Stormwater Improvement Program

Project List CIP = $251,285,000
1. Upper Peninsula Flooding Relief
2. North Tampa Closed Basin Flooding
3. Cypress Street Outfall Extension
4. Southeast Seminole Heights Flooding Relief
5. Lower Peninsula Flooding Relief
6. Miscellaneous Capital Improvements

FY17
Stormwater Major Capital Improvements Projects Report

Tampa City Council Update No. 1 - February 2017

The following five (5) Major Capital Improvements Projects are regional multi-year flood relief projects for the City of Tampa. Each project fact sheet includes a description, location map, and timeline status. Each of these projects is in various stages of development and will continue for a number of years, due to the complexity and comprehensive nature of the project.

February 3, 2017

Upper Peninsula Flooding Relief

(Dale Mabry Trunkline)

City Project #: 1001017

Project Description:

Upper Peninsula Regional Stormwater Improvements is a multi-year flood relief project covering approximately 3400 acres of South Tampa from Kennedy Boulevard southward to Euclid Avenue. Stormwater Engineering Division has developed a stormwater model and comprehensive study of the project area, with the goal of providing incremental improvements to the stormwater infrastructure. The main benefit of the project is to provide targeted relief in flood prone areas to address public safety.

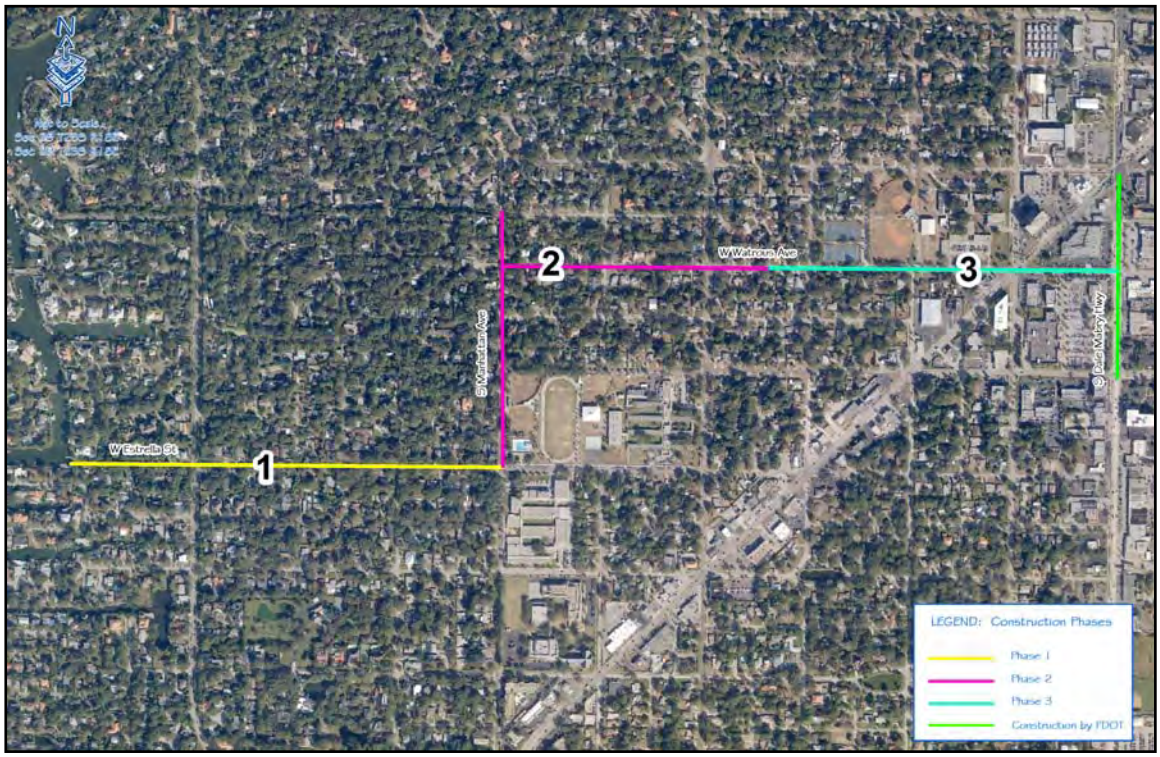
This project will alleviate the severe chronic flooding along Dale Mabry Highway between Henderson Blvd and Neptune Street. The highway is part of the primary evacuation route for South Tampa. Existing pipes will be connected to the trunkline thereby providing basin wide flooding relief.

Dale Mabry Trunkline project consists of the construction of a box culvert from Dale Mabry/Henderson/Neptune to a new outfall at Estrella Street. The system will also interconnect to improvements along the Watrous Canal, thus providing two outfalls for flooding relief.

Location Map:

February 3, 2017

Dale Mabry Trunkline Project Phases:



Summary of Project Costs:

Phase	Firm	Amount	Funding Source	Schedule	
				Start	Finish
Design/Build	* RFQ In Process	$37M	COT/SWFWMD	FY17	FY20

Timeline:

- Cost/Benefit Analysis complete and third party review underway
- RFQ was scored and completed in January 2017
- CCNA process to select the Design/Build firm in February 2017
- Anticipated Notice to Proceed to Design/Build Firm is August 2017

* RFQ - Request for Qualifications

February 3, 2017

North Tampa Closed Basins Flooding Relief

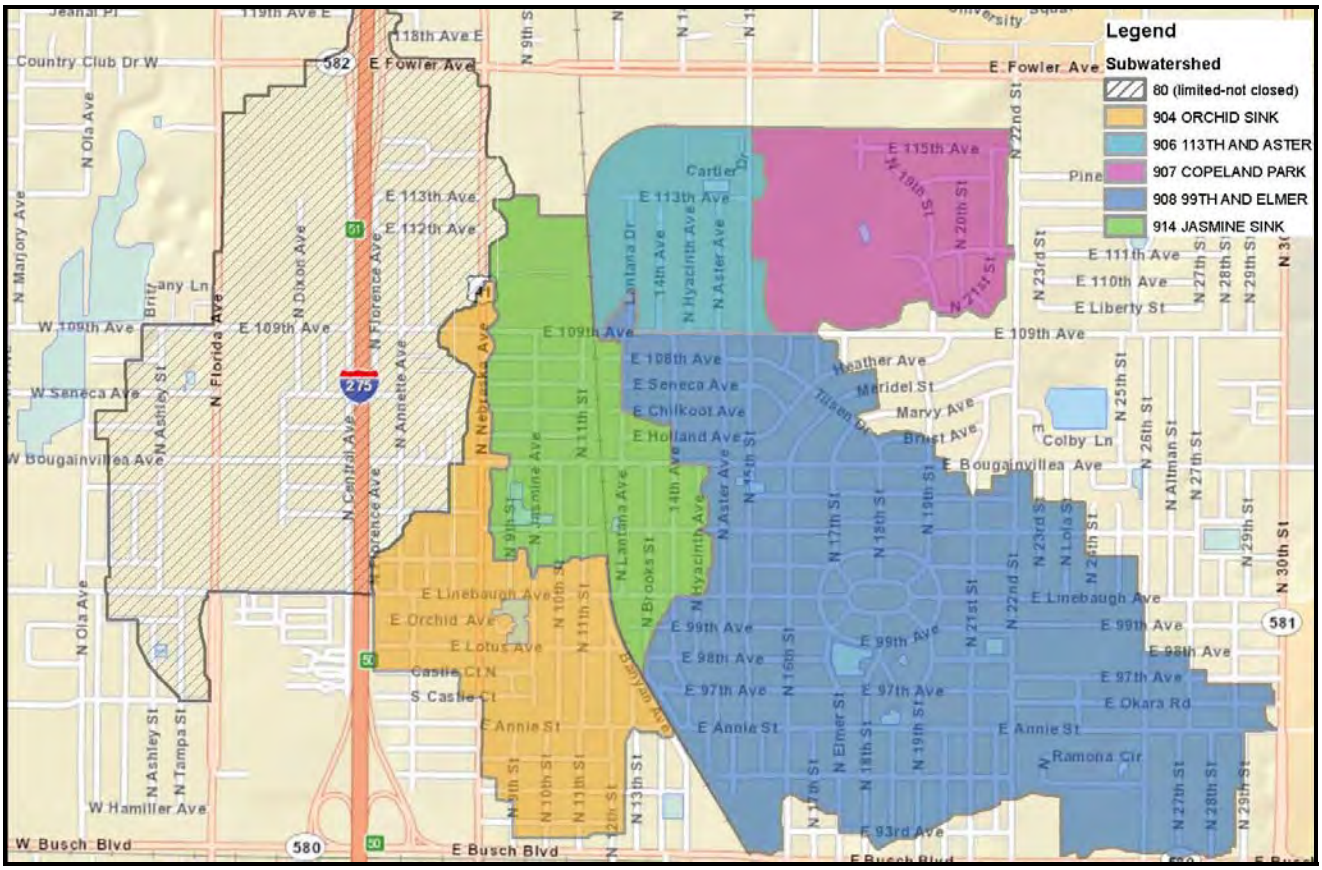
City Project #: 0000403

Project Description:

Portions of the northern part of the City of Tampa flood periodically due to their location within closed drainage basins and the absence of drainage infrastructure to provide relief. The North Tampa Closed Basins (NTCB) study area is generally bounded by Fowler Avenue on the north, 30th Street on the east, Busch Boulevard on the south and Florida Avenue on the west and includes several individual closed basins that comprise a portion of the springshed for Sulphur Springs, which is located on the north bank of the Hillsborough River just west of Nebraska Avenue. These areas rely primarily on discharge to groundwater through sinkholes, whose receiving capacity has been observed to be unreliable due to sedimentation/clogging, high groundwater levels or possible collapse of subsurface conveyances.

