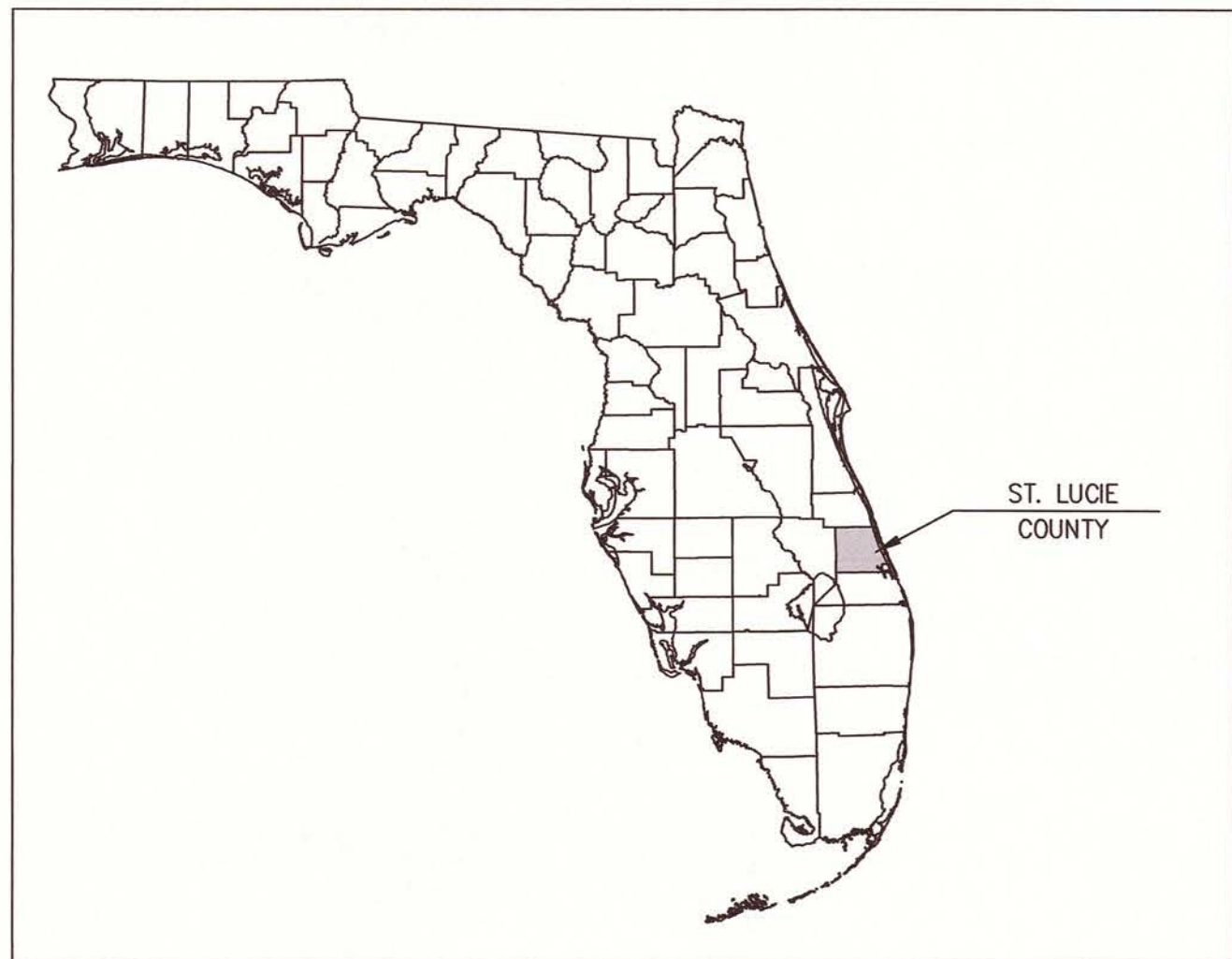


ST. LUCIE SUBSTATION YARD EXPANSION



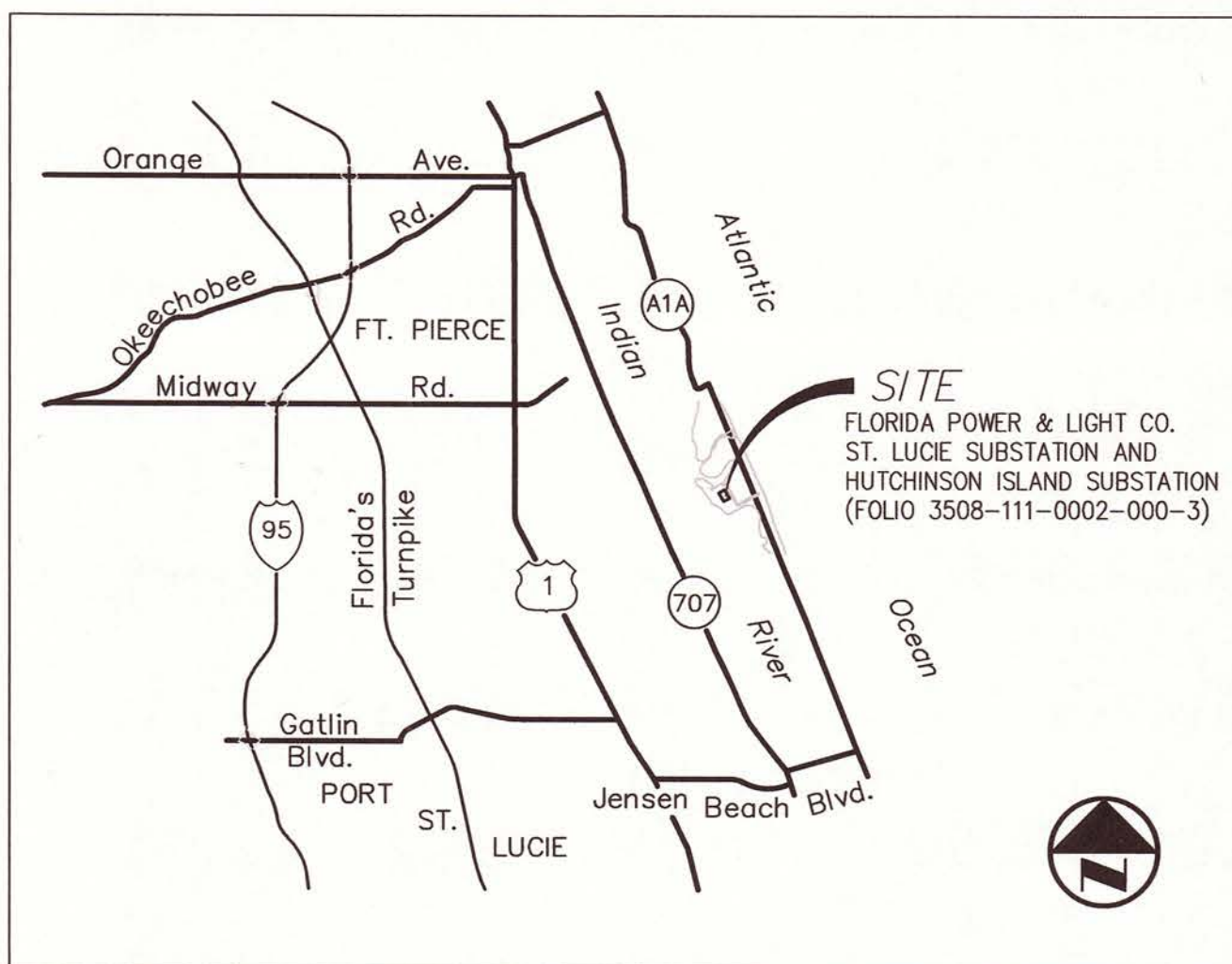
ST. LUCIE COUNTY SECTION 16, TOWNSHIP 36S, RANGE 41E



LOCATION MAP
(NOT TO SCALE)

LEGAL DESCRIPTION

8/09/15/16/17/21/22 36 41 ALL FRACT SECS 8 AND 9 LYG W OF A1A-LESS N 436.71 FT AND ALL FRACT SEC 9.



VICINITY MAP
(NOT TO SCALE)

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS, INC.
7700 N. KENDALL DRIVE, SUITE 300
MIAMI, FL 33156
PH. (305) 412-8185 FAX. (305) 412-8105
FLORIDA CERTIFICATE OF AUTHORIZATION NO. 00004892
WWW.SCSENGINEERS.COM
SCS ES PROJECT NO. 09213182.00



PLANS PREPARED FOR :
FLORIDA POWER AND LIGHT COMPANY
TRANSMISSION AND SUBSTATION SITING SECTION

INDEX OF DRAWINGS

INDEX NO.	SHEET NO.	DESCRIPTION
SLU00	1 OF 1	COVER SHEET
SLU01J	1 OF 1	JURISDICTIONAL SITE PLAN
SLU02	1 OF 5	FENCE, FILL & GRADE PLAN
SLU02	2 OF 5	FENCE, FILL & GRADE SECTIONS
SLU02	3 OF 5	PAVEMENT, MARKING & SIGNING PLAN
SLU02	4 OF 5	FENCE, FILL & GRADE DETAILS
SLU02	5 OF 5	FENCE, FILL & GRADE STORMWATER POLLUTION PREVENTION PLAN
SLU10	1 OF 1	TOPOGRAPHIC SURVEY
SLU20	1 OF 2	PRECAST CONCRETE WALL PLAN
SLU20	2 OF 2	PRECAST CONCRETE WALL SECTIONS AND DETAILS
SLU27	1 OF 5	20' ROLLING GATE SECTIONS
SLU27	2 OF 5	20' ROLLING GATE DETAILS
SLU27	3 OF 5	30' ROLLING GATE SECTIONS
SLU27	4 OF 5	30' ROLLING GATE DETAILS
SLU27	5 OF 5	30' ROLLING GATE SECTIONS



ST. LUCIE SUBSTATION
YARD EXPANSION
FPL PROJECT NO. 9562

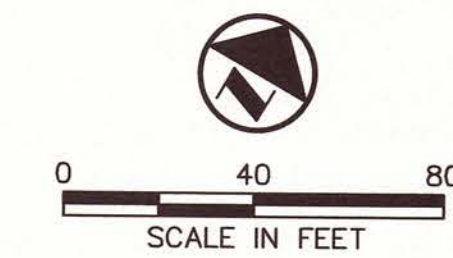
SLU00

CADE



100% DRAWINGS

JEFFREY P. THOMPSON, P.E.
LICENSE #69239



LEGEND

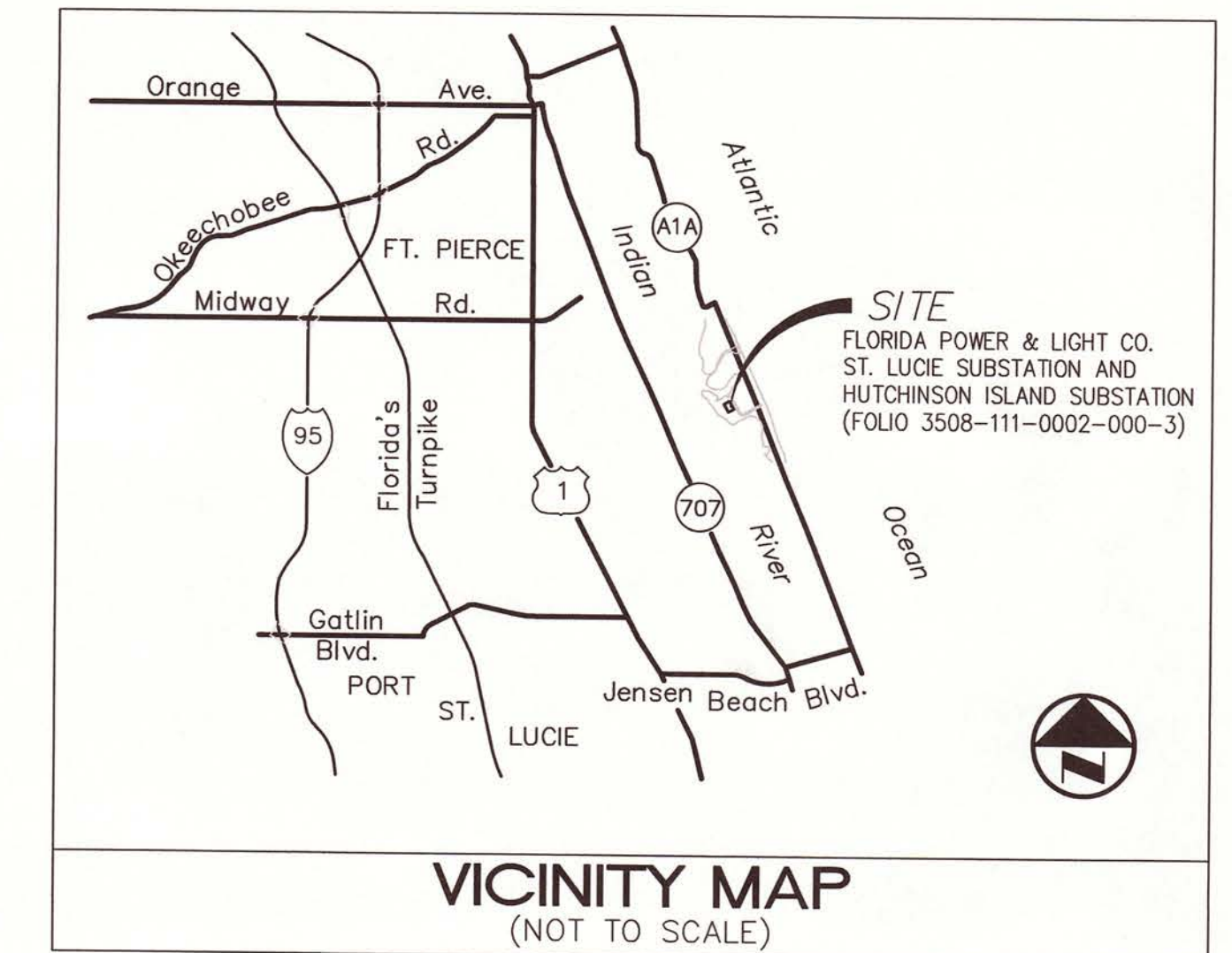
- PROPERTY LINE
- - - - - EXISTING CONTOUR, FT NAVD
- - - - - EXISTING ELEVATION, FT NAVD
- - - - - EXISTING CHAIN LINK FENCE
- - - - - PROPOSED CHAIN LINK FENCE
- PROPOSED CATCH BASIN
- PROPOSED BENCHMARK

PATTERNS

- ▨ PROPOSED EXPANSION
- PROPOSED PAVED AREAS

ABBREVIATIONS

- BOS BOTTOM OF STRUCTURE
- C.B. CATCH BASIN
- CLF CHAIN LINK FENCE
- EA. EACH
- EL. ELEVATION
- EXIST. EXISTING
- HDPE HIGH DENSITY POLYETHYLENE
- INV. INVERT
- LBR LIMEROCK BEARING RATIO
- LF LINEAR FEET
- O.F. OUTFALL
- PERF. PERFORATED
- SL. SLOPE
- STRM. STORM
- TYP. TYPICAL



GENERAL NOTES:

1. APPLICANT AND AGENT: DARLY B. KILPATRICK FOR FLORIDA POWER AND LIGHT, OWNER & DEVELOPER, 700 UNIVERSE BLVD., TS4/JW. JUNO BEACH, FLORIDA 33408. PHONE (561)904-3641.
2. THIS FACILITY WILL BE USED FOR TRANSFORMATION, REGULATION, AND DISTRIBUTION OF ELECTRICITY.
3. THIS FACILITY WILL CONSUME NO UNRECOVERABLE ENERGY AND IS EXEMPT FROM THE FLORIDA ENERGY REVIEW CODE.
4. ADDRESS: 6501 S OCEAN DRIVE, JENSEN BEACH, FL 34957
5. PARCEL TAX ID NUMBER: 3508-111-0002-000-3
6. SUBJECT PROPERTY IS LOCATED IN ZONE AE (EL. 7) PER FIRM COMMUNITY PANEL NUMBER 120285 0282 G, DATED NOVEMBER 4, 1992.

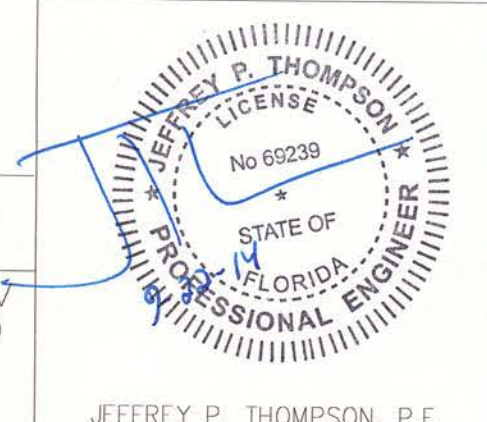
SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS, INC.
7700 N. KENDALL DRIVE, SUITE 300
MIAMI, FL 33156
PH. (305) 412-8185 FAX. (305) 412-8105
FLORIDA CERTIFICATE OF AUTHORIZATION NO. 00004892
WWW.SCSENGINEERS.COM

