



Drainage Statement: Multiple Paving Improvements at Okeechobee Clean Energy Center

Florida Power & Light Company is requesting an amendment to the previously issued Site Certification (PA15-58) for the Okeechobee Clean Energy Center (OCEC) to support the installation of multiple improvements throughout the Plant. OCEC, located south of State Road 60 in Okeechobee County, Florida, is an existing power plant that consists of a combined cycle power plant with associated site infrastructure. The plant is located within a Certified Boundary.

The following improvements are necessary for the continued operation and maintenance of OCEC:

- **Construction of a new Potable Water System Foundation Pad:** previously permitted as 300 square feet in the 2020 SC Amendment (AM20-226); improvements will include the demolition of 150 square feet of concrete pads and the installation of 1,828 square feet of concrete pads (20' x 50'; 24'x32'; 5'x12').
- **Construction of a Helistop Foundation Pad:** improvements will include the installation of 6,724 square feet of concrete pad (82' X 82').
- **Construction of a 4kV Emergency Diesel Generator and Power Distribution Center Foundation Pad:** previously removed in 2019 Amendment (AM19-206); improvements will include the installation of 1,040 square feet of concrete pads (EDG 16' X 50'; PDC 12' X 20').
- **Contractor and FPL parking lot:** previously permitted as approximately 437,960 square feet in the 2019 SC Amendment (AM19-206); improvements will include the installation of 105,700 square feet of paved area (Contractor parking area to include new Security Building 240' X 120'; Truck Turn-around 360' X 40'; FPL parking area 250' X 250').
- **Security Building:** previously permitted in the 2019 SC Amendment (AM19-206): included in Item 4 above.
- **Concrete sidewalks to the three chemical shacks:** improvements will include the installation of 430 square feet of concrete sidewalks; (CT 11 is 5' X 33'; CT 12 is 5' X 31'; CT 13 is 5' X 22').
- **CT 11 sidewalk extension:** improvements will include the installation of 60 square feet of concrete sidewalk; (CT 11 is 3' X 20').
- **CT 12 sidewalk extension:** improvements will include the installation of 60 square feet of concrete sidewalk; (CT 12 is 3' X 20').
- **CT 13 sidewalk extension:** improvements will include the installation of 60 square feet of concrete sidewalk; (CT 13 is 3' X 20').
- **ST 11 sidewalk extension:** improvements will include the installation of 60 square feet of concrete sidewalk; (ST is 3' X 20').

- **Construct Comms Tower, E-house pad, EDG Pad and propane tank pad:** improvements include the installation of three pads (E-house pad: 12'x20'; EDG pad: 10'x10.75'; propane tank pad: 11'x5').
- **Construct Circ Water Piping Platform for stairs:** improvements will include the installation of 11 square feet of concrete pad (3' x 3.5').
- **Construct Backup Air Compressor Pad:** improvements include the installation of a concrete pad; (16.5' x 13.5').
- **Construct Fuel Gas Pressure Regulating Skid:** improvements include the installation of a concrete pad (8' x 25').
- **Construct CT-11 Tooling Laydown Pad:** improvements include the installation of a concrete pad (20' x 34').
- **Construct CT-12 Tooling Laydown Pad:** improvements include the installation of a concrete pad (34' x 47').
- **Construct CT-13 Tooling Laydown Pad:** improvements include the installation of a concrete pad (34' x 48').
- **Construct sidewalk at Liquid Fuel Pumps:** improvements will include the installation of 360 square feet of concrete sidewalk.
- **Construct sidewalk for Cooling Tower MCC:** improvements will include the installation of 482 square feet of concrete sidewalk.
- **Construct ramp/sidewalk at Injection Well East:** improvements include the installation of 120 square feet of concrete sidewalk/ramp.
- **Construct ramp/sidewalk at Injection Well West:** improvements include the installation of 162 square feet of concrete sidewalk/ramp.

Total = 121,832 square feet (2.80 acres) of concrete slabs/foundations or asphalt pavement

The proposed improvements will be constructed on previously developed impervious, upland areas of OCEC.

The associated improvements are schematically illustrated on the attached plans, C-1 through C-5.

Stormwater Management

In 2017, Zachry prepared stormwater calculations to support the construction of the OCEC. (Reference: *Zachry 004687/Okeechobee Clean energy Center Unit 1 Calculation No. C-A004687-STF00014*). The stormwater management system for the OCEC consists of a 137-acre drainage area which includes

pretreatment and attenuation into two stormwater ponds, known as the North Pond and the Sound Pond, which ultimately discharge offsite to the east. Both the North Pond and the South Pond are designed as wet detention ponds with stormwater harvesting capability.

Figure 1 below provides an overview of the OCEC stormwater management system.

