

**RESOLUTION NO. 01-04-24**

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MARATHON, FLORIDA APPROVING THE SCOPE OF WORK PROPOSAL FROM CALVIN, GIORDANO & ASSOCIATES TO PREPARE A CITY OF MARATHON GIS (GEOGRAPHICAL INFORMATION SYSTEMS) PARCEL BASE MAP WITH A COORDINATELY ACCURATE AND PRECISE GIS PARCEL BASE MAP CONSISTING OF APPROXIMATELY 7,000 PARCELS TO INCLUDE DELINEATION OF ALL LOTS, TRACTS, PARCELS, RIGHTS-OF-WAYS AND STREET CENTERLINES; AND PROVIDING AN EFFECTIVE DATE.**

WHEREAS, the City Council hereby approves the Scope of Services Proposal from Calvin, Giordano & Associates to prepare a City of Marathon GIS (Geographical Information Systems) Parcel Base Map, which will serve as a base for the development of the new GIS coverages to be created under this scope and will include Existing Land Use, Existing Zoning, identifying each parcel with the unique Parcel ID number, FEMA Flood Zones, Threatened/Endangered Animal Habitats, Marine Turtle Nesting Habitats and Environmental Habitats.

**NOW THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF MARATHON, FLORIDA, AS FOLLOWS:**

**Section 1.** **Recitals.** The above recitals are true and correct and are incorporated herein by this reference.

**Section 2.** **Proposal.** The Proposal for the Scope of Services outlined above to be provided by Calvin, Giordano & Associates, Inc., and attached hereto as Exhibit "A", is hereby approved.

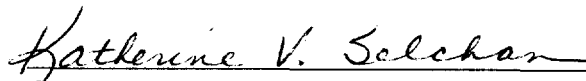
**Section 3.** **Effective Date.** This resolution shall take effect immediately upon adoption.

PASSED AND ADOPTED this 4<sup>th</sup> day of April, 2001.



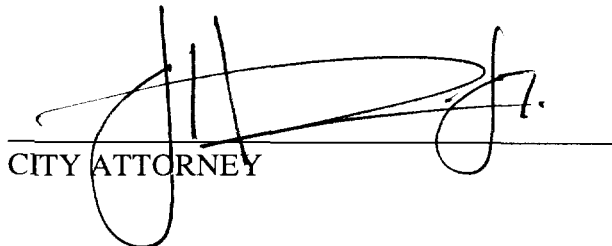
ROBERT MILLER, MAYOR

ATTEST:



CITY CLERK

APPROVED AS TO LEGAL SUFFICIENCY:



CITY ATTORNEY



**Calvin, Giordano & Associates, Inc.**  
**Engineers Surveyors Planners**  
March 29, 2001

Mr. Craig Wrathell  
**City of Marathon**  
P. O. Box 500430  
Marathon, FL 33050

**RE: Geographical Information Systems (GIS) Parcel Base Map  
CG&A Project No. 01-1752**

Dear Mr. Wrathell:

Calvin, Giordano and Associates will provide the City of Marathon a coordinately accurate and precise GIS parcel base map consisting of approximately 7600 parcels. The parcel base map will include the following: delineation of all lots, tracts, parcels, rights-of-ways and street centerlines.

The new GIS Parcel Base Map will serve as a base for the development of the new GIS coverages to be created under this scope. These coverages will include Existing Land Use, Future Land Use, identification of each parcel with the unique Parcel ID number, FEMA Flood Zones, Threatened/Endangered Animal Habitats, Marine Turtle Nesting Habitats and Environmental Habitats.

## **I. SCOPE OF SERVICES**

### **A. Objective: Under this scope of services Calvin, Giordano and Associates will create the following GIS coverages:**

1. Development of a "GIS Parcel Base Map" using information gathered from Florida Department of Transportation (GPS data, rights-of-way maps, field located baseline, right-of-way monumentation) and Monroe County Property Appraiser (tax maps, recorded plats, deeds and data from their existing G.I.S. File). The development of the Parcel Base Map will be created using professional land surveying methodology to ensure accuracy and precision.
2. Development of an "Existing Land Use Classifications" GIS coverage. This GIS coverage will be created from the new Parcel Base Map and will be developed in accordance with the Monroe County Land Use District Maps.