DATE 09-15-14	SCALE	AS NOTED
DR WDH	ER JPT	
CH JPT	COR WDH	
APPROVED		

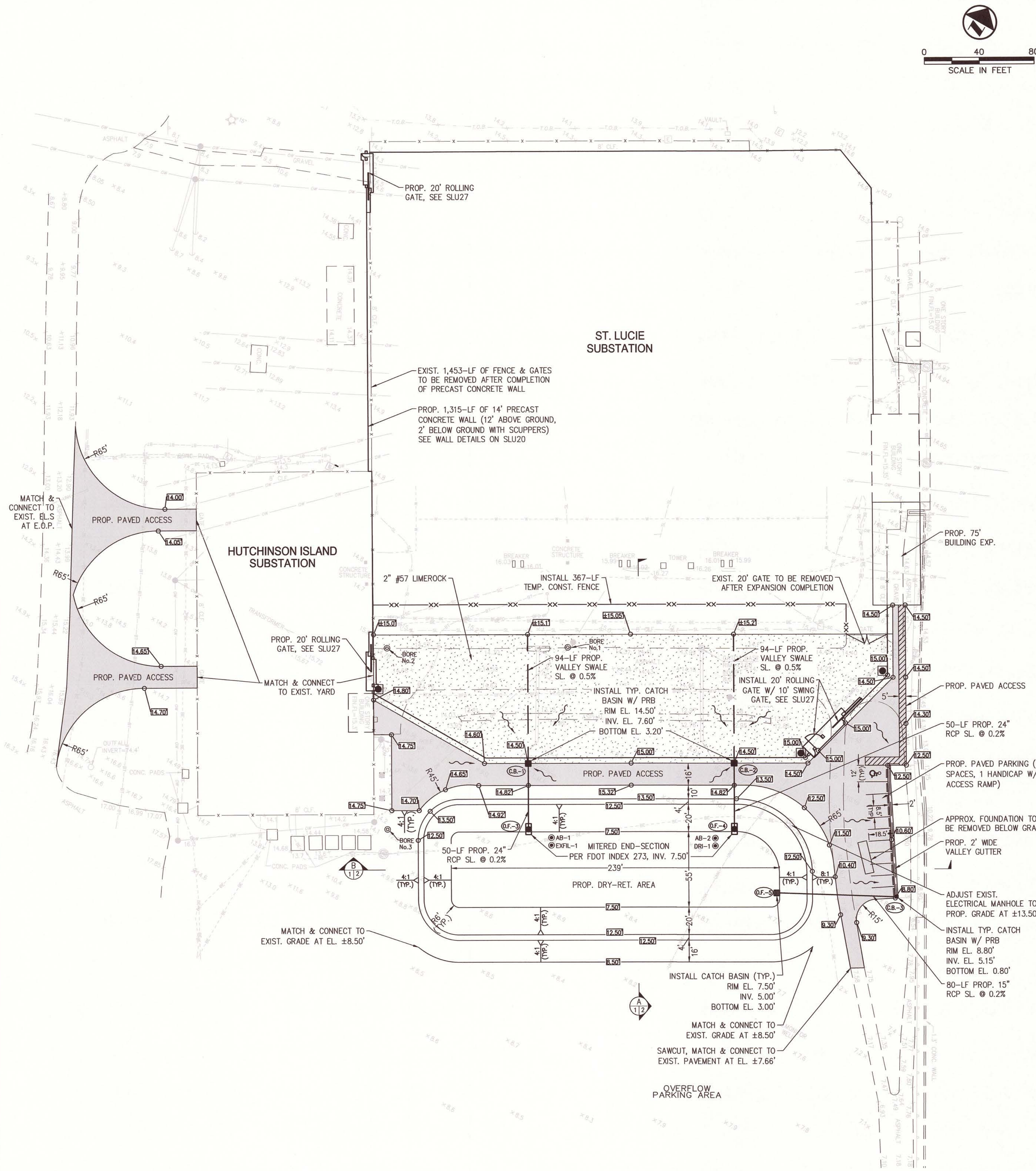
ST. LUCIE SUBSTATION
YARD EXPANSION
JURISDICTIONAL SITE PLAN

100% DRAWINGS

SHEET 1 OF 1
SLU01J



JEFFREY P. THOMPSON, P.E.
FL REG. NO. #69239



LEGEND

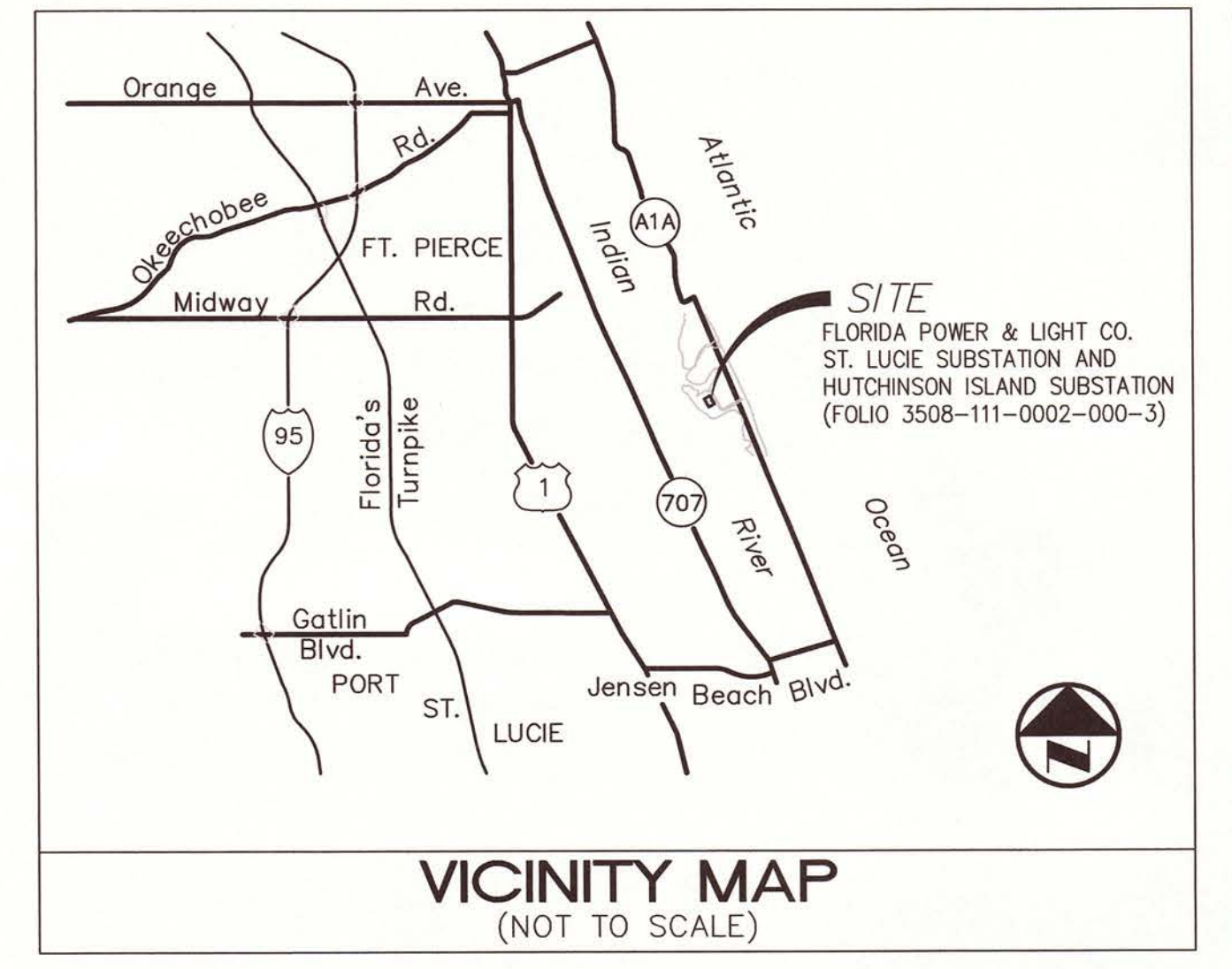
- PROPERTY LINE
 - x---x--- EXISTING CONTOUR, FT NAVD
 - 13.50--- PROPOSED CONTOUR, FT NAVD
 - x---x--- EXISTING ELEVATION, FT NAVD
 - x---x--- PROPOSED ELEVATION, FT NAVD
 - x---x--- EXISTING CHAIN LINK FENCE
 - x---x--- PROPOSED CHAIN LINK FENCE
 - BORING LOCATION
 - ~ DIRECTION OF FLOW
 - ~ DIRECTION OF SLOPE
 - PROPOSED CATCH BASIN
 - PROPOSED BENCHMARK
- DETAIL NUMBER
2 3
SHEET WHERE
DETAIL IS
REFERENCED
- SECTION LETTER
A
3 4
SHEET WHERE
DETAIL IS
REFERENCED

ABBREVIATIONS

- BOS BOTTOM OF STRUCTURE
- C.B. CATCH BASIN
- CLF CHAIN LINK FENCE
- EA. EACH
- EL. ELEVATION
- EXIST. EXISTING
- HDPE HIGH DENSITY POLYETHYLENE
- INV. INVERT
- LBR LIMESTONE BEARING RATIO
- LF LINEAR FEET
- O.F. OUTFALL
- PERF. PERFORATED
- SL. SLOPE
- STRM. STORM
- TYP. TYPICAL

PATTERNS

- PROPOSED EXPANSION
- PROPOSED PAVED AREAS



FPL GENERAL NOTES:

- ELEVATIONS REFERENCED TO N.A.V.D., UNLESS OTHERWISE NOTED.
- DENOTES LOCATION AND ELEVATION OF EXISTING GRADE.
- ELEVATIONS WHICH INDICATE TOP OF FILL OR LIMEROCK WHICH ARE TO BE COVERED WITH LOOSE ROCK OR ASPHALTIC CONCRETE INCLUDE 0.17' (2") FOR LOOSE ROCK OR 0.125' (1.5") FOR ASPHALTIC CONCRETE AND ARE SHOWN AS [XXX].
- ELEVATIONS WHICH INDICATE TOP OF FILL OR CUT THAT ARE TO BE SODDED ARE THE PROPOSED ELEVATIONS OF THE TOP OF SOD AND ARE SHOWN [XXX].
- ~ INDICATES THE DIRECTION OF FLOW OF STORMWATER RUNOFF.
- ALL CLEARING, EXCAVATING, FILLING, GRADING, PAVING AND DRAINAGE SHALL BE PERFORMED IN CONFORMANCE WITH FPL D-2 SPECIFICATION.
- GRASSING SHALL BE FURNISHED AND INSTALLED IN CONFORMANCE WITH THE APPROVED LANDSCAPE PLAN. ALL DISTURBED AREAS NOT SHOWN TO BE PLANTED, MULCHED, ETC. SHALL BE SODDED.
- EROSION AND SEDIMENT CONTROL TO BE PROVIDED BY SODDING OF EMBANKMENTS, RETENTION/DETENTION FACILITIES AND DISTURBED AREAS AT LOCATIONS SHOWN.
- FPL SHALL ASSUME RESPONSIBILITY FOR MAINTENANCE OF THE STORMWATER FACILITIES WITHIN FPL PROPERTY UPON COMPLETION AND ACCEPTANCE BY THE COMPANY REPRESENTATIVE.
- STORMWATER MANAGEMENT DESIGN DATA:

TOTAL SITE AREA	=	3.461 AC
NON-CONTRIBUTING AREA	=	00000 AC
OFFSITE CONTRIBUTING AREA	=	00000 AC
TOTAL RUNOFF AREA	=	3.461 AC
IMPERVIOUS AREA	=	2.751 AC
PAVEMENT	=	0.370 AC
YARD AREA	=	1.541 AC
EXPANSION	=	0.729 AC
ROOF	=	0.111 AC
PERVIOUS AREA	=	0.710 AC
LANDSCAPED AREA	=	0.710 AC
- SOD SHALL BE PLACED SUCH THAT THE TOP OF THE GRASS IS AT THE SAME ELEVATION AS THE TOP OF ADJACENT COMPACTED FILL.
- THE STORMWATER MANAGEMENT DESIGN IS BASED ON FDEP, SFMMD, AND ST. LUCIE COUNTY CRITERIA.
- THE LOCATION OF EXISTING UTILITIES SHOWN IS APPROXIMATE ONLY AND MUST BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO BEGINNING WORK.
- MAINTENANCE OF TRAFFIC SHALL BE IN CONFORMANCE WITH FDOT SPECIFICATIONS.
- THESE PLANS SHALL NOT BE UTILIZED FOR CONSTRUCTION UNLESS THEY ARE MARKED "FOR CONSTRUCTION" IN THE TITLE BLOCK.

- GEOTECHNICAL EXPLORATION PERFORMED BY ARDAMAN & ASSOCIATES, INC. THE CONTRACTOR IS DIRECTED TO THE DISCUSSIONS & RECOMMENDATIONS SECTION OF THE REPORT AND ADVISED THAT COMPLIANCE WITH THE INSTRUCTION IN THAT SECTION IS REQUIRED.
- FIELD TESTING:
 - PAVING SUBGRADE TO BE TESTED FOR DENSITY EVERY 10,000 SQ. FT. OR PORTION THEREOF AND ONE LBR SHALL BE TAKEN IN AREA OF ASPHALT.
 - PAVING BASE AND YARD BASE TO BE TESTED FOR DENSITY EVERY 10,000 SQ. FT. OR PORTION THEREOF. PIT CERTIFICATION (FDOT) WILL BE SATISFACTORY FOR EVIDENCE OF LBR.
- SUBSEQUENT TO FINAL GRADING, THE CONTRACTOR SHALL INSTALL THREE (PERMANENT CONCRETE MONUMENT) BENCHMARKS AS A REFERENCE FOR OTHER WORK. THE LOCATIONS ARE SHOWN ON THESE PLANS. THE BENCHMARKS SHALL INCLUDE VERTICAL (SAME DATUM AS ORIGINAL SURVEY) AND HORIZONTAL (STATE PLANE COORDINATES) REFERENCES. BENCHMARK ELEVATIONS ARE TO BE SET AT DESIGN GRADE PLUS TWO INCHES. THE INFORMATION SHALL BE POSTED IN THE RELAY VAULT AND SHOWN ON THE AS-BUILT DRAWINGS.
- MUCK SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE REGULATORY REQUIREMENTS.
- THE REVIEW AND APPROVAL OF IMPROVEMENT PLANS DOES NOT AUTHORIZE THE CONSTRUCTION OF REQUIRED IMPROVEMENTS, WHICH ARE INCONSISTENT WITH EXISTING EASMENTS OF RECORD.
- APPLICANT AND AGENT: DARYL B. KILPATRICK, FOR FLORIDA POWER AND LIGHT, OWNER & DEVELOPER, 700 UNIVERSE BLVD., TS4/JW. JUNO BEACH, FLORIDA 33408. PHONE (561)904-3641.
- THIS FACILITY WILL BE USED FOR TRANSFORMATION, REGULATION, AND DISTRIBUTION OF ELECTRICITY.
- THIS FACILITY WILL CONSUME NO UNRECOVERABLE ENERGY AND IS EXEMPT FROM THE FLORIDA ENERGY REVIEW CODE.
- BENCHMARK DESCRIPTION: NATIONAL GEODETIC SURVEY BENCHMARK "C 308" (PID-AF3163) ELEVATION = 3.54 FT. (NAVD 88)
- SUBJECT PROPERTY IS LOCATED IN ZONE AE (EL. 7) PER FIRM COMMUNITY PANEL NUMBER 120285 0282 G, DATED NOVEMBER 4, 1992.
- SURVEY INFO PROVIDED BY:
AVROM & ASSOCIATES
50 SW 2nd AVE. SUITE 102
BOCA RATON, FLORIDA 33432
PHONE: 561-392-2594

NGVD-NAVD CONVERSION

BASED ON THE NATIONAL GEODETIC SURVEY (NGS) FROM THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA), THE ORTHOMETRIC HEIGHT CONVERSION FOR THIS SITE LOCATION IS REPRESENTED BY THE FOLLOWING EQUATION:

ELEV.(NGVD) = ELEV.(NAVD) + 1.50 FT



100% DRAWINGS

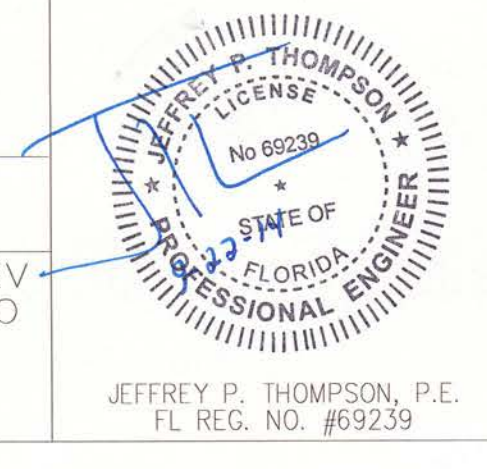
SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS, INC.
7700 N. KENDALL DRIVE, SUITE 300
MIAMI, FL 33156
PH. (305) 412-8185 FAX. (305) 412-8105
FLORIDA CERTIFICATE OF AUTHORIZATION NO. 00004892
WWW.SCSENGINEERS.COM

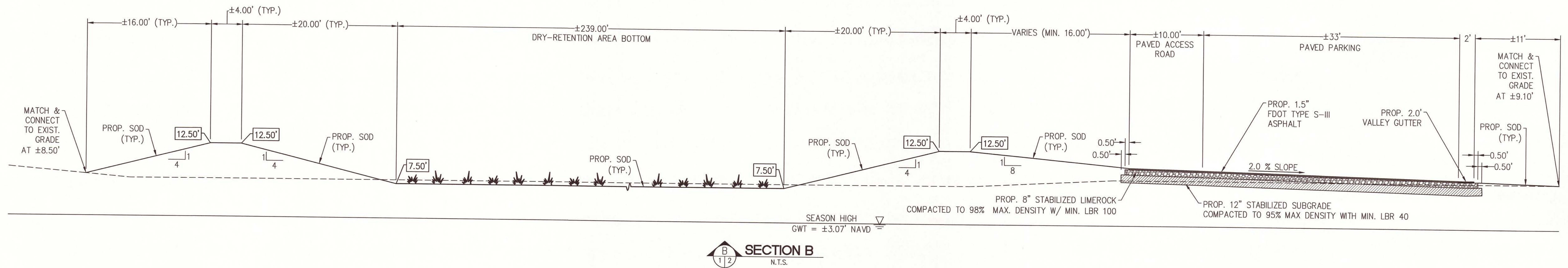
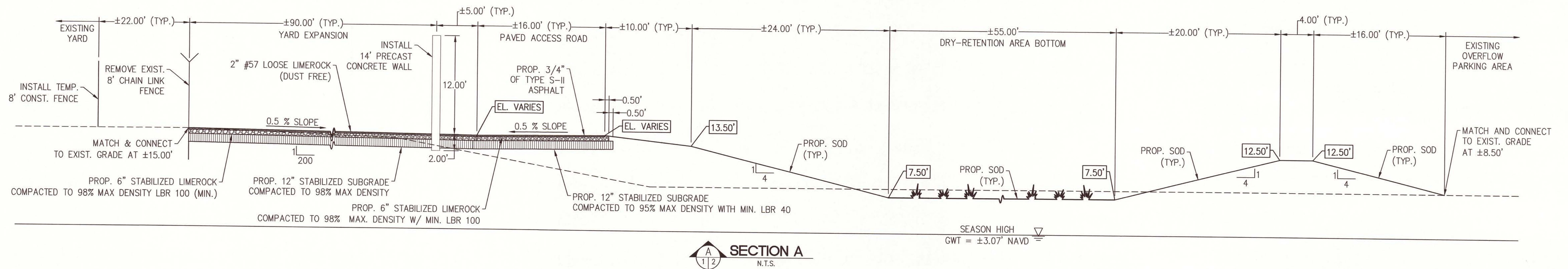
REV	NO	DATE	REVISION	BY	CH	COR/APP