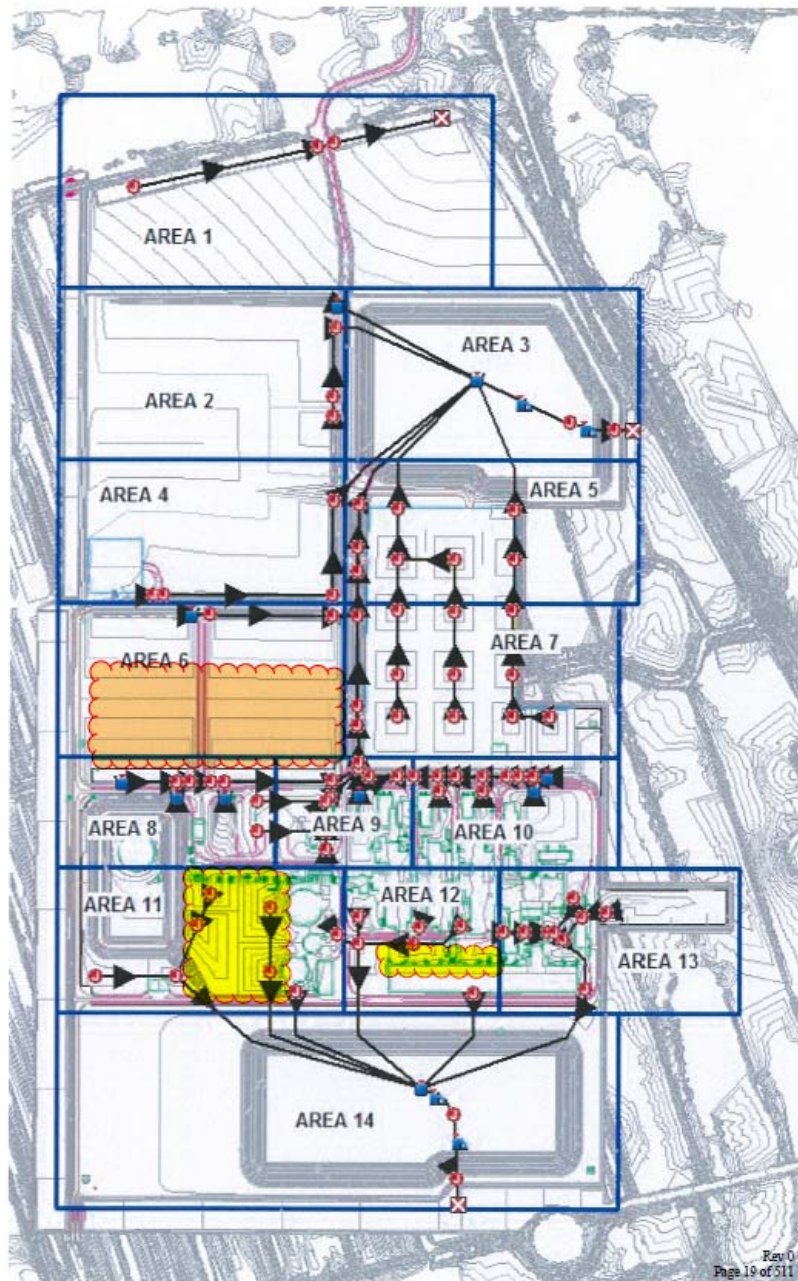


Figure 1: OCEC stormwater management system

The improvements planned by the OCEC, as described below, are located within the drainage basin for the **North Pond**.

North Pond Basin Area 4: The Zachry stormwater calculations assumed a CN of 91 for sub-basins N-103.

- **Fuel Gas Pressure Regulating Skid:** improvements include the installation of a concrete pad (8' x 25').

North Pond Basin Area 6: The Zachry stormwater calculations assumed a CN of 91 for sub-basins N-107 and N-110.

- **Contractor and FPL parking lot:** previously permitted in the 2019 SC Amendment (AM19-206); improvements will include the installation of 105,700 square feet of paved area (Contractor parking area to include new Security Building 240' X 120'; Truck Turn-around 360' X 40'. FPL parking area 250' X 250').
- **Security Building:** previously permitted in the 2019 SC Amendment (AM19-206); included in Item 4 above.

North Pond Basin Area 9: The Zachry stormwater calculations assumed a CN of approximately 92 for sub-basin N-141.

- **CT 11 sidewalk extension:** improvements will include the installation of 60 square feet of concrete sidewalk; (CT 11 is 3' X 20').
- **CT-11 Tooling Laydown Pad:** improvements include the installation of a concrete pad (20' x 34').

North Pond Basin Area 10: The Zachry stormwater calculations assumed a CN of approximately 95 for sub-basins N-142 and N-143, and 94 for N-144.

- **CT 12 sidewalk extension:** improvements will include the installation of 60 square feet of concrete sidewalk; (CT 12 is 3' X 20').
- **CT 13 sidewalk extension:** improvements will include the installation of 60 square feet of concrete sidewalk; (CT 13 is 3' X 20').
- **ST 11 sidewalk extension:** improvements will include the installation of 60 square feet of concrete sidewalk; (ST is 3' X 20').
- **CT-12 Tooling Laydown Pad:** improvements include the installation of a concrete pad (34' x 47').
- **CT-13 Tooling Laydown Pad:** improvements include the installation of a concrete pad (34' x 48').

The improvements planned by the OCEC, as described below, are located within the drainage basin for the **South Pond**.

South Pond Basin Area 11: The Zachry stormwater calculations assumed a CN of 85 for subbasin S-102 and approximately 93 for sub-basin S-105.

- **Construction of a new Potable Water System Foundation Pad;** previously permitted as 300 square feet in the 2020 SC Amendment (AM20-226): improvements will include the demolition of 150 square feet of concrete pads and the installation of 1,828 square feet of concrete pads (20' x 50'; 24'x32'; 5'x12').
- **Construction of a Helistop Foundation Pad:** improvements will include the installation of 6,724 square feet of concrete pad (82' X 82').
- **Construction of a 4kV Emergency Diesel Generator and Power Distribution Center Foundation Pad:** previously removed in 2019 Amendment (AM19-206); improvements will include the installation of 1,040 square feet of concrete pads (EDG 16' X 50'; PDC 12' X 20').
- **Construct Circ Water Piping Platform for stairs:** improvements will include the installation of 11 square feet of concrete pad (3' x 3.5').
- **Construct Comms Tower, E-house pad, EDG Pad and propane tank pad:** improvements include the installation of three pads (E-house pad: 12'x20'; EDG pad: 10'x10.75'; propane tank pad: 11'x5').
- **Construct sidewalk at Liquid Fuel Pumps:** improvements will include the installation of 360 square feet of concrete sidewalk.

South Pond Basin Area 12: The Zachry stormwater calculations assumed a CN of 95 for sub-basin S-109 and 98 for sub-basins S-110, and S-111.

- **Concrete sidewalks to the three chemical shacks:** improvements will include the installation of 430 square feet of concrete sidewalks; (CT 11 is 5' X 33'; CT 12 is 5' X 31'; CT 13 is 5' X 22').
- **Construct Backup Air Compressor Pad:** improvements include the installation of a concrete pad; (16.5' x 13.5').
- **Construct sidewalk for Cooling Tower MCC:** improvements will include the installation of 482 square feet of concrete sidewalk.

