LOCATION HYDRAULICS TECHNICAL MEMORANDUM

TAMPA INTERSTATE STUDY (TIS) SEGMENT 1A AND TIS SEGMENT 2A SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT (SEIS) WPID 258337-2

OCTOBER 2018

INTRODUCTION

The Florida Department of Transportation (FDOT) is conducting a Project Development and Environment (PD&E) Study for TIS Segment 1A and TIS Segment 2A in Hillsborough County, Florida. The TIS limits are I-275 (SR 93) from east of the Howard Frankland Bridge to just east of Westshore Boulevard and SR 60/Memorial Highway to Cypress Street. The project will include design improvements for the existing interchange as well as design improvements on Reo Street, Occident Street, Ward Street, Westshore Boulevard, Kennedy Boulevard and Trask Street. Improvements also include realignment of Lemon Street. The I-275 section from Lois Avenue to Hillsborough River is a transition section from the SR 60 interchange to the Tampa Downtown Interchange (DTI). The reevaluation is for design changes and to advance to Right-of-Way acquisition.

The existing typical sections include a two level interchange at SR 60/Memorial Highway and I-275 with four through lanes in each direction on I-275, bridges over the crossroads, a wide median width for future improvements, shoulder-mounted 8-foot noise walls near densely developed residential areas, aesthetic treatments, lighting and stormwater facilities to accommodate the future improvements.

The proposed improvements in Segment 1A include, I-275 from Howard Frankland Bridge (HFB)/Kennedy Boulevard ramps and just north of Cypress Street on SR 60/Memorial Highway to East of Himes Avenue. The general use lanes (outer roadways) in this section were included in the 1996 TIS FEIS. The design changes would involve the use of tolled or non-tolled express lanes and access changes between general and express lanes; expansion of I-275 from HFB to south of SR 60 to accommodate express lanes along I-275; and local street changes, including relocation of Lemon Street, the extension of Occident Street, modified Trask Street ramp connections, replacement of the Executive Drive to southbound I-275 ramp connection, and extension of Sherrill Street with a new I-275 Reo Street interchange that would provide a connection between Kennedy Boulevard, Reo Street, and I-275.

The proposed improvements in Segment 2A include, I-275 from East of Himes Avenue to East of Rome Avenue. The general use and express lanes in this section were included in the 1996 TIS FEIS. The outer roadway (general use lanes) has already been constructed with I-275 improvements. The work in this section includes adding express lanes in the median. However, the design changes include express lane access options for providing direct connect ramps from express lanes to the Westshore Business District.

ANALYSIS OF FLOODPLAIN IMPACTS

NATIONAL FLOOD INSURANCE PROGRAM COMMUNITIES

The Federal Emergency Management Agency (FEMA) completed the Flood Insurance Study (FIS) for Hillsborough County that became effective August 28, 2008. No changes to the FIS have been made since 2008 according to the local FEMA office.

Portions of the study area for the proposed improvements are located within the floodplain limits shown on the Flood Insurance Rate Map (FIRM) Community Panels 12057C0333H, 12057C0334H, 12057C0353H, and 12057C0354H, as compiled by FEMA. The east approach is in Zone VE with the base flood elevation (BFE) at 9 feet. Zone VE is a coastal flood zone with velocity hazard (wave action). Zone AE is an area of 100-year flood, in which the BFE has been determined. The western end of the TIS also falls within Zone AE with a BFE of 9 feet. See the attached FIRMettes, all elevations in the FIRM are in the NAVD 88 datum. Flood hazard factors have been determined by FEMA.

FLOODPLAINS

The floodplain is primarily from storm surge from the Gulf of Mexico. Old Tampa bay is a tidal bay and is a class II estuary between Hillsborough and Pinellas counties. All of the floodplain encroachments will be minimal due to the proposed roadway alignment following the same general alignment as the existing facility.

FLOODWAYS

There are no floodways within the project limits. Seagrass in the vicinity has been mapped and impacts will be minimized.

DRAINAGE BASINS AND CROSS DRAINS

The stormwater runoff from the travel lanes and shoulders of the project will be collected with inlets. Stormwater will be routed through stormwater management facilities by storm drains as required before being discharged. The run off discharges to two basins: The Old Tampa Bay and the Hillsborough River Drainage Basins. Stormwater from Himes west will be discharged to Old Tampa Bay via various canals and boxes. Stormwater from Himes east will discharge to the Hillsborough River.