DATE 09-17-14	SCALE AS NOTED
POWER DELIVERY	DR WDH ER JPT
FPL	CH JPT COR WDH
	APPROVED

ST. LUCIE SUBSTATION
YARD EXPANSION
FENCE, FILL & GRADE PLAN

SHEET 1 OF 5
SLU02





100% DRAWINGS

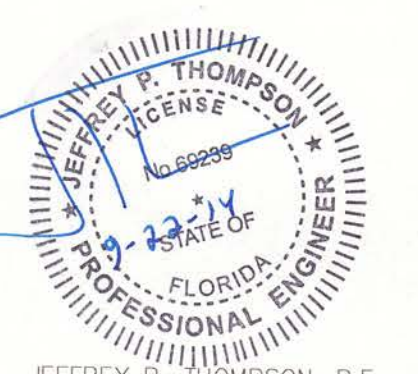
SCS ENGINEERS
 STEARNS, CONRAD AND SCHMIDT
 CONSULTING ENGINEERS, INC.
 7700 N. KENDALL DRIVE, SUITE 300
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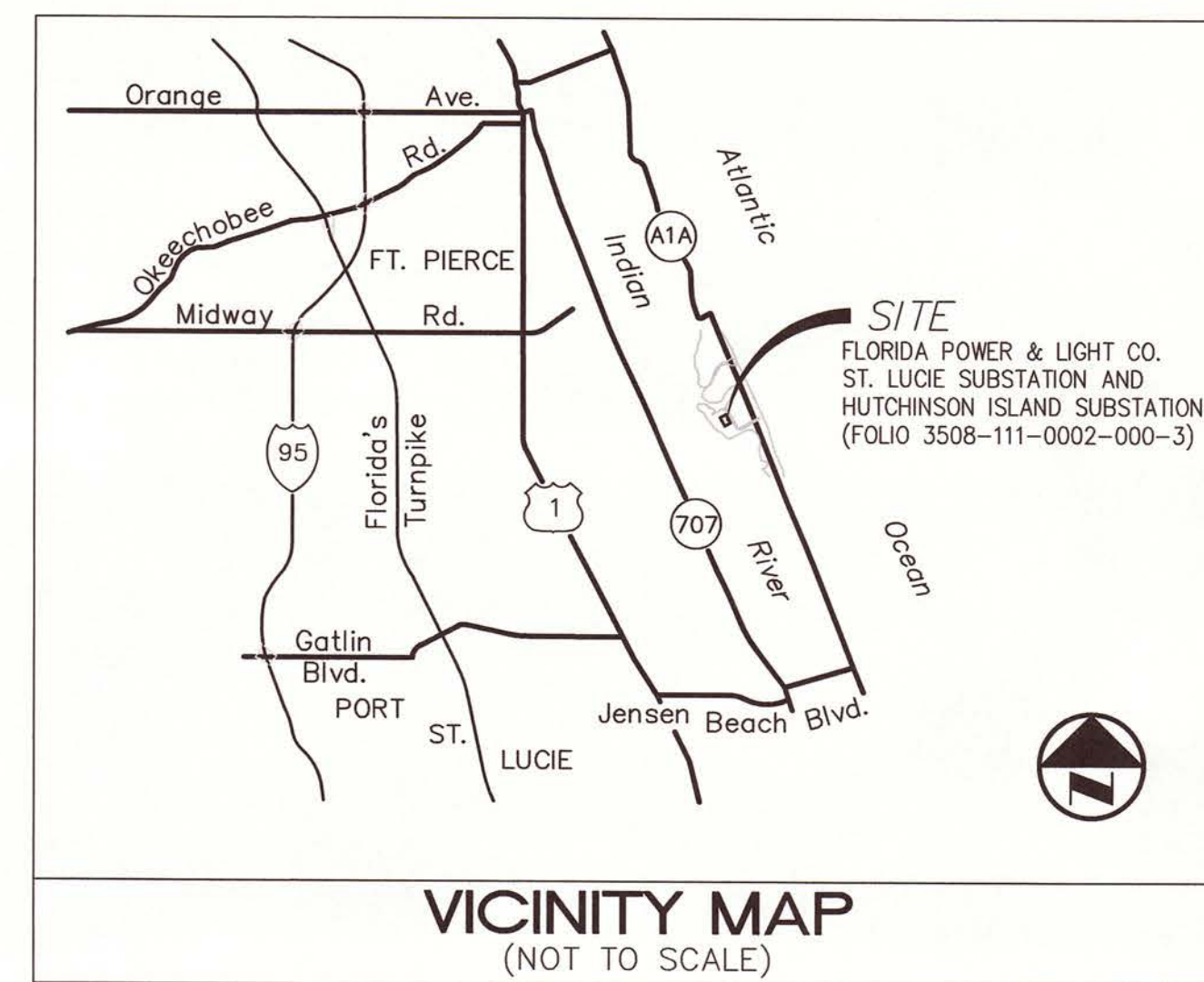
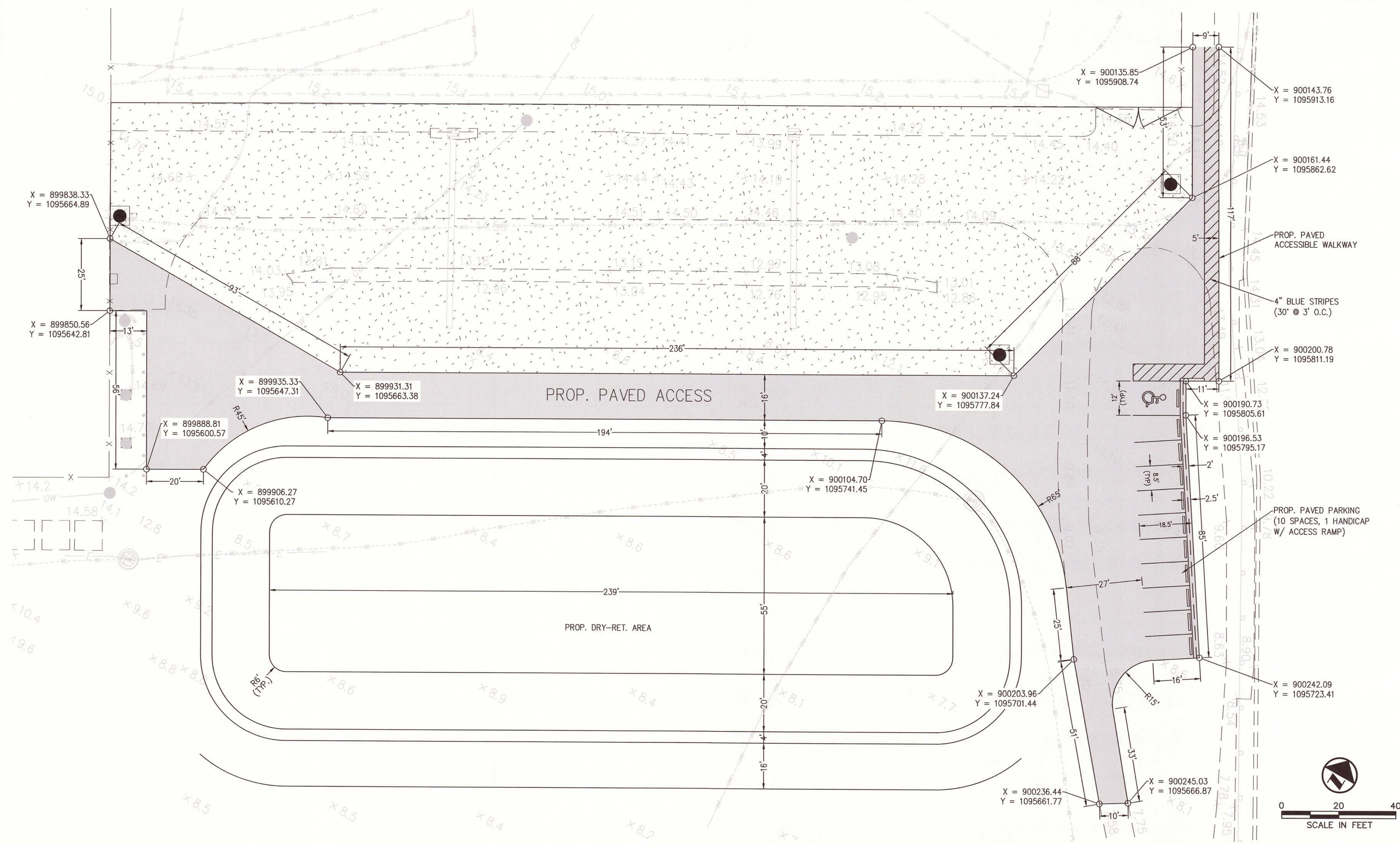
ER	NO	DATE	REVISION	BY	CH	COR	APP

DATE 09-17-14	SCALE AS NOTED
DR WDH	ER JPT
CH JPT	COR WDH
APPROVED	

ST. LUCIE SUBSTATION
 YARD EXPANSION
**FENCE, FILL & GRADE
 SECTIONS**

SHEET 2 OF 5
SLU02





ABBREVIATIONS

BOS	BOTTOM OF STRUCTURE
C.B.	CATCH BASIN
CLF	CHAIN LINK FENCE
EA.	EACH
EL.	ELEVATION
EXIST.	EXISTING
HDPE	HIGH DENSITY POLYETHYLENE
INV.	INVERT
LBR	LIMEROCK BEARING RATIO
LF	LINEAR FEET
O.F.	OUTFALL
PERF.	PERFORATED
SL.	SLOPE
STRM.	STORM
TYP.	TYPICAL

LEGEND

---	PROPERTY LINE
---	EXISTING CONTOUR, FT NAVD
---	PROPOSED CONTOUR, FT NAVD
---	EXISTING ELEVATION, FT NAVD
---	PROPOSED ELEVATION, FT NAVD
---	EXISTING CHAIN LINK FENCE
---	PROPOSED CHAIN LINK FENCE
---	BORING LOCATION
---	DIRECTION OF FLOW
---	DIRECTION OF SLOPE
---	PROPOSED CATCH BASIN
---	PROPOSED BENCHMARK

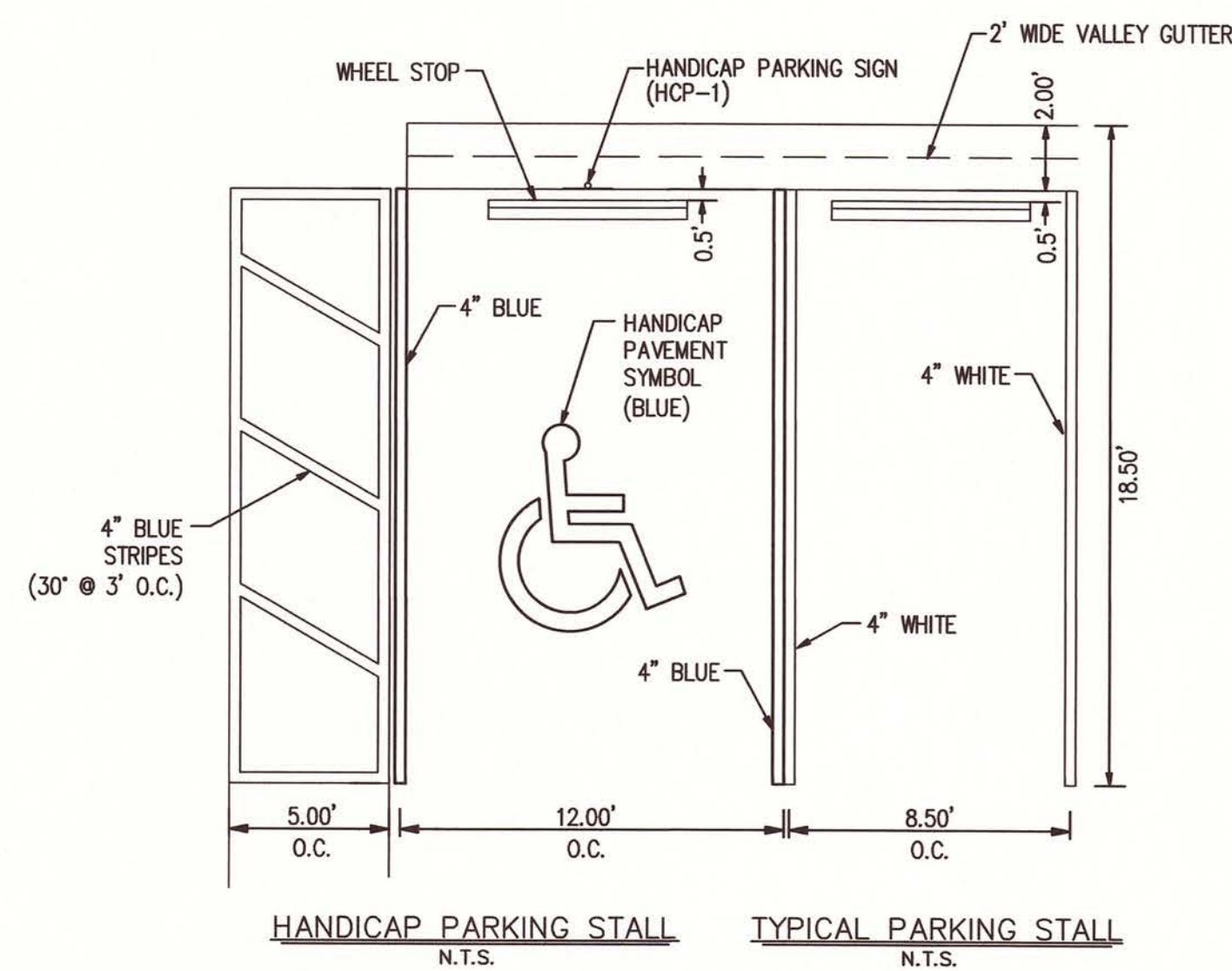
PATTERNS

---	PROPOSED EXPANSION
---	PROPOSED PAVED AREAS

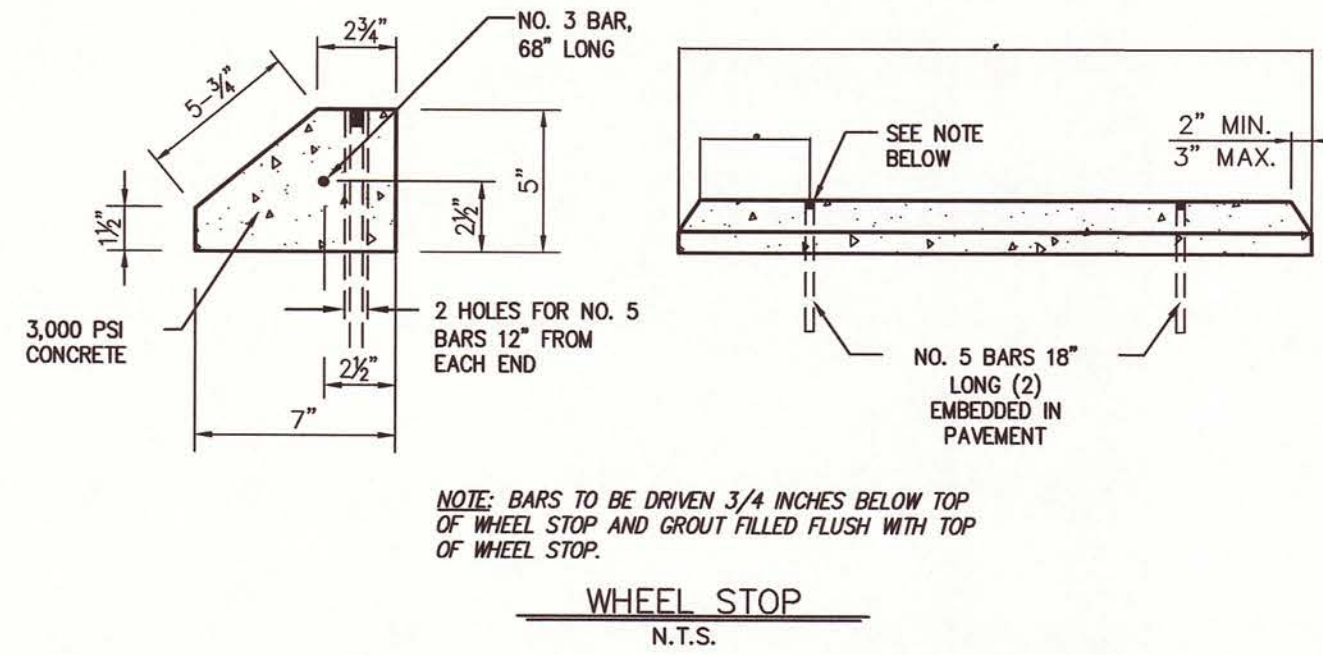
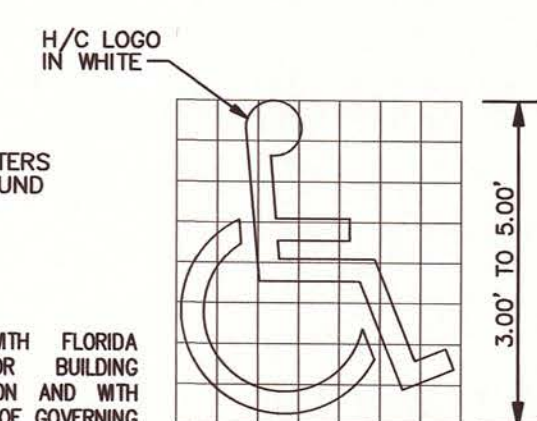
NGVD-NAVD CONVERSION

BASED ON THE NATIONAL GEODETIC SURVEY (NGS) FROM THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA), THE ORTHOMETRIC HEIGHT CONVERSION FOR THIS SITE LOCATION IS REPRESENTED BY THE FOLLOWING EQUATION:

$$ELEV.(NGVD) = ELEV.(NAVD) + 1.50 \text{ FT}$$



NOTE: SIGN SHALL COMPLY WITH FLORIDA ACCESSIBILITY CODE FOR BUILDING CONSTRUCTION, 1994 EDITION AND WITH THE LATEST REQUIREMENTS OF GOVERNING BODIES HAVING JURISDICTION.



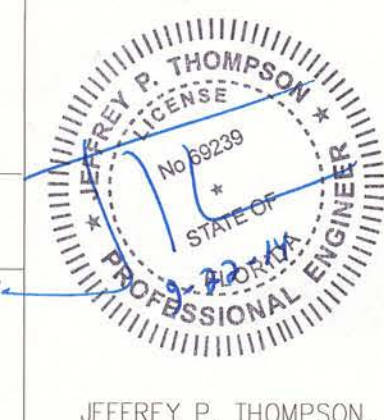
SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS, INC.
7700 N. KENDALL DRIVE, SUITE 300
MIAMI, FL 33156
PH. (305) 412-8185 FAX. (305) 412-8105
FLORIDA CERTIFICATE OF AUTHORIZATION NO. 00004892
WWW.SCSENGINEERS.COM

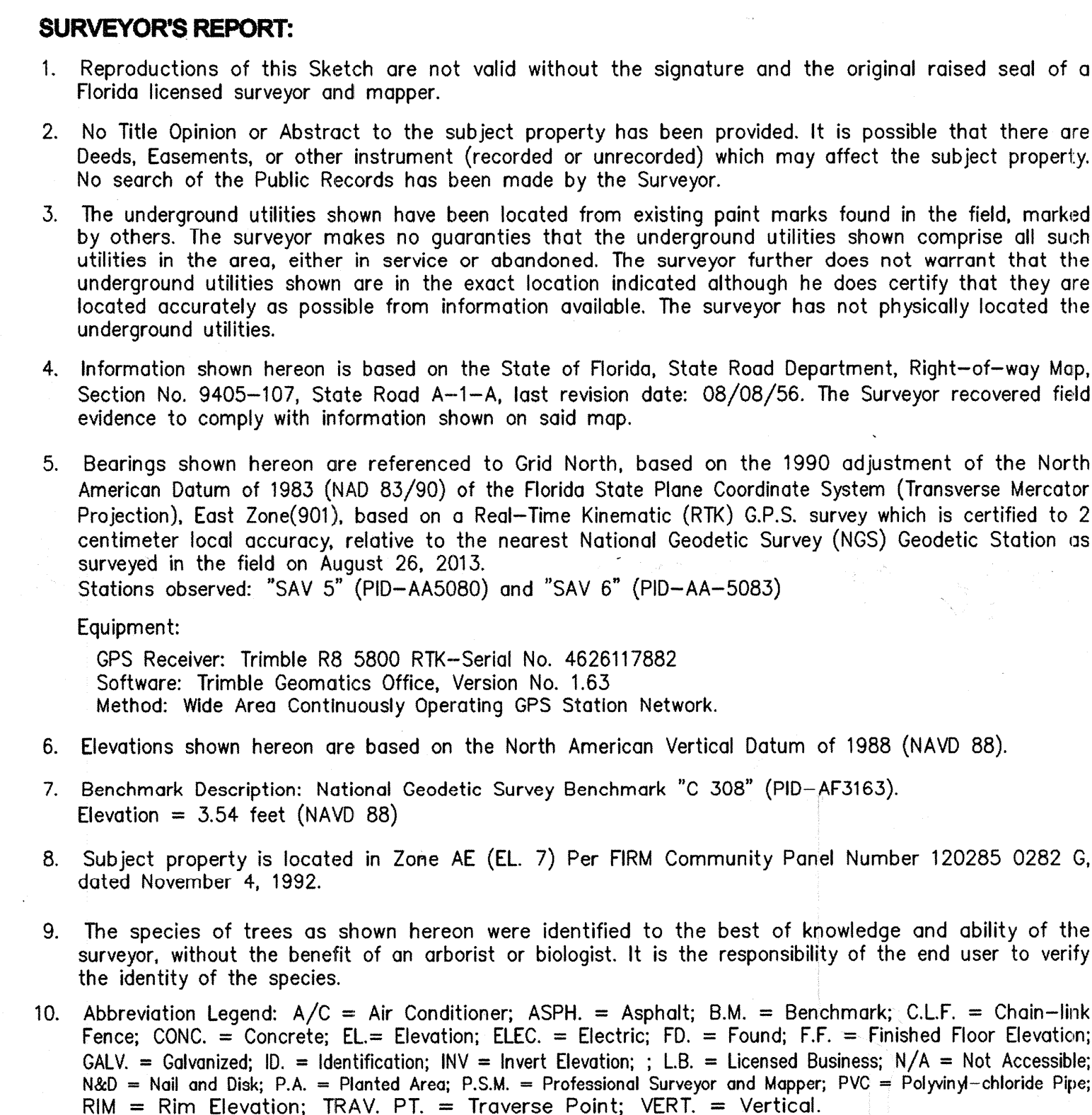
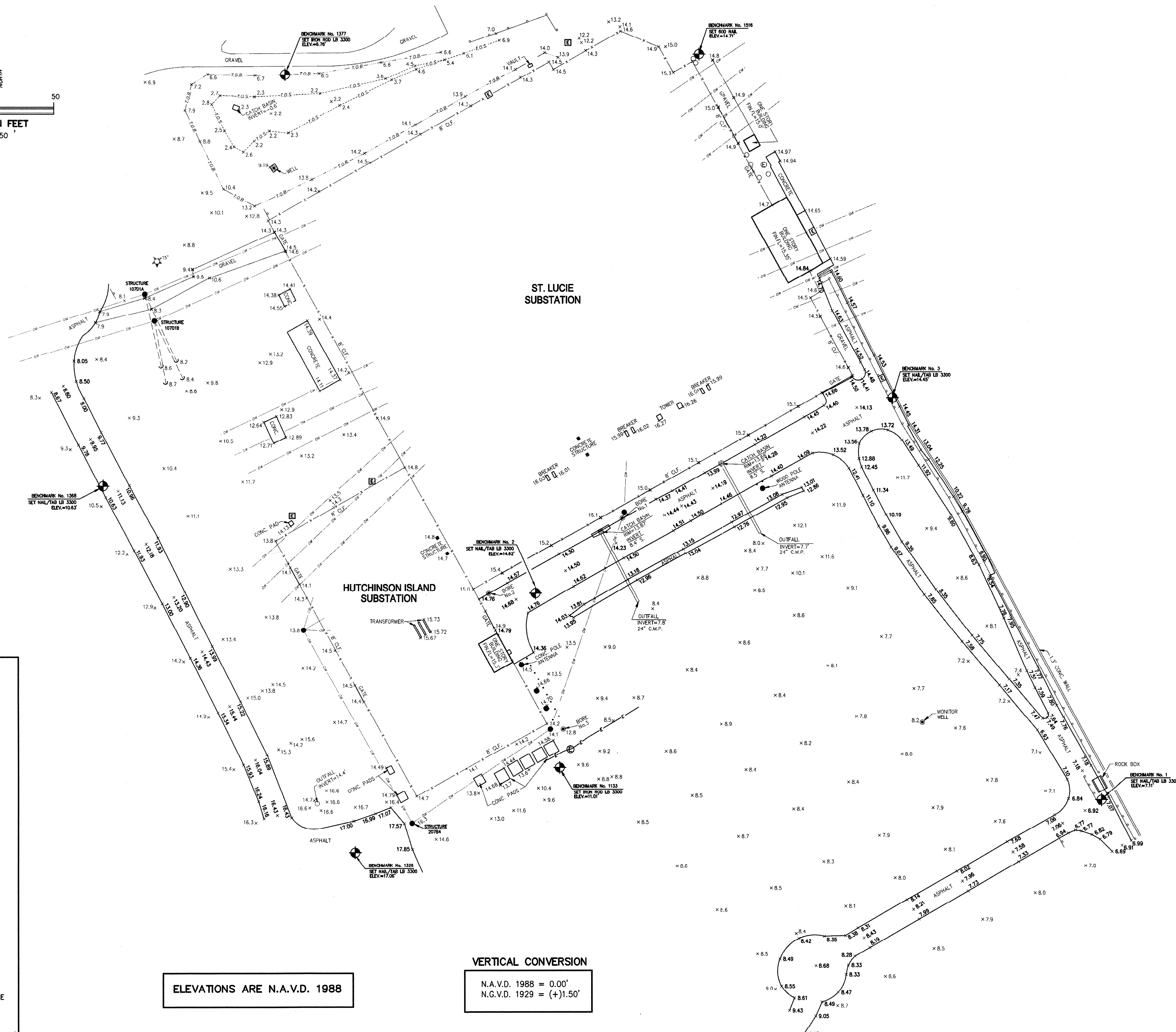
DATE 09-17-14	SCALE AS NOTED
DR WDH	ER JPT
CH JPT	COR WDH
APPROVED	

**ST. LUCIE SUBSTATION
YARD EXPANSION
PAVEMENT, MARKING &
SIGNING PLAN**

100% DRAWINGS

SHEET 3 OF 5
SLU02





CERTIFICATION:

I HEREBY CERTIFY that the attached Topographic Survey of the hereon described property is true and correct to the best of my knowledge and belief as prepared under my direction. I FURTHER CERTIFY that this Topographic Survey meets the Minimum Technical Standards set forth in Chapter 5J-17.05, Florida Administrative Code, pursuant to Section 472.027, Florida Statutes.

