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VIEW FROM OCEAN BLVD - FACING EAST


EXISTING VEGETATION - FACING NORTH


EXISTING PATH& VEGETATION - FACING WEST


EXISTING VEGETATION & STRUCTURE - FACING SOUTHWEST


EXISTING STRUCTURE - FACING WEST


EXISTING VEGETATION & STRUCTURE - FACING NORTHEAST


EXISTING VEGETATION - NORTH BUFFER - FACING WEST


EXISTING VEGETATION - FACING NORTHEAST


EXISTING VEGETATION - FACING NORTH

MARIO F. NIEVERA

State of Florida
Landscape Architect
Registration No.
6666856

EXISTING CONDITIONS PHOTOS

LIBMAN RESIDENCE

101 NIGHTINGALE TR., PALM BEACH, FL.

28 JUNE 2023
24 MAY 2023
27 MARCH 2023
09 MARCH 2023

NIEVERA WILLIAMS
DESIGN

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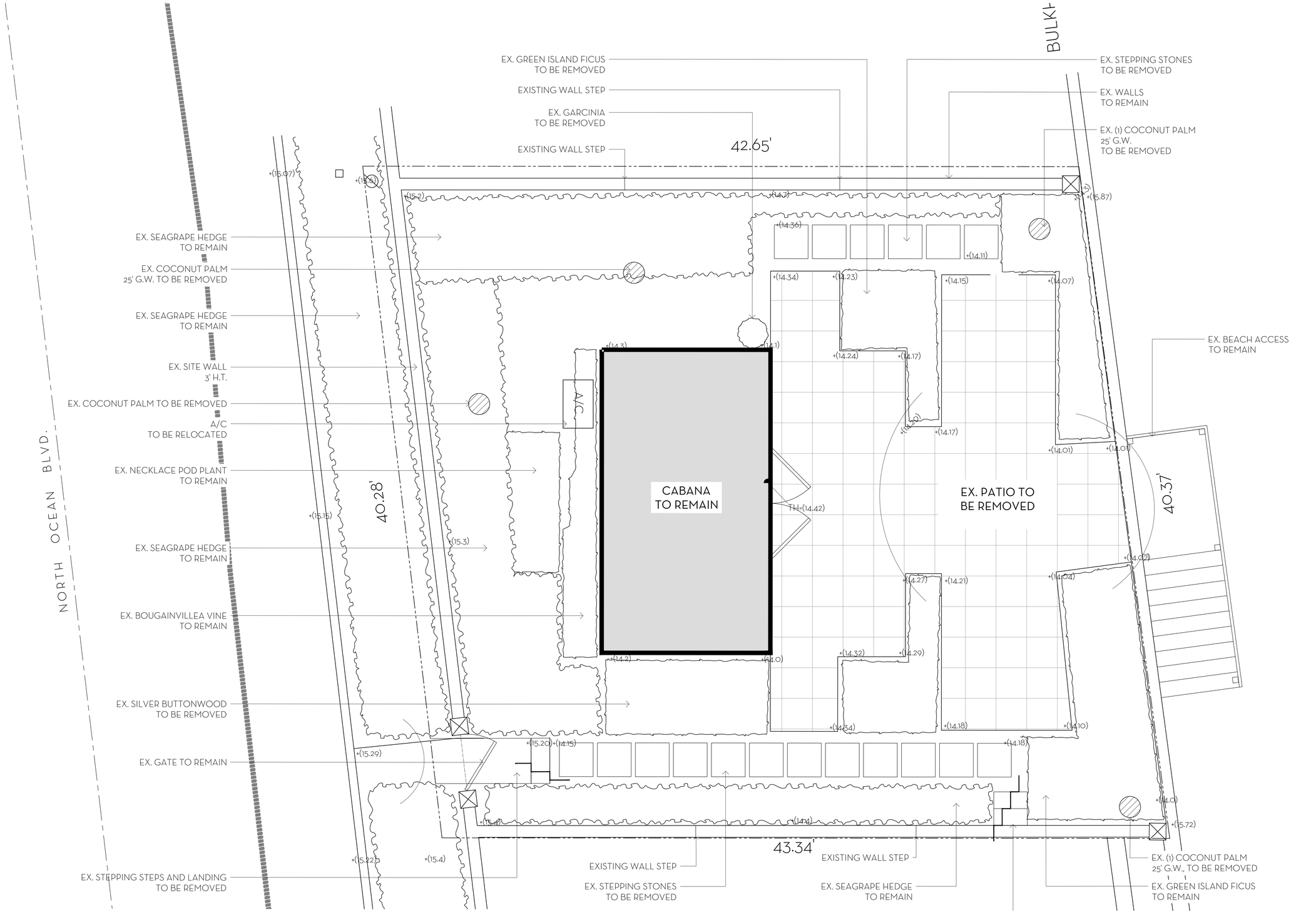
EXo

ARC-23-060



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SCALE: 3/8" = 1'-0"

EXISTING CONDITIONS PLAN

LIBMAN RESIDENCE

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EX1

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SITE PLAN

LIBMAN RESIDENCE

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SCALE: 3/8" = 1'-0"

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SITE

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1 EL1 CABANA - WEST ELEVATION DETAIL
SCALE: 1/2"=1'-0"

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WEST ELEVATION

LIBMAN RESIDENCE

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EL1

1 EL2 CABANA - EAST ELEVATION DETAIL
SCALE: 1/2"=1'-0"

EAST ELEVATION

LIBMAN RESIDENCE

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EL2

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1 EL3 CABANA - SOUTH ELEVATION DETAIL
SCALE: 1/2"=1'-0"

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SOUTH ELEVATION

LIBMAN RESIDENCE

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1 EL4 CABANA - NORTH ELEVATION DETAIL
SCALE: 1/2"=1'-0"

