

# FERNDALE PRESERVE LAKE COUNTY, FLORIDA

## OBSERVATION TOWER / FISHING PIER AND CANOE/KAYAK LAUNCH

DEVELOPMENT REVIEW	
PROJECT # <u>2007110012</u>	APPLICATION REQUEST # _____
PROJECT NAME: <u>Ferndale Preserve - Observation Tower/Fishing Pier &amp; Canoe/Kayak Launch</u>	
ALTERNATE KEY # <u>1590540</u>	ORDINANCE # <u>2008-40</u>
REVIEWER PLEASE SIGN AND DATE BELOW	
PLANNING AND ZONING: _____	
COMMENTS: _____	
ENVIRONMENTAL: _____	
COMMENTS: _____	
LANDSCAPE: _____	
COMMENTS: _____	
CONCURRENCY: _____	
COMMENTS: _____	
BUILDING SERVICES: _____	
COMMENTS: _____	
FIRE: _____	
COMMENTS: _____	
DEPARTMENT OF HEALTH: _____	
COMMENTS: _____	
PUBLIC WORKS DEPARTMENT: _____	
COMMENTS: _____	
PRELIMINARY/FINAL DEVELOPMENT REVIEW	
APPROVAL: _____	
DATE: _____ DIRECTOR, OFFICE OF PLANNING AND ZONING (OR DESIGNEE)	

### LAKE COUNTY BOARD OF COUNTY COMMISSIONERS

DISTRICT 1 - DOUGLAS SHIELDS  
DISTRICT 2 - SEAN PARKS  
DISTRICT 3 - KIRBY SMITH  
DISTRICT 4 - LESLIE CAMPIONE  
DISTRICT 5 - JOSH BLAKE



LOCATION MAP



#### PROJECT CONTACTS:

##### OWNER:

LAKE COUNTY BOARD OF  
COUNTY  
COMMISSIONERS  
315 WEST MAIN ST.  
P.O. BOX 7800  
TAVARES, FLORIDA 32778

##### ARCHITECT

POWELL STUDIO ARCHITECTURE, LLC  
713 W. MONTROSE STREET  
CLERMONT, FL 34711  
PH: (352) 874-2340  
FAX: (877) 680-7183  
CONTACT:  
JEFF POWELL, AIA, ARCHITECT  
EMAIL: jeff@powellstudioarch.com  
AA# 26002236

##### ELECTRICAL

TLC ENGINEERING SOLUTIONS  
7370 CABOT COURT, SUITE 103  
MELBOURNE, FL 32940  
PH: (321) 877-4232  
CONTACT:  
BILL NANCE  
EMAIL: bill.nance@tlc-eng.com

##### STRUCTURAL

TLC ENGINEERING SOLUTIONS  
7370 CABOT COURT, SUITE 103  
MELBOURNE, FL 32778  
PH: (321) 877-4232  
CONTACT:  
DAVID C. VIELE, JR. PE  
EMAIL: david.viele@tlc-eng.com  
NO. :522010

##### CIVIL

HALFF ASSOCIATES, INC.  
902 NORTH SINCLAIR AVENUE  
TAVARES, FL 32778  
PH: (352) 557-9226  
CONTACT:  
TAYLOR JOHNSON  
EMAIL: taylor.johnson@halff.com

#### SHEET DRAWING INDEX

SHEET #	TITLE
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02	MASTER PLAN
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04	AERIAL PLAN
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A3.1	FIRST FLOOR PLAN
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S502	STRUCTURAL DETAILS

#### SITE ADDRESS:

19220 COUNTY ROAD 455  
FERNDALE, FLORIDA 34715

PARCEL ID: 262126000300000100

ALT KEY: 1590540

#### LEGAL DESCRIPTION

GOVERNMENT LOT IN SECTION 26 TOWNSHIP 21 SOUTH RANGE 26 EAST, AND THE EAST 990 FEET OF GOVERNMENT LOT 7, AND THE NORTH 1/2 OF GOVERNMENT LOT 14 IN SECTION 27 TOWNSHIP 21 SOUTH RANGE 26 EAST, AND BEGIN AT THE SOUTH 1/4 CORNER OF SECTION 27 TOWNSHIP 21 SOUTH RANGE 26 EAST, RUN NORTH 89-46-10 WEST ALONG THE SOUTH LINE OF THE SOUTHWEST 1/4 OF SECTION 27 A DISTANCE OF 768.62 FEET TO THE SOUTHEAST CORNER OF A PARCEL OF LAND IN ORB 1055 PG 1844, NORTH 00-09-11 EAST ALONG SAID EAST LINE 637.43 FEET TO THE NORTHEAST CORNER OF ORB 1055 PG 1844, NORTH 89-39-07 WEST 54.76 FEET TO THE NORTHWEST CORNER OF LAND IN ORB 1055 PG 1844, NORTH 00-09-11 EAST 313.56 FEET, NORTH 54-13-41 WEST TO THE EASTERLY RIGHT OF WAY LINE OF COUNTY ROAD NO 455, THENCE RUN NORTH 35-46-19 EAST ALONG SAID RIGHT OF WAY LINE 620.04 FEET TO THE BEGINNING OF A NON-TANGENT CURVE CONCAVE TO THE NORTHWEST, HAVING A RADIUS OF 1100.49 FEET, AND A CHORD BEARING OF NORTH 31-55-01 EAST, THENCE RUN NORTHEASTERLY ALONG THE ARC OF SAID CURVE 120.95 FEET THRU A CENTRAL ANGLE OF 06-17-51 TO THE NORTH LINE OF THE SOUTH 280 FEET OF GOVERNMENT LOT 9, ALSO BEING THE NORTH LINE OF THE SOUTH 280 FEET OF THE NORTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 27, THENCE RUN SOUTH 89-01-47 EAST ALONG SAID NORTH LINE 96.29 FEET TO THE EAST RIGHT OF WAY LINE OF ABANDONED SCL RAILROAD RIGHT OF WAY, THENCE NORTH 23-00-59 EAST ALONG SAID EAST RIGHT OF WAY LINE 61.97 FEET TO THE SOUTH LINE OF THE SOUTH 660 FEET OF THE NORTH 990 FEET OF GOVERNMENT LOT 9, THENCE RUN SOUTH 89-34-32 EAST ALONG SAID SOUTH LINE 340.80 FEET TO THE EAST LINE OF SAID GOVERNMENT LOT 9, THENCE RUN NORTH 00-26-31 EAST TO THE NORTHWEST CORNER OF THE SOUTH 990 FEET OF GOVERNMENT LOT 8 OF SECTION 27, SOUTH 89-33-56 EAST ALONG THE NORTH LINE OF THE SOUTH 990 FEET OF GOVERNMENT LOT 8 A DISTANCE OF 1320 FEET TO THE NORTHEAST CORNER OF SAID SOUTH 990 FEET OF GOVERNMENT LOT 8, THENCE SOUTH 00-25-59 WEST ALONG THE EAST LINE OF SAID GOVERNMENT LOT 8 A DISTANCE OF 329.97 FEET TO THE NORTHWEST CORNER OF THE WEST 1/2 OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 27, RUN SOUTH 89-50-11 EAST 330 FEET TO THE NORTHEAST CORNER OF THE WEST 1/2 OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 27, SOUTH 00-09-49 WEST 660.15 FEET TO THE SOUTHEAST CORNER OF THE WEST 1/2 OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 27, SOUTH 89-44-10 EAST 1320 FEET TO THE NORTHEAST CORNER OF THE SOUTH 1/2 OF GOVERNMENT LOT 14, NORTH 00-24-48 WEST 660 FEET TO THE SOUTHEAST CORNER OF THE SOUTH 1/2 OF GOVERNMENT LOT 14, NORTH 89-46-52 WEST ALONG THE SOUTH LINE OF THE SOUTHEAST 1/4 OF SAID SECTION 27 A DISTANCE OF 2640.46 FEET TO THE POINT OF BEGINNING--LESS THAT PART OF SCL RAILROAD RIGHT OF WAY LYING WITHIN THE WEST 495 FEET OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 27 & LESS THAT PART OF LAND LYING WITHIN THE FOLLOWING PARCEL: BEGIN 479 FEET EAST & 638 FEET NORTH OF THE SOUTHWEST CORNER OF GOVERNMENT LOT 12, RUN NORTH TO THE SOUTHEASTERLY RIGHT OF WAY LINE OF RAILROAD, THENCE SOUTHWESTERLY ALONG SAID RIGHT OF WAY LINE TO A POINT WEST OF THE POINT OF BEGINNING, RUN EAST 221 FEET TO THE POINT OF BEGINNING ORB 2946 PG 1922 1945



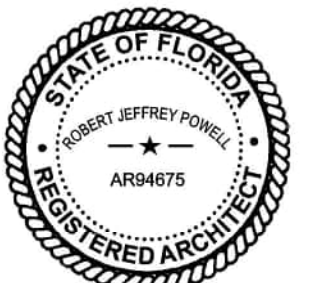
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OWNER:

OWNER / PROJECT:

Lake County  
Ferndale Preserve  
Observation Tower / Fishing Pier And  
Canoe / Kayak Launch  
Ferndale, Florida

PROFESSIONAL SEAL:



2022.10.28 10:49:22-04'00'  
Robert Jeffrey Powell, AIA  
Florida Licensed Architect #AR94675

PROJECT NO: PSA2021-34.00

REVISIONS:

MARK	DATE	DESCRIPTION

ISSUE DATE: MAY 12, 2022

COVER SHEET

A1.0



5/19/2022 11:53 AM JOHNSON, TAYLOR

DEVELOPMENT REVIEW

PROJECT # 2007110012

APPLICATION REQUEST #

PROJECT NAME: Ferndale Preserve - Observation Tower/Fishing Pier & Canoe/Kayak Launch

ALTERNATE KEY # 1590540

ORDINANCE # 2008-40

REVIEWER PLASE SIGN AND DATE BELOW

PLANNING AND ZONING:

COMMENTS:

ENVIRONMENTAL:

COMMENTS:

LANDSCAPE:

COMMENTS:

CONCURRENCY:

COMMENTS:

BUILDING SERVICES:

COMMENTS:

FIRE:

COMMENTS:

DEPARTMENT OF HEALTH:

COMMENTS:

PUBLIC WORKS DEPARTMENT:

COMMENTS:

PRELIMINARY/FINAL DEVELOPMENT REVIEW

APPROVAL:

DATE:

DIRECTOR, OFFICE OF PLANNING AND ZONING (OR DESIGNEE)

DATE	ISSUE	BY
05-19-22	REVISION 1 - LAKE COUNTY COMMENTS	TNJ

REVISION	DATE	REVISION 1 - LAKE COUNTY COMMENTS
1	05-19-22	
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8		

LAKE COUNTY, FLORIDA

FERNDALE PRESERVE

OBSERVATION TOWER/FISHING

PIER AND CANOE/KAYAK LAUNCH

COVER SHEET



902 North Sinclair Ave.  
Tavares, Florida 32778

Office: 352.343.8481  
Fax: 352.343.8495  
Certificate of Authorization Number: 33380

DATE: MAY 12, 2022

DESIGNED BY: DKB

DRAWN BY: TNJ

CHECKED BY: DKB

JOB NO.: 043862.051

FILE NAME: FERNDALE

Sheet 01

DUANE K. BOOTH, PE  
Registered Eng 44631

SITE PLAN

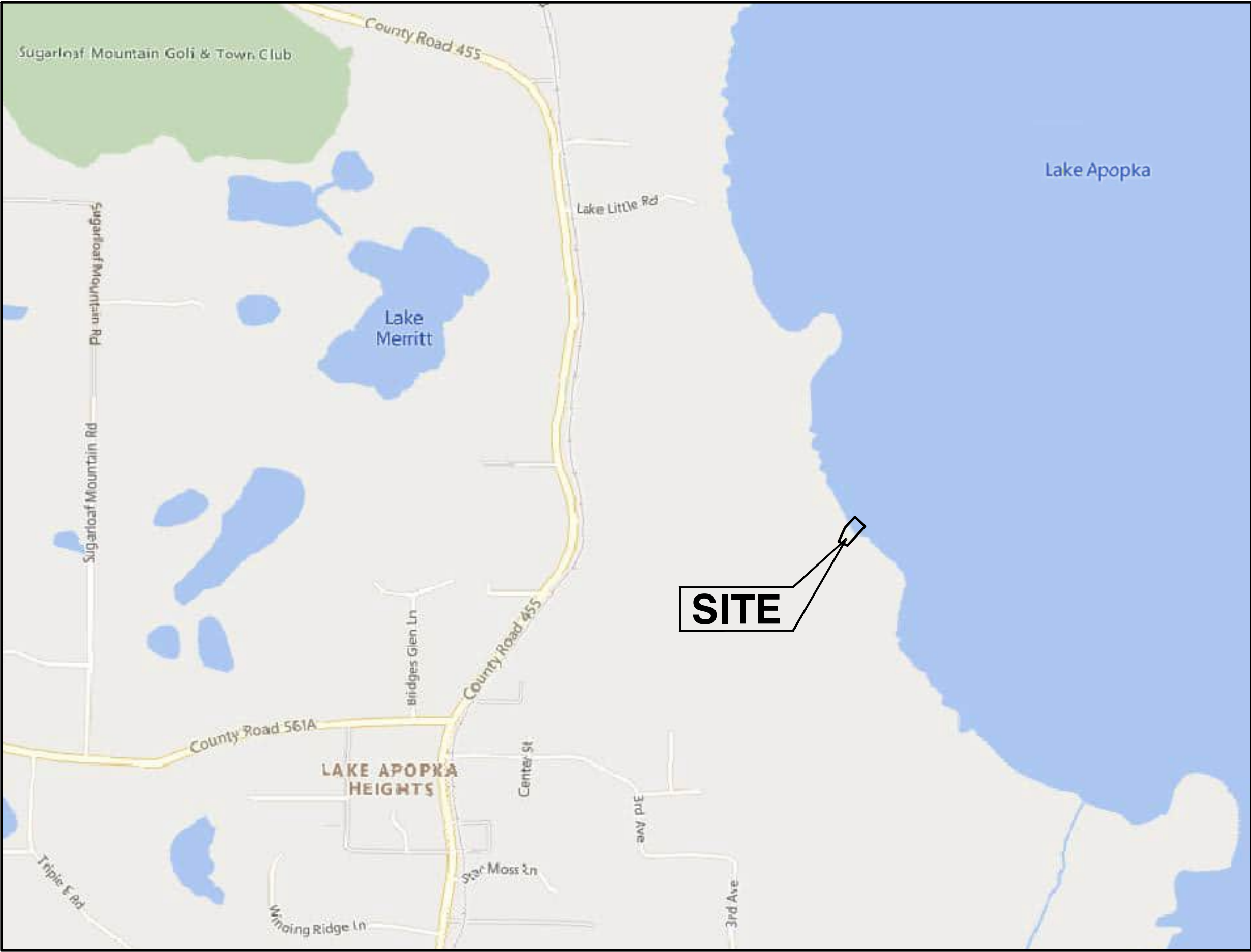
FOR

FERNDALE PRESERVE

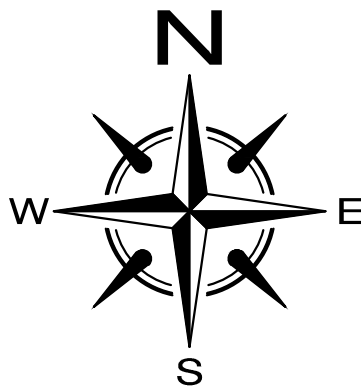
OBSERVATION TOWER/FISHING PIER

AND CANOE/KAYAK LAUNCH

SECTION 26 TOWNSHIP 21S RANGE 26E



VICINITY MAP  
1" = 1,000'



INDEX OF SHEETS

- 1 COVER SHEET
- 2 MASTER PLAN
- 3 AERIAL PLAN
- 4 SITE PLAN
- 5 FISHING PIER PROFILE
- 6 CANOE/KAYAK LAUNCH PROFILE

**OWNER/DEVELOPER:**  
LAKE COUNTY OFFICE OF PARKS AND TRAILS  
2401 WOODLEA ROAD  
TAVARES, FL 32778  
ROBERTO BONILLA, DIRECTOR  
PHONE: (352) 253-4950  
RBONILLA@LAKECOUNTYFL.GOV

**ENGINEER/SURVEYOR:**  
HALFF ASSOCIATES, INC.  
902 N. SINCLAIR AVENUE  
TAVARES, FL 32778  
DUANE BOOTH, P.E.  
(352) 343-8481  
DBOOTH@HALFF.COM

902 North Sinclair Ave.  
Tavares, Florida 32778

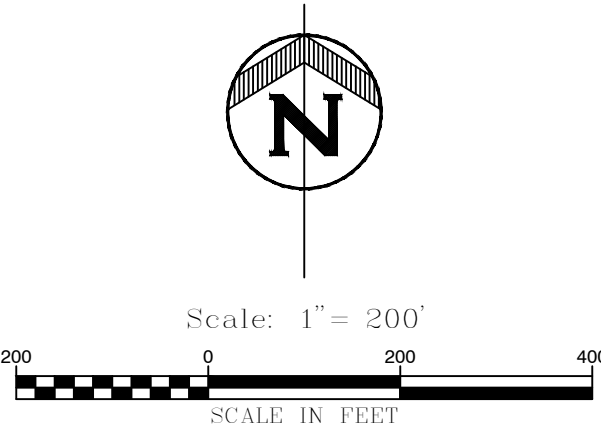
Office: 352.343.8481  
Fax: 352.343.8495  
Certificate of Authorization Number: 33380

ORIGINAL DOCUMENT SIZE 24"x36"

(INCHES)

MAY 19, 2022, SUBMITTAL #2 (NOT FOR CONSTRUCTION UNTIL CONFORMED)





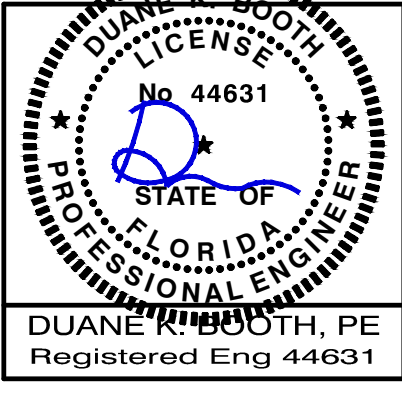
LAKE APOPKA

Begin at the South 1/4 corner of Section 27, Township 21 South, Range 26 East, Colusa County, Florida; thence run N89°48'10" E along the South line of the Southwest 1/4 of said Section 27 for a distance of 768.62 feet; thence run N00°09'11" E for a distance of 930.39 feet; thence run N54°13'41" W for a distance of 126.39 feet to the Southeasterly right of way line of CR 455; thence run N35°46'19" E along said Southeasterly right of way line for a distance of 66.00 feet; thence run S54°13'41" E for a distance of 160.29 feet; thence run S00°09'11" W for a distance of 898.39 feet; thence run S89°48'10" E for a distance of 702.70 feet; thence run N46°52" E for a distance of 1360.88 feet; thence run N55°07'18" E for a distance of 563.20 feet; thence run S89°48'10" E for a distance of 102.62 feet to the Southeast corner of said Section 27, Township 21 South, Range 26 East, Colusa County, Florida; thence run S00°09'11" W along the North line of the South 1/2 of said Section 14 for a distance of 66.00 feet; thence run S00°25'59" W for a distance of 305.15 feet; thence run S55°07'18" W for a distance of 618.20 feet to the South line of the Southwest 1/4 of said Section 27; thence run N89°46'52" W along said South line of the Southwest 1/4 for a distance of 1381.76 feet to the Point of Beginning.

# LAKE COUNTY, FLORIDA FERNDALE PRESERVE OBSERVATION TOWER/FISHING PIER AND CANOE/KAYAK LAUNCH MASTER PLAN

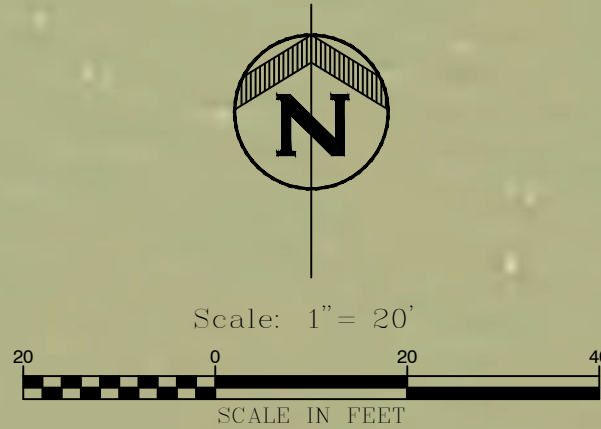


DATE:	MAY 12, 2022
DESIGNED BY:	DKB
DRAWN BY:	TNJ
CHECKED BY.:	DKB
JOB NO.:	043862.051
FILE NAME:	FERNDALF
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5/19/2022 11:55 AM JOHNSON, TAYLOR



REVISION		REVISION 1 - LAKE COUNTY COMMENTS
DATE	05-19-22	
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LAKE COUNTY, FLORIDA  
FERNDAL PRESERVE  
OBSERVATION TOWER/FISHING  
PIER AND CANOE/KAYAK LAUNCH

AERIAL PLAN



LAKE  
COUNTY, FL  
REAL FLORIDA. REAL CLOSE.



**HALFF**  
902 North Sinclair Ave.  
Tavares, Florida 32778  
Office: 352.343.8481  
Fax: 352.343.8495  
Certificate of Authorization Number: 33380

DATE:	MAY 12, 2022
DESIGNED BY:	DKB
DRAWN BY:	TNJ
CHECKED BY:	DKB
JOB NO.:	043862.051
FILE NAME:	FERNDAL

Sheet 03

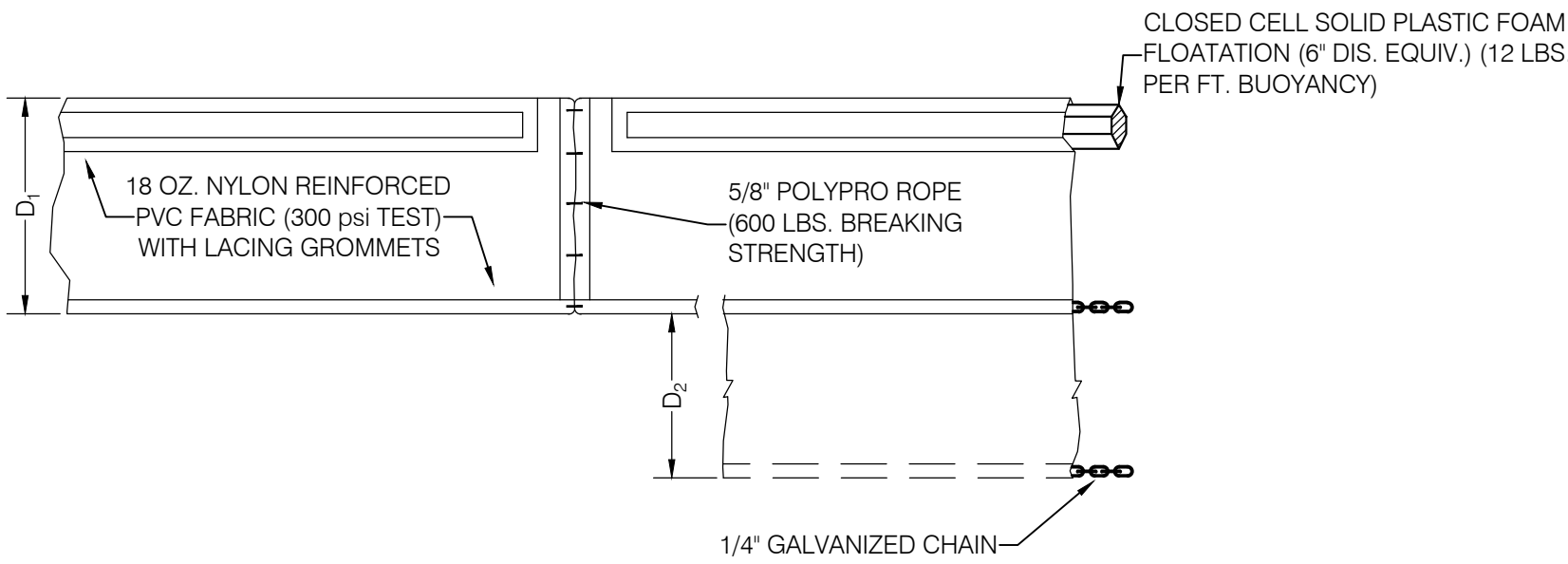


DUANE K. BOOTH, PE  
Registered Eng 44631



EROSION CONTROL NOTES:

- THE FOLLOWING LIST REPRESENTS A BASIC EROSION AND SEDIMENT CONTROL PROGRAM WHICH IS TO BE IMPLEMENTED TO HELP PREVENT OFF-SITE SEDIMENTATION DURING AND AFTER CONSTRUCTION OF THE PROJECT.
  - PERMANENT EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AT THE EARLIEST PRACTICAL TIME CONSISTENT WITH GOOD CONSTRUCTION PRACTICES. ONE OF THE FIRST CONSTRUCTION ACTIVITIES SHOULD BE THE PLACEMENT OF PERMANENT AND TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES AROUND THE PERIMETER OF THE PROJECT OR THE INITIAL WORK AREA TO PROTECT THE PROJECT, ADJACENT PROPERTIES AND WATER RESOURCES.
  - TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE COORDINATED WITH PERMANENT MEASURES TO ASSURE ECONOMICAL, EFFECTIVE AND CONTINUOUS CONTROL THROUGHOUT THE CONSTRUCTION PHASE. TEMPORARY MEASURES SHALL NOT BE CONSTRUCTED FOR EXPEDIENCY IN LIEU OF PERMANENT MEASURES.
  - EROSION AND SEDIMENT CONTROL MEASURES SHALL BE ADEQUATELY MAINTAINED TO PERFORM THEIR INTENDED FUNCTION DURING CONSTRUCTION OF THE PROJECT.
  - NECESSARY REPAIRS TO BARRIERS OR REPLACEMENT OF BARRIERS SHALL BE ACCOMPLISHED PROMPTLY.
  - SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH RAINFALL. THEY MUST BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
  - ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE BARRIERS ARE NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.



NOTES:

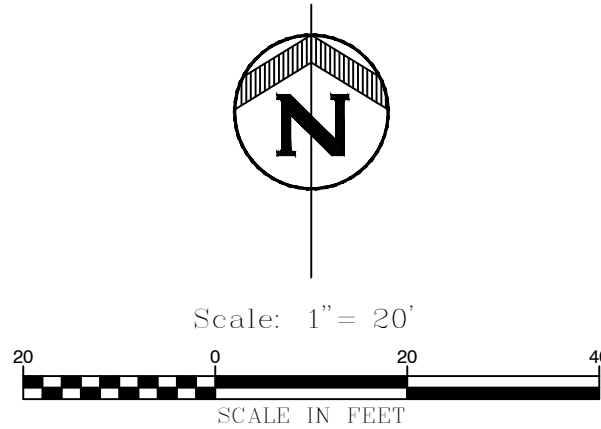
D<sub>1</sub> = 5' STD. (SINGLE PANEL FOR DEPTHS 5' OR LESS)

D<sub>2</sub> = 5' STD. (ADDITIONAL PANEL FOR DEPTHS > 5')

CURTAIN TO REACH BOTTOM UP TO DEPTHS OF 10 FEET. TWO (2) PANELS TO BE USED FOR DEPTHS GREATER THAN 10 FEET UNLESS SPECIAL DEPTH CURTAINS SPECIFICALLY CALLED FOR IN THE PLANS OR AS DETERMINED BY THE ENGINEER.

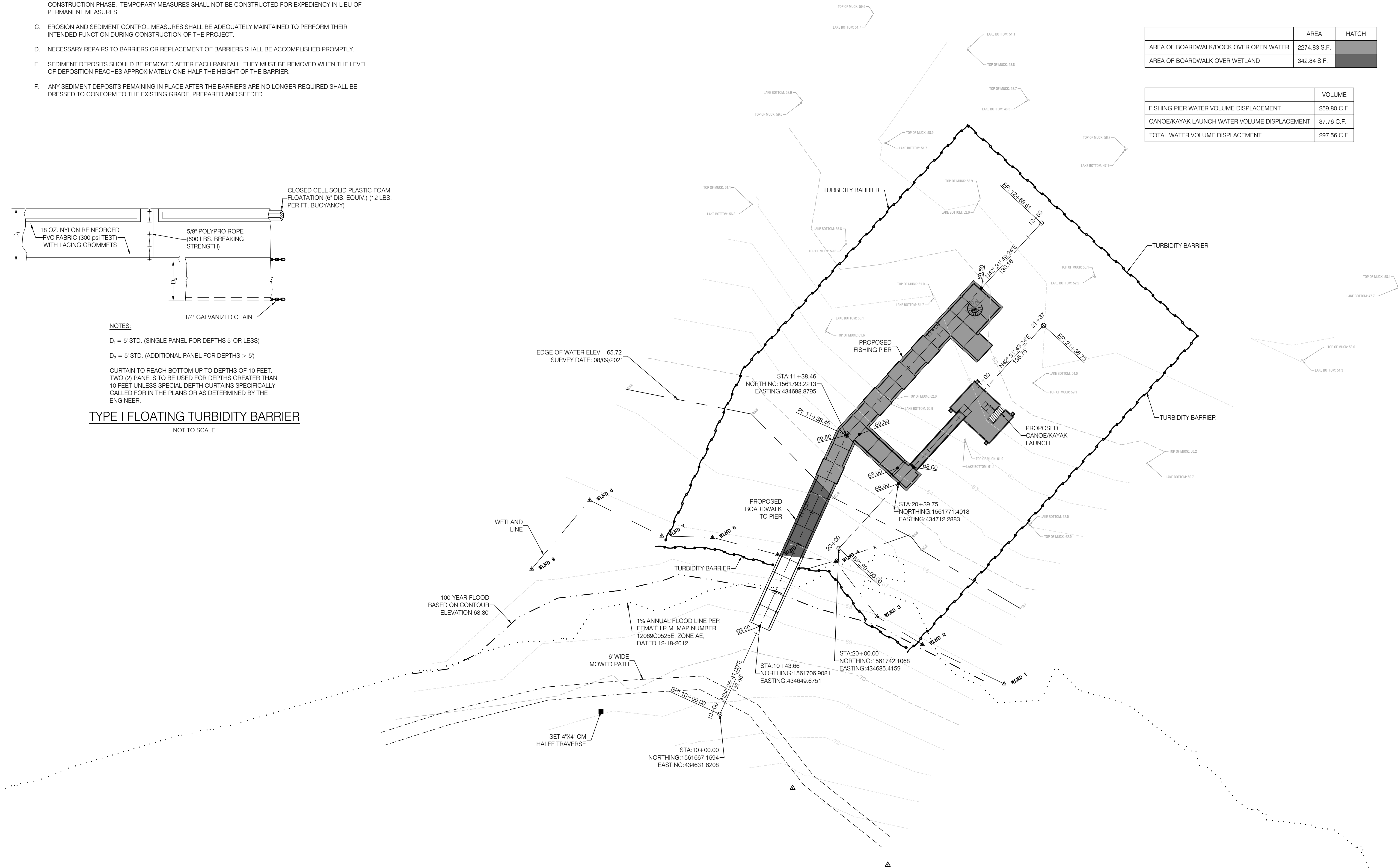
TYPE I FLOATING TURBIDITY BARRIER

NOT TO SCALE



	AREA	HATCH
AREA OF BOARDWALK/DOCK OVER OPEN WATER	2274.83 S.F.	
AREA OF BOARDWALK OVER WETLAND	342.84 S.F.	

	VOLUME
FISHING PIER WATER VOLUME DISPLACEMENT	259.80 C.F.
CANOE/KAYAK LAUNCH WATER VOLUME DISPLACEMENT	37.76 C.F.
TOTAL WATER VOLUME DISPLACEMENT	297.56 C.F.



REVISION	REVISION 1 - LAKE COUNTY COMMENTS										
	1	2	3	4	5	6	7	8	9	10	11
DATE	05-19-22										

LAKE COUNTY, FLORIDA

FERNDAL PRESERVE

OBSERVATION TOWER/FISHING

PIER AND CANOE/KAYAK LAUNCH

SITE PLAN



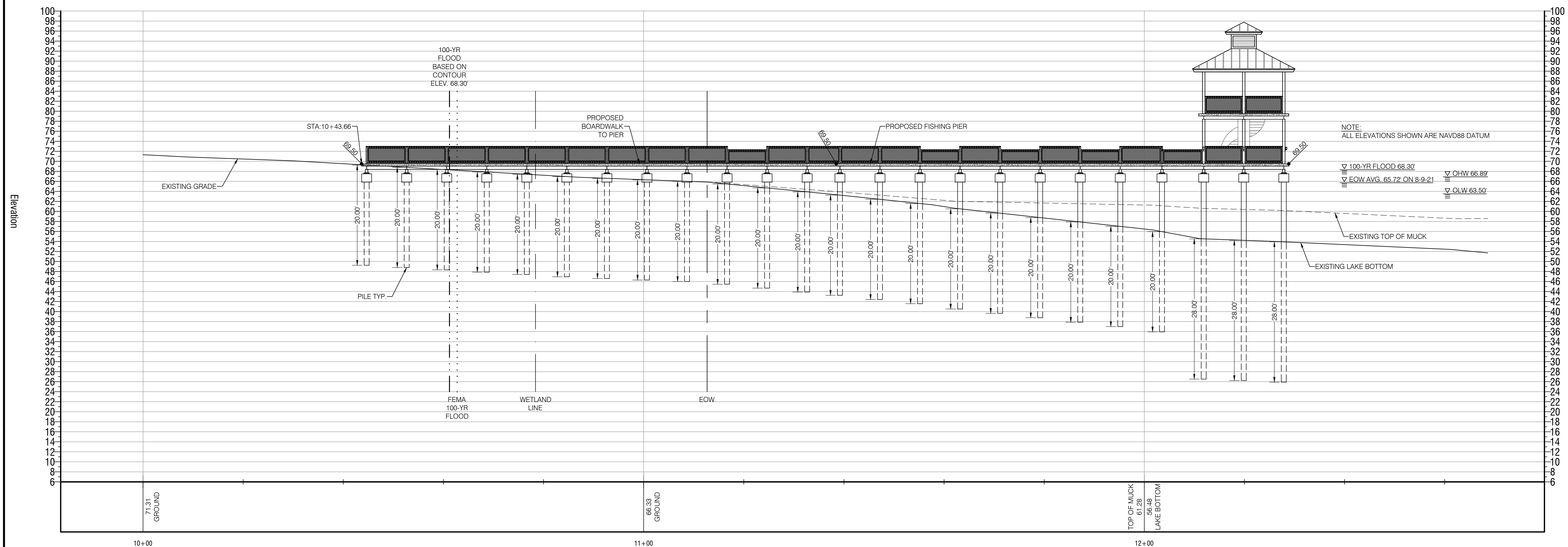
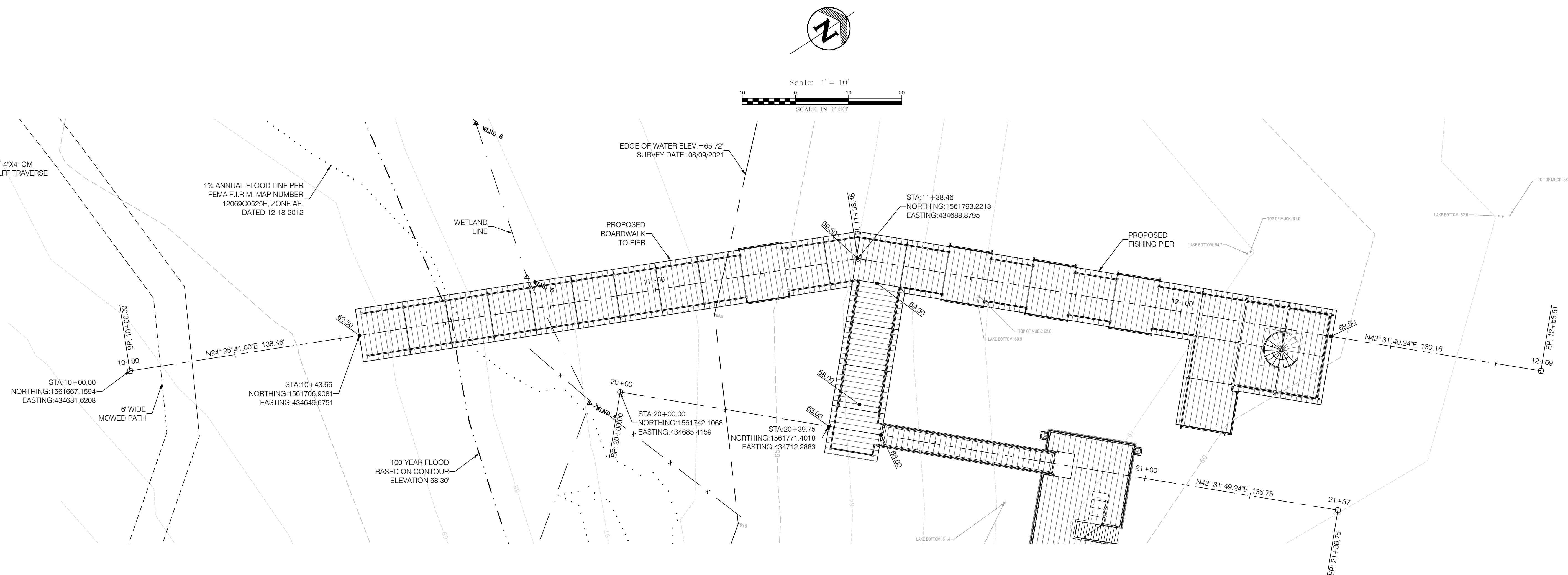
Office: 352.343.8481  
Fax: 352.343.8495  
Certificate of Authorization Number: 33380

DATE:	MAY 12, 2022
DESIGNED BY:	DKB
DRAWN BY:	TNJ
CHECKED BY:	DKB
JOB NO.:	043862.051
FILE NAME:	FERNDAL

Sheet 04

DUANE K. BOOTH, PE  
Registered Eng 44631





DATE	REVISION	
05-19-22	1	REVISION 1 - LAKE COUNTY COMMENTS
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LAKE COUNTY, FLORIDA	<b>FERNDALDE PRESERVE OBSERVATION TOWER/FISHING PIER AND CANOE/KAYAK LAUNCH</b>
<b>FISHING PIER PROFILE</b>	