Date: 8/23/2013

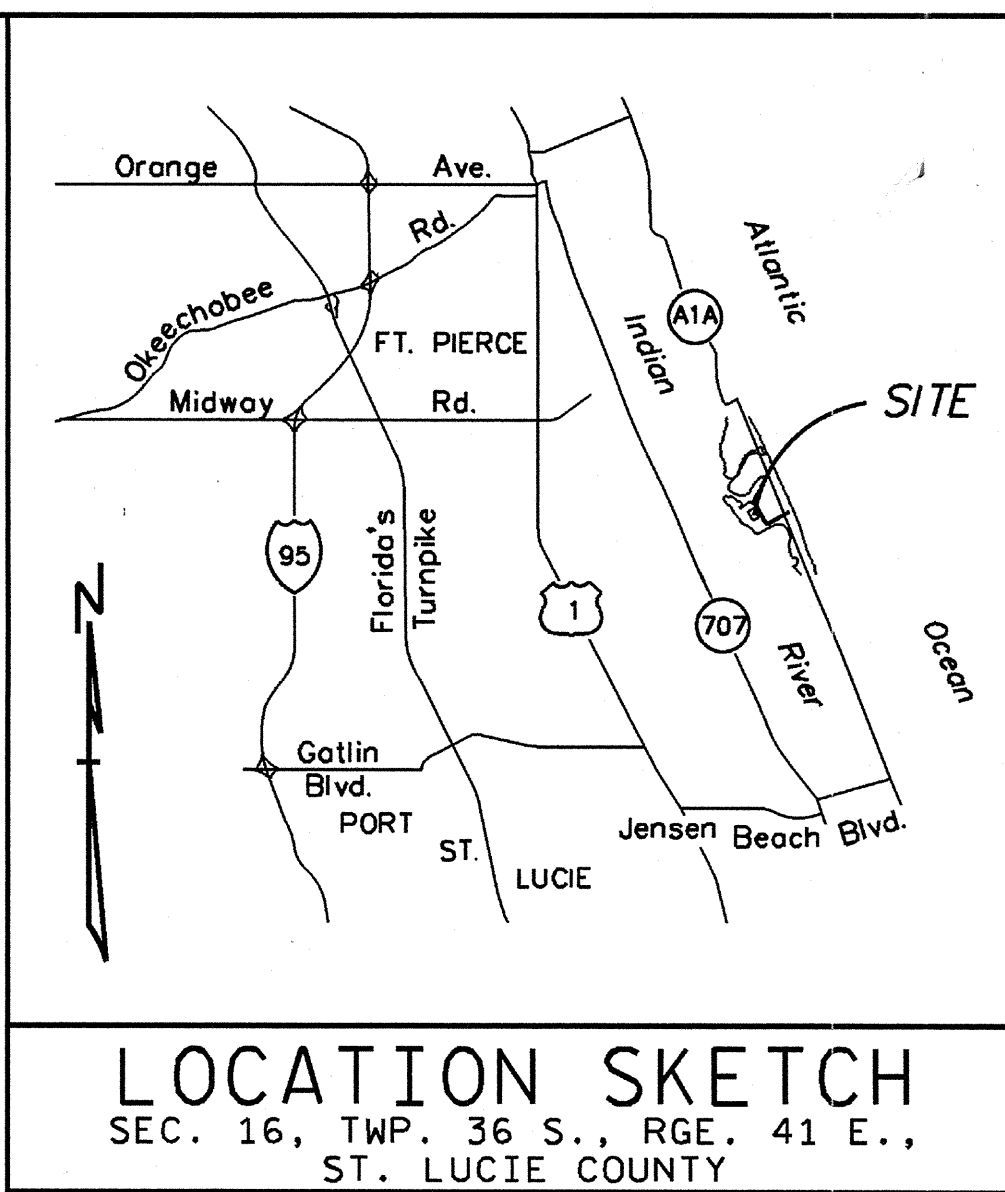
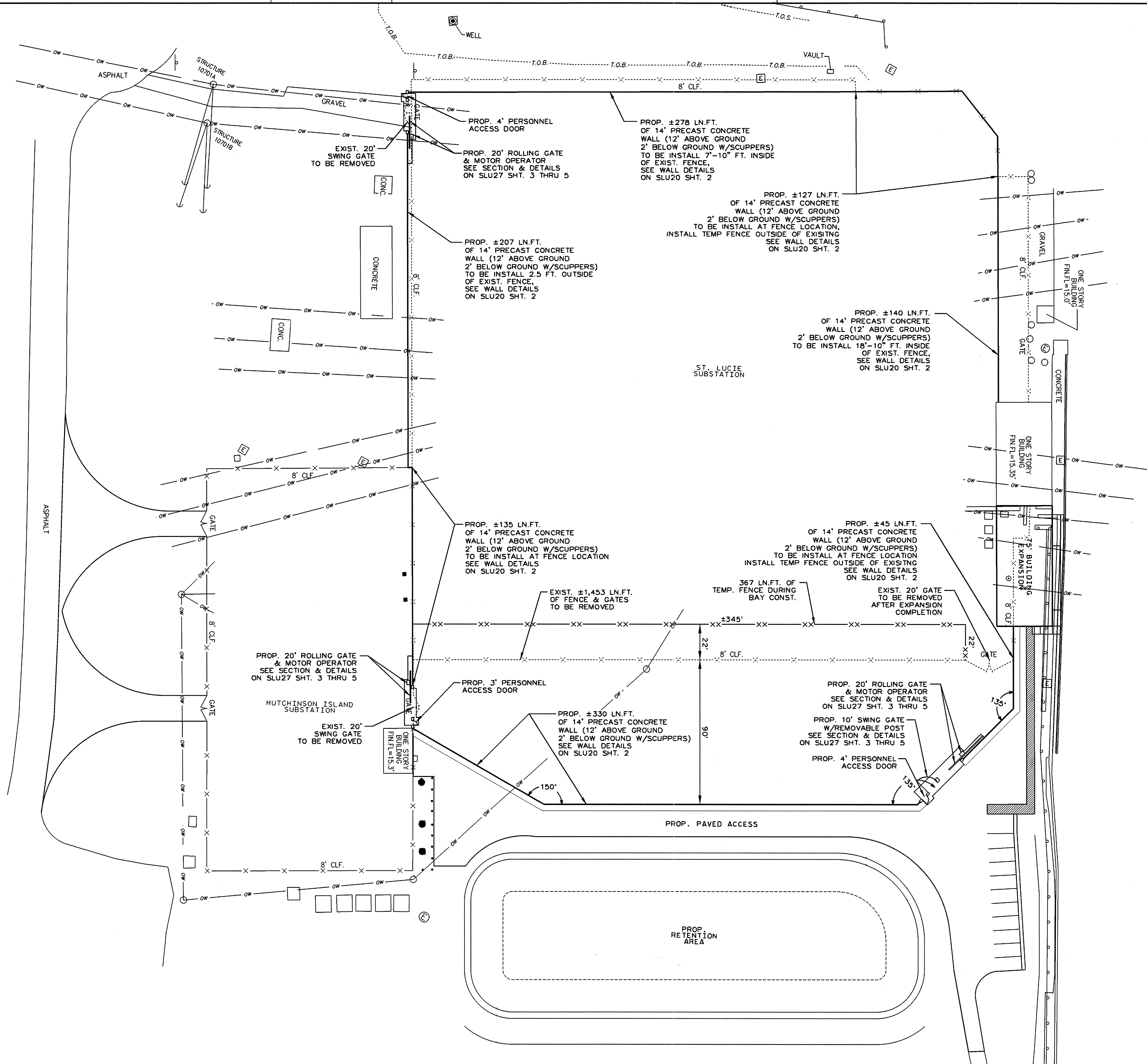
ALAN M. REYNOLDS, P.S.M.
Florida Registration No. 6346
AVIROM & ASSOCIATES, INC.
L.B. No. 3300

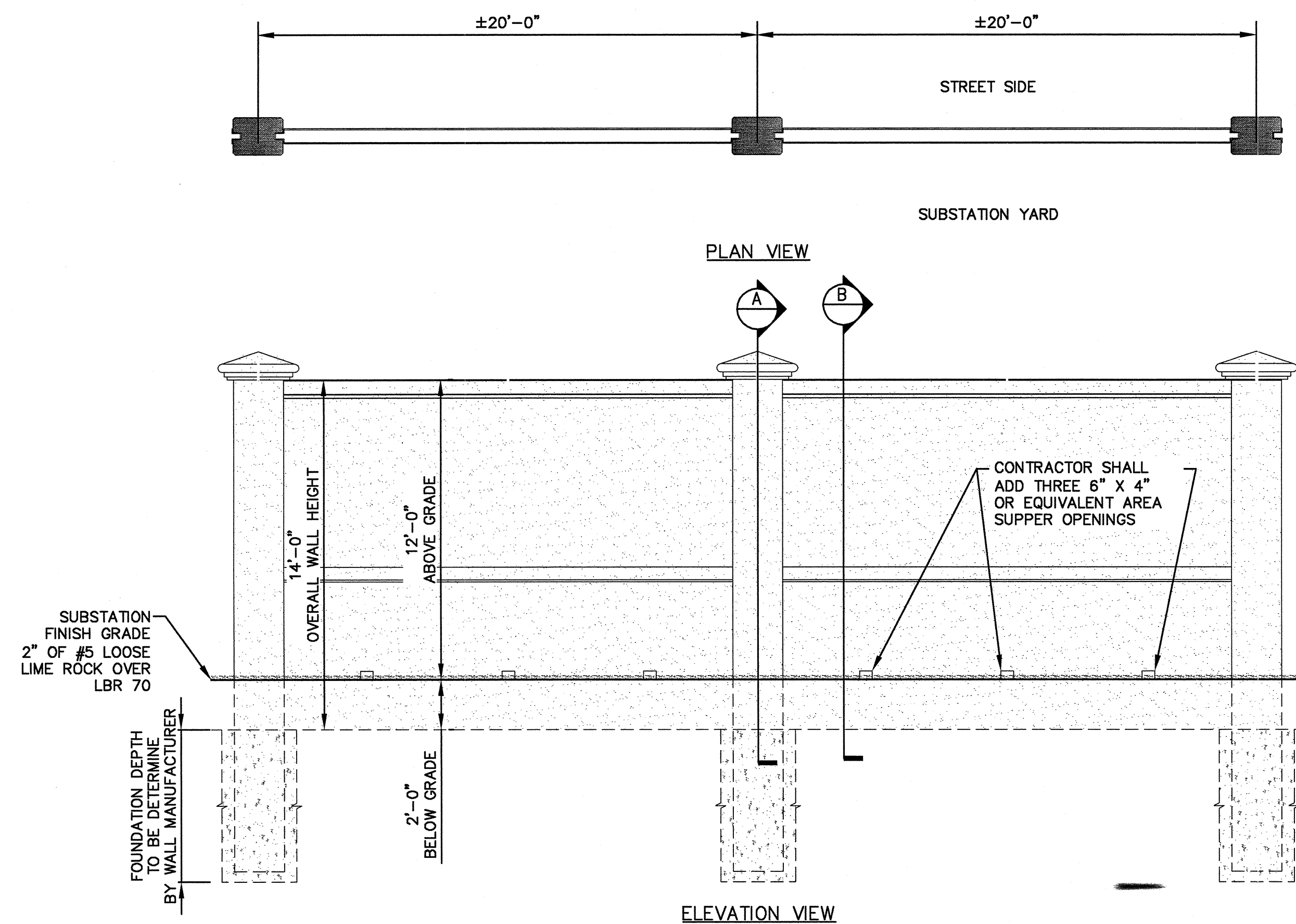
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**TOPOGRAPHIC SURVEY
ST. LUCIE SUBSTATION AND
HUTCHINSON ISLAND SUBSTATION**

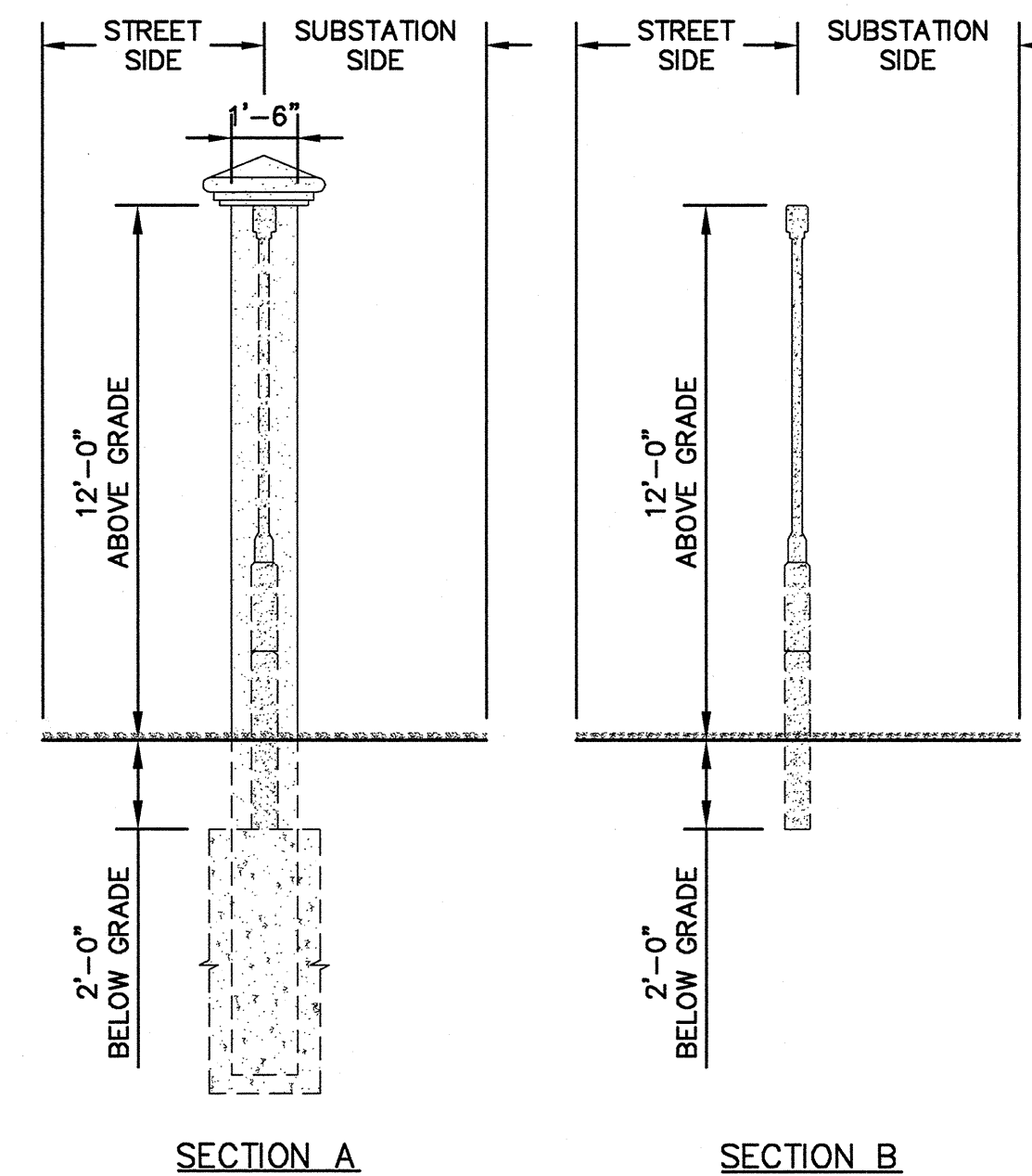
**HUTCHINSON ISLAND
ST. LUCIE COUNTY, FLORIDA**

JOB #:	7754-12	
SCALE:	1" = 50'	
DATE:	08/23/2013	
BY:	A.M.R.	
CHECKED:	M.D.A.	
F.B.	1587	PG.
SHEET	1	OF





WALL INSTALLATION
SCALE: $\frac{1}{4}$ "=1'-0"



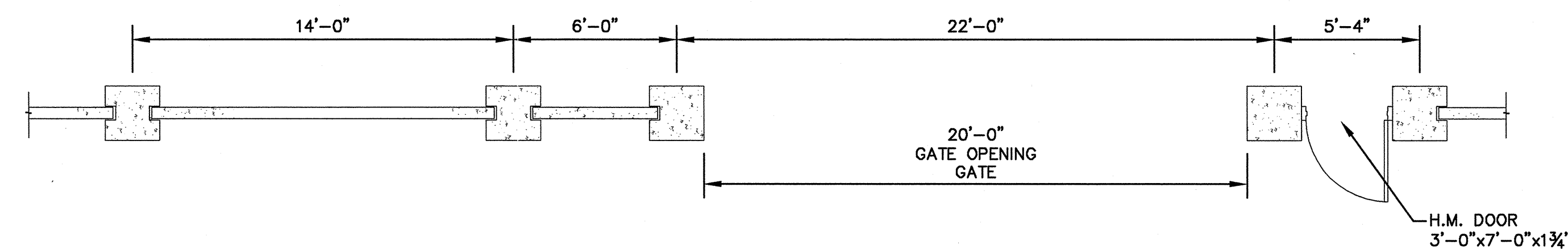
NOTES:

1. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS AND SPECIFICATIONS OF PRE CAST CONCRETE WALL, PANELS AND COLUMNS.
2. WALLS AND DOORS SHALL BE DESIGNED TO WITHSTAND 194 MPH WIND VELOCITY IN ACCORDANCE WITH ASCE 7-10 AND FBCB 2010, FOR A CATEGORY IV STRUCTURE. DESIGN SHALL INCORPORATE ALL DOOR AND GATE OPENINGS.
3. DETAILED ENGINEERING DRAWINGS AND CALCULATIONS SHALL BE PROVIDED BY BUILDING CONTRACTOR FOR APPROVAL BY FPL PRIOR TO CONSTRUCTION. DRAWINGS AND CALCULATIONS SHALL BE SIGNED AND SEALED BY REGISTERED FLORIDA STRUCTURAL ENGINEER. FINAL WALL DESIGN SHALL BE IN SUBSTANTIAL COMPLIANCE WITH THIS CONCEPTUAL DESIGN.
4. EXTERIOR OF WALL PANEL SHALL BE TEXTURED USING TEXCOTE LX 70W COLAR TO MATCH BENJAMIN MORE MONROE BISQUE. INSIDE OF WALL MAY BE PAINTED WITH TWO COATS OF FRESH KOTE LATEX COLOR TO MATCH BENJAMIN MORE MONROE BISQUE. WALL COLUMN, CAP AND TRIM SHALL BE MANUFACTURERS SMOOTH FINISH COLOR SHALL BE MONTGOMERY WHITE.
5. ALL WORK SHALL BE IN ACCORDANCE WITH FPL SPECIFICATIONS D-4 AS APPLICABLE.
6. ALL WORK SHALL SHALL COMPLY TO FLORIDA BUILDING CODE 2010 EDITION.
7. DESIGN LOADS :
WIND LOAD-PER ASCE 7-10
BASIC WIND LOAD VELOCITY.....Vults=194 mph
(RISK CATEGORY IV; EXPOSURE "D")
8. CONCRETE:

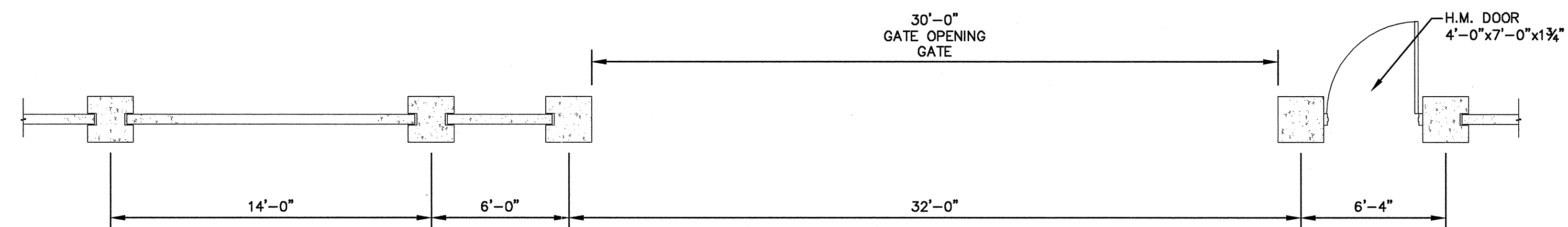
A. CONCRETE
CONFORMING TO ASTM C94 TO ACHIEVE A 28 DAY COMPRESSIVE STRENGTH OF 3,000 PSI. PLANT CONTROL IS REQUIRED. NO WATER SHALL BE ADDED AFTER MIXING TRUCK LEAVES PLANT WITHOUT THE APPROVAL OF PLANT ENGINEER. MAXIMUM MIX TIME AT POINT OF DEPOSIT IS 90 MINUTES.

