



Lake Killarney Board Regular Meeting

Agenda

December 6, 2023 @ 10:00 AM

City Hall Commission Chambers
401 S. Park Avenue

welcome

Agendas and all backup material supporting each agenda item are accessible via the city's website at cityofwinterpark.org/meetings/ and include virtual meeting instructions.

assistance & appeals

Persons with disabilities needing assistance to participate in any of these proceedings should contact the City Clerk's Office ([407-599-3277](tel:407-599-3277)) at least 48 hours in advance of the meeting.

"If a person decides to appeal any decision made by the Board with respect to any matter considered at this hearing, a record of the proceedings is needed 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." (F.S. 286.0105).

please note

Times are projected and subject to change.

1. Call to Order**2. Consent Agenda**

- a. Approve the minutes of the regular meeting on November 1, 2023.

3. Public Comments (for items not on the agenda): Three minutes allowed for each speaker**4. Public Hearings (Public participation and comment on these matters must be in person.)**

- a. Boathouse/Dock Application (BLDR-2023-0720) 2054 Lake Dr. 10 Minutes
- b. Boathouse/Dock Application (BLDR-2023-0963) 430 Killarney Dr. 10 Minutes

5. Action Items**6. Non-Action Items**

- a. Riprap Presentation by Dawn Bell 10 Minutes

7. Staff Updates

- a. Lakes Management 10 Minutes
 - Water Quality
 - At-Risk Vessel
 - Dock Violation
 - Sediment Removal for Natural Resources Conservation Services (NRCS)
 - Telemetry Stations
 - Maintenance and Efforts
- b. Stormwater Management 10 Minutes
 - CIP Update
 - Infrastructure Projects: Nicolet Pond, Killarney Dr Pipe Replacement, & Lake Bell Weir
 - Lake Front Construction Update

Follow-up Items:

- BMP Feasibility Study

- Outfall Condition Update

c. Orange County Update 5 Minutes

8. Board Comments

a. Discussion of Public Comments Received 5 Minutes

9. Upcoming Agenda Items

a. Upcoming Agenda Items 5 Minutes

b. Summary of Meeting Action Items 5 Minutes

10. Adjournment



Lake Killarney Board

agenda item

item type

Consent Agenda

meeting date

December 6, 2023

prepared by**approved by****subject**

Approve the minutes of the regular meeting on November 1, 2023.

motion | recommendation**background****strategic objectives****alternatives | other considerations****fiscal impact****attachments**

None



Lake Killarney Board Regular Meeting Minutes

November 1, 2023 at 10:00 AM

City Hall Commission Chambers
401 S. Park Avenue

Present

David L. Dickerson, Jason K. Ellison, Ellen Hencken, Joyce D. Cunningham, Carolyn Minear, William Voecks

Absent

Jeanne Wall

Staff

Director of Public Works & Transportation Charles Ramdatt; Assistant Director of Public Works Don Marcotte; Public Works Engineer Shannon Monahan; Lakes Division Manager Joseph Cordell; Natural Resources & Sustainability Administrative Coordinator Victoria Tabor; Board Coordinator Charisma Lowery

1. Call to Order

The meeting was called to order at 10:03 a.m.

2. Consent Agenda

- a. Approve the minutes of the regular meeting October 4, 2023.

Mr. Dickerson asked for the motion under item 4(a) to be clarified to read as "...boathouse closer to parallel to the shoreline".

Motion made by Carolyn Minear to approve the minutes as amended; seconded by Joyce Cunningham. Motion carried unanimously with a 6-0 vote.

3. Public Comments (for items not on the agenda): Three minutes allowed for each speaker

Dawn Bell, 2024 Lake Drive, voiced her concerns pertaining to riprap and stated the cove has minimal water movement and 50,000 pounds of rock would need to be applied to her lakefront which could result in debris being trapped as well as fish and plant life being killed. She expressed interest in acquiring a variance for the cove. Further discussion followed and staff will bring this item back during next month's discussion.

David Wolf, 2054 Lake Drive, elaborated on his current boat dock plans. He stated there is no impact to the trees, no navigation issues, and the dock plans follow code. The resident stated his home is the last house in the cove, and no other residents would be affected. The board asked Mr. Wolf to bring pictures of the area to the next meeting.

4. Public Hearings (Public participation and comment on these matters must be in person.)

There were none.

5. Action Items

There were none.

6. Non-Action Items

There were none.

7. Staff Updates

a. Lakes Management

Staff updated the board on the cove noting the Trophic State Index (TSI) is decreasing, as the lake is currently recovering from the effects of Hurricane Ian. This continues to be reflected in the phosphorous and nitrogen levels with nitrogen almost reaching normal lake levels, however, clarity has not shown much improvement since the last update. The at-risk vessel on the southeast side of the lake has been reported to the

Police Department, as well as the Florida Fish and Wildlife Conservation (FWC) who is being dispatched to inspect the issue.

The sediment removal projects from the Natural Resources Conservation Services (NRCS); grant funding has been completed for the Shoreview location. Staff will confirm the beach depth and other measurements; the next project to follow is Beachview Avenue.

Sensors for the telemetry stations have been received and, installation will soon follow.

Lake maintenance and efforts continue with, 95 gallons of debris and 55 gallons of trash removed. Along with a fallen tree in the Outfall of the canal.

Staff provided the board with the No Objection Waiver Request form for adjacent property owner statement that would require proof of property ownership.

Staff sent a guide, via email, to residents regarding living with alligators. The Fish and Wildlife Conservation (FWC) program states that alligators must be a nuisance in order to be removed from the water, along with having to be over 4 feet and not flee when confronted by humans. Staff will not be removing the alligators, and urged residents to contact the FWC if there are further concerns.

Conrad Necrason, Chairman of the Orange County Lake Killarney Board spoke briefly about the alligators living in the lake. A brief discussion followed.

b. Stormwater Management

Staff provided updates on Capital Improvement Projects (CIP); following the discussion at the last meeting, staff noted there is currently a provision on stormwater outfall dredging under Drainage Improvements in the budget. A brief discussion followed. Staff is waiting to schedule a pre-application meeting with St. John's Water Management District Nicolet Pond. The Killarney Drive pipe replacement design is presently in progress and staff has met with the design consultant for Lake Bell Weir project. Anticipated completion date is early summer of 2024 -pending permit approval.

An update on the Lakefront construction map was provided, with staff noting that the 2024 Lake Drive seawall is currently under construction.

Staff presented two images displaying the interconnects between Lake Killarney and MLK. Jr. Pond and event center. A brief discussion followed.

c. Orange County Update

Nidia Volpe, Senior Environmental Specialist of Lakes Management at Orange County, stated the Municipal Service Taxing Unit (MSTU) Advisory Board is working on a newsletter that will be completed in early 2024. The pipe at the intersection of Killarney Drive and Ohio Street has been replaced, and the curb inlet baskets that were previously removed will be replaced. Orange County plans to remove the sandbar at Blue Heron with the contractor used by the City of Winter Park.

The upcoming Orange County meeting is scheduled for December 14th, at the Winter Park Police station located at 500 North Virginia Avenue, at 5 p.m.

8. Board Comments

a. Discussion of Public Comments Received

There was no discussion on public comments, however, Mr. Ellison inquired about the completion of the Blue Heron dredging project. Staff noted that they have applied for a permit for dredging and received a Request for Additional Information form from the Department of Environmental Protection (DEP). A brief discussion followed.

The board noted that there is a resident that swims in the lake without proper gear, which poses safety concerns. Staff will send out best practice procedures to residents for using the lake.

9. Upcoming Agenda Items

a. Upcoming Agenda Items

- Discussion to revise the code specifically for the cove regarding rip rap and seawalls
- Research Orange County 50% for rip rap policy
- Swimmer safety reminder
- Water Quality Update
- At-Risk Vessel
- Sediment Removal Update for Natural Resources Conservation Services (NRCS)
- Telemetry Stations Update
- Maintenance and Efforts

- CIP Update
- Infrastructure Projects: Nicolet Pond, Killarney Dr. Pipe Replacement, & Lake Bell Weir
- Lake Front Construction Update
- Library and Events Center As-Builts

b. Summary of Meeting Action Items

Minutes from the previous meeting have been approved with one amendment.

10. Adjournment

The meeting adjourned at 11:18 a.m.

Minutes approved by the board on _____
/s/ Charisma Lowery, Board Coordinator



Lake Killarney Board

agenda item

item type

Public Hearings (Public participation and comment on these matters must be in person.)

meeting date

December 6, 2023

prepared by

Victoria Tabor, Administrative Coordinator II

approved by

Victoria Tabor, Administrative Coordinator II

subject

Boathouse/Dock Application (BLDR-2023-0720) 2054 Lake Dr.

motion | recommendation**background****strategic objectives****alternatives | other considerations****fiscal impact****attachments**

1. BLDR-2023-0720



LAKE SHORELINE BOATHOUSE/DOCK APPLICATIONS

BLDR-2023-0720

2054 Lake Dr

- Applicant: David Wolf
- Owner: David Wolf
- Contractor:
- Structure: Boathouse and Dock
- New/Existing: New
- Waterbody: Killarney

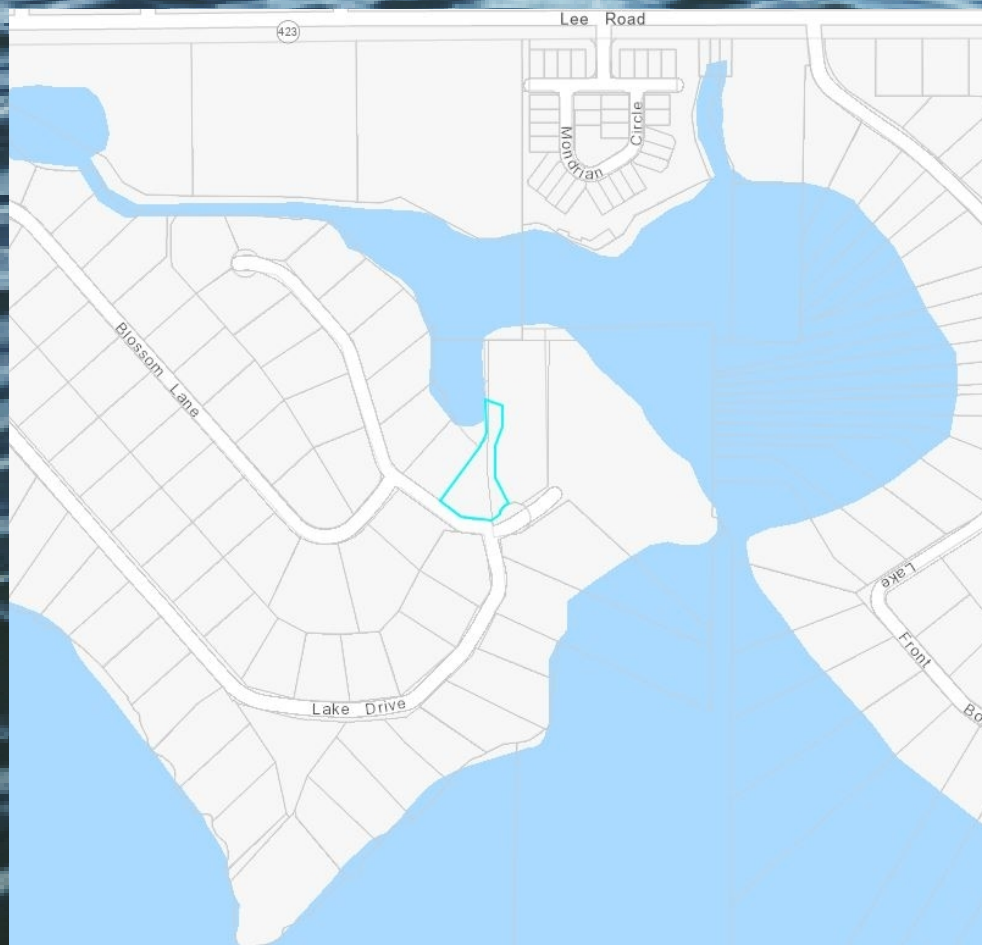
Parameters

Dock Parameter	Proposed	Allowed	Variance Req.?
Total Area (ft ²) OHWL	592	600 max	No
Length from OHWL (ft)	30'	50'	No
Height of Roof (ft above deck)	11'	11 max	No
Height of Deck (ft above OHWL)	2'	2 max	No
Enclosures?	No	80 ft ² max (no plumbing/water allowed)	No
Side Yard Setback(s) (ft)	5'	10 min	No
Meet Vegetation Criteria?	Yes	50% may be cleared	No