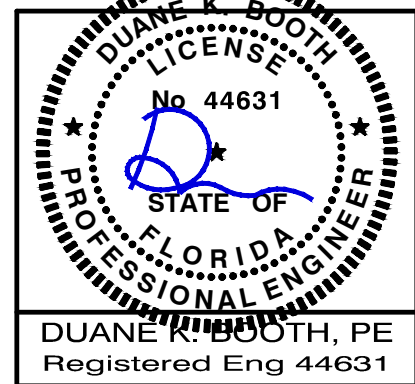


 **HALFF**®

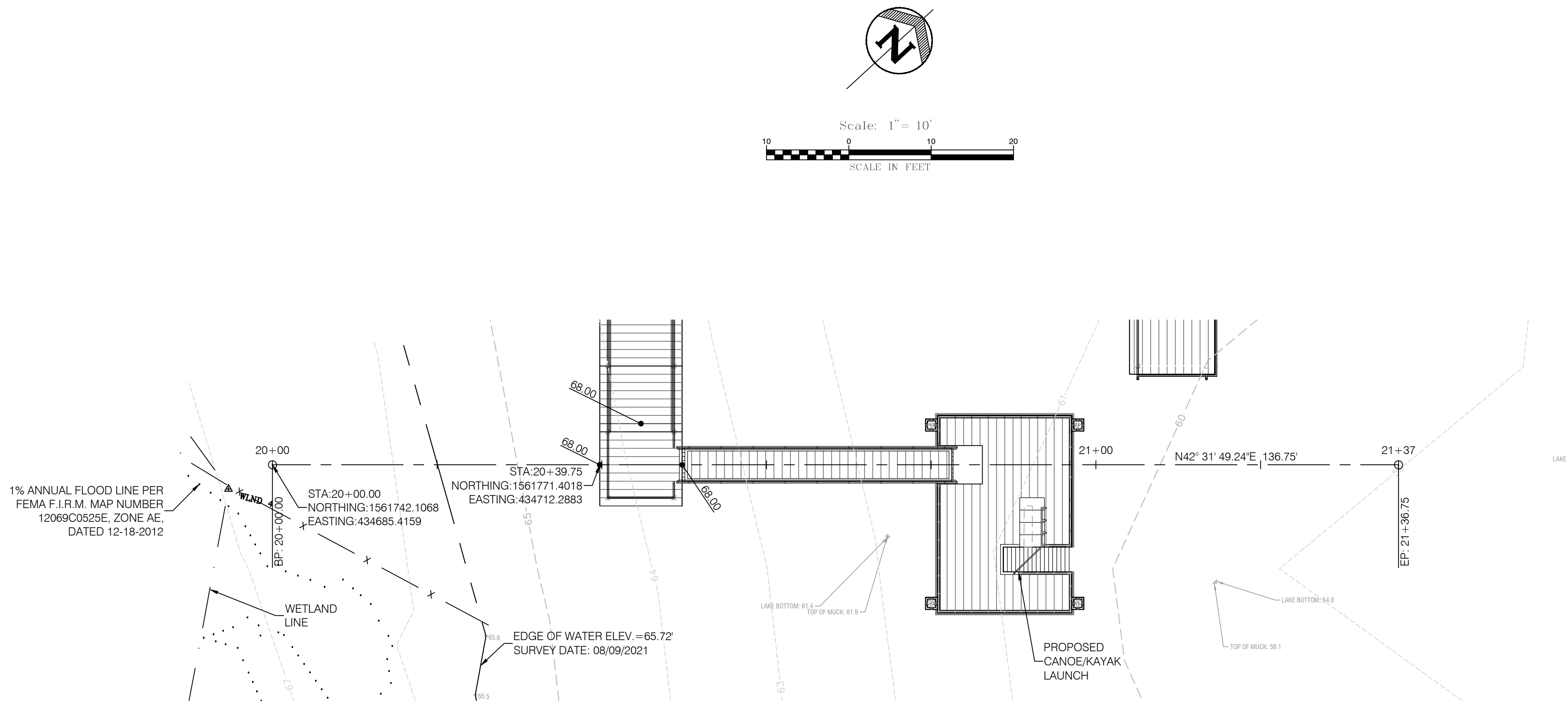
Office: 352.343.9481  
Fax: 352.343.9495  
Certificate of Authorization Number: 33390

902 North Sinclair Ave.  
Tavares, Florida 32778

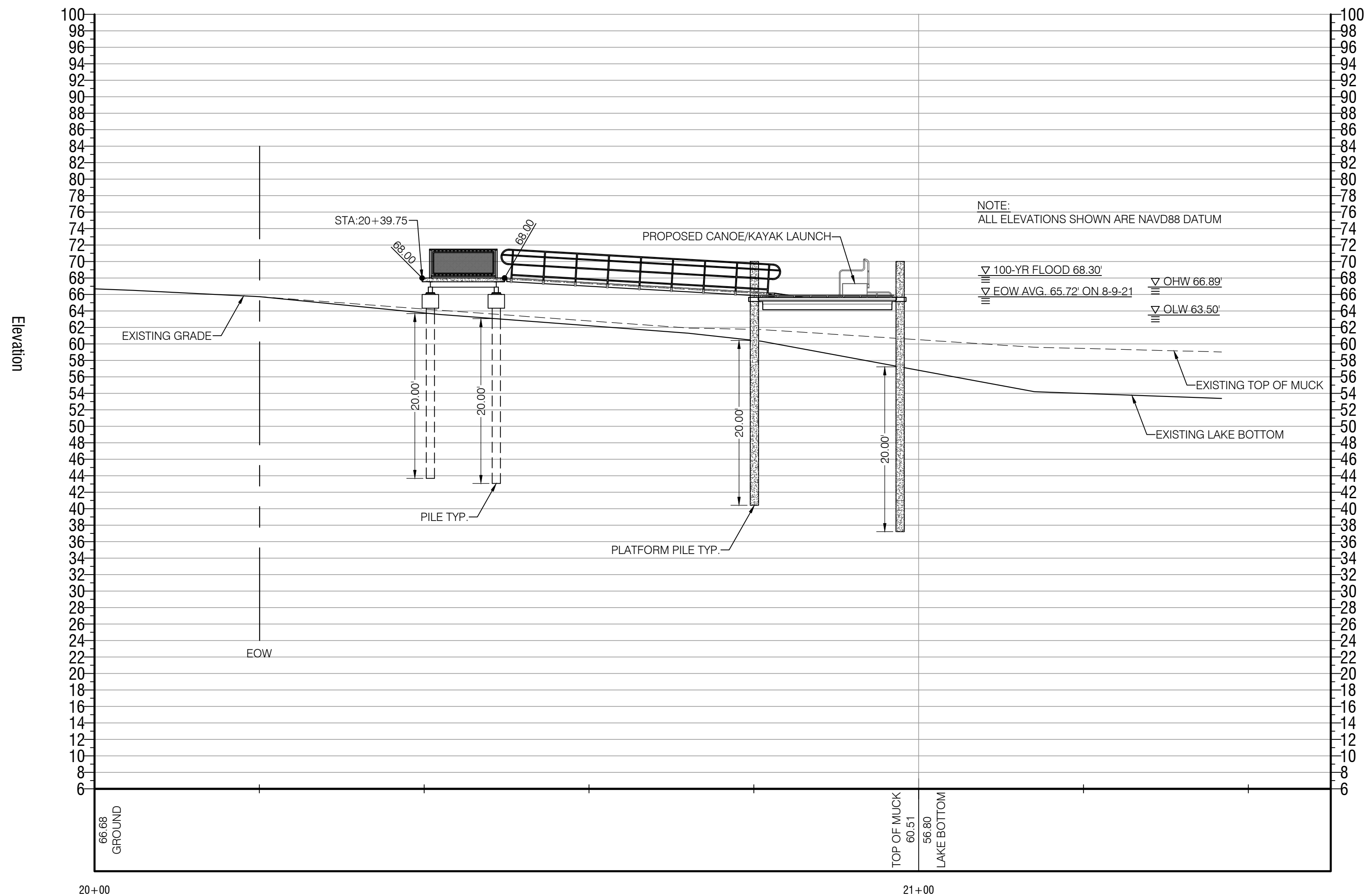
DATE:	MAY 12, 2022
DESIGNED BY:	DKB
DRAWN BY:	TNJ
CHECKED BY.:	DKB
JOB NO.:	043862.051
FILE NAME:	FERNDAL
<div style="text-align: center;"> <h1>Sheet 05</h1> </div>	







CANOE/KAYAK LAUNCH



DATE	REVISION	REVISION 1 - LAKE COUNTY COMMENTS
05-19-22	1	
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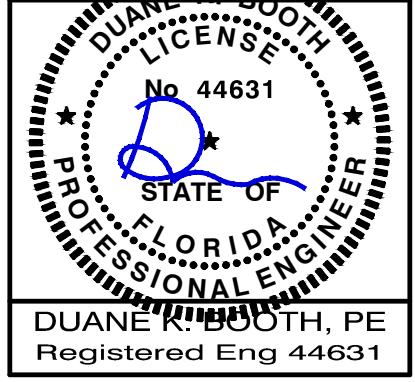
LAKE COUNTY, FLORIDA  
FERNDAL PRESERVE  
OBSERVATION TOWER/FISHING  
PIER AND CANOE/KAYAK LAUNCH  
CANOE/KAYAK  
LAUNCH PROFILE



**HALFF**  
902 North Sinclair Ave.  
Tavares, Florida 32778  
Office: 352.343.8481  
Fax: 352.343.8495  
Certificate of Authorization Number: 33380

DATE:	MAY 12, 2022
DESIGNED BY:	DKB
DRAWN BY:	TNJ
CHECKED BY:	DKB
JOB NO.:	043862.051
FILE NAME:	FERNDAL

Sheet 06





GENERAL NOTES	
1.	CONSTRUCTION SHALL COMPLY WITH ALL CITY, STATE, AND FEDERAL CODES & STANDARDS.
2.	CONTRACTOR SHALL VISIT THE SITE, INVESTIGATE AND BECOME FAMILIAR WITH ALL EXISTING CONDITIONS PRIOR TO BIDDING THE PROJECT.
3.	CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD AND SHALL REPORT ANY DISCREPANCIES TO THE ARCHITECT PRIOR TO ANY FURTHER CONSTRUCTION.
4.	CONTRACTOR SHALL COMPLY WITH THE CONTENTS OF THE SPECIFICATIONS FOR THE PROJECT.
5.	DIMENSIONS LESS THAN 2'-0" MAY BE SHOWN IN INCHES, I.E. 22" = 1'-10".
6.	ALL ANGLED CONDITIONS ARE 45 DEGREES UNLESS NOTED OTHERWISE.
7.	THE WORD "PROVIDE" MEANS TO FURNISH AND INSTALL COMPLETE, INCLUDING CONNECTIONS, UNLESS OTHERWISE SPECIFIED.
8.	ALL ITEMS OUTSIDE THE PROJECT BOUNDARIES SHALL BE PROTECTED SO AS TO INSURE THAT THEY WILL REMAIN INTACT DURING CONSTRUCTION. ALL ITEMS OUTSIDE THE PROJECT BOUNDARIES WHICH ARE DISTURBED, DAMAGED, OR SOILED DUE TO THE ACTS OF THE CONTRACTOR OR SUBCONTRACTORS, SHALL BE CLEANED, REPAIRED OR REPLACED TO THEIR PREVIOUS CONDITION AS DETERMINED BY THE ARCHITECT.
9.	THE CONTRACTOR SHALL MAINTAIN FIRE ACCESS AND EGRESS AT ALL TIMES.
10.	ALL FIRE SPRINKLER HEADS, SMOKE DETECTORS, OR OTHER CEILING MOUNTED EQUIPMENT SHALL BE MOUNTED IN THE CENTER OF ACOUSTICAL CEILING TILES.
11.	IT IS THE INTENT OF THESE DRAWINGS AND DOCUMENTS TO PROVIDE ALL ITEMS REQUIRED FOR COMPLETE SYSTEMS WHETHER SHOWN OR NOT. CONTRACTOR SHALL PROVIDE ALL ESCUTCHEON PLATES, FINISH PLATES, TRIM PIECES, ETC. AS REQUIRED TO PROVIDE A COMPLETE AND FINISHED WORK AS DETERMINED BY THE ARCHITECT.
12.	ALL WOOD USED IN CONTACT WITH CONCRETE OR MASONRY SHALL BE TREATED. FASTENERS FOR TREATED WOOD (NAILS, BOLTS, HARDWARE, ETC.) SHALL BE GALVANIZED.
13.	ALL INTERIOR PARTITIONS ARE 5/8" GYPSUM BOARD, TAPED AND PAINT TEXTURED WITH ORANGE PEEL FINISH UNLESS OTHERWISE NOTED.
14.	PARTITIONS SHALL BE LOCATED TO ALIGN WITH FURRING ON ALL MASONRY WALL CONDITIONS.
15.	THE TERM 'WORK' MEANS THE CONSTRUCTION REQUIRED BY THE CONTRACT DOCUMENTS, INCLUDING ALL LABOR NECESSARY TO PRODUCE SUCH CONSTRUCTION, AND ALL MATERIALS AND EQUIPMENT INCORPORATED OR TO BE INCORPORATED THEREIN.
16.	ALL WORK MENTIONED OR INDICATED IN THE CONTRACT DOCUMENTS SHALL BE PERFORMED BY THE CONTRACTOR AS PART OF THIS CONTRACT UNLESS IT IS SPECIFICALLY INDICATED IN THE CONTRACT DOCUMENTS THAT SUCH WORK IS TO BE DONE BY OTHERS. SHOULD THE DRAWINGS OR THE SPECIFICATIONS DISAGREE IN THEMSELVES OR WITH EACH OTHER, THE CONTRACTOR SHALL PROVIDE THE BETTER QUALITY OR GREATER QUANTITY OF WORK UNLESS OTHERWISE DIRECTED BY WRITTEN ADDENDUM TO THE CONTRACT.
17.	IN THE EVENT OF ANY CONFLICT AMONG THE CONTRACT DOCUMENTS, THE DOCUMENTS SHALL BE CONSTRUED ACCORDING TO THE FOLLOWING PRIORITIES: <div><div>HIGHEST PRIORITY: SECOND PRIORITY: THIRD PRIORITY: PRECEDENCE FOURTH PRIORITY: FIFTH PRIORITY: SIXTH PRIORITY: SEVENTH PRIORITY:</div><div>MODIFICATIONS AGREEMENT ADDENDA - LATER DATE TO TAKE  SUPPLEMENTARY GENERAL CONDITIONS GENERAL CONDITIONS SPECIFICATIONS DRAWINGS</div></div>
18.	THE CONTRACTOR AND ALL SUBCONTRACTORS SHALL REFER TO ALL OF THE DRAWINGS, INCLUDING THOSE SHOWING PRIMARILY THE WORK OF THE MECHANICAL, ELECTRICAL, AND OTHER SPECIALIZED TRADES, AND TO ALL OF THE SECTIONS OF THE SPECIFICATIONS, AND SHALL PERFORM ALL WORK REASONABLY INFERABLE THEREFROM AS BEING NECESSARY TO PRODUCE THE INDICATED RESULTS.
19.	THE MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION DRAWINGS ARE DIAGRAMMATIC ONLY, AND ARE NOT INTENDED TO SHOW THE ALIGNMENT, PHYSICAL LOCATIONS OR CONFIGURATIONS OF SUCH WORK, UNLESS NOTED OTHERWISE. WORK SHALL BE INSTALLED WITHOUT ADDITIONAL COST TO THE OWNER TO CLEAR ALL OBSTRUCTIONS, PERMIT PROPER CLEARANCES FOR THE WORK OF OTHER TRADES, AND PRESENT AN ORDERLY APPEARANCE WHERE EXPOSED.
20.	WHERE THE WORK IS TO FIT WITH EXISTING CONDITIONS OR WORK TO BE PERFORMED BY OTHERS, THE CONTRACTOR SHALL FULLY AND COMPLETELY JOIN THE WORK WITH SUCH CONDITIONS OR WORK, UNLESS OTHERWISE SPECIFIED.
21.	IN ALL CASES IN WHICH A MANUFACTURER'S NAME, TRADE NAME OR OTHER PROPRIETARY DESIGNATION IS USED IN CONNECTION WITH MATERIALS OR ARTICLES TO BE FURNISHED UNDER THIS CONTRACT, WHETHER OR NOT THE PHRASE 'OR EQUAL' IS USED AFTER SUCH NAME, THE CONTRACTOR SHALL FURNISH THE PRODUCT OF THE NAMED MANUFACTURER(S) WITHOUT SUBSTITUTION, UNLESS WRITTEN REQUEST FOR SUCH SUBSTITUTION HAS BEEN SUBMITTED BY THE CONTRACTOR AND APPROVED IN WRITING BY THE ARCHITECT.
22.	WHERE NO EXPLICIT QUALITY OR STANDARDS FOR MATERIALS OR WORKMANSHIP ARE ESTABLISHED FOR WORK, SUCH WORK IS TO BE OF GOOD QUALITY FOR THE INTENDED USE AND CONSISTENT WITH THE QUALITY OF THE SURROUNDING WORK AND THE CONSTRUCTION OF THE PROJECT GENERALLY.
23.	THE ARCHITECT AND/OR ENGINEER OF THIS CONTRACT SET OF DOCUMENTS WILL NOT ACCEPT RESPONSIBILITY AS TO ANY UNAUTHORIZED CHANGES OR DEVIATIONS TO THIS PROJECT THAT DIFFER FROM THE PLANS AND SPECIFICATIONS WITHOUT FINAL WRITTEN APPROVAL FROM THE ARCHITECT OR ENGINEER, AS TO SUCH ACTION.

ABBREVIATIONS			
A.B.	ANCHOR BOLT	GT	CERAMIC TILE
ABV.	ABOVE	DIA.	DIA.
A/C	AIR-CONDITIONER	DISP.	DISPOSAL
ADJ.	ADJUSTABLE	E.W.	EACH WAY
A.F.F.	ABOVE FINISHED FLOOR	ELEC.	ELECTRICAL
A.H.U.	AIR HANDLER UNIT	ELEV.	ELEVATION
BM.	BEAM	EXT.	EXTERIOR
BOT.	BOTTOM	FBC	FLORIDA BUILDING CODE
CLG.	CEILING	FIN. FLR.	FINISHED FLOOR
CAJON	CONTROL JOINT	F.G.	FIXED GLASS
COL.	COLUMN	FLR.	FLOOR
COMP.	A/C COMPRESSOR	FT.	FOOT / FEET
		FX	FIXED
		FRT	FIRE RETARDANT TREATED

LEGEND OF SYMBOLS	
	8" NOMINAL CONCRETE MASONRY (CMU) WALL
	INTERIOR FRAME PARTITION (SEE WALL TYPE DETAILS)
	ONE HOUR FIRE RATED INTERIOR FRAME PARTITION
	TWO HOUR FIRE RATED INTERIOR FRAME PARTITION
	TWO HOUR FIRE RATED CONCRETE MASONRY (CMU) WALL
	EXISTING 8" CONCRETE MASONRY (CMU) WALL
	EXISTING INTERIOR FRAME PARTITION
	EXISTING ONE HOUR FIRE RATED INTERIOR FRAME PARTITION
	TACTILE WARNING SURFACE
	WHEELCHAIR CLEAR TURNING DIAMETER (60")
	SITE / PARKING LOT LIGHTING
	SITE SIGN / ACCESSIBLE PARKING SPACE
	DETAIL TARGET
	BUILDING / WALL SECTION TARGET
	ELEVATION TARGET BASED ON 1ST FINISHED FLOOR AT 100'-0" UNLESS NOTED OTHERWISE
	LEVEL THRESHOLD TRANSITION 1/4" MAX. VERTICAL W/O EDGE TREATMENT 1/2" MAX. VERTICAL W/ BEVEL OF 1:2
	UNIVERSAL SYMBOL OF ACCESSIBILITY
	WATER HEATER
	ROOM NUMBER TAG
	DOOR NUMBER TAG
	INTERIOR WALL TYPE TAG
	INTERIOR ELEVATION TARGET
	WINDOW TYPE ELEVATION TAG
	SURFACED MOUNTED FIRE EXTINGUISHER
	FIRE EXTINGUISHER IN RECESSED CABINET
	EMERGENCY LIGHT
	DUAL EMERGENCY / EXIT COMBINATION LIGHT
	CEILING MOUNTED EXIT LIGHT
	CEILING MOUNTED EXIT LIGHT WITH DIRECTIONAL ARROW
	WALL MOUNTED EXIT LIGHT
	CEILING MOUNTED EXHAUST FAN
	RECESSED HVAC SUPPLY DIFFUSER
	RECESSED HVAC RETURN DIFFUSER
	24" X 48" RECESSED FLUORESCENT LIGHT FIXTURE
	24" X 24" RECESSED FLUORESCENT LIGHT FIXTURE
	24" X 24" RECESSED FLUORESCENT LIGHT FIXTURE W/ EMERGENCY POWER / BATTERY BACKUP
	24" X 24" RECESSED FLUORESCENT LIGHT FIXTURE W/ EMERGENCY POWER / BATTERY BACKUP
	RECESSED CAN LIGHT FIXTURE WITH EMERGENCY POWER / BATTERY BACKUP
	RECESSED CAN LIGHT FIXTURE

	SURFACE MOUNTED SCONCE / DECORATIVE LIGHT FIXTURE
	FIRE ALARM PULL STATION
	FIRE ALARM HORN AND STROBE LIGHT
	FIRE ALARM STROBE LIGHT
	CEILING MOUNTED ACCESS PANEL
	ACCESSIBLE HI / LO DRINKING FOUNTAIN WITH CLEAR FLOOR AREA SHOWN
	CEILING MOUNTED ACCESS PANEL
	MAXIMUM EXIT ACCESS TRAVEL DISTANCE WITH POINT OF BEGINNING
	FIRE SPRINKLER HEAD (CENTER ON CEILING TILE)
	OCCUPANCY SENSOR (CEILING MOUNTED)
	DRYWALL SOFFIT / BULKHEAD
	PRIMARY EGRESS DIRECTION / PATH OF TRAVEL
	EGRESS WIDTH (IN INCHES)
	EGRESS DIRECTION / WIDTH / OCCUPANT LOAD CALCULATION
	DRAWING REVISION TAG SYMBOL AND REVISION CLOUD

GENERAL "PLAN" DIMENSIONAL CONVENTIONS	
<p>ALL PLAN DIMENSIONS SHOWN ARE BASED ON NOMINAL STUD AND CMU WALL DIMENSIONS AND ARE SUBJECT TO FIELD ADJUSTMENT FOR ACTUAL MATERIALS. PLAN DIMENSIONS HAVE A GRAPHIC TOLERANCE OF +1/2" MINIMUM CLEAR AND ALL CORRIDOR DIMENSIONS ARE NOT TO BE REDUCED. COORDINATE ALL EQUIPMENT DIMENSIONS WITH THE MANUFACTURER, OWNER, OR OWNER'S REPRESENTATIVE.</p> <p>WALL WITH AN END CAP ARE DIMENSIONED TO THE END OF THE WALL.</p> <p>INTERIOR WALL DIMENSIONS ARE FROM CENTER LINE TO CENTER LINE WHEN SHOWN DIMENSIONED TO THE CENTER.</p> <p>INTERIOR DIMENSION BEGIN FROM THE INSIDE FACE OF CMU</p> <p>IF DOOR IS SHOWN GRAPHICALLY CENTERED, DIVIDE THE WALL SPACE ON THE TWO SIDES EQUALLY.</p> <p>ADJUST TO BE EQUAL</p> <p>MIN OF 2" GYP TO SHOW BETWEEN DOOR FRAME AND WALL.</p> <p>18" MIN CLEAR OF ANY CABINET</p> <p>18" MIN CLEAR</p> <p>12" MIN CLEAR ON PUSH SIDE</p> <p>UNLESS A DOOR'S LOCATION IS DIMENSIONED OR LAID OUT SPECIFICALLY, SUCH AS SHOWN CENTERED, TYPICAL DOOR LOCATION IN A WALL SHALL BE PLACED TO MEET THE FLORIDA ACCESSIBILITY CODE FIRST + AND THE ABOVE REQUIREMENTS SECOND.</p>	

BUILDING CODE ANALYSIS AND SUMMARY	
A. BUILDING AREA :	3,297 SF.
B. CONSTRUCTION TYPE:	TYPE II-B
C. AUTOMATIC FIRE SPRINKLER SYSTEM:	NO
D. OCCUPANCY:	UTILITY 'U'
E. MAXIMUM ALLOWABLE AREA (FBC TABLE 506.2): ACTUAL BUILDING AREA =	8,500 SF 3,297 SF
F. FIRE RESISTANCE RATING REQUIREMENTS (FBC TABLE 601 & FBC 705.4)	
PARTY AND FIRE WALLS:	0 HR
STRUCTURAL FRAME:	0 HR
BEARING WALLS - INTERIOR	0 HR
BEARING WALLS - EXTERIOR	0 HR
NONBEARING WALLS & PARTITIONS (INTERIOR)	0 HR
NONBEARING WALLS & PARTITIONS (EXTERIOR)	0 HR
FLOOR CONSTRUCTION	0 HR
ROOF CONSTRUCTION	0 HR

APPLICABLE CODES AND STANDARDS	
FBC 7TH ED. (2020)	FLORIDA BUILDING CODE
FBC 7TH ED. (2020)	FLORIDA BUILDING CODE EXISTING BUILDING
FPC 7TH ED. (2020)	FLORIDA PLUMBING CODE
FMC 7TH ED. (2020)	FLORIDA MECHANICAL CODE
FBC 7TH ED. (2020)	FLORIDA ENERGY CONSERVATION CODE
FAC 7TH ED. (2020)	FLORIDA ACCESSIBILITY CODE
FFPC 7TH ED.	FLORIDA FIRE PREVENTION CODE
NFPA-70-2017	NATIONAL ELECTRICAL CODE

ACCESSIBILITY SIGNAGE DETAILS	
TOILET ROOM WALL MOUNTED SIGN	
ACCESSIBILITY SIGNAGE NOTES:	
CHARACTER PROPORTION: LETTERS AND NUMBERS ON SIGNS SHALL HAVE A WIDTH-TO-HEIGHT RATIO BETWEEN 3.5 AND 1:1 AND A STROKE-WIDTH-TO-HEIGHT RATIO BETWEEN 1:5 AND 1:10.	
RAISED AND BRAILLE CHARACTERS AND PICTORIAL SYMBOL, SIGNS (PICTOGRAMS): LETTERS AND NUMERIC SHALL BE RAISED 1/32 IN., UPPER CASE, SANS SERIF OR SIMPLE SERIF TYPE AND SHALL BE ACCOMPANIED WITH GRADE BRAILLE. RAISED CHARACTERS SHALL BE AT LEAST 5/8" (16 MM) HIGH, BUT NO HIGHER THAN 2 IN. (50 MM). PICTOGRAMS SHALL BE ACCOMPANIED BY THE EQUIVALENT VERBAL DESCRIPTION PLACED DIRECTLY BELOW THE PICTOGRAM. THE BORDER DIMENSION OF THE PICTOGRAM SHALL BE 6 IN. (152 MM) MINIMUM OF HEIGHT.	
FINISH AND CONTRAST: THE CHARACTERS AND BACKGROUND OF SIGNS SHALL BE EGGSHELL, MATTE, OR OTHER NON-GLARE FINISH. CHARACTERS AND SYMBOLS SHALL CONTRAST WITH THEIR BACKGROUND OR DARK CHARACTERS ON A LIGHT BACKGROUND.	
MOUNTING LOCATION AND HEIGHT: WHERE PERMANENT IDENTIFICATION IS PROVIDED FOR ROOMS AND SPACES, SIGNS SHALL BE INSTALLED ON THE WALL ADJACENT TO THE LATCH SIDE OF THE DOOR. WHERE THERE IS NO WALL SPACE TO THE LATCH SIDE OF THE DOOR, INCLUDING AT DOUBLE LEAF DOORS, SIGNS SHALL BE PLACED ON THE NEAREST ADJACENT WALL. MOUNTING LOCATION OF SUCH SIGNAGE SHALL BE SO THAT A PERSON MAY APPROACH WITHIN 3 IN. (76 MM) OF SIGNAGE WITHOUT ENCOUNTERING PROTRUDING OBJECTS OR STANDING WITHIN THE SWING OF THE DOOR. MOUNTING HEIGHT SHALL BE 60 IN. (1525 MM) ABOVE THE FINISH FLOOR TO THE CENTERLINE OF THE SIGN.	
SYMBOLS OF ACCESSIBILITY: FACILITIES AND ELEMENTS REQUIRED TO BE IDENTIFIED AS ACCESSIBLE BY SECTION 4.1 OF THE A.D.A.A.G SHALL USE THE INTERNATIONAL SYMBOL OF ACCESSIBILITY.	

ARCHITECTURE | INTERIOR DESIGN  
713 W. MONTROSE STREET • CLERMONT, FLORIDA 34711  
PH: (352) 874-2240 • FAX: (877) 685-7183  
WWW.POWELLSTUDIOARCH.COM  
AAR 2402236

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OWNER:

OWNER / PROJECT:

# Lake County Ferndale Preserve

Observation Tower / Fishing Pier And Canoe / Kayak Launch

Ferndale, Florida

PROFESSIONAL SEAL:

2022.10.28 10:49:31-04'00'  
Robert Jeffrey Powell, AIA  
Florida Licensed Architect #AR94675  
This Seal has been electronically signed and sealed by Robert Jeffrey Powell, AR 94675, using a Digital Signature. Print copies of this document are not considered signed and sealed.

PROJECT NO: PSA2021-34.00

REVISIONS:

MARK	DATE	DESCRIPTION

ISSUE DATE: MAY 12, 2022

PROJECT DATA / SYMBOL LEGEND / NOTES

## A1.1



1. **CONTRACTOR AND MATERIAL ACCESS TO PROJECT SITE:**  
THIS SITE IS LOCATED ON THE WESTERN SHORE OF LAKE APOPKA. THE PRESERVE CONTAINS A PROTECTED HISTORICAL SITE, NATURAL WILDLIFE, AND UNDEVELOPED TERRAIN. VEHICULAR ACCESS OVER LAND TO AND FROM THE SITE FOR CONSTRUCTION PURPOSES IS PROHIBITED. CONTRACTORS ARE HEREBY ADVISED THAT ACCESS FOR ALL LABOR, MATERIALS, AND OTHER MEANS AND METHODS MUST UTILIZE THE LOCAL WATERWAY, AND LIMIT THEIR IMPACT ON THE NATURAL SHORELINE.

MCDONALD CANAL BOAT RAMP  
24600 COUNTY ROAD 448A  
MOUNT DORA, FLORIDA

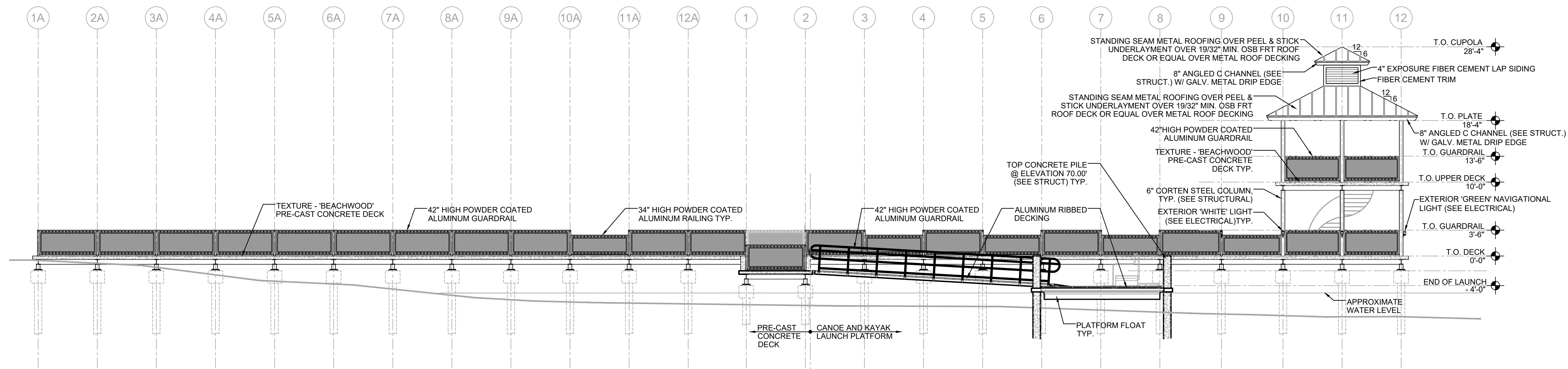
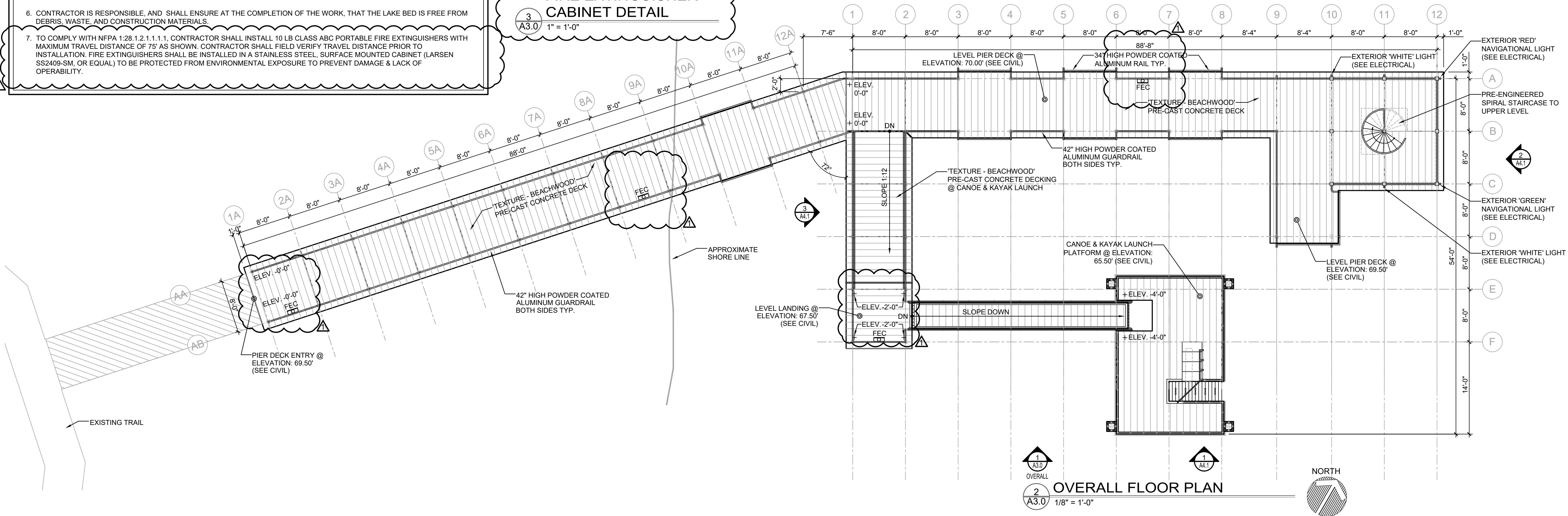
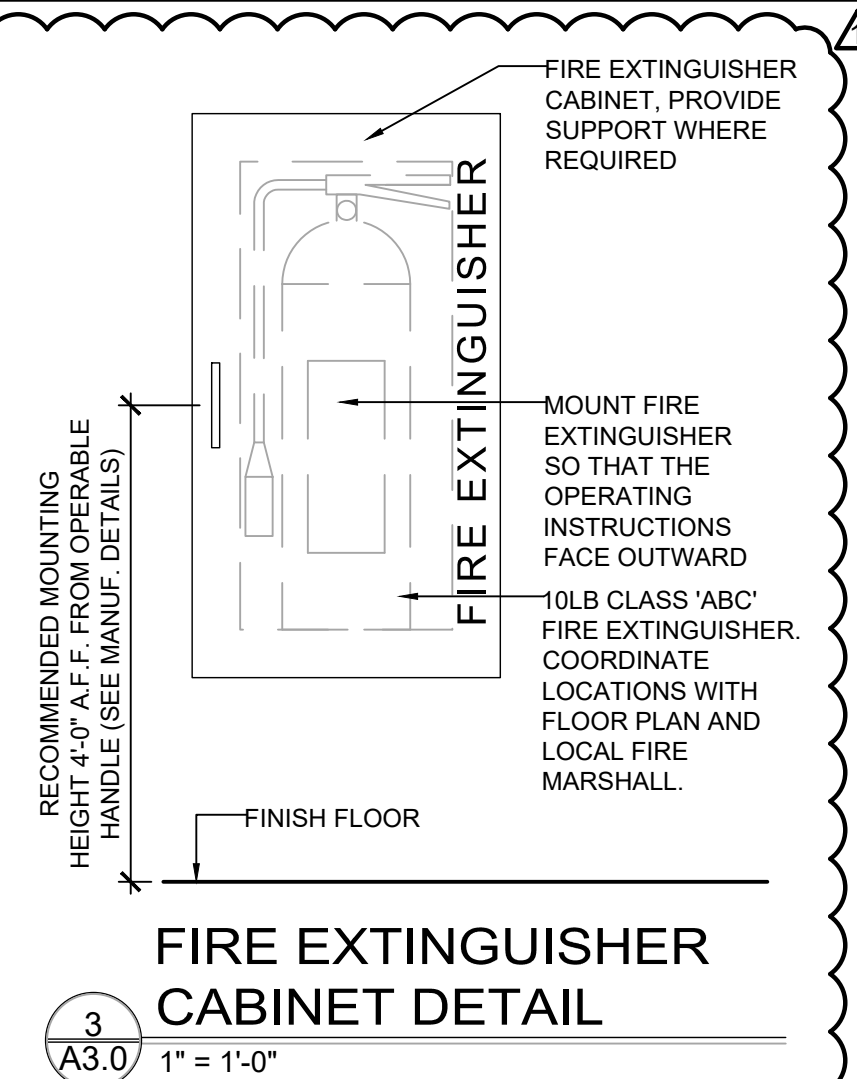
3. CONTRACTOR IS ADVISED THAT THERE IS A BRIDGE, LOCATED ALONG THE APOPKA-BEAUCLAIR CANAL. ALL FIRMS PROVIDING A CONSTRUCTION BID FOR THE PROJECT SHALL VERIFY WITH ANY AND ALL SUBCONTRACTORS, SUPPLIERS, TRADES, ETC. THAT THE WATERWAY AND ANY OBSTRUCTIONS WILL NOT RESTRICT OR PROHIBIT NAVIGATION TO THE SITE.

4. CONTRACTOR SHALL ERECT A SILT FENCE TO PROTECT THE PROJECT AREA. CONSTRUCTION ACTIVITIES SHALL NOT ENCROACH BEYOND THE LIMITS OF THIS FENCE.

5. CONTRACTOR SHALL NOT ENCROACH, DAMAGE, TORMENT, POLLUTE, OR ADVERSELY AFFECT IN ANY WAY, THE NATURAL HABITAT AND CONDITION OF THE FERNDALE PRESERVE, OR ANY WATERWAY UTILIZED AS PART OF THIS CONSTRUCTION EFFORT. CONTRACTOR SHALL INSTITUTE AN ECOLOGICAL METHOD TO MAINTAIN AND PROTECT THE PROJECT SITE. THE PROJECT SITE SHALL BE CLEANED, SECURED, AND SAFE AT THE COMPLETION OF EACH WORK DAY.

