

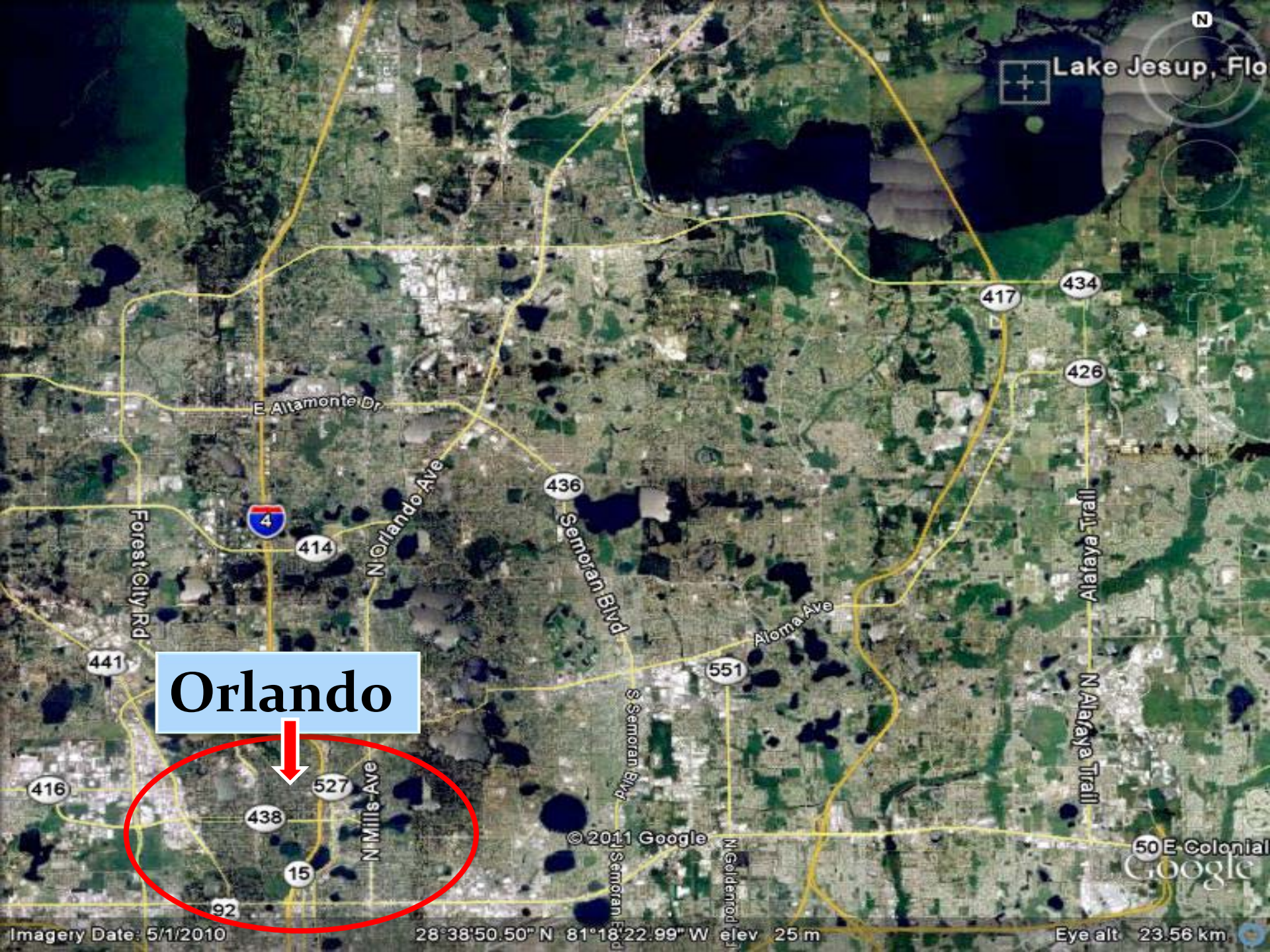


CITY OF ORLANDO

Ivanhoe Plaza Park Exfiltration System

Update: August 8, 2013





Orlando

Lake Jesup, Flo

© 2011 Google

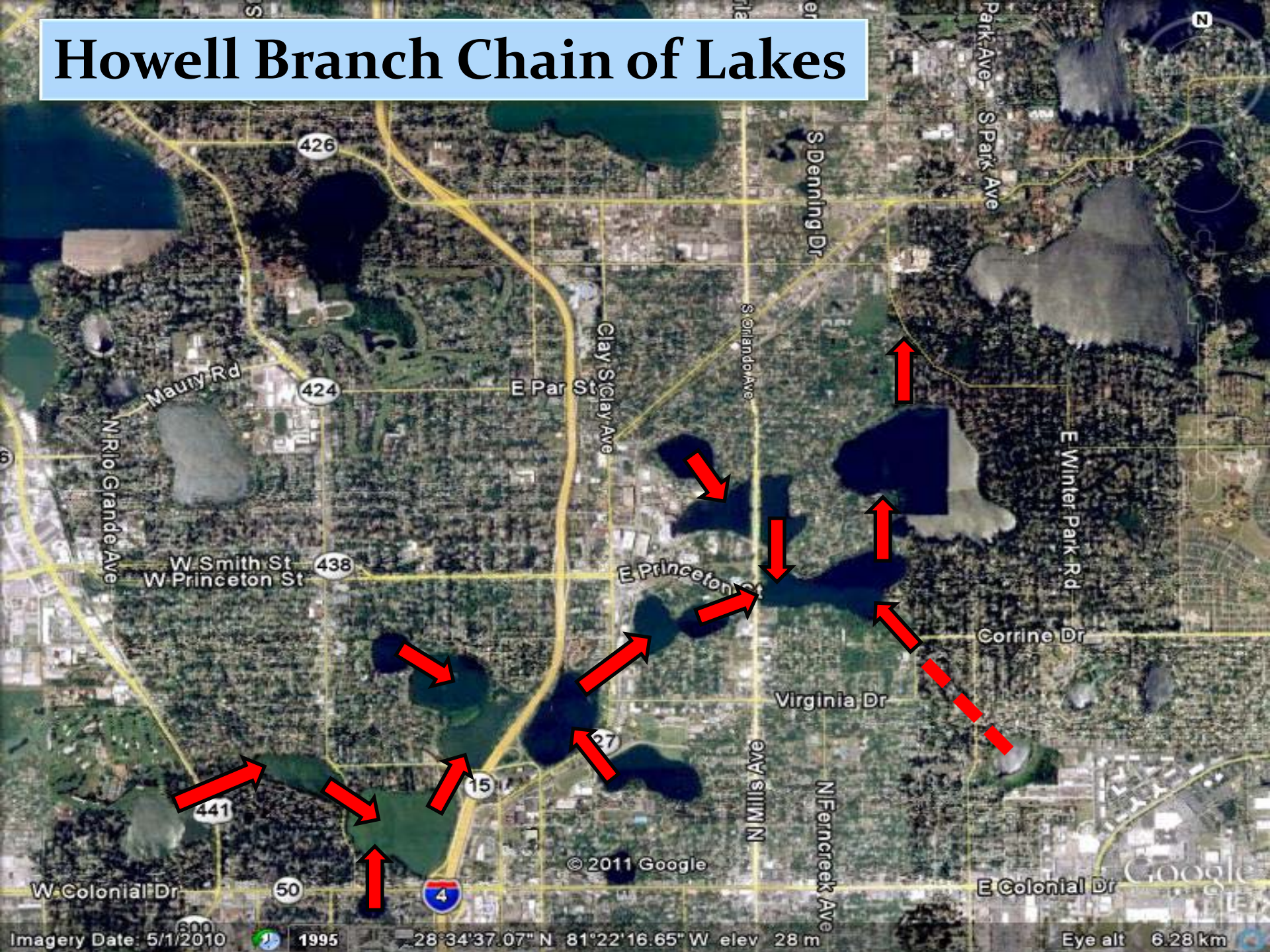
Google

Imagery Date: 5/1/2010

28°38'50.50" N 81°18'22.99" W elev 25 m

Eye alt 23.56 km

Howell Branch Chain of Lakes



© 2011 Google

Google

Imagery Date: 5/1/2010



1995

28°34'37.07" N 81°22'16.65" W elev 28 m

Eye alt 6.28 km

Overbrook
Stormwater
Improvements

Lake Adair/Reading
Nutrient Separating
Baffle Box

Lake Winyah/
Westchester-
Wilkinson Nutrient
Separating Baffle
Box

Mills Ave
Storm Flo™
Litter Collection
Screen

Spring Lake Pond
(FDOT)

Spring Lake/Rio
Grande Nutrient
Separating Baffle
Box

**Completed
Projects
2008-2011**





Howell Branch Chain of Lakes Diagnostic Study

City of Orlando, Public Works Streets and Stormwater

Client Representative Kevin McCann

Client Staff Lisa Curtin

Boyle Engineering Corporation

Project Manager Sue Woodbery, P.E.

Project Ecologist Michael Howe

Project Engineer Joe Howell, P.E.

Boyle Staff Derek McDonald

16863.00

July 2008

BOYLE

320 East South Street Orlando, FL 32801

Spring Lake Hydrologic/Nutrient Budget and Management Plan

Final Report

January 2008

Prepared for:



City of Orlando Stormwater Utility Bureau

Prepared By:



Environmental Research & Design, Inc.

3419 Trentwood Blvd., Suite 102
Orlando, FL 32812-4863
407-855-9465

Harvey H. Harper, Ph.D., P.E.
David M. Baker, P.E.