Staff Recommendation: Approval
Reviewed by: Joey Cordell

Map View

Basemap



Aerial View



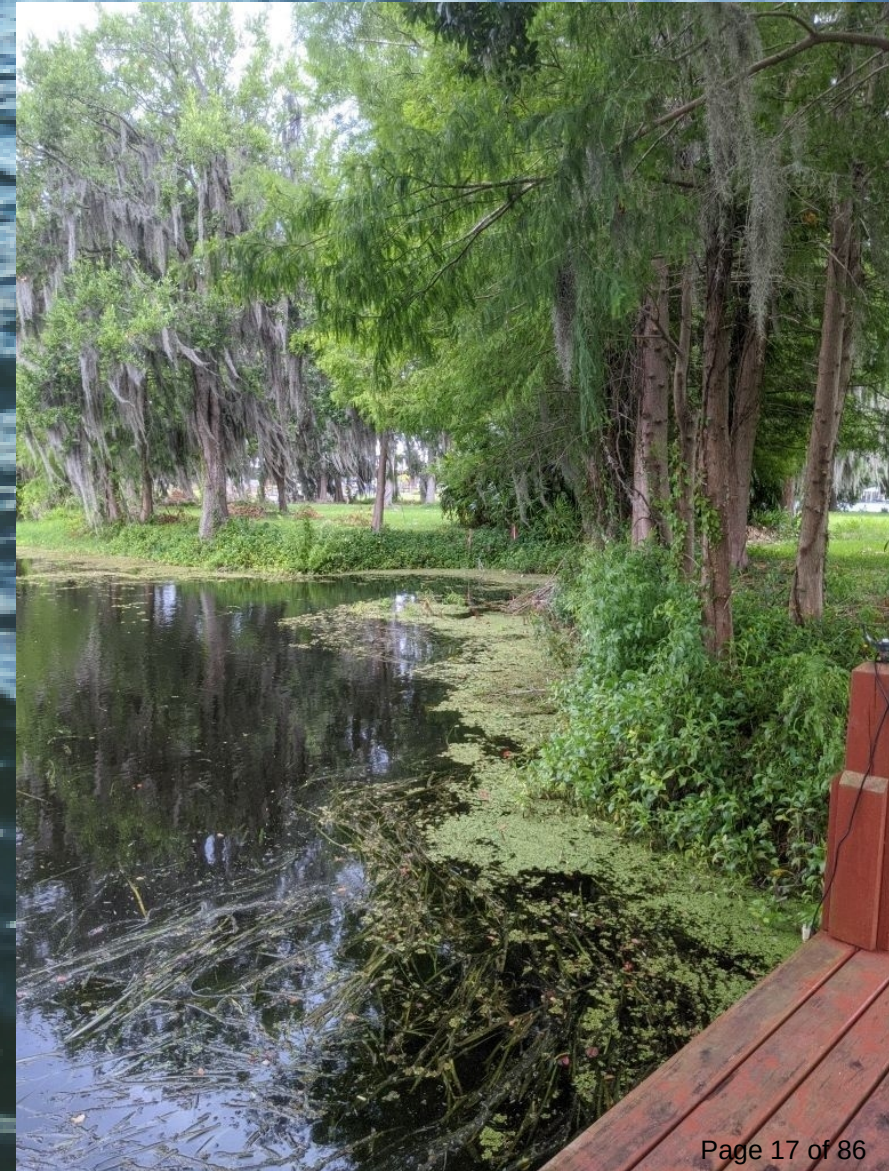
Bird's Eye View



Bird's Eye View



Photos



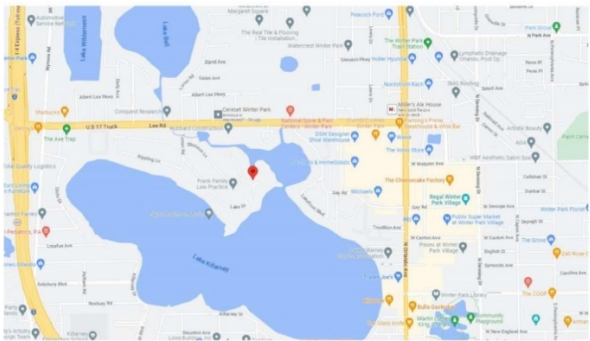
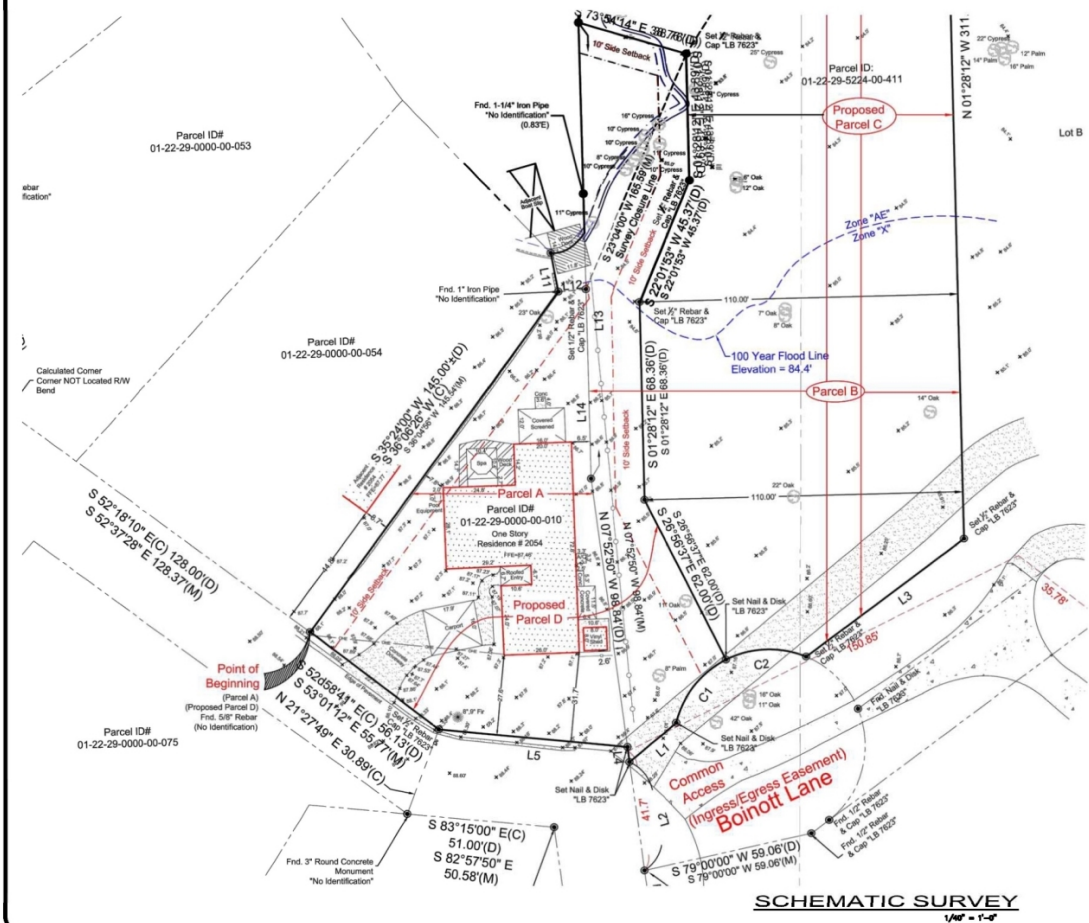
Survey

INDEX OF DRAWINGS

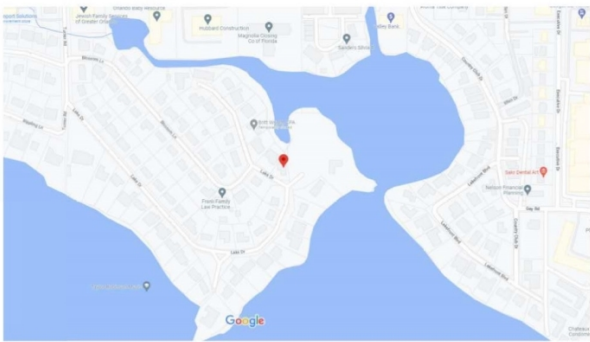
- A0 INDEX OF DRAWINGS, SITE LOCATION MAP
- A1 SITE PLAN
- A2 PLAN VIEW
- A3 FLOOR PLAN WITH DIMENSIONS
- A4 FRONT AND RIGHT ELEVATIONS
- S0 GENERAL STRUCTURAL NOTES
- S1 STRUCTURAL DETAILS
- S2 ROOF FRAMING PLAN & STRUCTURAL NOTES
- S3 CROSS SECTION

SCOPE OF WORK: NEW OBSERVATION WOODEN DECK

Digitally signed by
MICHAEL THOMPSON
Reason: This item has
been electronically signed
& sealed by Michael A.
Thompson using a digital
signature. Printed copies
of this document are not
considered signed and
sealed and the signature
must be verified on any
electronic copies.
Date: 2023.03.17 14:33:03
-04'00'



LOCATION OF PROPOSED CONSTRUCTION



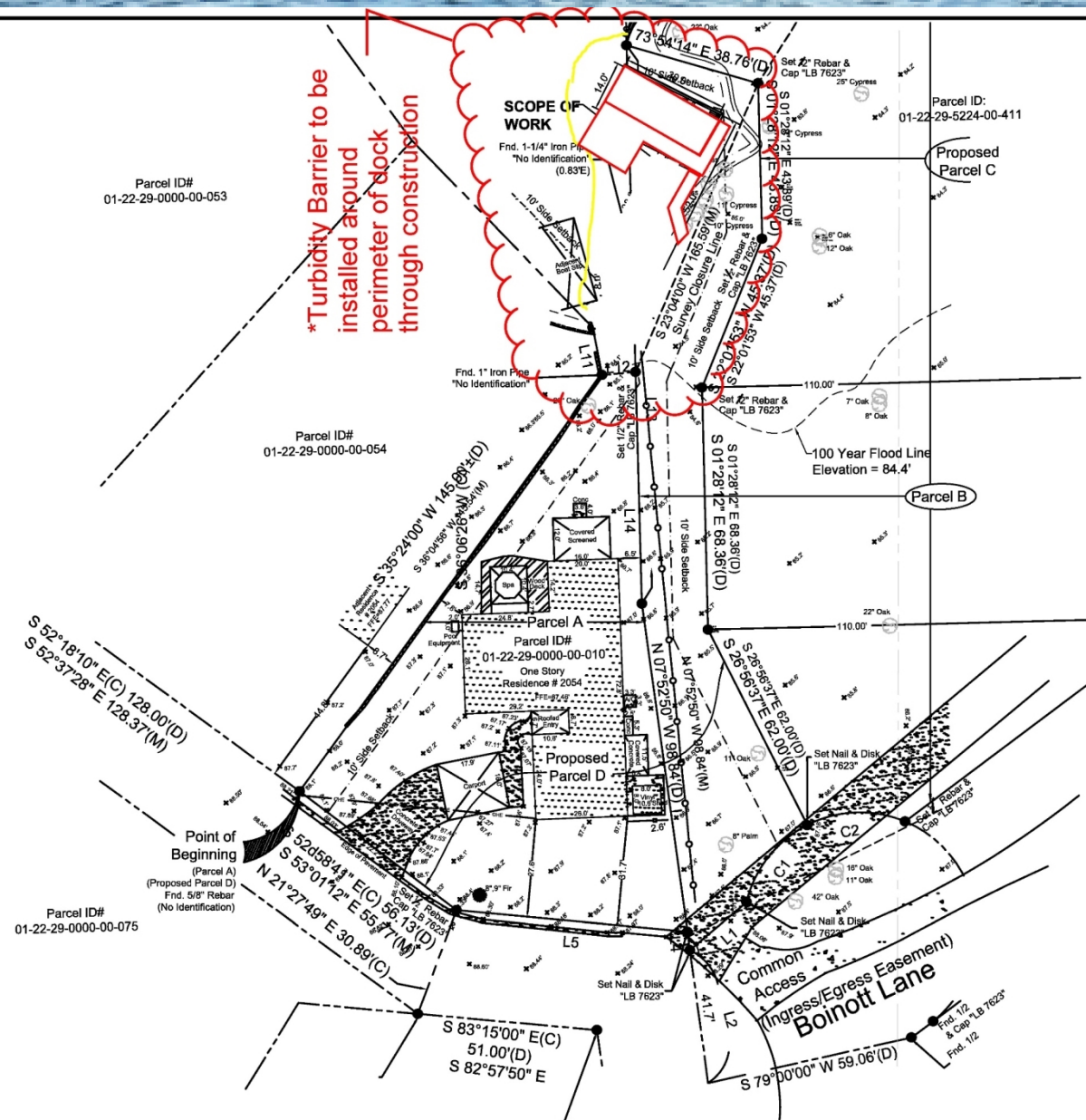
SITE LOCATION MAP

WOOD DECK
2054 LAKE DRIVE, WINTER PARK, FL 32789

ITEG
THOMPSON ENGINEERING GROUP, INC.
Michael A. Thompson
PE # 47509
4401 Vineland Road, Suite A8
Orlando, FL 32811
407-734-1450
www.tegfl.com

DATE:	03/17/23
SCALE:	AS NOTED
DRAWN BY:	A.N.
SHEET	A0

Plans



REVISIONS:

WOOD DECK
2054 LAKE DRIVE, WINTER PARK, FL 32789



DATE: 03/17/23

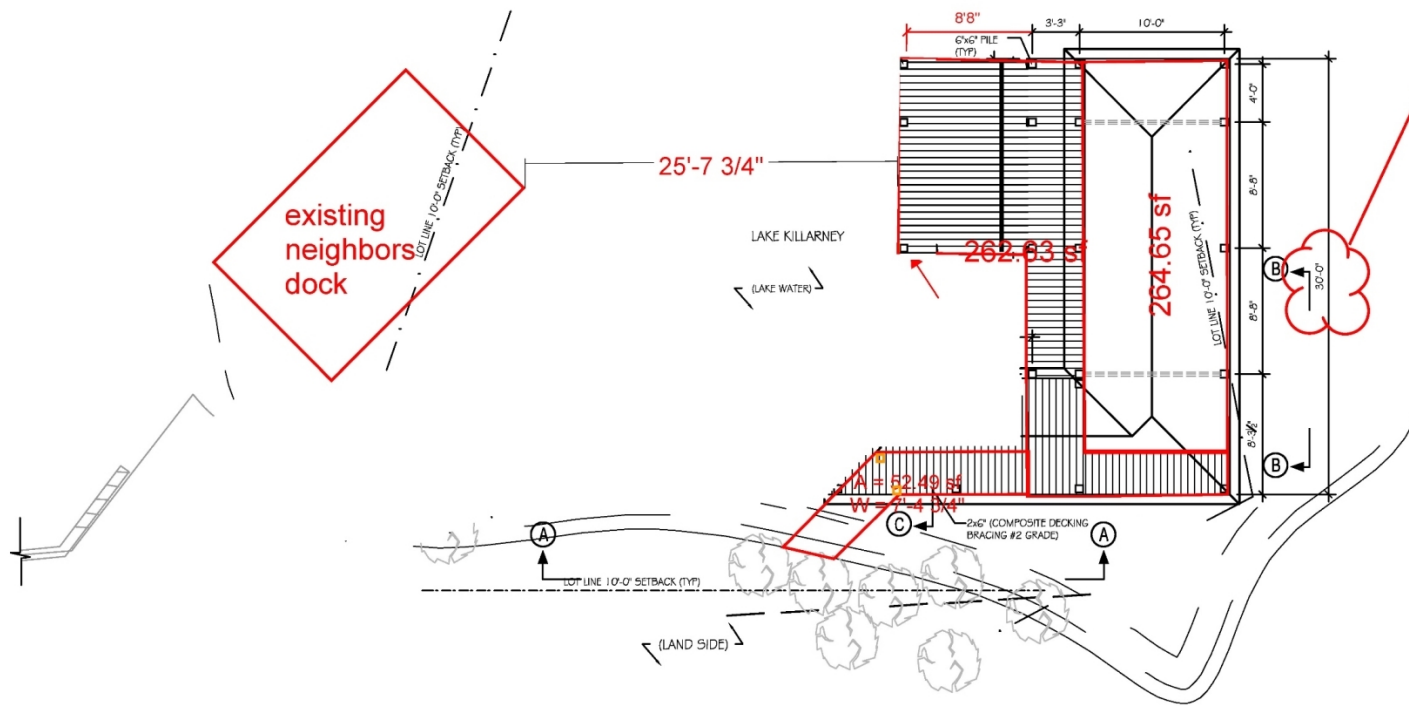
SCALE: AS NOTED

DRAWN BY: AN

AI

SITE PLAN
SCALE: 1/30"=1'-0" (11X17)

Plans



PLAN VIEW
SCALE: 1/8"=1'-0" (11X17)

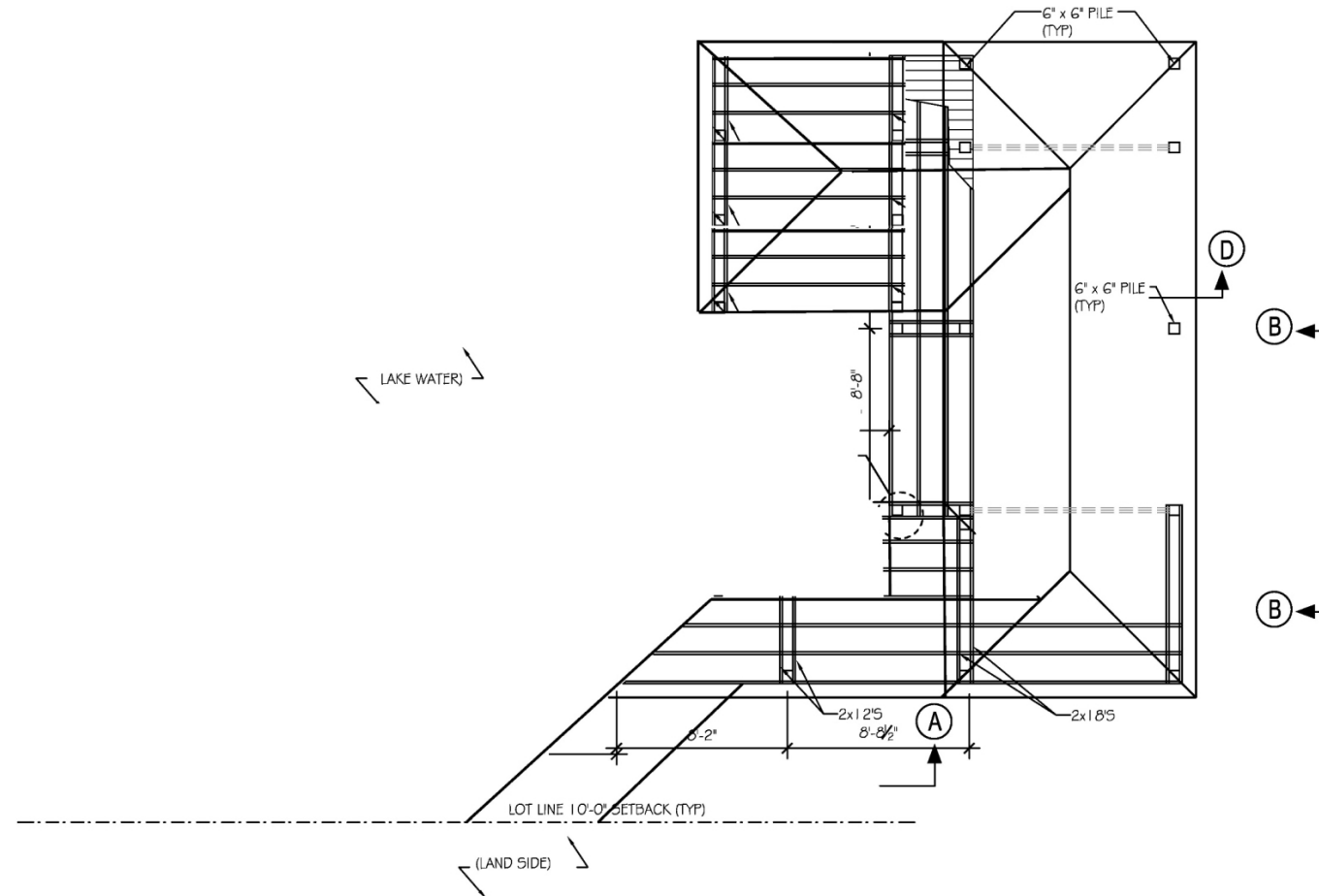
REVISIONS:

WOOD DECK
2054 LAKE DRIVE, WINTER PARK, FL 32789



DATE:	03/17/23
SCALE:	AS NOTED
DRAWN BY:	A.N
SHEET	
A2	

Plans



FLOOR PLAN W/ DIMENSIONS
SCALE: 3/16"=1'-0" (11X17)