**Reply to:**

✕ 1800 Eller Drive  
Suite 600  
P.O. Box 13141  
Fort Lauderdale, Florida 33316  
(954) 921-7781  
(954) 921-8807 fax

☐ 400 South Australian Avenue  
Suite 855  
West Palm Beach, Florida 33401  
(561) 835-0052  
(561) 835-0076 fax

3. Development of a "Future Land Use" GIS coverage. This GIS coverage will be created from the new Parcel Base Map and will be developed in accordance with the Monroe County Future Land Use Map & Classifications.
4. Attribution all parcels with a "Parcel ID" number (Folio Number). All parcels, lying within the City of Marathon, will be attributed in accordance with the Monroe County Property Appraiser Tax Roll.
5. The "FEMA Flood Zones" will delineate all flood zones in accordance with FEMA data.
6. The "Threatened/Endangered Animal Habitats" coverage will include all locations as shown on the Monroe County "Threatened/Endangered Animal Habitats" Maps.
7. The "Marine Turtle Nesting Habitats" coverage will include all locations as shown on the Monroe County "Marine Turtle Nesting Habitats" Maps.
8. The "Environmental Habitats" coverage will include all locations as shown on the Monroe County "Environmental Habitats" Maps.

**Not included under this Scope of Services is the following:**

1. Field verifications of any Existing Land Use Classifications, Future Land Use Classifications, Parcel ID Attribution, FEMA Flood Zones, Threatened/Endangered Animal Habitats, Marine Turtle Nesting Habitats or Environmental Habitats.
2. Cost breakdown for support to other departments for miscellaneous maps, research or information that will be used in other projects. All GIS support requested by other departments for a specific non-GIS project should be charged to that specific project.
3. Development costs for future applications (intranet or internet), which will be specifically tailored for departmental use.
4. Operations and maintenance costs for all data developed under this scope.

**B. Specifications:**

**"GIS Parcel Base Map"**

Softdesk and ArcINFO will be used for the development of this GIS coverage. Softdesk utilizes modules specifically designed for surveying calculations. ArcINFO utilizes modules, which convert data into GIS

coverage, which use topology and geographical features in a relational database environment.

The primary rights-of-ways will be calculated first. All GPS field data, gathered by FDOT, will be used as reference (tie-down) points for all Rights-of-way calculations. After the primary arterial road (US 1) has been calculated and prorated to GPS points previously collected, the side roads will then be computed.

Once the rights-of-ways have been computed, the task of entering all recorded plat information will begin. All lots and blocks will be added in accordance with all recorded plat documents. If needed, the lot lines, rights-of-way lines and parcel boundary lines will be adjusted to conform with the previously computed major right-of-ways.

After this task, annotation (text) will be added. The annotation included in this scope will be comprised of street names, lot numbers, block numbers and dimensions. (Mean high water property lines will not be annotated)

When all the data has been completed and QA/QC'd, by a PSM (Professional Surveyor and Mapper), it will be imported into the ArcINFO environment. The data will be taken through a conversion process, which involves stringent analysis for possible conversion errors. This critical process will convert the data into a GIS coverage and topology (spatial relationships) will be built allowing for future databases to be the created and attached to each parcel.

#### **“Existing Land Use”**

The new GIS Parcel Base Map will serve as a base for determining the boundaries of the Existing Land Use Classifications. The development of the “Existing Land Use Classifications” GIS coverage will include all lands lying within the Marathon city limits and will be created in accordance with the Monroe County Land Use District Maps. The GIS coverage will include one database item identifying the Land Use classification.

#### **“Future Land Use”**

The new GIS Parcel Base Map will serve as a base for determining the boundaries of the Future Land Use Classifications. The development of the “Future Land Use Classifications” GIS coverage will include all lands lying within the Marathon city limits and will be developed in accordance with the Monroe County Future Land Use Map and Classification Maps. The GIS coverage will include one database item identifying the Future Land Use classification.

