PRELIMINARY/CONSTRUCTION PLANS

FOR

RaceTrac

NORTHWOOD PROJECT #1106

PARCEL ID#: 36-26-19-0000-00200-0030

SW CORNER OF SR 56 AND NORTHWOOD PALMS BLVD.

PASCO COUNTY, FLORIDA. USA

STORE NUMBER: TBD

MASTER PERMIT TRACKING SCHEDULE

PERMIT #	PERMITTING ENTITY	CONTACT INFORMATION
	PASCO COUNTY - SITE	CONTACT NAME : AMANDA BOONE PHONE: (727) 847-8142
	PASCO COUNTY - UTILITIES	CONTACT NAME : ATEF HANNA PHONE: (727) 847-8145
	SWFWMD - STORMWATER	CONTACT NAME : DAVID KRAMER PHONE: (813) 985-7481
2013-A-798-30	FDOT - DRIVEWAY	CONTACT NAME : JOHN KILKENNY PHONE: (352) 797-5700
	FDOT - DRAINAGE	CONTACT NAME : ANTONIUS LEBRUN PHONE: (813) 975-6599
	FDOT - UTILITIY	CONTACT NAME : TIM GLOVER PHONE: (352) 797-5700
	FDEP - NPDES	CONTACT NAME : TBD PHONE: (727) 847-8145
	FDEP - WASTEWATER	CONTACT NAME : ATEF HANNA PHONE: (727) 847-8145
	FDEP - WATER	CONTACT NAME : ATEF HANNA PHONE: (727) 847-8142

811 Know what's below. Call before you dig.

UTILITY RESPONSIBILITY MATRIX FOR THIS PROJECT

CALL BEFORE YOU DIG # : (800) 432-4770 SURVEY UTILITY CALL TICKET # :

	UTILITY/GOVERNING AGENCIES CONTACTS	CONTRACTOR RESPONSIBILITY	OTHERS RESPONSIBILITY
GAS	TECO-PEOPLES GAS 702 NORTH FRANKLIN STREET TAMPA, FLORIDA 33601 CONTACT: RANDY SORTORE PHONE: (813) 275-3700 RSSORTORE@TECOENERGY.COM	• COORDINATE CONSTRUCTION ACTIVITIES WITH GAS COMPANY TO ENSURE INSTALLATION OF GAS LINES ARE COMPLETED PRIOR TO CONCRETE OF CURB PLACEMENT • INSTALL BOLLARD PROTECTION AS SHOWN ON THE PLANS AND PER GAS COMPANY REQUIREMENTS	• SERVICE FROM THE POINT OF CONNECTION AT THE EXISTING LINE UP TO AND INCLUDING SETTING OF THE METER • ANY RELOCATION OF EXISTING WILL BE DONE BY CITY OF ANYTOWN PUBLIC WORKS
TELEPHONE	VERIZON CONTACT: APRIL KAHLER PHONE: (813) 627-7985 (OFFICE) PHONE: (813) 892-9693 APRIL.KAHLER@VERIZON.COM	• COORDINATE CONSTRUCTION ACTIVITIES WITH TELEPHONE COMPANY TO ENSURE INSTALLATION OF UNDERGROUND LINES COMPLETED PRIOR TO CONCRETE OF CURB PLACEMENT • PROVIDE AND INSTALL 2-4" SCHEDULE 40 PVC CONDUITS WITH PULL ROPES, INCLUDING ALL TRENCHING AND BACKFILLING FROM RISER POLE UP TO THE BUILDING. • PROVIDE AND INSTALL PULL BOXES AS PER TELEPHONE COMPANY REQUIREMENTS.	• TELEPHONE COMPANY WILL PROVIDE AND INSTALL ALL TELEPHONE CABLES FROM THE POINT OF CONNECTION UP TO THE BUILDING • ANY RELOCATION OF EXISTING WILL BE DONE BY TELEPHONE COMPANY
ELECTRIC	TECO ENERGY 702 NORTH FRANKLIN STREET TAMPA, FLORIDA 33601 CONTACT: FRANK DOHERTY PHONE: (813) 228-1111 FDOHERTY@TECOENERGY.COM	• COORDINATE CONSTRUCTION ACTIVITIES WITH ELECTRIC COMPANY TO ENSURE INSTALLATION OF UNDERGROUND LINES COMPLETED PRIOR TO CONCRETE OF CURB PLACEMENT • PROVIDE AND INSTALL 2-4" SCHEDULE 40 PVC CONDUITS WITH PULL ROPES, INCLUDING ALL TRENCHING AND BACKFILLING FROM RISER POLE UP TO THE TRANSFORMER. SCHEDULE 80 PVC CONDUITS SHALL BE USED ON THE RISER POLE AND RIGID METAL, LONG RADIUS, ELBOWS SHALL BE USED WHERE THE UNDERGROUND PORTION MEETS THE RISER POLE AND TRANSFORMER. • CONSTRUCT TRANSFORMER PAD AS PER THE ELECTRIC COMPANY'S SPECIFICATIONS • PROVIDE AND INSTALL ALL SECONDARY SERVICE AND MATERIALS.	• ELECTRIC COMPANY WILL PROVIDE AND INSTALL ALL MATERIALS NEEDED TO ESTABLISH PRIMARY OVERHEAD SERVICE FROM POINT OF CONNECTION AT THE EXISTING LINE UP TO THE TRANSFORMER • ELECTRIC COMPANY WILL PROVIDE AND INSTALL PRIMARY CABLE FOR ALL UNDERGROUND LINES UP TO THE TRANSFORMER • ANY RELOCATION OF EXISTING WILL BE DONE BY TELEPHONE COMPANY
SANITARY SEWER	PASCO COUNTY UTILITIES 7536 STATE STREET, RM 228 NEW PORT RICHEY, FLORIDA 34654 CONTACT: ATEF HANNA PHONE: (727) 847-8145 AHANNA@PASCOCOUNTYFL.NET	• PROVIDE AND INSTALL SANITARY SEWER LINE AND ASSOCIATED APPURTENANCES PER THE PLANS AND SPECIFICATIONS. • ALL PUBLIC AND PRIVATE SANITARY SEWER LINES SHALL BE PVC AND RATED SDR 26 • COORDINATE REQUIRED INSPECTION SERVICES WITH ENGINEER OF RECORD AND PASCO COUNTY UTILITIES DEPARTMENT. SEE UTILITY PLAN FOR REQUIREMENTS.	
WATER	PASCO COUNTY UTILITIES 7536 STATE STREET, RM 228 NEW PORT RICHEY, FLORIDA 34654 CONTACT: ATEF HANNA PHONE: (727) 847-8145 AHANNA@PASCOCOUNTYFL.NET	• PROVIDE AND INSTALL ALL WATER MAINS AND ASSOCIATED APPURTENANCES PER THE PLANS AND SPECIFICATIONS. • ALL PUBLIC AND PRIVATE SANITARY SEWER LINES SHALL BE C-900 PVC, DR14 CLASS 200 • ALL PORTIONS OF THE FIRE PROTECTION WATER SYSTEM SHALL BE INSTALLED BY A LICENSED FIRE SPRINKLER CONTRACTOR • ALL PORTIONS OF OTHER NON FIRE PROTECTION RELATED LINES MAY BE INSTALLED BY THE PLUMBING CONTRACTOR • COORDINATE REQUIRED INSPECTION SERVICES WITH ENGINEER OF RECORD AND PASCO COUNTY UTILITIES DEPARTMENT. SEE UTILITY PLAN FOR REQUIREMENTS.	• DOMESTIC TAP FORM THE POINT OF CONNECTION AT THE EXISTING LINE UP TO AND INCLUDING SETTING OF THE METER AT THE PROPERTY LINE WILL BE BY THE WATER COMPANY. • ANY RELOCATION OF EXISTING WILL BE DONE BY CITY OF ANYTOWN PUBLIC WORKS
STORM SEWER	PASCO COUNTY PUBLIC WORKS 4454 GRAND BOULEVARD NEW PORT RICHEY, FLORIDA 34652 CONTACT: MIKE GARRETT PHONE: (727) 834-3611 MGARRETT@PASCOCOUNTYFL.NET	• PROVIDE AND INSTALL STORM SEWER LINES AND ASSOCIATED APPURTENANCES PER THE PLANS AND SPECIFICATIONS. • REFER TO GRADING PLAN FOR INFORMATION ON ALLOWABLE STORM SEWER MATERIALS.	

THIS MATRIX HAS BEEN PROVIDED FOR INFORMATIONAL PURPOSES. THE CONTRACTOR SHALL PROVIDE ANY AND ALL APPURTANCES, TRENCHING AND BACKFILL, AND OTHER INCIDENTALS TO MEET OR EXCEED THE SPECIFICATIONS OF THE ITEMS LISTED.

SURAK ENGINEERING

3628 VALENCIA COVE COURT
LAND O'LAKES, FLORIDA 34639
(813) 244 - 5136 bsurak@verizon.net

SURVEYOR

BLOOMSTER PROFESSIONAL
LAND SURVEYORS, INC.
DAVID KILLANE
PHONE: (772) 334-0868 (OFFICE)
PHONE: (772) 260-0150 (MOBILE)
DK_BLOOMSTER@BELLSOUTH.NET

ENGINEER

SURAK ENGINEERING,LLC
BRIAN G. SURAK, P.E.
PRESIDENT
3628 VALENCIA COVE COURT
LAND O'LAKES, FLORIDA 34639
PHONE: (813) 244-5136
BSURAK@VERIZON.NET

LANDSCAPE ARCHITECT

HARDEMAN KEMPTON & ASSOC., INC.
JASON RINARD, RLA
2207 WEST NORTH A STREET
TAMPA, FLORIDA 33606
PHONE: (813) 258-0066 (OFFICE)
FAX: (813) 258-1783
JASON@HKA-DESIGN.COM

OWNER / DEVELOPER

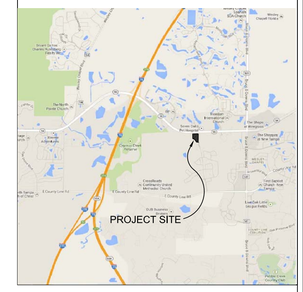
RACETRAC PETROLEUM, INC.
3225 CUMBERLAND BOULEVARD
SUITE 100 ATLANTA, GEORGIA 30339
ENGINEERING PROJECT MANAGER: TRAVIS HENEGAR
(770) 431-7600 EXT. 1259
CONSTRUCTION PROJECT MANAGER: BOB ANDERSON
(770) 431-7600 EXT. 1368
24 HR CONTACT : BOB ANDERSON (404) 227-0835

SHEET INDEX OF DRAWINGS

SHEET	NAME	BY OTHERS	PLAN DATE	REVISION	REVISION DATE
C-0.0	COVER SHEET		12/19/13	ADDENDUM #3	11/25/14
S-1	ALTA/ACSM SURVEY		11/18/13	ADDENDUM #1	03/26/14
GN	GENERAL NOTES		11/18/13	ADDENDUM #2	08/18/14
ES-0	EROSION CONTROL PLAN (CSWMP)		11/18/13	ADDENDUM #2	08/18/14
D-1	DEMOLITION PLAN		11/18/13	ADDENDUM #2	08/18/14
C-1.1	OVERALL SITE PLAN (PSP)		11/18/13	ADDENDUM #3	11/25/14
C-1.2	SITE PLAN (NORTH)		11/18/13	ADDENDUM #3	11/25/14
C-1.3	SITE PLAN (SOUTH)		11/18/13	ADDENDUM #2	08/18/14
C-1.4	PAVEMENT PLAN (NORTH)		03/14/14	ADDENDUM #3	11/25/14
C-1.5	PAVEMENT PLAN (SOUTH)		03/14/14	ADDENDUM #2	08/18/14
C-1.6	HORIZONTAL CONTROL PLAN (NORTH)		11/18/13	ADDENDUM #3	11/25/14
C-1.7	HORIZONTAL CONTROL PLAN (SOUTH)		11/18/13	ADDENDUM #2	08/18/14
C-2.1	GRADING PLAN (NORTH)		11/18/13	ADDENDUM #3	11/25/14
C-2.2	GRADING PLAN (SOUTH)		11/18/13	ADDENDUM #2	08/18/14
C-2.3	STORM DRAINAGE PLAN (NORTH)		11/18/13	ADDENDUM #3	11/25/14
C-2.4	STORM DRAINAGE PLAN (SOUTH)		12/19/13	ADDENDUM #2	08/18/14
C-2.5	STORM WATER, WATER AND SEWER PROFILES		11/18/13	ADDENDUM #2	08/18/14
C-2.6	GRADING / DRAINAGE SECTIONS		11/18/13	ADDENDUM #2	08/18/14
C-3.1	UTILITY PLAN		11/18/13	ADDENDUM #3	11/25/14
C-3.2	UTILITY PROFILES		11/18/13	ADDENDUM #2	08/18/14
C-3.3	PUMP STATION DETAILS		11/18/13	ADDENDUM #2	08/18/14
SD1	STANDARD DETAILS RACETRAC		11/18/13	ADDENDUM #2	08/18/14
SD2	STANDARD DETAILS RACETRAC		11/18/13	ADDENDUM #2	08/18/14
SD3	STANDARD DETAILS RACETRAC		11/18/13	ADDENDUM #2	08/18/14
SD4	STANDARD DETAILS RACETRAC		11/18/13	ADDENDUM #2	08/18/14
SD5	STANDARD DETAILS SITE		11/18/13	ADDENDUM #2	08/18/14
SD6	STANDARD DETAILS DRAINAGE		11/18/13	ADDENDUM #2	08/18/14
SD7	STANDARD DETAILS DRAINAGE		11/18/13	ADDENDUM #2	08/18/14
SD8	STANDARD DETAILS WATER AND SEWER		11/18/13	ADDENDUM #2	08/18/14
TS-1	SR 56 WIDENING PLAN - RIGHT TURN LANE		11/18/13	ADDENDUM #2	08/18/14
TS-1A	SR 56 WIDENING PLAN - R/W PLAN		06/27/14	ADDENDUM #1	08/18/14
TS-2	SR 56 WIDENING SECTIONS AND DETAILS		11/18/13	ADDENDUM #2	08/18/14
L1.1 - L1.3	LANDSCAPE PLAN, DETAILS AND SPECIFICATIONS	BY OTHERS	11/18/13	ADDENDUM #3	11/25/14
L2.1 - L2.3	IRRIGATION PLAN, DETAILS AND SPECIFICATIONS	BY OTHERS	11/18/13	ADDENDUM #3	11/25/14

CONTACT RACETRAC PETROLEUM, INC. PROJECT MANAGER PRIOR TO ANY REVISIONS TO THE PLAN SUPPLIED BY RACETRAC PETROLEUM, INC.

VICINITY MAP (NTS)



NO.	REVISIONS	BY	DATE

SURAK ENGINEERING
3628 VALENCIA COVE COURT
LAND O'LAKES, FLORIDA 34639
(813) 244 - 5136
bsurak@verizon.net

FL ENGINEERING BUSINESS CERTIFICATE OF AUTHORIZATION NO. 28789

FL ENGINEERING BUSINESS CERTIFICATE OF AUTHORIZATION NO. 28789

BRIAN G. SURAK P.E. NO. 59064
FLORIDA PROFESSIONAL ENGINEER

THESE PLANS ARE SUBJECT TO FEDERAL COPYRIGHT LAWS: ANY USE OF SAME WITHOUT THE EXPRESSED WRITTEN PERMISSION OF RACETRAC PETROLEUM, INC. IS PROHIBITED.

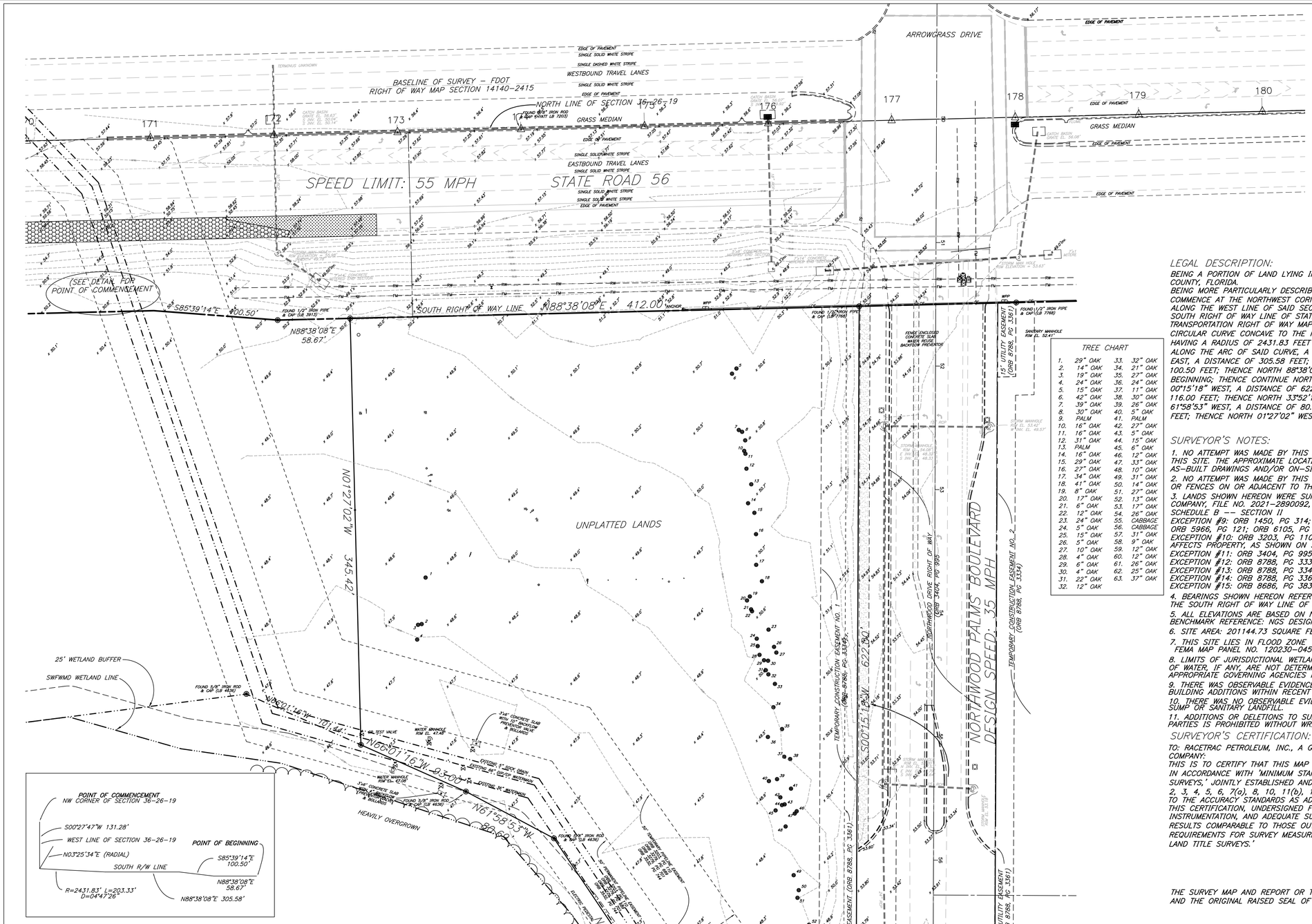
RACETRAC PETROLEUM, INC.
3225 CUMBERLAND BOULEVARD
SUITE 100
ATLANTA, GA 30339 (770) 431-7600

COVER SHEET
RACETRAC MARKET
NORTHWOOD PALMS BLVD.
PASCO COUNTY, FLORIDA

SCALE	DATE	11/18/13
DRAWN	BGS	JOB NO. 13-RTR-001

C-0.0

SHEET NO. REV.



