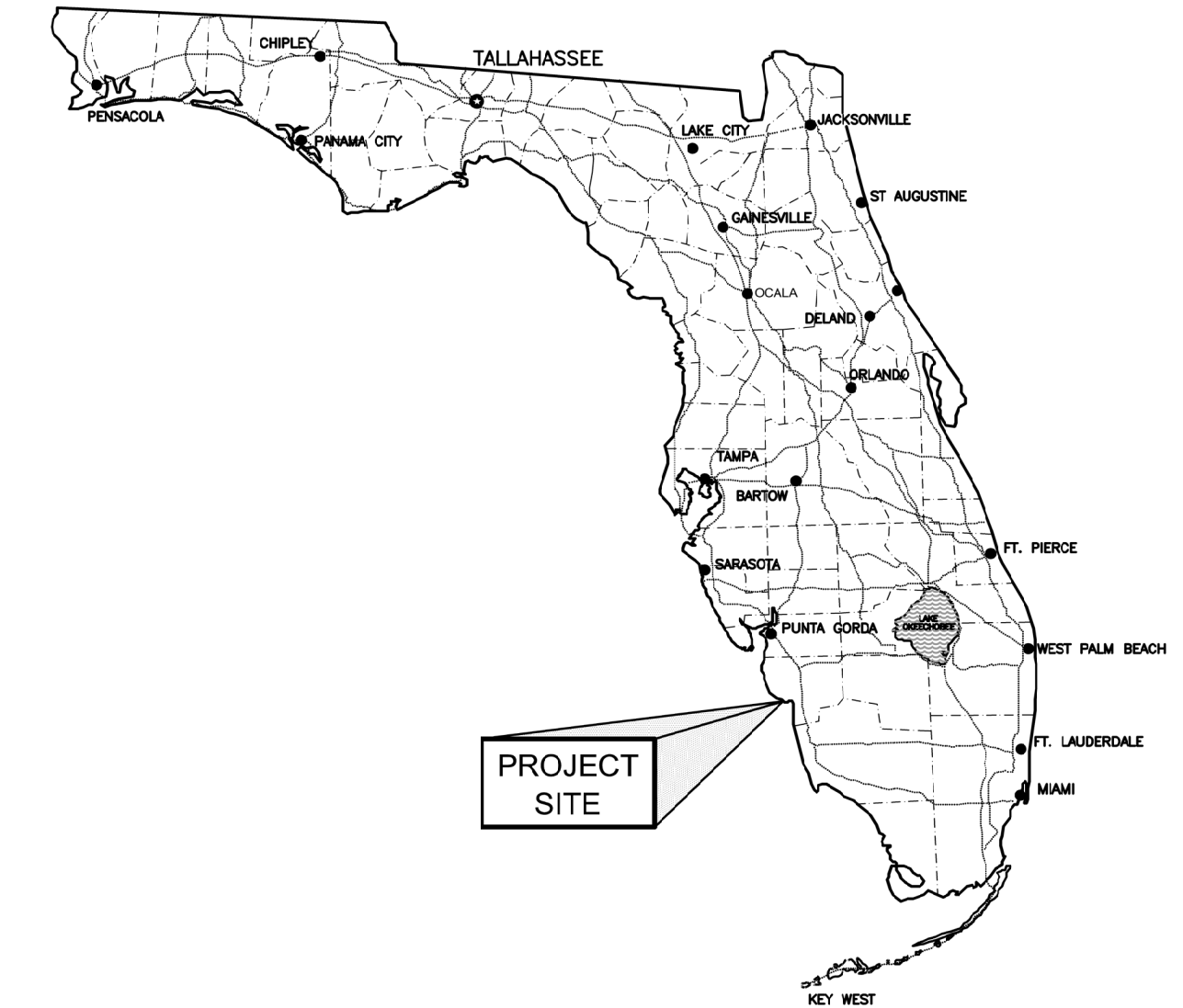
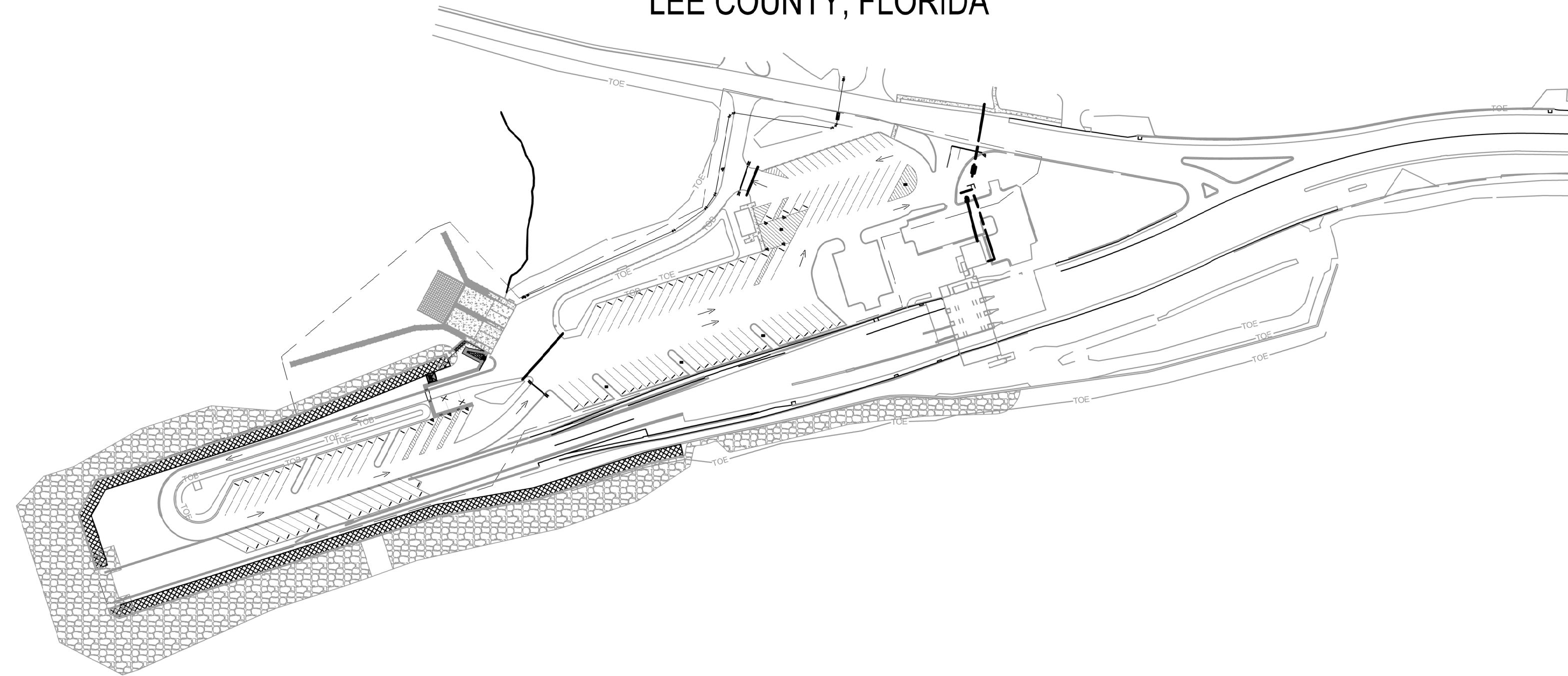


PUNTA RASSA BOAT RAMP IMPROVEMENTS

FOR

LEE COUNTY

SECTION 09, TOWNSHIP 46 S., RANGE 23E.
LEE COUNTY, FLORIDA



OWNER / DEVELOPER

LEE COUNTY
PO BOX 398
FORT MYERS, FL 33902
PHONE: (239) 533-2111

STRAP NUMBER

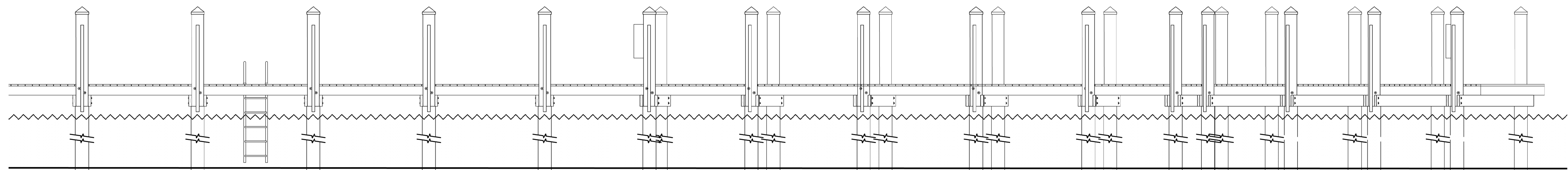
09-46-23-00-00002.0060

ZONING

AG-2 (LCO)

SITE ADDRESS

18700 MCGREGOR BLVD
FORT MYERS, FL 33908



PREPARED BY

THE WEILER ENGINEERING CORPORATION

---AN APEX COMPANY---

201 WEST MARION AVENUE
SUITE 1306
PUNTA GORDA, FLORIDA 33950
EB # 6656

PHONE - 941-505-1700

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INDEX OF DRAWINGS	
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S300	WIND LOADING

THE WEILER ENGINEERING CORPORATION

These plans are in Compliance with Florida Building Code 2023 for wind parameters indicated.