**“Parcel ID Numbers”**

All parcels, lying within the Marathon city limits, will be attributed with a “Parcel ID” number (Folio Number). All data attached to each parcel will be in accordance with the Monroe County Property Appraiser Tax Roll. The Property Appraiser’s Tax Maps will be used to identify all existing parcels. The GIS Parcel Base Map will be the GIS coverage used to attach the Parcel ID Number. The GIS coverage will include one database item identifying the Parcel ID number.

**“FEMA Flood Zones”**

All FEMA Flood Zones will be delineated within the Marathon city limits. The GIS coverage will be developed in accordance with current FEMA Flood Zone Data and include two database items identifying the FEMA Flood Zones.

**“Threatened/Endangered Animal Habitats”**

This GIS coverage will include all Threatened/Endangered Animal Habitats locations, within the Marathon city limits, as shown on the Monroe County “Threatened/Endangered Animal Habitats” Maps. GIS database will be limited to two items.

**“Marine Turtle Nesting Habitats”**

This GIS coverage will include all Marine Turtle Nesting Habitats locations, within the Marathon city limits, as shown on the Monroe County “Marine Turtle Nesting Habitats” Maps. GIS database will be limited to two items.

**“Environmental Habitats”**

This GIS coverage will include all Environmental Habitats locations, within the Marathon city limits, as shown on the Monroe County “Environmental Habitats” Maps. GIS database will be limited to two items.

**Deliverable**

The datasets produced will be delivered in ArcINFO 8.xx format, coordinately accurate and precise and in State Plane Coordinates (NAD83/90).

**II. BASIS OF COMPENSATION:**

Compensation for the referenced work will be for an hourly not to exceed fee of \$111,903.00 based on the above scope. Reimbursable expenses of \$5328.00 are included in this fee.

**TIME FRAME**

**GIS Parcel Base Map ..... 90 days**

**GIS Coverage Development ..... 45 days**

Development of the GIS Coverages can begin as portions of the GIS Parcel Base are completed.

**MAN HOURS & COST BREAKDOWN**

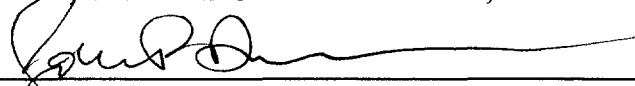
<b>GIS Parcel Base Map</b>	<b>Man Hours</b>	<b>Hourly Rate</b>	<b>Cost</b>
PSM	110	\$80.00	\$ 8,800.00
CADD Technician	1,009	\$55.00	\$55,495.00
Field Crew	40	\$85.00	\$ 3,400.00
GIS Coordinator	80	\$85.00	\$ 6,800.00
GIS Technician	8	\$55.00	\$ 440.00
<b>Total</b>			<b>\$74,935.00</b>

<b>GIS Coverage Development</b>	<b>GIS Coordinator @ 85.00 hr</b>	<b>GIS Technician @ 55.00 hr.</b>	<b>Cost</b>
Existing Land Use	34 hours	102 hours	\$ 8,500.00
Existing Zoning	26 hours	90 hours	\$ 7,160.00
Parcel ID Attribution	56 hours	168 hours	\$14,000.00
FEMA Flood Zones		8 hours	\$ 440.00
Threatened/Endangered Animal Habitats		8 hours	\$ 440.00
Marine Turtle Nesting Habitats		4 hours	\$ 220.00
Environmental Habitats		16 Hours	\$ 880.00
<b>Total</b>			<b>\$31,640.00</b>
<b>Subtotal</b>			<b>\$106,575.00</b>
<b>Expenses at 5% of total contract</b>			<b>\$ 5,328.00</b>
<b>Total</b>			<b>\$111,903.00</b>

**III. APPROVAL**

CALVIN, GIORDANO & ASSOCIATES, INC.

Submitted by: \_\_\_\_\_

  
John P. Downes, Executive Vice President

CITY OF MARATHON

Approved by: \_\_\_\_\_



Date: \_\_\_\_\_

4/4/01

JPD/hp/rb