South Pond Basin Area 13: The Zachry stormwater calculations assumed a CN of 66 for sub-basin S-120.

- **Construct ramp/sidewalk at Injection Well East:** improvements include the installation of 120 square feet of concrete sidewalk/ramp.
- **Construct ramp/sidewalk at Injection Well West:** improvements include the installation of 162 square feet of concrete sidewalk/ramp.

Drainage to the North Pond is achieved primarily through sheet flow to open channel ditches and culverts. Drainage to the South Pond utilizes sheet flow that is collected by catch basins and routed through drainage pipes that discharge into the pond.

The improvements have been accounted for in the previously permitted impervious areas for the North Pond and South Pond drainage areas. There will be no increase in impervious area.

The South Pond drainage area is assumed to be 35.61 acres, of which 32.25 acres are impervious. The Zachry designed stormwater system required a treatment volume of 6.72 acre-feet in the South Pond, based on the provision of 2.5 inches times the percent impervious area to meet regulatory water quality standards. The South Pond provides an actual treatment volume of 19.70 acre-feet, thereby providing more than the required water quality treatment volume for the OCEC.

The North Pond drainage area is assumed to be 74.55 acres, of which 67.21 acres are impervious. The Zachry designed stormwater system required a treatment volume of 14.00 acre-feet in the South Pond, based on the provision of 2.5 inches times the percent impervious area to meet regulatory water quality standards. The North Pond provides an actual treatment volume of 30.81 acre-feet, thereby providing more than the required water quality treatment volume for the OCEC.

Water quality was provided for the 2.5 times the percent impervious area as part of the original stormwater management design. Since these areas were originally assumed to be impervious, **no additional retention or detention ponds/swales will be required**.

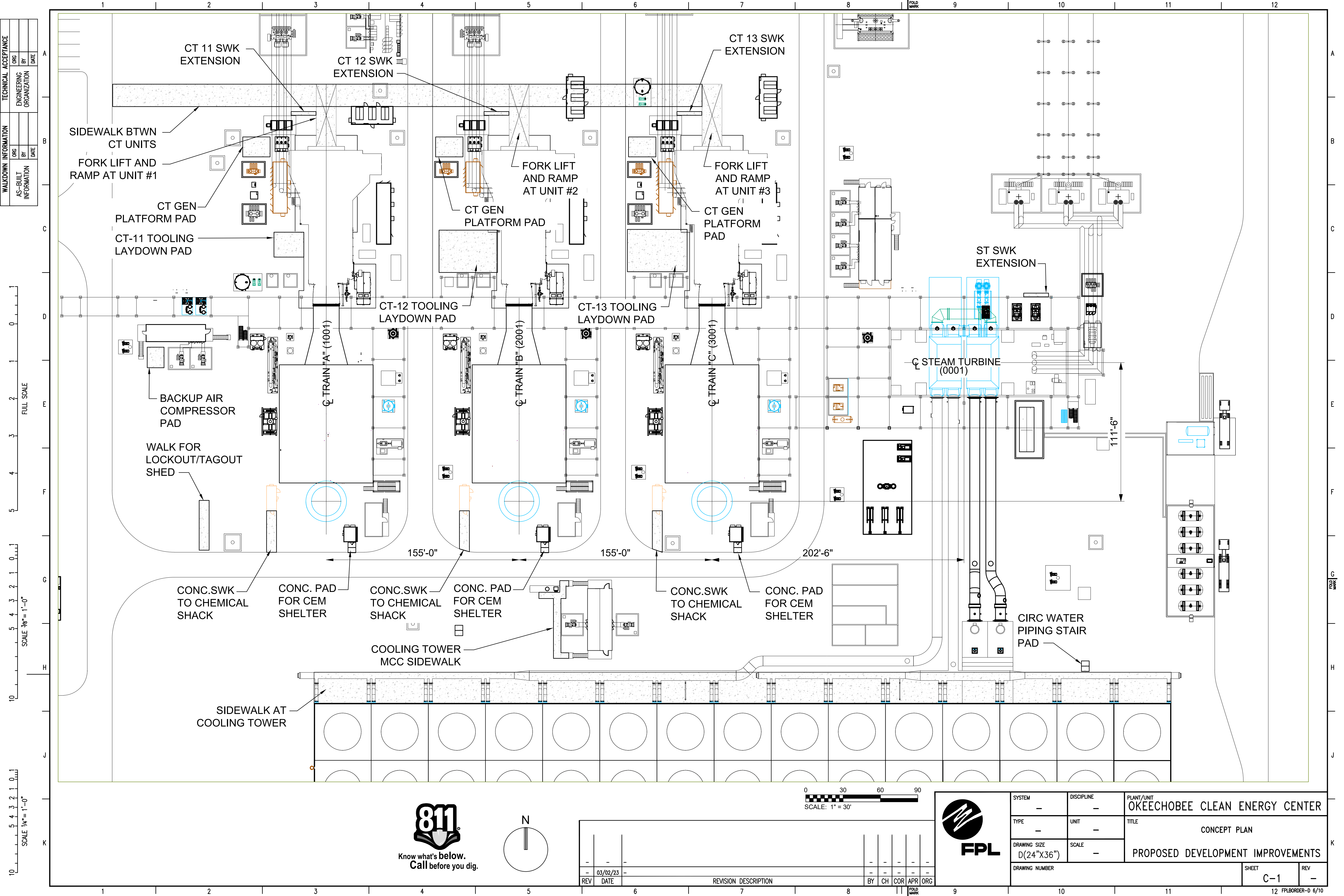
The runoff from the proposed improvements will drain via overland flow to existing drainage infrastructure within the North Pond and South Pond drainage areas. Piping and drainage structures will not be installed as part of the planned improvements. All slabs and foundations will be constructed at the existing finished grades (i.e., **no filling** of the site is planned).

No changes to the OCEC stormwater management system are necessary because of these improvements.

