



## City of Sweetwater

### SPECIAL COMMISSION MEETING

MEETING DATE: WEDNESDAY, AUGUST 5, 2015 AT 7:00 PM COMMISSION CHAMBERS, 500 SW 109 AVENUE

1. ROLL CALL.
2. PLEDGE OF ALLEGIANCE.
3. INVOCATION.
4. REPORT FROM GUILLERMO CUADRA, CITY ATTORNEY OF STATUS OF MAYRA TOLEDO'S EMPLOYMENT. (CARRIED FROM JULY 29<sup>TH</sup>, 2015 SPECIAL COMMISSION MEETING)
5. PRESENTATION OF TOM GUSTAFSON, DIRECTOR OF RESEARCH PROGRAMS, OFFICE OF FINANCE AND ADMINISTRATION, FLORIDA INTERNATIONAL UNIVERSITY, ON THE UNIVERSITY CITY TRANSPORTATION AND MANAGEMENT ASSOCIATION OF SWEETWATER, INC. (UTMA) AND POSSIBLE APPOINTMENT OF FIVE BOARD MEMBERS. (MAYOR LOPEZ) (CARRIED FROM JULY 29<sup>TH</sup>, 2015 SPECIAL COMMISSION MEETING)
6. ADJOURNMENT.

IF ANY PERSON DECIDES TO APPEAL ANY DECISION MADE BY THE CITY COMMISSION WITH RESPECT TO ANY MATTER CONSIDERED AT SUCH MEETING OR HEARING, SUCH PERSON WILL NEED A RECORD OF THE PROCEEDINGS, AND THAT, FOR SUCH PURPOSE, HE MAY NEED TO ENSURE THAT A VERBATIM RECORD OF THE PROCEEDINGS IS MADE, WHICH RECORD INCLUDES THE TESTIMONY AND EVIDENCE UPON WHICH THE APPEAL IS TO BE BASED. PERSONS WHO NEED AN ACCOMMODATION IN ORDER TO PARTICIPATE IN THIS MEETING SHOULD CONTACT CITY CLERK MARIE SCHMIDT AT 221-0411 BY NOON ON THE DAY BEFORE THE MEETING IN ORDER TO REQUEST SUCH ASSISTANCE.

## Marie Schmidt

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**From:** Ralph Ventura  
**Sent:** Monday, July 20, 2015 1:38 PM  
**To:** Thomas Gustafson  
**Cc:** Marie Schmidt; Guillermo Cuadra; Robert Herrada; Kenneth Jessell  
**Subject:** RE: UTMA@Sweetwater

Val and Carmen,

Please place this matter on the agenda for July 27.



Ralph Ventura, JD  
Chief of Staff  
Mayor's Office  
City of Sweetwater

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**From:** Thomas Gustafson [<mailto:tgustafs@fiu.edu>]  
**Sent:** Monday, July 20, 2015 12:43 PM  
**To:** Ralph Ventura  
**Cc:** Marie Schmidt; Guillermo Cuadra; Robert Herrada; Kenneth Jessell  
**Subject:** UTMA@Sweetwater

This is the presentation I would like to hand out at the City commission meeting on July 27th with the hopes Sweetwater City commission can appoint the five Board Members that evening. To review the pending grant for UTMA@Sweetwater and the current Bylaws, please see [http://cake.fiu.edu/TIGER2013/drop/post\\_submittal/2015\\_FDOT\\_SDG\\_UniversityCity\\_Tansit\\_Services\\_Submitted\\_version.pdf](http://cake.fiu.edu/TIGER2013/drop/post_submittal/2015_FDOT_SDG_UniversityCity_Tansit_Services_Submitted_version.pdf).

Would you confirm this matter is on the agenda?

I have some suggestions as to how best to proceed if you have time to see me.

Thank you.

Tom Gustafson, J.D.  
Director, Research Programs  
Office of Finance & Administration  
Florida International University  
11200 SW 8th Street, GL470  
Miami, Florida 33199  
Email: [tgustafs@fiu.edu](mailto:tgustafs@fiu.edu)

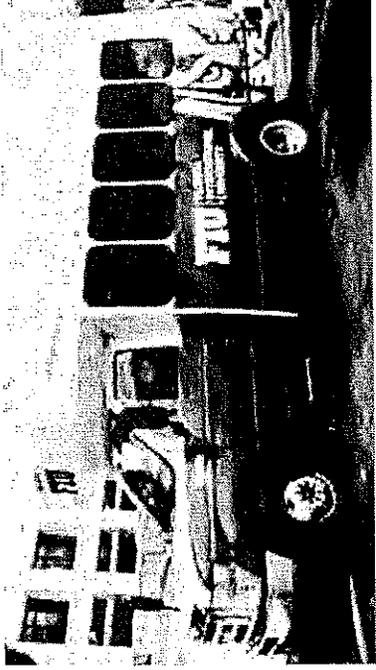
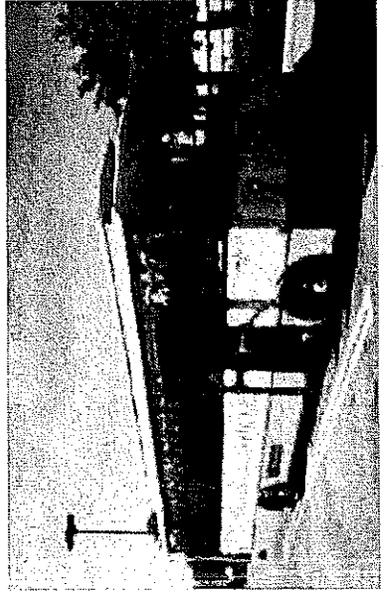
Office: 305 348-4748

Cell: 954 661-7848

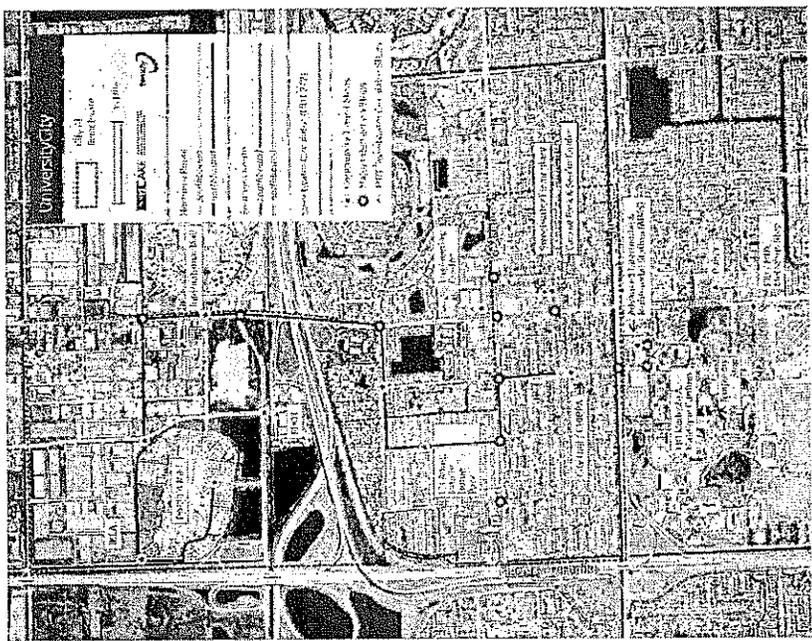
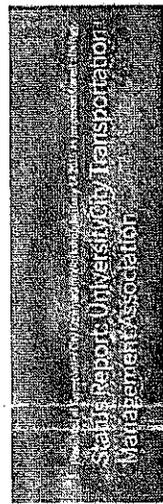
# UniversityCity Transportation and Management Association of Sweetwater, Inc. (UTMA)

July 27, 2015

Sweetwater City Commission Briefing & Appointments of the  
UTMA@Sweetwater Board of Directors



# Sweetwater City Commission Workshop January 14, 2015



FIU is a public institution of higher learning, and as such, it is subject to the same laws and regulations as any other public institution of higher learning. The University of Florida System, of which FIU is a part, is a public institution of higher learning and is subject to the same laws and regulations as any other public institution of higher learning. The University of Florida System, of which FIU is a part, is a public institution of higher learning and is subject to the same laws and regulations as any other public institution of higher learning.

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# UTMAS Incorporation as a Florida Not-for-Profit Corporation May 29, 2015

Doc No: 20150509046  
Filed: May 29, 2015  
State of Florida

Electronic Articles of Incorporation  
For  
INCORPORATION OF UTMAS INC. AND UTMAS INC.

Article I  
The undersigned, desiring to incorporate for the purpose of forming a Florida not-for-profit corporation, hereby adopt the following Articles of Incorporation:

Article II  
The name of the corporation is UTMAS INC. AND UTMAS INC.

Article III  
The purpose of the corporation is to provide for the care and maintenance of the graves of the deceased and to erect and maintain a cemetery for the same.

Article IV  
The capital of the corporation is \$100,000.00.

Article V  
The first meeting of the corporation shall be held on the first day of the month of May, 2015.

Article VI  
The corporation shall have the right to acquire, hold, lease, convey, and dispose of real and personal property.

Article VII  
The corporation shall have the right to sue and be sued in its corporate name.

Article VIII  
The corporation shall have the right to make and alter its bylaws.

Article IX  
The corporation shall have the right to amend, alter, or repeal its articles of incorporation.

Article X  
The corporation shall have the right to dissolve and distribute its assets.

Article XI  
The corporation shall have the right to elect and remove its officers and directors.

Article XII  
The corporation shall have the right to hold its meetings and conduct its business.

UTMAS INC. AND UTMAS INC. is a Florida Not-for-Profit Corporation organized under the laws of the State of Florida.

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# FY2016-2017 FDOT Service Development Grant (\$500,000)

## July 1, 2015

- Builds on the FY2015-2016 FDOT Service Development Grant (\$171,450) and the 2013 TIGER/UniversityCity match funds (\$342,900) that are to be use for capital improvements to Sweetwater & FIU community transit vehicles (totals \$ 514,350)
- Provides for the operational budget for a ten-vehicle UTMA smart community transit and feeder bus fleet by December 2016
  - Initially operating six vehicles over five UTMA routes plus the MDT 212 Sweetwater Circulator routes
  - Eventually, with further support from business north of SR 836, operating eight vehicles over six routes using (with the remaining two vehicles for backup and express trips) and an expanded MDT 212 Sweetwater Circulator route



# New Small (10 Passenger) Rubber Tire Hybrid-Electric Trolley Route

New Proposed Small Rubber-Tire Hybrid-Electric Trolley Route using \$165,000 of Sweetwater funds for three years of operation beginning July 1, 2016 for three years at \$55,000 per year pursuant to Sweetwater Resolution #3904

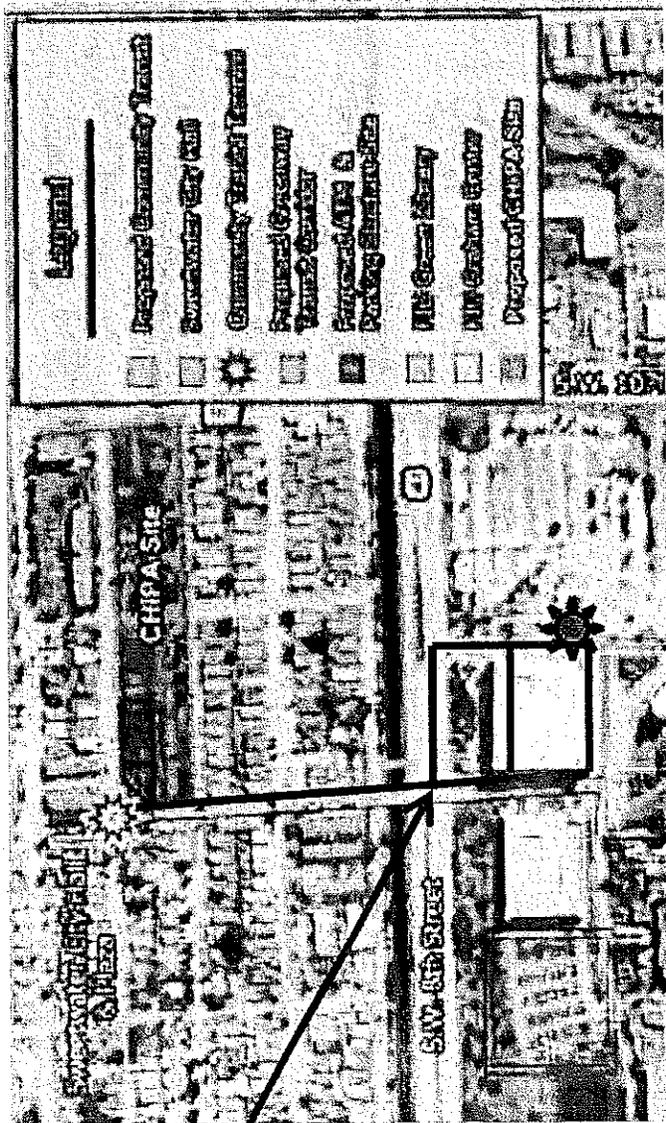
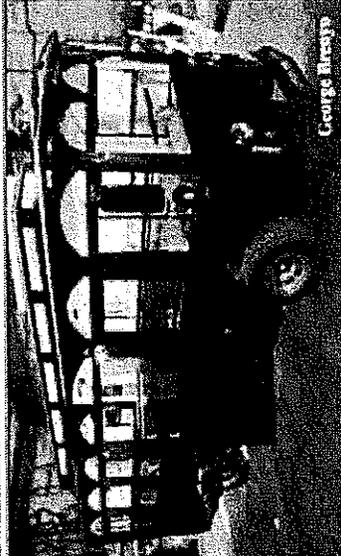
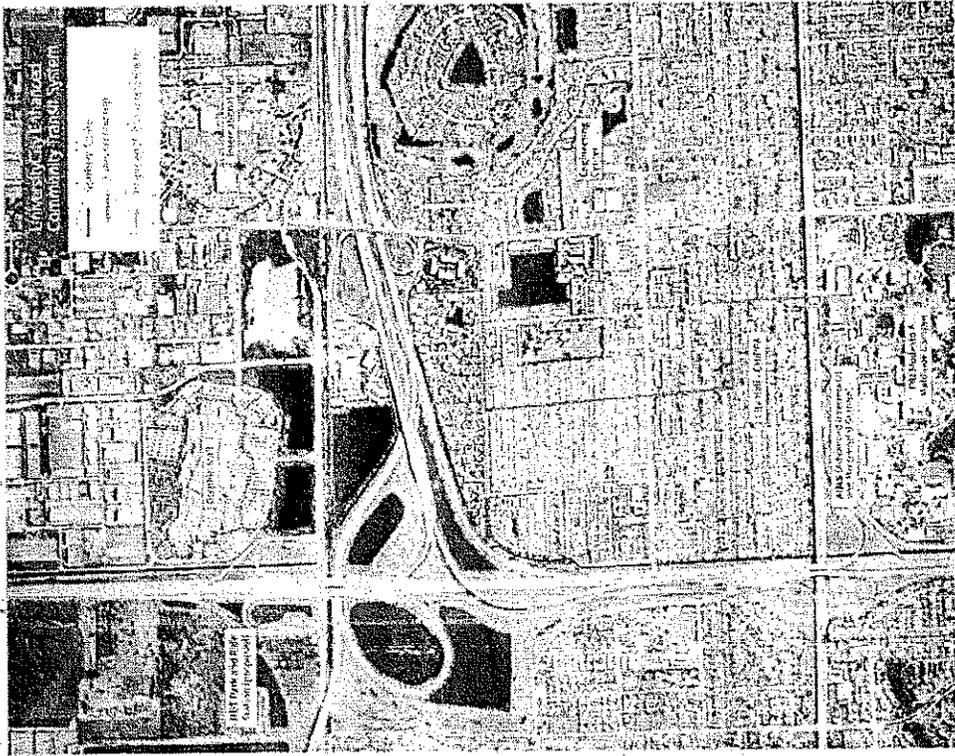


Image 6: Small rubber-tire electric trolley would operate on traffic-calmed streets as well as mixed-mode corridors and transit greenways in MMTC and other areas. Designed for speeds of 25 mph and low it is a worthy alternative to golf cart vehicles in for use in pedestrian oriented public spaces. This vehicle is sized between the electric vehicles and golf carts and can work within pedestrian oriented built environments.



George Airways

# \$1,075,000 Annual Operational Budget\*



## 4. Funding and Project Cost Table

Funding table:

Funding Institution	Amount
City of Sweetwater (80% match)	\$400,000.00
Florida International University (20% match)	\$100,000.00
FDOT Service Development Grant (requested)	\$500,000.00
UTMA of Sweetwater, Inc. (non-match earned funds, estimated)	\$75,000.00
<b>Total</b>	<b>\$1,075,000.00</b>

Project cost table for FY 2016

Description	UTMA/SW	FIU match	SW match	FDOT grant	Total
Operations of Southern Line (1)		\$ 85,000		\$ 205,000	\$ 290,000
Operations of Central Line (1)		\$ 85,000	\$ 85,000	\$ 60,000	\$ 145,000
Operations of Northern Line (1)		\$ 85,000	\$ 85,000	\$ 60,000	\$ 145,000
Transit Base Line (1)			\$ 105,000	\$ 40,000	\$ 145,000
Vehicle maintenance (2)				\$ 9,000	\$ 9,000
UTMA of Sweetwater Management and Board of Directors (3)	\$ 15,000		\$ 125,000	\$ 50,000	\$ 190,000
ITPA (4)				\$ 75,000	\$ 75,000
Transit and/or parking services associated with special interest events or other fee earning services (5)	\$ 75,000				\$ 75,000
<b>Total of required funds</b>	<b>\$ 75,000</b>	<b>\$ 100,000</b>	<b>\$ 400,000</b>	<b>\$ 500,000</b>	<b>\$ 1,075,000</b>

- (1) Gas, oil, drivers, with any vendor contracts
- (2) Minimum maintenance due to recently completed major maintenance refurbishing under 2013 TIGER award agreement and 2014 FDOT SDG
- (3) Assume president, vice president, part time secretary/treasurer, and students hired to monitor the operations center
- (4) Intelligent Traveler Program and Applications (ITPA) services (i.e., training, operational oversight, trouble shooting, and providing a repair or enhancement to software when needed)
- (5) Funds expected to be raised through UTMA@Sweetwater through transit and parking event services contracts and other fee earning services when vehicles not needed for transit services.

Aerial Photo Courtesy: Transit System, prepared by City of Sweetwater

\* It may be useful for the UTMA Board of Directors seek an additional \$120,000 beginning July 1, 2016 from those businesses that exist north of SR 836 and who are to be served by UTMA's UniversityCity Transit Service and amend the budget, Northern Route and Malls/Express Route accordingly as appropriate.

# Project Schedule

## 5. Project Schedule

The FY2015 FDOT Service Development Grant supported rebuild, repair and enhancement of the UniversityCity Transportation Association's fleet of community transit vehicles will be concluded by June 30, 2015. The UniversityCity Enhanced Community Transit System will commence operation on July 1, 2016, the first day of FY2016.

Phase	Time Period	Task
Preparation	July 1, 2015 – June 30, 2016	Technical assessment of public transit vehicles
		Rebuild, repair and enhancement of public transit vehicles
		Equipping of public transit vehicles with ITPA technology
Administrative Organization	July 1, 2015 – July 1, 2016	Appointment of UTMA@Sweetwater Board and hiring of offices and staff; Transit Development Plan formation; and, contracting with Sweetwater and FIU to assume responsibility for UTMA@Sweetwater transit operations
Operations	July 1, 2016 – June 30, 2017	First year of UTS operations by UTMA@Sweetwater
	July 1, 2017 – June 30, 2018	Second year of UTS operations by UTMA@Sweetwater
	July 1, 2018 – June 30, 2019	Third year of UTS operations by UTMA@Sweetwater

# Commitments

**Funding Commitments**

**FIU** | FLORIDA INTERNATIONAL UNIVERSITY  
OFFICE OF FINANCE & ADMINISTRATION

June 1, 2015

Mr. Gus Pepp, P.E.  
District Secretary  
Florida Department of Transportation  
1000 NW 111 Avenue  
Miami, Florida 33172

RE: FDOT Service Development Grant - 2016-17  
University City Transportation and Management Association of Sweetwater, Inc.

Dear Mr. Pepp:

Florida International University supports the 2016-17 Service Development Grant proposal for \$500,000 submitted by the University City Transportation and Management Association of Sweetwater, Inc. (Association). The requested funds within the proposal reflect an investment in smart transit by providing subsequent operating funds to support the goals and objectives of the Association within our community.

Florida International University is pleased to commit \$100,000 in funding to the Association to support the operation of the LAS Shuttle service issues on behalf of FIU. Combined with the committed amount of \$400,000 by the City of Sweetwater and the \$500,000 Service Development Grant, the total funding will enable the operations of a viable and efficient transit program.

If you have any questions or need additional information, please do not hesitate to email me at [kjessell@fiu.edu](mailto:kjessell@fiu.edu) or call me at 305-308-2101.

With kindest regards,  
  
Kenneth A. Jessell, Ph.D.  
Senior Vice President for Finance and Chief Fiscal Officer and Professor

cc: The Honorable Orlando Lopez, Mayor, City of Sweetwater  
Marlene Valdes-Carreras, P.E., Chief, Metro Florida Department of Transportation  
Local Councilman Gary Torres, Acting Director of Transportation

Mayor's Office



June 17, 2015

Mr. Gus Pepp, P.E.  
District Secretary, District 6  
Florida Department of Transportation  
1000 NW 111 Avenue  
Miami, FL 33172

Dear Mr. Pepp:

The City of Sweetwater supports the FY2016-2017 FDOT Service Development Grant proposal for \$500,000 by the University City Transportation and Management Association of Sweetwater, Inc. (UCTMA/Sweetwater) smart transit and parking operational funds in operating funds (Priority/Cost-Shared Services). The City of Sweetwater commits to the state of \$200,000 in the event that UCTMA/Sweetwater creates the Sweetwater Transit service route with commitment of the Sweetwater City Commission.