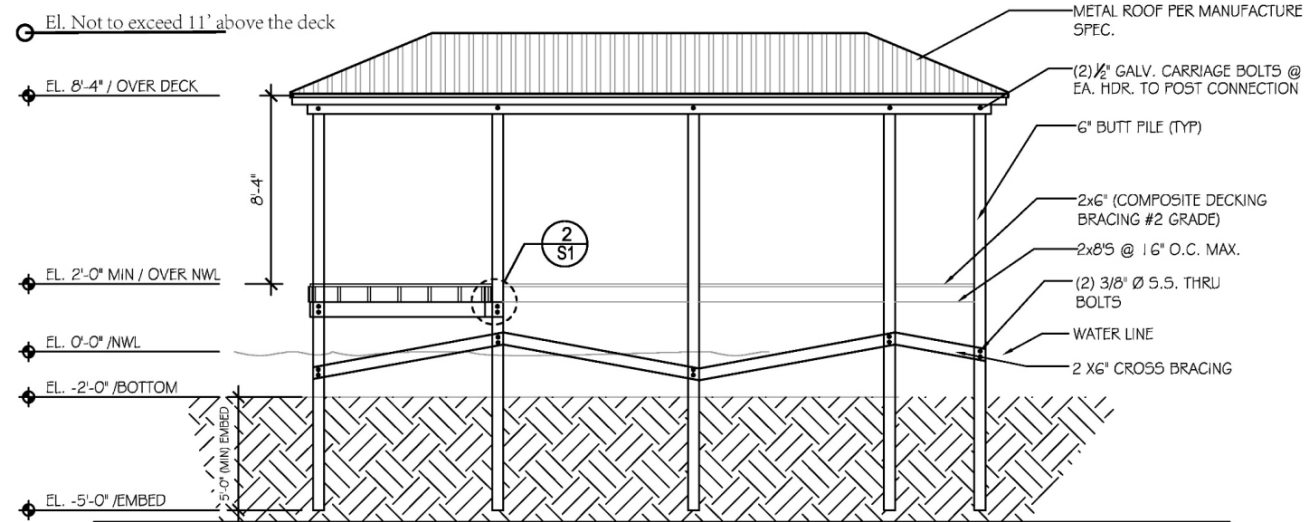
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WOOD DECK
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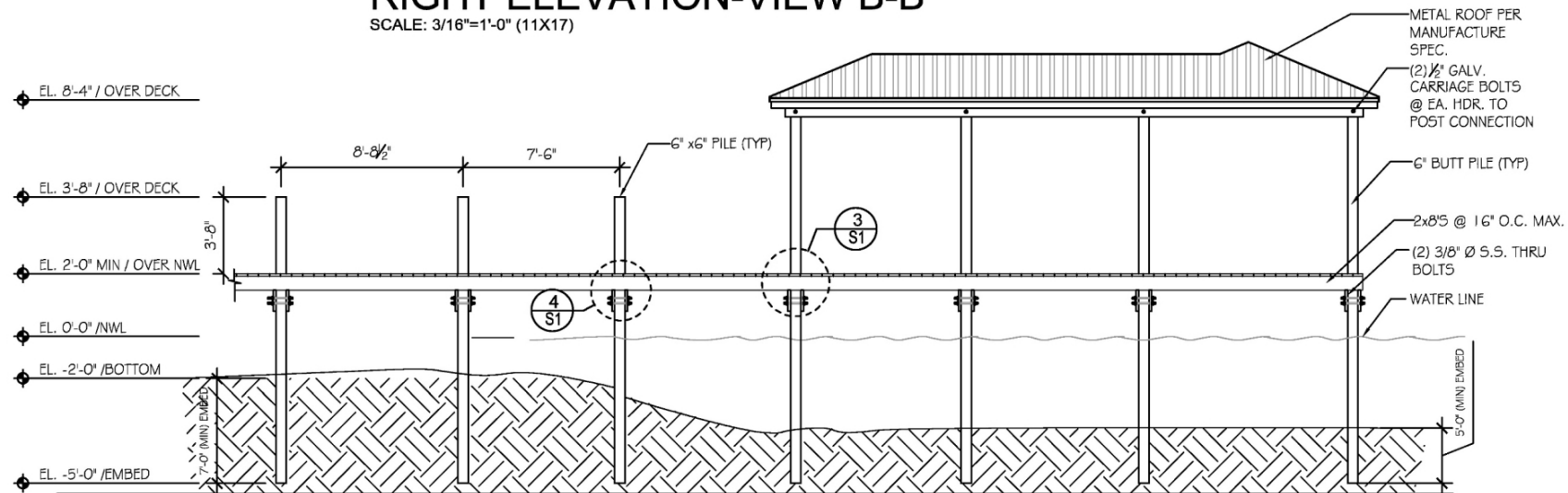
DATE:	03/17/23
SCALE:	AS NOTED
DRAWN BY:	AN
SHEET	A3

Plans



RIGHT ELEVATION-VIEW B-B

SCALE: 3/16"=1'-0" (11X17)



FRONT ELEVATION-VIEW A-A

SCALE: 3/16"=1'-0" (11X17)

REVISIONS:

WOOD DECK
2054 LAKE DRIVE, WINTER PARK, FL 32789



DATE: 03/17/23

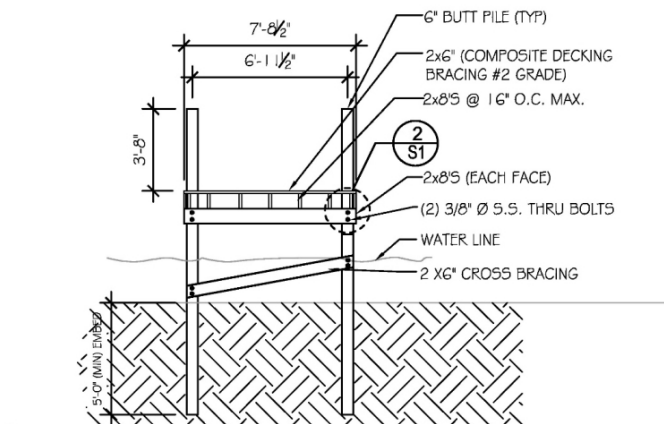
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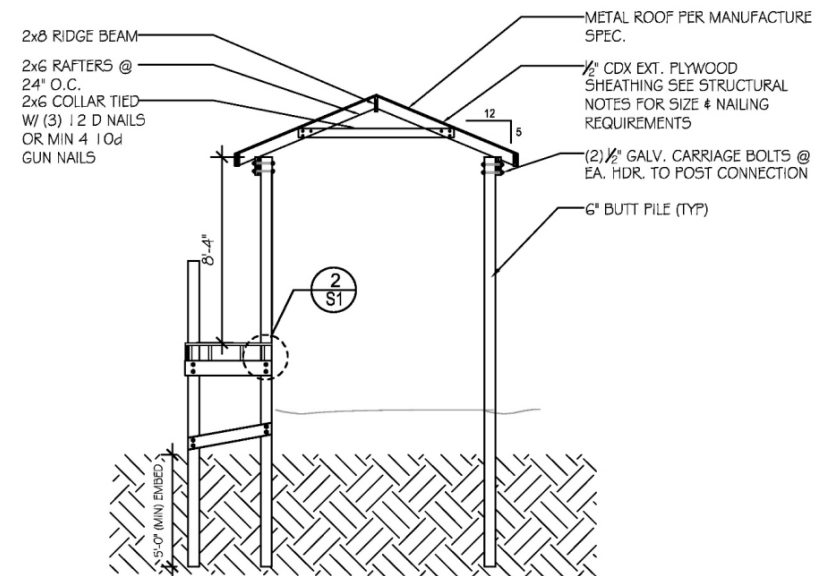
SHEET

A4

Plans



SECTION C-C
SCALE: 3/16"=1'-0" (11X17)



SECTION D-D
SCALE: 3/16"=1'-0" (11X17)

REVISIONS:

WOOD DECK
2054 LAKE DRIVE, WINTER PARK, FL 32789



DATE: 03/17/23
SCALE: AS NOTED
DRAWN BY: AN
SHEET
S3

Letter of No Objection

AFFECTED ADJACENT PROPERTY OWNER
NOTARIZED STATEMENT OF NO OBJECTION
TO BOAT DOCK SIDE-SETBACK WAIVER REQUEST

I, David Wolf, a legal property owner of property located at 2056 lake dr, winter park, fl 32789,
(Address

have reviewed the dock construction plans dated 8/1/2023, for the property
located at

2054 lake dr, winter park, fl 32789, and have no objections.

The dock construction plans include a side setback waiver request of 5 feet, in lieu of the
minimum 10 feet required by Code.

David Wolf
(Signature – Adjacent Affected Property Owner)

8/1/2023

(Date)

David Wolf

(Print Name – Adjacent Affected Property Owner)

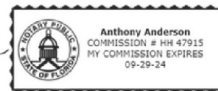
ACKNOWLEDGEMENT:

STATE OF FLORIDA

COUNTY OF ORANGE

The foregoing instrument was acknowledged before me this 8th day of August, 2023, by

Anthony Anderson



(Signature of Notary Public – State of Florida)

Personally Known ☒ OR Produced Identification

Type of Identification Produced



Lake Killarney Board

agenda item

item type

Public Hearings (Public participation and comment on these matters must be in person.)

meeting date

December 6, 2023

prepared by

Victoria Tabor, Administrative Coordinator II

approved by

Victoria Tabor, Administrative Coordinator II

subject

Boathouse/Dock Application (BLDR-2023-0963) 430 Killarney Dr.

motion | recommendation**background****strategic objectives****alternatives | other considerations****fiscal impact****attachments**

1. BLDR-2023-0963



LAKE SHORELINE BOATHOUSE/DOCK APPLICATIONS

BLDR-2023-0963

430 Killarney Dr

- Applicant: Sheila Cichra
- Owner: Carolyn Minear
- Contractor: Creative Remodeling Solutions, Inc.
- Structure: Boathouse
- New/Existing: Existing
- Waterbody: Lake Killarney

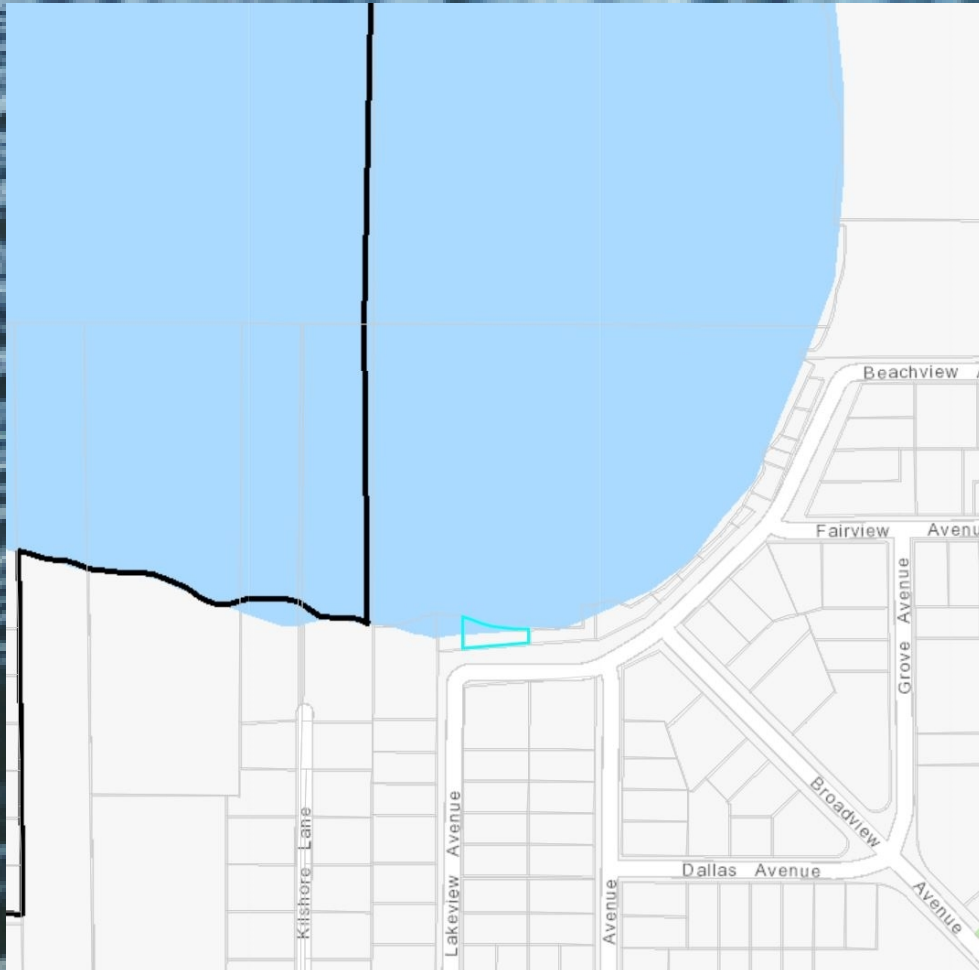
Parameters

Dock Parameter	Proposed	Allowed	Variance Req.?
Total Area (ft ²) OHWL	597	600 max	No
Length from OHWL (ft)	50'	50'	No
Height of Roof (ft above deck)	10' 3"	11 max	No
Height of Deck (ft above OHWL)	1' 6"	2 max	No
Enclosures?	No	80 ft ² max (no plumbing/water allowed)	No
Side Yard Setback(s) (ft)	19'	10 min	No
Meet Vegetation Criteria?	No	50% may be cleared	No

Staff Recommendation: Approval with Revegetation
Reviewed by: Joey Cordell

Map View

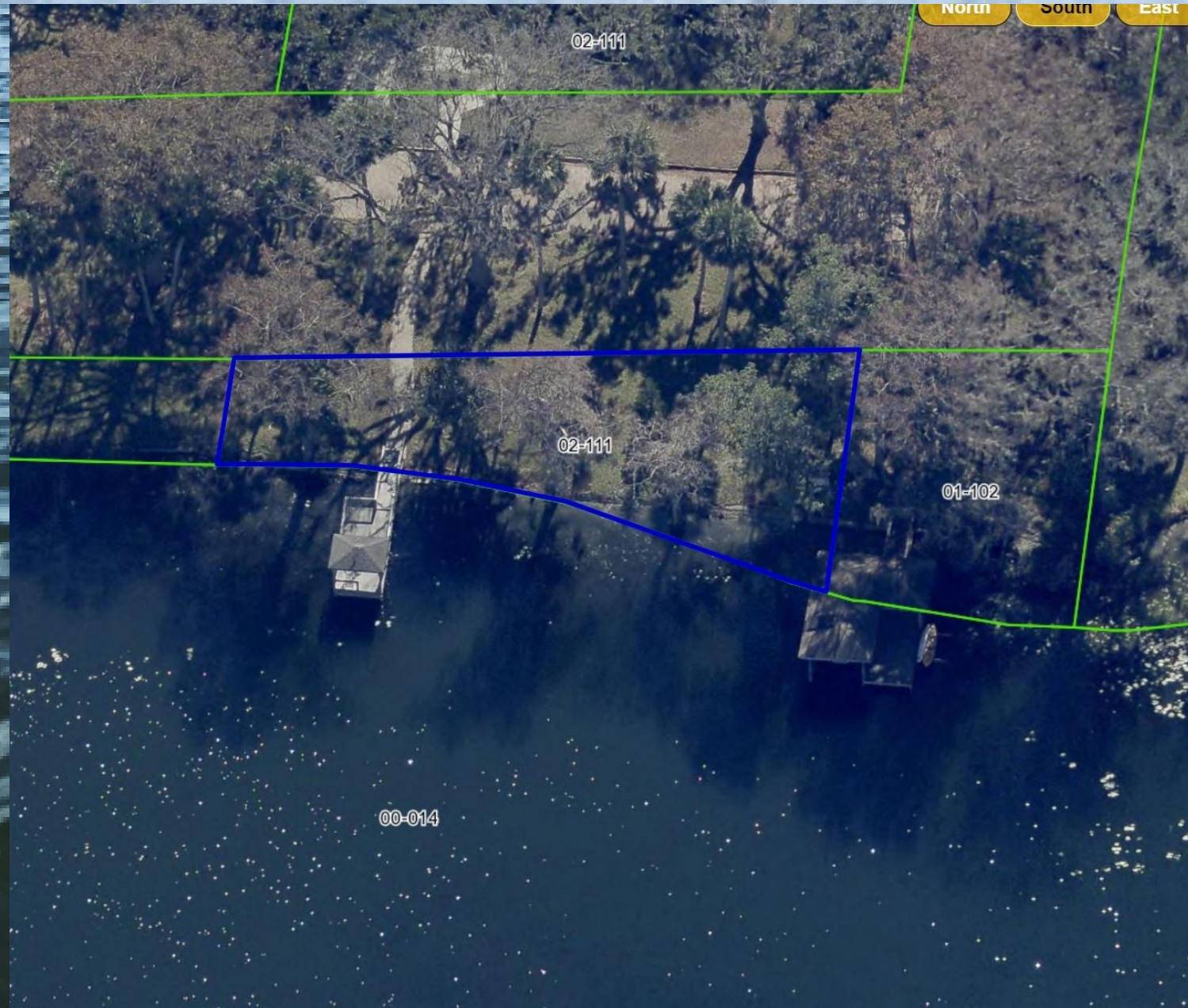
Basemap



Aerial View



Bird's Eye



Photos



Photos



Survey

BOUNDARY AND TOPOGRAPHIC SURVEY

Legal Description

Lots 11 and 12, Block 2, RESURVEY OF KILLARNEY ESTATES, according to the map or plat thereof as recorded in Plat Book L, Page 9, of the Public Records of Orange County, Florida.
Together with: Beginning at the Northwest corner of Lot 11, Block 2, RESURVEY OF KILLARNEY ESTATES, according to the map or plat thereof as recorded in Plat Book L, Page 9, Public Records of Orange County, Florida, run thence Easterly along the North lot lines of Lots 11 and 12, Block 2, of said Subdivision to the Northeast corner of Lot 12, run thence North to the waters of Lake Killarney, run thence Westerly along the Waters of said Lake to a point due North of the Point Beginning, run thence South to the Point of Beginning, less the public street known as Killarney Drive.