Two existing cross drains will be maintained with the proposed improvements. Both cross drains are in the Lemon Street Canal. The first one is a double 6’x10’ concrete box culvert between I-275 and Cypress Street under SR 60/Memorial Highway. The second one is a 114” reinforced concrete pipe east of North Lois Avenue under I-275.

FLOODPLAIN COORDINATION

CITY OF TAMPA FEMA COORDINATOR

The City of Tampa FEMA coordinator was contacted on August 27, 2018 to ensure the project is consistent with the local floodway and floodplain management programs and comprehensive plan. Dave Jennings confirmed the FEMA coastal study has been completed, however there have been no official updates to the FIS or the FIRM. Hillsborough County has the draft panels and anticipates publishing the panels in September 2018. There are no CLOMRs in the vicinity. A joint rule between the City of Tampa and Hillsborough County (ASCE 24-14) requires building finished floor elevation (FFE) to have one-foot of freeboard above base flood elevation (BFE). A communications record is attached.

PROJECT CATEGORY

Based on the information collected during this study, the proposed improvement can be categorized as a project on existing alignment involving replacement of drainage structures in heavily urbanized floodplains.

"*Replacement drainage structures for this project are limited to hydraulically equivalent structures. The limitations to the hydraulic equivalency being proposed are basically due to restrictions imposed by the geometrics of design, existing development, cost feasibility, or practicability. An alternative encroachment location is not considered in this category since it defeats the project purpose or is economically unfeasible. The proposed structure will be hydraulically equivalent to or greater than the existing structure, and backwater surface elevations are not expected to increase. As a result, the project will not affect existing flood heights or floodplain limits. This project will not result in any new or increased adverse environmental impacts. There will be no significant change in the potential for interruption or termination of emergency service or emergency evacuation routes. Therefore, it has been determined that this encroachment is not significant."*

ATTACHMENTS

onal Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 500'

250 0 500 1000

FEET

METER

1315000 FT

ZONE VE
(El. 9)

BEGIN PROJECT

275

OLD TAMPA

27°56'15"

82°33'45"

$^{3}47^{000m}E$

JOINS PANEL 0341

$^{3}48^{000m}E$

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0333H

FIRM

FLOOD INSURANCE RATE MAP

HILLSBOROUGH COUNTY, FLORIDA
AND INCORPORATED AREAS

PANEL 333 OF 801

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
HILLSBOROUGH COUNTY	120112	0333	H
TAMPA, CITY OF	120114	0333	H