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.



20' GATE OPENING & ACCESS DOOR
SCALE: $\frac{1}{4}$ "=1'-0"



30' GATE OPENING & ACCESS DOOR
SCALE: $\frac{1}{4}$ "=1'-0"

ER	NO	DATE

REVISION

BY	CH	COR	APP

DATE 09-03-14	SCALE 0	AS SHOWN
POWER DELIVERY		
DR JSR	ER	
CH	COR	
APPROVED		

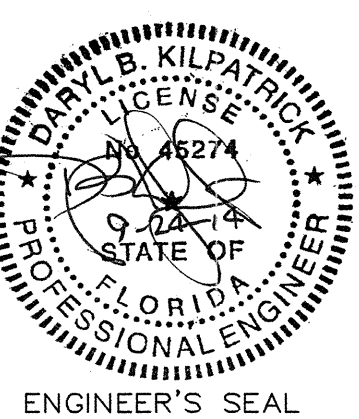
ST. LUCIE SUBSTATION EXPANSION
PRECAST CONCRETE WALL
SECTIONS & DETAILS

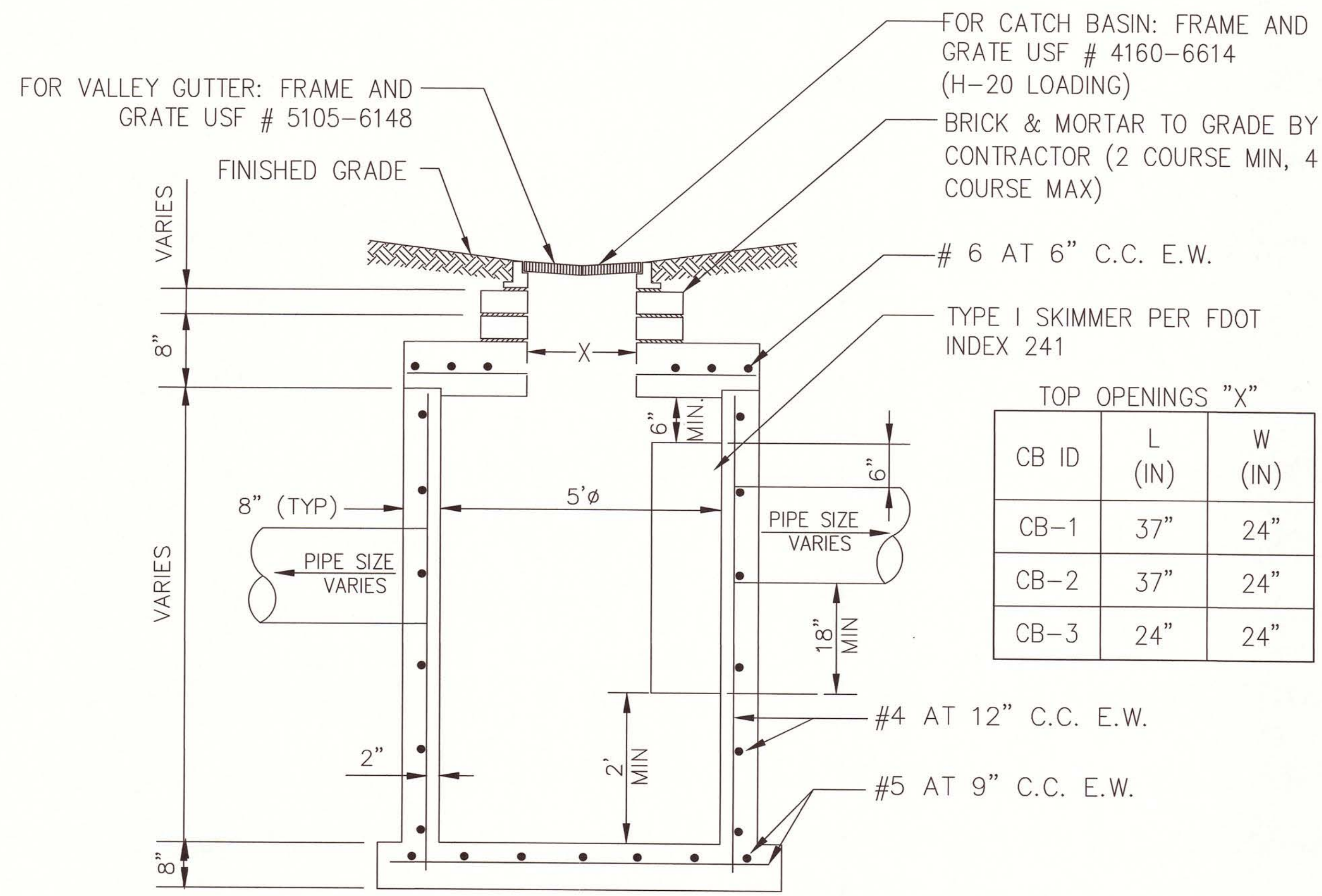
132996S6_R0

SHEET 2 OF 2

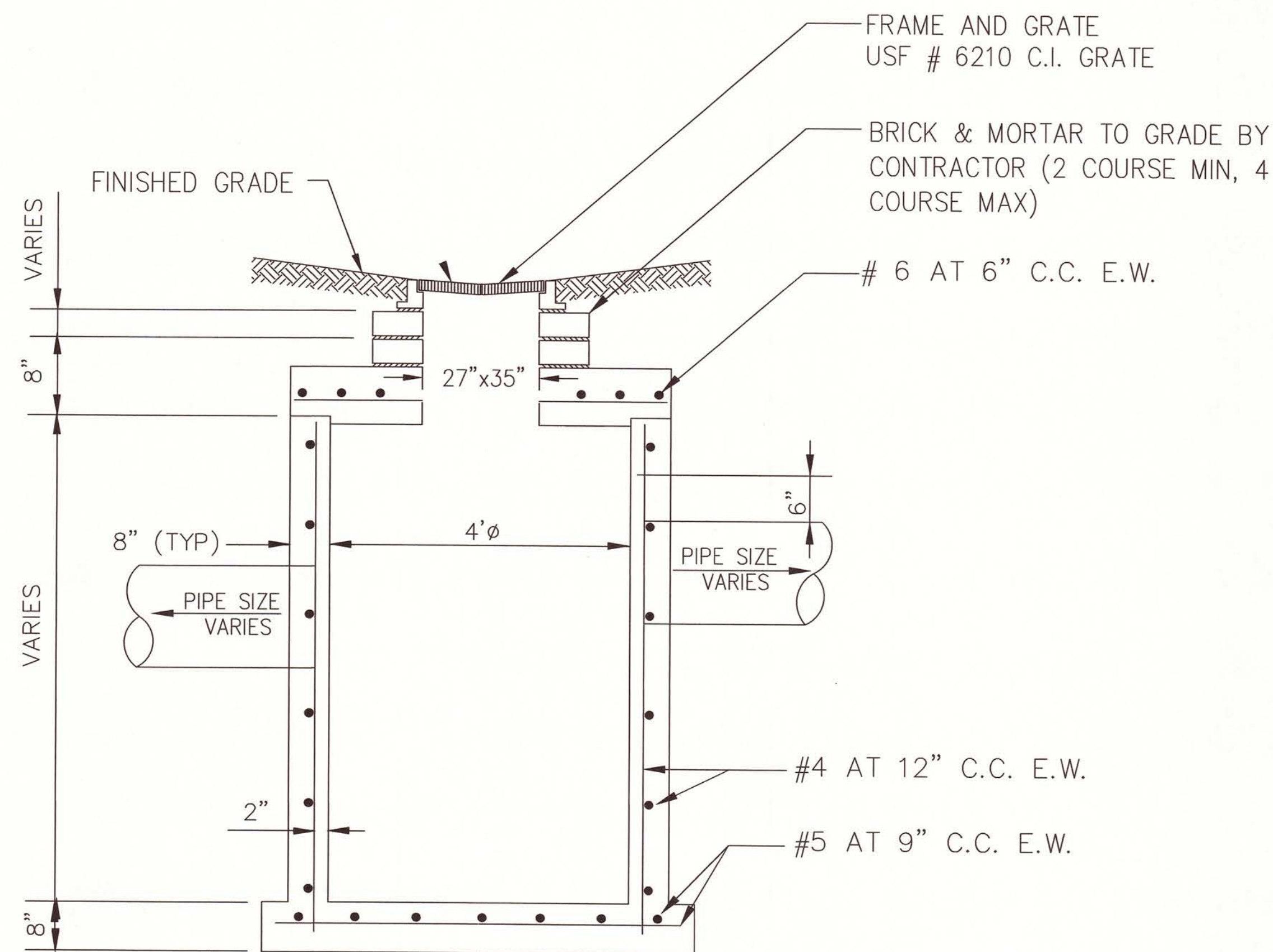
E-SLU20

REV NO

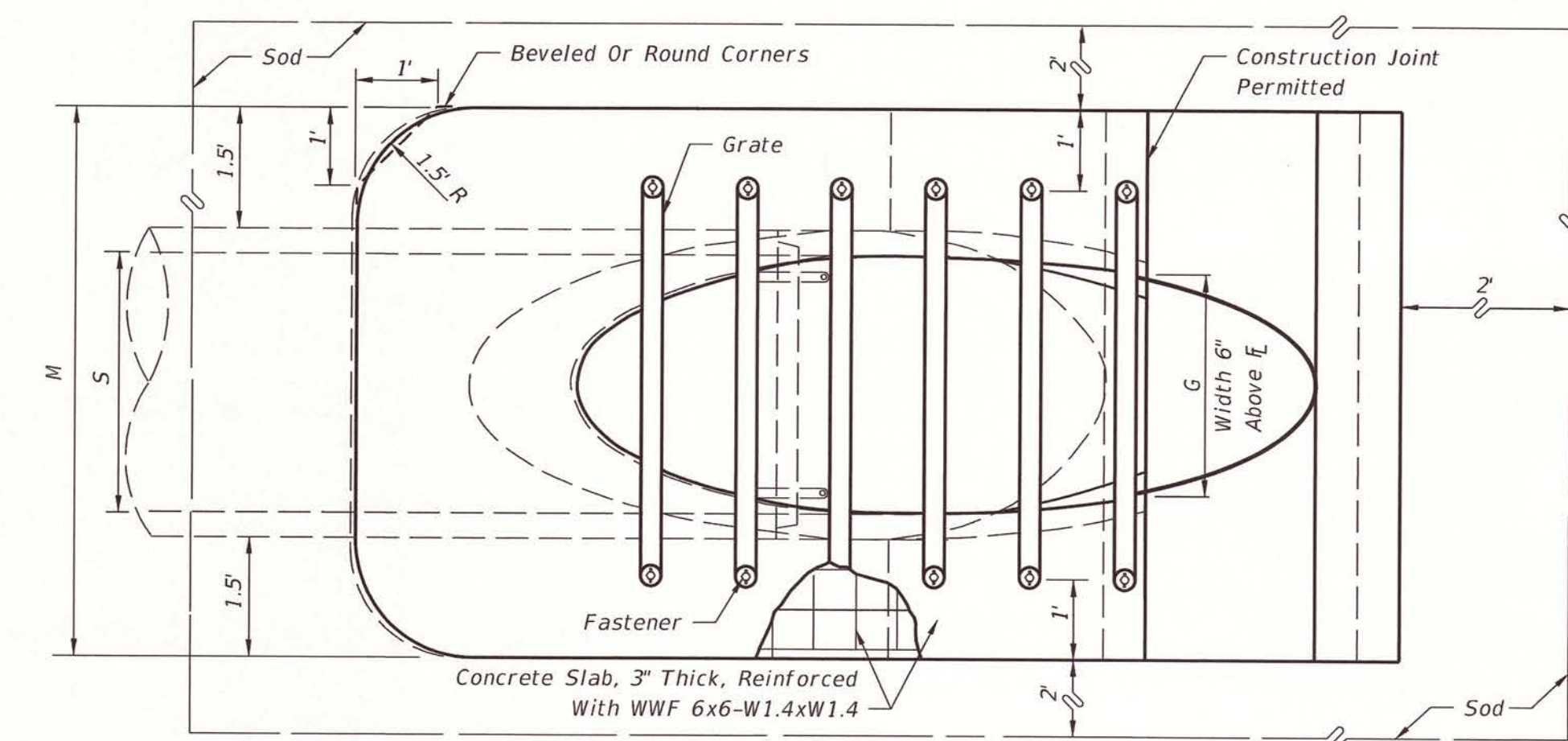




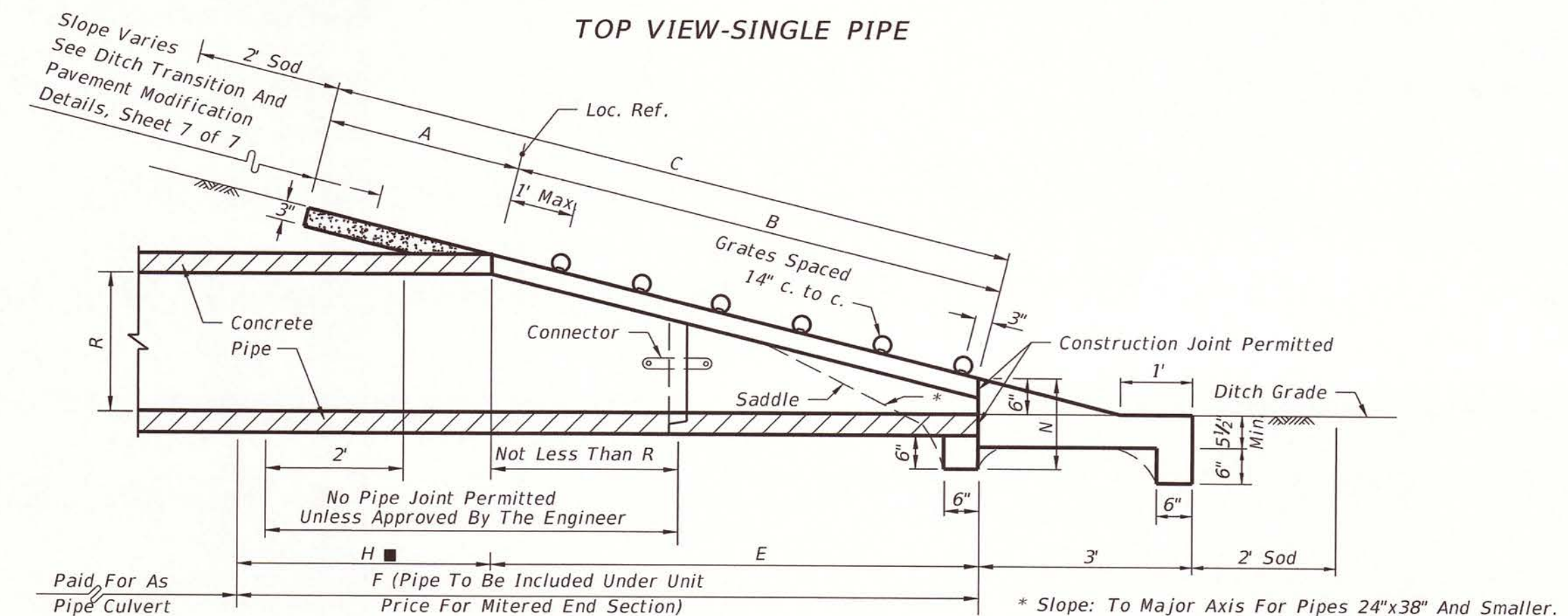
1
4 | 4
TYPICAL CATCH BASIN W/ PRB
N.T.S.



2
4 | 4
TYPICAL CATCH
N.T.S.



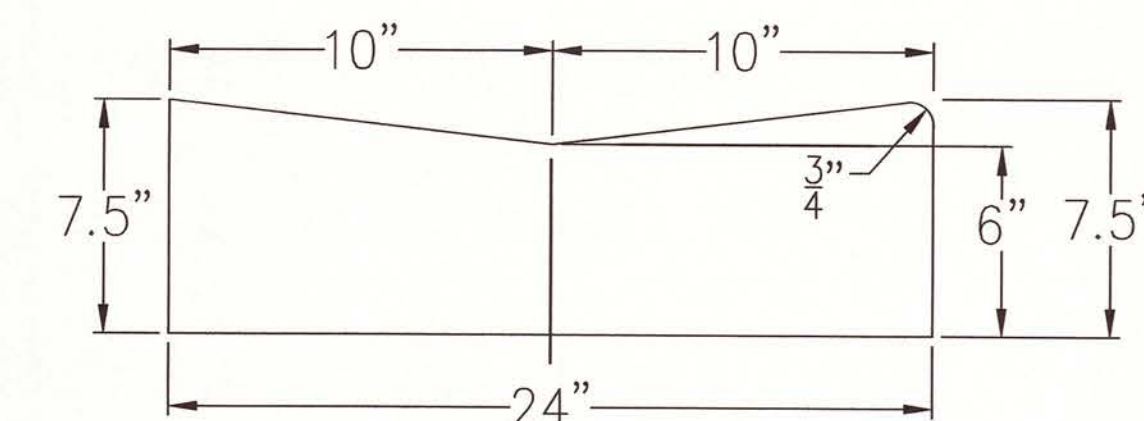
TOP VIEW-SINGLE PIPE



SECTION

DIMENSIONS & QUANTITIES																								
Rise R	Span S	X	A	B	C	E	F	G	H	M				N	GRATE SIZES		CONCRETE (CY)				SODDING (SY)			
										Single Pipe	Double Pipe	Triple Pipe	Quad. Pipe		Standard Weight pipe	Extra Strong Pipe	Single Pipe	Double Pipe	Triple Pipe	Quad. Pipe	Single Pipe	Double Pipe	Triple Pipe	Quad. Pipe
24"	38"	5'-0"	2.79'	7.18'	9.97'	7.03'	10'	2.85'	3.0'	6.79'	11.79'	16.79'	21.79'	7.18'	2.5"	3"	1.18	1.95	2.74	3.53	11	13	15	18

3
4 | 4
TYPICAL MITERED END SECTION
N.T.S.



NOTE: FOR VALLEY GUTTER PROVIDE 1/8" - 1/4" EXPANSION JOINTS AT 10' CENTERS MAX. PER FDOT INDEX 300

4
4 | 4
TYPICAL VALLEY GUTTER
N.T.S.