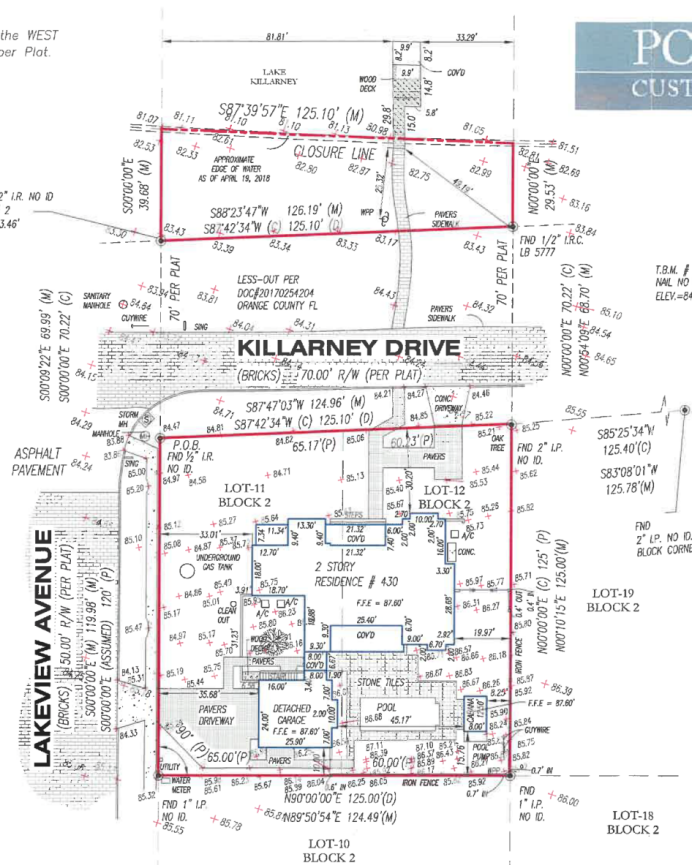


Basis of Bearing:

Bearings shown hereon are based on the WEST line of Lot 11, being S 00°00'00" E, per Plat.

Legend:

- (D) = DEED
- (M) = MEASURE
- (P) = PLAT
- (NR) = NON RADIAL
- (C) = CALCULATED
- BLK = BLOCK
- COVD = COVERED
- OTL = OVERHEAD LINES
- CAVY = CABLE TV RASER
- CL = CENTER LINE
- E = CENTER LINE
- DESC = DESCRIPTION
- ELEV = ELEVATION
- ID = IDENTIFICATION
- R.O.W. = RIGHT OF WAY
- P/W = RIGHT OF WAY
- ESMT = EASEMENT
- U.E. = UTILITY EASEMENT
- D.E. = DRAINAGE EASEMENT
- D.U.E. = DRAINAGE UTILITY EASEMENT
- P.D.E. = PRIVATE DRAINAGE EASEMENT
- E.P.E. = ELECTRIC POWER EASEMENT
- E.S.D. = ENVIRONMENTAL SINK AND DRAINAGE EASEMENT
- LP = IRON PIPE
- LR = IRON ROD
- NRD = NAIL AND DISK
- LRD = FOUND
- LS = LAND SURVEYOR
- PLS = PROFESSIONAL LAND SURVEYOR
- PSM = PROFESSIONAL LAND SURVEYOR AND MAPPER
- RLS = REGISTERED LAND SURVEYOR
- LD = LICENSED BUSINESS
- LRD = IRON ROD AND CAP
- LPD = IRON PIPE AND CAP
- CM = CONCRETE MONUMENT
- P.C.P. = PERMANENT CONTROL POINT
- P.R.M. = PERMANENT REFERENCE MONUMENT
- P.O.L. = POINT ON LINE
- P.R.C. = POINT OF REVERSE CURVATURE
- P.C.C. = POINT OF COMPOUND CURVATURE
- WP = WITNESS POINT
- T.B.M. = TEMPORARY BENCH MARK
- STOR. = STORAGE
- P.O.C. = POINT OF COMMENCEMENT
- P.C. = POINT OF CURVATURE
- P.L. = POINT OF INTERSECTION
- P.T. = POINT OF TANGENCY
- R.P. = RADII POINT
- B = CENTRAL ANGLE
- L = ARC LENGTH
- CB = CHORD BEARING
- R = RADIUS
- F.F.E. = FINISH FLOOR ELEVATION
- A/C = AIR CONDITIONER
- W/H = WATER HEATER
- W.P. = WATER PUMP
- CONC. = CONCRETE
- CONC.F. = CONCRETE FENCE
- W.F.C. = WOOD FENCE
- PVC.F.C. = VINYL FENCE
- OL.F.C. = CHAIN LINK FENCE
- AL.F.C. = ALUMINUM FENCE
- M.F.C. = METAL FENCE
- B.F.P. = BACK FLOW PREVENTER
- S.M.H. = STORM SEWER MANHOLE
- T.M.H. = TELEPHONE MANHOLE
- F.H. = FIRE HYDRANT
- W.M. = WATER METER
- W.V. = WATER VALVE
- I/V = IRRIGATION VALVE
- C/O = CLEAN OUT
- LP = LIGHTING POLE
- PP = POWER POLE
- MRP. = ROAD POLE
- CS = POLE



Surveyor's Notes:

1. Legal Description provided by others
2. The lands shown hereon were not abstracted for easements or other recorded encumbrances not shown on the Plat.
3. Underground portions of footings, foundations or other improvements were not located.
4. Wall lines are to the face of the wall and are not to be used to reconstruct boundary lines.
5. Only visible encroachments located.
6. No identification found on property corners unless otherwise shown.
7. Dimensions shown are Plat and Measured unless otherwise shown.
8. Fence ownership not determined.
9. This survey depicted here forms a closed geometric figure.
10. No underground improvements or visible installations have been located other than shown.
11. This survey is prepared for the exclusive use and benefit of the parties listed hereon liability to third parties may not be transferred or assigned.
12. This drawing may not be scaled due to electronic transfer.
13. This survey does not reflect or determine ownership.
14. Fence corners and building corners are witness monuments to abstracted corners, dimensions are as shown.
15. Subject to any dedication, limitations, restrictions, reservations, and/or easement of record no examination of Title made by Surveyor.
16. This Survey is not an ALTA/ACSM Land Title Survey.
17. This Survey was prepared without the benefit of a commitment for Title Insurance.
18. The flood data provided is for informational purposes only. The Surveyor makes no guarantees as to the accuracy of the information provided. The local F.E.M.A. Agency should be contacted for verification.
19. Boundary bases on existing monumentation as found in field, other matters not known to this surveyor at time of survey may affect Boundary lines shown hereon.
20. This Survey is intended for construction, permitting, design, mortgage or reliance purposes only, exclusively for this, used by those to whom it is certified. This Survey is not to be used for or any other purpose without the written consent of LEBRON GROUP SURVEYING AND MAPPING CORP. PHOTOCOPYING FORBIDDEN. COPYRIGHTED MATERIAL.
21. Elevations shown hereon are based on the Benchmark 1651004, with elevation 89.987' (NAVD 88)

Certified to/for the exclusive use of:
Posada Custom Homes and/or
Carolyn C. Minear

Flood Insurance Rate Map:

Community Number: 120188 Panel: 0255
Suffix: " F " Flood Insurance Rate Map
Dated: September 25, 2009 Flood Zone: " X "
Map ID: 12095C0255F

THIS SURVEY MEETS THE "STANDARDS OF PRACTICE" AS REQUIRED BY CHAPTER 5J-17, BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS, PURSUANT TO SECTION 472.027 OF THE FLORIDA STATUTES.



CODE: 430KILLARNEY20190901 DATE: NOVEMBER 8, 2019
HECTOR LEBRON PSM #6854 JOSE R. NEGRON PSM #6850
Professional Surveyor and Mapper Professional Surveyor and Mapper
"NOT VALID WITHOUT AN AUTHENTICATED ELECTRONIC SIGNATURE AND AUTHENTICATED PRESE/ ELECTRONIC SEAL OF THE FLORIDA LICENSED SURVEYOR AND MAPPER."

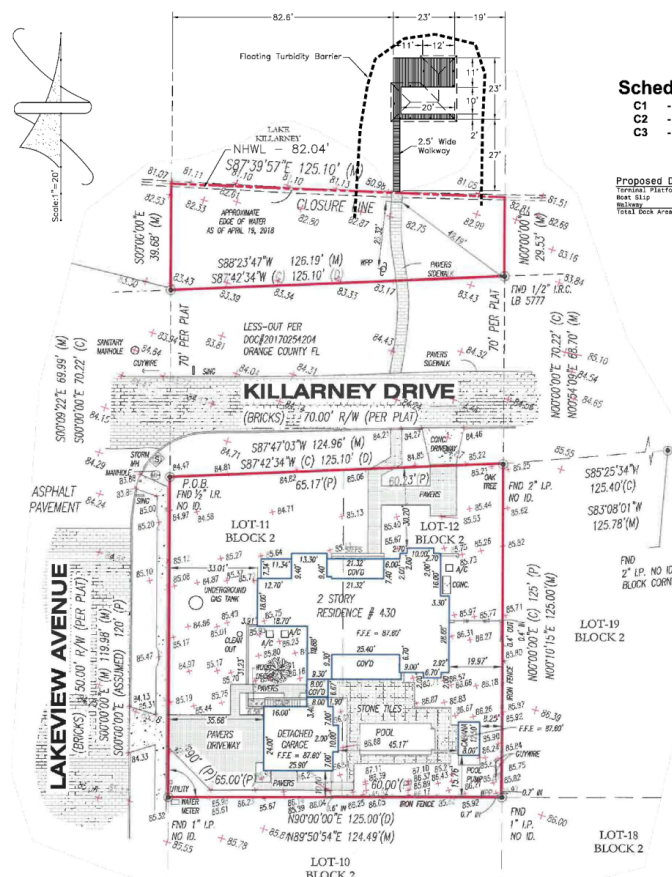


APP	DESCRIPTION	DATE
JRN	TOP DATA ACCE	09/27/2018
JRN	BUILDING REPORT	11/28/2018
JRN	FINAL SURVEY	03/12/2019
JRN		11/07/2019

ADDRESS: 430 KILLARNEY DR
WINTER PARK, FLORIDA 32789

FIELD: 04/19/2018
DRAWN: HL
CHECKED: JRN
DATE: 04/19/2018
JOB NO: 2018-
SHEET: 1
0601

Plans



C1 - Cover Sheet & Site Plan
C2 - Dock Installation Plan
C3 - Elevations & Details

Proposed Dock Area	
Terminal Platform	- 329 sf
Boat Slip	- 200 sf
Walkway	- 68 sf

Lots 11 and 12, Block 2, RESURVEY OF KILLARNEY ESTATES, according to the map thereof as recorded in Plat Book L, Pages 9 of the Public Records of Orange County, Florida.

Plus,
Beginning at the Northwest corner of Lot 11, run thence easterly along the North lot lines of Lots 11 and 12 to the Northeast corner of Lot 12, run thence North to the waters of Lake Killarney, run thence Westerly along the Waters of said Lake to a point due North of the Point of beginning, run thence south to a point of beginning less the public street known as Killarney Dr.

Floor Live Loads

Decks & Walkways	- 60 psf
Roofs	- 20 psf
<u>Wind Design Data</u>	
Ultimate Wind Speed	- 139 mph
Basic Wind Speed	- 106 mph
<u>Risk Category</u>	
Risk Category	- II
Wind Exposure	- 0
Exposure Class	- Not Enclosed
Int pressure Coeff	- 0.55 +/-
<u>Peak Wind Load</u>	
Peak Wind Load	- 35.99 psf

© 2004 Blackwell Publishing Ltd *Journal of Internal Medicine* 255: 115–122

Construction Type: V
Building Description: PT Wood & Shingle Roof

Applicable Codes
Florida Building Code 2020



Construct a new private ba

General Notes:

G1. These notes shall apply to all work in this set of drawings.

G2. The contractor shall be responsible for obtaining all permits that all required permits are obtained and are in hand at the job site prior to the commencement of construction.

G3. Prior to commencement, the contractor shall provide a construction schedule for the project.

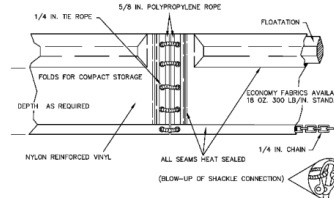
G4. The contractor shall be responsible for coordinating all utility discrepancies found between the drawings and the field conditions prior to construction in the area impacted by the proposed construction.

G5. In accordance with Florida Law (553.551) the contractor must notify the gas utility a minimum of 48 hours and a maximum of five days prior to excavation. (Excluding weekends).

G6. All requirements and recommendations of inspection personnel other than the engineer or the engineer's representative shall be followed. Construction will not be allowed for work which is not authorized by the engineer/owner.

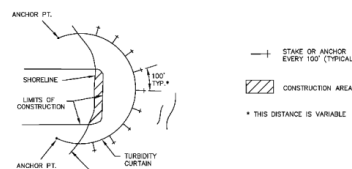
G7. The contractor shall be responsible for obtaining all required permits of all utility companies, project engineer and regulatory agencies.

G8. Contractor shall notify all appropriate utility companies and water management agencies of any proposed excavation or construction activities in advance of construction including but not limited to water, sewer, drainage, power, telephone, gas and cable TV companies.



Flotation Material:

Expanded Polyethylene Logs, 6" diameter, 55" Long,
enclosed in 22 oz/sy PVC coated nylon or polyester (40X
lbs min. tensile strength)
Curtain Material:
Silt film woven polypropylene (300 lbs min. tensile
strength)
Curtain Weight:
1/2" Galvanized steel chain.



STREAMS, PONDS, AND LAKES (PROTECTED AND NON-TIDAL)

1. In accordance with Florida Law (553.851) the

5. Days prior to excavation. (Excluding weekends).
6. Contractor shall verify all existing grades in the field and shall notify the engineer of any discrepancies prior to construction.
7. Where new earthwork meets existing, smoothly blend line and grade of existing and new to provide vertical curves at the top and bottom of all slopes.
8. Excavation required within proximity of utility lines shall be done by hand. Contractor shall provide any damage to existing utilities incurred during construction.
9. All points of construction ingress and egress shall be maintained to prevent tracking or flow of sediment onto public roads, adjacent wetlands or bodies of water.

E1. A suitable perimeter silt fence shall be con

- Adjacent wetlands and open bodies of water, contractor must use a double fence separated by 5 feet. (See sheet for specific erosion control placement and details.)

Darcy Unroe
c=US, st=Florida,
l=Orlando, o=Unroe
Engineering, Inc.,
cn=Darcy Unroe,
email=Darcy@unroeengi
neering.com
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This item has been electronically signed and sealed by
Darcy Unroe, PE 60929 on the date indicated using a
Digital Signature
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and sealed and the signature must be verified on any
electronic copy.

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Revision

Unroe Engineering, Inc
Civil Engineering/Planning/Scientific Evaluation
P.O. Box 69042, Orlando, FL 32869-0942
Tel: (407) 251-9900 Fax: (407) 251-9901

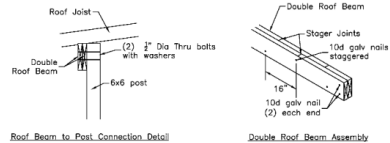
Cover Sheet & Site Plan
Minear Residence Dock
 1330 Killamey Dr, Winter Park, Florida 32789

DP	Drawn
DP	Checked
1"=20'	Scale
9/29/23	Date
Dock-C1	File
Dwg. No.	

