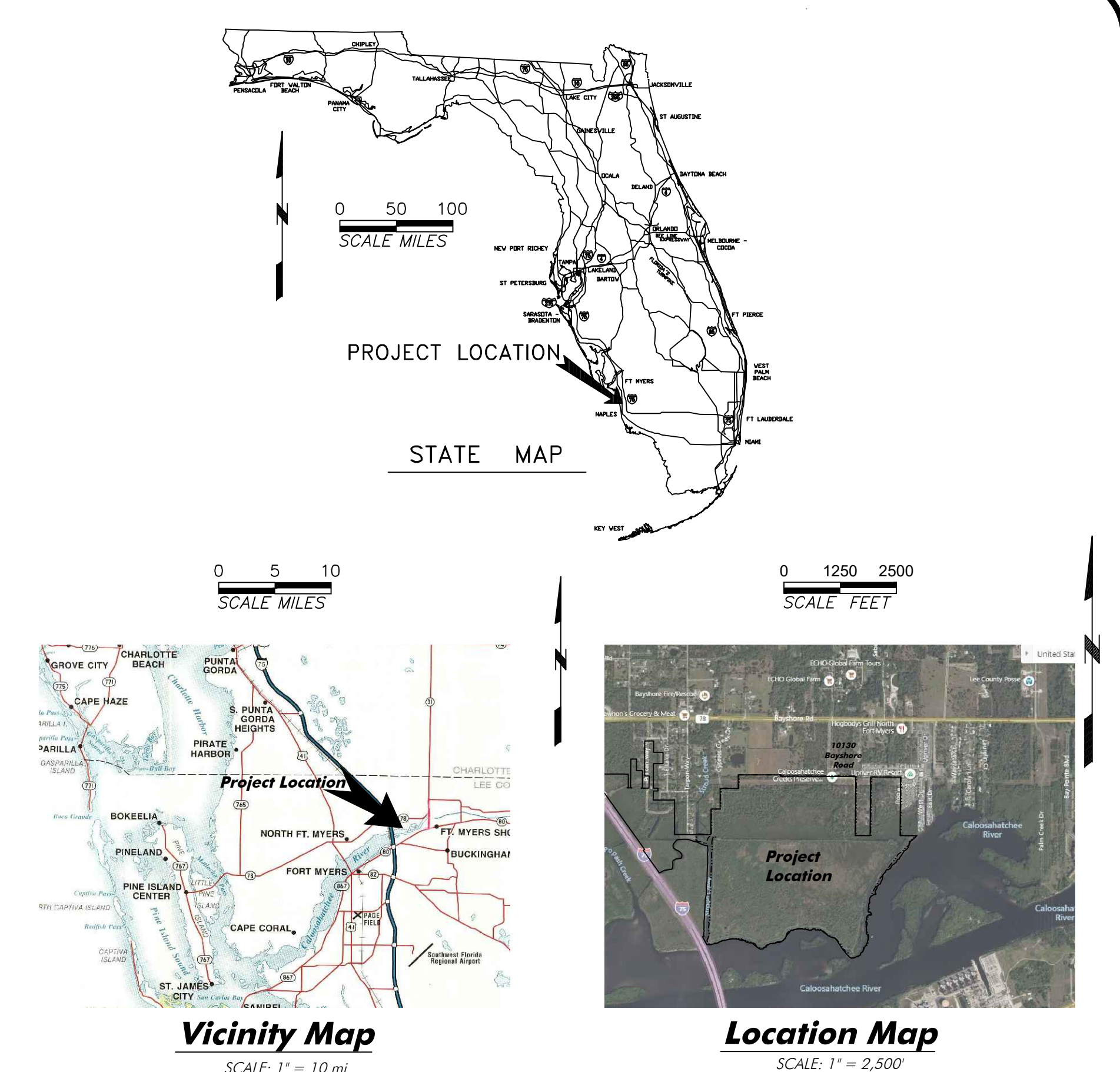
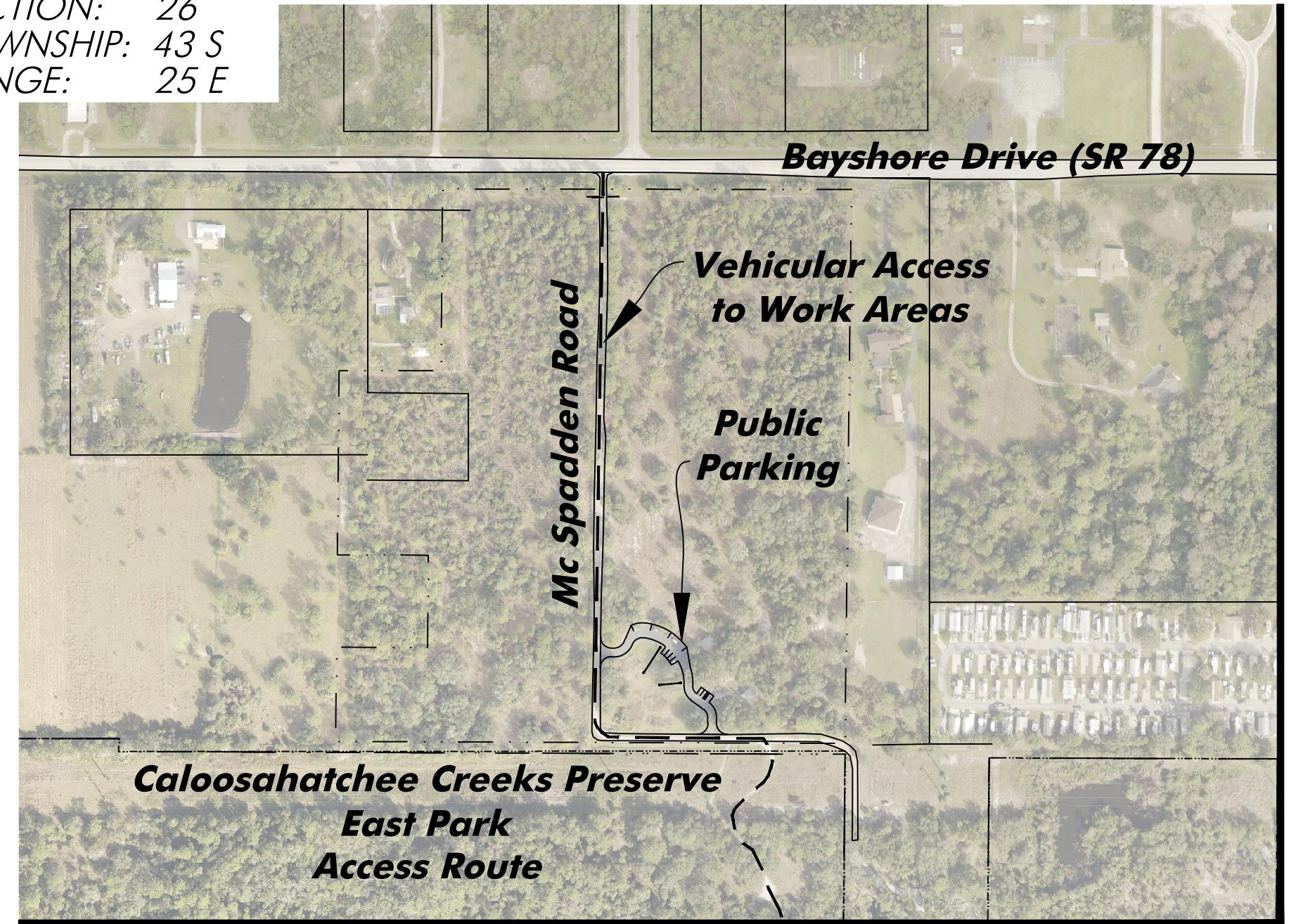
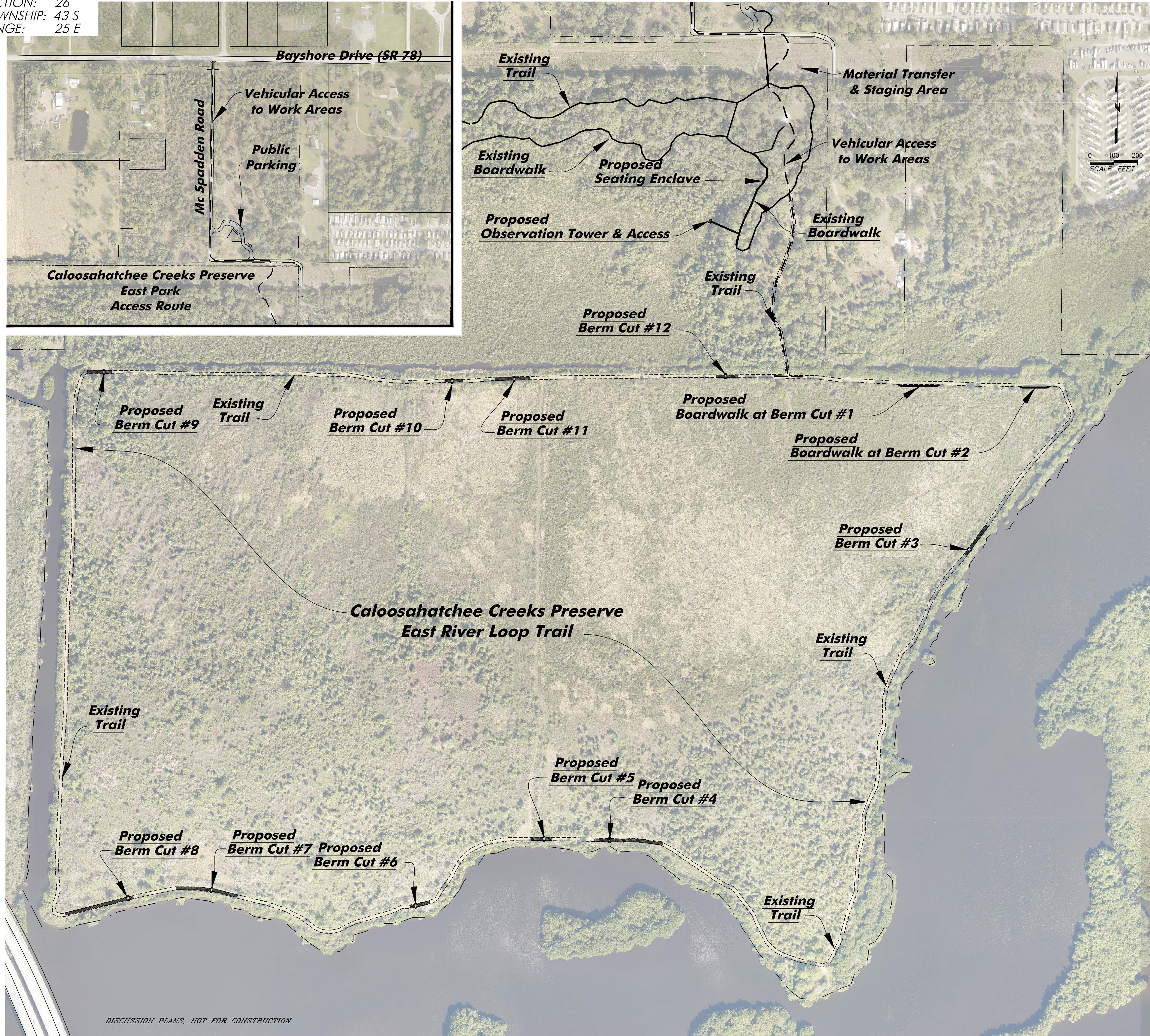


SECTION: 26
TOWNSHIP: 43 S
RANGE: 25 E



Improvements on East River Loop Trail and Boardwalk at Live Oak Loop

LEE COUNTY FACILITIES AND CONSTRUCTION MANAGEMENT CONSTRUCTION PERMIT PLANS CALOOSAHATCHEE CREEKS PRESERVE TRAIL IMPROVEMENTS

Lee County Commissioners
District 1 Kevin Ruane
District 2 Cecil Pendergrass
District 3 Ray Sandelli
District 4 Brian Hamman
District 5 Mike Greenwell

Lee County Staff
Dave Harney County Manager
Mack Young Director, Parks and Recreation
Elaine Capps Facilities Construction and Management

County Contract No. C-8338
Sollicitation No. CN-180454DLK
Plans Prepared by:
Hans Wilson & Associates, Inc.
February 2024
Plans Prepared for:
Lee County Board of Commissioners
1500 Monroe Street
Fort Myers, FL 33901

THIS IS TO CERTIFY THAT THESE PLANS AND THE ASSOCIATED CONSTRUCTION PROJECT ARE IN SUBSTANTIAL COMPLIANCE WITH THE LEE COUNTY LAND DEVELOPMENT CODE WITH THE EXCEPTION OF THE FOLLOWING DEVIATIONS WHICH HAVE BEEN APPROVED BY THE ASSISTANT COUNTY MANAGER.

Deviations: None
Florida P.E. #. 39680

Engineer Signature _____ Date _____

Development Order Approved:
Lee County Administration

Marc Mora _____ Date _____
Assistant County Manager

April 16, 2024 12:50:46 p.m.
Drawing: LEE3MASTER.DWG



1938 Hill Avenue, Fort Myers, Florida 33901
Office: 239-334-6870 Fax: 239-334-7810
MARINE and ENVIRONMENTAL CONSULTANTS

Caloosahatchee Creeks Preserve East Park Trail Improvements

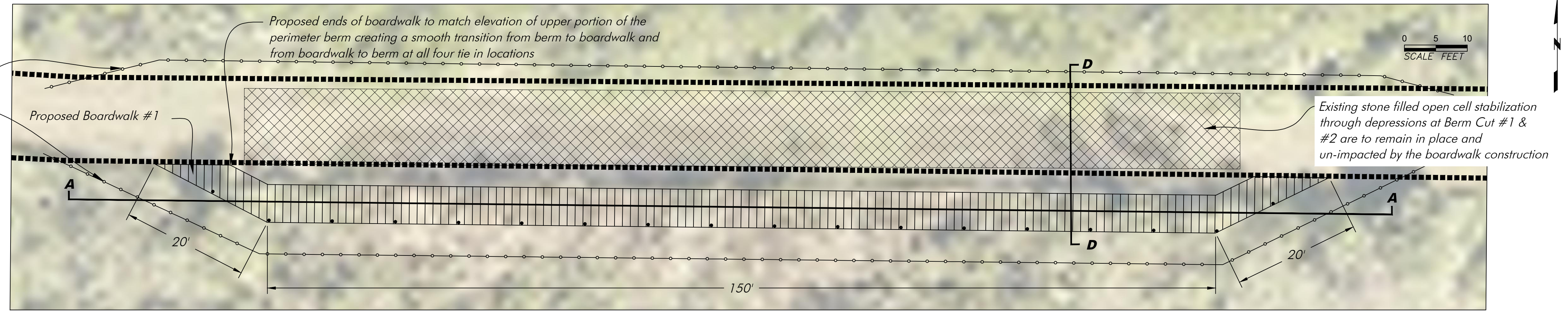
FOR: LEE COUNTY DEPARTMENT OF PUBLIC WORKS

DATE: 6-1-24	FILE:	SCALE: Varies
DRAFTER:	DATUM: NAVD	SHEET: 1 of 7

DISCUSSION PLANS, NOT FOR CONSTRUCTION

SECTION: 26
 TOWNSHIP: 43 S
 RANGE: 25 E

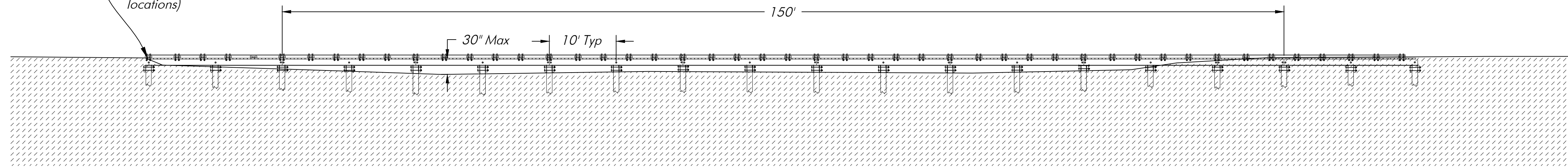
Silt fence to be installed prior to construction and to remain until boardwalk is complete. Fencing to be removed once the boardwalk has been deemed complete.