NORTH ELEVATION

LIBMAN RESIDENCE

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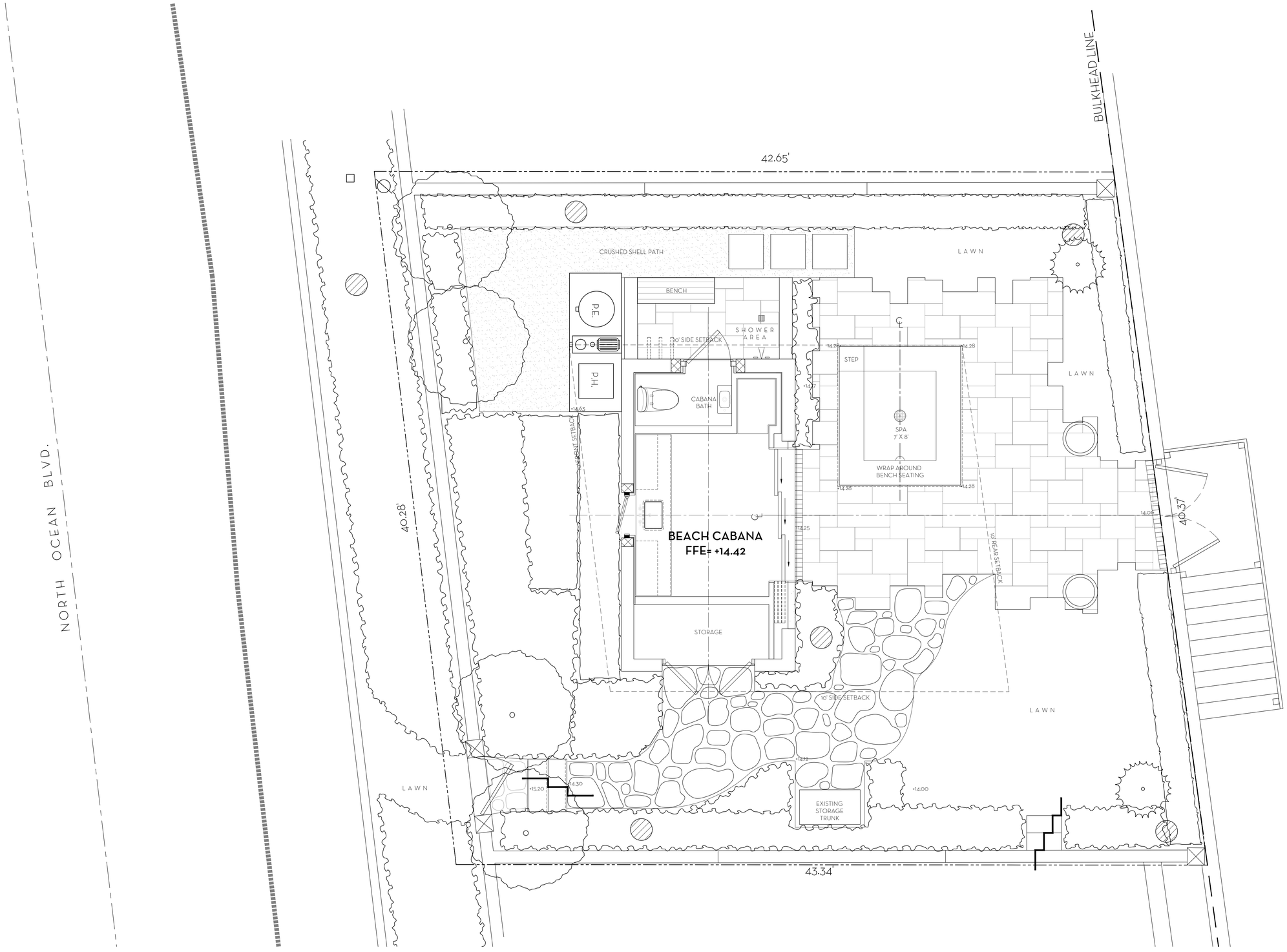

0 1 2 4 6 FEET
SCALE: 3/8" = 1'-0"

N W E S

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SCALE: 3/8" = 1'-0"

SITE PLAN

LIBMAN RESIDENCE

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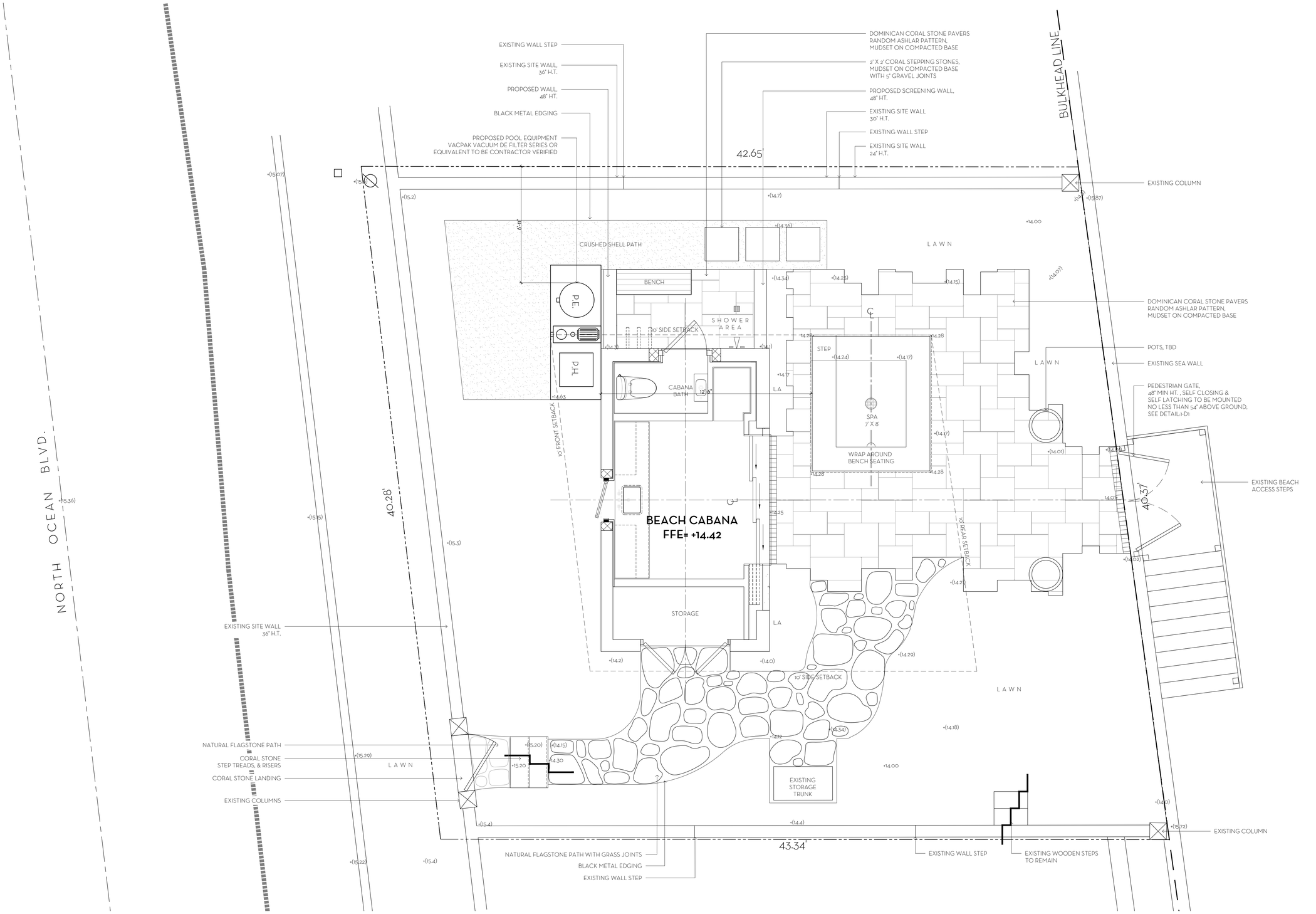

LEGEND

===== I/E	2" SLEEVE FOR IRRIGATION & ELECTRICAL
+(5.00)	EXISTING SPOT ELEVATION
+5.00'	PROPOSED SPOT ELEVATION
— 0.0 —	PROPOSED TOPOGRAPHY LINE

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SCALE: 3/8" = 1'-0"

