# ORANGE COUNTY MASTER PUMP STATION WALL PROJECT

PS #3190 - ORANGE AVENUE

# PUMP STATION IMPROVEMENTS

## BOARD OF COUNTY COMMISSIONERS

TERESA JACOBS
ORANGE COUNTY MAYOR

S. SCOTT BOYD
DISTRICT 1

FRED BRUMMER
DISTRICT 2

PETE CLARKE
DISTRICT 3

JENNIFER THOMPSON
DISTRICT 4

TED EDWARDS
DISTRICT 5

TIFFANY MOORE RUSSELL
DISTRICT 6



AJIT LALCHANDANI
COUNTY ADMINISTRATOR

RAYMOND E. HANSON, P.E. DIRECTOR ORANGE COUNTY UTILITIES DEPARTMENT

ISSUED FOR BID

ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN REDUCED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED DATA. DIMENSION INFORMATION SHOULD NOT BE OBTAINED BY SCALING THE PLANS.

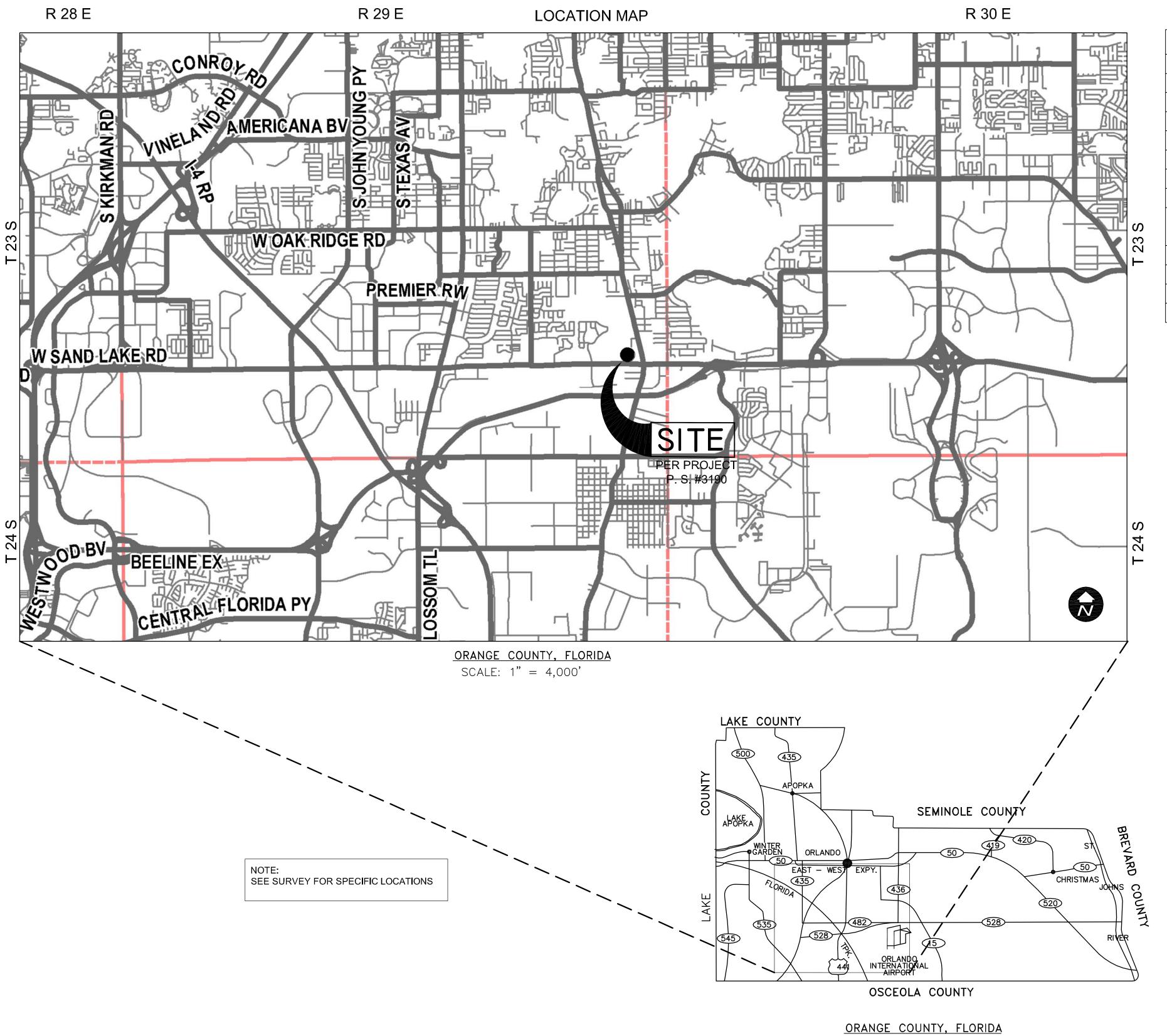
ORANGE COUNTY UTILITIES DEPARTMENT
ENGINEERING DIVISION
ORANGE COUNTY, FLORIDA

**JUNE 2014** 



1016 SPRING VILLAS PT. WINTER SPRINGS, FLORIDA 32708 TEL: (407) 679-5358 FAX: (407) 679-5003

OCU FILE NO.: 75705 CAP NO.: 1503-99



### DRAWING INDEX

SHEI	ET NO.	DWG. NO.	TITLE
01	01 OF 09 G100 COVER SHEET		COVER SHEET
02	OF 09	G200	PS#3190 - ORANGE AVENUE LOCATION MAP AND DRAWING INDEX
03 (	OF 09	G300	PS#3190 - ORANGE AVENUE GENERAL NOTES, ABBREVIATIONS AND LEGEND
04 (	OF 09	V100	PS#3190 - BOUNDARY SURVEY & TOPOGRAPHIC SURVEY
05 (	OF 09	C100	PS #3190 - ORANGE AVENUE SITE DEMOLITION PLAN
06	OF 09	C101	PS #3190 - ORANGE AVENUE SITE PLAN
07	OF 09	P100	PS #3190 - ORANGE AVENUE ODOR CONTROL PIPING
08 (	OF 09	D600	PS#3190 - ORANGE AVENUE MECHANICAL & CIVIL DETAILS
09	OF 09	D601	PS#3190 - ORANGE AVENUE STRUCTURAL DETAILS

SCALE: 1" = 50,000'

REV	DATE	DESCRIPTION	
			LINE IS 2 INCHES
			AT FULL SIZE (IF NOT SCALE ACCORDIN
			,
	JUNE 2014	ISSUED FOR BID	

T FULL SIZE CALE ACCORDINGLY)

ORANGE COUNTY UTILITIES DEPARTMENT ENGINEERING DIVISION 9150 CURRY FORD ROAD ORLANDO, FL. 32825



REISS ENGINEERING, INC. 1016 SPRING VILLAS PT WINTER SPRINGS, FL 32708 (407) 679-5358

PS #3190 - ORANGE AVENUE LOCATION MAP AND DRAWING INDEX

		OCU FILE NO.: 75705	SCALE: NO	TED	
		DESIGNED BY: DNN	DRAWIN	G NC	).:
		DRAWN BY: AJC	G2	$\cap$	)
1	MELANIE D. PECKHAM, P.E.	CHECKED BY: MDP	GZ	U	_
	PROFESSIONAL ENGINEER FLORIDA LICENSE # 66487	CADD FILE: PS-WALL.DWG	SHEET: 02	OF	09

#### **GENERAL NOTES**

- **EXCAVATE CAUTIOUSLY** LOCATIONS OF EXISTING UTILITIES INDICATED HERE IN ARE BASED ON BEST AVAILABLE INFORMATION AND ARE NOT TO BE CONSIDERED ALL INCLUSIVE. CONTRACTOR SHALL VERIFY EXACT LOCATION, CHARACTER AND NATURE OF ALL EXISTING AND PROPOSED UTILITIES PRIOR TO BEGINNING CONSTRUCTION AND PRIOR TO FABRICATION OF PIPING AND EQUIPMENT TO ENSURE PROPER ASSEMBLY OF ALL ITEMS.
- 2. LOCATIONS AND DIMENSION OF EXISTING RIGHTS-OF-WAY AND EASEMENTS ARE BASED ON BEST AVAILABLE INFORMATION. CONTRACTOR SHALL VERIFY THE LIMITS OF THE RIGHTS-OF-WAY AND EASEMENTS IN ORDER TO AVOID ENCROACHMENTS.
- 3. PIPES SHALL NOT BE DEFLECTED.
- ALL EXCAVATIONS SHALL BE BACK FILLED AT THE END OF EACH WORK DAY. ALL FINAL BACK FILL IS TO BE COMPACTED TO 98% OF MAXIMUM MODIFIED PROCTOR.
- ALL SITE WORK SHALL BE COORDINATED WITH THE COUNTY RESIDENT PROJECT REPRESENTATIVE (RPR).
- THE ELEVATIONS SHOWN ARE BASED ON NGVD 1929 DATUM.
- 7. THE CONTRACTOR SHALL PROVIDE TANKERS AND SIGNED DOCUMENT ACKNOWLEDGING THE UNDERSTANDING OF THE ORANGE COUNTY UTILITY "EMERGENCY WASTEWATER SPILL AND WATER MAIN BREAK PROCEDURES", IN THE PRE-CONSTRUCTION PACKET FOR THE MEETING.
- THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ON-SITE DURING THE LIFE OF THE PROJECT, A WEATHERPROOF ENCLOSURE CONTAINING A READILY ACCESSIBLE LIST OF EMERGENCY CONTACTS AND PHONE NUMBERS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SATISFACTION OF ALL REQUIREMENTS OF REGULATORY AGENCY PERMITS WITH REGARD TO CONSTRUCTION ACTIVITIES AND RELATED CONDITIONS.
- 10. THE CONTRACTOR SHALL CALL SUNSHINE STATE ONE CALL NO LESS THAN FOURTY-EIGHT (48) HOURS PRIOR TO THE START OF CONSTRUCTION. - PHONE - 800-432-4777.
- 11. ADVANCE NOTIFICATION OF CONSTRUCTION

THE ORANGE COUNTY UTILITY CONSTRUCTION SECTION (407) 254-9798, SHALL BE NOTIFIED AT LEAST SEVEN (7) DAYS PRIOR TO ANY CONSTRUCTION ACTIVITY, AND NOTIFY SUNRAIL CFRC (407) 461-8926.