ALTA/ACSM LAND TITLE SURVEY
BEING A PORTION OF NW1/4 OF SECTION 36, TOWNSHIP 26 SOUTH, RANGE 19 EAST WESLEY CHAPEL, PASCO COUNTY, FLORIDA

TREE CHART

1.	29" OAK	33.	32" OAK
2.	14" OAK	34.	21" OAK
3.	19" OAK	35.	27" OAK
4.	24" OAK	36.	24" OAK
5.	15" OAK	37.	11" OAK
6.	42" OAK	38.	30" OAK
7.	39" OAK	39.	26" OAK
8.	30" OAK	40.	5" OAK
9.	PALM	41.	PALM
10.	16" OAK	42.	27" OAK
11.	16" OAK	43.	5" OAK
12.	31" OAK	44.	15" OAK
13.	PALM	45.	6" OAK
14.	16" OAK	46.	12" OAK
15.	29" OAK	47.	33" OAK
16.	27" OAK	48.	10" OAK
17.	34" OAK	49.	31" OAK
18.	41" OAK	50.	14" OAK
19.	8" OAK	51.	27" OAK
20.	17" OAK	52.	13" OAK
21.	6" OAK	53.	17" OAK
22.	12" OAK	54.	26" OAK
23.	24" OAK	55.	CABBAGE
24.	5" OAK	56.	CABBAGE
25.	15" OAK	57.	31" OAK
26.	5" OAK	58.	9" OAK
27.	10" OAK	59.	12" OAK
28.	4" OAK	60.	12" OAK
29.	6" OAK	61.	26" OAK
30.	4" OAK	62.	25" OAK
31.	22" OAK	63.	37" OAK
32.	12" OAK		

LEGAL DESCRIPTION:

BEING A PORTION OF LAND LYING IN SECTION 36, TOWNSHIP 26 SOUTH, RANGE 19 EAST, PASCO COUNTY, FLORIDA.
BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
COMMENCE AT THE NORTHWEST CORNER OF SAID SECTION 36; THENCE SOUTH 00°27'47" WEST, ALONG THE WEST LINE OF SAID SECTION 36, A DISTANCE OF 131.28 FEET TO A POINT ON THE SOUTH RIGHT OF WAY LINE OF STATE ROAD 56 AS SHOWN ON FLORIDA DEPARTMENT OF TRANSPORTATION RIGHT OF WAY MAP SECTION 14140–2415, SAID POINT BEING ON THE ARC OF A CIRCULAR CURVE CONCAVE TO THE NORTH TO WHICH A RADIAL LINE BEARS NORTH 03°25'34" EAST, HAVING A RADIUS OF 2431.83 FEET AND A CENTRAL ANGLE OF 04°47'26"; THENCE RUN EASTERLY ALONG THE ARC OF SAID CURVE, A DISTANCE OF 203.33 FEET; THENCE CONTINUE NORTH 88°38'08" EAST, A DISTANCE OF 305.58 FEET; THENCE CONTINUE SOUTH 85°39'14" EAST, A DISTANCE OF 100.50 FEET; THENCE NORTH 88°38'08" EAST, A DISTANCE OF 58.67 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE NORTH 88°38'08" EAST, A DISTANCE OF 412.00 FEET; THENCE SOUTH 00°15'18" WEST, A DISTANCE OF 622.00 FEET; THENCE NORTH 89°53'23" WEST, A DISTANCE OF 116.00 FEET; THENCE NORTH 33°52'15" WEST, A DISTANCE OF 229.97 FEET; THENCE NORTH 61°58'53" WEST, A DISTANCE OF 80.69 FEET; THENCE NORTH 66°01'16" WEST, A DISTANCE OF 93.00 FEET; THENCE NORTH 01°27'02" WEST, A DISTANCE OF 345.42 FEET TO THE POINT OF BEGINNING.

SURVEYOR'S NOTES:

1. NO ATTEMPT WAS MADE BY THIS FIRM TO LOCATE UNDERGROUND UTILITIES ON/OR ADJACENT TO THIS SITE. THE APPROXIMATE LOCATION OF ALL UTILITIES SHOWN HEREON WERE TAKEN FROM AS–BUILT DRAWINGS AND/OR ON–SITE LOCATION AND SHOULD BE VERIFIED BEFORE CONSTRUCTION
2. NO ATTEMPT WAS MADE BY THIS FIRM TO LOCATE UNDERGROUND FOOTINGS OF BUILDINGS OR FENCES ON OR ADJACENT TO THIS SITE.
3. LANDS SHOWN HEREON WERE SURVEYED IN ACCORDANCE WITH FIRST AMERICAN TITLE INSURANCE COMPANY, FILE NO. 2021–2890092, EFFECTIVE DATE: JANUARY 18, 2013 AT 8 AM
SCHEDULE B –– SECTION II
EXCEPTION #9: ORB 1450, PG 314; ORB 3382, PG 34; ORB 3382, PG 36; ORB 4276, PG 1755; ORB 5966, PG 121; ORB 6105, PG 749; ORB 8193, PG 1770 – AFFECTS PROPERTY, UNPLOTTABLE
EXCEPTION #10: ORB 3203, PG 110, ORB 3279, PG 689; ORB 3279, PG 701; ORB 3532, PG 744 – AFFECTS PROPERTY, AS SHOWN ON SKETCH
EXCEPTION #11: ORB 3404, PG 995 – DOES NOT AFFECT PROPERTY
EXCEPTION #12: ORB 8788, PG 3334 – AFFECTS PROPERTY, AS SHOWN ON SKETCH
EXCEPTION #13: ORB 8788, PG 3347 – AFFECTS PROPERTY, AS SHOWN ON SKETCH
EXCEPTION #14: ORB 8788, PG 3361 – AFFECTS PROPERTY, AS SHOWN ON SKETCH
EXCEPTION #15: ORB 8686, PG 3839 – AFFECTS PROPERTY, UNPLOTTABLE
4. BEARINGS SHOWN HEREON REFER TO AN ASSUMED MERIDIAN OF N.88°38'08"E. ALONG THE SOUTH RIGHT OF WAY LINE OF STATE ROAD 56.
5. ALL ELEVATIONS ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988.
BENCHMARK REFERENCE: NGS DESIGNATION G–680 (ELEVATION 52.47')
6. SITE AREA: 201144.73 SQUARE FEET OR 4.62 ACRES MORE OR LESS.
7. THIS SITE LIES IN FLOOD ZONE 'AE' (BASE EL. 53.0) AS SCALED AND INTERPOLATED FROM FEMA MAP PANEL NO. 120230–0450–E, DATED: SEPTEMBER 30, 1992.
8. LIMITS OF JURISDICTIONAL WETLANDS, DITCHES, DRAINAGE WAYS, WATER FLOWS, AND/OR BODIES OF WATER, IF ANY, ARE NOT DETERMINED BY THIS SURVEY. CLIENT IS ADVISED TO CONTACT APPROPRIATE GOVERNING AGENCIES FOR POSSIBLE LIMITS OF JURISDICTION.
9. THERE WAS OBSERVABLE EVIDENCE OF EARTH MOVING WORK, BUILDING CONSTRUCTION OR BUILDING ADDITIONS WITHIN RECENT MONTHS.
10. THERE WAS NO OBSERVABLE EVIDENCE OF THIS SITE BEING USED AS A SOLID WASTE DUMP, SUMP OR SANITARY LANDFILL.
11. ADDITIONS OR DELETIONS TO SURVEY MAPS OR REPORTS BY OTHER THAN THE SIGNING PARTY OR PARTIES IS PROHIBITED WITHOUT WRITTEN CONSENT OF THE SIGNING PARTY OR PARTIES.

SURVEYOR'S CERTIFICATION:

TO: RACETRAC PETROLEUM, INC., A GEORGIA CORPORATION AND FIRST AMERICAN TITLE INSURANCE COMPANY:
THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH 'MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/ACSM LAND TITLE SURVEYS,' JOINTLY ESTABLISHED AND ADOPTED BY ALTA, ALTA AND NSPS IN 2005, AND INCLUDES 1, 2, 3, 4, 5, 6, 7(a), 8, 10, 11(b), 12, 13, 14, 15, 16 AND 17 OF TABLE 'A' THEREOF. PURSUANT TO THE ACCURACY STANDARDS AS ADOPTED BY ALTA AND NSPS AND IN EFFECT ON THE DATE OF THIS CERTIFICATION, UNDERSIGNED FURTHER CERTIFIES THAT PROPER FIELD PROCEDURES, INSTRUMENTATION, AND ADEQUATE SURVEY PERSONNEL WERE EMPLOYED IN ORDER TO ACHIEVE RESULTS COMPARABLE TO THOSE OUTLINED IN THE 'MINIMUM ANGLE, DISTANCE, AND CLOSURE REQUIREMENTS FOR SURVEY MEASUREMENTS WHICH CONTROL LAND BOUNDARIES FOR ALTA/ACSM LAND TITLE SURVEYS.'

ROBERT BLOOMSTER JR.
PROFESSIONAL LAND SURVEYOR
NO. 4134 STATE OF FLORIDA

THE SURVEY MAP AND REPORT OR THE COPIES THEREOF ARE NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.

SUNSHINE STATE ONE CALL OF FLORIDA TICKET NO. 036300989

SERVICE AREA:	RESPONSE:	CONTACT:	TELEPHONE:	UTILITY TYPE:
BRIGHT HOUSE NETWORKS – EAST PASCO	CLEAR NO FACILITIES	USIC DISPATCH	800–778–9140	FIBER, CABLE
VERZON FLORIDA INC.	CLEAR NO FACILITIES	DISPATCH OFFICE	800–778–9140	CABLE, FIBER, PHONE
PASCO COUNTY UTILITIES	MARKED	PRISCILLA FUCCILLO	727–847–8145	RECLAIMED WATER
TECO PEOPLES GAS – TAMPA	CLEAR NO FACILITIES	PHYLLIS BRIDGES	813–275–3742	GAS
TAMPA BAY WATER	NO CONFLICT	ANYONE	813–386–2910	WATER & SEWER
WITHLACOOCHEE RIVER ELECTRIC COOP.	CLEAR NO FACILITIES	CENTRAL LOCATING SERVICE	800–778–9140	ELECTRIC

LEGEND

	POWER POLE
	MANHOLE
	LIGHT POST
INV.	INVERT
EL.	ELEVATION
C.B.S.	CONCRETE BLOCK STRUCTURE
R	RADIUS
L	LENGTH
Δ	DELTA
CB	CHORD BEARING
CH	CHORD DISTANCE
	WATER VALVE
	FIRE HYDRANT
	SPOT ELEVATIONS
MES	MITERED END SECTION
C	CALCULATED
D	DEED
ID	IDENTIFICATION
LB	LICENSED BUSINESS
RW	UNDERGROUND REUSE WATER LINE
FM	UNDERGROUND FORCEMAIN LINE

BLOOMSTER
PROFESSIONAL LAND SURVEYORS, INC.
L.B. #6018

641 NORTHEAST SPENCER STREET
JENSEN BEACH, FLORIDA 34957
PHONE 772–334–0868

SHEET 1 OF 1	
DRAWN BY:	DPK
SCALE:	1" = 40'
FIELD WORK COMPLETED:	2/8/13
FIELD BOOK:	SKETCH
JOB NO.	12071

REVISIONS

DATE:	DESCRIPTION:	BY:

RACETRAC PETROLEUM, INC.
STATE ROAD 56 and ARROWGRASS DRIVE
WESLEY CHAPEL, PASCO COUNTY, FLORIDA

NO.	REVISIONS	BY	DATE
#1	UPDATED FEMA INFO., EX. PIPE INVERTS, SPEED LIMIT	BGS	03/26/14

SURAK ENGINEERING
3628 VALENCIA COVE COURT
LAND O'LAKES, FLORIDA 34639
(813) 244 - 5136
bsurak@verizon.net

FL ENGINEERING BUSINESS CERTIFICATE OF AUTHORIZATION NO. 28789

FL ENGINEERING BUSINESS CERTIFICATE OF AUTHORIZATION NO. 28789

BRIAN G. SURAK P.E. NO. 59064
FLORIDA PROFESSIONAL ENGINEER

THESE PLANS ARE SUBJECT TO FEDERAL COPYRIGHT LAWS: ANY USE OF SAME WITHOUT WRITTEN PERMISSION OF RACETRAC PETROLEUM, INC. IS PROHIBITED.

RACETRAC PETROLEUM, INC.
3225 CUMBERLAND BOULEVARD
SUITE 100
ATLANTA, GA 30339 (770) 431-7600

ALTA / AACSM SURVEY
RACETRAC MARKET
NORTHWOOD PALMS BLVD.
PASCO COUNTY, FLORIDA

SCALE	1" = 40 FEET	DATE	11/18/13
DRAWN	BGS	JOB NO.	13-RTR-001

S-1

SHEET NO. REV.

GENERAL NOTES:

1. THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH THE PERMIT AND INSPECTION REQUIREMENTS OF THE VARIOUS GOVERNMENTAL AGENCIES PRIOR TO SUBMITTING A BID. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION, AND SCHEDULE INSPECTION ACCORDING TO AGENCY INSTRUCTION.
2. ALL WORK PERFORMED SHALL COMPLY WITH THE REGULATIONS AND ORDINANCES OF THE VARIOUS GOVERNMENTAL AGENCIES HAVING JURISDICTION OVER THE WORK, INCLUDING LANDSCAPING.
3. IN ACCORDANCE WITH THE UNDERGROUND FACILITY DAMAGE PREVENTION AND SAFETY ACT (CHAPTER 556, F.S.), THE CONTRACTOR SHALL CALL THE SUNSHINE STATE ONE CALL OF FLORIDA (SSCOF) AT 1–800–432–4770 FORTY–EIGHT (48) HOURS IN ADVANCE OF ANY EXCAVATION.
4. CONTRACTOR SHALL SUBMIT FOR REVIEW, TO THE OWNER'S ENGINEER, SHOP DRAWINGS ON ALL PRECAST AND MANUFACTURED ITEMS TO USE ON THIS SITE. FAILURE TO OBTAIN APPROVAL BEFORE INSTALLATION MAY RESULT IN REMOVAL AND REPLACEMENT AT CONTRACTOR'S EXPENSE. ENGINEER'S APPROVAL OF A SHOP DRAWING DOES NOT RELIEVE CONTRACTOR'S RESPONSIBILITY FOR PERFORMANCE OF THE ITEM.
5. CONTRACTOR SHALL COORDINATE AND SCHEDULE HIS ACTIVITIES, WHERE NECESSARY WITH OTHER CONTRACTOR'S AND UTILITY COMPANIES.
6. MATERIALS AND CONSTRUCTION METHODS FOR STREETS AND STORM DRAINAGE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LOCAL REGULATORY AGENCY.
7. CONTRACTOR SHALL REVIEW SOIL REPORTS AND BORINGS PRIOR TO BIDDING THE PROJECT AND COMMENCING CONSTRUCTION.
8. AT LEAST 3 WORKING DAYS PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL NOTIFY THE OWNERS CONSTRUCTION MANAGER AND APPROPRIATE AGENCIES AND SUPPLY THEM WITH ALL REQUIRED SHOP DRAWINGS, THE CONTRACTOR'S NAME, STARTING DATE, PROJECTED SCHEDULE, AND OTHER INFORMATION AS REQUIRED. ANY WORK PERFORMED PRIOR TO NOTIFYING THE OWNERS CONSTRUCTION MANAGER OR WITHOUT AGENCY INSPECTOR PRESENT MAY BE SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
9. REFER TO ARCHITECTURAL DRAWINGS FOR BUILDING DIMENSIONS.
10. REFER TO SHEETS L–1.1, L–1.2, L–1.3, L–2.1, L–2.2, L–2.3, L–3.1, AND L–3.2 FOR LANDSCAPE AND IRRIGATION REQUIREMENTS.
11. ALL SUBSURFACE CONSTRUCTION SHALL COMPLY WITH THE "TRENCH SAFETY ACT." THE CONTRACTOR SHALL ENSURE THAT THE METHOD OF TRENCH PROTECTION AND CONSTRUCTION IS IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS.

DEMOLITION NOTES:

1. THE CONTRACTOR SHALL COORDINATE WITH RESPECTIVE UTILITY COMPANIES PRIOR TO THE DISCONNECTION, REMOVAL AND/OR RELOCATION OR DISCONNECTION OF UTILITIES.
2. THE CONTRACTOR IS RESPONSIBLE FOR THE DEMOLITION AND REMOVAL OF ALL STRUCTURES, PADS, WALLS, FLUMES, WELLS, FOUNDATIONS, PARKING, DRIVES, DRAINAGE STRUCTURES, UTILITIES, ETC., SUCH THAT THE IMPROVEMENTS SHOWN ON THE CONSTRUCTION PLANS CAN BE CONSTRUCTED. ALL FACILITIES TO BE REMOVED SHALL BE UNDERCUT TO SUITABLE MATERIAL AND BROUGHT TO GRADE WITH SUITABLE, COMPACTED FILL MATERIAL PER THE SPECIFICATIONS AND THE OWNER'S GEOTECHNICAL ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS INVOLVED AND IS RESPONSIBLE FOR REMOVING AND DUMPING THE DEBRIS IN AN APPROVED, LAWFUL MANNER.
3. THE CONTRACTOR SHALL MAINTAIN ALL UTILITY SERVICES TO EXISTING ADJACENT BUSINESSES AT ALL TIMES. THE CONTRACTOR SHALL COORDINATE WITH THE TENANT AND UTILITY COMPANY FOR THE RELOCATION AND/OR REMOVAL OR DISCONNECTION OF UTILITIES IF NECESSARY. SERVICE SHALL NOT BE INTERRUPTED WITHOUT APPROVAL FROM THE TENANT.
4. CONTRACTOR IS RESPONSIBLE FOR ALL COSTS INVOLVED IN THE REMOVAL OR RELOCATION OF ANY UTILITY NOT PREVIOUSLY COORDINATED BY THE OWNER.
5. CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS REQUIRED TO CARRY OUT THE WORK AS SHOWN ON THE DEMOLITION PLAN.
6. ALL AREAS WHERE PAVEMENT, STRUCTURE SLABS, FOUNDATIONS, UTILITIES, CONDUITS, AND/OR UTILITY STRUCTURES HAVE BEEN REMOVED SHALL BE BACKFILLED WITH SELECT BACKFILL MATERIAL. ALL SELECT BACKFILL MATERIAL SHALL BE PLACED AND COMPACTED PER THE REQUIREMENTS OF SPECIFICATIONS AND THE OWNERS GEOTECHNICAL ENGINEER.
7. ALL EXISTING FENCES, SIGNS, POWER POLES, AND LIGHT POLES LOCATED ON–SITE SHALL BE DEMOLISHED AND REMOVED UNLESS OTHERWISE NOTED.
8. EXISTING CAST IN PLACE SEPTIC TANKS (IF FOUND ON–SITE) SHALL BE PUMPED BY A LICENSED CONTRACTOR. THE SEPTIC TANK SHALL THEN BE REMOVED AND THE AREA BACKFILLED PER THE PROJECT SPECIFICATIONS. ALL WORK SHALL BE IN ACCORDANCE WITH HEALTH DEPARTMENT REQUIREMENTS. CONTRACTOR TO COORDINATE PERMITS AS REQUIRED.
9. CONTRACTOR IS RESPONSIBLE FOR WALKING SITE AND DETERMINING EXTENTS OF DEMOLITION WORK PRIOR TO BID DATE.
10. EXISTING MANHOLES AND VALVE BOXES TO REMAIN IN PLACE SHALL BE ADJUSTED TO FINAL GRADES.
11. PRIOR TO ANY WORK ONSITE, THE CONTRACTOR SHALL CONTACT THE ONE CALL SYSTEM. THE CONTRACTOR IS RESPONSIBLE FOR ALL UTILITY REMOVALS WHETHER LOCATED BY THE ONE CALL SYSTEM OR NOT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO POT HOLE ANY UTILITIES TO DETERMINE EXACT SIZES AND DEPTHS IN ORDER TO AVOID CONFLICTS NOT PREVIOUSLY COORDINATED BY THE OWNER AND NOTED ON THE ENGINEERING PLANS.
12. LIMITS OF PAVEMENT SHOWN TO BE REMOVED ARE APPROXIMATE AND FOR REFERENCE ONLY. CONTRACTOR SHALL FIELD VERIFY THE LIMITS OF PAVEMENT TO DETERMINE THE EXTENT OF THE EXISTING PAVEMENT TO BE REMOVED.
13. DURING LAND ALTERATION AND CONSTRUCTION ACTIVITIES, IT SHALL BE UNLAWFUL TO REMOVE VEGETATION BY GRUBBING OR TO PLACE SOIL DEPOSITS, DEBRIS, SOLVENTS, CONSTRUCTION MATERIAL, MACHINERY OR OTHER EQUIPMENT OF ANY KIND WITHIN THE DRIPLINE OF A TREE TO REMAIN ON THE SITE UNLESS OTHERWISE APPROVED BY THE COUNTY.