Based on a model and study of the closed basin area, properties are targeted for acquisition and will serve as future stormwater ponds. The project consists of property acquisition in the area experiencing the most severe flooding. Approximately 40 properties have been identified.

Location Map:



Property Acquisition maps:

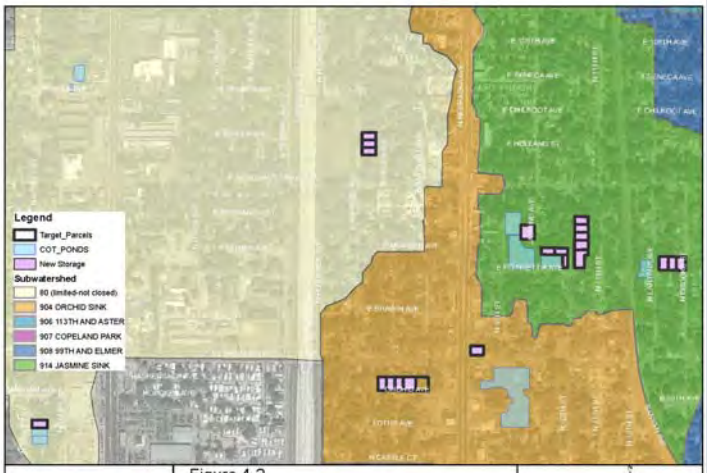


Figure 4-2
West Basin Target Parcel Acquisition for New Stormwater Retention/Detention

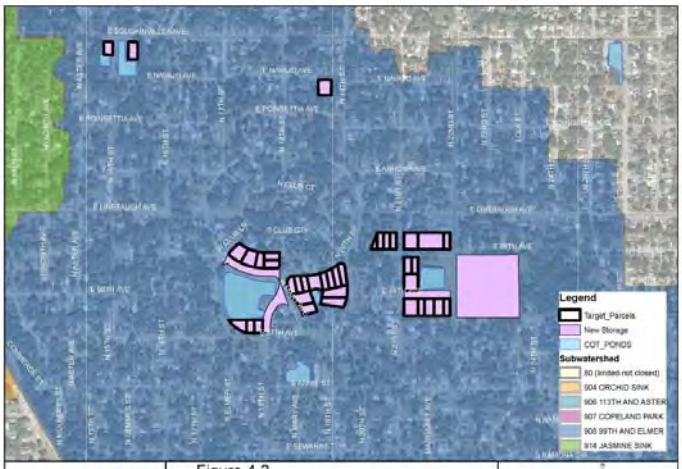


Figure 4-3
East BasinTarget Parcel Acquisition for New Stormwater Retention/Detention

Summary of Project Costs:

Phase	Firm	Amount	Funding Source	Schedule	
				Start	Finish
Property Acquisition	In-House	$1M/ Year	COT	FY16	FY20
Construction	In-House	$2M	COT	FY20	FY 21

Timeline:

- The City of Tampa Real Estate Division is in the process of acquiring the properties as identified by Transportation and Stormwater Services Department's North Tampa Closed Basin Study.
- Property acquisition to be completed in FY20
- Construction in FY20-FY21 with In-House Construction Crew.

February 3, 2017

Cypress Street Outfall Extension

City Project #: 1001018

Project Description:

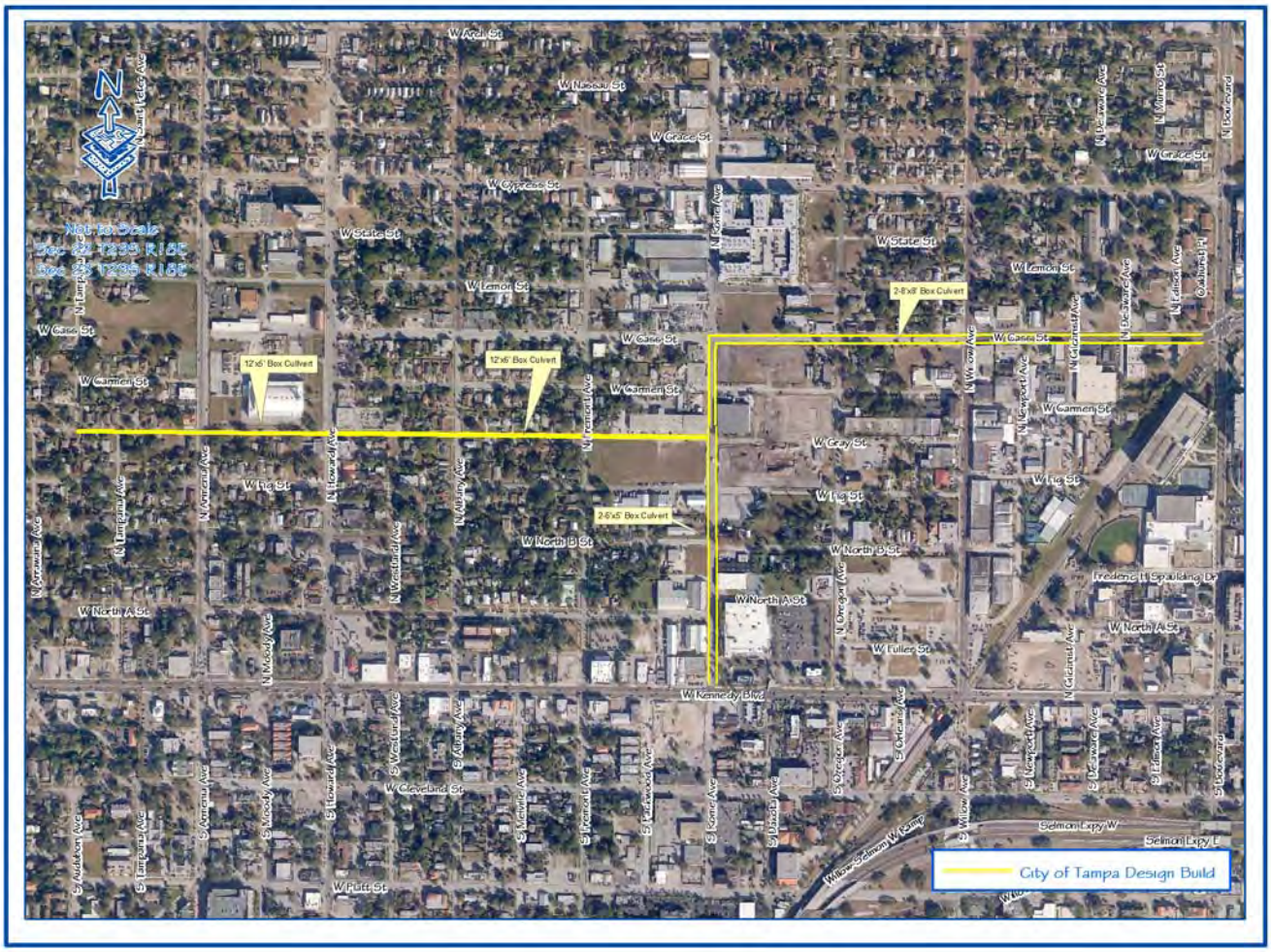
The drainage basin is generally bounded by Cypress Street on the north, Habana Avenue on the west, Hyde Park Avenue on the east and Swann Avenue on the south. The total basin area is approximately 550 acres and outfalls to the Hillsborough Bay. Several areas within the northern portion of the basin (north of Kennedy Boulevard) have experienced numerous incidences of flooding, which has led to flood damage claims.

The project consists of the construction of a dual box culvert from the existing stub at Cass and North Blvd to Rome Ave. Another box culvert will connect at Cass and Rome Ave and run South towards Kennedy Blvd. The last leg will connect at Rome and W Gray St and extend west to N Tampania Ave. This project is the second phase of the Cypress Street Outfall Flooding Relief Project that will be Design/Build procurement in coordination with the Water Department.

Location Map:

February 3, 2017

Cypress Street Outfall:



Summary of Project Costs:

Phase	Firm	Amount	Funding Source	Schedule	
				Start	Finish
Design/Build	* RFQ	$30 M	COT/SWFWMD	FY17	FY20

Timeline:

- Complete feasibility analysis by consultant February 2017
- Complete Cost/Benefit analysis by consultant February 2017
- Submit RFQ to the Contract Administration Department by March 2017
- Anticipated completion of CCNA process is June 2017
- Begin Design/Permitting/Construction in 2018

