



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

LAN 08-02
1010/C-4

November 6, 2014

Mr. Stuart M. Grant
Florida International University
11555 SW 17th Street
MMC Campus, CSC 142C
Miami, Florida 33199

Dear Mr. Grant:

SUBJECT: BT904-UCPP/TIGER-Florida International University (FIU) –Conceptual Skywalk Bridge Plans crossing C-4 and SW 8th Street, Miami-Dade County, Section 6/7, Township 54S, Range 40E

This letter is a follow-up our meeting held yesterday, November 5, 2014 at the South Florida Water Management District's Miami Field Office. Discussions revolved around the conceptual plans for the FIU Bridge crossing and associated appurtenances. Matters of discussion included canal design information, access openings, plaza and proposed landscaping. I hope to address all issues below.

Canal Design Information:

Canal Section:

Bottom Elevation: (-) 13' NGVD/MSL
Bottom Width: 30 Feet
Side Slopes: 1V to 1H

Hydraulic Information:

Design Water Surface Elevation: 8.0' NGVD/MSL
Optimum Water Control Elevation: 3.5' NGVD/MSL

Required Vertical Clearance:

The low member of the proposed bridge must be set at 2' above design water surface elevation of 6' above optimum water control elevation whichever produces the higher low member.

Required Horizontal Clearances:

Due to close proximity of the proposed FIU bridge in relation to the SW 109th Avenue Bridge located immediately upstream and the City of Sweetwater's Historical Bridge, the proposed FIU bridge must be constructed as a free-span structure crossing C-4.

Professional Engineer's Certification Required:

Any pedestrian or vehicular bridge crossing must be designed by a Professional Engineer Registered in the State of Florida. The Professional Engineer shall affix his/her seal to at least one set of record permit application drawings.

Bridge Hydraulic Report:

Must be submitted with application.
BT904-UCPP/TIGER-Florida International University

408 Reviews:

The USACE has issued guidance from Washington, D.C. that any work done in, over, under or through a system or structure built by the USACE as part of the Central and South Florida Flood Control System (C&SF) that could potentially affect the ability of the system to perform as intended is required to have an engineering review by the USACE office. This is found in 33 USC 408 of the Federal Code and is often referred to as a Section 408 Review. The Code requires the submittal of the request to be made by the non-Federal (local) sponsor of the original project, in our case, the SFWMD. The local USACE office in Jacksonville has interpreted this to mean that anything constructed in the R/W of a C&SF canal, levee or structure should be subject to the Section 408 review.

Comments provided by Teri Swartz, SFWMD Lead Engineer for the 408 review include "provide cross-sections through the bridge section to show that the flow area is not reduced by constructing the bulkhead support walls and a canal hydraulic analysis for pre- and post-project conditions."

Cross Sections:

In order for the District to determine if clean-out or excavation of the channel is necessary at the point of a proposed crossing the applicant must provide cross sections of the canal. For the proposed bridge crossings, the applicant must provide an existing section at the west face of the SW 109th Bridge, thence westerly every 25' to a point 25' upstream of the proposed FIU bridge crossing. The cross sections shall be taken perpendicular to the centerline of the channel. Soundings for cross sections are to be taken at a maximum of 10 foot intervals, from top of bank to top of bank and tied into the canal right of way lines. The cross sections must be plotted on standard 10 X 10 cross section paper or a similar CAD drawing and have the design canal section superimposed on each section. Mean Sea Level (MSL) or National Geodetic Vertical Datum (NGVD) will be used as datum and English or a combination of English and equivalent metric units of measure employed.

Excavation:

If excavation of the canal is required to achieve the canal design section, the limits of excavation to the design section shall begin immediately west of SW 109th Avenue, westerly to a point approximately 25' west of the proposed crossing with adequate transitions. The limits of the excavated area and transitions into the existing section must be shown on both the plan and profile view of the application drawings.

Bulkhead:

Specific bulkhead cap elevation will be required and shall be furnished by the District in the near future.

Restrictions to Flow during Construction:

The South Florida Water Management District is under no obligation to allow canal flows to be impeded or restricted to facilitate the construction of a crossing. If there is any potential possibility that the permittees contractor will request the use of coffer dams or earthen fills that will encroach in the channel such proposals must be included in the application. You are also cautioned to advise potential bidders of the prohibition on blocking or interfering with canal flows in order that they may bid the job accordingly.