EROSION CONTROL NOTES:

1. PRIOR TO CONSTRUCTION, THE EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THE EROSION CONTROL PLAN SHALL BE IN PLACE. CLEARING AND GRUBBING OPERATIONS WILL BE ENGAGED IN ONLY AS NECESSARY TO ALLOW THE PLACEMENT OF EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN ON THE EROSION CONTROL PLAN UNTIL ALL SUCH MEASURES ARE IN PLACE.
2. CONTRACTOR SHALL MAINTAIN EROSION CONTROL FACILITIES DURING THE ENTIRE CONSTRUCTION PERIOD. FACILITIES ARE NOT TO BE REMOVED UNTIL COMPLETION OF THE PROJECT AND THE SITE IS STABILIZED.
3. ADDITIONAL DEVICES MAY BE REQUIRED AS DEEMED NECESSARY BY GOVERNING AUTHORITIES.
4. SILT FENCES SHALL BE CLEANED OR REPLACED WHEN TRAPPED SEDIMENT REACHES 50 PERCENT OF THE ABOVE GROUND FENCE HEIGHT OR A LOWER HEIGHT BASED ON MANUFACTURER'S SPECIFICATIONS.
5. SEDIMENT AND EROSION CONTROL MEASURES WILL BE INSPECTED ON A DAILY BASIS AND REPAIRED, ADJUSTED AND MAINTAINED AS NEEDED OR REQUIRED BY GOVERNING AGENCIES AT NO ADDITIONAL EXPENSE TO THE OWNER TO PROVIDE EROSION AND SEDIMENT CONTROL FOR THE DURATION OF CONSTRUCTION AND UNTIL ALL DISTURBED AREAS ARE STABILIZED.
6. ALL DISTURBED AREAS SHALL BE STABILIZED AS REQUIRED BY FEDERAL, REGIONAL, STATE AND LOCAL AGENCIES.
7. FILL SLOPES SHOULD BE PLANTED AS SOON AS AN AREA OF THE SITE IS BROUGHT TO FINAL GRADE. SURFACE RUNOFF SHALL BE INTERCEPTED AT THE TOP OF TEMPORARY AND PERMANENT SLOPES DURING CONSTRUCTION SO THAT WATER IS NOT ALLOWED TO FLOW OVER THE SLOPE FACE.
8. THE CONTRACTOR SHALL CONSTRUCT THE SILT FENCING AS SHOWN ON THE EROSION CONTROL PLAN PRIOR TO LAND CLEARING ACTIVITIES.
9. CONTRACTOR SHALL INSTALL TEMPORARY CONSTRUCTION ENTRANCES PRIOR TO ANY EARTHWORK OPERATIONS.
10. CONTRACTOR SHALL MAINTAIN SILT FENCES FOR THE DURATION OF THE PROJECT UNTIL ACCEPTED BY THE OWNER AT NO EXPENSE TO OWNER.
11. LAND DISTURBING ACTIVITIES SHALL BE KEPT TO A MINIMUM AND WILL NOT EXTEND BEYOND THE LIMITS SHOWN AND PERMITTED.
12. CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE COMPLIANCE WITH ALL NPDES STORMWATER REQUIREMENTS
13. ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED UPON FINAL STABILIZATION OF THE SITE AND FILING OF NOTICE OF TERMINATION. IF NECESSARY, CONTRACTOR SHALL STABILIZE AREAS DISTURBED BY THIS REMOVAL OF THESE EROSION CONTROL MEASURES.
14. SILTATION ACCUMULATION GREATER THAN THE LESSER OF 12 INCHES OR ONE–HALF THE DEPTH OF THE SILTATION BARRIER SHALL BE IMMEDIATELY REMOVED AND PLACED IN UPLAND AREAS.

WATER NOTES:

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE UTILITY COMPANY STANDARDS.
2. REFERENCE ARCHITECT'S PLANS FOR ALL BUILDING FIRE SERVICE AND DOMESTIC SERVICE CONNECTION LOCATIONS.
3. ALL VERTICAL BENDS ON WATER MAIN SHALL BE RESTRAINED AS SPECIFIED BY LOCAL UTILITY PROVIDER.
4. ALL VALVES SHALL BE INSTALLED AS SPECIFIED BY LOCAL UTILITY PROVIDER.
5. THRUST BLOCKS SHALL BE PROVIDED AT ALL HORIZONTAL BENDS, TEES, AND FIRE HYDRANTS AS SPECIFIED BY LOCAL UTILITY PROVIDER.
6. THE MINIMUM COVER ON WATER MAINS SHALL BE 3 FEET.
7. PIPE MATERIAL SHALL BE "ENDOPURE" PE 4710 – 200PSI, UNLESS OTHERWISE NOTED.
8. PLUMBING CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF IRRIGATION TAP, METER, AND BACKFLOW DEVICES PRIOR TO INSTALLATION. GENERAL CONTRACTOR IS RESPONSIBLE TO COORDINATE THE IRRIGATION SYSTEM REQUIREMENTS BETWEEN THE IRRIGATION CONTRACTOR, LANDSCAPE CONTRACTOR AND PLUMBING CONTRACTOR. IRRIGATION TAP, METERS, ETC. SHALL BE INCLUDED IN GENERAL CONTRACTOR'S BASE BID.

POWER NOTES:

1. REFERENCE ARCHITECT'S PLANS FOR ALL BUILDING SERVICE CONNECTIONS.
2. ALL PRIMARY AND SECONDARY SERVICE LOCATIONS ARE APPROXIMATE AND ARE SHOWN FOR COORDINATION PURPOSES ONLY. CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE POWER COMPANY, TO DETERMINE EXACT LOCATION AND RESPONSIBILITIES INCLUDING COST.
3. CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL NECESSARY CONDUIT AND PULL WIRE ON–SITE UP TO PROPERTY. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE SERVICE LINES WITH THE POWER COMPANY IN ACCORDANCE WITH ANY UTILITY EASEMENTS NEGOTIATED BETWEEN RACETRAC AND PROVIDER PRIOR TO CONSTRUCTION BIDDING.
4. CONTRACTOR SHALL PROVIDE TRANSFORMER PAD (UNLESS TRANSFORMER IS POLE MOUNTED) TO ALLOW FOR INSTALLATION OF TRANSFORMER BY POWER COMPANY.

SITE PLAN NOTES:

1. CONTRACTOR SHALL REFER TO CIVIL CONSTRUCTION & ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF PATIO, SLOPE PAVING, SIDEWALKS, EXIT PORCHES, RAMPS, PRECISE BUILDING DIMENSIONS, AND EXACT BUILDING UTILITY ENTRANCE LOCATIONS.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELOCATIONS, INCLUDING BUT NOT LIMITED TO ALL UTILITIES, STORM DRAINAGE, SIGNS, TRAFFIC SIGNALS & POLES, ETC. AS REQUIRED FOR ALL SITE IMPROVEMENTS. ALL WORK SHALL BE IN ACCORDANCE WITH GOVERNING AUTHORITIES SPECIFICATIONS AND SHALL BE APPROVED BY SUCH.
3. EXISTING UTILITY LINES SHOWN ARE APPROXIMATE LOCATIONS ONLY. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITY LINE LOCATIONS PRIOR TO ANY CONSTRUCTION. ANY DEVIATIONS FROM THE DESIGN LOCATIONS SHALL BE REPORTED TO THE OWNER AND ENGINEER PRIOR TO CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO POT HOLE ANY UTILITIES TO DETERMINE EXACT SIZES AND DEPTHS IN ORDER TO AVOID CONFLICTS NOT PREVIOUSLY COORDINATED BY THE OWNER AND NOTED ON THE ENGINEERING PLANS.
4. SEE COVER SHEET FOR LIST OF UTILITY COMPANIES AND CONTACT PERSONS.
5. ALL NECESSARY PERMITS AND APPROVALS FROM AGENCIES GOVERNING THE CONSTRUCTION OF THIS WORK SHALL BE SECURED PRIOR TO BEGINNING CONSTRUCTION.
6. CONTRACTOR IS RESPONSIBLE FOR REPAIRS OR DAMAGE TO ANY EXISTING IMPROVEMENTS DURING CONSTRUCTION, SUCH AS, BUT NOT LIMITED TO, DRAINAGE, UTILITIES, PAVEMENT, STRIPING, CURB, LANDSCAPING, ETC., REPAIRS SHALL BE EQUAL TO OR BETTER THAN EXISTING CONDITIONS.
7. CONTRACTOR SHALL PROVIDE BOLLARDS FOR PROTECTION OF ALL ABOVE GROUND UTILITIES AND APPURTENANCES ADJACENT TO DRIVE AREAS.
8. CONTRACTOR SHALL MATCH EXISTING PAVEMENT IN GRADE AND ALIGNMENT AS SHOWN ON THE GRADING PLAN.
9. CONSTRUCTION SHALL COMPLY WITH ALL GOVERNING CODES AND IMPROVEMENTS SHALL BE CONSTRUCTED TO THE SAME.
10. ALL WORK SHOWN SHALL BE DONE IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.

GRADING NOTES:

1. IF CONTRACTOR DOES NOT ACCEPT EXISTING TOPOGRAPHY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, HE SHALL HAVE MADE, AT HIS EXPENSE, A TOPOGRAPHIC SURVEY BY A REGISTERED LAND SURVEYOR AND SUBMIT IT TO THE OWNER FOR REVIEW AND APPROVAL IN WRITING.
2. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES, INCLUDING SIZE, TYPE, AND DEPTH. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS UNLESS OTHERWISE DIRECTED BY OWNER.
3. CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING STORM SEWER STRUCTURES, PIPES, AND ALL UTILITIES PRIOR TO CONSTRUCTION.
4. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL AREAS INDICATED TO REMAIN UNDISTURBED OR TO REMAIN AS BUFFERS. ALL PROPERTY CORNERS AND ALL PINS ELIMINATED OR DAMAGED DURING CONSTRUCTION SHALL BE REPLACED BY A LICENSED PROFESSIONAL AT THE CONTRACTORS EXPENSE.
5. CONTRACTOR IS RESPONSIBLE FOR REPAIRS OF DAMAGE TO ANY EXISTING IMPROVEMENTS DURING CONSTRUCTION, SUCH AS, BUT NOT LIMITED TO, DRAINAGE, UTILITIES, PAVEMENT, STRIPING, CURBS, ETC. REPAIRS SHALL BE EQUAL TO OR BETTER THAN EXISTING CONDITIONS.
6. ALL UN–PAVED AREAS DISTURBED BY GRADING OPERATION SHALL RECEIVE 4 INCHES OF TOPSOIL, SEED, MULCH, WATER, ETC. CONTRACTOR SHALL GRASS DISTURBED AREAS IN ACCORDANCE WITH THE LANDSCAPE PLAN SPECIFICATION UNTIL A HEALTHY STAND OF WEED FREE GRASS IS OBTAINED AND IS READY FOR REGULAR MAINTENANCE.
7. PROPOSED SPOT ELEVATIONS REPRESENT FINISHED PAVEMENT OR GROUND SURFACE GRADE UNLESS OTHERWISE NOTED ON DRAWINGS.
8. CONTRACTOR SHALL TRIM, TACK, AND MATCH EXISTING PAVEMENT AT LOCATIONS WHERE NEW PAVEMENT MEETS EXISTING PAVEMENT.
9. ALL CONSTRUCTION STAKING SHALL BE HANDLED BY A LICENSED LAND SURVEYOR APPROVED BY THE OWNER.
10. REFERENCE STRUCTURAL SPECIFICATIONS AND GEOTECHNICAL REPORT FOR BUILDING PAD PREPARATION AND COMPACTION.
11. ALL GRADING IN LANDSCAPE AREAS SHALL ALLOW FOR POSITIVE DRAINAGE AWAY FROM THE BUILDING. THE RESULTING FINISHED GRADE WITH INSTALLED LANDSCAPING AND MULCH SHALL NOT PREVENT OR OBSTRUCT POSITIVE DRAINAGE.
12. SOD/SEED & MULCH SHALL BE PLACED IN ACCORDANCE WITH APPLICABLE CITY/COUNTY STANDARDS AS WELL AS IN ACCORDANCE WITH STANDARD AND SPECIFIC CONDITIONS IN THE SWFWMD PERMIT, IF APPLICABLE. AT MINIMUM THIS SHALL INCLUDE SODDING OF ALL POND EMBANKMENTS OF SLOPE 4:1 OR GREATER TO THE NW LINE, AS WELL AS SEEDING AND MULCHING OF THE BALANCE OF THE POND TRACTS (INCLUDING POND BERMS, EXCLUDING THE AREA BELOW THE NW LINE), SODDING AT A MINIMUM OF 16" FROM THE BACK OF CURB AND SEEDING AND MULCHING OF ANY PROJECT AREA WITH A SLOPE OF 4:1 OR STEEPER.

STORM DRAINAGE NOTES:

1. ALL PIPES ENTERING STORM SEWER STRUCTURES SHALL BE SEALED TO ASSURE CONNECTION AT STRUCTURE IS WATER TIGHT.
2. THE CONTRACTOR SHALL SUBMIT BUOYANCY CALCULATIONS ON ALL RUNS OF PIPE THAT DO NOT UTILIZE CONCRETE PIPE. BUOYANCY CALCULATIONS SHALL BE PREPARED, SIGNED, AND SEALED BY A REGISTERED ENGINEER, SHALL REPRESENT ACTUAL FIELD CONDITIONS, AND SHALL DEMONSTRATE THAT THE PIPE UTILIZED WILL NOT BECOME BUOYANT UNDER ANY CONDITIONS. THE CONTRACTOR MAY ELECT TO PROVIDE A RESTRAINING SYSTEM, DESIGNED BY A REGISTERED ENGINEER, ADEQUATE TO RESIST BUOYANT FORCES WHERE NECESSARY.
3. ALL STORM PIPE LENGTHS INDICATED ON THESE PLANS ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE OR END OF THE END SECTION.
4. BUILDING DOWNSPOUTS SHALL BE DIRECTED TO THE ONSITE STORM DRAINAGE SYSTEM

UTILITY NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR VERIFYING SIZE, TYPE, DEPTH AND HORIZONTAL LOCATION OF ALL UTILITIES AND NOTIFYING THE APPROPRIATE UTILITY COMPANY PRIOR TO BEGINNING CONSTRUCTION.
2. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF THE UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
3. CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING STORM SEWER STRUCTURES, PIPES, AND ALL UTILITIES PRIOR TO CONSTRUCTION.
4. CONTRACTOR IS RESPONSIBLE FOR REPAIRS OF DAMAGE TO ANY EXISTING IMPROVEMENTS DURING CONSTRUCTION, SUCH AS, BUT NOT LIMITED TO, UTILITIES, PAVEMENT, STRIPING, CURBS, LANDSCAPING, ETC. REPAIRS SHALL BE EQUAL TO OR BETTER THAN EXISTING CONDITIONS.
5. CONTRACTOR SHALL REFER TO ARCHITECTS PLANS AND SPECIFICATIONS FOR ACTUAL LOCATION OF ALL UTILITY CONNECTIONS TO THE BUILDING. CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO AVOID CONFLICTS AND ASSURE PROPER DEPTHS ARE ACHIEVED AS WELL AS COORDINATING WITH MUNICIPAL UTILITY REQUIREMENTS AS TO LOCATIONS AND SCHEDULING FOR TIE–INS/CONNECTIONS PRIOR TO CONNECTING EXISTING FACILITIES.
6. CONTRACTOR SHALL COORDINATE WITH ARCHITECTURAL PLANS, POWER PROVIDER, AND TELEPHONE PROVIDER FOR ROUTING OF POWER AND TELEPHONE SERVICE TO BUILDING IN ORDER TO ACHIEVE RACETRAC'S MOST FAVORED DESIGN.
7. SEE DETAIL SHEETS FOR BACKFILLING AND COMPACTION REQUIREMENTS ON UTILITY TRENCHES.
8. CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH THE LATEST STANDARD OF O.S.H.A. DIRECTIVES OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR SHALL USE SUPPORT SYSTEMS, SLOPING, BENCHING, AND OTHER MEANS OF PROTECTION. THIS TO INCLUDE BUT NOT LIMITED TO, ACCESS AND EGRESS FROM ALL EXCAVATION AND TRENCHING. CONTRACTOR IS RESPONSIBLE TO COMPLY WITH PERFORMANCE CRITERIA FOR O.S.H.A.
9. CONTRACTOR SHALL MEET OR EXCEED HORIZONTAL VERTICAL SEPARATION AT PROPOSED UTILITY CROSSINGS SHOWN ON PLANS AND PROFILES.
10. CONTRACTOR SHALL GROUT AROUND ALL PIPE ENTRANCES TO SANITARY SEWER MANHOLES WITH NON–SHRINKING GROUT TO ASSURE CONNECTION IS WATER TIGHT.
11. CONTRACTOR SHALL ON ALL UTILITIES, COORDINATE INSPECTION WITH THE APPROPRIATE AUTHORITIES PRIOR TO COVERING TRENCHES AT INSTALLATION.
12. THE CONTRACTOR SHALL CONDUCT ALL REQUIRED TESTS TO THE SATISFACTION OF THE RESPECTIVE UTILITY COMPANIES AND OWNERS INSPECTING AUTHORITIES.
13. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL EXPENSES THAT RESULT FROM DELAYED OR FAILED TEST DURING ANY PHASE OF THE CONSTRUCTION PROCESS. THIS INCLUDES FEES INCURRED THROUGH RESCHEDULING OF ANY RACETRAC VENDORS OR EQUIPMENT TO ACCOMMODATE.
14. CONTRACTOR TO COORDINATE WITH SIGNAGE CONTRACTOR, RACETRAC CONSTRUCTION PM, RACETRAC ENGINEERING PM, RACETRAC OPERATIONS MANAGER AND ARCHITECT TO SCHEDULE AN ON–SITE SIGN SPOTTING TO VERIFY EXACT LOCATION OF SIGNAGE, LANDSCAPING AROUND THE SIGN, REQUIRED ELECTRICAL CONDUITS, FOUNDATIONS, ETC.

GEOTECHNICAL NOTES

A. SHOULD ANY NOTICEABLE SOIL SLUMPING OR SINKHOLE FORMATION BECOME EVIDENT, THE APPLICANT/DEVELOPER SHALL IMMEDIATELY NOTIFY THE COUNTY, TAMPA BAY WATER (TBW) AND SWFWMD, AND ADOPT ONE OR MORE OF THE FOLLOWING PROCEDURES AS DETERMINED TO BE APPROPRIATE BY THE COUNTY AND SWFWMD:

1. IF THE SLUMPING OR SINKHOLE FORMATION BECOMES EVIDENT BEFORE OR DURING CONSTRUCTION ACTIVITIES, STOP ALL WORK (EXCEPT MITIGATION ACTIVITIES) IN THE AFFECTED AREA AND REMAIN STOPPED UNTIL THE COUNTY AND SWFWMD APPROVE RESUMING CONSTRUCTION ACTIVITIES.
2. TAKE IMMEDIATE MEASURES TO ENSURE NO SURFACE WATER DRAINS INTO THE AFFECTED AREAS.
3. VISUALLY INSPECT THE AFFECTED AREA.
4. EXCAVATE AND BACKFILL OR GROUT AS REQUIRED TO FILL THE AFFECTED AREA AND PREVENT FURTHER SUBSIDENCE.
5. USE SOIL REINFORCEMENT MATERIALS IN THE BACKFILLING OPERATION, WHEN APPROPRIATE.
6. IF THE AFFECTED AREA IS IN THE VICINITY OF A WATER–RETENTION AREA, MAINTAIN A MINIMUM DISTANCE OF TWO FEET FROM THE BOTTOM OF THE RETENTION POND TO THE SURFACE OF THE LIMEROCK OR KARST CONNECTION.
7. IF THE AFFECTED AREA IS IN THE VICINITY OF A WATER–RETENTION AREA AND THE ABOVE METHODS DO NOT STABILIZE THE COLLAPSE, RELOCATE THE RETENTION AREA.
8. DISCHARGE OF STORMWATER INTO DEPRESSIONS WITH DIRECT OR DEMONSTRATED HYDROLOGIC CONNECTION TO THE FLORIDIAN AQUIFER SHALL BE PROHIBITED.

B. THE SITE SHALL BE GRADED TO WITHIN 12 INCHES OF THE FINAL GRADE. WHERE FILL IS PROPOSED IT SHALL BE PLACED IN COMPLIANCE WITH THE GEOTECHNICAL/GEOLOGICAL ENGINEERING REPORT RECOMMENDATIONS (INCLUDING ANY LIFT DEPTHS RECOMMENDED) AND COMPACTED TO A MINIMUM DENSITY OF 95% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY. DENSITY TESTS TO CONFIRM COMPACTION SHALL BE REQUIRED WITHIN THE BUILDING PAD AREA, BEFORE THE NEXT LIFT IS PLACED.

C. UPON COMPLETION OF LAND DEVELOPMENT CONSTRUCTION, A PROFESSIONAL ENGINEER SHALL PROVIDE A CERTIFICATION TO PASCO COUNTY THAT THE PROJECT, INCLUDING EACH PAD AREA, COMPLIES WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL/GEOLOGICAL ENGINEERING REPORT.

