

**RESOLUTION NO. 01-07-40**

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MARATHON, FLORIDA APPROVING THE SCOPE OF WORK PROPOSAL FROM CALVIN, GIORDANO & ASSOCIATES FOR AERIAL PHOTOGRAPHY AND DIGITAL MAPPING SERVICES TO BE PROVIDED BY SOUTHERN RESOURCE MAPPING TO ENHANCE THE NEW GIS (GEOGRAPHICAL INFORMATION SYSTEMS) BASE MAP WITH A COORDINATELY ACCURATE AND PRECISE GIS PARCEL BASE MAP; AND PROVIDING AN EFFECTIVE DATE.**

**WHEREAS**, the City Council hereby approves the Scope of Services Proposal from Calvin, Giordano & Associates for 50 scale aerial photography and digital mapping for the entire City of Marathon to be provided by Southern Resource Mapping for a total cost of \$72,390.00, and for the purpose of enhancing the new GIS base map and also for upcoming capital improvement projects.

**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.

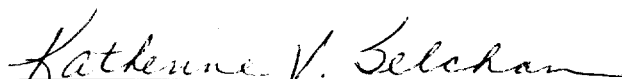
**Section 2.**     **Proposal.**    The Proposal for the Scope of Services outlined above to be provided under Calvin, Giordano & Associates, Inc., and provided by Southern Resource Mapping, is attached hereto as Exhibit "A", is hereby approved.

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

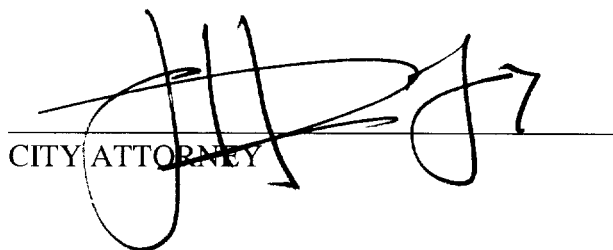
PASSED AND ADOPTED this 10<sup>th</sup> day of July, 2001.

  
ROBERT MILLER, MAYOR

ATTEST:

  
CITY CLERK

APPROVED AS TO LEGAL SUFFICIENCY:

  
CITY ATTORNEY

# Memorandum

**TO:** Mayor, City Council, Commission and City Manager  
**FROM:** Joe Aldacosta, Senior Associate  
**CC:** Nina Boniske and John Herin, City Attorneys  
**DATE:** July 5, 2001  
**RE:** Aerial Photography and Digital Mapping

## **ITEM:**

The purpose of aerial photography and digital mapping provided by Southern Resource Mapping and Calvin, Giordano & Associates, Inc., will be utilized to accurately identify existing facilities within the City of Marathon and will primarily be used for upcoming capital projects. The use of aerial photography and mapping substantially reduces surveying time required in design efforts for the infrastructure projects within the City of Marathon. Once completed, the mapping will be included within our recently completed GIS base map for use by the City of Marathon.

## **BUDGET IMPACT:**

Total cost \$72,390.00 (see cost proposals provided)

## **RECOMMENDATION:**

Approval.

## **STAFF IMPACT:**

The use of aerial photography and digital mapping will generate sufficient information that will be utilized during design phases for the City's infrastructure and, as noted above, will substantially reduce required surveying time for these infrastructure improvements. Funding for these projects will come from the City's infrastructure tax dollars in the current physical year.



**Calvin, Giordano & Associates, Inc.**  
**Engineers Surveyors Planners**

July 2, 2001

Mr. Craig Wrathell  
**City of Marathon**  
10045-55 Overseas Highway  
Marathon, Florida 33050

**RE: Aerial Photography and Digital Mapping**  
**CG&A Project No. 01-1752 extra 2 Rev**

Dear Mr. Wrathell:

**I. SCOPE OF SERVICES**

A. Aerial Photography and Digital Mapping provided by: Southern  
Resource Mapping (see attached proposal)

B. Calvin Giordano & Associates

**Surveying Services**

Field locate aerial targets and picture points to be used by the  
photogrammetric sub-contractor to control the project. Provide necessary  
calculations to provide control coordinates.

**TIME FRAME**

**Survey Control ..... 8 days (from authorization)**  
**Aerial Mapping..... 40 days (from target placement)**

**Reply to:**

☒ 1800 Eller Drive  
Suite 600  
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

### **MAN HOURS & COST BREAKDOWN**

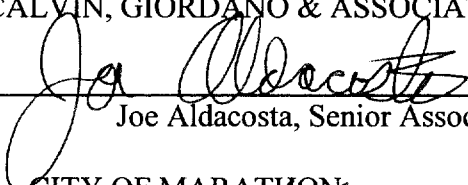
<b>Surveying Services</b>	<b>Man Hours</b>	<b>Hourly Rate</b>	<b>Cost</b>
Project Manager	18	\$80.00	\$1,440.00
G.P.S. Calculations	16	\$70.00	\$1,120.00
Field Crew	60	\$85.00	\$ 5,100.00
<b>Subtotal Survey</b>			<b>\$7,660.00</b>

<b>Subtotal Sub-Contractor</b>			<b>\$64,730.00</b>
<b>Total Cost</b>			<b>\$72,390.00</b>

### **III. APPROVAL**

CALVIN, GIORDANO & ASSOCIATES, INC.