In those instances where the District determines that the temporary restriction or blocking of a channel is feasible the District will dictate the manner and length of time the canal may be impacted. The applicant will prepare a sequence of work, equipment and personnel list and schedule accordingly for review and acceptance or rejection by the District.

District Access:

In designing bridge approaches keep in mind that the District's access along the canal must not be severed or impeded. Guardrailing, curbs, sidewalks and medians must be designed so that they do not interfere with the movement of District equipment along the canal.

In regard to the conceptual plans, this access can be accomplished by providing a minimum 50 feet opening from the end of the barrier wall of SW 109th to the proposed bridge landing located within the north right of way of C-4 and depicted on the plans. Mountable curbing a minimum of 40' in width must be provide for District access off 109th Avenue to access the District's northerly right of way and access area. Clearly depict on the plans that both access areas are for use by the SFWMD.

Relocations:

It is the applicant's sole responsibility to determine if any existing installations located within the District's right of way will be impacted by his proposed work and for any notification and/or coordination with the owners of existing facilities. Under no circumstances will the District be responsible for any relocation costs or liabilities, either direct or indirect, which are necessitated by the applicant's proposed work.

According to District records the following facilities may be relocated that are in the vicinity of the proposed crossing: all above encroachments, such as, but not limited to the aerial parallel powerline, above ground pull boxes and trees located from the west face of SW 109th Avenue westerly to the proposed FIU bridge landing.

The District does not warrant the accuracy of this information. It is provided for informational purposes only and the applicant is cautioned to exercise due diligence in identifying all potential conflicts within the canal right of way.

Financial Assurances:

The construction of a privately-owned bridge requires that the applicant (prior to the application being placed on the Regulatory Governing Board Agenda for formal consideration); demonstrate financial assurances, such as the posting of a bond, to ensure compliance with any and all permit conditions that may be imposed. The amount of the financial assurances must be at least equal to the cost of removal and disposal of the bridge and restoration of the right of way. Said financial assurance must remain in effect until the facility is removed in its entirety from the right of way and all restoration work completed to the satisfaction of the District. The amount bond or surety must be equal to the cost of removal and disposal of the structure or crossing based on an itemized estimate from a Professional Engineer registered in the State of Florida or from a demolition contractor.

As part of your application package you should submit an itemized estimate of the cost of removal of the proposed structure and restoration of the right of way along with a statement from the owner that he is willing to provide and maintain a bond or other surety acceptable to the District for the life of the installation.

A Certificate of Insurance will be required to the limits specified by the District. The Certificate must name the South Florida Water Management District as an additional insured and received prior to the application being placed on the Regulatory Governing Board Meeting Agenda. As part of your application package you should provide a statement to the effect that the applicant is agreeable to providing such insurance to remain current throughout the life of the permit. If the applicant is a "self-insurer" under the applicable statutes documentation evidencing this status may be substituted for the insurance coverage.

Plaza/Landscaping:

New planting of trees along the north right of way specifically the top of the canal bank or within the area designed for SFWMD access is not authorized. The placement of any above ground planter, benches or associated above-ground facilities within the area designed as the SFWMD access, area will not be authorized. Any trees and/or planting located outside of the designated areas must meet the criteria in the SFWMD Right of Way Planting Choices.

Requirements are Subject to Change:

In managing its canal and levee system the District must, from time to time, change its criteria and permit requirements based on regional and site specific conditions. Applicants are cautioned that the information provided in this letter is based on the best available information at the time the letter is written but is subject to change. This is particularly true when applicants delay months or years in submitting an application for permit. Therefore the rules, criteria and requirements in effect at the time a formal application is received for review will be applied to the permit application.

Drawings to Accompany Applications for Permits:

While three (3) sets of large-size (24" X 36" or larger) plans are helpful in the application review process they are not a requirement. Three (3) sets of drawings no larger than 8½ x 11 inches are required to be submitted with the permit application package and will ultimately be included in the District's permit files. Large-size drawings that have been reduced to 8½ X 11 inches are frequently illegible and will be rejected if they are not readable. All application drawings must be legible and drawn to scale or fully dimensioned. All dimensions must be in English units of measure or a combination of English and equivalent metric units.

Petition for Waiver:

The District has determined that an unencumbered 40 foot strip of right of way, measured from the top of bank landward, is required in order for the District to perform the required routine and emergency operations and maintenance activities necessary to insure flood protection to the entire community. In this 40 foot right of way, subject only to limited exceptions provided in this rule, the District shall not authorize any above-ground facilities or other encroachments.