- 12. THE CONTRACTOR SHALL MAKE EXPLORATORY EXCAVATIONS AT ALL INTERSECTIONS OF PROPOSED WORK AND EXISTING UTILITIES. THE EXPLORATORY EXCAVATIONS SHALL BE MADE FORTY-EIGHT (48) HOURS IN ADVANCE OF THE WORK. IF THERE IS A POTENTIAL CONFLICT, THE CONTRACTOR SHALL NOTIFY THE COUNTY RESIDENT PROJECT REPRESENTATIVE IMMEDIATELY WITH INFORMATION WHICH SHALL INCLUDE LOCATION, ELEVATION, UTILITY TYPE, MATERIAL AND SIZE.
- 13. IN AREAS WHERE CONSTRUCTION ACTIVITIES RESTRICT NORMAL ACCESS TO PROPERTIES, THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ALTERNATE ACCESS ROUTES WHICH ARE SUBJECT TO APPROVAL BY THE ENGINEER, AS PART OF THE M.O.T. PLAN.
- 14. THE DISPOSAL OF ANY EXCESS EARTH WORK MATERIAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- 15. THE CONTRACTOR SHALL REPLACE WITH EQUAL MATERIAL, OR AS DIRECTED BY THE RPR, ALL PAVING, GRASSED AREAS, STABILIZED EARTH, DRIVEWAYS, ETC., DISTURBED OR DAMAGED BY THE CONSTRUCTION OR RELATED ACTIVITIES. ALL DISTURBED AREAS SHALL BE SODDED, EXCEPT DIRT DRIVES AND WHERE INDICATED IN THE DRAWINGS.
- 16. SALVAGE AND/OR DISPOSAL OF ALL EXISTING EQUIPMENT SHALL BE AT THE DIRECTION OF THE
- 17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER DISPOSAL OF ALL STRUCTURES, PIPE, CONDUIT, WIRE, FITTINGS, PANELS, ETC. THAT ARE DEMOLISHED, DISASSEMBLED, OR REMOVED, PER SECTION 02080 OF THE SPECIFICATION MANUAL OF THIS PROJECT.
- 18. ADVANCE NOTIFICATION OF PENDING CONNECTION

THE ORANGE COUNTY UTILITY WATER DIVISION AND THE ORANGE COUNTY UTILITY WATER RECLAMATION DIVISION SHALL BE NOTIFIED AT LEAST SEVEN (7) DAYS IN ADVANCE TO SCHEDULE MAIN TIE-INS AND VALVE OPERATIONS.

- 19. ANY WORK PROPOSED FOR THE POTABLE WATER SYSTEM SHALL BE PERFORMED IN ACCORDANCE WITH THE STANDARDS AND DETAILS OF THE APPROPRIATE UTILITY PROVIDER.
- 20. REPAIR INMEDIATELY

ALL DAMAGE TO ORANGE COUNTY MAINS SHALL BE REPAIRED IMMEDIATELY BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE. IF THE REPAIR IS NOT DONE IN A TIMELY MANER, AS DETERMINED BY THE ORANGE COUNTY UTILITY INSPECTOR, ORANGE COUNTY MAY PERFORM REPAIRS AND THE CONTRACTOR WILL BE CHARGED FOR SAID REPAIRS.

21. TELEPHONE NOTIFICATIONS

REV

DATE

JUNE 2014 ISSUED FOR BID

THE ORANGE COUNTY DISPATCH OPERATOR SHALL BE NOTIFIED IMMEDIATELY IN THE EVENT OF A FORCEMAIN, GRAVITY SEWER, OR WATER MAIN BREAK OR DAMAGE AT (407)836-2777 (24-HOURS ASSISTANCE).

22. ALL WORK AND MATERIAL SHALL CONFORM TO THE ORANGE COUNTY UTILITIES STANDARDS AND CONSTRUCTION SPECIFICATIONS MANUAL, LATEST EDITION OR AS INDICATED IN THE PROJECT SPECIFICATIONS OR DRAWINGS.

DESCRIPTION

#### **EMERGENCY NUMBERS**

POWER	ORLANDO UTILITIES COMMISION (OUC)	407-236-9651
POWER	DUKE ENERGY (PROGRESS ENERGY)	407-938-6670
WATER/SEWER	ORANGE COUNTY UTILITIES ENGINEERING DIVISION	407-254-9900
PHONE	BRIGHT HOUSE	407-532-8509, 407-532-8520
PHONE	CENTURY LINK	407-815-5344, 407-557-6766
PHONE	MCI	972-729-6016
PHONE	SMART CITY TELECOM	407-828-6648
PHONE	TW TELECOM	407-215-6895
FIBER OPTIC	COMCAST COMMUNICATIONS	407-312-5944
FIBER OPTIC	LEVEL 3 COMMUNICATIONS	720-888-2061
GAS	TECO PEOPLES GAS-ORLANDO	407-420-6609
DOT EQUIPMENT TRAFFIC SIGNALS	TRAFFIC CONTROL DEVICES	407-869-5300
	SUNSHINE ONE CALL SERVICE	800-432-4770
	ORANGE COUNTY UTILITIES DISPATCH (EMERGENCY ONLY)	407-836-2777
	FIELD SERVICES CENTER	407-836-6818

**GOVERNMENT** 

LINE IS 2 INCHES

AT FULL SIZE

(IF NOT SCALE ACCORDINGLY)

ORANGE COUNTY TILITIES DEPARTMENT ENGINEERING DIVISION

9150 CURRY FORD ROAD ORLANDO, FL. 32825



REISS ENGINEERING, INC. 1016 SPRING VILLAS PT WINTER SPRINGS, FL 32708 (407) 679-5358

PS #3190 - ORANGE AVENUE GENERAL NOTES, ABBREVIATIONS AND LEGEND

OCU FILE NO.: 75705 SCALE: NOTED DESIGNED BY: DNN DRAWING NO. DRAWN BY: AJC G300 MELANIE D. PECKHAM, P.E. CHECKED BY: MDP PROFESSIONAL ENGINEER SHEET: 03 OF 09 FLORIDA LICENSE # 66487 CADD FILE: PS-WALL.DWG

#### XX.XX PROPOSED ELEVATION **EXISTING ELEVATION** PROPOSED FORCE MAIN EXISTING FORCE MAIN \_\_\_\_FM\_\_\_\_ PROPOSED GRAVITY MAIN —— SAN —— EXISTING GRAVITY MAIN —— WS —— PROPOSED WATER SERVICE —— WL — EXISTING WATER MAIN PROPOSED CHAIN-LINK FENCE — O EXISTING CHAN-LINK FENCE PROPOSED WOOD FENCE — EXISTING WOOD FENCE PROPOSED POWER POLE EXISTING POWER POLE PROPOSED MANHOLE (SPECIFY) EXISTING MANHOLE (SPECIFY) EXISTING VALVE (SPECIFY) PROPOSED VALVE (SPECIFY) PROPOSED WATER METER **EXISTING WATER METER**

**GUY WIRE AND ANCHOR** 

TREE (TYPE & SIZE NOTED)

PROPOSED BACK-FLOW

PROPOSED SILT FENCE

PREVENTER

CAP

PLUG

SHRUB

**BENCHMARK** 

**LEGEND** 

EXISTING STORM PIPE

—— FO—— EXISTING FIBER OPTIC CABLE

——BEL—— EXISTING BURIED ELECTRIC

—— OE——— EXISTING OVERHEAD ELECTRIC

—— BCL —— EXISTING CABLE TV (BURIED)