WIND PARAMETERS
Method of Design: ASCE 7-22
Building Risk Category: II
Design Wind Speed: Ultimate $V_{ult}=160$ MPH / Nominal $V_{nom}=124$ MPH
Wind Importance Factor: 1.0 / Wind Exposure: D
Internal Pressure Coefficient: ± 0.00 (Open)
Component & Cladding Wind Pressure: per Calcs
FLOOD PARAMETERS
FEMA FIRM Map Number: 12071-IC0532G
Base Flood Elevation: VE-11
100-year, 1-hour Design Rainfall: 4.5 in (FBC 2023 Fig. 1611.1)
GEOTECHNICAL PARAMETERS
DATA SOURCE:
PRESUMPTIVE LOAD-BEARING VALUES OF SOIL (FBC)
VERTICAL BEARING CAPACITY (TABLE 1806.2)..... 1,500 PSF
LATERAL BEARING CAPACITY (TABLE 1806.2)..... 100 PSF/FT
Vertical Bearing Capacity: 10" PILE = 5 TONS
Lateral Bearing Capacity: 1 TON PER PILE

GENERAL REQUIREMENTS

1. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND DETAILS AND SHALL NOTIFY ENGINEER IMMEDIATELY OF ANY ERRORS, OMISSIONS OR DISCREPANCIES PRIOR TO COMMENCEMENT OF WORK.
2. ALL MATERIALS, EQUIPMENT, CONNECTORS, AND WORK SHALL MEET OR EXCEED THE DESIGN DATA AND COMPLIANCE CODE CITED.
3. ENGINEER IS NOT RESPONSIBLE FOR ANY SUPERVISION DURING CONSTRUCTION.
4. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCING WORK AND DETERMINE THE LOCATION OF ALL ADJACENT UNDERGROUND UTILITIES PRIOR TO COMMENCING EXCAVATION AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
5. THE CONTRACTOR MAINTAINS THE RESPONSIBILITY FOR ALL CONSTRUCTION MEANS, METHODS AND TECHNIQUES REQUIRED FOR THE CONNECTIONS OF ALL PILINGS, DECK SYSTEMS AND STRUCTURES. ALL WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER.
6. THE STRUCTURAL INTEGRITY OF THE STRUCTURES SHOWN ON THESE PLANS IS DEPENDENT UPON COMPLETION ACCORDING TO PLANS AND SPECIFICATIONS. STRUCTURAL MEMBERS ARE NOT SELF SUPPORTING DURING CONSTRUCTION AND REQUIRE TEMPORARY BRACING UNTIL PERMANENTLY APPLIED TO STRUCTURE AS DIRECTED. THE STRUCTURAL ENGINEER ASSUMES NO LIABILITY FOR THE STRUCTURE DURING CONSTRUCTION UNLESS THE CONSTRUCTION METHOD AND BRACING ARE INCLUDED IN THE PLANS AND SPECIFICATIONS, OR ARE SUPERVISED BY THE STRUCTURAL ENGINEER DURING CONSTRUCTION.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES REQUIRED TO PERFORM THE WORK. THE STRUCTURAL ENGINEER HAS NO OVERALL SUPERVISION / AUTHORITY OR ACTUAL AND /OR DIRECT RESPONSIBILITY FOR THE SPECIFIC WORKING CONDITIONS AT THE SITE AND /OR FOR ANY HAZAROUS RESULTING FROM THE ACTIONS OF ANY TRADE CONTRACTOR. THE STRUCTURAL ENGINEER HAS NO DUTY TO INSPECT, SUPERVISE, NOTE, CORRECT, OR REPORT ANY HEALTH OR SAFETY DEFICIENCIES OF THE OWNER, CONTRACTORS, OR OTHER ENTITIES OR PERSONS AT THE PROJECT SITE.
8. IN ADDITION TO THE DEMOLITION WORK INDICATED ON THE DRAWINGS, MINOR LOCAL DEMOLITION OF EXISTING ELEMENTS MAY BE REQUIRED TO PERFORM THE STRUCTURAL WORK AS INDICATED ON THE PLANS, SECTIONS, AND DETAILS.
9. DISCHARGE ALL DRAIN LINES, CONDENSATE LINES, DOWN SPOUT, ETC. AT LEAST 1'-0" FROM STRUCTURES.
10. ANY CHANGES OR SUBSTITUTIONS SHALL BE APPROVED BY THE ENGINEER.
11. DISSIMILAR METALS SHALL BE ISOLATED TO PREVENT GALVANIC ACTION.
12. THE ENTIRE SCOPE OF WORK SHALL MEET THE 75 FOOT RULE AND SQUARE FOOTAGE REQUIREMENTS OF NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 10 FOR NUMBER, TYPE AND PLACEMENT OF EXTINGUISHERS.
13. FIELD VERIFY ALL EXISTING ABOVE AND BELOW GROUND CONDITIONS PRIOR TO FABRICATION AND CONSTRUCTION.
14. THE STRUCTURAL DESIGN OF DOCKS AND BOARDWALKS IS BASED ON THE FULL INTERACTION OF ALL ITS COMPONENT PARTS, WITH NO PROVISION FOR CONDITION OCCURRING DURING CONSTRUCTION. THEREFORE, CONTRACTOR SHALL PROVIDE ADEQUATE BRACING DURING CONSTRUCTION.
15. STRUCTURAL DRAWINGS INDICATE TYPICAL AND CERTAIN SPECIFIC CONDITIONS ONLY. SHOP DRAWINGS SHALL DETAIL ALL CONDITIONS IN ACCORDANCE WITH SPECIFIED STANDARDS AND SPECIFIC REQUIREMENTS OF THIS PROJECT AS INDICATED ON THE DRAWINGS.
16. CONTRACTOR SHALL APPLY FOR AND OBTAIN ALL NECESSARY PERMITS FROM ALL GOVERNING JURISDICTIONS INCLUDING CHARLOTTE COUNTY, FLORIDA, FOR STRUCTURAL, ELECTRICAL, PLUMBING, AND ALL OTHERS REQUIRED TO COMPLETE THE JOB.

GENERAL STRUCTURAL SPECIFICATIONS

1. GOVERNING BUILDING CODE: 2023 FLORIDA BUILDING CODE 8TH EDITION (FBC)
2. DESIGN LOADS:

STRUCTURAL LOADS (LOADS PER FBC TABLE 1806.1)

LIVE LOAD.....100 PSF

DEAD LOAD.....20 PSF

STAIR DESIGN LOADS

LIVE LOAD.....60 PSF

CONCENTRATED LIVE LOAD.....300 LB

HANDRAIL AND GUARDRAIL DESIGN LOADS

CONCENTRATED LOAD.....200 LB

UNIFORM LINEAR LOAD.....50 PLF

GRAB BARS DESIGN LOADS (FBC SECTION 1807.7)

SINGLE CONCENTRATED LOAD AT ANY POINT AND IN ANY DIRECTION APPLIED AT TOP OF GUARDRAIL.....250 LB

WIND LOADS (PER ASCE 7-22)

BUILDING RISK CATEGORY (TABLE 1.5-1).....II

BASIC WIND SPEED (V₃) (S, 25 MI).....160 MPH

Ultimate (V_{ult}) (THREE SECOND GUST).....124 MPH

Normal (V_N) (THREE SECOND GUST).....100 MPH

IMPORTANCE FACTOR (TABLE 1.5-2).....1.00

EXPOSURE CATEGORY (26.7.3).....D

INTERNAL PRESSURE COEFFICIENT (TABLE 26.13-1).....±0.00 (OPEN)

COMPONENTS & CLADDING WIND PRESSURES.....PER PLAN

GEOTECHNICAL DESIGN DATA (PER FBC 1806)