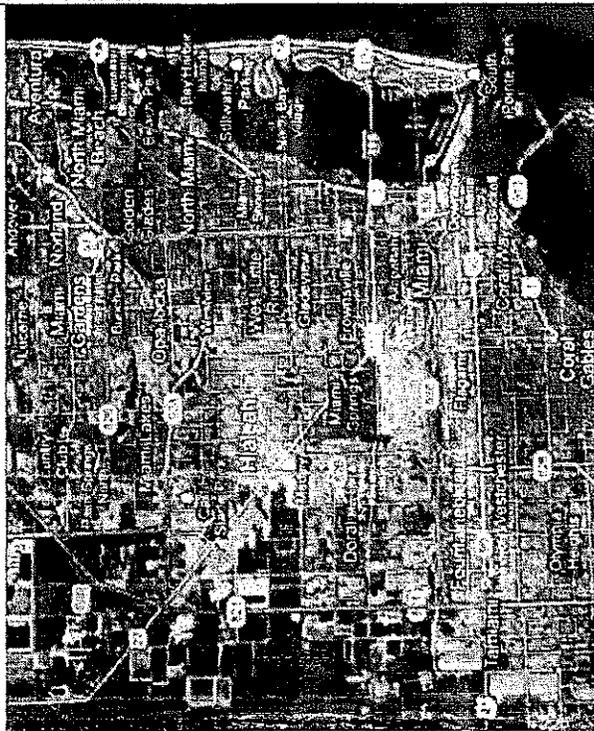
Sincerely,  
  
Mayor Orlando Lopez  
City of Sweetwater

City of Sweetwater, City Hall, 500 SW 109th Ave, Sweetwater, FL 33176  
Contact: 305.327.0411

# 836 Express & Golden Panther Express

Draft 05-13-2013

**Draft 2013 TIGER/UniversityCity submital:  
Expanded Use of Golden Panther Express to improve  
Services over flexible routes with ITPA Guidance**



**Proposed Expanded Golden Panther (GPE) Bus Service may be integrated with other transit opportunities as follows:**

- GPE is assessable to the selected ITPA customers when seats are reserved 15 minutes before departure and to offer ITPA users on a seat available basis thereafter and back up transit access is proposed using back-up community transit and metropolitan transit vehicles coordinated through a customer service center ITPA.
- Use of MDT Kendall Cruise-type tracker or similar system that is integrated within ITPA.
- Use of Traffic Signal Priority (TSP) system to avoid longer trip times.
- Over time the routing for each GPE trip will be able to respond to ITPA customers trip requests including, after the SR826/ 75 express lanes are completed and I-75 Express



**MIAMI-DADE COUNTY**

**Project Location Map**



**836 EXPRESS**



JUNE 2015

# TAKE AWAY

Special Meeting in July 2015 to appoint the five member UTMA Board of Directors for their respective terms of office:

1. Nominated by Mayor and City Commission Appoints for initial one year term and three year terms thereafter
2. Nominated by Mayor and City Commission Appoints for initial two year term and three year terms thereafter
3. Nominated by Mayor and City Commission Appoints for initial three year term and three year terms thereafter
4. Nominated by FIU and City Commission Appoints for initial two year term and two year terms thereafter
5. First four Board Members suggest persons who might serve as a fifth Board Member and City Commission Appoints (must be a person who actually is engaged in business north of SR 836) for initial one year term and two year terms thereafter

**City of Sweetwater  
Special Commission Meeting  
Wednesday, July 29, 2015  
8:00 PM  
Mas Canosa Youth Center  
250 SW 114 Avenue, Sweetwater, Florida 33174**

**Agenda Item # 7**

**Presentation of Tom Gustafson, Director of Research  
Programs, Office of Finance and Administration, Florida  
International University  
on the  
UniversityCity Transportation and Management Association of  
Sweetwater, Inc. (UTMA@Sweetwater) and Possible  
Appointment of Five Board Members (Mayor Lopez)**

**Presentation materials provided by Tom Gustafson**

# *Certificate of Status*

I certify from the records of this office that UNIVERSITYCITY TRANSPORTATION AND MANAGEMENT ASSOCIATION OF SWEETWATER, INC. is a corporation organized under the laws of the State of Florida, filed electronically on May 29, 2015, effective May 29, 2015.

The document number of this corporation is N15000005446.

I further certify that said corporation has paid all fees due this office through December 31, 2015, and its status is active.

I further certify that said corporation has not filed Articles of Dissolution.

I further certify that this is an electronically transmitted certificate authorized by section 15.16, Florida Statutes, and authenticated by the code noted below.

Authentication Code: 150529172751-600273472556#1

Given under my hand and the  
Great Seal of the State of Florida  
at Tallahassee, the Capital, this the  
Twenty Ninth day of May, 2015



*Ken Detzner*  
Ken Detzner  
Secretary of State

## *Certified Copy*

I certify the attached is a true and correct copy of the Articles of Incorporation of UNIVERSITYCITY TRANSPORTATION AND MANAGEMENT ASSOCIATION OF SWEETWATER, INC., a Florida corporation, filed electronically on May 29, 2015 effective May 29, 2015, as shown by the records of this office.

I further certify that this is an electronically transmitted certificate authorized by section 15.16, Florida Statutes, and authenticated by the code noted below.

The document number of this corporation is N15000005446.

Authentication Code: 150529172751-600273472556#1

Given under my hand and the  
Great Seal of the State of Florida  
at Tallahassee, the Capital, this the  
Twenty Ninth day of May, 2015



*Ken Detzner*  
Ken Detzner  
Secretary of State

**Electronic Articles of Incorporation  
For**

N1500005446  
FILED  
May 29, 2015  
Sec. Of State  
tchang

UNIVERSITYCITY TRANSPORTATION AND MANAGEMENT  
ASSOCIATION OF SWEETWATER, INC.

The undersigned incorporator, for the purpose of forming a Florida not-for-profit corporation, hereby adopts the following Articles of Incorporation:

**Article I**

The name of the corporation is:

UNIVERSITYCITY TRANSPORTATION AND MANAGEMENT  
ASSOCIATION OF SWEETWATER, INC.

**Article II**

The principal place of business address:

500 SW 109TH AVENUE  
SWEETWATER, FL. 33174

The mailing address of the corporation is:

500 SW 109TH AVENUE  
SWEETWATER, FL. 33174

**Article III**

The specific purpose for which this corporation is organized is:

TO UNDERTAKE ACTIVITIES THAT DEVELOP, OPERATE, AND MANAGE  
A SMART PARKING AND SMART COMMUNITY TRANSIT SYSTEM TO  
SERVE THE NEEDS OF ITS MEMBERS AND THE COMMUNITY PER  
S.501(C)3 THE IRS CODE.

**Article IV**

The manner in which directors are elected or appointed is:

AS PROVIDED FOR IN THE BYLAWS.

**Article V**

The name and Florida street address of the registered agent is:

RALPH VENTURA  
500 SW 109TH AVENUE  
SWEETWATER, FL. 33174

I certify that I am familiar with and accept the responsibilities of  
registered agent.

Registered Agent Signature: RALPH VENTURA

N1500005446  
FILED  
May 29, 2015  
Sec. Of State  
tchang

## Article VI

The name and address of the incorporator is:

RALPH VENTURA  
500 SW 109TH AVENUE  
  
SWEETWATER, FL. 33174

Electronic Signature of Incorporator: RALPH VENTURA

I am the incorporator submitting these Articles of Incorporation and affirm that the facts stated herein are true. I am aware that false information submitted in a document to the Department of State constitutes a third degree felony as provided for in s.817.155, F.S. I understand the requirement to file an annual report between January 1st and May 1st in the calendar year following formation of this corporation and every year thereafter to maintain "active" status.

## Article VII

The initial officer(s) and/or director(s) of the corporation is/are:

Title: P, D  
ORLANDO LOPEZ  
500 SW 109TH AVENUE  
SWEETWATER, FL. 33174

Title: VP,  
JOSE M DIAZ  
500 SW 109TH AVENUE  
SWEETWATER, FL. 33174

Title: S,T,  
TOM GUSTAFSON  
11200 SW 8TH STREET, PC523  
MIAMI, FL. 33199

## Article VIII

The effective date for this corporation shall be:

05/29/2015

*These Articles of Incorporation for a proposed UniversityCity Transportation and Management Association of Sweetwater Inc. (UTMA@Sweetwater) shall be filed by the Sweetwater City Attorney upon approval of the attached UTMA@Sweetwater Bylaws:*

- A. **Corporation Name:** UniversityCity Transportation and Management Association of Sweetwater, Inc. (UTMA@Sweetwater).
- B. **Purpose:** To develop, operate, and manage a smart parking and smart community transit system for all the UTMA@Sweetwater members (Members) and other UniversityCity-related activities as approved by the Board of Directors of UTMA@Sweetwater within the City of Sweetwater (Sweetwater), at the Florida International University (FIU), and at such locations as are deemed useful to the Members.
- C. **Manner of Election:** The Board of Directors of the UTMA@Sweetwater (Board of Directors) shall consist of five persons, each of which shall be referenced as a Board Member (Board Member) and when referencing more than one Board Member, they shall be referenced as Board Members (Board Members). Each Board Member shall be elected to serve on the Board of Directors based upon the following process (Manner of Election): At a special meeting of the Sweetwater City Commission called for this purpose by the City of Sweetwater Mayor in July 2015, the Mayor shall nominate three or more persons and when three such persons are approved by the Sweetwater City Commission to serve on the Board of Directors, FIU shall nominate one or more persons and when one such person is approved by the Sweetwater City Commission to serve on the Board of Directors, then each of the four persons newly appointed to the Board of Directors shall be offered the opportunity to suggest someone who undertakes business activities within Sweetwater and north of the Dolphin Expressway/SR 836 as a fifth person to serve on the Board of Directors. The Sweetwater City Commission shall appoint one of those suggested as the fifth Board Member. The first time that Board Members are so appointed, their appointments are to be made sequentially such that the first Board Member seat is filled before the second Board Member seat is filled and so on through until the fifth Board Member seat is filled. As the term office for a Board Member expires or in the event of any Board Member vacancy, a replacement Board Member shall be nominated and appointed by a process as was employed to nominate and appoint the person whose Board of Directors term of office expired or the person who created a vacancy on the Board of Directors except, should the Sweetwater City Commission not appoint Board Members, the Manner of Election may be changed with the approval of the Members. It is understood that the Initial Officers and Directors serve until such time as a Board of Directors is convened following the appointment by the Sweetwater City Commission of the five persons to initially serve on the Board of Directors.

**D. Initial Officers and Directors:** The initial officers and directors of UTMA@Sweetwater (Initial Officers and Directors) as designated by the incorporators shall be:

1. Sweetwater's Mayor Orlando Lopez who serves as President and Director of the UTMA@Sweetwater; whose address is 500 SW 109<sup>th</sup> Avenue, Sweetwater, Florida 33414
2. Sweetwater's Vice Mayor/City Commission President Jose Diaz who serves as Vice President and Director of the UTMA@Sweetwater; whose address is 500 SW 109<sup>th</sup> Avenue, Sweetwater, Florida 33414
3. Tom Gustafson who serves as the Secretary/Treasurer and Director of the UTMA@Sweetwater; who address is 11200 SW 8<sup>th</sup> Street, PC523, Miami, Florida 33199

*Proposed By-Laws for a UniversityCity Transportation and Management Association at Sweetwater, revised from the attached draft Bylaws as provided by the Sweetwater City Attorney:*

**BYLAWS OF UniversityCity Transportation and Management Association of Sweetwater, Inc.**

**Article I – Name, Location & Duration**

- A. Name. The name of this corporation is "UniversityCity Transportation and Management Association of Sweetwater, Inc." and it can be referenced more informally as "UTMC@Sweetwater" or "corporation".
- B. Location. The principal place of business and administrative office shall be located at 500 SW 109th Avenue, Sweetwater, Florida 33174, or at such other location as the Board of Directors of the UTMA@Sweetwater (Board of Directors) may determine from time to time.
- C. Duration. The corporation shall have perpetual existence

**Article II - Purpose**

- A. Generally. The corporation is organized exclusively for the charitable and educational purposes within the meaning of Section 501(c) (3) of the Internal Revenue Code, 1986, or the corresponding provision of any future federal laws.
- B. Smart Parking, Smart Community Transit, and UniversityCity-related Activities. It is the purpose of UTMA@Sweetwater to undertake activities that develop, operate, and manage a system of smart parking and smart community transit to serve the needs of all the members of the UTMA@Sweetwater (Members) and other related activities as referenced in the 2013 TIGER Discretionary Grant submittal entitled "UniversityCity Prosperity Project" (UniversityCity-related Activities) that promote over the short term and long term: prosperity for the City of Sweetwater (Sweetwater), Florida International University (FIU), and such other locations as the Board of Directors deems to be useful to Members; the well-being of each Member of UTMA@Sweetwater (Member); and, the general welfare of all Members. Smart parking and smart community transit shall mean the use of Informed Traveler Program and Applications (ITPA) or other electronic guidance system or technologies approved by the Board of Directors to optimize on an annual basis the community transit trips taken by each Member and parking of private automotive vehicles while improving over a long term the UTMA@Sweetwater capacity to respond to the transportation needs of all the Members. The UTMA@Sweetwater activities include, but are not limited to, the following:
  - 1. Providing and maintaining pedestrian-oriented transit access improvements, stops, and station at and smart community transit to and from destinations at Modesto A. Maidique Campus (Maidique Campus), at FIU's Engineering Center (Engineering Center), within Sweetwater, and at other strategic locations important to: Sweetwater residents; Sweetwater businesses owners, employees and

- customers; Sweetwater visitors; FIU students, faculty, and employees; people doing business at FIU and their customers at FIU; and, FIU visitors
2. Providing and maintaining smart parking services associated with pedestrian-oriented transit access improvements at Sweetwater, FIU, or elsewhere as smart community transit service and other mass transit links are developed to Sweetwater and FIU
  3. Provide to the general public the following upon approval of the Board of Directors and based upon their efforts to off-set operating costs of the UTMA@Sweetwater and to reduce or eliminate any required transit operating subsidy within the areas described for UniversityCity-related Activities and the improvements associated with: the 2013 TIGER Discretionary Grant submittal proposed by FIU to the U.S. Department of Transportation (USDOT) entitled "UniversityCity Prosperity Project", the FY2015-2016 Service Development Grant submittal proposed by FIU to the Florida Department of Transportation (FDOT); and, subsequent UniversityCity-related Activities as further developed and expanded over time:
    - a. Venues for events of general interest
    - b. Travel-related or community services that help to organize, manage and promote such general interest events
    - c. Cultural, music, social, entertainment and market events at locations where infrastructure associated with UniversityCity-related Activities has been constructed
  4. Hold title to all the assets and equipment necessary such services and activities
  5. Elect persons to the Board of Directors (Board Members) and designate officers of the corporation (Officers)
  6. Hire employees of UTMA@Sweetwater (Employees), contract with vendors who provide services to UTMA@Sweetwater (Vendors), and make agreements with others as might be required to undertake activities of the UTMA@Sweetwater
  7. Maintain a website to provide to the Members and the general public all information regarding UTMA@Sweetwater including but not limited to:
    - a. Formation and history of UTMA@Sweetwater
    - b. Organization and structure of UTMA@Sweetwater
    - c. Contact information and titles for the persons serving on the Board of Directors as Board Members, Officers, and senior Employees as identified by the Board of Directors
    - d. List of Members and means to electronically communicate with them through ITPA or other electronic means
    - e. Meeting notices, agendas, and background materials for each Board of Directors meeting, committee meeting, and commission meeting
    - f. Procedures and processes approved by the Board of Directors
    - g. All actions and decisions of the Board of Directors, committees, or commissions
    - h. Services, routes, vehicle frequencies, special transportation services, and activities or techniques for providing and improving UTMA@Sweetwater services
    - i. Information about and usage instructions for ITPA or other electronic guidance system or technologies as approved by the Board of Directors
    - j. Transportation Development Plan (TDP)

- k. Transportation Disadvantaged Services Plan (if and when applicable)
  - l. Location of jurisdictional boundaries of Sweetwater and FIU and the areas where UTMA@Sweetwater services are provided as they might change over time
  - m. Instructions as to the means by which a Member can easily, without any hindrance except payment of reasonable equipment and transmission related costs, electronically communicate to another Member willing to receive such communications or all or any part of the Members willing to receive such communications through ITPA as well as any other means of communications by issuing a written work, comment, image, sound, video, music, observation, analysis, or proposal as well as a Member response to a written work, comment, image, sound, video, music, observation, analysis, and proposal of another Member such that the communication can be read, seen, or heard by another Member, some or all of the Members, and by the general public as requested by the Member issuing the written work, comment, image, sound, video, music, observation, analysis, proposal, or issuing a response to a written work, comment, image, sound, video, music, observations, analysis, or proposal (Member Communication)
  - n. All committee and commission reports inclusive of the reports by a committee formed by the Board of Directors that shall publish the means by which the President of UTMA@Sweetwater (President) arranged for the random selection of Members serving on a Member Communication Commission as described in Article V. of these Bylaws and an analysis of whether to process is likely to produce a typical cross section of the Members
  - o. Such other information that seems to the Board of Directors as necessary to promote the well-being of each of the Member and general welfare of all Members
- 8. Establish contacts with the business community and residents through any community forums, any chamber of commerce, any social organization, any business association, or other venues
  - 9. Undertake analysis of conditions and services provided and determine ways to improve services given available or proposed revenues
  - 10. To coordinate with governmental authorities including but not limited to: the USDOT, FDOT, the South Florida Water Management District (SFWMD), the Miami-Dade Expressway Authority (MDX), and other governmental jurisdictions such as Miami-Dade County (MDC) and City of Doral (Doral), or other agencies and communities to improve services of UTMA@Sweetwater and secure funds for smart parking, smart community transit, other UTMA@Sweetwater services, associated infrastructure, rolling stock, and other assets including but not limited to walkways, bicycle paths, linear parks, plazas, landscaping, hardscaping, water features, stops, stations, short term rental vehicles, mass transit vehicles, other means of transport, and supportive technologies for UTMA@Sweetwater services
  - 11. Establish funding streams and methods for ongoing activities of UTMA@Sweetwater services

12. Any activity, including charging reasonable fees for UTMA@Sweetwater services to Members and others as deemed necessary by the Board of Directors to preserve UTMA@Sweetwater and continue UTMA@Sweetwater activities

- C. Start of Operations. The corporation shall enter into agreements with Sweetwater and FIU to operate smart parking and community transit pursuant to funds and assets made available through the USDOT 2013 TIGER Discretionary Grant, the FDOT Service Development Grant for FY2015-2016, or otherwise and shall begin smart parking and smart community transit services January 1, 2016 or as soon as possible thereafter before July 1, 2016. Thereafter, UTMA@Sweetwater Board of Directors may change, expand, and improve such smart parking, smart transit and other services as funding or other assets become available.

### Article III - Members

- A. Member Relationship with Sweetwater and FIU. To be a Member, it is necessary that a person wish to be a member of UTMA@Sweetwater, be annually approved by the Board of Directors, and be any of the following:
1. Sweetwater resident
  2. Sweetwater business owner with a business operation in Sweetwater
  3. Sweetwater employee of such business
  4. Sweetwater customer of such business
  5. Sweetwater visitor
  6. FIU Student
  7. FIU faculty
  8. FIU employee
  9. People doing business at FIU and their customers at FIU
  10. FIU visitors
- B. Member Approvals; Member Renewals; and, Member Termination Due To Changed Circumstances. The Board of Directors shall review applications of any person seeking to be Member and direct Employees to confirm the relationship of each proposed Member with Sweetwater and FIU as provided for above and the proposed Member's intent to avail themselves of the UTMA@Sweetwater services and ITPA or other electronic guidance system or technologies made available through UTMA@ Sweetwater. The Board of Directors may further define the basis and process for determining that such a Member relationship exists and this information shall be posted on the UTMA@Sweetwater website. Member status shall be freely granted once the above Member relationship has been established. Member status shall be granted annually without further review unless there is a changed circumstance and written statement is presented to the Board of Directors by an Employee, Officer, or any person who is serving of the Board of Directors (Board Member) at least 30 days before the renewal date as to why Member status should not be renewed based on a suspected loss of the relationship with Sweetwater and FIU. Any such written statement should be posted on the UTMA@Sweetwater website and sent to the Member 15 days in advance of any UTMA@Sweetwater Board of

Directors meeting with the meeting notice showing that the Member status will be discussed and requesting the Member attend and respond to the posted and written statements. The Board of Directors may grant to an applicant Member status and renew Member status or may deny to the applicant Member status or deny renewal of Member status. When a written statement rising questions as to the possible loss of relationship with Sweetwater and FIU is timely submitted to the Board of Directors and timely posted and noticed to the Member in question, the Board of Directors shall take any testimony offered regarding the facts and make their determination based on the facts therein presented. Once Member status is not approved for such reason, reinstatement of Member status will be immediate upon presentation of convincing relationship evidence to the Board of Directors. The Board of Directors may delegate this Member status process such that it is undertaken and these Member status issues are resolved by a committee of Members (Committee) organized by the Board of Directors for this purpose following a process similar to the process outlined above and posted on the UTMA@Sweetwater website.

