staking / Baseline Line									
		EA			0.00		0.00		0.00	
		Mile			0.00		0.00		0.00	
27.25	R/W Monumentation									
		Point			0.00		0.00		0.00	

Project Activity 27: Survey
M.G. Vera Assoc., Inc

December 21, 2012

Task No.	Task	Units	No of Units	Field Crew Days/Unit	Crew Days	Field Support Hours / Crew Days	Field Support Hours	Office Support Hours / Crew Days	Office Support Hours	Comments
27.26	Line Cutting				0.00					
		Mile								
27.27	Work Zone Safety		27	0.125	3.38					
27.28	Miscellaneous Surveys		1.00	2	2.00	1.00	2.00	4.00	8.00	Travel time
Survey Subtotal				Crew Days	31	Field Support Hours	28	Office Support Hours	124	
27.29	Supplemental Surveys			31	0		0		0	THE % FOR SUPPLEMENTAL WILL BE DETERMINED AT NEGOTIATIONS. THIS ITEM CAN ONLY BE USED IF AUTHORIZED IN WRITING BY THE DISTRICT SURVEYOR
27.30	Document Research	Units	8.00						8	
27.31	Field Reviews	Units	8.00						8	
27.32	Technical Meetings	LS	8.00						8	
27.33	Quality Control / Quality Assurance	LS						5%	6	
27.34	Supervision	LS						5%	9	
27.35	Coordination	LS						3%	4	
27. Survey Total				Crew Days	31	Field Support Hours	28	Office Support Hours	167	

Technical Meetings				
Kickoff Meeting with FDOT	EA	1	2	2
Baseline Approval Review	EA	0	0	0
Network Control Review	EA	0	0	0
Vertical Control Review	EA	0	0	0
Local Governments (cities, counties)	EA	0	0	0
Final Submittal Review	EA	0	0	0
Other Meetings	EA	0	0	0
Subtotal Technical Meetings				2
Progress Meetings	EA	3	2	6
Phase Review Meetings	EA	0	0	0
Total Meetings				8

Carries to 27.32

SPLS =
 PLS =
 Office Support =
 Total Hours = 195

Note: Project Manager attendance at progress, phase and field review meetings are manually entered on General Task 3

Project Activity 29: Mapping

Estimator: Manuel G. Vera Jr.

South Roosevelt Blvd. (Sta. 10+00 to Sta. 52+00)
FM# 250548-4

Task No.	Task	Units	No. of Units	Hours/ Unit	No. of Sheets	Total Hours	Comments
Master CADD File							
29.1	Alignment	Mile	0	0		0	
29.2	Section and 1/4 Section Lines	Section	0	0		0	
29.3	Subdivisions / Property Lines	EA	5	2		10	
29.4	Existing R/W	Mile	0	0		0	
29.5	Topography	Mile	0	0		0	
29.6	Parent Tract Properties/Existing Easements	Parcel	5	4		20	
29.7	Proposed R/W Requirements	Parcel	0	0		0	
29.8	Limits of Construction	Mile	0	0		0	
29.9	Jurisdictional/Agency Lines	Linear Mile	0	0		0	
Sheet Files							
29.10	Control Survey Cover Sheet	Sheet	1	10	1	10	
29.11	Control Survey Key Sheet	Sheet	1	10	1	10	
29.12	Control Survey Detail Sheet	Sheet	5	12	5	60	
29.13	R/W Map Cover Sheet	Sheet	1	10	1	10	
29.14	R/W Map Key Sheet	Sheet	1	10	1	10	
29.15	R/W Map Detail Sheet	Sheet	5	12	5	60	
29.16	Maintenance Map Cover Sheet	Sheet	0	0		0	
29.17	Maintenance Map Key Sheet	Sheet	0	0		0	
29.18	Maintenance Map Detail Sheet	Sheet	0	0		0	
29.19	Reference Point Sheet	Sheet	0	0		0	
29.20	Project Network Control Sheet	Sheet	1	6	2	6	Prepare PNC sheet.
29.21	Table of Ownerships Sheet	Sheet	1	8	1	8	

Project Activity 29: Mapping

Task No.	Task	Units	No. of Units	Hours/ Unit	No. of Sheets	Total Hours	Comments
Miscellaneous							
29.22	Parcel Sketches	Parcel	5	8	30	40	
29.23	TIITF Sketches	Parcel	0	0		0	
29.24	Other Specific Purpose Survey Map	EA	0	0		0	
29.25	Boundary Survey(s) Map	EA	0	0		0	
29.26	R/W Monumentation Map	Mile	0	0		0	
29.27	Title Search Map	LS	0	0		0	
29.28	Title Search Report	LS	5	4		20	Review title searches
29.29	Legal Descriptions	Parcel	5	6		30	
29.30	Final Maps/Plans Comparison	Sheet	0	0		0	
Mapping Technical Subtotal					47	294	
29.31	Field Reviews	LS	0	0		0	
29.32	Technical Meetings	LS	8	0		0	
29.33	Quality Assurance/Quality Control	EA	%	3%		9	
29.34	Supervision	EA	%	3%		9	
Mapping Nontechnical Subtotal						18	
29.35	Coordination	LS	%	2%		6	
29.36	Supplemental Mapping	LS	%	0%		0	
29. Mapping Total					47	318	

Project Activity 29: Mapping

Task No.	Task	Units	No. of Units	Hours/ Unit	No. of Sheets	Total Hours	Comments
Technical Meetings							
	Kickoff meeting	EA	1	2	2		
	Control map review	EA	1	2	2		
	45/60/90/final map review	EA	0	0	0		
	Other meetings	EA	2	2	4		
	Subtotal technical meetings				8		
	Progress Meetings	EA	0	0	0		
	Phase Review Meetings	EA	0	0	0		
	Total Meetings				8		

Carries to 29.32

Note: Project Manager attendance at progress, phase and field review meetings are manually entered on General Task :