HARDSCAPE PLAN

LIBMAN RESIDENCE

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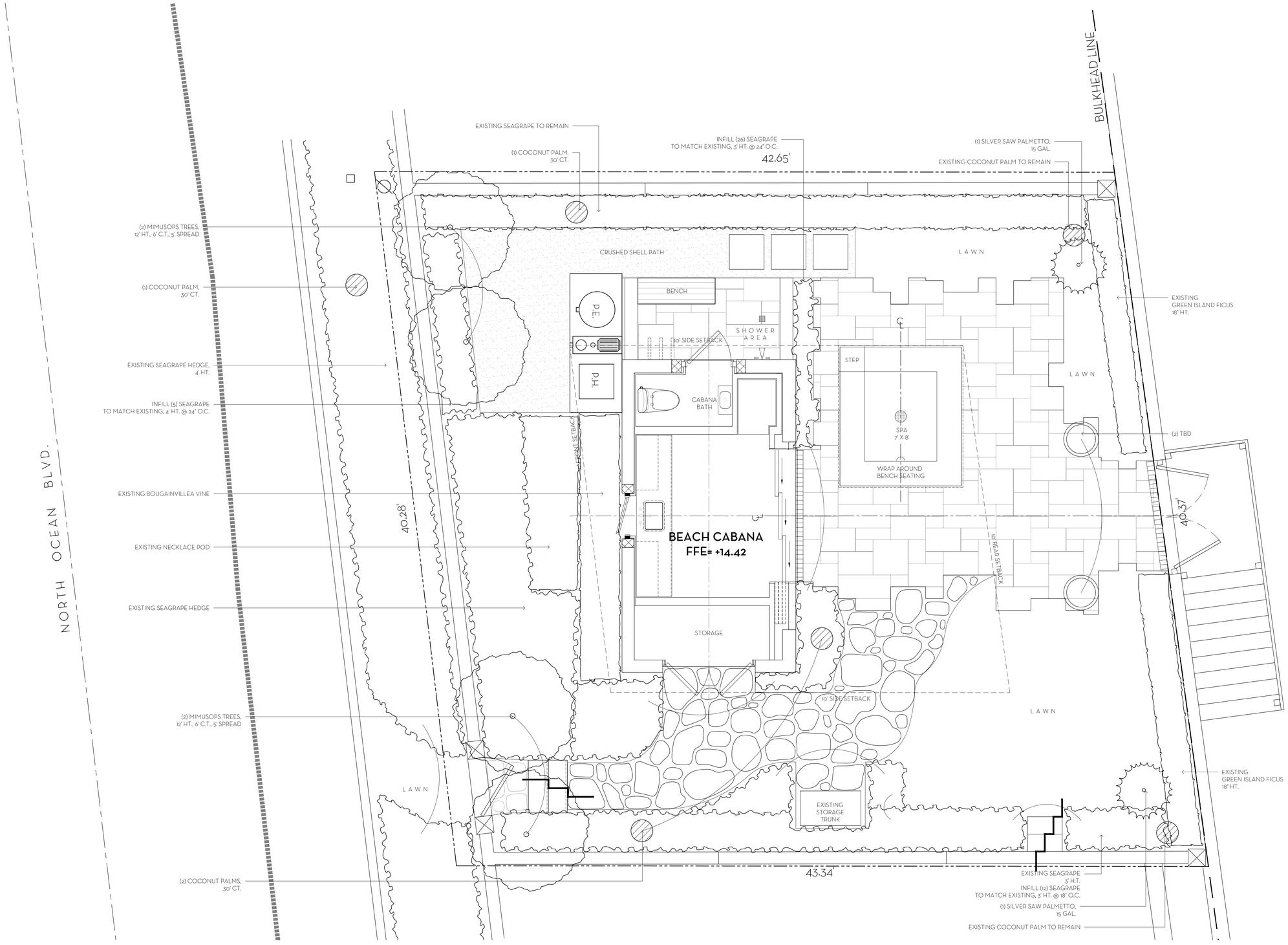

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SCALE: 3/8" = 1'-0"

LANDSCAPE PLAN

LIBMAN RESIDENCE

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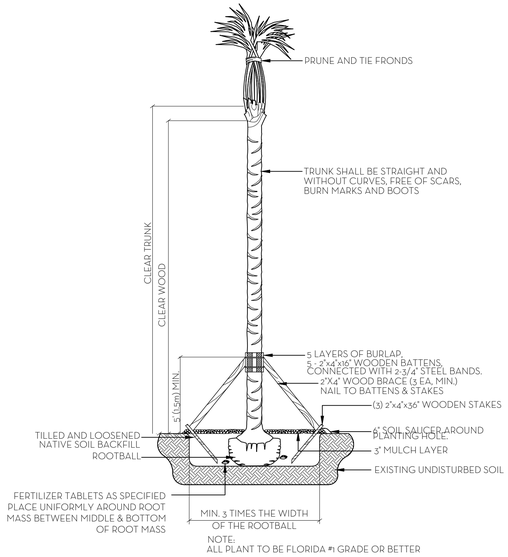
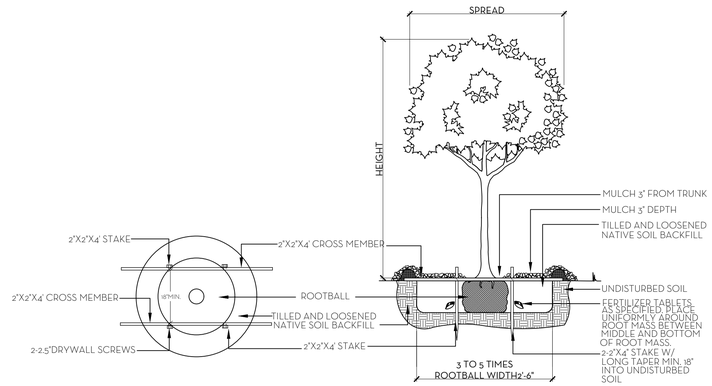


NOTE:
ALL PLANT TO BE FLORIDA #1 GRADE OR BETTER

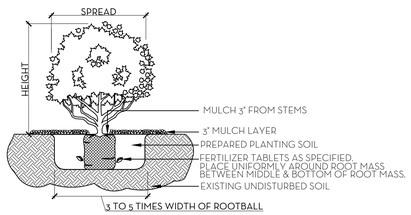
PALM PLANTING DETAIL
N.T.S.

NOTES:
1. ALL WOOD SHALL BE SPRUCE OR PINE-NOT PRESSURE TREATED.
2. CROSS TIES SHALL NOT CROSS OVER WOODY ROOTS.
3. REMOVE ALL STRING &/OR WIRE WRAPPED AROUND TRUNK.
4. REMOVE ALL STRAPS, ROPES, WIRE, &/OR STRINGS USED TO LIFT THE ROOTBALL.
5. REMOVE ALL BURLAP &/OR WIRE FROM THE TOP OF THE ROOT BALL.
6. TOP OF ROOTBALL TO BE SET 2" BELOW FINISH SURROUNDING FINISH GRADE.



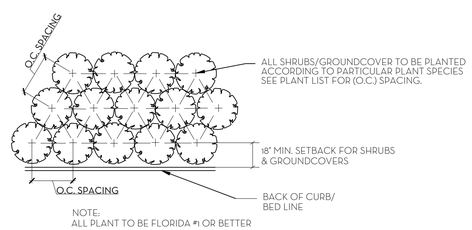
NOTE:
ALL PLANT TO BE FLORIDA #1 GRADE OR BETTER

TREE PLANTING DETAIL
N.T.S.