Total Phosphorus Reduction: 19 lbs/yr

2008-2011: 6 projects, 3 years, \$1 M

Prior to 2008: 154.6 lbs/yr



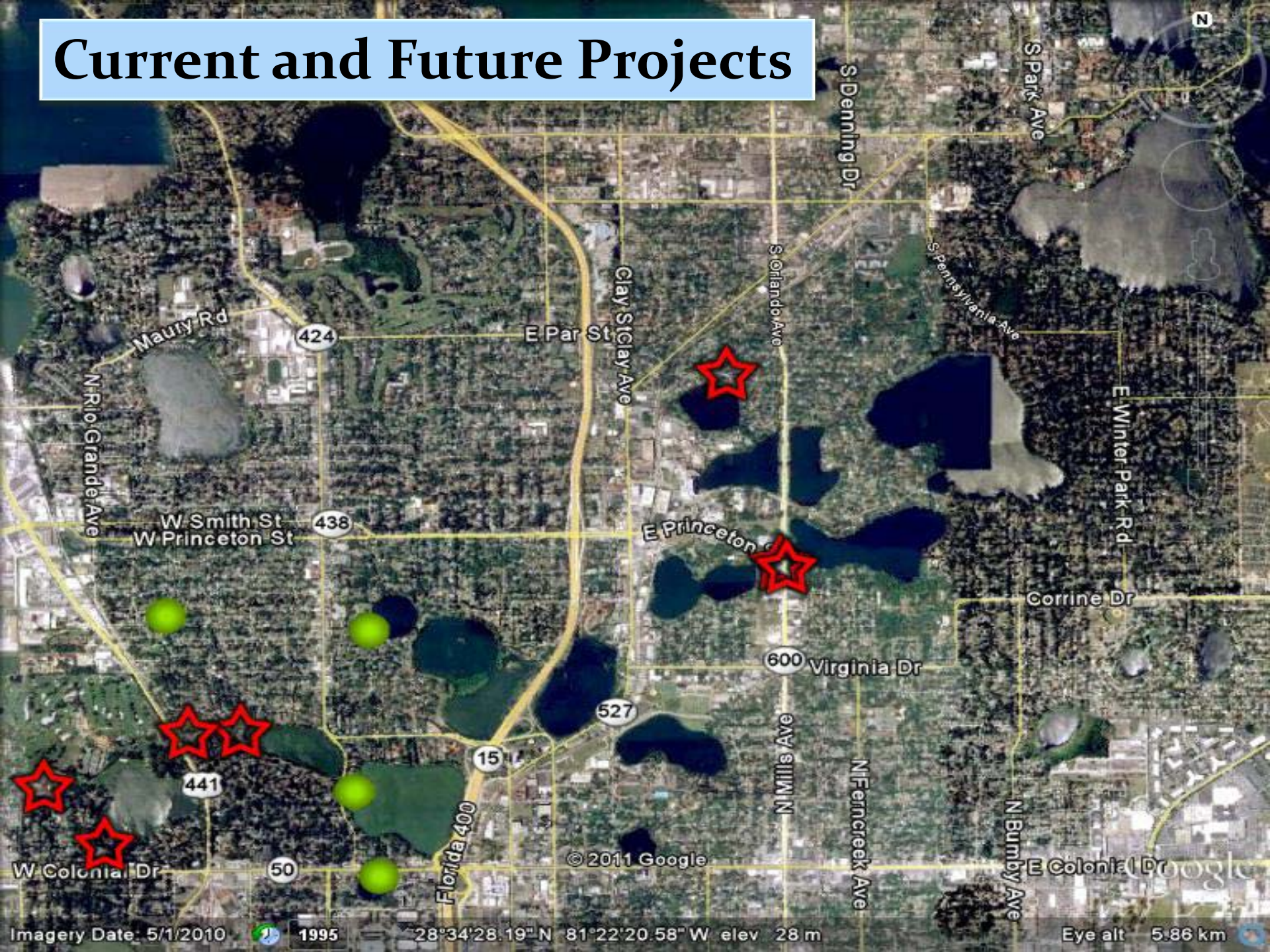
City of Orlando Project Summary	TP Reduction (lbs/yr)
Completed Projects thru 2011	113.2 (19 + 94.2 Education)
Planned & Funded Projects thru 2012	6.0 (up to 10.0)

Future Projects To Include:

- Lake Concord Alum Treatment and 2nd Gen Baffle Box
- Guernsey Park Wet Detention Pond Expansion
- Lake Ivanhoe Plaza Park Exfiltration