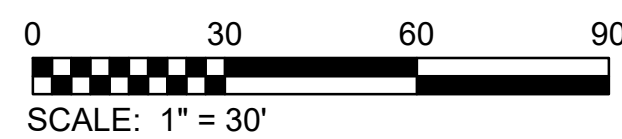
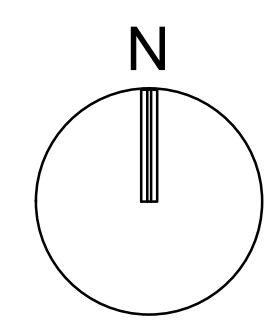
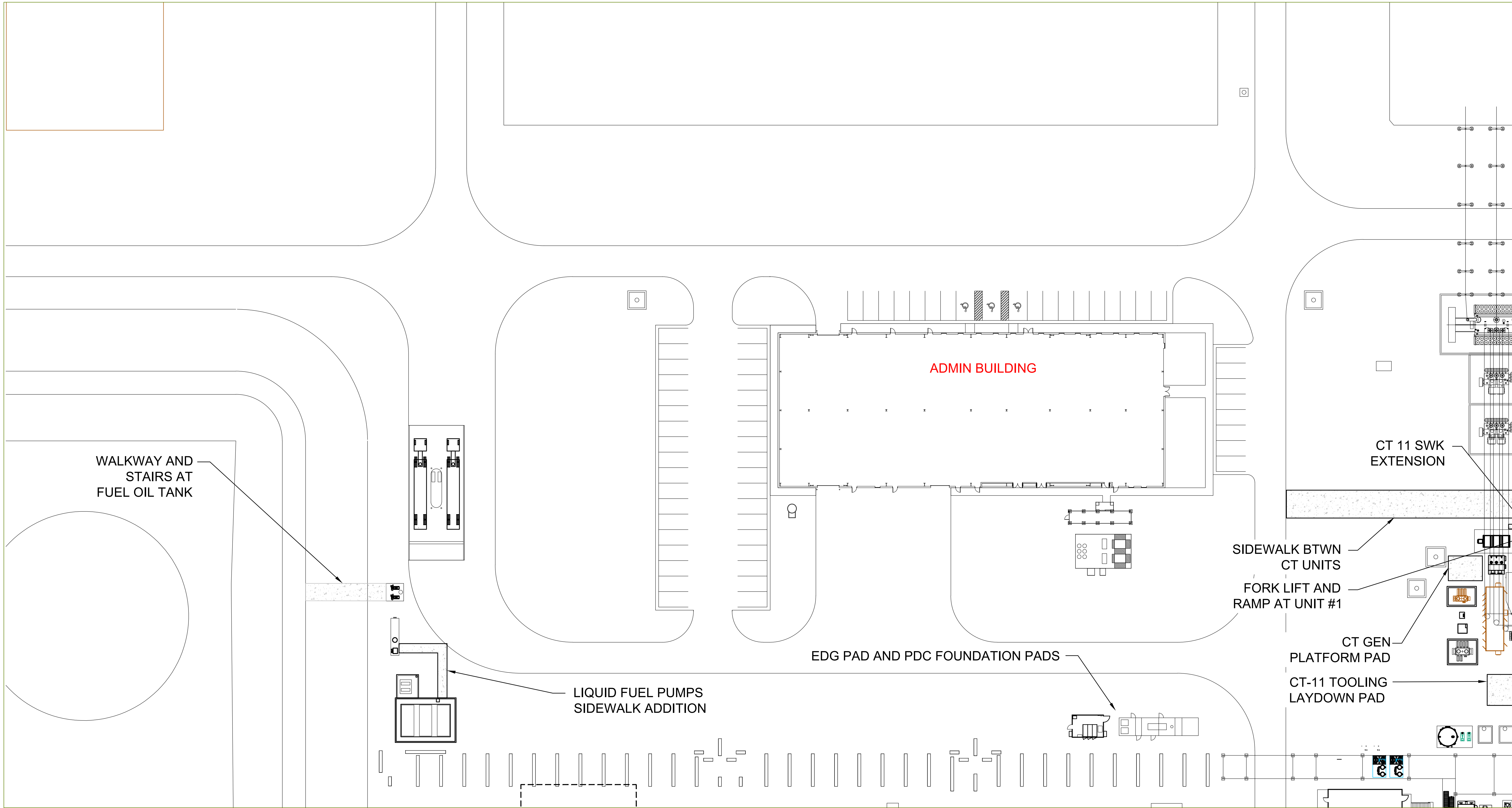
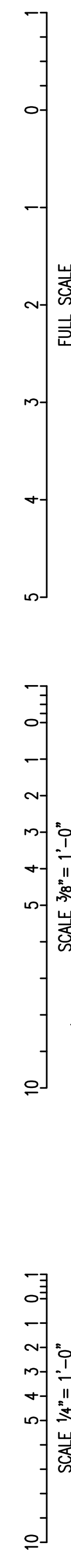
Claudine Alexander, Professional Engineer
State of Florida, License No. 53822

This item has been digitally signed and sealed by Claudine Alexander, P.E.
on March 2, 2023.

Printed copied of this document are not considered signed and sealed and
the signature must be verified.



