

RESOLUTION NO. 02-11

A RESOLUTION OF THE TOWN COUNCIL OF THE TOWN OF MIAMI LAKES, FLORIDA APPROVING THE PROJECT AGREEMENT BETWEEN KIMLEY-HORN AND ASSOCIATES, INC. AND THE TOWN OF MIAMI LAKES FOR PREPARATION OF THE TOWN'S LOCAL FLOOD MITIGATION STRATEGY PLAN; AUTHORIZING THE TOWN MANAGER TO EXECUTE THE AGREEMENT ON BEHALF OF THE TOWN; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, the Town of Miami Lakes (the "Town") has retained the services of Kimley-Horn and Associates, Inc. as Town engineer; and

WHEREAS, the Town Council finds that approval of the project agreement between the Town and Kimley-Horn and Associates, Inc. for preparation of the Town's Local Flood Mitigation Strategy Plan is in the best interest of the Town.

NOW, THEREFORE, BE IT RESOLVED BY THE TOWN COUNCIL OF THE TOWN OF MIAMI LAKES, FLORIDA, AS FOLLOWS:

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

**Section 2.**    The Project Agreement between Kimley-Horn and Associates, Inc. and the Town of Miami Lakes to prepare the Town's Local Flood Mitigation Strategy Plan (the "Agreement"), a copy of which is attached as Exhibit "A," together with such non-material changes as may be acceptable to the Town Manager and approved as to form and legality by the Town Attorney, is approved.

**Section 3.**    The Town Manager is authorized to execute the Agreement on behalf of the Town.

**Section 4. Effective Date.** This Resolution shall be effective immediately upon adoption.

PASSED AND ADOPTED this 11<sup>th</sup> day of June, 2002.

Wayne Slaton  
WAYNE SLATON, MAYOR

ATTEST:

Beatris M. Arguelles  
BEATRIS M. ARGUELLES, CMC  
TOWN CLERK

APPROVED AS TO LEGAL SUFFICIENCY:

W B O  
WEISS, SEROTA, HELFMAN, PASTORIZA & GUEDES, P.A.  
TOWN ATTORNEY

Council voted _____ as follows:	
Mayor Wayne Slaton	_____
Vice Mayor Roberto Alonso	_____
Councilmember Mary Collins	_____
Councilmember Robert Meador	_____
Councilmember Michael Pizzi	_____
Councilmember Nancy Simon	_____
Councilmember Peter Thomson	_____

**PROJECT AGREEMENT**

Between

TOWN OF MIAMI LAKES, FLORIDA

And

KIMLEY-HORN AND ASSOCIATES, INC.

for

Work Authorization No. 02-02

PREPARATION OF LOCAL FLOOD MITIGATION STRATEGY PLAN

PROJECT AGREEMENT

Between

THE TOWN OF MIAMI LAKES, FLORIDA

And

KIMLEY-HORN AND ASSOCIATES, INC.

For

Work Authorization No. 02-02

PREPARATION OF LOCAL FLOOD MITIGATION STRATEGY PLAN

Pursuant to the provisions contained in the "Continuing Services Agreement" between the TOWN OF MIAMI LAKES, FLORIDA (the "TOWN") and KIMLEY-HORN AND ASSOCIATES, INC., ("CONSULTANT") dated May 14, 2002 this Project Agreement authorizes the CONSULTANT to provide the services as set forth below.

The TOWN and CONSULTANT agree as follows:

**SECTION 1. SCOPE OF SERVICES**

1.1 The CONSULTANT shall provide engineering services to the TOWN for the Project as described in the "Project Description" attached as Exhibit "1" to this Project Agreement.

1.2 The "Scope of Services and Project Schedule" and tasks to be provided by the CONSULTANT for this Project are those services and tasks as listed in Exhibit "1" attached to this Project Agreement.

1.3 The TOWN may request changes that would increase, decrease, or otherwise modify the Scope of Services. Such changes must be contained in a written change order executed by the parties in accordance with the provisions of the Continuing Services Agreement, prior to any deviation from the terms of the Project Agreement, including the initiation of any extra work.

**SECTION 2. DELIVERABLES**



2.1 As part of the Scope of Services and Project Schedule, the CONSULTANT shall provide to the TOWN the Deliverables for each task set forth in Exhibit "1" by no later than the time frames established and set forth in the contract between the Town and the South Florida Water Management District dated April 22, 2002, Contract Number C-13159.

### **SECTION 3. TERM/TIME OF PERFORMANCE/DAMAGE**

3.1 **Term.** This Project Agreement shall commence on the date this instrument is fully executed by all parties and shall continue in full force and effect, unless otherwise terminated pursuant to Section 4 or other applicable provisions of this Project Agreement. The Town Manager, in his sole discretion, may extend the term of this Agreement through written notification to the CONSULTANT. Such extension shall not exceed 30 days. No further extensions of this Agreement shall be effective unless authorized by the TOWN Council.

3.2 **Commencement.** The CONSULTANT'S services under this Project Agreement and the time frames applicable to this Project Agreement shall commence upon the date provided in a written Notification of Commencement ("Commencement Date") provided to the CONSULTANT from the TOWN. The CONSULTANT shall not incur any expenses or obligations for payment to third parties prior to the issuance of the Notification of Commencement. CONSULTANT must receive written notice from the Town Manager prior to the beginning the performance of services.

3.3 **Contract Time.** Upon receipt of the Notification of Commencement, the CONSULTANT shall commence services to the TOWN on the Commencement Date, and shall continuously perform services to the TOWN, without interruption, in accordance with the time frames set forth in the "Project Schedule," a copy of which is attached and incorporated into this Agreement as Exhibit "1", and in accordance with the time frames established and set forth in the contract between the Town and the South Florida Water Management District dated April 22, 2002, Contract Number C-13159. The number of calendar days from the Commencement Date, through the date set forth in the Project Schedule for completion of the Project or the date of actual completion of the Project, whichever shall last occur, shall constitute the Contract Time. Time is of the essence.

3.4 **Liquidated Damages.** Unless otherwise excused by the TOWN in writing, in the event that the CONSULTANT fails to meet to the contract time for completion of services as determined by the Project Schedule, the CONSULTANT shall pay to the TOWN the sum of dollars identified below per day for each and every calendar day unexcused delay beyond the completion date, plus approved time extensions, until completion of the project: \$0.00 per day. The CONSULTANT may claim extension if the factors involved are not under their direct control.

Any sums due and payable hereunder by the CONSULTANT shall be payable, not as a penalty, but as liquidated damages representing and estimate at or before the time of executing this Agreement. When the TOWN reasonably believes that completion will be inexcusably delayed, the TOWN shall be entitled, but not required, to withhold from any

amounts otherwise due the CONSULTANT an amount then believed by the TOWN to be adequate to recover liquidated damages applicable to such delays. If and when the CONSULTANT overcomes the delay in achieving completion, or any part thereof, for which the TOWN has withheld payment, the TOWN shall promptly release to the CONSULTANT those funds withheld, but no longer applicable, as liquidated damages.

3.5 All limitations of time set forth in this Agreement are of the essence.

#### **SECTION 4. AMOUNT, BASIS AND METHOD OF COMPENSATION**

4.1 **Lump Sum Compensation.** TOWN agrees to pay CONSULTANT as compensation for performance of all services described in Exhibit "1" the total amount of \$150,500.00.

4.2 **Reimbursable Expenses.** The following expenses are reimbursable at their actual cost: travel and accommodations, long distance telephone calls, facsimile, courier services, mileage (at a rate approved by the TOWN), photo and reproduction services. All document reproductions are also reimbursable, at a rate approved by the TOWN.

#### **SECTION 5. BILLING AND PAYMENTS TO THE CONSULTANT**

##### **5.1 Invoices**

5.1.1 **Lump Sum Compensation and Reimbursable Expenses.** CONSULTANT shall submit invoices which are identified by the specific project number 02-02 on a monthly basis in a timely manner. These invoices shall identify the nature of the work performed, the phase of work, and the estimated percent of work accomplished in accordance with the Payment Schedule set forth in Exhibit "1" to this Project Agreement. Invoices for each phase shall not exceed amounts allocated to each phase of the Project plus reimbursable expenses accrued during each phase. The statement shall show a summary of fees with accrual of the total and credits for portions previously paid by the TOWN. The TOWN shall pay CONSULTANT within thirty (30) calendar days of approval by the Town Manager of any invoices submitted by CONSULTANT to the TOWN.

5.2 **Disputed Invoices.** In the event that all or a portion of an invoice submitted to the TOWN for payment to the CONSULTANT is disputed, or additional backup documentation is required, the TOWN shall notify the CONSULTANT within fifteen (15) working days of receipt of the invoice of such objection, modification or additional documentation request. The CONSULTANT shall provide the TOWN with additional backup documentation within five (5) working days of the date of the TOWN'S notice. The TOWN may request additional information, including but not limited to, all invoices, time records, expense records, accounting records, and payment records of the CONSULTANT. The TOWN, at its sole discretion, may pay to the CONSULTANT the undisputed portion of the invoice. The parties shall endeavor to resolve the dispute in a mutually agreeable fashion.

5.3 **Suspension of Payment.** In the event that the TOWN becomes credibly informed that any representations of the CONSULTANT, provided pursuant to Subparagraph 5.1, are wholly or partially inaccurate, or in the event that the CONSULTANT is not in compliance with any term or condition of this Project Agreement, the TOWN may withhold payment of sums then or in the future otherwise due to the CONSULTANT until the inaccuracy, or other breach of Project Agreement, and the cause thereof, is corrected to the TOWN's reasonable satisfaction.

5.4 **Retainage.** The TOWN reserves the right to withhold retainage in the amount of ten percent (10%) of any payment due to the CONSULTANT until the project is completed. Said retainage may be withheld at the sole discretion of the Town Manager and as security for the successful completion of the CONSULTANT'S duties and responsibilities under the Project Agreement.

5.5 **Final Payment.** Submission of the CONSULTANT'S invoice for final payment and reimbursement shall constitute the CONSULTANT'S representation to the TOWN that, upon receipt from the TOWN of the amount invoiced, all obligations of the CONSULTANT to others, including its consultants, incurred in connection with the Project, shall be paid in full. The CONSULTANT shall deliver to the TOWN all documents requested by the TOWN evidencing payments to any and all subcontractors, and all final specifications, plans, or other documents as dictated in the Scope of Services and Deliverable. Acceptance of final payment shall constitute a waiver of any and all claims against the TOWN by the CONSULTANT.