6. CONTRACTOR IS RESPONSIBLE, AND SHALL ENSURE AT THE COMPLETION OF THE WORK, THAT THE LAKE BED IS FREE FROM DEBRIS, WASTE, AND CONSTRUCTION MATERIALS.

7. TO COMPLY WITH NFPA 128:1.2.1.1.1.1, CONTRACTOR SHALL INSTALL 10 LB CLASS ABC PORTABLE FIRE EXTINGUISHERS WITH MAXIMUM TRAVEL DISTANCE OF 75' AS SHOWN. CONTRACTOR SHALL FIELD VERIFY TRAVEL DISTANCE PRIOR TO INSTALLATION. FIRE EXTINGUISHERS SHALL BE INSTALLED IN A STAINLESS STEEL, SURFACE MOUNTED CABINET (LARSEN SS2409-SM, OR EQUAL) TO BE PROTECTED FROM ENVIRONMENTAL EXPOSURE TO PREVENT DAMAGE & LACK OF OPERABILITY.



**OVERALL ELEVATION**  
1/8" = 1'-0"



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OWNER / PROJECT:

# Lake County Ferndale Preserve

Observation Tower / Fishing Pier And  
Canoe / Kayak Launch

Ferndale, Florida

PROFESSIONAL SEAL:



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Robert Jeffrey Powell, AIA  
Florida Licensed Architect #AR94675

PROJECT NO: PSA2021-34.00

REVISIONS:

1	08/26/22	LAKE COUNTY COMM.
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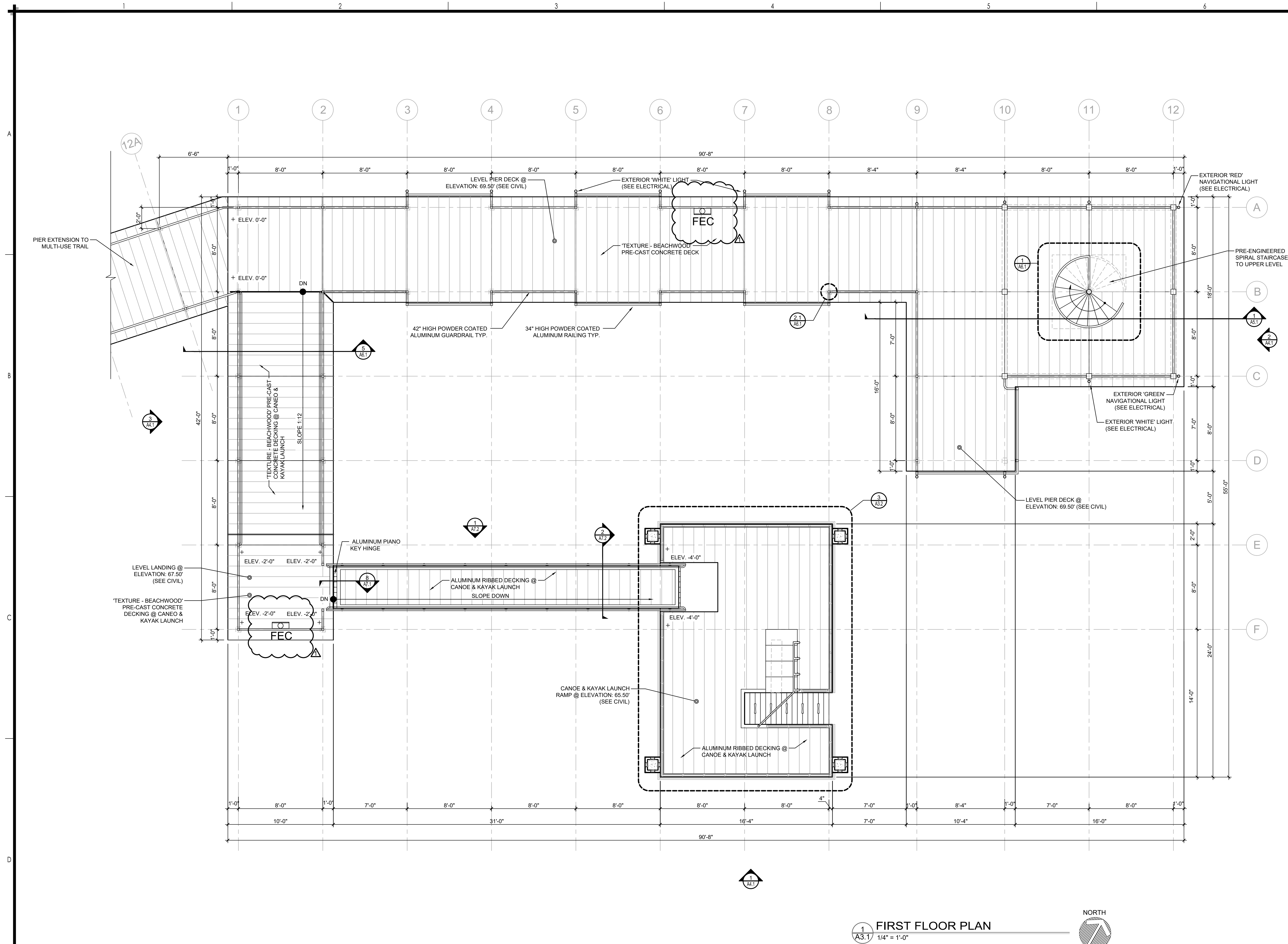
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ISSUE DATE: MAY 12, 2022

OVERALL FLOOR PLAN

## A3.0





1  
A3.1 FIRST FLOOR PLAN  
1/4" = 1'-0"



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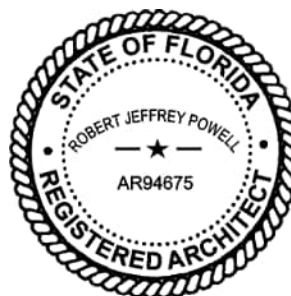
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Canoe / Kayak Launch

Ferndale, Florida

PROFESSIONAL SEAL:



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Florida Licensed Architect #AR94675

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PROJECT NO: PSA2021-34.00

REVISIONS:

08/26/22 LAKE COUNTY COMM.

MARK DATE DESCRIPTION

ISSUE DATE: MAY 12, 2022

FIRST FLOOR PLAN

A3.1





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OWNER / PROJECT:

# Lake County Ferndale Preserve

---

Observation Tower / Fishing Pier And  
Canoe / Kayak Launch

---

Ferndale, Florida

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1	08/26/22	LAKE COUNTY COMM.

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ISSUE DATE:		MAY 12, 2022

## SECOND FLOOR PLAN & ROOF PLAN

## A3.2



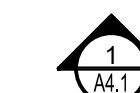
4 PLATFORM PLAN  
A3.2 1/4" = 1'-0"



3 PLATFORM PLAN  
A3.2 3/8" = 1'-0"

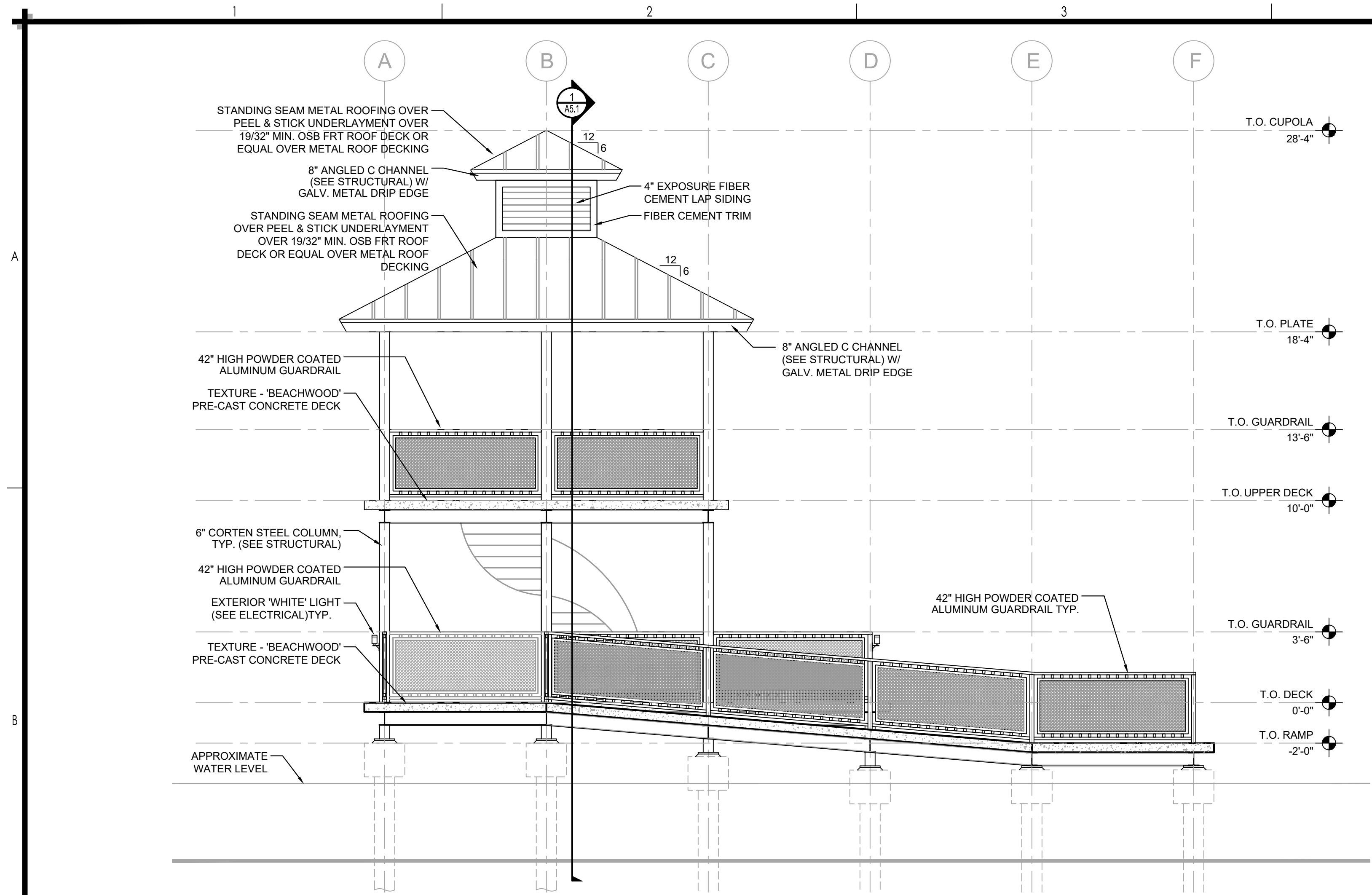


**2** ROOF PLAN  
A3.2 1/4" = 1'-0"

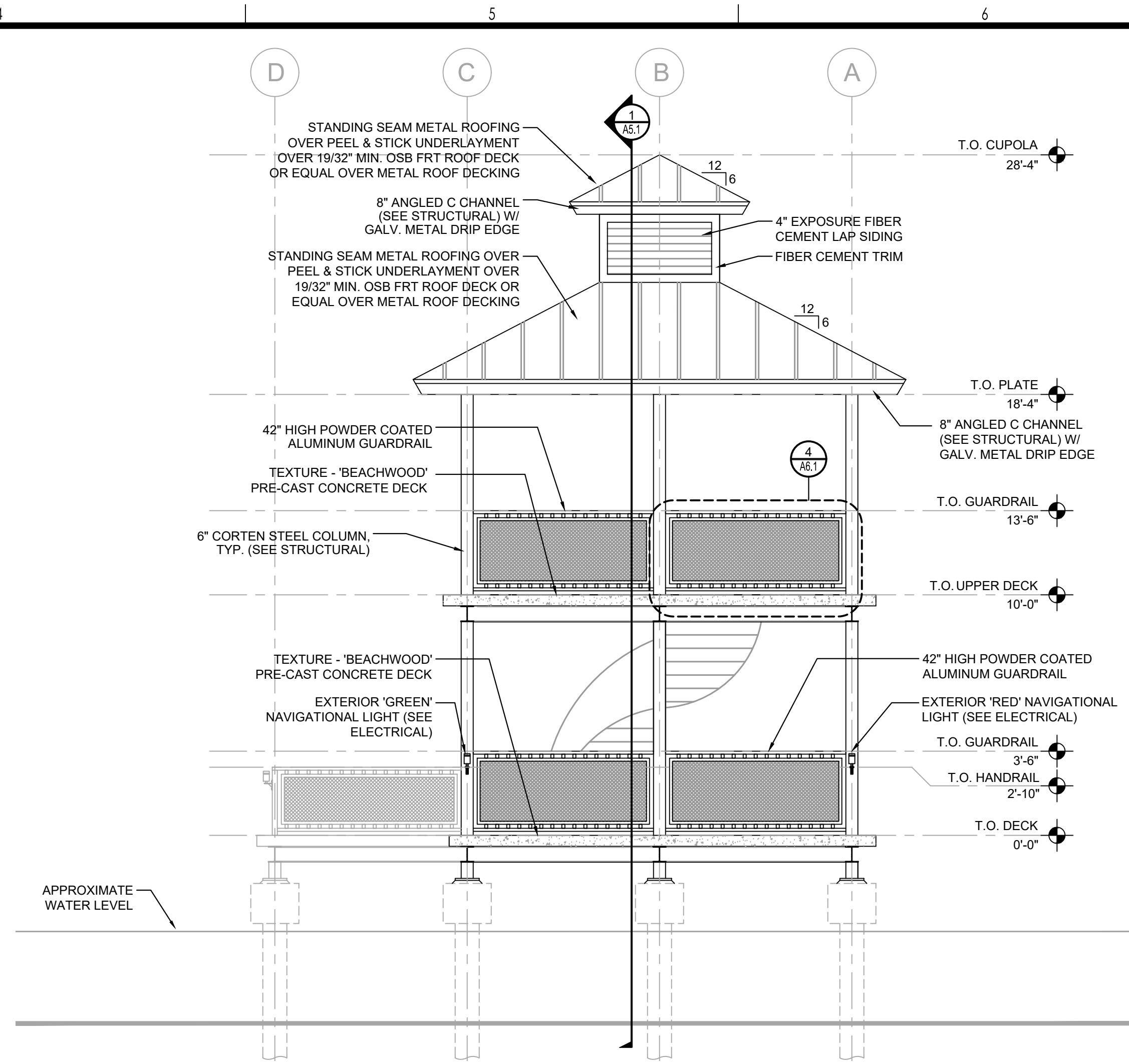


1  
A3.2 SECOND FLOOR PLAN  
1/4" = 1'-0"

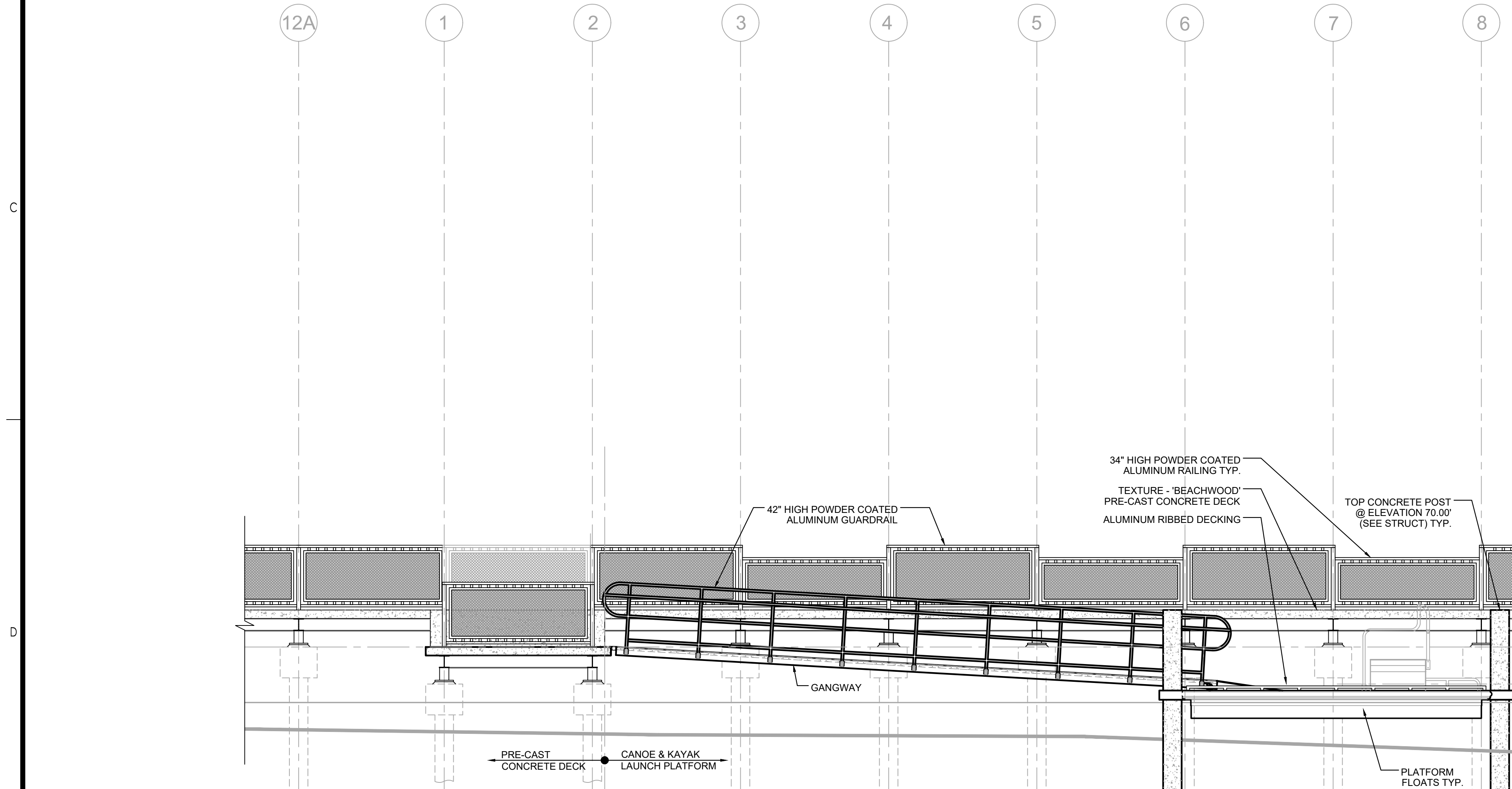




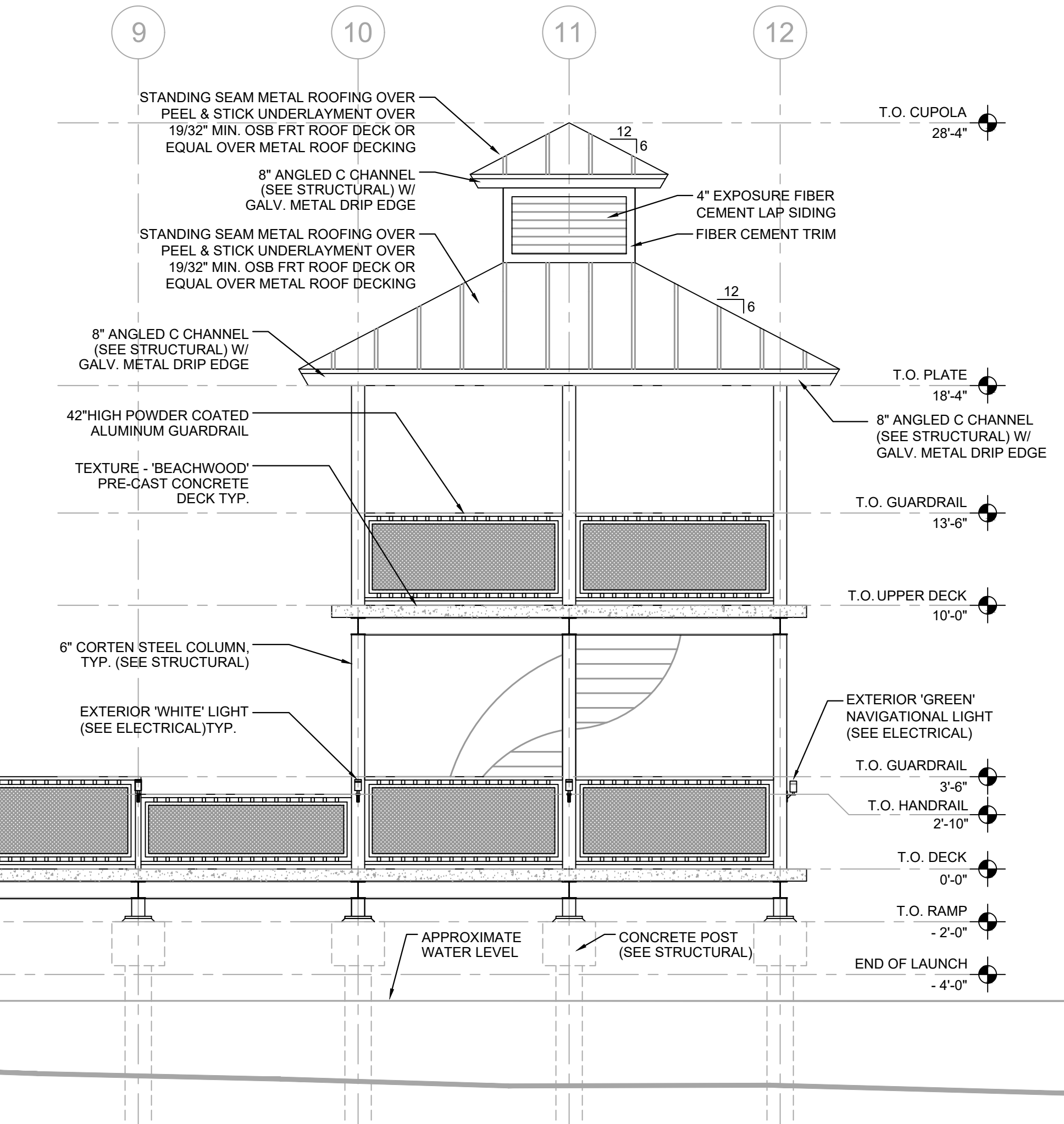
3  
A4.1  
1/4" = 1'-0"



2  
A4.1  
1/4" = 1'-0"



1  
A4.1  
1/4" = 1'-0"



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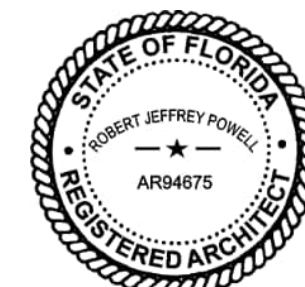
OWNER / PROJECT:

# Lake County Ferndale Preserve

Observation Tower / Fishing Pier And  
Canoe / Kayak Launch

Ferndale, Florida

PROFESSIONAL SEAL:



2022.10.28 10:50:06-04'00'  
Robert Jeffrey Powell, AIA  
Florida Licensed Architect #AR94675  
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PROJECT NO: PSA2021-34.00

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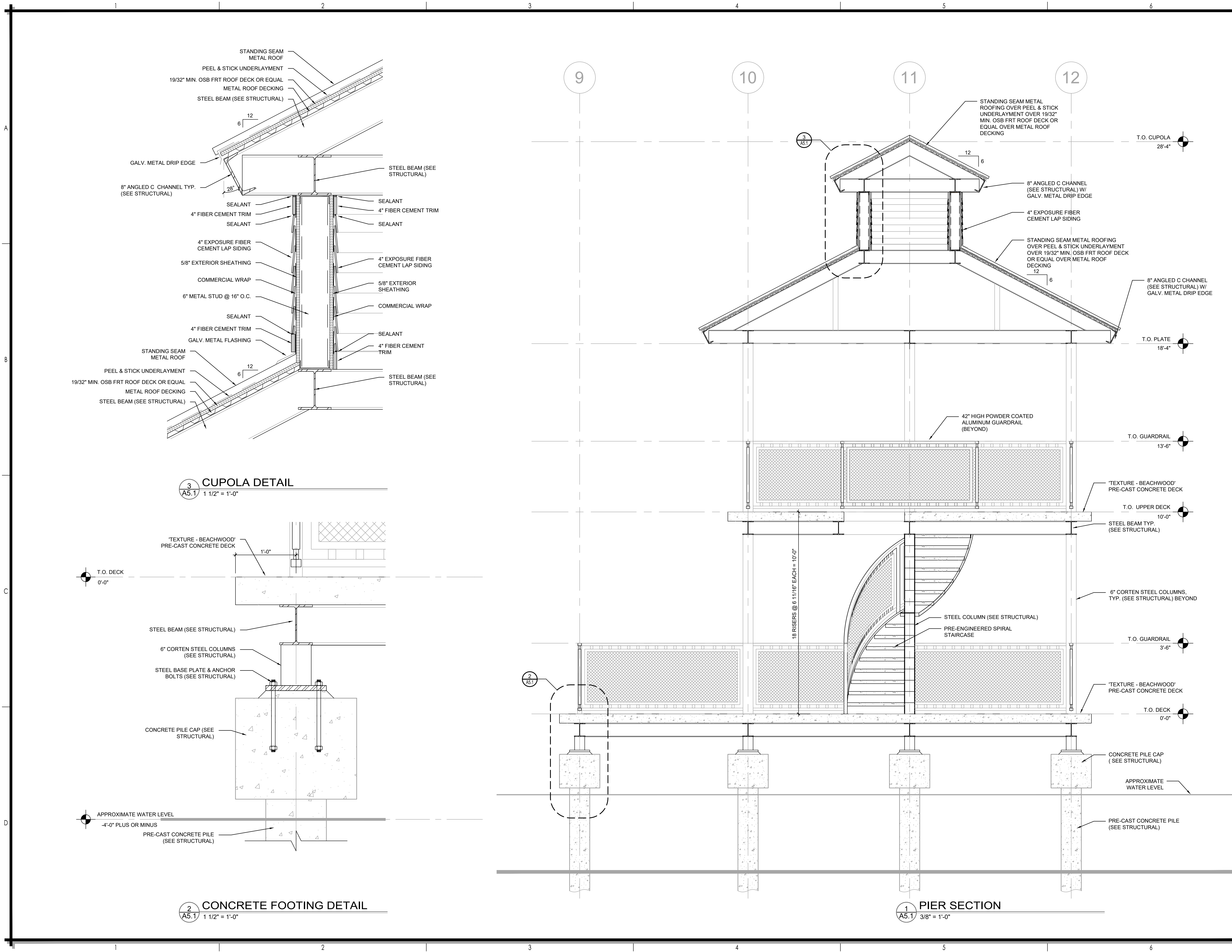
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ELEVATIONS

A4.1





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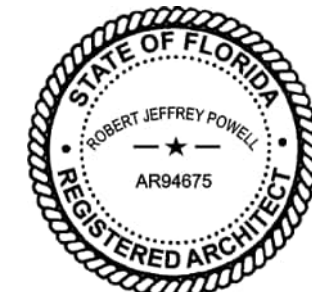
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Ferndale, Florida

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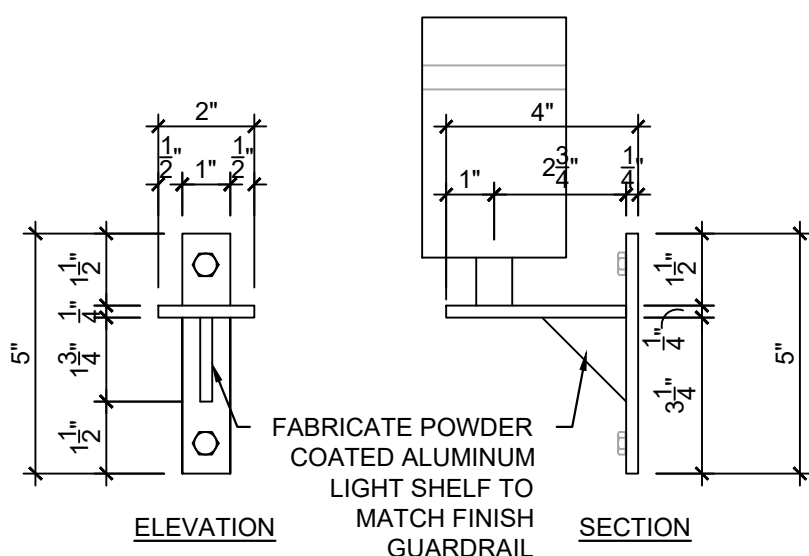
MARK	DATE	DESCRIPTION

ISSUE DATE: MAY 12, 2022

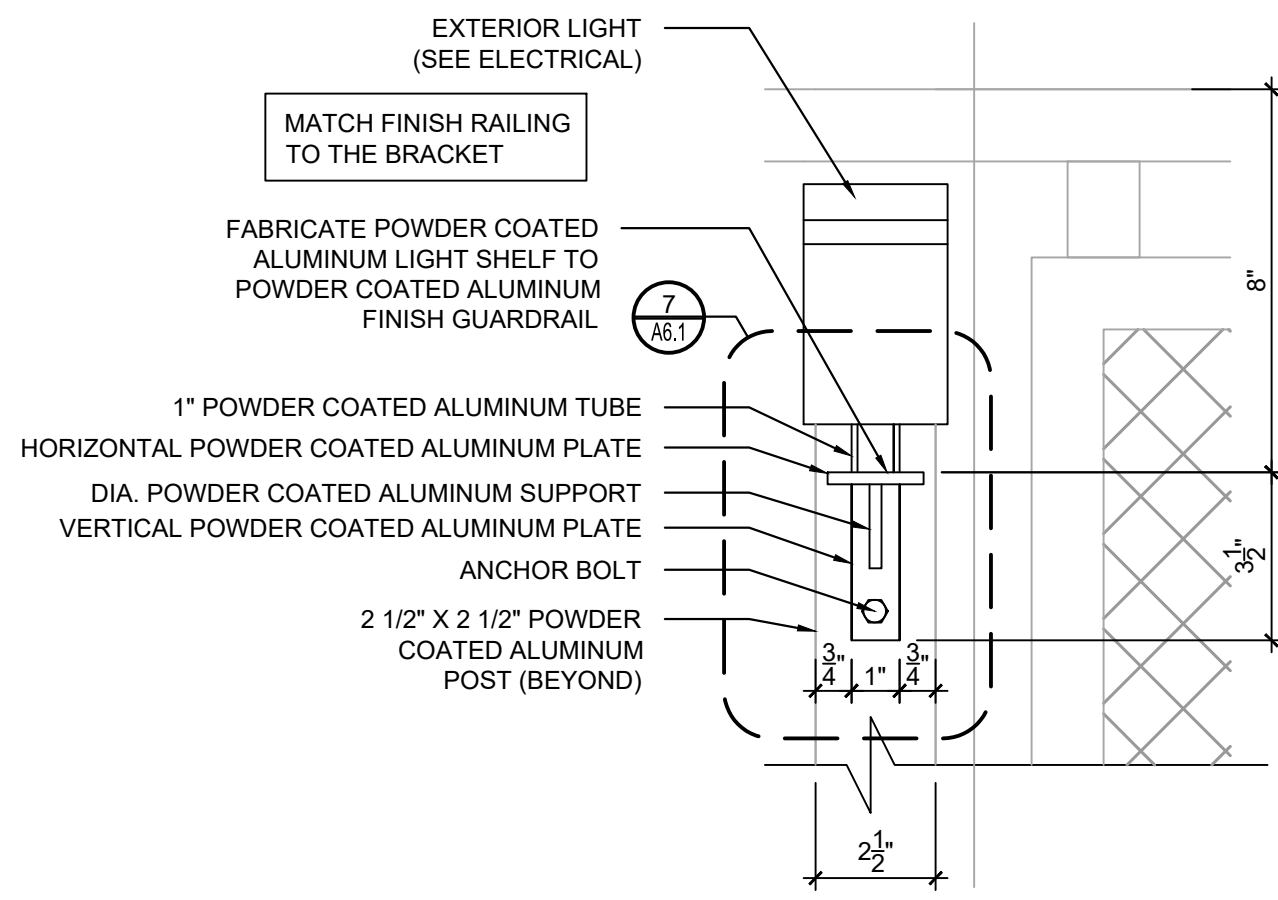
PIER SECTION & DETAILS

A5.1

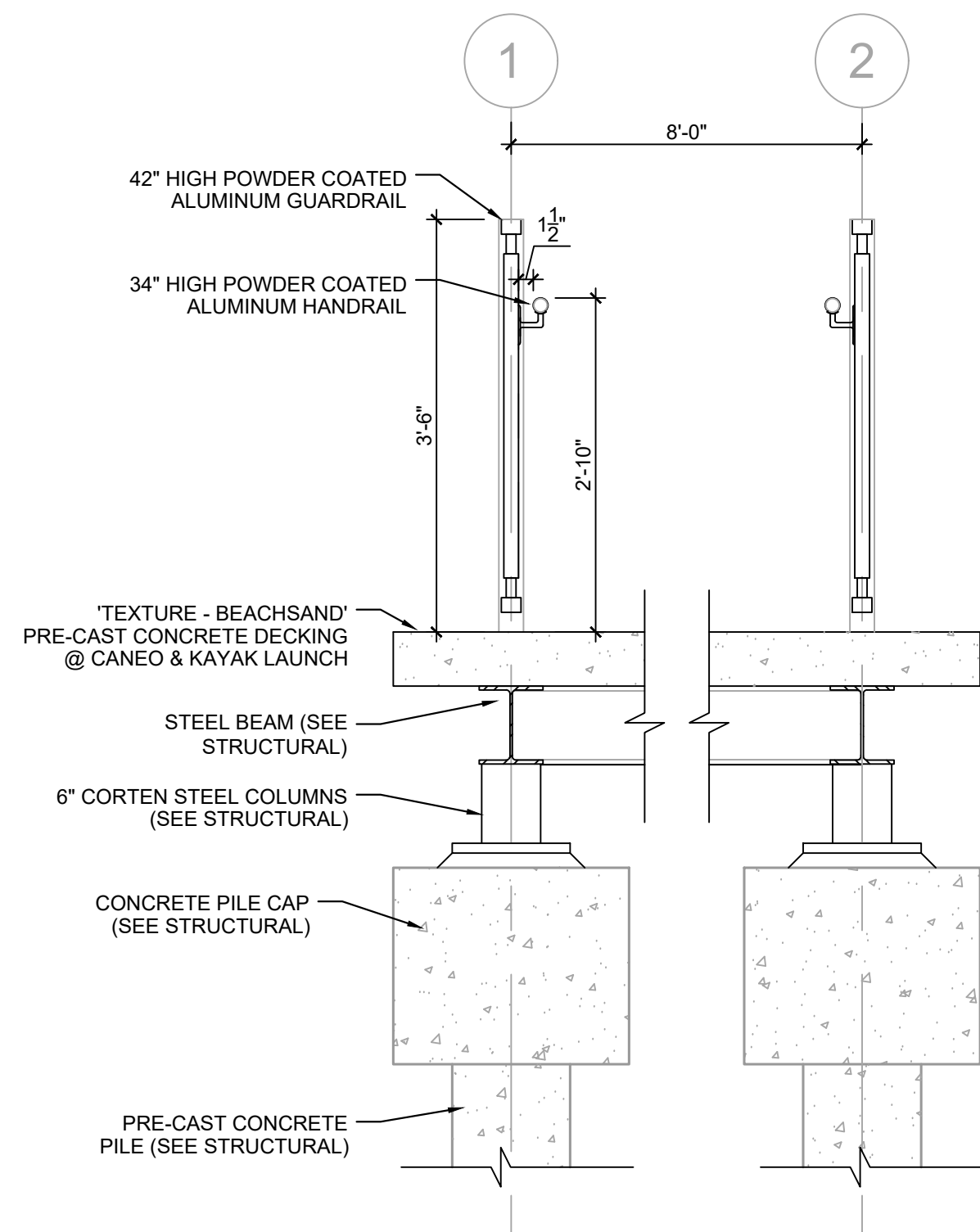




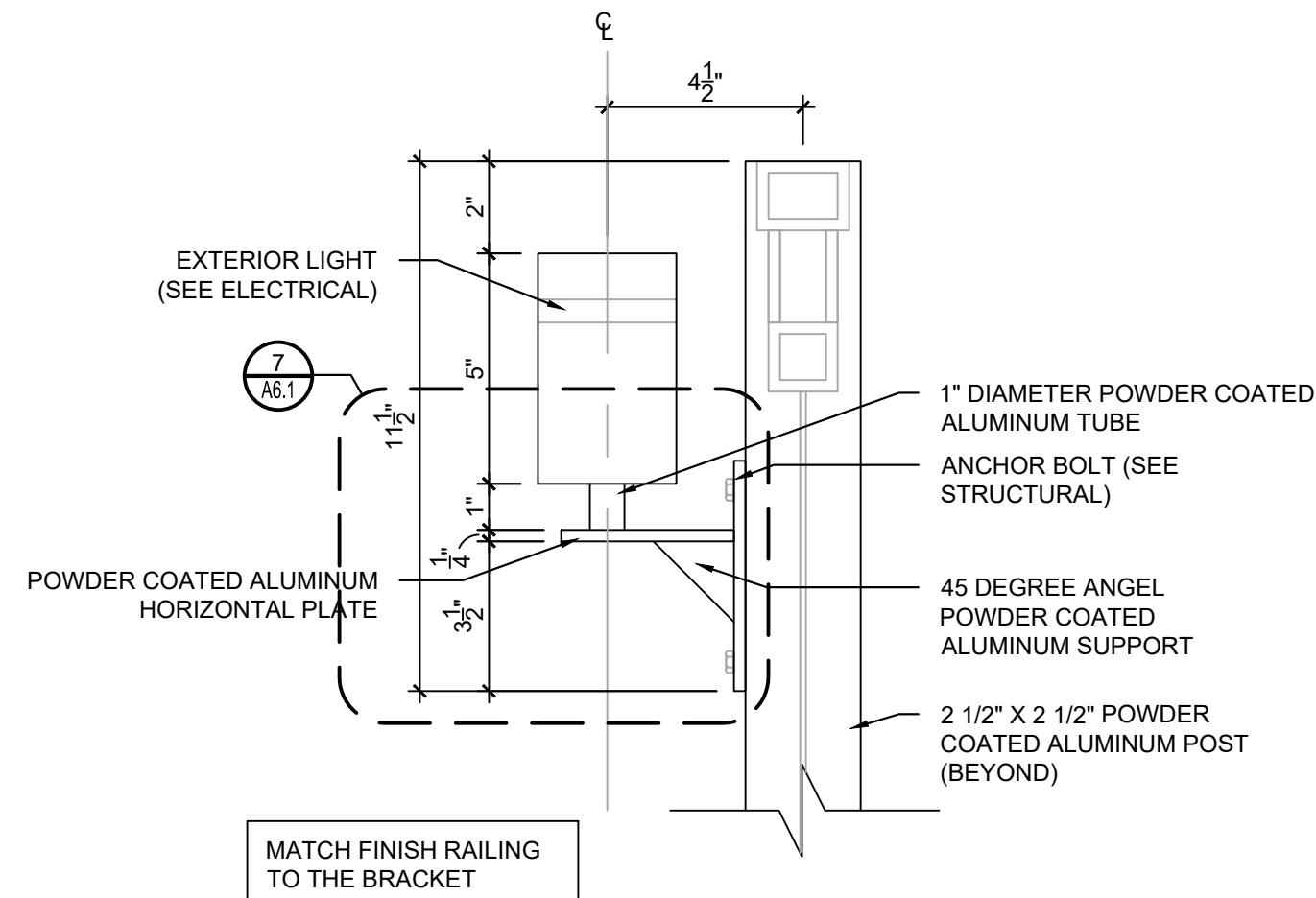
**7 LIGHT BRACKET DETAIL**  
A6.1 3" = 1'-0" DIMENSION DETAIL



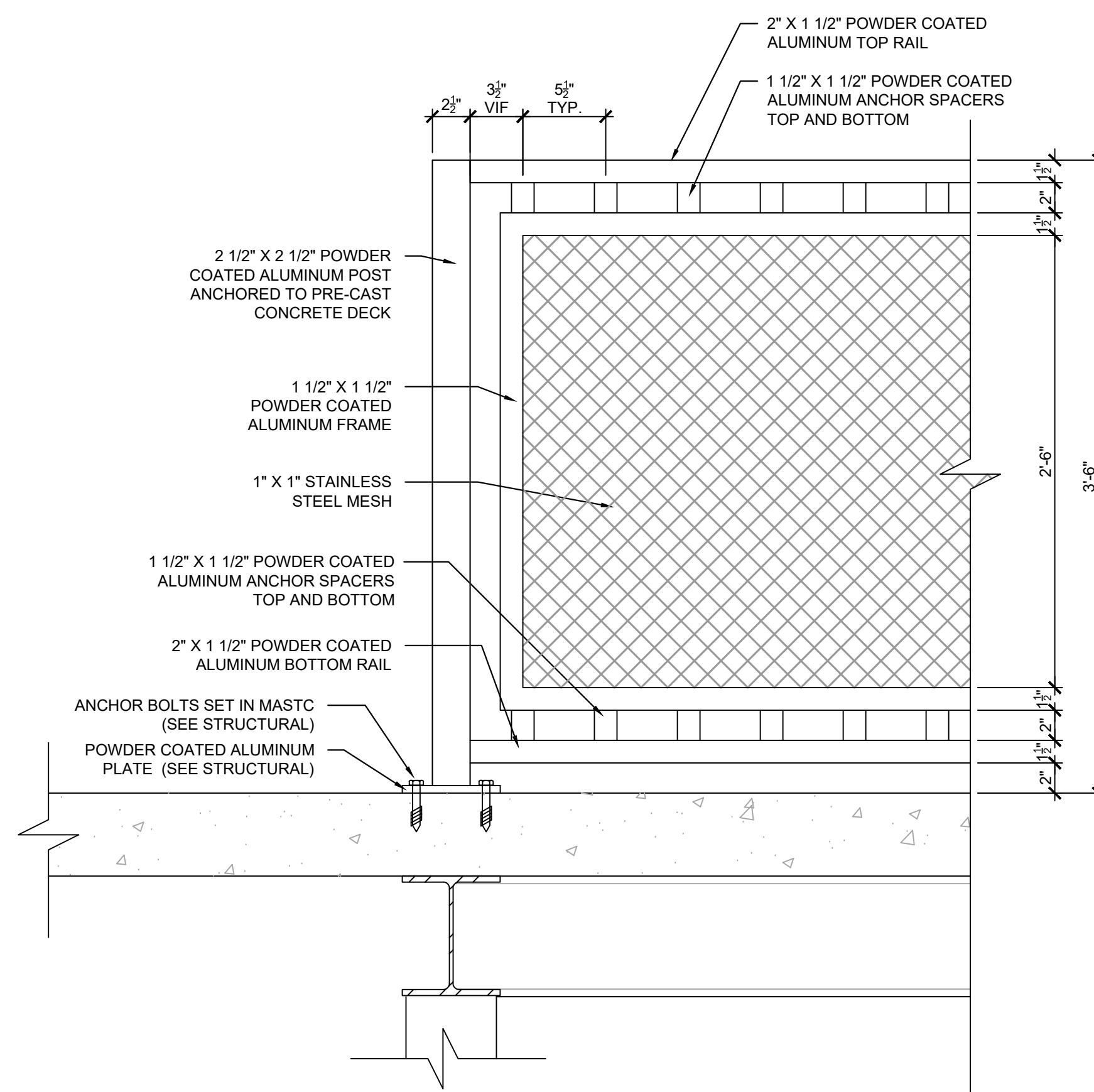
**6 LIGHT DETAIL**  
A6.1 3" = 1'-0"