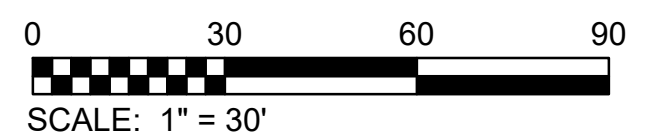
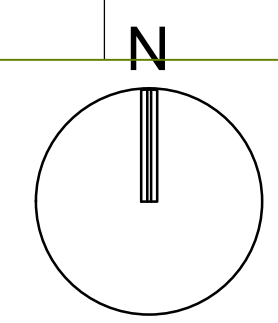
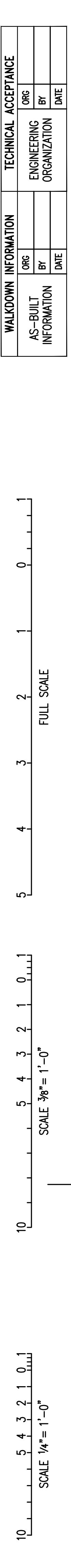
WALKDOWN INFORMATION			TECHNICAL ACCEPTANCE		
AS-BUILT INFORMATION	ORG	BY	ENGINEERING ORGANIZATION	ORG	BY
	DATE			DATE	



REV	DATE	REVISION DESCRIPTION	BY	CH	COR	APR	ORG
-	-	-	-	-	-	-	-
-	03/02/23	-	-	-	-	-	-



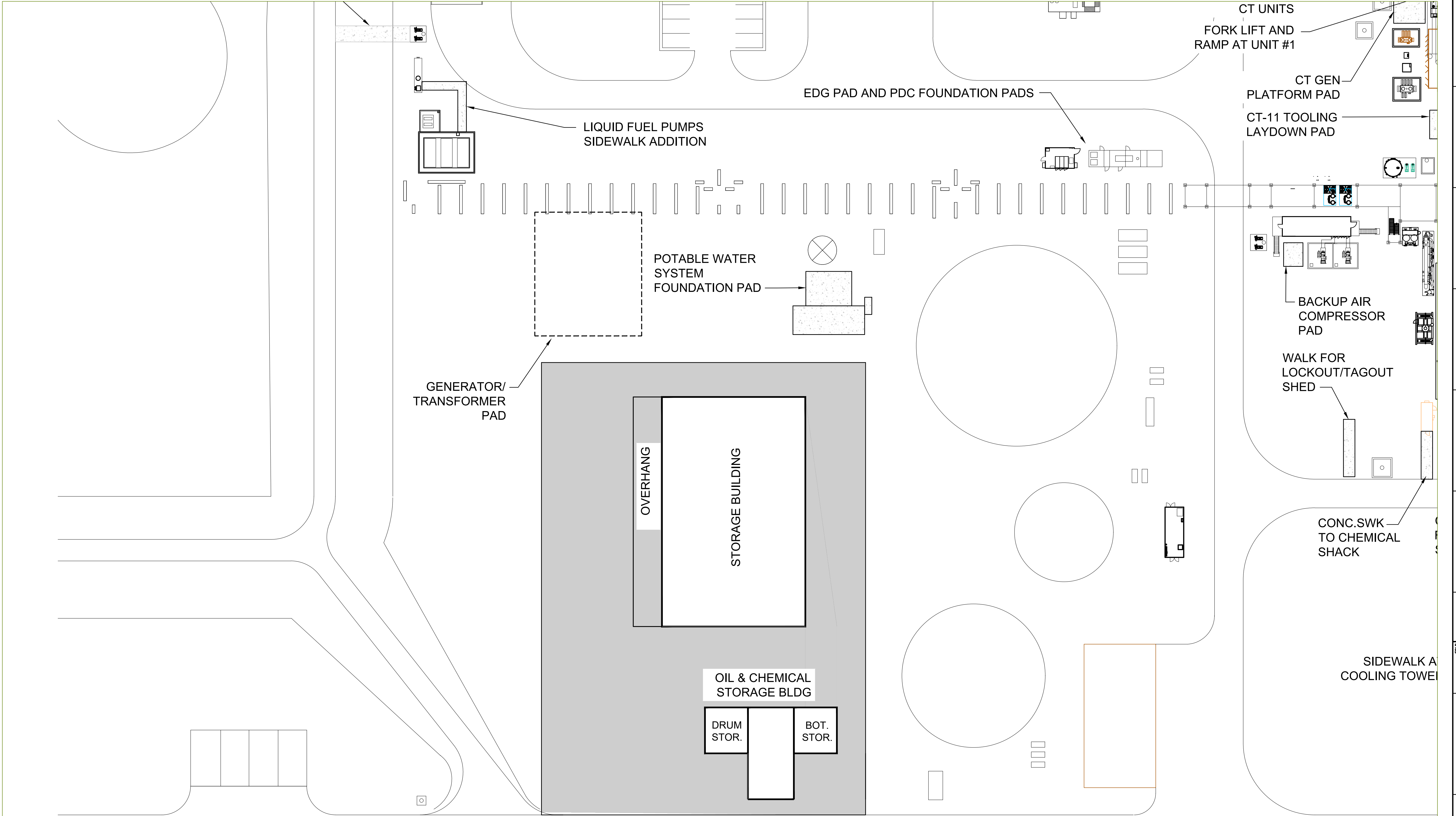
SYSTEM	DISCIPLINE	PLANT/UNIT
-	-	OKEECHOBEE CLEAN ENERGY CENTER
TYPE	UNIT	TITLE
-	-	CONCEPT PLAN
DRAWING SIZE	SCALE	PROPOSED DEVELOPMENT IMPROVEMENTS
D(24"X36")	-	
DRAWING NUMBER	SHEET	REV
	C-2	-