DATA SOURCE: PRESUMPTIVE LOAD-BEARING VALUES OF SOIL (FBC)

VERTICAL BEARING CAPACITY (TABLE 1806.2).....1,500 PSF

LATERAL BEARING CAPACITY (TABLE 1806.2).....100 PSF/FT

RAIN DESIGN DATA (PER FBC 1611)

DESIGN RAIN EVENT.....100-YEAR, 1-HR

DESIGN RAINFALL (FIG. 1611.1).....4.5-IN

FLOOD DESIGN DATA (PER FBC 1612)

PEAK FIRM MAP.....12071C0532G

BASE FLOOD ELEVATION.....VE-11 COASTAL
3. MATERIALS:

CONCRETE (NORMAL WEIGHT - 28 DAY COMPRESSIVE STRENGTH)

SLAB ON GRADE AND FOOTINGS.....3,000 PSI

COLUMNS.....3,000 PSI

REINFORCING STEEL FOR: CONCRETE MASONRY UNITS (CMU) WALLS, FOOTINGS, BEAMS, ETC.....ASTM A615 GRADE 60, F_y = 60,000 PSI

WELDED WIRE MESH.....ASTM A193

ANCHOR BOLTS.....ASTM A193, GRADE 8HM, CLASS-1, TYPE 304 SS

HIGH STRENGTH BOLTS.....ASTM A193, GRADE 8HM, CLASS-2, TYPE 304 SS

ANCHORS OR POWER ACTUATED FASTENERS: HILTI (OR APPROVED EQUAL).....304 SS

VAPOR BARRIER.....5 MILS POLYETHYLENE GROUT.....3,000 PSI, NON SHRINK

APPLICABLE CODES

FLORIDA BUILDING CODE, BUILDING (FBC-B)	2023 8 th Edition
FLORIDA BUILDING CODE, FUEL GAS (FBC-FG)	2023 Edition
FLORIDA BUILDING CODE, MECHANICAL (FBC-M)	2023 Edition
FLORIDA BUILDING CODE, PLUMBING (FBC-P)	2023 Edition
FLORIDA BUILDING CODE, EXISTING BUILDING (FBC-EB)	2023 Edition
FLORIDA BUILDING CODE, RESIDENTIAL (FBC-R)	2023 Edition
FLORIDA FIRE PREVENTION CODE (FFPC)	2023 8 th Edition
NATIONAL ELECTRICAL CODE (NEC)	2020 Edition
FDOT STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONST.	Latest Edition
FDOT DESIGN STANDARDS	Latest Edition
FLORIDA ACCESSIBILITY CODE	2023 Edition

SHOP DRAWINGS

1. SHOP DRAWINGS AND TEST RESULTS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW. NO MODIFICATIONS OR SUBSTITUTION OF DRAWINGS AND SPECIFICATIONS WILL BE ACCEPTED VIA SHOP DRAWINGS REVIEW. ONE COPY OF ALL TEST REPORTS SHALL BE SENT DIRECTLY TO THE ENGINEER OF RECORD, AND ONE COPY TO THE COUNTY. THE FOLLOWING SHOP DRAWINGS AND TEST RESULTS SHALL BE SUBMITTED;
2. CONTRACTOR SHALL REVIEW AND STAMP SHOP DRAWINGS PRIOR TO SUBMISSION TO THE ENGINEER OF RECORD. CONTRACTOR SHALL REVIEW FOR COMPLETENESS AND COMPLIANCE WITH CONTRACT DOCUMENTS.
3. SUBMIT SHOP DRAWINGS TO THE STRUCTURAL ENGINEER AS INDICATED OR SPECIFIED FOR REVIEW PRIOR TO FABRICATION. REVIEW WILL BE FOR GENERAL CONFORMANCE WITH THE DESIGN INTENT CONVEYED IN CONTRACT DOCUMENTS.
4. WHEN ENGINEER IS REQUIRED TO SIGN AND STAMP SHOP DRAWINGS AND CALCULATIONS, ENSURE SEAL INDICATES ENGINEER AS REGISTERED IN THE STATE WHERE PROJECT SITE OCCURS.
5. SHOP DRAWINGS ARE NOT PART OF CONTRACT DOCUMENTS. THEREFORE, ENGINEER'S REVIEW DOES NOT CONSTITUTE ON AUTHORIZATION TO DEViate FROM THE TERMS AND CONDITIONS OF THE CONTRACT.
6. SHOP DRAWINGS WILL BE REJECTED FOR INCOMPLETENESS, LACK OF COORDINATION WITH OTHER PORTIONS OF CONTRACTED DOCUMENTS, LACK OF CALCULATIONS (IF REQUIRED), OR WHERE MODIFICATIONS OR SUBSTITUTIONS ARE INDICATED WITHOUT PRIOR REVIEW. SUBMIT SHOP DRAWINGS AND CALCULATIONS TO GOVERNING CODE AUTHORITY WHEN SPECIFICALLY INDICATED OR REQUESTED.
7. STRUCTURAL ENGINEER REQUIRES 10 WORKING DAYS AFTER RECEIPT OF SHOP DRAWINGS AND CALCULATIONS FOR PROCESSING.
8. MAINTAIN A COPY OF ALL SHOP DRAWINGS ACCEPTED BY THE STRUCTURAL ENGINEER AT SITE DURING CONSTRUCTION PERIOD.
9. SUBMITTALS SHALL BE SUBMITTED TO ENGINEER OF RECORD FOR ANY PROPOSED ALTERNATIVES TO PRODUCTS SPECIFIED IN PLANS.

EXISTING STRUCTURE

1. DRAWINGS FOR THE EXISTING STRUCTURE ARE AVAILABLE. ALL OF THE EXISTING CONDITIONS WERE NOT VERIFIABLE WITHIN THE SCOPE OF ENGINEERING SERVICES. THEREFORE, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS RELATING TO THE EXISTING STRUCTURE AND TO NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES OR CONFLICTS.
2. CONTRACTOR SHALL REPAIR ALL PILES IN LINE AND UNLESS PROOF CAN BE PROVIDED THAT ANY TO REMAIN MEET BEARING AND UPLIFT CAPACITY AND ARE TRUE AND PLUMB.
3. CONTRACTOR SHALL CONTACT ENGINEER OF RECORD TO PERFORM AN ON-SITE INSPECTION AS TO VERIFY EXISTING CONCRETE RAMP IS IN GOOD CONDITION AND IN ACCORDANCE WITH ORIGINAL PERMIT DOCUMENTS. ANY DAMAGES SHALL BE REPAIRED OR RAMPS REPLACED AS NEEDED. SURFACE CRACKS SHALL BE REPAIRED PER ENGINEERED DETAILS. CONTACT ENGINEER FOR FURTHER DIRECTION WHERE REQUIRED.

CHEMICAL (ADHESIVE) ANCHORS

SHALL BE AN EQUAL TWO PART EPOXY POLYMER INJECTION SYSTEM, SUCH AS RED-HEAD EPOXY, SIMPSON SET EPOXY, OR HILTI HSE2411 EPOXY DOWELING SYSTEM, OR ENGINEER APPROVED SUBSTITUTION, INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. INSTALLERS SHALL BE TRAINED BY THE MANUFACTURER'S REPRESENTATIVE. MINIMUM EMBEDMENT SHALL BE TWELVE (12) TIMES FASTENER DIAMETER UNLESS NOTED OTHERWISE.

CONSTRUCTION OBSERVATION

THE STRUCTURAL ENGINEER OF RECORD (EOR) HAS BEEN RETAINED TO PERFORM CONSTRUCTION OBSERVATION SERVICES FOR THIS PROJECT. PLEASE INFORM EOR OF ANY QUESTIONS OR CONFLICTS. PLEASE ALLOW FOR UP TO 10 DAYS FOR SUBMITTAL REVIEWS BY EOR. CHANGES MADE TO THE STRUCTURE OR TO THESE PLANS WITHOUT THE ENGINEER'S WRITTEN CONSENT SHALL RENDER THE DESIGN AND THE ENGINEER'S SEAL ON THESE PLANS NULL AND VOID.