- C. Member Duties as a Condition of Continued Member Status. A Member shall:
1. Provide to an Employee designated by the President or his designees for this purpose their contact information consisting of the Member's: home address; business and work address, if any; business and work phone if any; home phone if any; mobile phone if any; personal email address, if any; and work email addresses, if any
  2. Attend meetings where an Employee(s) shall provide instructions on the use of ITPA or other electronic guidance system or technologies as approved by the Board of Directors and allow Employee(s) to confirm: a Member's use ITPA or such other electronic guidance systems and technologies approved by the Board of directors; and, a Member's access to a smart phone, tablet, computer, publically available electronic boards and kiosks, or other available electronic equipment where ITPA and other electronic information can be accessed
  3. Serve on a Member Communication Commission formed by the President for a three year term when they are selected on a random basis to review and confirm that Member Communication is being provided by UTMA@Sweetwater
- D. Member Report and Member Termination for Inappropriate Behavior; Appeal. Should any driver operating UTMA@Sweetwater vehicle, Employee, Officer, or Board Member witnesses Member behavior that appears to be inappropriate, said UTMA@Sweetwater vehicle driver, Employee, Official, or Board Member shall make a written report specifically describing such behavior by the Member and within 24 hours forward such report to the UTMA@Sweetwater Employee or Officer designated by the Board of Directors for such purposes. Such reported behavior by a Member may include behavior that:
1. Creates an unsafe conditions for others
  2. Threatens or is hostile to others
  3. Causes unnecessary delay as to the services provided by the UTMA@Sweetwater

4. Constitutes a refusal to provide the correct Member contact information: home address; business and work address, if any; business and work phone, if any; home phone, if any; mobile phone, if any; personal email addresses, if any; and, work email address, if any
5. Constitutes a failure, without good cause, to use on a smart phone, tablet, computer, publically available electronic boards and kiosks, or other available electronic equipment of ITPA or other electronic guidance system or technologies as designated by the Board of Directors

The Board of Directors shall invite the Member to explain the circumstances of the reported behavior at a meeting of the Board of Directors by notice provided to the Member at least 15 days prior to the scheduled meeting of the Board of Directors with the posting of same on the UTMA@Sweetwater website. Should the Member not respond to the invitation to explain his or her actions to the Board of Directors, or having responded, did not credibly explain to the satisfaction of the Board Members that the report behavior as minor, excusable, or acceptable, then the Member will be immediately notified by the Board of Directors that their Member status will not be renewed. After such notice is issued, the Member may appeal to the Board of Directors through a process approved by the Board of Directors to allow continued Member status based on the Member's personal assurances that such behavior will not reoccur again. Such Member status may be renewed by the Board of Directors upon a finding that the Member's statement to be credible. An appeal fee payment of \$50.00 dollars must accompany each appeal sought from the Board of Directors; this amount may be changed by the Board of Directors from time to time to account for any new direct and identified appeal cost incurred and the new appeal fee payment amount that will be due with each appeal shall be posted on the UTMA@Sweetwater website and continue to be paid by Members as a nominal fee to help defray the appeal costs.

- E. Annual Members Survey. In November and December of each year, the President and designated Officers and Employees, in coordination with FIU, shall survey the Members to determine their attitudes and usage of smart parking, smart community transit, other UTMA@Sweetwater services and such other matters as would be useful in the reports as required to be delivered by FIU to the USDOT pursuant to the UniversityCity Prosperity Project TIGER Award agreement attached as Exhibit A and as amended from time to time. Surveys shall be performed, thereafter, through agreements as between FIU and UTMA@Sweetwater in order to measure performance and impacts due to improvements and to analyze what new improvements might be useful so as to improve performance and outcomes.

#### Article IV - Board of Directors

- A. Qualifications. The Board of Directors shall be drawn from persons who Members and are qualified:
  1. To serve as a City of Sweetwater Commissioner or as a Member

2. Based on an expression of an informed interest in providing smart parking, smart community transit, and other UTMA@Sweetwater services as described Article II of these Bylaws
3. Based on a reputation of good moral character and being worthy of this public trust

**B. Composition of and Manner of Election to the Board of Directors.** Board of Directors shall be comprised of five persons who are appointed by the City Commission and who meet the Qualifications as provided herein (Manner of Election).

1. First Board Member Seat. A person is nominated by the Mayor of Sweetwater and if such person is appointed to the Board of Directors by the Sweetwater City Commission, this person becomes the first person appointed to the Board of Directors to serve on the Board of Directors of the UTMA@Sweetwater. If such person so nominated is not appointed by the Sweetwater City Commission, the Mayor of Sweetwater shall nominate one person and then another until a person so nominated is approved by the Sweetwater City Commission as the first person appointed to serve on the Board of Directors. When so appointed by the Sweetwater City Commission, this person will be a Board Member who occupies the position referenced as the First Board Member Seat on the Board of Directors.
2. Second Board Member Seat. A person is nominated by the Mayor of Sweetwater and if such person is appointed to the Board of Directors by the Sweetwater City Commission, this person becomes the second person appointed serve on the Board of Directors. If the person so nominated is not appointed by the Sweetwater City Commission, the Mayor of Sweetwater shall nominate one person and then another until a person so nominated is approved by the Sweetwater City Commission as the second person appointed to serve on the Board of Directors. When so appointed by the Sweetwater City Commission, this person will be a Board Member who occupies the position referenced as the Second Board Member Seat on the Board of Directors.
3. Third Board Member Seat. A person is nominated by the Mayor of Sweetwater and if such person is appointed to the Board of Directors by the Sweetwater City Commission, this person becomes the third person appointed serve on the Board of Directors. If the person so nominated is not appointed by the Sweetwater City Commission, the Mayor of Sweetwater shall nominate one person and then another until a person so nominated is approved by the Sweetwater City Commission as the third person appointed to serve on the Board of Directors. When so appointed by the Sweetwater City Commission, this person will be a Board Member who occupies the position referenced as the Third Board Member Seat on the Board of Directors.
4. Fourth Board Member Seat. A person is nominated by FIU and if such person appointed to the Board of Directors by the Sweetwater City Commission, this person becomes the fourth person appointed serves on the Board of Directors. If the person so nominated is not appointed by the Sweetwater City Commission, FIU shall nominate one person and then another until a person so nominated is approved by the Sweetwater City Commission as the fourth person appointed to serve on the Board of Directors. When so appointed by the Sweetwater City Commission, this

person will be a Board Member who occupies the position referenced as the Fourth Board Member Seat on the Board of Directors.

5. Fifth Board Member Seat. A person is appointed by the Sweetwater City Commission from amongst up to four persons suggested by the above four Board of Directors appointees. Each of the first four appointees to the Board of Directors of the UTMA@Sweetwater may suggest one person who must have been actually engaged in business activities within Sweetwater north of the Dolphin Expressway/SR 836. When approved by the Sweetwater City Commission as the fifth person appointed to serve on the Board of Directors. When so appointed by the Sweetwater City Commission, this person will be a Board Member who occupies the position referenced as the Fifth Board Member Seat on the Board of Directors:

The first time that Board Members are appointed, their appointments are to be made sequentially such that the First Board Member Seat is filled before the Second Board Member Seat is filled and so on through until the Fifth Board Member Seat is filled. As the term office for a Board Member expires or in the event of any Board Member vacancy, new Board Members shall thereafter be nominated and appointed by a process as described in the Manner of Election to fill Board seats as vacated, except that the suggestions as to persons to fill the Fifth Board Member Seat shall come from those persons newly appointed to serve on the Board of Directors and those Board Members that will remain of the Board of Directors after the election of the new Board Members. Such Manner of Election shall be changed if the Sweetwater City Commission has not appointed Board Members as scheduled and a new Manner of Election of the Board Members has been established with an approval of a majority of the Members.

- C. Challenge to an Appointment. Prior to adjournment of the special Sweetwater City Commission meeting wherein the new Board Members were appointed to the Board of Director, any of the Sweetwater City Commissioners or the Sweetwater Mayor may ask if anyone wishes to challenge to appointment of any of the said persons to the Board of Directors based on their qualification to serve in their respective positions. Any challenge to such appointments must be brought to the attention of the City Commission during this specially convened City Commission meeting so that questions of fact or law can be adjudicated by the Sweetwater City Commission at the same meeting or any extension of same from day to day.
- D. Initial Meeting of the Board of Directors. When all persons who are to serve on the Board of Directors are appointed by the Sweetwater City Commission and any challenge to any such appointments have been dispensed with by the Sweetwater City Commission, then the Board of Directors shall convene a Board of Directors meeting at Sweetwater City Hall Commission Chambers or similar venue on the Friday following such appointment of the new persons to the Board of Directors. On such day or as soon thereafter as possible, upon the appearance a quorum of Board of Directors, the Board of Directors shall be considered fully constituted and shall assume the duties and responsibilities as Board of Directors. At the beginning of such Board of Directors meeting, a swearing in ceremony may be the organized by the City Clerk or other official of Sweetwater that is in

attendance. At the first such Board of Directors meeting, the three Initial Officers and Directors can be thanked for their service and excused by the Board of Directors from their duties and obligations as Initial Officers and Directors.

E. Term of Office for Persons Appointed to the Board of Directors.

1. General Provisions. Appointments of the new Board Members should occur in June of each year after the Board of Director appointments has occurred or as soon as possible thereafter; except that in the event of a vacancy by a Board Member before the end of their term of office, a person should be nominated and appointed as soon as possible after such vacancy has occurred to serve on the Board of Directors for the remainder of that term. After the initial appointment of the Board of Directors, each new Board Member will be appointed by the same Manner of Election as the person who vacated the Board Member seat was appointed unless the Sweetwater City Commission has not appointed Board Members as scheduled and a new Manner of Election of the Board Members has been established with an approval of a majority of the Members
2. Staggered Terms. The persons appointed to serve on the Board of Directors shall serve staggered terms as follows:
  - a) The person appointed by the Sweetwater City Commission to the First Board Member Seat after nomination by the Sweetwater Mayor shall serve a one year term of office and when that term is over, any person appointed to that First Board Member Seat by the Sweetwater City Commission after the Mayor's nomination will have a three year term of office unless appointed to fill a mid-term vacancy, and thereafter persons appointed to the First Board Member Seat will have a three year term of office unless appointed to fill a mid-term vacancy
  - b) The person appointed by the Sweetwater City Commission to the Second Board Member Seat after nomination by the Sweetwater Mayor shall serve a two year term of office and when that term is over, any person appointed to that Second Board Member Seat by the Sweetwater City Commission after the Mayor's nomination will have a three year term of office unless appointed to fill a mid-term vacancy, and thereafter persons appointed to the Second Board Member Seat will have a three year term of office unless appointed to fill a mid-term vacancy
  - c) The person appointed by the Sweetwater City Commission to the Third Board Member Seat after nomination Sweetwater Mayor shall serve a three year term of office and when that term is over, any person appointed to that Third Board Member Seat by the Sweetwater City Commission after the Mayor's nomination will have a three year term of office unless appointed to fill a mid-term vacancy, and thereafter persons appointed to the Third Board Member Seat will have a three year term of office unless appointed to fill a mid-term vacancy
  - d) The person appointed by the Sweetwater City Commission to the Fourth Board Member Seat after nomination by FIU shall serve a two year term of office and when that term is over, any person appointed to that Fourth Member Board Seat by the Sweetwater City Commission after FIU's nomination will have a two year term of office unless appointed to fill a mid-term vacancy, and thereafter persons

appointed to the Fourth Board Member Seat will have a two year term of office unless appointed to fill a mid-term vacancy

- e) The person appointed by the Sweetwater City Commission to the Fifth Board Member Seat from amongst those persons suggested by those persons just appointed to the First, Second, Third or Fourth Board Member Seats or by Board Members who will remain on the Board of Directors after the election of the new persons to serve on the Board of Directors shall serve a one year term of office and when that term is over, any person appointed to that Fifth Board Member Seat by the Sweetwater City Commission will have a two year term of office unless appointed to fill a mid-term vacancy, and thereafter persons appointed to the Fifth Board Member Seat will have a two year term of office unless appointed to fill a mid-term vacancy

Notwithstanding these term limitations, a person serving on the Board of Directors shall be empowered to continue to serve on the Board of Directors until a replacement has been appointed for the Board of Director seat.

- F. Powers. The Board of Directors shall have all corporate authority, except such powers as are otherwise provided in these Bylaws and the laws of the State of Florida, to conduct the affairs of the corporation in accordance with these Bylaws.
- G. Committees and Commissions. The Board of Directors may by general resolution delegate to committees of their own number, of Members, of Officers, or of Employees, or any combination thereof, such powers as they deem appropriate. The Board of Directors may also approve, at the recommendation of the President, for the establishment of commissions as might help to manage the activities of and settle disputes of or with Members making sure that no committee shall interfere with the jurisdiction over matters granted to a commission. All appointments by the President of persons to serve on any commission, the proposed term of service of the persons to serve on the commission, the jurisdiction and mission of the commission, and the termination date of the Commission shall be subject to the approval by the Board of Directors except as to the continuing existence of the Member Communication Commission and the three year term for those who serve on the Member Communication Commission and except as to the Presidential Commission formed to this make the final determination as to Board Member conflicts when all Board Members have potential conflicts of interests as that Presidential Commission needs to be established and set upon its task solely by the President. The Board of Directors shall form a committee to publish on the UTMA@Sweetwater website the means by which the random selection of the members to the Member Communication Commission was accomplished and an analysis of whether to process is likely to produce a typical cross section of the Members. No committee or a committee member's service on a committee shall be terminated by the Board of Directors until the term of the person serving on the committee or the term of the committee expires, the work assigned to the committee is accomplished and approved by the majority of committee members, or the majority of the committee members agree to terminate the

committee's existence. A committee member may be removed from the committee by majority vote of the committee members after a showing of good cause.

- H. Board Chair. The Board of Directors presiding officer (Board Chair) shall be selected by the Board at its initial meeting to serve as from time to time with the approval of those serving on the Board of Directors. Other than to act as presiding officer at Board of Directors meetings, the Board Chair shall have no other powers, except the Board Chair shall have ministerial duties to schedule to time and meeting place of the Board of Directors meetings at least quarterly and see that the agenda and background materials provided by the President are timely posted on the UTMA@Sweetwater website with a meeting notice to each Board Member 15 days before the Board of Directors meeting. At any meeting of the Board of Directors, a motion to elect a new Board Chair shall be in order. Such a motion to elect a new Board Chair shall be voted upon after deliberations by the Board of Directors as to need for the election of a new Board Chair. During these deliberations, the Board Chair shall not preside and a temporary presiding officer shall be selected by the Board of Directors or lacking a majority vote of the Board of Directors to select a presiding officer during these deliberations, then the presiding officer during these deliberations shall be the maker of the motion to elect a new Board Chair.
- I. Meetings. Meetings of the Board of Director shall be held at a place and time as designated by the Board of directors and shall extend in duration for no more than eight hours in the course of a single day. Special meetings may be called by the Board Chair, the President and whenever majority of the Board of Directors request such a meeting by written notice to the Board Chair and the President. When received, the President shall immediately post such requests on the UTMA@Sweetwater website and shall notify each Board Member of the requests as received. Such special meetings may be called with at least five (5) days written notice to all Board Members. All Board of Director meetings shall be subject to Florida's open meetings laws as they may from time to time be amended. Attendance by a Board Member at a Board of Directors meeting shall be deemed waiver of defective or insufficient notice.
- J. Quorum. A quorum shall consist of a majority of the persons who serve on the Board of Directors. If at any meeting less than a quorum is present, any person serving on the Board of Directors may call for a vote to recognize an absence of a quorum and upon the recorded absence of a quorum, said member may adjourn the meeting without further notice to the absent Board Members. A majority of the Board of Directors attending a duly notice meeting of the Board of Directors when a quorum is present may conduct any business and other activities as authorized by law and these Bylaws.
- K. Vacancy. A vacancy may be deemed to have occurred when a Board Member misses two meetings in a row without an excused absence or three meetings in one year. An absence is excused when a Board Member notifies the President or the Board Chair before the meeting begins that the Board Member cannot attend. Board of Directors can declare a Board Member seat vacant after notifying the Board Member at all points of contact

listed by the UTMA@Sweetwater website of the proposed Board of Directors action to declare the Board Member seat vacated; such proposed Board of Directors action shall appear on the next Board of Directors meeting notice and agenda.

- L. Removal and Recall. Any Board Member may be removed from the Board of Directors for any failure to act in the best interests of the UTMA@Sweetwater or a continuing lack of effort towards the stated purpose of the UTMA@Sweetwater. Upon motion to take such action, such matter shall be voted upon after deliberations by the Board of Directors as to cause for removal of a Board Member from the Board of Directors. The City of Sweetwater Mayor and the FIU may recall a person they nominated who is serving on the Board of Directors and such recall shall take effect on the day following the notice to the person; and the posting of such notice of termination shall be immediately placed on the UTMA@Sweetwater website that the Method of Election shall begin for a replacement Board Member.
- M. Compensation. Persons who serve on the Board of Directors shall receive no compensation for their service on the Board of Directors although such person shall be reimbursed for travel and meeting costs associated with UTMA@Sweetwater activities.

#### Article V – Officers and Presidential Commissions

- A. Designation of Officers. The Officers of the corporation shall be the President, Vice President, Secretary and Treasurer, and they shall have authority to carry out the duties prescribed in these Bylaws. The Initial Officers and Directors of the corporation shall be designated by the incorporators. One person may hold more than one office except no one shall serve as both President and Secretary.
- B. Election and Term. Officers of the corporation shall be elected at the first annual meeting of the Board of Directors held each December, and they shall serve for three years, their removal for cause, or until their replacements are elected and qualified.
- C. Removal. At any regular or special meeting, any Officer may be removed by the Board of Directors for failure to carry out the duties of the office as prescribed by these Bylaws, conduct detrimental to the corporation, or for lack of progress in pursuit with the stated purpose of the corporation. Any Officer proposed to be removed is entitled to five (5) business days' notice of the meeting at which the removal shall be considered and may address the Board of Directors at such meeting.
- D. Vacancy. Vacancies, in any office and for any reason, shall be filled immediately by the Board of Directors for the unexpired term of office.
- E. Duties of Offices.
1. President: The President is the Chief Executive Officer of this corporation and will, subject to the directions from the Board of Directors or any committees established by the Board of Directors for that purpose, supervise and manage the affairs of the

corporation. The President will perform all duties incident to the office of President and any other duties that may be required by these Bylaws or prescribed by the Board of Directors. The President is authorized to: sign and manage all Vendor contracts approved by the Board of Directors consistent with Board of Directors budget authorizations; hire and manage all Employees when positions are created by the Board of Directors consistent with Board of Directors budget authorizations; direct and manage all UTMA@Sweetwater activities with guidance from the Board of Directors and consistent with Board of Directors budget authorizations; establish such presidential commissions as would seem useful (Presidential Commissions) for a specified terms that are empowered to the investigate specified matters to help manage the activities of the corporation and to settle UTMA@Sweetwater-related disputes or UTMA@Sweetwater-related disputes with or between Members, Employees, and Vendors, to make findings of fact, and to propose recommendations to the President; appoint Members as Presidential Commission members for a specific term with the consent of the Board of Directors; and, carry out such actions consistent with the recommendations of a Presidential Commission.

2. Vice President: The Vice-President will perform all duties and exercise all powers of the President when the President is absent or is otherwise unable to act. The Vice-President will perform other duties that may be recommended by the President and approved by the Board of Directors.
3. Secretary: The Secretary will: keep minutes of all meetings of committees, of commissions, and of the Board of Directors; be the custodian of the corporate records; give all notices as are required by law or by these Bylaws; and, generally perform all duties incident to the office of Secretary and any other duties as may be required by law, by the Bylaws, or which may be assigned by the Board of Directors.
4. Treasurer: The Treasurer will have charge and custody of all funds of this corporation, and will deposit the funds as required by the Board of Directors, keep and maintain adequate and correct accounts of the corporation's properties and business transactions, and render reports and accountings to the Board of Directors. The Treasurer will perform all duties incident to the office of Treasurer, and any other duties that may be required by these Bylaws or prescribed by the Board of Directors.

F. Employment of Officers. The President and Vice-President shall each be separate persons and full time employees of UTMA@Sweetwater. The Secretary and Treasurer may be the same person and may work only part-time at UTMA@Sweetwater and may also be employed elsewhere, provided that the Board of Directors must approve any other employment activities.

G. Conflicts of Interest. All possible conflicts of interest that might exist as between the duties of the Board Members, Officers, or employees and any other interests of a Board Member, Officer, or Employee must be immediately reported to the Board of Directors so they can determine if a conflict exists, if it should be waived, or if the conflict requires the Board Member, Officer, or Employee be removed from office and employment. Procedures and policies regarding these matters shall take written form approved by

the Board of Directors. A Board Member shall not vote on matters that regard possible conflicts where that Board Member has a special interest as to the outcome. Where it is determined that more than two Board Members have such a special interest, a committee shall be formed Chaired by any Board Member without such a special interest to make a final determination as to what actions should be taken. Should all Board Members have such a special interest, a Presidential Commission shall be formed to this make the final determination and in such case no Board of Directors approvals are required for the Presidential Commission to be established and set upon its task by the President.

- H. Benefits, Schedules, Job Descriptions. Those Officers and Employees that are employed by the UTMA@Sweetwater shall be provided benefits, job schedules, and job descriptions as approved by the Board of Directors upon recommendation of the President. The President shall provide for the President, Vice President, other identified senior personal to have staggered work hours so that someone authorized to make command decisions on the services provided is always in charge of day-to-day activities of the UTMA@Sweetwater.
- I. "At-will" Employment. All Employees of UTMA@Sweetwater shall be "at-will" employees. No FIU employee will be hired without first securing FIUs consent.
- J. Presidential Commissions and Member Communication Commission. The authority over matters within the jurisdiction of any Presidential Commission, all appointments by the President of Members to serve on any Presidential Commission, and the proposed term of service for the Presidential Commission shall be subject to the approval by the Board of Directors except that the President shall form a Member Communication Commission made up of Members randomly selected to represent at least 3% of all the Members who shall serve a three year term when they are selected to review and confirm that Member Communication are freely provided by UTMA@Sweetwater. Whenever a Member Communication Commission is terminated, another Member Communication Commission shall be established. No commission or a commission member's service on a commission shall be terminated by the President until the term expires, the work assigned to the Commission is accomplished and approved by the majority of commission members, or the majority of the commission agrees to terminate the commission's existence. A commission member may be removed from the commission by majority vote of the commission members after a showing of good cause. Attendance at commission meetings may be accomplished electronically, and as to each commission, the first order of business shall select a Chair and at the Chair's recommendation, commission procedures shall be drafted and approved for ongoing commission activities. Employees shall be assigned to commissions to support commission actions as approved by the President and Board of Directors and consistent with Board of Directors budget authorizations

#### Article VI – Restriction on Actions

- A. All the assets and earnings of the corporation shall be used exclusively for its exempt purposes, including the payment of expenses incidental thereto. No part of any net earnings shall inure to the benefit of any Employee or be distributed to any Board Member, Officer, or any private person; except that the corporation shall be empowered to pay reasonable compensation for services rendered and to make payments and distributions in furtherance of the purposes set forth in Article II of these Bylaws.
- B. Notwithstanding any other provision of these Bylaws, the corporation will not carry on any activities not permitted by an organization exempt under Section 501(c) (3), Internal Revenue Code, 1986, or the corresponding provision of any future federal law, or organizations whose contributions which are exempt under Section 170(c) (2), Internal Revenue Code, 1986, or the corresponding provision of any future federal law. The corporation shall have no capital stock, pay no dividends, distribute no part of its net income or assets to any Board Member, Officer, Employee, and private property of the subscribers Board Members or Officers shall not be liable for the debts of the corporation.
- C. No substantial part of the corporation's activity shall be for the carrying on of a campaign of propaganda or otherwise attempting to influence legislation. The corporation shall not participate in any political campaign, will not engage in political campaigns or attempt to influence legislation or interfere with any political campaign on behalf or in opposition to any candidate for public office.

