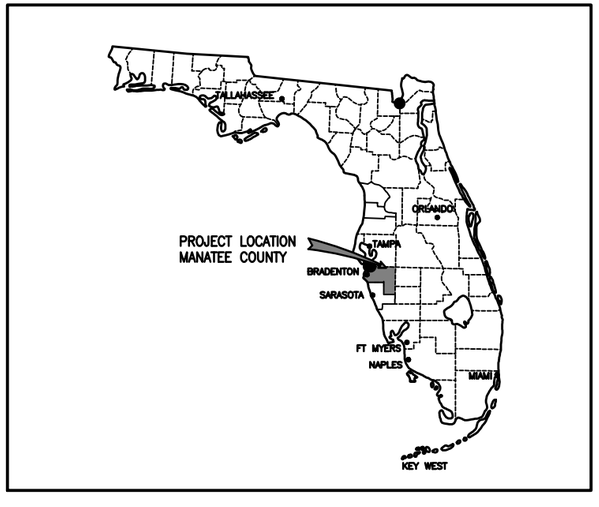
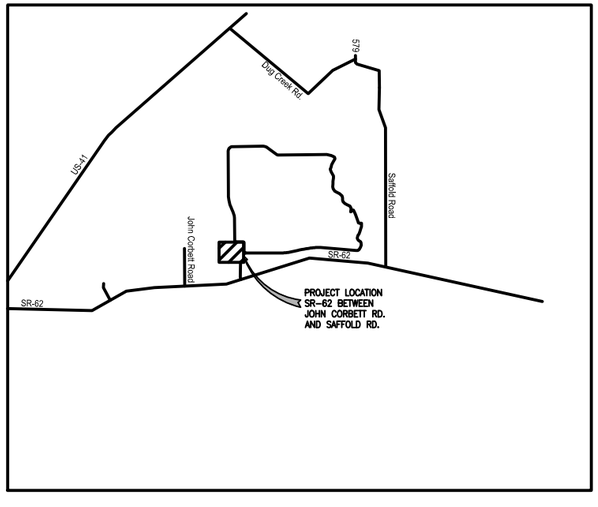
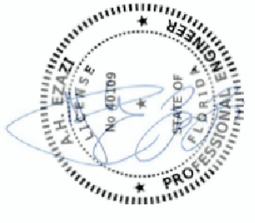
MANATEE PLANT
PRECAST CONCRETE WALL
SITE PREPARATION AND GATES
SITE DEVELOPMENT PLAN

MANATEE COUNTY, FLORIDA
SECTION 18, TOWNSHIP 33S, RANGE 20E







PLANS PREPARED BY :
AECOM
5971 CATTLERIDGE BLVD, STE. 200
SARASOTA, FLORIDA 34232
FLORIDA ENGINEERING BUSINESS NO. EB-38
T. 941-377-8858 F. 941-371-2569

OWNER :
FLORIDA POWER AND LIGHT COMPANY
TRANSMISSION AND SUBSTATION SITING SECTION
700 UNIVERSE BLVD. (TS4-JW)
JUNO BEACH, FLORIDA 33408

AECOM

"PERMIT SUBMITTAL SET"
04-22-2015

MANATEE PLANT
FPL PROJECT NO.
062624S16 R0 | MAN00 SKETCH NO. 1 OF 7
CADE

A.H. EZAZI, P.E.
FLA. REG. #40109
ENGINEER'S SEAL

24X36 ENG 6/99

USERNAME

STYNE

LEGEND:
- PROPOSED ROCK COVER
- PROPOSED ACCESS DRIVE
- PROPOSED CHAIN LINK FENCE
- BENCHMARK
- GUY WIRE
- SQUARE CONCRETE POWER POLE
- LARGE DIAMETER WOOD POWER POLE
- SMALL DIAMETER WOOD POWER POLE
- CONCRETE POWER POLE
- SUBSTATION BENCHMARKS (4' FROM FENCE)
- —XX— 4' BARB WIRE FENCE

20'

sunshine state ONE CALL of FLORIDA, INC. Know what's below. Call before you dig. 811

CONC. GUARD POLES (TYPICAL)

EDGE PVMT.

CHAINLINK FENCE

CONCRETE POWER POLE

FIRE VALVE WITH 4 GUARD POSTS

3-TELEPHONE BOXES

CONCRETE STEPS

CONCRETE SLAB WITH PHONE SERVICE BOX

CONCRETE SLAB WITH ELECTRIC SERVICE BOX

ELEC SERVICE BOX

FIRE HYDRANT WITH 2 GUARD

BUILDING 12' HIGH

6' CHAINLINK FENCE

GATE POST

7' CHAINLINK FENCE

LIGHT POLE

25.0'

INSTALL FDOT TYPE II SILT FENCE 25 FEET FROM EXISTING FENCE. (BY SITE CONTRACTOR)

LOCATION OF NEW CONCRETE WALL (BY WALL CONTRACTOR)

EXISTING 383 LF OF CHAIN LINK FENCE TO BE REMOVED (BY SITE CONTRACTOR) AND REPLACED W/12' PRE-CAST WALL (BY WALL CONTRACTOR).

CONCRETE SLAB

INSTALL FDOT TYPE II SILT FENCE 25 FEET FROM FUTURE WALL (BY SITE CONTRACTOR)

60.0'

EXISTING 60 LF OF CHAIN LINK FENCE TO BE REMOVED AND REPLACED (BY SITE CONTRACTOR)

EXISTING 367 LF OF CHAIN LINK FENCE TO BE REMOVED (BY SITE CONTRACTOR) AND REPLACED W/12' PRE-CAST WALL (BY WALL CONTRACTOR).

FIRE HYDRANT WITH GUARD POLES

FIRE HYDRANT WITH 2-GUAR

MATCH LINE

SEE MAN FR SHEET 3 OF 16 FOR CONTINUATION OF PLANS.

MATCH LINE

A.H. EZAZI LICENSED PROFESSIONAL ENGINEER No 40109 STATE OF FLORIDA

SURVEY INFO PROVIDED BY:
JOHNSON ENGINEERING, INC.
2122 JOHNSON STREET, FORT MYERS, FL 33902-1550
PHONE: (239) 334-0046 SURVEY DATE: 03-05-15

ER	NO	DATE	REVISION	BY	CH	COR	APP

DATE 03-20-12 SCALE 0 20 30 40 60

POWER SYSTEMS FPL

DR MJB	ER
CH AHE	COR
APPROVED	

MANATEE PLANT
FENCE REMOVAL PLAN

SHEET 2 OF 16
E-MAN FR
CADD

REV NO --

AECOM

A.H. EZAZI, P.E.
FLA. REG. #40109
ENGINEER'S SEAL

MATCH LINE

SEE MAN FR SHEET 2 OF 16 FOR CONTINUATION OF PLANS.

MATCH LINE

INSTALL FDOT TYPE II SILT FENCE 25 FEET FROM EXISTING FENCE. (BY SITE CONTRACTOR)

LOCATION OF CONCRETE WALL

EXISTING 194 LF OF CHAIN LINK FENCE TO BE REMOVED (BY SITE CONTRACTOR) AND REPLACED W/12' PRE-CAST WALL. (BY WALL CONTRACTOR)

EXISTING 386 LF OF CHAIN LINK FENCE TO BE REMOVED (BY SITE CONTRACTOR) AND REPLACED W/12' CAST IN PLACE WALL. (BY WALL CONTRACTOR)

EXISTING 175 LF OF CHAIN LINK FENCE TO BE REMOVED (BY SITE CONTRACTOR) AND REPLACED W/12' PRE-CAST WALL.

INSTALL FDOT TYPE II SILT FENCE 25 FEET FROM EXISTING FENCE. (BY SITE CONTRACTOER)

EXISTING EDGE OF ROAD

INSTALL FDOT TYPE II SILT FENCE 33± FEET FROM EXISTING FENCE, 2 FEET SOUTH OF ROAD. (BY SITE CONTRACTOER)

LEGEND:
- PROPOSED ROCK COVER
- PROPOSED ACCESS DRIVE
- PROPOSED CHAIN LINK FENCE
- BENCHMARK
- GUY WIRE
- SQUARE CONCRETE POWER POLE
- LARGE DIAMETER WOOD POWER POLE
- SMALL DIAMETER WOOD POWER POLE
- CONCRETE POWER POLE
- SUBSTATION BENCHMARKS (4' FROM FENCE)
- XX 4' BARB WIRE FENCE

20'

A.H. EZAZI LICENSE No 40109 STATE OF FLORIDA PROFESSIONAL ENGINEER

SURVEY INFO PROVIDED BY:
JOHNSON ENGINEERING, INC.
2122 JOHNSON STREET, FORT MYERS, FL 33902-1550
PHONE: (239) 334-0046 SURVEY DATE: 03-05-15

ER	NO	DATE	REVISION	BY	CH	COR	APP

DATE 03-20-12 SCALE 0 20 30 40 60

POWER SYSTEMS FPL

DR MJB	ER
CH AHE	COR
APPROVED	

MANATEE PLANT
FENCE REMOVAL PLAN

SHEET 3 OF 16
E-MAN FR
CADD

REV NO —

AECOM

A.H. EZAZI, P.E.
FLA. REG. #40109
ENGINEER'S SEAL

24X36 ENG 6/99

24X36 ENG 6/99

USERNAME$$$$$$$$

SYSTEMS$$$$$$$$

LEGEND:
- PROPOSED ROCK COVER
- PROPOSED ACCESS GATE
- PROPOSED CONCRETE WALL
- BENCHMARK
- GUY WIRE
- SQUARE CONCRETE POWER POLE
- LARGE DIAMETER WOOD POWER POLE
- SMALL DIAMETER WOOD POWER POLE
- CONCRETE POWER POLE
- SUBSTATION BENCHMARKS (4' FROM FENCE)
- 6' CHAIN LINK FENCE

sunshine state ONE CALL — Know what's below. Call before you dig. 811

CONC. GUARD POLES (TYPICAL)

EDGE PVMT.