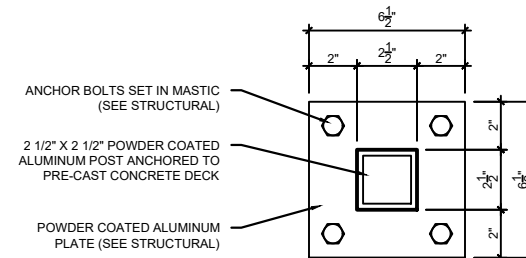
**5 RAILING DETAIL @ RAMP**  
A6.1 3/4" = 1'-0"



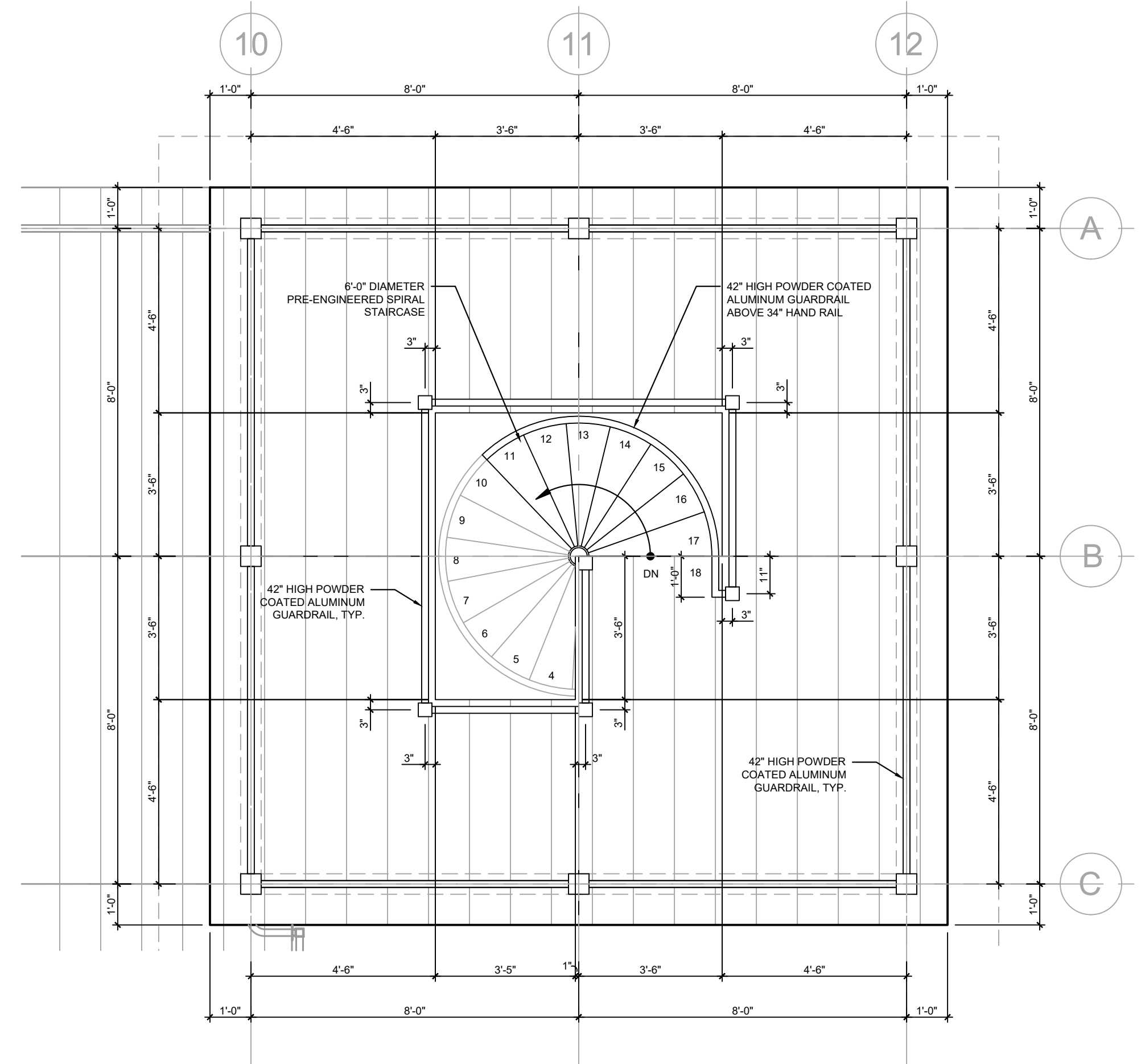
**4 LIGHT DETAIL**  
A6.1 3" = 1'-0"



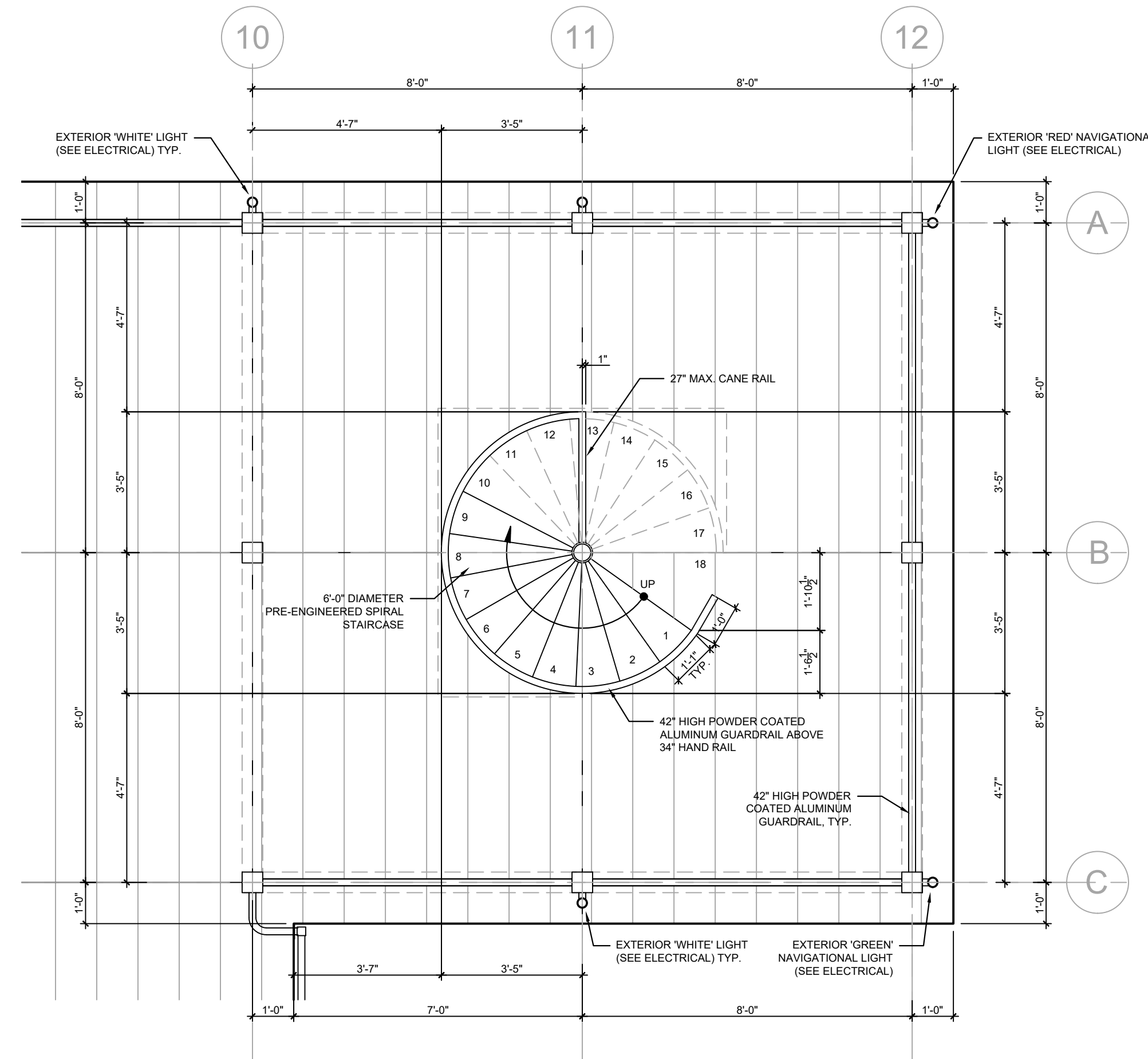
**3 RAIL DETAIL**  
A6.1 1 1/2" = 1'-0"



**2.1 BASE PLATE DETAIL**  
A6.1 3" = 1'-0"



**2 ENLARGED - SECOND FLOOR PLAN**  
A6.1 3/8" = 1'-0" SPIRAL STAIR

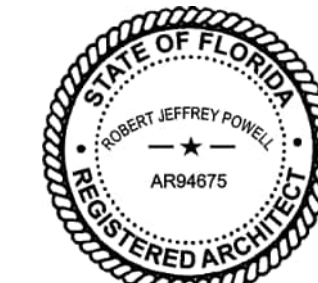


**1 ENLARGED - FIRST FLOOR PLAN**  
A6.1 3/8" = 1'-0" SPIRAL STAIR

# Lake County Ferndale Preserve

Observation Tower / Fishing Pier And  
Canoe / Kayak Launch

Ferndale, Florida



MARK	DATE	DESCRIPTION



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OWNER:

OWNER / PROJECT:

# Lake County Ferndale Preserve


## Observation Tower / Fishing Pier And Canoe / Kayak Launch

Ferndale, Florida

PROFESSIONAL SEAL:

Robert Jeffrey Powell, AIA  
Florida Licensed Architect #A949675  
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PROJECT NO: PSA2021-34.00

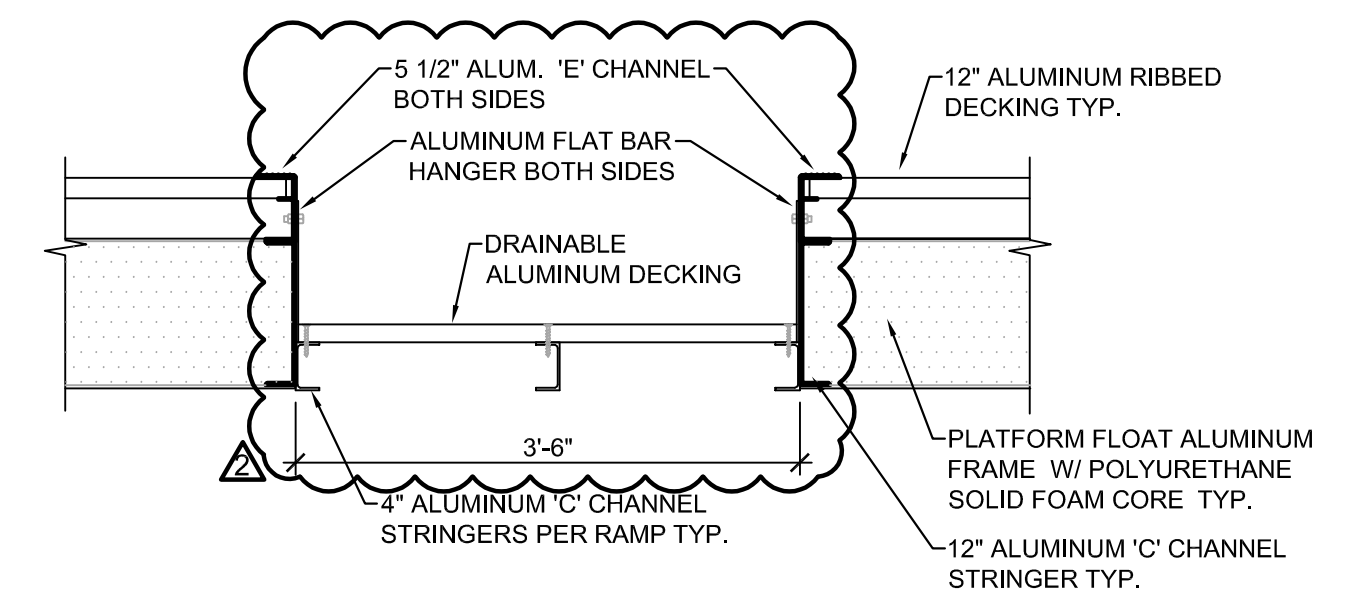
REVISIONS:		
	08/28/22	LAKE COUNTY COMM.
	12/14/22	GENERAL COORD.

MARK	DATE	DESCRIPTION

ISSUE DATE: MAY 12, 2022

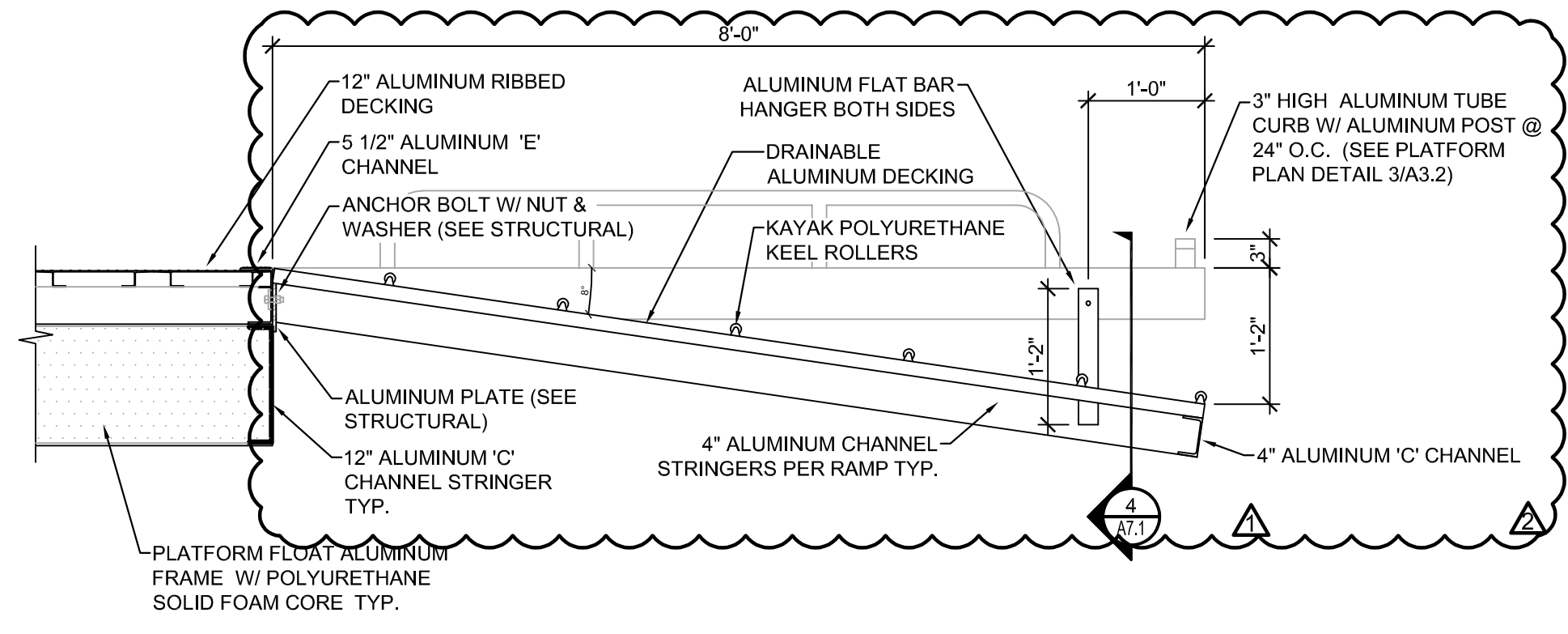
PLATFORM DETAILS

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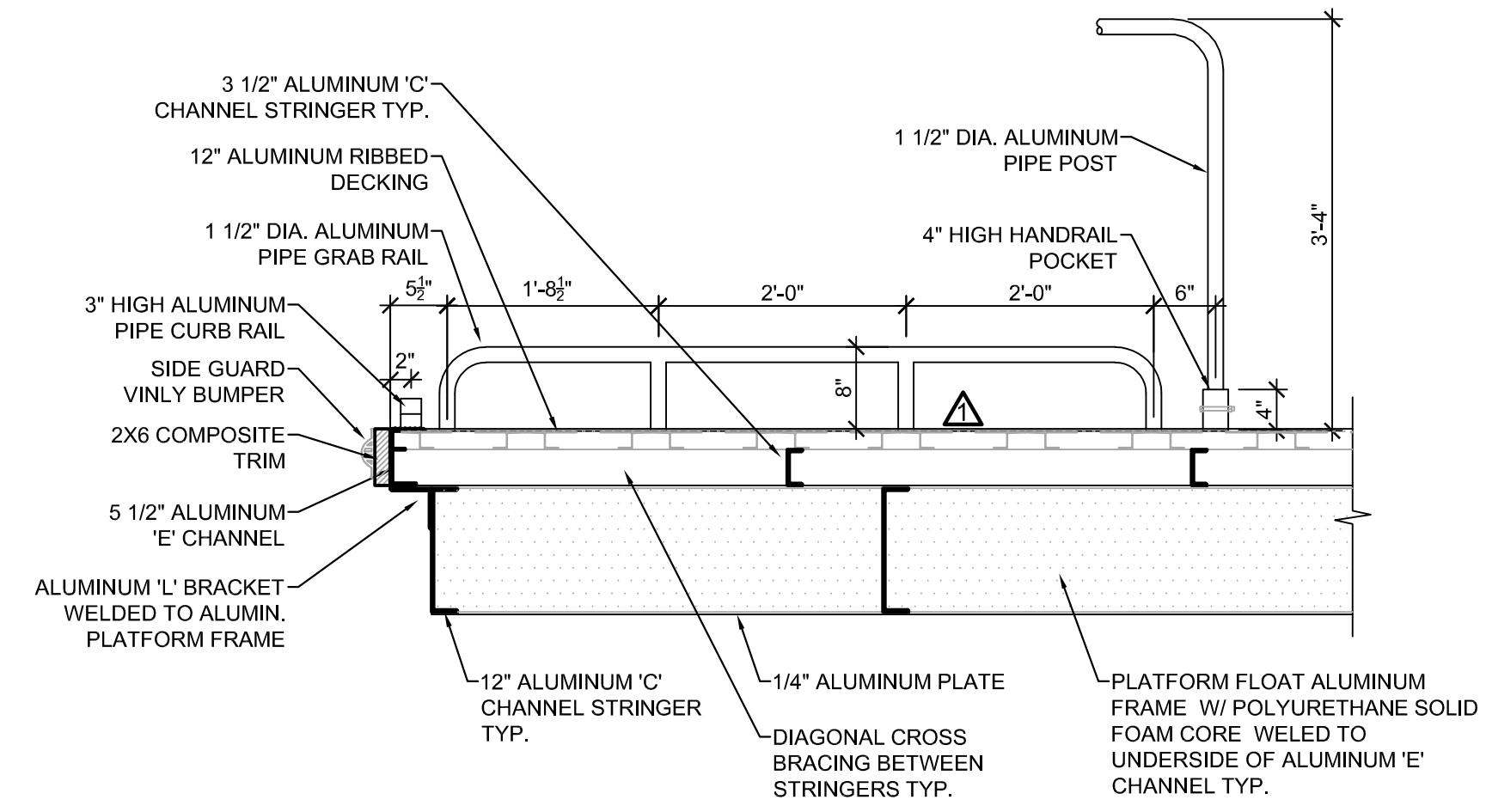
4 CANOE & KAYAK LAUNCH DETAIL

A7.1 3/4" = 1'-0"



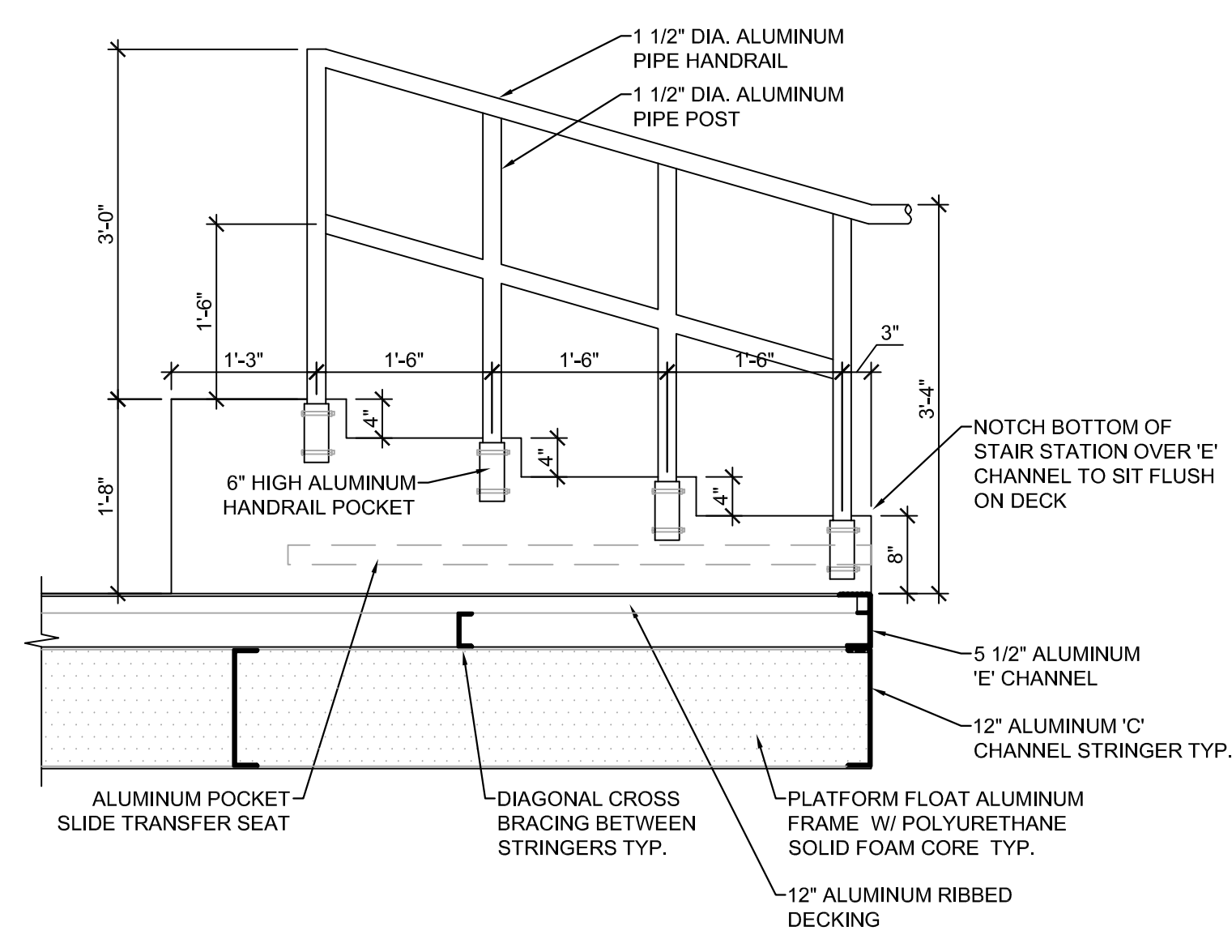
3 CANOE & KAYAK LAUNCH DETAIL

A7.1 3/4" = 1'-0"



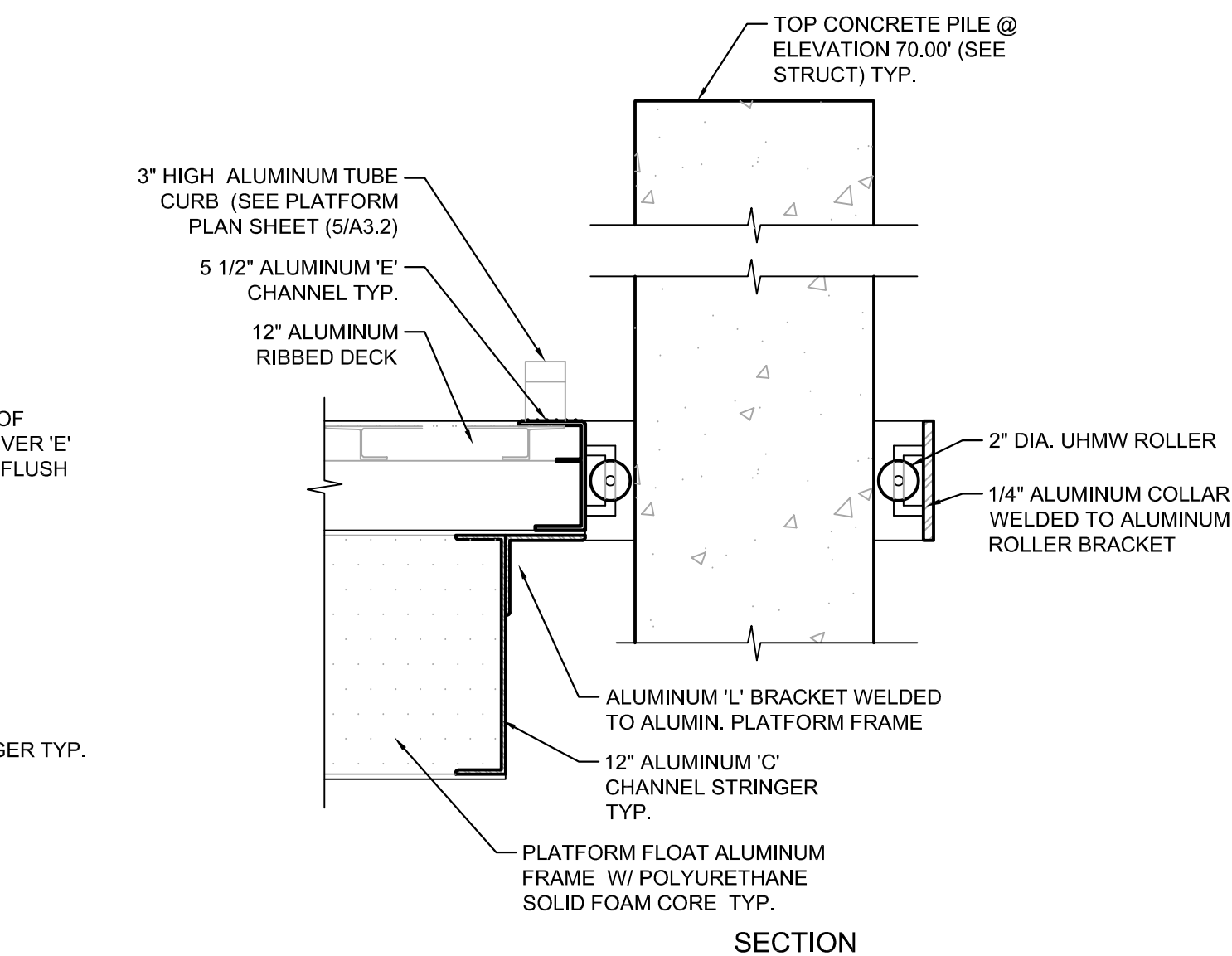
7 GRAB RAIL DETAIL

A7.1 3/4" = 1'-0"



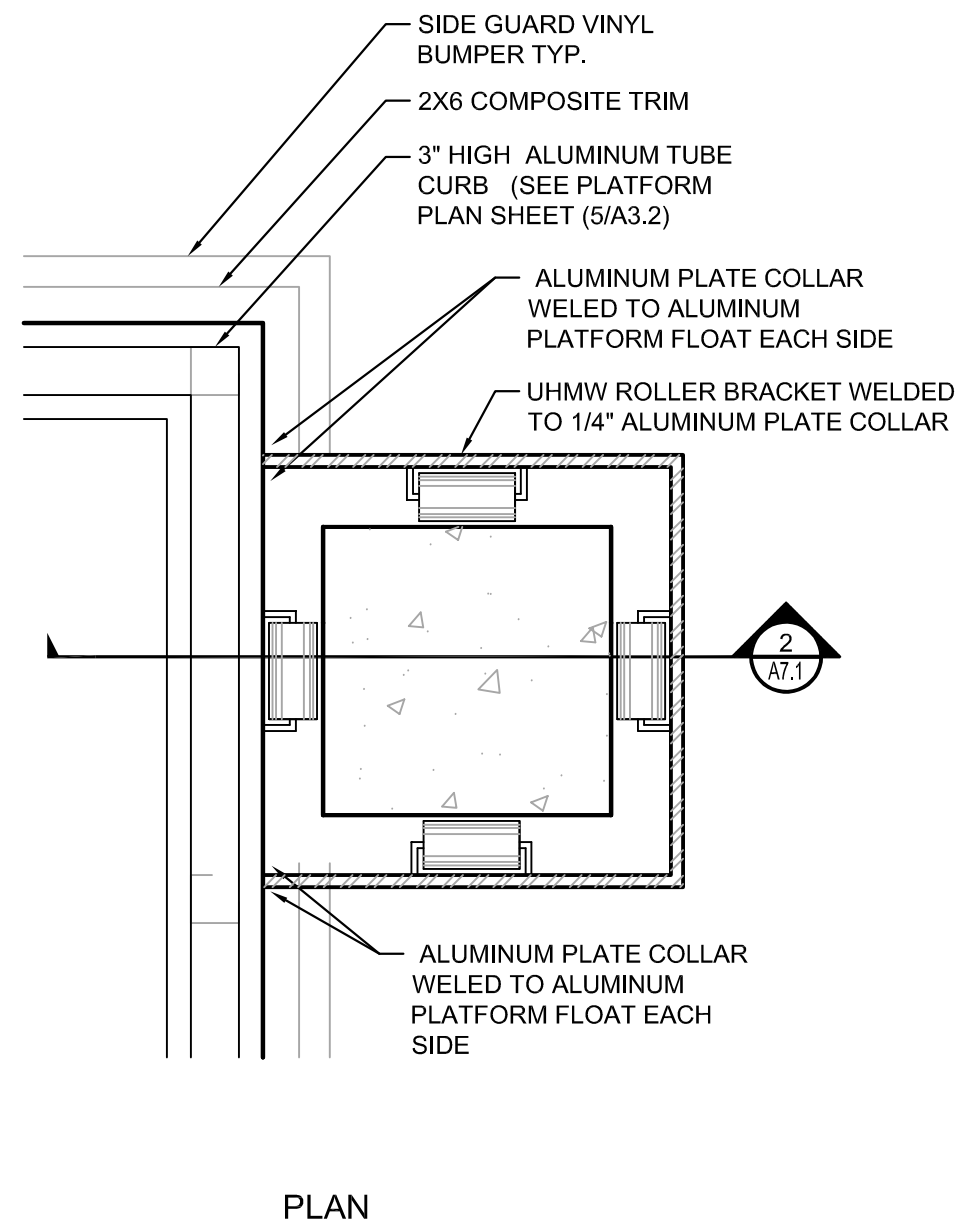
6 TRANSFER STATION DETAIL

A7.1 3/4" = 1'-0"

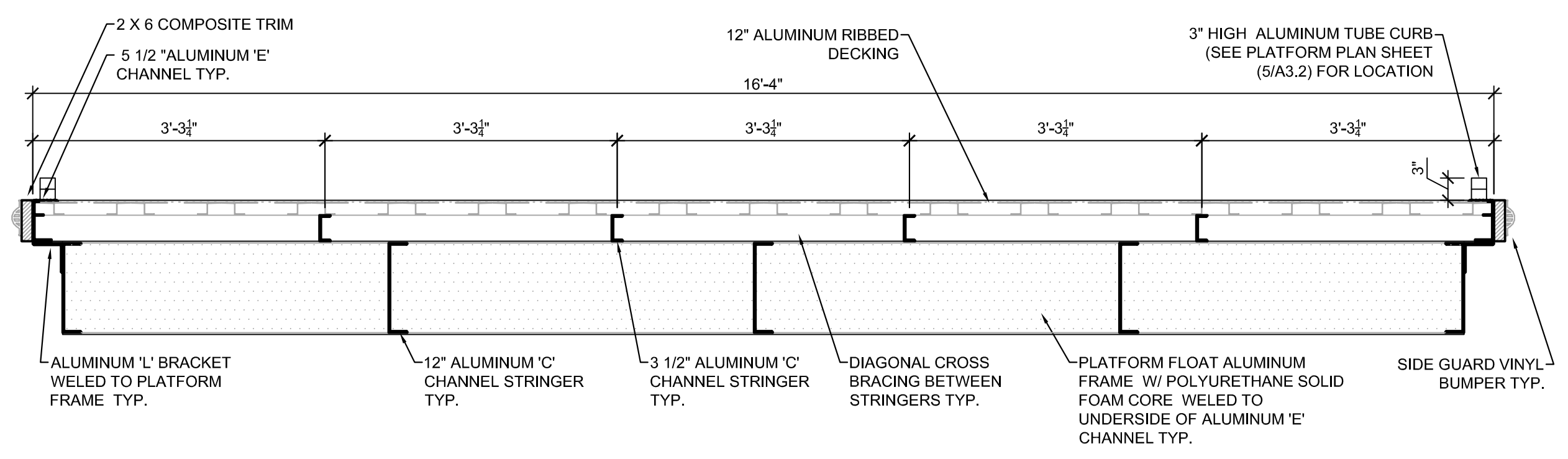


2 COLLAR DETAIL

A7.1 1 1/2" = 1'-0"