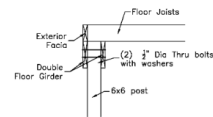
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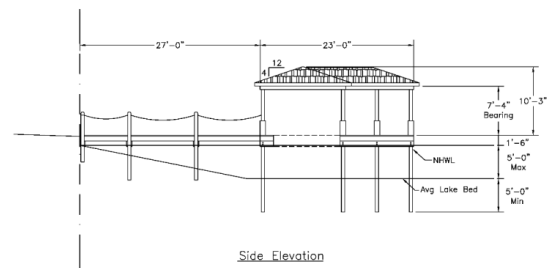
Plans



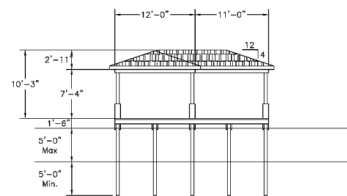
Roof Beam to Post Connection Detail



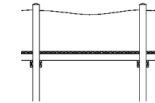
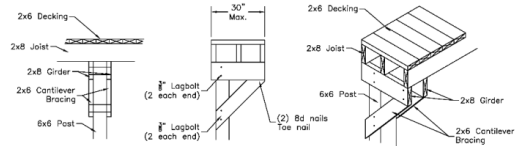
Floor Girder to Post Connection Detail



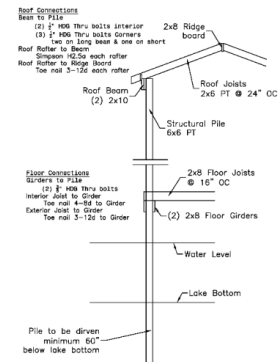
Side Elevation



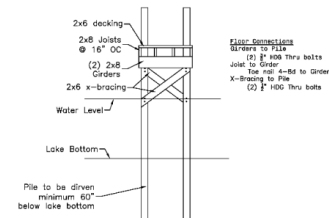
Front Elevation



Rope Handrail Detail



Dock Structural Framing Section



Walkway Structural Framing Section



Darcy Unroe
c=US, st=Florida,
l=Orlando, o=Unroe
Engineering, Inc.,
cn=Darcy Unroe,
email=Darcy@unroee
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This item has been electronically signed and sealed by
Darcy Unroe, PE 60929 on the date indicated using a
Digital Signature
Printed copies of this document are not considered signed
and sealed and the signature must be verified on any
electronic copy.

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Unroe Engineering, Inc
Civil Engineering/Planning/Scientific Evaluation
PO Box 690942, Orlando, FL 32869-0942
Business Authorization Number : EB 0000579 ph (407) 289-0650

Details & Elevations
Minear Residence Dock
430 Killarney Dr, Winter Park, Florida 32789

DP	Drawn
DP	Checked
per plan	Scale
10/12/23	Date
docke3	File
Dwg. No.	

Dwg. No.

C3

3 of



Lake Killarney Board

agenda item

item type

Non-Action Items

meeting date

December 6, 2023

prepared by

Victoria Tabor, Administrative Coordinator II

approved by

Victoria Tabor, Administrative Coordinator II

subject

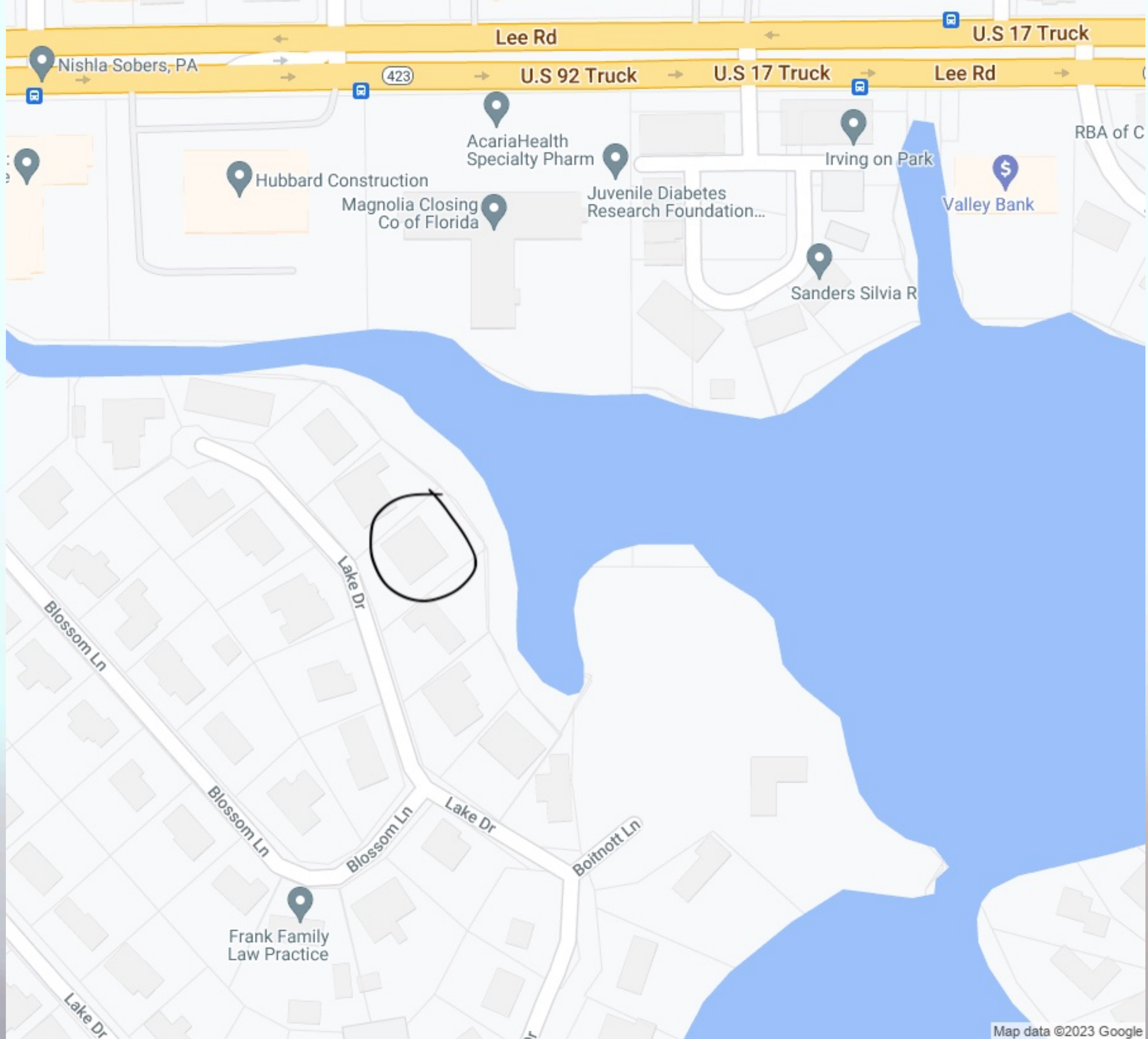
Riprap Presentation by Dawn Bell

motion | recommendation**background****strategic objectives****alternatives | other considerations****fiscal impact****attachments**

1. Shoreline Stabilization in WP Lakes

Shoreline Stabilization in Winter Park Lakes

Dawn Bell December 6, 2023





Current Code

Same codes in Pensacola (HMP Marine Construction) & Clearwater (Gibson Marine Construction)

- Rocks in range of 6" to 30" diameter
- Popular options: granite, fieldstone, trap rock, and limestone
- 2:1 Ratio
- To top of seawall
- 45° angle from top of seawall to lakebed
- A riprap retaining wall is a tried and true method that plays a pivotal role in preventing erosion, is eco-friendly, offers natural beauty, and requires minimal maintenance.

RipRap & Sea Walls - Pros and Cons

WI Pier & Waterfront Solutions. www.wisconsinpws.com. Aug 2020

- “Living on a body of water can be a great experience. At the same time, it also means you are vulnerable to nature and all she can throw at you - including erosion”.
- “There are two ways to protect property from waves: 1) Seawalls and 2) Riprap”
- “Seawalls deflect the waves to prevent erosion. Riprap is a dissipator, it absorbs and spreads the energy from the waves”.
- “Of the two, seawalls are more expensive. Many times, due to underlying solid rock, a seawall is not an option”.
- “As an alternative, riprap becomes your best solution to protect your shoreline”.

Riprap Defined and Where it's used

- www.thecontentauthority.com
- “Riprap is a protective layer made of large, irregularly shaped stones that are placed along shorelines, rivers and other bodies of water to prevent erosion and stabilize slopes”.
- “Riprap is often used in areas where waves or currents are too strong for other types of erosion control measures, such as vegetation or sand”.
- “Riprap is used where a structure or shoreline is continuously exposed to **rushing water**”.
- Continued ...

Continued ... Riprap Defined

- *Rip-Rap* larimit.com Landslide Risk Mitigation Toolbox (Expert-based portal)
- “Rip-rap is a method typically used along stream banks or sea banks to protect soil from runoff erosion or wave erosion”.
- “Rip-rap structure has two functions: the stones absorb and deflect the energy of water waves, whereas the gaps between the rocks slow the flow of water by reducing its ability in eroding soil. These solutions are suitable for protecting slopes from **severe wave actions** where the use of vegetation alone does not work”.

Water Temperature/Climate Concerns

- *Negative Impacts of Riprap on Lakeshores* www.Flexamat.com June 3, 2022
- “Not a Natural Solution. Rip rap is not environmentally sustainable. To get the riprap to the desired location it must be transported by trucks and equipment that emit high levels of pollution into the air. Rip rap retains heat and can increase the water temperature which leads to thermal pollution, harming aquatic life. Harmful chemicals are used with weed abatement programs (for maintenance)”.
- *Negative Impacts of Riprap on Lakeshore*. Brainerd Dispatch June 13, 2003
- “Since we were children, we learned that when walking barefooted, it can often be painful to walk over rocks in the hot sun, because it gets hot!”
- “When it rains, the water runs off of the land, as well as that striking the rock, becomes heated”.
- Continued ...

Continued ... Water Temperature

Brainerd Dispatch Continued

- “The impacts of heated water are simply explained in an article titled “Thermal Pollution” by Ruth Neves and Silvia Lourenco: (Heightened) Water temperatures lower dissolved oxygen content by decreasing the solubility of oxygen in water. Warmer weather also causes aquatic organisms to increase their respiration rates and consume oxygen faster, and it increases their susceptibility to disease, parasites, and toxic chemicals. Discharge of heated water into shallow water near the shore of a lake also may disrupt spawning and kill young fish”.
- “Fish and other organisms adapted to a particular temperature range can also be killed from thermal shock (sudden change in water temperature)”.
- Continued ...

Continued ... Water Temperature

Brainerd Dispatch Continued

- “Though riprap contributes to thermal contamination on a much smaller scale than do the power plants or large parking lots, it still contributes more than does a naturally vegetated shoreline”.
- “If a large number of landowners riprap, the contribution can be substantial”.

Engineering With Nature

Alternative Techniques to Riprap Bank Stabilization

[FEMA.GOV](https://www.fema.gov)

- “Riprap is the layering of rocks along a threatened area to counteract the constant wearing away of land brought about by repetitive hydrologic activity”.
- “Riprap impedes the natural functions of a shoreline, as it interrupts the establishment of the riparian zone, or the point of interface between land and flowing water”.
- “Riprap causes other problems as well. In areas of low vegetation, when exposed to direct sunlight, the rocks that comprise the riprap can reflect light into water, which increases water temperatures to an unhealthy degree for fish”.
- “As we manipulate and attempt to control the water, we need to look at the long-term effects we have on our immediate surroundings”.

Shoreline Stabilization - Four Articles

- 1). *Shoreline Stabilization*. NYS Department of Environmental Conservation
- “Natural shorelines are riparian areas that provide important environmental functions, such as regulating water quality (including temperature, clarity, nutrients, and contaminants) and sustaining critical habitat for a variety of aquatic and terrestrial organisms”.
- “Preferred Methods: Soft or natural approaches to shoreline stabilization are recognized now as being more environmentally effective”.
- “Less Preferred Methods: Hard approaches should be considered only where erosive forces are severe, and softer approaches would not be effective structurally”.

2) *Lakes, Rivers, and Streams*

Environmental Resilience Institute. www.eri.iu.edu. IN University

- “Climate changes such as rising temperatures, more frequent extreme storms and changes in season precipitation rates will impact lakes, rivers, and streams. As air temperatures rise, so will water temperatures in freshwater systems”.
- “The changing climate impacts ecosystems and environmental systems that support freshwater habitat for fisheries. Most freshwater fish species can only survive in certain water temperature ranges or stream flow conditions”.
- “Recommendation: Use “soft” shoreline maintenance. Plant submerged aquatic vegetation to stabilize sediment, reduce erosion, absorb excess nutrients, and offer food and shelter to wildlife and aquatic organisms”.

3). *About Shoreline Stabilization*

Shoreline Stabilization and the DEP. www.floridalivingshorelines.com

- “DEP The Department of Environmental Protection recommends using natural vegetation to stabilize a shoreline whenever possible. Natural vegetation is usually less expensive than other options, is resilient, protects the property from water and storm surge, and provides important habitat for aquatic life. Natural vegetation often facilitates accretion, which is the build-up of sediment along a shoreline and the opposite of erosion”.
- 4) *Orange County, FL Lakefront. A Stewardship Guide for Orange County Lakefront Homeowners.* Page 5. June 2022. Landscaping Practices For Water Quality, Wildlife & Shoreline Protection.
- “Planting vegetation along your shoreline is great for slowing runoff, catching sediment, capturing excess nutrients and stabilizing the soil”. Continued ...

Orange County Continued

- “Plants along the water’s edge also provide valuable habitat for fish and wildlife”.
- “Plants can slow water flow, catch runoff, and uptake excess nutrients. As the absorb nutrients, they slow the growth of algae and unwanted exotic plant species”.
- “Native vegetation near the shoreline stabilizes sediment which results in clearer water. Plants also minimize wave action, keeping your property from eroding”.
- “Native emergent plants provide nurseries for fish and invertebrate species. Your shoreline can provide hiding spots to help young lake dwellers from becoming a bird’s breakfast!”



**A healthy community of native
shoreline vegetation protects the lake
and looks pretty too!**





Lake Killarney Board

agenda item

item type

Staff Updates

meeting date

December 6, 2023

prepared by

Victoria Tabor, Administrative Coordinator II

approved by

Victoria Tabor, Administrative Coordinator II

subject

Lakes Management

- Water Quality
- At-Risk Vessel
- Dock Violation
- Sediment Removal for Natural Resources Conservation Services (NRCS)
- Telemetry Stations
- Maintenance and Efforts

motion | recommendation**background****strategic objectives****alternatives | other considerations****fiscal impact****attachments**

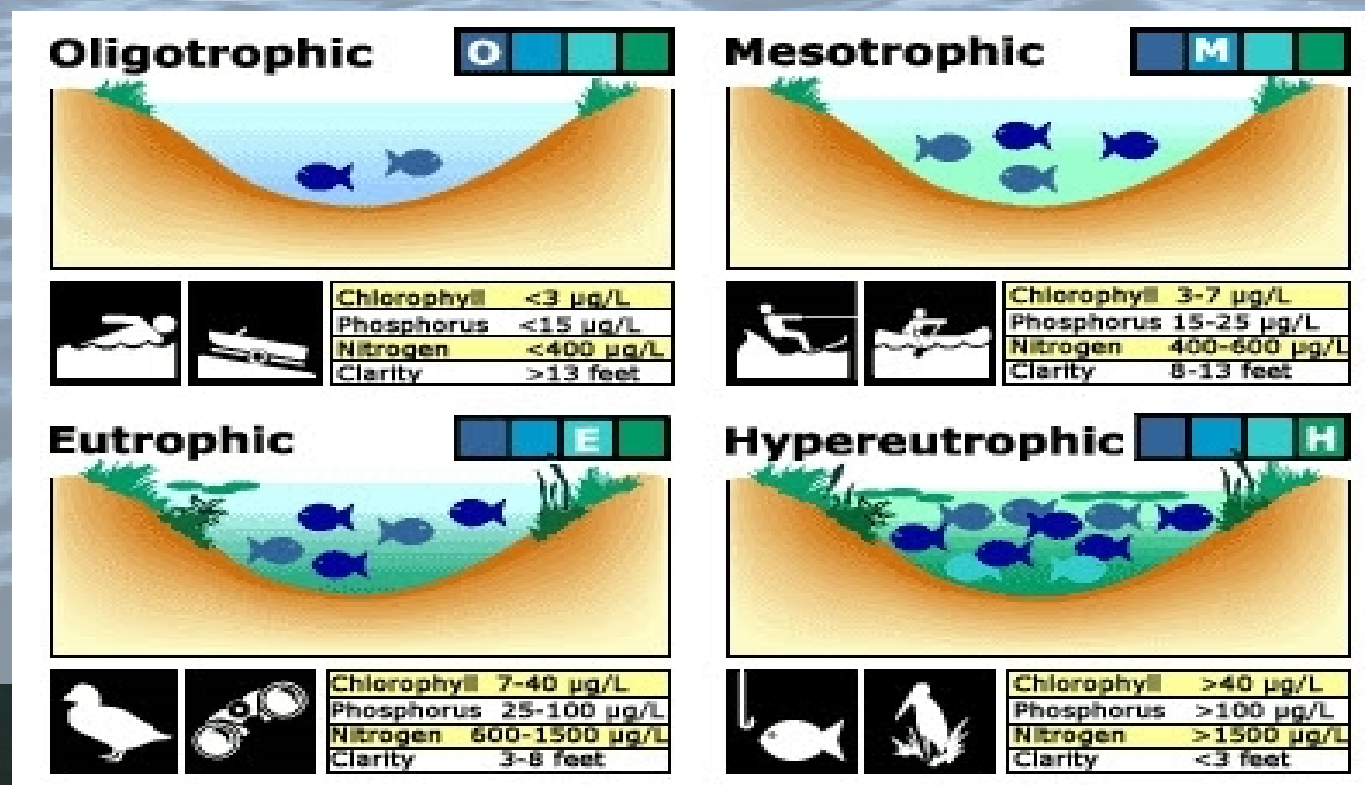
1. Lake Update 12.06.2023
2. Flood Mgmt Guide- City Commission Approved- edits highlighted
3. EPD-WI-2000-25 Permitting of Vertical Seawalls