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

  
Joe Aldacosta, Senior Associate

CITY OF MARATHON

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

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

7-10-01

PJA/rb



June 26, 2001

Mr. Joseph Aldacosta, P.S.M.  
**Calvin Giordano & Associates**  
1800 Eller Drive  
Ft. Lauderdale, FL 33316

Subject: Base Mapping of the City of Marathon, Florida  
SRM Estimate: 01-0028R-2

Dear Joe,

Southern Resource Mapping (SRM) is pleased to submit this revised proposal to provide new aerial photography and digital mapping of the above referenced project. This revision reflects changes to SRM's Est. No. 01-0028R-2 dated May 9, 2001 by changing the mapping scale from 1"=100' to 1"=50'. Lower altitude photography will be flown for the increased horizontal accuracy. It will also be used in the production of the digital raster images and will yield better image resolution.

The area depicting the mapping limits is depicted on Enclosure 1. The project starts on the west at the western end of Knight Key and ends at the eastern end of Tom's Harbor at the western end of the bridge. Photography will be flown of Key Colony Beach, but mapping of this area is not included.

## **SCOPE OF WORK**

### Aerial Photography

SRM will obtain new black and white vertical photography of the project area with a precision calibrated RC-30 aerial camera equipped with a 6" focal length lens cone. This camera is also equipped with forward motion compensation (FMC) and a gyro-stabilized suspension mount.

The mapping photography will be flown with a 60% forward overlap at 5000' above ground level, providing a contact negative scale of 1"=600' (1:7200). It will not contain excessive tip, tilt, crab or cloud cover.

One set of 9"x9" contact prints of all photography taken will be provided for your permanent records.

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SRM Est. 01-0028R-5

June 26, 2001

### Ground Control Surveys

Approximately twenty four (24) horizontal control points required for the digital mapping will be required. These locations can be post identified on the new photography or aerial targets can be set prior to acquisition. It is expected that existing FDOT aerial targets may be substituted for as many as 6 control points as long as they have a common coordinate system.

We understand that Calvin Giordano & Assoc (CGA) will be responsible for setting the panels and completing the horizontal and vertical control at no charge to SRM. We request the control survey data be accompanied by a signed and sealed report certified to Florida Minimum Technical Standards under Chapter 61G17-6. The control information and datum supplied by CGA will be the basis for controlling the photography for the digital mapping.

### Analytical Triangulation

SRM will densify and supplement the ground control surveys by performing analytical triangulation of the new photography using our Wild BC-2 instrument, Wild PUG 4 point transfer device and JFK software.

### Digital Mapping

SRM will utilize first order analytical stereo plotters to provide digital mapping at 1"=50' of the project area. This involves data collection of visible planimetric features to include but not limited to the following:

Roof outlines of buildings and other major structures including manufactured housing and trailers, edge of pavement for roads, bridges, drives, sidewalks, bike paths, dirt roads and trails, lakes and shorelines, apparent marsh and conservation areas, docks, seawalls, piers, parks, beaches and major tree groupings.

### CAD Edit

A CAD Edit will be performed to verify and confirm the database contents and layering structure. Please advise SRM if you have a specific layering structure to be used for final delivery.

To assure completeness, a final quality control review will be performed by one of our Florida Registered Surveyor and Mappers.

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SRM Est. 01-0028R-5  
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Translation and delivery of the database will be in AutoCAD 2000 format.

#### Rectified Digital Raster Imagery

Black and white digital raster images will be rectified to the ground planimetric features collected during the stereocompilation phase. Pixel size will be .25 ft. and have an intended display scale at 1"=50'. These images will be windowed into approximately 20 tiles. Delivery will be on CD Rom in .tif format.

#### Deliverables

One set 9"x9" contact prints of the project area.  
Digital mapping at 1"=50' in AutoCAD format  
Black and white rectified raster images at 1"=50'  
Survey and Map Report

#### Accuracy

The mapping will meet or exceed the requirements for the State of Florida's Minimum Technical standards set forth in Chapter 61G17-6. A final signed and sealed Survey and Map Report will be delivered.