STANDARD SITE PLAN NOTES

1. ALL UTILITY CONSTRUCTION SHALL COMPLY WITH THE PASCO COUNTY STANDARDS FOR DESIGN AND CONSTRUCTION OF WATER AND WASTEWATER FACILITIES SPECIFICATIONS, LATEST EDITION.
2. ALL ON–SITE WATER AND SEWER FACILITIES SHALL BE OWNED AND MAINTAINED BY THE OWNER/DEVELOPER.
3. INSTALLATION OF FUEL STORAGE TANKS REQUIRES REVIEW AND APPROVAL BY THE FIRE MARSHAL AND THE ISSUANCE OF A SEPARATE BUILDING PERMIT. APPROVAL OF THE SITE PLAN DOES NOT CONSTITUTE APPROVAL OF THE LOCATION OF THE FUEL TANKS.
4. ALL PROPOSED SIGNS MUST BE APPLIED FOR, APPROVED AND PERMITTED ON AN INDIVIDUAL BASIS APART FROM ANY ULTIMATELY APPROVED SITE PLAN. APPROVAL OF THIS SITE PLAN DOES NOT CONSTITUTE APPROVAL OF ANY SIGNS.
5. HANDICAP PARKING SPACES WILL BE PROPERLY SIGNED AND STRIPED IN ACCORDANCE WITH FLORIDA STATUTE 316, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES OR OTHER APPLICABLE STANDARDS.
6. THE ARCHITECT/ENGINEER CERTIFIES THAT THE SITE HAS BEEN DESIGNED IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT.
7. ALL ON–SITE PARKING SPACES WILL BE SIGNED AND STRIPED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION. PARKING SPACES, DIRECTIONAL ARROWS AND STOP BARS SHALL BE STRIPED IN WHITE. IT SHALL BE THE OWNER/DEVELOPER'S RESPONSIBILITY TO PROPERLY SIGN AND STRIPE IN ACCORDANCE WITH APPLICABLE STANDARDS.
8. THE OWNER/DEVELOPER ACKNOWLEDGES THAT THIS APPROVAL DOES NOT INCLUDE ANY WORK IN THE COUNTY RIGHT–OF–WAY. ALL RIGHT–OF–WAY WORK WORK SHALL BE A FUNCTION OF AN APPROVED PASCO COUNTY RIGHT–OF–WAY USE PERMIT.
9. ALL CLEAR–SIGHT AREAS SHALL BE KEPT FREE OF ANY SIGNS, PLANTINGS, TREES, ETC. IN EXCESS OF THREE AND ONE HALF (3–1/2) FEET IN HEIGHT.
10. NO IRRIGATION SYSTEM OR LANDSCAPING SHALL BE INSTALLED IN ANY COUNTY OR STATE RIGHT–OF–WAY WITHOUT ISSUANCE OF APPROPRIATE RIGHT–OF–WAY USE PERMIT.
11. THE OWNER/DEVELOPER ACKNOWLEDGES THAT THE SITE AND ITS SUBSEQUENT BUILDING PERMITS SHALL COMPLY WITH ALL REZONING/MPUD/PUD CONDITIONS.
12. ALL STRUCTURES, INCLUDING BUFFER WALLS, RETAINING WALLS, SIGNS, ETC. REQUIRE BUILDING PERMITS.

PASCO STANDARD SITE PLAN NOTES

1. THE SOIL AND SEDIMENT CONTROL DEVICES SHALL BE INSTALLED PRIOR TO CONSTRUCTION, MAINTAINED THROUGHOUT CONSTRUCTION AND UNTIL THE SITE IS PERMANENTLY STABILIZED. (LDC 902.2)
2. DURING CONSTRUCTION IF SOMETHING IS UNCOVERED, PARTICULARLY OF AN ARCHEOLOGOCAL NATURE, THAT ALL WORK SHALL STOP AND THAT THE STATE ARCHEOLOGICAL OFFICE AND THE COUNTY ARE NOTIFIED. (CP CH. 2 FLU 1.2.14).
3. PRIOR TO CONSTRUCTION, A BUILDING PERMIT SHALL BE OBTAINED FOR ALL STRUCTURES THAT HAVE A FOOTER, REGARDLESS OF SIZE, THROUGH PASCO COUNTY CENTRALL PERMITTING. (I.E. INCLUDING BUT NOT INCLUSIVE BUILDINGS, ACCESSORIES AND RETAINING WALLS)(LDC 403)
4. IT IS THE OWNER'S RESPONSIBILITY TO INSPECT THE WATER RETENTION SYSTEM ON A REGULAR BASIS
5. ALL SODDED SLOPES OVER 4:1. SHALL BE INSTALLED WITH SOD PEGS.
6. ALL DEMOLITION DEBRIS SHALL BE REMOVED FROM THE SITE AND LEGALLY DISPOSED OF.
7. ALL FIRST FLOOR ELEVATIONS (FFE) SHALL BE A MINIMUM OF 1' ABOVE THE BASE FLOOD ELEVATION OR AS REQUIRED BY THE LDC 1104 16" ABOVE THE HIGHEST CROWN LINE OF THE STREET LYING BETWEEN THE PROJECTION OF THE SIDE BUILDING LINES (LDC902.2.K)
8. THE 5' WIDE INTERNAL TO EXTERNAL SIDEWALK (BIKE PATH) CONNECTIONS IS TO BE ADA COMPLIANT.
9. ANY OFFSITE DISTURBANCES SHALL BE RESTORED TO THE PRE OR BETTER CONDITION. (LDC 902.2)
10. AS APPLICABLE, THE OWNER/DEVELOPER WILL PROVIDE COPIES OF THE REQUIRED PERMITS FROM THE RESPECTIVE GOVERNING AGENCIES, PRIOR TO ISSUANCE OF THE SDP. (LDC 902.2.C)
11. ALL WORK WITHIN THE ROW WILL REQUIRE A ROW USE PERMIT. (LDC 901).
12. ALL ONSITE UNDERDRAIN SHALL BE MAINTAINED BY OWNER.

WORK IN PASCO R/W NOTES:

1. THE CROSS SLOPE OF THE SHOULDERS SHALL NOT BE STEEPER THAN 0.06' PER FOOT.
2. THE SLOPE WITHIN THE CLEAR ZONE SHALL NOT EXCEED 6:1
3. ALL SLOPES WITHIN PASCO COUNTY R/W SHALL NOT EXCEED 4:1.
4. DITCH BOTTOMS IN COUNTY MAINTAINED R/W SHALL BE A MINIMUM OF 2' WIDE AND FLAT OR GENTLY ROUNDED.

PASCO COUNTY STANDARD FIRE PROTECTION NOTES:

1. ALL PROJECTS MUST COMPLY WITH THE PASCO COUNTY FIRE HYDRANT ORDINANCE NO. 46–51.
2. FIRE HYDRANTS SHALL BE INSTALLED AND IN SERVICE PRIOR TO THE ACCUMULATION OF COMBUSTIBLES ONSITE.
3. PER THE NATIONAL FIRE PROTECTION ASSOCIATION, NFPA–1, 16.4.3.1.3: WHERE UNDERGROUND WATER MAINS AND HYDRANTS ARE TO BE PROVIDED, THEY SHALL BE INSTALLED, COMPLETED AND IN SERVICE PRIOR TO BUILDING CONSTRUCTION.
4. PER NFPA–1, 18.3.4.1: CLEARANCES OF $7\frac{1}{2}$ FEET IN FRONT OF AND TO THE SIDES OF THE FIRE HYDRANT WITH A 4–FOOT CLEARANCE TO THE REAR MUST BE MAINTAINED AT ALL TIMES.
5. GATED ENTRIES WILL REQUIRE A SIREN OPERATING SYSTEM OR A 3M OPTICOM SYSTEM FOR EMERGENCY ACCESS.
6. FIRE PROTECTION SHALL MEET THE REQUIREMENTS OF THE PASCO COUNTY CODE OF ORDINANCES, CHAPTER 46, FIRE PREVENTION AND PROTECTION AND PLANS SHALL COMPLY WITH REFERENCED REQUIREMENTS.

PASCO COUNTY STORMWATER PRE–INSPECTION CERTIFICATE

1. UPON NOTIFICATION BY THE DEVELOPER OF HIS INTENT TO COMMENCE CONSTRUCTION, SURAK ENGINEERING SHALL SUBMIT A NOTICE OF INTENT (NOI) TO THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP) ON BEHALF OF THE DEVELOPER. THE SUBMISSION OF THE NOI IMPLIES THAT; A) THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) SHALL BE COMPLETED; B) THE CONTRACTOR AND DEVELOPER HAVE A COMPLETE KNOWLEDGE OF THE CONTENT OF THE GENERAL CONSTRUCTION PERMIT (GCP) AND THE SWPPP; C) THE CONTRACTOR WILL IMPLEMENT ALL NECESSARY BEST MANAGEMENT PRACTICES (BMP'S) ON SITE BEFORE CONSTRUCTION COMMENCES; D)THE CONTRACTOR SHALL INSPECT THE CONSTRUCTION SITE AS NEEDED OR AS ESTABLISHED ON THE SWPPP AND; E) THAT THE CONTRACTOR SHALL KEEP THE SWPPP AND INSPECTIONS REPORTS ON SITE.
2. THE CONTRACTOR SHALL OBTAIN A STORMWATER PRE–INSPECTION BY CALLING THE PASCO COUNTY STORMWATER MANAGEMENT DIVISION CUSTOMER SERVICE REPRESENTATIVE AT 727–834–3611 AT LEAST 48 HOURS BEFORE CONSTRUCTION COMMENCES. THE CONTRACTOR SHALL BE PRESENT AT THE TIME OF THE INSPECTION TO IMMEDIATELY CORRECT ANY DEFICIENCIES FOUND BY THE STORMWATER INSPECTOR.
3. AN INSPECTOR FROM THE STORMWATER MANAGEMENT DIVISION WILL PRE–INSPECT THE CONSTRUCTION SITE AND WILL CHECK THAT THE SWPPP AND THE BMP'S ARE INSTALLED AS REQUIRED AND THAT THE NOI HAS BEEN SUBMITTED TO FDEP . IF THE CONSTRUCTION SITE PASSES THE INSPECTION, THE CONTRACTOR WILL BE AUTHORIZED TO COMMENCE CONSTRUCTION. IF ADJUSTMENTS ARE TO BE MADE, A NEW PRE–INSPECTION WILL BE REQUIRED TO BE SUCCESSFULLY COMPLETED PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES.

NO.	REVISIONS	BY	DATE

SURAK ENGINEERING
3628 VALENCIA COVE COURT
LAND O'LAKES, FLORIDA 34639
(813) 244 - 5136
bsurak@verizon.net
FL ENGINEERING BUSINESS CERTIFICATE OF AUTHORIZATION NO. 28789

FL ENGINEERING BUSINESS CERTIFICATE OF AUTHORIZATION NO. 28789

BRIAN G. SURAK P.E. NO. 59064
FLORIDA PROFESSIONAL ENGINEER

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RaceTrac
RACETRAC PETROLEUM, INC.
3225 CUMBERLAND BOULEVARD
SUITE 100
ATLANTA, GA 30339 (770) 431-7600

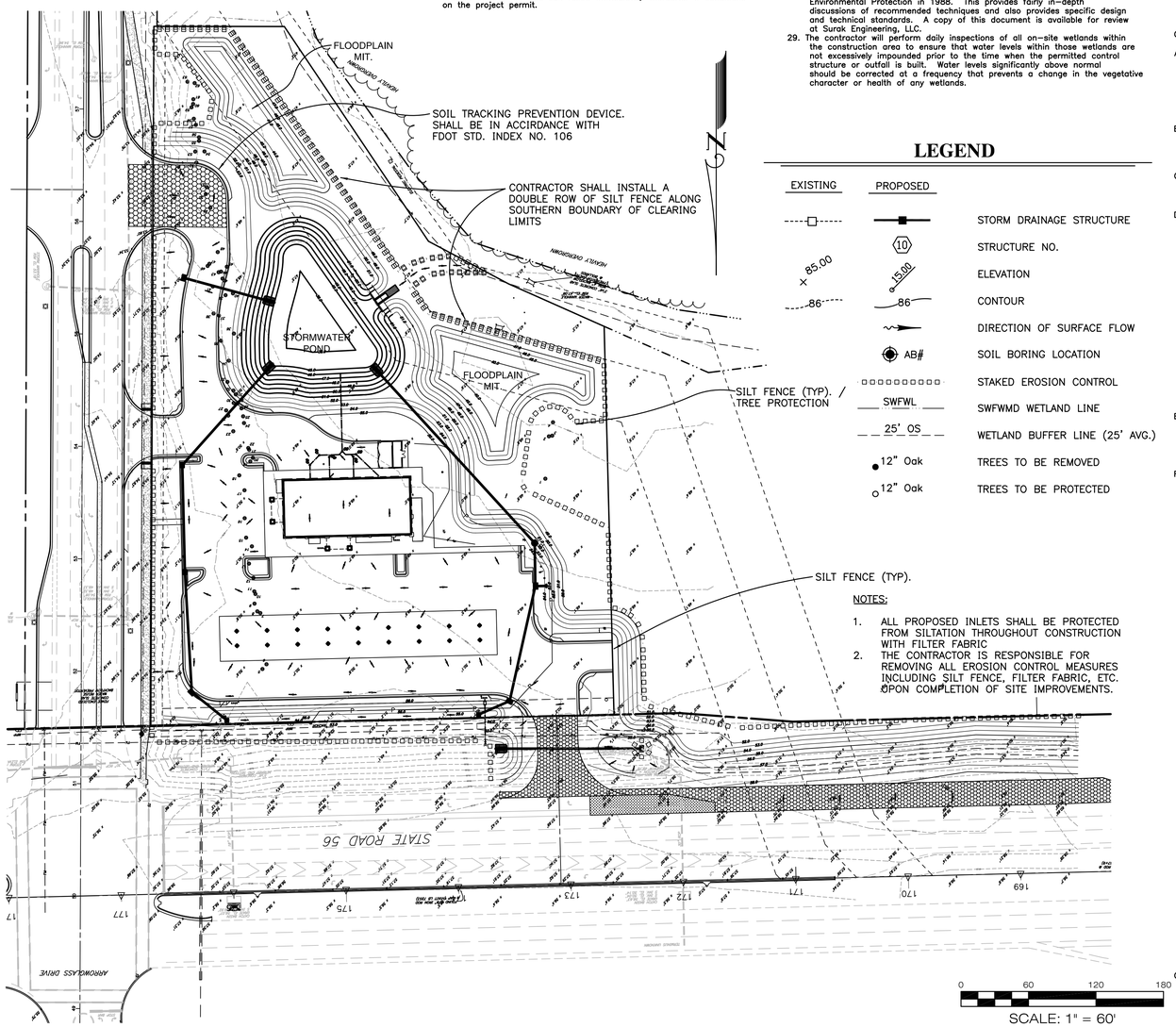
GENERAL NOTES
RACETRAC MARKET
NORTHWOOD PALMS BLVD.
PASCO COUNTY, FLORIDA

SCALE		DATE	10/28/13
DRAWN	BGS	JOB NO.	13-RTR-001

SHEET NO.	REV.
GN	

GENERAL EROSION AND TURBIDITY CONTROL NOTES

1. The Site Subcontractor shall be responsible for installation and maintenance of all erosion and turbidity controls and the quality and quantity of offsite or wetland discharges.
2. Prior to construction, the Site Subcontractor is responsible for having his dewatering plan and turbidity control plan approved by the applicable reviewing agencies. Refer to the project's permit approvals and permit conditions for agencies requiring such review and approval. Questions concerning appropriate techniques should be addressed to those agencies and/or discussed with the project engineer and owner.
3. The appropriate turbidity and erosion control methodologies selected by the Site Subcontractor for this project should be made following assessment of the plans and project site specific factors and after consultations as needed with the project engineer and appropriate agencies. The Site Subcontractor will be responsible for obtaining any and all necessary permits for such activity; several factors to consider are listed below:
   - A. Clay content in excavated materials and/or permeabilities rates
   - B. Depth of cut in ponds, trenches, or utility lines
   - C. Ambient ground water levels
   - D. Actual rainfall amounts and time of year relative to normal rainy season
   - E. Proximity to wetlands, water bodies or offsite properties
   - F. 'Class' designation of receiving water bodies (i.e., Outstanding Florida Waters, shellfish harvesting areas, etc.)
   - G. Density, type, and proximity of upland vegetation to be retained during construction (for use as possible filtration areas)
   - H. Fill height relative to natural grade and length and steepness of the proposed slopes
   - I. Existing topography and directions of surface flow
   - J. Type of equipment used
   - K. Project type
   - L. Duration of construction activities
   - M. Separation distance of onsite ponds
   - N. Ambient quality of surface and groundwater
   - O. Temporary stockpile locations and heights
4. At the onset of construction, the Site Subcontractor, as the party responsible for implementation of the erosion and sediment control plan, shall assess the above described conditions and factors with respect to relative cost effectiveness and select the appropriate methods of protection. A fairly extensive list of techniques are presented below but it must be stressed that any or all of the following may be necessary to maintain water quality and quantity standards. The construction sequencing should be thought out in advance of initiation to provide adequate protection of water quality.
5. Discharges which exceed 29 N.T.U.'s over the background levels are in violation of state water quality standards. Discharges of water quantities which affect offsite properties or may damage wetlands are also prohibited by regulating agencies.
6. The erosion and turbidity control measures shown hereon are the minimum required for agency approval. Additional control and measures may be required due to the Site Subcontractor's construction sequence & unforeseen weather conditions. Any additional measures deemed necessary by the Site Subcontractor shall be included in the lump sum bid with no extras for materials and labor allowed.
7. Hay bales or silt screens shall be installed prior to land clearing to protect water quality and to identify areas to be protected from clearing activities and maintained for the duration of the project until all soil is stabilized.
8. Floating turbidity barriers shall be in place in flowing systems or in open water lake edges prior to initiation of earthwork and maintained for the duration of the project until all soil is stabilized.
9. No clay material shall be left exposed in any stormwater storage facility. If clay or sandy-clays are encountered during stormwater storage excavation, the Site Subcontractor shall notify the Engineer immediately before proceeding with further excavation. If the Engineer of Record has determined that such soils are non-confining and must be excavated to meet permit and design conditions, excavation may proceed after obtaining written authorization from the appropriate governing agency. If said soils are left exposed at the permitted and designed depth, the Site Subcontractor shall over-excavate the pond's bottom and side slopes by a minimum of twelve (12") inches and backfill with clean sands to help prevent suspension of fine particles in the water column.
10. The installation of temporary erosion control barriers shall be coordinated with the construction of the permanent erosion control features to the extent necessary to assure effective and continuous control of erosion and water pollution throughout the life of the construction phase.
11. The type of erosion control barriers used shall be governed by the nature of the construction operation and soil type that will be exposed. Silty and clayey material may require solid sediment barriers to prevent turbid water discharge, while sandy material may need only silt screens or hay bales to prevent erosion. Floating turbidity curtains should generally be used in open water situations. Diversion ditches or swales may be required to prevent turbid stormwater runoff from being discharged to wetlands or other water bodies. It may be necessary to employ a combination of barriers, ditches, and other erosion/turbidity control measures if conditions warrant.
12. Where pumps are to be used to remove turbid waters from construction areas, the water shall be treated prior to discharge to the wetlands. Treatment methods include, for example, turbid water being pumped into grassed swales or appropriate upland vegetated areas (other than upland preservation areas and wetland buffers), sediment basins, or confined by an appropriate enclosure such as turbidity barriers or low berms, and kept confined until turbidity levels meet State Water Quality Standards.
13. The Permittee shall schedule his operations such that the area of unprotected erodible earth exposed at any one time is not larger than the minimum area necessary for efficient construction operation, and the duration of exposed, uncompleted construction to the elements shall be as short as practicable. Clearing and grubbing shall be so scheduled and performed such that grading operations can follow immediately thereafter. Grading operations shall be so scheduled and performed that permanent erosion control features can follow immediately thereafter if conditions on the project permit.
14. Water derived from various dewatering methods should be passed through sufficiently wide areas of existing upland vegetation to filter out excess turbidity. If this is not sufficient, the water shall be retained in previously constructed permanent stormwater ponds or else retained in temporary sedimentation basins until the clarity is suitable to allow for its discharge. Plugging the outfalls from completed stormwater ponds may be needed to avoid discharge. However, such situations should be monitored closely to preclude berm failure if water levels rise too high.
15. Water can be transported around the site by the use of internal swales or by pumps and pipes.
16. Sheet flow of newly filled or scraped areas may be controlled or contained by the use of brush barriers, diversion swales, interceptor ditches or low berms. Flow should be directed toward areas where sediments can sufficiently settle out.
17. Exposed soils shall be stabilized as soon as possible, especially slopes leading to wetlands. Stabilization methods include solid sod, seeding and mulching or hydromulching to provide a temporary or permanent grass cover mulch blankets, filter fabrics, etc., can be employed to provide vegetative cover.
18. Energy dissipaters (such as rip rap, a gravel bed, hay bales, etc.) shall be installed at the discharge point of pipes or swales if scouring is observed.
19. Attempt to install roadway curb and gutters as soon as possible to reduce the surface area for erosion to occur.
20. Implement storm drain inlet protection (hay bales or gravel) to limit sedimentation within the stormwater system. Perform inspections and periodic cleaning of sediments which wash out into the streets until all soil is stabilized.
21. Water discharge velocities from impounded areas and temporary sedimentation basins shall be restricted to avoid scouring in receiving areas.
22. If water clarity does not reduce to state standards rapidly enough in holding ponds, it may be possible to use chemical agents such as alum to flocculate or coagulate the sediment particles.
23. Hay bales, silt screens, or gravel beds can be added around the pipe or swale discharge points to help clarify discharges. Spreader swales may help dissipate cloudy water prior to contact with wetlands.
24. All fuel storage areas or other hazardous storage areas shall conform to accepted state or federal criteria for such containment areas.
25. Vehicle or equipment washdown areas will be sufficiently removed from wetlands or offsite areas.
26. Fugitive dust controls (primarily by using water spray trucks) shall be employed as needed to control windborn emissions.
27. If the above controls remain ineffective in precluding release of turbid water, especially during pond or utility line dewatering, then the contractor may be compelled to use a vertical dewatering system such as well points or sock drains to withdraw groundwater which may already be clear enough to allow for direct discharge to wetlands.
28. Ongoing inspections and periodic maintenance by the Site Subcontractor shall occur throughout construction as necessary to insure the above methods are working suitably. This may be needed daily, if conditions so warrant. Site Subcontractors are encouraged to obtain and thoroughly review The Florida Development Manual: A Guide to Sound Land and Water Management, which was developed by the State of Florida Department of Environmental Protection in 1988. This provides fairly in-depth discussions of recommended techniques and also provides specific design and technical standards. A copy of this document is available for review at Surak Engineering, LLC.
29. The contractor will perform daily inspections of all on-site wetlands within the construction area to ensure that water levels within those wetlands are not excessively impounded prior to the time when the permitted control structure or outfall is built. Water levels significantly above normal should be corrected at a frequency that prevents a change in the vegetative character or health of any wetlands.