EXISTING BACK-FLOW

PREVENTER

**EXISTING BURIED TELEPHONE** 

#### PRECAST STRUCTURAL NOTES

- PRECAST STRUCTURES SHALL BE ENGINEERED PRODUCTS OF A PRECAST MANUFACTURER AND SHALL BE SPECIFICALLY DESIGNED FOR THE SERVICE AND APPLICATION AS SHOWN ON THESE DRAWINGS. THE PRECAST MANUFACTURER IS SOLELY RESPONSIBLE FOR DESIGN AND MANUFACTURE OF EACH STRUCTURE. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR INSTALLATION OF THESE PRODUCTS AND CONFORMANCE OF SAME WITH ALL PROJECT DOCUMENTS. THE CONTRACTOR SHALL SUBMIT COMPLETE SHOP DRAWINGS FOR ALL SUCH PRECAST STRUCTURES ON THE PROJECT FOR REVIEW AND APPROVAL, PRIOR TO THE ORDERING OF ANY STRUCTURES OR MATERIALS.
- THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF THE CAST-IN-PLACE REINFORCEMENT AND CONCRETE PLACEMENT USED IN THE INSTALLATION OF SADDLE MANHOLES FOR REVIEW AND APPROVAL BY THE COUNTY. PRIOR TO THE ORDERING OF ANY MATERIALS.
- STRUCTURAL DESIGN STANDARDS ACI STANDARD 318-89 BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE AND ACI 350R-83, "CONCRETE SANITARY ENGINEERING STRUCTURES". PRECAST WALL SECTIONS ASTM C478.
- 4. ALL CONCRETE SHALL HAVE A SPECIFIED MINIMUM COMPRESSIVE STRENGTH OF fc' = 4000 P.S.I. AT 28 DAYS, UNLESS NOTED ON DRAWINGS.
- 5. ALL REINFORCING BARS SHALL CONFORM TO ASTM A615 GRADE 60. MINIMUM YIELD STRENGTH SHALL BE 60,000 P.S.I..
- CONTRACTOR SHALL COORDINATE WET WELL HATCH OPENING SIZE AND LOCATION AS REQUIRED BY PUMP MANUFACTURER/SUPPLIER WITH THE PRECAST CONCRETE SUPPLIER PRIOR TO CASTING. SHOP DRAWINGS OF THE PRECAST SHALL BE PROVIDED TO THE COUNTY FOR REVIEW.
- 7. THE FLOOR GROUT (FILLET) SHALL BE FULL CIRCUMFERENCE OF THE STRUCTURE.

#### POWER, WATER, UTILITIES, SUPPLY NOTES:

- 1. THE CONTRACTOR SHALL CONTACT THE APPROPRIATE UTILITY PROVIDER FOR POWER AND WATER SERVICE, AND SHALL INCLUDE IN HIS BID ALL PROVIDER CHARGES FOR MATERIALS, LABOR, ONE-TIME NONRECURRING CONSTRUCTION COSTS AND OTHER COSTS, INCLUDING WATER METER, ASSESSED BY THE PROVIDER, WHETHER OR NOT INDICATED ON THE DRAWINGS, OR SPECIFIED.
- 2. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE POWER SUPPLY AND THE WATER SYSTEM RELOCATION AND INSTALLATION WITH THE SUPPLIER.
- THE POWER PROVIDER SHALL MAKE ALL SECONDARY TERMINATIONS AT POWER TRANSFORMERS.
- 4. THE WATER SUPPLIER WILL PERFORM THE REQUIRED RELOCATIONS AND MAKE ALL CONNECTIONS TO THE EXISTING WATER SYSTEM, INCLUDING WATER METER INSTALLATION.
- POWER SUPPLIER: DUKE ENERGY (P. S. #3190)
- 6. WATER SUPPLIER: O. C. U. ( P. S. #3190)
- 7. SUNRAIL: FDOT, CFRC

#### **ABBREVIATIONS** ALSO KNOWN AS L.S. LT **ASBESTOS CEMENT**

LIFT STATION

W.S.

WWF

WATER SURFACE

SPOT ELEVATION

WELDED WIRE FABRIC

AKA

I.P.

I.R.

J.B.

LAT.

LF

JUNC.

AC	ASBESTOS CEMENT	LT	LEFT
ALUM.	ALUMINUM	L.W.L.	LOW WATER LEVEL
APPROX.	APPROXIMATELY	MAX.	MAXIMUM
ASPH.	ASPHALT	MATL	MATERIAL
ASSEM.	ASSEMBLY	M.H.	MANHOLE
BE	BURIED ELECTRIC	MIN.	MINIMUM
BL	BASELINE	MOD	MODIFIED
B.M.	BENCHMARK	M.O.T.	MAINTENANCE OF TRAFFIC
B.O.	BLOWOFF	M.J.	MECHANICAL JOINT
BCL	BURRIED CABLE LINE	N.G.	NATURAL GROUND
	BURIED TELEPHONE	NO.	NUMBER
B.F.V.	BUTTERFLY VALVE	NPW	
	CABLE TELEVISION	N.T.S.	
C.B.	CATCH BASIN		ORANGE COUNTY UTILITIES
C.F.S.	CUBIC FEET PER SECOND	O.D.	
CIP	CAST IRON PIPE		OVERHEAD ELECTRIC
	CENTERINE		ORLANDO UTILITY COMMISSION
	CONCRETE MONUMENT	PAVT	
C.M.P.		P.B.	PULL BOX
	CONCRETE	PG.	
	CONNECTION	P.I.	
	CONSTRUCT	PL	
CONT.		POLY.	POLYETHYLENE
CORP.	CORPORATION	PP	POWER POLE
C.V.	CHECK VALVE	PROP.	
C.V.	CUBIC YARD	PS	
DBL.	DOUBLE	P.S.I.	
DBL. DHW	DESIGN HIGH WATER		
		P.U.E.	
DIA.	DIAMETER		PLUG VALVE
DIP	DUCTILE IRON PIPE		RADIUS POINT
DWLS.	DOWELS	R	RADIUS
DWG.	DRAWING	RCP	
ELEC	ELECTRIC	REINF.	
EA.	EACH		REQUIRED
	EFFLUENT	RPZ	REDUCED PRESSURE ZONE
ELEV.			BACKFLOW PREVENTER
EMB.	EMBED OR EMBEDDED	RT.	RIGHT
	EDGE OF PAVEMENT	RW	RECLAIMED WATER
ESMT.		R/W	•
	EACH WAY	SAN.	
	EXISTING	SCH.	
EXP. JT.			STORM DRAIN
	FLOOR DRAIN	S.F.	
F.D.E.P.	FLORIDA DEPT. OF		ENVIRONMENTAL PROTECTION
	ENVIRONMENTAL PROTECTION	SHT.	SHEET
F.D.O.T.	FLORIDA DEPT. OF		TRANSPORTATION
	TRANSPORTATION	SPECS.	
F.F.	FINISHED FLOOR	SQ.	
	FIRE HYDRANT		STAINLESS STEEL
FKA	FORMALLY KNOWN AS	STA.	STATION
FLG.	FLANGE	STD.	STANDARD
FL.	FLOW LINE	STL.	STEEL
FM	FORCEMAIN	S.Y.	SQUARE YARDS
FT.	FEET	TEL	TELEPHONE
FTG.	FOOTING	T&B	TOP AND BOTTOM
GA	GAUGE	TBM	TEMPORARY BENCH MARK
GAL.	GALLONS	TCE	TEMPORARY CONSTRUCTION
GEN.	GENERATOR		EASEMENT
GRD.	GROUND	TEMP.	TEMPORARY
G.S.P.	GALVANIZED STEEL PIPE	THD.	THREADED
GM	GAS MAIN	THK.	THICK
GPM	GALLONS PER MINUTE	TYP.	TYPICAL
GV	GATE VALVE	U.G.	UNDERGROUND
НВ	HOSE BIBB	VAC	
	HEADWALL	VCP	
HDWL.	HEADWALL		VOLTAGE DIRECT CURRENT
HT.	HEIGHT		VERŤICAL
HP HODIZ	HIGH POINT		VERIFIED VERTICALLY &
HORIZ.	HORIZONTAL	·	HORIZONTALLY
H.W.L.	HIGH WATER LEVEL	W/	WITH
I.E.	INVERT ELEVATION	WM	WATERMAIN
I.D.	INSIDE DIAMETER	W/M	WATER METER
IN.	INCHES	WP	WALL PIPE
INV.	INVERT	WS	WATER SERVICE

REF:NNNNN REFERENCE MADE TO AN APPLICABLE SECTION(S) OF THE TECHNICAL SPECIFICATIONS FOR THIS PROJECT.