Your request for issuance of a Right of Way Occupancy Permit to utilize the Works and Lands of the District does not meet, or is contrary to, the District's criteria. Therefore, it will be necessary for Florida International University to file a Petition for Waiver of the District's criteria. See enclosed Waiver packet.

Application Processing Fee:

Applications received without an application processing fee (or an insufficient fee) are deemed incomplete and will not be processed. Likewise, checks that are returned for insufficient funds render an application invalid and the review will be delayed.

At the time this letter is written and from the information that you have provided, it appears that a \$[1,750.00] Application processing fee including the Waiver is applicable to your project.

Sincerely,

Beverly Miller
Right of Way Specialist-Senior
Operations and Maintenance Division

BT904-UCPP/TIGER-Florida International University
November 6, 2014
Page Five.

Cc: Jesus Carrasco- Superintendent, Miami Field Station
Andrew Wolf-Assistant Superintendent
Armando Vilaboy-Intergovernmental & Community Outreach Rep.-Lead
Teri Swartz-Lead Engineer
Keith Price-Right of Way Technician 2-Miami Field Station
Bob Griffith-Florida International University
John Cal-Florida International University
Francisco Alonso-T.Y Lin International

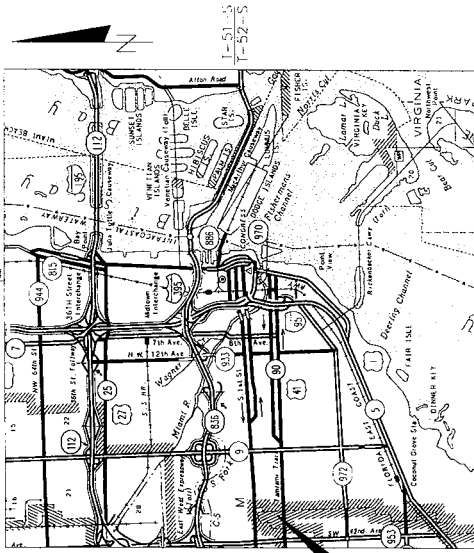
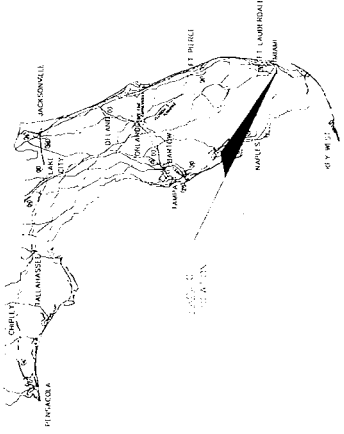
FLORIDA INTERNATIONAL UNIVERSITY AND CITY OF SWEETWATER UNIVERSITY CITY CONCEPTUAL PLANS

UNIVERSITY CITY COMPLETE STREETS
INCLUDING SIGNATURE
PEDESTRIAN-ORIENTED-SHARED USE
BRIDGE, PLAZAS, PAVILIONS, AND ADVANCED
INTERMODAL & MULTIMODAL STATION (AIMS)

INDEX OF PROJECT PLANS SHEET NO. SHEET DESCRIPTION

- 1 COVER
- 2 KEY SHEET
- 3-4 EXISTING CONDITIONS & DEMOLITION FOR ALTERNATIVE 1
- 5-7 EXISTING CONDITIONS & DEMOLITION
- 8 ADVANCED INTERMODAL STATION (AIMS) PLATFORM
- 9 ADVANCED INTERMODAL STATION (AIMS) PLATFORM ALTERNATIVE 2
- 10-11 UNIVERSITY CITY IMPROVEMENTS ALTERNATIVE 1
- 12 UNIVERSITY CITY IMPROVEMENTS
- 13 COMPLETE STREET, US-41 INTERSECTION (FIU- SWEETWATER)
- 14 COMPLETE STREET SWEETWATER SECTION
- 15-17 TYPICAL SECTION
- 18 SWEETWATER RIGHT OF WAY
- 19 COMPLETE STREET DETAILS
- 20 COMPLETE STREET LIGHTING DETAILS - SWEETWATER
- 21 COMPLETE STREET LIGHTING DETAILS - FIU PROJECT LOCATION
- S-1 SIGNING & PAVEMENT MARKING PLANS FIU - SWEETWATER
- S-2 SIGNING & PAVEMENT MARKING PLANS ALTERNATIVE 2
- S-3-S-4 SIGNING & PAVEMENT MARKING PLANS
- LH-02 - LH-11 HARDSCAPE PLANS
- LP-02 - LP-06 LANDSCAPE PLANS
- A-1 APPENDIX 1 - BROTHERS TO THE RESCUE MEMORIAL PLAZA PLANS