NOTES:

1. ALL PROPOSED INLETS SHALL BE PROTECTED FROM SILTATION THROUGHOUT CONSTRUCTION WITH FILTER FABRIC
2. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL EROSION CONTROL MEASURES INCLUDING SILT FENCE, FILTER FABRIC, ETC. UPON COMPLETION OF SITE IMPROVEMENTS.

LEGEND

EXISTING	PROPOSED	
		STORM DRAINAGE STRUCTURE
	10	STRUCTURE NO.
85.00	85.00	ELEVATION
86	86	CONTOUR
		DIRECTION OF SURFACE FLOW
	AB#	SOIL BORING LOCATION
		STAKED EROSION CONTROL
SWFWL		SWFWMD WETLAND LINE
25' OS		WETLAND BUFFER LINE (25' AVG.)
12" Oak		TREES TO BE REMOVED
12" Oak		TREES TO BE PROTECTED

STORM WATER POLLUTION PREVENTION PLAN

Contained on these plans and within the following notes is a Storm Water Pollution Prevention Plan (SWPPP) which has been developed by Surak Engineering, LLC. in accordance with the Florida Department of Environmental Protection's (FDEP) "National Pollutant Discharge Elimination System" (NPDES) Generic Permit for Stormwater Discharge from Large and Small Construction Activities.

The following entities are identified as team members of "SWPPP": Surak Engineering, the Developer as identified in the title box of these plans, and the site contractor and his sub-contractors. Each team member has specific responsibilities and obligations. In general, all team members, with regard to their involvement and responsibilities on the project, are to implement all necessary storm water management controls to assure compliance with the NPDES Generic Permit for Storm Water Discharges from Construction Activities, the Southwest Florida Water Management District Permit, the applicable local governing agency (i.e. Pasco County) and theguidelines listed in the SWPPP. The duties and responsibilities of the team members as they pertain to the SWPPP are as follows:

ENGINEER

A. Develop SWPPP including, but not limited to, retention/detention ponds, control structures, erosion control methods and locations and stabilization criteria. This design is included within these construction plans and the following notes and instructions.

B. Submit and obtain the necessary design related storm water permits from the Florida Department of Environmental Protection, the Southwest Florida Water Management District and other applicable governmental bodies.

C. Upon notification by the developer of his intent to commence construction, submit a Notice of Intent to the FDEP on behalf of the developer and copy the contractor including SWPPP certification and copy of the permit.

D. Submit to SWFWMD and the operator of the municipal separate storm water system, if applicable, a letter of construction commencement.

E. Complete and submit a Notice of Termination and certification for developer. The NOT's shall be submitted no more than 30 days after
   (a) completion of the project and final stabilization of the site or
   (b) when responsibility for the site has ended. Final stabilization as defined by EPA is when all soil disturbing activities at the site have been completed and a uniform (e.g. evenly distributed, without large bare areas) perennial vegetative cover with a density of 70% of the native background vegetative cover for the area has been established on all unpaved areas and areas not covered by permanent structures. As an alternative, equivalent permanent stabilization measures (such as riprap, gabions, or geotextiles) may be employed. The client shall notify Surak Engineering when one of these criteria has been met.

Contractor

A. Sign and return to Engineer a Contractors Certification Form certifying your understanding of and willingness to comply with the Storm Water Pollution Prevention Plan no later than 48 hours prior to commencement of construction. Also, each subcontractor affected by the SWPPP must certify to the contractor that they understand and shall comply with the NPDES permit and SWPPP. A record of these certifications shall be maintained by the contractor on site.

B. During construction, assure compliance with the designed Storm Water Pollution Prevention Plans prepared by Surak Engineering and the NPDES Generic Permit for Storm Water Discharges from Large and Small Construction Activities.

C. Maintain a copy of the construction plans, which include the Storm Water Pollution Prevention Plan,the NOI, and all inspection reports and certifications on site.

D. Undertake all reasonable Best Management Practices (BMP's) to assure that silted or otherwise polluted storm water is not allowed to discharge from the site during all phases of construction. Stabilization BMP's that may be used include: temporary or permanent seeding, mulching, geotextiles, sodding, vegetative buffer strips, protection of trees and preservation of mature vegetation. Structural erosion and sediment control BMP's that may be used include: straw bale dikes, silt fences, earth dikes, brush barriers, drainage swales, check dams, subsurface drain, pipe slope drain, level spreaders, storm drain inlet protection, outlet protection, sediment traps, and temporary sediment basins. Detention ponds may also be used as temporary sediment basins. Additional BMP's that may need to be implemented include: providing protected storage areas for chemicals, paints, solvents, fertilizers, and other potentially toxic materials. Providing waste receptacles at convenient locations and providing regular collection of wastes, including building material wastes. Minimizing off-site tracking of sediments. Making adequate preparations, including training and equipment to contain spills of oil and hazardous materials. Complying with applicable state or local waste disposal, sanitary sewer or septic system regulations and the use of appropriate pollution prevention measures for allowable non-storm water components of discharge.

E. Notify Engineer and the developer in writing of any non-storm water pollution sources which are being stored, or otherwise used during the construction of the project, i.e., fertilizers, fuels, pesticides, other chemicals. This notification should be accompanied with the contractor's design and methods to prevent pollution run-off from these sources.

F. Develop a maintenance and inspection plan which includes, but is not limited to the following:

   A. The specific areas to be inspected and maintained that includes all the disturbed areas and material storage areas of the site.

   B. The erosion and sediment controls identified in the SWPPP to be maintained and inspected and those additional controls that the contractor deems necessary.

   C. Maintenance procedures.

   D. The procedure to follow if additional work is required or whom to call.

   E. Inspections and maintenance forms.

   F. The personnel assigned to each task.

   The following shall be inspected a minimum of once a week or within 24 hours after 0.50 inches of rainfall:

   Stabilization measures (once a month if fully stabilized).

   Structural controls. "

   Discharge points. "

   Construction entrances and exits.

   Areas used for storage of exposed materials.

   An inspection form shall be completed for each inspection. Any permit violations should be noted and corrective measures shall be taken no later than 7 days after the inspection occurred. If revisions to the SWPPP are needed, a report form for changes in the SWPPP shall be completed and a copy sent to Surak Engineering. The original shall be kept on-site as documentation of the change. If the inspection passes, a certification that the facility is in compliance with the SWPPP and the NPDES permit must be signed by a duly authorized representative of the principal executive official of the operator of the SWPPP with one of the following qualifications:

   1. Has successfully completed the Florida Stormwater, Erosion and Sediment Control Inspector Training Program.
   2. Successfully completed a similar training program.
   3. Has enough practical on the job training to be qualified to perform the inspections.

   Retain inspection reports and certifications for at least three years.

G. Site stabilization measures shall be initiated as soon as practical but in no case more than 7 days, in portions of the site where construction activities have temporarily or permanently ceased.

H. Releases in Excess of Reportable Quantities.

   1. The discharge of hazardous substances or oil in the stormwater discharge(s) from a facility or activity shall be prevented or minimized in accordance with the applicable stormwater pollution prevention plan for the facility or activity. This permit does not relieve the operator of the reporting requirements of 40 CFR part 117 and 40 CFR part 302. Where a release containing a hazardous substance in an amount equal to or in excess of a reporting quantity established under either 40 CFR 117 or 40 CFR 302, occurs during a 24 hour period:
      a. The operator is required to notify the State Warning Point (800-210-0519 or 850-413-9911) as soon as he or she has knowledge of the discharge;
      b. The operator shall submit within 14 calendar days of knowledge of the release a written description of: the release (including the type and estimate of the amount of material released), the date that such release occurred, the circumstances leading to the release, and remedial steps to be taken, to the Florida Department of Environmental Protection, NPDES Stormwater Section, Mail Station 2500, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; and
      c. The stormwater pollution prevention plan required under Part V of this permit must be modified within 14 calendar days of knowledge of the release to: provide a description of the release, the circumstances leading to the release, and the date of the release. In addition, the plan must be reviewed to identify measures to prevent the reoccurrence of such releases and to respond to such releases, and the plan must be modified where appropriate.
   2. This permit does not authorize the discharge of hazardous substances or oil resulting from an on-site spill.

Developer

A. Notify Engineer of your intent to commence construction. Sign the Notice of Intent form as operator of the storm water discharge facility and permittee and return to Surak Engineering.

B. Sign a Certification of Storm Water Pollution Prevention Plan and return to Surak Engineering.

C. Notify Engineer when it is time to submit a Notice of Termination as defined under Part E of the Surak Engineering section of the SWPPP. Sign and return to Surak Engineering for submittal to FDEP a Notice of Termination form and certification.

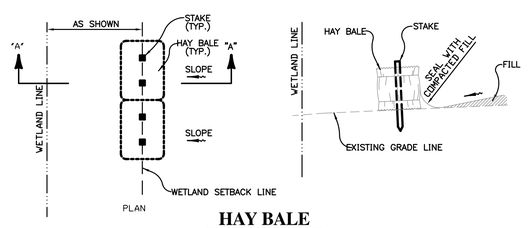
PRE-DEVELOPED SITE INFORMATION:

1. Total site acreage: 4.62 Ac.
2. Land use: VACANT PASTURE
3. Vegetation: BAHIA GRASS
4. Receiving waters or municipal separate storm water system: TROUT CREEK / CYPRESS CREEK
5. 2 Year/24 Hour rainfall depth: 4.3 in
6. Soil types: POMONA, SMYRNA & OKEELANTA

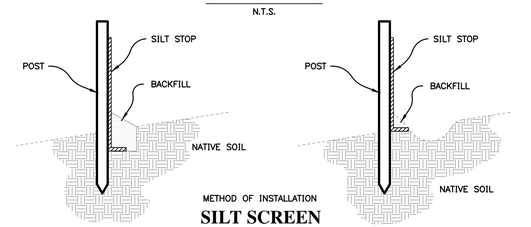
PROJECT INFORMATION:

1. Project type (residential, commercial, etc.)
2. Anticipated construction sequence is as follows:
   1. Complete erosion control installation
   2. Clearing and grubbing
   3. Earthwork activities
   4. Storm water system construction
   5. Utility construction
   6. Base and pavement construction
   7. Final stabilization

   The BMP's listed in Part D of the Contractor section of the SWPPP shall be considered during all phases of construction.
3. Anticipated start date: JUNE 2014
4. Anticipated completion date: JUNE 2015
5. Total acres disturbed: 4.1 ac
6. Pre-developed "CN" factor: 80
7. Post-developed "CN" factor: 95
8. The storm water management system, upon completion of construction and appropriate certification and as-built submittals will be operated and maintained by OWNER.
9. The potential source of pollution from this project is on-site development and construction activity.



HAY BALE
N.T.S.



METHOD OF INSTALLATION
SILT SCREEN
N.T.S.

EROSION CONTROL DETAILS

NOTE: THE EROSION BARRIERS, AS SHOWN, ARE NOT TO BE CONSTRUED TO MEAN THAT THEY ARE ALL THAT MAY BE REQUIRED. THE CONTRACTOR IS TO TAKE WHATEVER MEASURES NECESSARY TO CONTROL EROSION THROUGHOUT THE PROJECT.

811 Know what's below. Call before you dig.

APPLICANT NAME TRAVIS HENEGAR, RACETRAC PETROLEUM, INC.

APPLICANT SIGNATURE _____

NO.	REVISIONS	BY	DATE
#3	PER PASCO COMMENTS	BGS	11-25-14
#2	PER PASCO COMMENTS	BGS	08-18-14
#1	ADDED TURN LANE AREA, UPDATED DATES, NWOOD PALMS DRIVEWAY	BGS	03-26-14

SURAK ENGINEERING
3628 VALENCIA COVE COURT
LAND O'LAKES, FLORIDA 34639
(813) 244 - 5136
bsurak@verizon.net

FL ENGINEERING BUSINESS CERTIFICATE OF AUTHORIZATION NO. 28789

BRIAN G. SURAK P.E. NO. 59064
FLORIDA PROFESSIONAL ENGINEER

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RaceTrac
RACETRAC PETROLEUM, INC.
3225 CUMBERLAND BOULEVARD
SUITE 100
ATLANTA, GA 30339 (770) 431-7600

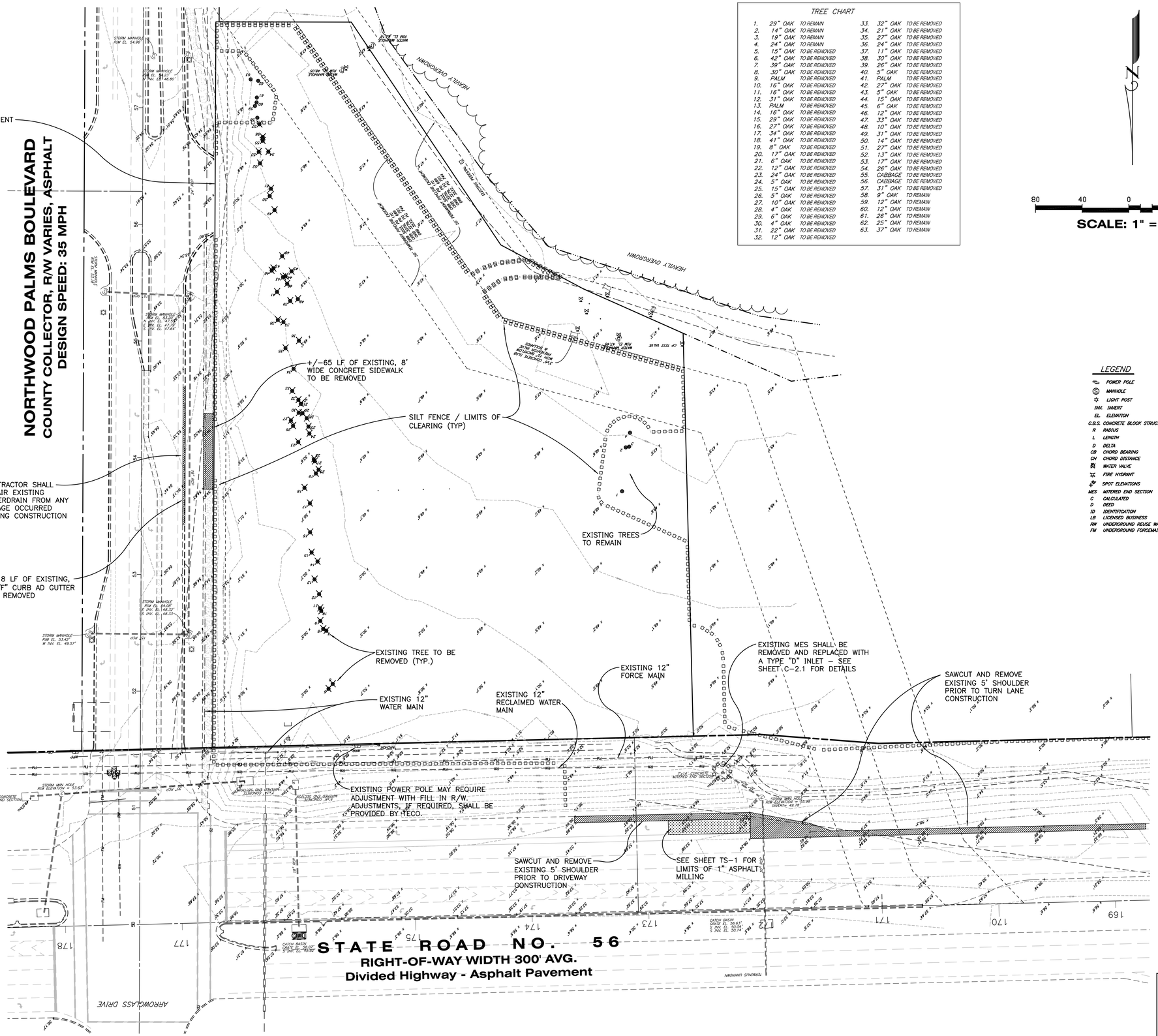
EROSION CONTROL PLAN (CSWMP)

RACETRAC MARKET
NORTHWOOD PALMS BLVD.
PASCO COUNTY, FLORIDA

SCALE	1" = 60 FEET	DATE	11/18/13
DRAWN	BGS	JOB NO.	13-RTR-001

ES-0

SHEET NO. | REV.



