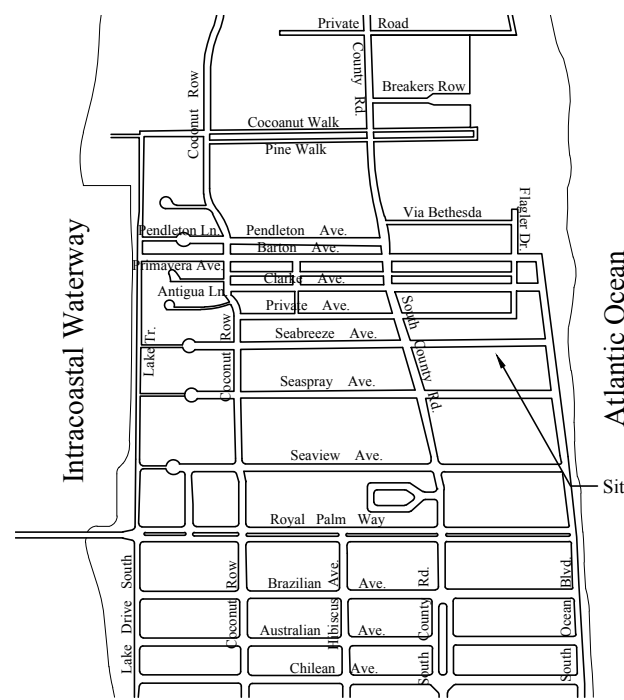


RECEIVED  
By yfigueroa at 2:46 pm, Jan 12, 2023

48 HOURS BEFORE DIGGING  
CALL  
1-800-432-4770  
SUNSHINE STATE ONE CALL  
OF FLORIDA, INC.  
Contractor is responsible for obtaining  
location of existing utilities prior to  
commencement of construction activities.



Gruber Consulting  
Engineers, Inc.  
SUNSHINE AVE., SUITE 305  
WEST PALM BEACH, FL 33401  
PHONE: 561.312.2841  
office@gruberengineers.com



Location Map  
N.T.S.

Project Information				
Project No.	2022-0123	Issue Date	11/02/2022	Scale
Scale	1/8" = 1'-0"	Drawn By	KM	Checked By
Drawn By	KM	Checked By	CG	

Conceptual Site Grading & Drainage Plan For:  
**Proposed Renovation**  
128 Seabreeze Avenue  
Palm Beach, Florida

Revisions	
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

Chad M. Gruber

FL P.E. No. 57466

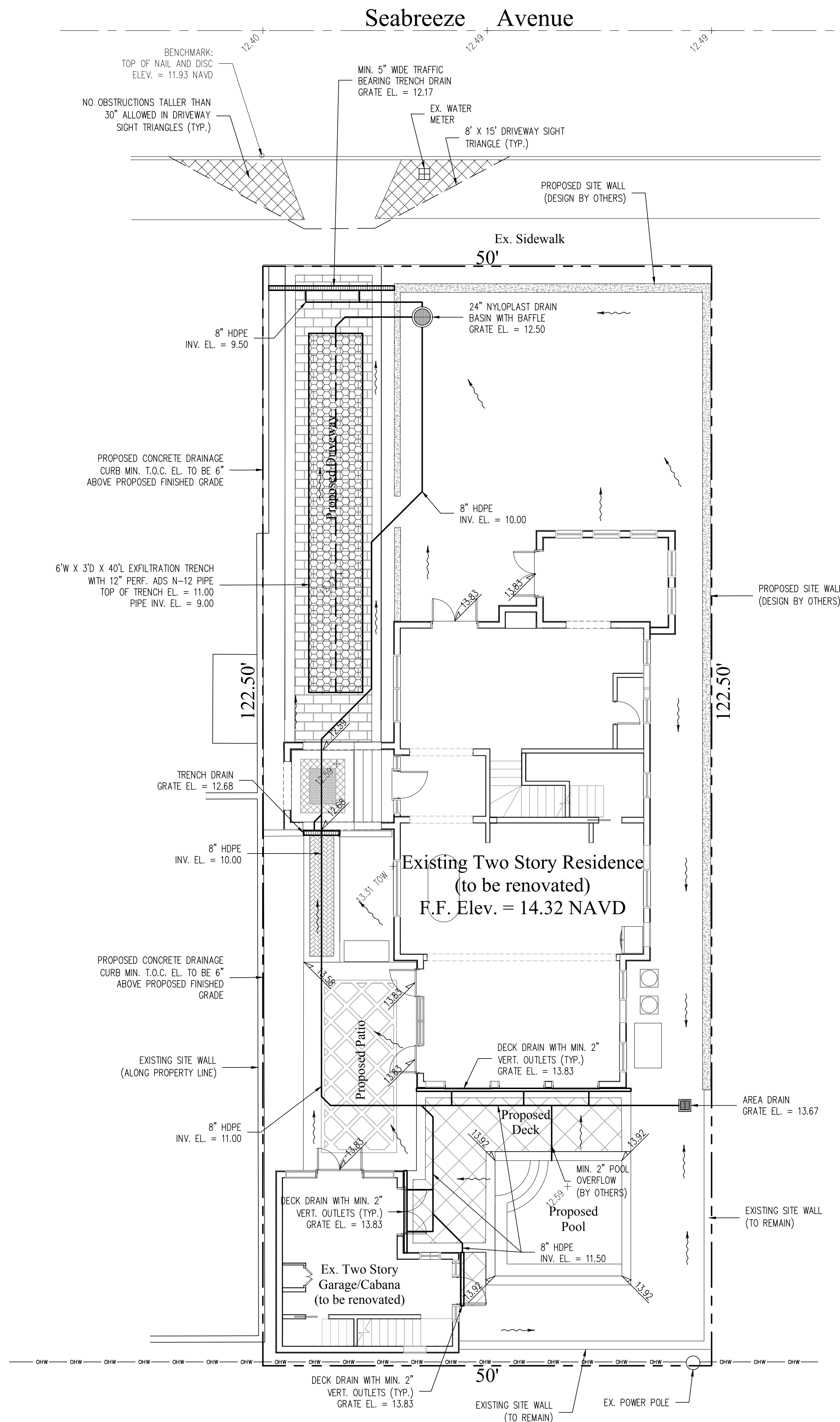
Sheet No.

C-1

Plan Background from Hardscape Plan  
by Todd Maclean Received 10/5/22

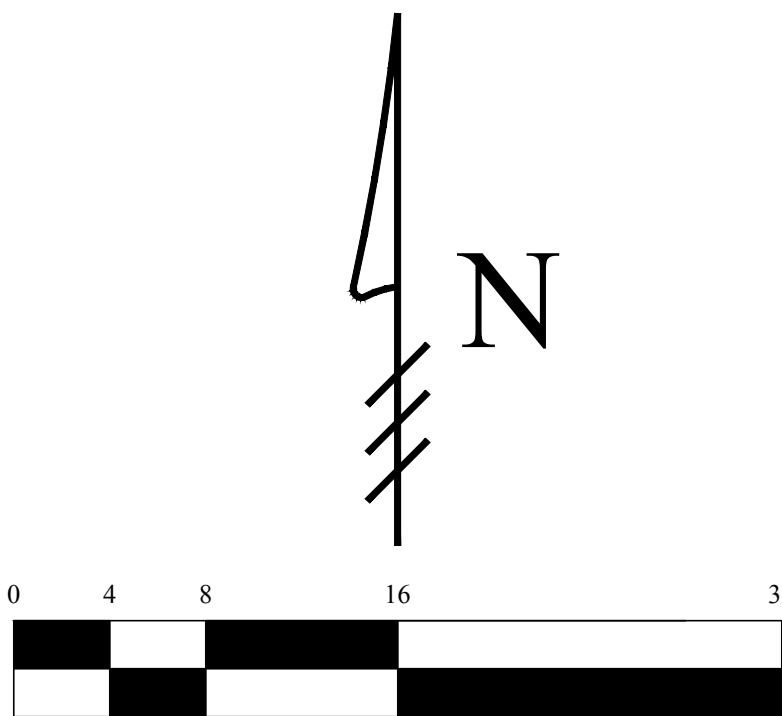
HSB-22-017  
ZON-23-005

© 2022 Gruber Consulting Engineers, Inc.



### Legend

- 5.7' +  
6.0' EXISTING ELEVATION PER WALLACE SURVEYING CORP. (NAVD-88)
- PROPOSED ELEVATION (NAVD-88)
- 7.00' PROPOSED ELEVATION CONTOUR (NAVD-88)
- FLOW DIRECTION
- EXFILTRATION TRENCH
- AREA DRAIN
- 24" NYLOPLAST DRAIN BASIN WITH BAFFLE



Scale: 1/8" = 1'-0"

### STORMWATER RETENTION CALCULATIONS

#### A. SITE INFORMATION

Total Property Area = 6,125 sq.ft.

Drainage Area Impervious Surface = 3,526 sq.ft.

Drainage Area Pervious Surface = 2,599 sq.ft.

#### B. ESTIMATED STORMWATER RETENTION VOLUME

The retention volume is estimated using the Rational Method ( $Q=CIA$ )

where:

$C = 1.0$  (impervious surface)

$C = 0.2$  (pervious surface)

$i = 2$  in/hr

Impervious Surface Runoff Volume:

$1.0 \times 2 \text{ in/hr} \times 3,526 \text{ sq.ft.} \times 1 \text{ ft./12 in.} = 588 \text{ cu.ft.}$

Pervious Runoff Volume:

$0.2 \times 2 \text{ in/hr} \times 2,599 \text{ sq.ft.} \times 1 \text{ ft./12 in.} = 87 \text{ cu.ft.}$

Total Volume to be Retained = 675 cu.ft.

#### C. PROPOSED EXFILTRATION TRENCH SIZING

L	=	Total Length of Trench Provided	=	40	ft
W	=	Trench Width	=	6	ft
K	=	Hydraulic Conductivity	=	0.00005 cfs/sq.ft./ft. of head	
H2	=	Depth to Water Table	=	6.00	ft
DU	=	Un-Saturated Trench Depth	=	3.00	ft
DS	=	Saturated Trench Depth	=	0.00	ft
V	=	Volume Treated	=	820	cu.ft.

### Notes:

- Exfiltration trenches and storm piping to be protected from roots with a root barrier.
- Roof drain downspouts are to be connected to the proposed drainage system. Contractor to provide engineer with downspout locations prior to installation of drainage system.
- Exfiltration trench design uses an assumed value of hydraulic conductivity. Client may obtain a site specific test for hydraulic conductivity prior to exfiltration trench installation.
- Contractor shall mill and overlay all roadway cuts a minimum of 50 ft. on either side of the excavation the entire width of each affected lane.
- Contractor is responsible for installing and maintaining erosion control measures during construction.
- Video inspection of storm drainage system required prior to installation of sod.

*GE*

2475 MERCER AVE., SUITE 305  
WEST PALM BEACH, FL 33401  
PHONE: 561.312.2041  
office@gruberengineers.com

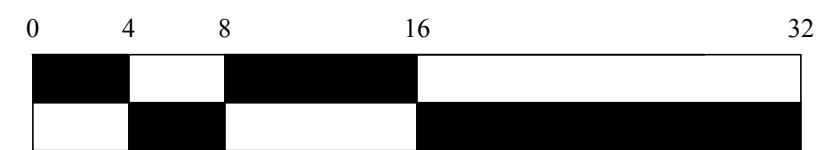
128 Seabreeze Avenue  
Palm Beach, Florida

FL P.E. No. 57466

The map shows the Intracoastal Waterway on the left, with streets including Lantana, Coconut, Orange, and Palm. To the right of the waterway are streets such as Pine, Cypress, and Palm. Further east are streets like Pine, Cypress, and Palm. The map also shows the Atlantic Ocean on the right. A site is marked with an arrow pointing to a location near the intersection of Pine and Cypress streets.

AGING AREA  
DETAIL)

4 N



- 1) The height of a slit fence shall not exceed 36".
- 2) Filter fabric shall be purchased in a continuous roll cut to the length of the barrier to avoid the use of joints.
- 3) Posts shall be spaced a maximum of 10' apart at the barrier location and driven vertically into the ground a minimum of 12". When extra strength fabric is used without the wire support fence, post spacing shall not exceed 6'.
- 4) A trench shall be excavated approximately 4" wide and 4" deep along the line of posts and upstate from the barrier.
- 5) When standard strength filter fabric is used, a wire mesh support fence shall be fastened securely to the upslope side of the posts using heavy duty wire staples at least 1" long, tie wires, or hog rings. The wire shall be placed in the trench at least 2" and shall not extend more than 36" above the original ground surface.
- 6) The standard strength filter fabric shall be stapled or wired to the fence, and 5' of the fabric shall be extended into the trench. The fabric shall not extend more than 36" above the original ground surface.
- 7) The trench shall be backfilled and the soil compacted over the filter fabric.

A cross-sectional diagram of a fence post installation. A vertical post is shown with labels: 'FENCE POST (WOOD OR STEEL)' at the top, 'FABRIC' on the upper part, and 'SILT FLOW' with an arrow pointing to the fabric. The bottom of the post is buried in a trench. Labels indicate: 'BURY BOTTOM 8" OF FABRIC IN 4" WIDE BY 4" DEEP TRENCH; COMPACT BACKFILL'. Dimensions are shown: '2" MIN.' for the height of the fabric above the trench, and '4"' for the width of the trench. The backfill is shown as a stippled area.

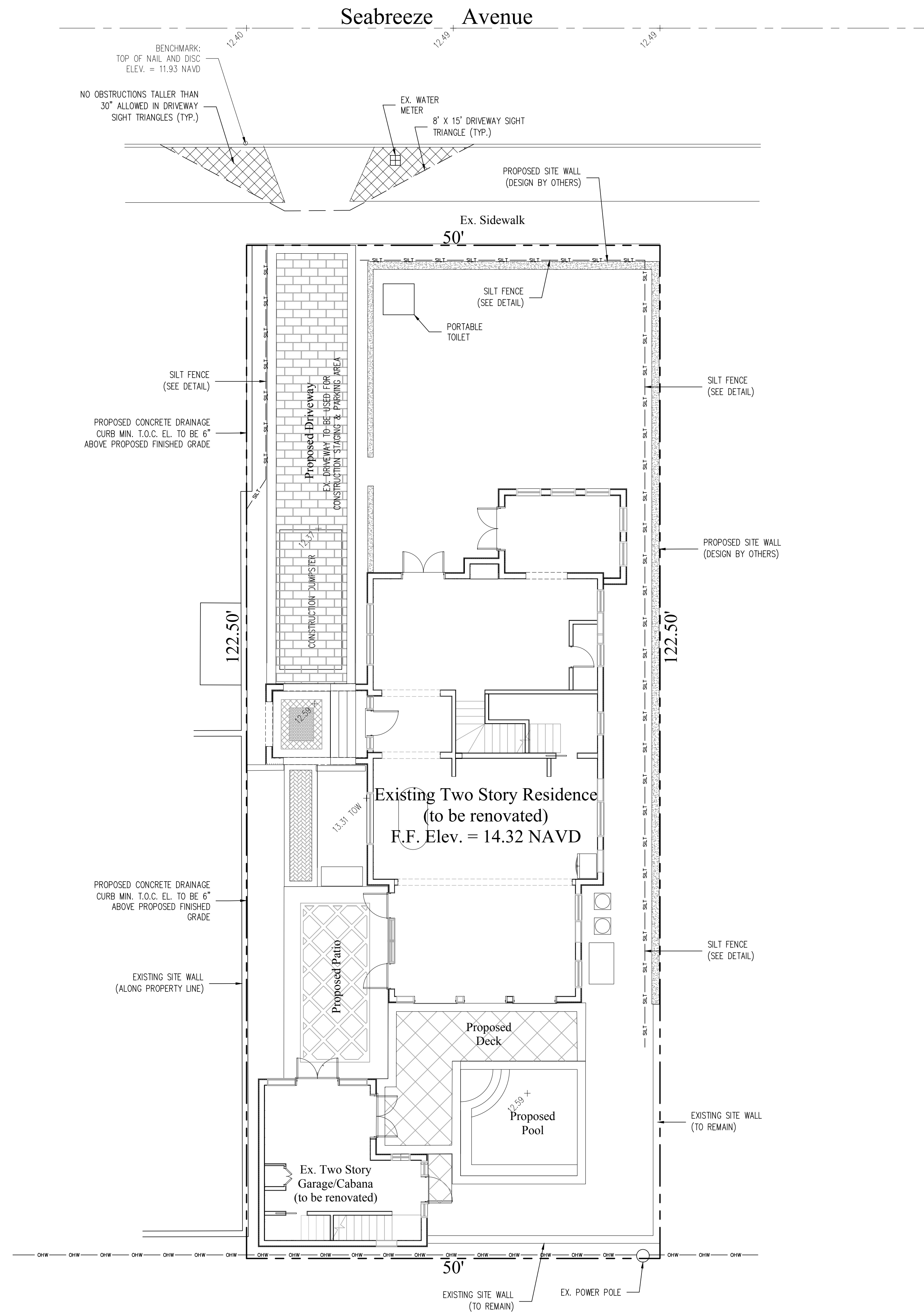
PLACE THE END POST OF THE SECOND FENCE INSIDE THE END POST OF THE FIRST FENCE

ROTATE BOTH POSTS AT LEAST 180° IN A CLOCKWISE DIRECTION TO CREATE A TIGHT SEAL WITH THE FABRIC MATERIAL

DIRECTION OF RUNOFF WATERS

DRIVE BOTH POSTS 18" INTO THE GROUND AND BURY FLAP

- 1) Contractor is responsible for installing and maintaining erosion control measures during construction.
- 2) Contractor to investigate condition of existing sewer service prior to building permit submittal. If existing service is cast iron, or in poor condition, service will be replaced to main per Town of Palm Beach standards.



© 2022 Gruber Consulting Engineers, Inc.