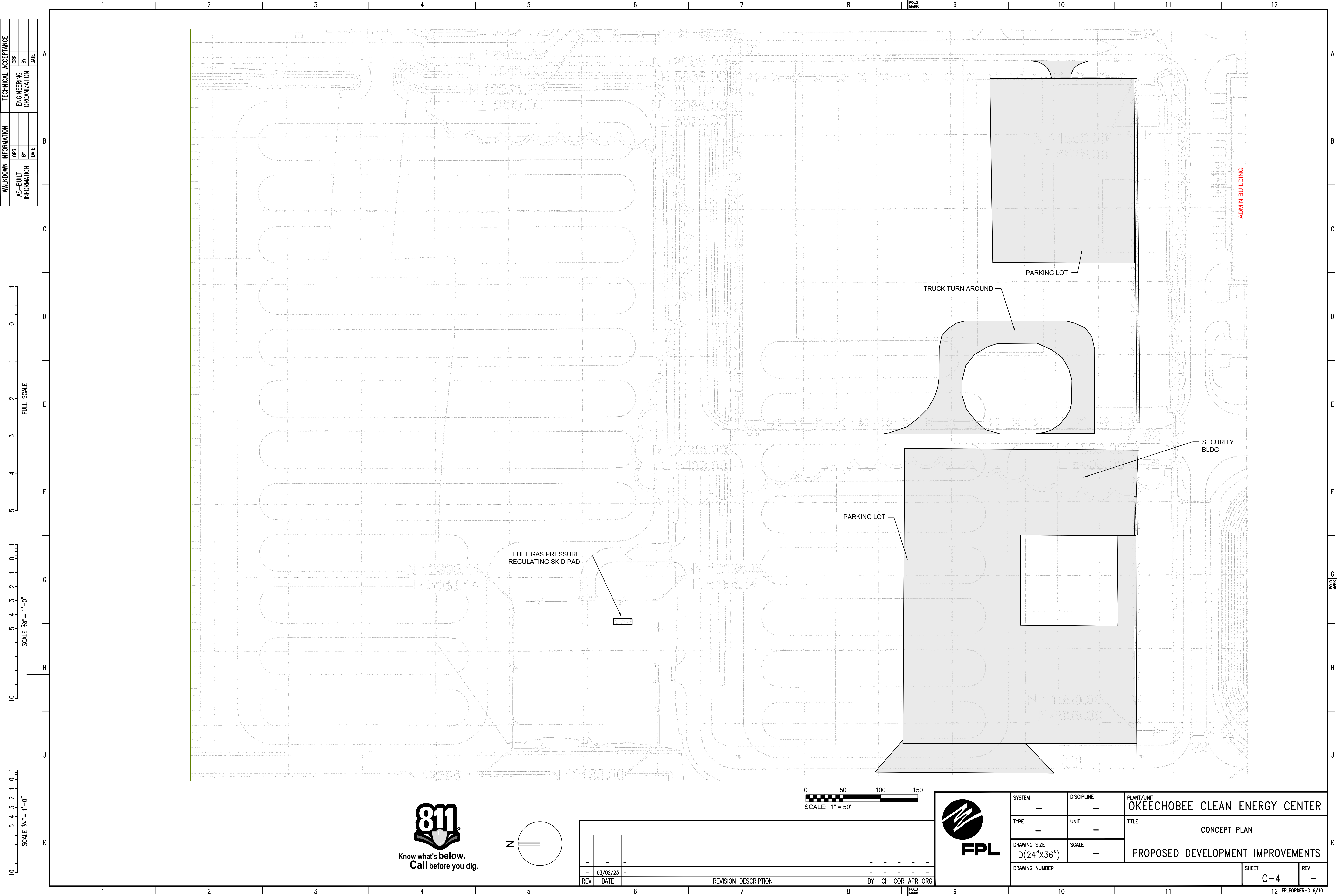


REV	DATE	REVISION DESCRIPTION	BY	CH	COR	APR	ORG
-	-	-	-	-	-	-	-
-	03/02/23	-	-	-	-	-	-

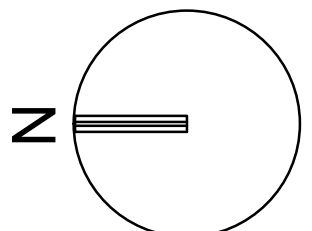
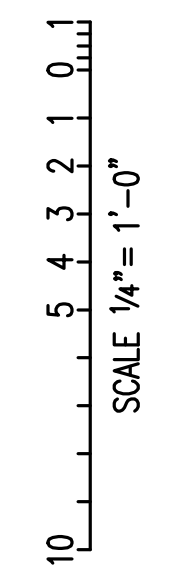
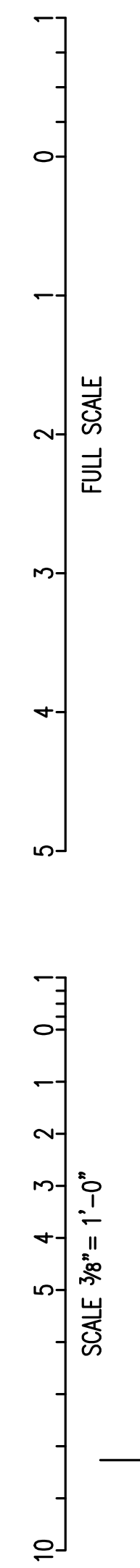


SYSTEM	DISCIPLINE	PLANT/UNIT
-	-	OKEECHOBEE CLEAN ENERGY CENTER
TYPE	UNIT	TITLE
-	-	CONCEPT PLAN
DRAWING SIZE	SCALE	PROPOSED DEVELOPMENT IMPROVEMENTS
D(24"X36")	-	
DRAWING NUMBER	SHEET	REV
	C-3	-