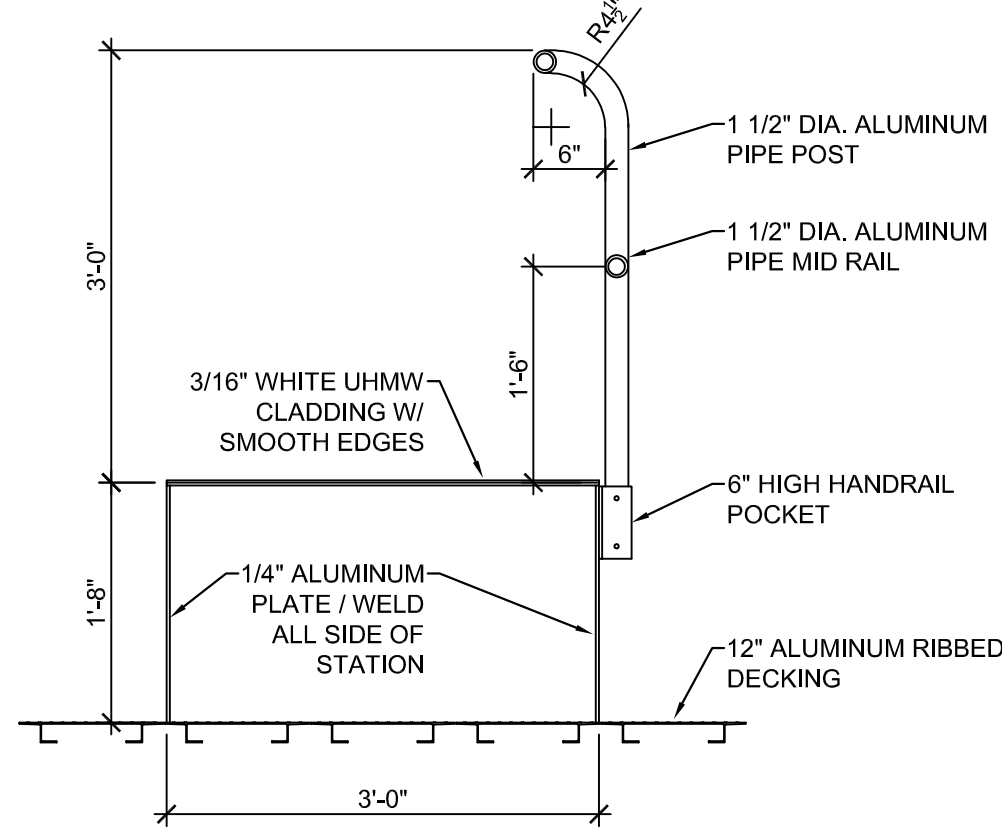


PLAN



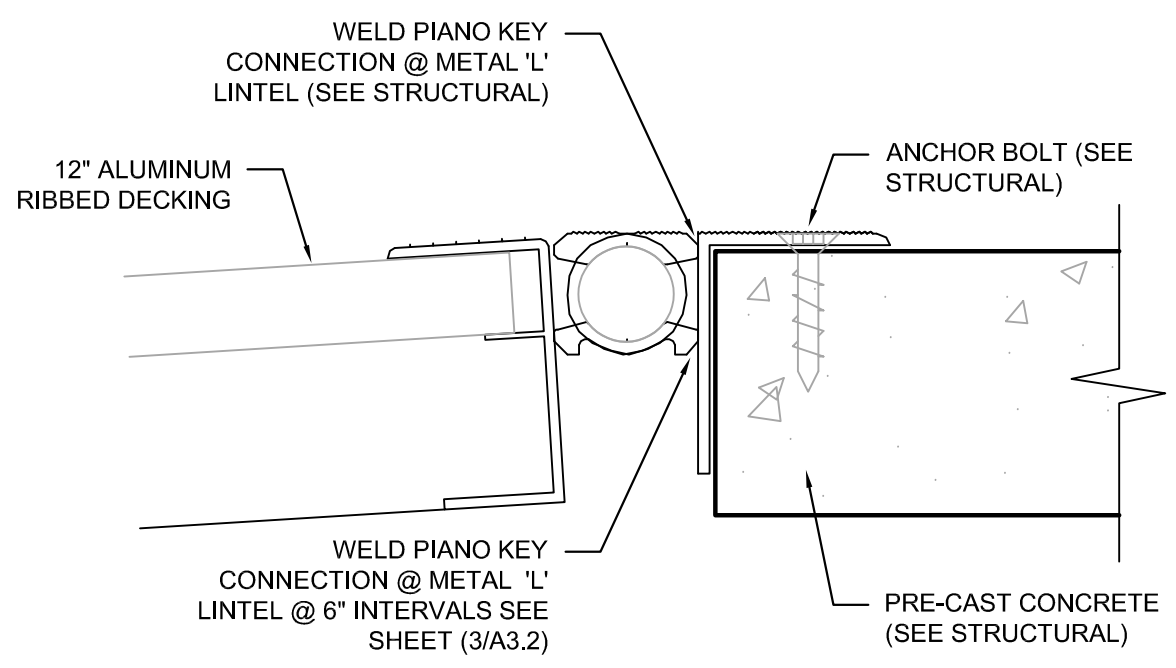
1 PLATFORM DETAIL

A7.1 3/4" = 1'-0"

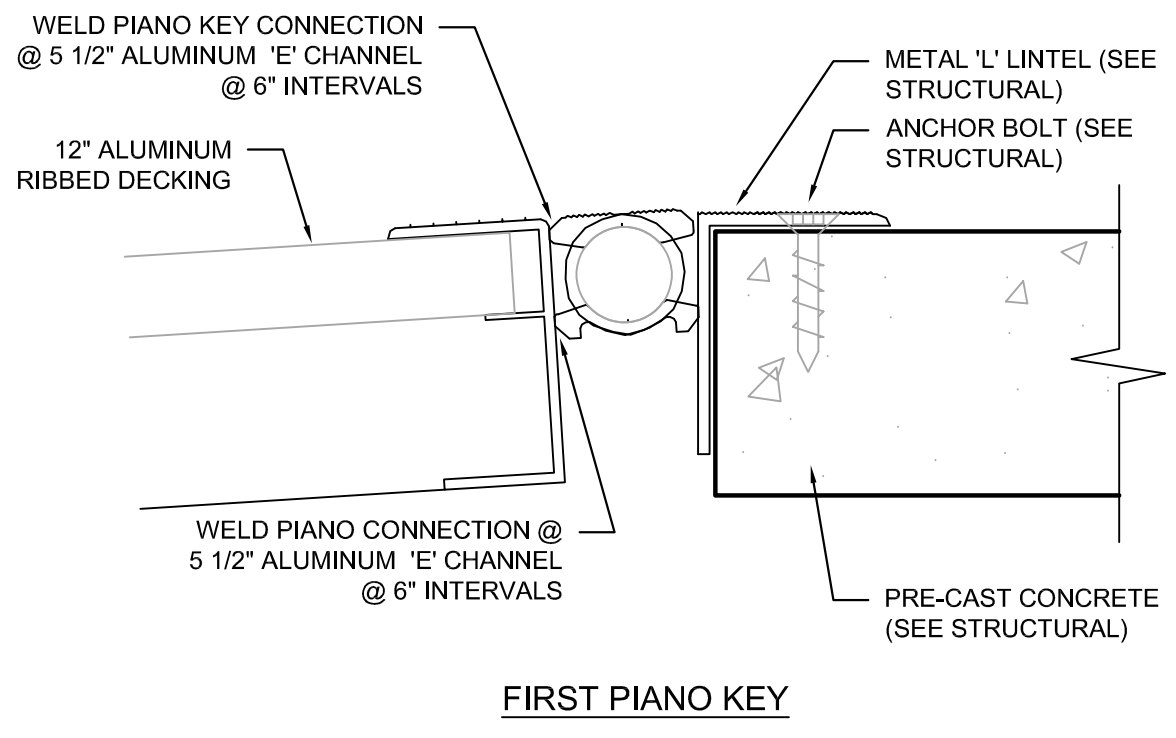


5 STATION REAR VIEW DETAIL

A7.1 3/4" = 1'-0"



SECOND PIANO KEY

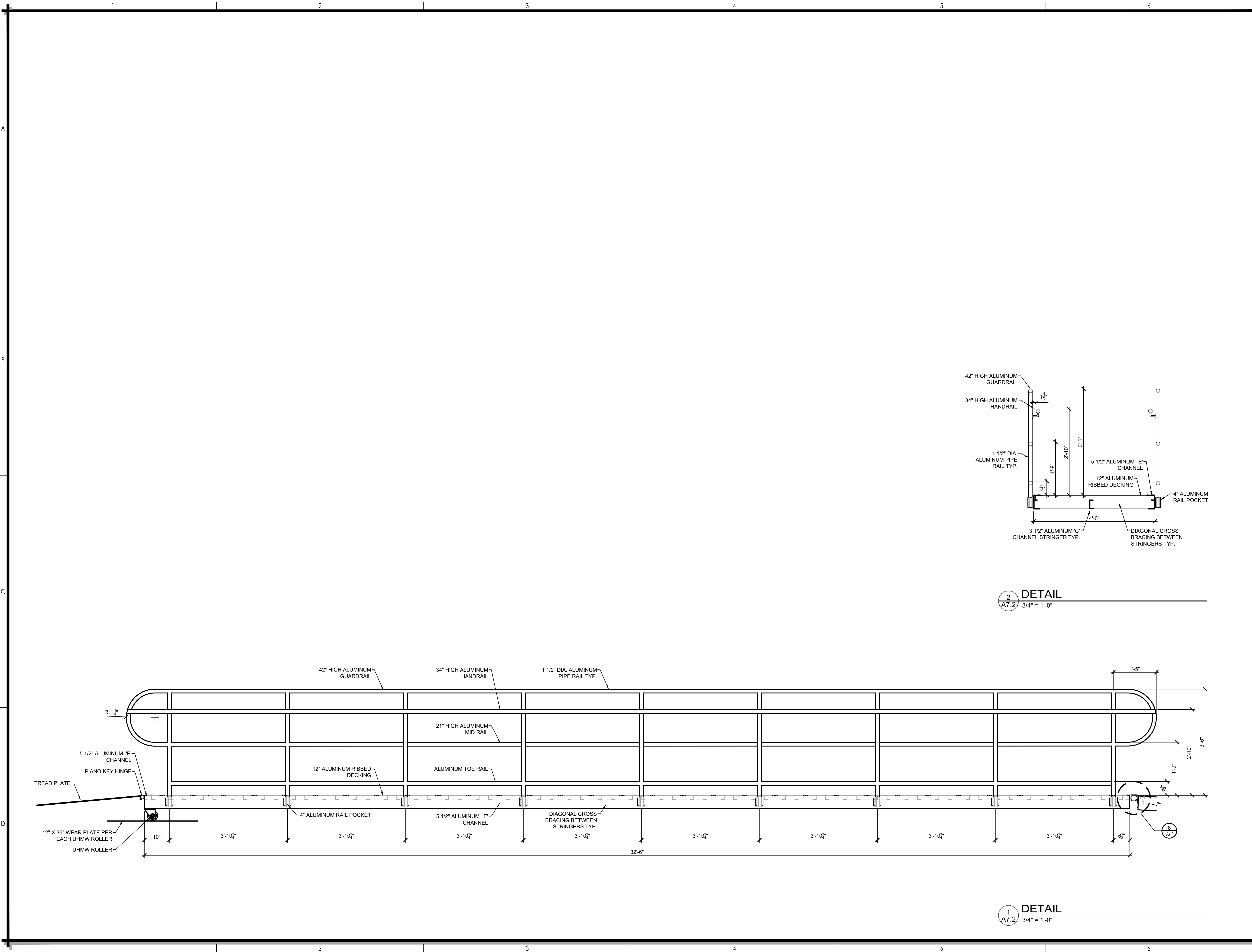


FIRST PIANO KEY

8 PIANO KEY HINGE DETAIL

A7.1 3" = 1'-0"





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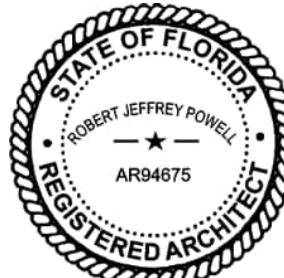
OWNER / PROJECT:

Lake County  
Ferndale Preserve

Observation Tower / Fishing Pier And  
Canoe / Kayak Launch

Ferndale, Florida

PROFESSIONAL SEAL:



2022.10.28 10:50:50-04'00'  
Robert Jeffrey Powell, AIA  
Florida Licensed Architect #AR94675  
This text has been electronically signed and sealed by Robert Jeffrey Powell, AIA #94675.  
Version 1.0 (Rev. 09/2019) - Print copies of this document are not considered signed and sealed.  
The seal signature must be verified on any document signed and sealed.

PROJECT NO: PSA2021-34.00

REVISIONS:

MARK	DATE	DESCRIPTION

ISSUE DATE: MAY 12, 2022














DETAILS

A7.2



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ELECTRICAL SYMBOL LEGEND	
BASIC MATERIALS	
SYMBOL	DESCRIPTION
	S <sub>WP</sub> SINGLE POLE SWITCH WITH WEATHERPROOF COVER
	WP GFI RECEPTACLE. WP DENOTES UL LISTED AS WEATHERPROOF IN USE AND UL LISTED WEATHER RESISTANT. MOUNTED AT 48" AFF.
	BRANCH CIRCUIT PANELBOARD, UNDER 250 VOLTS, SURFACE MOUNTED
	BRANCH CIRCUIT PANELBOARD, UNDER 250 VOLTS, FLUSH MOUNTED
	BRANCH CIRCUIT PANELBOARD, OVER 250 VOLTS, SURFACE MOUNTED
	BRANCH CIRCUIT PANELBOARD, OVER 250 VOLTS, FLUSH MOUNTED
	BRANCH CIRCUIT CONDUIT CONCEALED ABOVE CEILING OR IN WALL. CONDUIT SHALL INCLUDE PHASE, NEUTRAL AND GROUND CONDUCTORS AS REQUIRED FOR CIRCUITS (UNLESS OTHERWISE NOTED).
	GROUND ROD 3/4" x 20'
	CONDUIT TURNING UP
	CONDUIT TURNING DOWN
	CONDUIT STUB
	CONDUIT CONTINUED
LIGHTING	
	SOLAR POWERED POST TOP LED FIXTURE
KEYED NOTES	
<div>1. PROVIDE RED SEALED IP 67 (MINIMUM) RATED SOLAR POWERED POST TOP MOUNTED LED LIGHT FIXTURE. LIGHT FIXTURE SHALL HAVE 360-DEGREE FRESNEL TYPE LENS WITH ENCAPSULATED SOLAR PANEL BUILT INTO FIXTURE. LIGHT FIXTURE SHALL OPERATE FROM DUSK TO DAWN AND HAVE BUILT-IN PHOTO-CELL FOR AUTOMATIC ACTIVATION. LIGHT FIXTURE HOUSING SHALL BE MADE OF UV STABILIZED POLYCARBONATE MATERIAL. LIGHT FIXTURE SHALL BE CAPABLE OF SWITCHING BETWEEN CONSTANT AND FLASHING LIGHT (LIGHT SHALL BE INSTALLED WITH CONSTANT BRIGHTNESS). BATTERIES SHALL BE INTEGRAL TO LIGHT FIXTURES AND SHALL BE CHANGEABLE TYPE BATTERY. BASIS OF DESIGN - LAKE LITE #LL-SML-R.</div> <div>2. PROVIDE GREEN SEALED IP 67 (MINIMUM) RATED SOLAR POWERED POST TOP MOUNTED LED LIGHT FIXTURE. LIGHT FIXTURE SHALL HAVE 360-DEGREE FRESNEL TYPE LENS WITH ENCAPSULATED SOLAR PANEL BUILT INTO FIXTURE. LIGHT FIXTURE SHALL OPERATE FROM DUSK TO DAWN AND HAVE BUILT-IN PHOTO-CELL FOR AUTOMATIC ACTIVATION. LIGHT FIXTURE HOUSING SHALL BE MADE OF UV STABILIZED POLYCARBONATE MATERIAL. LIGHT FIXTURE SHALL BE CAPABLE OF SWITCHING BETWEEN CONSTANT AND FLASHING LIGHT (LIGHT SHALL BE INSTALLED WITH CONSTANT BRIGHTNESS). BATTERIES SHALL BE INTEGRAL TO LIGHT FIXTURES AND SHALL BE CHANGEABLE TYPE BATTERY. BASIS OF DESIGN - LAKE LITE #LL-SML-G.</div> <div>3. PROVIDE WHITE SEALED IP 67 (MINIMUM) RATED SOLAR POWERED POST TOP MOUNTED LED LIGHT FIXTURE. LIGHT FIXTURE SHALL HAVE 360-DEGREE FRESNEL TYPE LENS WITH ENCAPSULATED SOLAR PANEL BUILT INTO FIXTURE. LIGHT FIXTURE SHALL OPERATE FROM DUSK TO DAWN AND HAVE BUILT-IN PHOTO-CELL FOR AUTOMATIC ACTIVATION. LIGHT FIXTURE HOUSING SHALL BE MADE OF UV STABILIZED POLYCARBONATE MATERIAL. LIGHT FIXTURE SHALL BE CAPABLE OF SWITCHING BETWEEN CONSTANT AND FLASHING LIGHT (LIGHT SHALL BE INSTALLED WITH CONSTANT BRIGHTNESS). BATTERIES SHALL BE INTEGRAL TO LIGHT FIXTURES AND SHALL BE CHANGEABLE TYPE BATTERY. BASIS OF DESIGN - LAKE LITE #LL-SML-W.</div>	

## GENERAL NOTES:

- ALL WORK AND EQUIPMENT UNDER DIVISION 26 AND 27 SHALL BE IN STRICT COMPLIANCE WITH THE CODES, STANDARDS AND PRACTICES LISTED HEREIN, AND THEIR RESPECTIVE DATES ARE FURNISHED AS THE MINIMUM LATEST REQUIREMENTS.

1. STATE OF FLORIDA.

2. LIFE SAFETY CODE - NFPA 101.

3. UNDERWRITERS LABORATORIES, INC. PUBLICATIONS

4. NATIONAL FIRE PROTECTION ASSOCIATION (NFPA).

5. AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI).

6. NATIONAL ELECTRICAL CODE - NFPA 70.

7. INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS (IEEE).

8. NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA).

9. REQUIREMENTS OF LOCAL POWER COMPANY.

10. 2020 FLORIDA BUILDING CODE.

11. THE AMERICANS WITH DISABILITIES ACT (ADA)

12. FLORIDA ACCESSIBILITY CODE.

13. CITY LOCAL CODES.
- REFER TO ARCHITECTURAL & STRUCTURAL DRAWINGS FOR RELATED INFORMATION AND ADDITIONAL INSTALLATION REQUIREMENTS.
- ALL MOUNTING HEIGHTS TO CENTERLINE OF DEVICE UNLESS OTHERWISE NOTED. VERIFY ALL OUTLET LOCATIONS ON THE JOB PRIOR TO ROUGH-IN.
- WHEN INCREASED CONDUCTOR SIZES ARE SHOWN ON THE PLANS, THE LARGER CONDUCTOR SIZE SHALL BE USED THROUGHOUT THE LENGTH OF THE CIRCUIT, INCLUDING NEUTRAL AND GROUND.
- EACH BRANCH CIRCUIT RACEWAY SHALL HAVE A FULL SIZE EQUIPMENT GROUND CONDUCTOR, WHERE ISOLATED GROUND CIRCUITS ARE SHOWN ON THE PLANS. PROVIDE AN ISOLATED GROUND CONDUCTOR THROUGHOUT THE LENGTH OF THE CIRCUIT IN ADDITION TO THE PHASE, NEUTRAL AND EQUIPMENT GROUND CONDUCTORS.
- PROVIDE 18" LONG (MIN.) CONDUIT SLEEVES THRU ALL WALLS WHERE CABLES ARE INDICATED OR REQUIRED TO PASS THRU WALLS. PROVIDE BUSHINGS ON BOTH ENDS. SIZE CONDUIT FOR CABLES INSTALLED. AT CABLE TRAYS, PROVIDE ONE 4" CONDUIT SLEEVE FOR EACH 4" WIDTH OF CABLE TRAY. MAXIMUMS SHALL BE:

2" = 10 CABLES

2 1/2" = 20 CABLES

3" = 30 CABLES

4" = 50 CABLES
- ALL BRANCH CIRCUIT HOMERUNS SHALL BE ROUTED IN 3/4" C. MINIMUM.
- LIGHT SWITCHES SHALL BE MOUNTED 48 INCHES ABOVE FINISHED FLOOR TO CENTER LINE OF DEVICE, UNLESS NOTED OTHERWISE.
- RECEPTACLES SHALL BE LOCATED 18 INCHES ABOVE FINISHED FLOOR TO CENTER LINE OF DEVICE, UNLESS OTHERWISE NOTED. ABOVE-COUNTER RECEPTACLES SHALL BE MOUNTED 6" ABOVE BACK SPLASH TO CENTERLINE OF DEVICE UNLESS NOTED OTHERWISE.
- EQUIPMENT SHALL BE OF MATERIALS SUITABLE FOR AND RATED FOR THE ENVIRONMENT IN WHICH THEY ARE TO BE INSTALLED, WITH APPROPRIATE NEMA ENCLOSURE RATING.

A. WORKING CLEARANCES AND DEDICATED SPACE FOR ELECTRICAL EQUIPMENT SHALL BE IN COMPLIANCE WITH NEC 110.
- WHEN ELECTRICAL BOXES ARE LOCATED IN VERTICAL FIRE-RESISTIVE ASSEMBLIES, (CLASSIFIED AS FIRE-SMOKE AND SMOKE PARTITIONS), THEY SHALL BE INSTALLED WITHOUT AFFECTING THE FIRE CLASSIFICATION. ALL OF THE FOLLOWING CONDITIONS SHALL BE MET:

A. ALL ELECTRICAL BOXES SHALL BE METALLIC.

B. BOX OPENING SHALL OCCUR ONLY ON ONE SIDE OF FRAMING SPACE.

C. BOX OPENING SHALL NOT EXCEED 16 SQUARE INCHES.

D. ALL CLEARANCES BETWEEN OUTLET BOX AND GYPSUM BOARD SHALL BE COMPLETELY FILLED WITH JOINT COMPOUND (OR OTHER APPROVED MATERIAL).

E. PROVIDE A WALL AROUND OUTLETS LARGER THAN 16 SQUARE INCHES. THE INTEGRITY OF THE WALL RATING SHALL BE MAINTAINED.

F. THE TOTAL AGGREGATE SURFACE AREA OF THE BOXES SHALL NOT EXCEED 100 SQUARE INCHES PER 100 SQUARE FEET.

G. OUTLET BOXES LOCATED ON OPPOSITE SIDES OF FIRE-RESISTIVE ASSEMBLIES SHALL BE SEPARATED BY A MINIMUM HORIZONTAL DISTANCE OF 24 INCHES.

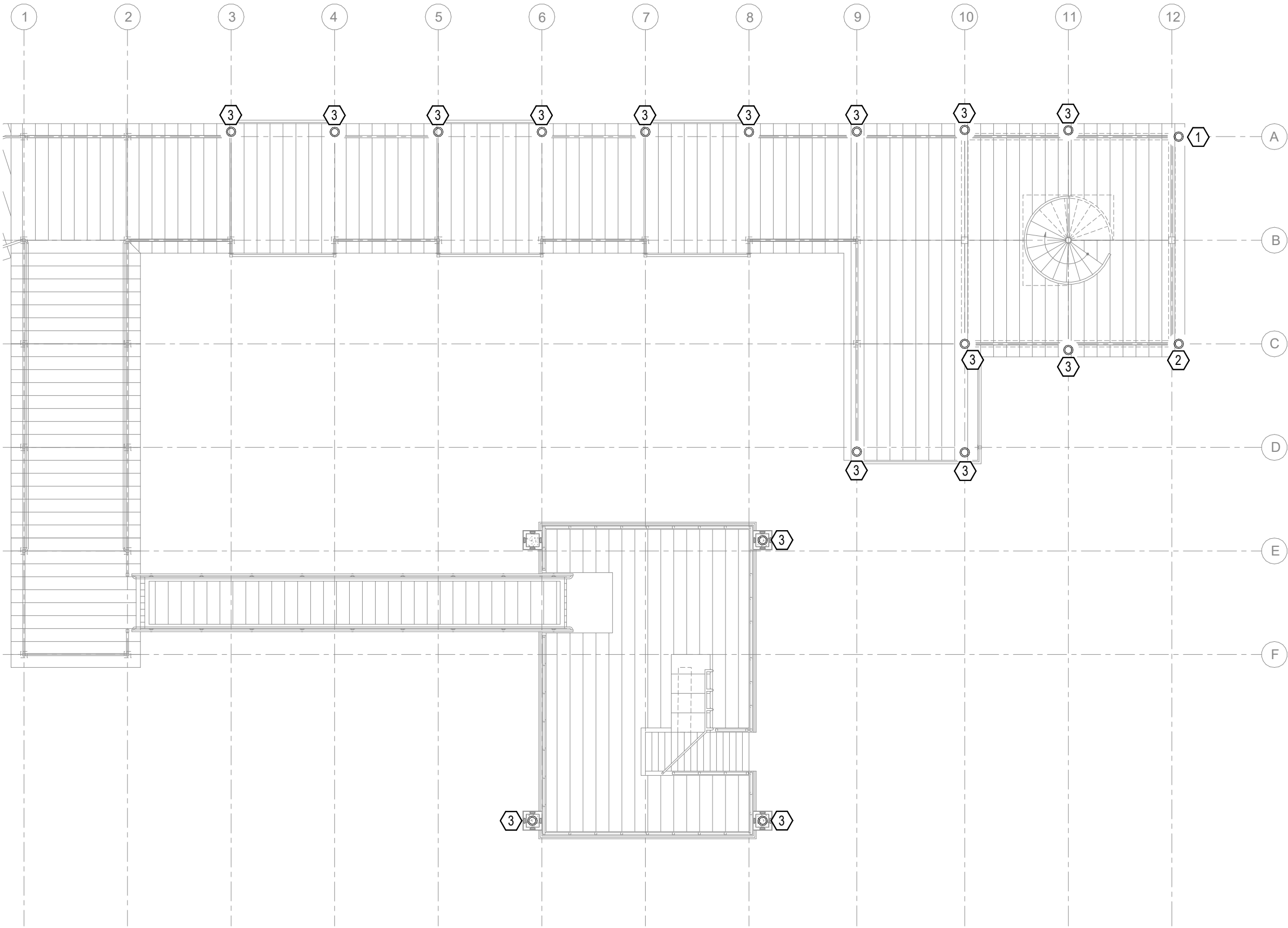
H. OUTLET BOXES SHALL BE SECURELY FASTENED TO WALL FRAMING MEMBERS.

I. THE OPENING IN THE GYPSUM BOARD FACING SHALL BE CUT NOT TO EXCEED 1/8 INCH BETWEEN THE EDGES OF THE OUTLET BOX AND THE EDGES OF THE OPENING.
- ALL DEVICES SHALL BE MOUNTED VERTICAL, UNLESS OTHERWISE NOTED.
- ALL RECEPTACLES SHALL BE MOUNTED SUCH THAT THE GROUND PIN IS MOUNTED UP.
- ALL BRANCH CIRCUIT CONDUITS SHALL CONTAIN A MINIMUM OF (2) #12AWG INSULATED COPPER CONDUCTORS, PLUS A MINIMUM OF (1) #12AWG GROUND WIRE UNLESS OTHERWISE NOTED. ALL BRANCH CIRCUITS AND FEEDERS SHALL HAVE INDIVIDUAL NEUTRAL CONDUCTORS.
- COORDINATE THE LOCATION OF ALL DEVICES AND BOXES WITH WINDOWS, BUILT-INS, AND CABINETS PRIOR TO INSTALLATION OF CONDUITS OR BOXES. CONTRACTOR SHALL CONSULT ALL CONTRACT DRAWINGS TO VERIFY CONFLICTS PRIOR TO BIDDING.
- LOCATIONS OF EQUIPMENT SPECIFIED BY OTHER TRADES OR PROVIDED BY OWNER ARE APPROXIMATE. COORDINATE EXACT LOCATIONS IN FIELD PRIOR TO ROUGHING IN AND ROUTING CONDUIT.
- CONTRACTOR SHALL UPSIZE FEEDER AND BRANCH CIRCUIT WIRE SIZE AS REQUIRED TO COMPENSATE VOLTAGE DROP FROM LENGTHENING OF CIRCUITS DUE TO FIELD ROUTING. FINAL INSTALLATION SHALL MEET FLORIDA BUILDING CODE REQUIREMENT OF: MAXIMUM BRANCH CIRCUIT VOLTAGE DROP OF 3%.
- REFER TO VOLTAGE DROP CHART BELOW FOR CONDUCTOR SIZES FOR BRANCH CIRCUITS

120 VOLT  
CIRCUIT LENGTH  
0' - 70'  
71' - 115'  
116' - 180'

MIN. CONDUCTOR  
UP SIZE FOR VOLTAGE  
DROP  
#12 AWG  
#10 AWG  
#8 AWG


181' AND ABOVE TO BE SUBMITTED BY EC AND APPROVED BY ENGINEER.
- CONTRACTOR SHALL PROVIDE WITHIN 30 DAYS AFTER THE DATE OF SYSTEM ACCEPTANCE RECORD DRAWINGS OF THE ACTUAL INSTALLATION INCLUDING: SINGLE LINE DIAGRAM OF THE BUILDING ELECTRICAL DISTRIBUTION SYSTEM AND FLOOR PLANS INDICATING LOCATION AND AREA SERVED FOR ALL DISTRIBUTION.
- TO THE BEST OF THE ENGINEER'S KNOWLEDGE, THESE PLANS AND SPECIFICATIONS COMPLY WITH THE 2020 FLORIDA BUILDING CODE AND THE FLORIDA FIRE PREVENTION CODE (2020) AND ALL LOCAL CODES AND ORDINANCES.



1 ELECTRICAL PLAN  
1/8" = 1'-0"



This item has been digitally signed and sealed by Stephen B. Cotton, PE 60046 on 10/18/2022 using a Digital Signature. State of Florida. Printed copies of this document are not considered sign and sealed and the SHA authentication code must be verified on any electronic copies.

**TLC ENGINEERING SOLUTIONS**

7370 Cabot Court, Suite 103  
Melbourne, FL 32940  
P 321.636.0274

COA 15  
www.tlc-engineers.com  
TLC No.:522010

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**POWELL STUDIO ARCHITECTURE**

ARCHITECTURE | INTERIOR DESIGN

713 W. MONTROSE STREET • CLERMONT, FLORIDA 34711  
PH: (352) 874-2340 • FAX: (877) 680-7183  
www.powellstudioarch.com  
AA# 24002236

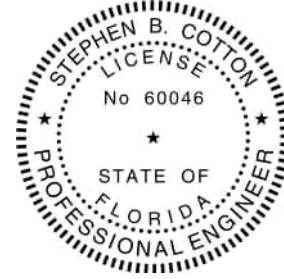
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OWNER:

OWNER / PROJECT:

Lake County  
Ferndale Preserve  
Observation Tower / Fishing Pier And  
Canoe / Kayak Launch  
Ferndale, Florida

PROFESSIONAL SEAL:  
Stephen B. Cotton, P.E.  
Florida License #60046



10/18/2022

PROJECT NO: PSA2021-34.00

REVISIONS:

MARK	DATE	DESCRIPTION

ISSUE DATE:

ELECTRICAL SYMBOLS LIST,  
GENERAL NOTES & ELECTRICAL  
PLAN

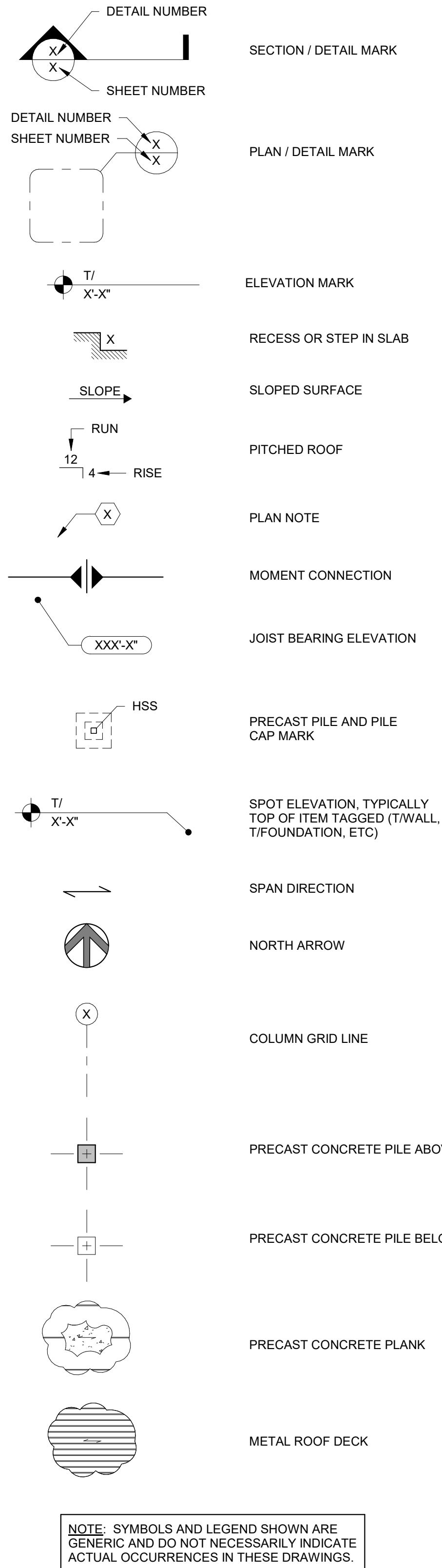
E-001



## STRUCTURAL ABBREVIATIONS

BBREV	ABBREVIATION	LB	POUND
ACI	AMERICAN CONCRETE INSTITUTE	LGTH	LENGTH
ADD	ADDITIVE	LL	LIVE LOAD
ADDL	ADDITIONAL	LLH	LONG LEG HORIZONTAL
AFF	ABOVE FINISHED FLOOR	LLV	LONG LEG VERTICAL
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	LONG.	LONGITUDINAL
AISI	AMERICAN IRON AND STEEL INSTITUTE	LSL	LAMINATED STRAND LUMBER
ALT	ALTERNATE/ALTERNATIVE	L WT	LIGHT WEIGHT
ALUM	ALUMINUM	LVL	LAMINATED VENEER LUMBER
ARCH	ARCHITECTURE/ARCHITECTURAL		
ASTM	AMERICAN SOCIETY OF TESTING MATERIALS	MATL	MATERIAL
AWS	AMERICAN WELDING SOCIETY	MAX	MAXIMUM
		MB	MASONRY BEAM
B/	BOTTOM OF	MC	MISCELLANEOUS CHANNEL/MASONRY COLUMN
BCX	BOTTOM CHORD EXTENSION	MECH	MECHANICAL
BLDG	BUILDING	MET	METAL
BLK	BLOCK	MFR	MANUFACTURE/MANUFACTURER
BM	BEAM	MID	MIDDLE
BOT	BOTTOM	MIN	MINIMUM
BP	BASE PLATE/BEARING PLATE	MISC	MISCELLANEOUS
BRG	BEARING	MO	MASONRY OPENING
BTWN	BETWEEN	MPH	MILES PER HOUR
C	CHANNEL	NGVD	NATIONAL GEODETIC VERTICAL DATUM
CB	CONCRETE BEAM	NC	NOT IN CONTRACT
CC	CONCRETE COLUMN	NO.	NUMBER
CF	CUBIC FEET (FOOT)	NS	NEAR SIDE
CIP	CAST IN PLACE	NTS	NOT TO SCALE
CJ	CONTRACTION JOINT		
CL	CENTERLINE	OC	ON CENTERS
CLR	CLEAR/CLEARANCE	OD	OUTSIDE DIAMETER
CM	CONCRETE MASONRY	O.F.	OUTSIDE FACE
CMU	CONCRETE MASONRY UNIT	OPNG	OPENING
CO	COMPANY	OPP	OPPOSITE
COL	COLUMN	OSB	ORIENTED STRAND BOARD
CONC	CONCRETE		
CONT	CONTINUOUS	P/C	PRECAST CONCRETE/PILE CAP
CONN	CONNECTION	P/T	POST TENSIONED
CONSTR	CONSTRUCTION	PAR	PARALLEL
COORD	COORDINATE	PCB	PRECAST CONCRETE BEAM
CSJ	CONSTRUCTION JOINT	PCC	PRECAST CONCRETE COLUMN
CTR	CENTER	PCF	POUNDS PER CUBIC FEET
CTRD	CENTERED	PEMB	PRE-ENGINEERED METAL BUILDING
CY	CUBIC YARD	PEN	PENETRATION
		P.J.	PANEL JOINT CENTERLINE
DEPT	DEPARTMENT	PL	PLATE
DET	DETAIL	PLF	POUNDS PER LINEAR FOOT
DIA	DIAMETER	PLMG	PLUMBING
DIAG	DIAGONAL	PLY	PLYWOOD
DM	DIMENSION	PREFAB	PREFABRICATED
DIST	DISTANCE	PSF	POUNDS PER SQUARE FOOT
DL	DEAD LOAD	PSI	POUNDS PER SQUARE INCH
DN	DOWN	PSL	PARALLEL STRAND LUMBER
DWG	DRAWING	PT	PRESSURE TREATED
EA	EACH	R/W	REINFORCED WITH
EE	EACH END	RD	ROOF DRAIN
EF	EACH FACE	REF	REFERENCE
EPHA	EMERGENCY HURRICANE PROTECTION AREA	REINF	REINFORCING
EJ	EXPANSION JOINT	REOD	REQUIRED
ELEC	ELECTRIC/ELECTICAL	REV	REVISION
EL, ELEV	ELEVATION	RTU	ROOF TOP UNIT
ENGR	ENGINEER		
EOR	EDGE OF DECK	SB	SOFFIT BEAM
EOR	ENGINEER OF RECORD	SCHED	SCHEDULE
EQ SP	EQUAL SPACED	S.F.	SQUARE FEET
ES	EACH SIDE	SF	STRIP FOUNDATION
EW	EACH WAY	SIM	SIMILAR
EXIST	EXISTING	SPC	SPACE/SPACES
EXP	EXPANSION	SPECS	SPECIFICATIONS
EXT	EXTERIOR	SQ	SQUARE
		SS	STAINLESS STEEL
F	FOUNDATION	STD	STANDARD
FD	FLOOR DRAIN	STIFF	STIFFENER
FDN	FOUNDATION	STL	STEEL
FF	FINISHED FLOOR	STRUCT	STRUCTURAL
FIN	FINISH	SYM	SYMMETRICAL
FIN GR	FINISH GRADE		
FLR	FLOOR	T/	TOP OF
FS	FAR SIDE	TB	TIE BEAM
FT	FEET/FOOT	T&B	TOP AND BOTTOM
FTG	FOOTING	TCX	TOP CHORD EXTENSION
		TDS	TURN DOWN SLAB
GA	GAGE/GAUGE	TE	THICKENED EDGE
GALV	GALVANIZED	TEMP	TEMPERATURE
GB	GRADE BEAM	TENS	TENSION
GC	GENERAL CONTRACTOR	THD	THREAD/THREADED
GEN	GENERAL	THK	THICK
GL	GRID LINE	TOL	TOLERANCE
GS	GALVANIZED STEEL	TRANS	TRANSVERSE
		TS	TUBE STEEL
HD	HOT DIPPED	T.SF	THICKENED SLAB
HDS	HOT DIPPED GALVANIZED	TWF	THICKENED WALL FOUNDATION
HORIZ	HORIZONTAL	TYP	TYPICAL
HSA	HEADED STUD ANCHOR		
HSS	HOLLOW STRUCTURAL SECTION	UNO	UNLESS NOTED OTHERWISE
HT	HEIGHT		
		VERT	VERTICAL
I	MOMENT OF INERTIA	VIF	VERIFY IN FIELD
ID	INSIDE DIAMETER	VOL	VOLUME
I.F.	INSIDE FACE		
IN.	INCH	W	WIDE FLANGE SECTION
INT	INTERIOR	W/	WITH
		W/O	WITHOUT
JST	JOIST	WD	WOOD
JT	JOINT	WF	WALL FOOTING
		WP	WATERPROOF
K	KIP (1000 LB)	W.P.	WORKING POINT
KLf	KIPS PER LINEAL FOOT	WTD	WELDED STUD
KSI	KIPS PER SQUARE INCH	WT	WEIGHT/STRUCTURAL TEE SECTION
KWY	KEYWAY	WWF	WELDED WIRE FABRIC
		@	AT DESIGNATION
		#	POUNDS / REBAR SIZE NUMBER
		+/-	PLUS OR MINUS
		L	ANGLE
		C.L.	CENTER LINE
		g	AND
		Sx	SECTION MODULUS
		Ix	MOMENT OF INERTIA