#### Article VII – Contracts, checks, Deposits and Funds

- A. Contracts. The Board of Directors may authorize, by general resolution, an Officer, a Board Member, or an agent or agents of UTMA@Sweetwater (Agent), in addition to persons authorized by these Bylaws to enter into any contract on behalf of the corporation.
- B. Checks, Drafts, and Orders of Payment. All checks, drafts, notes, or orders of payment or other evidence of indebtedness issued in the name of the corporation shall be signed by the Officer, Board Member, or Agent such as the Board of Directors may from time to time designate by general resolution of the Board of Directors.
- C. Deposits. All funds of the corporation shall be deposited from time to time to the credit of the corporation in such banks, trust companies, or other depositories as the Board of Directors may designate.
- D. Gifts. The persons serving on the Board of Directors, collectively or individually, any Officer or designated Agent may accept gifts, contributions, bequests, grants, or devise of any property on behalf of the corporation so that it can thereby immediately become the property of the corporation.

E. Loans. No Board Member, Officer or Agent shall have the authority, on behalf to the corporation, to enter into a loan or any other contract of indebtedness except by vote in a specific resolution of the Board of Directors. The authority designated by this provision shall be limited to a single and specific instance for each loan or any other contract of indebtedness.

**Article VIII – Dissolution**

Upon dissolution of the corporation, the Board of Directors shall, after paying or making provision for payment of all liabilities of the corporation, including the costs and expenses of such dissolution, dispose of all the assets of the corporation exclusively for the exempt purposes of the corporation or distributed to an organization described in Section 501 (c)(3) or 170 (c)(2) of the Internal Revenue Code, 1986 or the corresponding provisions of any future federal law, as shall be selected by the last Board of Directors. None of the assets will be distributed to any Officer Board Member of the corporation. Any such assets so disposed of shall be disposed of by, and in the manner designated by, the state court having jurisdiction over the matter with the intent that such assets be transferred to an charitable institution to the extent possible for purposes of paying the costs education, health, and welfare of children and young adults ages 4 through 30 and thereby establish more prosperous conditions.

**Article IX – Statement of Nondiscrimination**

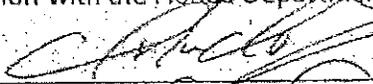
Notwithstanding any provision of these Bylaws, the corporation shall not discriminate against any Board Member, Officer, Employee, Member, applicant, participant, or person on the basis of sex, race, color, ethnicity or national origin.

**Article X – Amendments**

The Board of Directors shall have the power to amend, alter, make and repeal the Bylaws of the corporation by the Board of Directors and in the case of changing the Method of Election for the Board of Directors the approval of the majority of the Members is also required. In the absence of at least three Board Members on the Board of Directors, the Method of Election may be amended by the majority of the Members however expressed.

**Adoption of Bylaws; Authorization to file Articles of Incorporation**

Adopted by the Board of Directors by resolution and vote of all three Initial Officers and Directors on the date below so as to authorize the electronic filing of the above Articles of Incorporation with the Florida Department of State Division of Corporations:

	5/29/2015
Mayor Orlando Lopez	[Date]
	5/29/15
City Commission President/Vice Mayor Jose Diaz	[Date]
	5/29/2015
Tom Gustafson	[Date]



# FY2013 TIGER Discretionary Grant Narrative: UniversityCity Prosperity Project

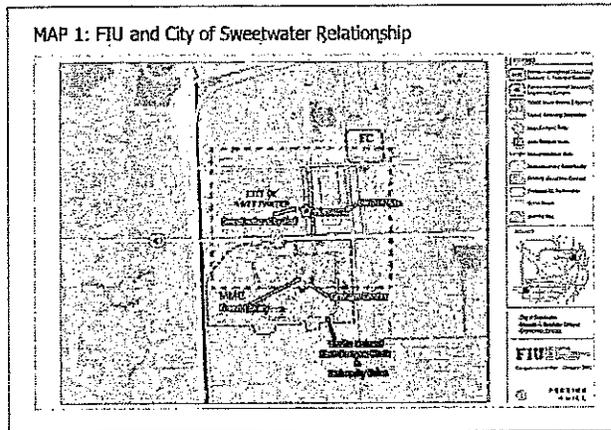
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## FY2013 TIGER Discretionary Grant Narrative: UniversityCity Prosperity Project

### I. Project Description

The UniversityCity Prosperity Project (UniversityCity) defines a transformative complex of pedestrian-oriented, multimodal and intermodal improvements. By linking the City of Sweetwater (Sweetwater) and Florida International University (FIU) with the competitive world economy and providing a healthy and educational enriched urban built environment. UniversityCity will support long term prosperity in a balanced and just sustainable community.



The two communities that today comprise Sweetwater and FIU's Modesto A. Maidique Campus (Maidique Campus) are part of a heavily populated, hurricane flood prone, suburban western Miami-Dade area located approximately 8 miles from the Everglades Watershed. Sweetwater residents and visitors, and the students, faculty and employees at Maidique Campus have:

- Growing travel congestion in their daily commutes
- No connective pedestrian-oriented

mutual corridor

- No jointly accessible regional express transit or multimodal choices to link them to other communities in Miami-Dade County (MDC), the Southeast Florida region and beyond.

While they still lack some of the infrastructure required to test their resolve, they commit, with this TIGER award, their joint efforts to build a more prosperous, sustainable community. UniversityCity is envisioned as a high-density, vibrant urban community that helps to attract students and faculty to FIU, as well as global talent, businesses, and investors to Sweetwater.

With the UniversityCity improvements, transit access will be vastly enhanced to provide Bus Rapid Transit (BRT) service at UniversityCity. As a multicultural, knowledge-based, highly walkable and increasingly prosperous community, UniversityCity will be linked with:

- The Miami Intermodal Center (MIC) via SR 836 Express Enhanced Bus Service (836 Express) provided by Miami-Dade Transit (MDT) by 2016
- Miami Beach via the Miami Beach Airport Flyer from the MIC
- International and national destinations via MIA Mover and Miami International Airport (MIA)
- National destinations via Amtrak
- Southeast Florida destinations via Tri-Rail
- Miami- Dade County destinations via Metrorail, Metromover and Metrobus including the express buses operating as the South Miami-Dade Busway, the Kendall Cruiser, and 95 Express
- The proposed 75 Express bus service and Palmetto Express bus service (2017/2018) and existing 595 Express bus service (also see the January 8, 2013 Industry Workshop presentation regarding the I-75 and Palmetto Express Lanes [here](#)).

To make transit and UniversityCity destinations more accessible and draw large numbers of

## FY2013 TIGER Discretionary Grant Narrative: UniversityCity Prosperity Project

students, residents, and visitors throughout Sweetwater and Maidique Campus, including to and through US 41, multiple types of pedestrian and bicyclist safe passage strategies will be deployed at the SW 109<sup>th</sup> Avenue intersection. These pedestrian-oriented capital improvements will constitute components of an Advanced Transit Oriented Development (ATOD) and transform what had been a dangerous highway barrier blocking congress between the two communities (e.g., the 9 lanes of congested and at times deadly higher speed traffic on US 41) into a gateway opportunity. Much larger numbers of pedestrians and bicyclists will more frequently access transit and safer and healthier pedestrian trips will grow in length and frequency based upon:

- Frequent community transit crossing the US 41 intersection at SW 109<sup>th</sup> Avenue (see two Sweetwater Trolley 26 passenger community transit vehicles, two Sweetwater Circulator 18 passenger community transit vehicles and two FIU CATS Shuttle 25 passenger community transit vehicles)
- At-grade safety street crossing improvements at the intersection of US 41 and SW 109<sup>th</sup> Avenue
- A new, attractive, wide single pylon cable-stayed shared-use pedestrian-oriented bridge
- Repair and reuse of an old bridge across the Tamiami Canal for pedestrian and bicyclist use with access to a bus stop/shelter
- A unified establishment a complete street, pedestrian-oriented pathways and community plazas along the SW 109<sup>th</sup> Avenue corridor between Sweetwater's City Hall and FIU's Stephen & Dorothea Green Library (Green Library).

By using a specific arrangement of pedestrian-oriented improvements (attractive, wide, landscaped, and hardscaped sidewalks, boardwalks, shared-use paths and bridges, transit greenways, mixed-mode streets, and plazas), mixed-use development, student housing, important destinations (civic, academic and health), community transit, intermodal stations and transit stops, these UniversityCity components will leverage more frequent passage between both the Sweetwater and FIU segments of the UniversityCity community and facilitate greater use of the transit services they will share. More frequent transit use, intermodal transfers and safe pedestrian-oriented transit access will be further enhanced in this multimodal urban environment via an advanced and comprehensive electronic wayfinding system built for the first time in the United States that is defined by proposed Informed Traveler Program and Applications (ITPA).

*"Every now and then, you've got to ask the hard questions. The one we choose to ask is: How will Miami-Dade County shape itself in the knowledge-based economy of the 21st century?" FIU President Mark B. Rosenberg*



### A. Introduction

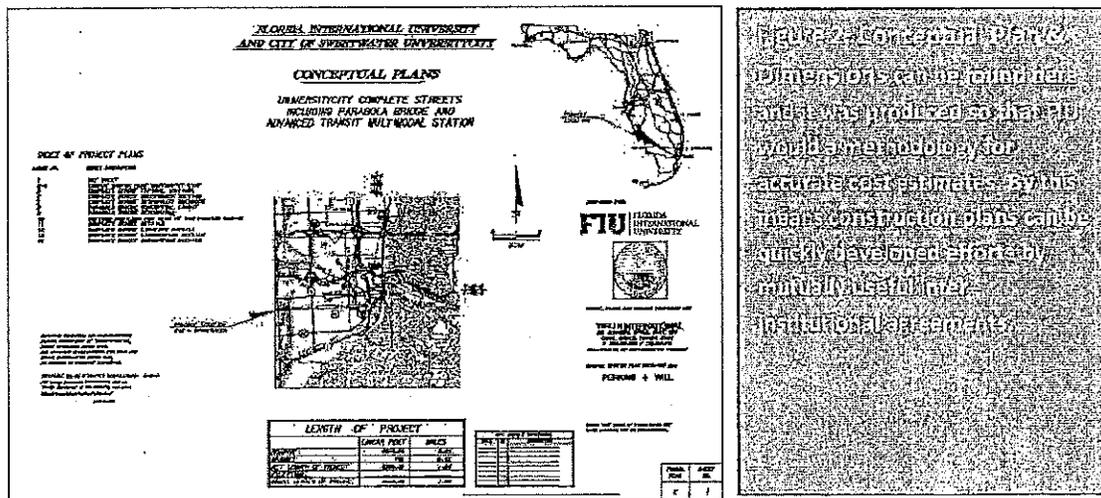
Throughout the Southeast Florida region, cities and neighborhoods are seeking to redefine themselves to align their human needs with available assets. Residents and visitors to Southeast Florida want a better life and seek guidance as to how their communities might prosper. UniversityCity begins this transformation effort by envisioning a robust, sustainable, affordable, and equitable community centered at Sweetwater and FIU. Today Sweetwater is a low-income,

**FY2013 TIGER Discretionary Grant Narrative: UniversityCity Prosperity Project**

immigrant, and predominately Spanish speaking community. Most residents carry on their daily routine separately from FIU. FIU is an anchor public institution of higher education for Miami-Dade County (MDC) and could benefit by more outreach to their close neighbor. Together they want to become a UniversityCity that prospers in the emerging global knowledge economy...

As depicted in Figure1, UniversityCity will help transform the FIU/Sweetwater relationship to a truly unique and collaborative relationship that will create a growing, sustainable and innovative community. UniversityCity is an important part of this process and proposes to help achieve a shared community vision in two innovative ways:

- Establishing the parameters of ATOD that, within very clearly defined public places and mixed-use communities, lengthen the pedestrian travel shed, increase frequency of pedestrian to transit trips and improve intermodal access
- Development and use of ITPA to provide real-time and predictive multimodal wayfinding advice to seamlessly mix modes, identify current or likely roadway obstructions, reserve and identify available structured parking, and optimize every trip in a timely and convenient manner with ITPA's expanding capabilities



An ATOD for UniversityCity creates a best practice for infrastructure improvements that shift trips away from private passenger vehicles to transit, bicycle and pedestrian movements, while simultaneously supporting the economic growth related to a major public research university and an adjacent small city. The ATOD strategically weaves together:

- Vibrant and mixed-use “Main Street” community access with pedestrian pathways and bridges, high quality public spaces, and multi-modal transit station environments;
- Innovative transit greenways and mixed-mode streets
- Traffic-calmed streets and intersections
- Metered street parking and smart structured parking with liner buildings
- Coordinated community transit feeder service for FIU (CATS), Sweetwater Shuttle and the Doral Trolley
- Safe bike paths and multi-use corridors
- Two private development projects that establish higher residential densities within Sweetwater along SW 109<sup>th</sup> Avenue

## FY2013 TIGER Discretionary Grant Narrative: UniversityCity Prosperity Project

- Advanced Intermodal & Multimodal Station (AIMS) built into the structure of a smart new parking garage adjacent US41 at Maidique Campus with comfortable, safe, useful, interesting and fun public space, waiting areas, and pedestrian/bicyclist access in addition to raised platforms, and ITPA and/or public arrival and departure announcements. See newly approved parking garage (PG6) with multimodal station for FIU and MDT express bus service, MDT metropolitan bus service, and Sweetwater and FIU community transit and Ambulatory Care Clinic [here](#)
- Express bus service (i.e., the proposed 836 Express) that operates with BRT efficiencies given the ATOD and AIMS components, Traffic Signal Priority (TSP) system, ITPA or other transit locator system enhancements, and eventually pre-boarding, ticketing and seat reservation technologies for express bus services, metropolitan transit services connecting UniversityCity with neighboring Miami-Dade communities
- An attractive signature single pylon cabled-stayed pedestrian bridge that provides, with at-grade pedestrian crossing improvements and frequent community transit, safe passage through the SW 109<sup>th</sup> Avenue intersection with US 41 (without all three conveyances, US 41 becomes a deadly blockage for congress as between Sweetwater and FIU)

The UniversityCity ATOD overcomes very real alternate mode obstacles and encourages a significant modal shift from private passenger vehicles to pedestrian, bicycle, and transit modes.

The ITPA will provide personalized, accurate and timely information and advice regarding the most efficient and cost effective travel modes, paths, and time for travel for consumers using real-time information. It will include a parking management and information system that covers Sweetwater and the FIU campus, a car/bicycle sharing system and an advanced traffic signal control system to accommodate expected changes in traffic patterns and multi-mode operations (passenger cars, transit, pedestrians, and bicycles). The ITPA will enable users to make better travel decisions even before they get in their vehicles and offer users express transit routes and faster parking in smart garages as major time savers. ITPA gives travelers the information, motivation and courage to change routes or take transit instead of following a reflective pattern of automotive travel. The advanced management of travel in passenger cars, transit, pedestrian and bicyclists will ensure optimum operations and encourage shifts between modes and spreading out demand to better fit capacity. In time, ITPA will also allow managers to game the system to find the most cost effective transportation capacity improvements and strategies.

This unique and innovative combination of computing technology, transit station improvements, and pedestrian-oriented infrastructure will take advantage of express transit deployment and will be a first-of-its-kind effort that serves as a model for other communities throughout the nation. Significant expected benefits include reductions in congestion, travel time, accidents, vehicle miles travelled, and travel costs for businesses and households. UniversityCity will demonstrate how to connect strategies for sustainability, innovative mobility, technology transfer, new urbanism/smart growth, and equitable economic prosperity through leadership provided by a major public research university. In a globally competitive knowledge economy and a region willing to become more resilient to identified climate change impacts, UniversityCity will point the way forward. See NOAA's Global Sea Level Rise Scenarios for the United States National Climate Assessment [here](#) and the 2013 draft National Climate Assessment Report [here](#).

## FY2013 TIGER Discretionary Grant Narrative: UniversityCity Prosperity Project

At the same time, this project addresses systemic and urgent problems in western MDC. Communities such as Sweetwater and City of Doral (**Doral**) have used annexation and incorporation as a strategy to revitalize themselves and give shape to new opportunities for their residents. The rapid growth and expansion of nearby FIU, whose enrollment is approaching 50,000, gives these cities and their neighbors an unprecedented opportunity to build new partnerships, generate fresh approaches to problem-solving, and improve their quality of life. This sustainable prosperity plan of FIU, Sweetwater, Miami-Dade Expressway Authority (**MDX**) and other partners and participants fosters a more seamless campus-community dynamic that helps to fulfill the need for talent development, job creation, sustainability, enhanced public transportation, and new forms of residential and neighborhood development. This unique combination of innovation and adaptive community building, with a very strong and enthusiastic alliance of public and private participants, will further the goals and principles of the Sustainable Communities Initiative partnership and the TIGER program. Eventually, this pedestrian-oriented urban design, grounded in an uplifting socioeconomic mission and optimized application of technologies and community building strategies, will bring prosperity to Southeast Florida.

Project roles and contributions include: the use of National Science Foundation Industry-University Cooperative Research Center for Advance Knowledge Enablement (**IUCRC-CAKE**) as an organizational platform for expert multi-disciplinary and inter-institutional collaborations; The Lehman Center for Transportation Research (**LCTR**) Integrated Intelligent Transportation Systems (**IITS**) Laboratory as a premier research and test bed facility; International Business Machines Corporation (**IBM**), as a IUCRC-CAKE member, brings with it the world-class solutions from its Smarter Planet, Mobile First and Analytics initiatives; private real estate developers are proceeding with a \$35 million student housing investment in Sweetwater adjacent to FIU in the first of many phases of mixed use projects; international business interests have begun discussions about future investments; and the entire MDC Congressional delegation has expressed their very strong support. By using these innovative constructs and world-class partners and participants, FIU will build at full scale one of the most advanced sustainable communities living laboratories in the world.

### **B. The Challenges**

This proposal is the first step in catalyzing the long needed transformation of an important segment of our region that has been isolated and often too passive in the past despite significant opportunity to move forward. While western MDC has a sizeable population, it lacks significant alternative modes of transportation (i.e., non-automobile) and walkable communities. UniversityCity builds upon FIU's nascent role as an anchor institution and a community awakening about the need for a more deliberate and determined effort to create a prosperous and sustainable future. Public Research Universities such as FIU play a major role in creating global economic competitiveness. U.S. strategic investments in the places surrounding universities are essential in order to attract, develop, and retain the very best talent that drives the innovation economy. A number of partners have organized around a series of shared goals and visions to form the UniversityCity Alliance (**UCA**) to secure necessary strategic investments.

As the only public research university in Florida's most populous and diverse metropolitan area, FIU is among the 25 largest universities in the country, and it plays a very special role in the Southeast Florida Region. While continuing to attract, develop, and retain internationally experienced talent, FIU fulfills its role as the largest Hispanic serving research university in the

## FY2013 TIGER Discretionary Grant Narrative: UniversityCity Prosperity Project

country. FIU expects to grow enrollment to over 50,000 within the next decade, including many students who are the first in their families to attend college and come from limited English households. With over 7,000 faculty/staff and 150,000 alumni in South Florida, FIU serves as an anchor for the emerging South Florida Life Science corridor; attracts over 500,000 annual visitors for cultural and sporting events; and leads the development of a billion dollar economic development cluster centered on the Herbert Wertheim College of Medicine (Wertheim COM). But traffic congestion, emerging water supply and drainage issues, parking shortages, and the lack of vibrant urban places adjacent to campus threaten both FIU and its partner Sweetwater. Affordable living options and limited transportation choices are frequently stated concerns of both local residents and talented FIU recruits. With completely congested major roadways acting as barriers to nearby communities, FIU and Sweetwater are in danger of becoming isolated locations that few want to visit. If it takes too much time and effort to reach FIU, the anchor institutional missions cannot be accomplished. If the residents of Sweetwater are stranded within their community, prosperity will just be a slogan and never an economic reality.

FIU has limited room on campus to expand and therefore seeks to attract additional housing, retail, smart parking, and other uses to livable Sweetwater places that, with infrastructure improvements, can provide high quality and large-scale walking environments within reasonable walking distances to campus. But poor mobility linkages across the 9 lanes of high-speed traffic on US 41 at SW 109<sup>th</sup> Avenue (and similar conditions on SW 109th Avenue and West Flagler Street) have hindered private investment and prevent a meaningful and daily connection between the Sweetwater residents and businesses and the FIU students, faculty, employees and visitors.

This situation is expected to worsen as traffic conditions increase the danger for pedestrians and bicyclists over the next five years when the Florida Department of Transportation (FDOT) widens SW 107th Avenue and the nearby Florida Turnpike. Without the innovative solutions contained in this UniversityCity proposal, the combination of these challenges will:

- Stifle Sweetwater's plans to redevelop and FIU's plans to grow
- Lessen positive impacts on surrounding communities
- Reduce the ability of Sweetwater and FIU to serve students and resident needs
- Inhibit the development of knowledge workers essential for economic prosperity

Sweetwater envisions a high-density, vibrant urban neighborhood that helps FIU attract students, as well as global talent, businesses, and investors. Sweetwater also acknowledges the need for additional capacity to:

- Emerge as a high quality urban built environment
- Create new jobs and useful connections to the amenity-rich FIU Maidique Campus
- Improve public spaces for a downtown Sweetwater
- Provide for quality educational opportunities for their predominantly low-income, immigrant residents (Sweetwater's population is 93% percent Hispanic).