## **SECTION 6. TERMINATION/SUSPENSION**

6.1 **For Cause.** This Project Agreement may be terminated by either party upon five (5) calendar days written notice to the other party should the other party fail substantially to perform in accordance with its material terms through no fault of the party initiating the termination. In the event that CONSULTANT abandons this Project Agreement or causes it to be terminated by the TOWN, the CONSULTANT shall indemnify the TOWN against any loss pertaining to this termination. In the event that the CONSULTANT is terminated by the TOWN for cause and it is subsequently determined by a court of competent jurisdiction that such termination was without cause, such termination shall thereupon be deemed a termination for convenience under Section 6.2 of this Project Agreement and the provision of Section 6.2 shall apply.

6.2 **For Convenience.** This Project Agreement may be terminated by the TOWN for convenience upon fourteen (14) calendar days' written notice to the CONSULTANT. In the event of termination, the CONSULTANT shall incur no further obligations in connection with the Project and shall, to the extent possible, terminate any outstanding subconsultant obligations. The CONSULTANT shall be compensated for all services performed to the satisfaction of the TOWN and for reimbursable expenses incurred prior to the date of termination. The CONSULTANT shall promptly submit its invoice for final payment and reimbursement and the invoice shall comply with the provisions of Paragraph 5.1 of this Project Agreement. Under no

circumstances shall the TOWN make any payment to the CONSULTANT for services which have not been performed.

6.3 **Assignment upon Termination.** Upon termination of this Project Agreement, a copy of all of the CONSULTANT's work product shall become the property of the TOWN and the CONSULTANT shall, within ten (10) working days of receipt of written direction from the TOWN, transfer to either the TOWN or its authorized designee, a copy of all work product in its possession, including but not limited to designs, specifications, drawings, studies, reports and all other documents and data in the possession of the CONSULTANT pertaining to this Project Agreement. Further, upon the TOWN'S request, the CONSULTANT shall assign its rights, title and interest under any subcontractor's agreements to the TOWN.

6.4 **Suspension for Convenience.** The TOWN shall have the right at any time to direct the CONSULTANT to suspend its performance, or any designated part thereof, for any reason whatsoever or without reason, for a cumulative period of up to thirty (30) calendar days. If any such suspension is directed by the TOWN, the CONSULTANT shall immediately comply with same. In the event the TOWN directs a suspension of performance as provided for herein through no fault of the CONSULTANT, the TOWN shall pay to the CONSULTANT its reasonable costs, actually incurred and paid, of demobilization and remobilization, as full compensation for any such suspension.

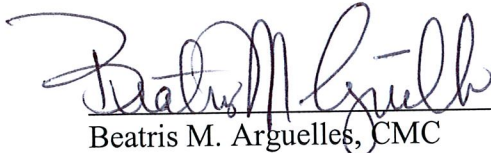
**SECION 7. INCORPORATION OF TERMS AND CONDTIONS OF CONTINUING SERVICE AGREEMENT**

7.1 This Project Agreement incorporates the terms and conditions set forth in the Continuing Services Agreement dated May 14, 2002 between the parties as though fully set forth herein. In the event that any terms or conditions of this Project Agreement conflict with the Continuing Services Agreement, the provisions of this specific Project Agreement shall prevail and apply.

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ATTEST:

TOWN OF MIAMI LAKES

  
Beatris M. Arguelles, CMC  
Town Clerk

By:   
Dennis White, Town Manager

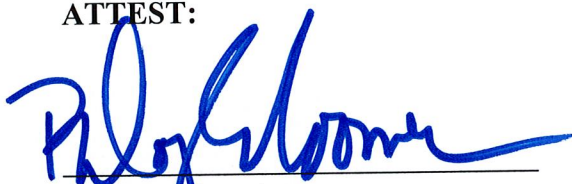
Date: 07/11/02

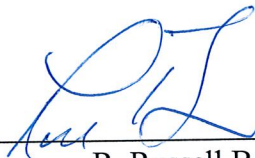
APPROVED AS TO FORM:

  
Town Attorney

ATTEST:

KIMLEY-HORN AND ASSOCIATES, INC.

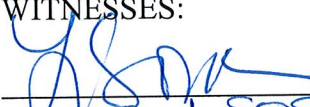
  
Assistant Secretary  
B. Poodas Coomer  
Please type name of Assistant Secretary


By:   
R. Russell Barnes, III, P.E.  
Vice President

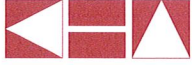
Date: 7/11/02

(CORPORATE SEAL)

WITNESSES:

  
Print Name: L SOSA

  
Print Name: Heather Spencer



Kimley-Horn  
and Associates, Inc.

"Exhibit 1"

June 5, 2002

■  
Suite 157  
5100 N.W. 33rd Avenue  
Ft. Lauderdale, Florida  
33309

Mr. Dennis J. White  
Town Manager  
Town of Miami Lakes  
6853 Main Street  
Miami Lakes, Florida 33014

***Re: Local Flood Mitigation Strategy Proposal***

Dear Mr. White:

In accordance with our general services agreement, Kimley-Horn and Associates, Inc. (KHA) is pleased to submit this proposal to the Town of Miami Lakes (TOWN) for providing consulting and engineering services to prepare a local flood mitigation strategy plan.

There are five separate tasks that this proposal will address regarding the TOWN's local flood mitigation strategy project. The tasks are as follows:

1. Project initiation and management.
2. Initiate a storm water utility.
3. Joining the Community Rating System (CRS).
4. Data compilation.
5. Develop a Storm Water Management Master Plan.

**BACKGROUND**

The TOWN's Storm Water Plan is funded by the 2001/2002 legislature General Appropriation Act funds from the Florida Department of Environmental Protection (FDEP) through Special Appropriation 1747A to support the development of Local (Flood) Mitigation Strategies (LMS) in Miami-Dade County. These funds are administered through the South Florida Water Management District (DISTRICT) and dispersed and managed at the local level.

The TOWN was incorporated in December 2000. Miami-Dade County currently operates all storm water management improvements and programs. To address flood protection activities for its residents, critical issues exist when creating a storm water utility, a Storm Water Management Master Plan, and joining federal flood insurance programs.

As provided for in Chapter 403.0891 F. S. and Chapter 24-61 of the Miami-Dade County Code, and to address environmental protection and adequate flood





protection, the TOWN has approved the establishment and implementation of a Storm Water Utility and the development of a Storm Water Management Master Plan. In addition to protecting the environmental quality of its many lakes, the primary objective of establishing the Utility is to address the flooding that occurs in the TOWN.

This proposed scope of services, schedule and fee are outlined below.

## **SCOPE OF SERVICES**

### **Task 1 – Project Initiation and Management**

The purpose of this task is to initiate the project including identifying project protocols and establishing the necessary coordination between the ENGINEER and TOWN staff. The ENGINEER will conduct a project Kick-off meeting after receiving notice to proceed from the TOWN. One of the objectives of this meeting is to introduce TOWN staff members and the ENGINEER's key team members who will be involved during the project. At this meeting, information will be obtained about previous storm water management efforts and experiences, particularly those relative to historic flooding within the TOWN. The meeting will address the project schedule, coordination requirements, project goals, and project objectives so that a Project Management Plan can be developed. The ENGINEER will prepare and distribute minutes of the kick-off meeting.

Up to four (4) coordination meetings will be required between the TOWN and the ENGINEER throughout the duration of the project. During these coordination meetings, we would recommend that the DISTRICT representative be invited to attend and participate.

Deliverables:

- 1.1 Kickoff meeting and 4 coordination meetings
- 1.2 Project schedule
- 1.3 Minutes for each meeting
- 1.4 Project Management Plan (defined in first paragraph of Task 1)

### **Task 2 – Initiate a Storm Water Utility**

To initiate the storm water utility there are several issues that the TOWN must address. The effort to successfully initiate the storm water utility will be a joint effort between the Town Administration, Town Attorney, and the ENGINEER. The steps to initiate the storm water utility are summarized below and were taken from a memorandum from the Town Attorney:



1. Adopt a resolution requesting exemption from the Miami-Dade County Storm Water Utility.
2. Request an exemption from the County's application in order to establish the Town's Storm Water Utility.
3. Miami-Dade County Commission must adopt a resolution approving the exemption requested by the TOWN.
4. Adopt an ordinance creating the Town of Miami Lakes Storm Water Utility.
5. Adopt an ordinance establishing the Storm Water Utility rate.
6. Authorize a method for collecting the Storm Water Utility fee.

The ENGINEER will facilitate a kick-off meeting to strategize with Town Administration and the Town Attorney regarding the six elements noted above. The overall intent of the storm water utility development will be to utilize the assessment methodology and rate as developed by Miami-Dade County. Additionally, the collection of the storm water fee will be through Miami-Dade County.

The ENGINEER will provide input into the wording of the resolution requesting exemption from the Miami-Dade County Storm Water Utility.

The ENGINEER will attend a meeting with Miami-Dade County to discuss the exemption from the County's utility. The intent of the meeting is to obtain concurrence with County staff/administration regarding the exemption.

The ENGINEER will attend the Miami-Dade County Commission meeting and provide technical input to the presentation requesting the exemption of the TOWN from the County Utility.

The ENGINEER will provide input into the wording of the resolution to create the Town of Miami Lakes Storm Water Utility.

The ENGINEER will provide input into the method of collecting the storm water utility fee. It is the intent that one of the options provided by the County will be utilized.

The ENGINEER will provide a Storm Water Utility Management Report to outline the development of a Storm Water Utility. The report will contain the elements and information as outlined above in this task. All issues associated with the fee associated with the storm water utility will be addressed by others and incorporated into the report. One set of comments from both the Town and DISTRICT will be addressed as part of this task.