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

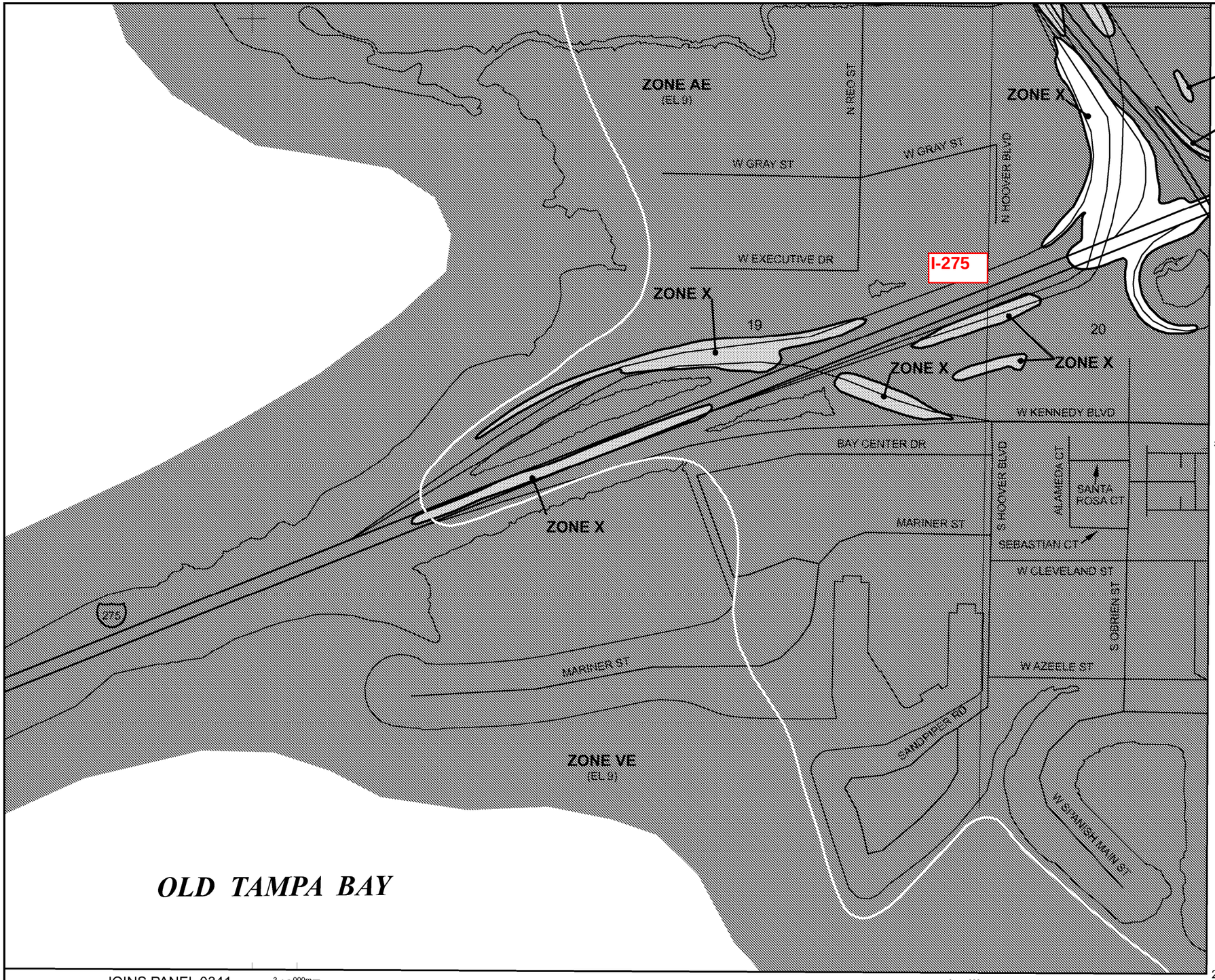
MAP NUMBER
12057C0333H

EFFECTIVE DATE
AUGUST 28, 2008

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

onal Flood Insurance Program at 1-800-638-6620.