ALUMINUM SPECIFICATIONS

1. WHERE OTHERWISE NOT SPECIFIED, ALUMINUM HANDRAIL FOR VERTICAL AND HORIZONTAL MEMBERS SHALL BE SEAMLESS, 1-1/2 INCH (IPS), SCHEDULE 40, 6063-T832 OR 6063-T6 ALUMINUM ALLOY PIPE. ALUMINUM FITTINGS SHALL BE OF WROUGHT MATERIAL OF THE SAME COMPOSITION AS RAILS AND POSTS OR CAST ALUMINUM OF ALUMINUM ALLOY NO. 214. ALUMINUM FITTINGS SHALL HAVE A MINIMUM THICKNESS OF 1/4-INCH. ALL SCREW CONNECTORS AND BOLTS SHALL BE OF STAINLESS STEEL OR 2024-T4 ALUMINUM ALLOY.
2. ALL OTHER ALUMINUM COMPONENTS SHALL BE AS NOTED.

WIND BORNE DEBRIS REGION REQUIREMENTS

1. DESIGN WIND PRESSURES ARE BASED ON STRUCTURE CLASSIFICATION INDICATED IN GENERAL STRUCTURAL SPECIFICATIONS.
2. ALL COMPONENTS AND CLADDING AS REQUIRED SHALL BE DESIGNED BY THE MANUFACTURER IN ACCORDANCE WITH SECTION 1809 OF THE FLORIDA BUILDING CODE FOR DESIGN PRESSURES GENERATED BY AN ULTIMATE DESIGN WIND VELOCITY AS INDICATED IN GENERAL STRUCTURAL SPECIFICATIONS.
3. THE ENGINEER OF RECORD DOES NOT CERTIFY THE STRUCTURAL INTEGRITY OF THESE ITEMS.
4. THE BUILDER SHALL PROVIDE NECESSARY COPIES OF DETAILS, CERTIFICATIONS, ETC., TO THE BUILDING DEPARTMENT TO SHOW COMPLIANCE WITH THIS PARAGRAPH.

WIND LOADING INFO

REFER TO SHEET S300 DETAIL 1 FOR WIND LOADING

LUMBER

1. CODES AND STANDARDS (CURRENT EDITIONS)

1.1. AMERICAN WOOD COUNCIL (AWC)

1.2. AMERICAN WOOD PROTECTION ASSOCIATION (AWPA)

1.3. 2024 NATIONAL DESIGN SPECIFICATION (NDS) FOR WOOD CONSTRUCTION
2. DIMENSIONAL LUMBER SHALL BE SOUTHERN PINE WITH THE MINIMUM NOMINAL DESIGN VALUES PER AWC NDS.
3. WHERE SPECIFIED, ENGINEERED LUMBER PRODUCTS SHALL BE PER MANUFACTURER PROVIDED DESIGN VALUES. CONTRACTOR SHALL PROVIDE SUBMITTAL FOR ALL ENGINEERED LUMBER PRODUCTS.
4. ALL WOOD IN CONTACT WITH CONCRETE, MASONRY, OR SOIL, EXPOSED TO WEATHER, OR AT OTHER LOCATIONS AS SHOWN ON STRUCTURAL DRAWINGS, SHALL BE PROTECTED OR PRESURE TREATED IN ACCORDANCE WITH AMERICAN WOOD PROTECTION ASSOCIATION (AWPA) REQUIREMENT'S PRESSURE TREATMENT APPROPRIATE FOR LUMBER IN CONTACT WITH SOIL. SHALL BE PROVIDED WHERE APPLICABLE.
- 4.1. ALL NEW WOOD PILES MUST UNDERGO DUAL TREATMENT (UNLESS NOTED OTHERWISE):

4.1.1. FIRST TREATMENT WITH CHROMIUM COPPER ARSENATE (CCA) 1.00, FOLLOWED BY

4.1.2. SECOND TREATMENT WITH CREOSOTE SOLUTION (CR-S) 20.00.
- 4.2. ALL NEW BENTS AND STRINGERS MUST ADHERE TO THE AMERICAN WOOD COUNCIL'S USE OF WRAP TO BE AT BOTTOM OF LOWEST HORIZONTAL MEMBER. BOTTOM OF WRAP TO BE 2'-0" MINIMUM BELOW MUD LINE. FASTEN WRAP WITH 2" SS (304 MARINE GRADE) RING SHANK ROOFING NAILS @ 2' O.C. VERTICAL SEAM. VERTICAL SEAM SHALL BE LOCATED ON INTERIOR DOCK SIDE OF TIMBER PILE.
- 4.3. ANY GUARDS AND DECKING, EXCLUDING HIGH-DENSITY POLYETHYLENE (HDPE) DECKING, MUST BE TREATED WITH 1.99 PCF ALKALINE COPPER QUATERNARY (ACQ), OR 0.31 PCF COPPER AZOLE (CA), OR 0.23 PCF CA-4, OR MICROBICID COPPER AZOLE (MCA), ANY GUARDS AND DECKING, WHERE DECKING IS NOT HIGH-DENSITY POLYETHYLENE (HDPE) SHALL BE TREATED WITH 0.80 PCF ACQ OR 0.31 PCF CA OR 0.23 PCF WOLMIAN G © (GCA-C) OR MCA

WOOD PRESERVATION TREATMENT		
APPLICATION	AWPA USE CATEGORY	TREATMENT (LBS/CU FT.)
IN CONTACT WITH METAL ROOFING	UC2	0.018 PCF PTI OR EQUAL + (0.019 PCF EL2 0.14 PCF UCA-C, 0.15 PCF MCA, OR 0.17 PCF SBX)
	UC3B	ACQ 0.25
ABOVE GROUND USE	UC4A	0.40 PCF ACQ OR EQUAL ± (0.14 PCF UCA-C, 0.15 PCF MCA, OR 0.15 PCF CA)
CONCRETE OR GROUND CONTACT, IN-GROUND USE, DECKING, ROOF COMPONENTS	UC4B	0.60 PCF ACQ OR 0.31 PCF CA OR 0.23 PCF OF UCA-C OR MCA
STRINGERS & BENTS 2X6-2X10, ROOF POSTS 6X6-10X13	UC4B	0.60 PCF CCA
SPLIT PILE CAP 3X10, STRINGERS & BENTS 2X8-3X10	UC4C	0.80 PCF CCA OR 0.41 CA
UPLAND PILES IN-GROUND OR FRESHWATER PILES	UC4C	0.80 PCF CCA OR 0.41 CA
SALTWATER EXPOSURE PILES, CROSS BRACING, AND WALKERS	UC5C	2.5 CCA

5. WALL STUDS SHALL BE CAPPED WITH A DOUBLE PLATE, INSTALLED TO PROVIDE OVERLAPPING AT CORNERS AND INTERSECTIONS WITH BEARING PARTITIONS.
6. ENGINEERED WOOD TRUSS SYSTEMS SHALL BE DESIGNED BY SUPPLIER'S DELEGATED ENGINEER TO CONFIGURATION AND LOAD-CARRYING CAPACITY SHOWN ON DRAWINGS AND SPECIFICATIONS. ALTERNATE TRUSS LAYOUTS ARE ACCEPTABLE ONLY AS A CHANGE ORDER WHICH WILL INCLUDE ENGINEERING CHARGES FOR REDESIGN OF THE STRUCTURE BY THE ENGINEER OF RECORD. SUBMIT SHOP DRAWINGS FOR REVIEW PRIOR TO FABRICATION. SHOP DRAWINGS SHALL SHOW AND SPECIFY ALL CONNECTOR TYPES UTILIZED WITHIN TRUSSES, AS WELL AS CONNECTORS UTILIZED IN ALL OTHER CONNECTIONS AND ATTACHMENTS BETWEEN TRUSSES OR COMPONENTS SUPPLIED AS PART OF THE ENGINEERED TRUSS SYSTEM. A LACING PLAN SHALL BE INCLUDED IDENTIFYING ALL TRUSS SYSTEM COMPONENTS, AS WELL AS ALL PERMANENT BRACING REQUIRED FOR TRUSS DESIGN.
7. ENGINEERED SHOP DRAWINGS SHALL BEAR THE SIGNATURE AND IMPRESSED SEAL OF A FLORIDA REGISTERED PROFESSIONAL ENGINEER AS THE SPECIALTY ENGINEER. THE FOLLOWING LOAD AND DURATION FACTORS SHALL BE USED FOR ALLOWABLE STRESS DESIGN (ASD):

7.1. DEAD LOAD.....0.90

7.2. DEAD LOAD + FLOOR LIVE LOAD.....1.00

7.3. DEAD LOAD + ROOF LIVE LOAD.....1.25

7.4. DEAD LOAD + WIND LOAD.....1.60
8. WHERE STRENGTH DESIGN (LRFD) IS UTILIZED ON ENGINEERED SHOP DRAWINGS, THE FOLLOWING TIME EFFECT FACTORS SHALL BE USED:

8.1. 1.0

8.2. 1.2D + 1.6L + 0.5(L_s, S, R).....0.70 (L FROM STORAGE)

8.3. 1.2D + 1.6L + 0.5(L_s, S, R).....0.80 (L FROM OCCUPANCY)

8.4. 1.2D + 1.6L + 0.5(L_s, S, R).....1.25 (L FROM IMPACT)

8.5. 1.2D + 1.6L + 0.5(L_s, S, R).....0.80

8.6. 1.2D + 1.6L + 0.5(L_s, S, R).....1.00

8.7. 0.9D + 1.0E.....1.00
9. DECK SHEATHING SHALL BE INSTALLED LONG DIMENSION PERPENDICULAR TO FRAMING AND END JOINTS SHALL BE STAGGERED.
10. ROOF AND FLOOR SHEATHING SHALL BE INSTALLED LONG DIMENSION PERPENDICULAR TO FRAMING AND END JOINTS SHALL BE STAGGERED.
11. PLYWOOD FLOOR, WALL, AND ROOF SHEATHING ARE DESIGNED AS DIAPHRAGMS AND SHALL COMPLY WITH APPLICABLE PROVISIONS OF CHAPTER 23 OF THE 2023 FLORIDA BUILDING CODE (FBC-2023). UNLESS SHOWN OTHERWISE SPAN RATED PANELS SHALL BE FASTENED TO NOMINAL 2X SOUTHERN PINE FRAMING SPACED UP TO 24" O/C IN ACCORDANCE WITH THE FOLLOWING:

11.1. PANELS UP TO 5/8" THICK: 100 NAILS AT 4" O/C ALONG SUPPORTED PANEL EDGE, 8" O/C ELSEWHERE, U.N.O.

11.2. PANELS UP TO 3/4" THICK: 12D NAILS AT 4" O/C ALONG SUPPORTED PANEL EDGE, 8" O/C ELSEWHERE, U.N.O.
12. ROOF SHEATHING SHALL BE NAILED WITH RING-SHANK NAILS IN ACCORDANCE WITH THE FLORIDA BUILDING CODE.
13. AT GABLE END WALLS, GABLE END TRUSSES, AND ALL COMPONENT AND CLADDING EDGE STRIP #3 LOCATIONS, SPACE NAILS AT 4" O/C AT ALL EDGES AND INTERMEDIATE SUPPORTS.
14. NAILING, JOIST BLOCKING, AND RAFTER BLOCKING SHALL MEET THE MINIMUM REQUIREMENTS OF CHAPTER 23 OF THE FLORIDA BUILDING CODE UNLESS MORE STRINGENT REQUIREMENTS ARE INDICATED ON THE PLANS.
15. ALL CONNECTORS SHALL BE TYPE 304 STAINLESS STEEL (SS). CONNECTOR MODEL NUMBERS SHOWN ARE STRONG-TIE CONNECTORS AS MANUFACTURED BY SIMPSON STRONG-TIE CO., PO BOX 10789, PLEASANTON, CA 94680 OR USP CONNECTORS AS MANUFACTURED BY MITEK, INC., 18023 SWINGLEY RIDGE RD, CHESTERFIELD, MO 63017. SUBSTITUTIONS ARE ACCEPTABLE WITH THE APPROVAL OF THE STRUCTURAL ENGINEER. UNLESS SHOWN OTHERWISE, INSTALLED SIZE AND NUMBER OF FASTENERS PER MANUFACTURER INSTALLATION INSTRUCTIONS. ALL CONNECTORS TO PRESSURE TREATED LUMBER SHALL BE TYPE 304 STAINLESS STEEL (SS).
16. ANY NOTE REQUIRING A RING SHANK MAY BE SCREW SHANK FOR AUTOMATIC NAILING

TEST PILE REQUIRED

1. TEST PILES MUST BE COMPLETED WITHIN THE AREA OF THE STRUCTURE'S FOUNDATION.
2. THE TEST PILE MUST MATCH THE INDICATED TYPE AND BE INSTALLED USING SUITABLE METHODS ASSOCIATED WITH THE PILING TYPE.
3. TEST PILES MUST INCORPORATE APPROPRIATE MONITORING DEVICES TO MEASURE PARAMETERS SUCH AS LOAD, DISPLACEMENT, AND SOIL PRESSURES DURING PILE DRIVING OR LOADING TESTS.
4. LOAD TESTS, INCLUDING STATIC LOAD, DYNAMIC LOAD, AND PILE INTEGRITY TESTS, ARE REQUIRED TO EVALUATE PILE CAPACITY AND PERFORMANCE.
5. PREPARE A COMPREHENSIVE REPORT DOCUMENTING TEST PILE INSTALLATION, INSTRUMENTATION SETUP, LOAD TEST PROCEDURES, AND RESULTS. PRESENT FINDINGS TO THE ENGINEER OF RECORD FOR REVIEW AND APPROVAL BEFORE INSTALLING ADDITIONAL PILINGS.

NEW PILE INSTALLATION

1. CONTRACTOR SHALL REPLACE ALL PILES IN LIKE KIND THAT ARE IDENTIFIED TO BE REMOVED, UNLESS PROOF CAN BE PROVIDED THAT ANY TO REMAIN MEET BEARING AND UPLIFT CAPACITY AND ARE TRUE AND PLUMB.
2. WHEN PRE-DRILLING PILES, PERMANENT AND TEST PILES MAY BE PREDRILLED UP TO 20% OF THE EMBEDMENT LENGTH. IF OBSTRUCTIONS OR ROCK IS ENCOUNTERED, THE PREDRILLED HOLE SHALL NOT EXCEED A DIAMETER OF 12" THROUGH THE OBSTRUCTION. CLEAN SAND SHALL BE BACKFILLED WHERE OBSTRUCTIONS MUST BE DRILLED THROUGH. (FDOT 455-5.1.1)
3. PILES SHALL HAVE AN MINIMUM EMBEDMENT OF 15'-0" THEN PILE SHALL BE CUT TO REQUIRED HEIGHT. CONTRACTOR SHALL CONTACT EOR FOR ANY REFUSAL LESS THAN 15'-0".
4. ALL BOLTS, FASTENERS, BRACKETS AND STRAPS SHALL BE 304 STAINLESS STEEL, UNLESS NOTED OTHERWISE. BOLT END SHALL EXTEND PASS THE STAINLESS STEEL NUT BY A MINIMUM OF THREE (3) THREADS AND A MAX OF 1".
5. ALL WOOD PILES SHALL HAVE UV RESISTANT HIGH-DENSITY POLYETHYLENE (HDPE) PILE WRAP (BLACK) 36" WIDE X .060 THICK (W/ 6" MIN. OVERLAP. TOP OF WRAP TO BE AT BOTTOM OF LOWEST HORIZONTAL MEMBER. BOTTOM OF WRAP TO BE 2'-0" MINIMUM BELOW MUD LINE. FASTEN WRAP WITH 2" SS (304 MARINE GRADE) RING SHANK ROOFING NAILS @ 2' O.C. VERTICAL SEAM. VERTICAL SEAM SHALL BE LOCATED ON INTERIOR DOCK SIDE OF TIMBER PILE.