Deliverable:

## 2.1 Storm Water Utility Management Report

### **Task 3 – Joining the Community Rating System (CRS)**

ENGINEER shall evaluate and document the impacts the proposed improvements may have relative to the National Flood Insurance Program's Community Rating System (CRS). A summary memorandum will be prepared and formatted so that it may be used by the TOWN as support to improve its current CRS rating. ENGINEER shall coordinate with TOWN regarding re-certification relative to CRS program.

Deliverable:

## 3.1 Summary Memorandum

### **Task 4 – Data Collection**

The ENGINEER will collect and evaluate readily available information for the development of the Storm Water Management Master Plan. The data collection will be limited to the TOWN'S corporate limits and offsite areas that directly. Types of data that may be collected by the ENGINEER include:

1. Comprehensive Plan (provided by TOWN as available)
2. Previous Storm Water Management Plans and Reports (to be obtained from various entities)
3. NPDES Permit information and data (from Miami-Dade County and TOWN)
4. TOWN ordinances, regulations or guidelines for storm water management (from TOWN)
5. Storm Water management and land use Geographic Information System (GIS) coverage (from Miami-Dade County, and SFWMD)
6. Storm Water management infrastructure data such as canal locations and cross sections, catch basin locations, outfall locations, pipe sizes/inverts, drainage basin boundaries, etc. (from TOWN and drainage districts)
7. Land use and impervious area data (from various sources)
8. Soil characteristics (from various sources including SFWMD GIS)
9. Design and record drawings of completed or proposed storm water management/drainage projects (from TOWN, Miami-Dade County, and local drainage districts)



10. Citizen complaint reports/Public Works Department Work Orders (from TOWN and Miami-Dade County)
11. Records of storm water management problem areas (from Miami-Dade County)
12. Data relative to local drainage district systems (from drainage district)

ENGINEER will prepare a brief memorandum summarizing the data collected to support the development of the Storm Water Management Plan. This memorandum will also include identification of additional data needs, if any, to complete the Plan. This task does not include physically collecting field data such as topographic surveys or geotechnical testing.

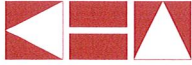
As part of this task the ENGINEER will perform a field inventory of the TOWN owned and operated primary and secondary storm water system within the TOWN limits to develop a Storm Water Database. This inventory will be limited to identifying and logging a total of 200 storm water structures or facilities. The ENGINEER will meet with the TOWN to discuss a standard naming convention and standard field inventory data collection sheets for the storm water facilities. At this meeting, the ENGINEER will make recommendations regarding development of the storm water database.

It is likely that some structures or facilities will not be inventoried during this task. The intent of this task is to collect data for those primary facilities which must be evaluated in order to analyze the floodplain, and to provide the TOWN with the procedures, field data sheets, database and GIS coverage to allow for continued fieldwork (by the TOWN or ENGINEER).

Mapping protocol will also be determined at this meeting, including the base map to be used and the level of mapping precision for facility locations. The mapping will be compatible with the TOWN's mapping system, and the database will be in Microsoft ACCESS or comparable software. Using the agreed upon format and information, the ENGINEER will input the data from the field inventory data sheets into the database as a separate GIS coverage. The information entered into the field data sheets and database will be limited to available field data collected above and sources such as as-built drawings, TOWN Atlas sheets, and Miami-Dade County District and FDOT data.

Based upon the information collected in this task and the mapping that is developed as part of this task, a basin and sub-basin delineation map will be produced. The intent of this map will be to delineate the drainage basins within the limits of the TOWN. Based on the information





collected above. In the future, the TOWN may consider updating this map with additional survey information.

Deliverables:

- 4.1 Data Collection memorandum
- 4.2 Structure naming convention
- 4.3 Field inventory of storm water facilities
- 4.4 Database setup and entry
- 4.5 GIS coverage of storm water facilities (Drainage Atlas)
- 4.6 Basin/Sub-Basin Delineation on Drainage Map

### **Task 5 – Storm Water Management Master Plan**

The result of this task is to develop a Storm Water Management Master Plan Report that utilizes the services performed and information collected in Tasks 2, 3, and 4. The ENGINEER will meet with the TOWN to identify the content and organization of the Storm Water Management Plan Report. This task will be conducted in the following three sub-tasks.

- 5.1 Existing Problems/Needs Assessment
- 5.2 Hydrologic/Hydraulic Modeling
- 5.3 Summary of Needed Improvements/Capital Improvements Plan (CIP)

#### **5.1 Existing Problems/Needs Assessment**

The ENGINEER will meet with the TOWN Staff to review storm water complaints, identify the locations of storm water problem areas and collect information relative to problem nature, and severity. Once these areas have been identified, an exhibit will be created depicting the storm water problem areas for up to fifteen locations within the TOWN. This exhibit will be provided to the TOWN for review and it will be modified once to incorporate comments. Some problems will be of routine nature and will lend themselves to straightforward, conceptual solutions. Other problems will be more complex and will require more detailed analyses (including hydrologic/hydraulic modeling). For scoping purposes, we have assumed two drainage basins will require this detailed analysis. In general terms, these more complex basins that require modeling include a primary conveyance system and multiple secondary and tertiary systems that are tributary to the primary system.

The ENGINEER will investigate up to 15 "problem areas" and develop a conceptual flooding mitigation solution and preliminary costs for each. Two basins are assumed to require more detailed analysis. If more than



two of the problem areas (basins) are complex enough to require modeling Hydrologic/Hydraulic to evaluate them, the ENGINEER will provide the TOWN with an estimate for the anticipated extent and cost of the additional study and analysis services.

The ENGINEER will use information gathered in previous Tasks, including the field investigation, and then meet with the Town Manager to rank the problem. Once numerically ranked, the ENGINEER will segregate the list into high priority, medium and low priority groups.

## **5.2 Hydrologic/Hydraulic Modeling**

The ENGINEER will develop a hydrologic/hydraulic (H/H) storm water model to evaluate the two highest ranked problem areas/basins which require a modeling study. The selection of the two basins will be approved by the TOWN before proceeding with detailed analyses. All storm water facilities within a problem area basin may not be included in the model if they are not required to evaluate the area.

The ENGINEER will develop hydrologic and hydraulic storm water models for the two selected basins using SWMM or another model acceptable to the DISTRICT and the TOWN. Typical data required for these models include:

- Stage/Storage relationships
- Time of Concentration
- Soils Infiltration/Storage
- Impervious Areas
- Curve Number/Runoff Coefficient
- Storm Water Facility Information
- Rainfall Data
- Flow Data

The ENGINEER will review the TOWN's proposed level of service criteria and compare them to DISTRICT, Miami-Dade County, drainage district, and neighboring municipality requirements. Based upon the findings, ENGINEER shall make recommendations to retain existing level of service criteria or modify as necessary.

The design level of service goal for each problem area/basin will be coordinated with the TOWN. The ENGINEER will execute the model for the 5- and 10-year, 24hour storm events, and 25-, and 100-year, 72-hour storm events, and- will tabulate the water surface elevations at selected nodes. Model input and results of existing condition model will be reviewed with TOWN prior to proceeding with modeling of alternative solutions.



Utilizing the H/H model The ENGINEER will evaluate two alternative solutions for each of the two-selected problem areas/basins. The recommended improvements may include both structural and nonstructural controls to address the storm water management problems identified.

### **5.3 Summary of Needed Improvements/Capital Improvements Plan (CIP)**

Utilizing the results of the above outlined sub tasks, the ENGINEER will summarize the improvements that are needed to upgrade the level of service for the TOWN's storm water system. This task will be summarized in a prioritized manner and will address the opinion of probable cost associated with each improvement.

The TOWN's CIP will be presented in a spreadsheet format. Each project will be outlined with a description and corresponding budget outlined for each project. A brief summary of each project will be included as the CIP.

Upon completion of the above noted sub tasks, the ENGINEER will prepare and distribute draft copies of the Storm Water Management Master Plan Report to the TOWN. The ENGINEER will meet with the TOWN to present the contents of the report.

The ENGINEER will incorporate TOWN's comments and will prepare and submit ten copies of a second draft of the Storm Water Management Master Plan Report for the TOWN staff to provide to the TOWN Council. The ENGINEER will incorporate comments from the TOWN Council and submit 10 copies of the final Storm Water Management Master Plan Report. One set of comments from the TOWN and DISTRICT will be incorporated into the final report.

Deliverables:

- 5.1 Draft Reports
- 5.2 Ten Second Draft Reports
- 5.3 Ten Final Reports

### **Task 6 – Additional Services**

Upon authorization the ENGINEER will provide any additional services that may required beyond these described in Tasks 1 through 5. These services may include but not limited to such items as the following:





1. Additional Meetings
2. Additional Hydraulic Modeling
3. Field Surveying
4. Construction Documents

### SCHEDULE

We will provide these services as expeditiously as possible to meet the schedule outlined in the agreement between the TOWN and the South Florida Water Management District.

### FEES

Our proposed lump sum fee for the above noted services is as outlined below:

Task 1 - Project Initiation and Management	\$5,000
Task 2 – Initiation of a Storm Water Utility	\$12,500
Task 3 – Joining the CRS	\$5,000
Task 4 – Data Collection	\$65,000
Task 5 – Storm Water Master Plan	\$63,000
 Total	 \$150,500

If you concur with the scope of services and fee and wish to direct us to proceed with the aforementioned services, please execute a work authorization and forward to me for signature.

We look forward to serving you on this project. Please call me with any questions.

Very truly yours,

KIMLEY HORN AND ASSOCIATES, INC.

R. Russell Barnes, P.E.  
Vice President



Kimley-Horn  
and Associates, Inc.

June 5, 2002

■  
Suite 100  
14750 N.W. 77th Court  
Miami Lakes, Florida  
33016

Mr. Dennis J. White  
Town Manager  
Town of Miami Lakes  
6853 Main Street  
Miami Lakes, Florida 33014

***Re: Local Flood Mitigation Strategy Proposal***

Dear Mr. White:

In accordance with our general services agreement, Kimley-Horn and Associates, Inc. (KHA) is pleased to submit this proposal to the Town of Miami Lakes (TOWN) for providing consulting and engineering services to prepare a local flood mitigation strategy plan.

There are five separate tasks that this proposal will address regarding the TOWN's local flood mitigation strategy project. The tasks are as follows:

1. Project initiation and management.
2. Initiate a storm water utility.
3. Joining the Community Rating System (CRS).
4. Data compilation.
5. Develop a Storm Water Management Master Plan.