* RFQ = Request for Qualifications

February 3, 2017

Southeast Seminole Heights Flooding Relief

City Project #: TBD

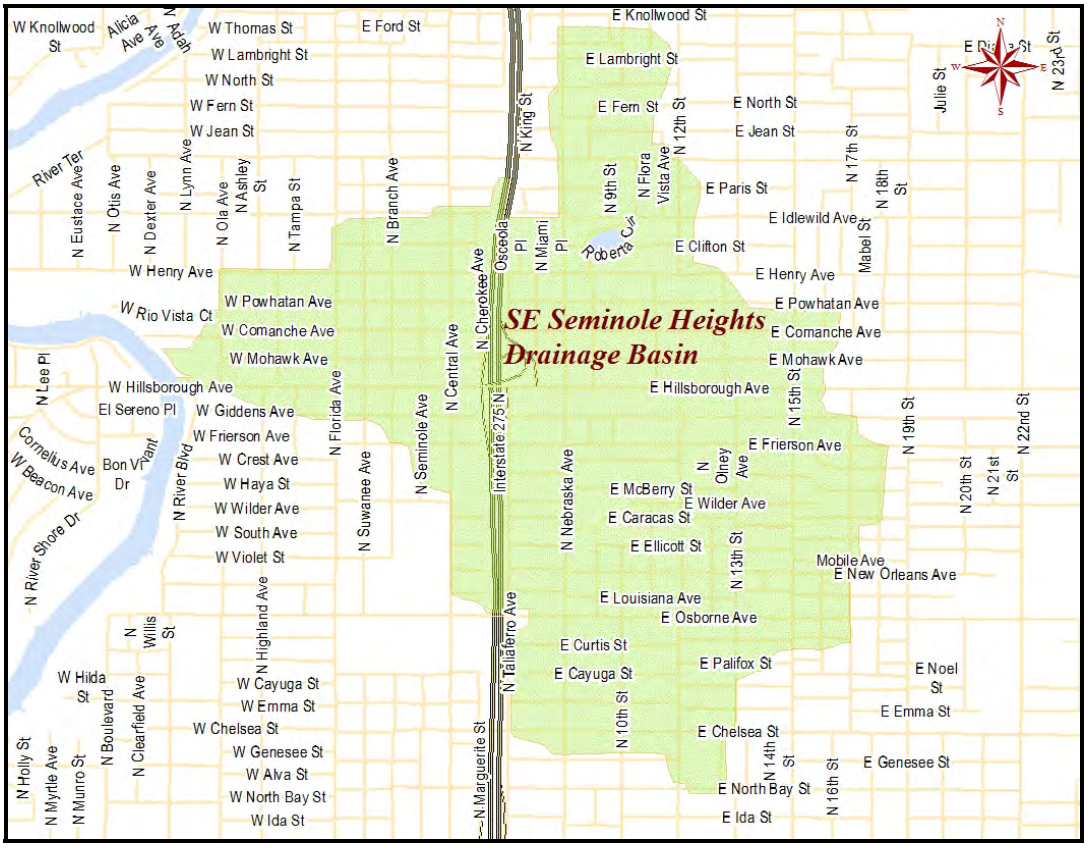
Project Description:

The Southeast Seminole Heights Drainage Basin encompasses 779 acres of urban area that discharges into the Hillsborough River south of the dam. The basin area extends northerly from E Chelsea St east of I-275 freeway to E Diana Street and easterly to N 18th Street. To the west of I-275, the basin narrows and extends from Giddens Avenue to E North Street. The Basin is part of a historic Tampa neighborhood that had its beginnings in the early 1900's.

Southeast Seminole Heights Basin has numerous flooding locations, failing and undersized conveyance systems throughout the basin. A recent drainage study identified several potential stormwater improvement projects to alleviate flooding.

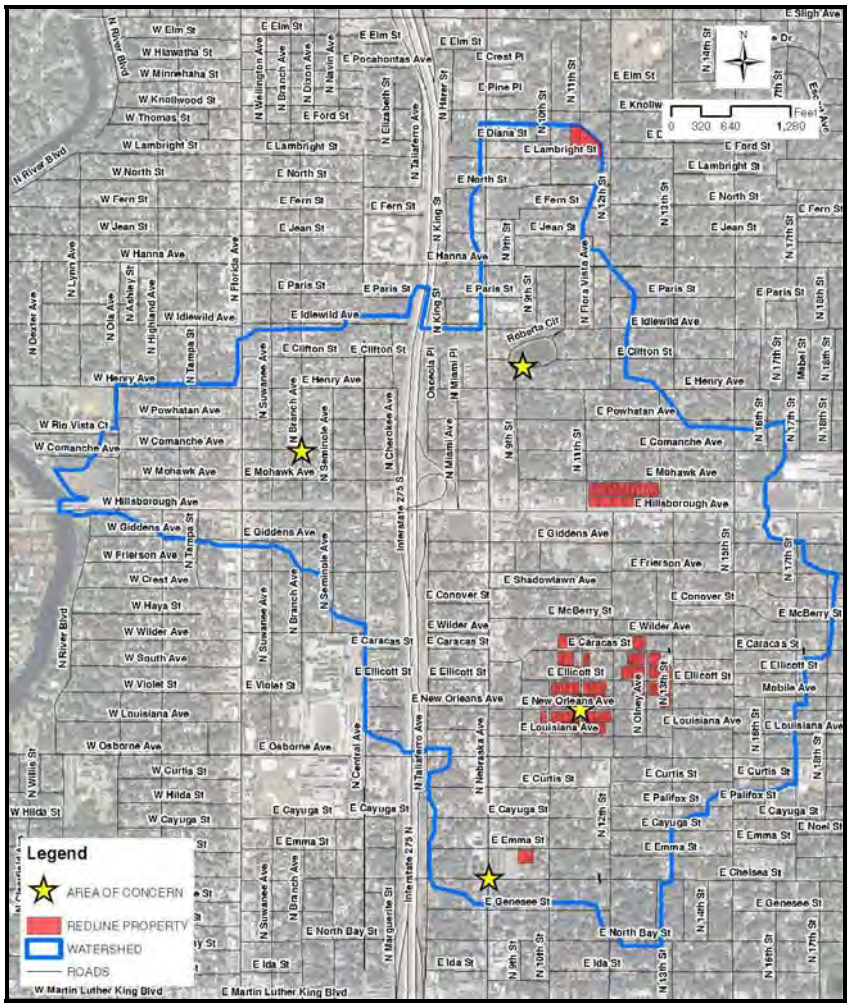
A feasibility study will be performed to assess the potential drainage improvement projects as recommended in the previous drainage study. Individual improvement projects will subsequently be designed and constructed throughout the basin areas to improve drainage conditions.

Location Map:



February 3, 2017

Areas of Flooding Concern:



Summary of Project Costs:

Phase	Firm	Amount	Funding Source	Schedule	
				Start	Finish
Planning Study	LWES	$90K	COT	FY16	FY16
Feasibility	Selection In Process	$45K	COT	FY17	FY18
Design & Construction	TBD	$30M	COT/SWFWMD	FY19	FY23

Timeline:

- Design FY19, $3M / $1.5 each COT and SWFWMD
- Construction FY20, $9M / Year for 4 Years
- Planning Study Completed in FY16
- Feasibility Study to start Third Quarter of 2017
- Design and Construction Phase will begin in FY19

February 3, 2017

Lower Peninsula Flooding Relief

City Project #: 1000178

Project Description:

A regional watershed model is needed to provide a baseline for capital project improvement planning and design. The area has numerous flooding locations, failing and undersized conveyance systems throughout the 6,000 acre watershed.

The purpose of the project is to develop a baseline for capital improvement planning and design that provides conceptual solutions to frequent flooding associated with undersized stormwater pipes and relic ditch systems in the region. It is the City's desire to pursue cooperative funding from the South West Florida Water Management (SWFWMD) District for these improvements; therefore, the watershed study must meet SWFWMD's requirements for funding.

Location Map:

Summary of Project Costs:

Phase	Firm	Amount	Funding Source	Schedule	
				Start	Finish
Planning / Study	Applied Sciences	$650K	COT/SWFWMD	FY16	FY18
Design	* RFQ	$3M	COT/SWFWMD	FY19	FY19
Construction	RFQ	$10M/YR	COT/SWFWMD	FY20	FY27

Timeline:

- Planning Study underway and to be completed in FY 2018
- CCNA for Design Phase to start in FY19
- Construction anticipated to start in FY20
- Construction anticipated to be completed in 2027

* RFQ - Request for Qualifications

FY17
Stormwater Miscellaneous Capital Improvement Projects Report

Tampa City Council Update No. 1 - February 2017

The anticipated schedule for these projects is to complete all of the designs and assign them to contractors by the end of the second Quarter of FY17 (March 2017). Construction timelines are typically six (6) months or less for neighborhood projects. For additional project descriptions, please see the attached project fact sheets.

PROJECT STATUS KEY	
	Design
	Design Complete and In Construction Queue
	Complete

ACTIVE MISCELLANEOUS CAPITAL IMPROVEMENT PROJECTS	DISTRICT	ESTIMATE
STATUS: Projects Assigned to Construction Contracts		
1. Knights between Lynwood and MacDill	4	$200,000
2. Fairoaks and MacDill	4	$50,000
3. Carrington at Everina	4	$200,000
4. Howard Flooding Relief	4	$200,000
5. Ardson Pl. & Palm Dr.	4	$50,000
6. Palm Dr. East of Ysabella	4	$50,000
STATUS: Projects Out to Bid		
7. 47th and Frierson Pond PH II	5	$660,000
8. David E West Park Pond Enhancements	7	$925,000
9. Anita Subdivision PH I Drainage Improvements	4	$540,000
10. 4218 Riverside Dr. Pipe Relocation	6	$100,000
STATUS: Projects Assigned to Transportation and Stormwater Services Department In-House Crew		
11. Woodlyn at Parkland Flooding Relief	4	$75,000
12. 2908 S Westshore Flooding Relief	4	$100,000
13. Idell St. Roadway Improvements PH II	5	$75,000
14. Forest Hills Pond at Lake Eckles	7	$100,000
15. Wyoming Flooding Relief PH I	4	$150,000
16. Concordia Pond	4	$125,000
17. Virginia Park Ph3, Lois from Bay to Bay to Palmira	4	$75,000
18. Virginia Park Ph3, Clark from Bay to Bay to Palmira	4	$75,000
19. Hilda: North Blvd to Clearfield	6	$50,000

Report Date: February 3, 2017

Knights Between Lynwood and MacDill

Flooding Relief FY2017, District 4

Estimated cost: $200K

- **JUSTIFICATION:**

  Pavement grading and new development have affected the conveyance of runoff to the existing stormwater system.