Boardwalk at Berm Cut #1

SCALE: 1" = 10'

Proposed ends of boardwalk to match elevation of upper portion of the perimeter berm creating a smooth transition from berm to boardwalk and from boardwalk to berm (Typical for all four tie in locations)

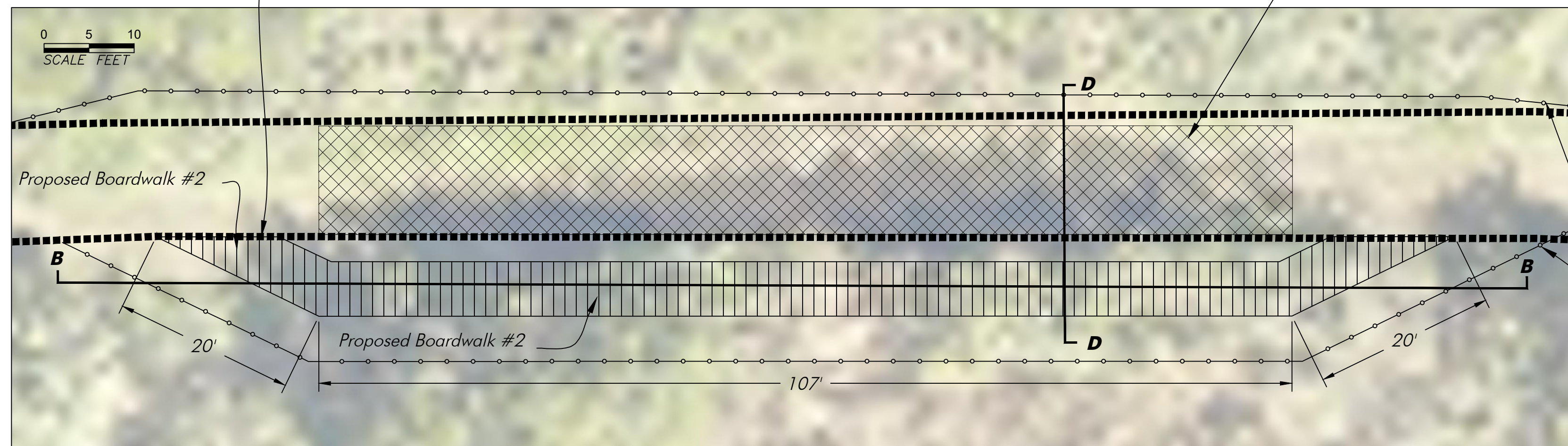


Longitudinal Section A-A Boardwalk at Berm Cut #1

SCALE: 1" = 10'

Proposed ends of boardwalk to match elevation of upper portion of the perimeter berm creating a smooth transition from berm to boardwalk and from boardwalk to berm at all four tie in locations

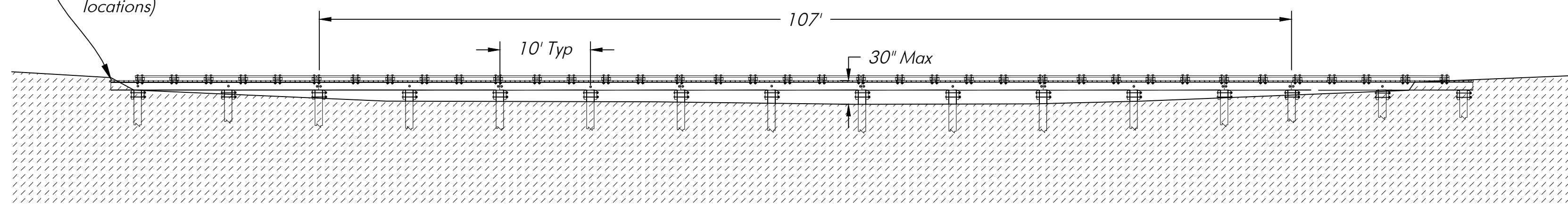
Existing stone filled open cell stabilization through depressions at Berm Cut #1 & #2 are to remain in place and un-impacted by the boardwalk construction



Boardwalk at Berm Cut #2

SCALE: 1" = 10'

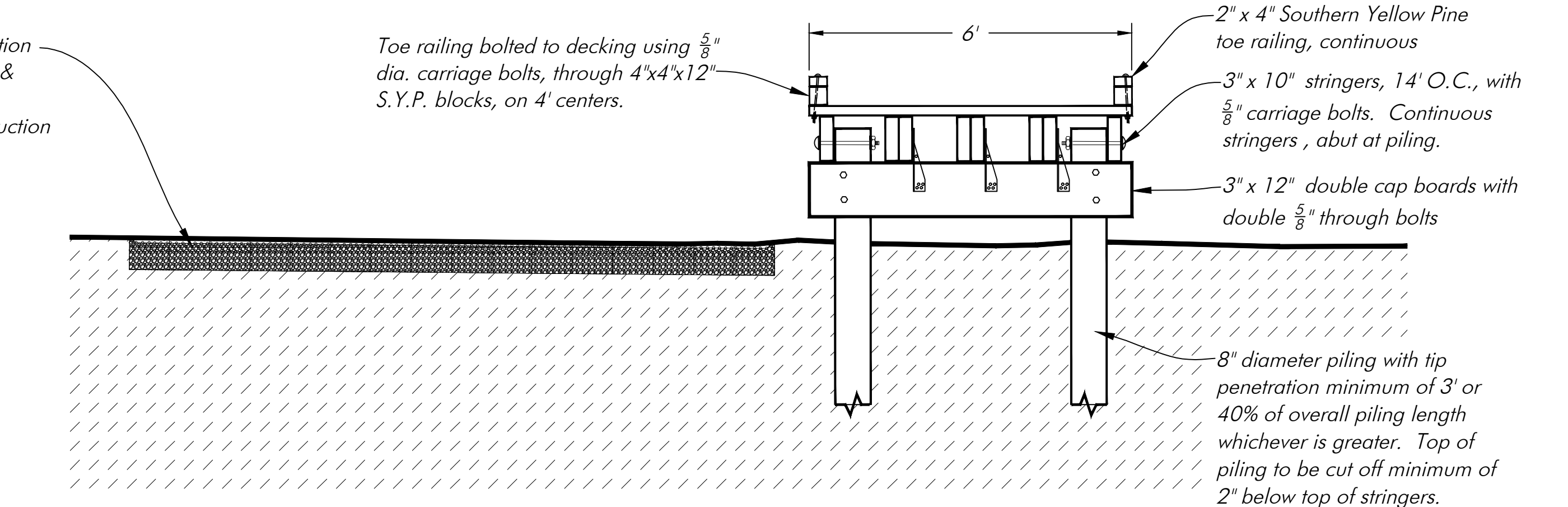
Proposed ends of boardwalk to match elevation of upper portion of the perimeter berm creating a smooth transition from berm to boardwalk and from boardwalk to berm (Typical for all four tie in locations)



Longitudinal Section B-B Boardwalk at Berm Cut #2

SCALE: 1" = 10'

Toe railing bolted to decking using $\frac{5}{8}$ " dia. carriage bolts, through 4"x4"x12" S.Y.P. blocks, on 4' centers.



Boardwalk Cross Section D-D

SCALE: 1" = 2'

Silt fence to be installed prior to construction and to remain until boardwalk is complete. Fencing to be removed once the boardwalk has been deemed complete.



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 MARINE and ENVIRONMENTAL CONSULTANTS

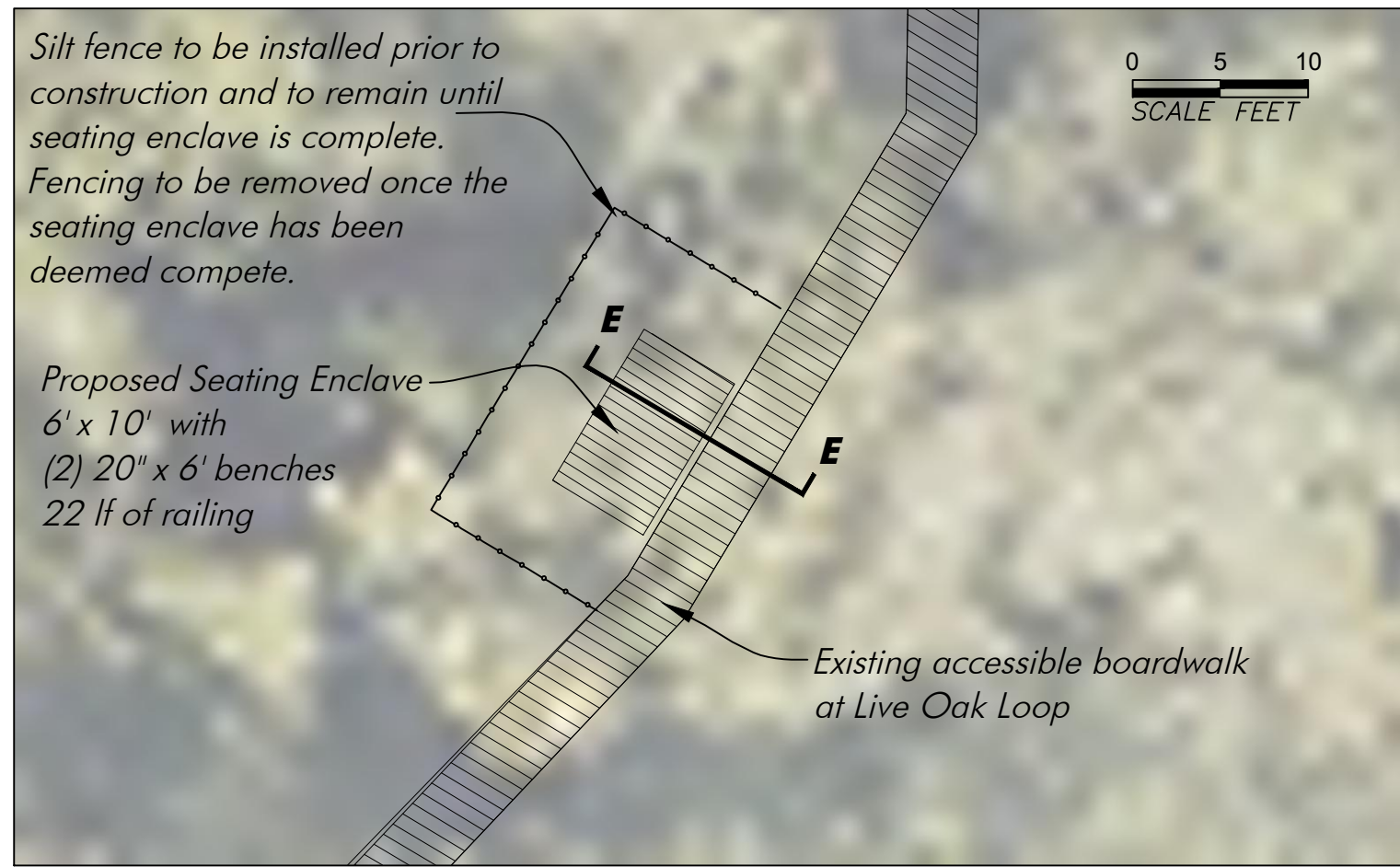
**Caloosahatchee Creeks Preserve
 East Park
 Trail Improvements**

FOR: LEE COUNTY DEPARTMENT OF PUBLIC WORKS

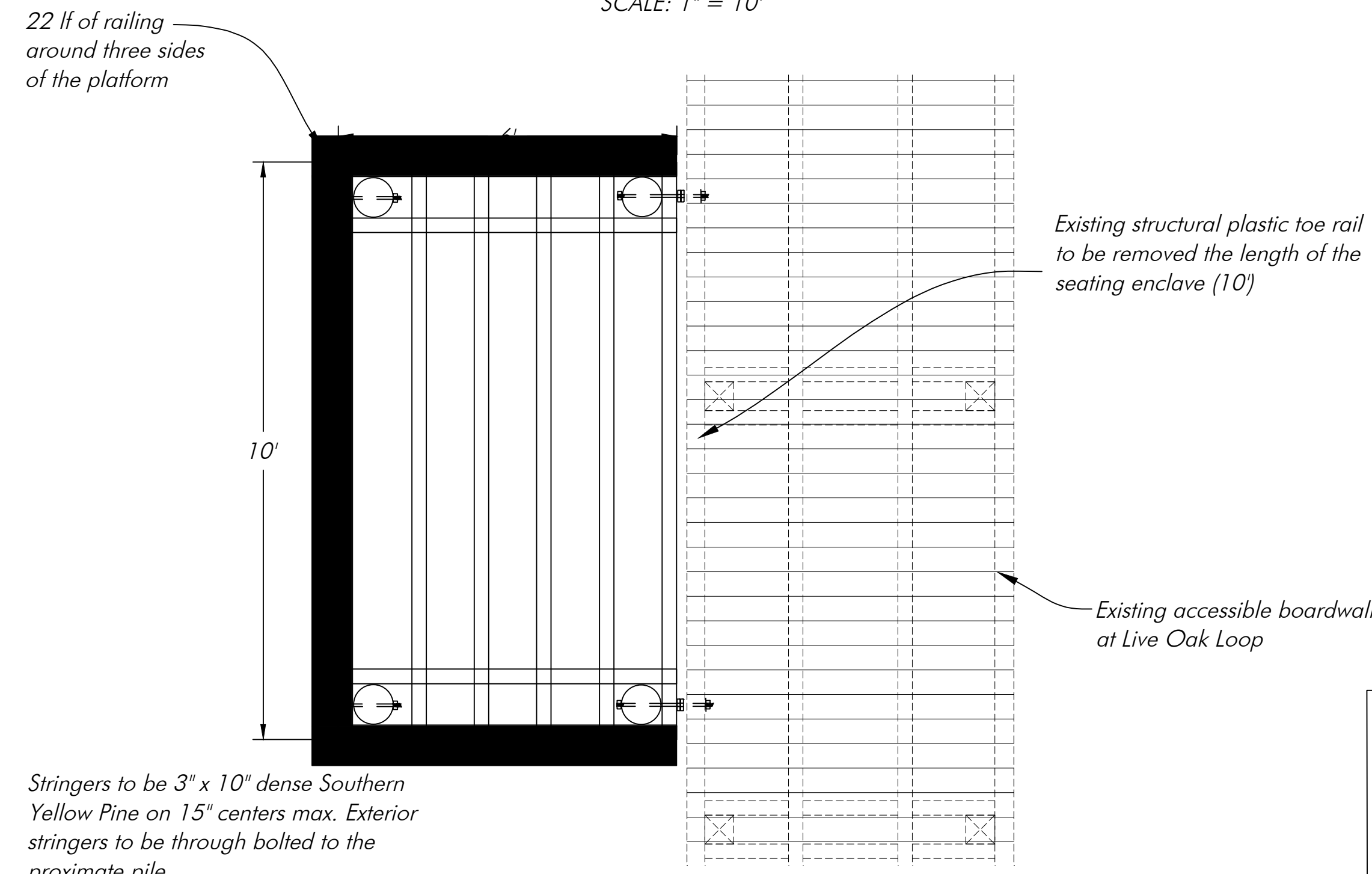
DATE: 6-1-24 FILE: SCALE: Varies

DRAFTER: DATUM: NAVD SHEET: 2 of 7

SECTION: 26
TOWNSHIP: 43 S
RANGE: 25 E



Seating Enclave
SCALE: 1" = 10'



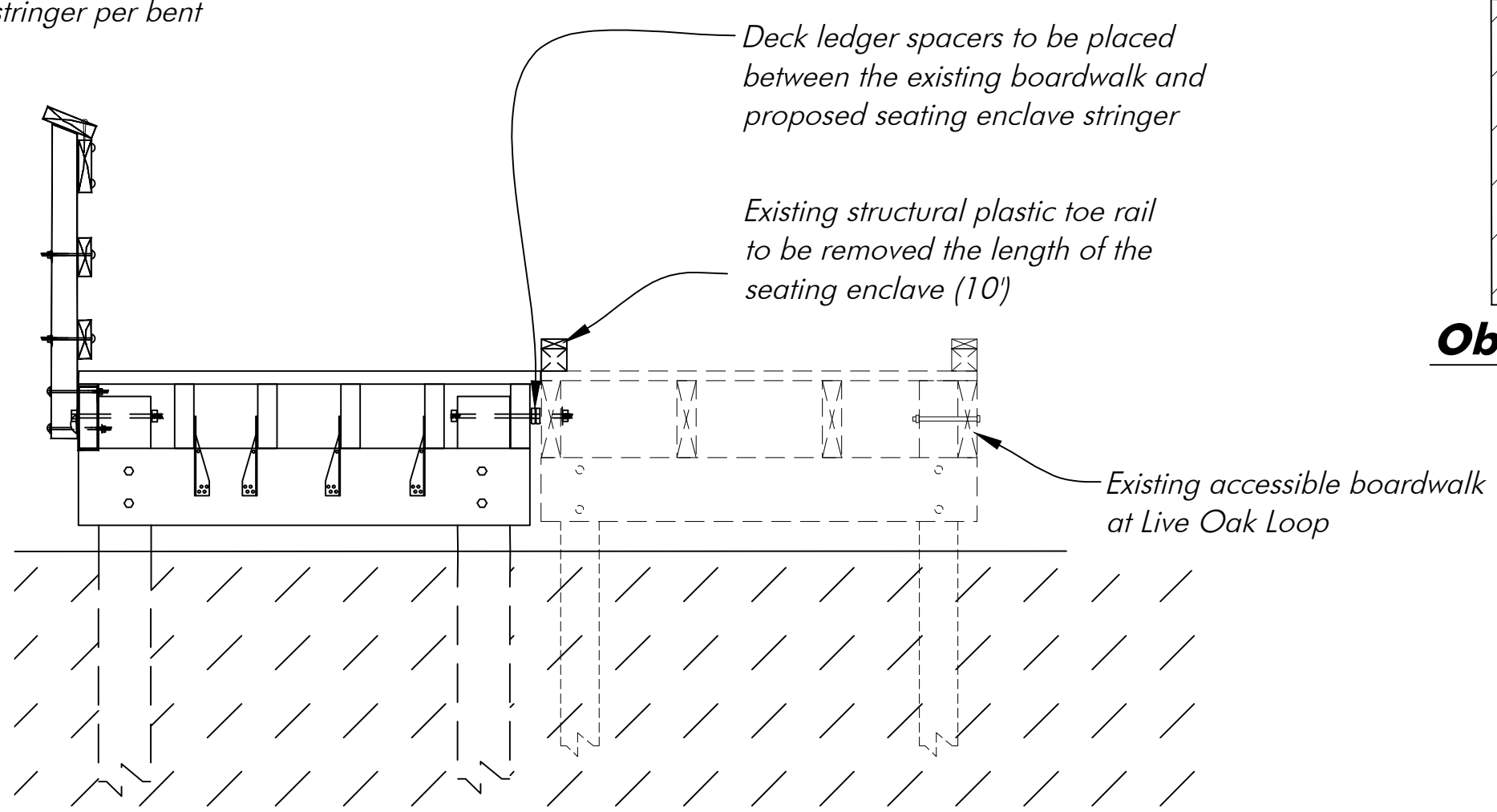
Seating Enclave Plan Detail
SCALE: 1" = 2'

Stringers to be 3" x 10" dense Southern Yellow Pine on 15" centers max. Exterior stringers to be through bolted to the proximate pile