REVISIONS
BRIDGE LANDING AND PLAZA, TIGER GRANT LIMITS AND PAVEMENT
MARKING CHANGES (REVISED 10/14/14)
PLAN SHEETS INCLUDE 13-14, 16-18 & S-3



PREPARED FOR:



FLORIDA
INTERNATIONAL
UNIVERSITY



CONST. PLANS AND DETAILS PREPARED BY:

FLU INTERNATIONAL

201 ALHAMBRA CIRCLE, SUITE 900
CORAL GABLES, FLORIDA 33134
T 305.567.1888 F 305.567.1771

CERTIFICATE OF AUTHORIZATION 00002017

Landscape Architect



2333 Brickell Ave N 216
Miami, Florida 33129
T 786.314.5906 F 305.854.8777

REV 1
OCTOBER 14, 2014

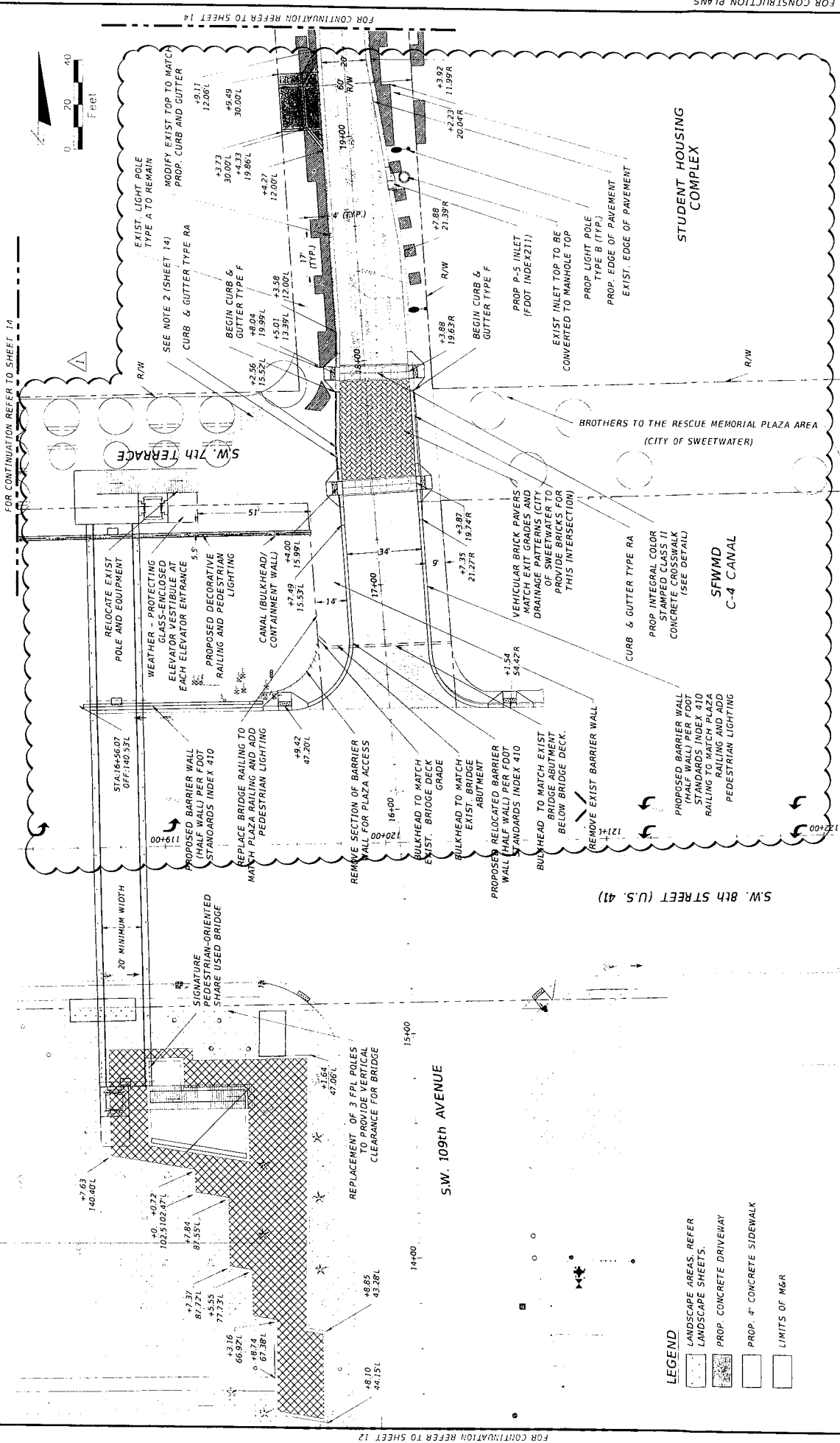
KEY SHEET REVISIONS
DESCRIPTION
10/14/14
REMOVAL OF APPROPRIATE

GOVERNING STANDARDS AND SPECIFICATIONS: FLORIDA
DEPARTMENT OF TRANSPORTATION, DESIGN STANDARDS
DATED 2014, AND STANDARD SPECIFICATIONS FOR ROAD
AND BRIDGE CONSTRUCTION DATED 2010, AS AMENDED
BY CONTRACT DOCUMENTS.

APPLICABLE DESIGN STANDARDS MODIFICATIONS: 01-01-14