For this reason, the Mayor of Sweetwater with the full support of the City Commission has agreed to actively participate in the UCA with FIU and the UCA Steering Committee.

The transformation from a place of isolation and congestion to a sustainably connected global UniversityCity requires strategic and innovative infrastructure investments. TIGER funding will help Sweetwater, FIU, MDX, and our other transportation and development partners accomplish

## FY2013 TIGER Discretionary Grant Narrative: UniversityCity Prosperity Project

this major prosperity and sustainability initiative. These unique combinations of proposed improvements in UniversityCity do not fit typical funding categories or programs, but they offer great promise beyond MDC once they are built, measured, and proven. In fact, once successful, they will create completely new standards for very smart, pedestrian-oriented, and multimodal systems that support national, state, regional, and metropolitan area goals, strategies, and desired outcomes for prosperity and sustainability.

To accomplish this vision, UCA and other partners have agreed to accelerate UniversityCity by engaging in a number of coordinated activities including:

- Approvals for construction of PG6 to house a multimodal stations (\$35,407,356)
- Planned development for an Ambulatory Care Center (\$8,551,554)
- Funding requests to the John S. and James L. Knight Foundation for \$250,000 in additional planning funds for the City of Sweetwater enhanced land use planning efforts to ensure they meet the goals and objectives of the Sustainable Communities Initiative
- FDOT agreement to proceed with a \$408,000 Sustainable UniversityCity Sub-Area Mobility Study
- Agreement with MDX to proceed with a \$265,000 MDX research study to produce an ITPA Work Plan & Way Forward Strategic Vision regarding efforts to complete any needed ITPA technology development and undertake the deployment of a robust localized ITPA consistent with ongoing efforts by MDX and FIU to transform public transportation see previous SR 826 Express Bus Study expense expended by MDX with FIU LCTR [here](#).
- Endeavoring to procure TIGER funds via this proposal
- Agreement with MDX to secure funding for an additional \$10 million in matching ITPA Technology Development & Deployment funds from MDX and elsewhere after: i) the ITPA Work Plan is completed funded by MDX (\$265,000) starting November 2013 immediately upon announcement of 2013 TIGER Discretionary Grant award for the UniversityCity submittal; ii) the achieving a proof of concept funded by this TIGER grant all of which was based on the SR 836 Express Bus Service Study funded by MDX and completed by FIU in 2010 (\$182,306.00). See [here](#).
- Other TIGER related commitments as provided for within the 2013 TIGER/UniversityCity submittal

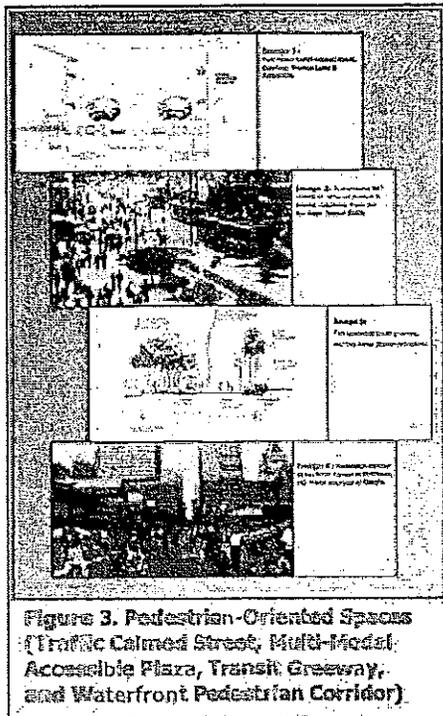
### C. UniversityCity TIGER Proposal Components

This section provides detailed descriptions of UniversityCity components for which TIGER funding is being requested. It also provides an overview of other aspects of the project paid for using non-TIGER funds. One goal of this plan is to create pedestrian-oriented spaces similar to spaces that have been successfully created in other areas of the world (see Figure 3). A summary of this proposal is contained in the UniversityCity PowerPoint from March, 2012 [here](#).

#### 1. Advanced Transit Oriented Development

Near-station environments have a major impact on transit ridership, bicycle use and distances travelers will walk as part of a multi-modal trip. See the December 2010 report entitled "SR836 Express Bus Study" by LCTR. found [here](#). This is clearly evidenced by current transportation funded efforts across the country to create better catchment areas for trains and express bus systems by improving crosswalks, installing wider sidewalks with landscaping and hardscaping to make them attractive and adding bike lanes.

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In UniversityCity, ITPA users get real-time and predictive information that helps them reach their destinations faster and easier, including through increased use of transit. With ATOD improvements (see ATOD description found [here](#)), transit users need to experience an intuitive near-station urban environment to eventually rival the best places in Europe. This combination creates more frequent and extensive mode shifts to transit/biking/walking, more affordable living opportunities, greatly improved pedestrian safety and comfort, and reduced congestion, pollution, and energy use. (Gustafson, T., Growing the New American Economy, Feb. 2009, found [here](#); Zacharias, J., The Amsterdam Experiment in Mixing Pedestrians, Trams and Bicycles, ITE Journal, Aug. 1999, found [here](#)). The UniversityCity ATOD contains several new and traditional components innovatively woven together to address the total travel path of individual travelers and many of these components are integrated into the information provided by ITPA for enhanced travel

choices. Travelers will not wait in place if there is nothing to do within a short walk while they wait. As can be seen Figure 4, the various elements use both TIGER and other sources of funding, and include:

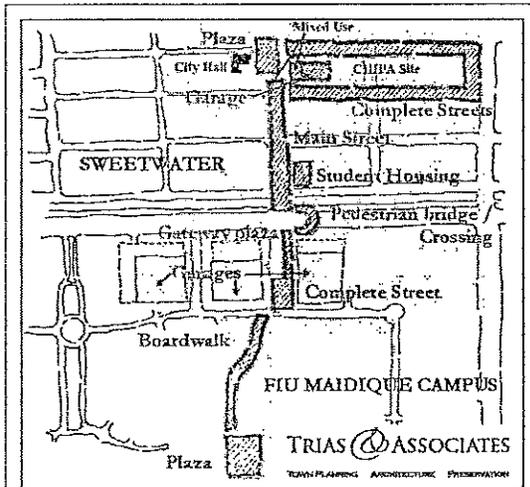
- AIMS inside a new Smart Garage that uses Intelligent Parking System technologies
- Pedestrian bridge across US 41 wide enough to also accommodate bicyclists and intermittent golf carts operating as parking garage shuttle vehicles
- Improvements to widen sidewalks, add landscaping and hardscaping, decorative lighting and higher elevations so some portion of the sidewalk rises at least the floor height of adjacent buildings, along a mixed-use "Main Street" corridor (SW 109th Avenue) and safety improvements within the intersections at SW 109th Avenue and US 41
- A new City Hall Plaza, City Hall Mixed-Use Smart Garage, City Hall Intelligent Plaza and Parking Area (CHIPPA);
- Upgraded pedestrian plazas, community transit stops, and bicycle and pedestrian crossings and pathways;
- Sidewalk, landscape and hardscape improvements and metered parallel on-street parking on SW 5<sup>th</sup>, 6<sup>th</sup> and 7<sup>th</sup> Streets between SW 110<sup>th</sup> & SW 107<sup>th</sup> Avenues
- Special attention to personal security throughout the ATOD area, using environment, program, and strategic communications improvements
- Complete street improvements on SW 109th Avenue between US 41 and Flagler Street
- Upgraded Sweetwater transit vehicles coordinated with FIU collector bus vehicles
- FIU Panther Express use of the 836 Express and similar routes
- Proposed 836 Express and various station improvements between western MDC and MIC
- Multi-modal management of the transportation system

**FY2013 TIGER Discretionary Grant Narrative: UniversityCity Prosperity Project**

The UniversityCity AIMS is planned to serve as the transit hub for western MDC. It will:

- Accommodate FIU's existing Panther Express bus service between the Maidique and Biscayne Bay campuses
- Support the proposed 836 Express-to the MIC along the Dolphin Expressway (SR836)
- Serve as a hub for the local UniversityCity metropolitan and community transit vehicles
- Accommodate bicycles and car sharing facilities and equipment
- Provide airport-quality retail services and air-conditioned waiting area amenities for transit customers
- Connect to a number of safe and attractive pedestrian and bike pathways that flow through nearby mixed-use areas to encourage a combination of walking and transit trips

Security cameras and other design and operations features create a safe and comfortable indoor and outdoor waiting environment. With a special access drive providing bus entryway and exit directly from and back onto US 41, raised bus platforms, and pre-ticketing, the AIMS will reduce boarding time and headways.



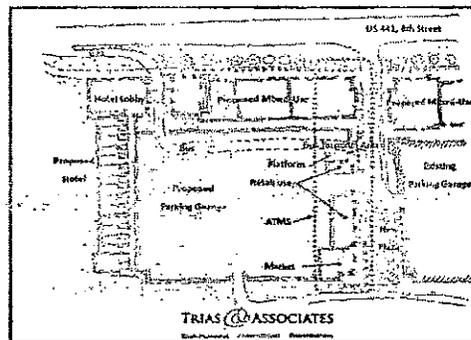
**Figure 4. UniversityCity ATOD elements.**

As part of the ITPA system within the AIMS, transit vehicle arrival and departure information is communicated via: i) direct view of transit vehicles from conveniently located terminal waiting areas and platforms; ii) audio broadcasts and electronic sign messages in the terminal waiting areas and retail establishments; iii) electronic kiosk information boards within and outside the waiting area and plaza, and iv) notifications sent to the smart phones of the ITPA customers.

A new smart garage located west of the smart Red Parking Garage contains the AIMS (see Figure 5) and the ITPA system lets users know when parking is available, when various buses will arrive, the availability of bike lockers, and real time rates for car and bicycle sharing rentals. The garage contains a total of over 4,000 parking spaces for private cars, 100 spaces for bicycles, 60 reserved spaces for ITPA subscribers, at least 12 spaces for the car sharing program, and 35,000 square feet of shell space for classrooms and FIU related retail space that might include research and business incubator use or other UniversityCity compliant use. A UniversityCity related liner building starting 20 feet above the exterior stop area will eventually be built upon the columns planned within the bus parking area. In addition, a convenience store, coffee shop, news stand, or similar retail outlet will provide activity, amenity, and natural surveillance both day and night to enhance transit rider comfort and safety. A raised outdoor mall and arcade provides for pedestrian-oriented transit waiting areas. As

In

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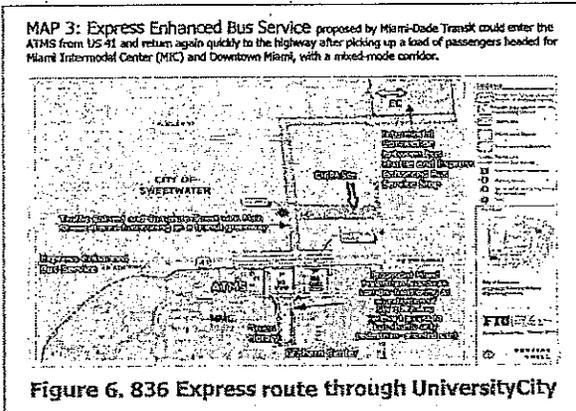


**Figure 5. Proposed ATM**

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part of an economic inclusion and small business policy, preference will be given to potential retail business operators who are current residents of UniversityCity.

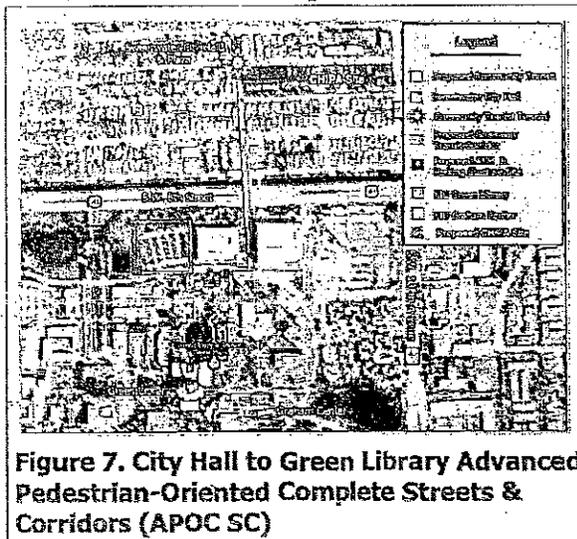
A shared-use pedestrian-oriented bridge, community transit vehicles, and safe crossing at-grade improvements across US 41 at SW 109th Avenue (see Figure 6) provides a safe and critical link between the residential neighborhoods, FIU parking garages, AIMS, FIU Maidique Campus, FIU Engineering Campus, and pedestrian mixed-use districts along SW 109th Avenue in Sweetwater. By using a wide, single pylon, cable-stayed, curvilinear structure, the bridge allows disabled persons and bicycles to use it safely and easily. Lighting and other features help create a safe pathway after dark, and the design eliminates the need for elevators and provides opportunities to enliven the pathway with vendors, public art, and other activities. This bridge will serve a key “place-making” purpose by connecting the City of Sweetwater and FIU, and as a symbol of the UniversityCity. Additional pedestrian bridge designs and images can be found [here](#).



High quality pedestrian space connects the Green Library to Sweetwater City Hall via the narrowing of street lanes, widening of sidewalks, landscaping and hardscape along a mixed-use “Main Street” corridor between Sweetwater City Hall Plaza and the Community Transit Grove Stop (CTGS) on the Maidique Campus, the Green Library boardwalk, and a transit greenway route around the Engineering & Computer Science (ESC) building. CTGS is established within a grove of mature shade trees and helps to establish an environment that serves to

“capture” pedestrians and funnel them to travel modes other than the private passenger automobile. The CTGS improvements are shown in Figure 7 and detailed description of such pedestrian-oriented spaces can be found in the ATOD definition found [here](#).

A City Hall Plaza and mixed-use smart garage with pedestrian-oriented sidewalk landscape and hardscape improvements and metered parallel parking along SW 5<sup>th</sup> Street, 6<sup>th</sup> Street and 7<sup>th</sup> Street between SW 110<sup>th</sup> Avenue and SW 107<sup>th</sup> Avenue is located at the north terminus of these UniversityCity improvements (see Figures 8 and 9). The CHIPPA is planned to be initially developed within the city block between SW 5<sup>th</sup> Street and SW 6<sup>th</sup> Street immediately east of SW 109<sup>th</sup> Avenue and has a mixed-use liner building facing the City Hall Plaza CHIPPA provides a terminating feature and focal point for events that support the pedestrian nature of the ATOD. The smart garage is planned to initially contain 180 spaces, be bordered by mixed-use liner buildings. It is to be completed by or prior to 2018, and will be strategically located to direct traffic flow to and from SW 107<sup>th</sup>



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Avenue instead of the pedestrian-oriented SW 109th Avenue. CHIPPA will also have technology that feeds into the ITPA to allow users to know when parking spaces are available and when reserved parking is an option. Local shuttles will stop at the City Hall Plaza and ITPA users will have real time information about their arrival. Conceptual plans and diagrams for the City Hall Plaza and CHIPPA are available [here](#))

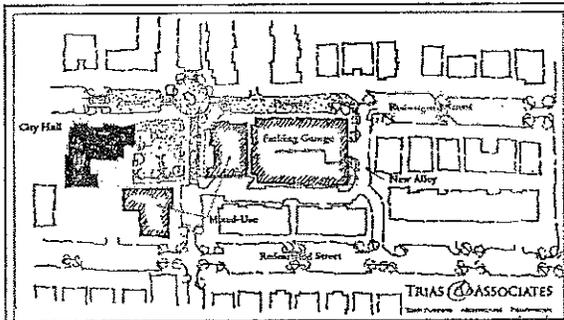
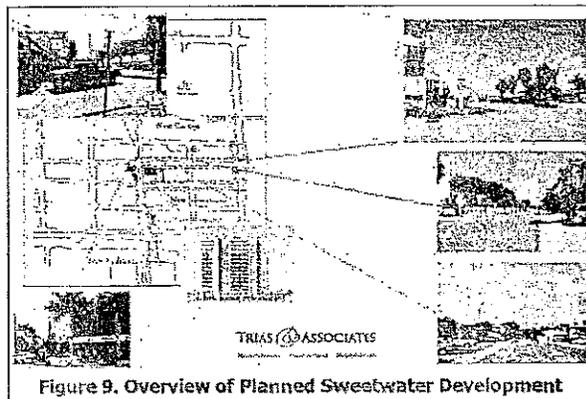


Figure 8. Planned Sweetwater Development around City Hall (Plaza and CHIPPA)

Improved at-grade pedestrian safety features at the intersection of SW 109<sup>th</sup> Avenue and US 41 (see Figure 10) are expected to include narrowed travel lanes on both roadways to reduce speeds, specially designated crosswalks, eventually widened and protected medians on US 41 to allow for pedestrians to safely pause at the middle of the 8 lane highway (useful for the elderly or disabled), improved signage to make drivers aware of pedestrians, higher lighting levels for pedestrian visibility after dark, improved

sidewalks across the canal on the north side of US 41, "countdown" pedestrian crossing signals, and similar features. Upgraded pedestrian plazas and pathways on the FIU Maidique campus will begin with the addition of wide plazas and small pavilions at the southwest and southeast corners of US 41/SW 109<sup>th</sup> Avenue. These will link through improved and widened crosswalks and sidewalks to a new covered walkway providing rain, wind, heat, cold and sun protection along a more direct route to the center of campus, including the Graham Student Center and the Green Library (see images [here](#) for details).

The pathway will include resting points with benches, shade producing gazebos, and a large terminating gazebo classroom structure. At least one feeder community transit route will stop at CTGS to the south of the FIU Red Garage. This crucial connection greatly improves the accessibility of FIU Campus amenities to Sweetwater residents. A quick and safe walk, bike ride, or transit ride will make visiting the Frost Art Museum, Green Library, FIU and Tamiami Park sports venues, Graham Center, and Wertheim Performing Arts Center and open spaces (see <http://campusmaps.fiu.edu/>) a normal and enjoyable part of life for Sweetwater residents.



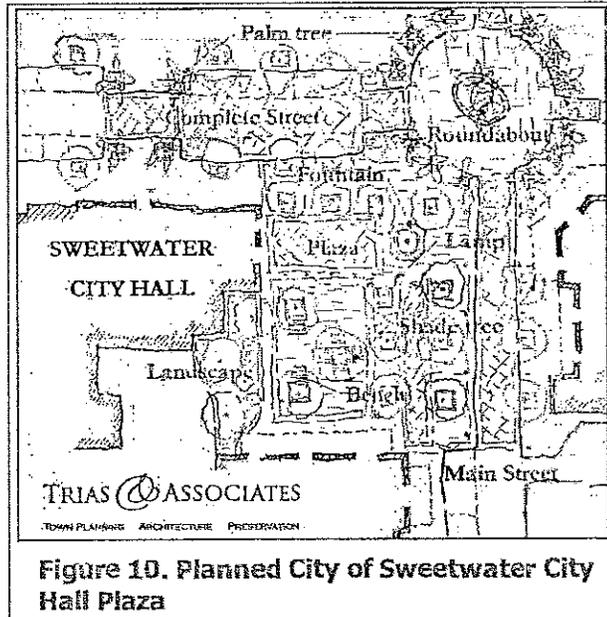
Special attention to personal security throughout the ATOD area, using built environment, program, and strategic communications improvements will ensure that after-dark portions of the travel path remain pleasant and comfortable for transit, bicycle and walking. Lighting, natural surveillance, retail store layout and hours, maintenance schedules, and land use patterns will all be designed and managed to maximize safety. As project construction plans are developed, they

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will be reviewed by FIU, Sweetwater, and the UCA Steering Committee.

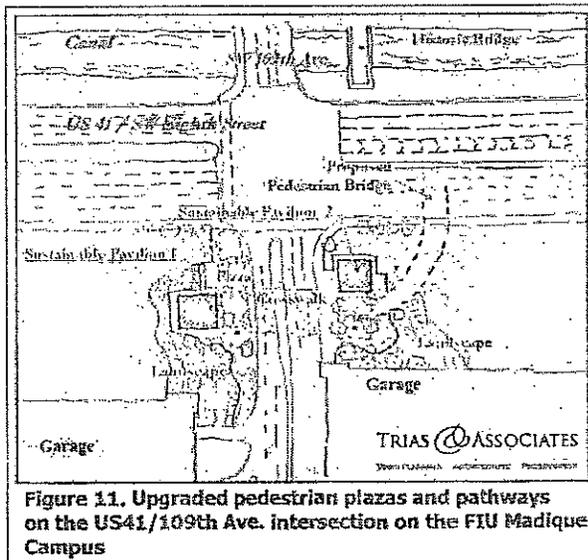
Complete street improvements on SW 109th Avenue and related streets between US 41 and Flagler Street will eventually support the transit/bicycle/walking environment between FIU's Maidique Campus and the Engineering Center and in support of the many small businesses along the strip. Initially, the FDOT and TIGER improvements will create safer crossing conditions at SW 107th and SW 4th Street to connect FIU with Sweetwater Elementary, Senior Center, and Carlow Park and facilitate safe pedestrian and bicyclist access to ongoing Sweetwater Programs with FIU's Honor College as described [here](#).

By upgrading Sweetwater Shuttles, coordinating operating schedules with the FIU CATS, the Doral Trolley and multi-passenger FIU cart shuttle vehicles, launching a new electric rubber-tired trolley service between City Hall and the Green Library, and expanded use of FIU Golden Panther Express (GP Express) on the SR836, SR112, Florida Turnpike Homestead Extension, and when operational, the SR826 Express lanes and I-75 Express lanes or other roadways within ITPA network, UniversityCity transit vehicles with



**Figure 10. Planned City of Sweetwater City Hall Plaza**

combine to provide a robust community transit feeder system and convenient transit experience.