DOCK CONSTRUCTION NOTES:

1. PRIOR TO EXCAVATION CONTRACTOR TO FIELD VERIFY LOCATION OF ALL UTILITIES, IRRIGATION AND DRAINS.
2. THE CONTRACTOR SHALL DEMOLISH, REMOVE, AND DISPOSE OF IN AN APPROVED OFF SITE DISPOSAL AREA THE EXISTING TIMBER PILES, DOCKS AND ASSOCIATED DEBRIS WITHIN THE LIMITS OF THE PROJECT THAT HAVE BEEN IDENTIFIED FOR REMOVAL.
3. BEVEL TOP EDGE OF TIMBER PILES AND P.T. LUMBER TO REMOVE SPLINTERS.
4. RECESS ALL OUTBOARD FACING BOLT HEADS FLUSH WITH PILE.
5. ALL FASTENERS AND HARDWARE SHALL BE 304 STAINLESS STEEL.
6. ALL TIMBER PILES SHALL HAVE UV RESISTANT HIGH-DENSITY POLYETHYLENE (HDPE) PILE WRAP (BLACK) 36" WIDE X .060 THICK (W/ 6" MIN. OVERLAP. TOP OF WRAP TO BE AT BOTTOM OF LOWEST HORIZONTAL MEMBER. BOTTOM OF WRAP TO BE 2'-0" MINIMUM BELOW MUD LINE. FASTEN WRAP WITH 2" SS (304 MARINE GRADE) RING SHANK ROOFING NAILS @ 2' O.C. VERTICAL SEAM. VERTICAL SEAM SHALL BE LOCATED ON INTERIOR DOCK SIDE OF TIMBER PILE.
7. ALL DOCK PILES EXTENDING ABOVE THE DECK SHALL BE FITTED WITH A BLACK POLYETHYLENE CONE PILE CAP MANUFACTURED BY INTERNATIONAL DOCK PRODUCTS, INC. (OR APPROVED EQUIVALENT) IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS. EACH PILE SHALL BE MEASURED AND FITTED WITH THE CORRECT SIZE CAP. CAPS SHOULD FIT SNUG, BUT NOT CAUSE DEFORMATION. GAPS BETWEEN THE PILE AND CAP SHALL NOT EXCEED 1/2".
8. THE RUNNING SLOPE OF WALKING SURFACE SHALL NOT BE STEEPER THAN 1:20.
9. THE CROSS SLOPE OF WALKING SURFACE SHALL NOT BE STEEPER THAN 1:48.
10. DECKING SHALL BE 2x6 TANDECK, MANUFACTURED BY TANGENT TECHNOLOGIES, LLC, OR APPROVED EQUAL, COLOR TO BE DETERMINED BY COUNTY.
11. STRINGER SPLICES SHALL BE STAGGERED. INBOARD STRINGERS SHALL BE TOENAIL TO CLAMPS WITH 16D SS RING SHANK AND CLIPPED WITH SIMPSON 2.5A SS.
12. ALL BOLTS SHALL EXTEND PASS THE NUT BY A MINIMUM OF THREE (3) THREADS AND A MAX OF 1".
13. THE CUTTING OF ALL BOLTS SHALL BE AVOIDED. SHOULD STAINLESS STEEL BOLTS REQUIRE CUTTING THE BOLT SHALL BE CLEANED AND CUT. USING NEW AND UNUSED CERAMIC OR STAINLESS STEEL (INOX) GRINDING WHEEL. ANY BLUE DISCOLORATION PRESENT SHALL BE REMOVED WITH A SIMILARLY NEW AND UNUSED CERAMIC OR STAINLESS STEEL FILE OR POLISHING DISK. APPLY CITRISURF 2310 PASSIVATION GEL PER MANUFACTURER DIRECTION. PROVIDE COVERING SUCH AS PLASTIC SHEETING OR WRAP FOR 25 MINUTES WHILE THE PASSIVATION GEL ACTIVATES.
14. LADDERS (S) SHALL BE ALUMINUM 5 STEP LIFTING LADDER MANUFACTURED BY INTERNATIONAL DOCK PRODUCTS, INC. (OR APPROVED EQUIVALENT) INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS, USING SS FASTENERS.
15. NEW 8" DIA. SCH 40 PVC PIPE FENDERS SHALL BE PROVIDED TO CONTRACTOR BY COUNTY. CONTRACTOR TO SUPPLY FASTENERS AND INSTALL.
16. FIRE EXTINGUISHERS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 303.

PLUMBING NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH OWNER TO TERMINATE PLUMBING AT BOAT RAMP DURING CONSTRUCTION AND RECONNECT NEW PLUMBING PRIOR TO COMPLETION.
2. EXISTING POTABLE WATER SHUT-OFF VALVE FOR SOUTH DOCK (BETWEEN RAMP AND FISH CLEANING STATION) SHALL BE LOCATED ADJACENT TO CONCRETE ACCESS WALKWAY AS DEPICTED ON THESE PLANS.
3. EXISTING POTABLE WATER SHUT-OFF VALVE FOR NORTH DOCK SHALL BE LOCATED AS DEPICTED ON THESE PLANS.
4. EXISTING VALVE COVERS, HOSE BIBS AND BOXES MAY BE RE-USED IF AVAILABLE. HOSE BIBS SHALL BE SPACED AT 50'-0" ON LANDWARD SIDE OF DOCK.
5. CONTRACTOR SHALL INSTALL NEW 1-INCH SCHEDULE 40 PVC WATER LINE. CONTRACTOR SHALL INSTALL A MINIMUM OF ONE EXPANSION LOOP FOR NORTH DOCK AND SIX EXPANSION LOOPS FOR SOUTH DOCK.

STRUCTURAL ABBREVIATIONS		ASD	ALLOWABLE STRESS DESIGN	BRG	BEARING	DEF	DEFLECTION	FB	FLAT BAR	HSA	HEADED STUD ANCHOR	MANUF	MANUFACTURER	OC	ON CENTER	R	RISER	STR	STRAIGHT	VERT	GENERAL SYMBOLS	
#	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS	ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS	C TO C	CENTER TO CENTER	DIAG	DIAGONAL	FD	FLOOR DRAIN	HS	HIGH STRENGTH	MATL	MATERIAL	OF	ON CENTER	OR RA	RADIUS	STR	STRUCTURAL <td>VTR</td> <td>VERTICAL<td>VENT THRU ROOF</td></td>	VTR	VERTICAL <td>VENT THRU ROOF</td>	VENT THRU ROOF
ASSY	ASSEMBLY	ASSY	ASSEMBLY	CANT	CANTILEVER	DIA	DIAMETER	FF	FINISH FLOOR	FF	FINISH FLOOR	MMWL	MEAN HIGH WATER LEVEL	CHWL	CHORD	REF	REFERENCE	T	TREAD	W/	WITH	PLAN SECTION OR DETAIL NO.
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	CL	CLEAR	DIM	DIMENSION	FF	FINISH FLOOR	FF	FINISH FLOOR	MMWL	MEAN HIGH WATER LEVEL	CHWL	CHORD	REF	REFERENCE	T	TREAD	W/	WITH	PLAN SECTION OR DETAIL NO.
AWC	AMERICAN WOOD COUNCIL	AWC	AMERICAN WOOD COUNCIL	CLR	CLEAR	DWG	DRAWING	FLR	FLOOR	INT	INTERIOR	MIN	MINIMUM	OPNG	OPENING	REQ	REQUIRED	T	TREAD	W/	WITH	PLAN SECTION OR DETAIL NO.
AWPA	AMERICAN WOOD PROTECTION ASSOCIATION	AWPA	AMERICAN WOOD PROTECTION ASSOCIATION	CMU	CONCRETE MASONRY UNIT	DWG	DRAWING	FLR	FLOOR	INT	INTERIOR	MIN	MINIMUM	OPNG	OPENING	REQ	REQUIRED	T	TREAD	W/	WITH	PLAN SECTION OR DETAIL NO.
AWWS	AMERICAN WELDING SOCIETY	AWWS	AMERICAN WELDING SOCIETY	CONC	CONCRETE	EACH	EACH FACE	GA	GAGE	JST	JOIST	MM	MILLIMETERS	PCF	POUNDS PER CUBIC	SCHED	SCHEDULE	TH	THICK	W/	WITH	PLAN SECTION OR DETAIL NO.
ACI	AMERICAN CONCRETE INSTITUTE	ACI	AMERICAN CONCRETE INSTITUTE	CONC	CONCRETE	EACH	EACH FACE	GA	GAGE	JST	JOIST	MM	MILLIMETERS	PCF	POUNDS PER CUBIC	SCHED	SCHEDULE	TH	THICK	W/	WITH	PLAN SECTION OR DETAIL NO.
AD	AMERICAN DISABILITIES ACT	AD	AMERICAN DISABILITIES ACT	CONC	CONCRETE	EACH	EACH FACE	GA	GAGE	JST	JOIST	MM	MILLIMETERS	PCF	POUNDS PER CUBIC	SCHED	SCHEDULE	TH	THICK	W/	WITH	PLAN SECTION OR DETAIL NO.
AFF	ABOVE FINISH FLOOR	AFF	ABOVE FINISH FLOOR	CONC	CONCRETE	EACH	EACH FACE	GA	GAGE	JST	JOIST	MM	MILLIMETERS	PCF	POUNDS PER CUBIC	SCHED	SCHEDULE	TH	THICK	W/	WITH	PLAN SECTION OR DETAIL NO.
ALUM	ALUMINUM	ALUM	ALUMINUM	CONC	CONCRETE	EACH	EACH FACE	GA	GAGE	JST	JOIST	MM	MILLIMETERS	PCF	POUNDS PER CUBIC	SCHED	SCHEDULE	TH	THICK	W/	WITH	PLAN SECTION OR DETAIL NO.
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	CONC	CONCRETE	EACH	EACH FACE	GA	GAGE	JST	JOIST	MM	MILLIMETERS	PCF	POUNDS PER CUBIC	SCHED	SCHEDULE	TH	THICK	W/	WITH	PLAN SECTION OR DETAIL NO.
AR	ANCHOR ROD	AR	ANCHOR ROD	CONC	CONCRETE	EACH	EACH FACE	GA	GAGE	JST	JOIST	MM	MILLIMETERS	PCF	POUNDS PER CUBIC	SCHED	SCHEDULE	TH	THICK	W/	WITH	PLAN SECTION OR DETAIL NO.
ARCH	ARCHITECTURE	ARCH	ARCHITECTURE	CONC	CONCRETE	EACH	EACH FACE	GA	GAGE	JST	JOIST	MM	MILLIMETERS	PCF	POUNDS PER CUBIC	SCHED	SCHEDULE	TH	THICK	W/	WITH	PLAN SECTION OR DETAIL NO.
				CONC	CONCRETE	EACH	EACH FACE	GA	GAGE	JST	JOIST	MM	MILLIMETERS	PCF	POUNDS PER CUBIC	SCHED	SCHEDULE	TH	THICK	W/	WITH	PLAN SECTION OR DETAIL NO.
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				CONC	CONCRETE	EACH	EACH FACE	GA														