For Design Standards Modification Click on
"Design Standards" at the following web site:
<http://www.dot.state.fl.us/oddesign/>

SHEET NO.	7
FISCAL YEAR	14

NOT FOR CONSTRUCTION PLANS



FOR CONTINUATION REFER TO SHEET 14

FOR CONTINUATION REFER TO SHEET 13

SHEET NO. 13

PROJECT TITLE: COMPLETE STREET, US-41 INTERSECTION (FTU - SWEETWATER)

FLORIDA INTERNATIONAL UNIVERSITY
 CITY OF SWEETWATER UNIVERSITY CITY
 CONCEPTUAL PLANS FOR COMPLETE STREETS,
 PEDESTRIAN ORIENTED SHARED-USE BRIDGE AND
 ADVANCED TRANSIT MULTIMODAL STATION

T-Y LIN INTERNATIONAL
 201 ALHAMBRA CIRCLE SUITE 900
 Coral Gables, Florida, 33134
 Phone: 305 / 567-1888 Fax: 305 / 567-1771

FLORIDA INTERNATIONAL UNIVERSITY

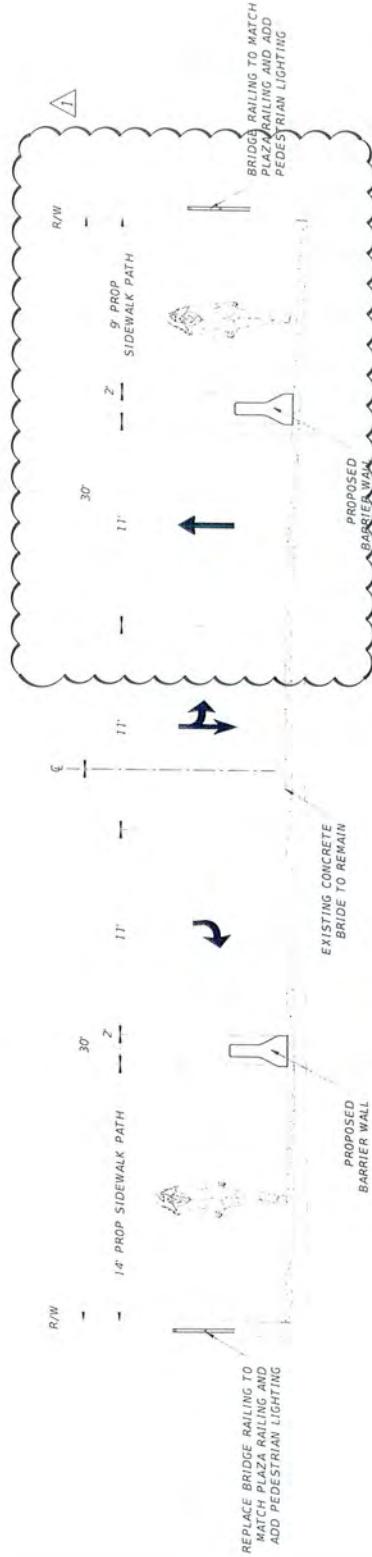


REVISIONS

NO.	DATE	DESCRIPTION
1	06/12/2014	ISSUE FOR LANDSCAPE AND STREETS PLAN DEVELOPMENT
2	06/12/2014	REVISED LANDSCAPE AND STREETS PLAN DEVELOPMENT