LAKE UPDATE:

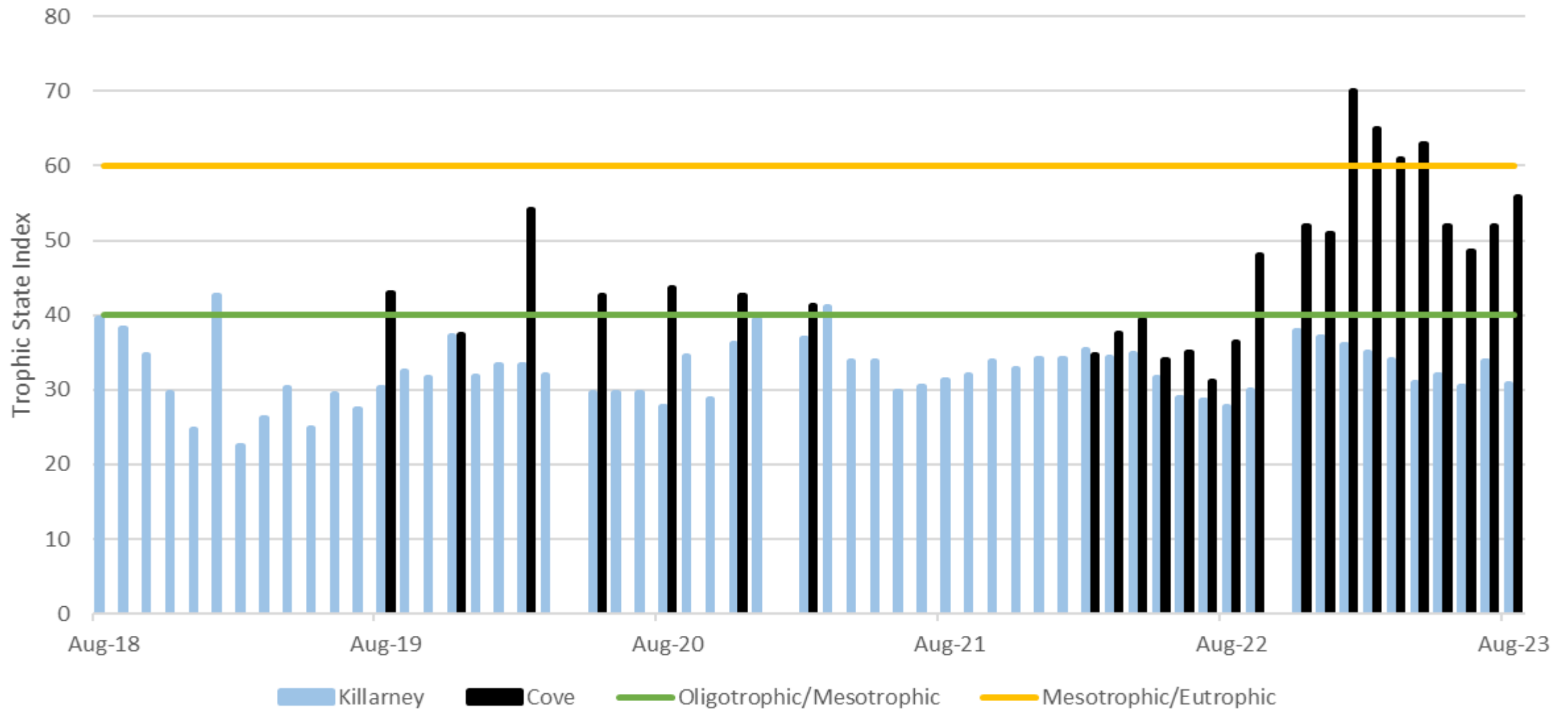
- Water Quality
- At-Risk Vessel
- Dock Violation
- Sediment Removal for Natural Resources Conservation Services (NRCS)
- Telemetry Stations
- Maintenance and Efforts:
 - 175 gal Debris Removed
 - 120 gal Trash Removed
 - Canal Trees Trimmed

Water Quality Thresholds Background

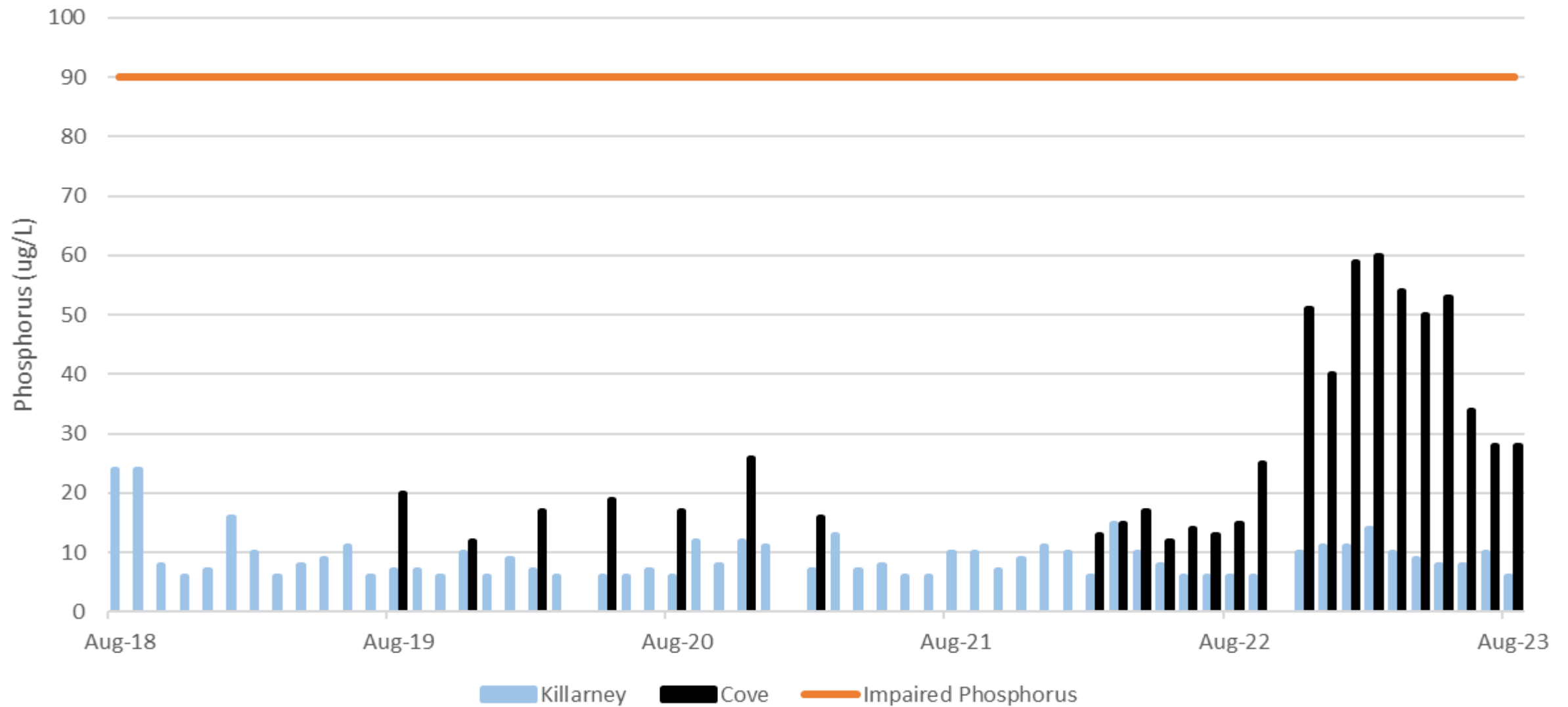
- [Water Atlas - Orange County](#)
- <https://www.flrules.org/gateway/ChapterHome.asp?Chapter=62-302>