[illegible]
$$3/32'' = 1'-0''$$

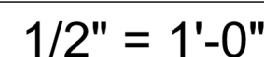
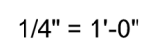

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2. EXISTING POTABLE WATER SHUT-OFF VALVE FOR SOUTH DOCK (BETWEEN RAMP AND FISH CLEANING STATION) SHALL BE LOCATED ADJACENT TO CONCRETE ACCESS WALKWAY AS DEPICTED ON THESE PLANS.
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4. EXISTING COVER AND SIX INCH DUCTILE IRON COVER MAY BE RE-USED IF AVAILABLE. HOSE BIBS SHALL BE SPACED AT 50'-0" ON LANDWARD SIDE OF DOCK
5. CONTRACTOR SHALL INSTALL NEW 1-INCH SCHEDULE 40 P.V.C. WATER LINE. CONTRACTOR SHALL INSTALL A MINIMUM OF ONE EXPANSION LOOP FOR THE NORTH DOCK AND SIX INCH DUCTILE IRON LOOPS FOR SOUTH DOCK. NO RUN SHALL BE LONGER THAN 40 FEET WITHOUT AN EXPANSION LOOP.

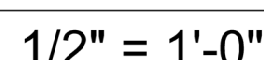
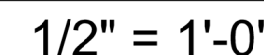
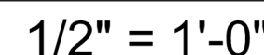
THE WEILER ENGINEERING CORPORATION

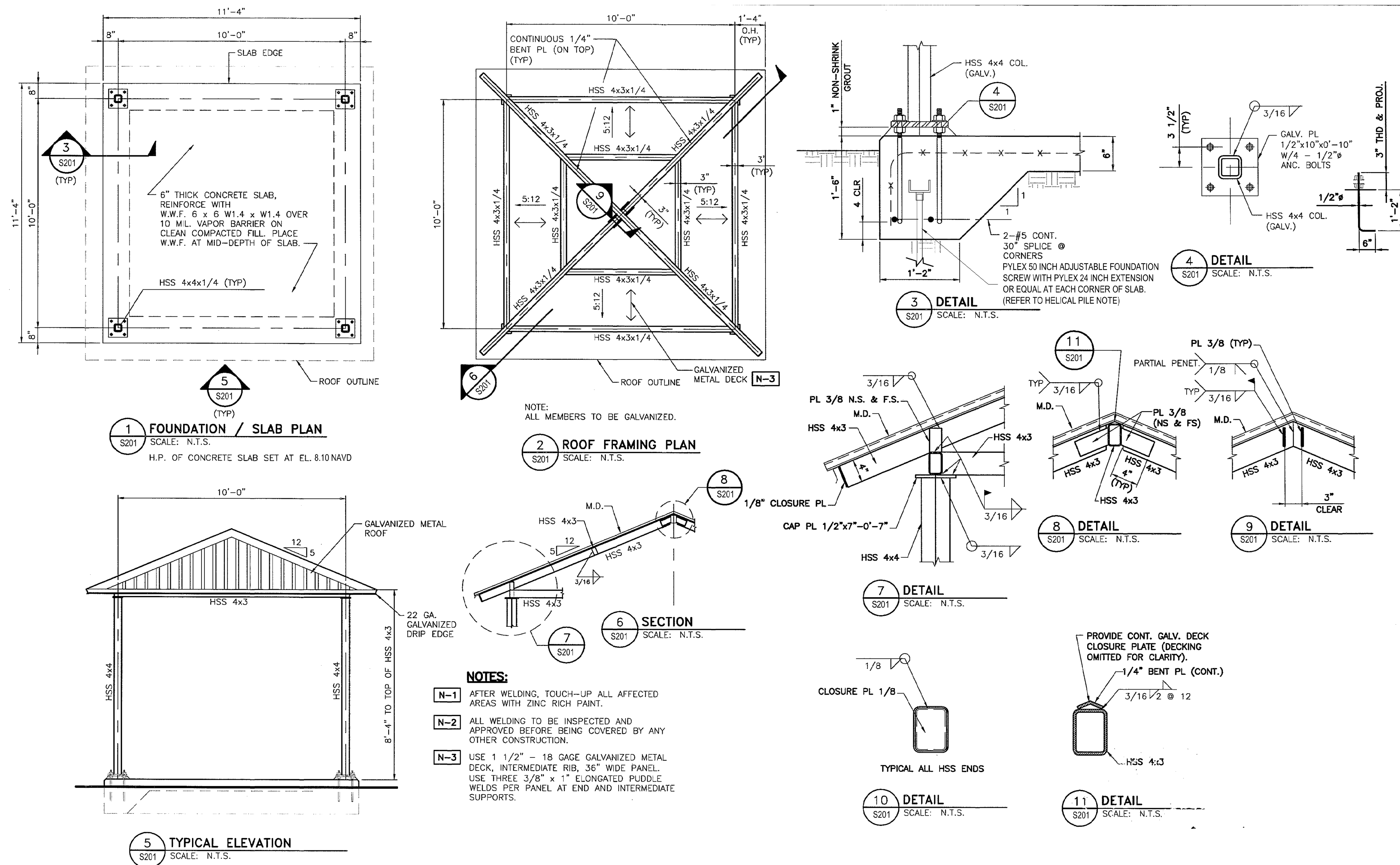
These plans are in compliance with Florida Building Code 2023 for wind parameters indicated.

WIND PARAMETERS
Method of Design: ASCE 7-22
Building Risk Category: II
Design Wind Speed: Ultimate $V_{ult}=160$ MPH / Nominal $V_{nom}=124$ MPH
Wind Impression Factor: 1.0 / Wind Exposure: D
Internal Pressure Coefficient: ±0.00 (Open)
Component & Cladding Wind Speed: per Calcs
FLOOD PARAMETERS
FEMA FIRM Map Number: 12071C0532G
Base Flood Elevation: VE-11
100-year, 1-hour Design Rainfall: 4.5 in (FBC 2023 Fig. 1611.1)
GEOTECHNICAL PARAMETERS
DATA SOURCE:
PRELIMINARY LOAD-BEARING VALUES OF SOIL (FBC)
VERTICAL BEARING CAPACITY (TABLE 1806.2) 1,500 PSF
LATERAL BEARING CAPACITY (TABLE 1806.2) 100 PSF/FT
Vertical Bearing Capacity: 10" PILE: 5 TON
Lateral Bearing Capacity: 1 TON PER PILE