## STRUCTURAL SYMBOLS AND LEGEND



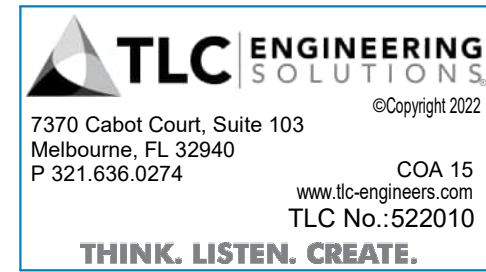
STRUCTURAL SHEET INDEX	
SHEET #	SHEET TITLE
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S002	STRUCTURAL NOTES
S100	OVERALL SITE PLAN AND C&C WIND PRESSURES
S101A	PILE LOCATION PLAN
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S102A	1ST FLOOR FRAMING PLAN
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S103	UPPER FLOOR AND ROOF FRAMING PLAN
S301	STRUCTURAL ELEVATIONS
S501	STRUCTURAL DETAILS
S502	STRUCTURAL DETAILS

## 010000 GENERAL NOTES

1. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH PROJECT SPECIFICATIONS AND ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND SITE DRAWINGS. CONSULT THESE DRAWINGS FOR OPENINGS, DEPRESSIONS, EQUIPMENT WEIGHTS AND LOCATIONS, EMBEDDED ITEMS AND OTHER DETAILS NOT SHOWN ON STRUCTURAL DRAWINGS.
2. DIMENSIONS AND CONDITIONS MUST BE VERIFIED IN THE FIELD. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD BEFORE PROCEEDING WITH THE AFFECTED PART OF THE WORK.
3. NO STRUCTURAL MEMBER OR COMPONENT SHALL BE CUT, NOTCHED, OR OTHERWISE ALTERED UNLESS APPROVED IN WRITING BY THE ENGINEER OF RECORD. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL COSTS INCURRED BY THE ENGINEER OF RECORD FOR REVIEW OF ANY SUCH DEVIATIONS.
4. DO NOT SCALE DRAWINGS.
5. THE STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER THE BUILDING IS COMPLETE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ERECTION PROCEDURES AND SEQUENCE TO ENSURE SAFETY OF THE BUILDING AND ITS COMPONENTS DURING ERECTION. THIS INCLUDES THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACING, GUYORS OR TIE DOWNS.
6. DETAILS LABELED "TYPICAL DETAILS" ON THE DRAWINGS SHALL APPLY TO ALL SITUATIONS OCCURRING ON THE PROJECT THAT ARE THE SAME OR SIMILAR TO THOSE SPECIFICALLY DETAILED. THE APPLICABILITY OF THE DETAIL TO ITS LOCATION ON THE DRAWINGS CAN BE DETERMINED BY THE TITLE OF DETAIL. SUCH DETAILS SHALL APPLY WHETHER OR NOT THE DETAIL IS REFERENCED AT EACH LOCATION. QUESTIONS REGARDING APPLICABILITY OF TYPICAL DETAILS SHALL BE DETERMINED BY THE ENGINEER OF RECORD.
7. THE GENERAL CONTRACTOR SHALL COMPARE THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND STRUCTURAL DRAWINGS AND REPORT ANY DISCREPANCIES BETWEEN EACH SET OF DRAWINGS AND WITHIN EACH SET OF DRAWINGS TO THE ARCHITECT AND ENGINEER OF RECORD PRIOR TO THE FABRICATION AND INSTALLATION OF ANY STRUCTURAL MEMBERS.
8. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE, AND DO NOT INDICATE THE METHOD OR MEANS OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, PROCEDURES, TECHNIQUES, SEQUENCE AND SAFETY. THE ENGINEER DOES NOT HAVE CONTROL OR RESPONSIBILITY AND SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES, FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, FOR THE ACTS OR OMISSION OF THE CONTRACTOR, SUBCONTRACTOR OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK, OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
9. THE STRUCTURAL ENGINEER'S OBLIGATIONS TO REVIEW SHOP DRAWINGS AND OTHER SUBMITTALS AND TO RETURN THEM IN A TIMELY MANNER ARE CONDITIONED UPON THE OWNER'S REVIEW OF THE SHOP DRAWINGS OR SUBMITTALS BY THE CONTRACTOR AS REQUIRED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR AND THE CONTRACTOR'S SUBMITTAL OF THE SHOP DRAWINGS AND OTHER SUBMITTALS IN ACCORDANCE WITH A WRITTEN SCHEDULE DISTRIBUTED IN ADVANCE TO THE ENGINEER IDENTIFYING THE DATES FOR THE SUBMITTAL OF THE VARIOUS SHOP DRAWINGS AND SUBMITTALS.
10. PERIODIC SITE OBSERVATION BY FIELD REPRESENTATIVES OF TLC ENGINEERING SOLUTIONS, INC IS SOLELY FOR THE PURPOSE OF DETERMINING IF THE WORK OF THE CONTRACTOR IS PROCEEDING IN GENERAL ACCORDANCE WITH THE STRUCTURAL CONTRACT DOCUMENTS. THIS LIMITED SITE OBSERVATION SHALL NOT BE CONSTRUED AS EXHAUSTIVE OR CONTINUOUS TO CHECK THE QUALITY OR QUANTITY OF THE WORK.
11. ALL STRUCTURES REQUIRE PERIODIC MAINTENANCE TO EXCEED LIFE SPAN AND TO ENSURE STRUCTURAL INTEGRITY FROM EXPOSURE TO THE ENVIRONMENT. A PLANNED PROGRAM OF MAINTENANCE SHALL BE ESTABLISHED BY THE OWNER. THIS PROGRAM SHALL INCLUDE ITEMS SUCH AS, BUT NOT LIMITED TO, PAINTING OF STRUCTURAL STEEL, PROTECTIVE COATINGS FOR CONCRETE, SEALANTS, CAULKED JOINTS, EXPANSION JOINTS, CONTROL JOINTS, SPALLS AND CRACKS IN CONCRETE, AND PRESSURE WASHING OF EXPOSED STRUCTURAL ELEMENTS EXPOSED TO SALT ENVIRONMENT OR OTHER HARSH CHEMICALS.
12. STRUCTURAL ENGINEER OF RECORD IS NOT RESPONSIBLE FOR THE DESIGN OF STEEL STAIRS, HANDRAILS, CURTAIN WALL/WINDOW WALL SYSTEMS, COLD-FORMED STEEL FLOORING, OR OTHER SYSTEMS NOT SHOWN IN THE STRUCTURAL DOCUMENTS. SUCH SYSTEMS SHALL BE DESIGNED, SUPPLIED, AND INSTALLED AS REQUIRED BY OTHER PORTIONS OF THE CONTRACT DOCUMENTS.
13. IN THE PROFESSIONAL OPINION OF TLC ENGINEERING SOLUTIONS, INC. THE STRUCTURAL CONTRACT DOCUMENTS FOR THIS PROJECT HAVE BEEN PREPARED IN ACCORDANCE WITH THE DESIGN CRITERIA AS SET FORTH IN THE ARIANA BUILDING CODE (FBC) 7th EDITION (2020), 2018 INTERNATIONAL BUILDING CODE (IBC).
14. NO PROVISIONS HAVE BEEN MADE FOR VERTICAL OR HORIZONTAL EXPANSION EXCEPT AS SHOWN ON CONTRACT DOCUMENTS.
15. FINISH FLOOR ELEVATION FIRST FLOOR OF 0'-0" IS USED AS A REFERENCE ELEVATION. SEE CIVIL DRAWINGS FOR ACTUAL ELEVATION.
16. THE USE OF REPRODUCTIONS OF THESE CONTRACT DOCUMENTS AND USE OF CAD FILES BY ANY CONTRACTOR, SUBCONTRACTOR, ERECTOR, FABRICATOR OR MATERIAL SUPPLIER IN LIEU OF PREPARATION OF SHOP DRAWINGS IS PROHIBITED UNLESS PRIOR WRITTEN APPROVAL IS OBTAINED FROM ENGINEER OF RECORD.
17. IN THE EVENT THAT THE STRUCTURAL CONTRACTS DRAWINGS AND SPECIFICATIONS CONFLICT ON INFORMATION, THE STRUCTURAL CONTRACT DRAWINGS SHALL SUPERSEDE THE SPECIFICATIONS.

## 010002 DESIGN LOADS

1. THE STRUCTURAL SYSTEM FOR THIS BUILDING HAS BEEN DESIGNED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE, 7th EDITION (2020), AND AS SUPPLEMENTED BY LOCAL AMENDMENTS.
2. THE FOLLOWING SUPERIMPOSED LOADINGS HAVE BEEN UTILIZED:
- A. DEAD LOADS:
- |                         |        |
|-------------------------|--------|
| ROOF STRUCTURE          | 10 PSF |
| M/E/P LOADS             | 5 PSF  |
| PRECAST CONCRETE PLANKS | 50 PSF |
- B. LIVE LOADS
- |                           |  |
|---------------------------|--|
| ROOF                      | 20 PSF                                     |
| MARINE DOCK               | 100 PSF                                    |
| FLOATING DOCK GANGWAY     | 100 PSF                                    |
| FLOATING DOCK LAUNCH AREA | 40 PSF                                     |
| ASSEMBLY AREAS (ELEVATED) | 100 PSF                                    |
| STAIRS AND EXITS          | 100 PSF                                    |
| GUARDRAILS/HANDRAILS      | 50 PLF (UNIFORM)<br>200 LBS (CONCENTRATED) |
- C. WIND LOADS: PER FLORIDA BUILDING CODE, SECTION 1609.
- SEE SHEET **S-002** FOR COMPONENTS AND CLADDING PRESSURES.
- |                                  |                       |
|----------------------------------|-----------------------|
| ULTIMATE DESIGN WIND SPEED, Vult | 133 MPH (3 SEC. GUST) |
| NOMINAL DESIGN WIND SPEED, Vasd  | 103 MPH (3 SEC. GUST) |
| RISK CATEGORY                    | II                    |
| EXPOSURE                         | D                     |
- D. FLOOD LOADS: PER ASCE 7-16 FOR COASTAL A ZONES.



## 013100 REQUEST FOR INTERPRETATION

1. RFI SHALL ORIGINATE WITH CONTRACTOR AND SHALL BE SUBMITTED IN THE FORM SPECIFIED WITHIN CONTRACT DOCUMENTS. RFI SHALL BE SUBMITTED IN A PROMPT MANNER AS TO AVOID DELAYS IN CONTRACTORS WORK.
2. RFI SHALL BE SUBMITTED AS SPECIFIED WITHIN THE CONTRACT DOCUMENTS AND SHALL BE FORWARDED TO THE ENGINEER VIA THE ARCHITECT OR DIRECTLY TO THE ENGINEER BY THE CONTRACTOR WHEN APPROVED BY THE ARCHITECT.
3. ENGINEER SHALL TAKE UP TO 5 BUSINESS DAYS TO REVIEW AND RETURN RFI'S. HOWEVER, THE ENGINEER WILL ATTEMPT TO EXPEDITE THE REVIEW OF ALL RFI'S WITHIN A REASONABLE TIME FRAME.
4. RFI RESPONSES ARE NOT INTENDED TO AUTHORIZE ANY INCREASE IN CONSTRUCTION COST, SCHEDULE OR TIME EXTENSIONS, OR CONSTRUCTION IN CONFLICT WITH ANY APPLICABLE CODES OR SPECIFIED DESIGN STANDARDS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE DESIGN TEAM IMMEDIATELY OF ANY PERCEIVED SCOPE, SCHEDULE, OR COST IMPACTS OR ADJUSTMENTS. IF CONTRACTOR REQUESTS ANY ADDITIONAL OR CHANGING WORK, SCHEDULES OR ADJUSTMENT IN SCOPE, THE CONTRACTOR SHALL NOT PROCEED WITH ADDITIONAL WORK UNTIL APPROVED IN WRITING BY THE CONSTRUCTION ADMINISTRATOR.

## 013301 SHOP DRAWING REVIEW

1. SHOP DRAWINGS SHALL ADEQUATELY DEPICT THE STRUCTURAL ELEMENTS AND CONNECTIONS SHOWN ON THE CONTRACT DOCUMENTS. SHOP DRAWINGS WILL BE REVIEWED FOR GENERAL COMPLIANCE WITH THE DESIGN INTENT OF THE CONTRACT DOCUMENTS ONLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY COMPLIANCE WITH THE CONTRACT DOCUMENTS AS TO QUALITY, LENGTH, ELEVATIONS, DIMENSIONS, ETC. REVIEW OF SUBMITTALS AND SHOP DRAWINGS DOES NOT RELIEVE THE CONTRACTOR OF FULL RESPONSIBILITY FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF THE SHOP DRAWINGS.
2. SHOP DRAWINGS SHALL BE REVIEWED BY THE CONTRACTOR AND MARKED "APPROVED" PRIOR TO SUBMITTAL TO THE ARCHITECT/ENGINEER. NON-CONFORMING DRAWING SUBMITTALS WILL BE RETURNED WITHOUT REVIEW.
3. THE CONTRACT DOCUMENTS WILL GOVERN OVER THE SHOP DRAWINGS UNLESS OTHERWISE SPECIFIED IN WRITING BY THE ENGINEER OF RECORD.
4. CHANGES AND ADDITIONS MADE ON RE-SUBMITTALS SHALL BE CLEARLY FLAGGED AND NOTED. THE PURPOSE OF THE RE-SUBMITTALS SHALL BE CLEARLY NOTED ON THE LETTER OF TRANSMITTAL. ARCHITECT/ENGINEER OF RECORD REVIEW WILL BE LIMITED TO THOSE ITEMS CAUSING THE RE-SUBMITTALS. THE CONTRACTOR IS RESPONSIBLE FOR COSTS CAUSED BY MULTIPLE RE-SUBMITTALS (MORE THAN ONE) AT ARCHITECT/ENGINEERS' CURRENT HOURLY RATES.

013302 SHOP DRAWINGS FOR SPECIALTY ENGINEERED  
PRODUCTS

- THE FOLLOWING SYSTEMS AND COMPONENTS AS A MINIMUM REQUIRE FABRICATION AND ERECTION DRAWINGS PREPARED BY A DELEGATED ENGINEER:
- A. PREFABRICATED STEEL STAIRS
  - B. STRUCTURAL PRECAST CONCRETE DECK SYSTEMS
  - C. METAL ROOF DECK ASSEMBLIES
  - D. PRECAST CONCRETE PILES
  - E. RAILINGS
  - F. FLOATING DOCK AND KAYAK LAUNCH
2. SUBMITTALS SHALL CLEARLY IDENTIFY THE SPECIFIC PROJECT AND APPLICABLE CODES, LIST THE DESIGN CRITERIA, AND SHOW ALL DETAILS AND DRAWINGS NECESSARY FOR PROPER FABRICATION AND INSTALLATION. SHOP DRAWINGS AND CALCULATIONS SHALL IDENTIFY SPECIFIC PRODUCT UTILIZED. GENERIC PRODUCTS WILL NOT BE ACCEPTED.
3. SHOP DRAWINGS AND CALCULATIONS SHALL BE PREPARED UNDER THE DIRECT SUPERVISION AND CONTROL OF THE DELEGATED ENGINEER.
4. SHOP DRAWINGS AND CALCULATIONS SHALL BE SIGNED AND SEALED BY AN ENGINEER REGISTERED IN THE STATE OF FLORIDA. COMPUTER PRINTOUTS ARE AN ACCEPTABLE SUBSTITUTE FOR MANUAL COMPUTATIONS PROVIDED THEY ARE ACCOMPANIED BY SUFFICIENT DESCRIPTIVE INFORMATION TO PERMIT THEIR PROPER EVALUATION. SUCH DESCRIPTIVE INFORMATION SHALL BE SIGNED AND SEALED BY AN ENGINEER REGISTERED IN THE STATE OF FLORIDA AS AN INDICATION THAT HE/SHE HAS ACCEPTED RESPONSIBILITY FOR THE RESULTS. THE STRUCTURAL ENGINEER WILL RETAIN ONE SIGNED AND SEALED SET FOR THEIR RECORDS.
5. DRAWINGS PREPARED SOLELY TO SERVE AS A GUIDE FOR FABRICATION AND INSTALLATION (SUCH AS REINFORCING STEEL SHOP DRAWINGS OR STRUCTURAL STEEL ERECTION DRAWINGS) AND REQUIRING NO ENGINEERING, DO NOT REQUIRE THE SEAL OF A DELEGATED ENGINEER.
6. CATALOG INFORMATION ON STANDARD PRODUCTS DOES NOT REQUIRE THE SEAL OF A DELEGATED ENGINEER.
7. REVIEW BY THE STRUCTURAL ENGINEER OF RECORD OF SUBMITTALS IS LIMITED TO VERIFYING THE FOLLOWING:
- A. THAT THE SPECIFIED STRUCTURAL SUBMITTALS HAVE BEEN FURNISHED.
  - B. THAT THE STRUCTURAL SUBMITTALS HAVE BEEN SIGNED AND SEALED BY THE DELEGATED ENGINEER.
  - C. THAT THE DELEGATED ENGINEER HAS UNDERSTOOD THE DESIGN INTENT AND HAS USED THE SPECIFIED STRUCTURAL CRITERIA. NO DETAILED CHECK OF CALCULATIONS WILL BE MADE.
  - D. THAT THE CONFIGURATION SET FORTH IN THE STRUCTURAL SUBMITTALS IS CONSISTENT WITH THE CONTRACT DOCUMENTS. NO DETAILED CHECK OF DIMENSIONS OR QUANTITIES WILL BE MADE.
8. SUBMITTALS NOT MEETING THE ABOVE CRITERIA WILL NOT BE REVIEWED AND WILL BE RETURNED.

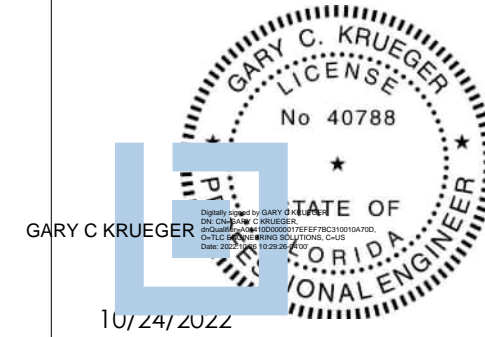
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OWNER:

OWNER / PROJECT:

PROFESSIONAL SEAL:

GARY C. KRUEGER, P.E.  
Florida License #40788



PROJECT NO: PSA2021-34.00

REVISIONS:		
1	8/26/22	LAKE COUNTY COMM

MARK	DATE	DESCRIPTION
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ISSUE DATE: 5/12/22

STRUCTURAL ABBREVIATIONS  
AND SYMBOLS

S001



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013303 SUBMITTALS

1. ALL SHOP DRAWINGS MUST BE REVIEWED AND STAMPED APPROVED BY THE GENERAL CONTRACTOR PRIOR TO SUBMITTAL.
2. THE GENERAL CONTRACTOR SHALL SUBMIT FOR ENGINEER REVIEW SHOP DRAWINGS FOR THE FOLLOWING ITEMS:

ITEMS MARKED (D) SHALL HAVE SHOP DRAWINGS SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF FLORIDA.

ITEMS MARKED (#) SHALL BE SUBMITTED FOR ENGINEERS RECORD ONLY.

A. REINFORCING STEEL

B. PRECAST CONCRETE PILES (D)

C. PREFABRICATED STEEL STAIRS (D)

D. METAL ROOF OR FORM DECK

E. CONCRETE MIX DESIGNS

F. MECHANICAL ANCHORS (#)

G. RAILINGS

H. METAL ROOF DECK ASSEMBLIES (D)

I. STRUCTURAL PRECAST CONCRETE DECK SYSTEM (D)

J. FLOATING DOCK AND KAYAK LAUNCH (D)
3. MANUFACTURER'S LITERATURE. SUBMIT TWO COPIES OF MANUFACTURER'S LITERATURE FOR ALL MATERIALS AND PRODUCTS USED IN CONSTRUCTION ON THE PROJECT.

032000 REINFORCING STEEL

1. SHALL BE ASTM A615 GRADE 60 DEFORMED BARS, FREE FROM OIL, SCALE AND RUST AND PLACED IN ACCORDANCE WITH THE TYPICAL BENDING DIAGRAM AND PLACING DETAILS OF ACI STANDARDS AND SPECIFICATIONS.
2. PROVIDE CONCRETE COVER OVER PRIMARY REINFORCEMENT, TIES, AND STIRRUPS, AS FOLLOWS, UNLESS OTHERWISE NOTED:

LOCATION AND CONDITION	MINIMUM COVER
A. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH.	ALL BARS 3"
B. CONCRETE EXPOSED TO EARTH OR WEATHER	#6 OR GREATER 2" #5 OR SMALLER 1.5"
3. SECURE APPROVAL OF SHOP DRAWINGS PRIOR TO COMMENCING FABRICATION.
4. PROVIDE STANDARD HOOKS AT DISCONTINUOUS ENDS OF ALL TOP BARS.
5. WHERE REINFORCING IS SHOWN CONTINUOUS, SPLICE BOTTOM BARS OVER SUPPORTS AND TOP BARS AT CENTER OF SPAN. ALL OTHER LAP SPLICES SHALL BE IN ACCORDANCE WITH SPLICE TABLES AND DETAILS SHOWN ON DRAWINGS.
6. PROVIDE DOWELS INTO FOOTINGS, PILE CAPS, SUPPORT BEAMS, ETC. TO MATCH VERTICAL BARS WITH CLASS B TENSION LAP SPLICES, U.N.O.
7. LENGTH OF LAP SPLICES AND BAR EMBEDMENT SHALL BE AS SHOWN IN TABLE, UNLESS OTHERWISE NOTED:

	BAR SIZE	3000 PSI	4000 PSI	5000 PSI
T<12"	#6 OR LESS	57 Db	49 Db	44 Db
	#7 OR MORE	71 Db	61 Db	55 Db
T>12"	#6 OR LESS	74 Db	65 Db	57 Db
	#7 OR MORE	81 Db	79 Db	72 Db

WHERE "T" IS DEPTH OF CONCRETE UNDER BARS AND "Db" IS BAR DIAMETER. UTILIZE CLASS "B" SPLICE FOR ALL SPLICES, U.N.O. ON PLANS OR DETAILS.
8. WHERE HOOKS ARE SHOWN ON THE PLANS OR DETAILS, HOOKS SHALL BE DETAILED TO EXTEND DEEP ENOUGH INTO SUPPORTING STRUCTURE TO DEVELOP THE FULL STRENGTH OF THE HOOKED BAR. PROVIDE ADDITIONAL TIES OR STIRRUPS IN SUPPORTING STRUCTURE AS REQUIRED TO SATISFY ACI 318 HOOK DEVELOPMENT, CONFINEMENT, AND ANCHORAGE CRITERIA.

033000 CONCRETE

1. SHALL BE PER AN APPROVED MIX DESIGN PROPORTIONED TO ACHIEVE A STRENGTH AT 28 DAYS AS LISTED BELOW WITH A PLASTIC AND WORKABLE MIX:

CONCRETE STRUCTURE TYPE	COMPRESSIVE STRENGTH	SLUMP	MAXIMUM AGGREGATE	MAXIMUM W/C RATIO
PILE CAPS	6000 PSI	4-6"	1"	0.40
PRECAST PILES	6000 PSI	4-6"	3/4"	0.40
2. CONCRETE SHALL BE PLACED AND CURED ACCORDING TO ACI STANDARDS AND SPECIFICATIONS.
3. SUBMIT PROPOSED MIX DESIGN WITH RECENT FIELD CYLINDER OR LAB TESTS FOR REVIEW PRIOR TO USE. MIX SHALL BE UNIQUELY IDENTIFIED BY MIX NUMBER OR OTHER POSITIVE IDENTIFICATION. MIX SHALL MEET THE REQUIREMENTS OF ASTM C33 FOR COARSE AGGREGATE.
4. CONCRETE SHALL COMPLY WITH THE REQUIREMENTS OF ASTM STANDARD C94 FOR MEASURING, MIXING, TRANSPORTING, ETC. CONCRETE TICKETS SHALL BE TIME STAMPED WHEN CONCRETE IS BATCHED.
5. THE MAXIMUM TIME ALLOWED FROM THE TIME THE MIXING WATER IS ADDED UNTIL IT IS DEPOSITED IN ITS FINAL POSITION SHALL NOT EXCEED ONE AND ONE HALF (1-1/2) HOURS. IF FOR ANY REASON THERE IS A LONGER DELAY THAN THAT STATED ABOVE, THE CONCRETE SHALL BE DISCARDED. IT SHALL BE THE RESPONSIBILITY OF THE TESTING LAB TO NOTIFY THE OWNERS REPRESENTATIVE AND THE CONTRACTOR OF ANY NONCOMPLIANCE WITH THE ABOVE.
6. CALCIUM CHLORIDES SHALL NOT BE UTILIZED; OTHER ADMIXTURES MAY BE USED ONLY WITH THE APPROVAL OF THE ENGINEER.
7. CONCRETE MIX DESIGNS SHALL INCLUDE A WRITTEN DESCRIPTION INDICATING WHERE EACH PARTICULAR MIX IS TO BE PLACED WITHIN THE STRUCTURE.
8. CONCRETE DESIGN MIX SUBMITTALS SHALL INCLUDE TESTED, STATISTICAL BACK-UP DATA AS PER CHAPTER 5 OF ACI 318.

034108 PRECAST CONCRETE DECK

1. PRECAST CONCRETE DECK SYSTEMS (DECK, BEAMS, AND PILE CAPS) SHALL BE PERMATRAK OR AN APPROVED EQUAL BY STRUCTURAL ENGINEER.
2. ENGINEERED PRECAST CONCRETE DECK SYSTEM AND CONNECTIONS OF SAME TO THIS STRUCTURE SHALL BE DESIGNED BY AN ENGINEER REGISTERED IN THE STATE OF FLORIDA.
3. PRECAST DECK SYSTEMS SHALL BE OF THE CONFIGURATION SHOWN ON DRAWINGS. CONTRACTOR SHALL COORDINATE THE LOCATIONS OF STEEL BEAMS, STEEL COLUMNS, PRECAST PILES, AND PILE CAPS WITH THE STRUCTURAL DRAWINGS.
4. THE CONFIGURATION OF THE PRECAST CONCRETE DECK SYSTEM SHALL BE AS SHOWN ON THE STRUCTURAL DRAWINGS.
5. PRECAST CONCRETE DECK SYSTEM AND CONNECTIONS SHALL BE DESIGNED FOR APPLICABLE LOADS AS INDICATED ON THESE DRAWINGS AND IN THE BUILDING CODE.
6. THE LOADS SHALL BE CLEARLY INDICATED ON SHOP DRAWINGS.
7. SUBMIT SHOP DRAWINGS AND CALCULATIONS FOR REVIEW PRIOR TO FABRICATION.
8. SHOP DRAWINGS AND CALCULATIONS SHALL BE SIGNED AND SEALED BY AN ENGINEER REGISTERED IN THE STATE OF FLORIDA.

036002 MECHANICAL ANCHORS

1. SHALL BE EITHER HEAVY DUTY CONCRETE SCREW ANCHOR (SUCH AS DEWALT SCREW-BOLT +, SIMPSON TITEN HD, OR HILTI HIT-US-H).
2. TYPE OF ANCHOR SHALL BE AS SPECIFIED ON THE DRAWINGS, WHILE BRAND AND MODEL OF ANCHOR MAY BE SELECTED FROM THE ABOVE LISTED ANCHORS. SUBSTITUTION ANCHORS MUST BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVED IN WRITINGS BY THE ENGINEER OF RECORD PRIOR TO USE. ICC-ES REPORTS FOR PROPOSED ANCHOR SUBSTITUTES MUST BE SUBMITTED TO EOR FOR REVIEW. EOR MAY REQUEST ENGINEERED CALCULATIONS FOR REVIEW AND APPROVAL.
3. IN SOME CASES OF CRITICAL LOADING OR GEOMETRIC CONDITIONS, ONLY SPECIFIC ANCHORS WILL BE ALLOWED, AS NOTED ON THE DRAWINGS. IN THESE CASES, THE SPECIFIED BRAND AND MODEL OF ANCHOR MUST BE USED.
4. INSTALL ANCHORS IN STRICT ACCORDANCE WITH MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPI) IN CONJUNCTION WITH EDGE DISTANCE, SPACING, AND EMBEDMENT SPECIFIED ON DRAWINGS.
5. THE MANUFACTURER'S REPRESENTATIVE SHALL TRAIN INSTALLERS FOR ALL PRODUCTS TO BE USED PRIOR TO COMMENCEMENT OF WORK. ONLY TRAINED INSTALLERS SHALL PERFORM POST INSTALLED ANCHOR INSTALLATION. A RECORD OF TRAINING SHALL BE KEPT ON SITE AND MADE AVAILABLE TO THE EOR AS REQUESTED.
6. MINIMUM EMBEDMENT DEPTH OF 1/4" TAPCONS OR POWERS TAPPER + INSTALLED IN CONCRETE SHALL BE 1.25" AND INSTALLED INTO MASONRY SHALL BE 1.5". SELECT ANCHOR LENGTH AS REQUIRED TO ACHIEVE THE SPECIFIED MINIMUM EMBEDMENT DEPTH.
7. TAPCON SCREWS, OR DEWALT TAPPER +, MAY BE REPLACED W/ 0.157" SHANK DIAMETER PAF ANCHORS (HILTI X-U, POWERS CSI, OR APPROVED EQUAL) ON A 1:1 SUBSTITUTION BASIS. MINIMUM EMBEDMENT DEPTH SHALL BE 1.25" WHEN INSTALLED INTO CONCRETE OR GROUTED MASONRY. FOLLOW MANUFACTURER'S INSTALLATION RECOMMENDATIONS, MINIMUM EDGE DISTANCES, AND PLACEMENT LIMITATIONS (RELATIVE TO MORTAR JOINTS IN MASONRY).
8. MECHANICAL ANCHORS IN CONCRETE SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 308.2 AND ICC-ES AC 193 FOR CRACKED, UNCRACKED AND SEISMIC CONCRETE RECOGNITION.
9. MECHANICAL ANCHORS IN MASONRY SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ICC-ES AC01 OR AC106.
10. EXISTING REINFORCING BARS IN CONCRETE AND/OR MASONRY CONSTRUCTION SHALL NOT BE CUT UNLESS APPROVED BY THE EOR.
11. ANCHORS SHALL NOT BE INSTALLED IN CONCRETE AND/OR MASONRY CONSTRUCTION UNTIL THE CONCRETE AND/OR MASONRY HAS CURED FOR AT LEAST 21-DAYS.
12. PROVIDE SPECIAL INSPECTION FOR ALL MECHANICAL POST INSTALLED ANCHORS IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPLICABLE BUILDING CODE AND THE CURRENT ICC-ES REPORT (IBC 2018 TABLE 1705.3 NOTE B).

051200 STRUCTURAL STEEL (WEATHERING STEEL)

1. STEEL WORK SHALL BE NEW AND CONFORM TO THE ANSI/AISC 360-16 SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS.
2. ALL STEEL SPECIFIED IS ATMOSPHERIC CORROSION RESISTANT STEEL, ALSO KNOWN AS WEATHERING STEEL.
3. MATERIAL SHALL CONFORM TO THE FOLLOWING, EXCEPT AS NOTED:

WIDE FLANGE SHAPES	ASTM A588 GRADE A (Fy=50 KSI)
ANGLES, CHANNELS AND PLATES	ASTM A588 GRADE A (Fy=50 KSI)
RECTANGULAR HSS	ASTM A847 (Fy=50 KSI)
HIGH STRENGTH BOLTS	ASTM A325 TYPE 3 OR A490 TYPE 3
HEAVY HEX NUTS	ASTM A563 GRADE C3
HARDENED STEEL WASHERS	ASTM F436 TYPE 3
THREADED RODS	ASTM A325 TYPE 3
4. CONNECTIONS:

A. BOLTS SHALL BE HIGH-STRENGTH, BEARING TYPE IN SNUG TIGHT CONDITION, U.N.O. TIGHTEN BY AN AISC APPROVED METHOD.

B. WELDING ELECTRODES SHALL BE PER AWS D1.1. RETURN FILLET WELDS FOR FRAMED CONNECTIONS 1/2" AT EACH END.

C. FIELD CONNECTIONS SHALL BE BOLTED, EXCEPT AS NOTED OTHERWISE.

D. DETAIL FLOOR AND ROOF FRAMING CONNECTIONS FOLLOWING THE REQUIREMENTS SHOWN IN THE TYPICAL CONNECTION SCHEDULES SHOWN IN THESE DRAWINGS, BASED ON THE BEAM OR GIRDER SIZE.

E. FOR THE PURPOSE OF CORRECTLY INTERPRETING THE CONNECTION SCHEDULES, GIRDERS SHALL BE CONSIDERED AS ANY FLOOR OR ROOF BEAM WHICH CARRIES OTHER FLOOR OR ROOF BEAMS, OR ANY FLOOR OR ROOF BEAM WHICH CARRIES STEEL COLUMNS.

F. DETAIL DIAGONAL BRACING CONNECTIONS AS SHOWN IN THE DETAILS. IF NO DETAIL IS PROVIDED, DETAIL CONNECTION TO DEVELOP THE FULL TENSION CAPACITY OF THE DIAGONAL BRACING MEMBER.

G. DETAIL MOMENT CONNECTIONS AS SHOWN IN THE DETAILS. IF NO DETAIL IS PROVIDED, DETAIL MOMENT CONNECTION USING FULL PENETRATION WELDS AT BEAM FLANGES.
5. HIGH STRENGTH BOLTS IN BEARING CONDITION SUPPORTING SIMPLE SPAN BEAMS NOT SUBJECT TO AXIAL LOADS MAY BE INSTALLED TO "SNUG TIGHT" CONDITION IF NORMAL, OR SHORT SLOTTED HOLES ARE USED. THE ENGINEER OF RECORD WILL BE THE ULTIMATE AUTHORITY IN THE USE OF "SNUG TIGHT" BOLTS. IF LONG SLOTTED OR OVERSIZED HOLES ARE USED, BOLTS MUST BE FULLY PRETENSIONED AND SLIP CRITICAL. PROPER SURFACE PREPARATION IS REQUIRED FOR SLIP CRITICAL BOLTS, INCLUDING OMISSION OF PRIMER OR FIRE PROOFING, AS APPROPRIATE.
6. BOLTS SHARING LOAD WITH WELDS IN A CONNECTION SHALL BE FULLY PRETENSIONED AND SLIP CRITICAL.
7. WHERE FULLY PRETENSIONED OR SLIP CRITICAL BOLTS ARE REQUIRED, TIGHTENING SHALL BE ACHIEVED USING EITHER TWIST-OFF TENSION CONTROL BOLTS OR DIRECT TENSION INDICATING WASHERS.
8. ALL FASTENERS AND HARDWARE SHALL BE HOT DIPPED GALVANIZED PER ASTM A153.
9. GROUT UNDER BEARING PLATES SHALL BE NON-METALLIC, NON-SHRINK TYPE WITH A COMPRESSIVE STRENGTH OF AT LEAST 5,000 PSI IN 28 DAYS.
10. THE CAMBER OF STEEL MEMBERS SHALL BE VERIFIED IN THE SHOP AND THE FIELD. WHEN NO CAMBER IS INDICATED, TURN THE MEMBER NATURAL CAMBER UP.

051201 WELDING

1. WELDING SHALL BE DONE BY WELDERS WITH CURRENT CERTIFICATION IN ACCORDANCE WITH AWS D1.1.
2. WELDS SHOWN ON STRUCTURAL DRAWINGS ARE MINIMUM DESIGN REQUIREMENTS. THE FABRICATOR'S SHOP DRAWINGS SHALL REFLECT WELDS IN ACCORDANCE WITH AWS REQUIREMENTS.
3. FULL PENETRATION GROOVE WELDS SHALL BE INSPECTED BY ULTRASONIC TESTING. TWENTY-FIVE PERCENT OF THE WELDS SHALL BE INSPECTED AT RANDOM UNLESS NOTED OTHERWISE. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
4. UNLESS NOTED OTHERWISE ON THE DRAWINGS, GROOVE WELDS SHALL BE FULL PENETRATION.
5. PROVIDE FILLET WELDS AT CONTACT POINTS BETWEEN STEEL MEMBERS SUFFICIENT TO DEVELOP THE ALLOWABLE TENSILE STRENGTH OF THE SMALLER MEMBER AT THE JOINT UNLESS DETAILED OTHERWISE ON THE DRAWINGS. THE MINIMUM FILLET WELD SIZE IS 3/16" UNLESS OTHERWISE NOTED.

053102 STEEL ROOF DECK

1. SHALL BE GALVANIZED G90, TYPE "B" STEEL ROOF DECK OF GAGE AND DEPTH INDICATED ON DRAWINGS, AND SHALL CONFORM TO THE PROVISIONS OF THE STEEL DECK INSTITUTE (SDI) SPECIFICATIONS FOR STEEL ROOF DECK.
2. DECK CENTERING SHALL BE PLACED IN CONFORMANCE WITH MANUFACTURER'S RECOMMENDATIONS AND SHALL BE CONTINUOUS OVER AT LEAST 3 SPANS.
3. WELD PATTERN AT MAIN DECK SUPPORTS, AND SIDELAP CONNECTIONS, SHALL BE AS INDICATED ON ROOF DECK FASTENING DIAGRAM. PROVIDE 5/8" PUDDLE WELDS AT 12" O.C. ALONG EDGE SUPPORTS, UNLESS NOTED OTHERWISE.
4. METAL DECK MANUFACTURER SHALL BE A MEMBER OF THE STEEL DECK INSTITUTE AND ALL DESIGN SHALL BE IN ACCORDANCE WITH APPLICABLE STANDARDS.
5. DO NOT HANG MEP SYSTEMS (DUCTWORK, ROOF DRAIN OR FIRE PROTECTION PIPING, ETC) FROM ROOF DECK. ALL EQUIPMENT IS TO BE HUNG FROM ROOF JOISTS. SEE SECTION 5210 FOR ROOF JOIST REQUIREMENTS.