TREE CHART

1.	29" OAK	TO REMAIN	33.	32" OAK	TO BE REMOVED
2.	14" OAK	TO REMAIN	34.	21" OAK	TO BE REMOVED
3.	19" OAK	TO REMAIN	35.	27" OAK	TO BE REMOVED
4.	24" OAK	TO REMAIN	36.	24" OAK	TO BE REMOVED
5.	15" OAK	TO BE REMOVED	37.	11" OAK	TO BE REMOVED
6.	42" OAK	TO BE REMOVED	38.	30" OAK	TO BE REMOVED
7.	39" OAK	TO BE REMOVED	39.	26" OAK	TO BE REMOVED
8.	30" OAK	TO BE REMOVED	40.	5" OAK	TO BE REMOVED
9.	PALM	TO BE REMOVED	41.	PALM	TO BE REMOVED
10.	16" OAK	TO BE REMOVED	42.	27" OAK	TO BE REMOVED
11.	16" OAK	TO BE REMOVED	43.	5" OAK	TO BE REMOVED
12.	31" OAK	TO BE REMOVED	44.	15" OAK	TO BE REMOVED
13.	PALM	TO BE REMOVED	45.	6" OAK	TO BE REMOVED
14.	16" OAK	TO BE REMOVED	46.	12" OAK	TO BE REMOVED
15.	29" OAK	TO BE REMOVED	47.	33" OAK	TO BE REMOVED
16.	27" OAK	TO BE REMOVED	48.	10" OAK	TO BE REMOVED
17.	34" OAK	TO BE REMOVED	49.	31" OAK	TO BE REMOVED
18.	41" OAK	TO BE REMOVED	50.	14" OAK	TO BE REMOVED
19.	8" OAK	TO BE REMOVED	51.	27" OAK	TO BE REMOVED
20.	17" OAK	TO BE REMOVED	52.	13" OAK	TO BE REMOVED
21.	6" OAK	TO BE REMOVED	53.	17" OAK	TO BE REMOVED
22.	12" OAK	TO BE REMOVED	54.	26" OAK	TO BE REMOVED
23.	24" OAK	TO BE REMOVED	55.	CABBAGE	TO BE REMOVED
24.	5" OAK	TO BE REMOVED	56.	CABBAGE	TO BE REMOVED
25.	15" OAK	TO BE REMOVED	57.	31" OAK	TO BE REMOVED
26.	5" OAK	TO BE REMOVED	58.	9" OAK	TO REMAIN
27.	10" OAK	TO BE REMOVED	59.	12" OAK	TO REMAIN
28.	4" OAK	TO BE REMOVED	60.	12" OAK	TO REMAIN
29.	6" OAK	TO BE REMOVED	61.	26" OAK	TO REMAIN
30.	4" OAK	TO BE REMOVED	62.	25" OAK	TO REMAIN
31.	22" OAK	TO BE REMOVED	63.	37" OAK	TO REMAIN
32.	12" OAK	TO BE REMOVED			

LEGEND

	POWER POLE
Ⓢ	MANHOLE
	LIGHT POST
INV.	INVERT
EL.	ELEVATION
C.B.S.	CONCRETE BLOCK STRUCTURE
R	RADIUS
L	LENGTH
D	DELTA
CB	CHORD BEARING
CH	CHORD DISTANCE
	WATER VALVE
	FIRE HYDRANT
	SPOT ELEVATIONS
MES	MITERED END SECTION
C	CALCULATED
D	DEED
ID	IDENTIFICATION
LB	LICENSED BUSINESS
RW	UNDERGROUND REUSE WATER LINE
FM	UNDERGROUND FORCEMAIN LINE

NO.	REVISIONS	BY	DATE
#1	REVISED NWOOD PALMS DRIVEWAY	BGS	03-26-14
#2	PER PASCO COMMENTS	BGS	08-18-14

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bsurak@verizon.net

FL ENGINEERING BUSINESS CERTIFICATE OF AUTHORIZATION NO. 28789

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BRIAN G. SURAK P.E. NO. 59064
FLORIDA PROFESSIONAL ENGINEER

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RACETRAC PETROLEUM, INC.
3225 CUMBERLAND BOULEVARD
SUITE 100
ATLANTA, GA 30339 (770) 431-7600

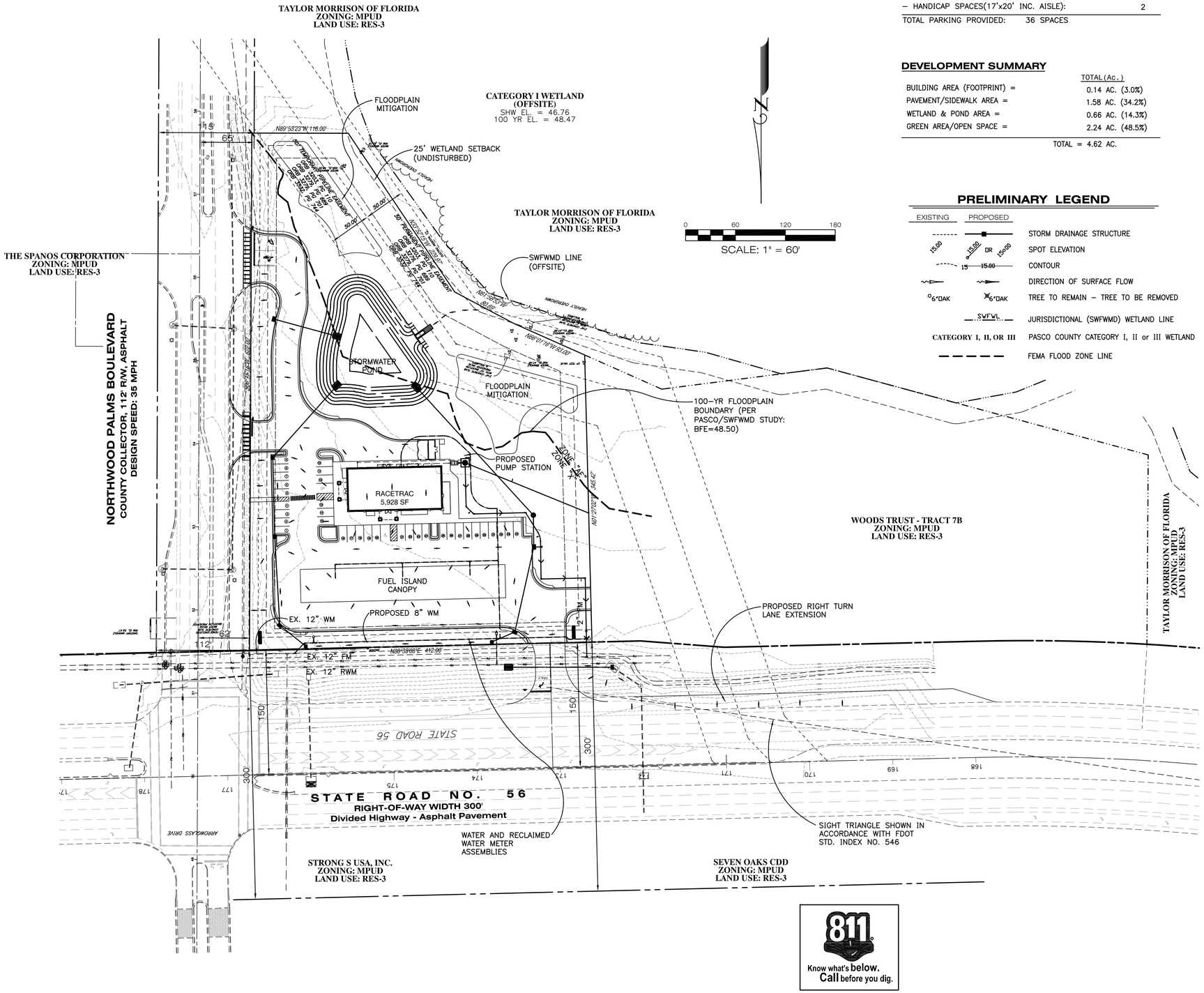
DEMOLITION PLAN
RACETRAC MARKET
NORTHWOOD PALMS BLVD.
PASCO COUNTY, FLORIDA

SCALE	1" = 40 FEET	DATE	11/18/13
DRAWN	BGS	JOB NO.	13-RTR-001

Know what's below. Call before you dig.

D-1

SHEET NO. | REV.



C-2 STANDARDS

FLOOR-TO-AREA RATIO (FAR):	0.27
MIN. LOT AREA:	15,000 SF
MIN. LOT WIDTH/DEPTH:	90 FT
BUILDING COVERAGE:	50%
BUILDING SETBACKS:	
– FRONT	= 25 FEET
– REAR	= 30 FEET
– SIDE	= 30 FEET
BUILDING SEPARATION:	15' MIN.
BUILDING HEIGHT:	60' MAX.

PARKING SUMMARY

VEHICLE PARKING REQUIRED:

– 1 SPACE/250 SF OF BLDG AREA @ 5,928 SF BLDG	=	24 SPACES
– 1 SPACE/250 SF OUTDOOR DINING AREA @ 750 SF	=	3 SPACES

TOTAL PARKING REQUIRED: 27 SPACES*

* INCLUDES REQUIRED HANDICAP PARKING AT 1 SPACE PER 25 SPACES WHICH IS EQUIVALENT TO TWO (2) HC SPACES REQUIRED.

PARKING PROVIDED–

– REGULAR SPACES (9'x20' MIN):	34
– HANDICAP SPACES(17'x20' INC. AISLE):	2
TOTAL PARKING PROVIDED:	36 SPACES

DEVELOPMENT SUMMARY

	TOTAL (Ac.)
BUILDING AREA (FOOTPRINT) =	0.14 AC. (3.0%)
PAVEMENT/SIDEWALK AREA =	1.58 AC. (34.2%)
WETLAND & POND AREA =	0.66 AC. (14.3%)
GREEN AREA/OPEN SPACE =	2.24 AC. (48.5%)
TOTAL =	4.62 AC.

PRELIMINARY LEGEND

EXISTING	PROPOSED	
		STORM DRAINAGE STRUCTURE
15.00	15.00 DR 15.00	SPOT ELEVATION
15	15.00	CONTOUR
		DIRECTION OF SURFACE FLOW
6"OAK	6"OAK	TREE TO REMAIN – TREE TO BE REMOVED
SWFWL		JURISDICTIONAL (SWFWMD) WETLAND LINE
CATEGORY I, II, OR III		PASCO COUNTY CATEGORY I, II or III WETLAND
		FEMA FLOOD ZONE LINE

SITE DATA TABLE

TOTAL AC.	UPLAND	WETLAND	BUILDING AREA	F.A.R.
4.62	4.62	0.00	5,928 SF	0.03

PRELIMINARY PLAN NOTES:

1. Developer: RACETRAC PETROLEUM, INC.
   3525 CUMBERLAND BLVD., SUITE 100
   ATLANTA, GEORGIA 30339
   PH. (770) 431–7600
   CONTACT PERSON: TRAVIS HENEGAR

   Owner: RACETRAC PETROLEUM, INC.
   3525 CUMBERLAND BLVD., SUITE 100
   ATLANTA, GEORGIA 30339
   PH. (770) 431–7600
   CONTACT PERSON: TRAVIS HENEGAR
2. Engineer: SURAK ENGINEERING, LLC.
   3628 Valencia Cove Court
   Land O'Lakes, Florida 34639
   (813) 244–5136
   Contact Person: Brian G. Surak, P.E.

   Surveyor: BLOOMSTER PROFESSIONAL
   LAND SURVEYORS, INC.
   Ph. (772) 334–0868
   Contact Person: David Killane

   Geotechnical Engineer: UNIVERSAL ENGINEERING SCIENCES
   9802 Palm River Road
   Tampa, FL 33619
   PH. (813) 740–8506
   CONTACT PERSON: Surendra Sagi, P.E.
3. Existing zoning: MPUD PETITION #7707
4. Existing Land Use Classification: VACANT PASTURE
   Future Land Use Classificatuin: RES–3
5. The MPUD Zoning petition #7707 was approved on November 5, 2013.
6. Proposed development: Gas Station / Convenience Store.
7. Water supply to be provided by Pasco County Utilities.
8. Sewage disposal service to be provided by Pasco County Utilities.
9. Electrical power to be provided by Tampa Electric Company (TECO).
10. Telephone service to be provided by Verizon.
11. Gas to be provided by TECO Peoples Gas Systems.
12. Fire protection to be provided by the Pasco County Fire Department. Fire protection will be provided via fire hydrants spaced in accordance with Pasco County standards.
13. The uplands are grazed bahia pasture.
14. Predominant soil types on–site consist of Pomona and Smyrna fine sands.
15. The owner shall provide for maintenance of all open space, drainage areas, common areas, buffer areas, preservation/conservation areas, recreation areas, other special purpose areas.
16. Existing Contours shown on this plan are based on North American Vertical Datum of 1988 (NAVD88)
17. All Internal driveways shall be private. A cross–access easement shall be provided to future development parcels to the west.
18. All roadway standards to comply with the Manual of Uniform Minimum Standards, State of Florida.
19. All water and wastewater facilities to be installed in compliance with Pasco County Standards for design and construction of water and wastewater facilities.
20. All utility lines shall be installed underground.
21. Project lies within Flood Zones "X" and "AE", as shown on F.E.M.A. – F.I.R.M. Community Panel 120230 0450 D dated September 30, 1992. However, the floodplain boundary shown on these plans references the updated FIRMs for Pasco County, Panel No. 120230 0436 F, with a base flood elevation of 48.50, which is the best available information.
22. All landscape and sodded areas along collector road will be irrigated.
23. This project shall compy with the new Pasco County Tree Protection ordinance No. 01–017 and Pasco County Landscape and Irrigation ordinance No. 02–04. and any subsequent amendments.
24. All construction work, including road, drainage and utilities, shall be constructed in accordance with Pasco County design standards and tested in compliance with the Pasco County Engineering Service Department Testing Specifications for construction of roads, storm drainage & utilities.
25. If during construction activities any evidence of historic resources, including but not limited to aboriginal or historic pottery, prehistoric stone tools, bone or shell tools, historic trash pits, or historic building foundation, are discovered, work shall come to an immediate stop and the Florida Department of Historic Resources (State Historic Preservation Officer) and Pasco County shall be notified within two working days of the resources found on the site.
26. Prior to any clearing or grubbing associated with site plan an Incidental Take Permit from the Florida Fish & Wildlife Conservation Commission shall be submitted to the Pasco County DRD, if applicable.
27. If during the construction activities any evidence of the presence of State and Federally protected plant and/or animal species are discovered, work shall come to an immediate stop and Pasco County shall be notified within two working days of the plant and/or animal species found on site.
28. The RaceTrac project is located in the Trout / Cypress Creek basin. The proposed drainage system will be offsite and will collect, attenuate and provide treatment for the projected runoff generated by the development. The system of interconnected facilities stormwater drainage pipes, attenuation ponds, with littoral zones for water quality treatment, existing and created wetlands) has been designed to meet the minimum technical standards of Pasco County and the Southwest Florida Management District. Historical drainage basin patterns will be generally adhered to where practical to accomodate off–site stormwater discharges and stages from adjacent properties. The proposed stormwater draiange system will be owned and maintained by the owner.
29. Maximum building height is 60 feet.
30. Refuse disposal will be provided via dumpster. The dumpster will be emptied by a private waste disposal service. The dumpster shall be screened with a min. 6' high masonry wall.
31. The Lighting Plan shall be designed to have no light spillage or glare beyond the project site.
32. All Landscape areas will be irrigated with spray and drip irrigation.
33. The cut/fill associated with this project is approximately 20,000 cy. Approximatley 15,000 CY of this material will be imported from an offsite source. The contractor is responsible for obtaining all applicable permits necessary to transport this fill material to the site.
34. This project is a privately owned tract that will be maintained and operated by the owner. There will not be a Property Owner's Association (POA / HOA) for this project.
35. This project is located in Hurricane Evacuation Zone: None.
36. Buffers adjacent to SWFWMD wetlands shall have a 15' minimum / 25' average width and sgall be undisturbed. Buffers adjacent to Pasco County Category I wetlands shall be 25' minimum, undisturbed.
37. The upland buffer and wetland jurisdictional line shall be clearly demarcated in the field prior to construction.
38. No ground disturbance, clearing, grubbing shall occur within the 25' upland buffer

NO.	REVISIONS	BY	DATE
#3	PER PASCO COMMENTS	BGS	11–25–14
#2	PER PASCO COMMENTS	BGS	08–18–14
#1	EXPANDED VIEW TO SHOW TRACT 7B, REV. NWOOD DRIVEWAY, ADDED R/W DIMS.	BGS	03–26–14

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bsurak@verizon.net

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BRIAN G. SURAK P.E. NO. 59064
FLORIDA PROFESSIONAL ENGINEER

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RaceTrac
RACETRAC PETROLEUM, INC.
3225 CUMBERLAND BOULEVARD
SUITE 100
ATLANTA, GA 30339 (770) 431-7600

OVERALL SITE PLAN
RACETRAC MARKET
NORTHWOOD PALMS BLVD.
PASCO COUNTY, FLORIDA

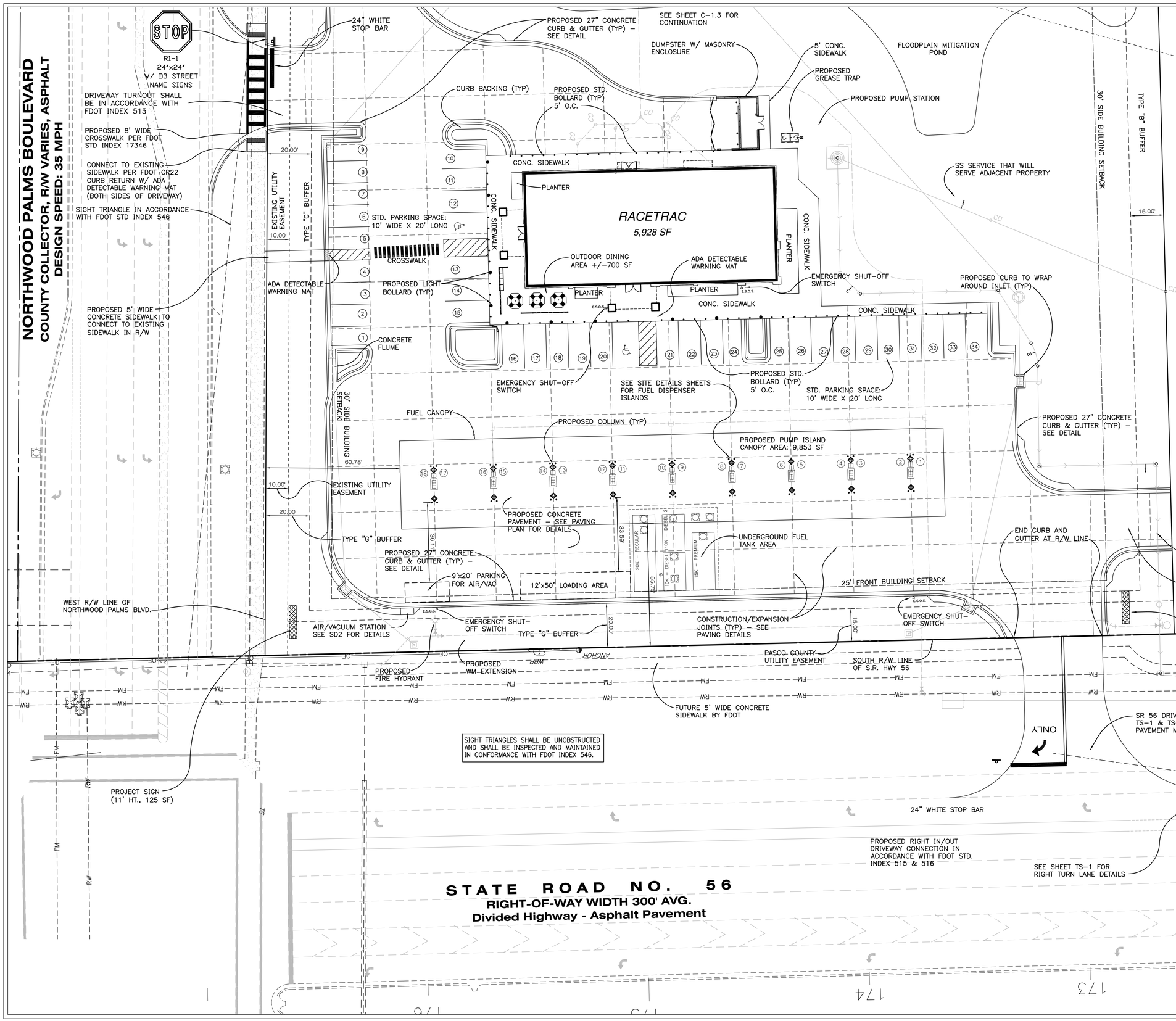
SCALE	1" = 60 FEET	DATE	11/18/13
DRAWN	BGS	JOB NO.	13-RTR-001

C1.1

SHEET NO. | REV.

Know what's below. Call before you dig.

NORTHWOOD PALMS BOULEVARD
COUNTY COLLECTOR, R/W VARIES, ASPHALT
DESIGN SPEED: 35 MPH



PASCO COUNTY SIDEWALK NOTES

1. SIDEWALKS SHALL BE CONSTRUCTED OF NATURAL OR COLORED CONCRETE WITH A MINIMUM 3,000 PSI AND 4" MINIMUM THICKNESS. SIDEWALK IN PASCO R/W SHALL BE FIBER-REINFORCED.
2. ALL 4' WIDE SIDEWALK SHALL HAVE A 5' X 5' PASSING AREA AT INTERVALS NOT TO EXCEED 200 FEET PER ADA GUIDELINES.
3. THE SIDEWALK/MULTI-USE PATH CLEAR ZONE SHALL BE FREE OF OBSTACLES, INCLUDING BUT NOT LIMITED TO SHRUBS, TREES, FENCES, ABOVE GROUND UTILITIES, MAIL BOXES, STREET SIGNS, ETC.
4. CURB RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH FDOT INDEX 304.
5. DETECTABLE WARNING "DOMES" WITHIN HANDICAP RAMPS SHALL BE ALIGNED IN THE DIRECTION OF PEDESTRIAN TRAVEL.