NOTE:
ALL MATERIAL TO BE FLORIDA #1 OR BETTER

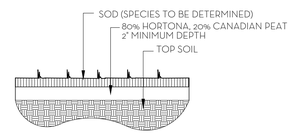
SHRUB & GROUNDCOVER PLANTING DETAIL
N.T.S.



NOTE:
ALL PLANT TO BE FLORIDA #1 OR BETTER

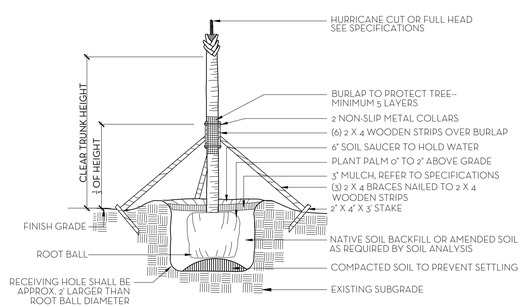
PLANT SPACING DETAIL
N.T.S.

SOD NOTES:
1. ROUGH GRADE PROVIDED BY CONTRACTOR 4"-5" BELOW GRADE
2. RAKE AND REMOVE ALL CONSTRUCTION DEBRIS
3. PRIOR TO LAYING SOD ADD 80% HORTANA AND 20% CANADIAN PEAT, 2" MIN,
4. AFTER LAYING SOD APPLY NECESSARY PESTICIDES AND FUNGICIDES.
5. IRRIGATE REGULARLY, REFER TO IRRIGATION DRAWINGS



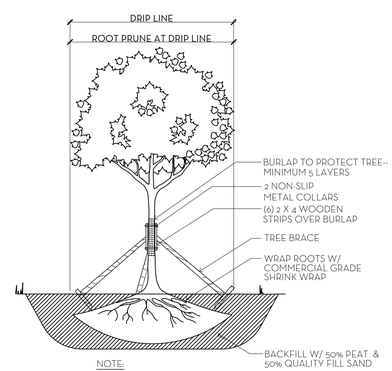
SOD PLANTING DETAIL
N.T.S.

NOTE: BUD SHALL BE PERPENDICULAR TO GROUND PLANE. TRUNK SHALL BE STRAIGHT AND WITHOUT CURVES. NO SCARRED OR BLACKENED TRUNKS.



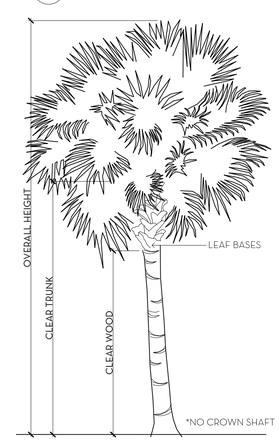
NOTES: STAKING & GUYING REQUIRED FOR PALMS, IF NECESSARY, OR AS DIRECTED BY THE LANDSCAPE ARCHITECT. ALL PLANT TO BE FLORIDA #1 OR BETTER

PALM TREE PLANTING AND STAKING DETAIL
N.T.S.



NOTE:
1. ALLOW 4-6 WEEKS BEFORE MOVING TREES.
2. PROVIDE DRIP IRRIGATION.
3. ALL PLANT MATERIAL TO BE FLORIDA #1 GRADE OR BETTER

TREE ROOT PRUNING DETAIL
N.T.S.



PALM SPECIFICATION DETAIL
N.T.S.

FERTILIZATION

SHRUBS AND TREES
ALL TREES AND SHRUBS SHALL BE FERTILIZED WITH "AGRIFORM" 20-15-5 PLANTING TABLETS AT TIME OF INSTALLATION AND PRIOR TO COMPLETION OF PIT BACKFILLING. TABLETS SHALL BE PLACED UNIFOMLY AROUND THE ROOT MASS OF A DEPTH THAT IS BETWEEN THE MIDDLE AND BOTTOM OF THE ROOT MASS.
APPLICATION RATE:

1 GALLON CAN:	1 - 21 GRAM TABLET
3 GALLON CAN:	2 - 21 GRAM TABLETS
5 GALLON CAN:	3 - 21 GRAM TABLETS
7 GALLON CAN:	4 - 21 GRAM TABLETS
TREES:	3 - 21 GRAM TABLETS EACH 1/2" OF CALIPER
PALMS:	7 - 21 GRAM TABLETS

GROUNDCOVER AREAS
ALL GROUNDCOVER AREAS SHALL RECEIVE FERTILIZATION WITH "OZMOCOTE" TIME RELEASE FERTILIZER AS PER MANUFACTURER'S SPECIFICATIONS.

PLANT LIST

COMMON NAME	BOTANICAL NAME	QTY	NATIVE	SPECIFICATION
TREES				
MIMUSOPS TREES	Mimusops	4		12' HT. , 6' C.T., 5' SPREAD
PALMS				
COCONUT PALM	Cocos nucifera	4		30' CT.
SHRUB/GROUNDCOVER				
SEAGRAPE	Coccoloba uvifera	38	*	TO MATCH EXISTING, 3' HT. @ 18" O.C.
SEAGRAPE	Coccoloba uvifera	5	*	TO MATCH EXISTING, 4' HT. @ 24" O.C.
SILVER SAW PALMETTO	Serenoa repens 'Cinerea'	2	*	15 GAL.
		45	100%	
VINES				
SOD				
Zoysia 'Diamond' Sod	Zoysia matrella 'Diamond'			CONTRACTOR TO VERIFY QUANTITY

MARIO F. NIEVERA

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PLANT LIST AND DETAILS (CABANA)

LIBMAN RESIDENCE

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28 JUNE 2023
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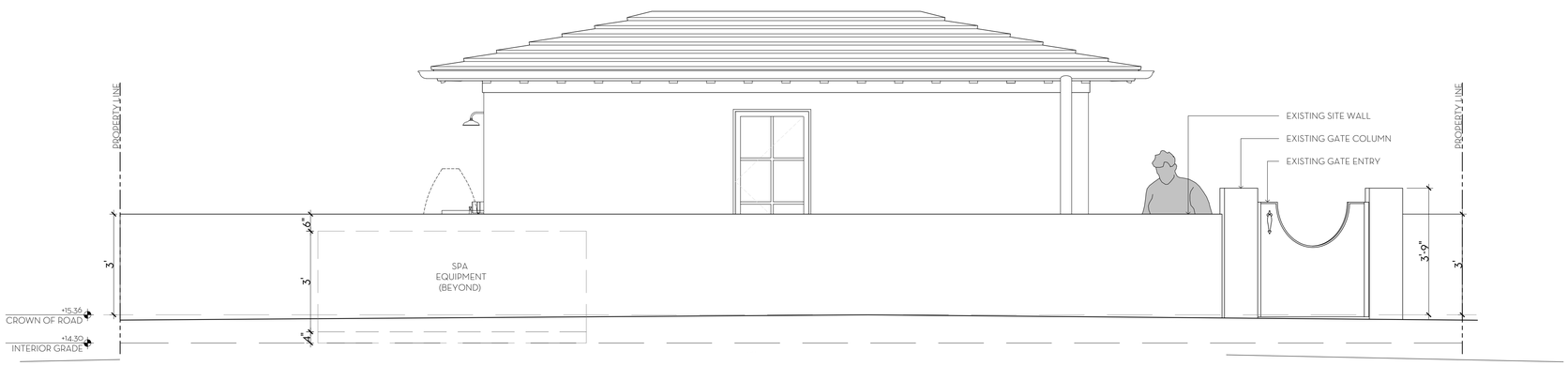