**BACKGROUND**

The TOWN's Storm Water Plan is funded by the 2001/2002 legislature General Appropriation Act funds from the Florida Department of Environmental Protection (FDEP) through Special Appropriation 1747A to support the development of Local (Flood) Mitigation Strategies (LMS) in Miami-Dade County. These funds are administered through the South Florida Water Management District (DISTRICT) and dispersed and managed at the local level.

The TOWN was incorporated in December 2000. Miami-Dade County currently operates all storm water management improvements and programs. To address flood protection activities for its residents, critical issues exist when creating a storm water utility, a Storm Water Management Master Plan, and joining federal flood insurance programs.

As provided for in Chapter 403.0891 F. S. and Chapter 24-61 of the Miami-Dade County Code, and to address environmental protection and adequate flood

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TEL 305 827 0588  
FAX 305 827 5776

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protection, the TOWN has approved the establishment and implementation of a Storm Water Utility and the development of a Storm Water Management Master Plan. In addition to protecting the environmental quality of its many lakes, the primary objective of establishing the Utility is to address the flooding that occurs in the TOWN.

This proposed scope of services, schedule and fee are outlined below.

### **SCOPE OF SERVICES**

#### **Task 1 – Project Initiation and Management**

The purpose of this task is to initiate the project including identifying project protocols and establishing the necessary coordination between the ENGINEER and TOWN staff. The ENGINEER will conduct a project Kick-off meeting after receiving notice to proceed from the TOWN. One of the objectives of this meeting is to introduce TOWN staff members and the ENGINEER's key team members who will be involved during the project. At this meeting, information will be obtained about previous storm water management efforts and experiences, particularly those relative to historic flooding within the TOWN. The meeting will address the project schedule, coordination requirements, project goals, and project objectives so that a Project Management Plan can be developed. The ENGINEER will prepare and distribute minutes of the kick-off meeting.

Up to four (4) coordination meetings will be required between the TOWN and the ENGINEER throughout the duration of the project. During these coordination meetings, we would recommend that the DISTRICT representative be invited to attend and participate.

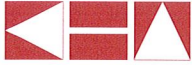
Deliverables:

- 1.1 Kickoff meeting and 4 coordination meetings
- 1.2 Project schedule
- 1.3 Minutes for each meeting
- 1.4 Project Management Plan (defined in first paragraph of Task 1)

#### **Task 2 – Initiate a Storm Water Utility**

To initiate the storm water utility there are several issues that the TOWN must address. The effort to successfully initiate the storm water utility will be a joint effort between the Town Administration, Town Attorney, and the ENGINEER. The steps to initiate the storm water utility are summarized below and were taken from a memorandum from the Town Attorney:





1. Adopt a resolution requesting exemption from the Miami-Dade County Storm Water Utility.
2. Request an exemption from the County's application in order to establish the Town's Storm Water Utility.
3. Miami-Dade County Commission must adopt a resolution approving the exemption requested by the TOWN.
4. Adopt an ordinance creating the Town of Miami Lakes Storm Water Utility.
5. Adopt an ordinance establishing the Storm Water Utility rate.
6. Authorize a method for collecting the Storm Water Utility fee.

The ENGINEER will facilitate a kick-off meeting to strategize with Town Administration and the Town Attorney regarding the six elements noted above. The overall intent of the storm water utility development will be to utilize the assessment methodology and rate as developed by Miami-Dade County. Additionally, the collection of the storm water fee will be through Miami-Dade County.

The ENGINEER will provide input into the wording of the resolution requesting exemption from the Miami-Dade County Storm Water Utility.

The ENGINEER will attend a meeting with Miami-Dade County to discuss the exemption from the County's utility. The intent of the meeting is to obtain concurrence with County staff/administration regarding the exemption.

The ENGINEER will attend the Miami-Dade County Commission meeting and provide technical input to the presentation requesting the exemption of the TOWN from the County Utility.

The ENGINEER will provide input into the wording of the resolution to create the Town of Miami Lakes Storm Water Utility.

The ENGINEER will provide input into the method of collecting the storm water utility fee. It is the intent that one of the options provided by the County will be utilized.

The ENGINEER will provide a Storm Water Utility Management Report to outline the development of a Storm Water Utility. The report will contain the elements and information as outlined above in this task. All issues associated with the fee associated with the storm water utility will be addressed by others and incorporated into the report. One set of comments from both the Town and DISTRICT will be addressed as part of this task.



Deliverable:

## 2.1 Storm Water Utility Management Report

### **Task 3 – Joining the Community Rating System (CRS)**

ENGINEER shall evaluate and document the impacts the proposed improvements may have relative to the National Flood Insurance Program's Community Rating System (CRS). A summary memorandum will be prepared and formatted so that it may be used by the TOWN as support to improve its current CRS rating. ENGINEER shall coordinate with TOWN regarding re-certification relative to CRS program.

Deliverable:

## 3.1 Summary Memorandum

### **Task 4 – Data Collection**

The ENGINEER will collect and evaluate readily available information for the development of the Storm Water Management Master Plan. The data collection will be limited to the TOWN'S corporate limits and offsite areas that directly. Types of data that may be collected by the ENGINEER include:

1. Comprehensive Plan (provided by TOWN as available)
2. Previous Storm Water Management Plans and Reports (to be obtained from various entities)
3. NPDES Permit information and data (from Miami-Dade County and TOWN)
4. TOWN ordinances, regulations or guidelines for storm water management (from TOWN)
5. Storm Water management and land use Geographic Information System (GIS) coverage (from Miami-Dade County, and SFWMD)
6. Storm Water management infrastructure data such as canal locations and cross sections, catch basin locations, outfall locations, pipe sizes/inverts, drainage basin boundaries, etc. (from TOWN and drainage districts)
7. Land use and impervious area data (from various sources)
8. Soil characteristics (from various sources including SFWMD GIS)
9. Design and record drawings of completed or proposed storm water management/drainage projects (from TOWN, Miami-Dade County, and local drainage districts)





10. Citizen complaint reports/Public Works Department Work Orders (from TOWN and Miami-Dade County)
11. Records of storm water management problem areas (from Miami-Dade County)
12. Data relative to local drainage district systems (from drainage district)

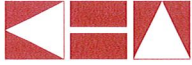
ENGINEER will prepare a brief memorandum summarizing the data collected to support the development of the Storm Water Management Plan. This memorandum will also include identification of additional data needs, if any, to complete the Plan. This task does not include physically collecting field data such as topographic surveys or geotechnical testing.

As part of this task the ENGINEER will perform a field inventory of the TOWN owned and operated primary and secondary storm water system within the TOWN limits to develop a Storm Water Database. This inventory will be limited to identifying and logging a total of 200 storm water structures or facilities. The ENGINEER will meet with the TOWN to discuss a standard naming convention and standard field inventory data collection sheets for the storm water facilities. At this meeting, the ENGINEER will make recommendations regarding development of the storm water database.

It is likely that some structures or facilities will not be inventoried during this task. The intent of this task is to collect data for those primary facilities which must be evaluated in order to analyze the floodplain, and to provide the TOWN with the procedures, field data sheets, database and GIS coverage to allow for continued fieldwork (by the TOWN or ENGINEER).

Mapping protocol will also be determined at this meeting, including the base map to be used and the level of mapping precision for facility locations. The mapping will be compatible with the TOWN's mapping system, and the database will be in Microsoft ACCESS or comparable software. Using the agreed upon format and information, the ENGINEER will input the data from the field inventory data sheets into the database as a separate GIS coverage. The information entered into the field data sheets and database will be limited to available field data collected above and sources such as as-built drawings, TOWN Atlas sheets, and Miami-Dade County District and FDOT data.

Based upon the information collected in this task and the mapping that is developed as part of this task, a basin and sub-basin delineation map will be produced. The intent of this map will be to delineate the drainage basins within the limits of the TOWN. Based on the information



collected above. In the future, the TOWN may consider updating this map with additional survey information.

Deliverables:

- 4.1 Data Collection memorandum
- 4.2 Structure naming convention
- 4.3 Field inventory of storm water facilities
- 4.4 Database setup and entry
- 4.5 GIS coverage of storm water facilities (Drainage Atlas)
- 4.6 Basin/Sub-Basin Delineation on Drainage Map

### **Task 5 – Storm Water Management Master Plan**

The result of this task is to develop a Storm Water Management Master Plan Report that utilizes the services performed and information collected in Tasks 2, 3, and 4. The ENGINEER will meet with the TOWN to identify the content and organization of the Storm Water Management Plan Report. This task will be conducted in the following three sub-tasks.

- 5.1 Existing Problems/Needs Assessment
- 5.2 Hydrologic/Hydraulic Modeling
- 5.3 Summary of Needed Improvements/Capital Improvements Plan (CIP)

#### **5.1 Existing Problems/Needs Assessment**

The ENGINEER will meet with the TOWN Staff to review storm water complaints, identify the locations of storm water problem areas and collect information relative to problem nature, and severity. Once these areas have been identified, an exhibit will be created depicting the storm water problem areas for up to fifteen locations within the TOWN. This exhibit will be provided to the TOWN for review and it will be modified once to incorporate comments. Some problems will be of routine nature and will lend themselves to straightforward, conceptual solutions. Other problems will be more complex and will require more detailed analyses (including hydrologic/hydraulic modeling). For scoping purposes, we have assumed two drainage basins will require this detailed analysis. In general terms, these more complex basins that require modeling include a primary conveyance system and multiple secondary and tertiary systems that are tributary to the primary system.

The ENGINEER will investigate up to 15 "problem areas" and develop a conceptual flooding mitigation solution and preliminary costs for each. Two basins are assumed to require more detailed analysis. If more than





two of the problem areas (basins) are complex enough to require modeling Hydrologic/Hydraulic to evaluate them, the ENGINEER will provide the TOWN with an estimate for the anticipated extent and cost of the additional study and analysis services.

The ENGINEER will use information gathered in previous Tasks, including the field investigation, and then meet with the Town Manager to rank the problem. Once numerically ranked, the ENGINEER will segregate the list into high priority, medium and low priority groups.