SITE PLAN NOTES

1. ALL WORK AND MATERIALS SHALL COMPLY WITH ALL PASCO COUNTY REGULATIONS AND CODES AND O.S.H.A. STANDARDS.
2. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF TOWERS, SLOPE PAVING, COLUMNS, DOOR LOCATIONS, AND UTILITY ENTRANCES.
3. ALL DISTURBED AREAS SHALL RECEIVE 4 INCHES OF TOPSOIL, SEED, MULCH, AND WATER UNTIL A HEALTHY STAND OF GRASS IS ESTABLISHED.
4. EXISTING STRUCTURES WITHIN CONSTRUCTION LIMITS ARE TO BE ABANDONED, REMOVED, OR RELOCATED PER PLANS. ALL COST SHALL BE INCLUDED IN BASE BID.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELOCATIONS INCLUDING BUT NOT LIMITED TO, ALL UTILITIES, STORM DRAINAGE, SIGNS, TRAFFIC SIGNALS AND POLES, ETC. AS REQUIRED PER PLANS. ALL WORK SHALL BE IN ACCORDANCE WITH GOVERNING AUTHORITIES SPECIFICATIONS AND SHALL BE APPROVED BY SUCH. ALL COST SHALL BE INCLUDED IN BASE BID.
6. ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
7. ALL BUILDING DIMENSIONS ARE TO THE FACE OF STRUCTURAL CMU.
8. BOTTOM OF CANOPY HEIGHT: RACETRAC FINISHED FLOOR ELEVATIONS + 18'
9. SURVEY COMPLETED BY BLOOMSTER PROFESSIONAL LAND SURVEYORS ON 02/08/13.
10. SITE IS FLOOD ZONES X AND AE BASED ON FIRM MAP #120230 0450 E DATED 09/30/92.
11. ALL STRIPING ON THIS PLAN IS TO BE PAINTED WITH REFLECTIVE PAINT UNLESS OTHERWISE NOTED.

PAVEMENT NOTES

1. CONCRETE AREAS TO BE 6" THICK 3500# AIR ENTRAINED. W/FIBER MESH, MAXIMUM SLUMP TO BE NO MORE THAN 4". ALL CONCRETE TO BE WOOD FLOATED, STEEL TROWELED, FINISH TO BE MEDIUM BROOM FINISH. AREA OVER TANKS TO BE 8" THICK 3500# W/ REBAR AS SHOWN ON TANK PLANS. AREA IN FRONT OF DUMPSTER TO BE 8" THICK 3500# W/ REBAR AS SHOWN ON SD-1.
2. NOTIFY OWNER 3 DAYS PRIOR TO POUR OF INITIALSECTION OF DRIVEWAY PAVING. RACETRAC REPRESENTATIVE TO APPROVE INITIAL POUR.

NO.	REVISIONS	BY	DATE
#3	PER PASCO COMMENTS	BGS	11-25-14
#2	PER PASCO COMMENTS	BGS	08-18-14
#1	REV. NWOOD PALMS DRIVEWAY, ADDED AIR/VAC STA., REM. CURB FROM FDOT R/W	BGS	03-28-14

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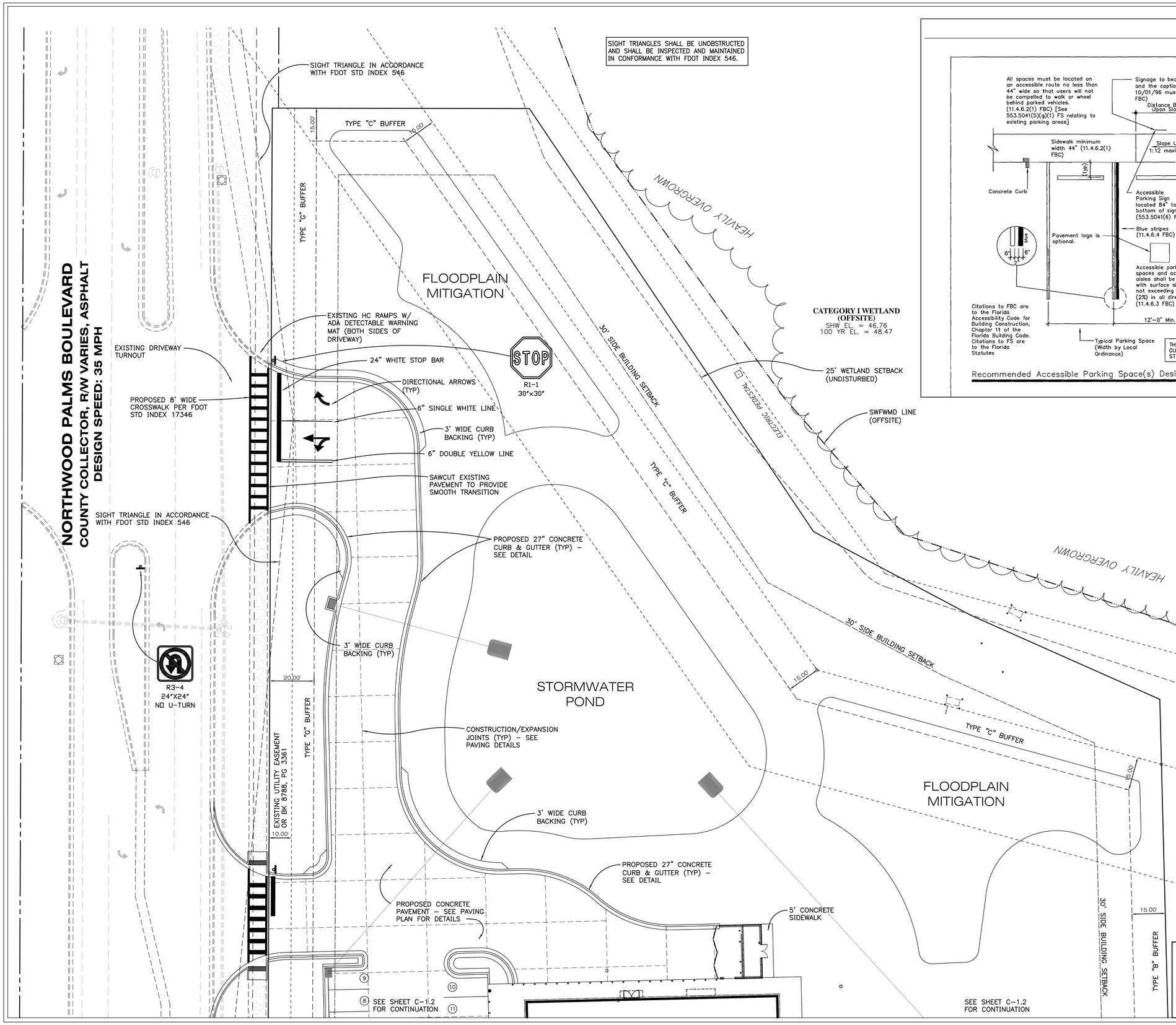
RaceTrac
RACETRAC PETROLEUM, INC.
3225 CUMBERLAND BOULEVARD
SUITE 100
ATLANTA, GA 30339 (770) 431-7600

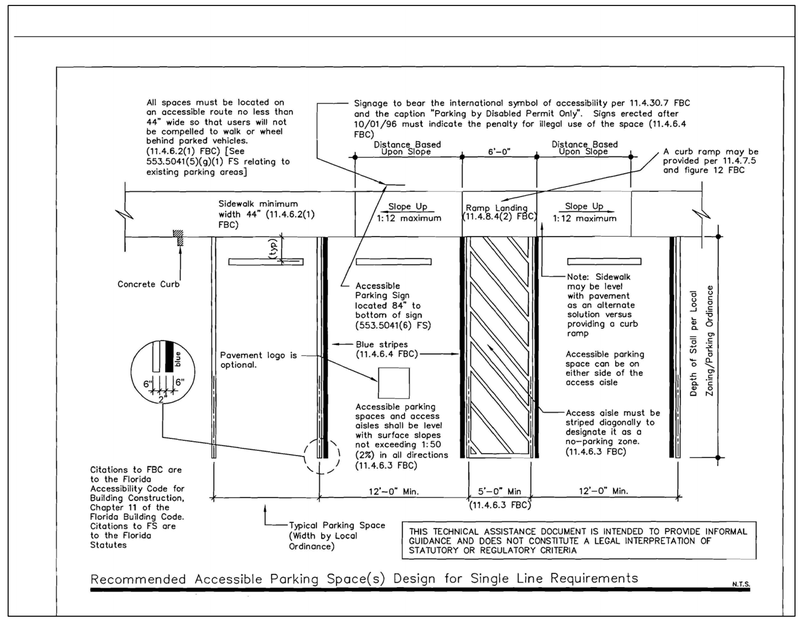
SITE PLAN (NORTH SIDE)
RACETRAC MARKET
NORTHWOOD PALMS BLVD.
PASCO COUNTY, FLORIDA

SCALE	1" = 20 FEET	DATE	11/18/13
DRAWN	BGS	JOB NO.	13-RTR-001

C-1.2

SHEET NO. | REV.





Recommended Accessible Parking Space(s) Design for Single Line Requirements

NO.	REVISIONS	BY	DATE
#2	PER PASCO COMMENTS	BGS	08-18-14
#1	ADDED HC DETAIL	BGS	03-28-14

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SUITE 100
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SITE PLAN (SOUTH SIDE)

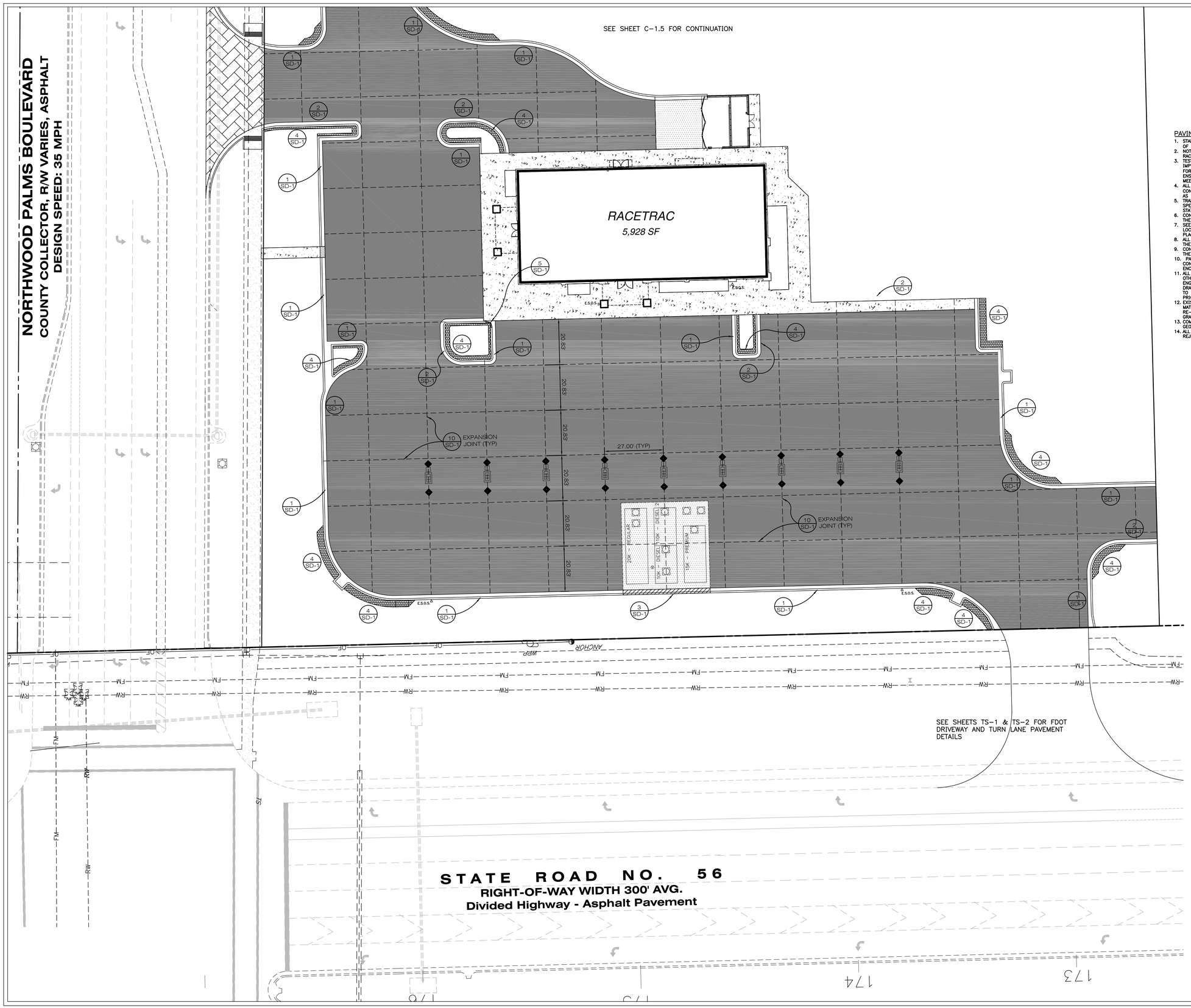
RACETRAC MARKET

NORTHWOOD PALMS BLVD.
PASCO COUNTY, FLORIDA

SCALE	1" = 20 FEET	DATE	11/18/13
DRAWN	BGS	JOB NO.	13-RTR-001

SHEET NO.	REV.
C-1.3	

NORTHWOOD PALMS BOULEVARD
COUNTY COLLECTOR, R/W VARIES, ASPHALT
DESIGN SPEED: 35 MPH



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PAVING AND STRIPING NOTES:

1. STANDARD DUTY PAVEMENT AREAS SHALL BE PORTLAND CEMENT CONCRETE. DETAILS OF THE STANDARD DUTY CONCRETE PAVEMENT ARE PROVIDED ON DETAIL SHEETS.
2. NOTIFY OWNER 3 DAYS PRIOR TO POUR OF INITIAL SECTION OF DRIVEWAY PAVING. RACETRAC REPRESENTATIVE TO APPROVE INITIAL POUR.
3. TESTING OF MATERIALS REQUIRED FOR THE CONSTRUCTION OF THE PAVING IMPROVEMENTS SHALL BE PERFORMED BY AN AGENCY, APPROVED BY THE OWNER, FOR TESTING MATERIALS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE, BY THE STANDARD TESTING PROCEDURES, THAT THE WORK CONSTRUCTED MEETS THE REQUIREMENTS OF THE PROJECT SPECIFICATIONS.
4. ALL SIGNS, PAVEMENT MARKINGS, AND OTHER TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" LATEST EDITION, AS WELL AS APPLICABLE STATE AND LOCAL REQUIREMENTS.
5. TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE FDOT STANDARD SPECIFICATIONS. CONTRACTOR SHALL REVIEW ALL TRAFFIC CONTROL DEVICES WITH STATE DOT AND UTILITY PROVIDERS PRIOR TO INSTALLATION.
6. CONTRACTOR SHALL FURNISH AND INSTALL ALL PAVEMENT MARKINGS AS SHOWN ON THE APPROVED PLANS.
7. SEE IRRIGATION PLAN, UTILITY PLAN AND MEP PLANS PRIOR TO PAVING FOR LOCATION OF PROPOSED SLEEVING AND CONDUITS. EXTRA CONDUIT SHALL BE PLACED UNDER DRIVEWAYS FOR FUTURE USE.
8. ALL HANDICAP RAMPING, STRIPING, AND PAVEMENT MARKINGS SHALL CONFORM TO THE AMERICANS WITH DISABILITIES ACT, LATEST EDITION.
9. CONTRACTOR SHALL INSTALL EXPANSION AND CONSTRUCTION JOINTS AS SHOWN ON THE PAVING PLAN.
10. PAVING CONTRACTOR TO COORDINATE WITH BUILDING CONTRACTOR ON THE CONSTRUCTION AND PAVING NEAR ANY SCREENING WALLS, DUMPSTER PADS AND ENCLOSURES.
11. ALL DISCREPANCIES FOUND BY CONTRACTOR RELATED TO UNDERGROUND UTILITIES OR OTHER APPURTENANCES SHALL BE RESOLVED TO THE SATISFACTION OF OWNER AND ENGINEER PRIOR TO PLACEMENT OF ANY PAVING. CONTRACTOR TO ENSURE POSITIVE DRAINAGE FROM THE PROPOSED BUILDINGS AND NO PONDING IN SUBGRADE OF AREAS TO BE PAVED, AND NOTIFY OWNER AND ENGINEER IF ANY DISCREPANCIES ARE FOUND PRIOR TO INSTALLATION OF ANY PAVING.
12. EXISTING MANHOLE TOPS, VALVE BOXES, ETC. ARE TO BE ADJUSTED AS REQUIRED TO MATCH PROPOSED GRADES; ALL OTHERS WILL BE REJECTED. IF NECESSARY, RE-ADJUSTMENTS SHALL BE PERFORMED UPON COMPLETION OF PAVING, FINE GRADING, AND LANDSCAPING TO ENSURE A SMOOTH TRANSITION.
13. COMPACTION SHALL BE DONE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT.
14. ALL PAVEMENT TO BE SLOPED FOR POSITIVE DRAINAGE; ALL OTHERS WILL BE REJECTED.

PAVING LEGEND

- 8" CONCRETE PAVING
- 6" CONCRETE PAVING
- CONCRETE CURB BACKING
- 4" CONCRETE SIDEWALK
- FDOT PAVING AS REQUIRED
- PASCO PAVING AS REQUIRED

REFER TO DETAIL SHEETS FOR ALL PAVING SECTIONS

NO.	REVISIONS	BY	DATE
#3	PER PASCO COMMENTS	BGS	11-25-14
#2	PER PASCO COMMENTS	BGS	08-18-14
#1	ADDED NEW SHEET	BGS	03-26-14

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SUITE 100
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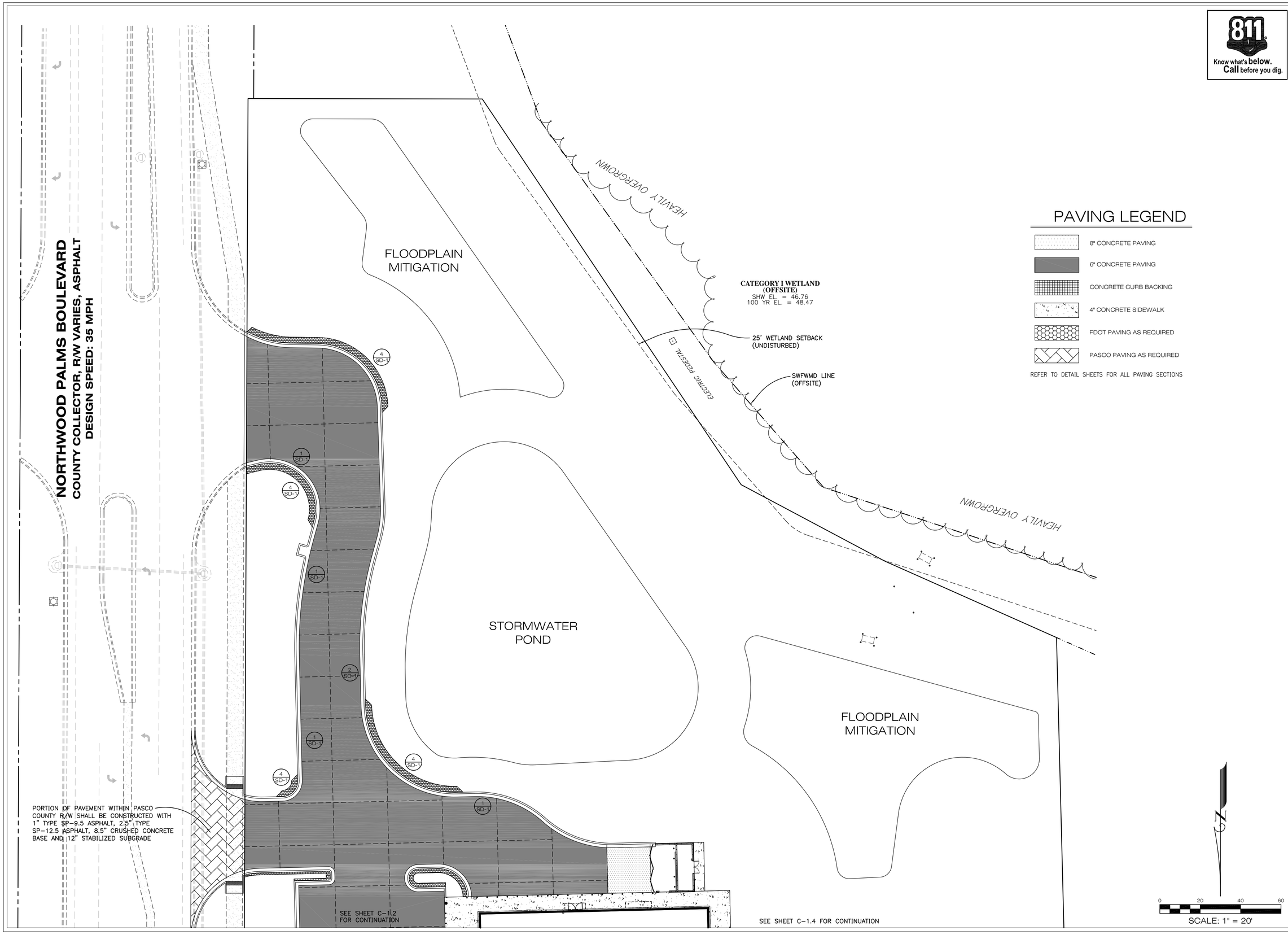
PAVING PLAN (NORTH)

RACETRAC MARKET
NORTHWOOD PALMS BLVD.
PASCO COUNTY, FLORIDA

SCALE	1" = 20 FEET	DATE	11/18/13
DRAWN	BGS	JOB NO.	13-RTR-001

C-1.4

SHEET NO. | REV.