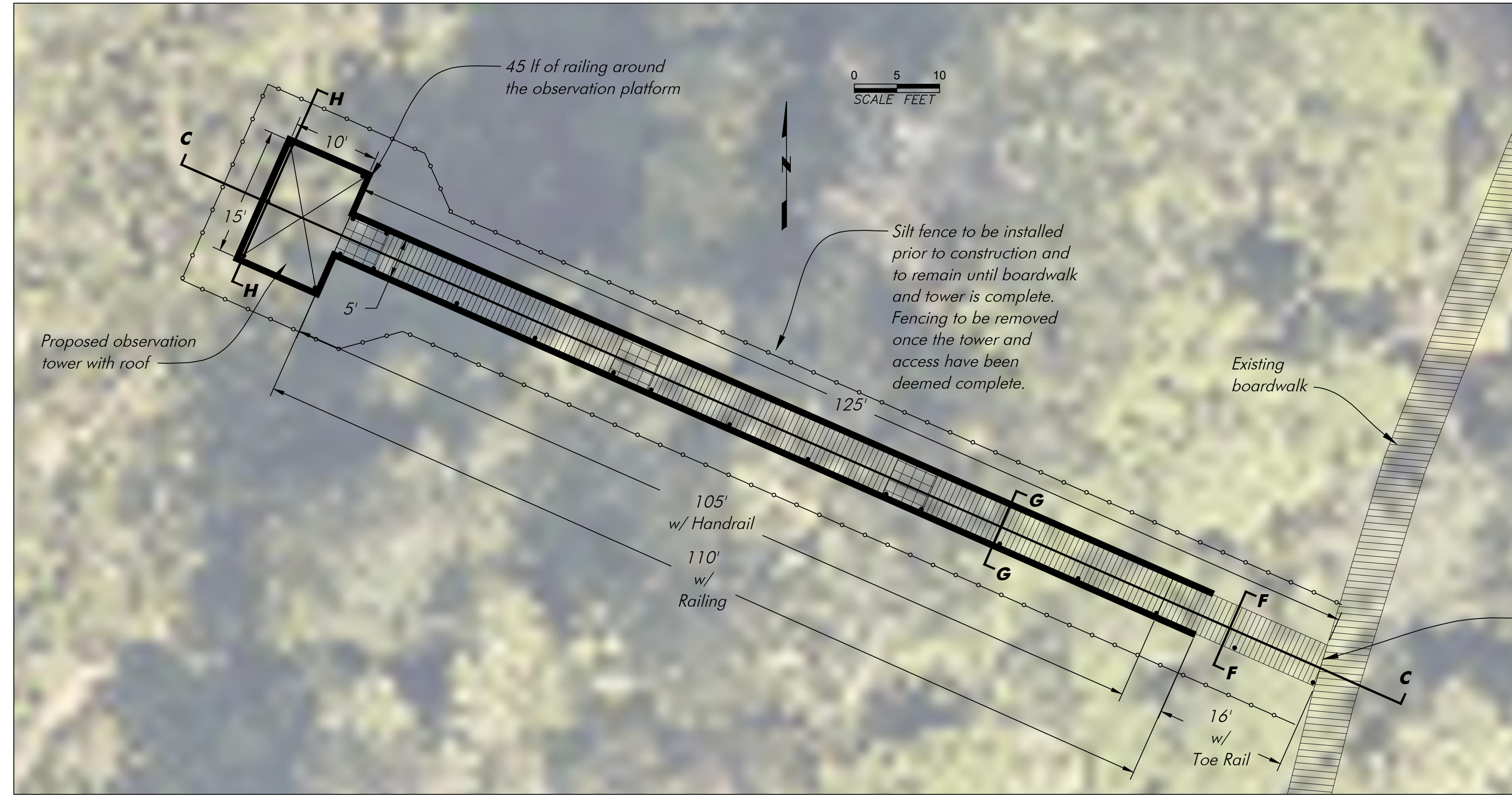
Cap boards to be double 3" x 12" Dense Southern Yellow Pine double bolted with 5/8" S.S. through bolts

Min. 8" dia. CCA treated pile min. 6' in length.

90° twist strap (1) per stringer per bent

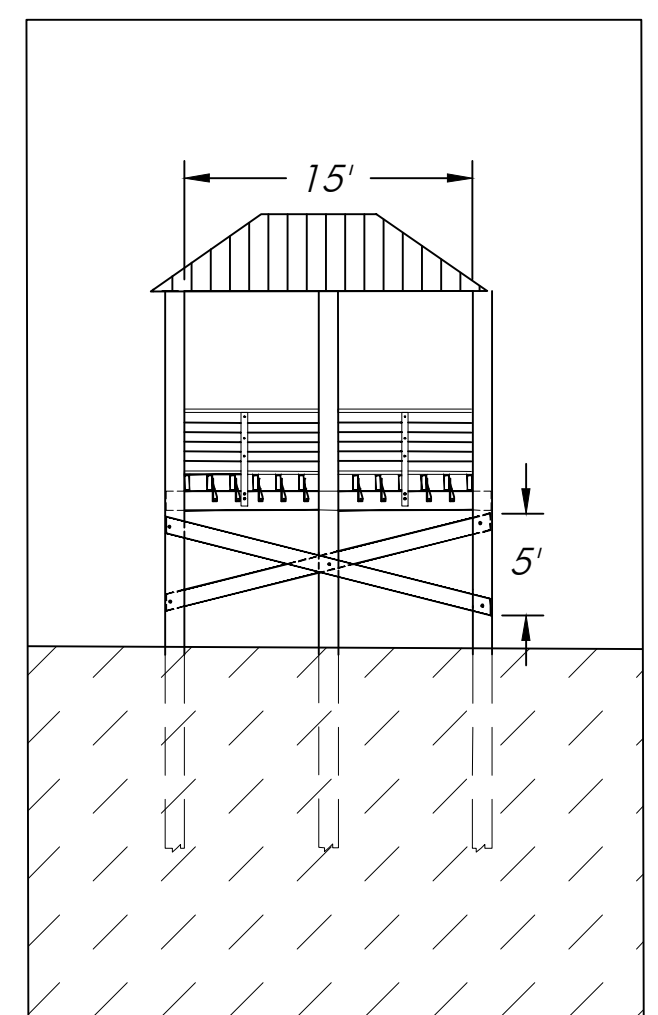


Seating Enclave Section E-E
SCALE: 1" = 2'

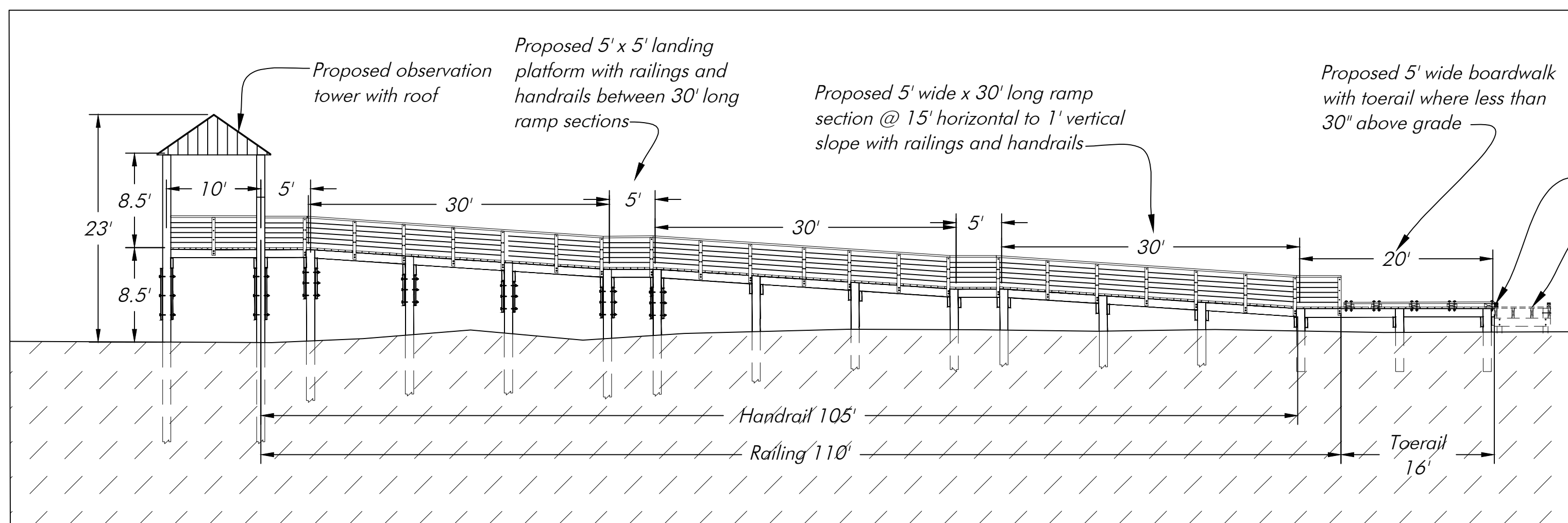


Observation Tower & Access
SCALE: 1" = 10'

Existing structural plastic toe rail to be removed the width of the proposed access boardwalk (5')



Observation Tower Section H-H
SCALE: 1" = 10'



Observation Tower & Access Section C-C
SCALE: 1" = 10'

Existing structural plastic toe rail to be removed the width of the proposed access boardwalk (5')

Existing accessible boardwalk at Live Oak Loop



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MARINE and ENVIRONMENTAL CONSULTANTS

**Caloosahatchee Creeks Preserve
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Trail Improvements**

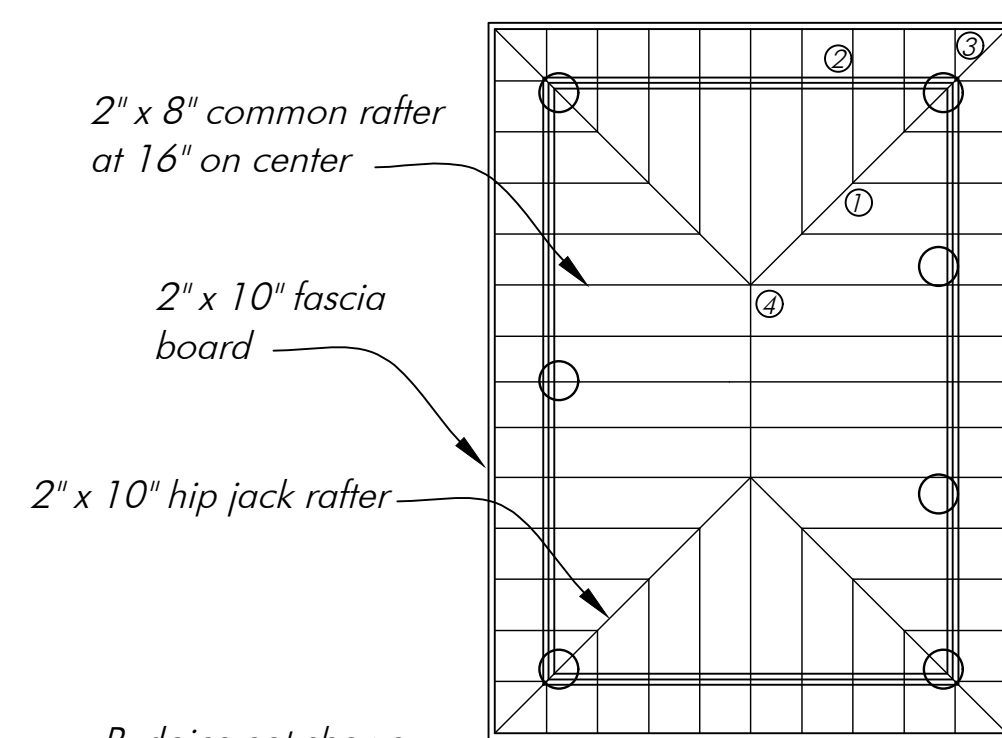
FOR: LEE COUNTY DEPARTMENT OF PUBLIC WORKS

DATE: 6-1-24	FILE:	SCALE: Varies
DRAFTER:	DATUM:	SHEET: 3 of 7

SECTION: 26
TOWNSHIP: 43 S
RANGE: 25 E

CONNECTION SCHEDULE				
MARK	MANUFACTURER	NO.	TYPE	UPLIFT CAP. / NOTES/FASTENERS
①	SIMPSON	LS70	560	10 - 10D NAILS
②	SIMPSON	H16S	1470	10 - 10D NAILS
③	SIMPSON	HCP1.81	605	6 - 10D NAILS
④	SIMPSON	HRC22	480	6 - 10D NAILS

Note: If any of the connectors shown are not obtainable, it is acceptable that an equal connector is used and the engineer is notified of the change



Purlins not shown
Provide roof pitch of 6:12

⊕ Denotes typical connector for similar situations unless otherwise noted

Observation Tower Roof Plan View

SCALE: 1" = 5'

DESIGN WIND SPEED 160 MPH (3 SEC GUST)
BASIC WIND SPEED 110 MPH
WIND IMPORTANCE FACTOR 1.0
WIND EXPOSURE D
ADJUSTMENT FACTOR
INTERNAL PRESSURE COEFFICIENT N/A
COMPONENTS AND CLADDING
INTERIOR ROOF +16.0 PSF / -27.0 PSF
EDGE ROOF +16.0 PSF / -53.3 PSF
CORNER ROOF +16.0 / -53.3 PSF
WINDOWS AND DOORS - N/A

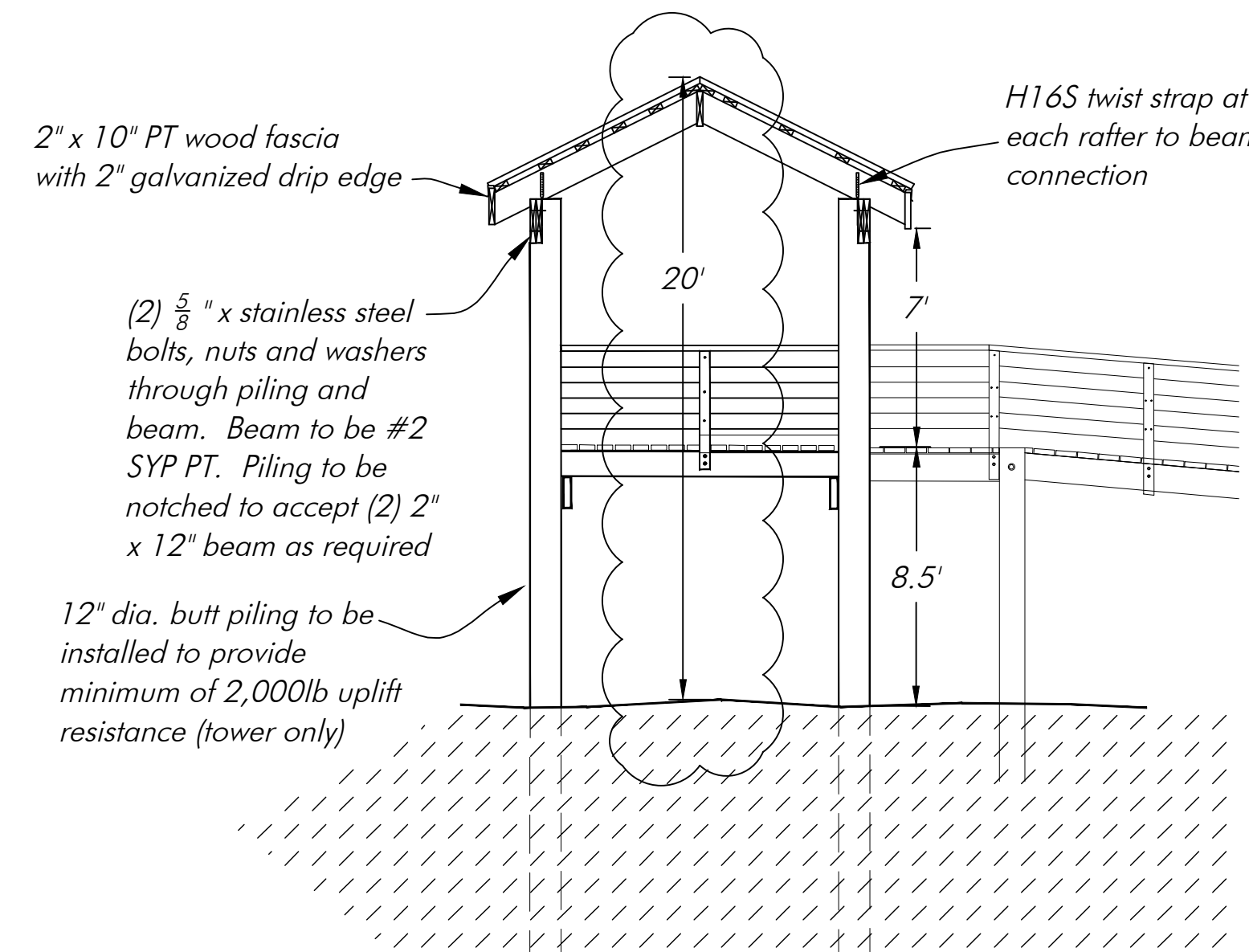
Notes:

- This drawing does not intend to show truss quantities
- General contractor is responsible for all temporary bracing
- If truss uplift conditions exceed strapping specifications, the contractor must notify the designer prior to installation of the trusses
- Trusses are designed to meet all load interaction, uplift, and lateral load requirements along with the information provided on this drawing
- Contractor to coordinate all temporary bracing with H1B 91 specs
- Provide grade 2 lumber for rafters

2" x 10" PT wood ridge board
2" x 8" PT wood common rafter @ 16" on center
2" x 4" PT wood purlins @ 16" on center
GALVALUME® ribbed metal roof sheathing