**IRON PIPE** 

**IRON ROD** 

JUNCTION

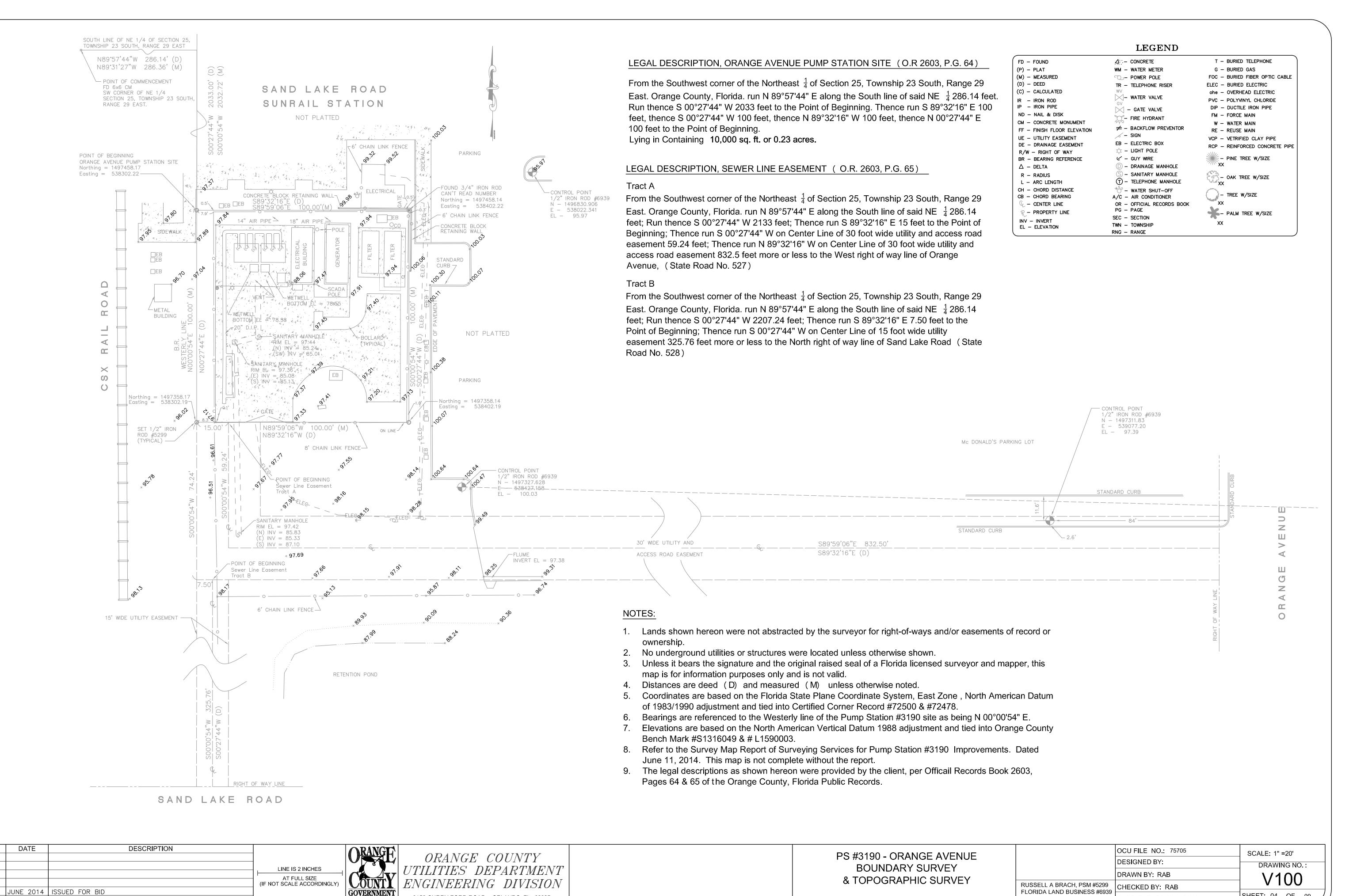
LINEAR FEET

LATERAL

**JUNCTION BOX** 

### ADDRESS FOR THE PUMP STATION:

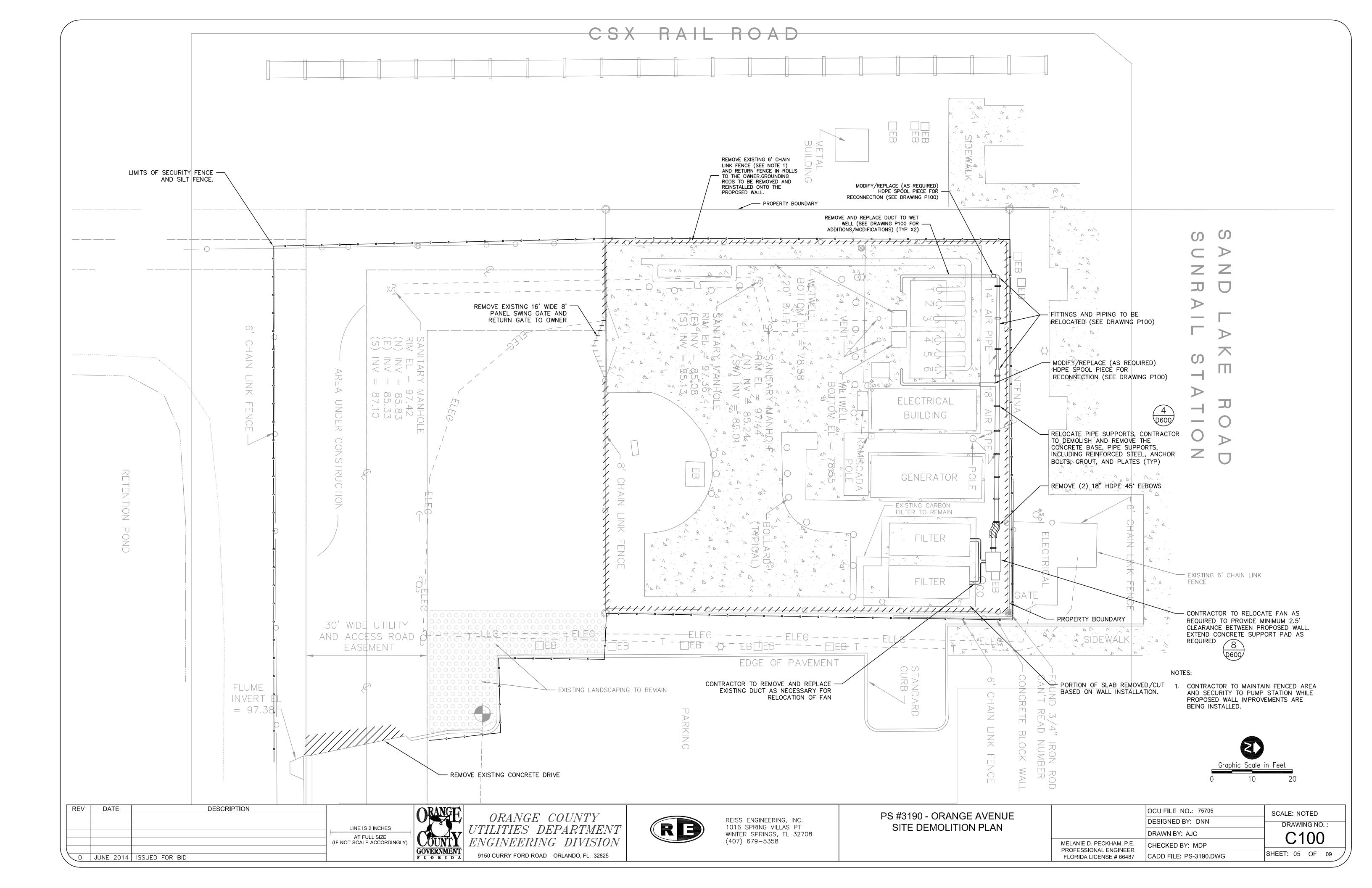
PS #3190 (ORANGE AVENUE), 8036 S. ORANGE AVENUE