## **5.2 Hydrologic/Hydraulic Modeling**

The ENGINEER will develop a hydrologic/hydraulic (H/H) storm water model to evaluate the two highest ranked problem areas/basins which require a modeling study. The selection of the two basins will be approved by the TOWN before proceeding with detailed analyses. All storm water facilities within a problem area basin may not be included in the model if they are not required to evaluate the area.

The ENGINEER will develop hydrologic and hydraulic storm water models for the two selected basins using SWMM or another model acceptable to the DISTRICT and the TOWN. Typical data required for these models include:

- Stage/Storage relationships
- Time of Concentration
- Soils Infiltration/Storage
- Impervious Areas
- Curve Number/Runoff Coefficient
- Storm Water Facility Information
- Rainfall Data
- Flow Data

The ENGINEER will review the TOWN's proposed level of service criteria and compare them to DISTRICT, Miami-Dade County, drainage district, and neighboring municipality requirements. Based upon the findings, ENGINEER shall make recommendations to retain existing level of service criteria or modify as necessary.

The design level of service goal for each problem area/basin will be coordinated with the TOWN. The ENGINEER will execute the model for the 5- and 10-year, 24hour storm events, and 25-, and 100-year, 72-hour storm events, and- will tabulate the water surface elevations at selected nodes. Model input and results of existing condition model will be reviewed with TOWN prior to proceeding with modeling of alternative solutions.



Utilizing the H/H model The ENGINEER will evaluate two alternative solutions for each of the two-selected problem areas/basins. The recommended improvements may include both structural and nonstructural controls to address the storm water management problems identified.

### **5.3 Summary of Needed Improvements/Capital Improvements Plan (CIP)**

Utilizing the results of the above outlined sub tasks, the ENGINEER will summarize the improvements that are needed to upgrade the level of service for the TOWN's storm water system. This task will be summarized in a prioritized manner and will address the opinion of probable cost associated with each improvement.

The TOWN's CIP will be presented in a spreadsheet format. Each project will be outlined with a description and corresponding budget outlined for each project. A brief summary of each project will be included as the CIP.

Upon completion of the above noted sub tasks, the ENGINEER will prepare and distribute draft copies of the Storm Water Management Master Plan Report to the TOWN. The ENGINEER will meet with the TOWN to present the contents of the report.

The ENGINEER will incorporate TOWN's comments and will prepare and submit ten copies of a second draft of the Storm Water Management Master Plan Report for the TOWN staff to provide to the TOWN Council. The ENGINEER will incorporate comments from the TOWN Council and submit 10 copies of the final Storm Water Management Master Plan Report. One set of comments from the TOWN and DISTRICT will be incorporated into the final report.

Deliverables:

- 5.1 Draft Reports
- 5.2 Ten Second Draft Reports
- 5.3 Ten Final Reports

### **Task 6 – Additional Services**

Upon authorization the ENGINEER will provide any additional services that may required beyond these described in Tasks 1 through 5. These services may include but not limited to such items as the following:



1. Additional Meetings
2. Additional Hydraulic Modeling
3. Field Surveying
4. Construction Documents

### SCHEDULE

We will provide these services as expeditiously as possible to meet the schedule outlined in the agreement between the TOWN and the South Florida Water Management District.

### FEES

Our proposed lump sum fee for the above noted services is as outlined below:

Task 1 - Project Initiation and Management	\$5,000
Task 2 - Initiation of a Storm Water Utility	\$12,500
Task 3 - Joining the CRS	\$5,000
Task 4 - Data Collection	\$65,000
Task 5 - Storm Water Master Plan	\$63,000
Total	\$150,500

If you concur with the scope of services and fee and wish to direct us to proceed with the aforementioned services, please execute a work authorization and forward to me for signature.

We look forward to serving you on this project. Please call me with any questions.

Very truly yours,

KIMLEY-HORN AND ASSOCIATES, INC.

R. Russell Barnes, P.E.  
Vice President





RESOLUTION NO. 02-77

A RESOLUTION OF THE TOWN COUNCIL OF THE TOWN OF MIAMI LAKES, FLORIDA APPROVING THE PROJECT AGREEMENT BETWEEN KIMLEY-HORN AND ASSOCIATES, INC. AND THE TOWN OF MIAMI LAKES FOR PREPARATION OF THE TOWN'S LOCAL FLOOD MITIGATION STRATEGY PLAN; AUTHORIZING THE TOWN MANAGER TO EXECUTE THE AGREEMENT ON BEHALF OF THE TOWN; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, the Town of Miami Lakes (the "Town") has retained the services of Kimley-Horn and Associates, Inc. as Town engineer; and

WHEREAS, the Town Council finds that approval of the project agreement between the Town and Kimley-Horn and Associates, Inc. for preparation of the Town's Local Flood Mitigation Strategy Plan is in the best interest of the Town.

NOW, THEREFORE, BE IT RESOLVED BY THE TOWN COUNCIL OF THE TOWN OF MIAMI LAKES, FLORIDA, AS FOLLOWS:

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

**Section 2.**    The Project Agreement between Kimley-Horn and Associates, Inc. and the Town of Miami Lakes to prepare the Town's Local Flood Mitigation Strategy Plan (the "Agreement"), a copy of which is attached as Exhibit "A," together with such non-material changes as may be acceptable to the Town Manager and approved as to form and legality by the Town Attorney, is approved.

**Section 3.**    The Town Manager is authorized to execute the Agreement on behalf of the Town.

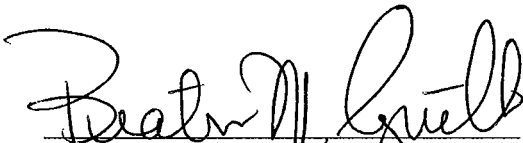


**Section 4. Effective Date.** This Resolution shall be effective immediately upon adoption.

PASSED AND ADOPTED this 11<sup>th</sup> day of June, 2002.

  
\_\_\_\_\_  
WAYNE SLATON, MAYOR

ATTEST:

  
\_\_\_\_\_  
BEATRIS M. ARGUELLES, CMC  
TOWN CLERK

APPROVED AS TO LEGAL SUFFICIENCY:

  
\_\_\_\_\_  
WEISS, SEROTA, HELFMAN, PASTORIZA & GUEDES, P.A.  
TOWN ATTORNEY

**PROJECT AGREEMENT**

Between

TOWN OF MIAMI LAKES, FLORIDA

And

KIMLEY-HORN AND ASSOCIATES, INC.

for

Work Authorization No. 02-02

PREPARATION OF LOCAL FLOOD MITIGATION STRATEGY PLAN

PROJECT AGREEMENT  
Between

THE TOWN OF MIAMI LAKES, FLORIDA

And

KIMLEY-HORN AND ASSOCIATES, INC.

For

Work Authorization No. 02-02

PREPARATION OF LOCAL FLOOD MITIGATION STRATEGY PLAN

Pursuant to the provisions contained in the "Continuing Services Agreement" between the TOWN OF MIAMI LAKES, FLORIDA (the "TOWN") and KIMLEY-HORN AND ASSOCIATES, INC., ("CONSULTANT") dated May 14, 2002 this Project Agreement authorizes the CONSULTANT to provide the services as set forth below.

The TOWN and CONSULTANT agree as follows:

**SECTION 1. SCOPE OF SERVICES**

1.1 The CONSULTANT shall provide engineering services to the TOWN for the Project as described in the "Project Description" attached as Exhibit "1" to this Project Agreement.

1.2 The "Scope of Services and Project Schedule" and tasks to be provided by the CONSULTANT for this Project are those services and tasks as listed in Exhibit "1" attached to this Project Agreement.

1.3 The TOWN may request changes that would increase, decrease, or otherwise modify the Scope of Services. Such changes must be contained in a written change order executed by the parties in accordance with the provisions of the Continuing Services Agreement, prior to any deviation from the terms of the Project Agreement, including the initiation of any extra work.

**SECTION 2. DELIVERABLES**

2.1 As part of the Scope of Services and Project Schedule, the CONSULTANT shall provide to the TOWN the Deliverables for each task set forth in Exhibit "1" by no later than the time frames established and set forth in the contract between the Town and the South Florida Water Management District dated April 22, 2002, Contract Number C-13159.

### **SECTION 3. TERM/TIME OF PERFORMANCE/DAMAGE**

3.1 **Term.** This Project Agreement shall commence on the date this instrument is fully executed by all parties and shall continue in full force and effect, unless otherwise terminated pursuant to Section 4 or other applicable provisions of this Project Agreement. The Town Manager, in his sole discretion, may extend the term of this Agreement through written notification to the CONSULTANT. Such extension shall not exceed 30 days. No further extensions of this Agreement shall be effective unless authorized by the TOWN Council.

3.2 **Commencement.** The CONSULTANT'S services under this Project Agreement and the time frames applicable to this Project Agreement shall commence upon the date provided in a written Notification of Commencement ("Commencement Date") provided to the CONSULTANT from the TOWN. The CONSULTANT shall not incur any expenses or obligations for payment to third parties prior to the issuance of the Notification of Commencement. CONSULTANT must receive written notice from the Town Manager prior to the beginning the performance of services.

3.3 **Contract Time.** Upon receipt of the Notification of Commencement, the CONSULTANT shall commence services to the TOWN on the Commencement Date, and shall continuously perform services to the TOWN, without interruption, in accordance with the time frames set forth in the "Project Schedule," a copy of which is attached and incorporated into this Agreement as Exhibit "1", and in accordance with the time frames established and set forth in the contract between the Town and the South Florida Water Management District dated April 22, 2002, Contract Number C-13159. The number of calendar days from the Commencement Date, through the date set forth in the Project Schedule for completion of the Project or the date of actual completion of the Project, whichever shall last occur, shall constitute the Contract Time. Time is of the essence.

3.4 **Liquidated Damages.** Unless otherwise excused by the TOWN in writing, in the event that the CONSULTANT fails to meet to the contract time for completion of services as determined by the Project Schedule, the CONSULTANT shall pay to the TOWN the sum of dollars identified below per day for each and every calendar day unexcused delay beyond the completion date, plus approved time extensions, until completion of the project: \$0.00 per day. The CONSULTANT may claim extension if the factors involved are not under their direct control.