LEGEND

- LANDSCAPE AREAS: REFER LANDSCAPE SHEETS.
- PROP. CONCRETE DRIVEWAY
- PROP. 4" CONCRETE SIDEWALK
- LIMITS OF M&R



SW 109TH AVE BRIDGE SECTION FROM 8TH AVENUE TO 7TH TERRACE
NTS



DATE	DESCRIPTION
05-20-2014	DRAFT
10-14-2012	REV J. ROADWAY CONFIGURATION



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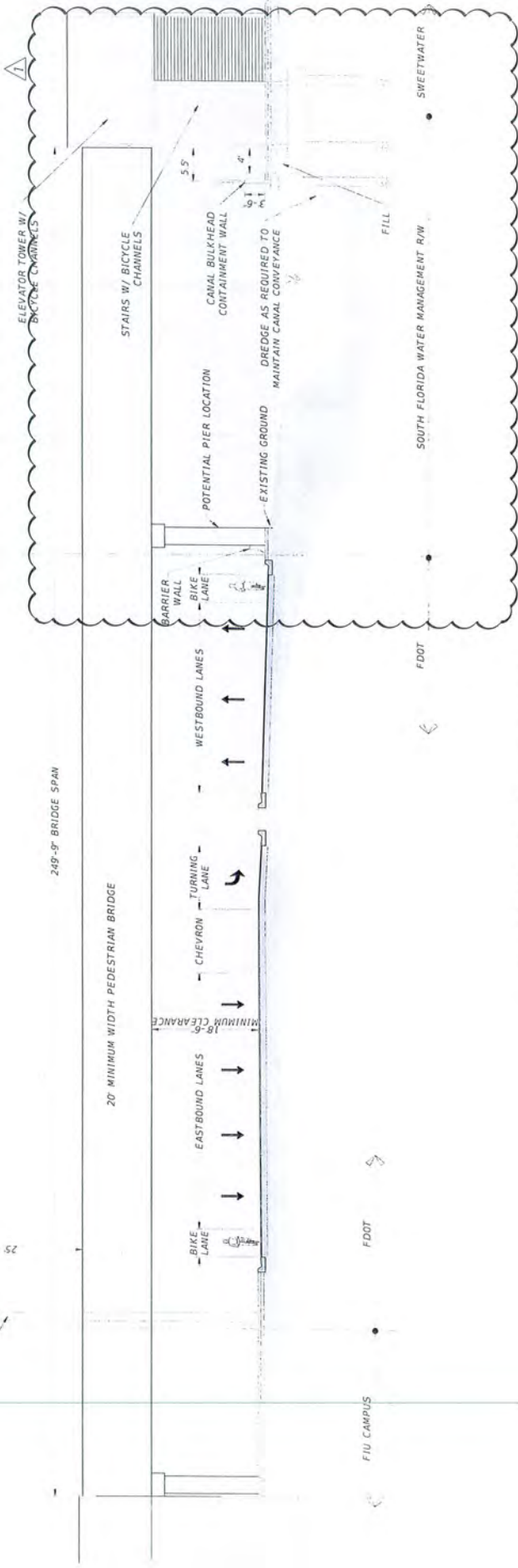
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 CONCEPTUAL PLANS FOR COMPLETE STREET S,
 PEDESTRIAN ORIENTED SHARED-USE BRIDGE, AND
 ADVANCED TRANSIT MULTIMODAL STATION

TYPICAL SECTION

RELOCATE (3)
TRANSMISSION POLES W/
25' CLEARANCE FROM TOP
OF THE BRIDGE TO LOW
WIRE

R/W

R/W



SW 8 STREET WEST OF SW 109 AVENUE
N.T.S.