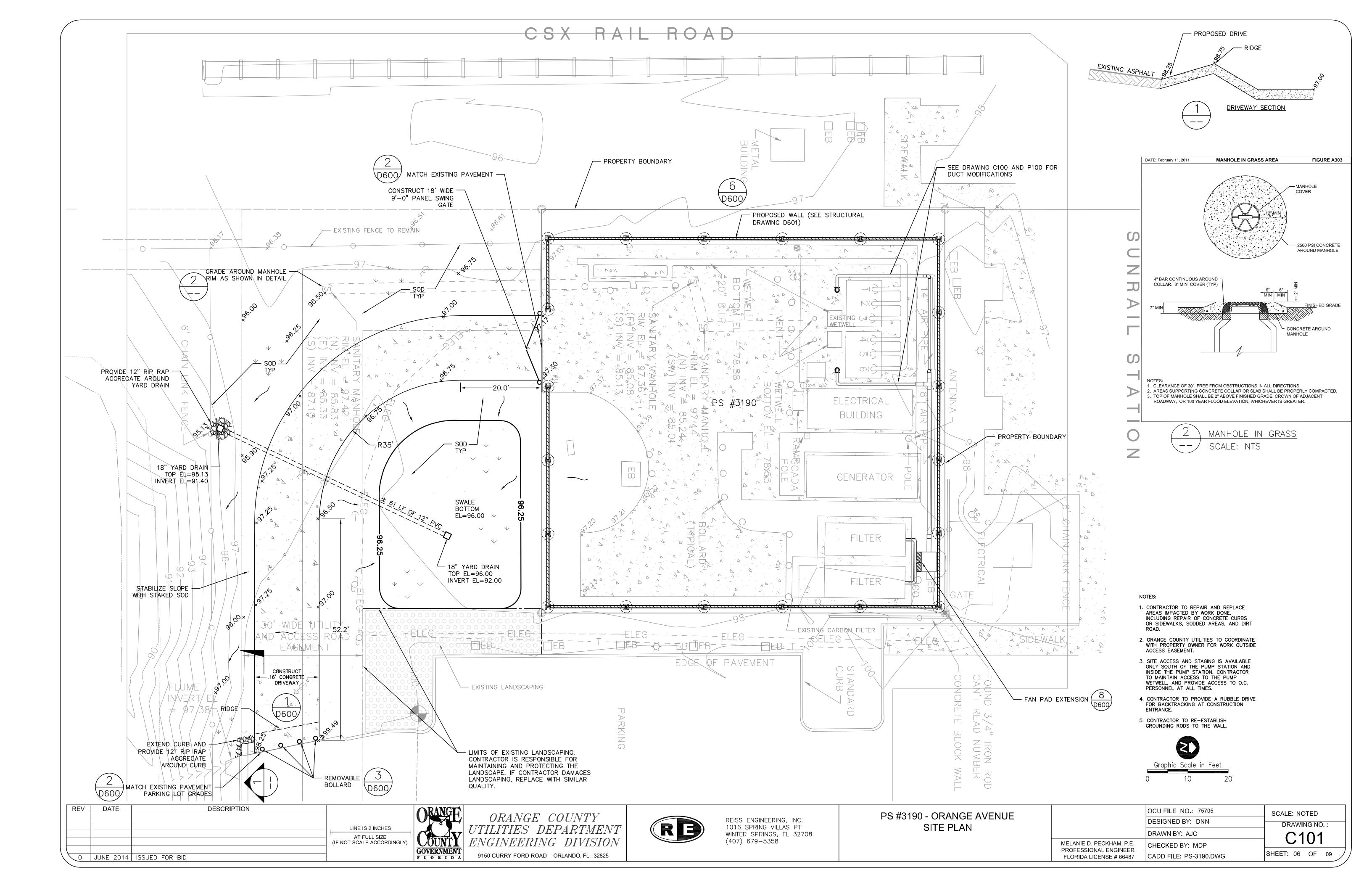


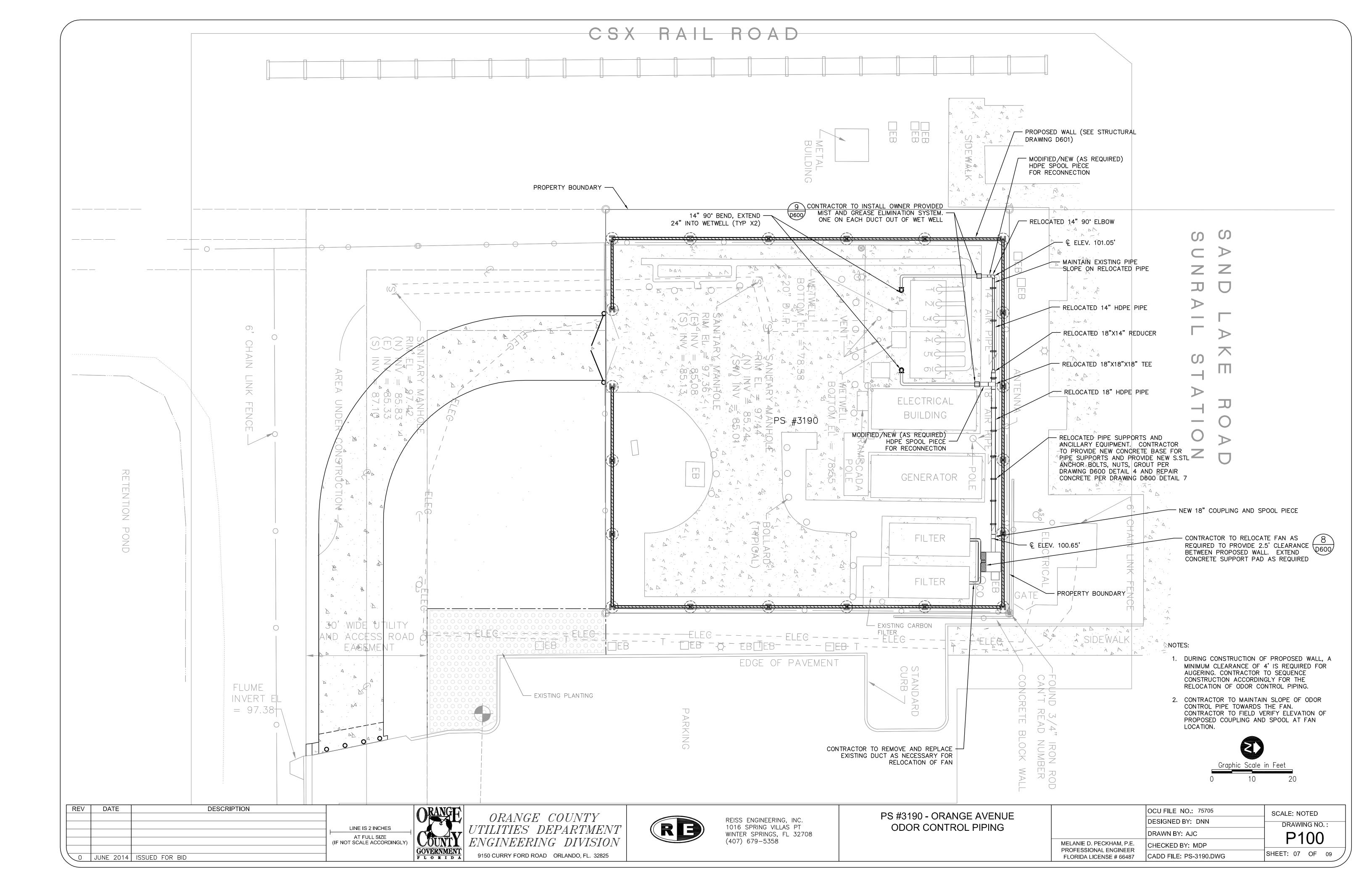
9150 CURRY FORD ROAD ORLANDO, FL. 32825

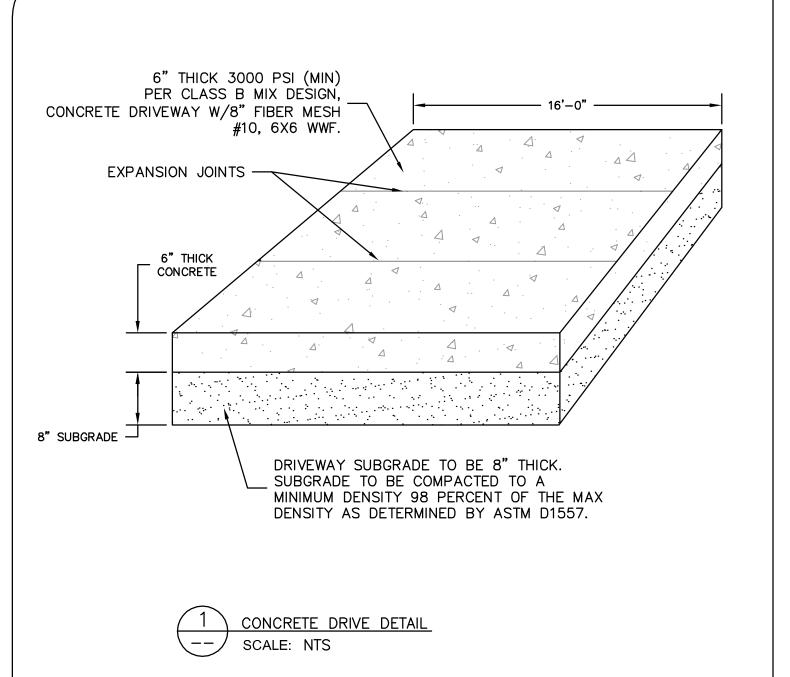
SHEET: 04 OF 09

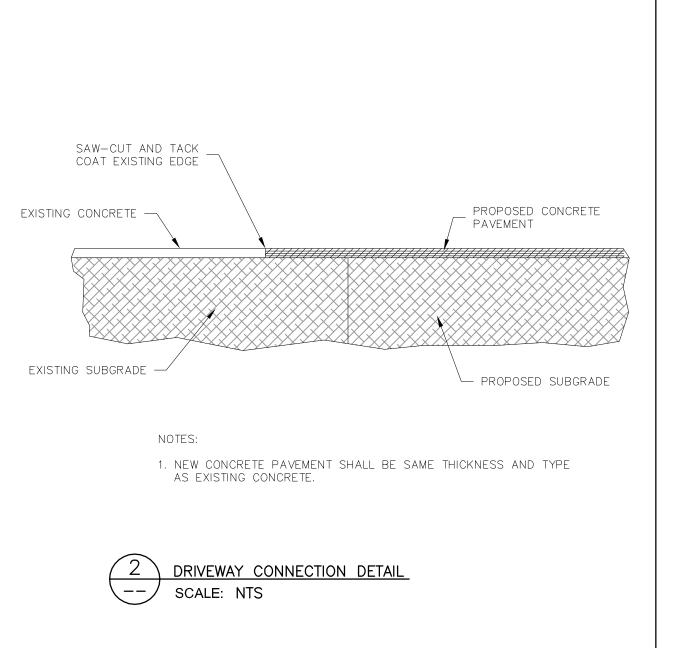
CADD FILE: PS-3190.DWG

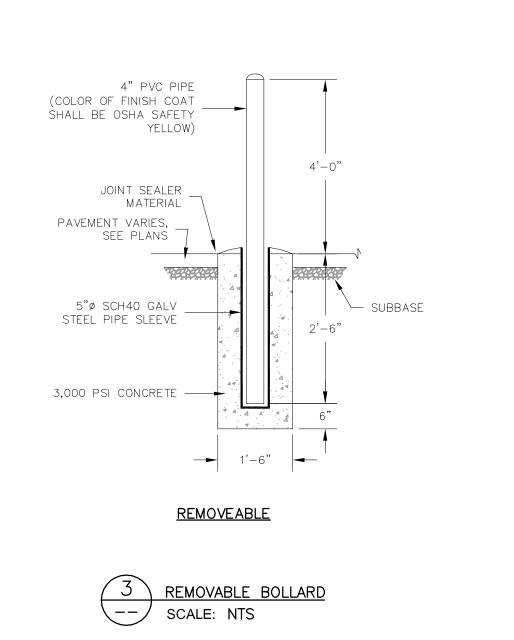


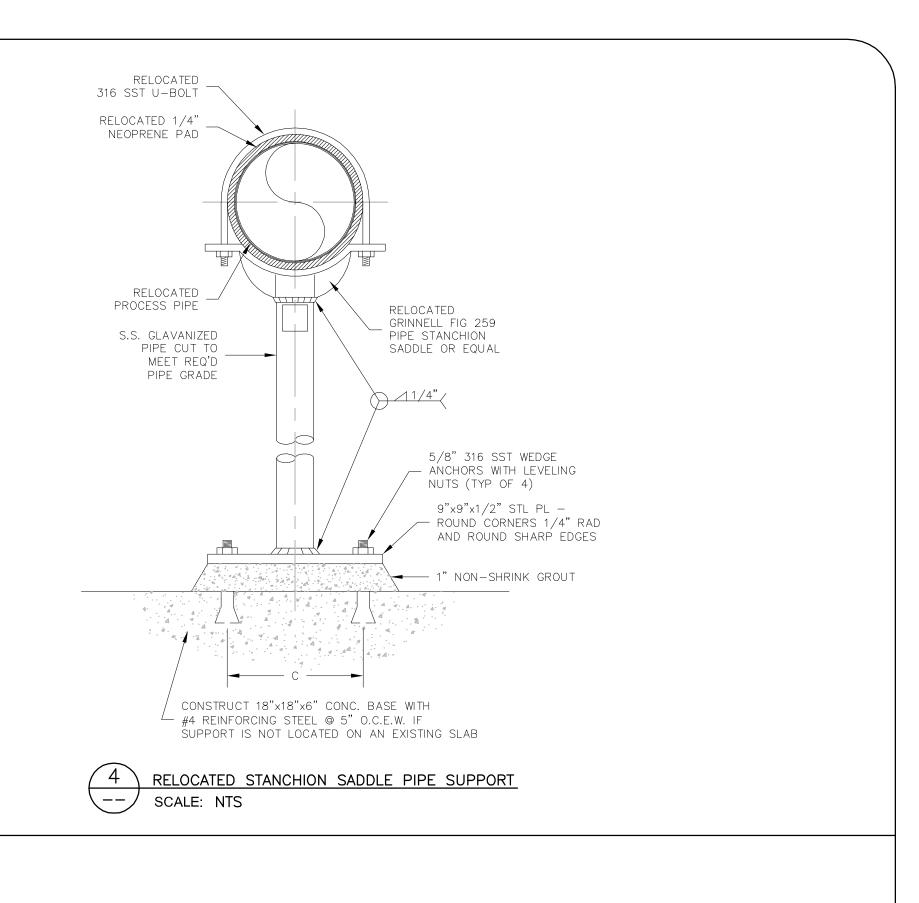


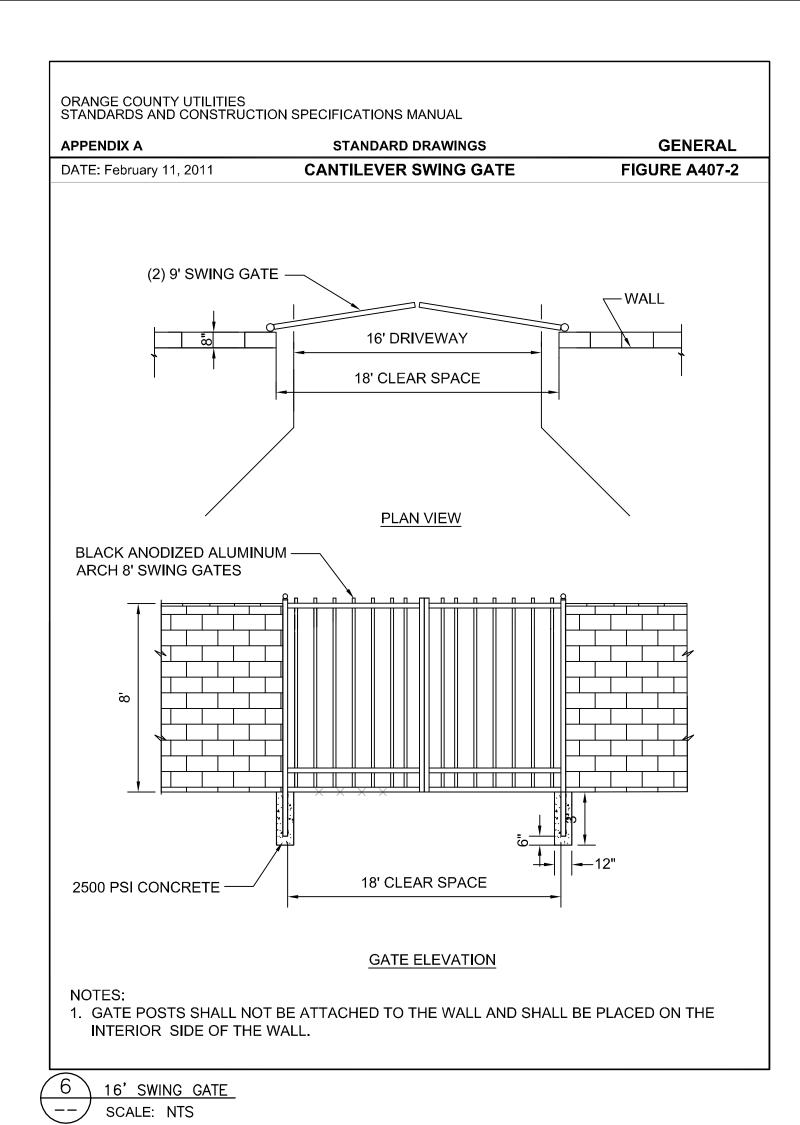










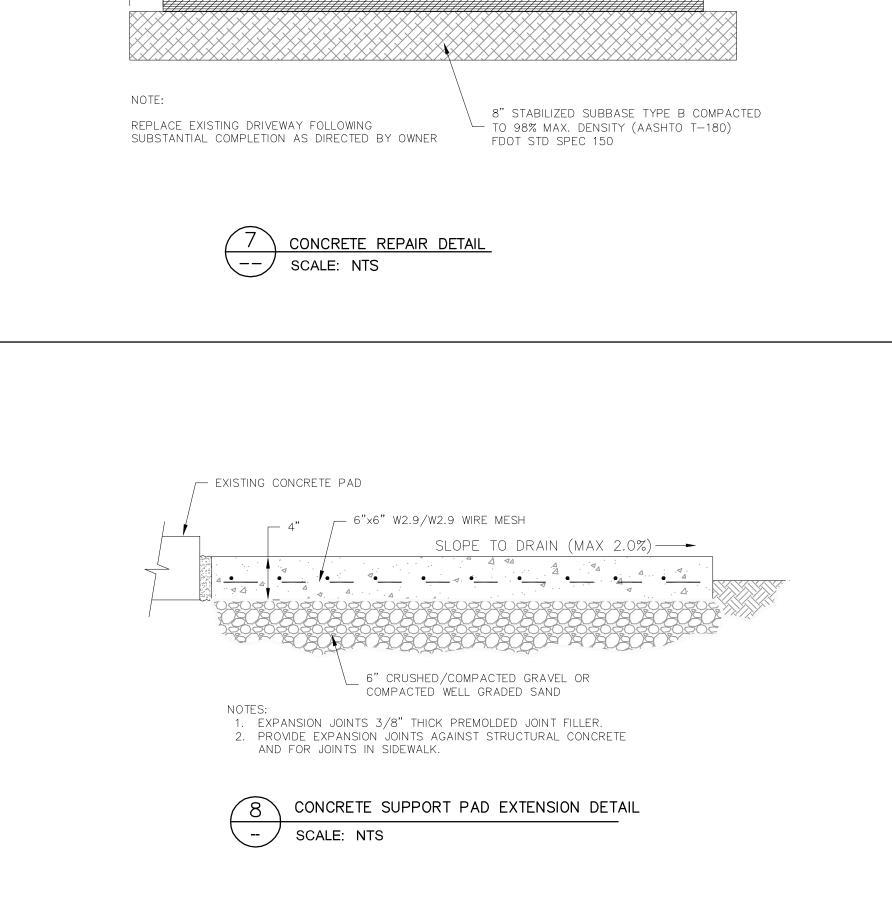


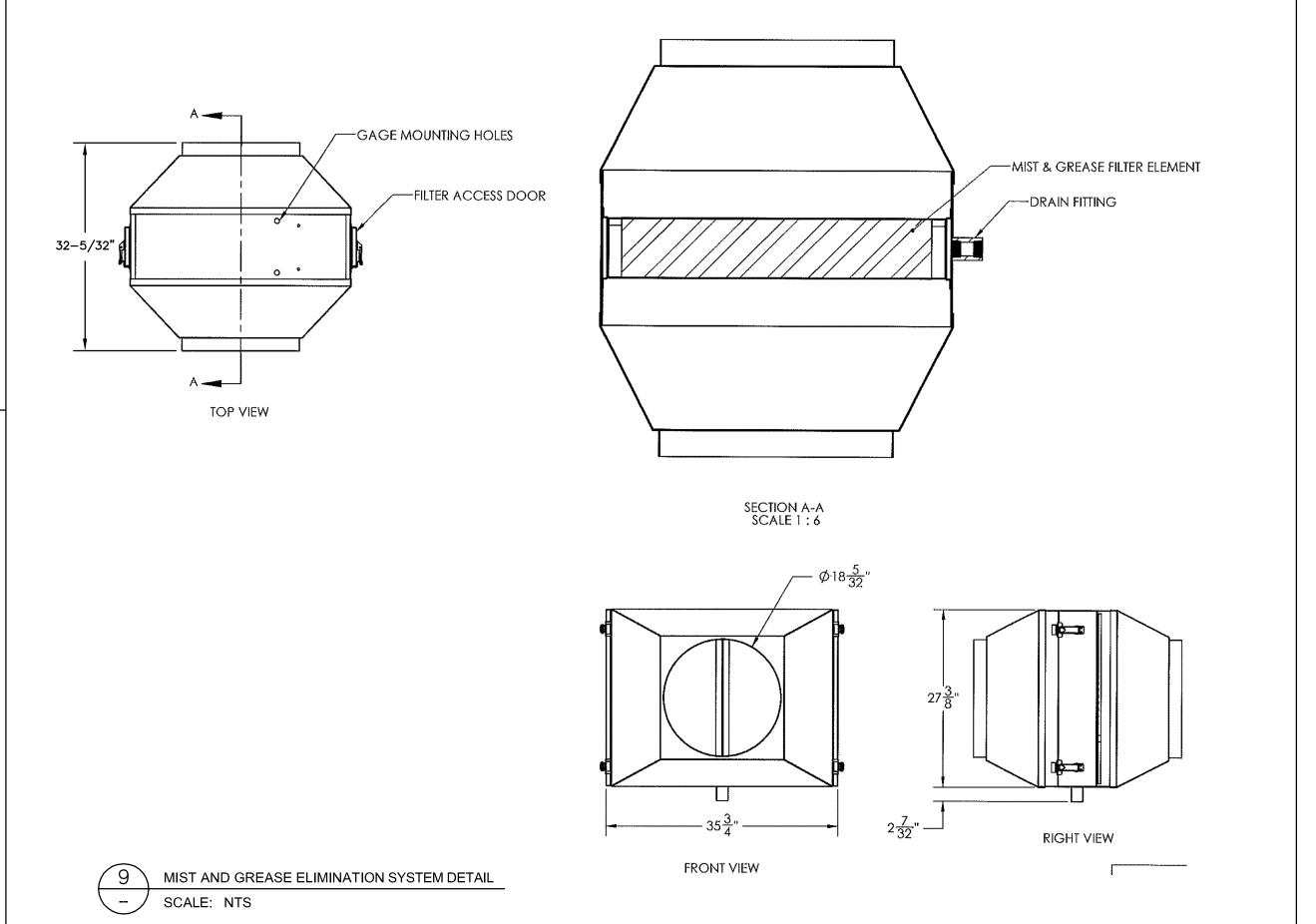
DESCRIPTION

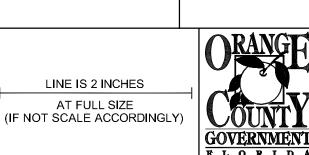
REV

DATE

JUNE 2014 ISSUED FOR BID







LINE IS 2 INCHES

ORANGE COUNTY ENGINEERING DIVISION

9150 CURRY FORD ROAD ORLANDO, FL. 32825

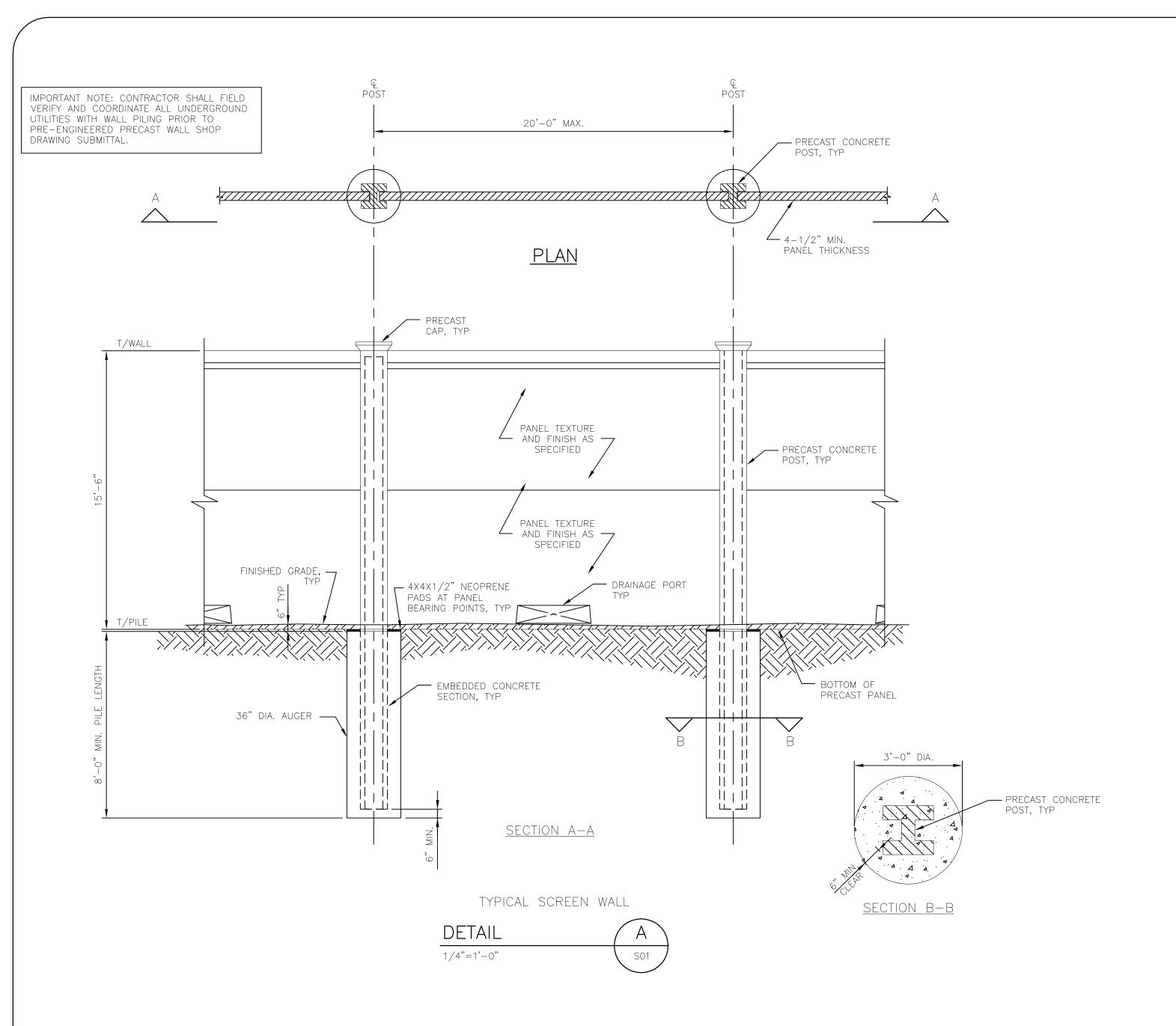


2.5" TYPE SP-12.5 ASPHALTIC CONCRETE SUPERPAVER

REISS ENGINEERING, INC. 1016 SPRING VILLAS PT WINTER SPRINGS, FL 32708 (407) 679-5358

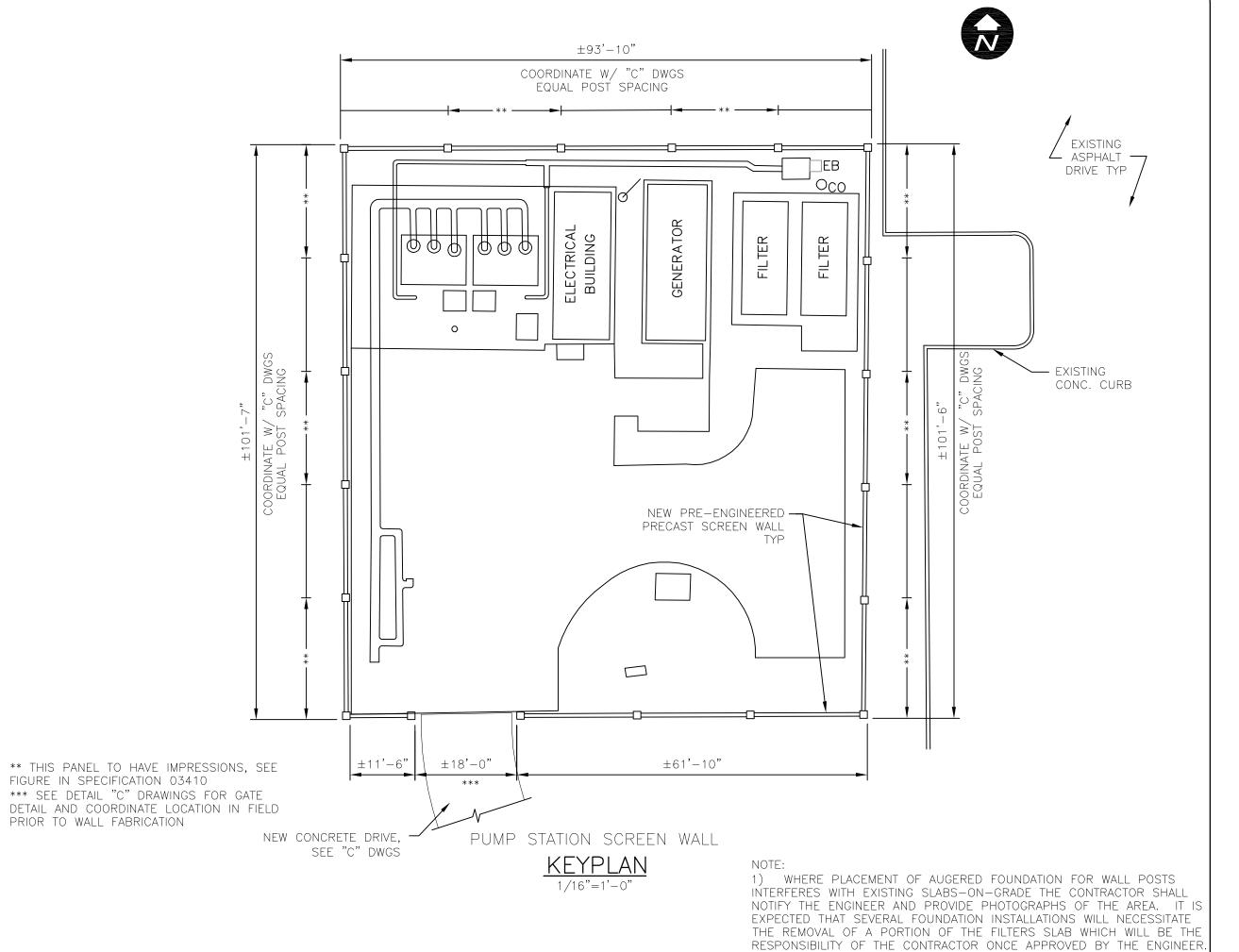
PS #3190 - ORANGE AVENUE MECHANICAL & CIVIL DETAILS

	OCU FILE NO.: 75705	SCALE: NOTED	
	DESIGNED BY: DNN	DRAWING NO.:	
	DRAWN BY: AJC	D600	
MELANIE D. PECKHAM, P.E.	CHECKED BY: MDP		
PROFESSIONAL ENGINEER FLORIDA LICENSE # 66487	CADD FILE: PS-WALL.DWG	SHEET: 08 OF 09	