055100 STEEL STAIRS

1. ENGINEERED STEEL STAIR SYSTEM AND CONNECTIONS OF SAME TO THIS STRUCTURE SHALL BE DESIGNED BY AN ENGINEER REGISTERED IN THE STATE OF FLORIDA.
2. STEEL STAIR SYSTEMS SHALL BE GALVANIZED OR SHALL BE COATED WITH AN EPOXY BASED PAINTING AND COATING SYSTEM.
3. ALL CONNECTIONS TO STRUCTURE SHALL BE PROVIDED WITH A NYLON WASHER TO SEPERATE THE GALVANIZED/COATED STEEL FROM THE WEATHERING STEEL AT THE CONNECTION. WELDING GALVANIZED STEEL TO THE EXISTING STRUCTURE IS PROHIBITED.
4. THE CONFIGURATION OF THE STEEL STAIR SYSTEM SHALL BE AS SHOWN ON THE ARCHITECTURAL DRAWINGS.
5. THE ENGINEERED STAIR SYSTEM SHALL INCLUDE THE STAIRS, LANDINGS, SUPPORT FRAMING, POSTS, HANGERS, AND CONNECTIONS TO THE BUILDING STRUCTURE, UNLESS NOTED OTHERWISE. CONNECTIONS TO THE BUILDING STRUCTURE SHALL BE COMPATIBLE WITH THE STRUCTURE SHOWN ON THE CONTRACT DRAWINGS.
6. STEEL STAIR SYSTEM AND CONNECTIONS SHALL BE DESIGNED FOR APPLICABLE LOADS AS INDICATED ON THE DRAWINGS AND IN THE FLORIDA BUILDING CODE, 7th EDITION (2020).
7. THE LOADS SHALL BE CLEARLY INDICATED ON SHOP DRAWINGS.
8. SHOP DRAWINGS SHALL SHOW AND SPECIFY CONNECTIONS UTILIZED WITHIN THE STEEL STAIR SYSTEM AS WELL AS CONNECTIONS TO AND LOADS IMPOSED UPON THE STRUCTURAL SYSTEM SHOWN ON THESE DRAWINGS.
9. SHOP DRAWINGS AND CALCULATIONS SHALL BE SIGNED AND SEALED BY AN ENGINEER REGISTERED IN THE STATE OF FLORIDA.

055213 RAILINGS

1. ENGINEERED RAILING SYSTEM AND CONNECTION OF SAME TO THIS STRUCTURE SHALL BE DESIGNED BY AN ENGINEER REGISTERED IN THE STATE OF FLORIDA.
2. THE CONFIGURATION OF THE RAILING SYSTEM SHALL BE AS SHOWN ON THE ARCHITECTURAL DRAWINGS.
3. RAILING SYSTEM AND CONNECTIONS SHALL BE DESIGNED FOR APPLICABLE LOADS AS INDICATED ON THE DRAWINGS AND IN THE BUILDING CODE.
4. THE LOADS SHALL BE CLEARLY INDICATED ON SHOP DRAWINGS AND SHALL COMPLY WITH ALL APPLICABLE CODES.
5. SHOP DRAWINGS SHALL SHOW AND SPECIFY CONNECTIONS UTILIZED WITHIN THE RAILING SYSTEM AS WELL AS CONNECTIONS TO AND LOADS IMPOSED UPON THE STRUCTURAL SYSTEM SHOWN ON THESE DRAWINGS.
6. SHOP DRAWINGS AND CALCULATIONS SHALL BE SIGNED AND SEALED BY AN ENGINEER REGISTERED IN THE STATE OF FLORIDA.

312002 FOUNDATIONS - W/ SOIL REPORTS

1. SEE THE FOLLOWING GEOTECHNICAL REPORT FOR COMPLETE GEOTECHNICAL RECOMMENDATIONS AND INSTALLATION PROCEDURES. SITE PREPARATION AND FOUNDATION INSTALLATION SHALL COMPLY WITH:

REPORT No. GPQT-21-152

PREPARED BY: ANDREYEV ENGINEERING, INC.

TITLED: REPORT, GEOTECHNICAL INVESTIGATION, PROPOSED FERDALE PRESERVE-OBSERVATION TOWER/FISHING PIER AND CANOE/KAYAK LAUNCH, LAKE APOPKA, LAKE COUNTY, FLORIDA.

DATED: FEBRUARY 21, 2022
2. FOLLOW THE RECOMMENDATIONS LISTED IN THE GEOTECHNICAL REPORT THE PIER AND KAYAK LAUNCH SHOULD BE SUPPORTED ON EITHER PRECAST CONCRETE PILES OR STEEL PILES. THE SITE IS UNSUITABLE FOR STRUCTURAL SLAB OR SHALLOW FOUNDATIONS.

316213 PRECAST CONCRETE PILES

1. TO BE REINFORCED CONCRETE POURED UNDER THE CONTROL OF AN APPROVED TESTING LABORATORY ACHIEVING STRENGTH OF 3,000 PSI AT DRIVING. 12" X 12" SHALL HAVE 4#6 VERTICALS. SPACE #2 TIES AT 8" C/C EXCEPT AT THE TIP AND BUTT END WHERE 6#2 TIES SHALL BE SPACED AT 3" C/C.
2. PILES TO BE DRIVEN OR JETTED AND DRIVEN TO A CARRYING CAPACITY OF 10 TONS FOR 12x12.
3. PILES TO BE CUT OFF SQUARE AT PROPER ELEVATIONS ALLOWING A MINIMUM OF 18" OF PILE REINFORCING TO PROJECT INTO THE PILE CAPS AND/OR GRADE BEAMS.
4. WHEN IN CLUSTERS OF TWO OR MORE, INDIVIDUAL PILES SHALL BE INSTALLED WITHIN 3 INCHES OF DESIGN LOCATION. THE CUMULATIVE LOCATION OF PILE GROUP CENTER OF GRAVITY SHALL NOT EXCEED 1-1/2". SINGLE PILES SHALL BE INSTALLED WITHIN 1-1/2 INCHES OF DESIGN LOCATION. VARIATION FROM PLUMB SHALL NOT EXCEED 1/2 INCH IN TWO FEET.
5. AN AS-BUILT SURVEY OF PILE LOCATIONS SHALL BE PERFORMED BY A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF FLORIDA. PILES SHALL BE LOCATED ON THE AS-BUILT DRAWINGS HORIZONTALLY AND VERTICALLY FROM THE DESIGN LOCATION. SUBMIT THE AS-BUILT DRAWINGS TO THE STRUCTURAL ENGINEER FOR APPROVAL.
6. CONTRACTOR IS RESPONSIBLE FOR ENGINEERING COSTS ASSOCIATED WITH REDESIGNS CAUSED BY IMPROPER PILE LOCATIONS.
7. INSTALLATION OF PILES SHALL BE MONITORED BY A LICENSED GEOTECHNICAL ENGINEER REGISTERED IN THE STATE OF FLORIDA. REPORTS OF ALL WORKS SHALL BE SUBMITTED FOR REVIEW. REPORT SHALL INCLUDE PILE DEPTH, MISCELLANEOUS OBSERVATIONS, AND OTHER INFORMATION AS REQUIRED.

107316 ALUMINUM FLOATING DOCK AND KAYAK LAUNCH

1. ALL ALUMINUM MEMBERS SHALL BE FABRICATED IN ACCORDANCE WITH THE ALUMINUM DESIGN MANUAL, 2015 EDITION.
2. DOCK AND KAYAK LAUNCH SHOULD BE DESIGNED FOR A LIVE LOAD OF 40 PSF. GANWAYS SHOULD BE DESIGNED FOR A LIVE LOAD OF 100 PSF.
3. THE CONFIGURATION OF THE FLOATING DOCK AND KAYAK LAUNCH SYSTEM SHALL BE AS INDICATED IN THE ARCHITECTURAL DRAWINGS.
4. FLOATING DOCK AND KAYAK LAUNCH ALUMINUM MEMBERS AND CONNECTIONS SHALL BE DESIGNED FOR APPLICABLE LOADS AS INDICATED ON THE PLANS AND IN THE FLORIDA BUILDING CODE/INTERNATIONAL BUILDING CODE. THE LOADS SHALL BE CLEARLY INDICATED ON THE DRAWINGS.
5. FLOTATION SHALL SUPPLY LINEAR SUPPORT DURING SUBMERSION FOR SAFTEY.
6. PILE GUIDES AND HINGE SUPPORT SYSTEMS SHOULD BE DESIGNED BY THE DELEGATED DESIGN ENGINEER REGISTERED IN THE STATE OF FLORIDA. THESE SYSTEMS SHOULD BE DESIGNED TO RESIST THE LIVE, DEAD, WIND, AND FLOOD LOADS AS DESCRIBED GENERAL NOTES SECTION 01002.
7. THE LOCATION OF THE PILE GUIDES SHOULD BE COORDINATED WITH THE PILE LOCATION PLAN IN THE STRUCTURAL DRAWINGS.
8. PROVIDE DISSIMILAR METAL SEPARATORS AT ALL JUNCTIONS OF ALUMINUM FRAMING AND STEEL.
9. FLOATING DOCK AND KAYAK LAUNCH MANUFACTURER SHALL SUBMIT SIGNED/SEALED CALCULATIONS BY AN ENGINEER REGISTERED IN THE STATE OF FLORIDA INDICATING SUPPORT REACTIONS BASED ON THE LOADS GIVEN IN THE FLORIDA BUILDING CODE.

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OWNER:

OWNER / PROJECT:

Lake County  
Ferndale Preserve

Observation Tower / Fishing Pier And  
Canoe/Kayak Launch

Ferndale, Florida

PROFESSIONAL SEAL:  
GARY C. KRUEGER, P.E.  
Florida License #40788

GARY C. KRUEGER

FLORIDA

PROFESSIONAL ENGINEER

No 40788

10/24/2022

PROJECT NO: PSA2021-34.00

REVISIONS:		
1	8/26/22	LAKE COUNTY COMM.
MARK	DATE	DESCRIPTION

ISSUE DATE: 5/12/22

STRUCTURAL NOTES

S002



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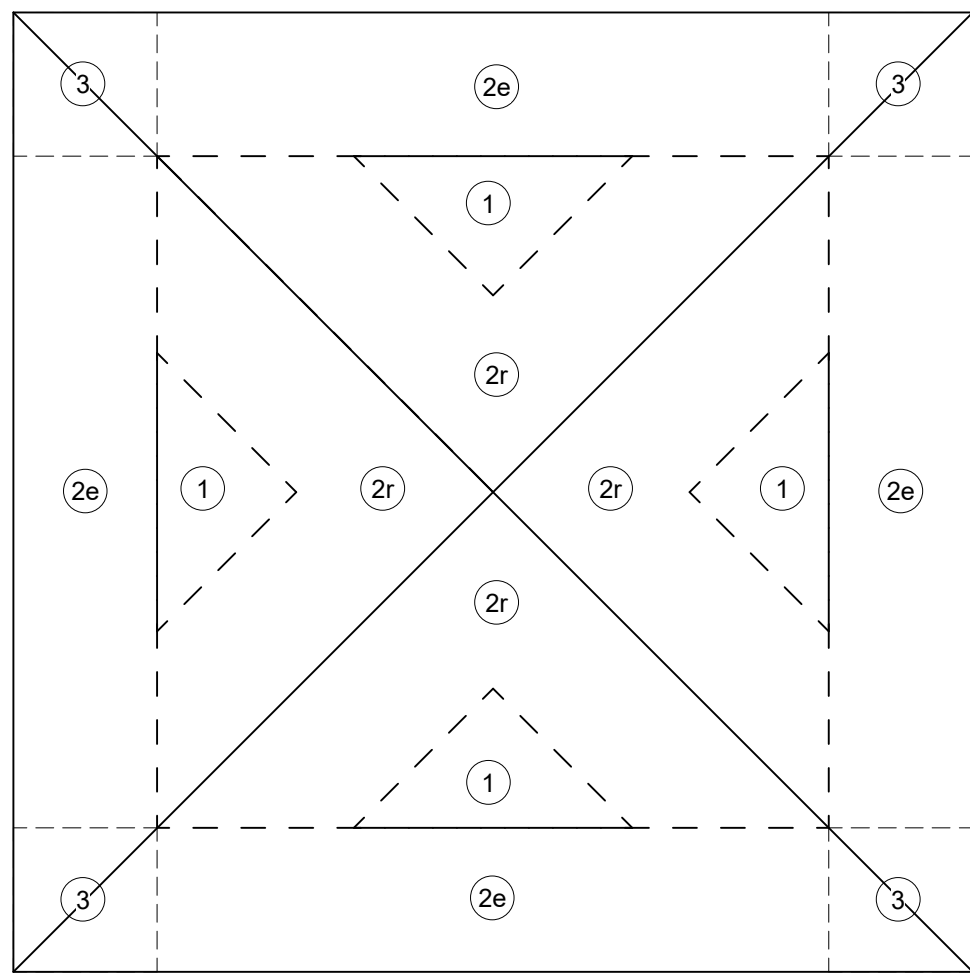
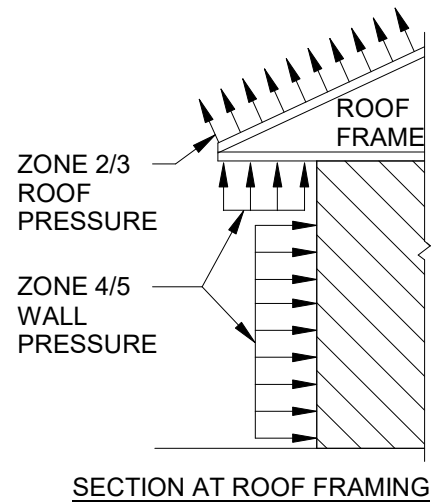
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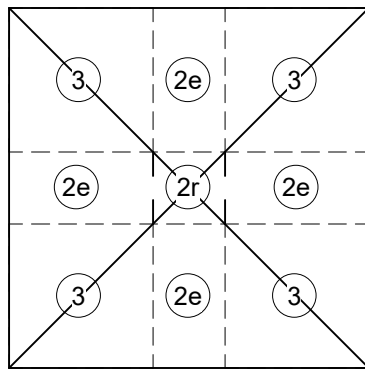
ULTIMATE C&C WIND PRESSURES (ASCE 7-16)													
BUILDING	a (FT)	h (FT)	Vult (MPH)	Vasd (MPH)	A (SF)	ROOF				WALL		OVERHANG	
						ZONE 1 (PSF)	ZONE 2e (PSF)	ZONE 2r (PSF)	ZONE 3 (PSF)	ZONE 4 (PSF)	ZONE 5 (PSF)	ZONE 2e (PSF)	ZONE 2r (PSF)
MAIN	3	24	133	103	<10	+30.1 -60.2	+30.1 -86.1	+30.1 -86.1	+30.1 -86.1	+38.7 -38.7	+38.7 -77.5	+38.7 -107.6	+38.7 -107.6
					20	+24.9 -52.5	+24.9 -76.1	+24.9 -76.1	+24.9 -76.1	+38.7 -38.7	+38.7 -77.5	+38.7 -102.6	+38.7 -102.6
					50	+18.1 -42.2	+18.1 -62.9	+18.1 -62.9	+18.1 -62.9	+35.1 -36.3	+35.1 -67.7	+35.1 -96.0	+35.1 -96.0
					100+	+16.0 -34.4	+16.0 -53.0	+16.0 -53.0	+16.0 -53.0	+32.3 -34.4	+32.3 -60.2	+32.3 -91.0	+32.3 -91.0
CUPOLA	3	24	133	103	<10	-	+38.9 -96.4	+38.9 -96.4	+38.9 -62.4	+52.2 -56.6	+52.2 -69.8	+38.7 -107.6	+38.7 -107.6
					20	-	+33.6 -86.1	+33.6 -86.1	+33.6 -86.1	+49.8 -54.2	+49.8 -65.1	+33.6 -105.4	+33.6 -105.4
					50	-	+26.5 -72.6	+26.5 -72.6	+26.5 -72.6	+46.7 -51.1	+46.7 -58.9	+26.5 -98.6	+26.5 -98.6
					100+	-	+21.2 -62.4	+21.2 -62.4	+21.2 -62.4	+44.4 -48.8	+44.4 -54.2	+21.2 -93.5	+21.2 -93.5

ULTIMATE C&C WIND PRESSURE PLAN NOTES:

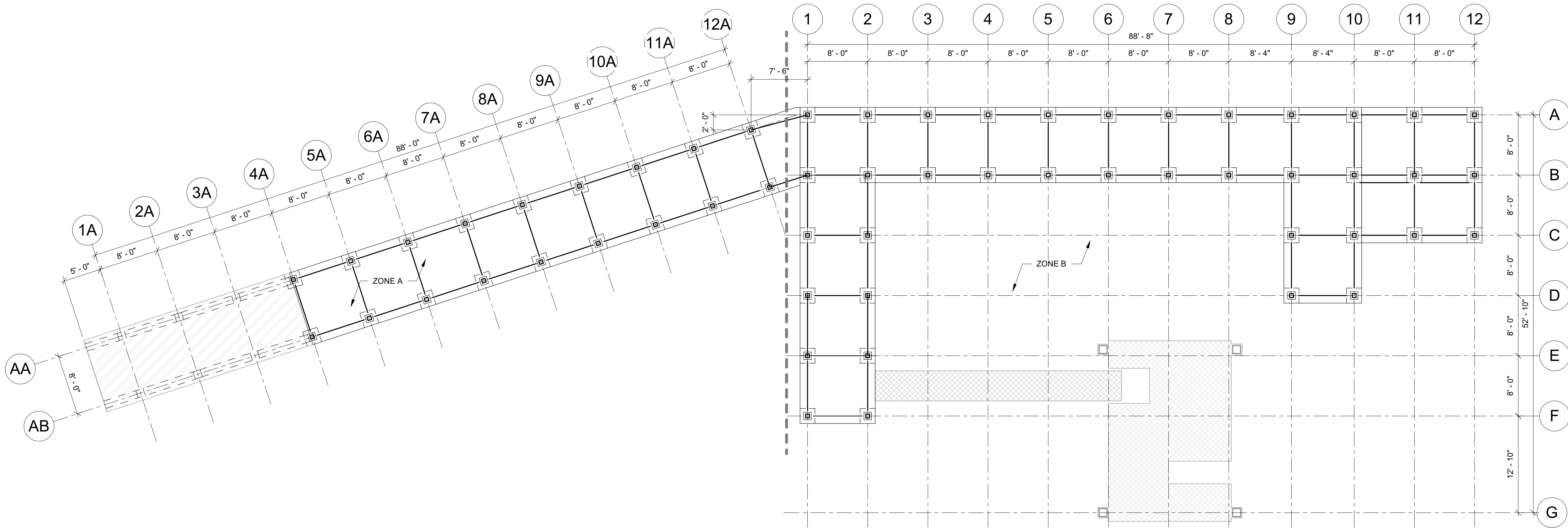
- PRESSURES SHOWN ABOVE ARE ULTIMATE COMPONENTS AND CLADDING PRESSURES. THESE CAN BE CONVERTED TO NOMINAL PRESSURES BY USING A 0.6 MULTIPLIER FACTOR. NO FURTHER REDUCTION IS ALLOWED.
- A - INDICATES TRIBUTARY AREA IN S.F.  
a - INDICATES END ZONE WIDTH IN FT.  
h - MEAN ROOF HEIGHT IN FT.  
Vult - INDICATES ULTIMATE DESIGN WIND SPEED IN MPH  
Vasd - INDICATES NOMINAL DESIGN WIND SPEED IN MPH
- GROSS PRESSURES ARE FOR JOISTS, WINDOWS, DOORS, VENEER, LIGHT GAGE METAL FRAMING, METAL DECK ATTACHMENTS, ROOFING, ROOFING ACCESSORIES AND OTHER BUILDING COMPONENTS AND CLADDING.
- GROSS PRESSURES SHALL BE LINEARLY INTERPOLATED FOR (A) NOT SHOWN IN TABLE.
- POSITIVE PRESSURES INDICATE PRESSURES ACTING TOWARD A PROJECTED SURFACE. NEGATIVE PRESSURES INDICATE PRESSURES ACTING AWAY FROM A PROJECTED SURFACE.
- ROOF AND ZONES 1 THRU 3
- WALL ZONES 4 AND 5
- OVERHANG ZONES 2e AND 3e APPLY ONLY TO ROOF OVERHANGS WHERE THE COMPONENT OR CLADDING RECEIVES PRESSURE SIMULTANEOUSLY ON BOTH SIDES (UPWARD SUCTION ON TOP AND UPWARD PRESSURE ON BOTTOM, SUCH AS AT OPEN SOFFITS), AND IS CONTINUOUS WITH FIELD OF ROOF.
- NET DESIGN ROOF PRESSURES SHALL BE CALCULATED USING THE SELFWEIGHT (DEAD LOAD) OF THE MATERIALS. HOWEVER, THE MAXIMUM REDUCTION OF WIND UPLIFT PRESSURES SHALL BE LIMITED TO THE SELF WEIGHT OF THE ROOF SYSTEM PLUS 5 PSF FOR SUPERIMPOSED DEAD LOADS.
- INTERNAL PRESSURE COEFFICIENT FOR ENCLOSED BUILDING EQUALS +0.18 AND -0.18. INTERNAL PRESSURE COEFFICIENT FOR OPEN STRUCTURE EQUALS +/- 0.00.




1 TOWER ROOF C&C DIAGRAM  
1/4" = 1'-0"



CUPOLA ROOF



2 OVERALL PLAN  
1/8" = 1'-0"

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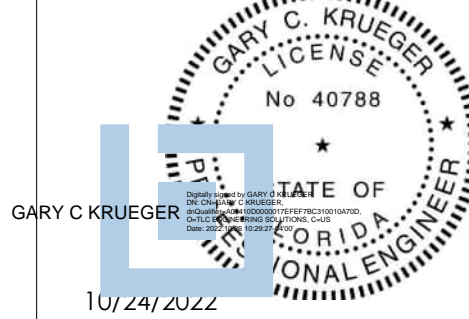
OWNER / PROJECT:

Lake County  
Ferndale Preserve

Observation Tower / Fishing Pier And  
Canoe/Kayak Launch

Ferndale, Florida

PROFESSIONAL SEAL:  
GARY C. KRUEGER, P.E.  
Florida License #40788



PROJECT NO: PSA2021-34.00

REVISIONS:

1 8/26/22 LAKE COUNTY COMM.

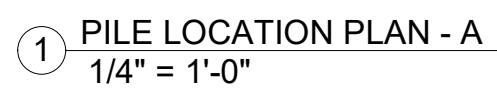
MARK DATE DESCRIPTION

ISSUE DATE: 5/12/22

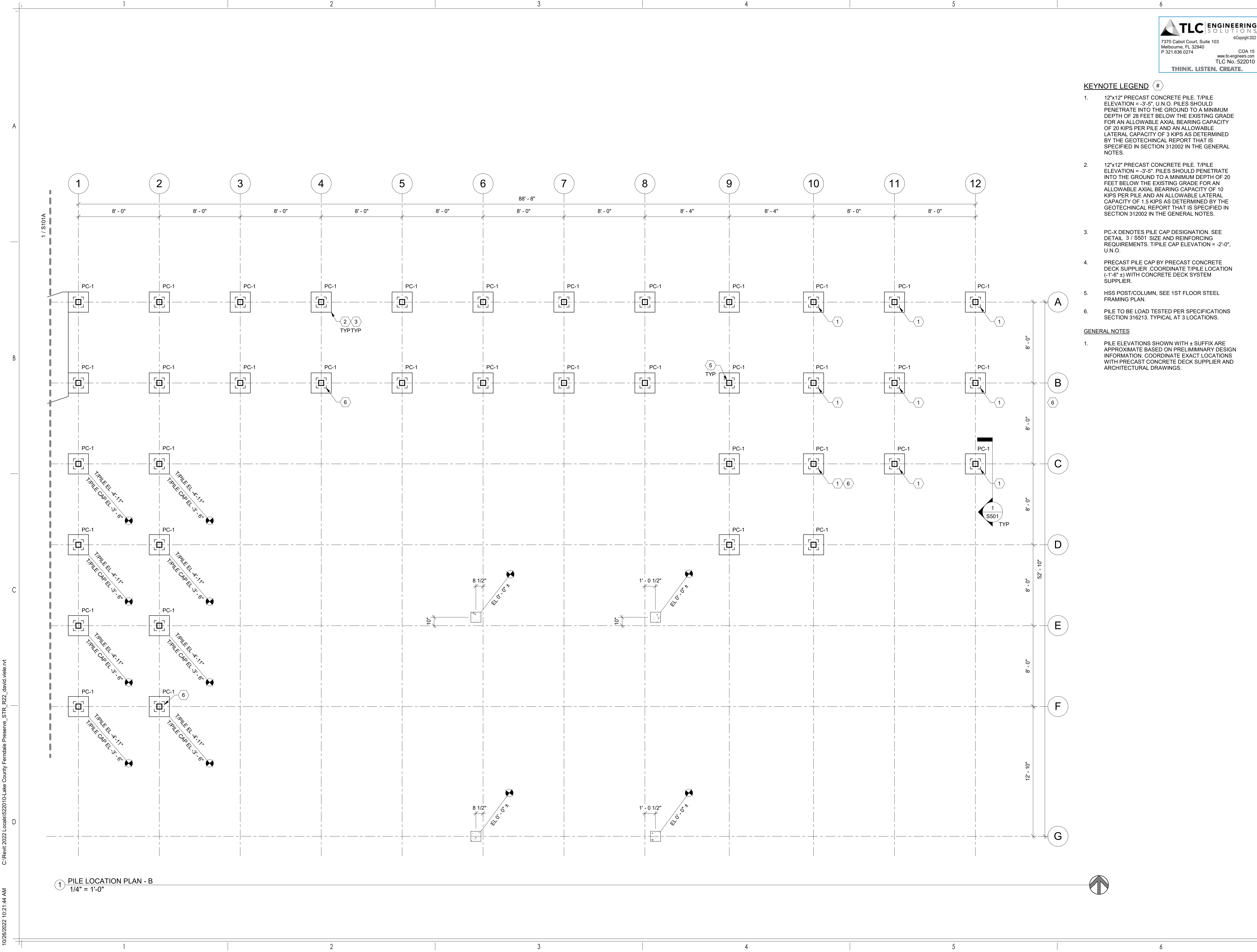
OVERALL SITE PLAN AND C&C  
WIND PRESSURES


S100









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KEYNOTE LEGEND (#)

1. 12"x12" PRECAST CONCRETE PILE. T/PILE ELEVATION = -3'-5". U.N.O. PILES SHOULD PENETRATE INTO THE GROUND TO A MINIMUM DEPTH OF 28 FEET BELOW THE EXISTING GRADE FOR AN ALLOWABLE AXIAL BEARING CAPACITY OF 20 KIPS PER PILE AND AN ALLOWABLE LATERAL CAPACITY OF 3 KIPS AS DETERMINED BY THE GEOTECHNICAL REPORT THAT IS SPECIFIED IN SECTION 312002 IN THE GENERAL NOTES.
2. 12"x12" PRECAST CONCRETE PILE. T/PILE ELEVATION = -3'-5". PILES SHOULD PENETRATE INTO THE GROUND TO A MINIMUM DEPTH OF 20 FEET BELOW THE EXISTING GRADE FOR AN ALLOWABLE AXIAL BEARING CAPACITY OF 10 KIPS PER PILE AND AN ALLOWABLE LATERAL CAPACITY OF 1.5 KIPS AS DETERMINED BY THE GEOTECHNICAL REPORT THAT IS SPECIFIED IN SECTION 312002 IN THE GENERAL NOTES.
3. PC-X DENOTES PILE CAP DESIGNATION. SEE DETAIL 3 / S501 SIZE AND REINFORCING REQUIREMENTS. T/PILE CAP ELEVATION = -2'-0", U.N.O.
4. PRECAST PILE CAP BY PRECAST CONCRETE DECK SUPPLIER. COORDINATE T/PILE LOCATION (-1'-6" ±) WITH CONCRETE DECK SYSTEM SUPPLIER.
5. HSS POST/COLUMN, SEE 1ST FLOOR STEEL FRAMING PLAN.
6. PILE TO BE LOAD TESTED PER SPECIFICATIONS SECTION 316213. TYPICAL AT 3 LOCATIONS.

GENERAL NOTES

1. PILE ELEVATIONS SHOWN WITH ± SUFFIX ARE APPROXIMATE BASED ON PRELIMINARY DESIGN INFORMATION. COORDINATE EXACT LOCATIONS WITH PRECAST CONCRETE DECK SUPPLIER AND ARCHITECTURAL DRAWINGS.

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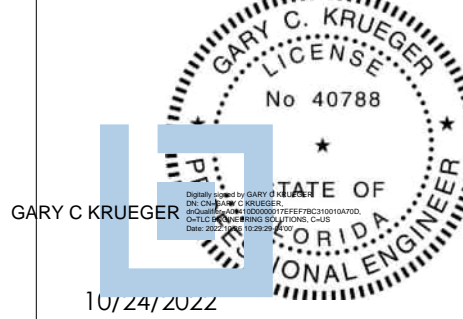
OWNER:

OWNER / PROJECT:

Lake County  
Ferndale Preserve  
Observation Tower / Fishing Pier And  
Canoe/Kayak Launch

Ferndale, Florida

PROFESSIONAL SEAL:  
GARY C. KRUEGER, P.E.  
Florida License #40788



PROJECT NO: PSA2021-34.00

REVISIONS:

1	8/26/22	LAKE COUNTY COMM.
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MARK DATE DESCRIPTION

ISSUE DATE: 5/12/22

PILE LOCATION PLAN

S101B



OWNER:

OWNER / PROJECT:

# Lake County Ferndale Preserve

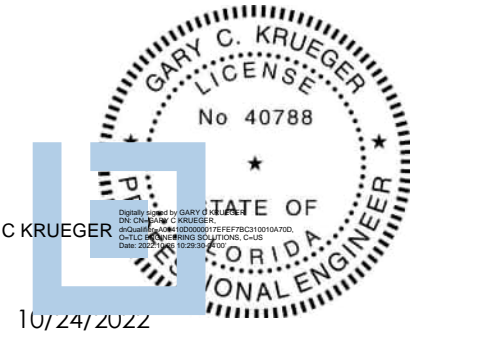
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Observation Tower / Fishing Pier And  
Canoe/Kayak Launch

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Ferndale, Florida

PROFESSIONAL SEAL:  
GARY C. KRUEGER, P.E.  
Florida License #40788



PROJECT NO: PSA2021-34.00

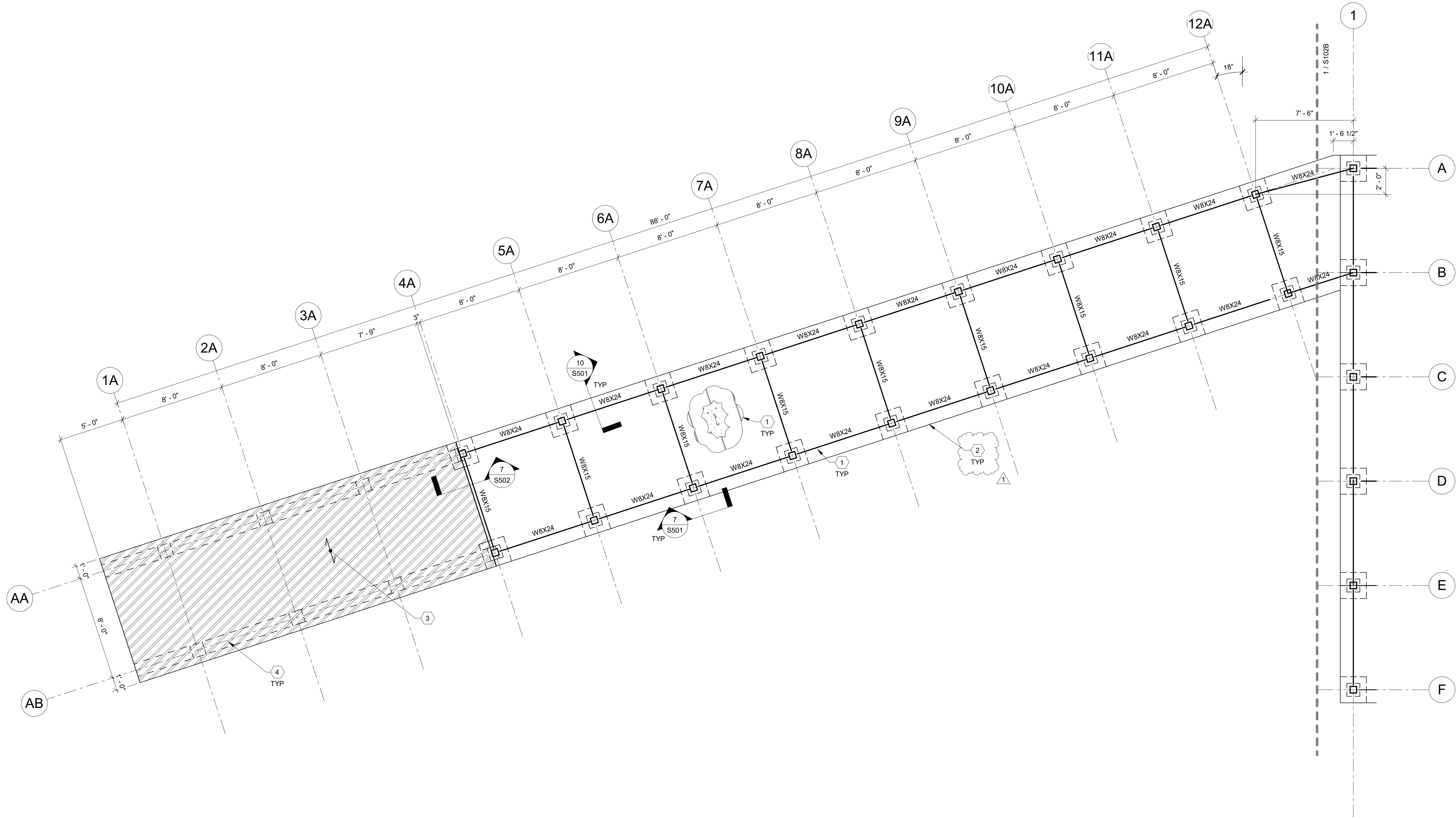
REVISIONS:		
1	8/26/22	LAKE COUNTY COMM.

MARK	DATE	DESCRIPTION
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ISSUE DATE: 5/12/22

### 1ST FLOOR FRAMING PLAN

S102A



1 1ST FLOOR STEEL FRAMING PLAN - A  
1/4" = 1'-0"



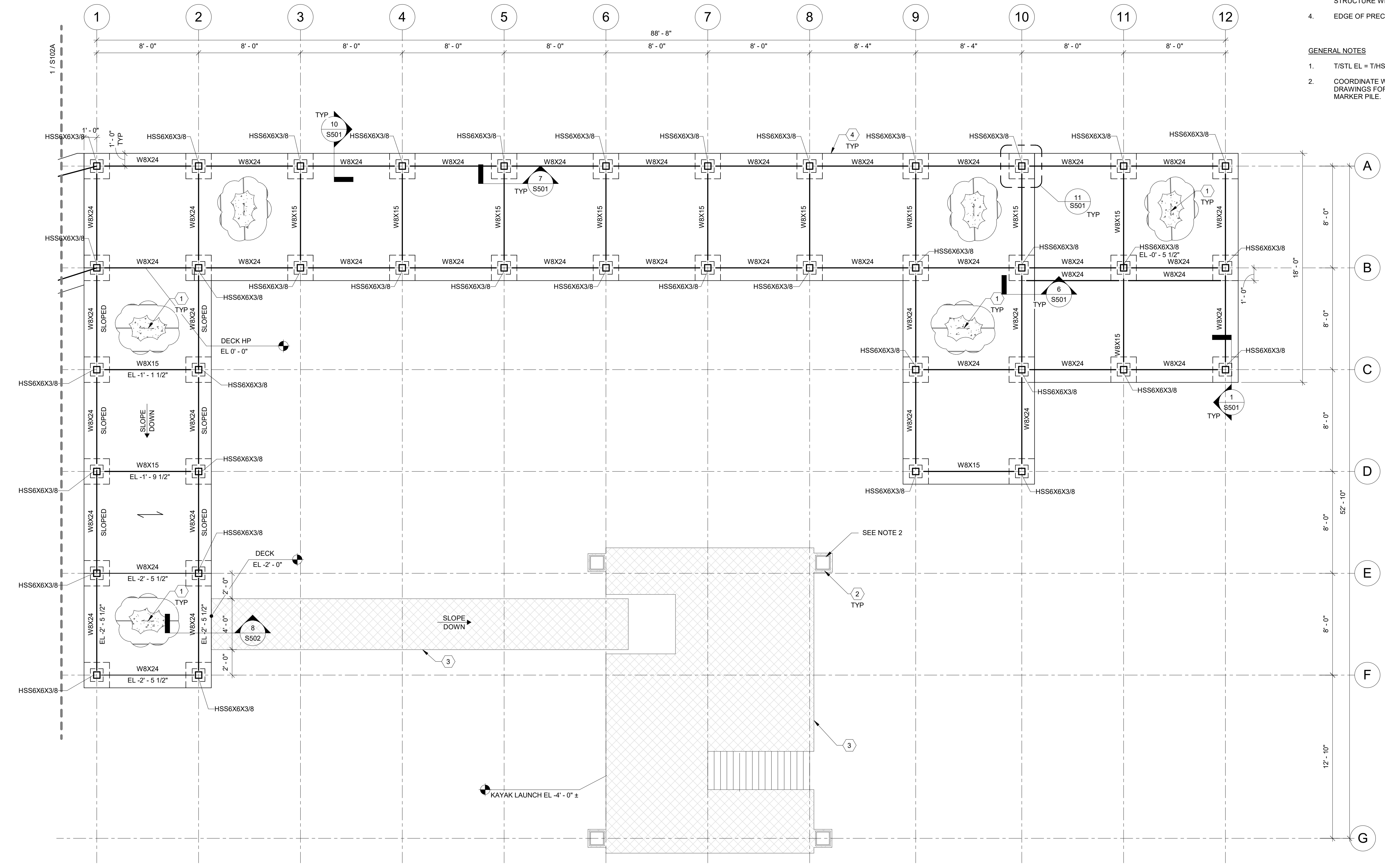
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C:\Revit 2022\Locales\522010-Lake County Ferndale Preserve\_STR\_R22\_david.viele.rvt

A


B

C

D

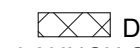


1 1ST FLOOR STEEL FRAMING PLAN - B  
1/4" = 1'-0"

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COA 15  
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- KEYNOTE LEGEND** #
- 5 1/2" THICK PRECAST CONCRETE DECKING SPAN DIRECTION. PRECAST CONCRETE DECKING IS TO BE SUPPLIED BY SPECIALTY DESIGN ENGINEER. T/DECK EL = 0'-0", U.N.O.
  - SUPPORT AT ALUMINUM FLOATING DECK STRUCTURE TO PILE CAP BY SUPPLIER.
  -  DENOTES ALUMINUM FLOATING KAYAK LAUNCH STRUCTURE BY DELEGATED SPECIALTY DESIGN ENGINEER. COORDINATE THE DIMENSIONS AND LOCATION OF THE LAUNCH STRUCTURE WITH ARCHITECTURAL DRAWINGS.
  - EDGE OF PRECAST CONCRETE DECKING.