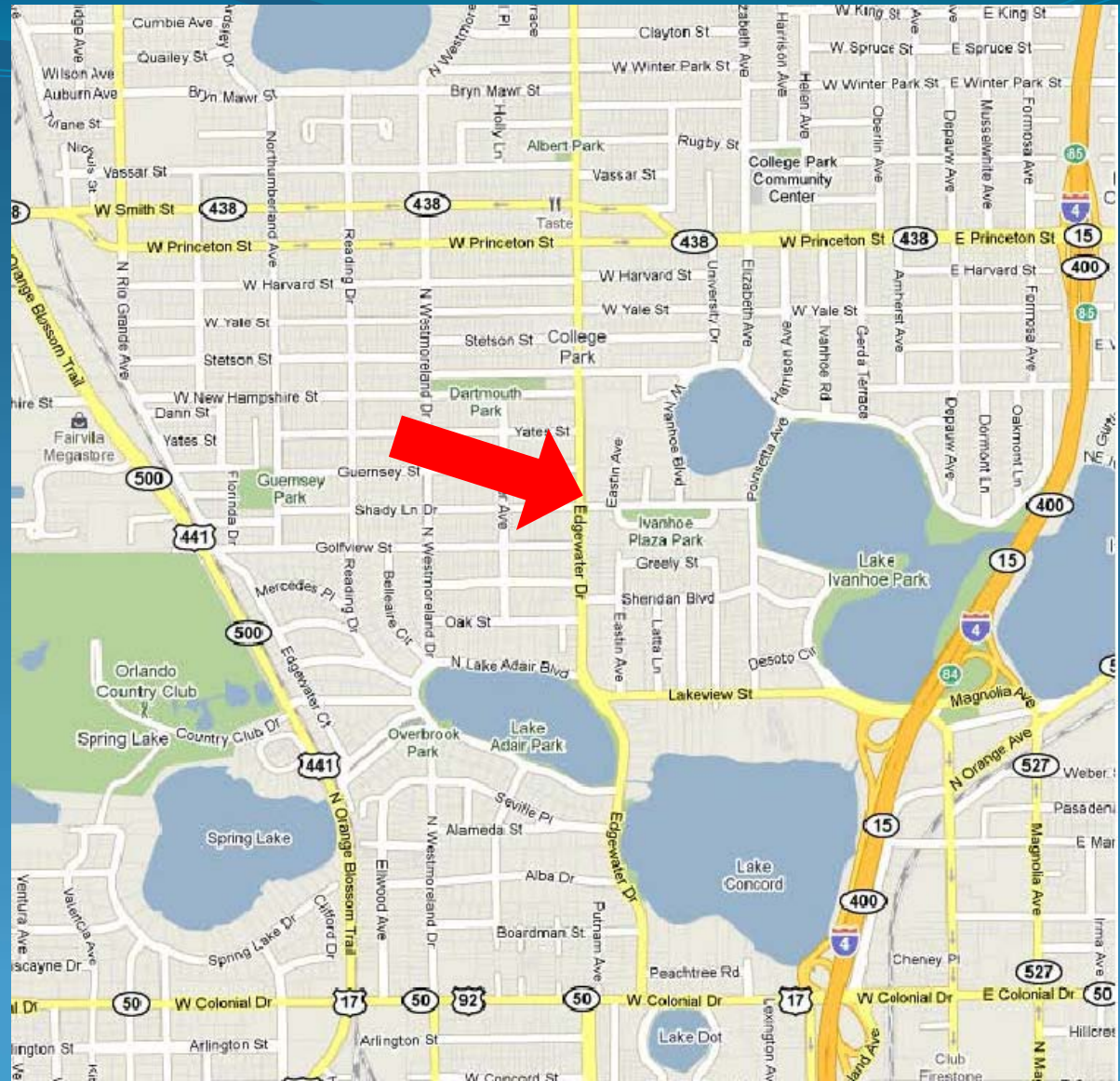
Current and Future Projects



City of Orlando Project Summary	TP Reduction (lbs/yr)
BMAP Allocations	+ 979
TMDL BMP's	- 684.4
Projects Prior to 2005	- 154.6
Completed Projects thru 2011	- 113.2
Planned & Funded Projects thru 2012	- 6.0