DESIGN SOIL PARAMETERS:		
SOIL TYPE (CLAY OR SAND)	SAND	
SOIL FRICTION ANGLE	32°	
SOIL COHESION	O PSF	
MOIST SOIL UNIT WEIGHT (UNSUBMERGED)	110 PCF	
EFFECTIVE UNIT WEIGHT (SUBMERGED)	48 PCF	
DEPTH OF WATER TABLE	1 FOOT	
PARAMETERS PROVIDED BY TERRACON, TABLE	1, SOIL	

PROPERTIES FOR PUMP STATION 3190 SCREEN WALL. TERRACON PROJECT NO.H1145049.



## GENERAL STRUCTURAL NOTES

#### DESIGN CRITERIA

#### CODES:

2010 FLORIDA BUILDING CODE

REINFORCED CONCRETE: ACI 318 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE"

#### GENERAL CONDITIONS

ALL STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE MECHANICAL, CIVIL, ELECTRICAL, AND SHOP DRAWINGS AND SPECIFICATIONS.

THE CONTRACTOR SHALL REVIEW AND VERIFY DIMENSIONS SHOWN IN ALL PLANS AND REVIEW ALL FIELD CONDITIONS THAT MAY AFFECT THE INSTALLATION OF THE FACILITY. SHOULD DISCREPANCIES APPEAR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING TO OBTAIN ENGINEER'S CLARIFICATION BEFORE COMMENCING WITH THE WORK.