- **PROJECT DESCRIPTION:**

  Install a stormwater collection system to drain the street.

- **RELATED ISSUES:**

  Within Lower Peninsula project area.

Fairoaks and MacDill

Flooding Relief FY2017, District 4

Estimated cost: $50K

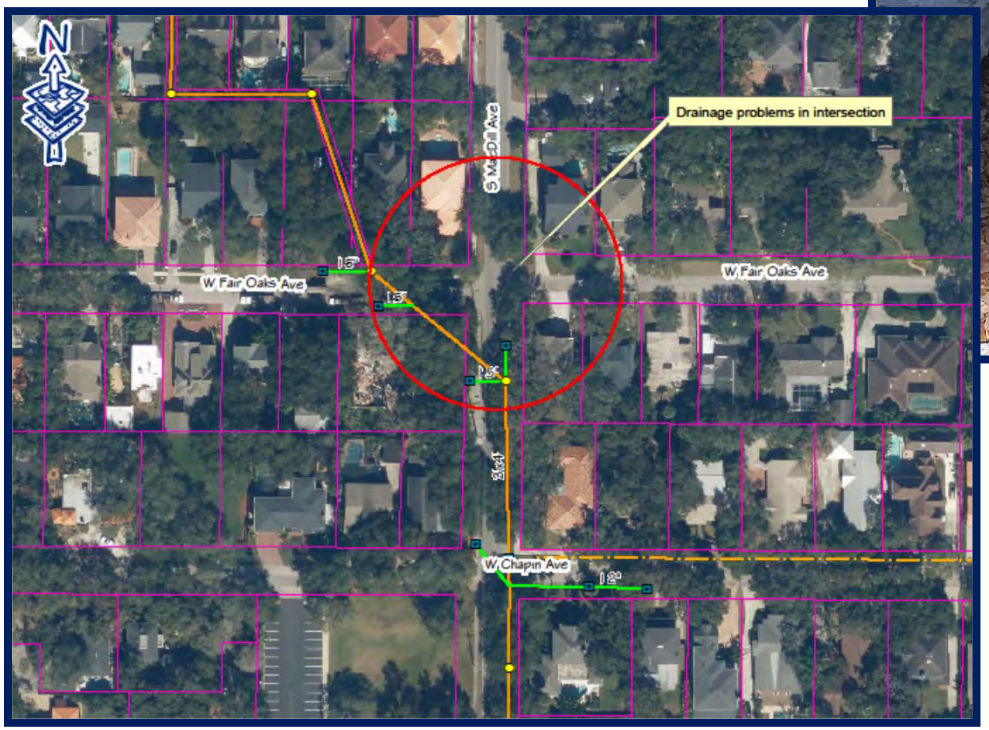
- **JUSTIFICATION:**

  The existing ditch has bank erosion on the east side of McDill Av and Fair Oaks Av. This section of Fair Oaks Av has frequent flooding. This project will improve conveyance to relieve flooding.

- **PROJECT DESCRIPTION:**

  Improvement of the ditch system and regrading of the existing pavement to improve the conveyance of storm flows in the drainage basin.

PROPOSED PROJECT MAP



Carrington flooding relief

FY2017, District 4

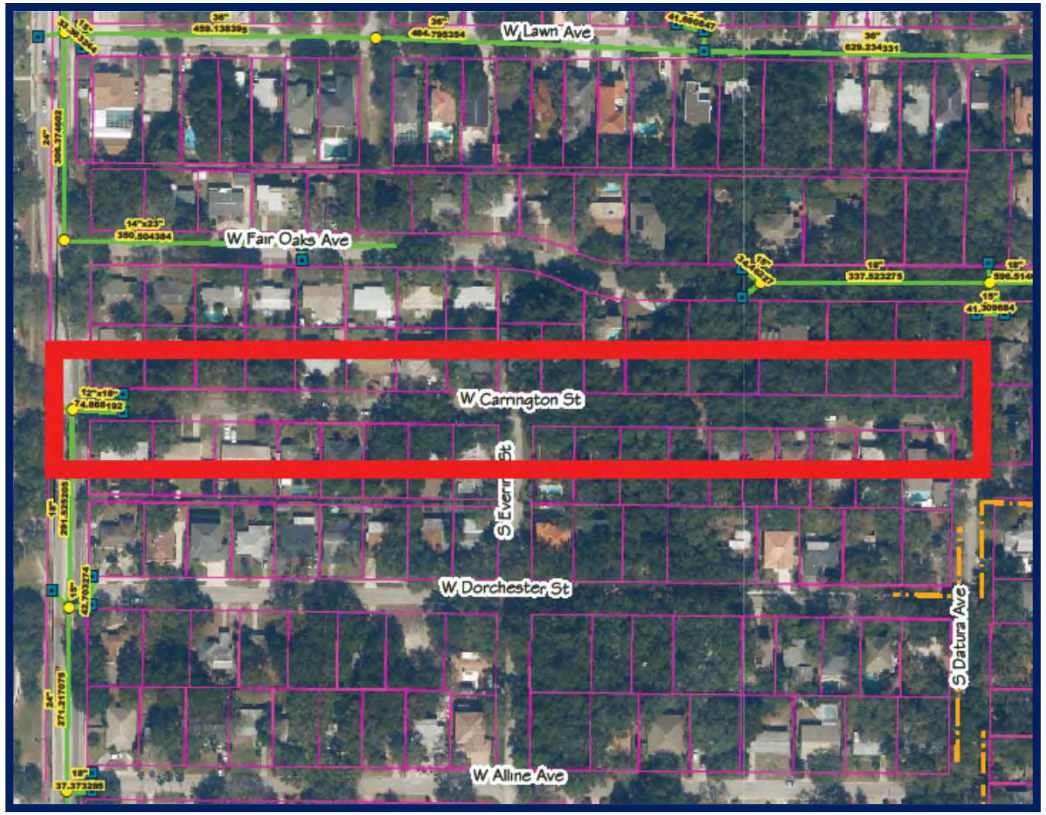
Estimated cost: $200K

- **JUSTIFICATION:**
  The project reduces the flooding affecting residential properties and roadways.

- **PROJECT DESCRIPTION:**
  The project consists of the regrading of the existing asphalt pavement to improve the drainage.

- **Related Issues:**
  Within the Lower Peninsula.

PROPOSED PROJECT MAP



Howard Flooding Relief

FY 2017, District 4

Estimated cost: $200K

- **JUSTIFICATION:**
  Flooding occurred at the intersection of Howard Ave. and Marjory Ave. due to inadequate drainage capacity. The proposed project will reduce the localized flooding.

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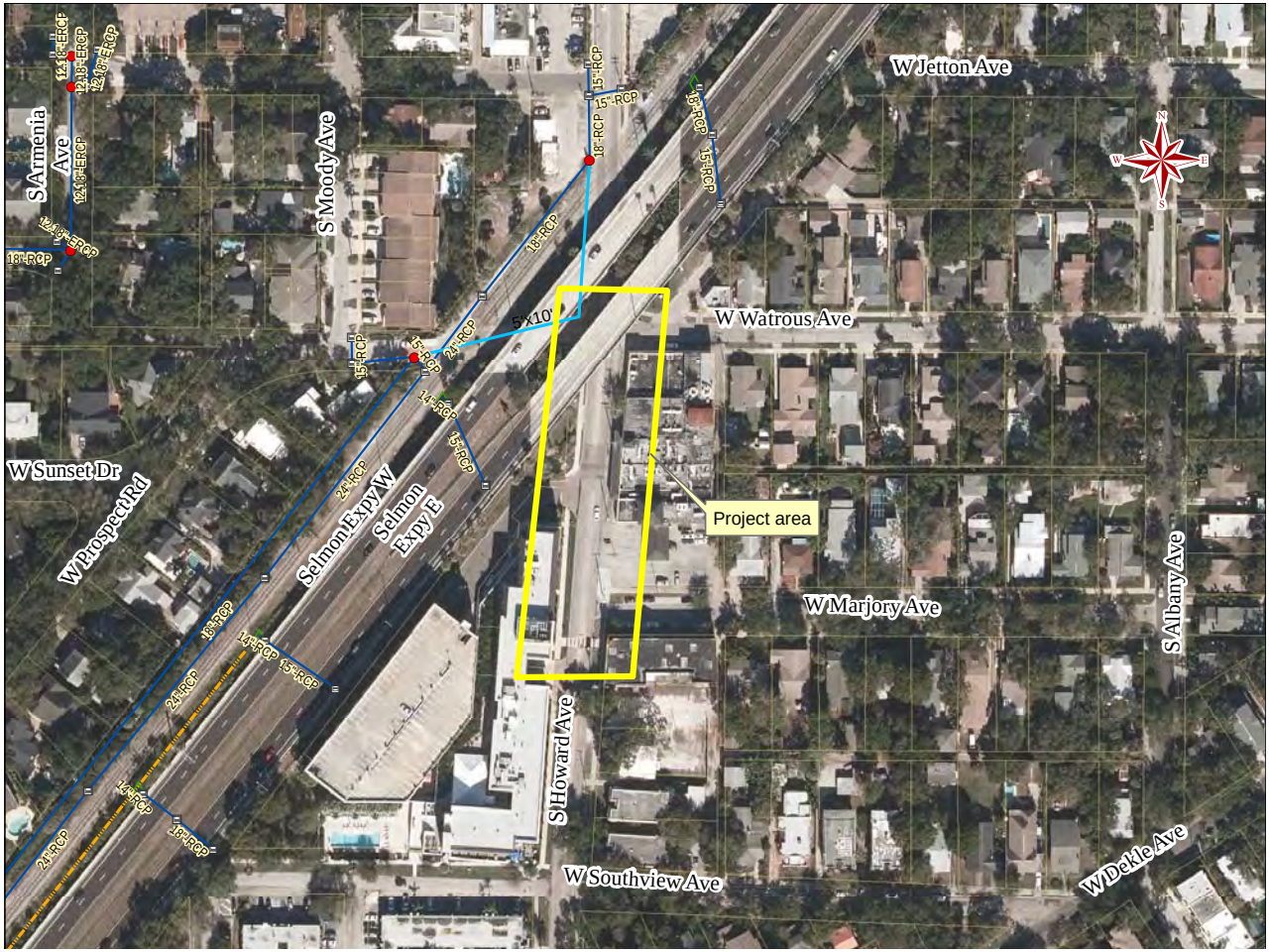
- **PROJECT DESCRIPTION:**
  An inlet will be installed at the corner of Howard Ave. and Marjory Ave. Surface runoff will be pumped to an existing inlet at Watrous Ave. and Howard Ave. Project also includes resurfacing Howard Ave. to improve drainage.