**Figure 11. Upgraded pedestrian plazas and pathways on the US41/109th Ave. intersection on the FIU Maidique Campus**

Sweetwater will continue to refurbish existing 12-passenger buses and will add an electric small rubber tire trolley to create a unified look and comfort standard in line with the FIU CATS shuttles. FIU buses and motor coaches will adjust routes and schedules to increase headway frequency and enhance mobility by using multiple community transit vehicles for safe crossing of US 41 at SW 109th Avenue and safe crossing of SW 107th Avenue at SW 4th Street. Supported by the ITPA with real time arrival times and enhanced trip planning capabilities for

UniversityCity/Sweetwater residents and businesses, FIU students, faculty and staff, and the many visitors to FIU and Sweetwater, this shared community transit system will become a major UniversityCity amenity.

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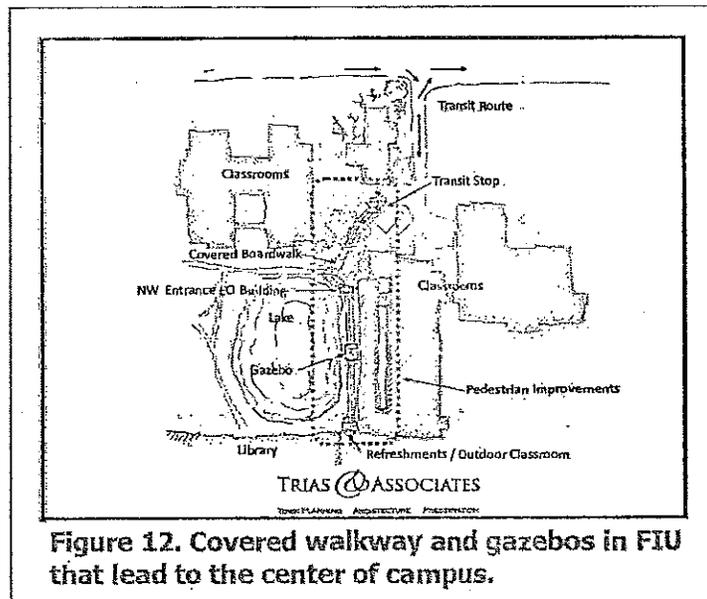
The ATOD will include a number of advanced management components to improve mobility, reliability and safety. The components will include adaptive signal control, bus priority, pedestrian and bicycle detection and management, and traffic monitoring using mid-block detectors and Bluetooth MAC address re-identification readers. Working in conjunction with each other and the ITPA, these components will provide shorter travel time and safer transportation options. For example, using the mobility detection and management capabilities, the system will be able to detect the approach of express buses and adapt by changing the timing of traffic lights to give travel priority to those buses. In addition, car and bicycle sharing and electronic payment of parking fees can be supported. This initial implementation in Miami-Dade County will provide an example that other parts of Florida and the nation can follow in the future to support successful implementation of similar systems.

836 Express between UniversityCity and the MIC will connect the ATOD quickly and easily to the major transit routes throughout Miami-Dade County, South Florida and beyond. With a key 836 Express stop at the UniversityCity AIMS and with supportive information from the ITPA, this combination of ATOD, ITPA, passenger rail, rail transit and express bus service is expected to increase transit ridership by UniversityCity users by 10% or more (see Gustafson, T., *Growing the New American Economy*, Feb. 2009, found [here](#); also see LCTR, *SR836 Express Bus Study*, Dec 2010, found [here](#)). In addition, there is a potential for the GP Express (see images of vehicles [here](#)) to add service from the AIMS when equipped with TSP systems being employed by the 826 Express to significantly improve headways during peak demand periods.

### 2. Informed Traveler Program and Applications

#### a) Overview

The ITPA uses a smartphone-based interface to provide personalized, timely information and advice regarding the most efficient and cost effective travel paths for users. This includes information about whether to use transit, delay the start of a trip to avoid congestion, or take an alternate route to avoid construction or accident delays. The software is predictive in nature, allowing users to make better travel decisions even before they get in their private vehicles, and it also offers the potential for faster parking in smart garages as a major time saver. The system will work on any smart phone, and will include audio and visual capabilities similar to standard in-vehicle navigation systems, but with intelligence behind the system that considers user needs, situational conditions and safety concerns. The flow through the system for a requested parking reservation can be found [here](#).





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and order a cup of coffee. She arrives at FIU 40 minutes faster than Bob, who was traveling in the car next to Annette in Hollywood but stayed on I-95 and SR836 all the way to FIU. Because the ITPA updates and alerts Annette automatically, there is no need for her to fumble with buttons while she's driving. She knows she can trust the system and feels safe using it.

**The Rushed Student** – Francisco is an FIU Honors College student so focused on exams, studying, after school activities, and budgeting his expenses that he forgets to leave on time for a final exam. He knows that finding a parking spot at school could be the longest part of his trip, and he is late! Before he leaves, he quickly connects to the ITPA program via his smartphone. He reserves a spot in the Smart Parking Garage. When he arrives he immediately parks his car in the reserved space. He not only made it to school on time for his final exam but he also saved 20 minutes and lots of gas trying to find a parking spot. Immediately after the exam he moves his car to less expensive unreserved parking and enjoys a well desired late lunch with friends.

**The Hard-Working Immigrant Father** – Jose, a Sweetwater resident, is focused on providing a comfortable home for his family. He is new to the area and works two jobs to make a living. His children are doing excellent in school, and he likes the local trolleys that take them to FIU for tutoring and advanced classes. To save money, he is a regular transit user. He is excited about a new transportation gateway and hub being constructed near his neighborhood because it will provide easy walkable access to a complete regional transit system via Express buses to the MIC and other destinations. His entire family uses the ITPA to manage their transit travel. With the money he saves, they are able to afford a larger home, save for college, and take in an occasional FIU sporting or cultural event. When he talks to his friends who drive to work about their gas bills, he realizes that the ITPA and other UniversityCity improvements have helped him create a high quality, yet affordable lifestyle for his family.

Once fully developed and deployed – with IBM as a key vendor and member of I/UCRC-CAKE, along with expert support from The LCTR and additional support from The University of Illinois in Chicago Computational Transportation Program and other experts within the field, the ITPA will provide one of the most advanced ITS in the world. It will help users to confidently make safe, interesting, affordable, and convenient trips by private passenger vehicle, transit, bicycle, or walking using smartphone connectivity.

### ***b) ITPA Prototype***

The ITPA Prototype is the first generation ITPA that will help UniversityCity-affiliated subscribers to travel to and from UniversityCity faster, easier and more enjoyable. Once developed and in operation, it will be expanded upon both in geographic scope and capabilities. As shown in Figure 13, the initial prototype will focus on four primary capabilities:

- Smart Parking use and integration
- Real-time situational aware data integration from multiple, heterogeneous sources;
- Travel suggestions
- Predictive guidance based on situational aware conditions such as traffic congestion, traffic accidents, weather conditions, road construction, and road hazards

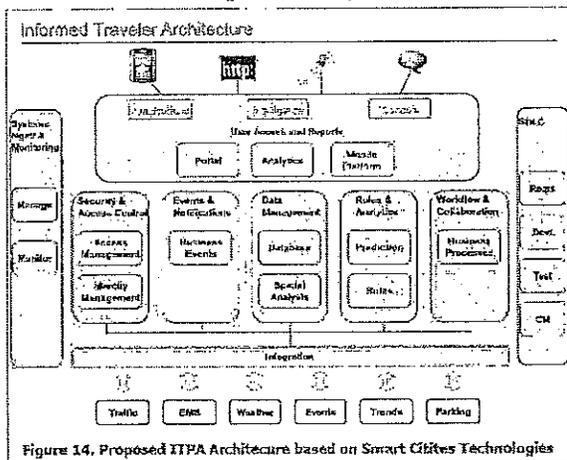
### **(ii) Prototype Primary Capabilities**

**Smart Parking** - Smart Parking is an important component of the ITPA. As travelers near their destination in UniversityCity, they will receive information on their mobile device indicating the location of available parking in designated garages (initially the Red Garage at FIU). The system

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will provide real-time information to University-affiliated subscribers regarding the availability of parking spaces within FIU's Smart Garages while simultaneously the Sweetwater-affiliated subscribers will be informed of the parking status within the Sweetwater's Smart Garages. The first installation will include general parking availability, with future expansion delineating exact types and locations of spaces available.

Reserved parking will be part of the system for those ITPA travelers willing to pay a premium. The flow through the system for a requested parking reservation can be seen [here](#). At FIU, initially 60 metered parking spaces in the Red Garage (next to the new AIMS) will be specially equipped with a wireless detection system, electronic signage and an alert system. As soon as the space is reserved by the ITPA, the electronic sign will begin to display the reservation information to indicate to others not to use the space. The mobile app will tell the ITPA user where the parking spot is located. Using a wireless sensor and the user's mobile device, the system will detect when the appropriate ITP user parks in the reserved space. If a different vehicle enters the space, the system will set off an audible/visual alarm at the space location and notify FIU personnel to have it ticketed and towed immediately.



The core of the smart parking system is a set of distributed sensors that are integrated with a smart computing grid. The types of sensors include radio-frequency identifications (RFIDs), cameras, and other wireless sensors. The system architecture (Figure 15) supports both intranet and internet communications along with an application server and a web server. The key feature of the system is a set of services that will be used by both application clients (iPhone/Android) as well as mobile/PC web clients. The service layer provides a modular interface to the database for requests from all clients and allows for an efficient upgrade/maintenance of the system. The project description can be accessed [here](#).

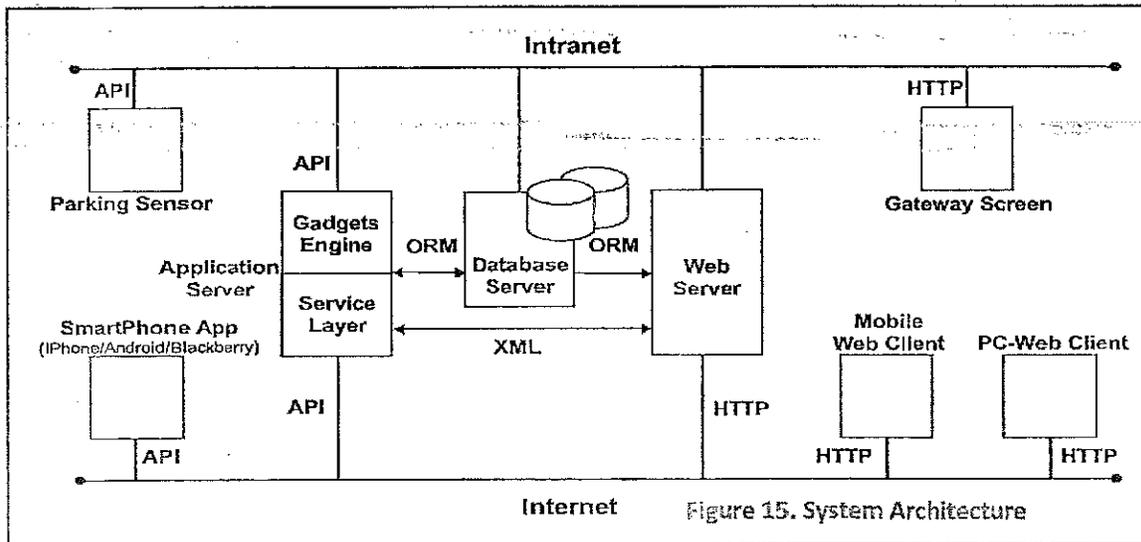


Figure 15. System Architecture

ITPA users may reserve a space up to 20 minutes prior to their arrival. Pricing may vary depending on peak availability, demand elasticity, and whether the user is making a transit connection. In future expansion of the system, users will have the option of having their account automatically charged, eliminating the need for coins or even extra time to use the phone to pay. If demand for reserved parking by ITP users regularly exceeds the number of metered spaces at FIU, the number of spaces will be expanded. The planned smart parking space configuration for FIU's Red Garage can be found [here](#). The PG6 parking garage configurations will be developed to fit construction plans. Additional smart parking location options at FIU, MIA, Sweetwater, and downtown Miami will be explored and evaluated starting with Miami-Dade Aviation Department (MDAD) and Sweetwater, and eventually the [Miami Parking Authority](#), [Miami Beach Parking](#) and others. Letters of support and interest in this expansion can be found [here](#).

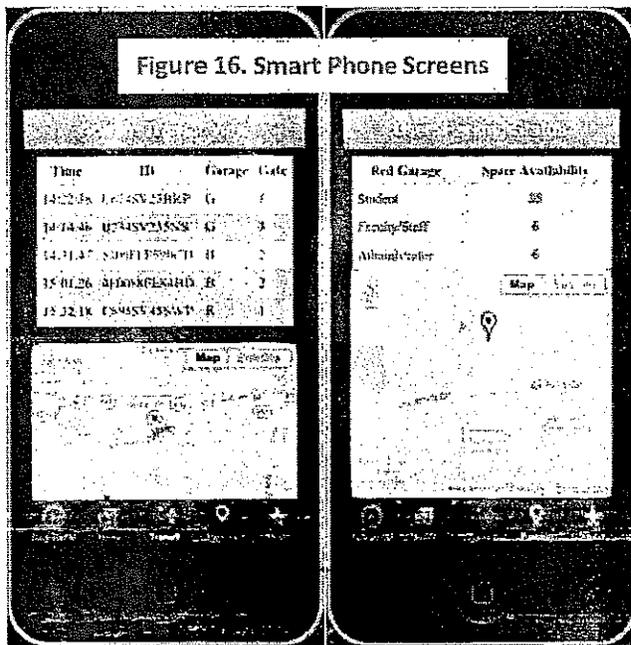


Figure 16. Smart Phone Screens

*Real-time situational awareness* - An important ability of the ITPA is real-time situational awareness - having advance knowledge and awareness of conditions along potential travel routes. This "situational awareness" is the capability for a traveler to be informed of situations that will impact travel. Many of these are everyday occurrences such as traffic congestion, emergencies due to accidents, weather, traffic impactive events such as sporting events or concerts, construction delays, and government notifications. We have developed prototype applications for both web clients and smartphone clients (Figure 16) as described in the [project description](#). For users who create online accounts, their sessions will be authenticated and their preferences such

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as primary parking facilities will be saved on the server side. The advanced situational awareness will include with data integration and analysis of the following data:

- Detailed maps, routes and driving directions
- Express bus schedules to and from FIU Maidique Campus and Biscayne Bay Campus
- Real-time location and actual arrival/departure times for the 836 Express, Airport Flyer, and GP Express buses
- Real-time traffic and accident information on SR836, SR112 and related roadways as data becomes available
- Smart parking information at the FIU parking garages

All data will be updated at the most frequent intervals available. This capability will provide the system with the information needed to keep ITPA users up to date on conditions that will affect their travel and make informed recommendations to ITPA users as detailed below.

*Travel suggestions* - Travel suggestions are an important part of keeping ITPA users informed about their travel options and to provide route-related recommendations to users. These suggestions are based on the analysis of the multiple situational awareness elements and may involve recommendations to a change in a traveler's planned route, schedule, or transit mode choice. Recommendations can include the following:

- Alter the traveler's schedule for a specified period of time (e.g., leave in 10 minutes or wait 1 hour to avoid traffic congestion)
- Reroute planned travel via an automobile (e.g., take local roads instead of the SR836)
- Take public transportation on part or the entire route to the planned destination

One example is to inform a traveler that given the traveler's plans and current situational awareness information, the typical delays for automobile transportation along a planned route is 75 minutes while the delays for public transport are typically 15 minutes. The system would recommend taking public transportation in this case, and provide information and routing guidance that includes parking and public transit information (e.g., which trains/buses or trains to take). This capability uses rules, analytics and prediction to calculate recommendations. For the initial prototype, travel suggestions will be limited to the routes described in the situational awareness discussion above for which situational data is available.

*Predictive guidance* - An expected capability of the ITPA involves alternate routing instructions and guidance based on the travelers planned destinations, smarter parking choices, situational awareness relative to road conditions, delays and alternatives. When routing is requested, the system will specifically include an analysis of available data regarding return trip conditions as they might exist based upon time of day. This provides users with more viable options; particularly in terms of the availability of public transportation (e.g., is it available at the expected time for the return trip and is there available seating, is it on schedule and what is the delay for arrivals/departures).

Routing guidance includes an analysis of real-time situational aware data for major highway routes when available. If real-time data is not available, then users are provided with, at minimum, turn-by-turn routing guidance similar to what is available in standard GPS devices. For UniversityCity, guidance will be at least the following two routes to FIU: SR836 and

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SR112/I-195 and such other highways used by the GP Express on a day to day basis if the data is available. For this phase, public transport guidance will be limited to 836 Express, Miami Beach Airport Flyer, and Panther Express operating between FIU Maidique Campus and Biscayne Bay Campus and between FIU Maidique Campus and the MIC.

### (iii) Prototype Architecture

To create the innovative ITPA, system and software assets already in use by IBM in “smart cities” around the world may be combined with intelligent transportation and business analytics, spatial analytics, and other components as suggested by the ITPA architecture in Figure 14.

### (iv) Prototype Operational Environment

ITPA server components will be installed on hardware and software running in a laboratory environment at FIU. This environment will provide a flexible and robust environment that will allow for the analysis and development of the most appropriate, scalable hardware and networking design specifications and configurations to support the larger, production system in later phases. Initial deployment will be provided for up to 24 users (Honors College students or others that work and/or live in Sweetwater in order to capture Sweetwater-related needs) for system and user acceptance testing and with support eventually expanded for up to 20,000 users.

### (v) Prototype Project Plan and Schedule

A more detailed plan describing the roles/responsibilities of the various experts and organizations, specific schedules and milestones, project deliverables, operational environment, user types and numbers, and more can be found at [here](#).

## c) ITPA Technology Development Phases

### (vi) Workplan Efforts

This effort is funded by the above mentioned MDX \$265,000.00 grant and will commence upon announcement for the TIGER award to FIU. This will involve developing a workplan and way forward to a localized and robust initial phase by researching, planning and documenting the user, system and data requirements for initial and full deployment of the ITPA project, including the analysis and determination of design elements that should be included to ensure appropriate scalability of the overall ITPA project.

This work will include:

- Research current and planned availability of relevant, situational-aware data sources on major thoroughfares, multimodal and public transportation corridors and Parking Garages
- Analyze available data to determine inclusion/exclusion in predictive modeling and routing recommendations
- Review and update currently available situational-aware data modeling technologies and algorithms for ITPA region-wide applications
- Research advanced strategies and technologies associated with the optimized multi-modal management systems
- Complete and document end-user and system requirements gathering for the Localized Robust Initial Deployment Phase
- Provide the Localized Robust Initial Deployment Phase preliminary project plans, statements of work and work breakdown schedules
- Provide high-level design specifications for phase integrations and design modifications for

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subsequent phases

Work for this initiative will employ standard project management best practices to provide research, analysis and documentation regarding project requirements and planning for initial and full deployment of the ITPA project. Information garnered will also be used to help create a working prototype and a robust, scalable long-term solution.

### (vii) ITPA Localized Robust Initial Deployment

The Localized Robust Initial Deployment Phase involves the deployment of an initial operational system that provides a capacity for real-time situational awareness, and support for future expansion of the geographic coverage with improved system capabilities for approximately 20,000 subscribers. The four primary capabilities will be provided as follows:

- *Capability 1 – Smart Parking:* Real-time usage information, statistical results on past parking information, and reservations for parking spaces will be available for FIU and Sweetwater Smart Garages. Support for other relevant Smart Garages will be implemented as they become available for intelligent parking guidance service.
- *Capability 2 – Real-time Situational Awareness:* This phase will involve the analysis of real-time situational aware data on key routes to/from UniversityCity, with later expansion to other routes as data becomes available (e.g., traffic conditions on any the of primary thoroughfares where express buses operate, bus and trains schedules and real time movement, latest real time airplane and other common carrier departure/arrival information, and cost and time comparisons)
- *Capability 3 – Travel Suggestions and Options:* Routing, timing, and mode guidance where alternative travel suggestions may be provided (i.e., Amtrak, Metrorail, MIA Mover, Metromover, Tri-Rail, express buses and identified common carriers) and additional types of information that would support guidance provided such as accidents, weather, major event information (e.g., sporting event)
- *Capability 4 – Routing Instructions and Guidance:* Routing guidance will be for key routes to/from UniversityCity, with later expansion to include other major public transit corridors and routes in the area

This phase will introduce an “Alerts” capability that provides traveler with alerts for information relevant to the traveler’s planned route that may change in travel times or a change in routing recommendations and guidance instructions. Alerts are generally triggered by a change in conditions along a traveler’s route based on situational aware data and analysis of the effects of that change. For example, if a traveler’s route includes riding on a public transit bus, a traveler could be alerted if a bus arrival time is likely to change such that the change would increase travel time or disrupt the trip sequence. If desired, this could be coupled with new routing recommendations and alternate guidance instructions that would potentially decrease travel time.

### (viii) Expanded Regional Deployment

One additional phase to the ITPA is envisioned as a region-wide expansion of the system for use throughout the eastern South Florida region, from Indian River County to Key West. The focal point of ITPA phased development would include the ability to scale up ITPA to this expanded system. By this means, ITPA will be able to change its focus from travel to and from UniversityCity via the 836 Express, Miami Beach Airport Flyer, and to a limited extent via GP Express to travel to and from the MIC from throughout the region by any mode of transport. This

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will greatly expand the usefulness and desirability of the system.

### II. Project Parties:

The FIU Board of Trustees will lead the implementation of the UniversityCity at the direction of Ken Jessell, Senior Vice President and Chief Financial Officer. . Over 20 FIU Vice Presidents, Department Directors, Deans, Project Managers, and expert faculty will also participate either directly or as part of the UCA, with project management by the IUCRC-CAKE. . Detailed qualifications for key project personnel are available at <http://cake.fiu.edu/TIGER2013>

A second key partner in the Project is Sweetwater, including direct participation by Mayor Manuel Maroño and Chief of Staff Robert Herrada. We expect regular participation and briefings with Sweetwater City Council. The UniversityCity will receive Police, Maintenance, Building and Finance Departments support as directed by the Mayor and City Commission.