CONCRETE POWER POLE

INSTALL 60 LF CHAIN LINK FENCE (BY SITE CONTRACTOR)

REMOVE AND REPLACE 60 LF CHAIN LINK FENCE (BY SITE CONTRACTOR)

PROPOSED 12' HIGH CONCRETE WALL (BY WALL CONTRACTOR).

60.0'

EXISTING FENCE (REMOVE, BY SITE CONTRACTOR)

12.0'

2.0'

4" GRAVEL (BY SITE CONTRACTOR)

SUB-STATION

3.0'

4" PER 100' SLOPE

EXISTING GRAVEL

CLEAN FILL, COMPACTED TO 98% AASHTO T-180 MOD. (BY SITE CONTRACTOR)

EXISTING GROUND, CLEAR AND GRUB, CLEAN FILL COMPACTED TO 98% AASHTO T-180 MOD. (BY SITE CONTRACTOR)

CROSS-SECTION "AA"
N.T.S.

6.3'

60.0'

7' CHAINLINK FENCE

H.M. DOOR 4'-10" x7'-0" (BY WALL CONTRACTOR)

20 FOOT ROLLING GATE (BY SITE CONTRACTOR)

22.0'

10.6'

4.0'

20.0'

4.0'

10.4'

10.0'

SEE CROSS-SECTION @ GATE DETAIL SHEET 16 OF 16.

"A"

"A"

30.2'

3.0'

4 INCHES LOOSE NO. 5 ROCK TO BE INSTALLED 3 FEET ON OUTSIDE AND 2' ON INSIDE OF WALL (BY SITE CONTRACTOR).

3.0'

2.0'

353.9'

WALL 60' FROM EXISTING FENCE

60.0'

TOP OF WALL GRADE = 65.2'
WEEP HOLE GRADE = 53.2'

15.0'

PROP. 12' ABOVE GRADE PRE-CAST WALL W/ SCUPPERS, PANELS 15' O.C., 3 WEEP HOLES PER PANEL. (BY WALL CONTRACTOR)

PROP. 12' ABOVE GRADE PRE-CAST WALL W/ SCUPPERS, PANELS 15' O.C., NO WEEP HOLES THIS SIDE. (BY WALL CONTRACTOR)

PROP. 12' ABOVE GRADE 1.25' WALL 1.25 FEET FROM EXIST. FENCE

10 FOOT SWING GATE AND 20 FOOT SLIDE GATE (BY SITE CONTRACTOR)

NOTE: NO WEEP HOLES ON EAST SIDE OF PROJECT.

EXISTING FIRE HYDRANT

REMOVE EXISTING ASPHALT PAVEMENT, CONSTRUCT NEW ENTRANCE (BY SITE CONTRACTOR).

ASPHALT ENTRANCE SEE DETAIL SHEET 16 OF 16.

60.0'

15.0'

1.25'

70.8'

15.0'

10.8'

25.0'

25.0'

10.0'

20.0'

32.0'

38.0'

39.4'

10.0'

12.8'

30.2'

15.0'

3.0'

1.25'

150.4'

A.H. EZAZI — STATE OF FLORIDA — PROFESSIONAL ENGINEER — No 40109

MATCH LINE

SEE MAN CWP SHEET 5 OF 16 FOR CONTINUATION OF PLANS.

MATCH LINE

SURVEY INFO PROVIDED BY:
JOHNSON ENGINEERING, INC.
2122 JOHNSON STREET, FORT MYERS, FL 33902-1550
PHONE: (239) 334-0046 SURVEY DATE: 03-05-15

ER	NO	DATE	REVISION	BY	CH	COR	APP

DATE 03-20-12 SCALE 0 20 30 40 60

POWER SYSTEMS — FPL

DR MJB	ER
CH AHE	COR
APPROVED	

MANATEE PLANT
CONCRETE WALL PLAN

SHEET 4 OF 16
E-MAN CW
CADD

REV NO —

AECOM

A.H. EZAZI, P.E.
FLA. REG. #40109
ENGINEER'S SEAL

24X36 ENG 6/99

MATCH LINE

SEE SHEET 4 OF 16 FOR CONTINUATION OF PLANS.

MATCH LINE

60.0'

15.0'

353.9'

TOP OF WALL GRADE = 65.2' WEEP HOLE GRADE = 53.2'

4 INCHES LOOSE NO. 5 ROCK TO BE INSTALLED 3 FEET ON OUTSIDE AND 2 FEET INSIDE OF WALL (BY SITE CONTRACTOR).

3.0'

2.0'

PROP. 12' ABOVE GRADE PRE-CAST WALL W/ SCUPPERS, PANELS 15' O.C., 3 WEEP HOLES PER PANEL (BY WALL CONTRACTOR).

60.0'

20 FOOT ROLLING GATE (BY SITE CONTRACTOR)

22.0'

20.0'

4.0'

10.0'

30.2'

SEE CROSS-SECTION @ ENTRACE GATE DETAIL SHEET 16 OF 16. (TYPICAL)

TOP OF WALL GRADE = 64.0' WEEP HOLE GRADE = 52.0'

NOTE: CONTRACTOR SHALL USE DUE CARE IN REGARD TO EXISTING BURRIED CABLE, FIELD VERIFY CABLE LOCATION PRIOR TO INSTALLATION OF CONCRETE WALL.

PROP. 12' ABOVE GRADE WALL 1.25' FROM EXIST. FENCE.

1.25'

PROP. 12' ABOVE GRADE CAST IN PLACE WALL W/ SCUPPERS, PANELS 15' O.C., 3 WEEP HOLES PER PANEL. (BY WALL CONTRACTOR)

TOP OF WALL GRADE = 64.0' WEEP HOLE GRADE = 52.0'

NOTE: NO WEEP HOLES ON EAST SIDE OF PROJECT.

PROP. 12' ABOVE GRADE PRE-CAST WALL W/SCUPPERS, PANELS 15' O.C., N O WEEP HOLES THIS SIDE OF PROJECT. (BY WALL CONTRACTOR)

TOP OF WALL GRADE = 64.0' WEEP HOLE GRADE = 52.0'

150.4'

1.25'

PROP. 12' ABOVE GRADE WALL 1.25 FEET FROM EXIST. FENCE

2.7'

15.0'

22.0'

20.0'

4.0'

20 FOOT ROLLING GATE (BY SITE CONTRACTOR)

10.0'

25.0'

30.2'

5.3'

15.0'

3.0'

80.3'

TOP OF WALL GRADE = 64.0' WEEP HOLE GRADE = 52.0'

1.25'

15.0'

9.6'

4.0'

15.0'

5.0'

6.3'

497.1'

REMOVE LIGHT POLE (BY SITE CONTRACTOR)

H.M. DOOR 4'-0" x7'-0" (BY WALL CONTRACTOR)

MATCH EDGE OF EXISTING DRIVEWAY

REMOVE EXISTING CONCRETE DRIVEWAY APRON

BOTTOM WIRE ELEV. = 81.3'

BOTTOM WIRE ELEV. = 101.2'

EXISTING FIRE HYDRANT

BOTTOM WIRE ELEV. = 90.2'

EXISTING ROADWAY

BOTTOM WIRE ELEV. = 100.1'

BOTTOM WIRE ELEV. = 94.5'

EXISTING FIRE HYDRANT

BOTTOM WIRE ELEV. = 97.6'

BENCHMARK FOUND 5/8" IRON ROD AND CAP AMEC WITNESS ELEV. = 50.03

BENCHMARK FOUND 5/8" IRON ROD AND CAP AMEC WITNESS ELEV. = 50.44

BENCHMARK FOUND PK NAIL & DISK LB 642 ELEV. = 50.83

CONCRETE POWER POLE

20'

LEGEND:

- PROPOSED ROCK COVER
- PROPOSED ACCESS GATE
- PROPOSED CHAIN LINK FENCE
- BENCHMARK
- GUY WIRE
- SQUARE CONCRETE POWER POLE
- LARGE DIAMETER WOOD POWER POLE
- SMALL DIAMETER WOOD POWER POLE
- CONCRETE POWER POLE
- SUBSTATION BENCHMARKS (4' FROM FENCE)
- 6' CHAINLINK FENCE

sunshine state ONE CALL Know what's below. Call before you dig. 811

A.H. EZAZI LICENSE No 40109 STATE OF FLORIDA PROFESSIONAL ENGINEER

AECOM

SURVEY INFO PROVIDED BY:
JOHNSON ENGINEERING, INC.
2122 JOHNSON STREET, FORT MYERS, FL 33902-1550
PHONE: (239) 334-0046 SURVEY DATE: 03-05-15