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS, INC.
7700 N. KENDALL DRIVE, SUITE 300
MIAMI, FL 33156
PH. (305) 412-8185 FAX. (305) 412-8105
FLORIDA CERTIFICATE OF AUTHORIZATION NO. 00004892
WWW.SCSENGINEERS.COM

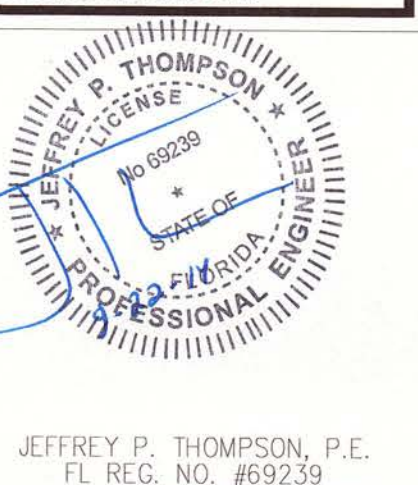
ER	NO	DATE	REVISION	BY	CH	COR	APP

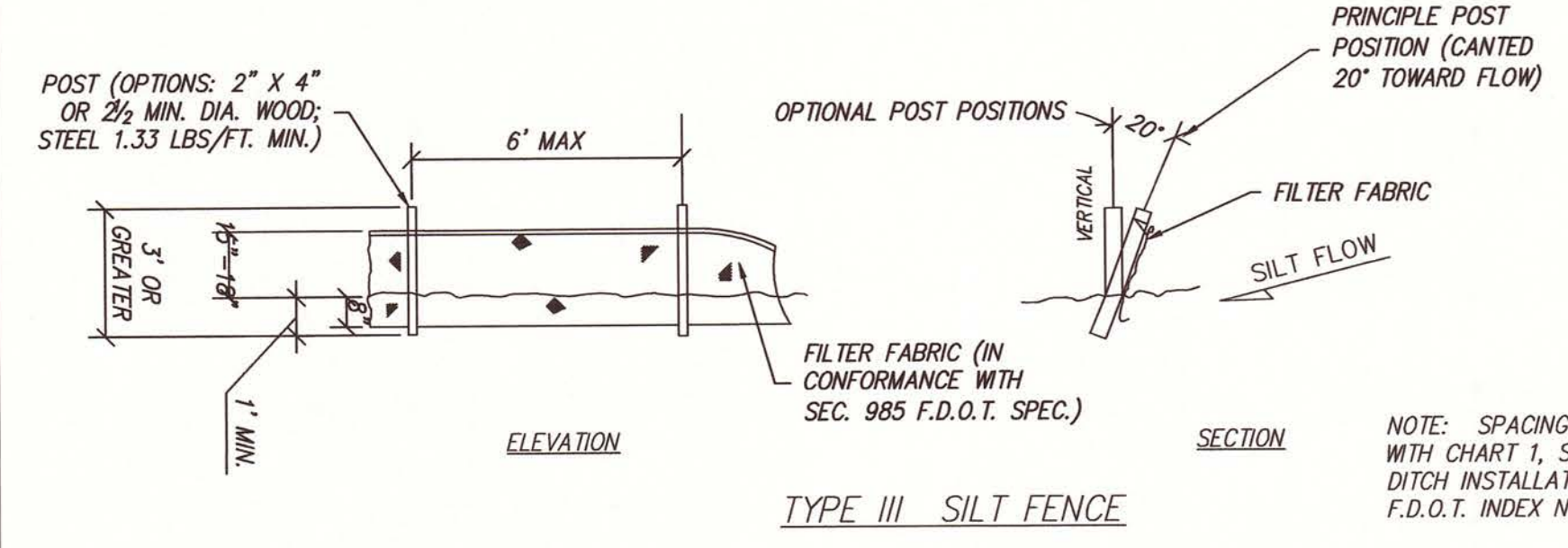
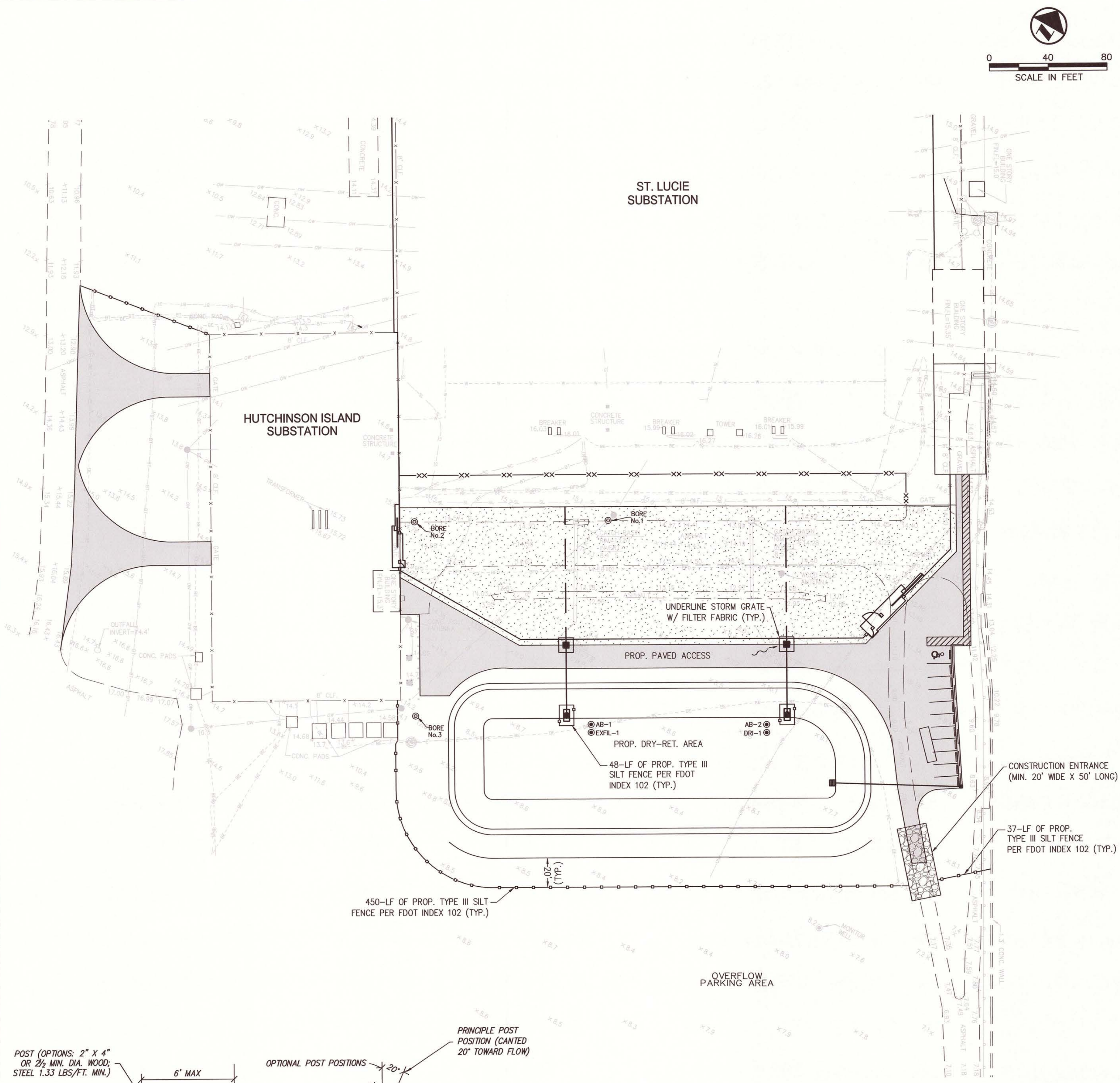
DATE 09-17-14	SCALE AS NOTED	DR WDH	ER JPT
CH JPT	COR WDH	APPROVED	

ST. LUCIE SUBSTATION
YARD EXPANSION
FENCE, FILL & GRADE DETAILS

100% DRAWINGS

SHEET 4 OF 5
SLU02





LEGEND

- PROPERTY LINE
- x---x--- EXISTING CONTOUR, FT NAVD
- 13.50--- PROPOSED CONTOUR, FT NAVD
- x---x--- EXISTING ELEVATION, FT NAVD
- 13.50--- PROPOSED ELEVATION, FT NAVD
- x---x--- EXISTING CHAIN LINK FENCE
- x---x--- PROPOSED CHAIN LINK FENCE
- x---x--- PROPOSED SILT FENCE
- w---w--- DIRECTION OF FLOW
- w---w--- DIRECTION OF SLOPE
- PROPOSED CATCH BASIN
- PROPOSED BENCHMARK
- DETAIL NUMBER
- DETAIL BUBBLE
- SECTION LETTER
- SECTION BUBBLE

ABBREVIATIONS

- BOS BOTTOM OF STRUCTURE
- C.B. CATCH BASIN
- CLF CHAIN LINK FENCE
- EA. EACH
- EL. ELEVATION
- EXIST. EXISTING
- HDPE HIGH DENSITY POLYETHYLENE
- INV. INVERT
- LBR LIMEROCK BEARING RATIO
- LF LINEAR FEET
- O.F. OUTFALL
- PERF. PERFORATED
- SL. SLOPE
- STRM. STORM
- TYP. TYPICAL

PATTERNS

- PROPOSED EXPANSION
- PROPOSED PAVED AREAS

GENERAL NOTES:

CONTRACTOR SHALL COMPLY WITH ALL TERMS AND CONDITIONS OF THE U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA) NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT. IN PARTICULAR, SEDIMENT AND EROSION CONTROLS AND STORM WATER MANAGEMENT MEASURES SHALL BE STRICTLY FOLLOWED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION, SEDIMENTATION AND STORM WATER MANAGEMENT MEASURES FOR THE DURATION OF THE PROJECT. ONCE THE PROJECT HAS BEEN COMPLETED, THE CONTRACTOR SHALL REMOVE ALL TEMPORARY STORM WATER MANAGEMENT MEASURES AND SHALL DISPOSE OF THEM ACCORDING TO CODE.

EROSION CONTROL AND GRASSING/SODDING NOTES

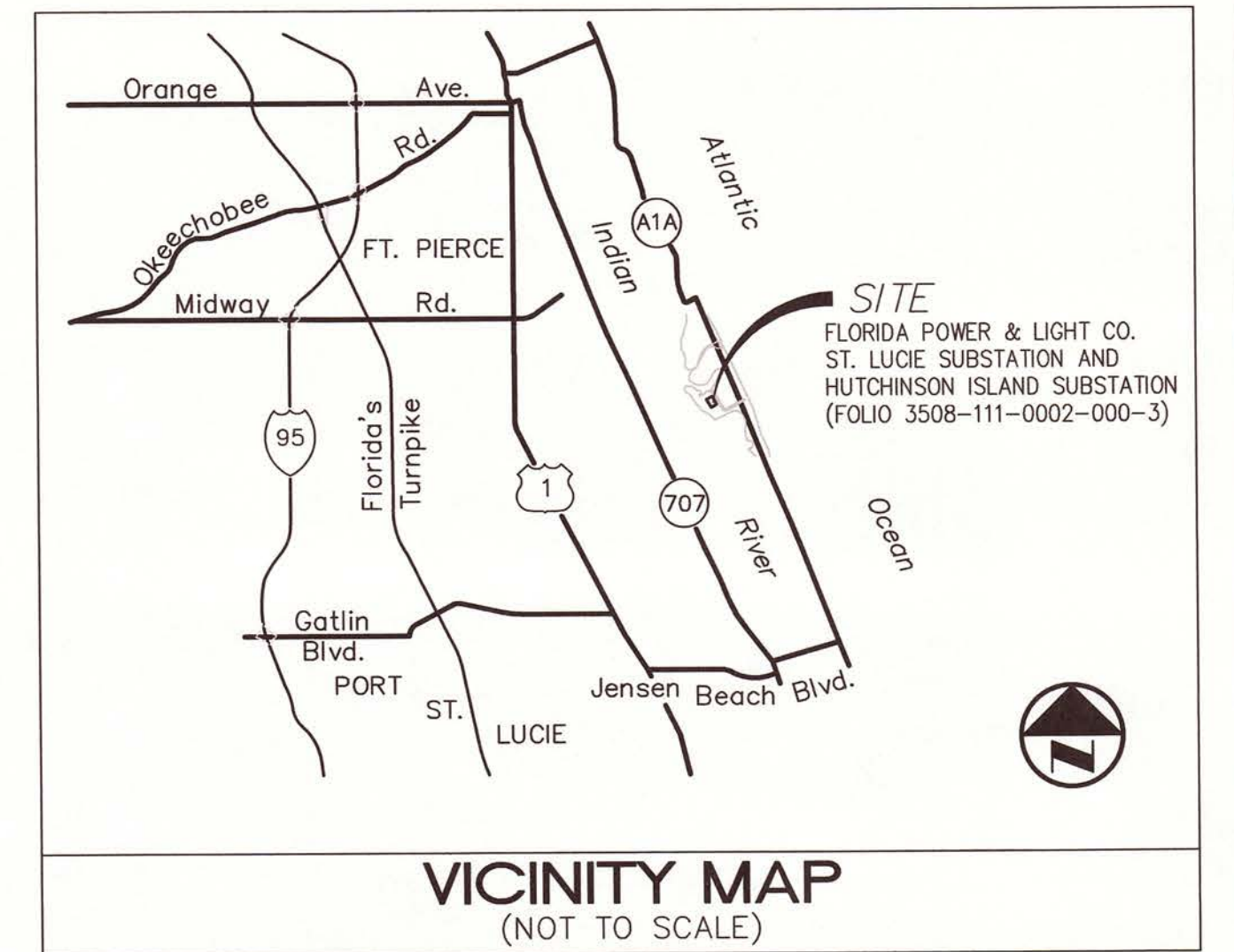
- THE CONTRACTOR SHALL IMPLEMENT AND MAINTAIN EROSION CONTROL MEASURES AS NECESSARY TO COMPLY WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS AND COMPLY WITH STATE WATER QUALITY CRITERIA FOR STORMWATER DISCHARGE. EROSION CONTROL MEASURES INCLUDE BUT ARE NOT LIMITED TO TURBIDITY SCREENS, MULCHING, HAY BALES, AND SILT FENCE. IF A WATER QUALITY VIOLATION OCCURS, THE CONTRACTOR SHALL BE WHOLLY RESPONSIBLE FOR ALL DAMAGE AND ALL COSTS WHICH MAY RESULT INCLUDING LEGAL FEES, CONSTRUCTION COSTS, AND FINES.
- DISTURBED AREAS SHALL BE SEEDED/GRASSED, FERTILIZED, MULCHED, AND MAINTAINED IN ACCORDANCE WITH CITY, COUNTY, STATE, AND FEDERAL REQUIREMENTS UNTIL A PERMANENT VEGETATIVE COVER IS ESTABLISHED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING THE NPDES FINAL STABILIZATION REQUIREMENTS.
- EROSION CONTROL MEASURES SHALL BE MAINTAINED FOR THE ENTIRE DURATION OF THE PROJECT OR UNTIL SODDING AND/OR GRASS IS ESTABLISHED.
- EROSION CONTROL MEASURES SHALL BE PLACED TO CONTAIN ALL POINTS OF DISCHARGE TO SURFACE WATERS OR WETLANDS INCLUDING CURB INLETS, DITCH BOTTOM INLETS, DITCHES, AND DOWNSTREAM PORTIONS OF STREAMS AND TIDAL WATERS ADJACENT TO CONSTRUCTION.
- 48 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT A "NOTICE OF INTENT" TO THE EPA IN ACCORDANCE WITH NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM RULES AND REGULATIONS.
- THE CONTRACTOR SHALL WRAP STORM GRATES IN FILTER FABRIC TO PREVENT SEDIMENTATION OF THE STORM SEWER SYSTEM. CONTRACTOR SHALL MAINTAIN THE FILTER FABRIC UNTIL THE ASPHALT/CONCRETE PAVEMENT IS PLACED.
- THE SITE CONTRACTOR IS RESPONSIBLE FOR REMOVING THE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER COMPLETION OF CONSTRUCTION AND ONLY WHEN AREAS HAVE BEEN STABILIZED.
- SILT FENCES AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
- EROSION CONTROL MEASURES SHOWN REFERENCE FDOT 2003 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. INDEX NUMBERS REFERENCE FDOT 2003 ROADWAY AND TRAFFIC DESIGN STANDARDS.

EROSION AND SEDIMENTATION CONTROLS

- CONTRACTOR SHALL INSTALL A TYPE III SILT FENCE, AS PER FDOT STANDARD INDEX NO. 102 AROUND THE LIMITS OF CONSTRUCTION PRIOR TO ANY DEMOLITION, FILLING OR GRADING OF ANY PORTIONS OF THE SITE.
- PROPOSED INLETS, ONCE INSTALLED, SHALL BE PROTECTED FROM EROSION AND SEDIMENT RUNOFF BY THE USE OF SILT FENCE AS PER FDOT STANDARD INDEX NO. 102.
- A GRAVEL ACCESS ROAD SHALL BE CONSTRUCTED TO MINIMIZE THE EFFECTS OF TRUCK TRAFFIC AND SEDIMENTATION TRACKING BOTH ON AND OFF THE SITE.
- TOP OF SOIL PILES AND DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY TEMPORARILY CEASES FOR AT LEAST 21 DAYS SHALL BE STABILIZED WITH SEED AND MULCH NO LATER THAN 14 DAYS FROM THE LAST CONSTRUCTION ACTIVITY IN THAT AREA. THE SEEDING SHALL BE RYE(GRAIN)APPLIED AT THE RATE OF 120 POUNDS PER ACRE. AFTER SEEDING, EACH AREA SHALL BE MULCHED WITH 4,000 POUNDS OF STRAW PER ACRE.
- DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES PERMANENTLY CEASES SHALL BE STABILIZED WITH PERMANENT SEED, SOD AND PLANTINGS NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY. SEEDING SHALL BE THE SAME AS IN TEMPORARY SEEDING.

OTHER CONTROLS

- ALL CONSTRUCTION WASTE MATERIAL SHALL BE COLLECTED AND STORED IN A SECURE METAL DUMPSTER RENTED FROM A LOCAL WASTE MANAGEMENT COMPANY. THE DUMPSTER WILL MEET ALL LOCAL AND STATE SOLID WASTE MANAGEMENT REGULATIONS. ALL PERSONNEL SHALL BE INSTRUCTED REGARDING THE CORRECT PROCEDURES FOR WASTE DISPOSAL. NOTICES STATING THESE PRACTICES SHALL BE POSTED IN THE OFFICE TRAILER AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR SEEING THAT THESE PROCEDURES ARE FOLLOWED.



- CONTRACTOR SHALL BE RESPONSIBLE FOR SEEING THAT THESE PROCEDURES ARE FOLLOWED.
- ALL SANITARY WASTE SHALL BE COLLECTED FROM THE PORTABLE UNITS A MINIMUM OF ONCE PER WEEK BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR, AS REQUIRED BY LOCAL REGULATIONS.
 - DUMP TRUCKS IMPORTING FILL MATERIALS TO THE SITE SHALL COVER THEIR LOADS WITH A TARPULIN TO AVOID UNNECESSARY GENERATION OF DUST.
 - ALL HAZARDOUS WASTE MATERIALS SHALL BE DISPOSED OF AS PER LOCAL AND/OR STATE REGULATIONS OR AS RECOMMENDED BY THE MANUFACTURER. SITE PERSONNEL SHALL BE RESPONSIBLE FOR SEEING THAT THESE PROCEDURES ARE FOLLOWED.
 - A STABILIZED CONSTRUCTION ENTRANCE HAS BEEN PROVIDED TO HELP REDUCE VEHICLE TRACKING OF SEDIMENTS. THE PAVED STREET ADJACENT TO THE SITE ENTRANCE SHALL BE SWEEP DAILY TO REMOVE ANY EXCESS OF MUD, DIRT, OR ROCK TRACKED FROM THE SITE.
 - PROTECTIVE BARRIERS WILL BE INSTALLED AT THE PERIMETER OF PRESERVED VEGETATION AT THE COMMENCEMENT OF ANY SITE AND WILL REMAIN IN PLACE UNTIL COMPLETION OF CONSTRUCTION. TEMPORARY SIGNS IDENTIFYING THE PRESERVE SHALL BE PLACED AROUND THE PERIMETER DURING CONSTRUCTION.