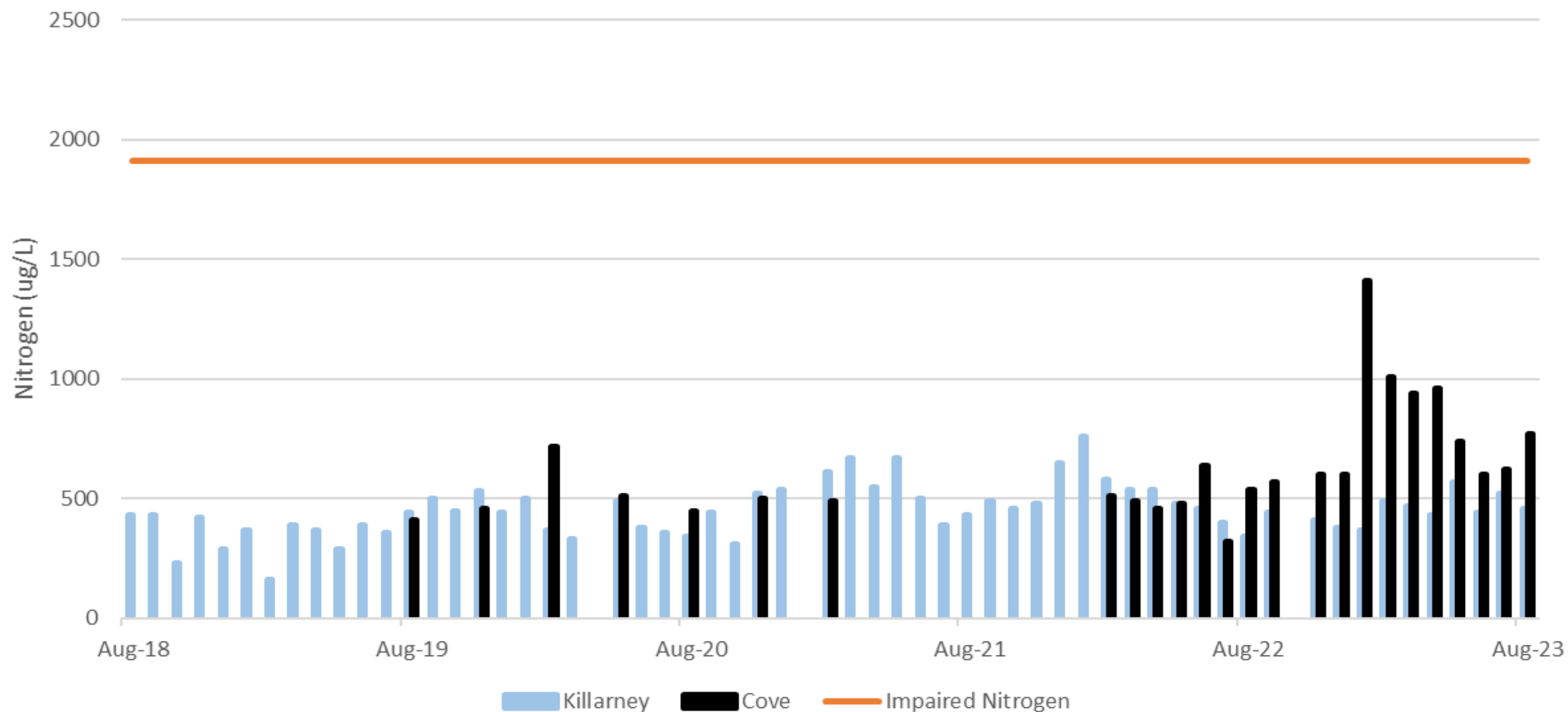
Trophic State Index (TSI) Comparison



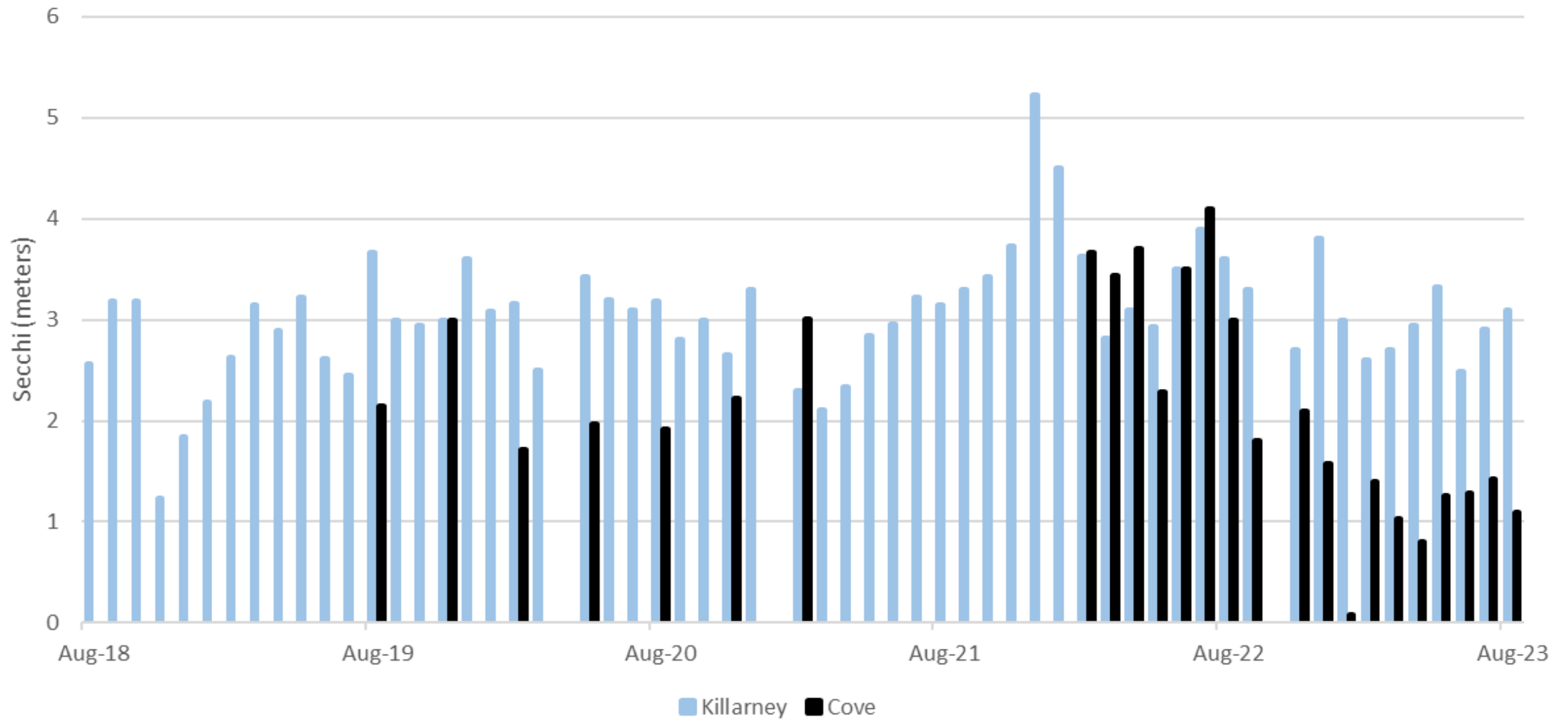
Phosphorus (TP) Comparison



Nitrogen (TN) Comparison

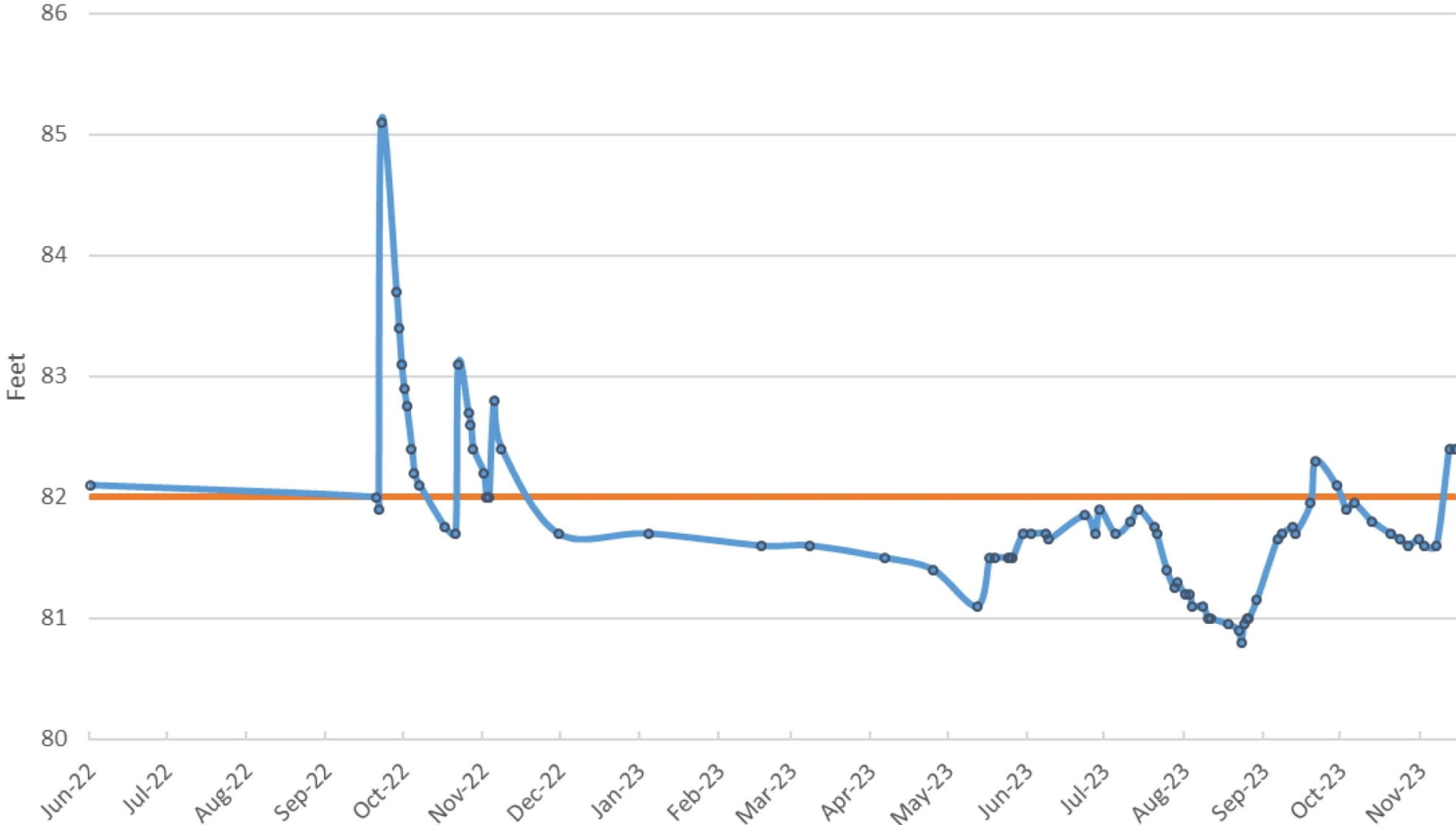


Clarity Comparison





Killarney Elevation





CITY OF WINTER PARK

INTERIM PLAN

ADAPTIVE FLOOD MANAGEMENT GUIDE

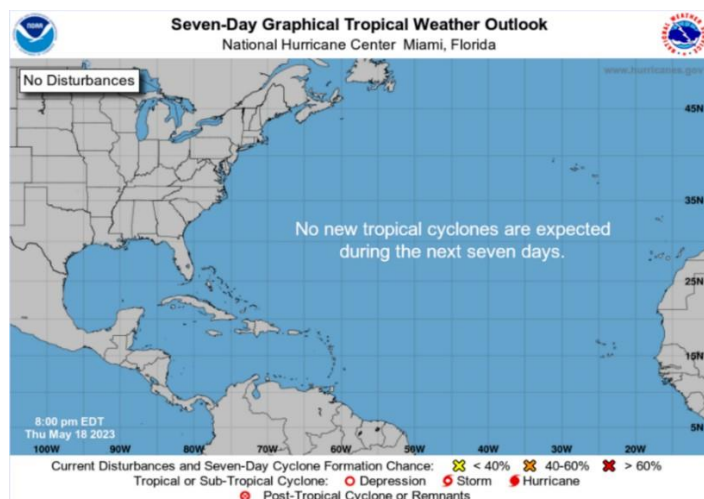
OCTOBER 2023

In May of 2023, the National Hurricane Center (NHC) changed its Tropical Weather Outlook notification from five-days to seven-days. The NHC extended the outlook due to technological advancements with satellites and modeling stating that seven-day forecasts are just as reliable as the five-day forecasts.

With this technological development, daily active management of lake levels within the City of Winter Park will occur upon issuance by the National Hurricane Center (NHC) that tropical activity has been identified for the new Seven-Day Outlook. Protocols and procedures will further be enacted when the NHC's projected cone touches the Central Florida Region as defined below, whereby the active management of lowering lake levels will occur according to the specifics found within this guide. In addition, annual notification to the Florida Department of Environmental Protection (FDEP), in writing, is required for implementing drain well activities. City Manager has the authority to override flood management policy if circumstances dictate doing so. Any such override, including the reasoning, shall be documented in writing.

This guide was developed in collaboration with the Lakes & Waterways and Lake Killarney Advisory Boards to empower the City's professional staff on adaptive lake management decisions.

Seven-Day Outlook:



Example of Storm Cone, Containing Path Activating Central Florida Region:



Central Florida Region Defined:



The Central Florida Region includes the Orlando metropolitan area (Orange, Lake, Osceola, and Seminole Counties), and Sumter, Polk counties in the interior, Citrus, Hernando, Hillsborough, Pasco, and Pinellas counties on the west coast and Volusia and Brevard Counties on the east coast.

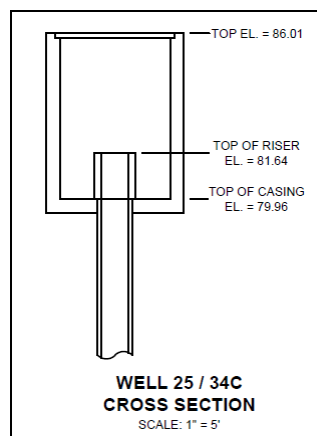
Active Lake Level Alteration Activities- City Wide Specifics

- Remove the six risers from the drain wells on Lake Killarney
- Open valve to the MLK Pond drain well
- Remove top weir board on Lake Bell
- Open gate on the Winter Park Racquet Club Pond outfall
- Check valves (2) are operational at WP18 golf course
- Remove all retractable grass carp fence barriers
- Inspect all drain well intakes maintaining free and clear of debris
- Issue lake closure protocol for the Chain of Lakes at elevation of 66.1 ft.

Active and Adaptive Management of Lake Levels- Lakes Killarney and Lake Bell Interim Plan (Until the West Basin Study is Complete)

1. City will monitor lake elevation levels on Lake Killarney and Lake Bell on a daily basis, during hurricane season, June 1st to November 30th, via Smart Technology utilizing telemetry elevation gauges. These gauges can be accessed remotely and provide an alert notification should the elevation stage higher than desired due to an intermittent storm. Staff will not solely rely on the device but will routinely inspect and log field data.
2. During hurricane season, June 1st to November 30th, the top weir board for Lake Bell will be removed and be replaced after hurricane season. Desired lake elevation management requires analysis through a basin drainage study.
3. Removed reference to maintaining the lake at 81.0 ft. with newly designed risers.
4. Removal of the six drain well risers will be enacted when the NHC projected storm cone touches the Central Florida Region (defined above). If the approaching storm turns, the risers will be reinstalled as soon as the storm threat is over.
5. City will maintain and clean drain well intakes, collection boxes and traps, and manage street cleaning services especially during hurricane season.
6. A secured email will be provided to the Lake Killarney Board to report **non-emergency** related activities. Otherwise, follow standard emergency response by dialing 911.

Lake Killarney Drain Well Specifications:



- Without risers on the drain wells, Lake Killarney lowers 0.1-0.2 ft per day.
- The top of each riser is on average 81.66 ft, the top of each drain well casing is on average 80.0 ft, the weir to Lake Gem discharges at 82.7 ft.

Diagram of intermittent drain well was removed and reference of maintaining lake elevation at 81.0 ft with newly designed risers.



NATURAL RESOURCES & SUSTAINABILITY DEPARTMENT CHECKLIST

During National Hurricane Season, June 1st to November 30th, the Lake Bell top weir board will be removed.

Reference of Lake Killarney maintained at 81.0 via newly designed risers was removed.

168 hours (7 days) prior to storm at any time of the year

- ❑ Monitor storm models via National Hurricane Center's (NHC) Seven-Day Tropical Weather Outlook.
- ❑ Refer to established protocol under City of Winter Park's Flood Management Guide.
 - ❑ Lower lake elevations, where permissible.
 - ❑ Lake Killarney's six drain well risers and Lake Bell top weir board will all be removed in advance whereby the track issued by the National Hurricane Center cone touches the Central Florida region and replace when storm is no longer a threat.

120 hours (5 days) prior to storm

- ❑ Monitor storm models.
- ❑ Provide staff with tracking sheets for manpower hours and equipment usage for Federal Emergency Management Agency (FEMA) records.
- ❑ Notify laboratory of potential lake sample submittals. Coordinate with water & wastewater laboratory manager.
- ❑ Inspect control and outflow structures located on the lakes, including leaf trap devices; maintain free and clear of debris.

72 hours (3 days) prior to storm

- ❑ Inspect all weirs and grass carp barriers including the ones located downstream of lakes Bell, Killarney, Berry and Maitland; maintain free and clear of debris.
- ❑ Inspect culvert box under bridges at Temple, Sterling and Pennsylvania to ensure free and clear of debris.
- ❑ Inspect drain well intake structures on Lake Killarney and all land locked lakes (Knowles, Spier, Forest, Midget, as well as the Seminole County drain well on N. Lakemont Avenue); maintain free and clear of debris.
- ❑ Inspect canals within the Chain of Lakes and Howell Creek, upstream of Lake Virginia, and downstream of the Howell Branch weir.
- ❑ Coordinate solid waste services messaging with Communications Department and Assistant City Manager.
- ❑ Coordinate with Urban Forestry on contracted vendor for felled tree services in creeks/conveyances.

48 hours (2 days) prior to storm

- Meet with staff to go over responsibilities and verify contact information.
- Prioritize every day departmental functions.
- Remove MLK, Jr. Park drain well and Winter Park Racquet Club pond outfall board.
- Prepare and secure equipment and PPE:
 - All boats, vehicles, and gas cans filled
 - Clean and remove all debris from work vehicles
 - Clamshell ready and operational
 - Secure barges at Kraft Gardens
 - Move all Lakes Division supplies into boathouse or break room area (buoys, etc.)
 - Test all chainsaws and make sure that PPE is in good condition
 - Each driver with PPE in work vehicle

24 hours (1 day) prior to storm

- Remove retractable grass carp barriers at lakes Bell and Berry.
- Meet with staff to go over final details data assessment.
- Prioritize every day departmental functions.

During the storm

- Natural Resources & Sustainability is not classified as a first responder and does not have a role at EOC. Staff to remain in a safe location.
- All Lakes Division staff and department director will commence damage assessment when deemed safe. Office staff to service phone lines and emails. Sustainability Division staff to service phone lines and emails, assisting in solid waste communications or be assigned as required.
- Establish communication with damage assessment team with deployment time and locations.

Immediately after the storm when conditions are safe

- Damage assessment team deployed to inspect all conveyances, outfalls, weirs, drain wells and high-risk areas (i.e. Special Flood Hazard Area- SFHA). Clear immediate hazards.
- Collector app utilized to document environmental damages. Include photos.
- Track manpower hours and equipment usage for FEMA records.
- Implement lake closures: Chain of Lake elevation closure at >66.1 ft (NAVD 88).
- Monitor and record lake elevations. Report anomalies to Public Works Department.

Days/weeks after the storm

- Post-storm environmental/water quality monitoring including environmental assets.
- Report damage assessment for state assistance and grant submittals; such as Natural Resources Conservation Service (NRCS).
- Grass carp barriers re-installed when conditions are favorable.
- Coordinate teams with Urban Forestry to recover fallen trees in waterways noted in damage assessments.
- Perform continual monitoring and messaging related to lake hazards:

- Recreational use of lakes will be allowed once it is determined that safe boating activities can resume without potential damage to private property or the danger of colliding with submerged storm debris.
- Effective communications with lake patrons, both residential and commercial, related to lake closures; dock safety warnings with submerged electrical components; submerged hazards warning; and lake contamination warnings.
- Perform continual monitoring and messaging related to lake elevations-reinstate drain wells and weir closures, when appropriate.
- Refer to established policy: Flood Management Guide.



PUBLIC WORKS DEPARTMENT STREETS DIVISION CHECKLIST

Off season preparations

- Conduct quarterly meetings with directors, supervisors, crew chiefs, and all staff to review the following:
 - Written hurricane preparedness procedures and where to locate the document.
 - Team members list including updated phone numbers to be activated during Emergency Operations Center (EOC) operations. There must be two separate teams listed for relief following the initial 24-hour period.
 - Equipment list to be used during EOC operation. Equipment list to include but limited to trucks, loaders, generators, barricades and sand bagger.
 - Coordinate with the city's procurement division to secure vendors for additional bypass pumps, vacuum trucks, loaders and generators on an as-needed basis.
- Be sure to have all proper and updated forms for reporting staff's storm response activities.
 - All streets infrastructure to be inspected and maintained on predetermined schedules. The following items must be maintained year-round in proper functioning condition.
 - Storm sewer inlets, pipes, treatment structures, and outfalls
 - Traffic signals and signs
 - Street sweeping

168 hours (7 days) prior to storm

- Monitor storm models via National Hurricane Center's (NHC) Seven-Day Tropical Weather Outlook.
- Refer to established protocol under City of Winter Park's Flood Management Guide.
 - Lower lake elevations, where permissible.
 - Lake Killarney drain well riser and Lake Bell top weir board will be removed in advance whereby the track issued by the National Hurricane Center cone touches the Central Florida region and replace when storm is no longer a threat.

72 hours to 48 hours (3-2 days) prior to storm

- Test all equipment for proper working order.
 - Make sure all equipment gas tanks are filled and batteries are charged.
 - Generators used for supplying power to traffic signals to be tested and filled with gas.
 - Have additional gas cans filled.
- Prepare sandbagging operations site.
 - Decide with city management on an appropriate location and coordinate with the Communication Department to prepare a map, distribution schedules and notifications.
 - Mobilize sand, bags and equipment to the location.
 - Each household will be provided eight bags with proper proof of residency unless otherwise directed by city management.
 - Prepare coordination with the police department for ID verification and traffic control.

- Increase levels of storm sewer cleaning and street sweeping operations.
- Verify schedules for both teams to begin the overnight and relief shifts.
- Hold a procedure and general safety meeting with both teams before the EOC activation.

24 hours (1 day) prior to storm

- Stop all city and private construction activities and secure sites from any potential erosion and/or wind damage.
- Mobilize and stage all heavy equipment to strategic location to be used throughout the city.
 - NW Area - Public Safety Facility (500 N. Virginia Ave.)
 - SE Area - Fire Station #62 (300 S. Lakemont Ave.)
 - SW Area - City Lot (1210 Palmetto Ave.)
 - NE Area - City Operations Center (1409 Howell Branch Road)
- Share both teams' member's names and contact numbers with the Public Works Director and Assistant Director.
- Prepare sleeping arrangements and purchase food for the overnight shift team.
- Verify all equipment is ready in place with full tanks of gas.
- Load and secure barricades on trucks to be dispatched.

During the storm

- Stay safe inside until EOC managers clear the city staff for response activities.

Immediately after the storm when conditions are safe

- Assist police and fire departments to clear streets for emergency response.
- Assist the electric and water & wastewater departments clearing streets to perform their response and repair activities.
- Setup closures and barricade off flooded and obstructed streets and roadways.
- Inspect all signalized intersections for functionality and perform repairs as needed. Repairs requiring a bucket truck can only take place when winds diminish to 30mph or less.
- Clear all storm drains from obstructions to ensure proper drainage.
- Assist the city's Urban Forestry Division with downed tree removals.
- Begin assisting the Natural Resources & Sustainability Department with monitoring of the water levels in the city's lakes and ponds.
- Setup bypass pumping operations on lakes and/or ponds reaching higher levels which potentially could flood surrounding structures/homes.
- Barricade or cone off any potholes which could cause damage to vehicles.