1 / EL1 CABANA - WEST ELEVATION DETAIL
SCALE: 1/2"=1'-0"

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WEST ELEVATION

LIBMAN RESIDENCE

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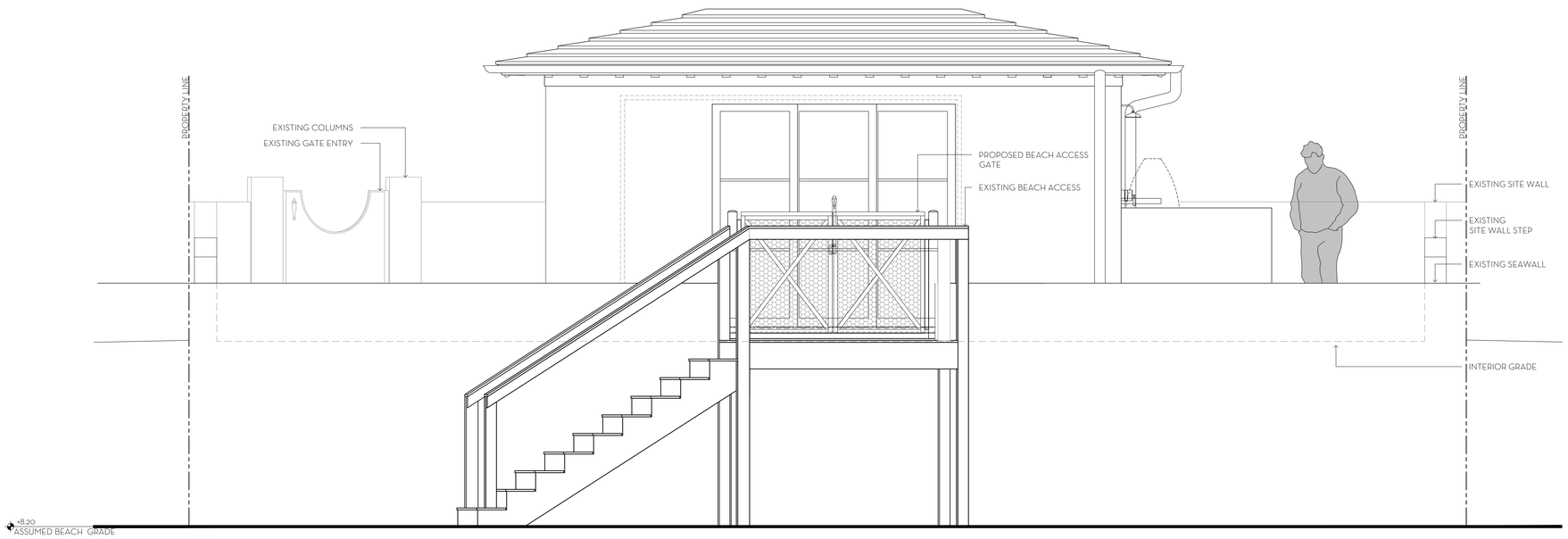

1 / EL2 CABANA - EAST ELEVATION DETAIL
SCALE: 1/2"=1'-0"

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EAST ELEVATION

LIBMAN RESIDENCE

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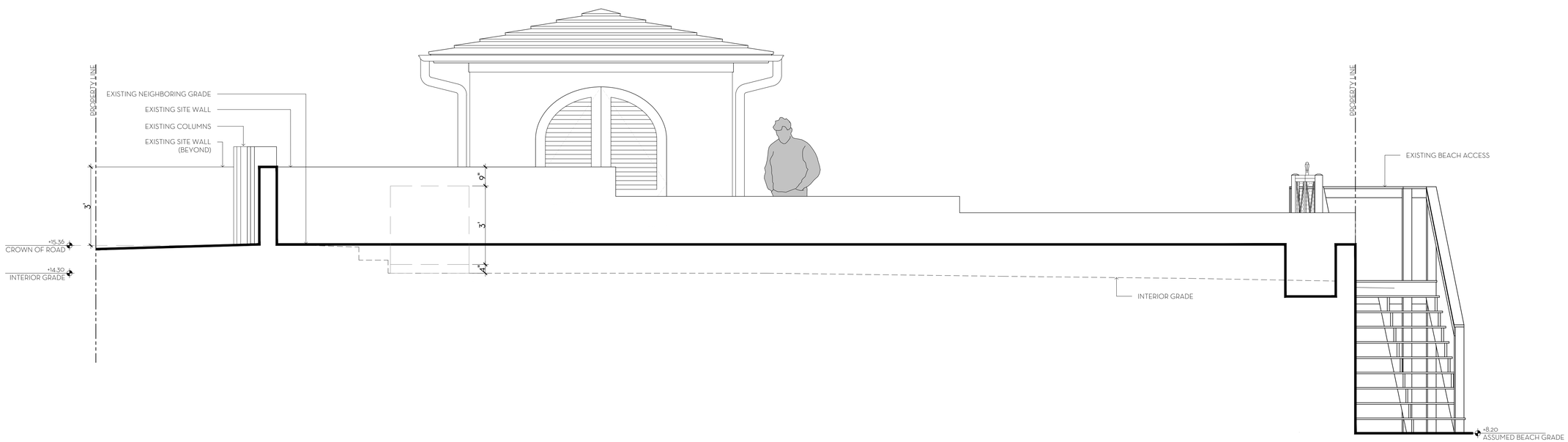

1 / EL3 CABANA - SOUTH ELEVATION DETAIL
SCALE: 1/2"=1'-0"

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SOUTH ELEVATION

LIBMAN RESIDENCE

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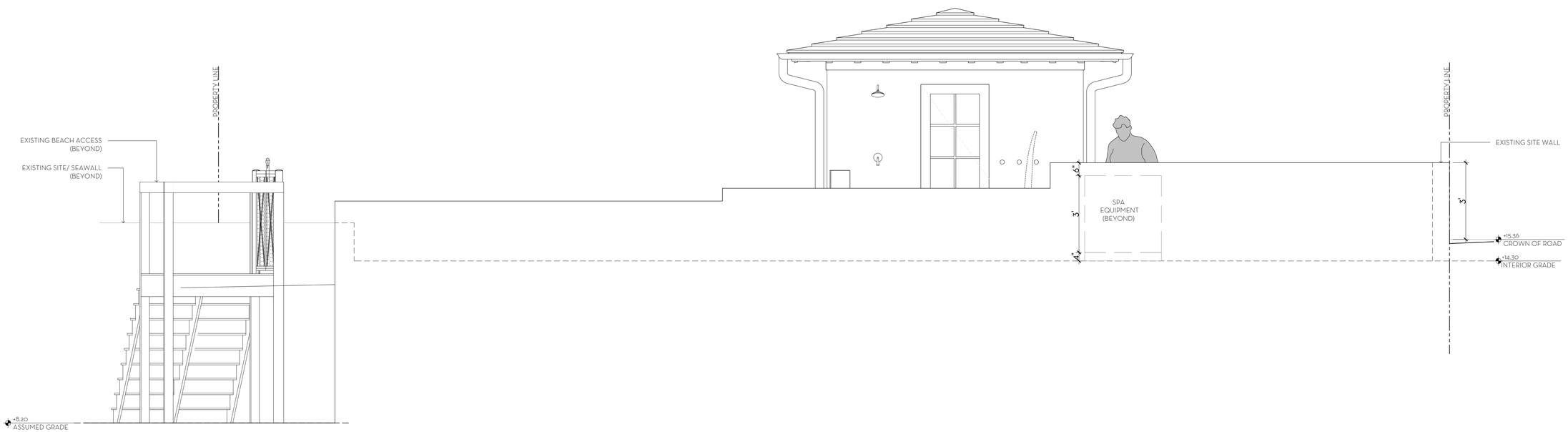

1 / EL4 CABANA - NORTH ELEVATION DETAIL
SCALE: 1/2"=1'-0"

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NORTH ELEVATION

LIBMAN RESIDENCE

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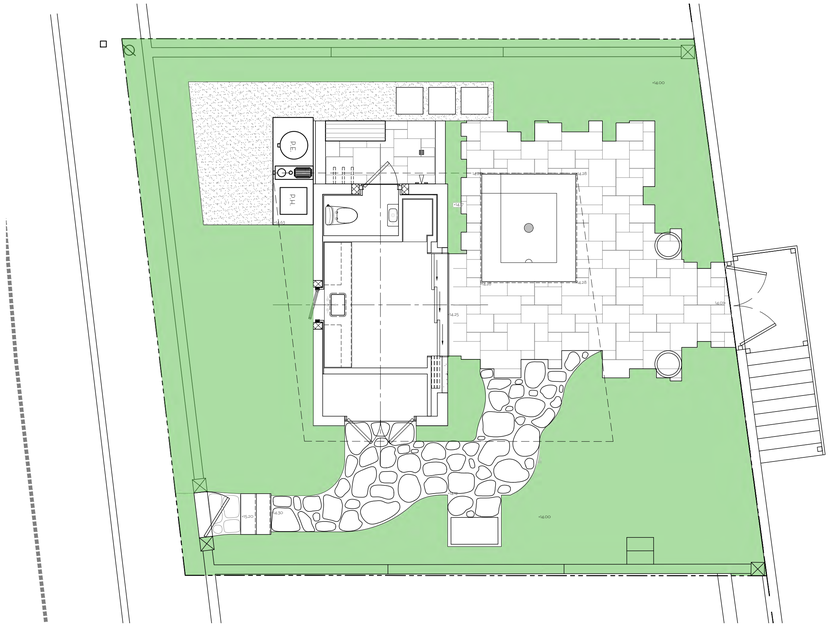
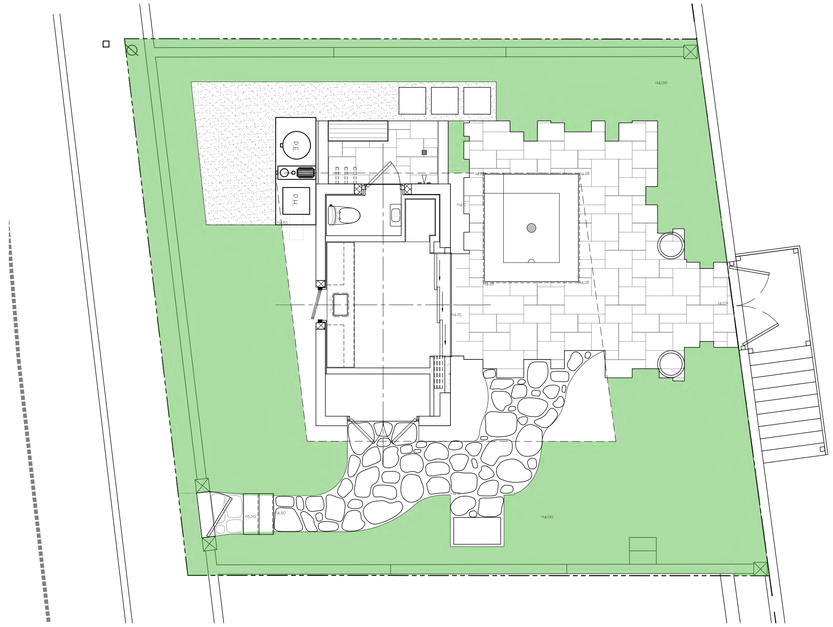


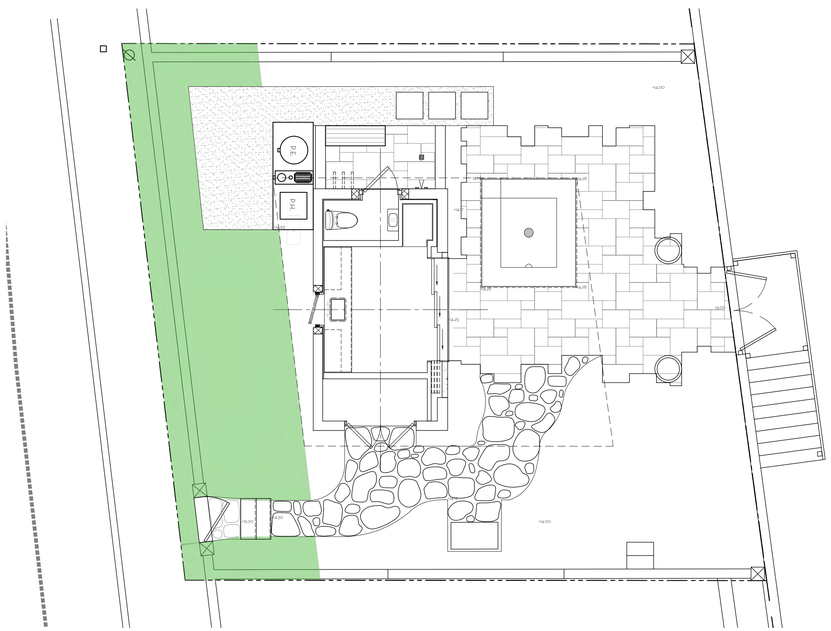
OVERALL R-B SITE CALCULATIONS:

SITE AREA =	1,720	SQ FT	100%
MINIMUM LANDSCAPE:			
REQUIRED =	N/A	SQ FT	N/A
EXISTING =	1,120	SQ FT	65%
PROPOSED =	894	SQ FT	51%



10' PERIMETER SITE CALCULATIONS:

PERIMETER AREA =	1,263	SQ FT
MINIMUM LANDSCAPE:		
EXISTING =	938	SQ FT
PROPOSED =	820	SQ FT



FRONT SETBACK SITE CALCULATIONS:

10' SETBACK AREA =	402	SQ FT	100%
MINIMUM LANDSCAPE:			
REQUIRED =	N/A	SQ FT	N/A
EXISTING =	379	SQ FT	94%
PROPOSED =	318	SQ FT	79%

Landscape Legend		
Property Address:	101 NIGHTINGALE TRAIL	
	Required	Proposed
Lot Size (sq ft)	N/A	1,720
Landscape Open Space (LOS) (Sq Ft and %)	N/A	827 SF/ 48%
Perimeter LOS (Sq Ft and %)	N/A	779 SF/62%
Front Yard LOS (Sq Ft and %)	N/A	331 SF/82%
Native* Trees %	35%	N/A
Native* Palms %	35%	N/A
Native* Shrubs %	35%	100%
Native* Vines / Ground Cover %	35%	N/A

NATIVE VEGETATION REQUIREMENT

0 1 2 4 8 12 FEET
SCALE: 3/16" = 1'-0"

N
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OPEN SPACE & NATIVE LANDSCAPE CALCULATIONS

LIBMAN RESIDENCE

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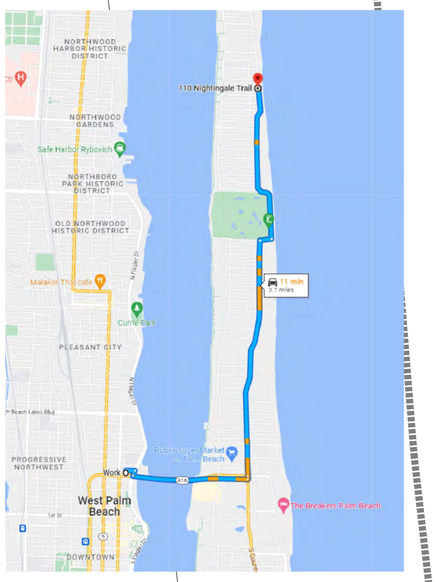
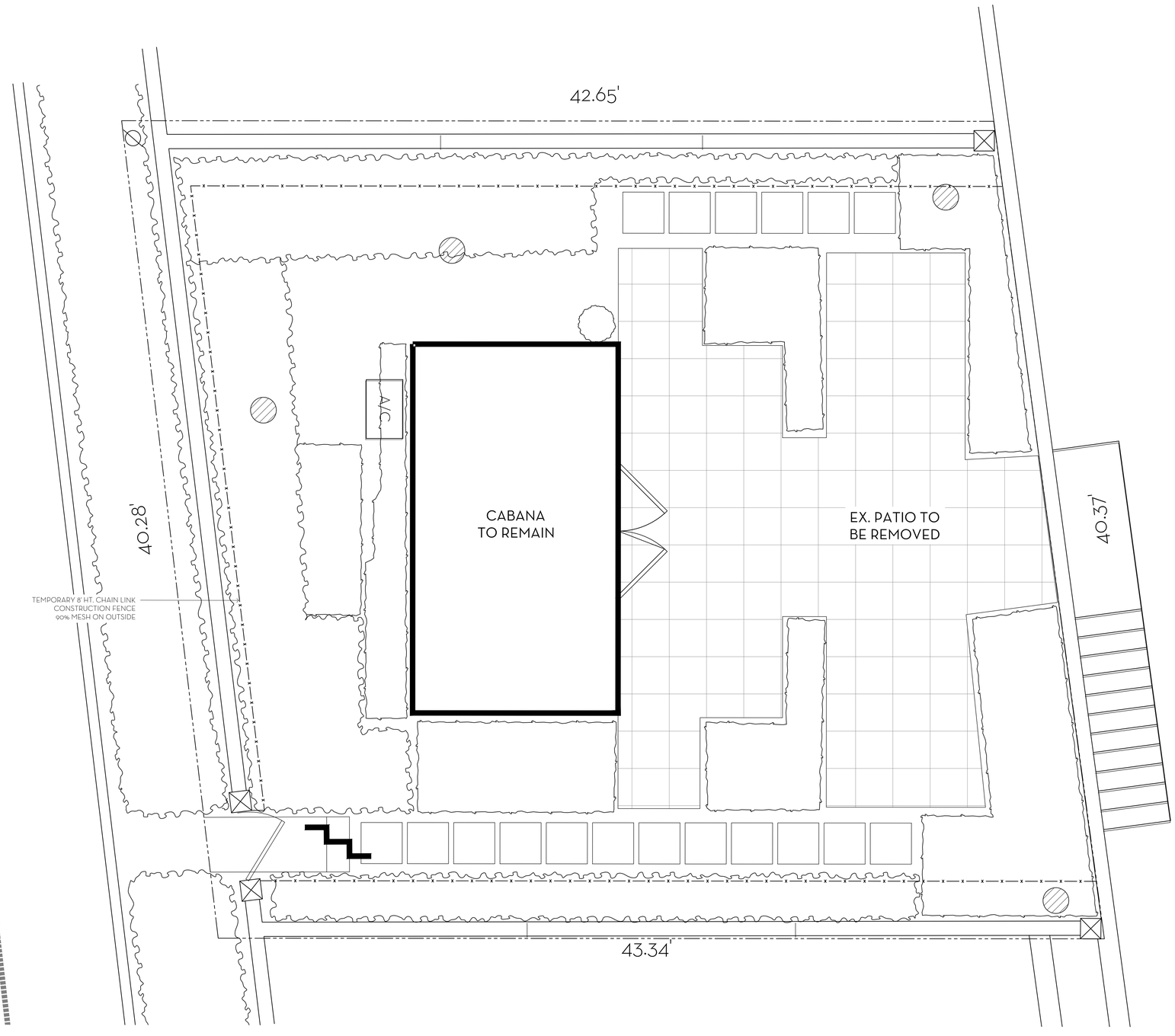


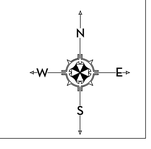
TRUCK ROUTE MAP & LOGISTICS

MAXIMUM TRUCK SIZE: 30 FEET

BEST ROUTE TO PROPERTY:
ROYAL PARK BRIDGE TO COUNTY ROAD,
CONTINUE TO NORTH OCEAN BLVD

ESTIMATED NUMBER OF LARGE TRUCK TRIPS: 10





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SCALE: 3/8" = 1'-0"

CONSTRUCTION SCREENING PLAN

LIBMAN RESIDENCE

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STORMWATER RETENTION CALCULATIONS
(Beach Parcel)

A. SITE INFORMATION

Total Property Area = 1,720 sq.ft.

Drainage Area Impervious Surface = 824 sq.ft.

Drainage Area Pervious Surface = 896 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

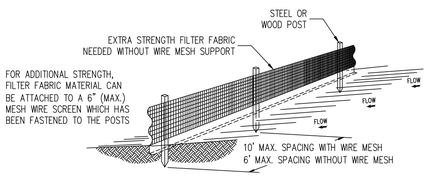
Impervious Surface Runoff Volume:
1.0 x 2 in/hr x 824 sq.ft. x 1 ft./12 in. = 138 cu.ft.

Pervious Runoff Volume:
0.2 x 2 in/hr x 896 sq.ft. x 1 ft./12 in. = 30 cu.ft.

Total Volume to be Retained = 168 cu.ft.

C. PROPOSED EXFILTRATION TRENCH SIZING

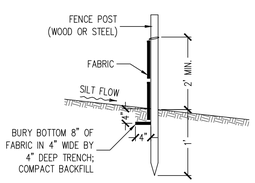
L	=	Total Length of Trench Provided	=	10	ft
W	=	Trench Width	=	4	ft
K	=	Hydraulic Conductivity	=	0.00108	cfs/sq.ft./ft. of head
H2	=	Depth to Water Table	=	6.00	ft
DU	=	Un-Saturated Trench Depth	=	3.00	ft
DS	=	Saturated Trench Depth	=	0.00	ft
V	=	Volume Treated	=	2,059	cu.ft.



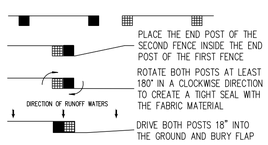
Notes:

1) The height of a silt 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 securely 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 upslope 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 extend into the trench a minimum of 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 8" 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.

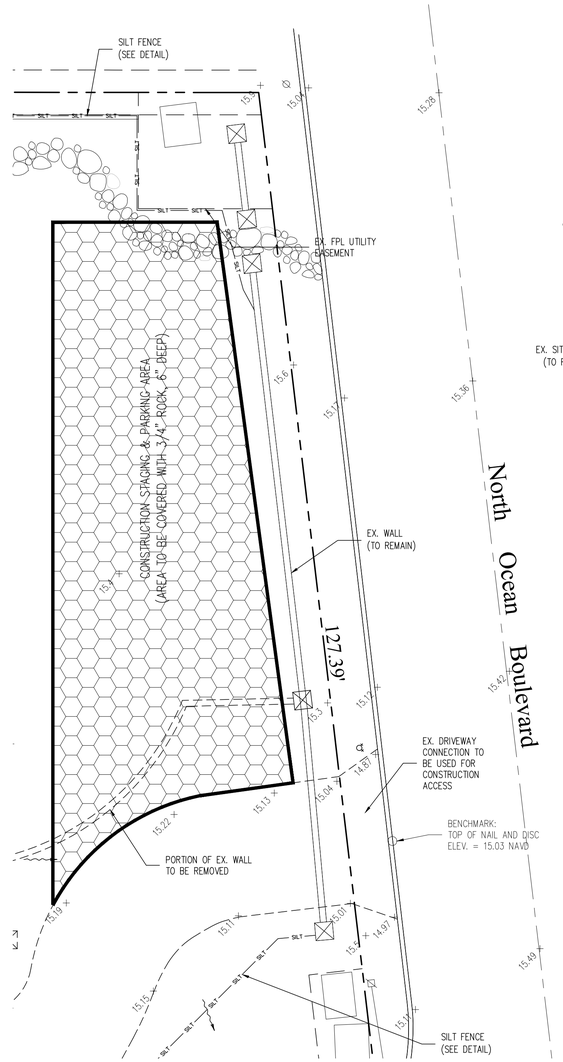
SILT FENCE DETAIL
N.T.S.



SILT FENCE SECTION
N.T.S.

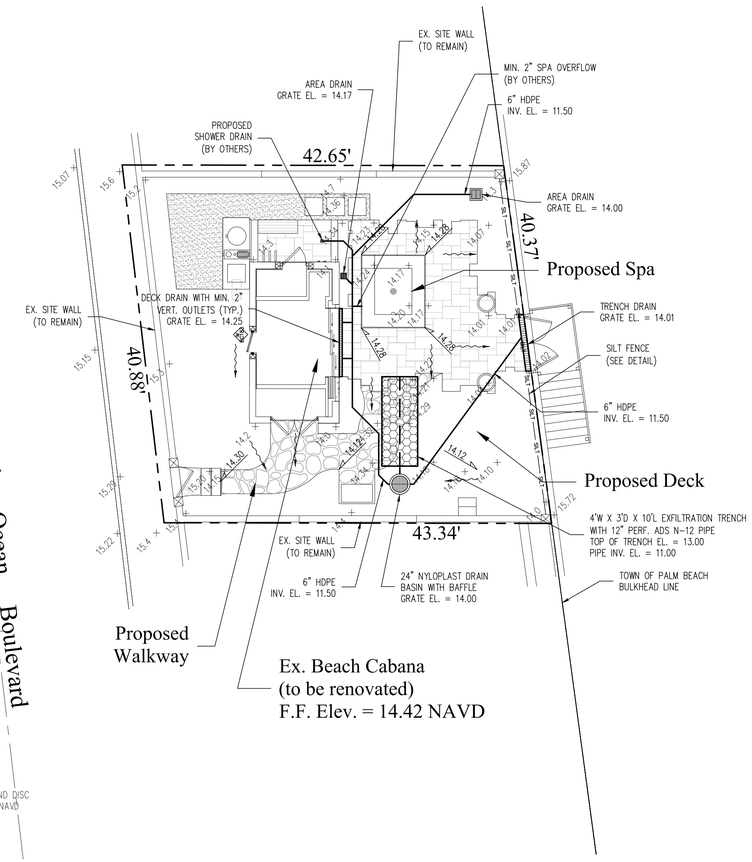


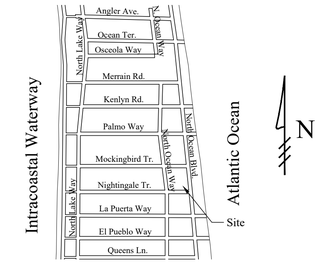
ATTACHING TWO SILT FENCES
N.T.S.



Notes:

1) Exfiltration trenches and storm piping to be protected from roots with a root barrier.
2) 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.
3) 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.
4) Contractor is responsible for installing and maintaining erosion control measures during construction.
5) Video inspection of storm drainage system required prior to installation of sod.

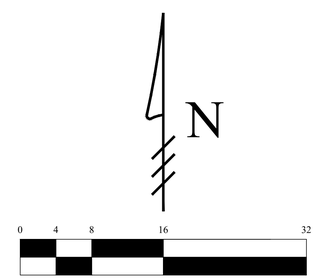




Location Map
N.T.S.

Legend

- EXISTING ELEVATION PER WALLACE SURVEYING CORP. (NAVD-88)
- PROPOSED ELEVATION (NAVD-88)
- PROPOSED ELEVATION CONTOUR (NAVD-88)
- FLOW DIRECTION
- EXFILTRATION TRENCH
- AREA DRAIN
- 24" NYLOPLAST DRAIN BASIN WITH BAFFLE
- SILT FENCE (SEE DETAIL)



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

1	04/05/23	UPDATE PLAN BACKGROUND; REVISE STORMWATER RETENTION CALCULATIONS
2	06/03/23	UPDATE PLAN BACKGROUND; REVISE STORMWATER RETENTION CALCULATIONS

This item has been electronically signed and sealed by Chad M. Gruber on the date adjacent to the seal using a SHA authentication code. Printed copies of this document are not considered signed and sealed and the SHA authentication code must be verified on any electronic copies.

Plan Background from Hardscape Plan by Nievera Williams Design Received 6/2/23

ARC-23-060

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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.
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WEST PALM BEACH, FL 33401
PHONE: 561.312.2041
office@gruberengineers.com

Project Information	
Project No.	2020-0143
Issue Date	03/24/2023
Scale	1" = 10'
Drawn By	KM
Checked By	CG

Conceptual Site Grading & Drainage and Erosion Control Plan For:

Beach Cabana Renovation

101 Nightingale Trail

Palm Beach, Florida

Revisions	
1	04/05/2023
2	06/03/2023
3	
4	
5	
6	
7	
8	
9	
10	

Chad M. Gruber

FL P.E. No. 57466

Sheet No.

BC-1