#### PROFESSIONAL FEES

New aerial photography with one set of contact prints.....	\$ 6,250.00
Analytical triangulation .....	\$ 5,325.00
Planimetric digital mapping at 1"=50' .....	\$37,275.00
CAD edit and translation.....	\$ 5,320.00
Black and white rectified raster imagery with .25 ft. pixels,.....	\$ 10,560.00
Total	\$ 64,730.00



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Delivery Schedule

All products are expected to be delivered within 90 days after receipt of acceptable ground control surveys or completion of the aerial photography, whichever is the later. Should you require a more expeditious delivery, please call. We will then review our current production schedule so that we may accommodate your requirements.

Payment Terms

SRM will invoice monthly in accordance with percent complete. Payment terms are 30 days. SRM reserves the right to charge 1.5% per month (18% per annum) on all past due accounts.

Authorization

If this proposal letter is acceptable, please have an authorized representative sign the acceptance block below. If it is not, please inform SRM of your desired revisions so that a revised proposal may be presented to you.

Sincerely,  
Southern Resource Mapping

  
Joseph Ricka, PSM  
President

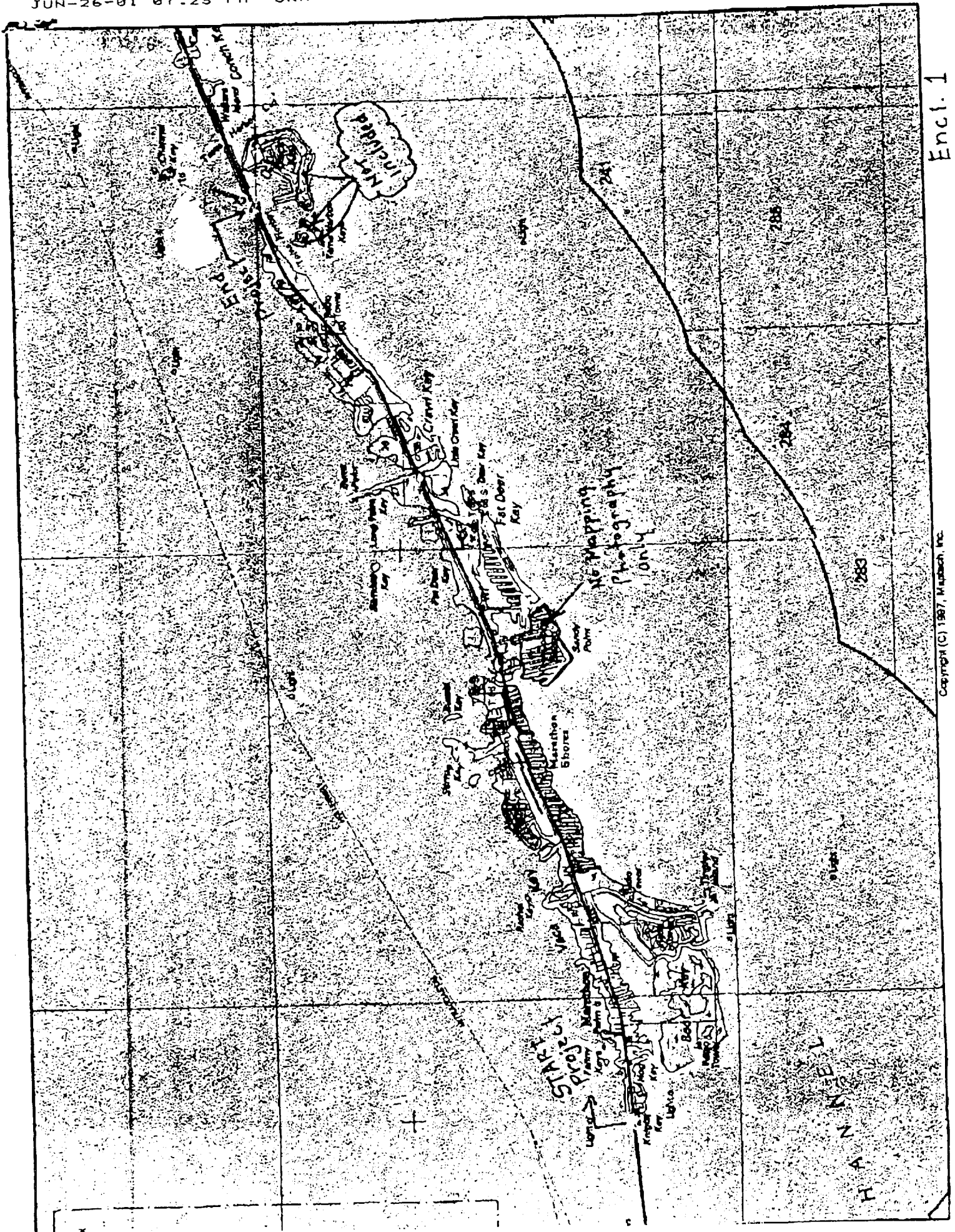
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SIGNATURE

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Encl. 1