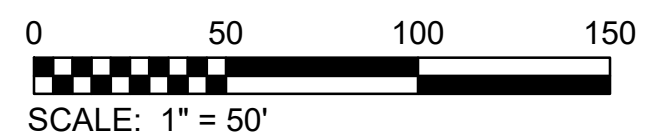




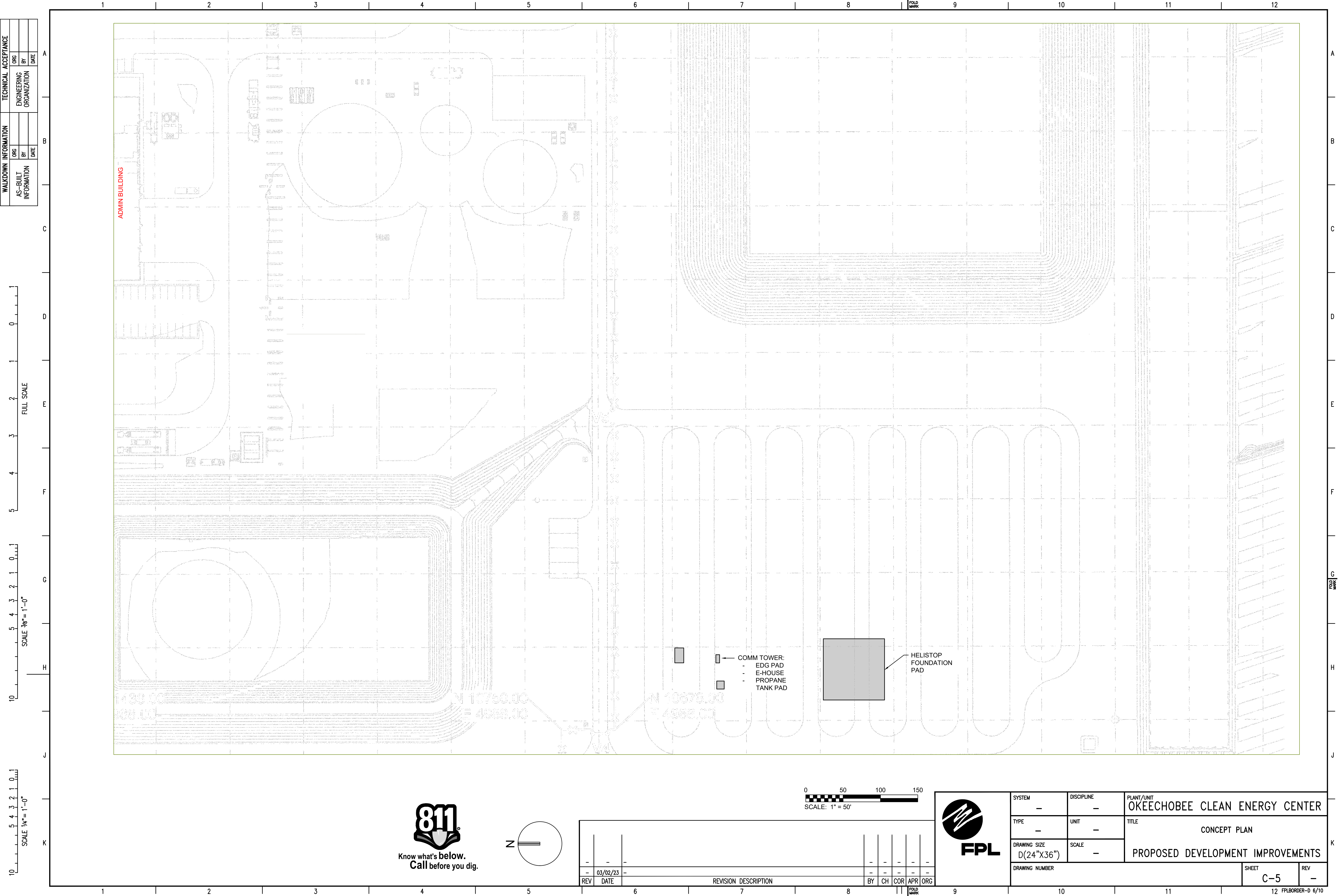
WALKDOWN INFORMATION		TECHNICAL ACCEPTANCE	
ORG	BY	ORG	BY
AS-BUILT INFORMATION	DATE	ENGINEERING ORGANIZATION	DATE



REV	DATE	REVISION DESCRIPTION	BY	CH	COR	APR	ORG
-	03/02/23	-	-	-	-	-	-



SYSTEM	DISCIPLINE	PLANT/UNIT
-	-	OKEECHOBEE CLEAN ENERGY CENTER
TYPE	UNIT	TITLE
-	-	CONCEPT PLAN
DRAWING SIZE	SCALE	PROPOSED DEVELOPMENT IMPROVEMENTS
D(24"X36")	-	
DRAWING NUMBER	SHEET	REV
	C-4	-



ADMIN BUILDING

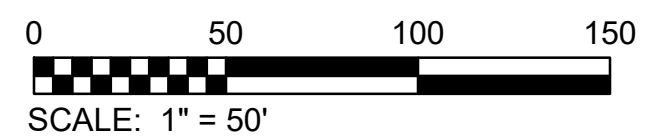
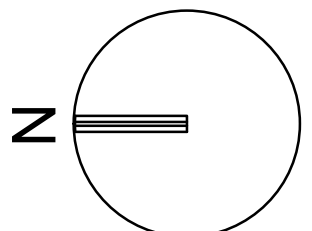
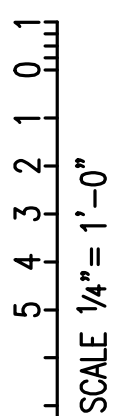
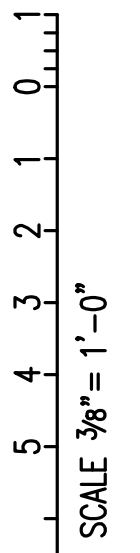
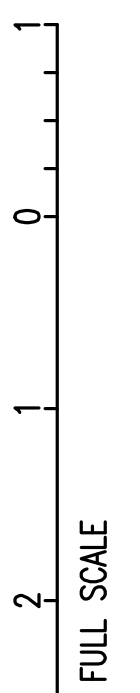
COMM TOWER:
- EDG PAD
- E-HOUSE
- PROPANE
- TANK PAD