Private sector partners, participants and vendors also play significant roles. As a primary expert vendor, IBM as an IUCRC-CAKE member will work closely and extensively with FIU's IUCRC-CAKE, LCTR's IITS to develop the ITPA proposal. RRAC University Apartments, LLC will build the first mixed-use project along SW 109th Avenue's new "Main Street" and assist with infrastructure improvements. The RRAC partners and other real estate developers will be seeking to develop the residential and mixed-use liner buildings adjacent to the proposed City Hall Mixed-Use Smart Garage as well as along the US 41 southern terminus of Sweetwater adjacent FIU. The RRAC University Apartments, LLC letter of support can be found [here](#).

Miami Dade Expressway Authority (MDX) is another major partner. They have committed \$265,000 in support of the ITPA project components as well as access to extensive data sets and fiber optic connections when required and under conditions as they believe are helpful. They will provide technical guidance in the early phases of ITP, leadership in providing and raising funds for the ITPA implementation, and a real-world platform in which to deploy ITPA. The MDX letter of support can be found [here](#).

Miami-Dade Transit (MDT) and FIU have agreed to closely coordinate our TIGER projects in order to create a seamless combination of new travel options and solutions for western MDC. A MDT letter of support can be found [here](#).

Florida Department of Transportation (FDOT) District 6 is actively participating with direct involvement of District Director Gus Pego and several members of his senior staff. They are: providing partial funding for a Sustainable UniversityCity Subarea Mobility Study (SAMS); coordinating the SW 107th Avenue improvements; studying and assisting with the safe crossing at-grade pedestrian improvements at the SW 109th/US 41 intersection; and providing advice and support for construction and development of all UniversityCity components. Their letter of support can be found [here](#).

Miami International Airport is working as part of the team to explore ITPA smart garage opportunities at MIA/MIC and to support the 836 Express connections between the UniversityCity AIMS and the MHC/MIA. Their letter of support can be found [here](#).

The congressional delegation from Miami-Dade County has pledged their support for the project via a jointly signed letter. That letter and those of other partners can be found [here](#).

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**III. Grant Funds and Sources/Uses of Project Funds**

The UniversityCity is the result of strong collaboration and has attracted resources from multiple organizations. A summary of the sources and uses of project funds is shown below including the percentage of revenue from each source, and a more detailed budget is available [here](#).

SF424 Budget Line	Federal	Applicant	Local	Local	State	Project Total	% Total
	TIGER FUNDS	FIU	Sweetwater	MDX	FDOT		
SW 107th AVE Improvements - 6 lanes					\$32,875,708	\$32,875,708	26.6%
Sweetwater City Hall Intelligent Plaza and Parking Area (CHIPPA)			\$21,347,974			\$21,347,974	17.2%
SW 109th AVE Complete Street Improvements	\$2,222,875		\$1,863,040			\$4,085,915	3.3%
Community Transit Small Rubber Tire Trolley Rebuild, Repair, Enhance, and Operate	\$342,900		\$165,000			\$507,900	0.4%
Single Pylon Cable-Stayed Shared-Use Bridge over US 41	\$6,000,000					\$6,000,000	4.8%
FIU MMC Entry Plaza and Pavilions Project	\$814,700					\$814,700	0.7%
FIU MMC Complete Streets Project - Campus Walkways and Boardwalk	\$1,374,360					\$1,374,360	1.1%
FIU Construction Support Staff, Advisory Consultants, and Expenses	\$1,608,102					\$1,608,102	1.3%
Informed Traveler Program & Applications	\$8,000,000			\$10,265,000		\$18,265,000	14.8%
New FIU Smart Parking Garage [PG6]		\$35,407,356				\$35,407,356	28.6%
Conceptual Advanced Intermodal & Multimodal Station (AIMS) platform	\$412,800					\$412,800	0.3%
Smart Parking Retrofit of Additional FIU Parking Garages	\$204,536	\$497,443				\$701,979	0.6%

**FY2013 TIGER Discretionary Grant Narrative: UniversityCity Prosperity Project**

Sustainable UniversityCity SAMS		\$102,000	\$102,000		\$204,000	\$408,000	0.3%
Total	\$20,980,273	\$36,006,799	\$23,478,014	\$10,265,000	\$33,079,708	\$123,809,794	100.0%
% of Project Total	16.9%	29.1%	19.0%	8.3%	26.7%	100.0%	

With a total project cost of \$123,809,794 and a total of \$20,980,273 in requested TIGER funds, the percentage of project costs to be paid for by TIGER funds is 16.9%. As indicated in the attached funding commitment letters, all non-TIGER funds will be available on or before June 30, 2014 and will be completed projects within a five year term ending 2018. The additional commitments are summarized below.

- FIU has committed to fund the construction of a new Smart Parking Garage with room to house the AIMS platforms and related amenities. It will also fund the retrofitting of additional parking garages using the technology and techniques developed for the TIGER-funded Red Garage. FIU will route their CATS community transit vehicles and GP Express buses to serve the AIMS, and the CATS vehicles will shift their route to SW 109th Avenue. FIU is also planning to determine how best to provide UniversityCity support via regular evaluation surveys; a student orientation effort to encourage transit ridership; specialized crime prevention services for project design; and, in conjunction with the UCA, the development and management of a high quality web site to inform the community about Project construction, coordinated community transit and express bus and metropolitan bus schedules, ITP subscriptions, monthly transit passes, and related events and activities.
- Sweetwater has committed to fund the construction of the City Hall Plaza, City Hall Mixed-Use Smart Garage and CHIPPA improvements and the completion of landscape and hardscape improvements on 5<sup>th</sup>, 6<sup>th</sup> and 7th Streets, other metered street parking capacity, “Complete Street” improvements as right-of-way permits on SW 109th Avenue, and ongoing maintenance of the new “Main Street” amenities as they are identified.
- RRAC University Apartments, LLC has committed to building a 550-bed private housing tower that will include mixed-use retail space on the first floor and that will interface directly with the SW 109th Avenue pedestrian-oriented improvements and the Pedestrian Bridge and at-grade intersection improvements at US 41 and SW 109<sup>th</sup> Avenue.
- Miami-Dade Transit has agreed to explore sharing cost of the AIMS platforms to be built in the new FIU Smart Garage. They will coordinate their planned \$24.5 million 836 Express with the UniversityCity by: using the AIMS as a key stop; working with FIU to determine how best to coordinate additional express service to the MIC and other FIU campuses (Biscayne Bay and Engineering Center); hopefully supporting FIU’s request to Miami-Dade County to use TSP technology on the GP Express to facilitate flexible routing in conjunction with the use of ITP to allow ITPA users to reserve GP Express seating and minimize wait time for transferring transit riders.
- MDX has committed to fully support the ITPA preliminary planning phase. When proof of concept is complete, MDX will also lead the co-funding of the Localized Robust ITPA deployment and its regional expansion. Finally, MDX has agreed to provide access to data streams from its extensive ITS.

Another committed partner is FDOT. They will contribute \$32,875,708 for improvements to SW 107th Avenue that will allow better traffic flow and pedestrian access to the Sweetwater City Hall Plaza and CHIPPA. They have also initiated a study of potential pedestrian crossing

## FY2013 TIGER Discretionary Grant Narrative: UniversityCity Prosperity Project

improvements at the US 41 and SW 109th Avenue intersection, and will make some of the needed improvements to enhance pedestrian flow and safety at grade. Finally, FDOT has agreed to provide \$204,000 funding to FIU for a SAMS over the broader geography of UniversityCity (Sweetwater, Maidique Campus and adjoining properties). This analysis will examine multi-modal mobility challenges and potential solutions to achieve mobility and sustainability goals. Given the multifaceted nature of the UniversityCity, there are aspirational leveraged resources that would provide support to the project if funded. These include higher quality landscape and hardscape improvements (\$3.5 m), mixed-use liner buildings around the new Sweetwater and FIU Parking Garages (\$208.8m), and additional smart parking garages at MIA (\$2.4m). Commitment letters from partners and cooperating entities are attached and available [here](#).

### IV. Selection Criteria

#### A. Long-Term Outcomes

1. State of Good Repair - Each of the components of UniversityCity help reduce vehicle miles travelled, eliminate unnecessary trips, reduce travel time, and increase the use of mass transit, walking, and biking. Various components also strategically upgrade surface transportation assets to reduce the current and projected levels of congestion that threaten network efficiency and roadway surfaces. In doing so, the project reduces wear and tear on existing roadway assets, creates additional sustainable revenues to maintain and expand transit operations, and enhances more efficient traffic flow. These benefits are more fully described and quantified in the Benefit/Cost Report found [here](#). In addition, the commitment of FIU to support several of the Project components provides sustainable resources to reduce the long-term cost structure of the mobility systems.
2. Economic Competitiveness - UniversityCity will substantially reduce overall travel time for workers and students, reduce total household expenses for transportation, attract and retain more educated workers to support business growth, encourage technology transfer activities from FIU research, and help attract additional private investment in businesses to Sweetwater that operate globally. Given FIU's crucial role in attracting, developing, and retaining talent, the resulting growth of UniversityCity will improve both regional and national economic competitiveness in the global innovation economy. A unique measurable impact will be to cultivate the next generation of transit riders in the form of UniversityCity students, faculty, residents, business owners, employees and visitors. By creating systems and places that encourage a shift toward more transit use, UniversityCity creates a significant number of experienced long-term mode shift customers. ITPA also allows users to spend less time on travel, more productive time when traveling on transit, and less energy-draining stressful time operating a vehicle in congested traffic. It reduces employee tardiness and absences and this will result in higher worker productivity and economic competitiveness for businesses. There will be additional time for productive tasks that build economic value. This includes the ability of government agencies to plan around patterns of travel more effectively by transferring the technology developed and implemented in the project to enhance existing systems. Additional efficiency benefits, market value, and business development are expected for the region.
3. Livability - By encouraging community engagement in land use planning, using mixed-use developments with higher density to make transit and walking/biking more convenient and efficient modal choices, and making FIU amenities and work/learn opportunities more accessible, UniversityCity provides major improvements in transportation choice, affordable lifestyles, equitable prosperity, educational opportunities and attainment, and

## FY2013 TIGER Discretionary Grant Narrative: UniversityCity Prosperity Project

health outcomes. The disadvantaged populations within the UniversityCity area, including significant numbers of low-income and limited English households, elderly, non-driver immigrants, and first generation university students benefit more than others. By reducing VMT, facilitating the development of new housing close to work and school, and creating substantial shifts to transit-walking-biking, UniversityCity helps improve air quality, reduce energy use and dependence on foreign fossil fuels, and improve social equity in UniversityCity. The ITPA solution helps users by: increasing personal time; providing timely information to provide informed access to more transportation choices; enabling reliable and timely access to employment centers, educational opportunities, services, and other basic needs; focusing on existing communities resource and destinations; and, enhancing the unique characteristics of UniversityCity through the development of pedestrian-oriented affordable, safe, and low stress transportation opportunities. Focus on security along the total travel path substantially improves real and perceived safety, a key livability issue. UniversityCity creates a greater mode shift to transit-biking-walking and facilitates exercise and daily activity that improve health outcomes and benefits.

4. Environmental Sustainability - UniversityCity creates environmentally sustainable land use patterns and densities, transportation modal alternatives, support for sustainability initiatives, and an opportunity to demonstrate how powerful university-community partnerships can create a more environmentally sustainable transportation system and equitably prosperous community. By concentrating development in higher densities in Sweetwater, UniversityCity reduces development pressures on the nearby Everglades, a sensitive and threatened ecosystem of national and international importance. As detailed in the Cost Benefit Analysis, UniversityCity reduces greenhouse gas emissions and other air pollutants. ITPA reduces total trip time and related idle time, parking search time, fuel expenditures for those travelling in private vehicles and creates mode shifts to transit, biking, and walking, further reducing greenhouse gas emissions, fossil fuel consumption, non-point source roadway runoff pollutants, and particulate air pollutants
5. Safety - A significant aspect of UniversityCity is that the highway separating FIU and Sweetwater (US 41) has been deadly to pedestrians and bicyclists. Those who use their cars, once they leave Sweetwater, the Maidique Campus or FIU's Engineering Center, usually have no inclination to drive to community destinations. This is confirmed by recent survey results indicating that over 55% of FIU students and staff either never visit Sweetwater or visit only once per year. Creating a pedestrian environment that works for large-scale walking and does not put either side at risk requires multiple UniversityCity crossing strategies at the US 41/SW 109th Avenue intersection: cross with the light in a frequently arriving and departing small transit shuttle; cross by a wider than typical pedestrian bridge that is attractive, fun and wide enough for small vendors at the wider middle cross section; use of a small shuttle for some parts of the day to travel over the bridge or through to intersection; and, over time reduce the lane widths as US 41 traffic approaches the intersection with SW 109th Avenue and widen the median; placing hardscape, landscape and additional pedestrian-oriented bridge support in the median.

The UniversityCity improvements reduce the safety risk at the US41 and SW 109th Avenue crossing and increase transit access. ITPA helps travelers avoid congestion or hazardous conditions and reduces car trips and vehicular speeds in urbanized areas to reduce car accidents. Reserved parking reduces searching for parking at unsafe speeds and accidents in the garages.

**FY2013 TIGER Discretionary Grant Narrative: UniversityCity Prosperity Project**

**B. Job Creation & Near-Term Economic Activity**

Many of the components of \$145 million project will not go to contract in 2014 and 2015 without the grant award. As scheduled, UniversityCity improvements will be mostly completed by December, 2015 and will be fully complete by July 2016. Match funded projects will be underway or completed by 2018. Short-term job creation identifies the jobs immediately created by project spending and constitutes planning, design, administrative, and construction related positions. Per the "Estimates of Job Creation from the American Recovery and Reinvestment Act of 2009", Issued and Developed by the Executive Office of the President - Council of Economic Advisors, one job-year is created for every \$92,000 of government spending. Based upon this ratio, and the overall project budget and schedule, it is estimated that UniversityCity work will generate approximately 527 short-term jobs. Over a longer term, beyond construction, there will be new jobs created for people hired to operate the improved community transit created through this TIGER grant and further expansions of thereafter. New jobs will also be created after the AIMS is built for people employed to operate the terminal facilities for the 836 Express, GP Express and related transit and to work at jobs the associated storefronts businesses after SW 109th Avenue develops into a complete Main Street with mixed-use destinations from City Hall to the Green Library. Complete detailed project schedules have been developed to ensure that DOT will be able to obligate TIGER funds on or before June 30, 2014. They include finalization of any NEPA requirements and local approvals, scheduling for construction of the ATOD elements, ITPA prototype research and development, and the related projects constituting match commitments. A complete scheduling document can be found [here](#).

As part of the project development, a Benefit Cost Analysis (BCA) for a 30 year period life span of the project was performed in order to determine the financial and economic feasibility of the project. The summary of the analysis is listed in the appendix which shows a Benefit-Cost Ratio of 4.25 and 2.09 based on 3% and 7% discount rates. The following table summarizes the long term outcomes of the project as a whole and a summary of the types of societal benefits expected. The benefits are further explained in the subsequent sections of this analysis.

Long Term Outcome	Types of Societal Benefits
<b>Livability</b>	Changes the character of the neighborhood from vehicle-centric to multi-modal promoting reductions in VMT Make University assets more accessible to the community Property value Increase Promotes a healthy lifestyle through promoting a more natural and friendly walking environment
<b>Economic Competitiveness</b>	Travel time reduction savings through complete street improvements and ITPA Vehicle operation savings Promotes the development of new business through more accessible real estate in the project vicinity
<b>Safety</b>	Reduced pedestrian involved traffic accidents through the implementation of complete streets, safe pedestrian environment, traffic calmed streets, community transit and a new pedestrian bridge to cross the busy U.S. 41 highway at the SW 109th Avenue intersection

## FY2013 TIGER Discretionary Grant Narrative: UniversityCity Prosperity Project

<b>State of Good Repair</b>	Long-term replacement Maintenance and repair savings associated with new construction and maintenance schedules. Reduced VMT will result in less wear and tear on the infrastructure
<b>Environmental Sustainability</b>	Reductions in VMT result in reduced emission benefits Landscaping and other sustainable surface treatments will be preferred throughout this project in lieu of traditional hardscape.

### 1. Project Costs and Benefits

The cost side of the BCA equation consists of all monetized expenditures incurred by the grantee and its partners in order to fully develop the project to a usable and beneficial piece of infrastructure. Project costs consist of the total project budget including design, administration, construction, and future maintenance as defined in the TIGER 2013 proposal budget and supplemented by this document. As defined by the 2013 TIGER NOFA, "Benefits include the extent to which residents of the United States as a whole are made better off as a result of the project". With this key point in mind, the benefits associated with this project were derived solely from the societal benefits identified in each component of this project. No transfer costs or economic impacts were considered in the derivation of this BCA. The benefits identified in this project consist primarily of four categories: 1) Modal Diversion, 2) Pedestrian Involved Accident Reduction, 3) Travel Time Reduction and 4) Residual Value of Infrastructure.

### 2. Benefit Cost Estimation versus Economic Impacts

Based on 3% and 7% discount rate, the project has a benefit cost ratio higher than one implying net benefit from the project. However, in our view the presented Benefit Cost Analysis provides a very conservative estimate of this project. Probably the most important benefit of this project is linking a small town with a major university campus in order to establish an upwardly mobile, better educated, sustainable community. The value of this interlinked sustainable community goes beyond what can be quantified by a Benefit Cost Analysis. For example, over the long run a major portion value creation will occur through: i) increased demand for real estate within a more densely developed urban form and resulting investment; ii) job creation due to increased connectivity to university education and higher living standards designed into the built environment within the area; iii) healthier lifestyles in walkable communities; iv) benefits of ITPA enabled optimal utilization of existing transportation infrastructures (e.g. underutilized parking facilities at MIA and elsewhere can be used more efficiently with an ITPA identified Park-and-Ride one). and, v) lower cost and dependable mobility through the local community, throughout the metropolitan area and the region, and to modes of state, national and international transport. These indirect and induced benefits are not easily captured in Benefit Cost Analysis and so the reported Benefit Cost ratio is highly conservative. But these indirect and induced benefits can be measured through economic impact analysis and by collecting data on user's demand and preferences over the long run (a suggested 10 year period).

### 3. Tracking the Annual Trend of Users Demand and Preferences

Considering that broader economic impact of the project can be substantial, we suggest annual tracking of users demand for services and amenities provided by this project. We propose to survey potential users at the beginning of the project (in 2014) and then do follow up survey (in 2015 and 2016) when the project is partially operational to estimate the intended and realized demand for using the services and amenities provided by the UniversityCity improvements. Then

## FY2013 TIGER Discretionary Grant Narrative: UniversityCity Prosperity Project

subsequent annual surveys can be conducted for the next 7 years funded by FIU in 2017 to 2023 would measure the trend of changing demand and preferences for key services and amenities provided by this project. By complementing primary survey data on users demand and preferences with secondary economic data using high-tech survey techniques such as GPS tracking, we will estimate the broader economic impacts (including generative, redistributive and financial transfer impacts) of UniversityCity (see TRB 1998).

### C. Innovation

The UniversityCity uses the ITPA, which will be developed based upon a selection of the best software programs, assets, services and capabilities available around the world through IBM. By combining ITS with Information Technologies (IT), and advanced modeling to facilitate large-scale Transportation Demand Management (TDM) with real time communications, the ITPA is innovation. When used to plan for a complex multimodal system, ITPA can help you take advantage of Accelerated Bridge Construction (ABC) and any application to pedestrian walking areas, uses Every Day Counts (EDC) to complete significant transportation improvements without delay and disruption, and Highway for Life (HfL) and other long duration of use structural techniques and technologies so that work undertaken is not disruptive. Used together, these innovations provide highly effective relief of transportation delays and dangerous conditions, and therefore optimize and preserve the transportation system with limited resources.

### D. Partnership

As shown in the Project Partners section above, UniversityCity is led by a non-transportation public agency as part of a strong collaboration among a broad range of participants including a city, a university, a global technology corporation, private developers, and several transportation entities. A series of community meetings, Charrette, partner meetings, and the creation of a partnership alliance were all part of the planning process leading to this UniversityCity submittal.

### V. Project Readiness and NEPA

UniversityCity would primarily use infrastructure associated with existing or planned projects that have either already gone through the regulatory permitting process or has begun initial coordination with the affected resource agencies. In March 2012, an Advanced Notification (AN) package was sent to the Florida State Clearinghouse for distribution to resources agencies that conduct Federal consistency reviews to solicit initial comments. This AN package included the project description, the purpose and need of the project, and potential impacts based on GIS analysis and field surveys. Comments from the resource agencies were received and this 2013 TIGER/UniversityCity submittal and the letter found [here](#) is a response thereto that provides reason to expect a Categorical Exclusion action will be forthcoming in early 2014.

Pedestrian/bicycle facilities and transit greenway improvements as proposed under this action may be identified as Categorical Exclusions pursuant to 23 CFR Part 771.117. Therefore, the proposed improvements associated with this TIGER Grant application are expected to be classified as a Categorical Exclusion under NEPA guidelines. As a Categorical Exclusion, NEPA documentation is anticipated to be completed within 6 months. The project lies within a built urban environment and impacts to the physical, natural and social environments are expected to be minimal. No additional right-of-way is required to construct the project and community opposition is not anticipated. The project is planned to improve community connectivity, reduce vehicle and greenhouse gas emissions, and encourage energy savings.