Any sums due and payable hereunder by the CONSULTANT shall be payable, not as a penalty, but as liquidated damages representing and estimate at or before the time of executing this Agreement. When the TOWN reasonably believes that completion will be inexcusably delayed, the TOWN shall be entitled, but not required, to withhold from any

amounts otherwise due the CONSULTANT an amount then believed by the TOWN to be adequate to recover liquidated damages applicable to such delays. If and when the CONSULTANT overcomes the delay in achieving completion, or any part thereof, for which the TOWN has withheld payment, the TOWN shall promptly release to the CONSULTANT those funds withheld, but no longer applicable, as liquidated damages.

3.5 All limitations of time set forth in this Agreement are of the essence.

#### **SECTION 4. AMOUNT, BASIS AND METHOD OF COMPENSATION**

4.1 **Lump Sum Compensation.** TOWN agrees to pay CONSULTANT as compensation for performance of all services described in Exhibit "1" the total amount of \$150,500.00.

4.2 **Reimbursable Expenses.** The following expenses are reimbursable at their actual cost: travel and accommodations, long distance telephone calls, facsimile, courier services, mileage (at a rate approved by the TOWN), photo and reproduction services. All document reproductions are also reimbursable, at a rate approved by the TOWN.

#### **SECTION 5. BILLING AND PAYMENTS TO THE CONSULTANT**

##### **5.1 Invoices**

5.1.1 **Lump Sum Compensation and Reimbursable Expenses.** CONSULTANT shall submit invoices which are identified by the specific project number 02-02 on a monthly basis in a timely manner. These invoices shall identify the nature of the work performed, the phase of work, and the estimated percent of work accomplished in accordance with the Payment Schedule set forth in Exhibit "1" to this Project Agreement. Invoices for each phase shall not exceed amounts allocated to each phase of the Project plus reimbursable expenses accrued during each phase. The statement shall show a summary of fees with accrual of the total and credits for portions previously paid by the TOWN. The TOWN shall pay CONSULTANT within thirty (30) calendar days of approval by the Town Manager of any invoices submitted by CONSULTANT to the TOWN.

5.2 **Disputed Invoices.** In the event that all or a portion of an invoice submitted to the TOWN for payment to the CONSULTANT is disputed, or additional backup documentation is required, the TOWN shall notify the CONSULTANT within fifteen (15) working days of receipt of the invoice of such objection, modification or additional documentation request. The CONSULTANT shall provide the TOWN with additional backup documentation within five (5) working days of the date of the TOWN'S notice. The TOWN may request additional information, including but not limited to, all invoices, time records, expense records, accounting records, and payment records of the CONSULTANT. The TOWN, at its sole discretion, may pay to the CONSULTANT the undisputed portion of the invoice. The parties shall endeavor to resolve the dispute in a mutually agreeable fashion.

5.3 **Suspension of Payment.** In the event that the TOWN becomes credibly informed that any representations of the CONSULTANT, provided pursuant to Subparagraph 5.1, are wholly or partially inaccurate, or in the event that the CONSULTANT is not in compliance with any term or condition of this Project Agreement, the TOWN may withhold payment of sums then or in the future otherwise due to the CONSULTANT until the inaccuracy, or other breach of Project Agreement, and the cause thereof, is corrected to the TOWN's reasonable satisfaction.

5.4 **Retainage.** The TOWN reserves the right to withhold retainage in the amount of ten percent (10%) of any payment due to the CONSULTANT until the project is completed. Said retainage may be withheld at the sole discretion of the Town Manager and as security for the successful completion of the CONSULTANT'S duties and responsibilities under the Project Agreement.

5.5 **Final Payment.** Submission of the CONSULTANT'S invoice for final payment and reimbursement shall constitute the CONSULTANT'S representation to the TOWN that, upon receipt from the TOWN of the amount invoiced, all obligations of the CONSULTANT to others, including its consultants, incurred in connection with the Project, shall be paid in full. The CONSULTANT shall deliver to the TOWN all documents requested by the TOWN evidencing payments to any and all subcontractors, and all final specifications, plans, or other documents as dictated in the Scope of Services and Deliverable. Acceptance of final payment shall constitute a waiver of any and all claims against the TOWN by the CONSULTANT.

## **SECTION 6. TERMINATION/SUSPENSION**

6.1 **For Cause.** This Project Agreement may be terminated by either party upon five (5) calendar days written notice to the other party should the other party fail substantially to perform in accordance with its material terms through no fault of the party initiating the termination. In the event that CONSULTANT abandons this Project Agreement or causes it to be terminated by the TOWN, the CONSULTANT shall indemnify the TOWN against any loss pertaining to this termination. In the event that the CONSULTANT is terminated by the TOWN for cause and it is subsequently determined by a court of competent jurisdiction that such termination was without cause, such termination shall thereupon be deemed a termination for convenience under Section 6.2 of this Project Agreement and the provision of Section 6.2 shall apply.

6.2 **For Convenience.** This Project Agreement may be terminated by the TOWN for convenience upon fourteen (14) calendar days' written notice to the CONSULTANT. In the event of termination, the CONSULTANT shall incur no further obligations in connection with the Project and shall, to the extent possible, terminate any outstanding subconsultant obligations. The CONSULTANT shall be compensated for all services performed to the satisfaction of the TOWN and for reimbursable expenses incurred prior to the date of termination. The CONSULTANT shall promptly submit its invoice for final payment and reimbursement and the invoice shall comply with the provisions of Paragraph 5.1 of this Project Agreement. Under no

circumstances shall the TOWN make any payment to the CONSULTANT for services which have not been performed.

6.3 **Assignment upon Termination.** Upon termination of this Project Agreement, a copy of all of the CONSULTANT's work product shall become the property of the TOWN and the CONSULTANT shall, within ten (10) working days of receipt of written direction from the TOWN, transfer to either the TOWN or its authorized designee, a copy of all work product in its possession, including but not limited to designs, specifications, drawings, studies, reports and all other documents and data in the possession of the CONSULTANT pertaining to this Project Agreement. Further, upon the TOWN'S request, the CONSULTANT shall assign its rights, title and interest under any subcontractor's agreements to the TOWN.

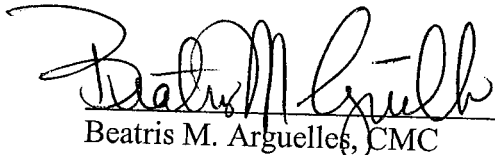
6.4 **Suspension for Convenience.** The TOWN shall have the right at any time to direct the CONSULTANT to suspend its performance, or any designated part thereof, for any reason whatsoever or without reason, for a cumulative period of up to thirty (30) calendar days. If any such suspension is directed by the TOWN, the CONSULTANT shall immediately comply with same. In the event the TOWN directs a suspension of performance as provided for herein through no fault of the CONSULTANT, the TOWN shall pay to the CONSULTANT its reasonable costs, actually incurred and paid, of demobilization and remobilization, as full compensation for any such suspension.

## **SECTION 7. INCORPORATION OF TERMS AND CONDITIONS OF CONTINUING SERVICE AGREEMENT**

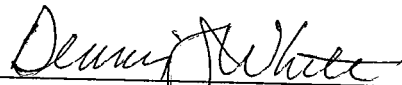
7.1 This Project Agreement incorporates the terms and conditions set forth in the Continuing Services Agreement dated May 14, 2002 between the parties as though fully set forth herein. In the event that any terms or conditions of this Project Agreement conflict with the Continuing Services Agreement, the provisions of this specific Project Agreement shall prevail and apply.

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ATTEST:


  
Beatris M. Arguelles, CMC  
Town Clerk

TOWN OF MIAMI LAKES

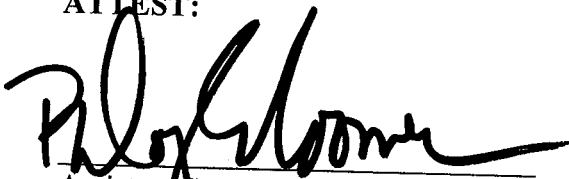
By:   
Dennis White, Town Manager

Date: 07/11/02

APPROVED AS TO FORM:

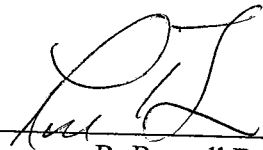
  
Town Attorney

ATTEST:

  
Assistant Secretary  
B. Douglas Coomer  
Please type name of Assistant Secretary

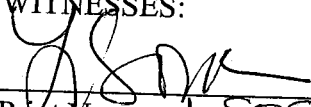
(CORPORATE SEAL)

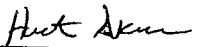
KIMLEY-HORN AND ASSOCIATES, INC.

By:   
R. Russell Barnes, III, P.E.  
Vice President

Date: 7/11/02

WITNESSES:

  
Print Name: L SOSA

  
Print Name: Heather Spencer





Kimley-Horn  
and Associates, Inc.

"Exhibit 1"

June 5, 2002

■  
Suite 157  
5100 N.W. 33rd Avenue  
Ft. Lauderdale, Florida  
33309

Mr. Dennis J. White  
Town Manager  
Town of Miami Lakes  
6853 Main Street  
Miami Lakes, Florida 33014

***Re: Local Flood Mitigation Strategy Proposal***

Dear Mr. White:

In accordance with our general services agreement, Kimley-Horn and Associates, Inc. (KHA) is pleased to submit this proposal to the Town of Miami Lakes (TOWN) for providing consulting and engineering services to prepare a local flood mitigation strategy plan.

There are five separate tasks that this proposal will address regarding the TOWN's local flood mitigation strategy project. The tasks are as follows:

1. Project initiation and management.
2. Initiate a storm water utility.
3. Joining the Community Rating System (CRS).
4. Data compilation.
5. Develop a Storm Water Management Master Plan.

**BACKGROUND**

The TOWN's Storm Water Plan is funded by the 2001/2002 legislature General Appropriation Act funds from the Florida Department of Environmental Protection (FDEP) through Special Appropriation 1747A to support the development of Local (Flood) Mitigation Strategies (LMS) in Miami-Dade County. These funds are administered through the South Florida Water Management District (DISTRICT) and dispersed and managed at the local level.