ER	NO	DATE	REVISION	BY	CH	COR	APP

DATE 03-20-12 SCALE 0 20 30 40 60

POWER SYSTEMS FPL

DR MJB	ER
CH AHE	COR
APPROVED	

MANATEE PLANT
CONCRETE WALL PLAN

SHEET 5 OF 10

E-MAN CW
CADD

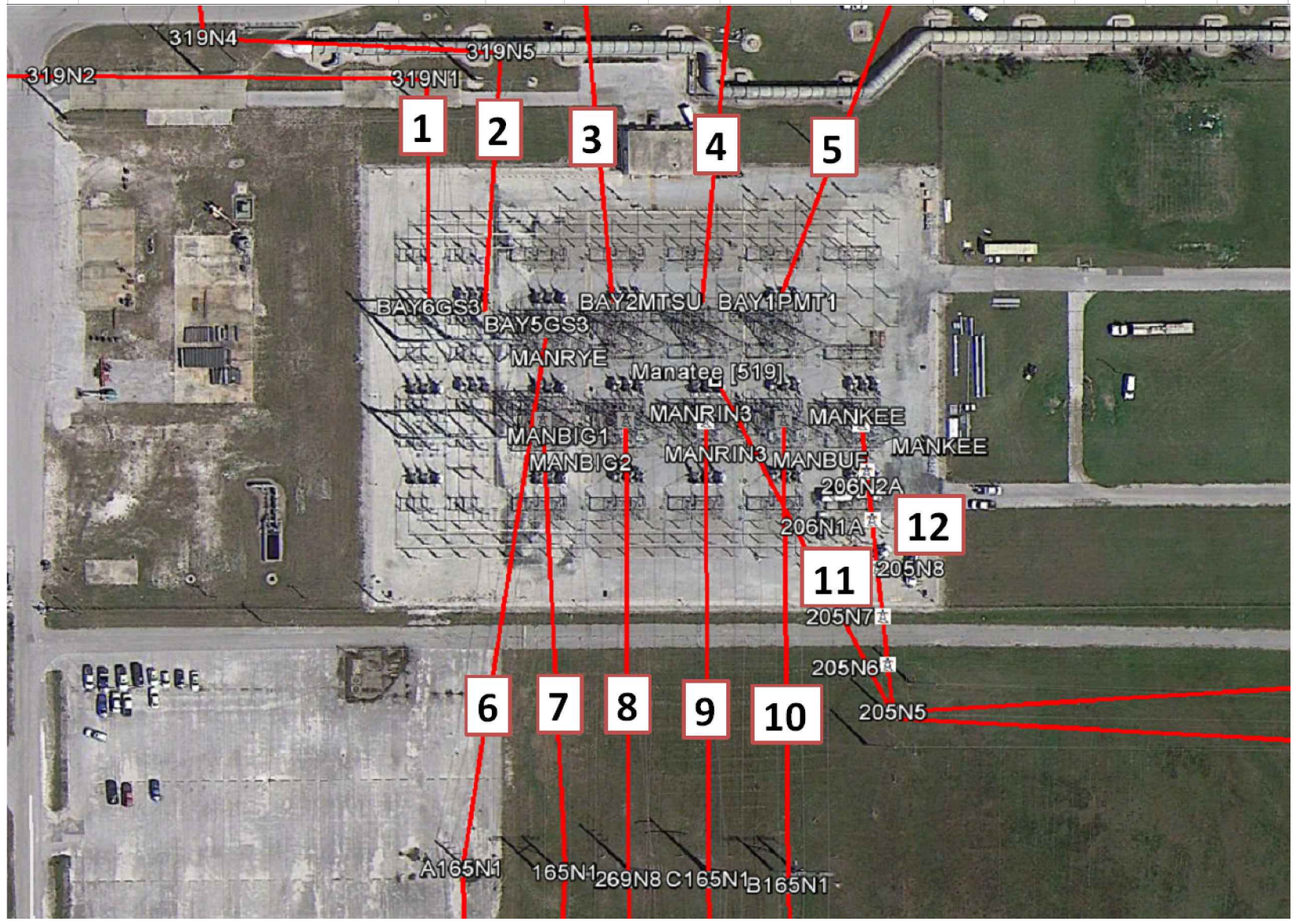
REV NO --

A.H. EZAZI, P.E.
FLA. REG. #40109
ENGINEER'S SEAL

USERNAME$$$$$$$$

STYNE$$$$$$$$$$

#	Line Name	AG Height 20FT inside fence	AG Height at fence line	AG Height 20FT outside fence
1	MANATEE PLANT -STRING BUS 230kV- BAY 6	55.5	54	53.5
2	MANATEE PLANT -STRING BUS 230kV -BAY 5	48.5	50.5	52.5
3	MANATEE PLANT -STRING BUS 230kV -BAY 3	40	39	38.5
4	MANATEE PLANT -STRING BUS 230kV -BAY 2	41.5	41	42
5	MANATEE PLANT -STRING BUS 230kV -BAY 1	39.5	39	38.5
6	JOHNSON - MANATEE 230kV	31	29.5	28
7	MANATEE - BIG BEND #1 230kV	60.5	59.5	57.5
8	MANATEE - BIG BEND #2 230kV	38	38.5	38
9	MANATEE - RINGLING #3 230kV	47	48	49.5
10	MANATEE - RINGLING #2 230kV	42	42.5	43
11	MANATEE-SR-70 230kV	Not In Lidar		
12	KEENTOWN-MANATEE 230kV	45	46	47.5
		measured in FEET		



LEGEND:
- PROPOSED ROCK COVER
- PROPOSED ACCESS GATE
- PROPOSED CONCRETE WALL
- BENCHMARK
- GUY WIRE
- SQUARE CONCRETE POWER POLE
- LARGE DIAMETER WOOD POWER POLE
- SMALL DIAMETER WOOD POWER POLE
- CONCRETE POWER POLE
- SUBSTATION BENCHMARKS (4' FROM FENCE)
- —xx— 6' CHAIN LINK FENCE

sunshine state ONE CALL Know what's below. Call before you dig. 811

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AECOM

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JOHNSON ENGINEERING, INC.
2122 JOHNSON STREET, FORT MYERS, FL 33902-1550
PHONE: (239) 334-0046 SURVEY DATE: 03-05-15

ER	NO	DATE	REVISION	BY	CH	COR	APP

DATE 03-20-12 SCALE 0 20 30 40 60

POWER SYSTEMS FPL

DR MJB ER
CH AHE COR
APPROVED _____

MANATEE PLANT
EXISTING WIRE CONDITIONS

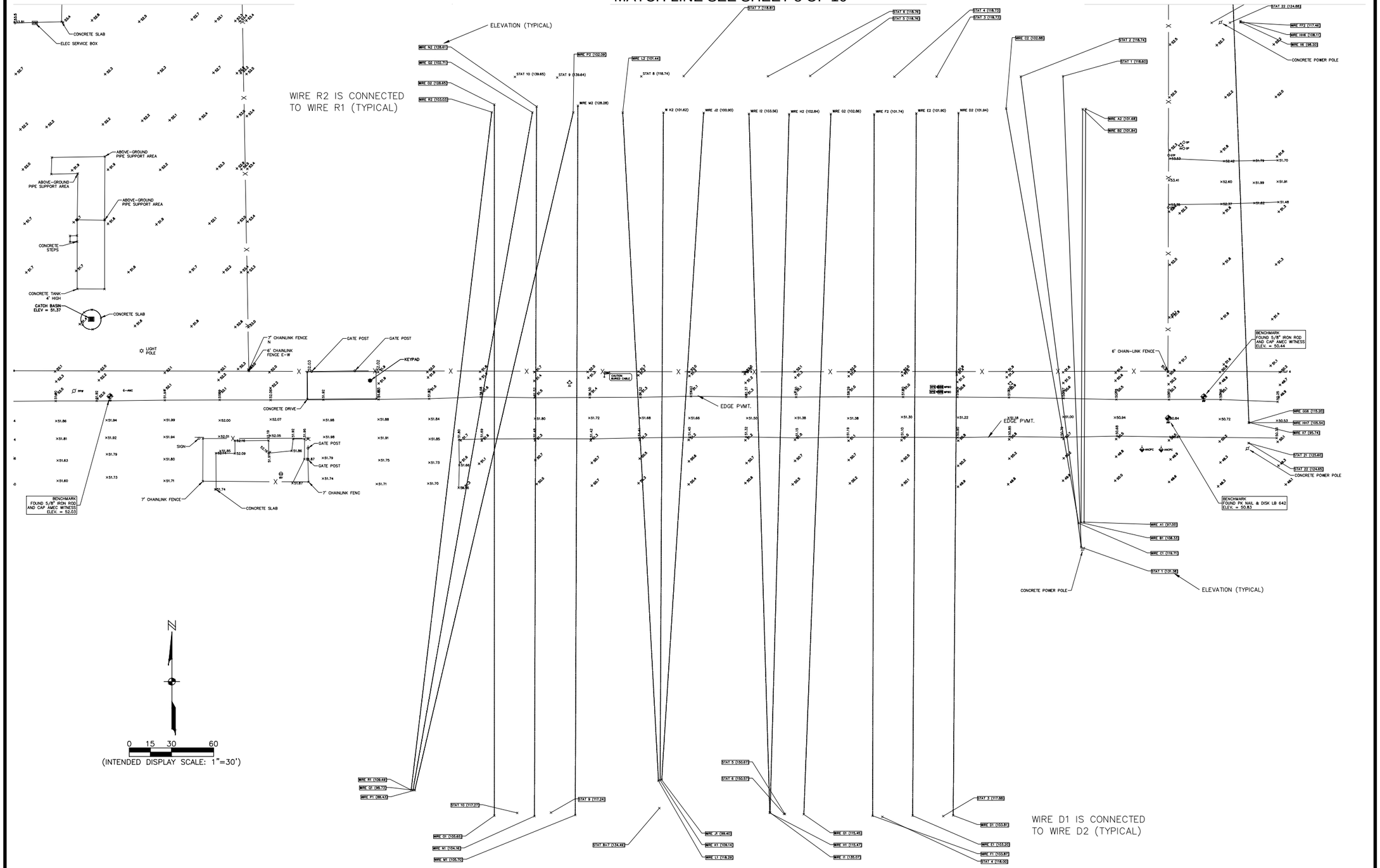
SHEET 6 OF 16
E-MAN EWC
CADD

REV NO --

A.H. EZAZI, P.E.
FLA. REG. #40109
ENGINEER'S SEAL

24X36 ENG 6/99
SYTIME$$$$$$$$$$ USERNAME$$$$$$$

MATCH LINE SEE SHEET 8 OF 16



W:\FPL (Florida Power)\60342029 Security Walls\900-CAD-GIS\900 CAD_Plans\901 CAD-Manatee\Plan Set\MANATEE DETAIL OF SUBSTATION.dwg (SHEET 3) BoyceM Jun 11, 2015 - 4:03pm