Proposed Project Map



Ardson Pl. & Palm Dr.

Flooding Relief FY2017, District 4

Estimated cost: $50K

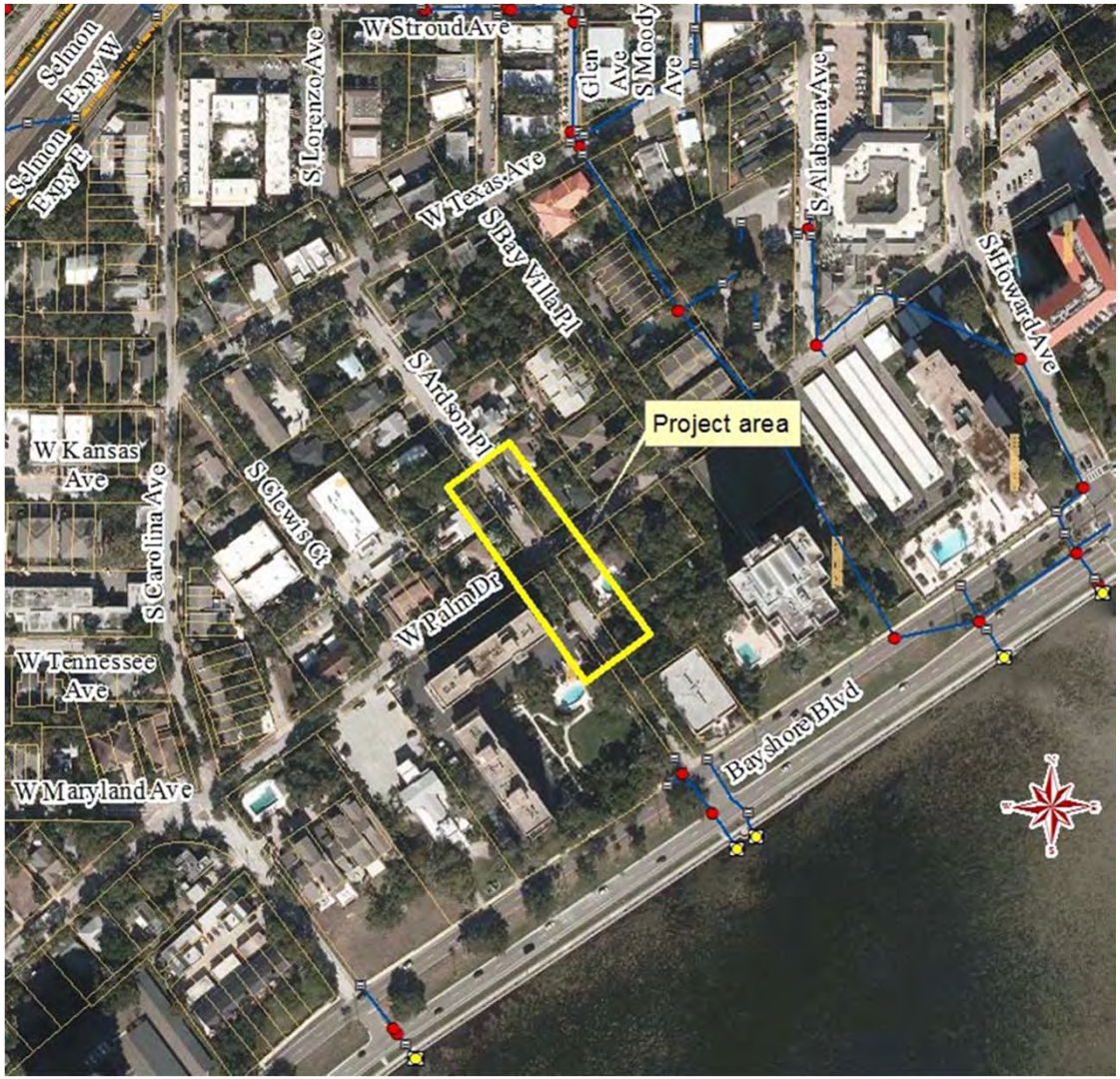
- **JUSTIFICATION:**

  This intersection experiences flooding due to improper grading. The project will improve conveyance to relieve localized flooding in the intersection.

- **PROJECT DESCRIPTION:**

  The project consists of regrading of the roadway.

Proposed Project Map



Palm Dr. East of Ysabella

Flooding Relief FY2017, District 4

Estimated cost: $50K

- **JUSTIFICATION:**
  Frequent flooding from blocked drainage due to pavement overlays. Regrading and resurfacing will improve conveyance to relieve flooding.

- **PROJECT DESCRIPTION:**
  Modifications to the existing surface water management to improve the conveyance of runoff to the existing stormwater system.

- **Related Issues:**
  Within the Lower Peninsula.

PROPOSED PROJECT MAP

47th and Frierson Pond PH II

Flooding Relief FY2017, District 5

Estimated cost: $660K

- **JUSTIFICATION:**

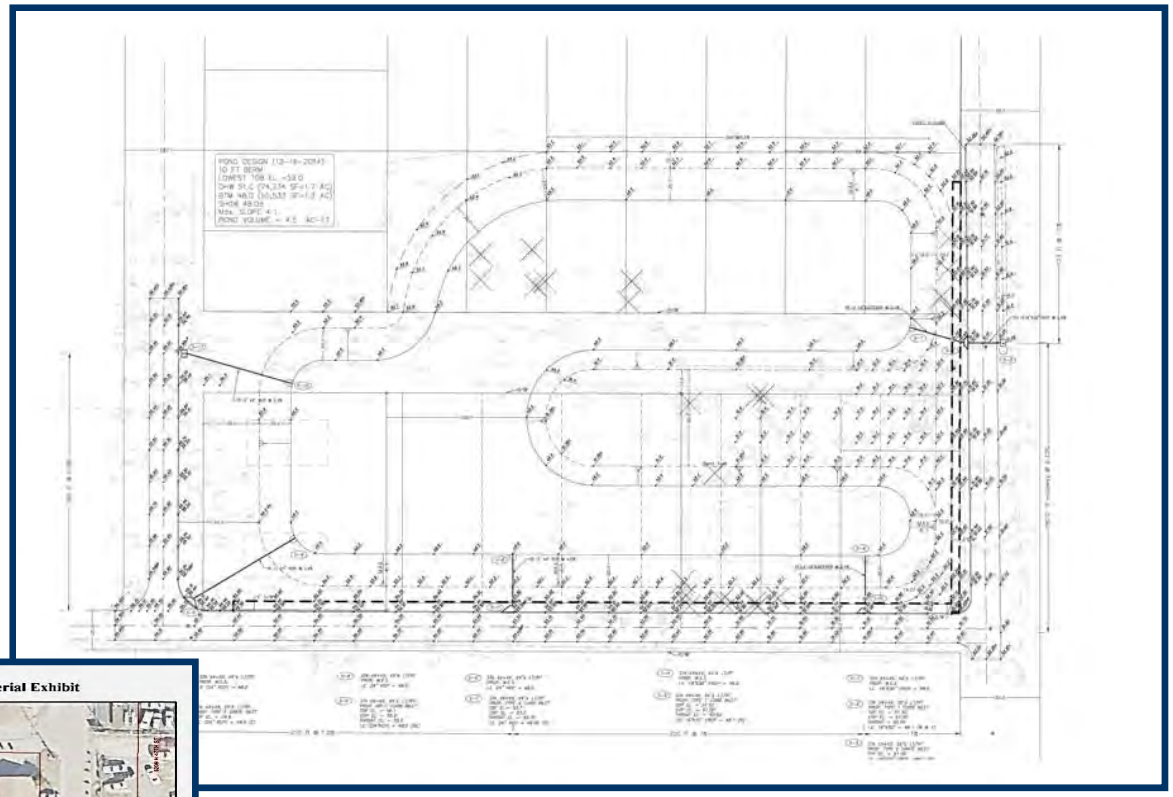
  Due to closed basin and lack of drainage system, City will be expanding drainage capacity in the Frierson Ave & 47th Street area to help alleviate flooding problems. Besides pond expansion in Phase 2, roadway repaving and re-routing of water system will be part of the pond construction work.