MAINTENANCE AND INSPECTION PROCEDURES

- THE GENERAL CONTRACTOR'S SITE SUPERINTENDENT SHALL SELECT THREE INDIVIDUALS WHO WILL BE RESPONSIBLE FOR INSPECTIONS, MAINTENANCE AND REPAIR ACTIVITIES, AND FILLING OUT THE INSPECTION MAINTENANCE REPORT. PERSONNEL SELECTED FOR INSPECTION AND MAINTENANCE RESPONSIBILITIES SHALL RECEIVE PROPER TRAINING IN ALL THE INSPECTION AND MAINTENANCE PRACTICES NECESSARY FOR KEEPING EROSION AND SEDIMENT CONTROLS USED ONSITE IN GOOD WORKING ORDER.
- ALL EROSION AND SEDIMENTATION CONTROLS SHALL BE INSPECTED EVERY 7 DAYS OR WITHIN 24 HOURS OF A STORM OF 0.5 INCHES OR MORE IN DEPTH. ALL CONTROLS MUST BE IN GOOD OPERATING CONDITION UNTIL THE AREA THEY PROTECT HAS BEEN COMPLETELY STABILIZED AND THE CONSTRUCTION IS COMPLETED.
- BUILT UP SEDIMENT WILL BE REMOVED FROM THE SILT FENCE WHEN IT HAS REACHED ONE THIRD OF THE HEIGHT OF THE FENCE. SILT FENCE SHALL BE INSPECTED FOR DEPTH OF SEDIMENT, TEARS, IF FABRIC IS SECURELY ATTACHED TO THE FENCE POST, AND IF FENCE POST IS FIRMLY IN THE GROUND.
- TEMPORARY AND PERMANENT SEEDING AND PLANTING SHALL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND HEALTHY GROWTH.
- THE INSPECTOR SHALL RECORD ANY DAMAGES OR DEFICIENCIES IN THE CONTROL MEASURES ON AN INSPECTION REPORT FORM PROVIDED FOR THIS PURPOSE. THESE REPORTS SHALL DOCUMENT THE INSPECTION OF ALL POLLUTION PREVENTION MEASURES AND SHALL ALSO BE USED TO REQUEST MAINTENANCE AND REPAIR. HE CONTRACTOR SHALL CORRECT DAMAGE OR PROVIDE MAINTENANCE AS RECOMMENDED BY REPORTS AS SOON AS PRACTICAL BUT IN NO CASE LATER THAN 7 DAYS AFTER THE INSPECTION. FAILURE TO DO SO SHALL BE REPORTED TO THE F.D.E.P.

SEQUENCE OF MAJOR ACTIVITIES

- INSTALL TYPE III SILT FENCE AT BOUNDARIES OF PROPOSED CONSTRUCTION.
- COMMENCE SITE CONSTRUCTION ACTIVITIES.
- AS PROPOSED INLETS ARE CONSTRUCTED, INSTALL TYPE III SILT FENCE BARRIER AROUND EACH.
- INSTALL TEMPORARY SEED AND MULCH IN AREAS WHERE CONSTRUCTION TEMPORARILY CEASES FOR AT LEAST 21 DAYS, NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITIES IN THAT AREA.
- INSTALL PERMANENT SEEDING, SOD AND PLANTING IN AREAS WHERE CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITIES.
- REMOVE ACCUMULATED SEDIMENT.
- REMOVE TEMPORARY POLLUTION PREVENTION MEASURES AFTER ALL CONSTRUCTION ON SITE HAS BEEN COMPLETED AND DISPOSE OF MATERIALS ACCORDING TO APPLICABLE F.D.E.P. REGULATIONS AND/OR LOCAL GOVERNMENTAL CODES, ETC.

APPROXIMATE AREA INFORMATION

TOTAL SITE AREA = ±3.461 ACRES

CONTRACTORS' CERTIFICATION

811 KNOW WHAT'S BELOW ALWAYS CALL 811 BEFORE YOU DIG
It's fast. It's free. It's the law.
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100% DRAWINGS

SHEET 5 OF 5

SLU02

JEFFREY P. THOMPSON
Professional Engineer
FL REG. NO. #69239

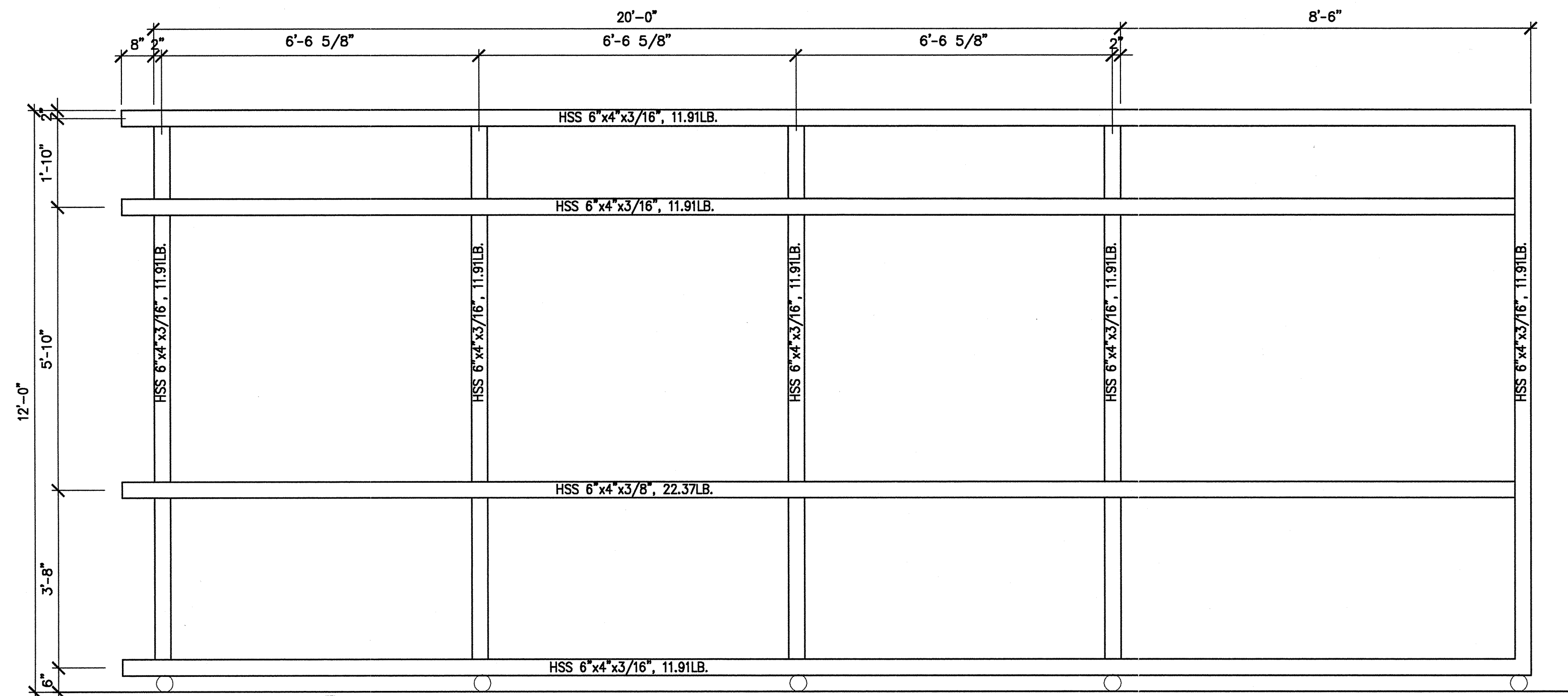
SCS ENGINEERS
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PH. (305) 412-8185 FAX. (305) 412-8105
FLORIDA CERTIFICATE OF AUTHORIZATION NO. 00004892
WWW.SCSENGINEERS.COM

DATE 09-17-14 SCALE AS NOTED
POWER DELIVERY
FPL

DR	WDH	ER	JPT
CH	JPT	COR	WDH
APPROVED			

ST. LUCIE SUBSTATION
YARD EXPANSION
FENCE FILL AND GARDE STORMWATER
POLLUTION PREVENTION PLAN

ER	NO	DATE	REVISION	BY	CH	COR	APP

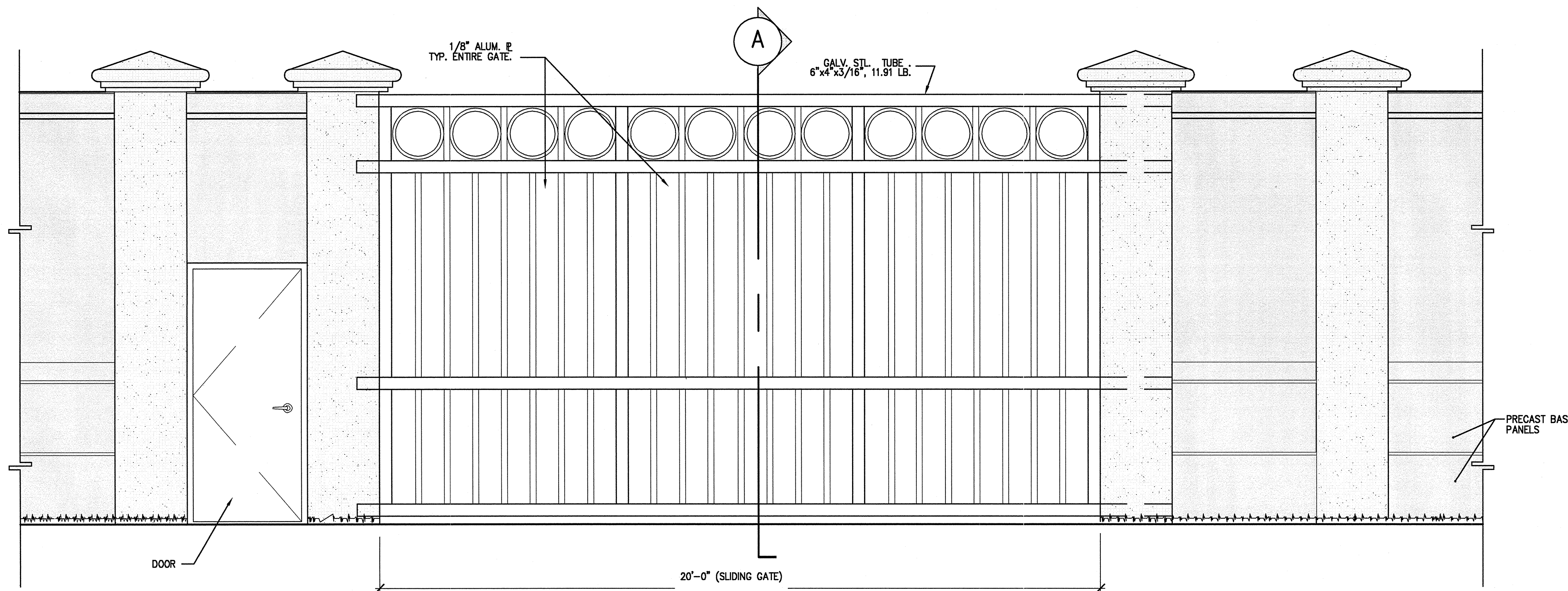


ALL STEEL HOT DIPPED GALVANIZED
AFTER FABRICATION

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.
+ ALUM. = 1925 LB.

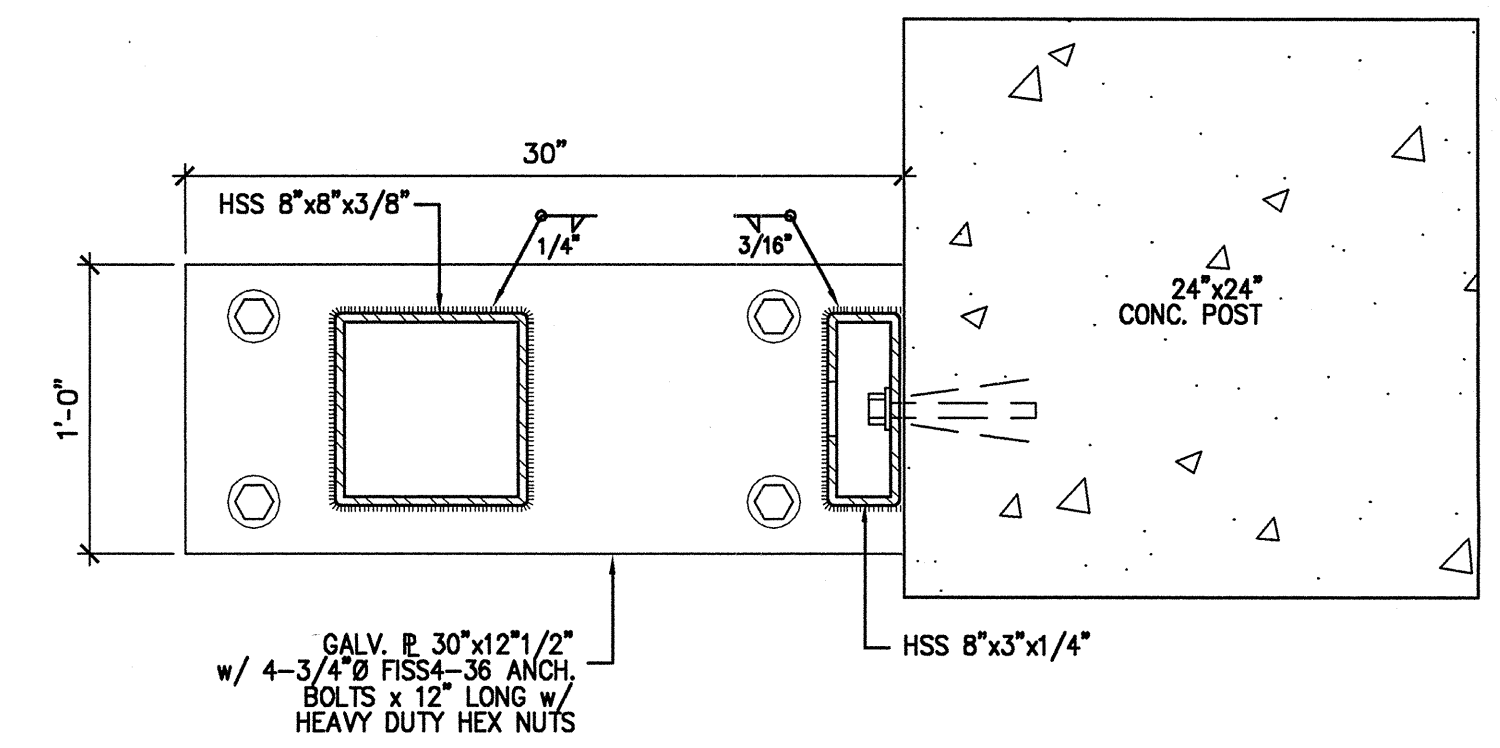
GATE FRAMING ELEVATION

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



GATE ELEVATION

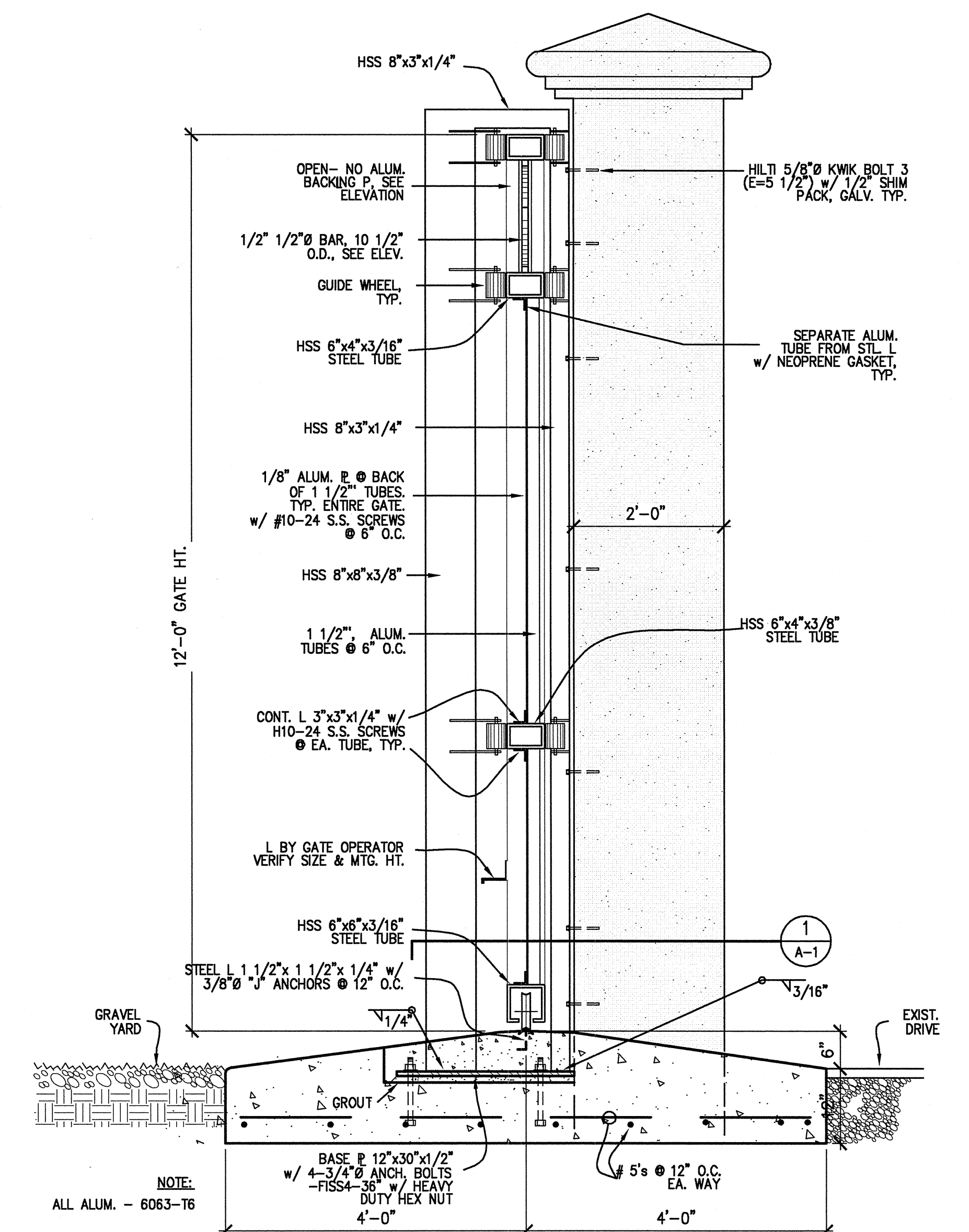
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DETAIL 1

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

1
A-1



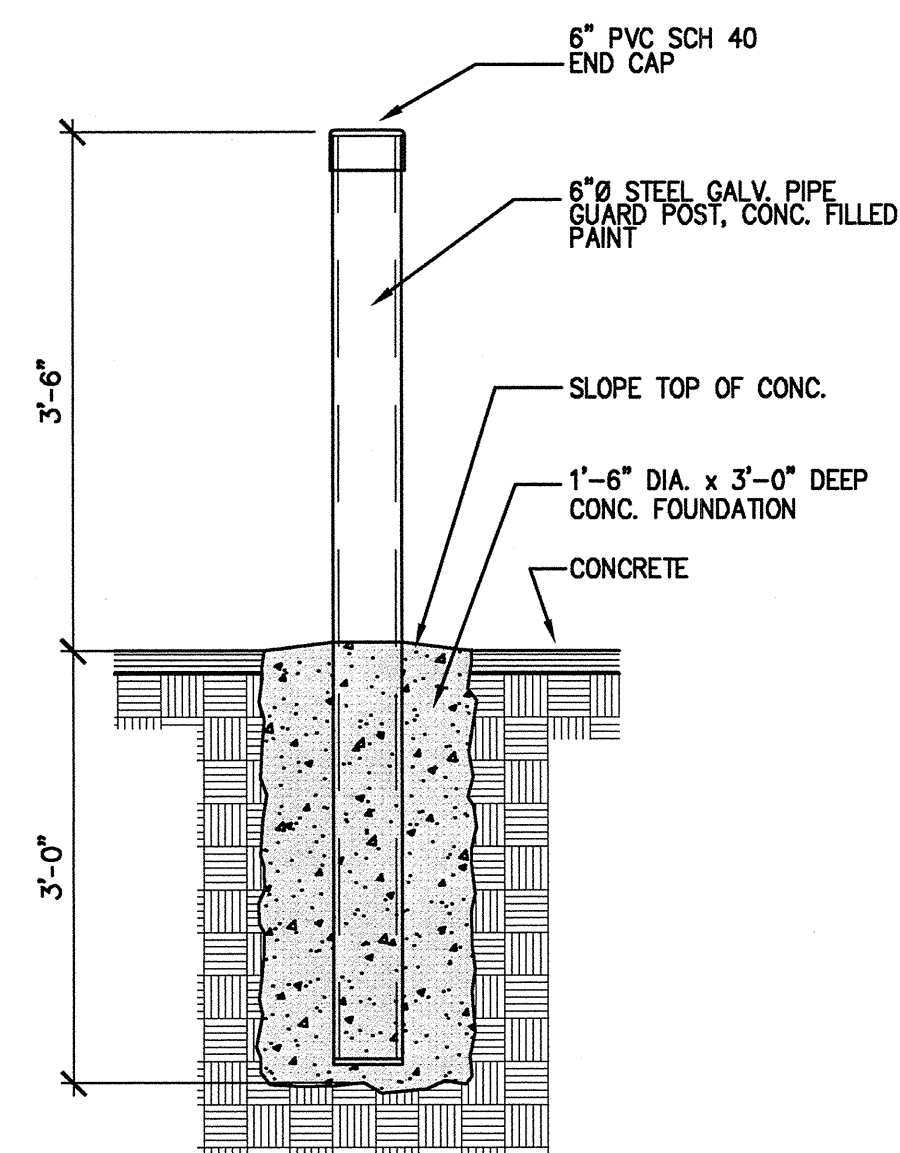
GATES:

1. PROVIDE SHOP DRAWINGS OF
GATES FOR ARCHITECTS APPROVAL

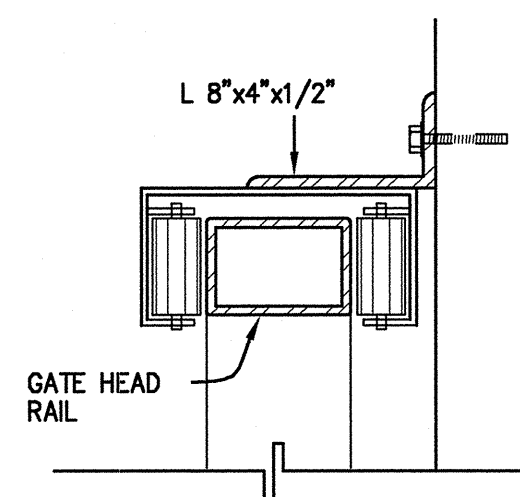
SECTION • GATE

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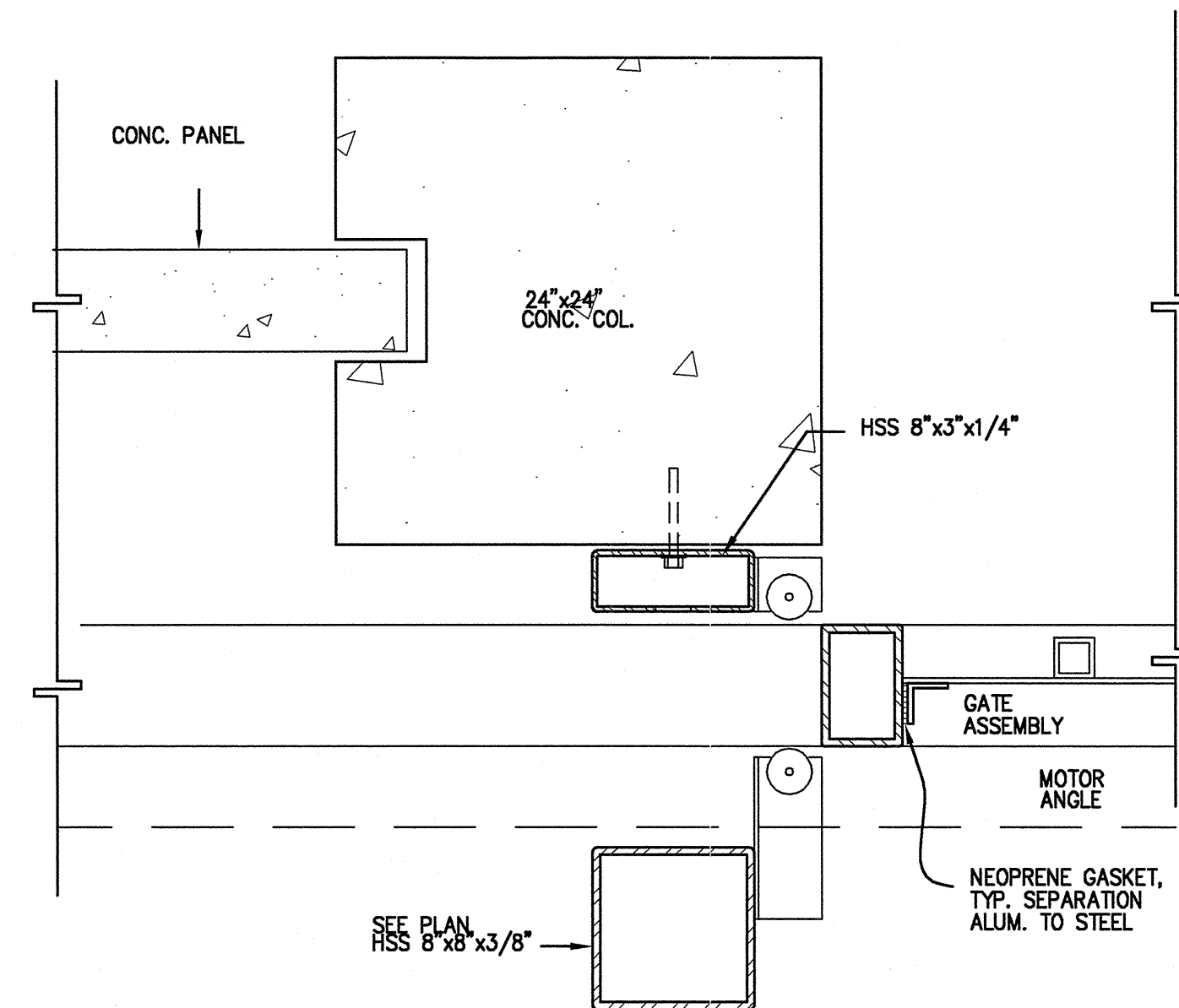
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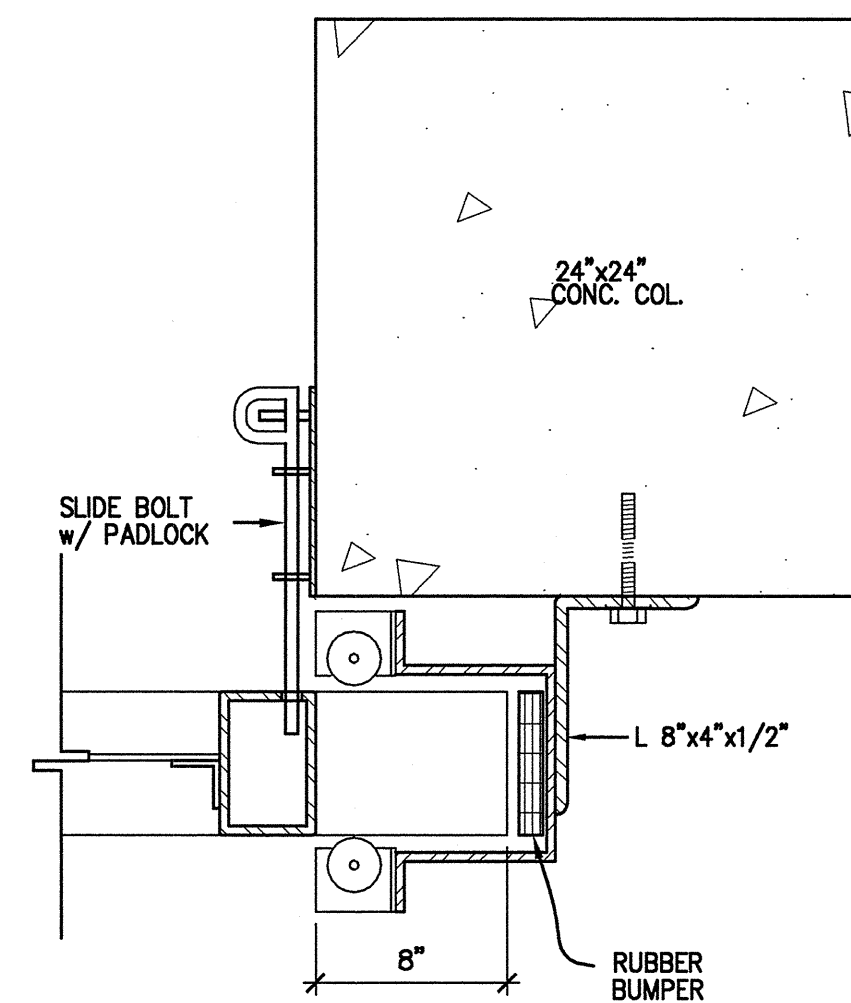
BOLLARD DETAIL
SCALE: 3/4"=1'-0"



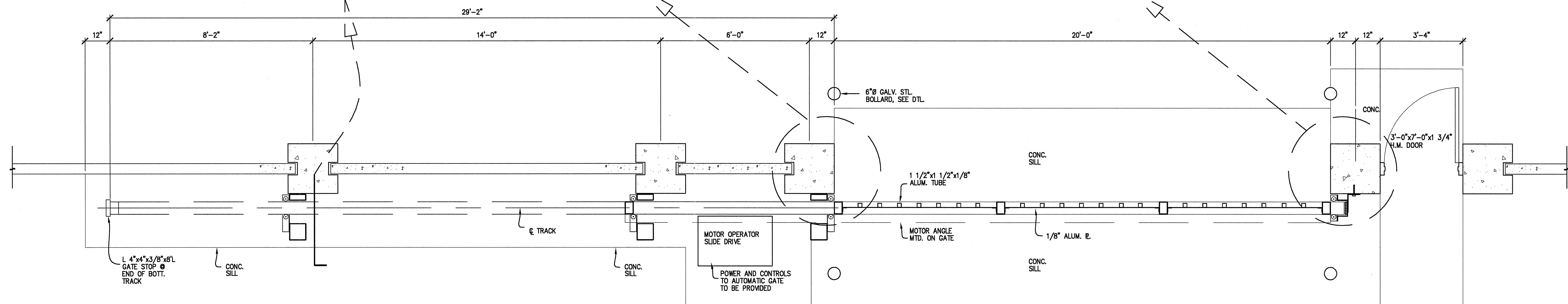
DETAIL
SCALE: 1 1/2"=1'-0"



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



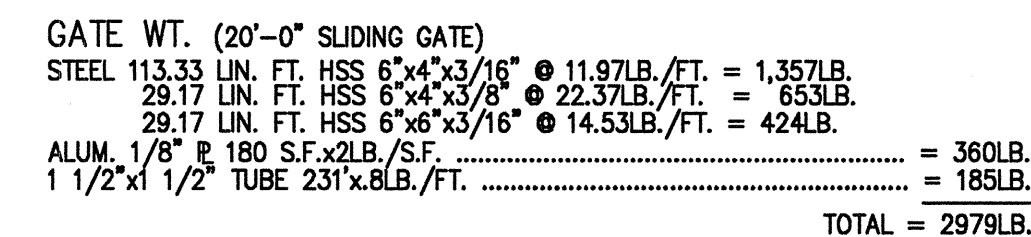
DETAIL
SCALE: 1 1/2"=1'-0"



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

NOTES:

- ALL WORK SHALL BE IN ACCORDANCE WITH FPL SPECIFICATIONS D-4 AS APPLICABLE.
- ALL WORK SHALL COMPLY TO FLORIDA BUILDING CODE 2010 EDITION.
- DESIGN LOADS :
WIND LOAD—PER ASCE 7-10
BASIC WIND LOAD VELOCITY.....Vults=194 mph
Vasd=150 mph
(RISK CATEGORY IV; EXPOSURE "D")
- 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.
- 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.
- GATE MOTOR:
HYSECURITY, SLIDE DRIVE 30F WITH DRIVE RAIL, 1 PHASE 208/230V 60HZ.
- FENCE AND GATE SHALL BE GROUNDED PER FPL STANDARD DRAWING E-16131 LATEST REVISION.
- ACTIVE SUBSTATIONS SHALL BE SECURED AT ALL TIME. TEMPORARY FENCING SHALL BE INSTALLED AS NECESSARY TO SECURE THE SITE.
- SUBSTATION SHALL BE ACCESSABLE FOR EMERGENCY OPERATIONS AT ALL TIMES DURING CONSTRUCTION.
- CONTRACTOR SHALL OBTAIN FENCE PERMIT AS REQUIRED BY LOCAL BUILDING CODES.
- 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.

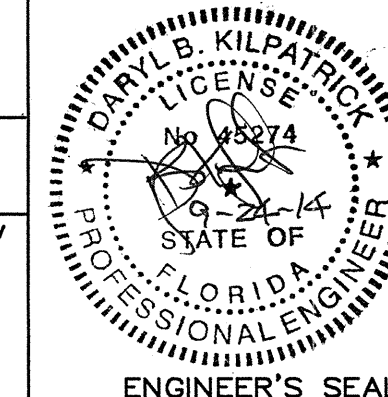


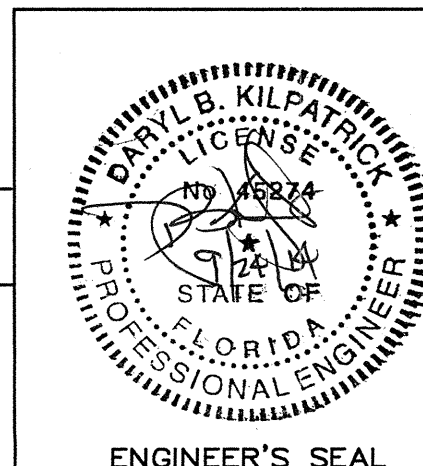
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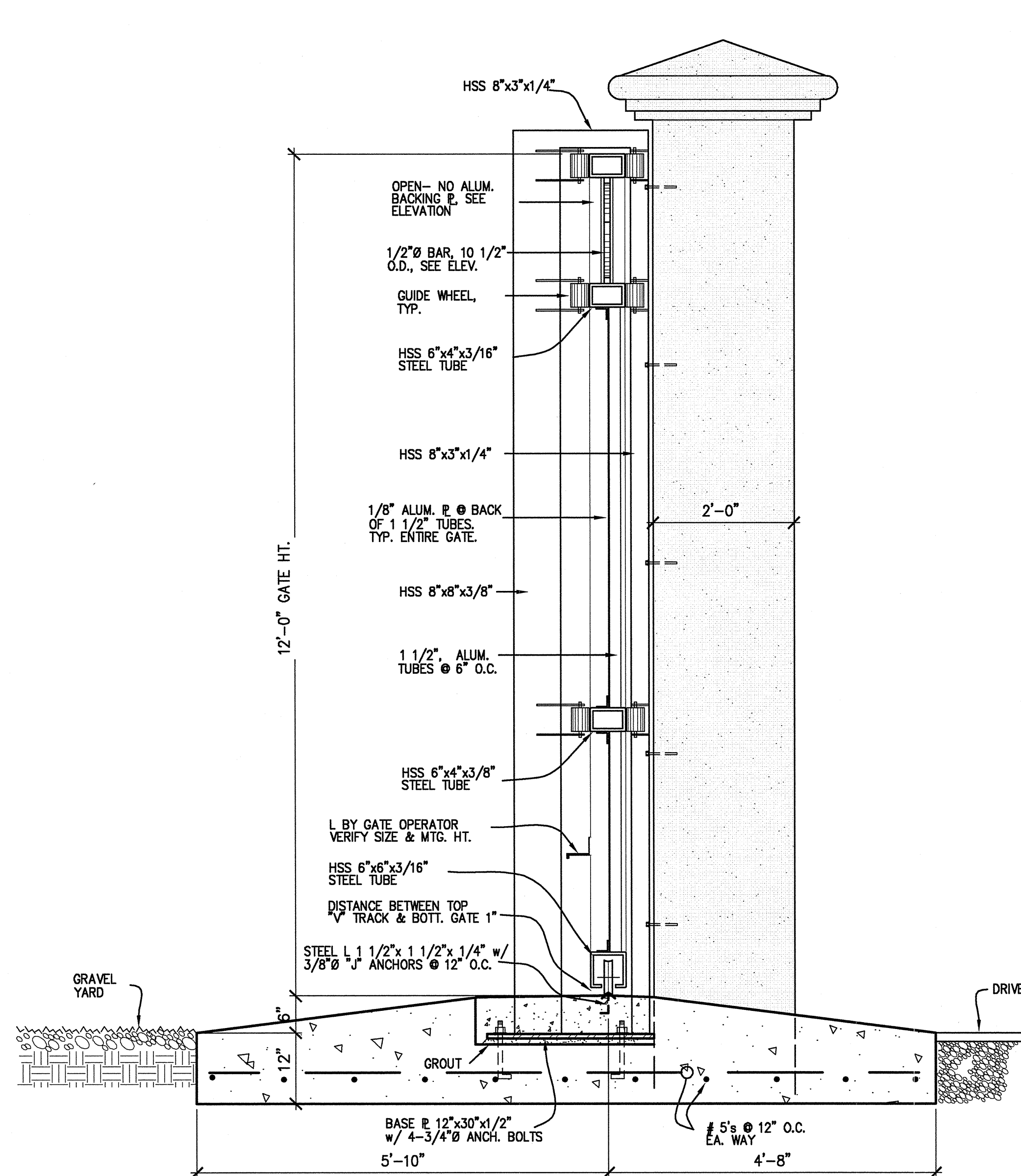
ALL STEEL HOT DIPPED GALVANIZED
AFTER FABRICATION



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

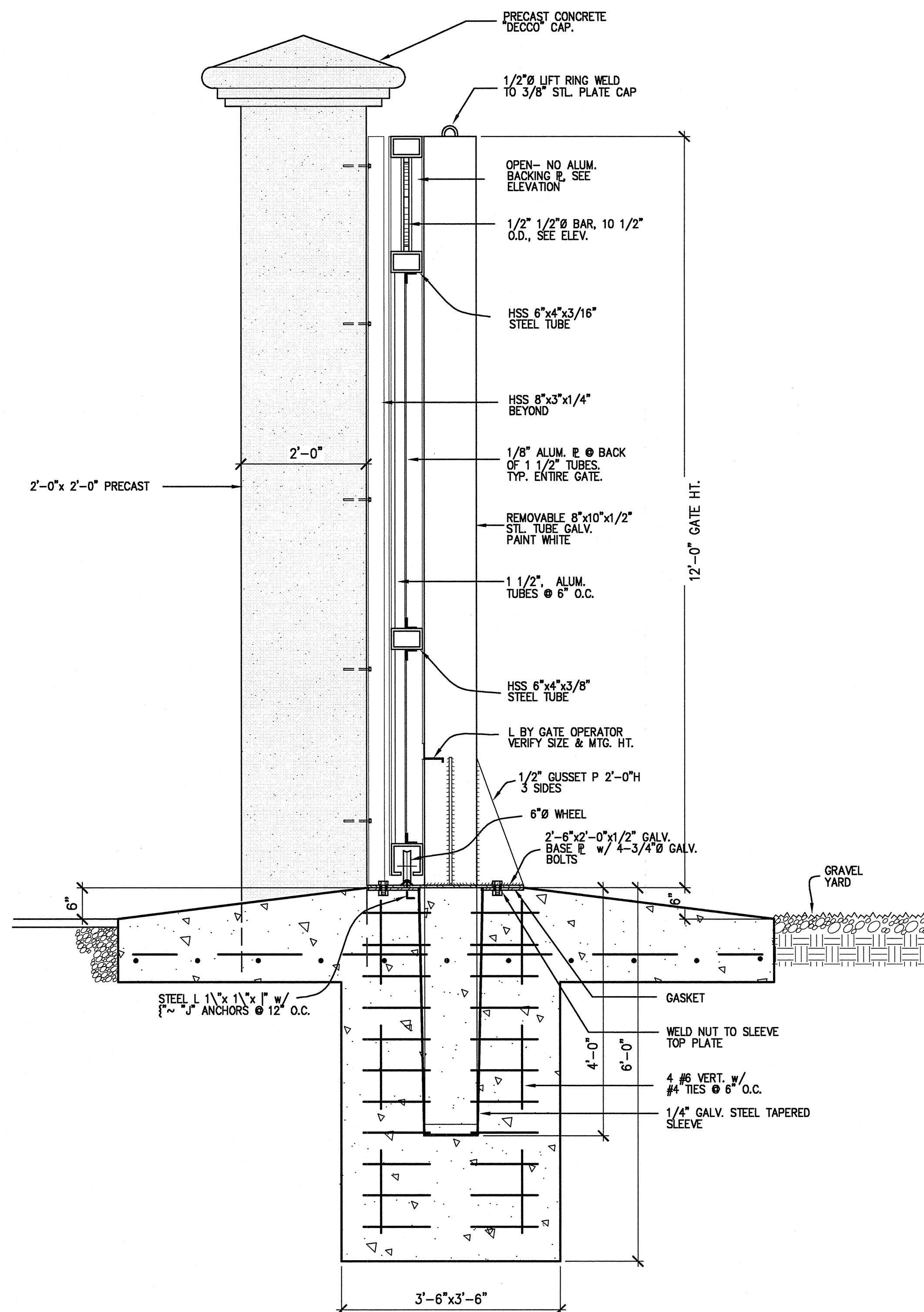






SECTION • GATE B
SCALE: 3/4"=1'-0"

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



SECTION • GATE A
SCALE: 3/4"=1'-0"

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

ST. LUCIE SUBSTATION EXPANSION
30' ROLLING GATE
GATE SECTION

132996S11_RO

SHEET 5 OF 5
E-SLU27

REV NO

B - 3