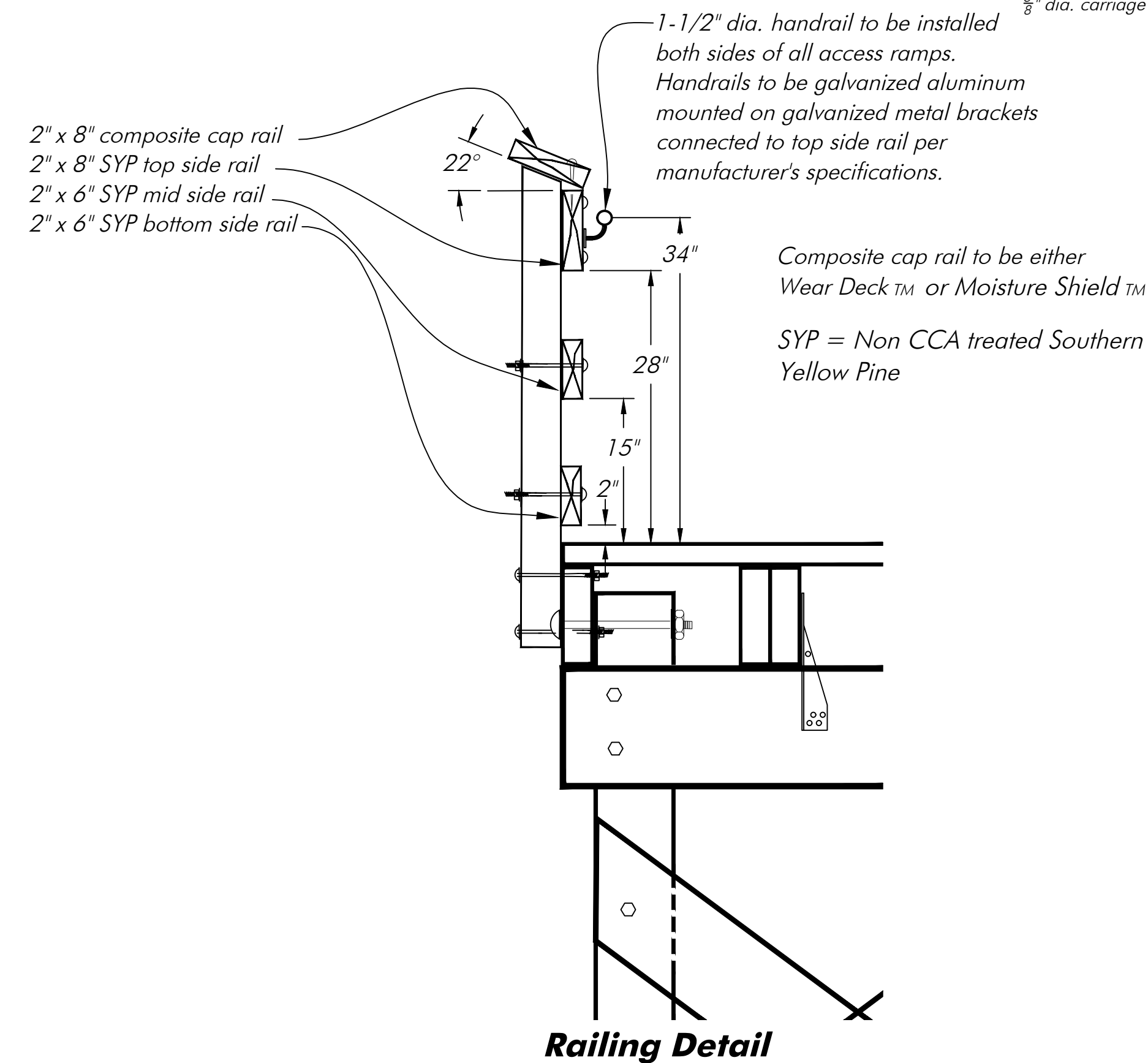
Purlins to be screwed to rafters with #10- 3" SS screws, (2) per purlin, at each rafter connection

Roof decking to be attached in accordance to section 1507.5 2001 FBC. ASTM A 653 G-90 zinc coated and installed per manufacturer's specifications



Observation Tower Roof Cross Section Detail

SCALE: 1" = 5'



Railing Detail

SCALE: 1" = 1'

April 16, 2024 12:50:46 a.m.
Drawing: LEE3MASTER.DWG

1938 Hill Avenue, Fort Myers, Florida 33901
Office: 239-334-6870 Fax: 239-334-7810
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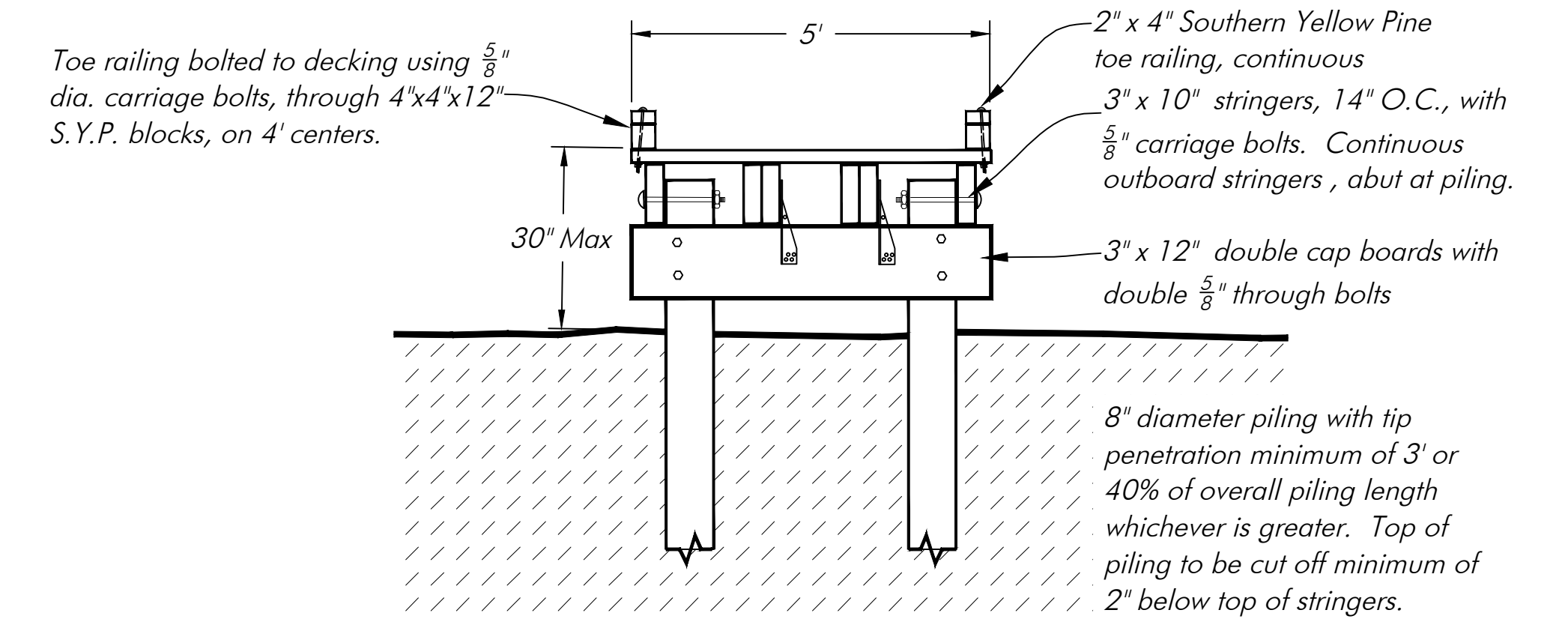


**Caloosahatchee Creeks Preserve
East Park
Trail Improvements**

FOR: LEE COUNTY DEPARTMENT OF PUBLIC WORKS

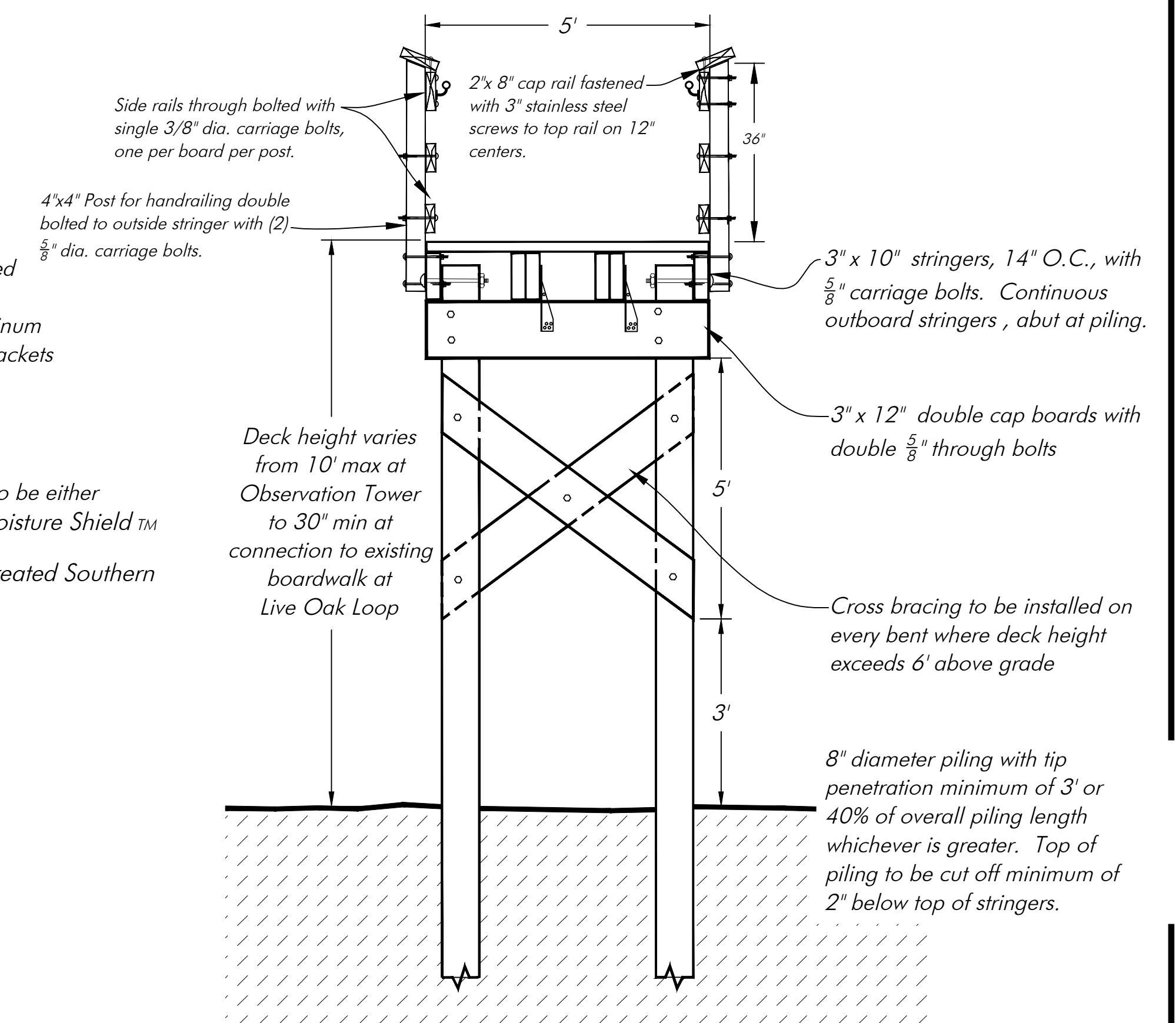
DATE: 6-1-24 FILE: SCALE: Varies

DRAFTER: DATUM: NAVD SHEET: 4 of 7



Boardwalk Cross Section F-F

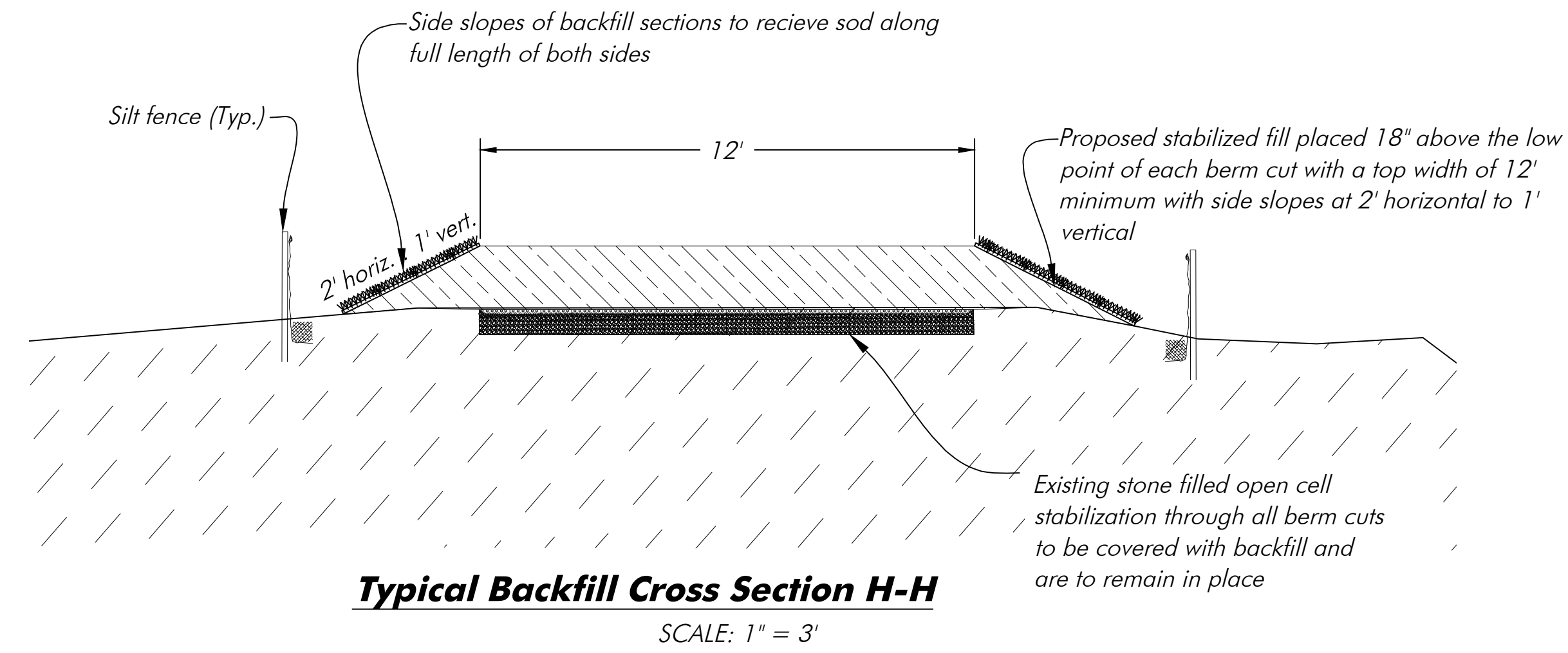
SCALE: 1" = 2'



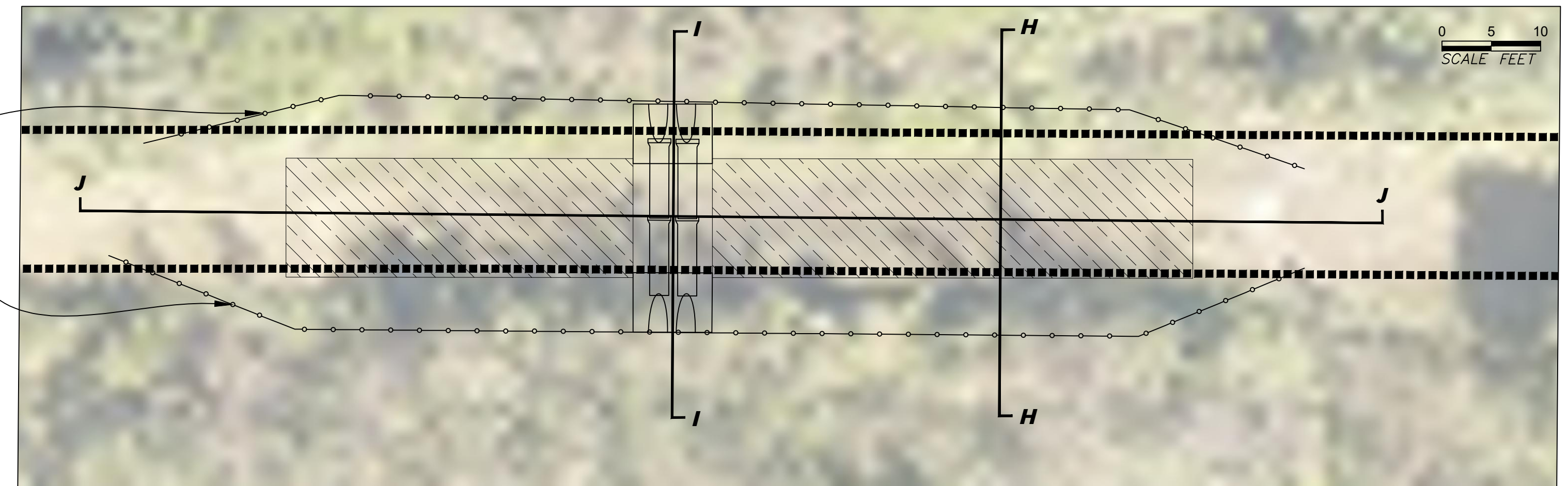
Boardwalk Cross Section G-G

SCALE: 1" = 2'

SECTION: 26
TOWNSHIP: 43 S
RANGE: 25 E



Prior to any work or other berm cut preparation silt fencing is to be installed along both sides of the berm depression terminating onto the top of berm at both ends of the cut. Fencing to be removed once the berm cuts and boardwalks have been deemed complete.



Proposed Culvert Pipes with Fill @ Berm Cut #3 - #12
* Boardwalks @ #1 and #2

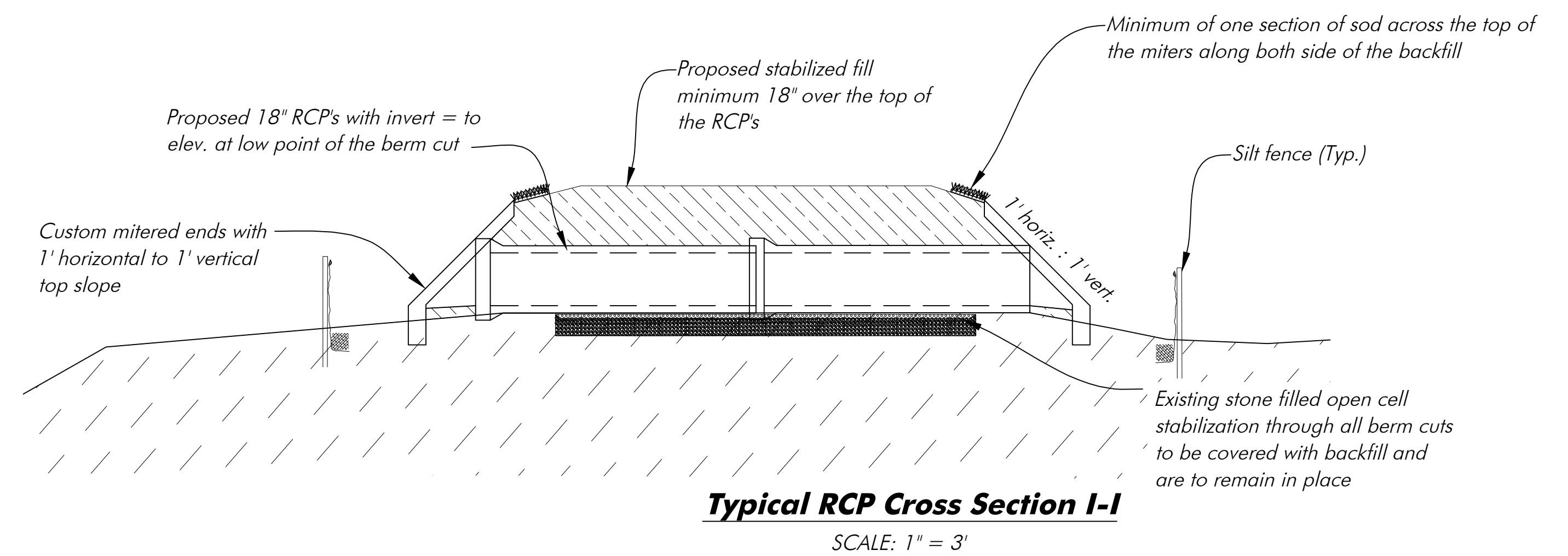
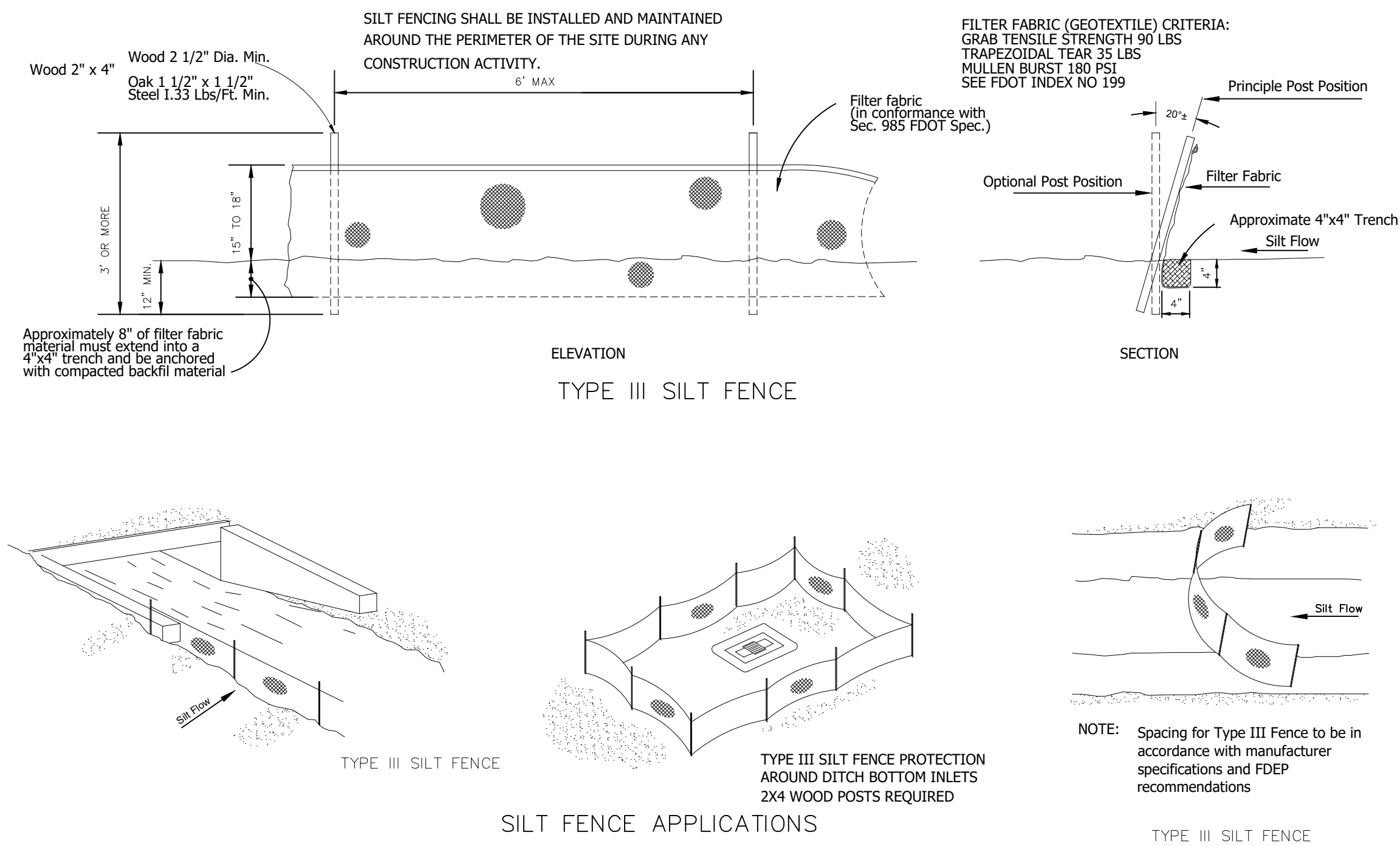
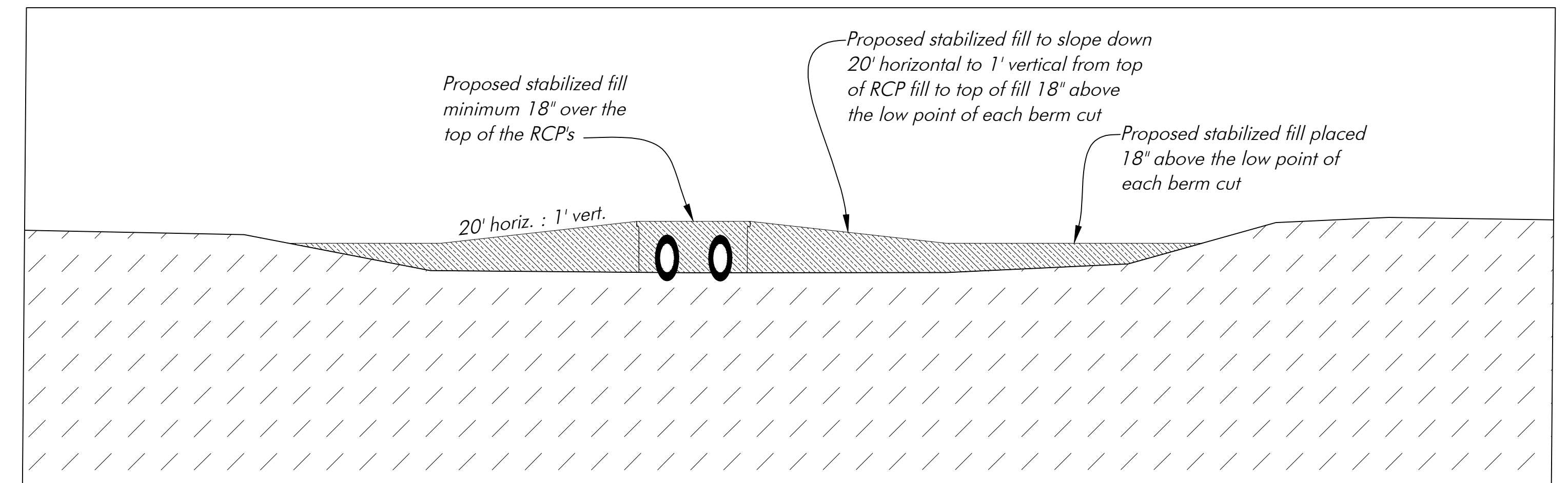
Low Point Elevations (NAVD)	Fill Footprint (SF)	CY Fill	LF RCP
#1 = 0.7'	*	*	*
#2 = 0.2'	*	*	*
#3 = 0.9'	1942	130	48
#4 = 2.0'	3520	120	32
#5 = 1.4'	1160	90	32
#6 = 2.6'	1125	90	32
#7 = 3.3'	3223	230	32
#8 = 3.1'	3596	230	32
#9 = 1.4'	1317	100	32
#10 = 1.0'	1000	80	32
#11 = 1.2'	1833	140	32
#12 = 0.9'	1185	90	32

CY Fill, Permit Calc vs Line Item -

SFWMD and Lee County LDO permit plans have fill quantities based on the calculated value of the cross section to be filled.

The Line Item values for cubic yards to be placed differs from the permitted values in the District and County permits. The Line Item values reflect an estimated volume increase of 20% consistent with the "FDOT Investigation of Shrink and Swell Factors for Soils used in FDOT Construction, January of 1999".

Total Fill Footprint 19,901sf
Total Fill Line Item - 1,300cy
Total RCP - 336lf



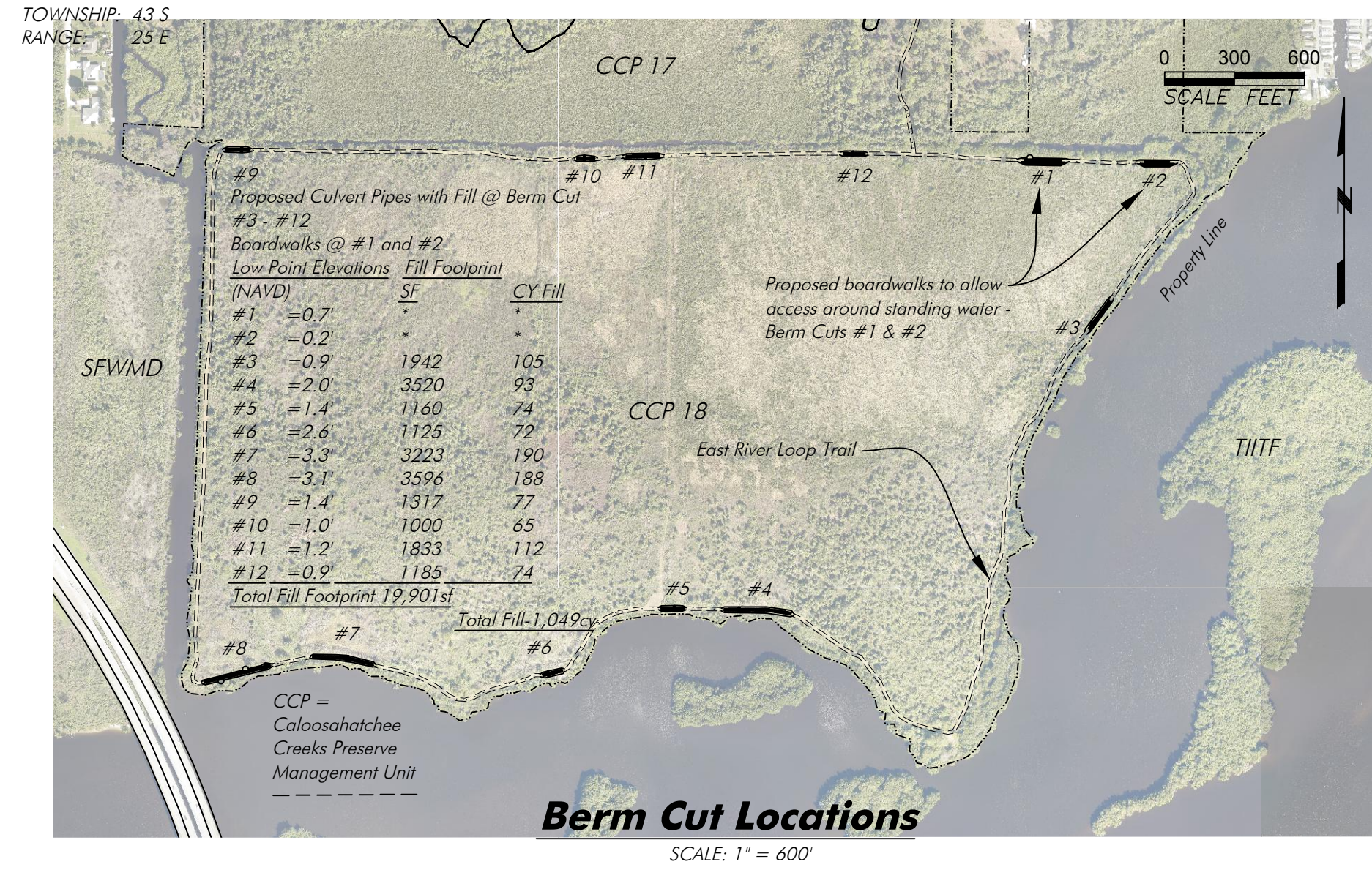
**Caloosahatchee Creeks Preserve
East Park
Trail Improvements**

FOR: LEE COUNTY DEPARTMENT OF PUBLIC WORKS

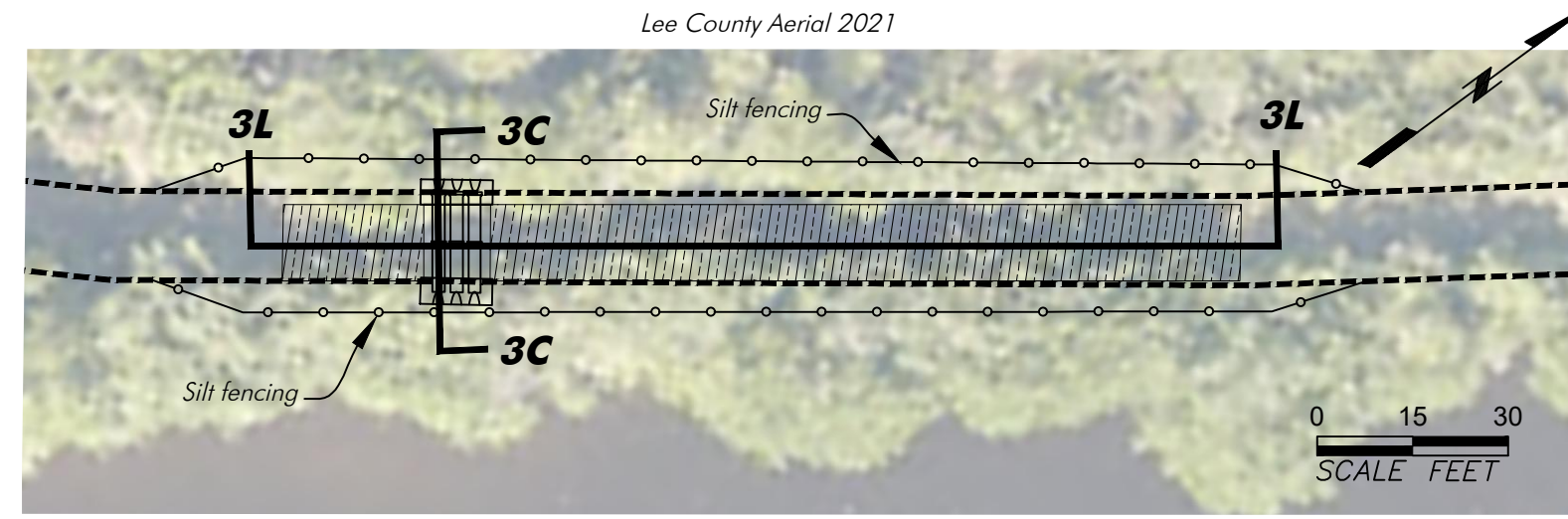
DATE: 6-1-24 FILE: SCALE: Varies

DRAFTER: DATUM: NAVD SHEET: 5 of 7

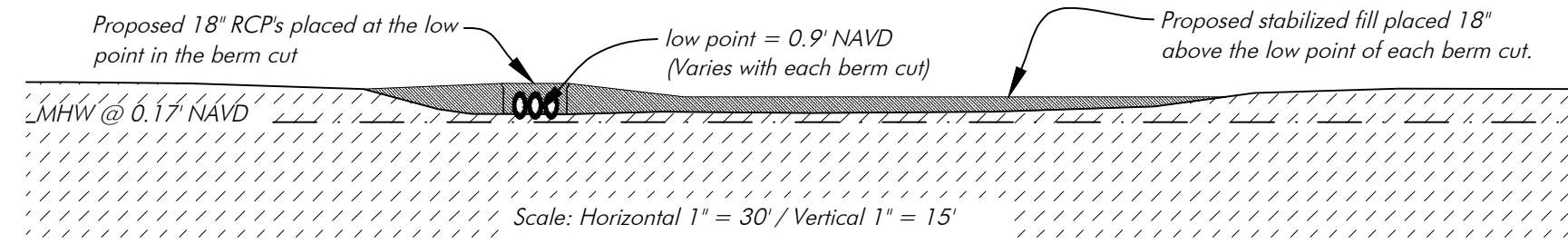
SECTION: 26
TOWNSHIP: 43 S
RANGE: 25 E



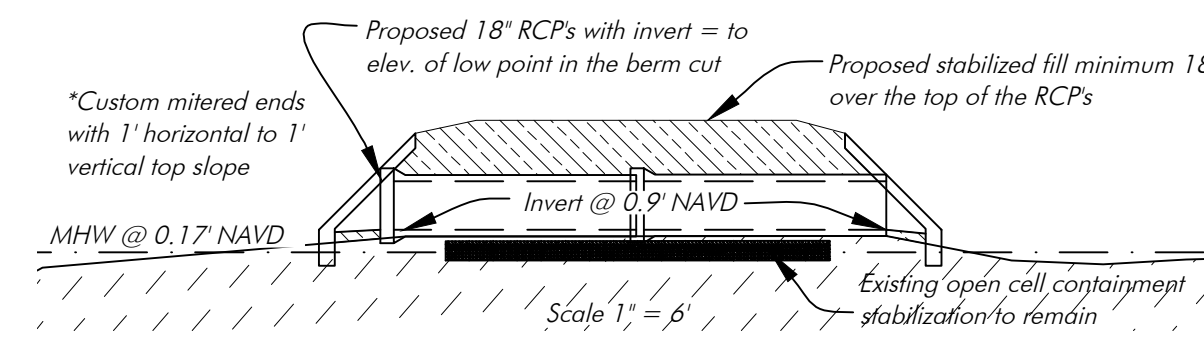
Prior to any work or other site preparation silt fencing is to be installed along both sides of the berm depression terminating onto the top of berm at both ends of the berm depression. Silt fencing is to remain in place until all construction is complete.



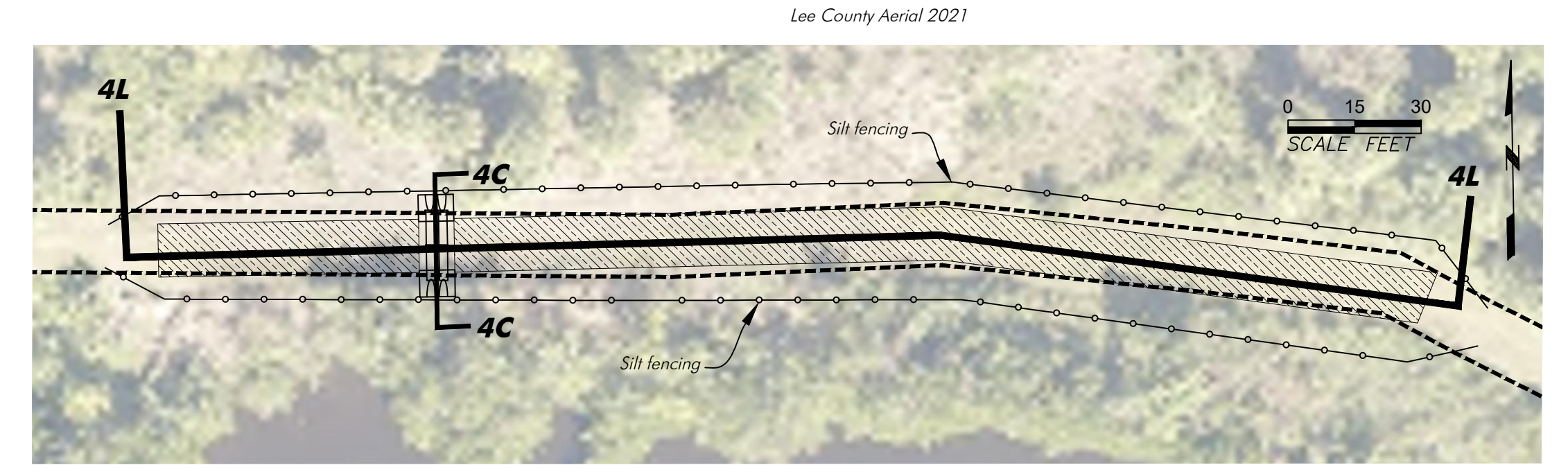
Berm Cut #3 Detail



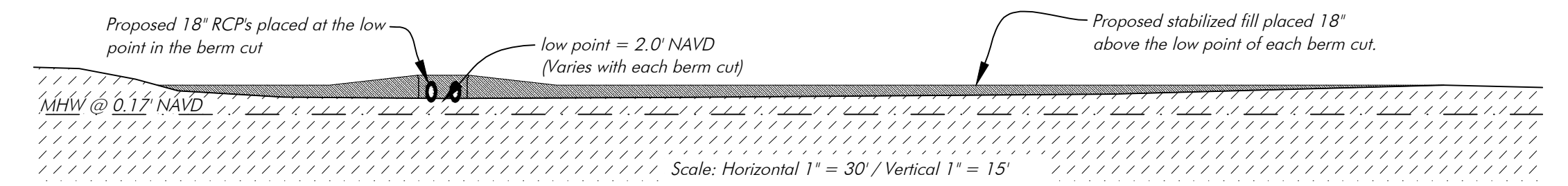
3L-3L at Berm Cut #3 with RCP's and Backfill



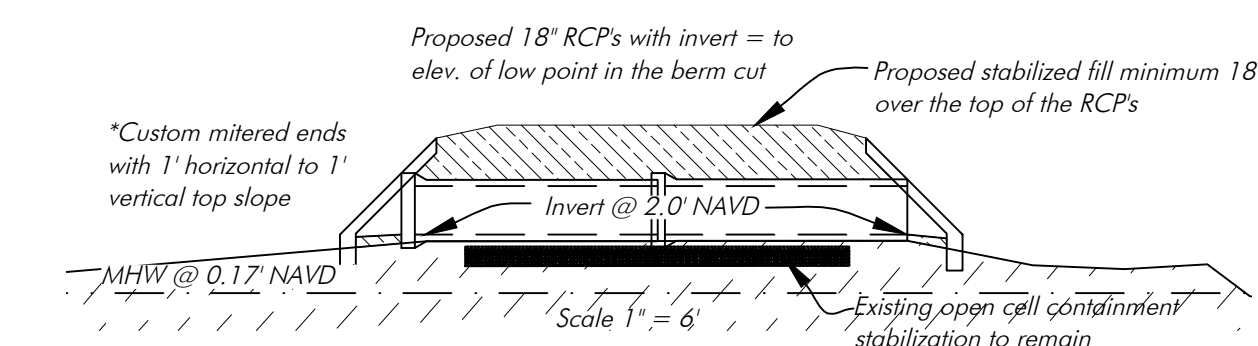
3C-3C RCP's at Berm Cut #3



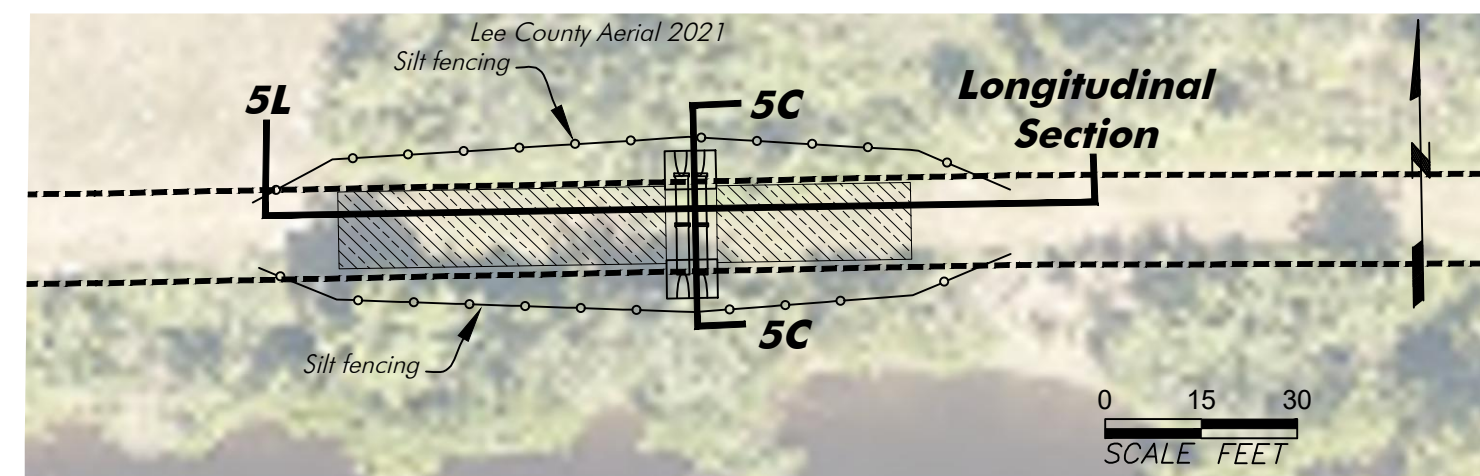
Berm Cut #4 Detail



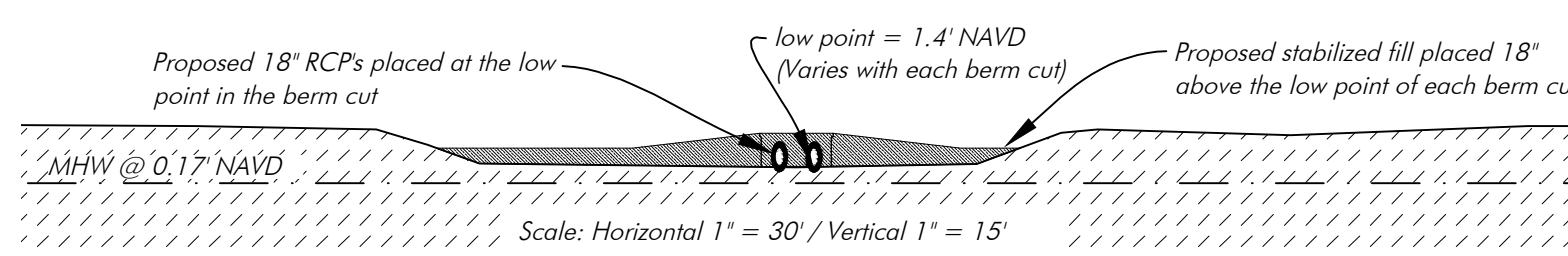
4L-4L at Berm Cut #4 with RCP's and Backfill



4C-4C RCP's at Berm Cut #4

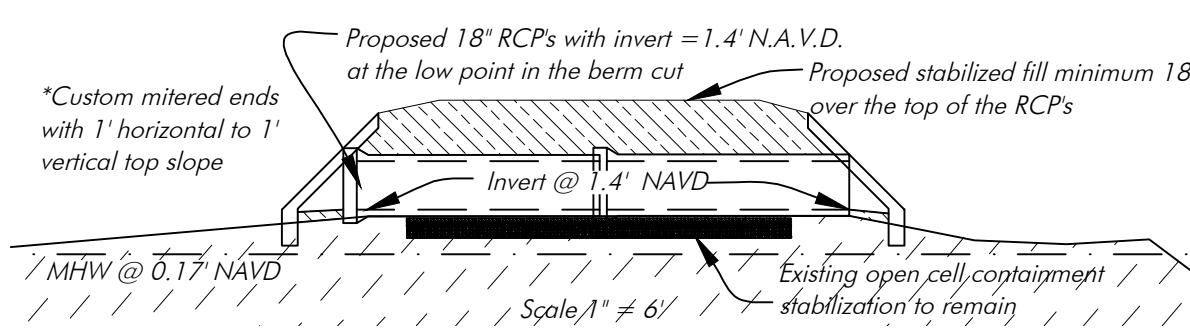


Berm Cut #5 Detail

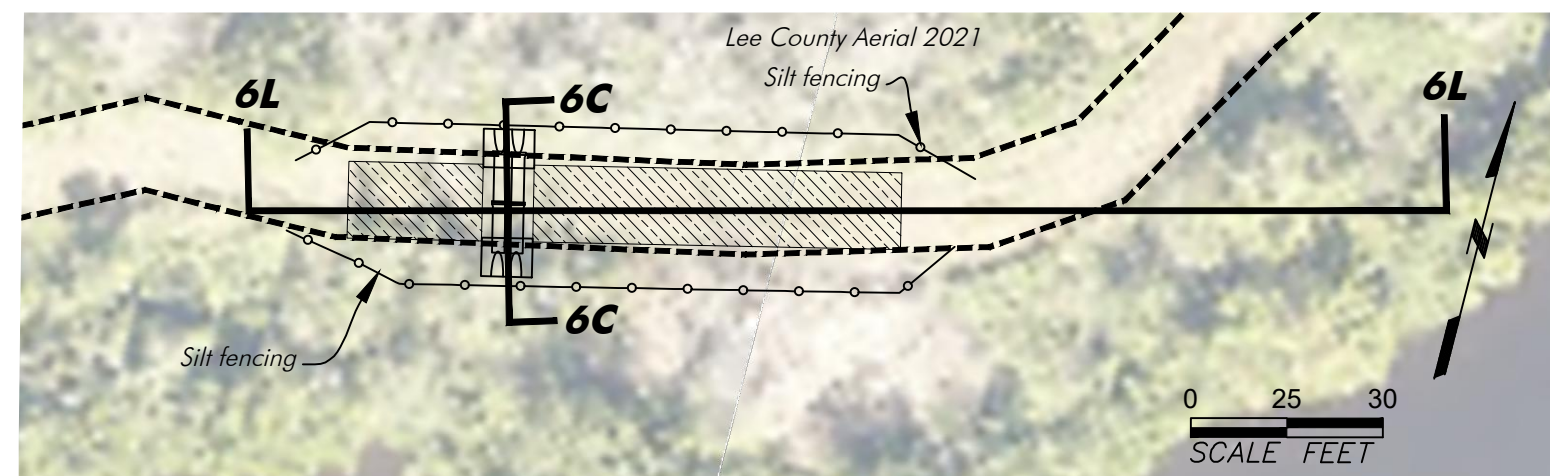


5L-5L Berm Cut #5 with RCP's and Backfill

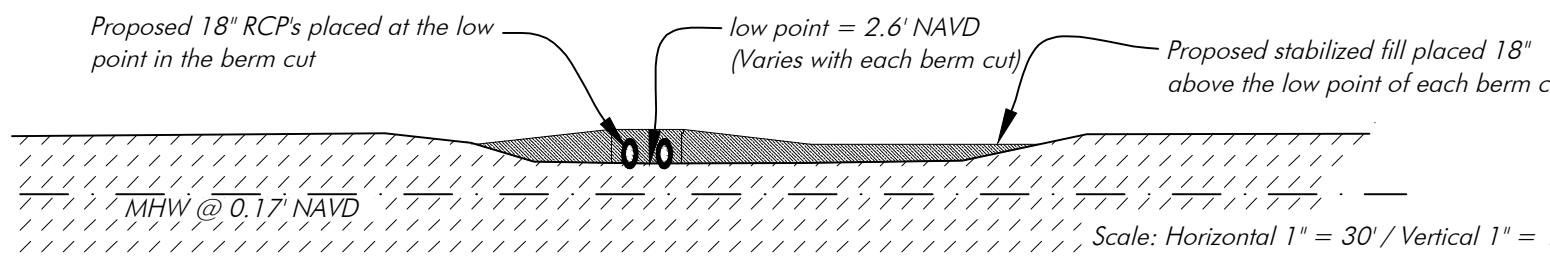
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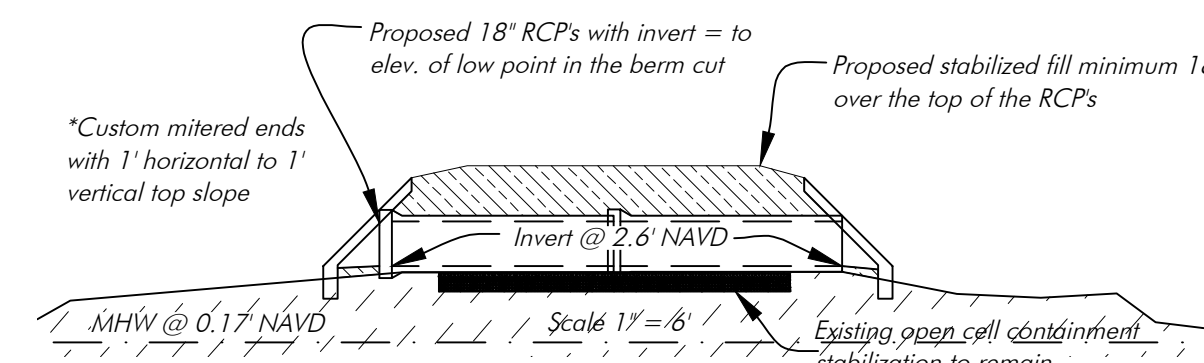
5C-5C of RCP's at Berm Cut #5



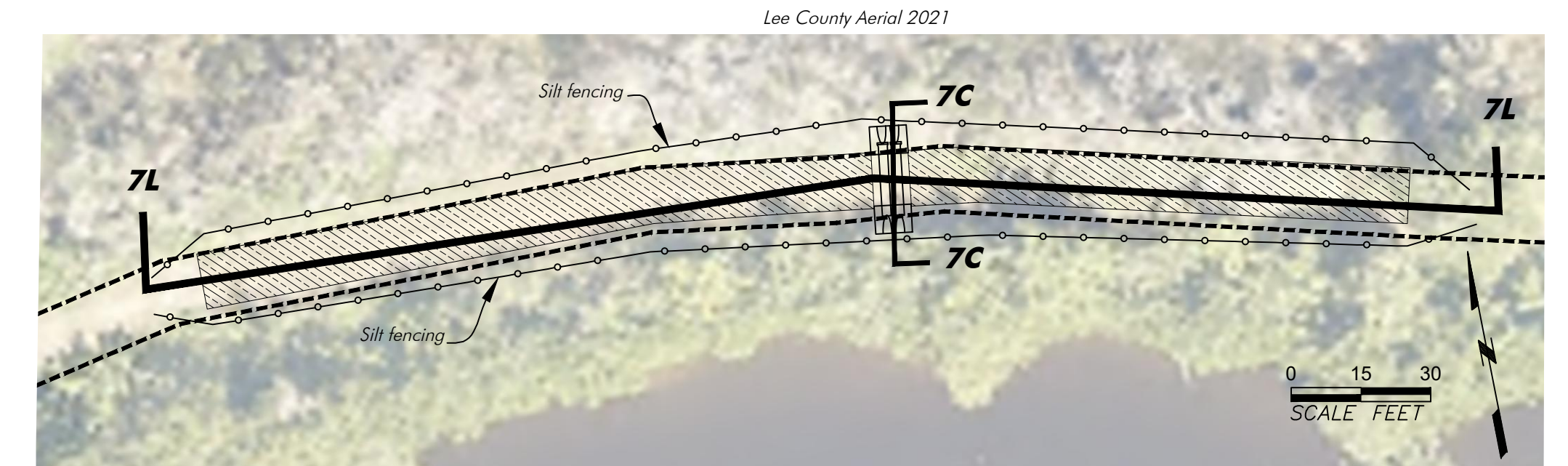
Berm Cut #6 Detail



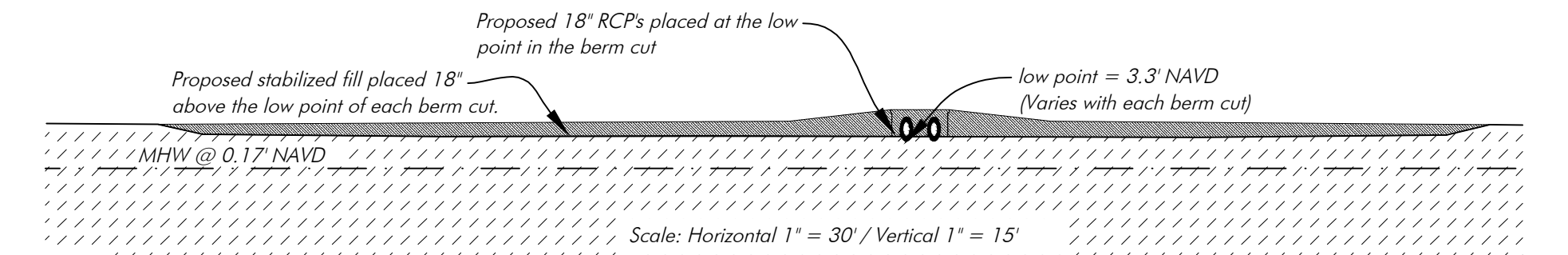
6L-6L at Berm Cut #6 with RCP's and Backfill



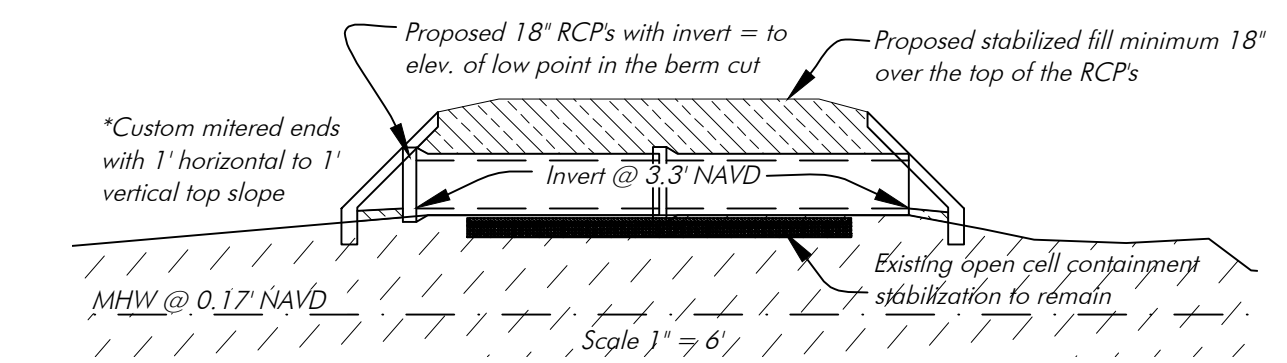
6C-6C of RCP's at Berm Cut #6



Berm Cut #7 Detail



7L-7L at Berm Cut #7 with RCP's and Backfill



7C-7C of RCP's at berm Cut #7



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MARINE and ENVIRONMENTAL CONSULTANTS

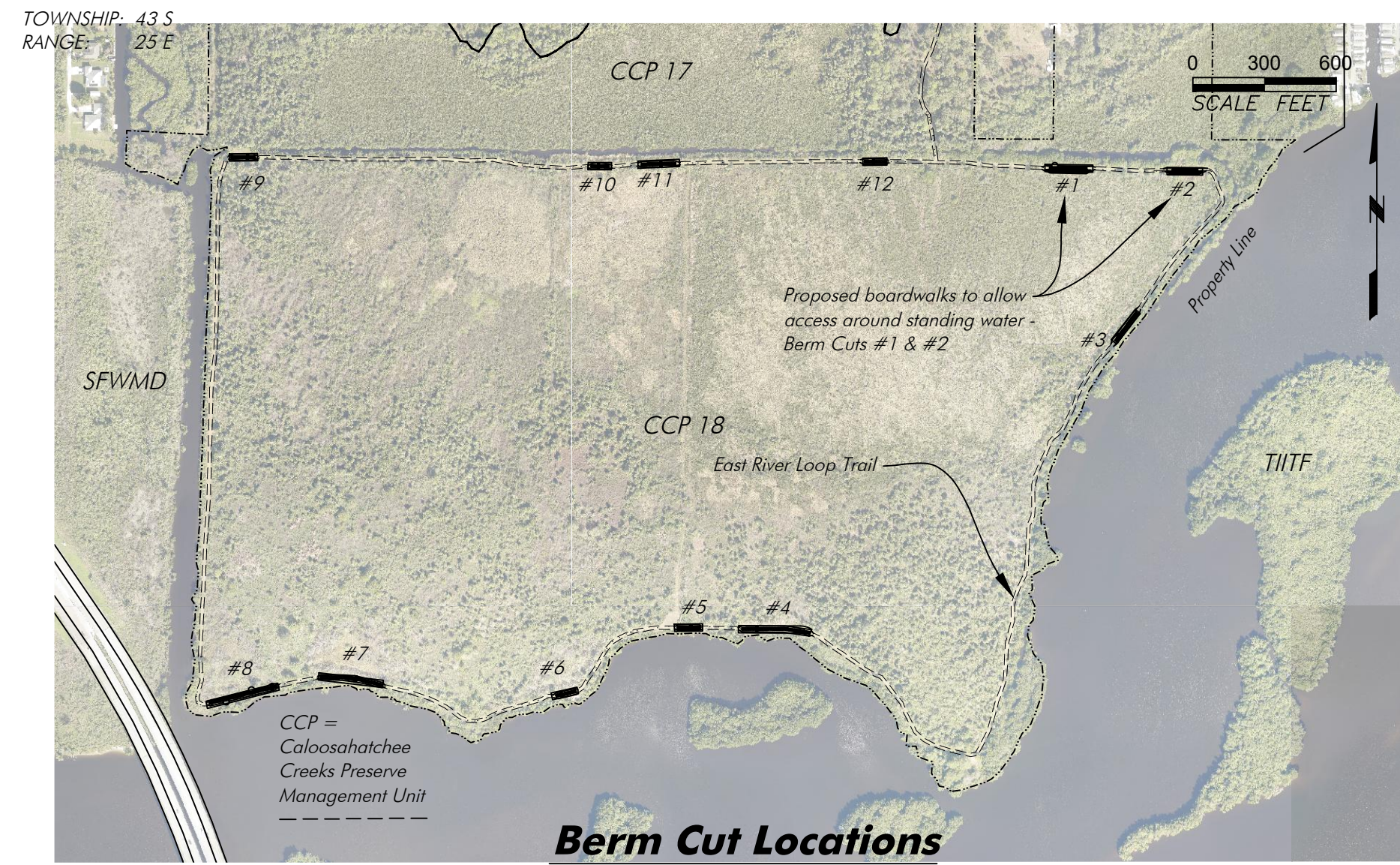
**Caloosahatchee Creeks Preserve
East Park
Trail Improvements**

FOR: LEE COUNTY DEPARTMENT OF PUBLIC WORKS

DATE: 6-1-24	FILE:	SCALE: Varies
DRAFTER:	DATUM: NAVD	SHEET: 6 of 7

SECTION: 26
TOWNSHIP: 43 S
RANGE: 25 E

Lee County Aerial 2021

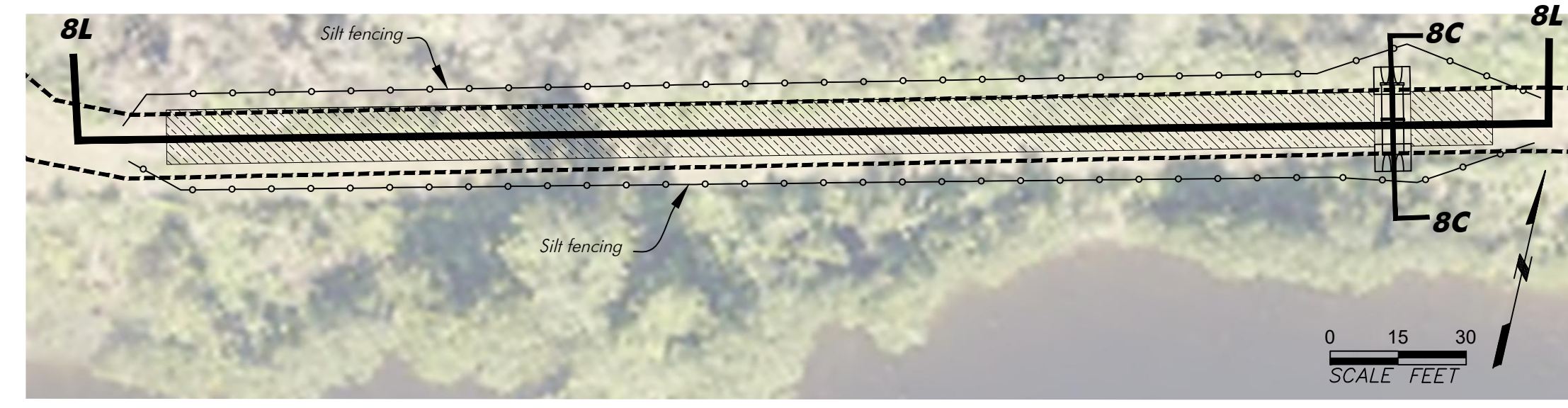


Proposed Culvert Pipes with Fill @ Berm Cut #8 - #12

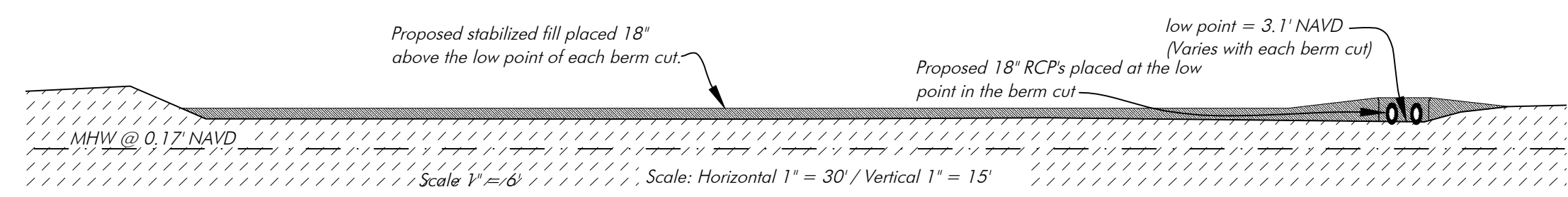
Low Point Elevations (NAVD)	Fill Footprint SF	CY Fill
#8 = 3.1'	3596	188
#9 = 1.4'	1317	77
#10 = 1.0'	1000	65
#11 = 1.2'	1833	112
#12 = 0.9'	1185	74
Total Fill Footprint 8,931sf		Total Fill: 516cy

Prior to any work or other site preparation silt fencing is to be installed along both sides of the berm depression terminating onto the top of berm at both ends of the berm depression. Silt fencing is to remain in place until all construction is complete.

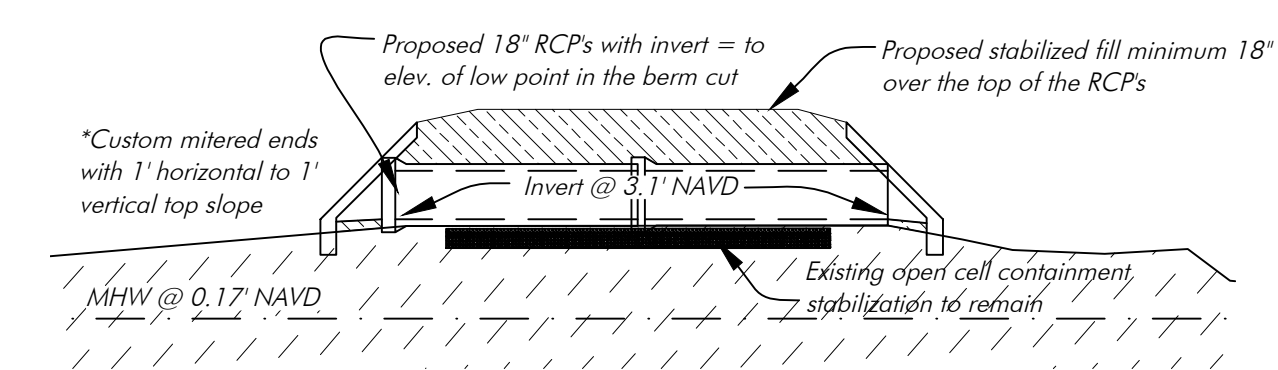
The final widening of the Caloosahatchee's IntraCoastal Waterway done in the 1960s created the perimeter trail around CCP 18. The berm was built to contain the sediment created from hydraulic dredging of the ICW. The material was pumped into the dredged material management area CCP18 from the south side and allowed to spread out to the north. When the dredging was completed the sediment was left to stabilize in place, remaining mostly undisturbed from the next four decades. Same as the deposition, running south to north so today is the slope across the entire CCP 18. Today it is evident by the low points in the trail, the vegetation, and observation of surface flow that most all of the rainwater leaves the unit through the north east corner, more specifically cuts 1 and 2, with an occasional discharge through cut #3. Cuts #1 and #2 discharge into the ditch running along the north edge of the unit, there is a ditch.



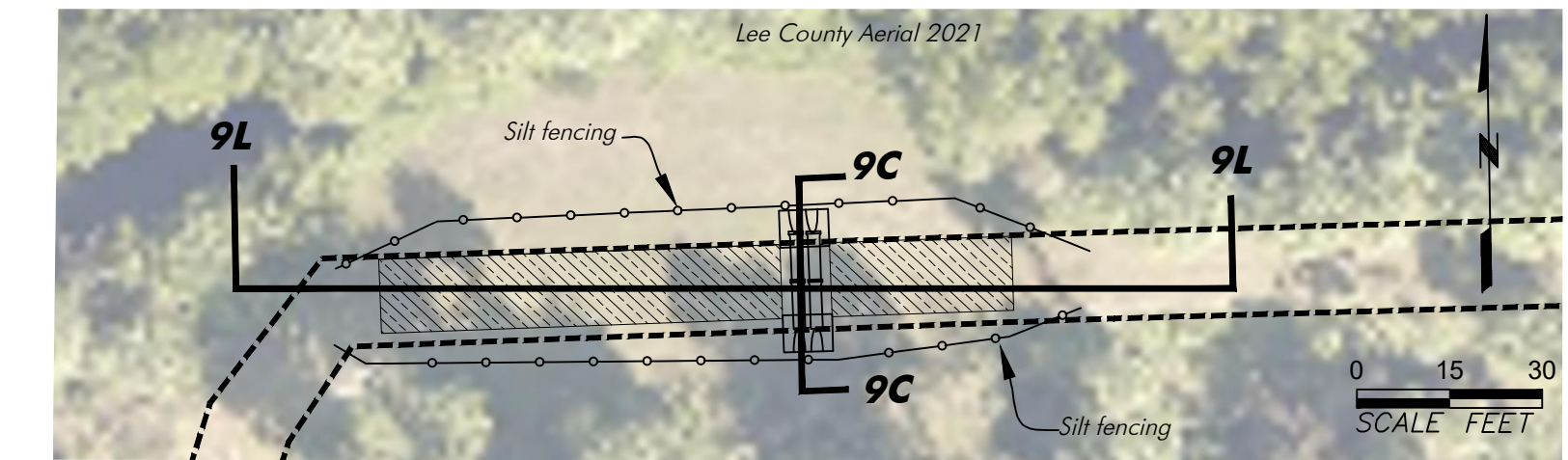
Berm Cut #8 Detail



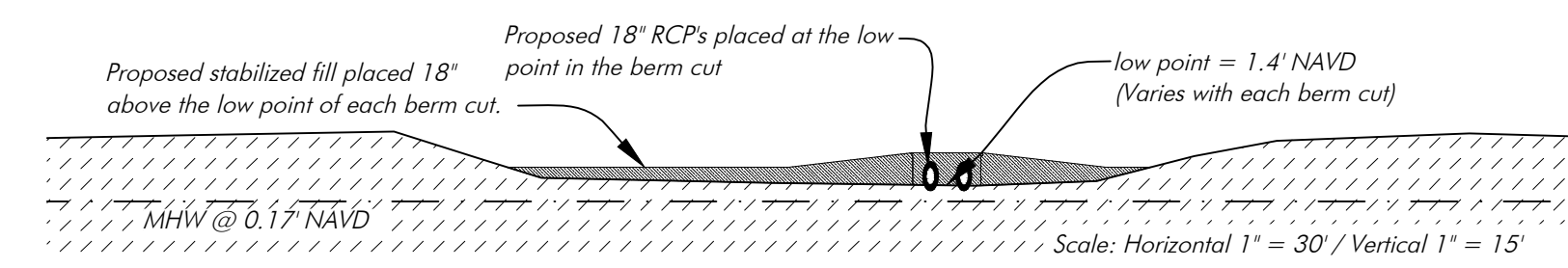
8L-8L at Berm Cut #8 with RCP's and Backfill



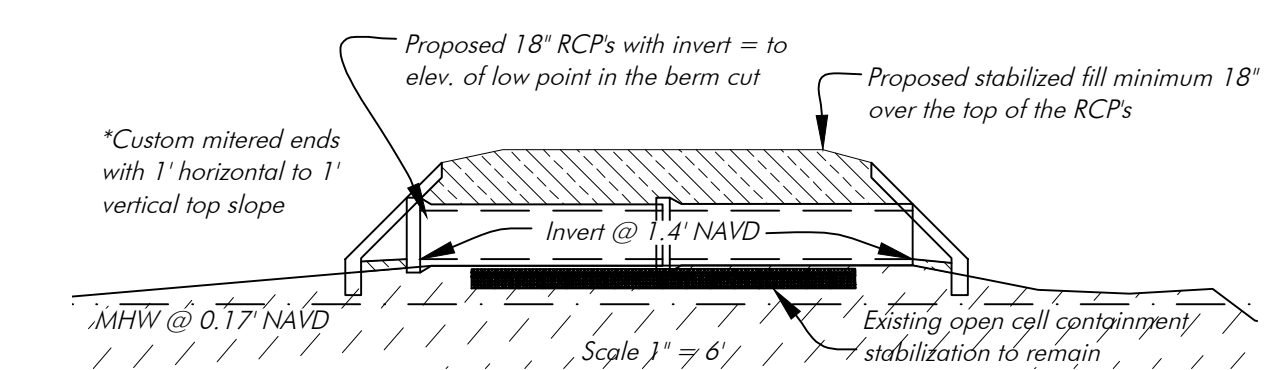
8C-8C of RCP's at Berm Cut #8



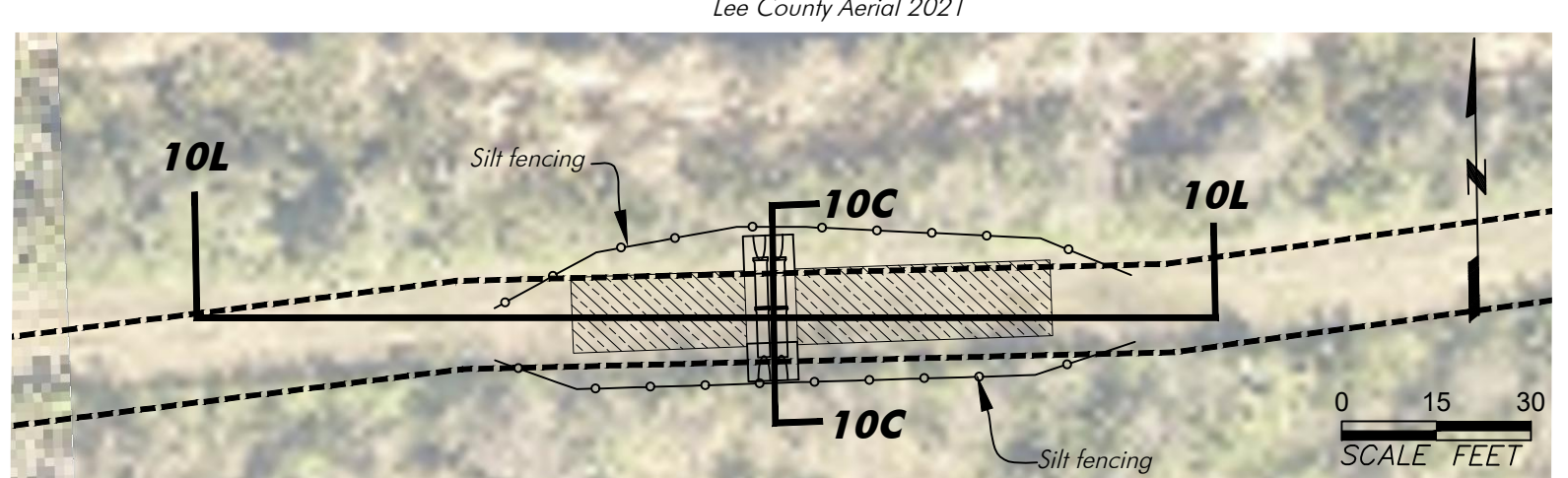
Berm Cut #9 Detail



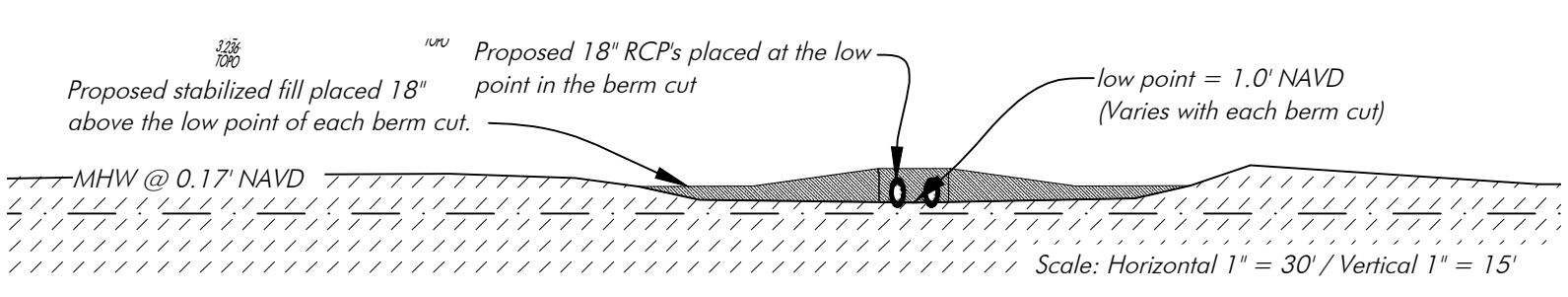
9L-9L at Berm Cut #9 with RCP's and Backfill



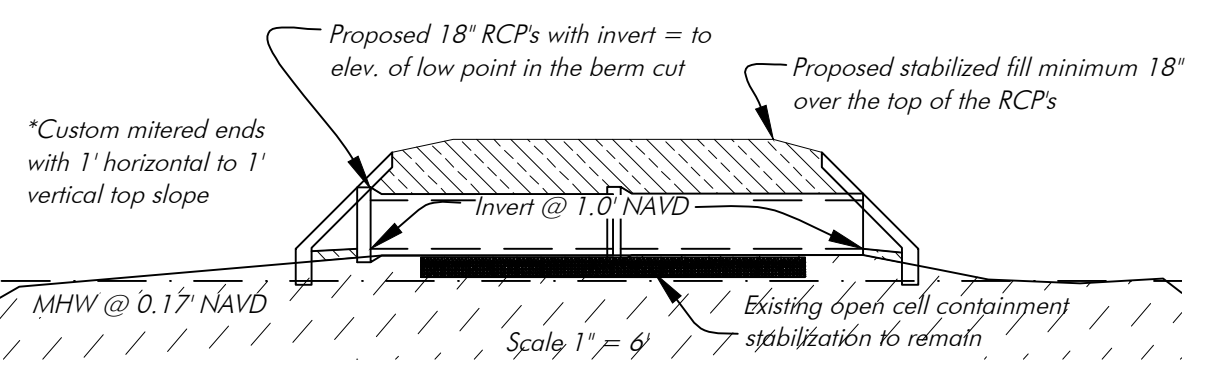
9C-9C of RCP's at Berm Cut #9



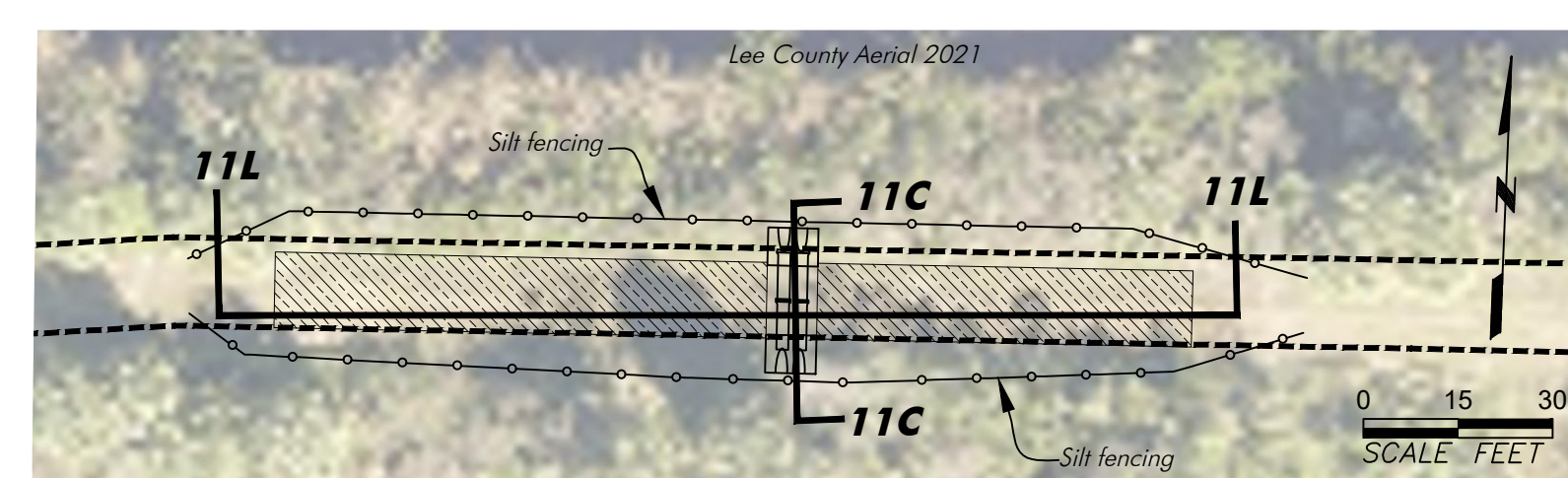
Berm Cut #10 Detail



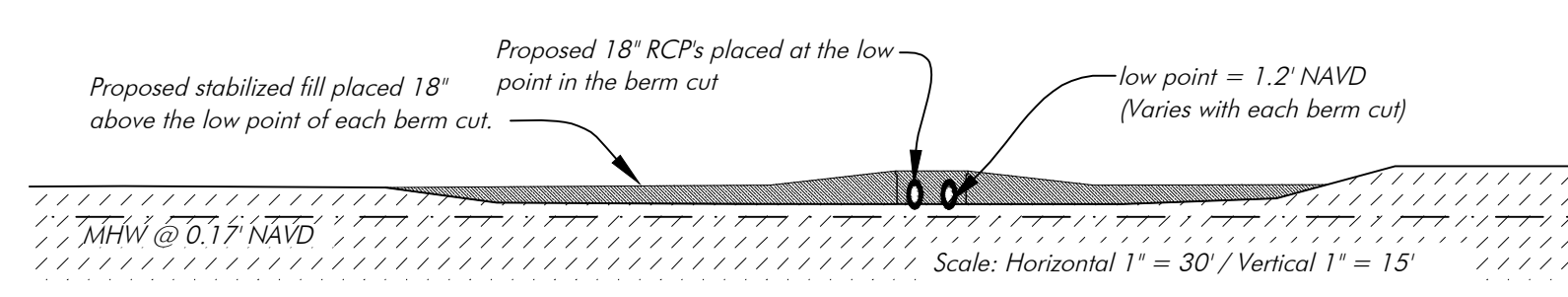
10L-10L at Berm Cut #10 with RCP's and Backfill



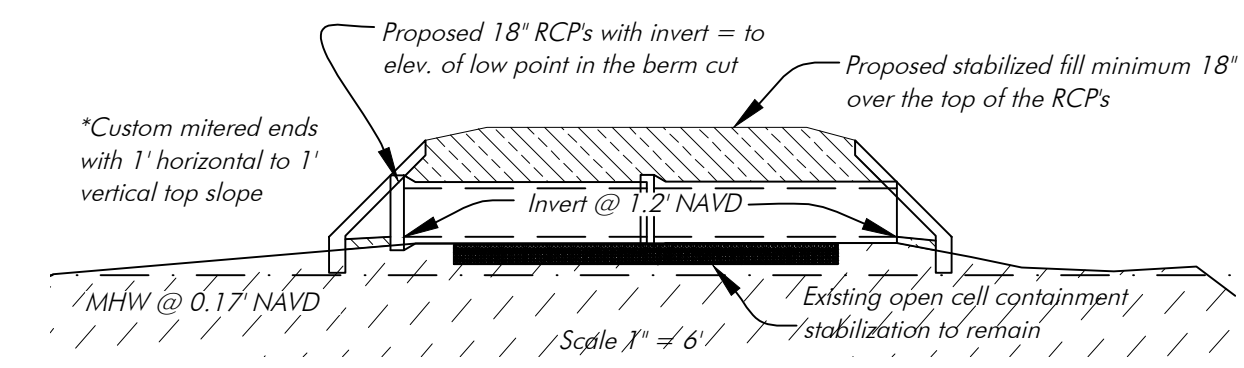
10C-10C of RCP's at Berm Cut #10



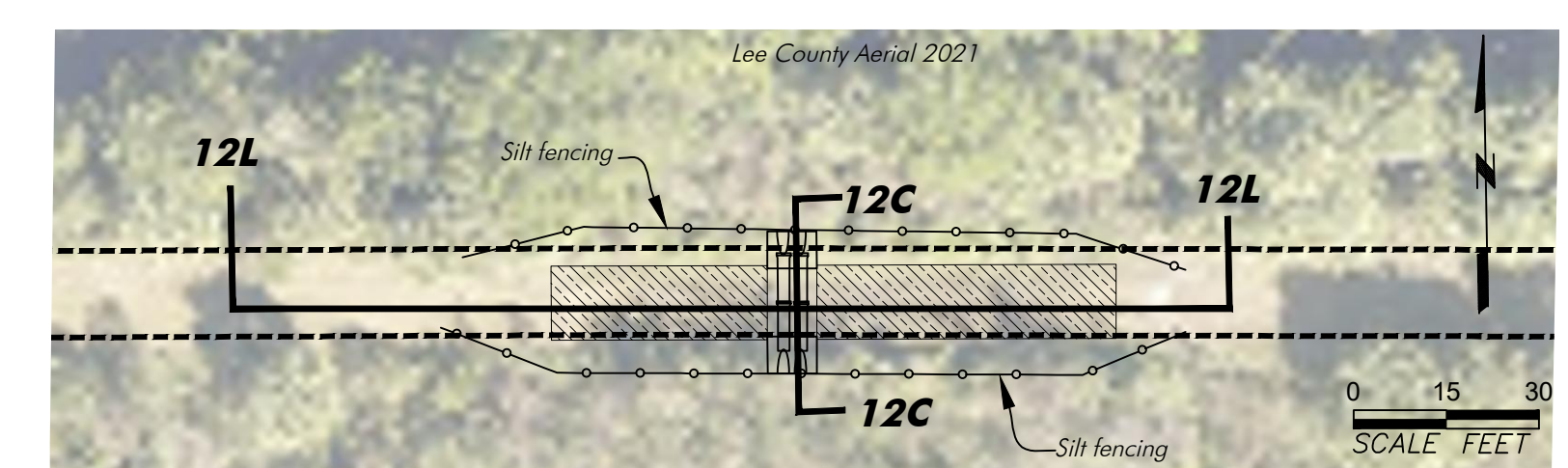
Berm Cut #11 Detail



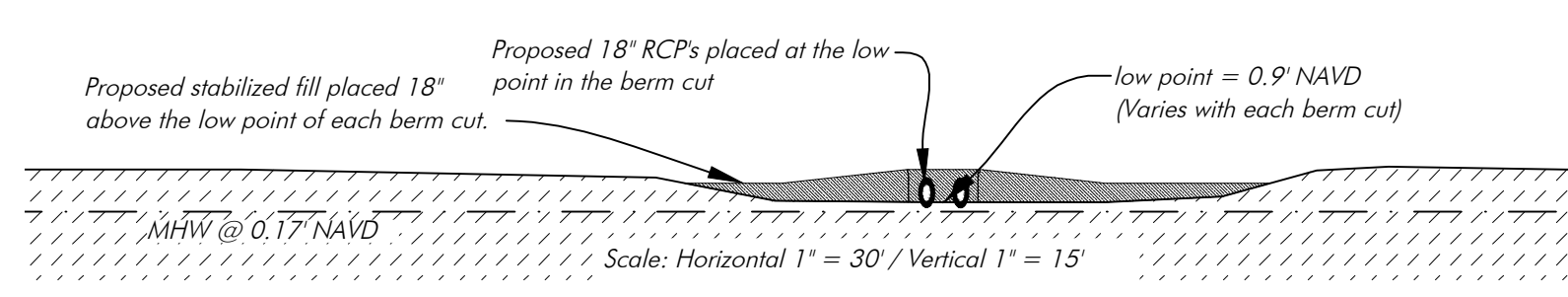
11L-11L at Berm Cut #11 with RCP's and Backfill



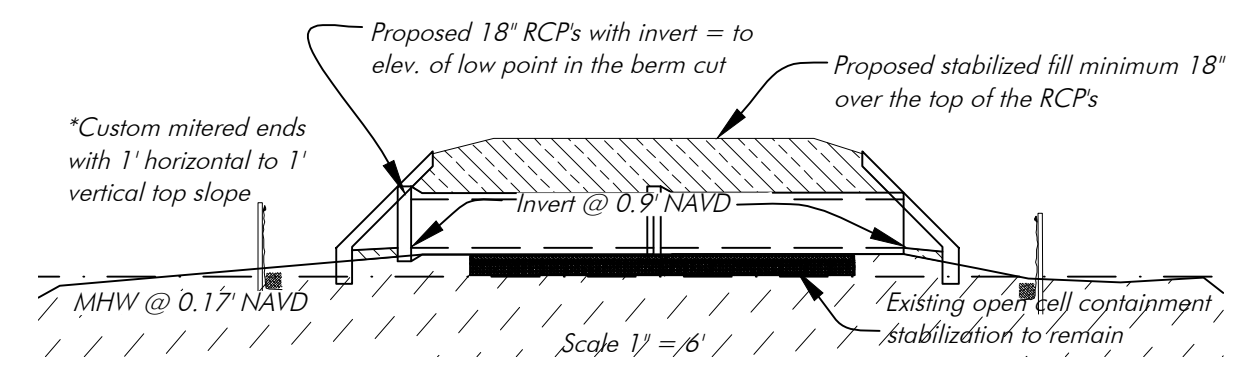
11C-11C of RCP's at Berm Cut #11



Berm Cut #12 Detail



12L-12L at Berm Cut #12 with RCP's and Backfill



12C-12C of RCP's at Berm Cut #12



**Caloosahatchee Creeks Preserve
East Park
Trail Improvements**

FOR: LEE COUNTY DEPARTMENT OF PUBLIC WORKS

DATE: 6-1-24 FILE: SCALE: Varies

DRAFTER: DATUM: NAVD SHEET: 7 of 7