LEGEND:

POC	= POINT OF COMMENCEMENT	MON.	= MONUMENT	DESC.	= DESCRIPTION
POB	= POINT OF BEGINNING	PRM	= PERMANENT REFERENCE MONUMENT	PLS	= PROFESSIONAL LAND SURVEYOR
OR	= OFFICIAL RECORD BOOK	PCP	= PERMANENT CONTROL POINT	LB	= SURVEYING AND MAPPING BUSINESS
PB	= PLAT BOOK	C.B.S.	= CONCRETE BLOCK & STUCCO	BM	= BENCHMARK
PG	= PAGE	FD.	= FOUND	NGVD	= NATIONAL GEODETIC VERTICAL DATUM
R/W	= RIGHT-OF-WAY	W/	= WITH	R	= RADIUS
C/L	= CENTER LINE	A/C	= AIR CONDITIONING	L	= LENGTH
BOC	= BACK OF CURB	COR.	= CORNER	Δ	= DELTA
EOP	= EDGE OF PAVEMENT	S.R.	= STATE ROAD	CB	= CHORD BEARING
CONC.	= CONCRETE	C.R.	= COUNTY ROAD	C	= CHORD

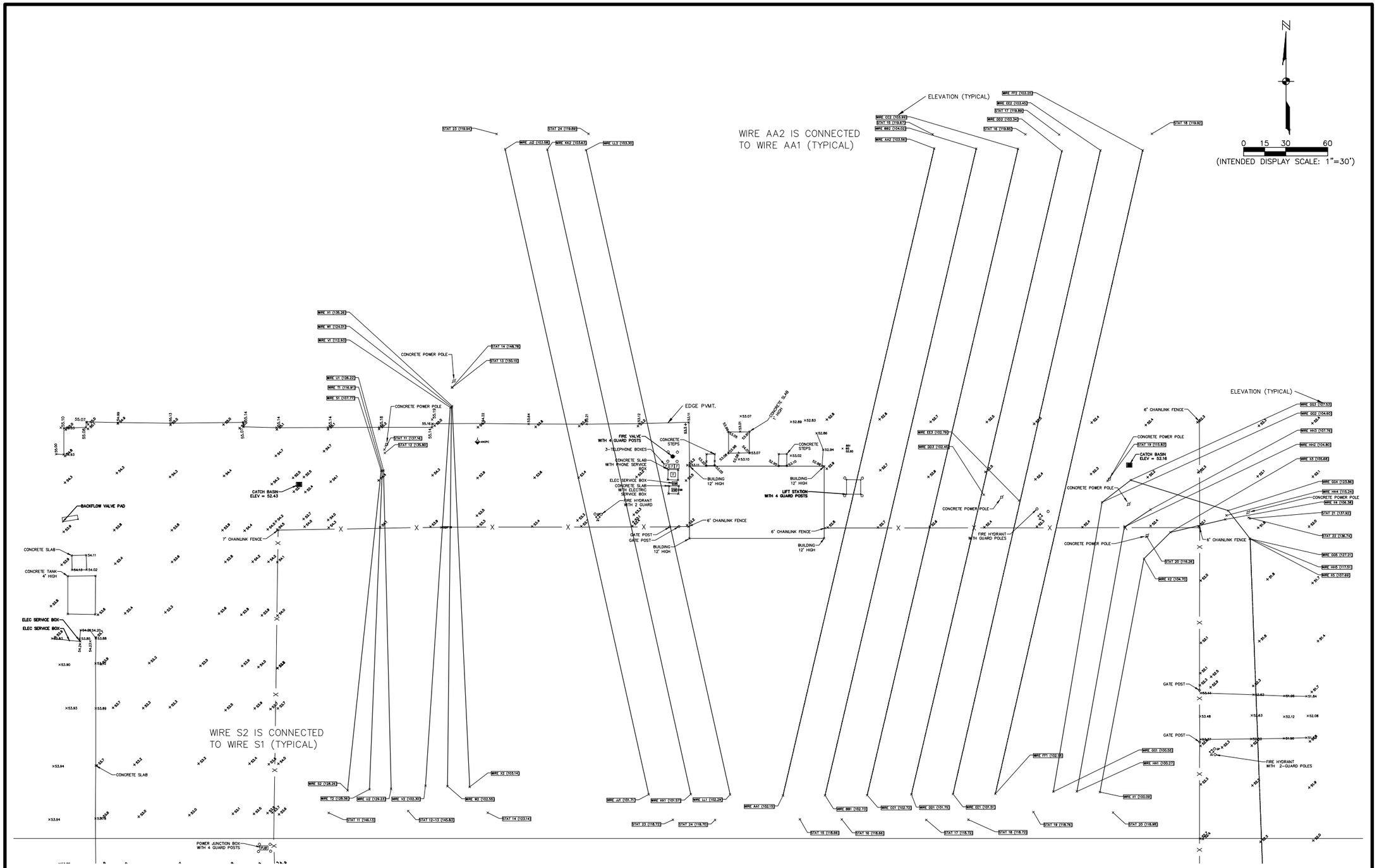
FB XXXX, PG XXXX

FLORIDA POWER & LOGHT CO.
MANATEE
POWER PLANT
SECTION 18, TOWNSHIP 33 SOUTH, RANGE 20 EAST
MANATEE COUNTY, FLORIDA

JOHNSON ENGINEERING
2122 JOHNSON STREET
P.O. BOX 1550
FORT MYERS, FLORIDA 33902-1550
PHONE (239) 334-0046
FAX (239) 334-3661
E.B. #642 & L.B. #642

SPECIFIC PURPOSE SURVEY
SUBSTATION DETAIL

DATE	PROJECT NO.	FILE NO.	SCALE	SHEET
3/25/15	20139333-031	18-33-20	As Shown	7 OF 16



MATCH LINE SEE SHEET 7 OF 16

W:\FPL (Florida Power)\60342029 Security Walls\900-CAD-GIS\800 CAD_Plans\901 CAD-Manatee\Plan Set\MANATEE DETAIL OF SUBSTATION.dwg (SHEET 4) BoyceM Jun 11, 2015 - 4:04pm

LEGEND:

POC	= POINT OF COMMENCEMENT	MON.	= MONUMENT	DESC.	= DESCRIPTION
POB	= POINT OF BEGINNING	PRM	= PERMANENT REFERENCE MONUMENT	PLS	= PROFESSIONAL LAND SURVEYOR
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C/L	= CENTER LINE	A/C	= AIR CONDITIONING	L	= LENGTH
BOC	= BACK OF CURB	COR.	= CORNER	Δ	= DELTA
EOP	= EDGE OF PAVEMENT	S.R.	= STATE ROAD	CB	= CHORD BEARING
CONC.	= CONCRETE	C.R.	= COUNTY ROAD	C	= CHORD

FB XXXX, PG XXXX

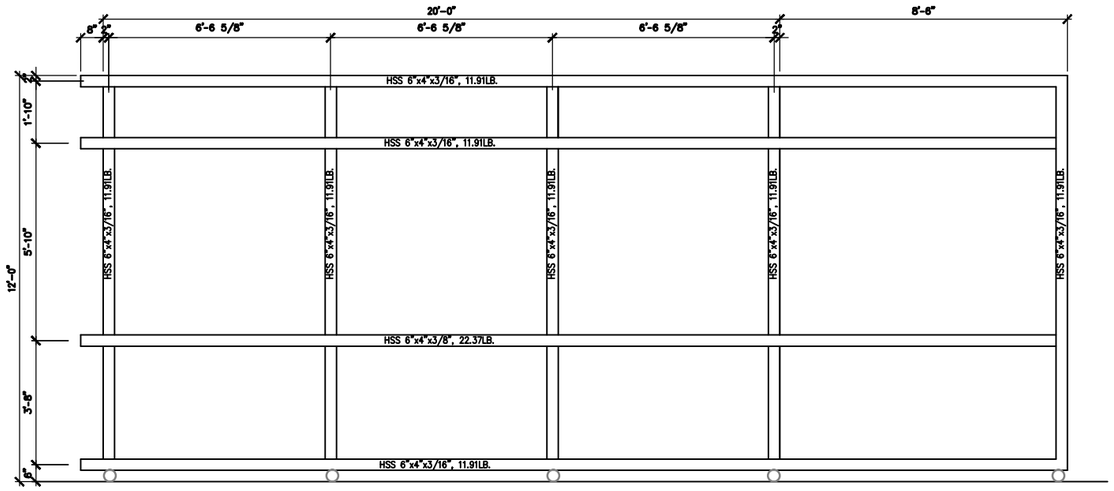
FLORIDA POWER & LIGHT CO.
MANATEE
POWER PLANT
SECTION 18, TOWNSHIP 33 SOUTH, RANGE 20 EAST
MANATEE COUNTY, FLORIDA

JOHNSON ENGINEERING
2122 JOHNSON STREET
P.O. BOX 1550
FORT MYERS, FLORIDA 33902-1550
PHONE (239) 334-0046
FAX (239) 334-3661
E.B. #642 & L.B. #642