The TOWN was incorporated in December 2000. Miami-Dade County currently operates all storm water management improvements and programs. To address flood protection activities for its residents, critical issues exist when creating a storm water utility, a Storm Water Management Master Plan, and joining federal flood insurance programs.

As provided for in Chapter 403.0891 F. S. and Chapter 24-61 of the Miami-Dade County Code, and to address environmental protection and adequate flood



protection, the TOWN has approved the establishment and implementation of a Storm Water Utility and the development of a Storm Water Management Master Plan. In addition to protecting the environmental quality of its many lakes, the primary objective of establishing the Utility is to address the flooding that occurs in the TOWN.

This proposed scope of services, schedule and fee are outlined below.

## **SCOPE OF SERVICES**

### **Task 1 – Project Initiation and Management**

The purpose of this task is to initiate the project including identifying project protocols and establishing the necessary coordination between the ENGINEER and TOWN staff. The ENGINEER will conduct a project Kick-off meeting after receiving notice to proceed from the TOWN. One of the objectives of this meeting is to introduce TOWN staff members and the ENGINEER's key team members who will be involved during the project. At this meeting, information will be obtained about previous storm water management efforts and experiences, particularly those relative to historic flooding within the TOWN. The meeting will address the project schedule, coordination requirements, project goals, and project objectives so that a Project Management Plan can be developed. The ENGINEER will prepare and distribute minutes of the kick-off meeting.

Up to four (4) coordination meetings will be required between the TOWN and the ENGINEER throughout the duration of the project. During these coordination meetings, we would recommend that the DISTRICT representative be invited to attend and participate.

#### **Deliverables:**

- 1.1 Kickoff meeting and 4 coordination meetings
- 1.2 Project schedule
- 1.3 Minutes for each meeting
- 1.4 Project Management Plan (defined in first paragraph of Task 1)

### **Task 2 – Initiate a Storm Water Utility**

To initiate the storm water utility there are several issues that the TOWN must address. The effort to successfully initiate the storm water utility will be a joint effort between the Town Administration, Town Attorney, and the ENGINEER. The steps to initiate the storm water utility are summarized below and were taken from a memorandum from the Town Attorney:



1. Adopt a resolution requesting exemption from the Miami-Dade County Storm Water Utility.
2. Request an exemption from the County's application in order to establish the Town's Storm Water Utility.
3. Miami-Dade County Commission must adopt a resolution approving the exemption requested by the TOWN.
4. Adopt an ordinance creating the Town of Miami Lakes Storm Water Utility.
5. Adopt an ordinance establishing the Storm Water Utility rate.
6. Authorize a method for collecting the Storm Water Utility fee.

The ENGINEER will facilitate a kick-off meeting to strategize with Town Administration and the Town Attorney regarding the six elements noted above. The overall intent of the storm water utility development will be to utilize the assessment methodology and rate as developed by Miami-Dade County. Additionally, the collection of the storm water fee will be through Miami-Dade County.

The ENGINEER will provide input into the wording of the resolution requesting exemption from the Miami-Dade County Storm Water Utility.

The ENGINEER will attend a meeting with Miami-Dade County to discuss the exemption from the County's utility. The intent of the meeting is to obtain concurrence with County staff/administration regarding the exemption.

The ENGINEER will attend the Miami-Dade County Commission meeting and provide technical input to the presentation requesting the exemption of the TOWN from the County Utility.

The ENGINEER will provide input into the wording of the resolution to create the Town of Miami Lakes Storm Water Utility.

The ENGINEER will provide input into the method of collecting the storm water utility fee. It is the intent that one of the options provided by the County will be utilized.

The ENGINEER will provide a Storm Water Utility Management Report to outline the development of a Storm Water Utility. The report will contain the elements and information as outlined above in this task. All issues associated with the fee associated with the storm water utility will be addressed by others and incorporated into the report. One set of comments from both the Town and DISTRICT will be addressed as part of this task.



Deliverable:

## 2.1 Storm Water Utility Management Report

### **Task 3 – Joining the Community Rating System (CRS)**

ENGINEER shall evaluate and document the impacts the proposed improvements may have relative to the National Flood Insurance Program's Community Rating System (CRS). A summary memorandum will be prepared and formatted so that it may be used by the TOWN as support to improve its current CRS rating. ENGINEER shall coordinate with TOWN regarding re-certification relative to CRS program.

Deliverable:

## 3.1 Summary Memorandum

### **Task 4 – Data Collection**

The ENGINEER will collect and evaluate readily available information for the development of the Storm Water Management Master Plan. The data collection will be limited to the TOWN'S corporate limits and offsite areas that directly. Types of data that may be collected by the ENGINEER include:

1. Comprehensive Plan (provided by TOWN as available)
2. Previous Storm Water Management Plans and Reports (to be obtained from various entities)
3. NPDES Permit information and data (from Miami-Dade County and TOWN)
4. TOWN ordinances, regulations or guidelines for storm water management (from TOWN)
5. Storm Water management and land use Geographic Information System (GIS) coverage (from Miami-Dade County, and SFWMD)
6. Storm Water management infrastructure data such as canal locations and cross sections, catch basin locations, outfall locations, pipe sizes/inverts, drainage basin boundaries, etc. (from TOWN and drainage districts)
7. Land use and impervious area data (from various sources)
8. Soil characteristics (from various sources including SFWMD GIS)
9. Design and record drawings of completed or proposed storm water management/drainage projects (from TOWN, Miami-Dade County, and local drainage districts)



10. Citizen complaint reports/Public Works Department Work Orders (from TOWN and Miami-Dade County)
11. Records of storm water management problem areas (from Miami-Dade County)
12. Data relative to local drainage district systems (from drainage district)

ENGINEER will prepare a brief memorandum summarizing the data collected to support the development of the Storm Water Management Plan. This memorandum will also include identification of additional data needs, if any, to complete the Plan. This task does not include physically collecting field data such as topographic surveys or geotechnical testing.

As part of this task the ENGINEER will perform a field inventory of the TOWN owned and operated primary and secondary storm water system within the TOWN limits to develop a Storm Water Database. This inventory will be limited to identifying and logging a total of 200 storm water structures or facilities. The ENGINEER will meet with the TOWN to discuss a standard naming convention and standard field inventory data collection sheets for the storm water facilities. At this meeting, the ENGINEER will make recommendations regarding development of the storm water database.

It is likely that some structures or facilities will not be inventoried during this task. The intent of this task is to collect data for those primary facilities which must be evaluated in order to analyze the floodplain, and to provide the TOWN with the procedures, field data sheets, database and GIS coverage to allow for continued fieldwork (by the TOWN or ENGINEER).

Mapping protocol will also be determined at this meeting, including the base map to be used and the level of mapping precision for facility locations. The mapping will be compatible with the TOWN's mapping system, and the database will be in Microsoft ACCESS or comparable software. Using the agreed upon format and information, the ENGINEER will input the data from the field inventory data sheets into the database as a separate GIS coverage. The information entered into the field data sheets and database will be limited to available field data collected above and sources such as as-built drawings, TOWN Atlas sheets, and Miami-Dade County District and FDOT data.

Based upon the information collected in this task and the mapping that is developed as part of this task, a basin and sub-basin delineation map will be produced. The intent of this map will be to delineate the drainage basins within the limits of the TOWN. Based on the information



collected above. In the future, the TOWN may consider updating this map with additional survey information.

**Deliverables:**

- 4.1 Data Collection memorandum
- 4.2 Structure naming convention
- 4.3 Field inventory of storm water facilities
- 4.4 Database setup and entry
- 4.5 GIS coverage of storm water facilities (Drainage Atlas)
- 4.6 Basin/Sub-Basin Delineation on Drainage Map

### **Task 5 – Storm Water Management Master Plan**

The result of this task is to develop a Storm Water Management Master Plan Report that utilizes the services performed and information collected in Tasks 2, 3, and 4. The ENGINEER will meet with the TOWN to identify the content and organization of the Storm Water Management Plan Report. This task will be conducted in the following three sub-tasks.

- 5.1 Existing Problems/Needs Assessment
- 5.2 Hydrologic/Hydraulic Modeling
- 5.3 Summary of Needed Improvements/Capital Improvements Plan (CIP)

#### **5.1 Existing Problems/Needs Assessment**

The ENGINEER will meet with the TOWN Staff to review storm water complaints, identify the locations of storm water problem areas and collect information relative to problem nature, and severity. Once these areas have been identified, an exhibit will be created depicting the storm water problem areas for up to fifteen locations within the TOWN. This exhibit will be provided to the TOWN for review and it will be modified once to incorporate comments. Some problems will be of routine nature and will lend themselves to straightforward, conceptual solutions. Other problems will be more complex and will require more detailed analyses (including hydrologic/hydraulic modeling). For scoping purposes, we have assumed two drainage basins will require this detailed analysis. In general terms, these more complex basins that require modeling include a primary conveyance system and multiple secondary and tertiary systems that are tributary to the primary system.

The ENGINEER will investigate up to 15 "problem areas" and develop a conceptual flooding mitigation solution and preliminary costs for each. Two basins are assumed to require more detailed analysis. If more than



two of the problem areas (basins) are complex enough to require modeling Hydrologic/Hydraulic to evaluate them, the ENGINEER will provide the TOWN with an estimate for the anticipated extent and cost of the additional study and analysis services.

The ENGINEER will use information gathered in previous Tasks, including the field investigation, and then meet with the Town Manager to rank the problem. Once numerically ranked, the ENGINEER will segregate the list into high priority, medium and low priority groups.

## **5.2 Hydrologic/Hydraulic Modeling**

The ENGINEER will develop a hydrologic/hydraulic (H/H) storm water model to evaluate the two highest ranked problem areas/basins which require a modeling study. The selection of the two basins will be approved by the TOWN before proceeding with detailed analyses. All storm water facilities within a problem area basin may not be included in the model if they are not required to evaluate the area.

The ENGINEER will develop hydrologic and hydraulic storm water models for the two selected basins using SWMM or another model acceptable to the DISTRICT and the TOWN. Typical data required for these models include:

- Stage/Storage relationships
- Time of Concentration
- Soils Infiltration/Storage
- Impervious Areas
- Curve Number/Runoff Coefficient
- Storm Water Facility Information
- Rainfall Data
- Flow Data

The ENGINEER will review the TOWN's proposed level of service criteria and compare them to DISTRICT, Miami-Dade County, drainage district, and neighboring municipality requirements. Based upon the findings, ENGINEER shall make recommendations to retain existing level of service criteria or modify as necessary.