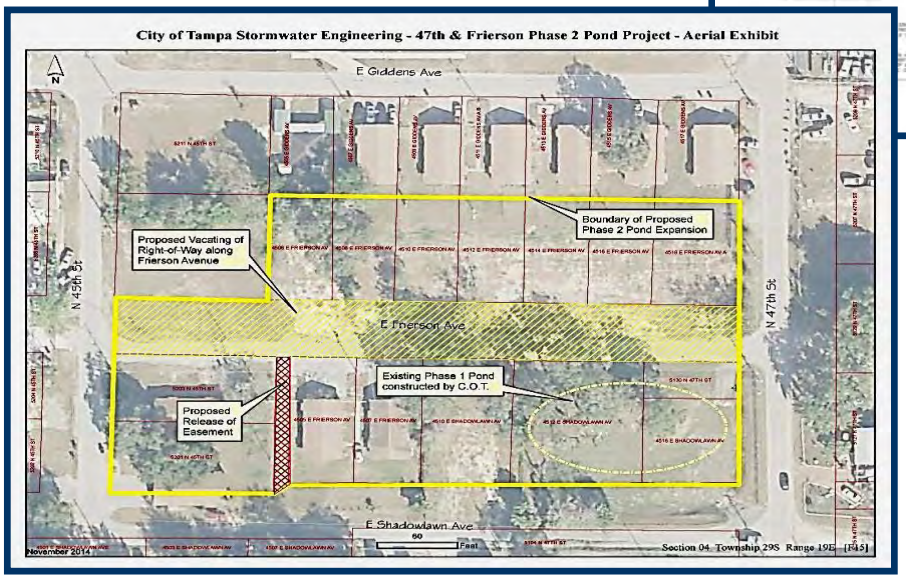
- **PROJECT DESCRIPTION:**

  City has completed land acquisition phase and Frierson Ave will be completely vacated between 47th St and 45th St.

- **RELATED ISSUES:**

  Existing pond built in phase 1 will be expanded in Phase 2.





PROPOSED PROJECT MAP

David E West Park Pond Enhancements

Flooding Relief FY2017, District 7

Estimated cost: $925K

- **JUSTIFICATION:**

  Attenuation storage is needed in this area because it is a closed basin with limited receiving capacity in the receiving sink. Multiple flooding complaints have been received.

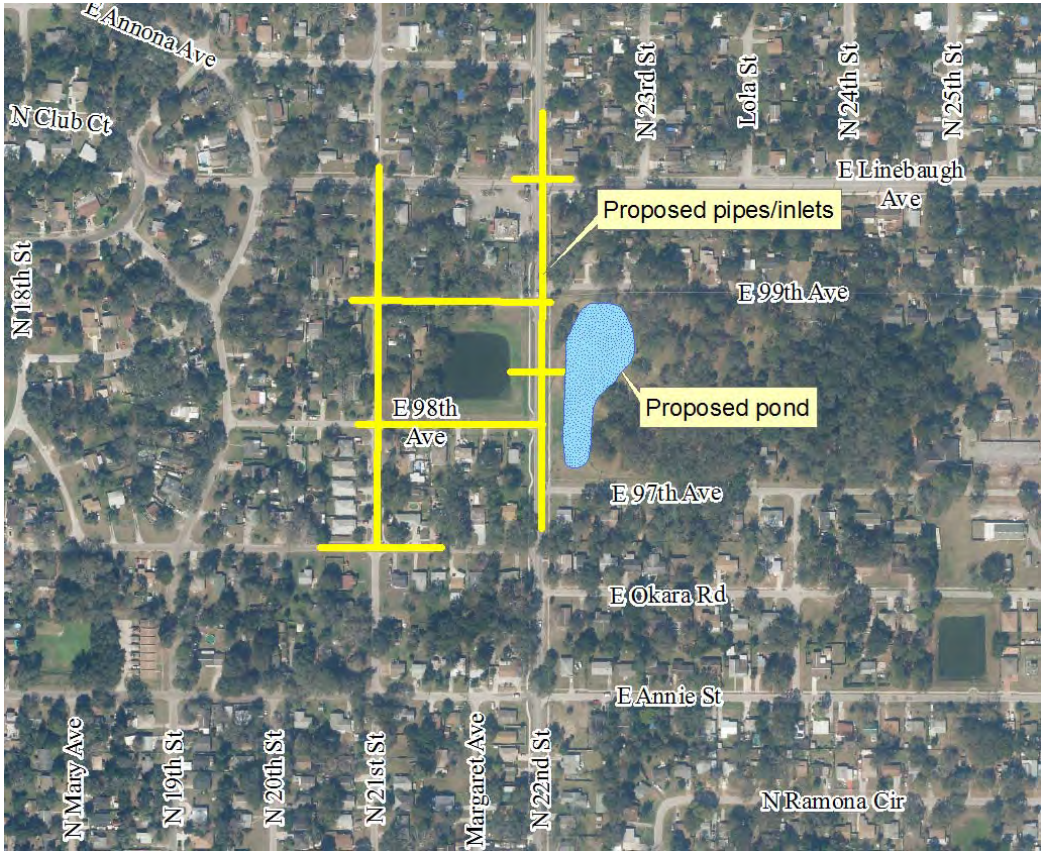
- **PROJECT DESCRIPTION:**

  The project consists of the construction of a stormwater pond, pipes, and inlets on City lands. The pond will be hydraulically equalized with an existing stormwater pond, thus providing additional back-up volume to relieve downstream flooding

- **RELATED ISSUES:**

  North Tampa Closed Basin model was utilized for design.

Proposed Project Map



Anita Subdivision PH I Drainage Improvements

Flooding Relief FY2017, District 4

Estimated cost: $540K

- **JUSTIFICATION:**

  This neighborhood was developed with ditches draining to a collection system that discharged the stormwater to a system on Westshore Blvd. Over the years the ditches have been filled and driveway culverts have been installed improperly.

- **PROJECT DESCRIPTION:**

  Consultant will evaluate the current drainage patterns and identify areas where ponding occurs. City crews will reestablish the relic ditches and correct the driveway culverts.

Proposed Project Map

4218 Riverside Dr. Pipe Relocation

FY 2017, District 6

Estimated cost: $100K

- **JUSTIFICATION:**
  Aging pipe under structure and failing pipe reported by residents in the area. The proposed project will enhance public safety and improve drainage in the area.

- **PROJECT DESCRIPTION:**
  The Project will replace/reroute the pipe under structure and the failing pipe.

Proposed Project Map

Woodlyn at Parkand Flooding Relief

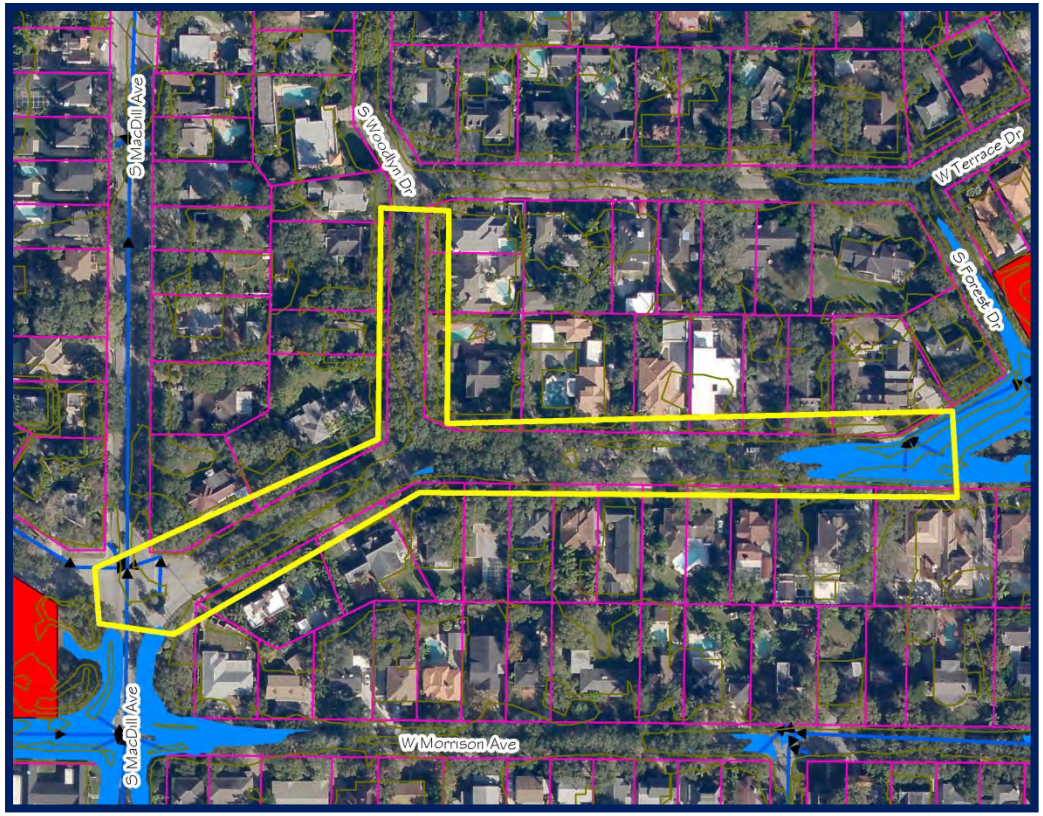
FY2017, District 4

Estimated cost: $100K

Proposed Project Map

- **JUSTIFICATION:**
  Flooding occurs at S Woodlyn Drive and Parkland Blvd due to the lack of an inlet and poorly graded asphalt.

- **PROJECT DESCRIPTION:**
  The project consists of improved grading of the roadway and additional pipes and inlets as needed.



2908 S Westshore Flooding Relief

Flooding Relief FY2017, District 4

Estimated cost: $100K

- **JUSTIFICATION:**

  The location has inadequate surface water conveyance due to roadway super elevation resulting in frequent yard and street flooding. The project is desirable because it will provide relief for localized flooding.

- **PROJECT DESCRIPTION:**

  The project consists of installation of a trench drain system to alleviate flooding at a low lying area at 2908 S. Westshore.