Project Location



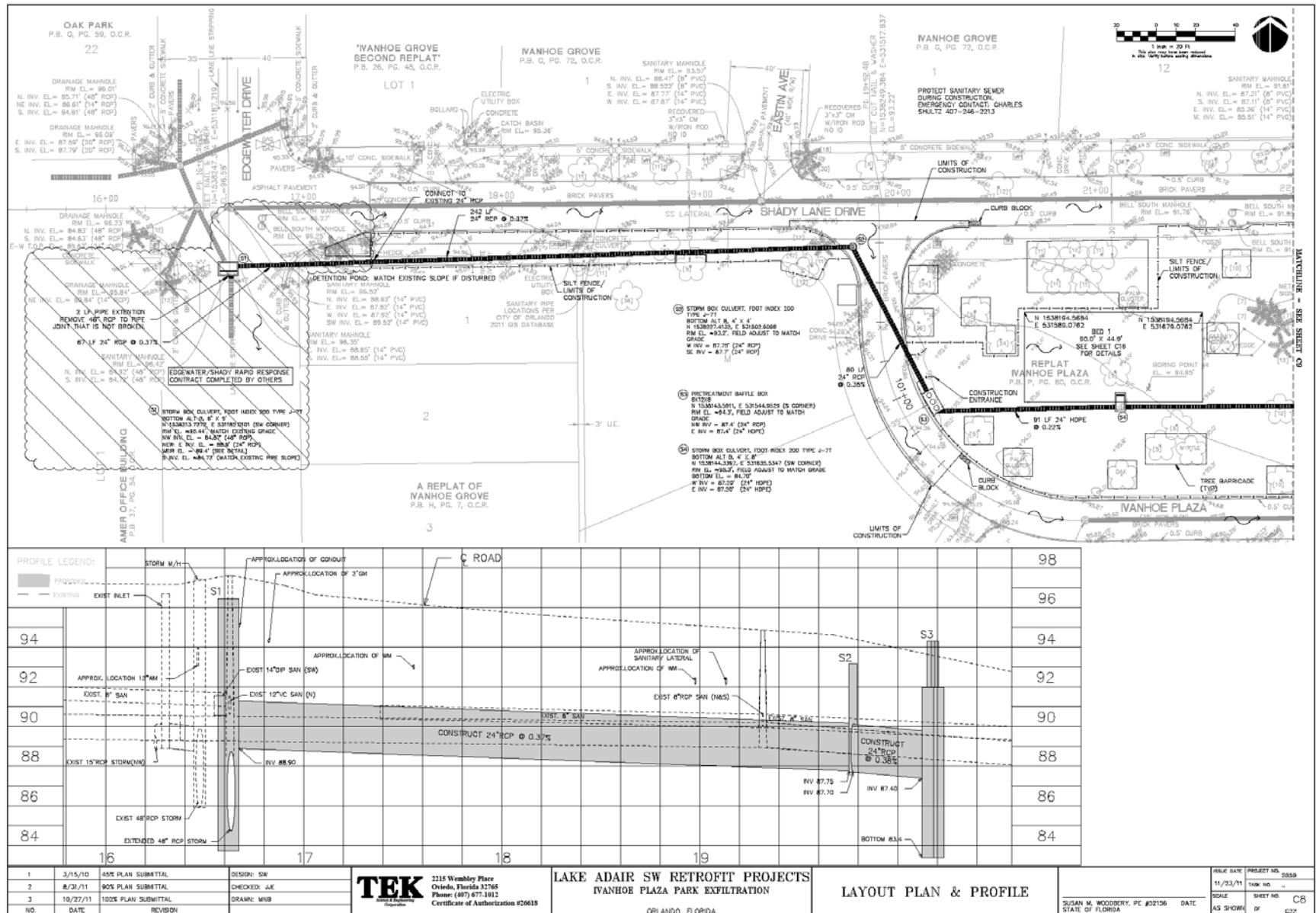


City of Orlando

Location of Three Underground Exfiltration Galleries

Figure 11

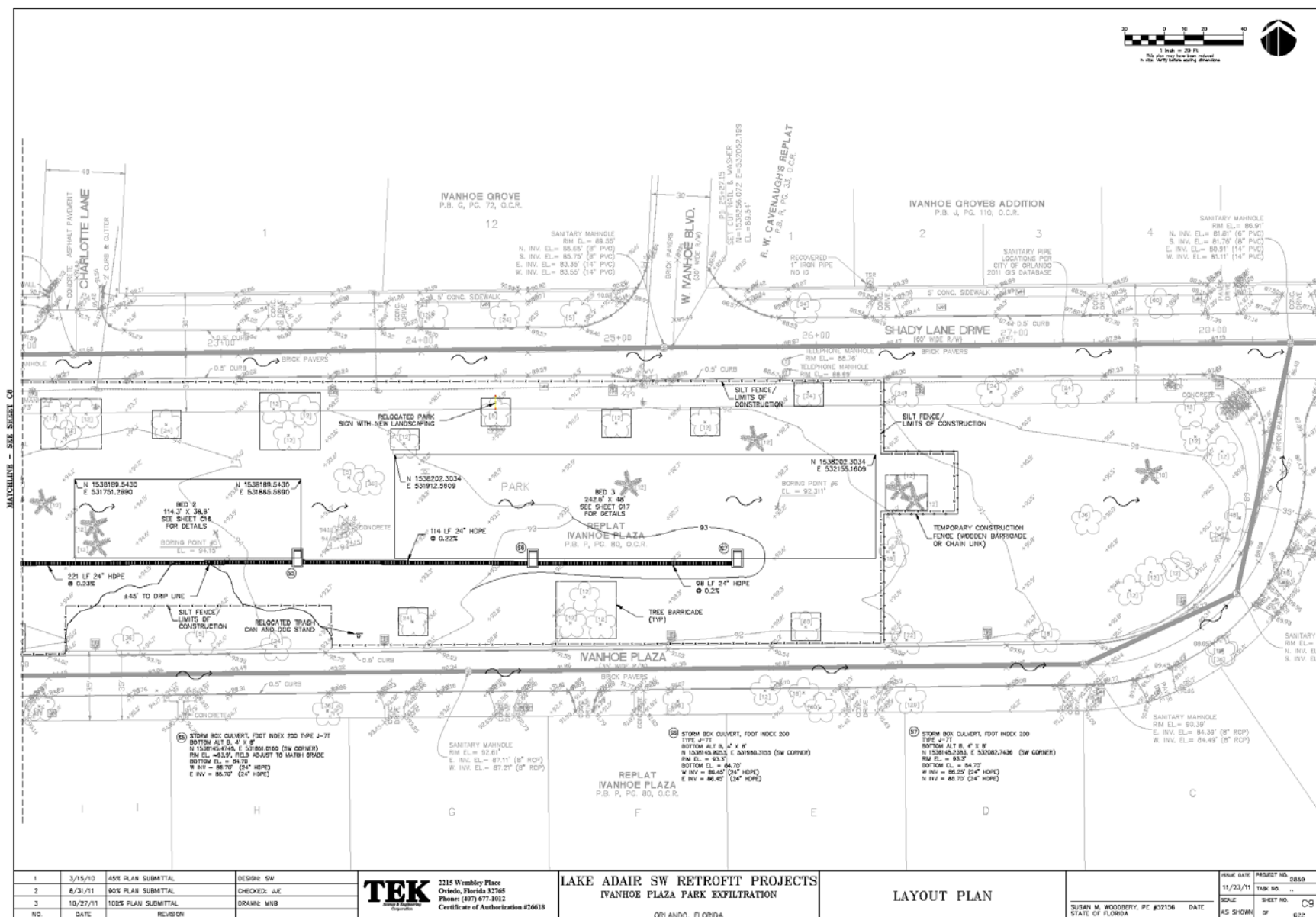
Construction Layout



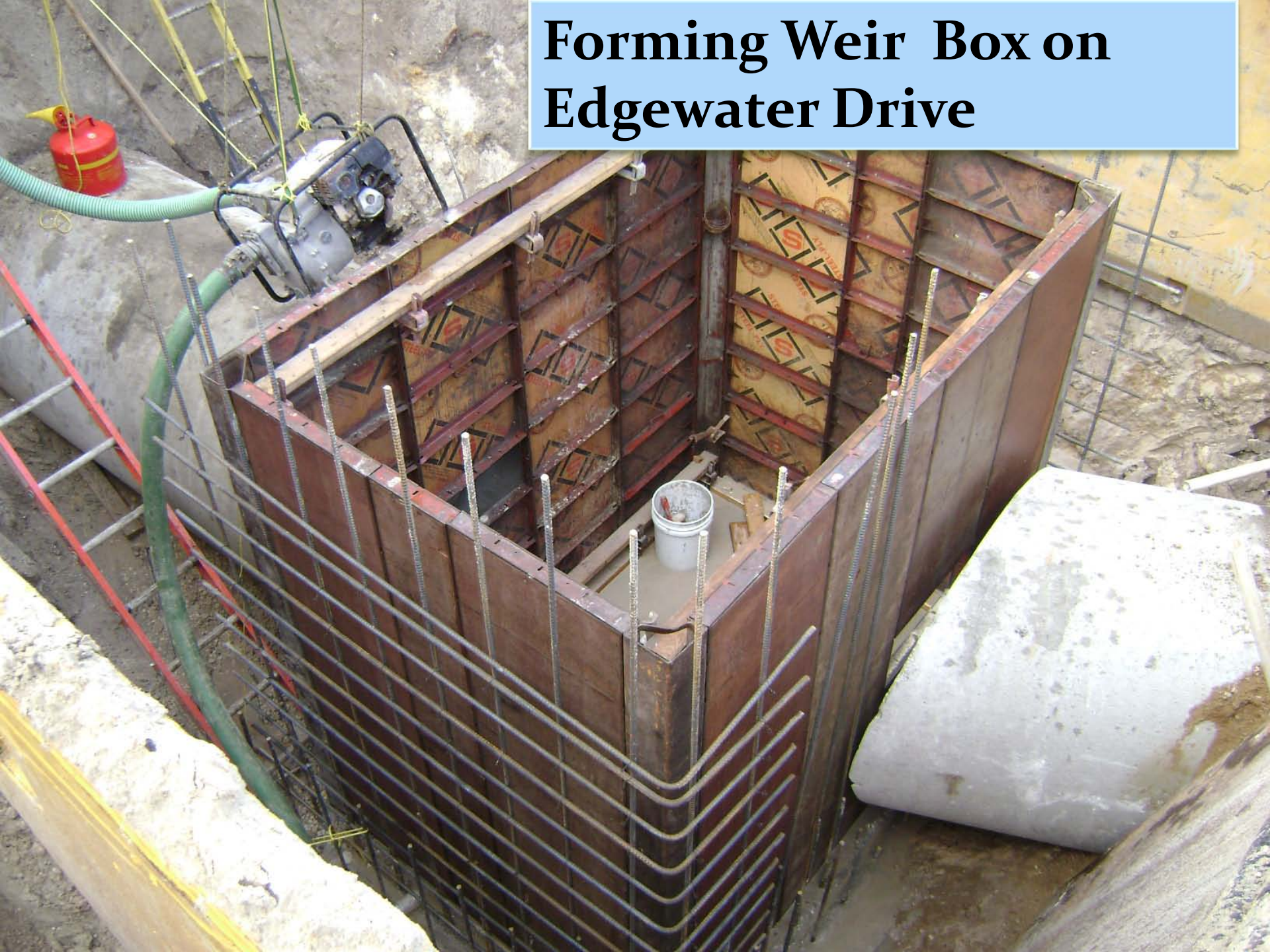
0 10 20 30 40

1 inch = 20 Ft

This plan may have been reduced
in size. North is indicated by the arrow.



Forming Weir Box on Edgewater Drive



Weir Box Formwork and Reinforcement



Weir Box Inside Trench Box



Diversion Weir Inside Weir Box



Installation of 2nd Generation Baffle Box



Installation of 2nd Generation Baffle Box



Distribution Pipe Installation



Backfill & Compaction



Bed Excavation



Geotextile Material



Rock Delivery



Rock Placement



Bed Lay-Out



Manifold Pipe



Final Bed Cover



Final Park Restoration



Ivanhoe Plaza Park Today



City of Orlando Project Summary	TP Reduction (lbs/yr)
BMAP Allocations	+ 979
TMDL BMP's	- 684.4
Projects Prior to 2005	- 154.6
Completed Projects thru 2011	- 113.2
Planned & Funded Projects thru 2012	- 6.0
Reductions Needed Before 2024	20.8





City of Orlando
Stormwater Hotline
407.246.2370