THE CONTRACTOR SHALL TAKE ANY AND ALL NECESSARY MEASURES TO PROTECT EXISTING STRUCTURES FROM DAMAGE WHEN WORKING IN AND AROUND EXISTING STRUCTURES PERFORMING WORK SUCH AS DEMOLITION, FOUNDATION EXCAVATION, AND OTHERS.

## WIND LOADS:

FREESTANDING WALLS.

- ULTIMATE DESIGN WIND SPEED, V <sub>ULT</sub> (3-SECOND GUST)	145 MPH 112 MPH
- NOMINAL DESIGN WIND SPEED, V <sub>ASD</sub>	
- RISK CATEGORY	C
- EXPOSURE CATEGORY	_
- ENCLOSURE CLASSIFICATION	N/A
- INTERNAL PRESSURE COEFFICIENT, GCpi	N/A
<ul> <li>WIND PRESSURES CALCULATED IN ACCORDANCE TO</li> </ul>	
ASCE/SEI 7-10, 29.4.1 DESIGN WIND LOADS-SOLID	

DESIGN WIND PRESSUR	RES
POST AND WALL PANELS (LRFD)	68 PSF
POST AND WALL PANELS (ASD)	39 PSF

#### REINFORCING STEEL

REINFORCEMENT SHALL CONFORM TO ASTM A615, GRADE 60 REQUIREMENTS. WELDED WIRE FABRIC, ASTM A185. ALL ACCESSORIES SHALL BE IN CONFORMANCE WITH ACI 315 REQUIREMENTS. REINFORCING STEEL SHALL HAVE THE FOLLOWING CLEAR COVER UNLESS OTHERWISE NOTED:

CONCRETE CAST AGAINST EARTH

- FORMED SURFACES IN CONTACT WITH SOIL, SEWAGE, WATER OR EXPOSED TO WEATHER

LAP SPLICES SHALL BE AS SHOWN ON THE DRAWINGS. FOR LAP SPLICES NOT SHOWN ON THE DRAWINGS, THE CONTRACTOR SHALL OBTAIN ENGINEERS APPROVAL.