Days/weeks after the storm

- Continue streets clearing and debris removal and storm drain clearing for proper drainage.
- Assess any potholes locations for storm pipe failures and schedule necessary repairs.
- Continue monitoring water levels in lakes and ponds and add or relocate bypass pumping activities accordingly.



CIP PROJECT CONSIDERATIONS & STUDIES FOR STORM RESILIENCY

The flood elevation in the Winter Park Chain of Lakes is control by a weir located on the north side of Lake Maitland at Howell Branch Road. The control elevation for the chain of lakes was studied for a Letter of Map Revision (LOMR) in 2009. The SJRWMD confirmed that the current control elevation of 66.18 ft was best for all communities upstream and downstream and it was not to be adjusted.

The following is a suggested list that should be updated regularly and as funding allows:

- Consider increasing the volume of the MLK Pond and lowering the surrounding neighborhood flood stage
 - a. A flood study was performed in 2020 for the Community Redevelopment Agency (CRA) watershed basin by Geosyntec. This study provided four alternatives for increasing volume in the MLK Pond
 - i. Alt 1 - Exfiltration Basin
 - 1. Decrease in peak stage: 0.26 ft
 - 2. Estimated cost: \$6,516,021
 - ii. Alt 2 - New interconnect to Lake Rose
 - 1. Decrease in peak stage: 0.05 ft
 - 2. Estimated cost: \$172,378
 - iii. Alt 3 - Exfiltration basin and interconnect to Lake Rose
 - 1. Decrease in peak stage: 0.2 ft
 - 2. Estimated cost: \$2,065,776
 - iv. Alt 4 - (COMPLETED) Relocating Killarney interconnect from Beachview Ave to intersection of Morse Blvd and Harper St
 - 1. Decrease in peak stage: 0.02 ft
 - 2. Estimated cost: \$35,830
 - b. Perform study to expand the overall footprint of the pond for more stormwater storage by strategically selecting park areas of lower usage
 - c. Consider partnering with private property owners near MLK to expand
- Develop 5-10 year CIPs for lake interconnections- perform hydraulic studies to determine feasibility and associated cost.
 - a. Lake Sylvan to Lake Mizell
 - b. Lake Grace to Lake Forest
 - c. Lake Chelton to Lake Sue
 - d. Lake Tuscany to Lake Temple to Howell Branch Pond
 - e. Lake Compton to Lake Spier
- Develop drainage study for Lake Killarney, Lake Bell and Lake Wilderness to address feasibility and cost for rerouting emergency stormwater overflow and evaluate weir elevations.

- Develop drainage study for Howell Creek Basin of Winter Park that includes the Chain of Lakes, Lake Sue, and Lake Berry.
- Develop drainage study for Little Econ Basin of Winter Park that includes Interlachen and WP18 (formally Winter Park Pines).
- Following FS 252.363 provision allowing to adjust/pump lake down during declared state of emergency, establish Memorandum of Understanding with SJRWMD for all potential drawdowns:

Section 252.363 of the Florida Statutes provides that upon the declaration of a state of emergency, permits and other authorizations are tolled for the duration of the declaration, and that they may be extended automatically upon the exercise of the notice requirements of Section 252.363(1)(a) for an additional six months. The tolling and extension provisions apply to the expiration of:

- a. Development orders issued by a local government*
 - b. Building permits*
 - c. Florida Department of Environmental Protection or water management district permits issued pursuant to Part IV of Chapter 373, Florida Statutes*
- Consider purchase of bypass pump(s) including floating intake attachment and suction and discharge hoses.
 - Perform a survey to record lowest Finished Floor Elevation (FFE) for all City lakes.
 - Consider installing auto-read lake level gauges with telemetry services for major City lakes.
 - Consider installing additional weather stations with telemetry services within City limits.

**ORANGE COUNTY ENVIRONMENTAL PROTECTION DIVISION
WORK INSTRUCTION**

Title: Permitting of Vertical Seawalls
Number: EPD-WI-2000-25

Effective Date: 06/22/2022 Revision Number: 6
Renewal Date: 06/22/2025 Revision Date: 06/22/2022
Approved By: Elizabeth R. Johnson, Assistant Manager

Purpose: The purpose of this Work Instruction is to provide guidance when reviewing a Shoreline Alteration/Dredge and Fill permit application to construct a vertical seawall received by the Environmental Protection Division (EPD).

I. Background

The installation of vertical seawalls falls under the regulation of Chapter 15, Article VI “Pumping and Dredging Control” and Chapters 33-37 and Chapters 33-129 “Dredging and pumping, filling and construction, creating of obstructions; permits, regulations.”

II. Procedures

A permit under Chapter 15, Article VI, Chapter 33-37, or Chapter 33-129 is required for:

Applications that propose construction of a NEW, stand-alone seawall

First, the applicant must demonstrate that there is significant erosion and that measures must be taken to stabilize the shoreline. Additionally, a letter from a registered professional engineer shall be required stating that a vertical seawall is the **only** practicable method available to stabilize the shoreline. Notwithstanding the foregoing, EPD will not require a letter from an engineer for after-the-fact applications and projects on canals; however, the applicant must still demonstrate that there is/was significant erosion and that a seawall is/was the best method for stabilization. The seawall must have returns on each end if it is not connecting to an adjoining seawall. The purpose of a return is to minimize erosion to the adjacent properties.

The placement of rip-rap is generally required for all new seawalls, unless the placement of the rip-rap will cause damage to existing vegetation (e.g., cypress knees) or the proposed wall is located on a canal where the rip-rap may cause navigational concerns. In addition, planting of native aquatic plants in front of the wall is also generally required, unless there is already an abundant amount of lakeshore vegetation that will remain post construction, or the proposed wall is on a canal and may cause navigational concerns.

Rip-rap:

1. shall consist of natural stone or clean concrete rubble;
2. shall be twelve (12) inches to three (3) feet in diameter in average dimensions;

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**ORANGE COUNTY ENVIRONMENTAL PROTECTION DIVISION
WORK INSTRUCTION**

3. shall be no steeper than a 2:1 slope;
4. shall cover at least 50 percent of the vertical face of the seawall;
5. shall be placed along the entire length of the seawall; and,
6. shall be installed with turbidity curtains securely in place and maintained until all suspended sediment has settled and turbidity matches background conditions.

Applications that propose construction of a new seawall connecting one or more existing seawall(s) on adjacent properties

The applicant must demonstrate that there is significant erosion on the site; however, a letter from a professional engineer is not required. The placement of rip-rap is generally required, unless the placement of the rip-rap will cause damage to existing vegetation (e.g., cypress knees) or the proposed wall is located on a canal where the rip-rap may cause navigational concerns. In addition, planting of native aquatic plants waterward of the wall is also generally required unless there is already an abundant amount of lakeshore vegetation that will remain post construction, or the proposed wall is on a canal and may cause navigational concerns. The seawall must have returns on each end if it is not connecting to an adjoining seawall. The purpose of a return is to minimize erosion to the adjacent properties.

Existing seawalls that require repair or reconstruction also require a permit

The placement of rip-rap waterward of the replacement wall is required, unless the placement of the rip-rap will cause damage to existing vegetation (e.g., cypress knees) or the proposed wall is located on a canal where the rip-rap may cause navigational concerns. In addition, planting of native aquatic plants waterward of the wall is also generally required unless there is already an abundant amount of lakeshore vegetation that will remain post construction, or the proposed wall is on a canal and may cause navigational concerns.

Per direction of County Senior Administration Staff on September 13, 2018, applicants cannot provide mitigation in lieu of providing rip-rap and plantings, notwithstanding the exceptions above.

III. Scope

This Work Instruction will be effective within Orange County and within the Lake Conway and Windermere Water and Navigation Control Districts as required by Orange County Code Chapters 15 and 33. This guideline is not effective within Eatonville, Maitland, Ocoee, Orlando, the Reedy Creek Improvement District, Winter Garden and Winter Park.

Related Documents:

EPD-WI-2000-26: Definition of a Vertical Seawall and Retaining Wall

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**ORANGE COUNTY ENVIRONMENTAL PROTECTION DIVISION
WORK INSTRUCTION**

History of Revisions:

Revision No.	Revision Date	Summary of Revision(s)
0	06/04/2010	Original DOG
1	03/16/2015	Converted from DOG to WI
2	01/19/2017	Updated and renewed
3	02/12/2019	Updated and renewed
4	02/20/2020	Updated and renewed
5	03/16/2020	Updated and renewed
6	06/22/2022	Updated and renewed (removed Apopka, Edgewood, & Oakland from exempt list in Section III)

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Lake Killarney Board

agenda item

item type

Staff Updates

meeting date

December 6, 2023

prepared by

Victoria Tabor, Administrative Coordinator II

approved by

Victoria Tabor, Administrative Coordinator II

subject

Stormwater Management

- CIP Update
- Infrastructure Projects: Nicolet Pond, Killarney Dr Pipe Replacement, & Lake Bell Weir
- Lake Front Construction Update

Follow-up Items:

- BMP Feasibility Study
- Outfall Condition Update

motion | recommendation**background****strategic objectives****alternatives | other considerations****fiscal impact****attachments**

1. SW Update 12.23

Stormwater Staff Update

Lake Killarney Advisory Board

ACCT #	CIP Title & Description	Original Year Funded	Current Balance	Status/Comments
565200	Drainage Improvements - Recent years of unusually heavy rainfall events have revealed several substandard drainage conditions in various locations throughout the City.	Annually Funded	\$227,800	Several in-house drainage improvements projects for 2023-24 - Completed replacement of 70ft of 24 inch RCP crossing Joeline Court, and 120ft of 18 inch HDPE at the north end of Laurel Road. Upcoming - add another inlet and outfall pipe at 1622 Arbor Park Drive, increase pipe size at 1642 Arbor Park Drive, storm pipe replacement/relocate at 2601 & 2631 Temple Drive.
				1) <u>Palmer at Old England outfall repair</u> - Stormwater outfall pipe replacement required. Design is 30% complete, survey is now complete.
				2) <u>Stormwater Outfall Dredging</u> - The City recently entered a new contract, dredging on several stormwater outfalls started in Aug 2023, and will continue as needed.
				3) <u>Ward Park ponds construction</u> - Estimated cost \$150k. NE and NW Pond excavation and sodding is complete. The piping to be installed in August 2023.
				4) <u>357 E Lake Sue Ave</u> - Increase storm sewer inlet capacity at the low point in Lake Sue Ave. Expected completion date Dec 2023.
565203	Lk. Bell Weir Outfall Improvements -	2009	\$69,223	Repairs may be required on the Lake Bell outfall weir. Met with consultant on 6/30/23, kick-off meeting with consultant 10/24/23, preliminary improvent plan to be developed Dec 2023/ Jan 2024.
565221	Seminole County Ditch Piping (along Arbor Park Dr) – Drainage ditch behind the homes along Arbor Park Drive has a shared drainage basin with Seminole County. Funding is provided for the design and construction to pipe the ditch.	2016	\$733,395	The Interlocal Agreement was approved by the City Commission and by the Seminole County Commission. 60% plans completed and submitted to Seminole County. Process to permit with SJRWMD currently underway.
565205	Nicolet Ave Stormwater Pond – complete the design and construction of a stormwater treatment pond on City purchased properties located at 796 & 808 Nicolet Avenue	2023	\$200,000	Commission approved \$200,000 in the City's FY'23 budget. Seeking options for general permit applicability.
565217	Stirling Bridge Replacement	2024	\$250,000	Updates required for price estimate.
565210	Fawsett Road CDS Unit	2024	\$200,000	Seeking permit exemption with SJRWMD.
	Curb Implementation	2024	\$50,000	
	TOTALS			
3023406	ACTIVE STORMWATER CIP's		\$1,730,418.00	BALANCE TOTAL

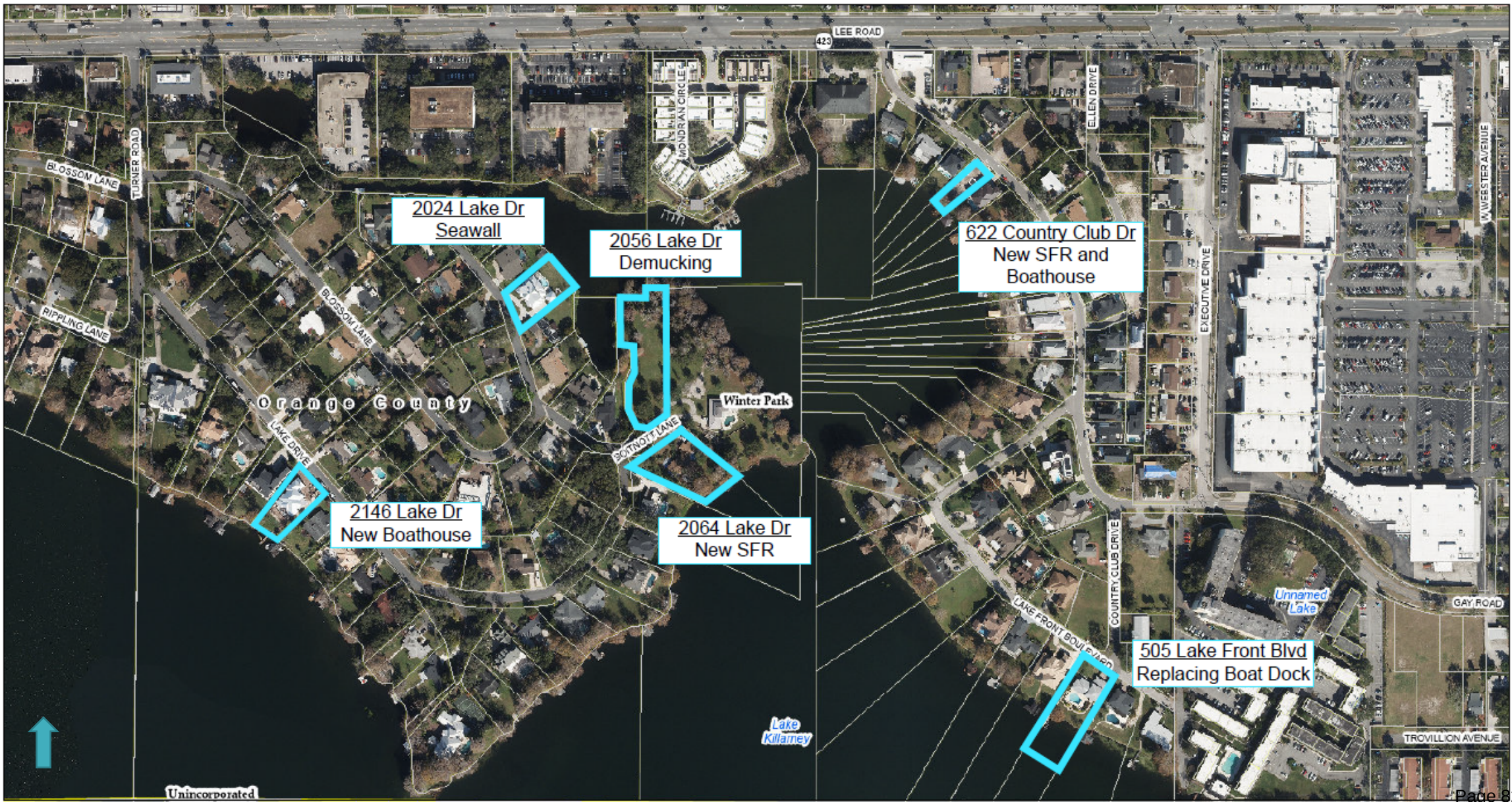
Stormwater Staff Update

Lake Killarney Advisory Board

- Infrastructure Projects
 - Nicolet Pond
 - Killarney Dr Pipe Replacement
 - Lake Bell Weir

Stormwater Staff Update

Lake Killarney Advisory Board



Stormwater Staff Update

Lake Killarney Advisory Board

- Follow-up items:
 - BMP feasibility study for Killarney Dr Outfall Consolidation (when available)
 - Outfall Condition Update



Lake Killarney Board

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prepared by

Victoria Tabor, Administrative Coordinator II

approved by

Victoria Tabor, Administrative Coordinator II

subject

Orange County Update

motion | recommendation**background****strategic objectives****alternatives | other considerations****fiscal impact****attachments**

None



Lake Killarney Board

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Upcoming Agenda Items

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None



Lake Killarney Board

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Summary of Meeting Action Items

motion | recommendation**background****strategic objectives****alternatives | other considerations****fiscal impact****attachments**

None