PROPOSED PROJECT MAP

PROJECT PHOTO

Idell St. Roadway Improvements PH II

Flooding Relief FY2017, District 5

Estimated cost: $75K

Proposed Project Map

- **JUSTIFICATION:**
  Phase 2 of Idell Street Roadway improvements which will provide for a new outfall into the River. Stormwater in house construction crews will be responsible for installing the new outfall via ditch to the River.
- **PROJECT DESCRIPTION:**
  Construction of new ditch system discharging to the Hillsborough River.
- **Related Issues:**
  Site located at 1911 E. Mulberry.

Forest Hills Pond at Lake Eckles

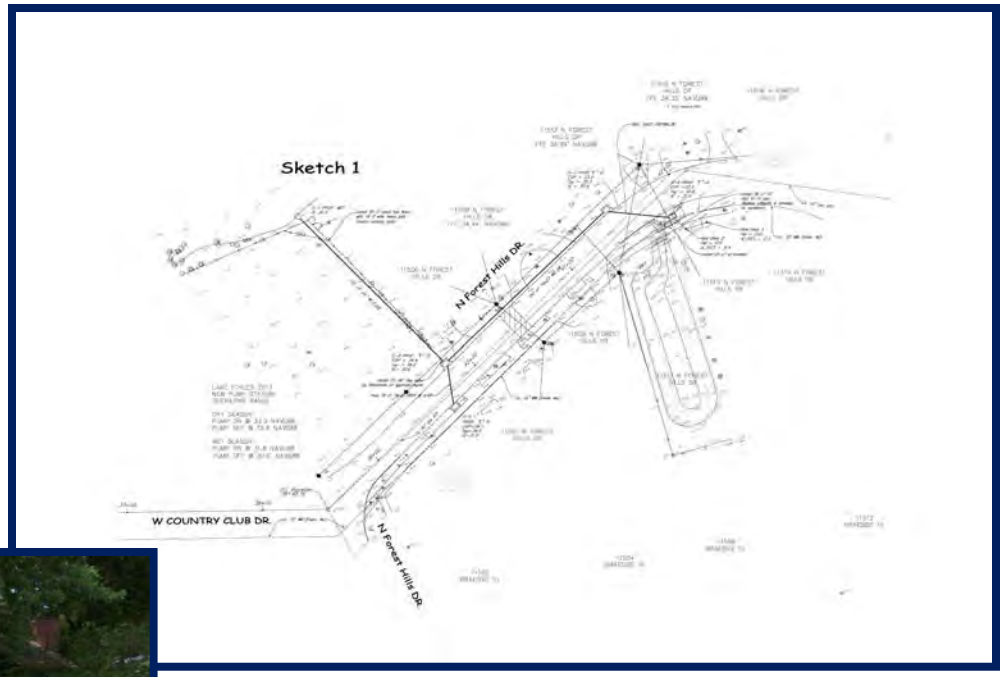
Flooding Relief FY2017, District 7

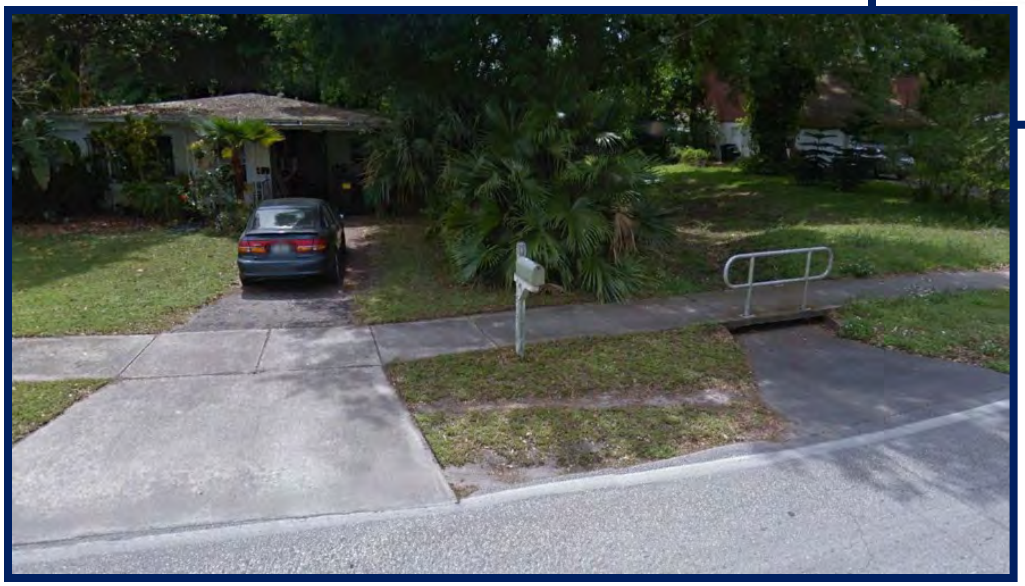
Estimated cost: $100K

- **JUSTIFICATION:**
  The surrounding street and the resident at 11513 N Forest Hills Drive has been experiencing flooding during rain events.

- **PROJECT DESCRIPTION:**
  Proposing drainage system in the ROW to bring provide conveyance of flooding water to Lake Eckles.

- **Related Issues:**
  The existing stormwater pump station has been completely rebuilt recently, which is the discharge mechanism for Lake Eckles.





PROPOSED PROJECT DESIGN & PHOTO

Wyoming Flooding Relief PH I

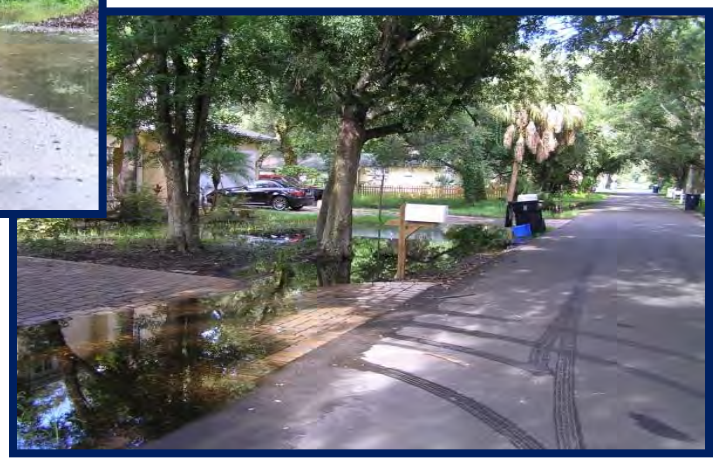
Flooding Relief FY2017, District 4

Estimated cost: $150K

- **JUSTIFICATION:**
  Development in the vicinity of Wyoming/Trilby/Thornton Avenue. utilizes a system of drainage ditches to collect runoff. The ditch system has been compromised by roots of large trees and improper installation of culverts.

- **PROJECT DESCRIPTION:**
  This project will evaluate the entire neighborhood and provide a solution to reduce flooding and convey water to existing system on Leila and Elkins Ave.

Proposed Project Map



Project photos

RELATED ISSUES:
This project will phased over two years.

Concordia Pond

Flooding Relief FY2017, District 4

Estimated cost: $125K

- **JUSTIFICATION:**

  During heavy rain events, several parcels at corner of Concordia and Kensington experience flooding due to outdated drainage system.

- **PROJECT DESCRIPTION:**

  Four parcels have been acquired to construct a drainage pond to provide additional drainage system capacity, before discharge to box culvert in adjacent CSX corridor.

- **Related Issues:**

  CSX drainage connection permit will be obtained before construction.