#### CONCRETE

REMOVED.

ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL BE IN ACCORDANCE WITH ACI 318 REQUIREMENTS (LATEST EDITION)

ALL CONCRETE SHALL BE AIR-ENTRAINED WITH A MINIMUM 28-DAY COMPRESSIVE STRENGTH AS NOTED BELOW.

- PRECAST PANELS AND POST: f'c = 5,000 PSI f'c = 2,500 PSI– FOUNDATIONS:

WATER REDUCING AGENT SHALL BE IN ACCORDANCE WITH ASTM C494

ALL CONCRETE SURFACES EXPOSED TO AIR, UNLESS OTHERWISE NOTED IN SPECIFICATIONS, SHALL BE TREATED WITH AN APPROPRIATE CURING

COMPOUND AS SOON AS CEMENT FINISHING IS COMPLETED OR FORMS ARE

REV DATE DESCRIPTION LINE IS 2 INCHES AT FULL SIZE (IF NOT SCALE ACCORDINGLY)

JUNE 2014 ISSUED FOR BID

GOVERNMENT

ORANGE COUNTY ENGINEERING DIVISION 9150 CURRY FORD ROAD ORLANDO, FL. 32825



REISS ENGINEERING, INC. 1016 SPRING VILLAS PT WINTER SPRINGS, FL 32708 (407) 679-5358

## PS #3190 - ORANGE AVENUE STRUCTURAL DETAILS

	OCU FILE NO.: 75705	SCALE: NOTED	
	DESIGNED BY: JS	DRAWING	G NO.
	DRAWN BY: JS	D60	<b>01</b>
JOHN SOBCZAK, P.E.	CHECKED BY: BE		U I
PROFESSIONAL ENGINEER FLORIDA LICENSE # 71407	CADD FILE: PS-WALL.DWG	SHEET: 09	OF 09