The design level of service goal for each problem area/basin will be coordinated with the TOWN. The ENGINEER will execute the model for the 5- and 10-year, 24hour storm events, and 25-, and 100-year, 72-hour storm events, and- will tabulate the water surface elevations at selected nodes. Model input and results of existing condition model will be reviewed with TOWN prior to proceeding with modeling of alternative solutions.



Utilizing the H/H model The ENGINEER will evaluate two alternative solutions for each of the two-selected problem areas/basins. The recommended improvements may include both structural and nonstructural controls to address the storm water management problems identified.

### **5.3 Summary of Needed Improvements/Capital Improvements Plan (CIP)**

Utilizing the results of the above outlined sub tasks, the ENGINEER will summarize the improvements that are needed to upgrade the level of service for the TOWN's storm water system. This task will be summarized in a prioritized manner and will address the opinion of probable cost associated with each improvement.

The TOWN's CIP will be presented in a spreadsheet format. Each project will be outlined with a description and corresponding budget outlined for each project. A brief summary of each project will be included as the CIP.

Upon completion of the above noted sub tasks, the ENGINEER will prepare and distribute draft copies of the Storm Water Management Master Plan Report to the TOWN. The ENGINEER will meet with the TOWN to present the contents of the report.

The ENGINEER will incorporate TOWN's comments and will prepare and submit ten copies of a second draft of the Storm Water Management Master Plan Report for the TOWN staff to provide to the TOWN Council. The ENGINEER will incorporate comments from the TOWN Council and submit 10 copies of the final Storm Water Management Master Plan Report. One set of comments from the TOWN and DISTRICT will be incorporated into the final report.

#### **Deliverables:**

- 5.1 Draft Reports
- 5.2 Ten Second Draft Reports
- 5.3 Ten Final Reports

### **Task 6 – Additional Services**

Upon authorization the ENGINEER will provide any additional services that may required beyond these described in Tasks 1 through 5. These services may include but not limited to such items as the following:





1. Additional Meetings
2. Additional Hydraulic Modeling
3. Field Surveying
4. Construction Documents

### SCHEDULE

We will provide these services as expeditiously as possible to meet the schedule outlined in the agreement between the TOWN and the South Florida Water Management District.

### FEES

Our proposed lump sum fee for the above noted services is as outlined below:

Task 1 - Project Initiation and Management	\$5,000
Task 2 - Initiation of a Storm Water Utility	\$12,500
Task 3 - Joining the CRS	\$5,000
Task 4 - Data Collection	\$65,000
Task 5 - Storm Water Master Plan	\$63,000
 Total	 \$150,500

If you concur with the scope of services and fee and wish to direct us to proceed with the aforementioned services, please execute a work authorization and forward to me for signature.

We look forward to serving you on this project. Please call me with any questions.

Very truly yours,

KIMLEY HORN AND ASSOCIATES, INC.

R. Russell Barnes, P.E.  
Vice President



Kimley-Horn  
and Associates, Inc.

June 5, 2002

■  
Suite 100  
14750 N.W. 77th Court  
Miami Lakes, Florida  
33016

Mr. Dennis J. White  
Town Manager  
Town of Miami Lakes  
6853 Main Street  
Miami Lakes, Florida 33014

***Re: Local Flood Mitigation Strategy Proposal***

Dear Mr. White:

In accordance with our general services agreement, Kimley-Horn and Associates, Inc. (KHA) is pleased to submit this proposal to the Town of Miami Lakes (TOWN) for providing consulting and engineering services to prepare a local flood mitigation strategy plan.

There are five separate tasks that this proposal will address regarding the TOWN's local flood mitigation strategy project. The tasks are as follows:

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2. Initiate a storm water utility.
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**BACKGROUND**

The TOWN's Storm Water Plan is funded by the 2001/2002 legislature General Appropriation Act funds from the Florida Department of Environmental Protection (FDEP) through Special Appropriation 1747A to support the development of Local (Flood) Mitigation Strategies (LMS) in Miami-Dade County. These funds are administered through the South Florida Water Management District (DISTRICT) and dispersed and managed at the local level.

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■  
TEL 305 827 0588  
FAX 305 827 5776

02-77



protection, the TOWN has approved the establishment and implementation of a Storm Water Utility and the development of a Storm Water Management Master Plan. In addition to protecting the environmental quality of its many lakes, the primary objective of establishing the Utility is to address the flooding that occurs in the TOWN.

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## SCOPE OF SERVICES

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The purpose of this task is to initiate the project including identifying project protocols and establishing the necessary coordination between the ENGINEER and TOWN staff. The ENGINEER will conduct a project Kick-off meeting after receiving notice to proceed from the TOWN. One of the objectives of this meeting is to introduce TOWN staff members and the ENGINEER's key team members who will be involved during the project. At this meeting, information will be obtained about previous storm water management efforts and experiences, particularly those relative to historic flooding within the TOWN. The meeting will address the project schedule, coordination requirements, project goals, and project objectives so that a Project Management Plan can be developed. The ENGINEER will prepare and distribute minutes of the kick-off meeting.

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Deliverables:

- 1.1 Kickoff meeting and 4 coordination meetings
- 1.2 Project schedule
- 1.3 Minutes for each meeting
- 1.4 Project Management Plan (defined in first paragraph of Task 1)

### Task 2 – Initiate a Storm Water Utility

To initiate the storm water utility there are several issues that the TOWN must address. The effort to successfully initiate the storm water utility will be a joint effort between the Town Administration, Town Attorney, and the ENGINEER. The steps to initiate the storm water utility are summarized below and were taken from a memorandum from the Town Attorney:



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## 2.1 Storm Water Utility Management Report

### **Task 3 – Joining the Community Rating System (CRS)**

ENGINEER shall evaluate and document the impacts the proposed improvements may have relative to the National Flood Insurance Program's Community Rating System (CRS). A summary memorandum will be prepared and formatted so that it may be used by the TOWN as support to improve its current CRS rating. ENGINEER shall coordinate with TOWN regarding re-certification relative to CRS program.

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### 3.1 Summary Memorandum

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10. Citizen complaint reports/Public Works Department Work Orders (from TOWN and Miami-Dade County)
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ENGINEER will prepare a brief memorandum summarizing the data collected to support the development of the Storm Water Management Plan. This memorandum will also include identification of additional data needs, if any, to complete the Plan. This task does not include physically collecting field data such as topographic surveys or geotechnical testing.

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collected above. In the future, the TOWN may consider updating this map with additional survey information.

**Deliverables:**

- 4.1 Data Collection memorandum
- 4.2 Structure naming convention
- 4.3 Field inventory of storm water facilities
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- 4.6 Basin/Sub-Basin Delineation on Drainage Map

### **Task 5 – Storm Water Management Master Plan**

The result of this task is to develop a Storm Water Management Master Plan Report that utilizes the services performed and information collected in Tasks 2, 3, and 4. The ENGINEER will meet with the TOWN to identify the content and organization of the Storm Water Management Plan Report. This task will be conducted in the following three sub-tasks.

- 5.1 Existing Problems/Needs Assessment
- 5.2 Hydrologic/Hydraulic Modeling
- 5.3 Summary of Needed Improvements/Capital Improvements Plan (CIP)

#### **5.1 Existing Problems/Needs Assessment**

The ENGINEER will meet with the TOWN Staff to review storm water complaints, identify the locations of storm water problem areas and collect information relative to problem nature, and severity. Once these areas have been identified, an exhibit will be created depicting the storm water problem areas for up to fifteen locations within the TOWN. This exhibit will be provided to the TOWN for review and it will be modified once to incorporate comments. Some problems will be of routine nature and will lend themselves to straightforward, conceptual solutions. Other problems will be more complex and will require more detailed analyses (including hydrologic/hydraulic modeling). For scoping purposes, we have assumed two drainage basins will require this detailed analysis. In general terms, these more complex basins that require modeling include a primary conveyance system and multiple secondary and tertiary systems that are tributary to the primary system.

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two of the problem areas (basins) are complex enough to require modeling Hydrologic/Hydraulic to evaluate them, the ENGINEER will provide the TOWN with an estimate for the anticipated extent and cost of the additional study and analysis services.

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## **5.2 Hydrologic/Hydraulic Modeling**

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### **5.3 Summary of Needed Improvements/Capital Improvements Plan (CIP)**

Utilizing the results of the above outlined sub tasks, the ENGINEER will summarize the improvements that are needed to upgrade the level of service for the TOWN's storm water system. This task will be summarized in a prioritized manner and will address the opinion of probable cost associated with each improvement.

The TOWN's CIP will be presented in a spreadsheet format. Each project will be outlined with a description and corresponding budget outlined for each project. A brief summary of each project will be included as the CIP.

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The ENGINEER will incorporate TOWN's comments and will prepare and submit ten copies of a second draft of the Storm Water Management Master Plan Report for the TOWN staff to provide to the TOWN Council. The ENGINEER will incorporate comments from the TOWN Council and submit 10 copies of the final Storm Water Management Master Plan Report. One set of comments from the TOWN and DISTRICT will be incorporated into the final report.

#### **Deliverables:**

- 5.1 Draft Reports
- 5.2 Ten Second Draft Reports
- 5.3 Ten Final Reports

### **Task 6 -- Additional Services**

Upon authorization the ENGINEER will provide any additional services that may required beyond these described in Tasks 1 through 5. These services may include but not limited to such items as the following:



1. Additional Meetings
2. Additional Hydraulic Modeling
3. Field Surveying
4. Construction Documents

### SCHEDULE

We will provide these services as expeditiously as possible to meet the schedule outlined in the agreement between the TOWN and the South Florida Water Management District.

### FEES

Our proposed lump sum fee for the above noted services is as outlined below:

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If you concur with the scope of services and fee and wish to direct us to proceed with the aforementioned services, please execute a work authorization and forward to me for signature.

We look forward to serving you on this project. Please call me with any questions.

Very truly yours,

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