Proposed Project Map

Virginia Park, Lois: Bay to Bay to Palmira

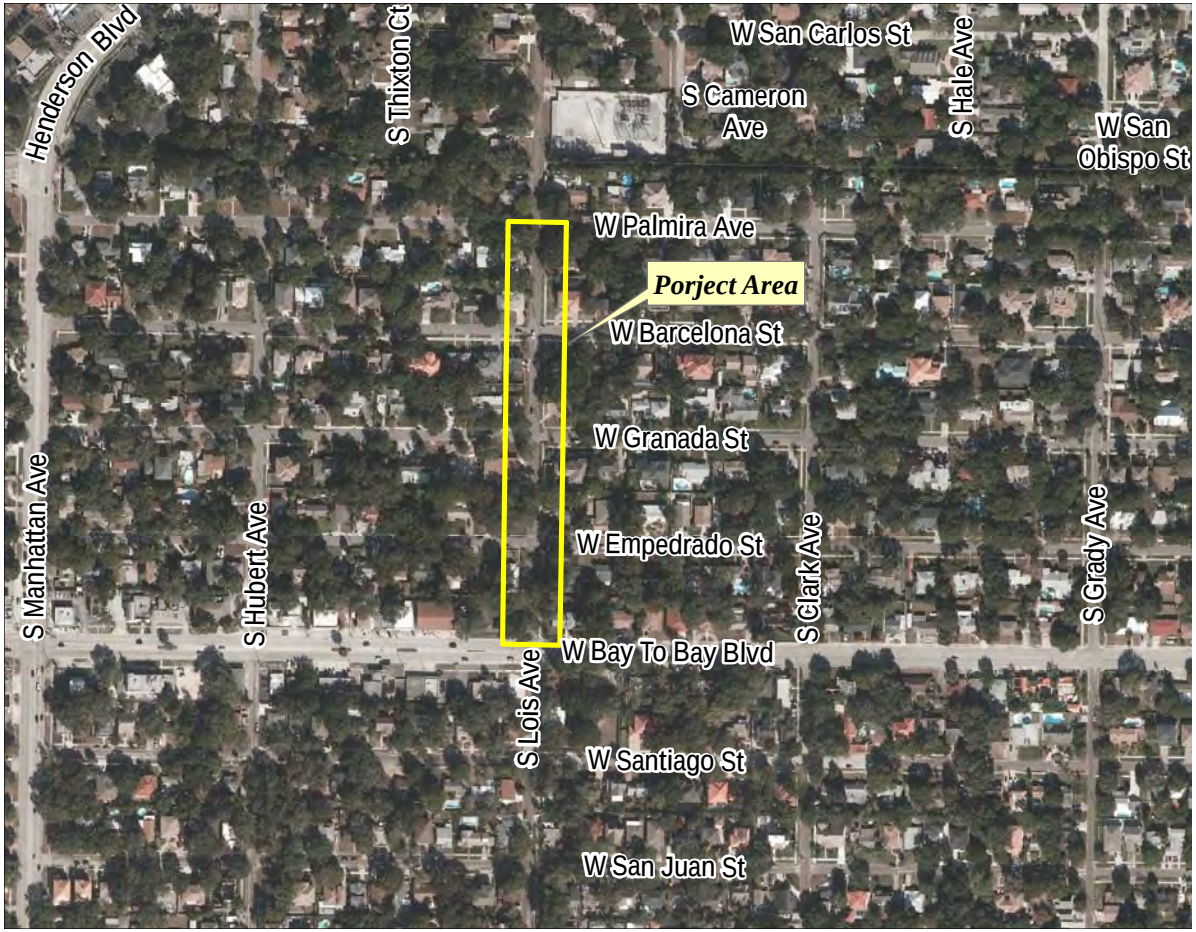
Flooding Relief - FY2017, District 4

Estimated cost: $75K

Proposed Project Map

- **JUSTIFICATION:**
  Localized flooding occurs at intersections along S. Lois Ave. The proposed project will alleviate the flooding.

- **PROJECT DESCRIPTION:**
  The project consists of regrading of the roadway to improve drainage.



Virginia Park, Clark: Bay to Bay to Palmira

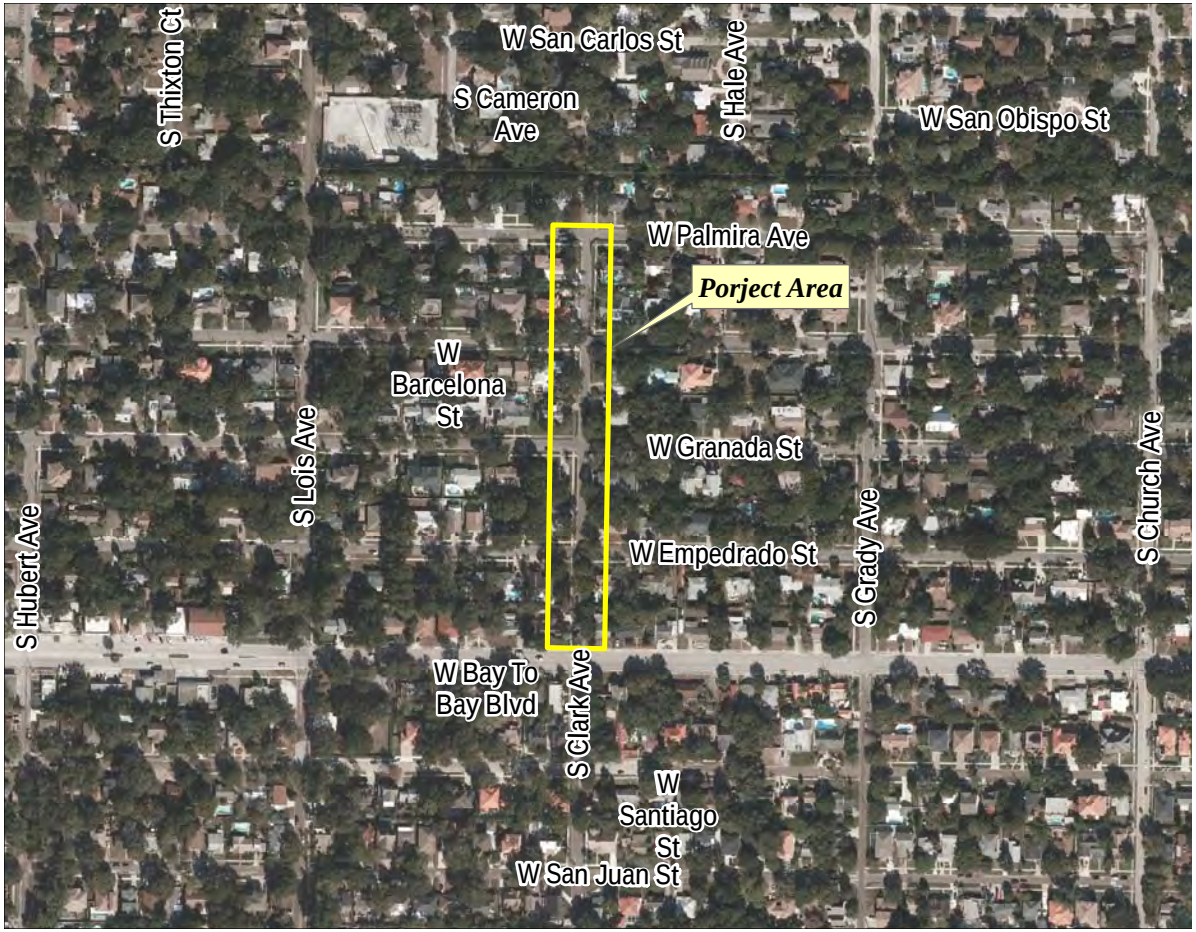
Flooding Relief FY2017, District 4

Estimated cost: $75K

Proposed Project Map

- **JUSTIFICATION:**
  Localized flooding occurs at intersections along S. Clark Ave. The proposed project will alleviate the flooding.

- **PROJECT DESCRIPTION:**
  The project consists of regrading of the roadway to improve drainage.

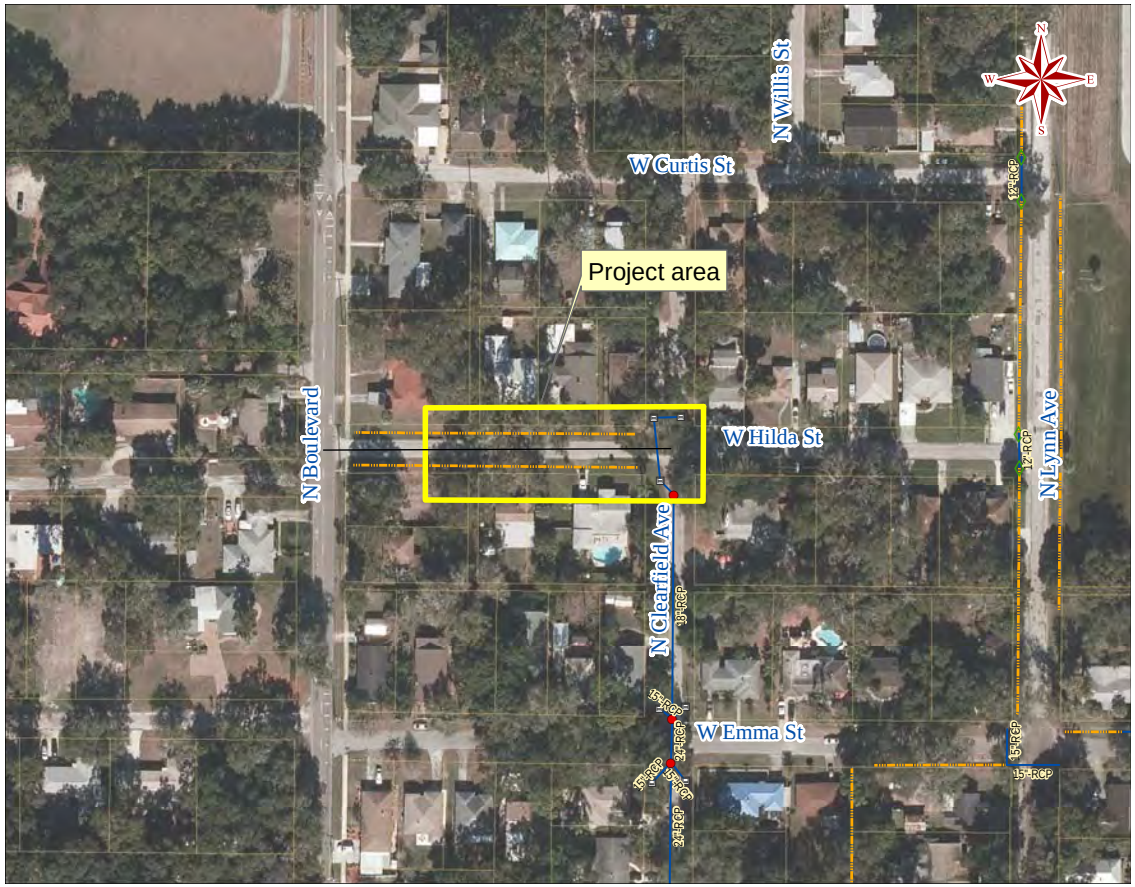


Hilda: North Blvd to Clearfield

FY 2017, District 6

Estimated cost: $50K

Proposed Project Map

- **JUSTIFICATION:**
  Flooding occurred on W Hilda St. between North Blvd and Clearfield Ave. due to inadequate drainage capacity. The proposed project will alleviate the localized flooding.

- **PROJECT DESCRIPTION:**
  New inlets and pipes will be installed and connected to the existing system on Clearfield Ave.