- GENERAL NOTES**
- T/STL EL = T/HSS EL+0'-5 1/2", U.N.O.
  - COORDINATE WITH THE ARCHITECTURAL DRAWINGS FOR REQUIREMENTS RELATED TO THE MARKER PILE.

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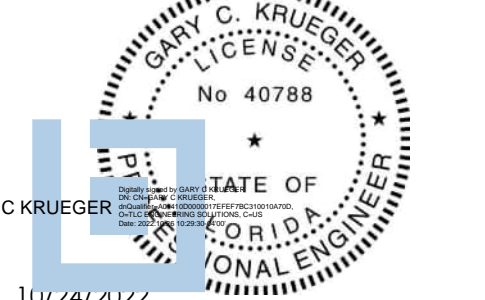
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Ferndale Preserve

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Canoe/Kayak Launch

Ferndale, Florida

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GARY C. KRUEGER  
10/24/2022

PROJECT NO: PSA2021-34.00		
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MARK	DATE	DESCRIPTION
ISSUE DATE: 5/12/22		
1ST FLOOR FRAMING PLAN		

S102B



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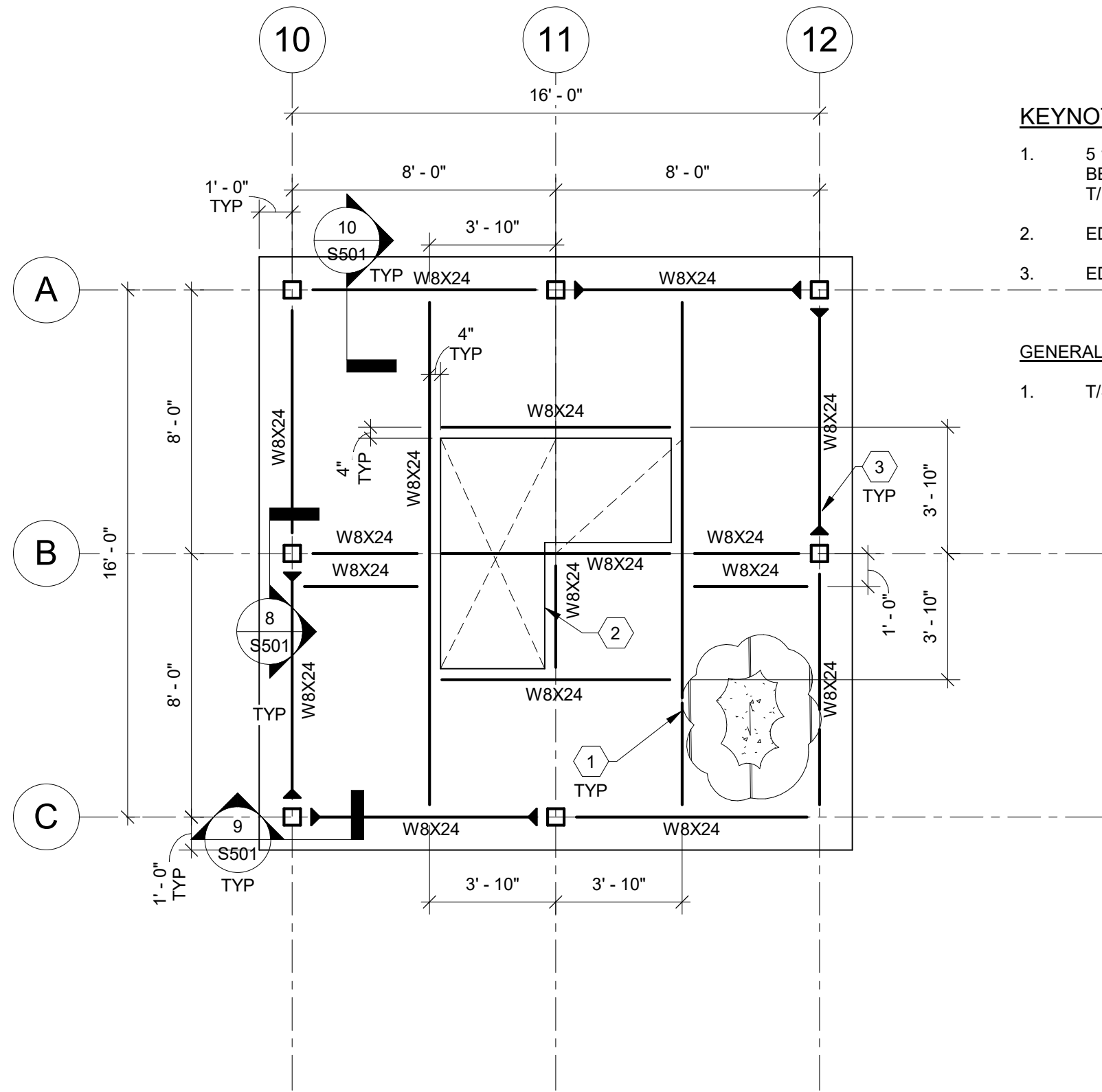
A

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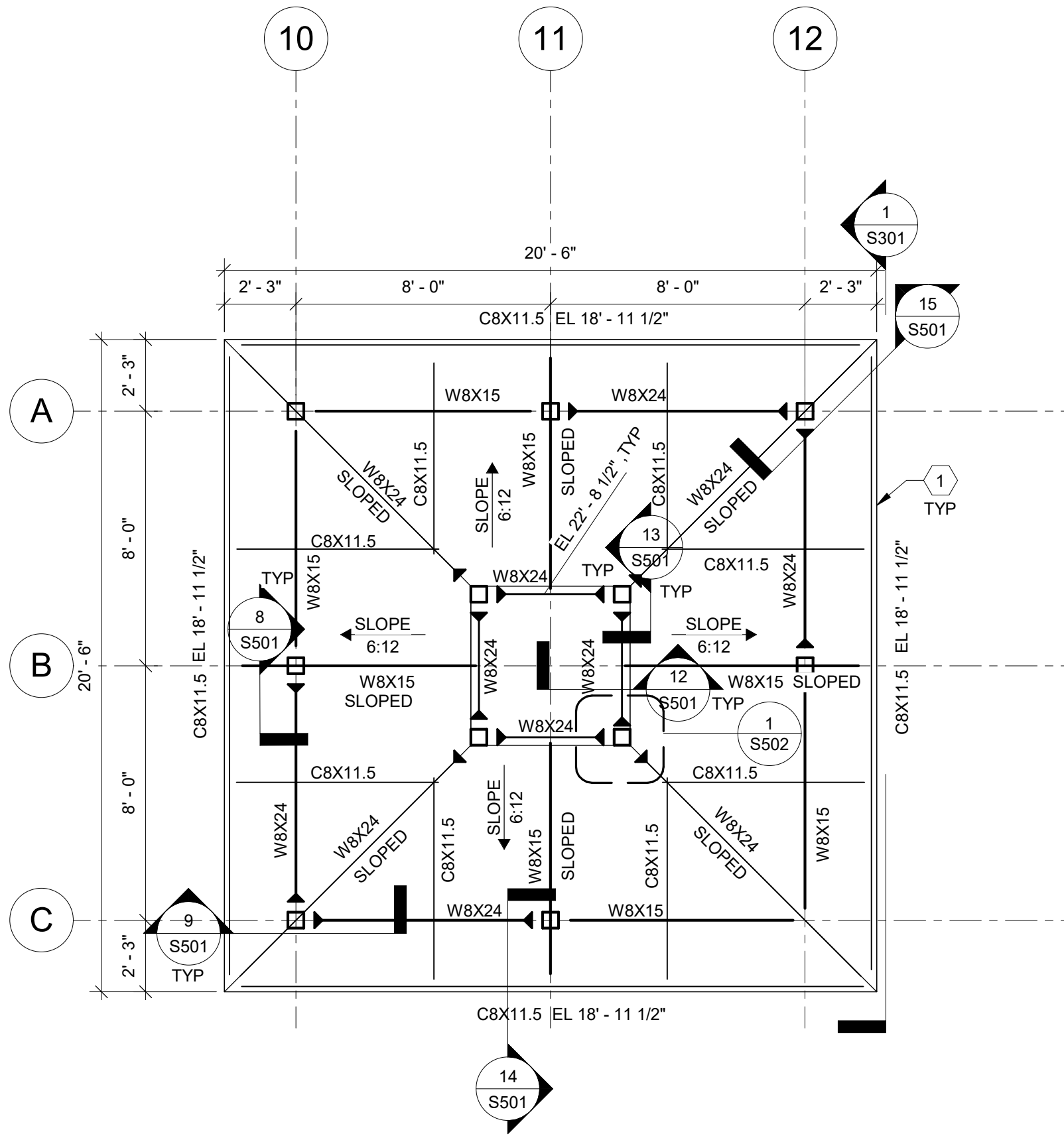
10/26/2022 10:21:47 AM



- KEYNOTE LEGEND** #
- 5 1/2" THICK PRECAST CONCRETE DECKING TO BE SUPPLIED BY DELIGATED DESIGN ENGINEER T/DECK EL = 10'-0" U.N.O.
  - EDGE OF OPENING FOR STAIR ACCESS.
  - EDGE OF PRECAST DECKING.

- GENERAL NOTES**
- T/STL EL = 9'-6 1/2", U.N.O.

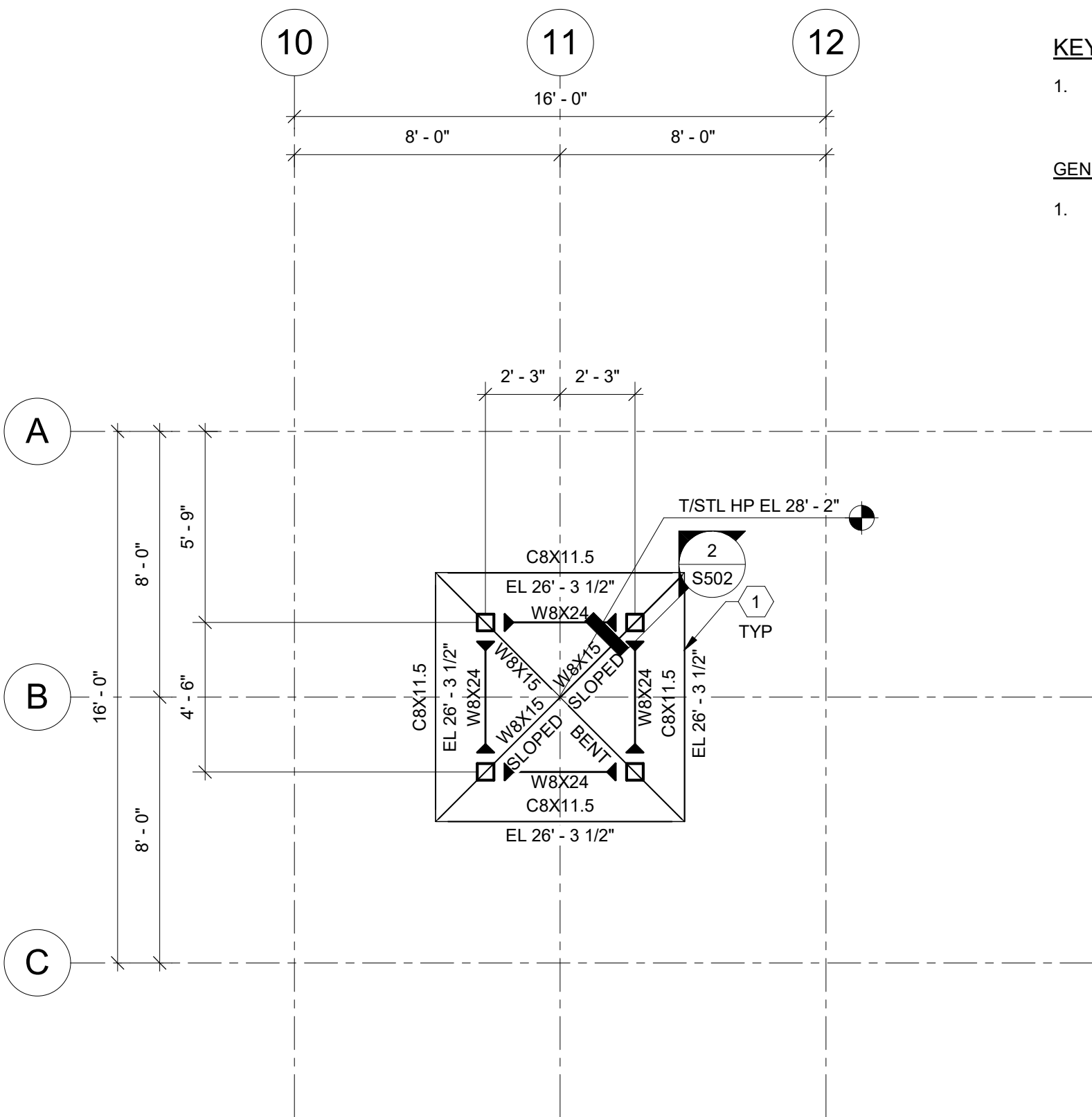
1 SECOND FLOOR FRAMING PLAN  
1/4" = 1'-0"



- KEYNOTE LEGEND** #
- 1 1/2" 22 GAGE, TYPE "B" ROOF DECK.

- GENERAL NOTES**
- T/STEEL EL = 19'-2", U.N.O.

2 ROOF FRAMING PLAN  
1/4" = 1'-0"



- KEYNOTE LEGEND** #
- 1 1/2" 22 GAGE, TYPE "B" ROOF DECK.
- GENERAL NOTES**
- T/STEEL EL = 26'-0", U.N.O.

3 CUPOLA FRAMING PLAN  
1/4" = 1'-0"



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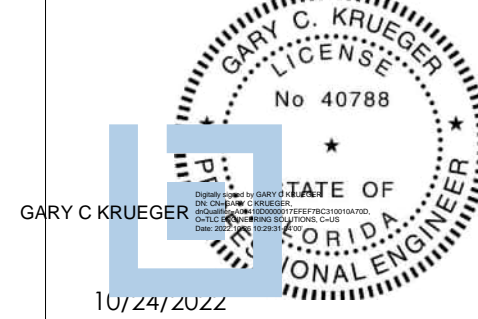
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# Lake County Ferndale Preserve

Observation Tower / Fishing Pier And  
Canoe/Kayak Launch

Ferndale, Florida

PROFESSIONAL SEAL:  
GARY C. KRUEGER, P.E.  
Florida License #40788



PROJECT NO: PSA2021-34.00

REVISIONS:

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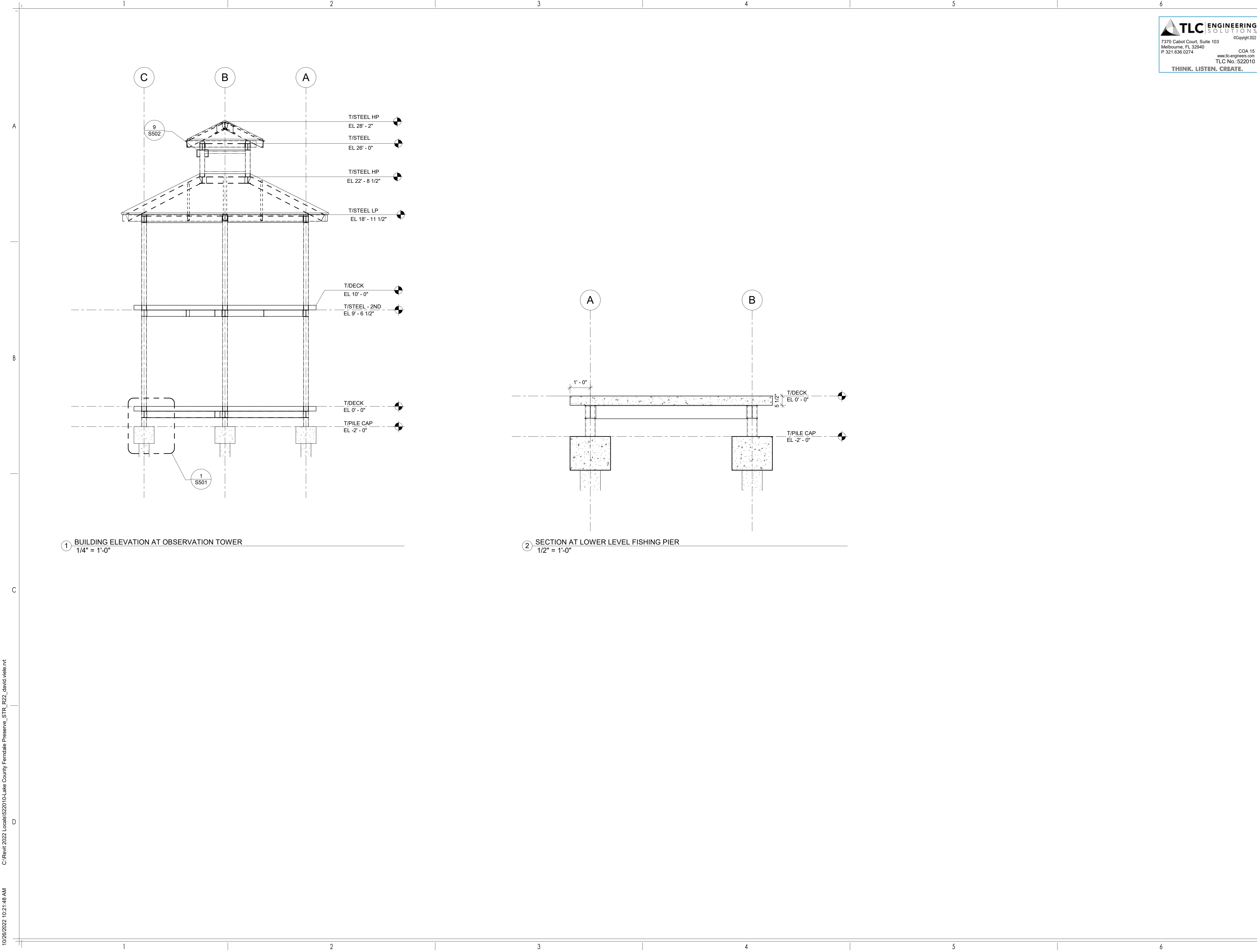
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UPPER FLOOR AND ROOF  
FRAMING PLAN

S103





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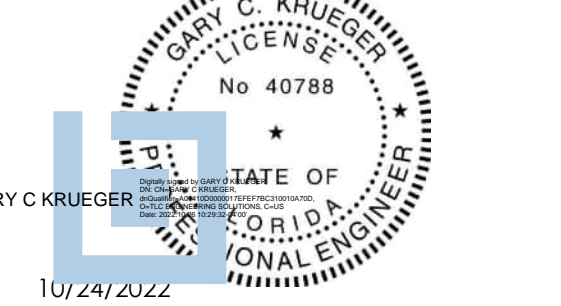
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Ferndale Preserve  
Observation Tower / Fishing Pier And  
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Ferndale, Florida

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STRUCTURAL ELEVATIONS

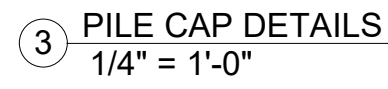
S301



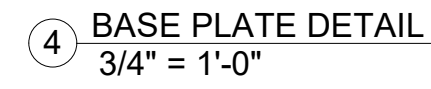


5 TYPICAL ANCHOR BOLT DETAIL  
3/4" = 1'-0"

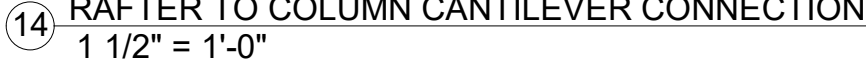
② PILE CAP SCHEDULE  
3/4" = 1'-0"



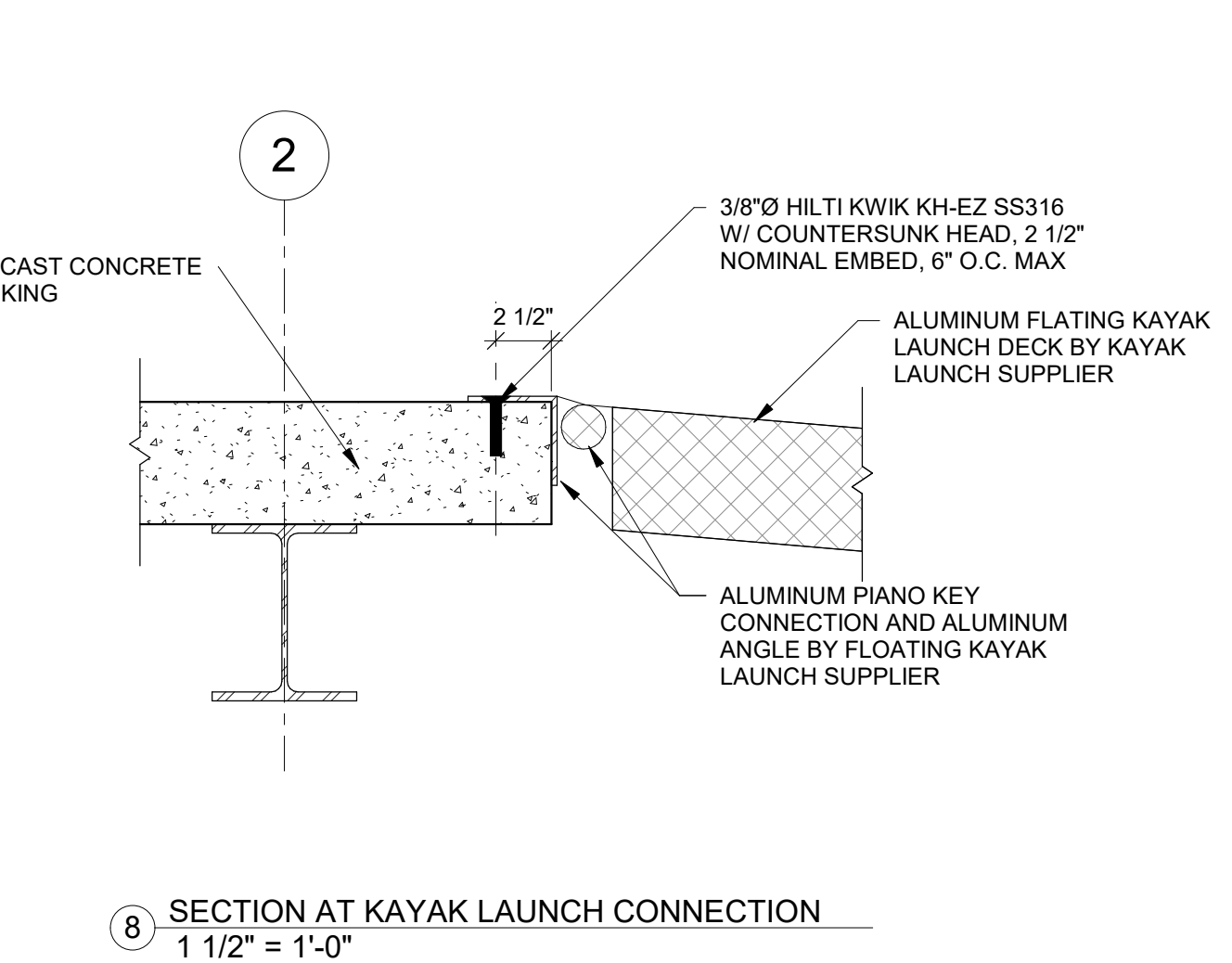
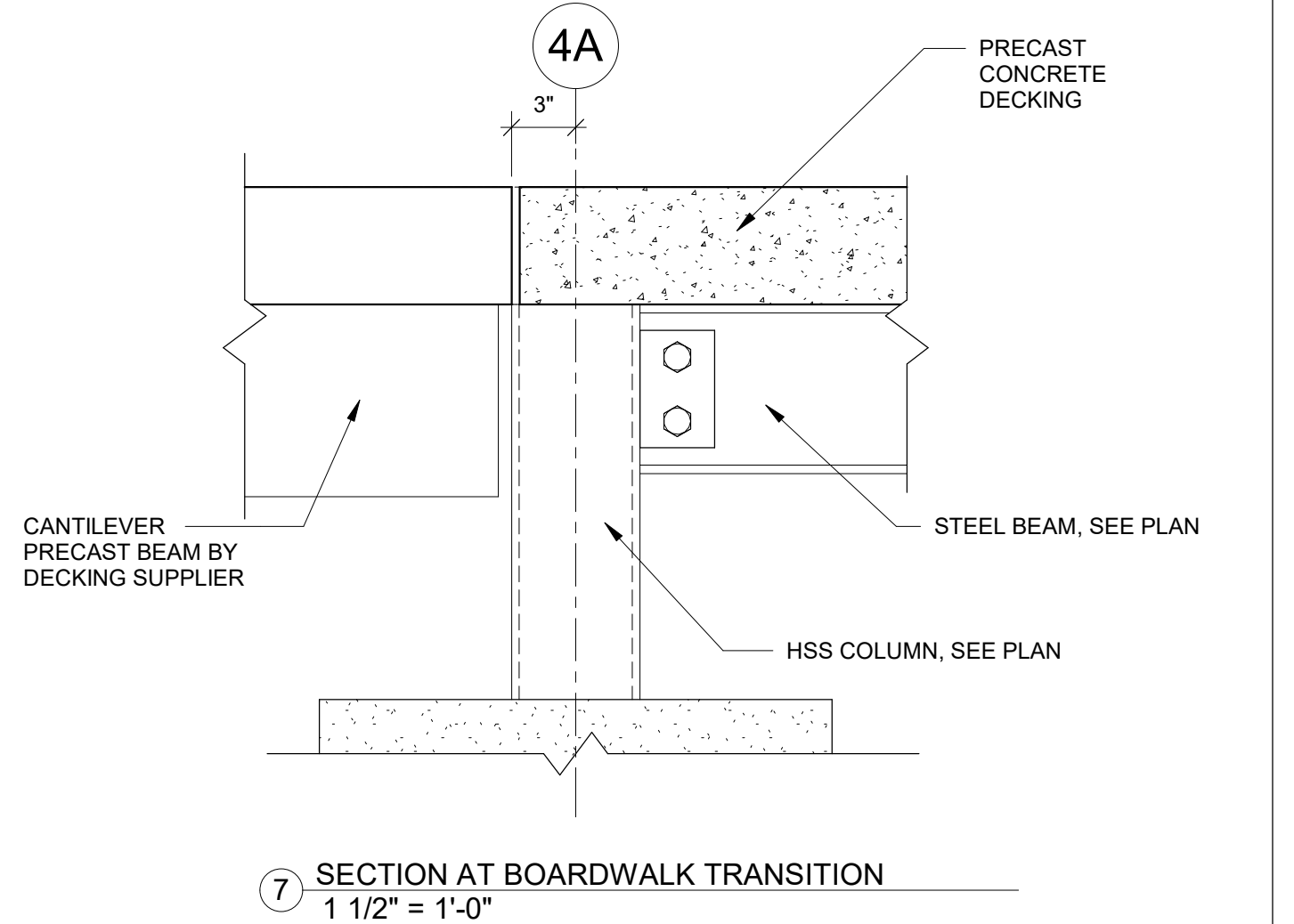
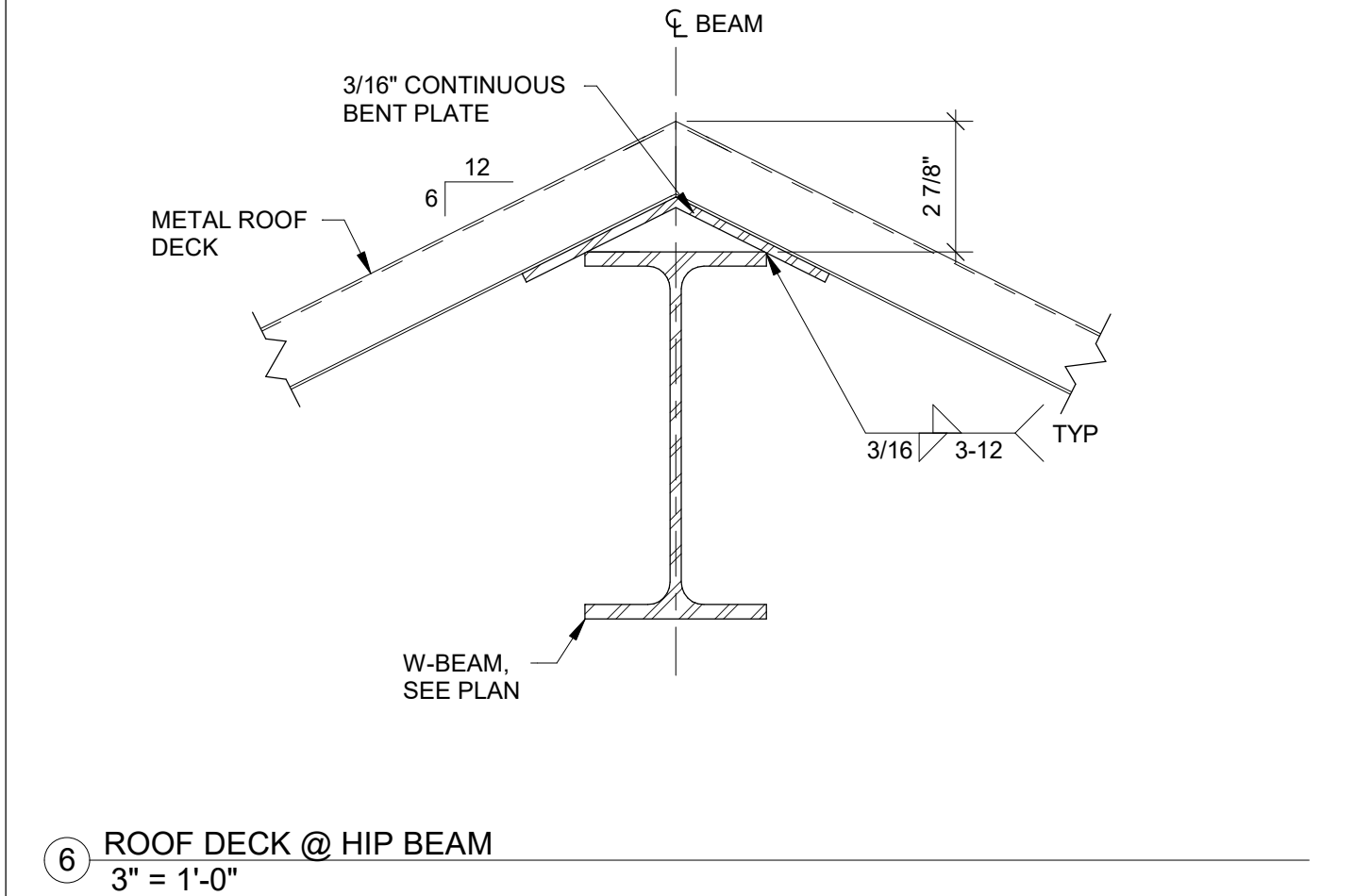
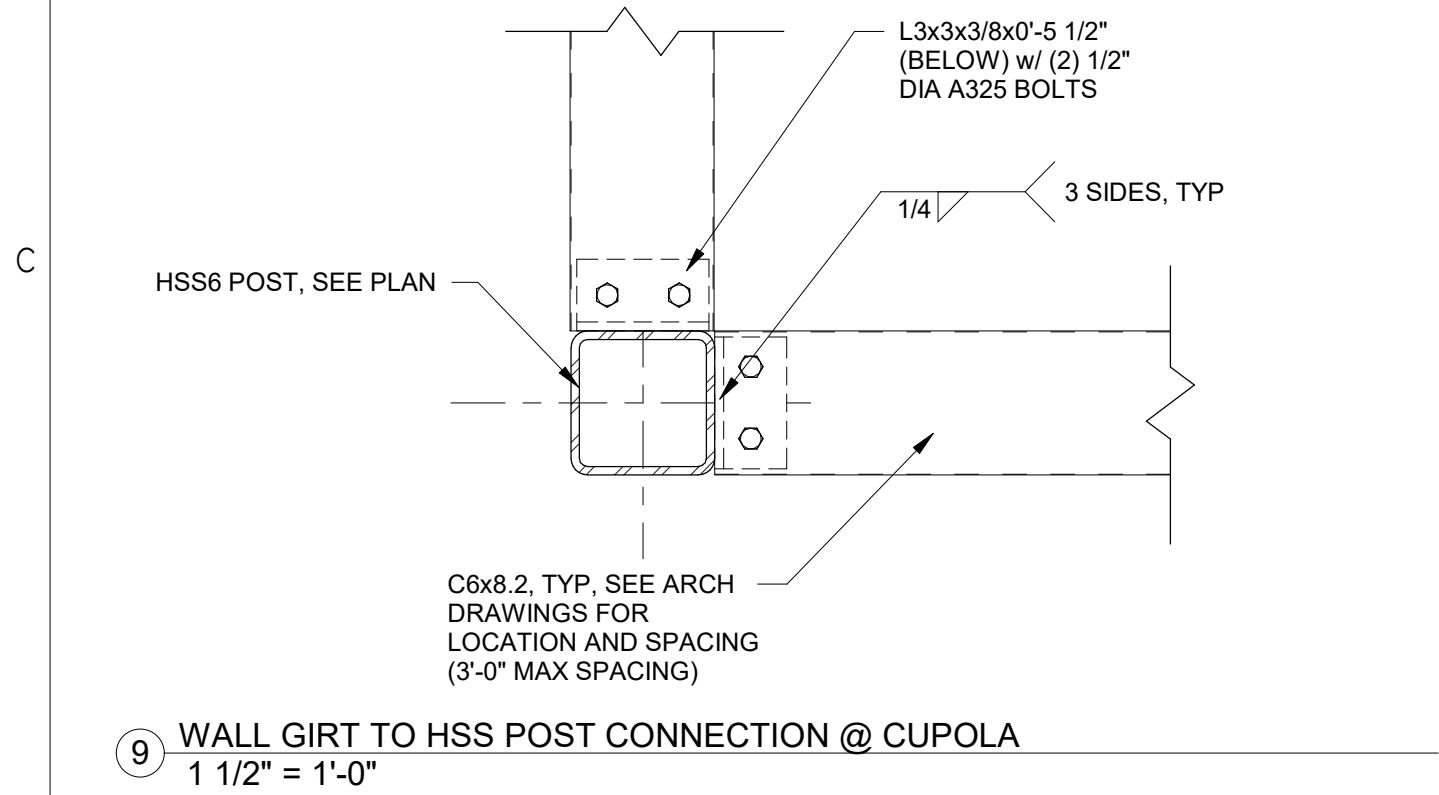
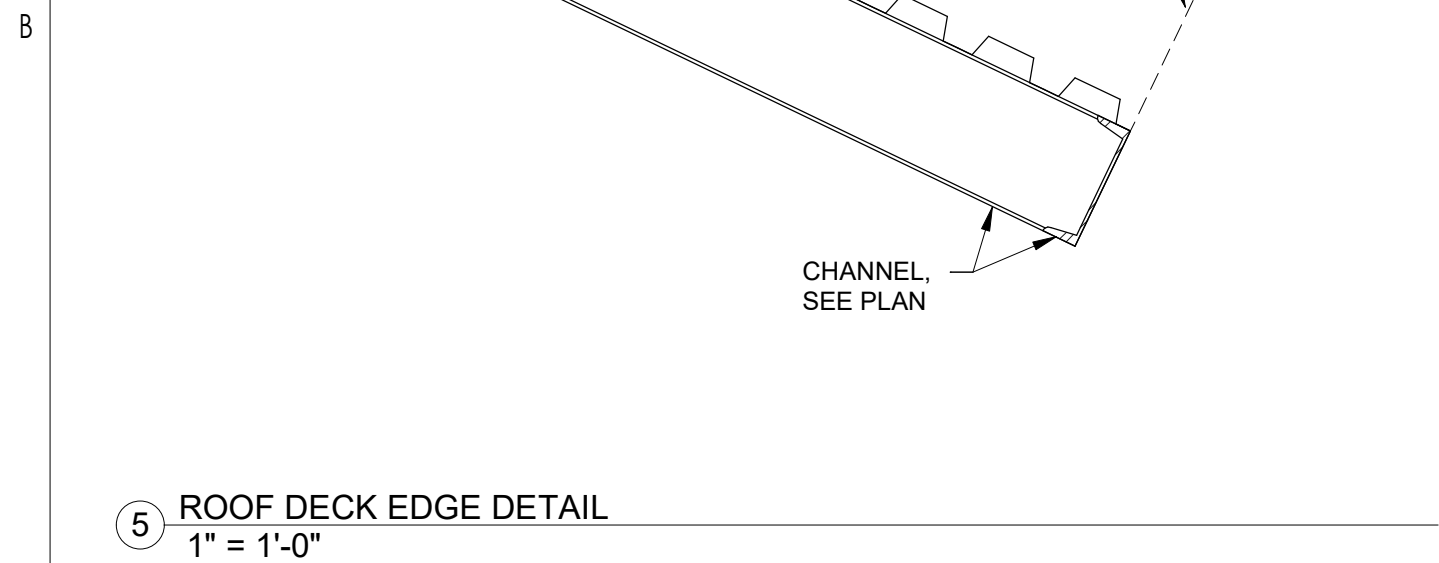
6 TYPICAL BEAM TO GIRDER CONNECTION  
3/4" = 1'-0"




12 TYPICAL SLOPED BEAM TO BEAM CONNECTION  
1 1/2" = 1'-0"







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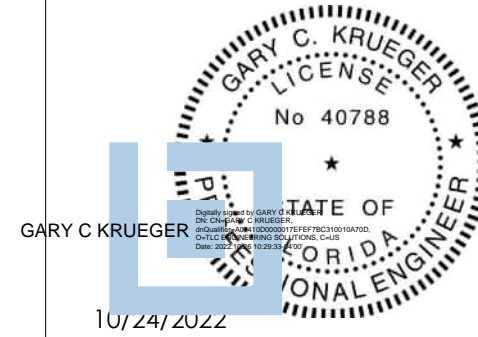
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Observation Tower / Fishing Pier And  
Canoe/Kayak Launch

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Ferndale, Florida

PROFESSIONAL SEAL:  
GARY C. KRUEGER, P.E.  
Florida License #40788



PROJECT NO: PSA2021-34.00

## REVISIONS

[illegible]

MARK	DATE	DESCRIPTION
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ISSUE DATE: 5/12/22

## STRUCTURAL DETAILS

S502