A. Project Schedule: Attached and available [here](#)

## FY2013 TIGER Discretionary Grant Narrative: UniversityCity Prosperity Project

- B. Environmental Approvals: NEPA Status - UniversityCity would use infrastructure associated with existing or planned projects that have either already gone through the regulatory permitting process or has begun initial coordination with the affected resource agencies. In March 2012, the AN package was sent to the Florida State Clearinghouse for distribution to resources agencies that conduct Federal consistency reviews to solicit initial comments. It included the project description, the purpose and need of the project, and potential impacts based on GIS analysis and field surveys. Comments from the resource agencies were received in mid-2012. Pedestrian/bicycle facilities and transit greenway improvements as proposed under this action may be identified as Categorical Exclusions pursuant to 23 CFR Part 771.117 and the proposed improvements associated with this TIGER Grant application are expected to be a Categorical Exclusion under NEPA guidelines. As a Categorical Exclusion, NEPA documentation is anticipated to be completed within 6 months. NEPA Comment - The project lies within a built urban environment and impacts to the physical, natural and social environments are expected to be minimal. No new right-of-way is required to construct the project. No community opposition is anticipated. The project is planned to improve community connectivity, reduce vehicle and greenhouse gas emissions, and encourage energy savings.
- C. Legislative Approvals: None required.
- D. State and Local Planning: In addition to Sweetwater and the private developer RRAC, Miami-Dade County (MDC), FDOT, MDT, MDX, and Miami Dade Aviation Department have all agreed to assist with this Project and their commitment letters are attached. The Southeast Florida Regional Partnership, a Sustainable Communities Initiative grant recipient, is also involved and supportive per their attached letter. In conversations with the Miami-Dade County MPO, a review of the proposal will be made and after deliberations the project components will be presented for necessary approvals and included in their 5-year plan in the event of TIGER funding. Any additional approvals will be complete on or before 6.30.13.
- E. Technical Feasibility: TYLI, IBM, Ouri Wolfson, Perkins + Will, FIU's I/UCRC-CAKE and LCTR, and Trias and Associates have provided the professional and expert information needed to ensure technical feasibility for the Project. Additional technical review and guidance has been provided by FDOT, MDX, MDT and others.
- F. Financial Feasibility: The parking garage has been approved by the FIU Board of Trustees and, as with other parking garages, FIU has the capacity to finance the construction through Florida Division of Bond Finance and pay back the debt with student, faculty, other staff, and FIU visitors parking fees. The remaining funding commitments are well within the financial capabilities of FIU and other partners.
- G. Project Risks and Mitigation Strategies: Potential project risks include procurement delays and lack of fully understanding technical needs and data access. We are taking a multipronged approach to mitigating these risks: (1) detailed work analyses have already been undertaken with primary vendors and partners and are ready for contracting once TIGER is awarded; (2) in-depth risk assessment, planning and data availability and analysis will take place as part of the \$265K MDX contract that occurs prior to the start of the TIGER project.

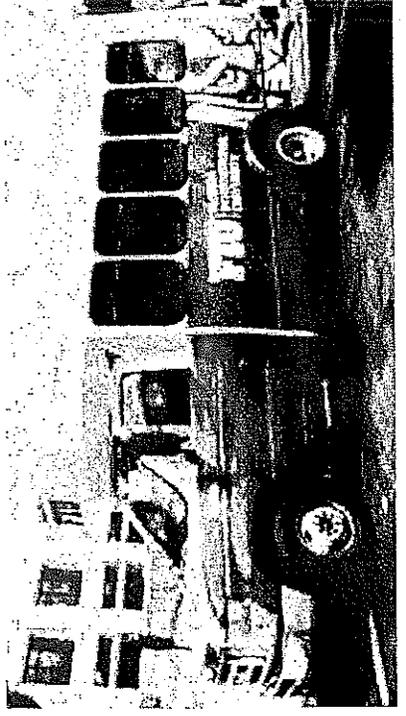
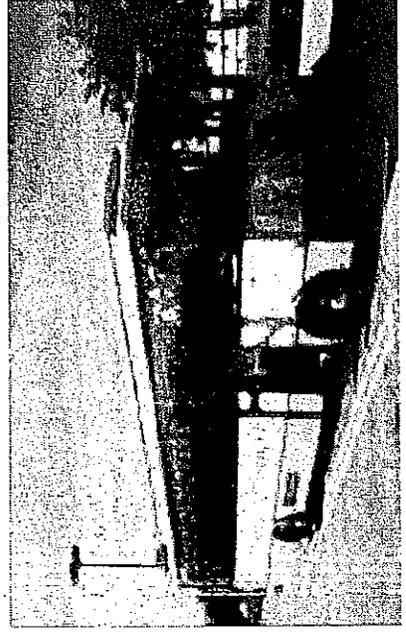
## VI. Federal Wage Rate Certification

Attached and available [here](#).

# UniversityCity Transportation and Management Association of Sweetwater, Inc. (UTMA)

July 27, 2015

Sweetwater City Commission Briefing & Appointments of the  
UTMA@Sweetwater Board of Directors







# FY2016-2017 FDOT Service Development Grant (\$500,000)

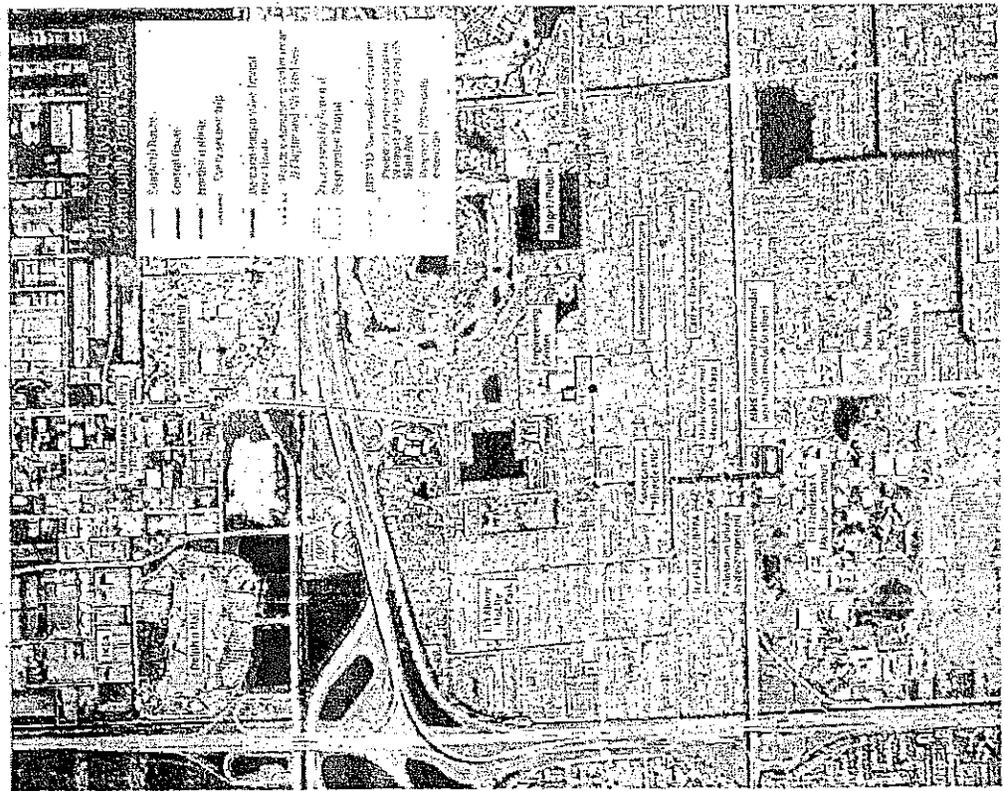
July 1, 2015

- Builds on the FY2015-2016 FDOT Service Development Grant (\$171,450) and the 2013 TIGER/UniversityCity match funds (\$342,900) that are to be used for capital improvements to Sweetwater & FIU community transit vehicles (total \$ 514,350)
- Provides for the operational budget for a ten-vehicle UTMA smart community transit and feeder bus fleet by December 2016
  - Initially operating six vehicles over five UTMA routes plus the MDT 212 Sweetwater Circulator routes
  - Eventually, with further support from business north of SR 836, operating eight vehicles over six routes using (with the remaining two vehicles for backup and express trips) and an expanded MDT 212 Sweetwater Circulator route

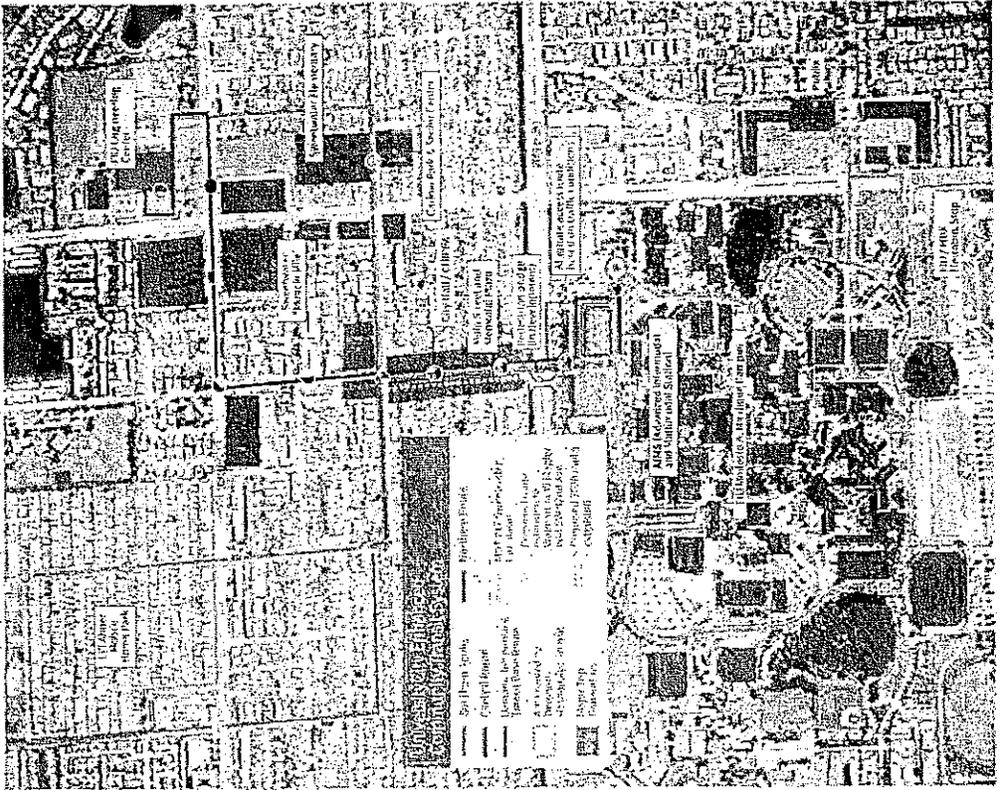
# UniversityCity Enhanced Community Transit System

## Transit system routes

UniversityCity Enhanced Community Transit System



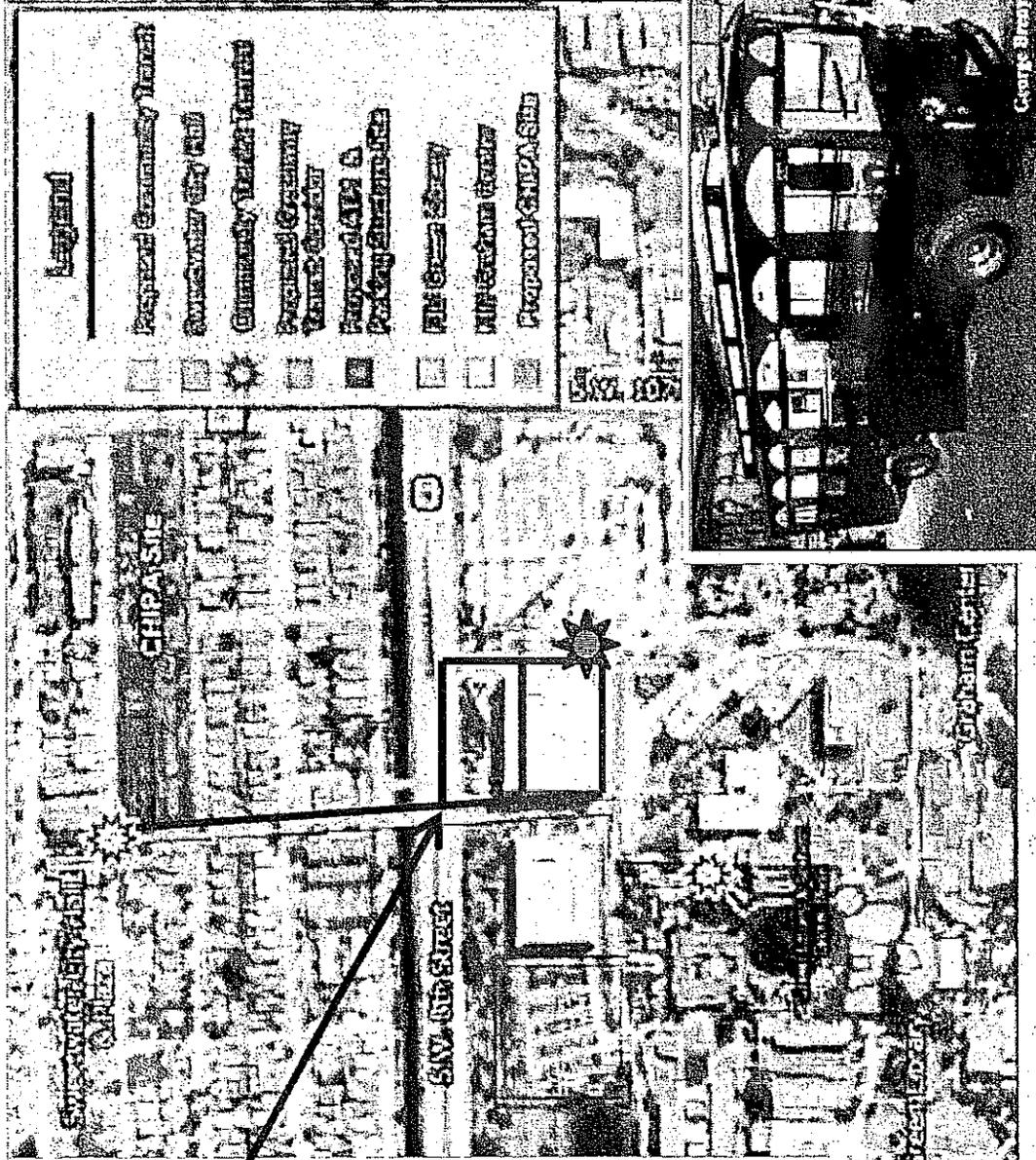
Map 4 - UniversityCity Enhanced Community Transit System, overview



Map 5 - UniversityCity Enhanced Community Transit System, details

# New Small (10 Passenger) Rubber Tire Hybrid-Electric Trolley Route

New Proposed Small Rubber-Tire Hybrid-Electric Trolley Route using \$165,000 of Sweetwater funds for three years of operation beginning July 1, 2016 for three years at \$55,000 per year pursuant to Sweetwater Resolution #3904





# Project Schedule

## 5. Project Schedule

The FY2015 FDOT Service Development Grant supported rebuild, repair and enhancement of the UniversityCity Transportation Association's fleet of community transit vehicles will be concluded by June 30, 2016. The UniversityCity Enhanced Community Transit System will commence operation on July 1, 2016, the first day of FY2016.

Phase	Time Period	Task
Preparation	July 1, 2015 – June 30, 2016	Technical assessment of public transit vehicles
		Rebuild, repair and enhancement of public transit vehicles Equipping of public transit vehicles with ITPA technology
Administrative Organization	July 1, 2015 – July 1, 2016	Appointment of UTMA@Sweetwater Board and hiring of offices and staff; Transit Development Plan formation; and, contracting with Sweetwater and FIU to assume responsibility for UTMA@Sweetwater transit operations
Operations	July 1, 2016 – June 30, 2017	First year of UTS operations by UTMA@Sweetwater
	July 1, 2017 – June 30, 2018	Second year of UTS operations by UTMA@Sweetwater
	July 1, 2018 – June 30, 2019	Third year of UTS operations by UTMA@Sweetwater

# Commitments

Funding Commitments



OFFICE OF FINANCE & ADMINISTRATION

June 7, 2015

Mr. Gus Papp  
 District Secretary  
 Florida Department of Transportation  
 1000 N.W. 11th Avenue  
 Miami, Florida 33132

RE: FDOT Service Development Grant #2016-217  
 Transportation and Management Association of Sweetwater, Inc.

Dear Mr. Papp:

Florida International University supports the 2016-217 Service Development Grant proposal for \$500,000 submitted by the University City Transportation and Management Association of Sweetwater, Inc. (UATM). The requested funds within the proposal reflect an investment in infrastructure by providing adequate operating funds to support the goals and objectives of the Association within its community.

Florida International University is pleased to commit \$100,000 in funding to the Association to support the program of the UATM Shuttle Service routes on behalf of FIA, combined with the committed amount of \$400,000 by the City of Sweetwater and the \$300,000 Service Development Grant, the total funding will enable the operation of a stable and vibrant transit program.

If you have any questions or need additional information, please call me at 305-344-2101.

With kind regards,

Kenneth A. Jovell, Ph.D.  
 Senior Vice President for Finance and Chief Financial Officer and Professor

The Honorable Orlando Lopez, Mayor, City of Sweetwater  
 1000 West Mangrove Avenue, P.O. Box 1000, Sweetwater, Florida 33190  
 Local Transportation Management Association



Mayor's Office

June 10, 2015

Mr. Gus Papp  
 District Secretary, District 6  
 Florida Department of Transportation  
 1000 N.W. 11th Avenue  
 Miami, FL 33132

Dear Mr. Papp:

The City of Sweetwater supports the 2016-217 FDOT Service Development Grant proposal for \$500,000 for Transportation and Management Association of Sweetwater, Inc. (UATM). Sweetwater is proud to provide operating funds for operating funds (Operating Costs) through the City of Sweetwater amounting to the sum of \$400,000 by the extent that Florida Sweetwater operates the Shuttleway facility routes with participation in the Sweetwater City Commission.

Sincerely,

Mayor Orlando Lopez  
 City of Sweetwater

City of Sweetwater, 1000 West Mangrove Avenue, Sweetwater, FL 33190  
 (305) 344-2101

# 836 Express & Golden Panther Express

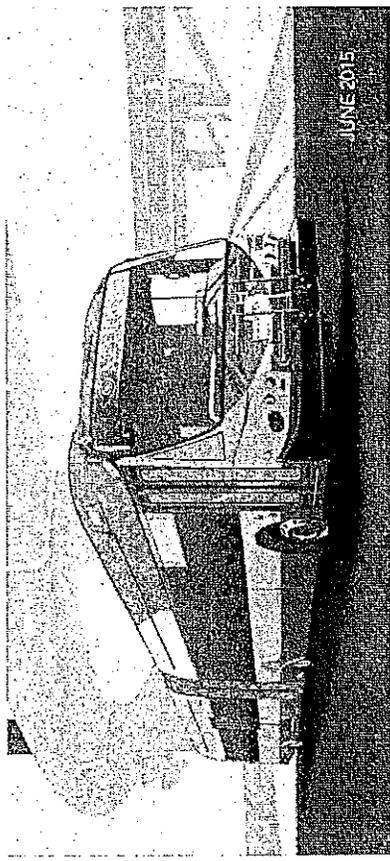
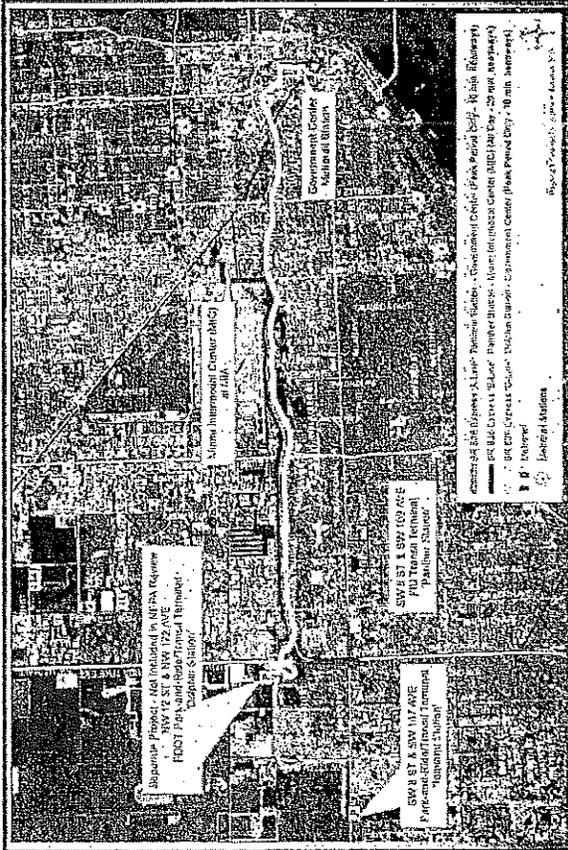
Draft 05.13.2013

Draft 2013 TIGER/UniversityCity submittal:  
 Expanded Use of Golden Panther Express to improve  
 Services over flexible routes with ITPA Guidance



- Proposed Expanded Golden Panther (GPE) Bus Service may be integrated with other transit opportunities as follows:
- ITPA is assessable to the selected ITPA customers when seats are reserved 15 minutes before departure and to other ITPA users on a seat available basis thereafter and back up transit access is proposed using back-up community transit and metropolitan transit vehicles coordinated through a customer service center ITPA.
  - Use of MDT Kendall Cruise/Type tracker or similar system that is integrated within ITPA.
  - Use of Traffic Signal Priority (TSP) system to avoid longer trip times.
  - Over time the routing for each GPE trip will be able to respond to ITPA customers trip requests including, after the SR26/1-75 express lanes are completed and 1-75 Express

MIAMI DADE COUNTY  
 Project Location Map 836 EXPRESS



JUNE 2015

# TAKE AWAY

Special Meeting in July 2015 to appoint the five member UTMA Board of Directors for their respective terms of office:

1. Nominated by Mayor and City Commission Appoints for initial one year term and three year terms thereafter
2. Nominated by Mayor and City Commission Appoints for initial two year term and three year terms thereafter
3. Nominated by Mayor and City Commission Appoints for initial three year term and three year terms thereafter
4. Nominated by FIU and City Commission Appoints for initial two year term and two year terms thereafter
5. First four Board Members suggest persons who might serve as a fifth Board Member and City Commission Appoints (must be a person who actually is engaged in business north of SR 836) for initial one year term and two year terms thereafter