REVISIONS	
DATE	DESCRIPTION
05-20-2014	DMAT
10-14-2014	REV I BRIDGE LANDING

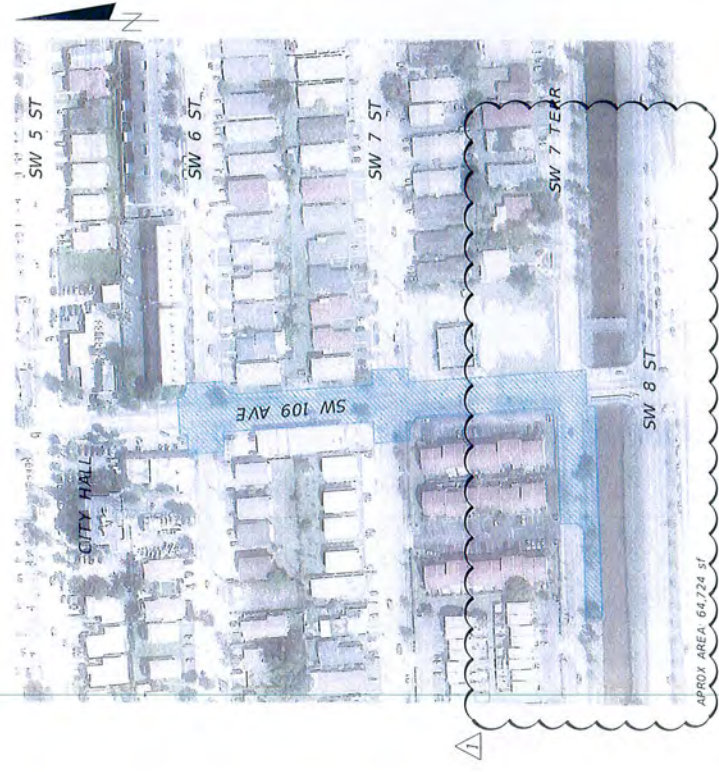
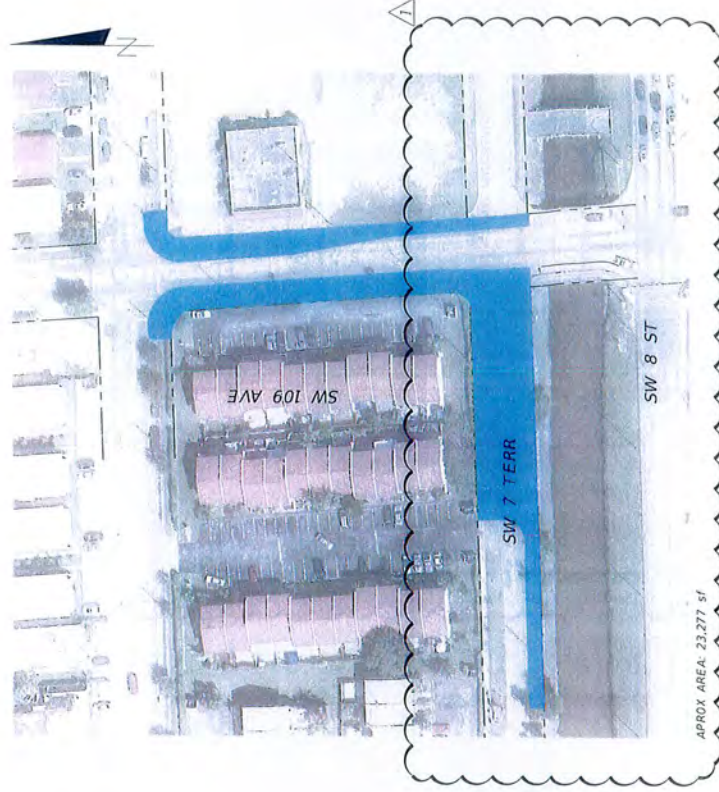


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FLORIDA INTERNATIONAL UNIVERSITY
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CONCEPTUAL PLANS FOR COMPLETE STREETS,
PEDESTRIAN ORIENTED SHARED-USE BRIDGE AND
ADVANCED TRANSIT MULTIMODAL STATION