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250 0 500 1000

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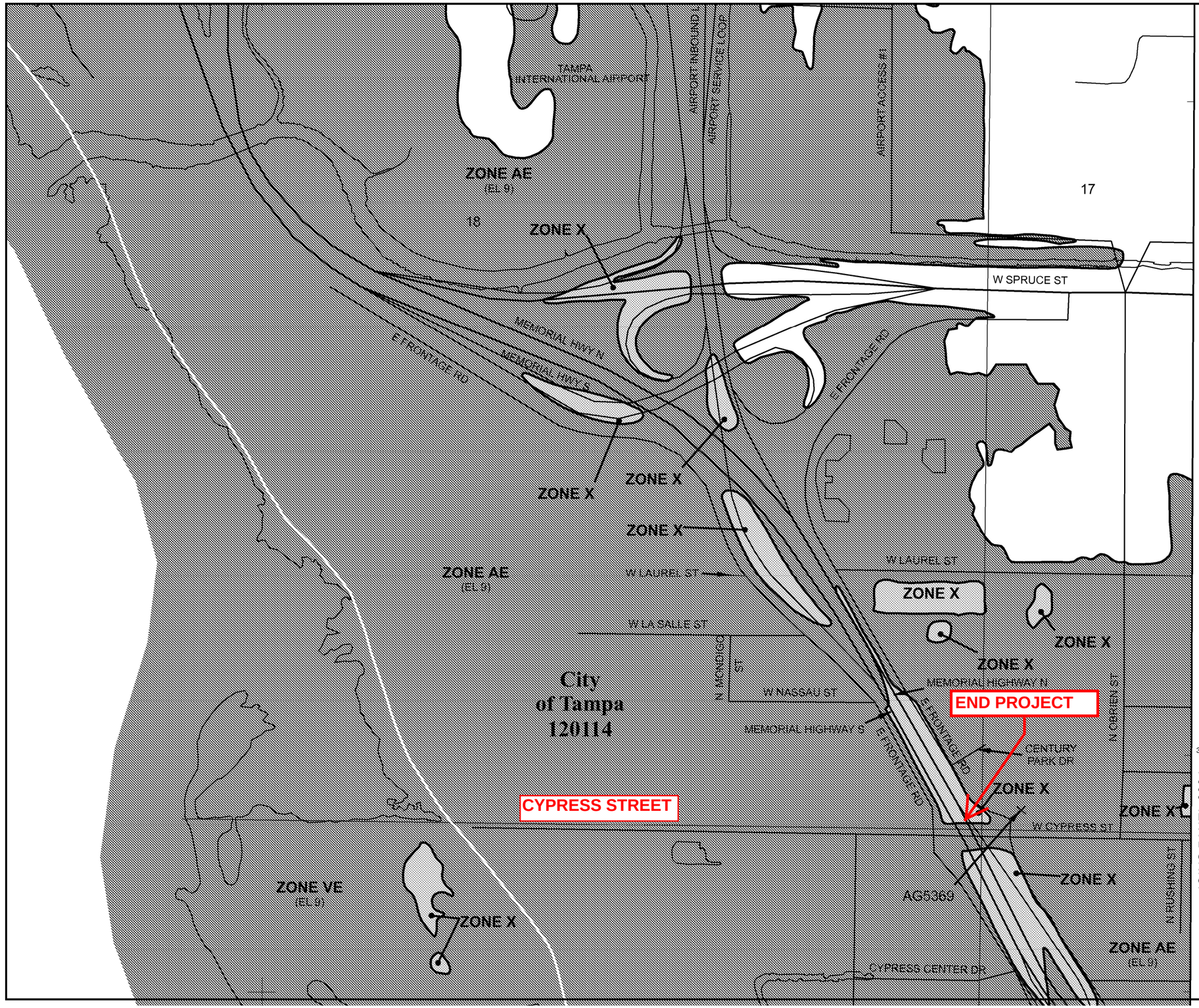

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250 0 500 1000

FEET

METER

City of Tampa 120114

W SPRUCE ST
W CHESTNUT ST
W MAIN ST
W UNION ST
W GREEN ST
W LAUREL ST
W LA SALLE ST
W ARCH ST
W NASSAU ST
W GRACE ST
W CYPRESS ST
W STATE ST
W LEMON ST
W CARMEN ST
W GRAY ST
W FIG ST
W NORTH B ST
W NORTH A ST

N WEST SHORE BLVD
N TRASK ST
N HESPERIDES ST
N MANHATTAN AVE
N HUBERT AVE
N LOIS AVE
N RENELLIE DR
N SHERRILL ST
WEST SHORE PLZ
N LAUBER WAY

I-275

ZONE X
ZONE AE
(EL 9)
ZONE A

JOINS PANEL 0333

1315000 FT

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0334H

FIRM

FLOOD INSURANCE RATE MAP

HILLSBOROUGH COUNTY, FLORIDA
AND INCORPORATED AREAS

PANEL 334 OF 801

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
TAMPA, CITY OF	120114	0334	H

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MAP NUMBER
12057C0334H

EFFECTIVE DATE
AUGUST 28, 2008

Federal Emergency Management Agency

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Communication record

Person spoken with:	Dave Jennings		
Representing:	City of Tampa		
Subject:	I-275/SR-60 FEMA Coordination	**Date and time:**	27 August 2018 - 09:00
Atkins representative:	Gregory Lee	**Phone:**	(813) 274-3162

Details:

After brief introductions and review of my prior coordination with Mr. Barrios, Mr. Jennings and I discussed the PD&E reevaluation and the study limits. The FEMA coastal study has now been completed. Hillsborough County has the draft panels and will be released to the public in September. The area at the Howard Frankland is going from an AE10 to an AE12. Several of the VE zones have gone up four to five feet.

The TIS SEIS team will obtain the current 2018 FEMA panels and include them as an appendix to this technical memorandum once they are published.

The freeboard rule previous discussed has been modified and adapted into ASCE 24-14 and now requires a one-foot freeboard to buildings. Utilities are exempt.

Dave does not know of any CLOMRs in the vicinity.

Action required:

Distribute to:	**cc:**

File ref: