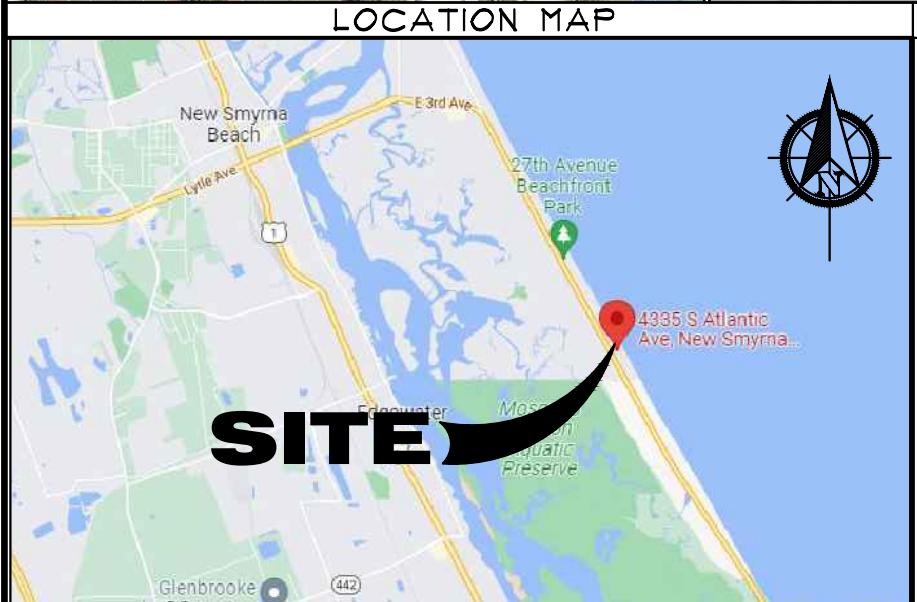


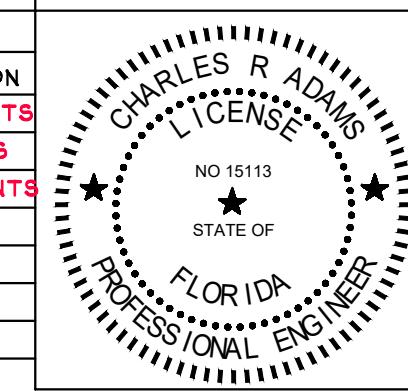
# STRUCTURAL PLANS FOR A NEW SEAWALL INSTALLATION AT: SEA DUNES GREEN TURTLE

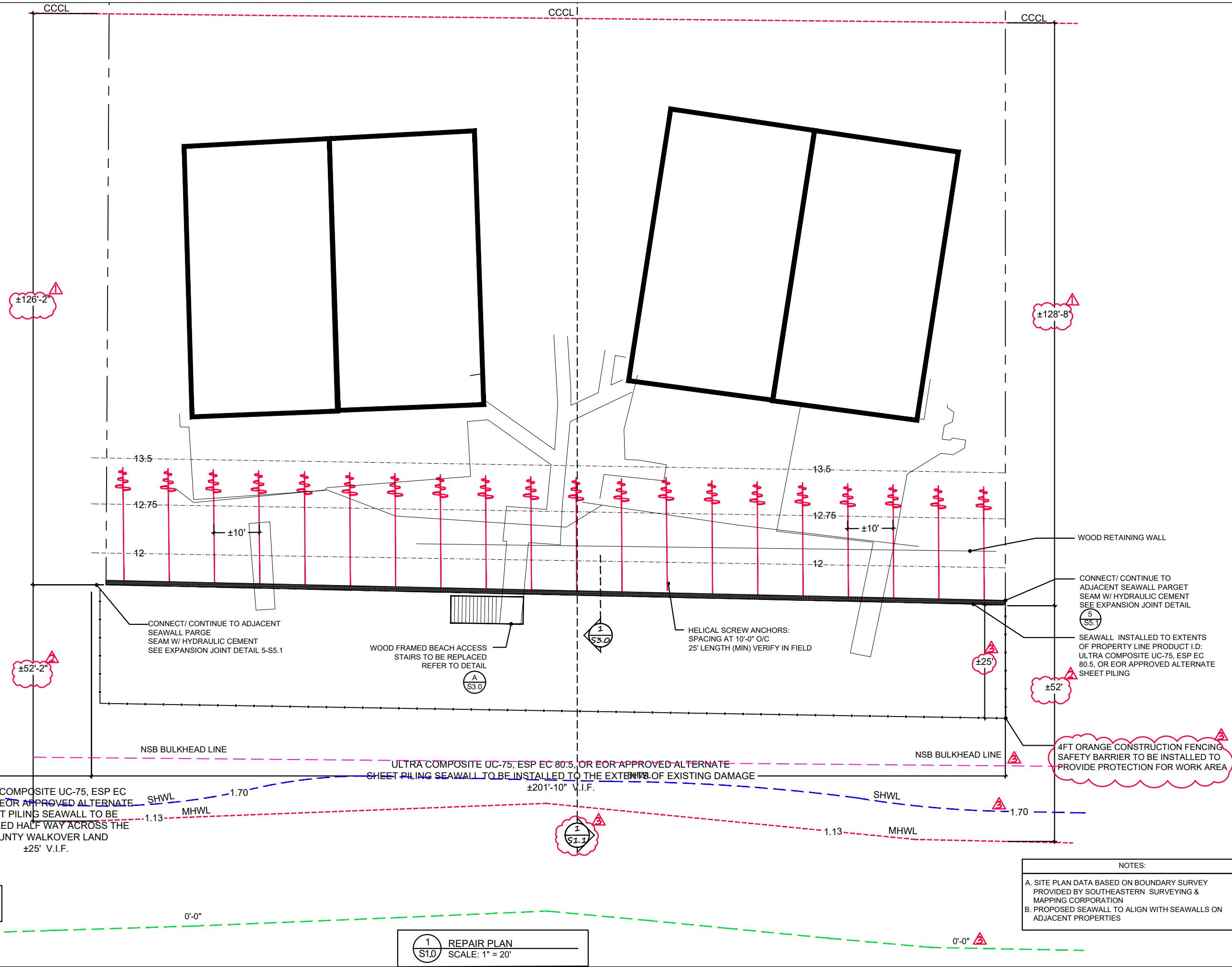
4335 SOUTH ATLANTIC AVENUE  
NEW SMYRNA BEACH, FLORIDA 32169



SYMBOLS LEGEND	
ELEVATION	ELEVATION HT
SECTION	DOOR NUMBER
DETAIL	WINDOW NUMBER
KEY NOTE	REVISION NUMBER
WALL TYPE	ROOM NAME

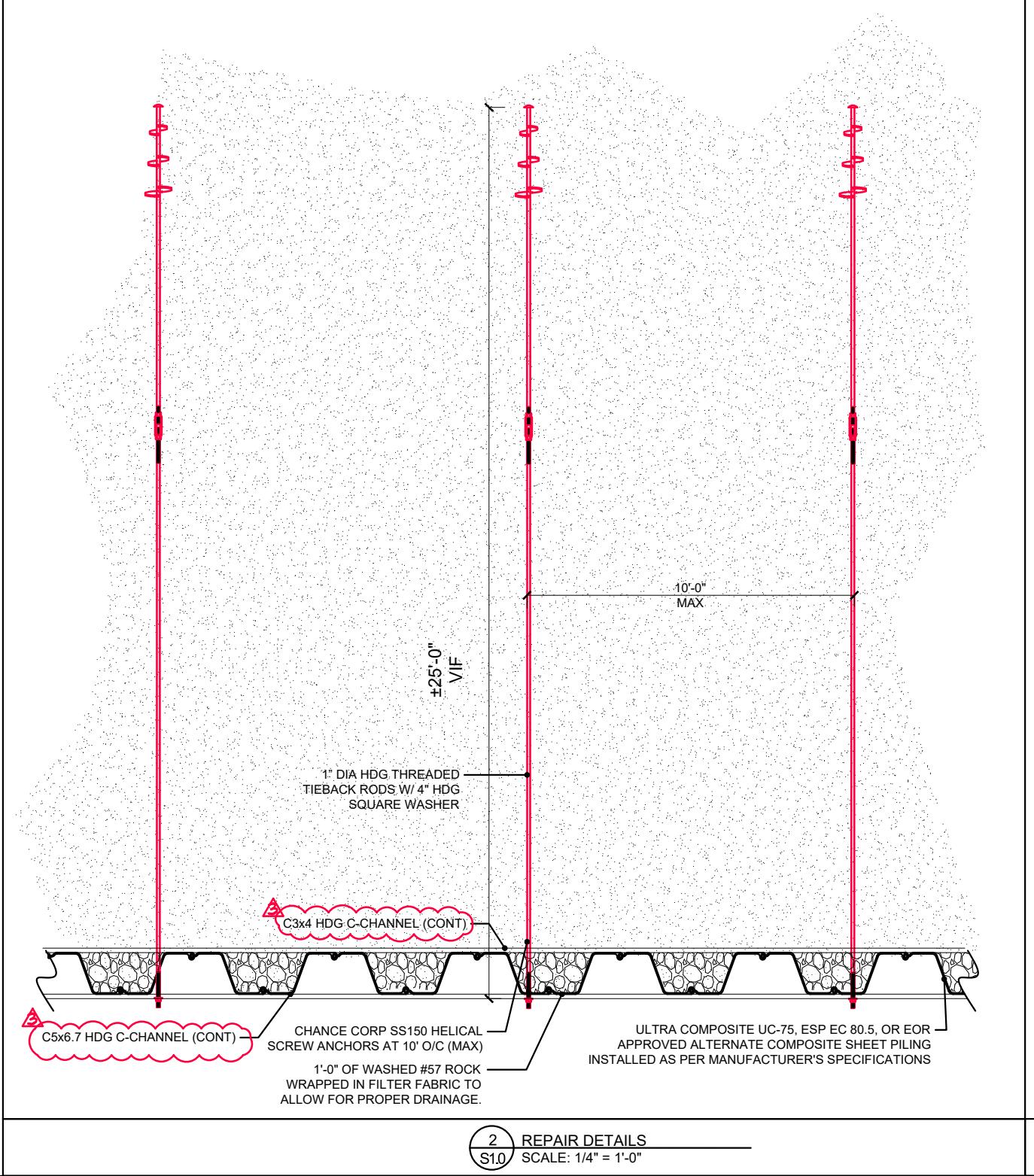
<b>ABBREVIATIONS</b>	
ALUM	ALUMINUM
CCCL	COASTAL CONSTRUCTION CONTROL LINE
CMU	CONCRETE MASONRY UNIT
CM	CRANE MATERIALS INTERNATIONAL
COL	COLUMN
CONC	CONCRETE
CONT	CONTINUOUS
C/L	CENTER LINE
DBL	DOUBLE
DIA	DIAMETER
DM	DIMENSION
EA	EACH
EC	EVERCOMP
ELEC	ELECTRICAL
ELEV/EL	ELEVATION
EQ	EQUAL
EOR	ENGINEER OF RECORD
ESP	EVERLAST SYNTHETIC PRODUCTS
EXIST	EXISTING
FFE	FINISHED FLOOR ELEVATION
FRP	FIBER-REINFORCED POLYMER
FT	FEET
GALV	GALVANIZED
GBFS	GRANULATED BLAST FURNACE SLAG
HDG	HOT DIPPED GALVANIZED
HP	HELICAL PILE
INFO	INFORMATION
KSI	KIPS PER SQUARE INCH
MAX	MAXIMUM
M.G.	MARINE GRADE
MFGR/MFR	MANUFACTURER
MHL	MEAN HIGH WATER LINE
MN	MINIMUM
NA	NOT APPLICABLE
NC	NOT IN CONTRACT
NOM	NOMINAL
NTS	NOT TO SCALE
OC	ON CENTER
PLYWD	PLYWOOD
PREFAB	PREFABRICATED
PSF	POUNDS PER SQUARE FOOT
PT	PAINT/PRESSURE TREATED/POST TENSION
REBAR	REINFORCING BAR
REF	REFERENCE
REINF	REINFORCE
REQ'D	REQUIRED
RO	ROUGH OPENING
SG	SHOREGUARD
SIM	SIMILAR
UC	ULTRA COMPOSITE
VF	VERIFY IN FIELD
YD	YARD

<b>PROJECT DIRECTORY</b>									
ENGINEER OF RECORD - FLORIDA LICENSE NO. 15113	 <b>CRA</b> Charles R. Adams & Associates, Inc. STRUCTURAL ENGINEERS 414 Canal Street - New Smyrna Beach, FL 32168 - 386.426.5583 C.A. 4180								
<b>INDEX of DRAWINGS</b>	 ASO COVER  ASI.O REPAIR PLAN  SI.I MATERIAL QUANTITIES, SITE PLAN, INSTALLATION DETAILS  ASI.2 GRADING DETAIL  S2.0 DAMAGE SURVEY PHOTOS  AS3.0 REPAIR SECTION DETAIL  S3.1 DETAILS AND SPECIFICATIONS  AS4.0 GENERAL NOTES  S5.0 BEACH APPROACH STAIR DETAILS  S5.1 HANDRAIL DETAILS  AS5.2 GUARDRAIL DETAILS  AS6.0 SURVEY								
<b>SCOPE OF WORK</b>	COMMERCIAL - NEW EMERGENCY SEAWALL REPAIR								
<b>PROJECT CODE DATA</b>	7th EDITION FLORIDA BUILDING CODE 2020 FLORIDA ADMINISTRATIVE CODE 62B-33 2020 VOLUSIA COUNTY CODE OF ORDINANCES - PART I - CHAPTER 50 - ARTICLE III - DIVISION 9 - SECTION 50-351 2023 ASCE 7-16 2016 USACE COASTAL ENGINEERING MANUAL 2002 USACE DESIGN OF COASTAL REVETMENTS, SEAWALLS, AND BULKHEADS 1995 USACE SHORE PROTECTION MANUAL VOLUMES I & II 1984 USACE DESIGN OF SHEET PILE WALLS 1994 DOD HANDBOOK - SEAWALLS, BULKHEADS, AND QUAY WALLS 2006 ACI 318 / 19 2022								
<b>DIGITAL SEAL</b>	THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY CHARLES R. ADAMS ON THE DATE INDICATED HERE. PRINTED COPIES, OF THIS DOCUMENT, ARE NOT CONSIDERED SIGNED AND SEALED. THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.								
<b>JURISDICTION</b>	<b>REVISION LOG</b> <table border="1"> <thead> <tr> <th>DATE</th><th>DESCRIPTION</th></tr> </thead> <tbody> <tr> <td>3/14/23</td><td>DEF COMMENTS</td></tr> <tr> <td>3/30/23</td><td>EOR REVISIONS</td></tr> <tr> <td>4/7/23</td><td>DEF COMMENTS</td></tr> </tbody> </table>	DATE	DESCRIPTION	3/14/23	DEF COMMENTS	3/30/23	EOR REVISIONS	4/7/23	DEF COMMENTS
DATE	DESCRIPTION								
3/14/23	DEF COMMENTS								
3/30/23	EOR REVISIONS								
4/7/23	DEF COMMENTS								
<b>STATEMENTS OF COMPLIANCE</b>	TO THE BEST OF MY KNOWLEDGE, THESE PLANS AND SPECIFICATIONS COMPLY WITH ALL APPLICABLE BUILDING CODES AND LAND DEVELOPMENT REGULATIONS.								
	I HEREBY CERTIFY THAT THE ENCLOSED DESIGN PLANS AND SPECIFICATIONS ARE IN COMPLIANCE WITH FLORIDA ADMINISTRATIVE CODE RULE CHAPTER 62B-33.051.								
									



### MATERIALS LIST

UC-75, ESP EC 80.5 COMPOSITE SHEET PILING	20' TALL SHEET MAX	$\pm 200$ lf $\pm 4,000$ ft <sup>3</sup>	<0.05% DISPLACEMENT
CONCRETE CAP BEAM	26" x 24" x 200'	$\pm 866.7$ ft <sup>3</sup>	0% DISPLACEMENT
MARINE GRADE WOOD POSTS	6" x 6" x 72" EMBEDDED	10 QTY	$\pm 12$ ft <sup>3</sup> DISPLACEMENT
HELICAL SCREW ANCHOR	AS PER DETAIL	20 QTY	0% DISPLACEMENT
BEACH COMPATIBLE SAND FILL	$\pm 95$ ft <sup>2</sup> x 200'		$\pm 704$ YD <sup>3</sup> <span style="color:red">▲</span>
WASHED #57 ROCK	17 WEEPS @ 1YD EACH		$\pm 17$ YD <sup>3</sup> <span style="color:red">▲</span>



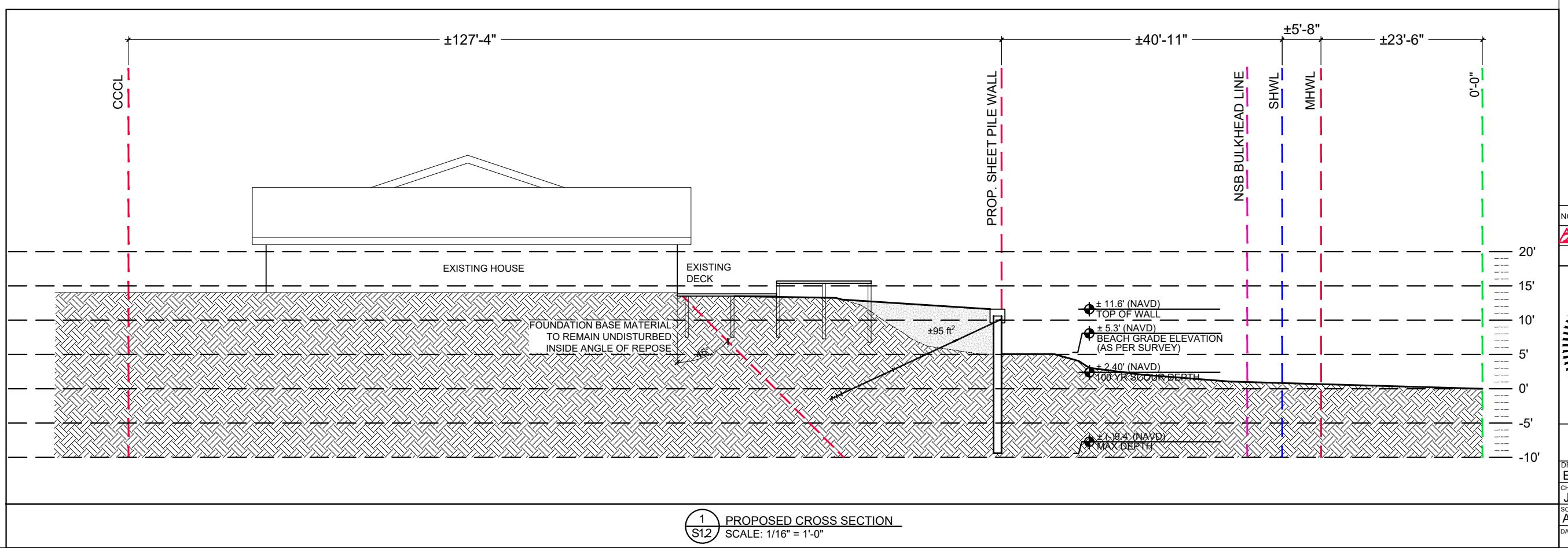
## SEA DUNES GREEN TURTLE

4335 SOUTH ATLANTIC AVENUE  
NEW SMYRNA BEACH, FL 32118

STRUCTURAL PLANS FOR A NEW SEAWALL AT THE

NO	REMARKS	DATE
<span style="color:red">▲</span>	DEP COMMENTS	4/1/23
CHARLES R. ADAMS LICENSE NO. 15113 STATE OF FLORIDA PROFESSIONAL ENGINEER		
MATERIAL QUANTITIES, SITE PLAN, INSTALLATION DETAILS		
DRAWN BY EAA	SHEET 3 OF 10	
CHECKED BY JAA		
SCALE AS NOTED		
DATE 7 MAR 2023		

S1.0



**SEA DUNES GREEN TURTLE**  
4335 SOUTH ATLANTIC AVENUE  
NEW SMYRNA BEACH, FL 32118

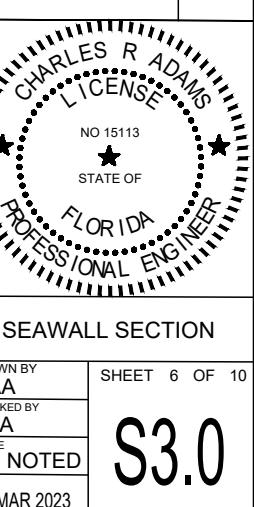
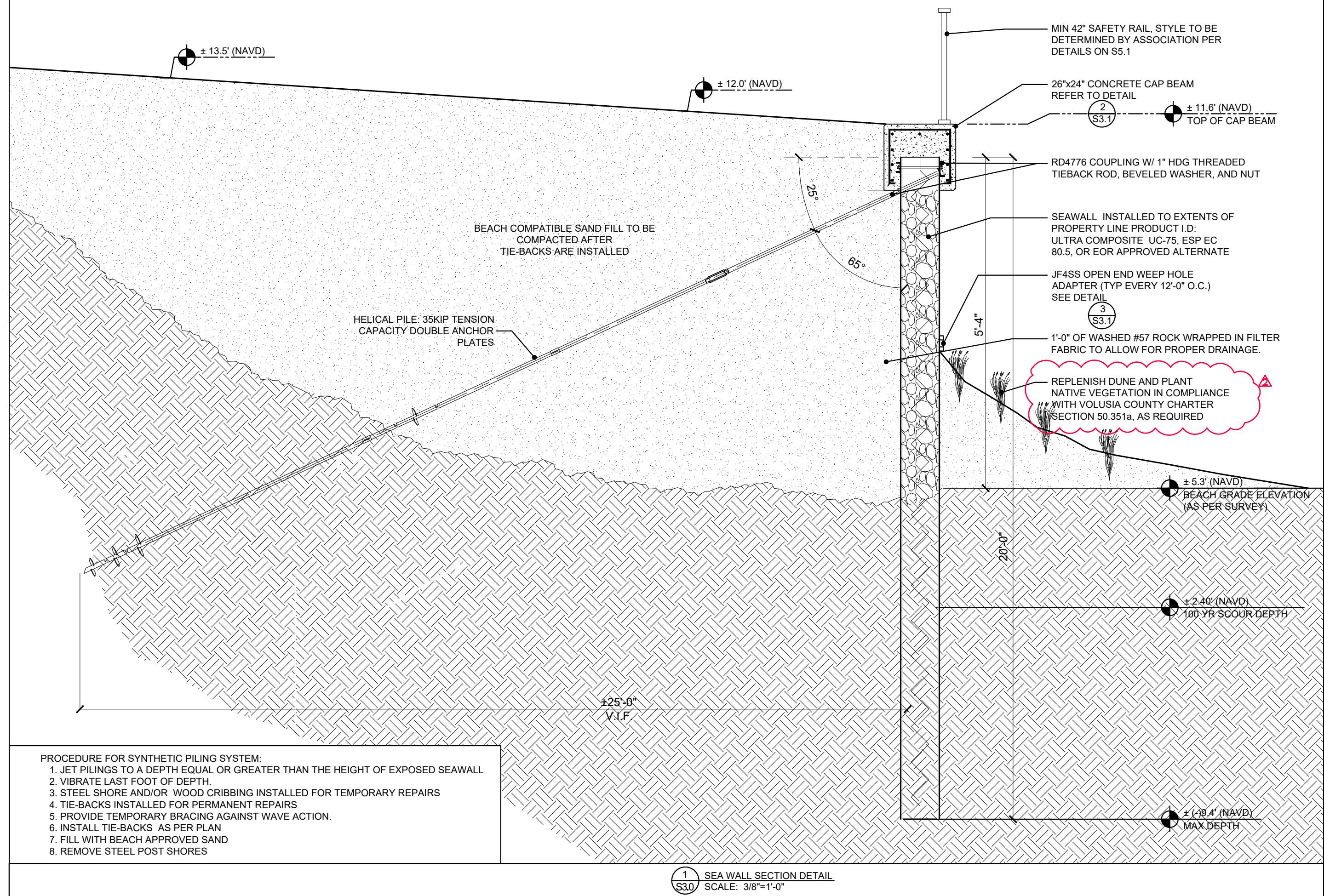
**CRA** Charles R. Adams & Associates, Inc.  
STRUCTURAL ENGINEERS

414 Canal Street - New Smyrna Beach, FL 32168 - 305-465-5533  
221203 - SEA DUNE GREEN TURTLE - CD.DWG



**STRUCTURAL PLANS FOR A NEW SEAWALL AT THE  
SEA DUNES GREEN TURTLE**

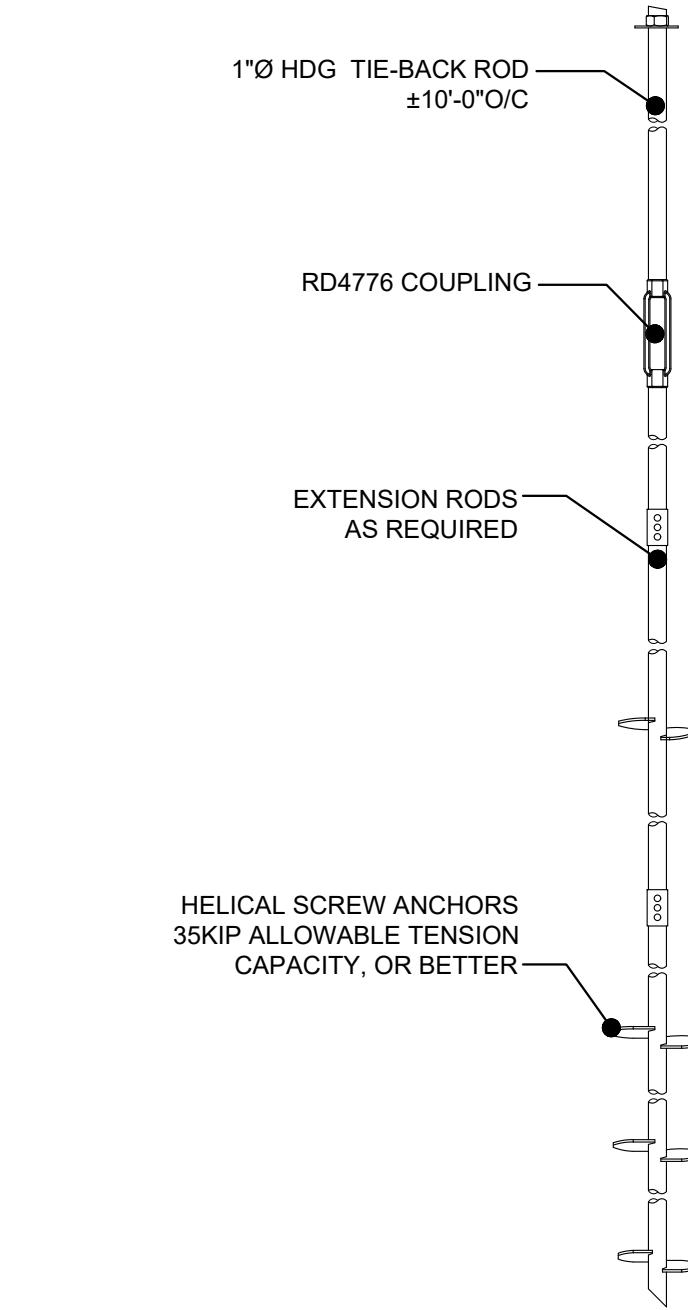
4335 SOUTH ATLANTIC AVENUE  
NEW SMYRNA BEACH, FL 32118



NO	REMARKS	DATE
△	EOR REVISIONS	3/30/23

DRAWN BY EAA	SHEET 6 OF 10
CHECKED BY JAA	
SCALE AS NOTED	
DATE 7 MAR 2023	

**S3.0**



# GENERAL DESIGN AND CONSTRUCTION NOTES

## MATERIAL

### GENERAL DESIGN:

- ALL MATERIALS SHALL BE AS NOTED UNLESS LOCAL CODES PROVIDE A STRICTER GUIDELINE I.E. GREATER STRENGTH DURABILITY, ETC. IT IS THE CONTRACTOR'S RESPONSIBILITY TO UNDERSTAND AND COMPLY WITH THESE CODES.

### SHEET PILE:

- SHEET PILE MATERIAL SHALL BE CMI LIMITED CORP UC-75, ESP EC 80.5, OR EOR APPROVED ALTERNATE.

### DRAINS:

- OPEN END WEEP HOLE FILTER WITH ADAPTER, INSTALLED IMMEDIATELY ABOVE SCOUR ELEV. @ SPECIFIED SPACING.
- THE JET FILTER ASSEMBLY HOUSING SHOULD NOT BE REMOVED ONCE INSTALLED.
- WEEPS (JF4SS) TO ALLOW FOR EXCESSIVE HYDROSTATIC PRESSURE, FROM STORM WATER BUILD UP, TO RELEASE FROM BEHIND SEA WALL.

### STEEL:

- ALL C-CHANNELS, TIE-RODS, AND STEEL FASTENERS SHALL BE HOT DIP GALVANIZED PER ASTM A-153 WITH 2 OUNCES OF ZINC PER SQUARE FOOT.
- ALL REINFORCING BAR SHALL BE GRADE FRP, OR EOR APPROVED EQUAL.
- ALL TIEBACK ROD SHALL BE 60 KSI MINIMUM.

### CONCRETE:

- CONCRETE TO HAVE A 28-DAY COMPRESSIVE STRENGTH OF 5,500PSI.
- CONCRETE SHALL HAVE A MINIMUM 25% FLY ASH OR GBFS ADDED TO THE MIXTURE.
- CONCRETE MIX TO HAVE A MAX W/C RATIO OF 0.4.
- CONCRETE TO BE VIBRATED TO MINIMIZE AIR VOIDS.

### BACKFILL:

- BACKFILL MATERIAL SHALL BE COMPATIBLE W/THE BEACH SAND & APPROVED BY THE DEP.
- BACKFILL SHALL BE INSTALLED IN ±12" LIFTS AND COMPAKTED TO 95% PROCTOR.
- IN GENERAL, BEACH-COMPATIBLE FILL MATERIAL WILL BE PREDOMINANTLY QUARTZ SAND OF A MEAN GRAIN SIZE DIAMETER BETWEEN 0.20MM AND 0.45MM, WITH A MOIST MUNSELL COLOR VALUE/CHROMA OF 7/1 OR LIGHTER AND A SIMILAR QUANTITY OF SHELL AS THE EXISTING BEACH.
- THE FILL MATERIAL MEETS THE SPECIFICATIONS/CRITERIA OF SUBSECTION 62B-33.005(7), F.A.C.

### ANCHORS:

- SHALL BE EOR APPROVED W/ SPECIFIED CAPACITY AND TIE BACK ROD DIAMETER.

### WOOD

- ALL LUMBER SHALL BE MARINE GRADE, OR EOR APPROVED ALTERNATE
- ALL LUMBER FASTENERS SHALL BE 316 STAINLESS STEEL, OR EOR APPROVED ALTERNATE

### DESIGN:

- DESIGN IS BASED ON SOIL PROPERTIES AS NOTED:
 

LAYER 1 (ELEV. +15.0 TO -4.5)	$\gamma = 115 \text{ PCF}$	$\gamma' = 57 \text{ PCF}$	$\phi = 32^\circ$	C=0 PSF
LAYER 2 (ELEV. +4.5 & BELOW) (DRIVEN CONDITIONS)	$\gamma = 125 \text{ PCF}$	$\gamma' = 62 \text{ PCF}$	$\phi = 40^\circ$	C=0 PSF
LAYER 1 (ELEV. +4.5 & BELOW) (JETTED CONDITIONS)	$\gamma = 120 \text{ PCF}$	$\gamma' = 60 \text{ PCF}$	$\phi = 34^\circ$	C=0 PSF
- IF ACTUAL SOIL OR SITE CONDITIONS DIFFER FROM THAT NOTED IN DRAWINGS, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY FOR A POSSIBLE REDESIGN.
- DESIGN DOES NOT CONSIDER GLOBAL (SLOPE) STABILITY. AT MINIMUM, GEOTECHNICAL ENGINEER SHALL CONFIRM THAT GLOBAL STABILITY IS NOT AN ISSUE. OTHERWISE, OWNER ASSUMES RISK FOR GLOBAL STABILITY.
- DESIGN DOES NOT ACCOUNT FOR PRESENCE OF UNDERGROUND SPRINGS, WELLS, OR EXCESSIVE WATER FROM SITE RUNOFF. IF THESE CONDITIONS EXIST THE ENGINEERS SHALL BE NOTIFIED.

## INSTALLATION

### GENERAL INSTALLATION:

- PRIOR TO INSTALLATION, CONTRACTOR SHALL EXAMINE/PROBE ALONG THE ALIGNMENT OF THE SHEET PILE (APPROX. EVERY 5') TO DETERMINE THE POTENTIAL OF ANY SOIL VARIATION OR OBSTRUCTIONS.

- INSTALLATION TO BE CONDUCTED ACCORDING TO ALL APPLICABLE OSHA AND LOCAL CODES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO UNDERSTAND AND COMPLY WITH THE SE CODES.

- PRIOR TO INSTALLATION CONTRACTOR SHALL EXAMINE SHEET PILE FOR ANY MANUFACTURING DEFECTS, OR DAMAGE DURING SHIPPING. ANY DEFECTIVE OR DAMAGED SHEET PILE SHALL BE DISCARDED AND REPLACED WITH NEW DEFECT & DAMAGE FREE MATERIAL. THIS SHALL BE THE RESPONSIBILITY OF THE SUPPLIER OR CONTRACTOR, AND NOT THE CLIENT OR EOR.

### SHEET PILE:

- CONTRACTOR SHOULD REVIEW SOIL BORINGS AND PLAN FOR DIFFICULT DRIVING CONDITIONS, JETTING AND TRENCHING IS ALLOWED FOR NEW SHEET PILE INSTALLATION. LAST 10% OF SHEET PILE DRIVE TO BE VIBRATED.
- SHEET PILE SHALL PENETRATE TO DEPTH SHOWN IN THE PLANS.
- AFTER DRIVING SHEET PILE, SAW PILING OFF AT A TRUE PLANE INDICATED ON THE PLANS. FINAL ELEVATIONS ARE TO BE WITHIN ONE (1) INCH OF ESTABLISHED ELEVATION.
- RETURN WALLS TO BE PROVIDED AT ENDS OF ALL BULKHEADS TO PROVIDE FLANKING PROTECTION.

### CONCRETE CAP:

- REFER TO ACI FOR PROPER CURING REQUIREMENTS.
- EXPANSION JOINTS ARE TO BE LOCATED AT NO GREATER THAN 50' INTERVALS
- ANCHOR RODS TO BE PROVIDED 1.5" ON SIDE OF EXPANSION JOINT.

### JET FILTER UNITS:

- CORE A TRUE DIAMETER HOLE IN THE SHEET PILLING/SEAWALL OR CONCRETE ABUTMENT ABOUT 4 INCHES BEHIND WALL EVERY 12 FEET ON CENTER, SLIGHTLY ABOVE MEAN WATER LINE IN COASTAL AREAS OR LOWEST ELEVATION. IF POSSIBLE CORE FURTHER INTO THE GROUND AND PACK FLOWABLE MATERIAL BEHIND WALL SUCH AS #57 STONE THEN SAND.
- INSERT THE JET FILTER ASSEMBLY INTO DRILLED HOLE ON WALL.
- PRE-DRILL THE MOUNTING HOLES BY USING:  
CONCRETE: PILOT HOLE BIT SIZE 3/16"  
STEEL SHEET PILING: PILOT HOLE BIT SIZE 7/32" OR 15/64"  
COMPOSITE / VINYL SHEET PILING: SELF-TAP
- ATTACH WITH BI-FLEX SS ANCHORS (SUPPLIED) THROUGH THE ASSEMBLY HOUSING HOLES INTO THE SHEET PILLING/SEAWALL, CONCRETE ABUTMENT A 3/8" SOCKET.

NOTE: BE SURE TO EPOXY/SEAL AROUND THE HOUSING IF ANY POSSIBLE OPENING TO THE CORE.

### MAINTENANCE:

- TO REMOVE OR REPLACE THE FILTER CARTRIDGE, SIMPLY UNSCREW THE (4) SCREWS SECURING THE FILTER CARTRIDGE AND GENTLY PULL OUT.
- ONCE FILTER IS REMOVED CLEAN WITH A SOFT BRUSH WITH A SOFT BRUSH WITH WATER RINSE OR REPLACE, IN REVERSE ORDER.

### MONITORING:

- SHEET PILE INSTALLATION SHALL BE SUPERVISED BY A THIRD PARTY MONITORING COMPANY LIKE UES, OR EOR APPROVED ALTERNATE, IN ORDER TO VERIFY EMBEDMENT DEPTH.
- VIBRATION MONITORING SERVICES SHALL BE PROVIDED BY UES, OR EOR APPROVED ALTERNATE, TO VERIFY THAT FDOT VIBRATION LIMITS ARE NOT EXCEEDED.
- TORQUE LOGS FOR HELICAL PILE INSTALLATION SHALL BE SUBMITTED TO THE EOR FOR REVIEW AND APPROVAL PRIOR TO CONTINUING WITH SEAWALL INSTALLATION.

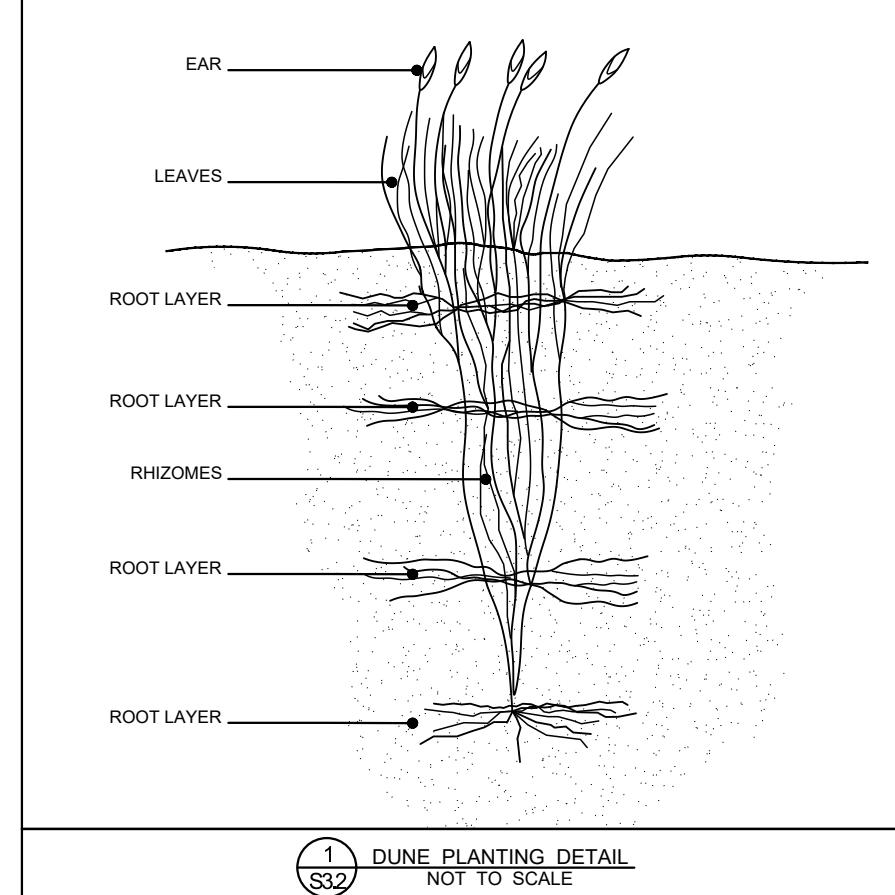
### LANDSCAPE:

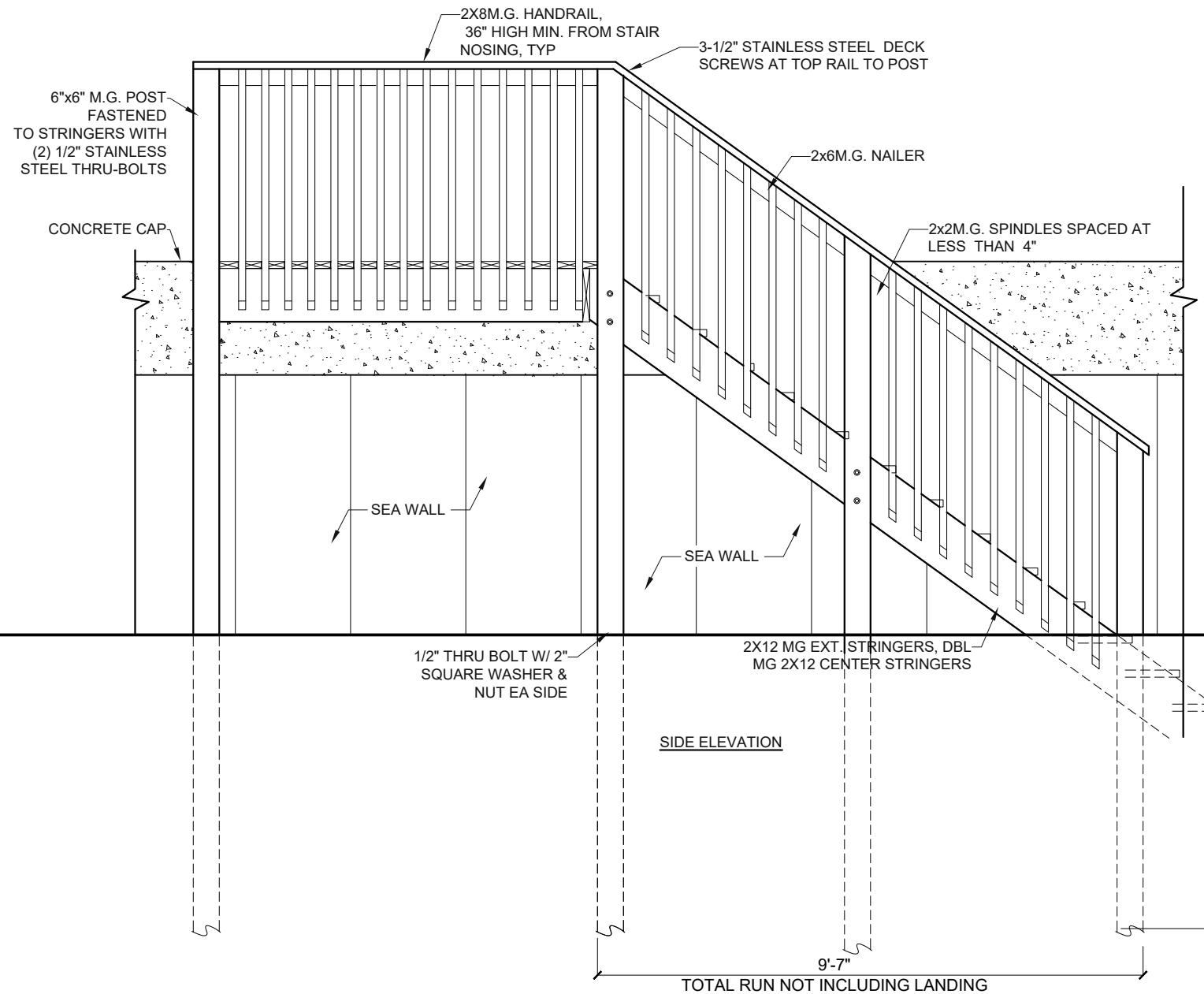
- COMPLY WITH THE VOLUSIA COUNTY CHARTER, SECTION 50.351a.

# SEA DUNES GREEN TURTLE

NO	REMARKS	DATE
△ EOR REVISIONS 3/30/23		
NOTES		
DRAWN BY EAA	SHEET 8 OF 10	
CHECKED BY JAA		
SCALE AS NOTED		
DATE 7 MAR 2023		

**S4.0**





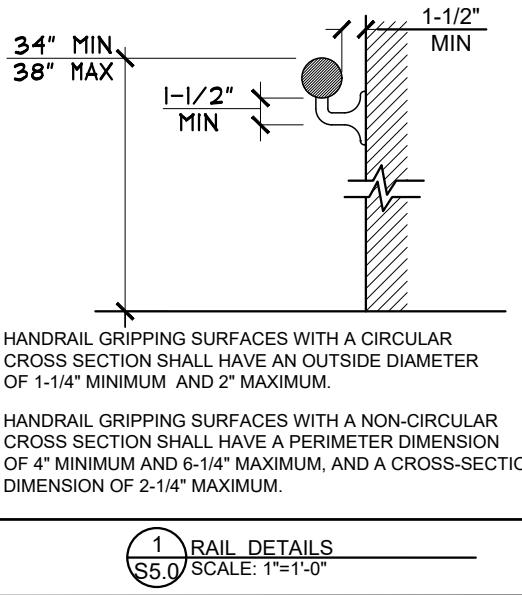
**NOTES:**

1. HANDRAIL, SUPPORTS, & FASTENERS SHALL BE CAPABLE OF SUPPORTING A 250lb. POINT LOAD @ ANY POINT ON SYSTEM. TOP RAIL SHALL BE A MIN. HEIGHT OF 36".
2. HANDRAIL STYLE, SPINDLES OR RAILS, TO BE DETERMINED BY OWNER.
3. STAIRS TO BE SAME ELEVATION AS TOP OF CAP & EXTEND 3 STEPS BELOW THE BEACH ELEVATION, CONTRACTOR TO DETERMINE

- NOTES:**
1. HANDRAIL, SUPPORTS, & FASTENERS SHALL BE CAPABLE OF SUPPORTING A 250lb. POINT LOAD @ ANY POINT ON SYSTEM. TOP RAIL SHALL BE A MIN. HEIGHT OF 36".
  2. HANDRAIL STYLE, SPINDLES OR RAILS, TO BE DETERMINED BY OWNER.

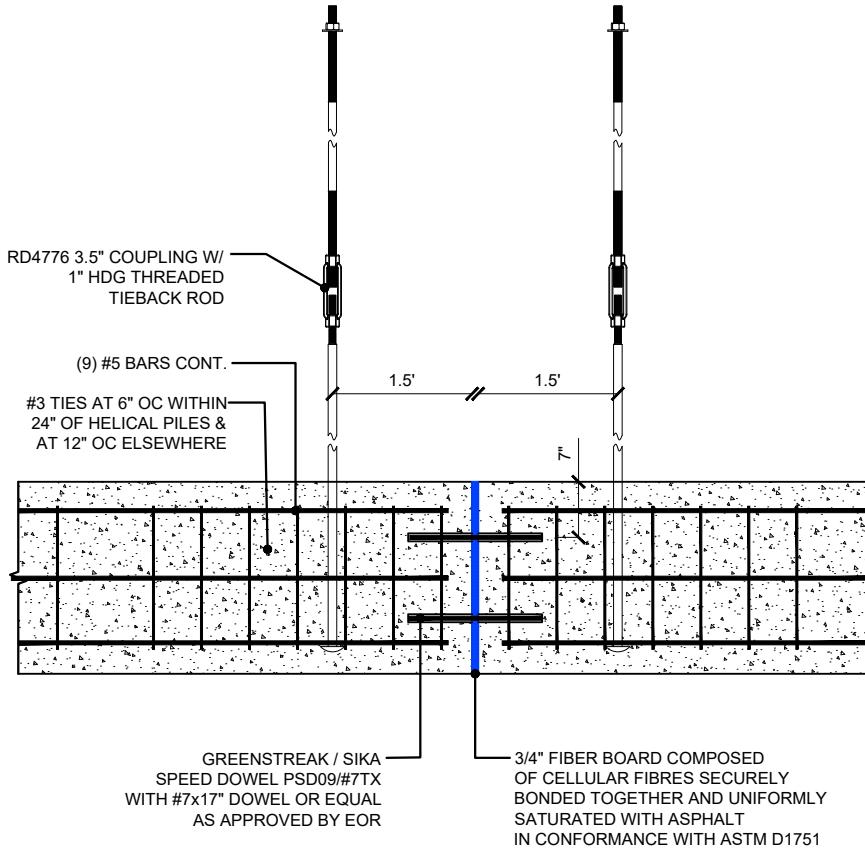
**STAIR DATA:**

TOTAL RISE .....	±79"
TOTAL RISERS .....	11
RISER DISTANCE .....	±7-3/16"
TOTAL TREADS .....	11 @ 11-1/4"
LANDINGS .....	0
TOTAL RUN .....	±115"

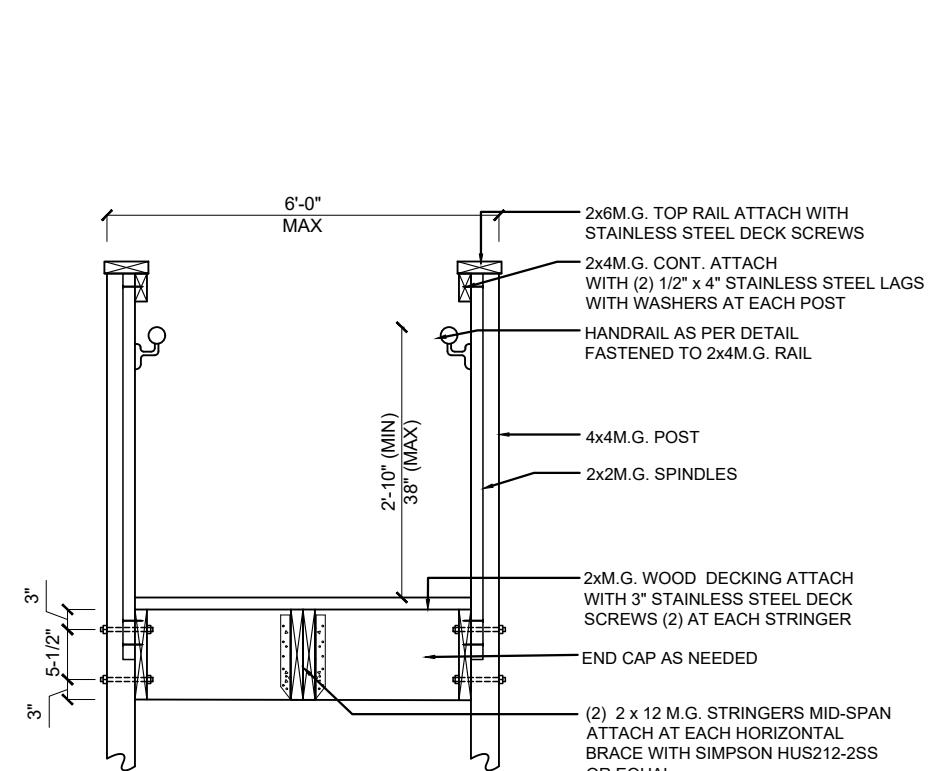


NO	REMARKS	DATE
CHARLES R. ADAMS LICENSURE NO 15113 STATE OF FLORIDA PROFESSIONAL ENGINEER		
BEACH APPROACH STAIRS		
DRAWN BY EAA	SHEET 9 OF 10	
CHECKED BY JAA		
SCALE AS NOTED		
DATE 7 MAR 2023		

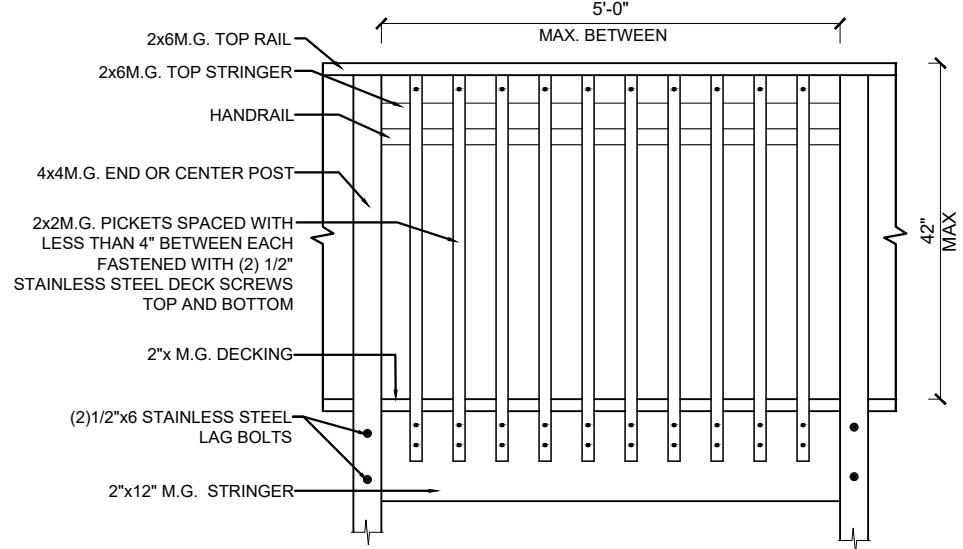
**S5.0**



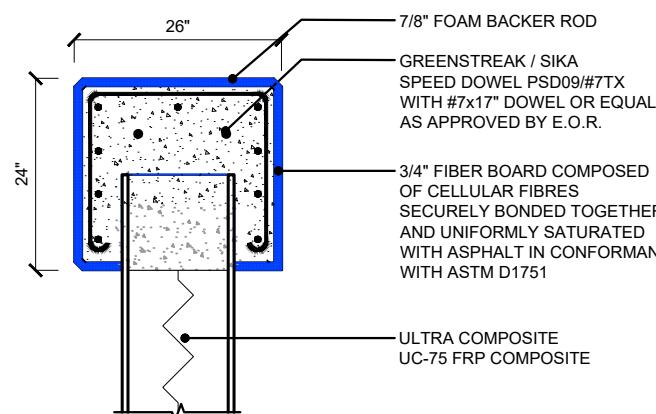
5 EXPANSION JOINT DETAIL - PLAN VIEW  
S5.1 SCALE: 1/2"=1'-0"



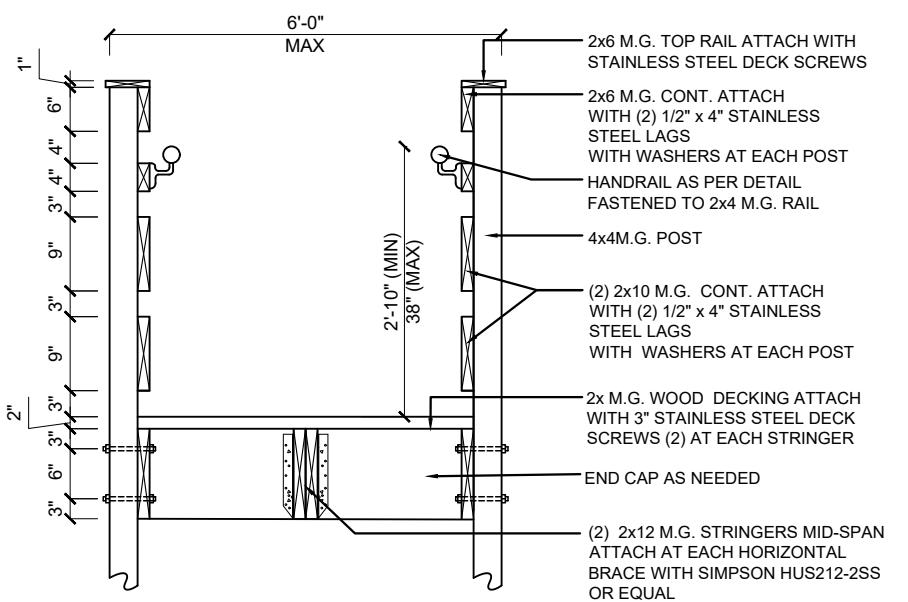
2 RAIL DETAILS - SPINDLES  
S5.1 N.T.S.



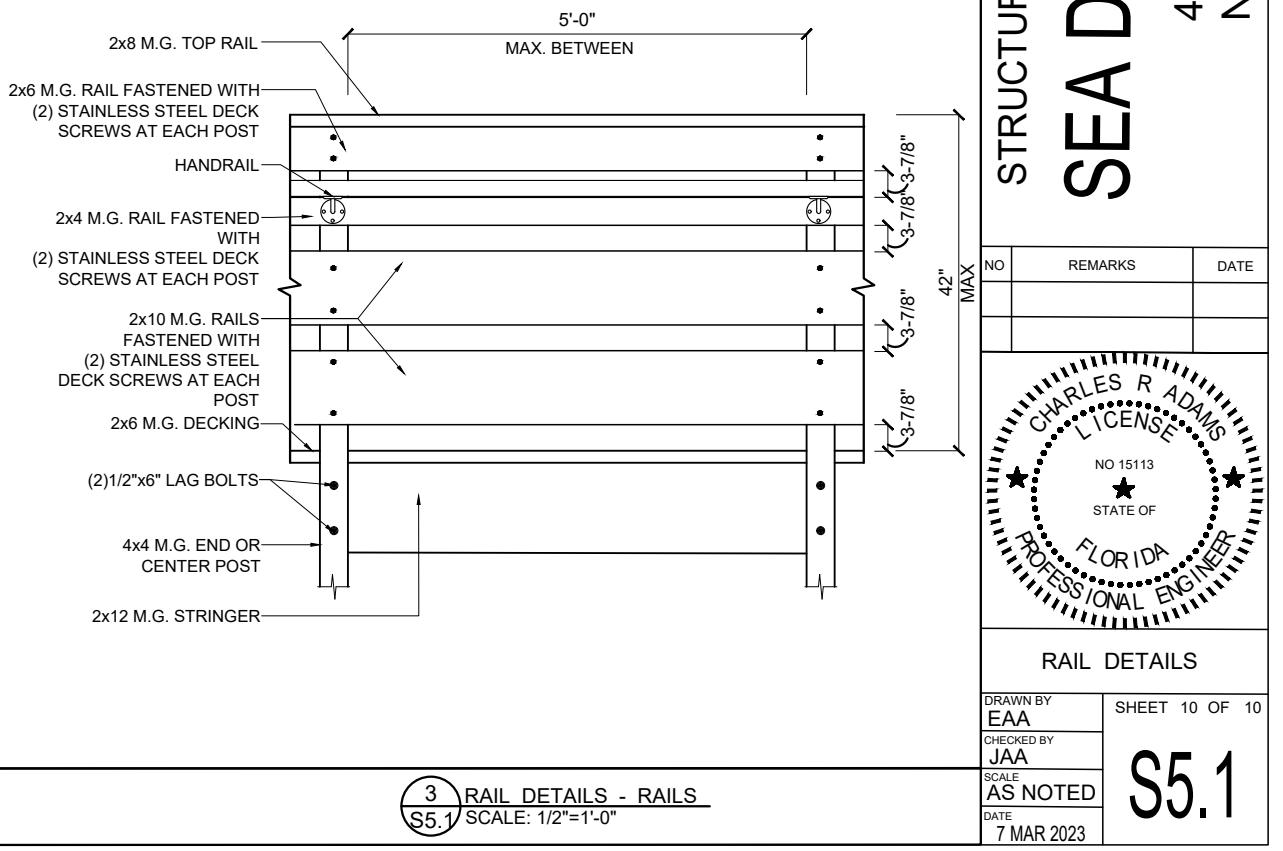
1 RAIL DETAILS - SPINDLES  
S5.1 SCALE: 1/2"=1'-0"



6 EXPANSION JOINT DETAIL - SECTION  
S5.1 SCALE: 1/2"=1'-0"



4 RAIL DETAILS - RAILS  
S5.1 N.T.S.



# SEA DUNES GREEN TURTLE

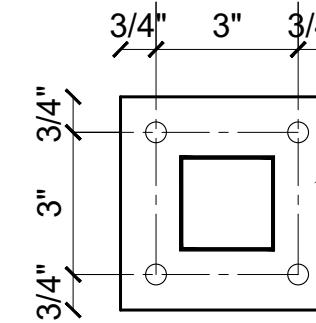
4335 SOUTH ATLANTIC AVENUE  
NEW SMYRNA BEACH, FL 32118

**CRA**  
STRUCTURAL ENGINEERS

Charles R. Adams & Associates, Inc.

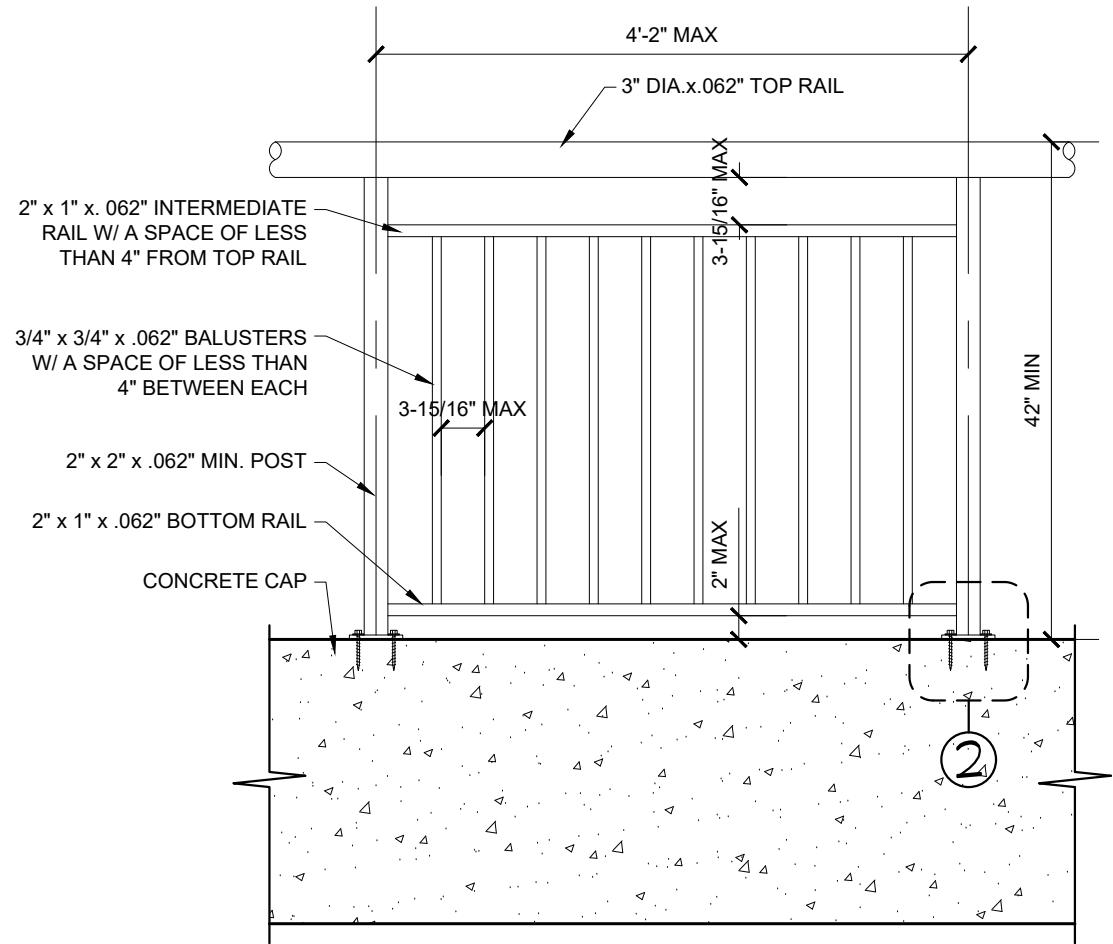
221203 - SEA DUNE GREEN TURTLE - CD DWG

**S5.1**

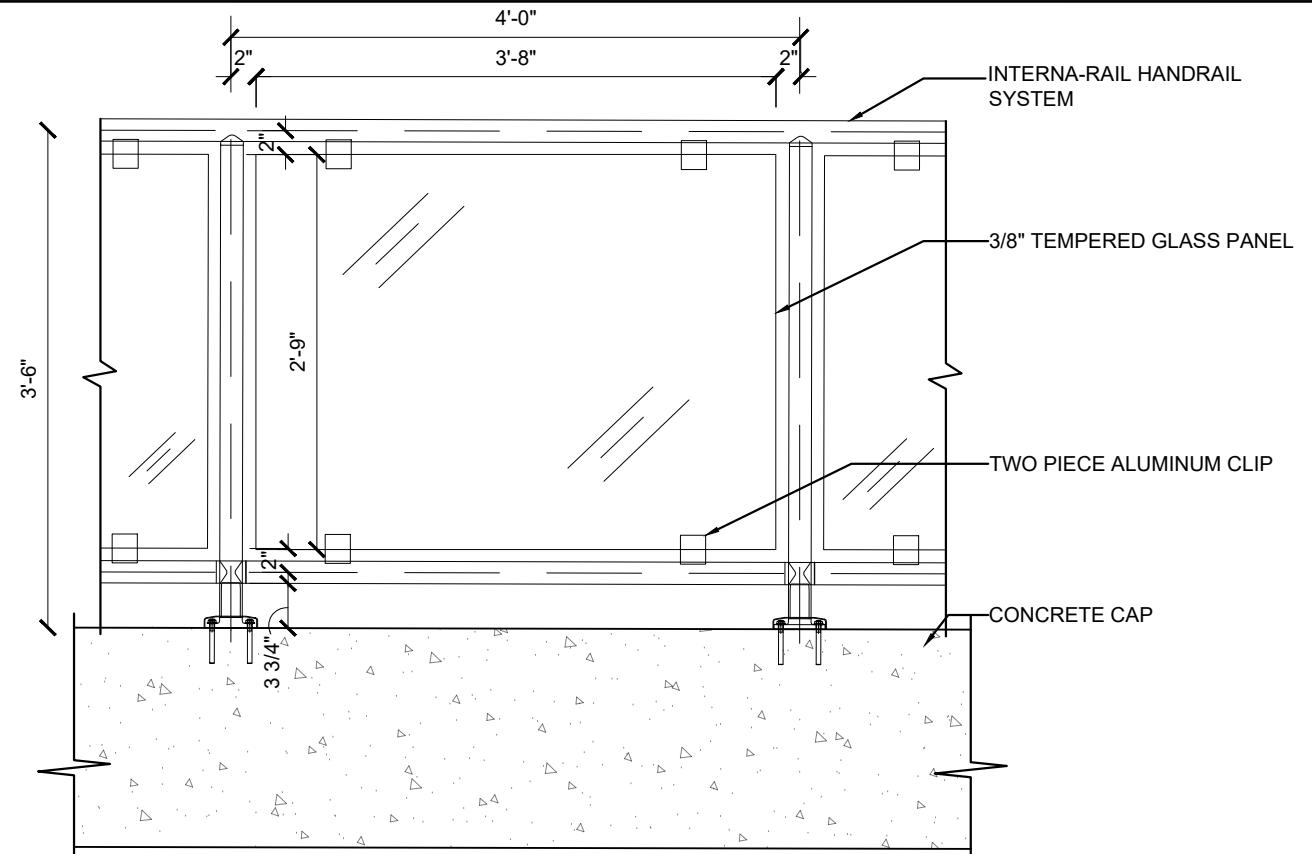


4-1/2" x 4-1/2" x 3/8" PLATE W/ (4) 7/16"  
Ø HOLES FOR (4) 3/8" SS THREADED  
RODS W/ 3-1/2" EMBEDMENT & HILTI  
HIT-HY 150 MAX ADHESIVE

**(2) BASE PLATE DETAIL**  
S5.2 SCALE: 3" = 1'-0"



**(1) GUARDRAIL DETAILS - SPINDLES**  
S5.2 SCALE: 3/4" = 1'-0"



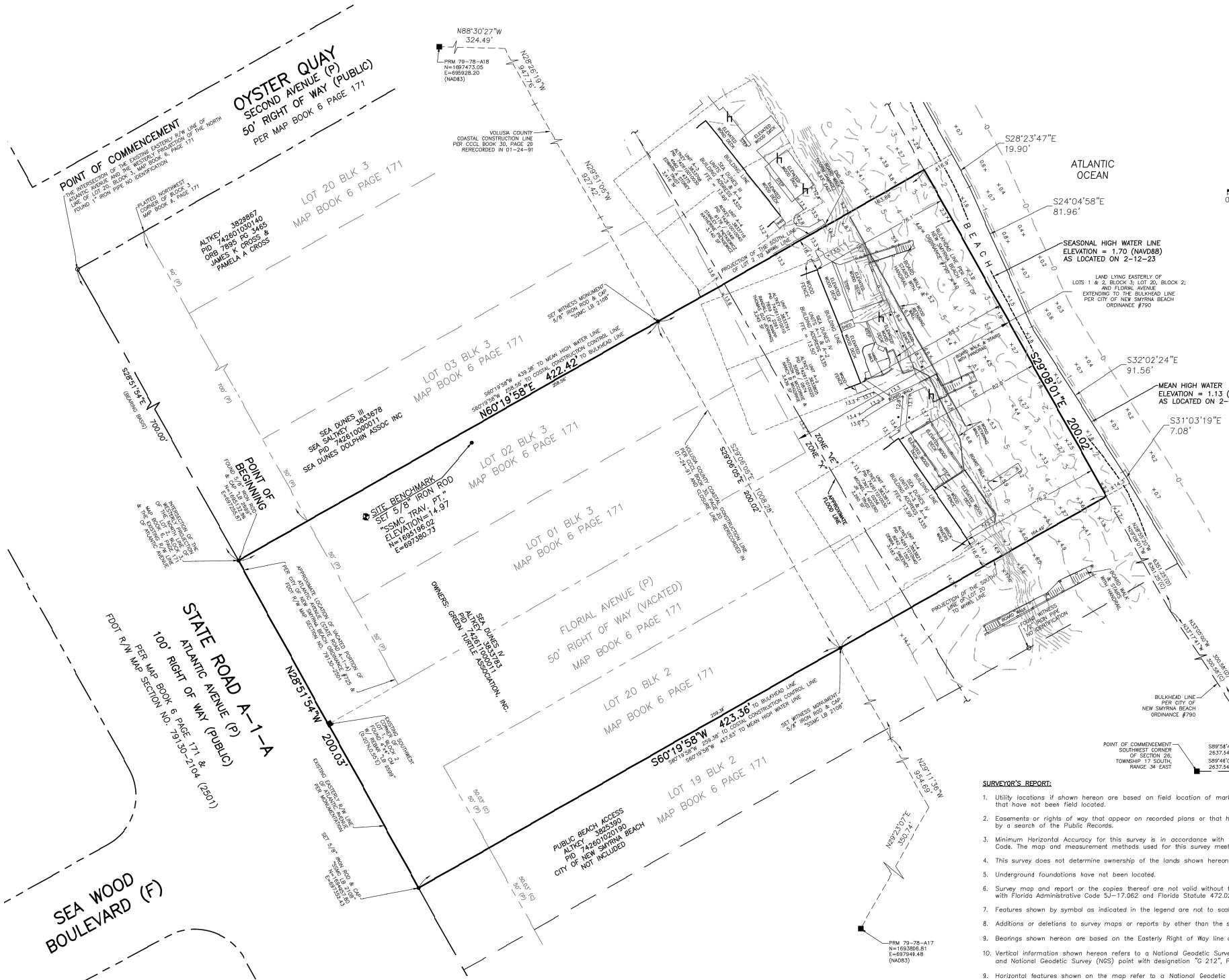
**(3) GUARDRAIL DETAILS - GLASS**  
S5.2 SCALE: 3/4" = 1'-0"

# SEA DUNES GREEN TURTLE

4335 SOUTH ATLANTIC AVENUE  
NEW SMYRNA BEACH, FL 32118

NO	REMARKS	DATE
<b>A</b>	EOR REVISIONS	3/30/23
 <b>CHARLES R. ADAMS</b> LICENSURE NO. 15113 STATE OF FLORIDA PROFESSIONAL ENGINEER		
GUARDRAIL DETAILS		
DRAWN BY EAA	SHEET 11 OF 10	<b>S5.2</b>
CHECKED BY JAA		
SCALE AS NOTED		
DATE 7 MAR 2023		

PL 68924 = FDEP = Sea Dunes Proposed Seawall Project DWG 3D 68924005.Dwg  
THIS DRAWING AND ITS REPRODUCTIONS ARE INSTRUMENTS OF SERVICE, ALL DESIGN INFORMATION CONTAINED HEREIN BEING PROTECTED IN CONFIDENCE AND BEING THE SOLE PROPERTY OF CHARLES R. ADAMS & ASSOCIATES, INC. THE USE OF THIS DESIGN, AND/OR ANY INFORMATION PROVIDED ON THIS DOCUMENT FOR ANY OTHER PURPOSE OTHER THAN THE SPECIFIC PROJECT NAMED IS STRICTLY PROHIBITED WITHOUT THE WRITTEN CONSENT OF CHARLES R. ADAMS & ASSOCIATES, INC.

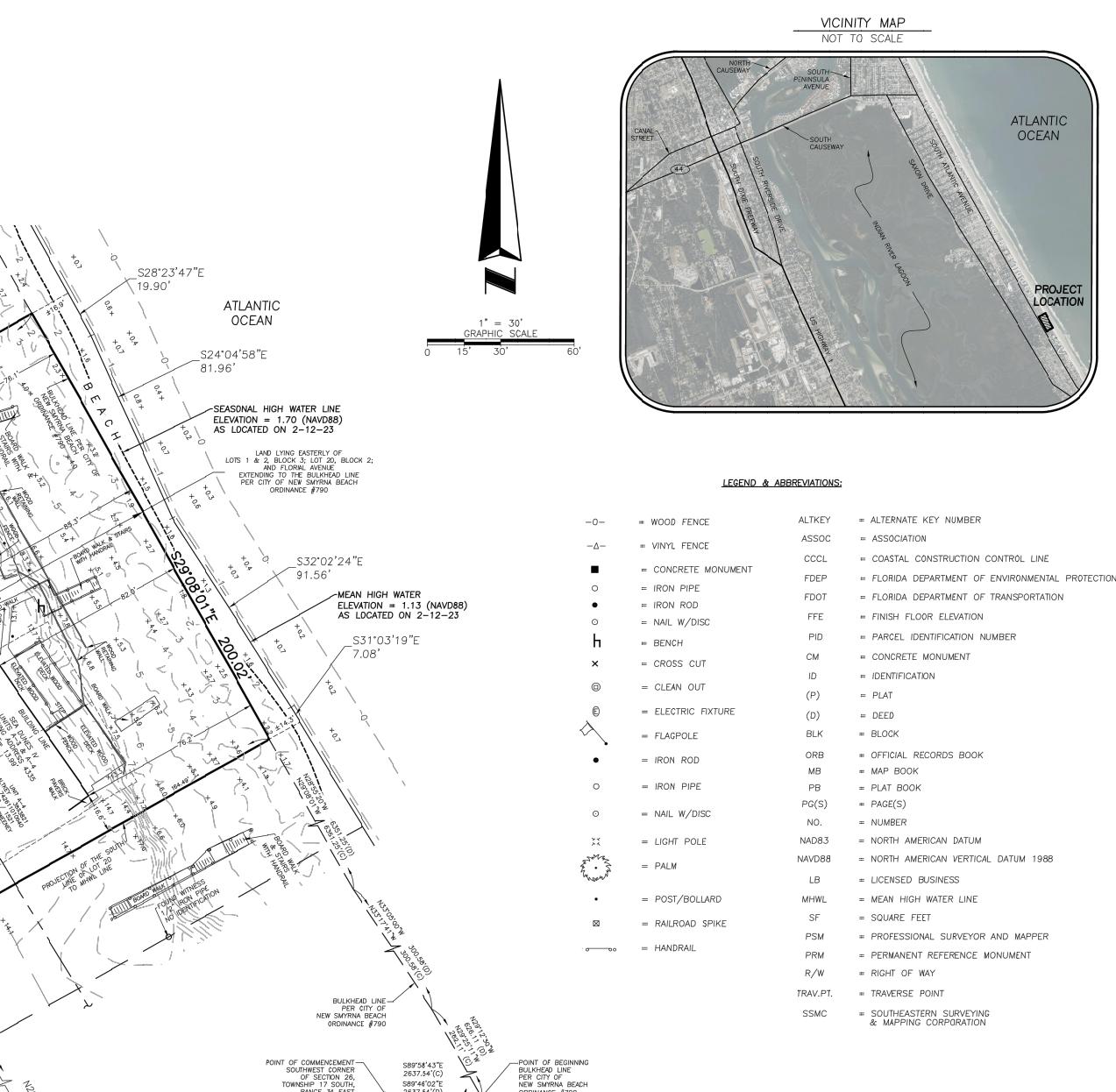


#### DESCRIPTION:

SEA DUNES UNIT IV, being Lots 1 & 2, Block 3; Lot 20, Block 2; and Floral Avenue, ATLANTIC HEIGHTS SUBDIVISION, according to the map or plat thereof, as recorded in Map Book 6, Page 171, of the Public Records of Volusia County, Florida; together with a portion of Atlantic Avenue now vacated lying adjacent to and Westerly of the existing Westerly lot line of said Lots and Vacated Floral Avenue (per City of New Smyrna Beach Ordinance #725, dated 1966) and Lands lying Easterly of said Lots and Vacated Floral Avenue, extending to the Bulkhead line (per City of New Smyrna Beach Ordinance #790), lying in Volusia County, Florida being more particularly described as follows:

COMMENCE at the intersection of the existing Easterly right of way line of Atlantic Avenue and the Westerly Projection of the North line of Lot 20, Block 2; thence South 28°51'54" East, a distance of 700.00 feet along the existing Easterly right of way line of Atlantic Avenue to the intersection of the Westerly Projection of the North line of Lot 2, said intersection being the POINT OF BEGINNING; thence North 60°19'58" East, a distance of 422.42 feet along North line of Lot 2 and the projection thereof to the Bulkhead line; thence South 29°03'01" East, a distance of 200.02 feet along said Bulkhead line to the Easterly Projection of South line of Lot 20; thence South 60°19'58" West, a distance of 423.36 feet along the South line of Lot 20 and the projection thereof to the aforesaid existing Easterly right of way line of Atlantic Avenue; thence North 28°51'54" West, a distance of 200.03 feet along said Easterly right of way to the POINT OF BEGINNING.

Containing 1.94 acres, more or less.



#### SURVEYOR'S REPORT:

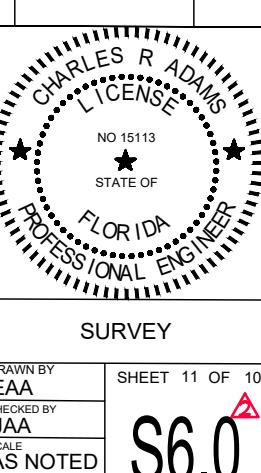
- Utility locations, if shown hereon are based on field location of markings by utility company representatives, surface features and construction plans furnished to the surveyor. Additional sub-surface utilities may exist that have not been field located.
- Easements or rights of way that appear on recorded plans or that have been furnished to the surveyor by others have been incorporated into this drawing with appropriate notation. Other easements may be discovered by a search of the Public Records.
- Minimum Horizontal Accuracy for this survey is in accordance with the STANDARDS OF PRACTICE set forth by the Board of Professional Surveyors and Mappers in Chapter 5J-17 requirements of Florida Administration Code. The map and measurement methods used for this survey meet or exceed this requirement. The dimensions shown hereon are in United States survey feet and decimals thereof.
- This survey does not determine ownership of the lands shown hereon.
- Underground foundations have not been located.
- Survey map and report or the copies thereof are not valid without the original signature and seal or the electronic signature and seal of a Florida Licensed Surveyor and Mapper, and if shown hereon is in compliance with Florida Administrative Code SJ-17.062 and Florida Statute 472.025.
- Features shown by symbol in the legend are not to scale.
- Additions or deletions to survey maps or reports by other than the signing party or parties is prohibited without written consent of the signing party or parties.
- Bearings shown hereon are based on the Easterly Right of Way line of State Road A-1-A (Atlantic Avenue) as being South 28°51'54" East. Bearings and distances shown hereon are measured unless otherwise noted.
- Vertical information shown hereon refers to a National Geodetic Survey (NGS) point with designation "95 71 A13", PID number AK0498, published elevation of 19.11 feet North American Vertical Datum of 1988 (NAVD88) and National Geodetic Survey (NGS) point with designation "95 71 A13", PID number AQ1454, published elevation of 4.86 feet North American Vertical Datum of 1988 (NAVD88).
- Horizontal features shown on the map refer to a National Geodetic Survey point with designation "95 71 A13", PID number AK0498 and is relative to North American Datum of 1983 (NAD83), 2011 adjustment, State Plane Coordinate System, Florida East Zone. Distances shown are GRID distances.
- Based on the Federal Emergency Management Agency, Flood Insurance Rate Map (FIRM), map number 125132 0705 J, map revised September 29, 2017 the above described property is within Zone "X" and Zone "VE" Base Flood Elevation 10 feet.
- This Survey was performed without benefit of an abstract, title search, title opinion or title commitment. A title search may reveal additional information affecting the parcel as shown.
- Improvements and Topographic features shown hereon are limited to storm damaged oceanside areas per specific instructions of the client.
- Right of Way information shown hereon was determined by found monumentation, recorded plats and information obtained on the Volusia County Property Appraisers web site. No Right of Way documentation was provided by client.
- The Mean High Water Line as shown is depicted at 1.13 feet North American Vertical Datum 1988. Contour Line as provided by request from M. Kevin Mears, PSM on March 28, 2023 from data obtained by Florida Department of Environmental Protection.
- Locations of the Mean High Water Line and Seasonal High Water Line were calculated with drone photogrammetry data interpolation and real time kinematics data from field date February 12, 2023.
- Volusia County Coastal Construction Line is depicted by CCCL Book 30, Page 20, Rerecorded in 01-24-91 using "PRM 79-78-A17" and "PRM 79-78-A18" as shown.
- Bulkhead line is shown per City of New Smyrna Beach Ordinance #790 as described in New Smyrna Beach, Florida - Code of Ordinances Part II - Chapter 90 - Waterways.
- No evidence of existing Beach Dunes, Coastal Stands, Hammock Canopy, Wetlands, Exotics Plants, or any Natural Vegetation were observed in the field.
- The above described parcel contains 1.94 acres, more or less.

#### NOTICE OF LIABILITY:

This survey is certified to those individuals shown on the face thereof. Any other use, benefit or reliance by any other party is strictly prohibited and restricted. Surveyor is responsible only to those certified and hereby disclaims any other liability and hereby restricts the rights of any other individual or firm to use this survey, without express written consent of the surveyor.

Boundary Survey		REFERENCE DATE	REFERENCE	BY
Project		4/17/23	Revised per FDEP comments	WAS
4385 South Atlantic Avenue	New Smyrna Beach, Florida			
Field Date: February 12, 2023	Drawn By:	JRC	Sheet Number 1 of 1	NOT VALID WITHOUT SHEETS 1 THROUGH 1

NO	REMARKS	DATE
A	EOR REVISIONS 3/30/23	



DRAWN BY  
EAA  
CHECKED BY  
JAA  
SCALE  
AS NOTED  
DATE  
7 MAR 2023

SHEET 11 OF 10  
S6.0

# SEA DUNES GREEN TURTLE

4335 SOUTH ATLANTIC AVENUE  
NEW SMYRNA BEACH, FL 32118

**CRA** Charles R. Adams & Associates, Inc.  
STRUCTURAL ENGINEERS

221203 - SEA DUNE GREEN TURTLE - CD.DWG