TYPICAL SECTION

SHEET NO
17



REV	DATE	DESCRIPTION
05/20/2014	DMAT	
10/14/2014	REV 1	AREA LIMITS



FIU FLORIDA INTERNATIONAL UNIVERSITY

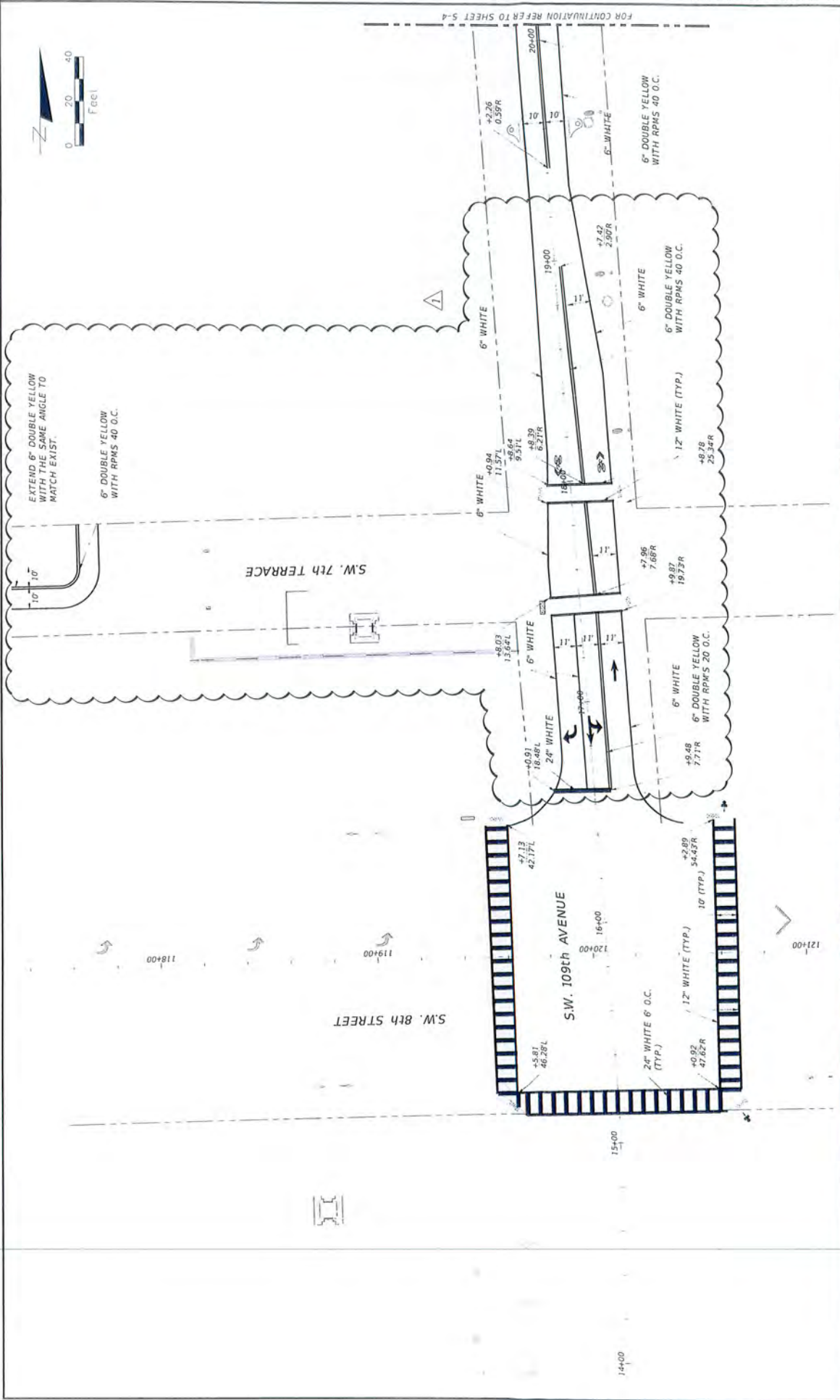
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FLORIDA INTERNATIONAL UNIVERSITY
CITY OF SWEETWATER UNIVERSITY CITY
CONCEPTUAL PLANS FOR COMPLETE STREETS,
PEDESTRIAN ORIENTED SHARED-USE BRIDGE, AND
ADVANCED TRANSIT - MULTIMODAL STATION

SWEETWATER RIGHT OF WAY

SHEET NO

18



REVISIONS		DESCRIPTION	DATE	DRAWN BY	CHECKED BY	APPROVED BY
NO.	DATE					
1	05/20/2014	DESIGN				
2	10/12/2014	REV. 1. ROADWAY CONFIGURATION				

FLORIDA INTERNATIONAL UNIVERSITY 201 ALHAMBRA CIRCLE SUITE 900 Coral Gables, Florida, 33134 Phone: 305 / 567-1888 Fax: 305 / 567-1771	FLORIDA INTERNATIONAL UNIVERSITY CITY OF SWEETWATER UNIVERSITY CITY CONCEPTUAL PLANS FOR COMPLETE STREETS, PEDESTRIAN ORIENTED SHARED-USE BRIDGE, AND ADVANCED TRANSIT MULTIMODAL STATION	SIGNING & PAVEMENT MARKING PLANS	SHEET NO. S-3
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