HELISTOP
FOUNDATION
PAD

1438.00
1288.00

N 10750.00
E 4968.00

N 10678.00
E 4868.00

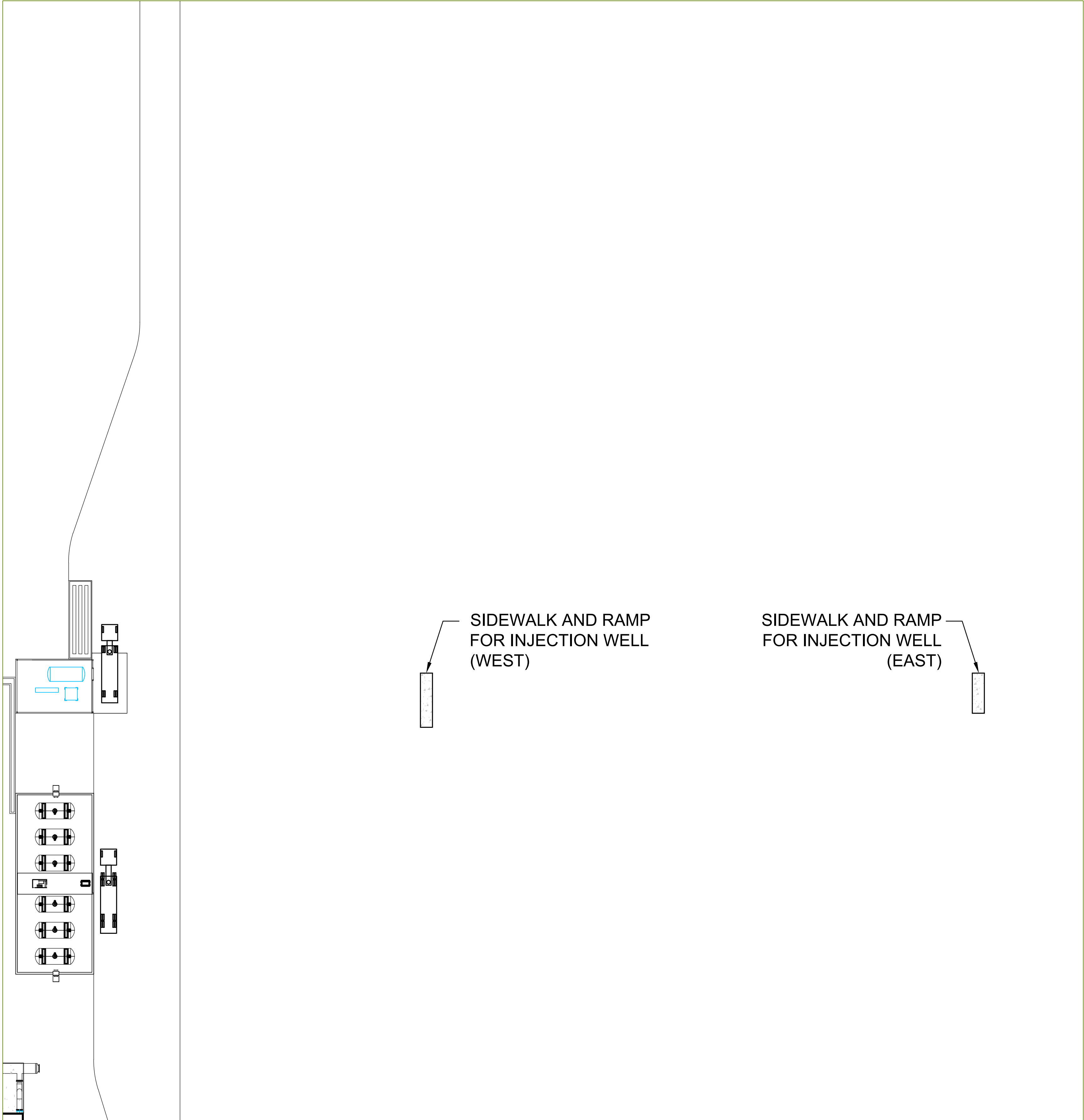
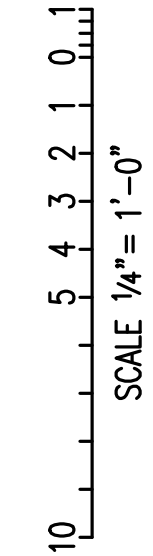
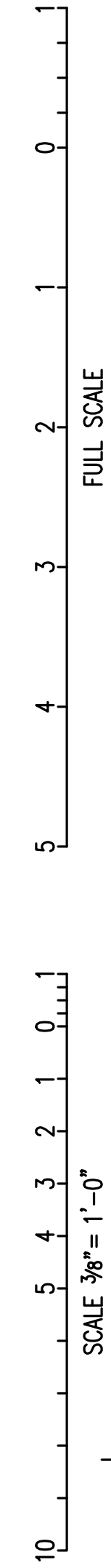


REV	DATE	REVISION DESCRIPTION	BY	CH	COR	APR	ORG
-	03/02/23	-	-	-	-	-	-



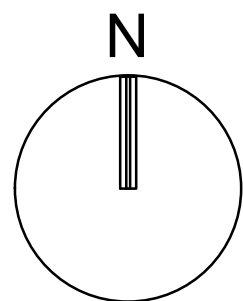
SYSTEM -	DISCIPLINE -	PLANT/UNIT OKEECHOBEE CLEAN ENERGY CENTER
TYPE -	UNIT -	TITLE CONCEPT PLAN
DRAWING SIZE D(24"x36")	SCALE -	PROPOSED DEVELOPMENT IMPROVEMENTS
DRAWING NUMBER		SHEET C-5
		REV -

WALKDOWN INFORMATION		TECHNICAL ACCEPTANCE	
AS-BUILT INFORMATION	ORG BY DATE	ENGINEERING ORGANIZATION	ORG BY DATE

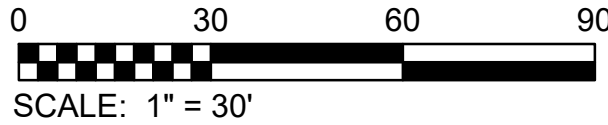


SIDEWALK AND RAMP FOR INJECTION WELL (WEST)

SIDEWALK AND RAMP FOR INJECTION WELL (EAST)



REV	DATE	REVISION DESCRIPTION	BY	CH	COR	APR	ORG
-	-	-	-	-	-	-	-
-	03/02/23	-	-	-	-	-	-



SYSTEM	DISCIPLINE	PLANT/UNIT
-	-	OKEECHOBEE CLEAN ENERGY CENTER
TYPE	UNIT	TITLE
-	-	CONCEPT PLAN
DRAWING SIZE D(24"X36")	SCALE	PROPOSED DEVELOPMENT IMPROVEMENTS
DRAWING NUMBER		SHEET
-		C-6
		REV
		-