SPECIFIC PURPOSE SURVEY
SUBSTATION DETAIL

DATE	PROJECT NO.	FILE NO.	SCALE	SHEET
3/25/15	20139333-031	18-33-20	As Shown	8 OF 16

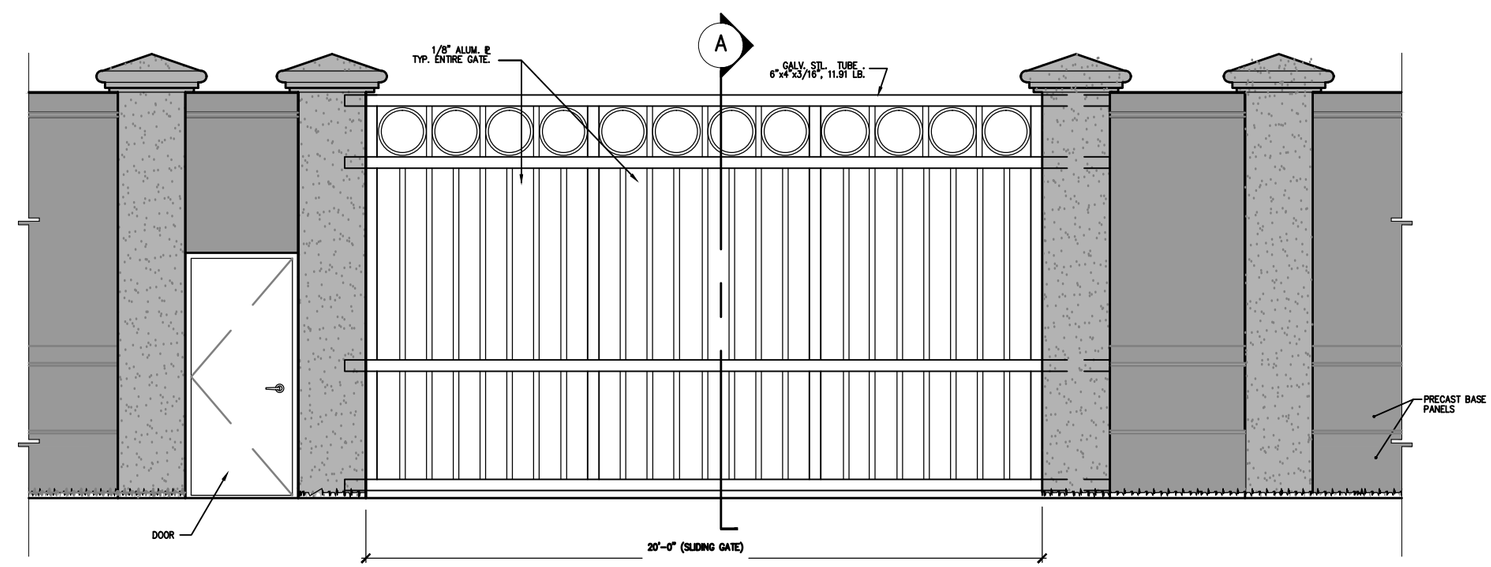
24X36 ENG 6/99



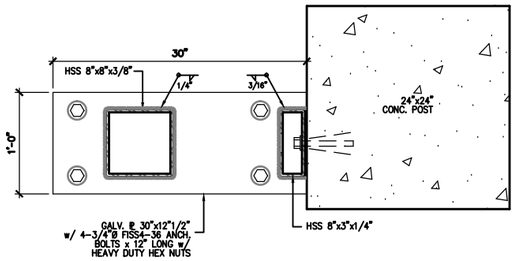
ALL STEEL HOT DIPPED GALVANIZED AFTER FABRICATION

116' OF 6"x4"x3/16" @ 11.97 LB./FT. = 1388.5 LB.
24' OF 6"x4"x3/8" @ 22.37 LB./FT. = 536.9 LB.
1925 LB.
+ ALUM. =

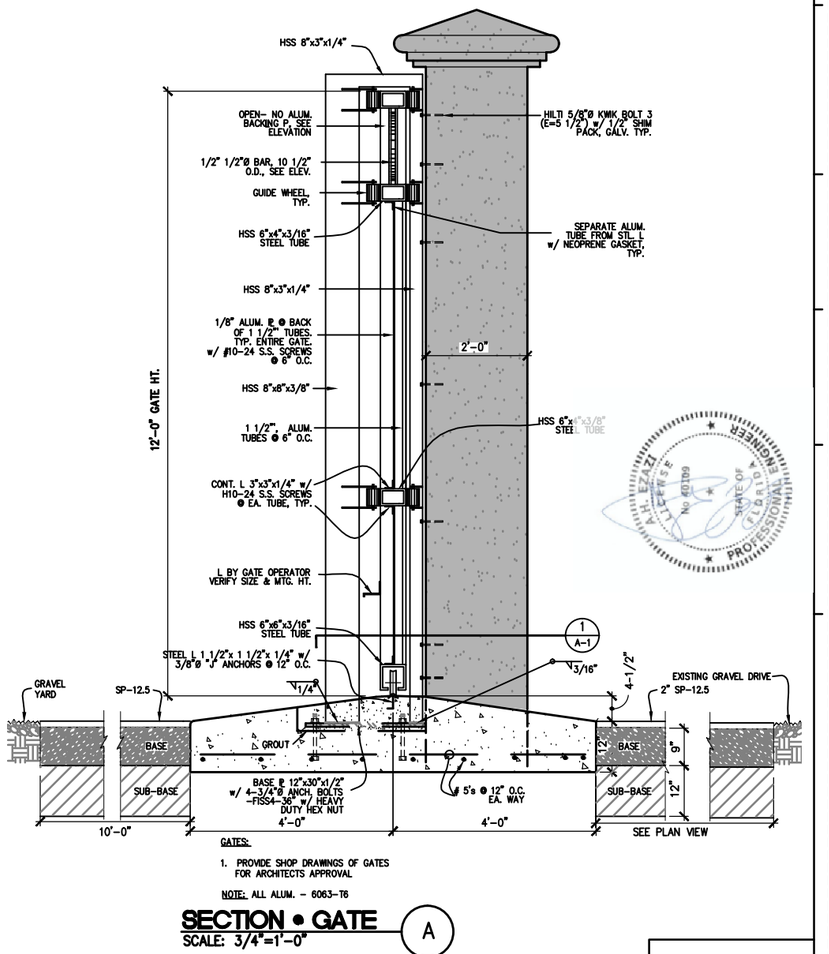
GATE FRAMING ELEVATION
SCALE: 1/2"=1'-0"



GATE ELEVATION
SCALE: 1/2"=1'-0"



DETAIL
SCALE: 1 1/2"=1'-0" (1 / A-1)



GATES:

1. PROVIDE SHOP DRAWINGS OF GATES FOR ARCHITECTS APPROVAL

NOTE: ALL ALUM. - 6063-T6

SECTION • GATE
SCALE: 3/4"=1'-0" (A)

A.H. EZAZI P.E. FLORIDA POWER & LIGHT COMPANY No 40109 STATE OF FLORIDA PROFESSIONAL ENGINEER

A – 1

ER	NO	DATE	REVISION	BY	CH	COR	APP

DATE 09-03-14 | SCALE 0 AS SHOWN

POWER DELIVERY FPL

DR ROUX(WJB) | ER

CH | COR

APPROVED

MANATEE PLANT
20' ROLLING GATE
GATE ELEVATION & SECTION

132996S7_R0

SHEET 9 OF 16
E-SLU27

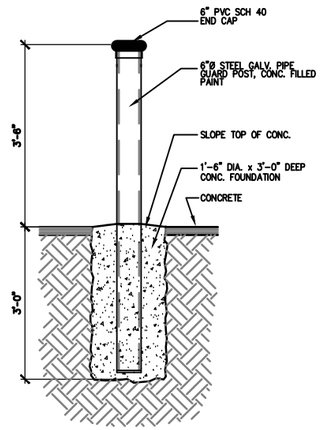
REV NO

A.H. EZAZI, P.E.
FLA. REG. #40109
ENGINEER'S SEAL

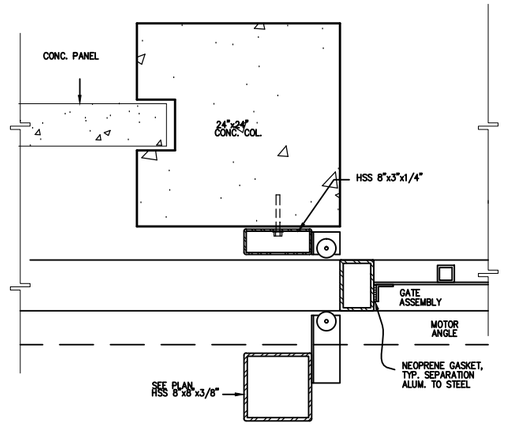
24X36 ENG 6/99

NOTES:

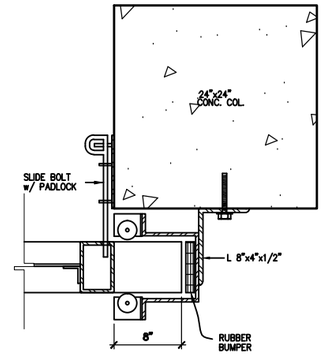
1. ALL WORK SHALL BE IN ACCORDANCE WITH FPL SPECIFICATIONS D-4 AS APPLICABLE.
2. ALL WORK SHALL SHALL COMPLY TO FLORIDA BUILDING CODE 2010 EDITION.
3. DESIGN LOADS :
   WIND LOAD-PER ASCE 7-10
   BASIC WIND LOAD VELOCITY.....Vults=194 mph
   Vasd=150 mph
   (RISK CATEGORY IV; EXPOSURE "D")
4. CONCRETE:
   A. CONCRETE CONFORMING TO ASTM C94 TO ACHIEVE A 28 DAY COMPRESSIVE STRENGTH OF 3,000 PSI. PLANT CONTROL IS REQUIRED. NO WATER SHALL BE ADDED AFTER MIXING TRUCK LEAVES PLANT WITHOUT THE APPROVAL OF PLANT ENGINEER. MAXIMUM MIX TIME AT POINT OF DEPOSIT IS 90 MINUTES.
   B. REINFORCING STEEL: CONFORMING TO ASTM A-615-GRADE 60, FREE FROM OIL, LOOSE SCALE & RUST. C. WELDED WIRE FABRIC: CONFORMING TO ASTM A-185, FREE FROM OIL, LOOSE SCALE & RUST.
5. MISCELLANEOUS METAL. A. ROLLED SHAPES - ASTM A992 (FY.50.0 KSI) ROUND COLUMNS - ASTM A500 GRADE B (FY.42 KSI) MISC. ANGLES & PLATES - ASTM A-36 (FY.36.0 KSI)
   B. ALL THESE SHAPES, MEMBERS AND CONNECTIONS DENOTED TO BE HOT DIPPED GALVANIZED SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION.
   C. ALL STEEL SHALL BE HOT DIPPED GALVANIZED.
   D. WELDING SHALL CONFORM WITH AWS SPECIFICATIONS. ALL SHOP AND FIELD WELDING SHALL BE PERFORMED BY QUALIFIED WELDERS WHO MUST HOLD CURRENT WELDING CERTIFICATES.
   E. FASTENINGS: MAKE ALL EXPOSED FASTENINGS OF STAINLESS STEEL SAME AS THE METAL TO WHICH FASTENING IS APPLIED, UNLESS OTHERWISE SHOWN.
   F. ALUMINUM: ALLOY 6063-T6 MILL FINISH.
   G. SEPARATE ALL ALUMINUM FROM GALVANIZED STEEL WITH NEOPRENE SEPARATORS.
   H. GATES SHALL RECEIVE AN ESP (ELECTROSTATIC PAINT) FINISH. COLOR WHITE. SUBMIT SAMPLE FOR APPROVAL.
   I. CONTRACTOR SHALL MINIMIZE FIELD WELDING. ALL FIELD WELDS SHALL BE CLEANED/PING AND COATED WITH COLD GALVANIZING MATERIAL.
   J. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR FPL APPROVAL PRIOR TO FABRICATION.
6. GATE MOTOR: HYSECURITY, SLIDE DRIVE 30F WITH DRIVE RAIL, 1 PHASE 208/230V 60HZ.
7. FENCE AND GATE SHALL BE GROUNDED PER FPL STANDARD DRAWING E-16131 LATEST REVISION.
8. ACTIVE SUBSTATIONS SHALL BE SECURED AT ALL TIME. TEMPORARY FENCING SHALL BE INSTALLED AS NECESSARY TO SECURE THE SITE.
9. SUBSTATION SHALL BE ACCESSABLE FOR EMERGENCY OPERATIONS AT ALL TIMES DURING CONSTRUCTION.
10. CONTRACTOR SHALL OBTAIN FENCE PERMIT AS REQUIRED BY LOCAL BUILDING CODES.
11. CONTRACTOR SHALL SUBMIT COMPLETE SHOP DRAWINGS OF THE GATES TO FPL FOR REVIEW AND APPROVAL. GATES SHALL BE CONSTRUCTED IN GENERAL CONFORMANCE WITH THE CONTRACT DRAWINGS.



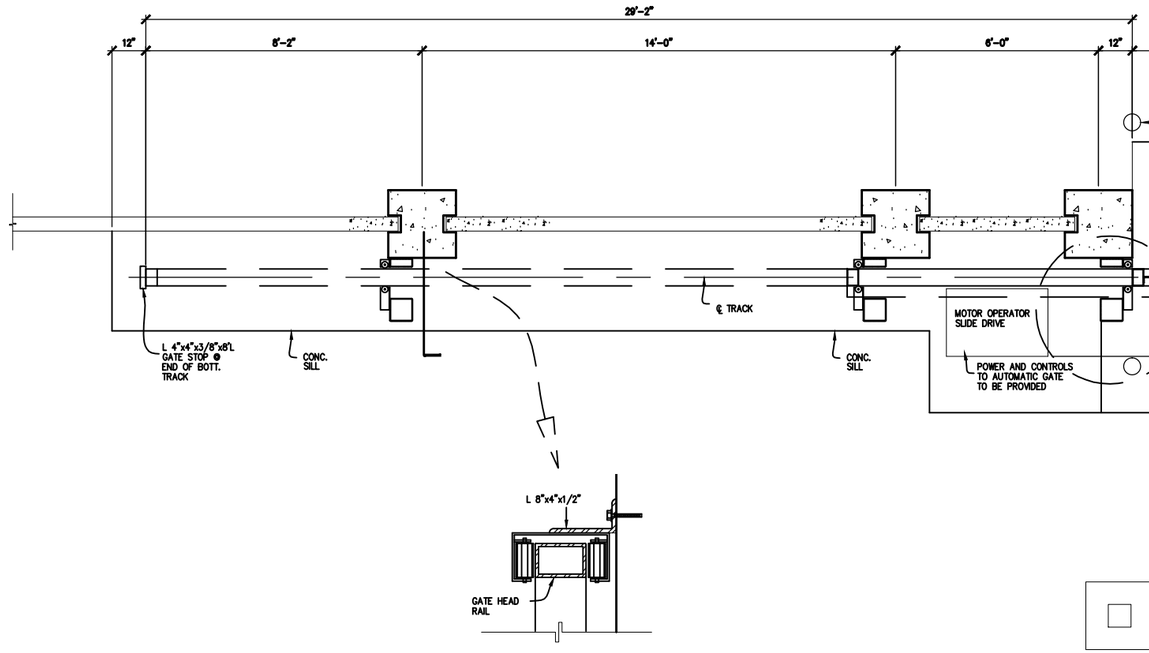
BOLLARD DETAIL
SCALE: 3/4"=1'-0"



DETAIL
SCALE: 1 1/2"=1'-0"



DETAIL
SCALE: 1 1/2"=1'-0"



DETAIL
SCALE: 1 1/2"=1'-0"

GATE PLAN
SCALE: 1/2"=1'-0"

A - 2

ER	NO	DATE	REVISION	BY	CH	COR	APP

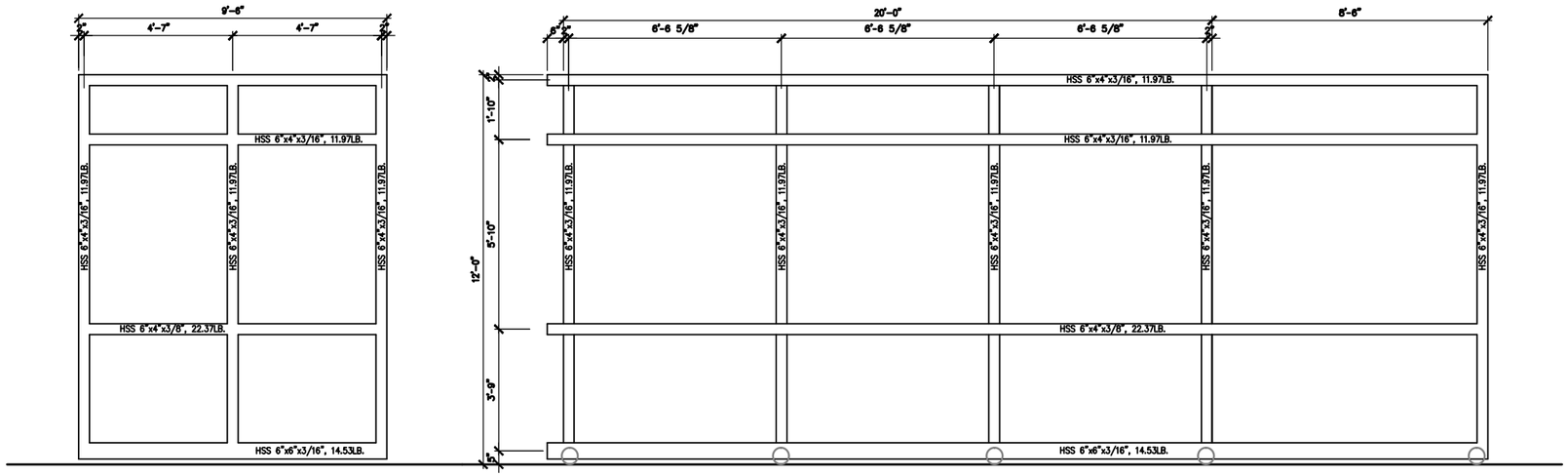
DATE 09-03-14 | SCALE AS SHOWN
POWER DELIVERY
DR ROUX(WJB) | ER
CH | COR
APPROVED