1. PRIOR TO EXCAVATION CONTRACTOR TO FIELD VERIFY LOCATION OF ALL UTILITIES, IRRIGATION AND DRAINS.
2. THE CONTRACTOR SHALL DEMOLISH, REMOVE, AND DISPOSE OF IN AN APPROVED OFF SITE DISPOSAL AREA THE EXISTING TIMBER PILES, DOCKS AND ASSOCIATED DEMOLITION WITHIN THE LIMITS OF THE PROJECT THAT HAVE BEEN IDENTIFIED FOR REMOVAL.
3. BEVEL TOP EDGE OF TIMBER PILES AND P.T. LUMBER TO REMOVE SPLINTERS.
4. RECESS ALL OUTBOARD FACING BOLTS HEAD FLUSH WITH PILE.
5. ALL FASTENERS AND HARDWARE SHALL BE 304 STAINLESS STEEL.
6. TIMBER PILES SHALL HAVE AN OVER RESISTANT HIGH DENSITY POLYETHYLENE (HDPE) FILM WRAP (BLACK) 3/8" WIDE X 160 THICK MIN. OVER TOP OF WRAP TO BE AT BOTTOM OF LOWEST HORIZONTAL STRINGER. FILM WRAP TO BE 24" MINIMUM BELOW MUD LINE. FASTEN WRAP WITH 2" SS (304 MARINE GRADE) RING SHANK ROOFING NAILS @ 2" C. VERTICAL SPACING. VERTICAL SPACE SHALL BE LOCATED ON INTERIOR DOCK SIDE OF TIMBER PILE.
7. ALL DOCK PILES EXPOSED ABOVE THE DECK SHALL BE FITTED WITH A BLACK POLYETHYLENE COVER OR CAP MANUFACTURED BY INTERNATIONAL DOCK PRODUCTS, INC. OR APPROVED EQUIVALENT IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS. EACH PILE SHALL BE MEASURED AND FITTED WITH THE CORRECT SIZE CAP. CAPS SHOULD FIT SNUG, BUT NOT CAUSE DEFORMATION. GAPS BETWEEN THE PILE AND CAP SHALL NOT EXCEED 1/2".
8. THE RUNNING SLOPE OF WALKING SURFACE SHALL NOT BE STEEPER THAN 1:20.
9. THE RUNNING SLOPE OF WALKING SURFACE SHALL NOT BE STEEPER THAN 1:40.
10. DECKING SHALL BE 2x6 TONGUE AND GROOVE, MANUFACTURED BY TANGENT TECHNOLOGIES, LLC. OR APPROVED EQUAL. COLOR TO BE DETERMINED BY COUNTY.
11. STRINGER SPLICES SHALL BE STAGGERED. INBOARD STRINGERS SHALL BE TORNAIL TO CLAMPS WITH 160 SS RING SHANK AND CLIPPED WITH SIMPSON 2.5A SS.
12. ALL BOLTS SHALL EXTEND PAST THE NUT BY A MINIMUM OF THREE (3) THREADS AND 1/2" MIN.
13. THE CUTTING OF ALL BOLTS SHALL BE AVOIDED. SHOULD STAINLESS STEEL BOLTS REQUIRE CUTTING THE BOLT SHALL BE CLEANED AND CUT USING NEW AND UNUSED CERAMIC OR STAINLESS STEEL (NOX) GRINDING WHEEL. ANY BLUE DISCOLORATION PRESENT SHALL BE REMOVED WITH A SIMILARLY NEW AND UNUSED CERAMIC OR STAINLESS STEEL FILE OR POLISHING DISK APPLY CITRUS/WHITE VINEGAR TO REMOVE DISCOLORATION. DISCOLORATION COVERING SUCH AS PLASTIC SHEETING OR WRAP FOR 25 MINUTES WHILE THE PASSIVATION GEL ACTIVATES.
14. LADDERS (5) SHALL BE ALUMINUM 5 STEP LIFTING LADDER MANUFACTURED BY INTERNATIONAL DOCK PRODUCTS, INC. (OR APPROVED EQUIVALENT) INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS, USING SS FASTENERS.
15. NEW 2" X 4" X 8" LUMBER SHALL BE PROVIDED TO CONTRACTOR BY CONTRACTOR TO SUPPLY FASTENERS AND INSTALL.
16. FIRE EXTINGUISHERS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 303.





1 SHADE STRUCTURE

SHADE STRUCTURE NOTES:

1. CONTRACTOR TO PROVIDE SUBMITTAL FOR PRE-FABRICATED SHADE STRUCTURE SIMILAR TO DETAIL ON THIS SHEET FOR LEE COUNTY APPROVAL.

HELICAL PILE NOTES:

1. THE FOUNDATION SHALL INCORPORATE PYLEX 50-INCH ADJUSTABLE FOUNDATION SCREWS WITH PYLEX 24-INCH EXTENSIONS (OR EQUAL) AS NEEDED TO ACHIEVE THE REQUIRED DEPTH AND LOAD-BEARING CAPACITY.
2. HELICAL PILES SHALL BE INSTALLED AT EACH CORNER OF THE FOUNDATION TO PROVIDE STRUCTURAL SUPPORT FOR THE SHADE STRUCTURE.
3. HELICAL PILES SHALL BE DRIVEN TO THE NECESSARY DEPTH, ENSURING FULL ENGAGEMENT OF THE SCREW THREADS IN COMPETENT LOAD-BEARING SOIL.
4. PILES SHALL BE VERTICALLY ALIGNED AND SET IN POSITION BEFORE CONCRETE PLACEMENT.
5. THE TOP OF EACH PILE SHALL BE CENTRALLY POSITIONED WITHIN THE FOOTER WITH A MINIMUM EMBEDMENT OF 0'-8" INTO THE FOOTER TO ENSURE OPTIMAL LOAD DISTRIBUTION.
6. CONCRETE FOR THE FOOTER SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI AT 28 DAYS.
7. ALL HELICAL PILE SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND VERIFIED FOR PROPER TORQUE RESISTANCE.

THE WEILER ENGINEERING CORPORATION

These plans are in Compliance with Florida Building Code 2023 for wind parameters indicated.

WIND PARAMETERS

Method of Design: ASCE 7-22
Building Risk Category: II
Design Wind Speed: Ultimate $V_{ult}=160$ MPH / Nominal $V_{std}=124$ MPH
Wind Importance Factor: 1.0 / Wind Exposure: D
Internal Pressure Coefficient: ± 0.00 (Open)
Component & Cladding Wind Pressure: per Calcs
FLOOD PARAMETERS
FEMA/FIRM Map Number: 13074C0522C

FEMA FIRM Map Number: 12C
Base Flood Elevation: VE-11

100-year, 1-hour Design Rainfall: 4.5 in (FBC 2023 Fig. 1611.1)

DATA SOURCE:

PRESUMPTIVE LOAD-BEARING VALUES OF SOIL (FBC)
VERTICAL BEARING CAPACITY (TABLE 1806.2)..... 1,500 PSF
LATERAL BEARING CAPACITY(TABLE 1806.2) 100 PSF/FT
Vertical Bearing Capacity: 10" PILE: 5 TONS
Lateral Bearing Pressure: 1 TON PER PILE


```
EnclosureClassification = Open
Pitch= PitchRoof = 0.1:1.1
HtEnt= HeightEntryType = Mean
H = MeanRoofHeight = 2.000
L = WidthNormaltoRidge = 6.000
Flow = WindFlowMethod = Clear
IsFascia=IncludeFascia = False
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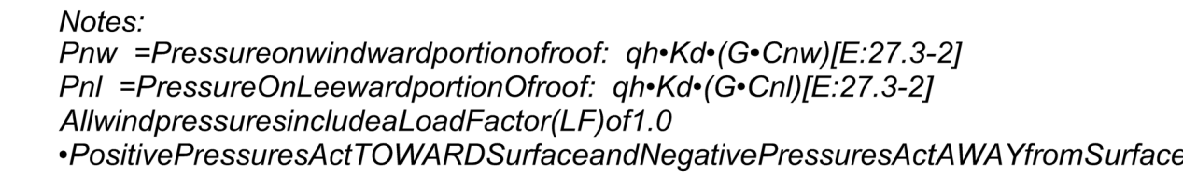
Zg=NominalHtofBoundaryLayer	=	2460.000ft
b=3secgustspeedfactor	=	1.000
bm=MeanhourlyWindspeedExponent	=	0.660
ϵ =IntegralLengthScaleExponent	=	0.2000

$$= 0.85$$

```
= 15.000ft
= 0.228
= 427.057ft
= 172.250ft
= 0.858
= 0.850
```

$$= 0.850$$

Kh=2.41*(15/Zg)^{2/α} T:26.10-1
Kd=DirectionalityFactor T:26.6-1
LF=STRENGTHLoadFactor
qh=.00256*Kh*Kzt*Ke*V2*LFE_{26.10-1}



Vertical Bearing Capacity: 10 PILE: 5 TONS
Lateral Bearing Pressure: 1 TON PER PILE