MANATEE PLANT
20' ROLLING GATE
GATE PLAN & DETAILS

132996S8_R0
SHEET 10 OF 19
E-SLU27
REV NO

A.H. EZAZI, P.E.
FLA. REG. #40109
ENGINEER'S SEAL

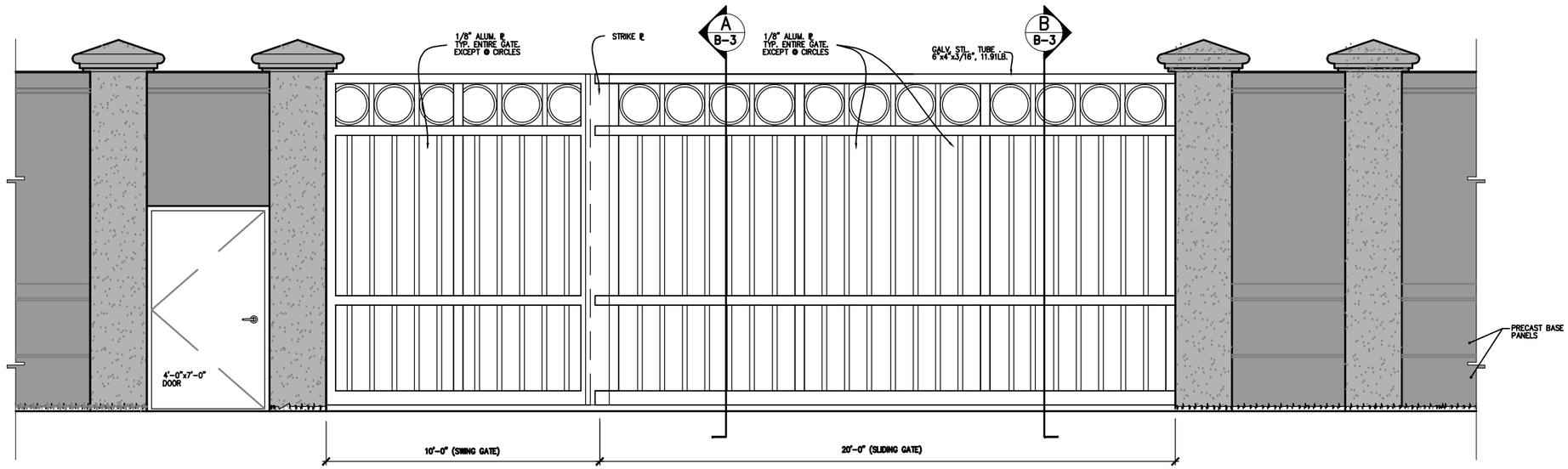
24X36 ENG 6/99



GATE WT. (20'-0" SLIDING GATE)
STEEL 113.33 LIN. FT. HSS 6"x4"x3/16" @ 11.97LB./FT. = 1,357LB.
29.17 LIN. FT. HSS 6"x4"x3/8" @ 22.37LB./FT. = 653LB.
29.17 LIN. FT. HSS 6"x6"x3/16" @ 14.53LB./FT. = 424LB.
ALUM. 1/8" ℄ 180 S.F.x2LB./S.F. ..... = 360LB.
1 1/2"x1 1/2" TUBE 231"x.8LB./FT. ..... = 185LB.
TOTAL = 2979LB.

GATE FRAMING ELEVATION
SCALE: 1/2"=1'-0"

ALL STEEL HOT DIPPED GALVANIZED AFTER FABRICATION



GATE ELEVATION
SCALE: 1/2"=1'-0"

A.H. EZAZI P.E. No 43109 STATE OF FLORIDA PROFESSIONAL ENGINEER

B – 1

ER	NO	DATE	REVISION	BY	CH	COR	APP

DATE 09-03-14 SCALE AS SHOWN
POWER DELIVERY FPL
DR ROUX(WJB) ER
CH COR
APPROVED

MANATEE PLANT
30' ROLLING GATE
GATE PLAN & DETAILS

13299S9_R0
SHEET 11 OF 16
E-SLU27
REV NO

A.H. EZAZI, P.E.
FLA. REG. #40109
ENGINEER'S SEAL

24X36 ENG 6/99

NOTES:

1. ALL WORK SHALL BE IN ACCORDANCE WITH FPL SPECIFICATIONS D-4 AS APPLICABLE.
2. ALL WORK SHALL SHALL COMPLY TO FLORIDA BUILDING CODE 2010 EDITION.
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   BASIC WIND LOAD VELOCITY.....Vults=194 mph
   Vasd=150 mph
   (RISK CATEGORY IV; EXPOSURE "D")
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   B. REINFORCING STEEL: CONFORMING TO ASTM A-615-GRADE 60, FREE FROM OIL, LOOSE SCALE & RUST.
   C. WELDED WIRE FABRIC: CONFORMING TO ASTM A-185, FREE FROM OIL, LOOSE SCALE & RUST.
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   A. ROLLED SHAPES - ASTM A992 (FY.50.0 KSI)
   ROUND COLUMNS - ASTM A500 GRADE B (FY.42 KSI)
   MISC. ANGLES & PLATES - ASTM A-36 (FY.36.0 KSI)
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   G. SEPARATE ALL ALUMINUM FROM GALVANIZED STEEL WITH NEOPRENE SEPARATORS.
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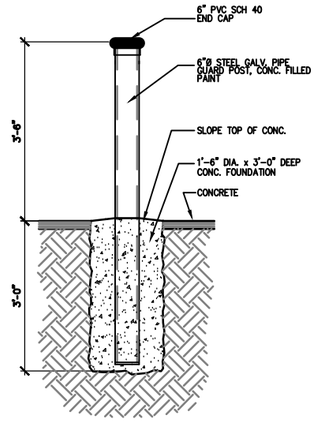
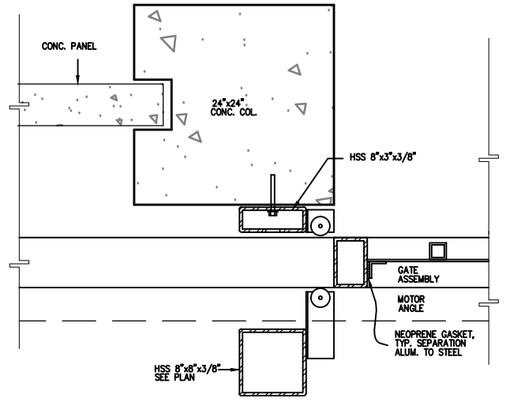
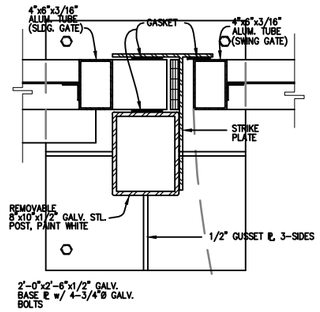
11. CONTRACTOR SHALL SUBMIT COMPLETE SHOP DRAWINGS OF THE GATES TO FPL FOR REVIEW AND APPROVAL. GATES SHALL BE CONSTRUCTED IN GENERAL CONFORMANCE WITH THE CONTRACT DRAWINGS.
12. SWING GATE SHALL HAVE A MINIMUM OF THREE (3) HINGES. HINGES SHALL BE CONSTRUCTED OF STEEL BOLTED TO THE PRECAST WALL COLUMN AND SHALL HAVE "ZERK" FITTING FOR GREASE LUBRICATION. HINGES SHALL BE DESIGN FOR 150% OF THE DEAD WEIGHT OF THE GATE. SWING GATE WILL BE BOLTED FROM THE INSIDE TO THE REMOVABLE STEEL POST.



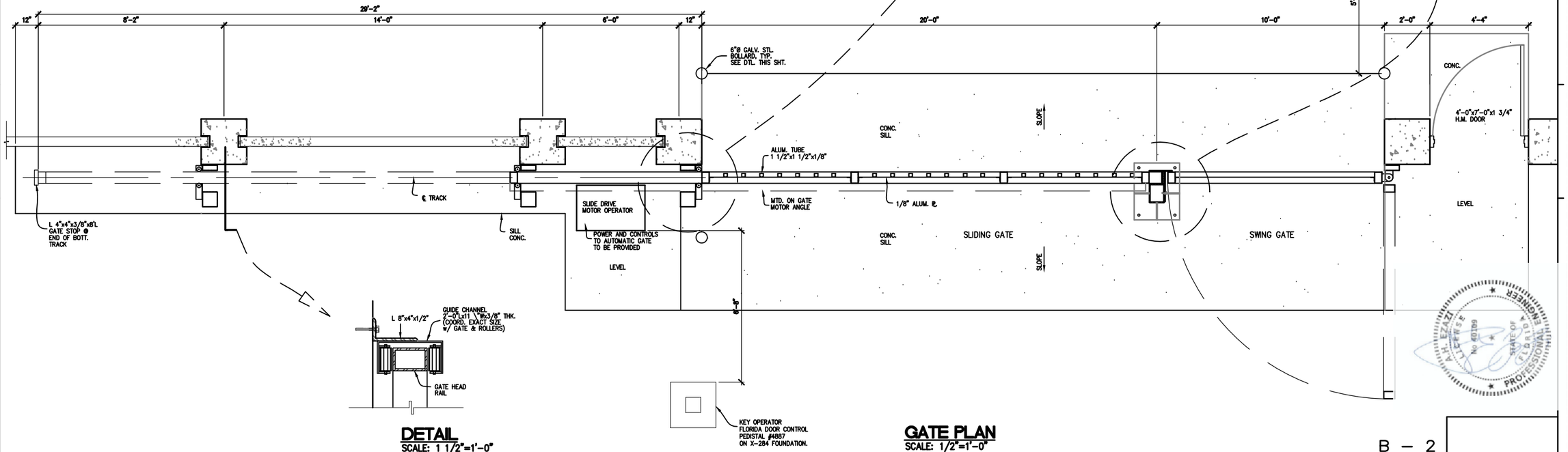
BOLLARD DETAIL
SCALE: 3/4"=1'-0"



DETAIL
SCALE: 1 1/2"=1'-0"



DETAIL
SCALE: 1 1/2"=1'-0"



DETAIL
SCALE: 1 1/2"=1'-0"

GATE PLAN
SCALE: 1/2"=1'-0"

B - 2

ER	NO	DATE	REVISION	BY	CH	COR	APP

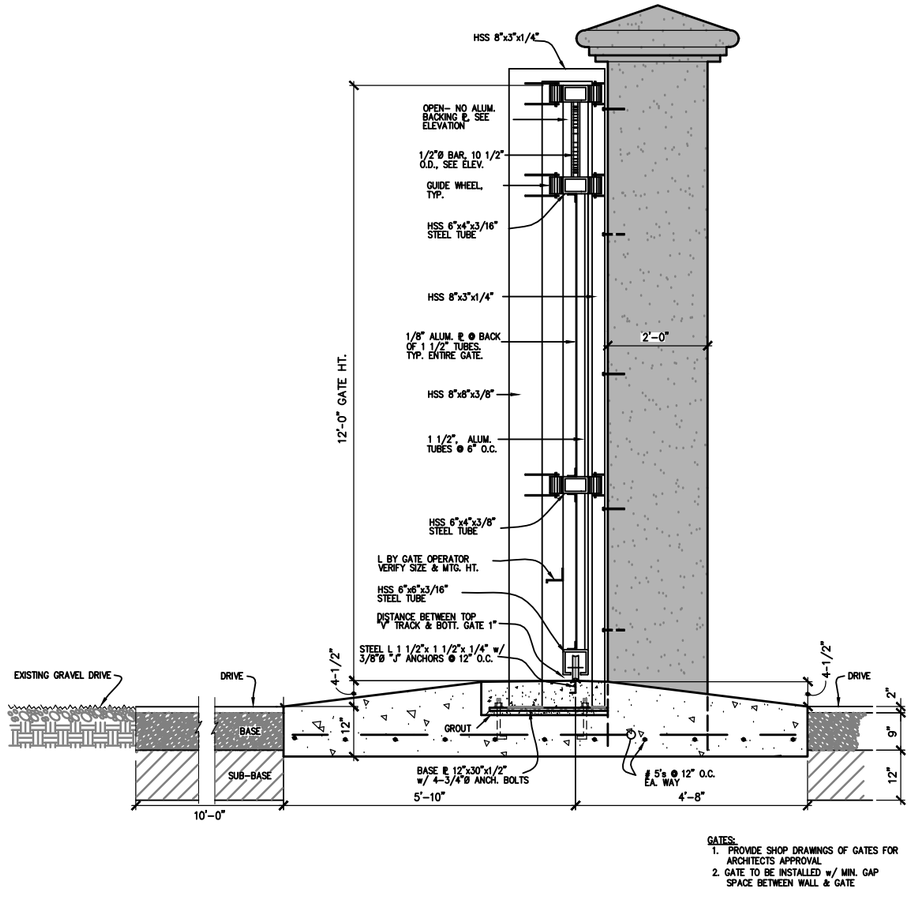
DATE 09-03-14 | SCALE 0 AS SHOWN
POWER DELIVERY
DR ROUX(WJB) | ER
CH | COR
APPROVED

MANATEE PLANT
30' ROLLING GATE
GATE ELEVATION & SECTION

132996S10_R0
SHEET 12 OF 16
E-STU27
REV NO

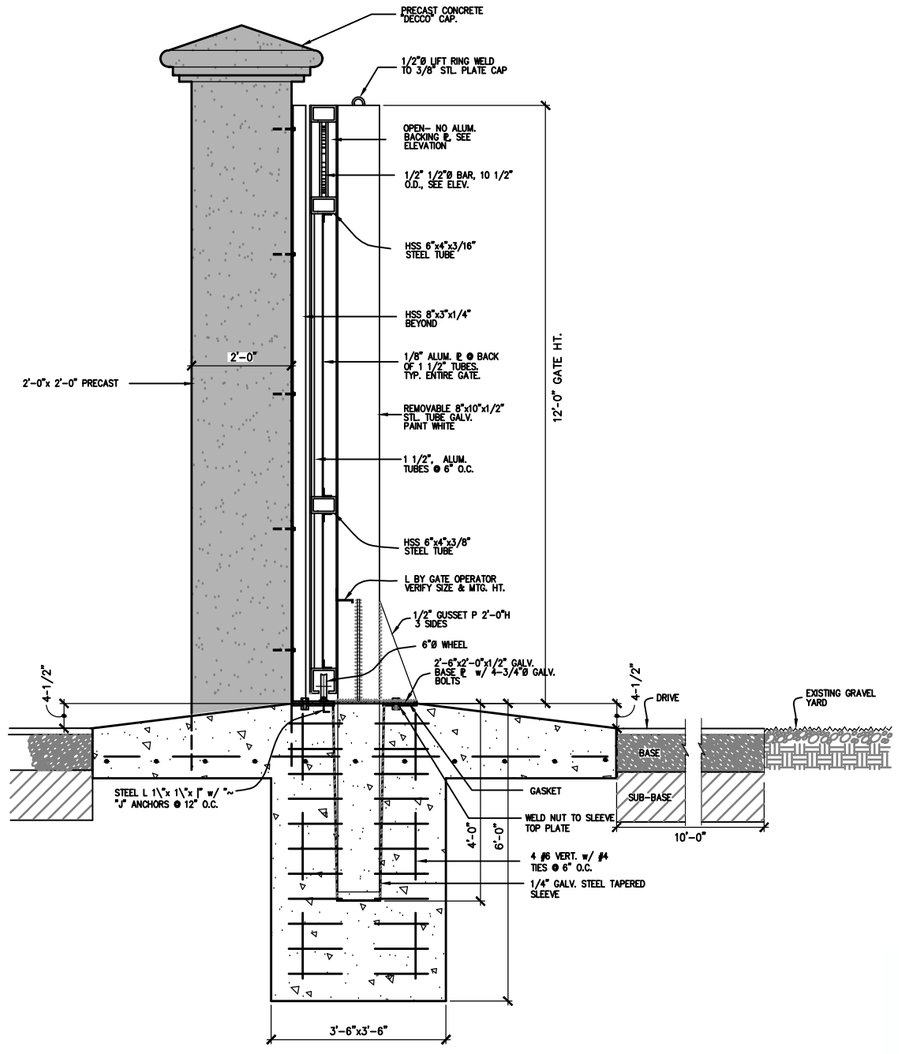
A.H. EZAZI, P.E.
FLA. REG. #40109
ENGINEER'S SEAL

24X36 ENG 6/99

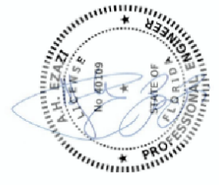


GATES:
1. PROVIDE SHOP DRAWINGS OF GATES FOR ARCHITECTS APPROVAL.
2. GATE TO BE INSTALLED w/ MIN. GAP SPACE BETWEEN WALL & GATE

SECTION • GATE (B / B-3)
SCALE: 3/4"=1'–0"



SECTION • GATE (A / B-3)
SCALE: 3/4"=1'–0"



B – 3

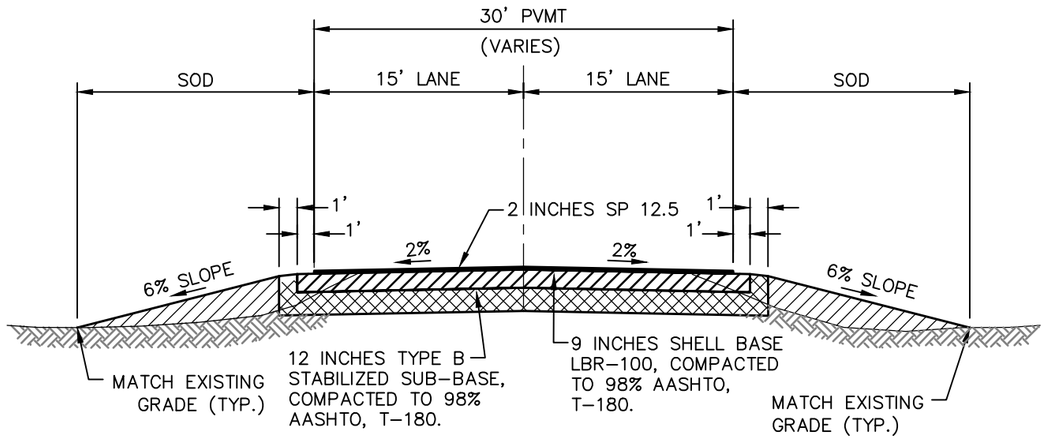
ER	NO	DATE	REVISION	BY	CH	COR	APP

DATE 09-03-14 SCALE 0 AS SHOWN
POWER DELIVERY FPL
DR ROUX(WJB) ER
CH COR
APPROVED

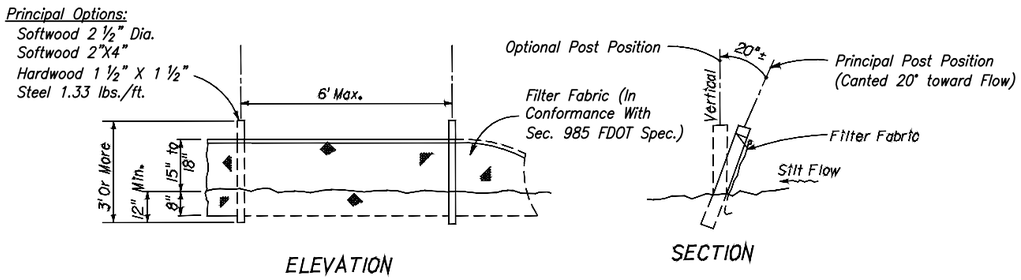
MANATEE PLANT
30' ROLLING GATE
GATE SECTION

132996S11_R0
SHEET 13 OF 16
E–SLU27
REV NO

A.H. EZAZI, P.E.
FLA. REG. #40109
ENGINEER'S SEAL



CROSS SECTION @ ENTRANCE GATES



TYPE III SILT FENCE

NOTES FOR SILT FENCES

1. Type III Silt Fence to be used at most locations. Where used in ditches, the spacing for Type III Silt Fence shall be in accordance with Chart I, Sheet I.
2. Type IV Silt Fence to be used where large sediment loads are anticipated. Suggested use is where fill slope is 1:2 or steeper and length of slope exceeds 25 feet. Avoid use where the detained water may back into travel lanes or off the right of way.
3. Do not construct silt fences across permanent flowing water courses. Silt fences are to be at upland locations and turbidity barriers used at permanent bodies of water.
4. Where used as slope protection, Silt Fence is to be constructed on 0% longitudinal grade to avoid channelizing runoff along the length of the fence.
5. Silt Fence to be paid for under the contract unit price for Staked Silt Fence, (LF).

ER	NO	DATE	REVISION	BY	CH	COR	APP

DATE 03-20-12 SCALE 0 20 30 40 60

POWER SYSTEMS FPL

DR MJB ER
CH AHE COR
APPROVED _____

MANATEE PLANT
CIVIL DETAILS

SHEET 14 OF 17
E-MAN CD
CADD

REV NO --

AECOM

A.H. EZAZI, P.E.
FLA. REG. #40109
ENGINEER'S SEAL