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NO.	REVISIONS	BY	DATE
#2	PER PASCO COMMENTS	BGS	08-18-14
#1	ADDED NEW SHEET	BGS	03-26-14

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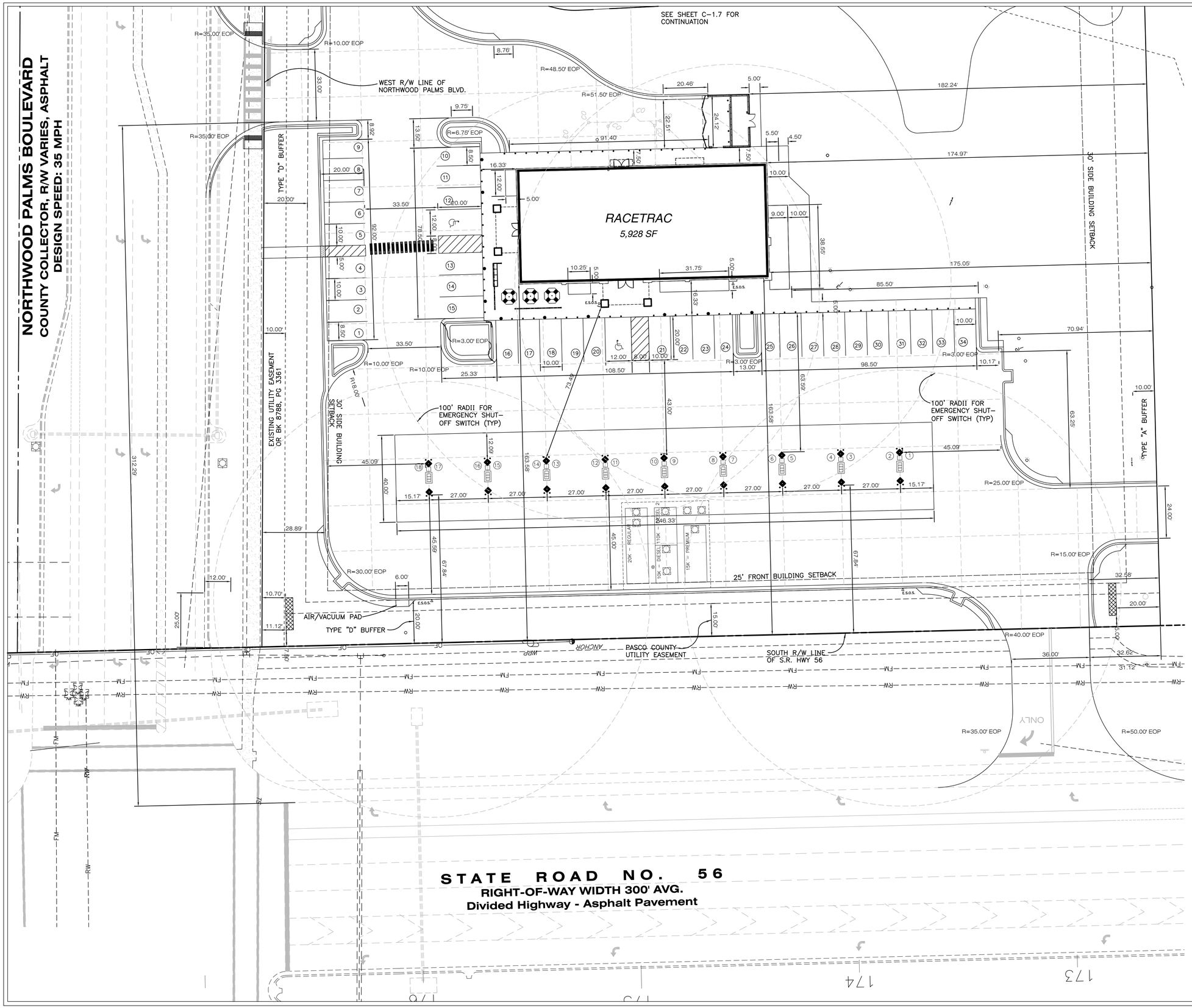
PAVING PLAN (SOUTH)
RACETRAC MARKET
NORTHWOOD PALMS BLVD.
PASCO COUNTY, FLORIDA

SCALE	1" = 20 FEET	DATE	11/18/13
DRAWN	BGS	JOB NO.	13-RTR-001

C-1.5

SHEET NO. | REV.

NORTHWOOD PALMS BOULEVARD
COUNTY COLLECTOR, R/W VARIES, ASPHALT
DESIGN SPEED: 35 MPH



Know what's below. Call before you dig.

NO.	DATE	BY	REVISIONS
#3	11-25-14	BGS	PER PASCO COMMENTS
#2	08-18-14	BGS	PER PASCO COMMENTS
#1	03-26-14	BGS	REV. NWOOD PALMS DRIVEWAY, ADDED DIMENSIONS

SURAK ENGINEERING
3628 VALENCIA COVE COURT
LAND O'LAKES, FLORIDA 34639
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bsurak@verizon.net
FL ENGINEERING BUSINESS CERTIFICATE OF AUTHORIZATION NO. 28789

FL ENGINEERING BUSINESS CERTIFICATE OF AUTHORIZATION NO. 28789

BRIAN G. SURAK P.E. NO. 59064
FLORIDA PROFESSIONAL ENGINEER

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RACETRAC PETROLEUM, INC.
3225 CUMBERLAND BOULEVARD
SUITE 100
ATLANTA, GA 30339 (770) 431-7600

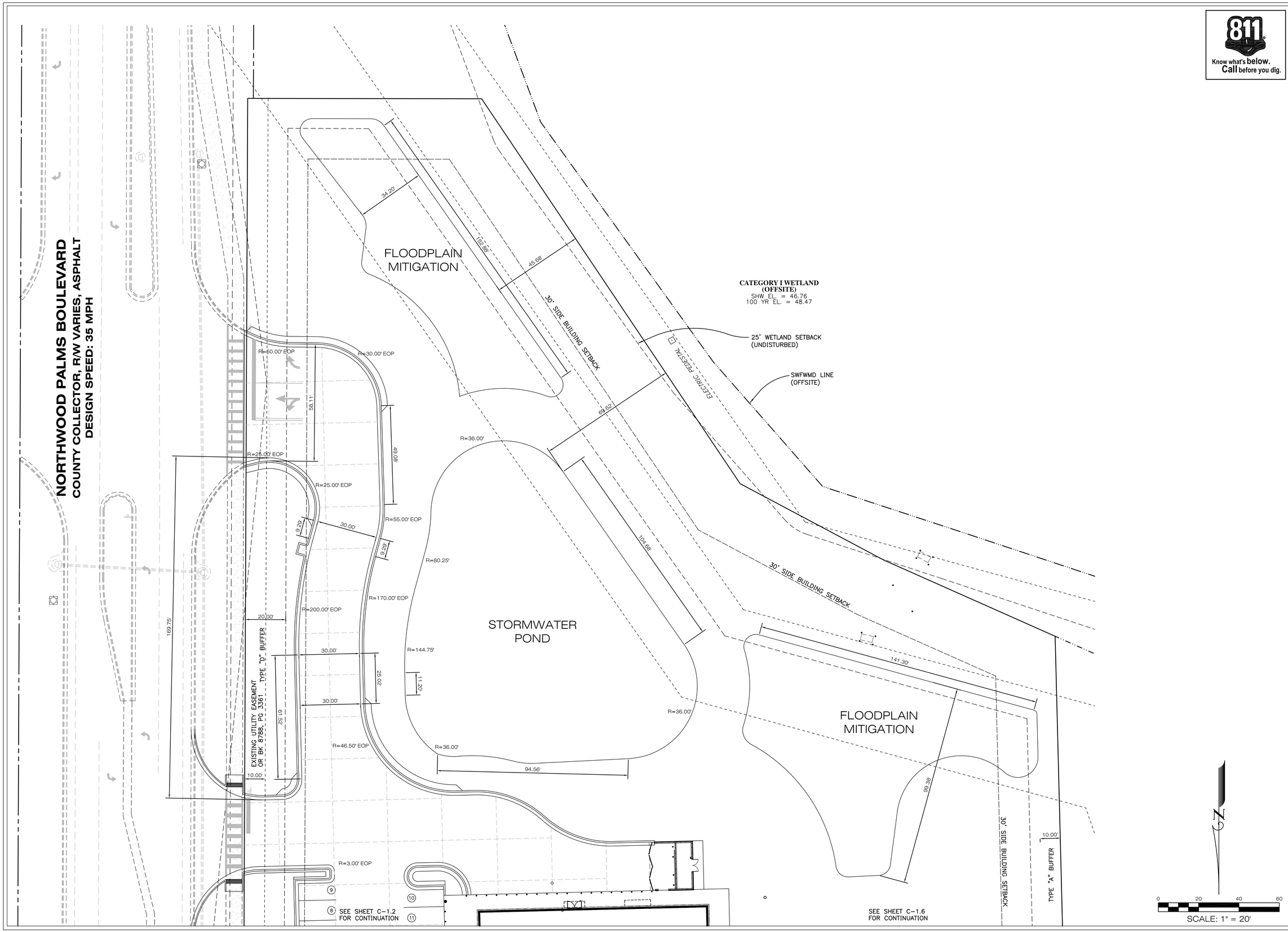
HORIZONTAL CONTROL (NORTH)

RACETRAC MARKET
NORTHWOOD PALMS BLVD.
PASCO COUNTY, FLORIDA

SCALE	1" = 20 FEET	DATE	11/18/13
DRAWN	BGS	JOB NO.	13-RTR-001

C-1.6

SHEET NO. | REV.



Know what's below. Call before you dig.

NO.	REVISIONS	BY	DATE
#2	PER PASCO COMMENTS	BGS	08-18-14
#1	ADDED DIMENSIONS	BGS	03-26-14

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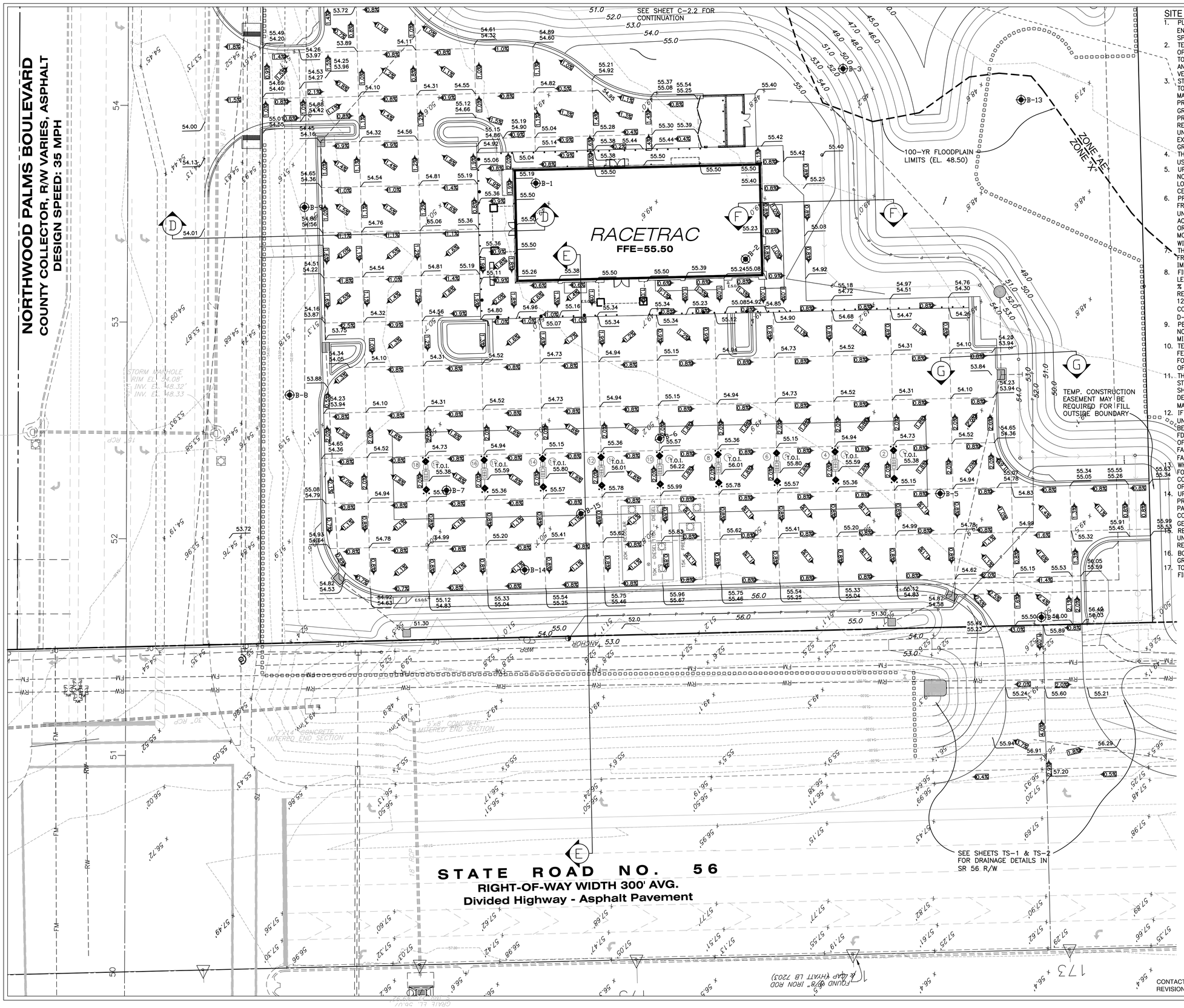
HORIZONTAL CONTROL (SOUTH)

RACETRAC MARKET
NORTHWOOD PALMS BLVD.
PASCO COUNTY, FLORIDA

SCALE	1" = 20 FEET	DATE	11/18/13
DRAWN	BGS	JOB NO.	13-RTR-001

SHEET NO.	REV.
C-1.7	

NORTHWOOD PALMS BOULEVARD
COUNTY COLLECTOR, R/W VARIES, ASPHALT
DESIGN SPEED: 35 MPH



SITE PREPARATION NOTES:

1. PLEASE REFER TO THE GEOTECHNICAL REPORT BY UNIVERSAL ENGINEERING SCIENCES (UES) DATED JUNE 2013 FOR ALL SPECIFIC, SITE PREPARATION GUIDELINES.
2. TEMPORARY DEWATERING MAY BE REQUIRED DURING CONSTRUCTION OPERATIONS. IT IS RECOMMENDED THAT THE GROUNDWATER TABLE TO BE MAINTAINED AT LEAST 24 INCHES BELOW ALL EARTHWORK AND COMPACTION SURFACES. THE GROUNDWATER LEVELS SHALL BE VERIFIED PRIOR TO CONSTRUCTION.
3. STRIP THE PROPOSED CONSTRUCTION LIMITS OF ALL GRASS, ROOTS, TOPSOIL, CONSTRUCTION DEBRIS AND OTHER DELETERIOUS MATERIALS WITHIN 5 FEET BEYOND THE PERIMETER OF THE PROPOSED BUILDING AND PAVEMENT AREAS. CLEARING AND GRUBBING LIMITS SHALL RANGE BETWEEN 6" AND 12" ACROSS THE PROJECT SITE. DEEPER CLEARING AND GRUBBING DEPTHS MAY BE REQUIRED WHERE MAJOR ROOT SYSTEMS ARE ENCOUNTERED. ANY UNSUITABLE MATERIAL FOUND DURING CONSTRUCTION SHALL BE EXCAVATED AND REPLACED WITH COMPACTED, INORGANIC GRANULAR BACKFILL.
4. THE STRIPPED TOPSOIL SHOULD BE STOCKPILED ONSITE FOR LATER USE IN LANDSCAPE AREAS (NON-LOAD BEARING AREAS).
5. UPON COMPLETION OF THE CLEARING, GRUBBING AND EXCAVATION NOTED ABOVE, THE SITE SHALL BE PROOFROLLED WITH A HEAVILY LOADED, RUBBER-TIRED VEHICLE UNDER THE OBSERVATION IF A CERTIFIED GEOTECHNICAL CONSULTANT.
6. PRIOR TO ANY FILLING ONSITE, PROOF-COMPACT THE SUBGRADE FROM THE SURFACE USING SUITABLE COMPACTION EQUIPMENT UNTIL A MINIMUM DENSITY OF 95% MPMDD (ASTM D-1557) IS ACHIEVED TO A DEPTH OF 2 FEET BELOW STRIPPED GRADE. IN ORDER TO MEET THE MINIMUM DENSITY, SOILS MAY NEED TO BE MOISTURE CONDITIONED UNTIL THE IN-SITU WATER CONTENT IS WITHIN +/-2% OF THE OPTIMUM MOISTURE CONTENT (OMC).
7. THE SUBGRADE SHALL BE TESTED FOR COMPACTION AT A FREQUENCY NO LESS THAN 2 TESTS PER FOOT OF DEPTH IMPROVEMENT IN BUILDING AREA.
8. FILL MATERIAL SHALL CONSIST OF FINE TO MEDIUM SAND WITH LESS THAN 5% SOIL FINES. SOILS WITH FINES BETWEEN 5% TO 12 % MAY BE USED, BUT STRICT MOISTURE CONTROL WILL BE REQUIRED. FILL MATERIAL SHALL BE PLACED IN UNIFORM LIFTS OF 12 INCHES MAX., TO REACH FINISH GRADE. EACH LIFT SHALL BE COMPACTED TO A MINIMUM DENSITY OF 95% MPMMD (ASTM D-1557) WITH A MINIMUM OMC OF +/-2%.
9. PERFORM COMPLIANCE TESTS WITHIN THE FILL AT A FREQUENCY OF NOT LESS THAN ONE TEST PER 2,500 SF PER LIFT, OR AT A MINIMUM OF 3 TESTS PER LIFT, WHICHEVER IS GREATER.
10. TEST ALL FINAL FOOTING CUTS FOR COMPACTION TO A DEPTH OF 2 FEET. ADDITIONALLY, IT IS RECOMMENDED THAT ONE OUT OF EVERY FOUR COLUMNS BE TESTED AND ONE TEST PER 50 LINEAR FEET OF WALL FOOTING.
11. THE UPPER 12" OF SUBGRADE IMMEDIATELY BELOW THE PAVEMENT STRUCTURE SHALL HAVE A MINIMUM LBR VALUE OF 40 AND SHOULD BE UNIFORMLY COMPACTED SO AS TO ACHIEVE A UNIFORM DENSITY OF NO LESS THAN 98% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D-1557).
12. IF A CLAY LAYER IS ENCOUNTERED IN UTILITY TRENCHES, THE UNDERLYING CLAY SHALL BE UNDERCUT A MINIMUM OF 12" BELOW THE BOTTOM OF PIPE OR MANHOLE AND REPLACED WITH FDOT NO. 57 STONE. IN ADDITION, THE SIDES, TOP AND BOTTOM OF THE COMPACTED GRAVEL SHALL BE WRAPPED IN A GEOTEXTILE FABRIC CORRESPONDING TO A MIRAFI 140N OR EQUIVALENT. THIS FABRIC SHALL BE OVERLAPPED A MINIMUM OF 24".
13. WHEN IMPORTING FILL TO THE SITE, THE CONTRACTOR MUST FOLLOW THE REQUIREMENTS IN THE PASCO CO. LAND DEVELOPMENT CODE AND IF NECESSARY, ACQUIRE ASSOCIATED PERMITS FOR THIS OPERATION.
14. UPON COMPLETION OF THE LAND DEVELOPMENT CONSTRUCTION, A PROFESSIONAL ENGINEER SHALL PROVIDE A CERTIFICATION TO PASCO COUNTY THAT THE PROJECT, INCLUDING EACH PAD AREA, COMPLIES WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL/GEOLOGICAL ENGINEERING REPORT.
15. REFER TO UES GEOTECHNICAL REPORT FOR SPECIFIC UNDERGROUND STORAGE TANK FOUNDATION SUPPORT REQUIREMENTS.
16. BOTTOM OF CANOPY HEIGHT SHALL BE 18' ABOVE HIGHEST FINISH GRADE ELEVATION UNDER CANOPY.
17. TOP OF UNDERGROUND TANKS SHALL BE 4 FEET BELOW THE FINISH GRADE ELEVATION.

LEGEND

EXISTING	PROPOSED	
24" RCP	15" RCP	STORM DRAINAGE STRUCTURE
	13	STRUCTURE NO.
+46.8	54.32 / 54.03	ELEVATION
98	40	CONTOUR
		DIRECTION OF SURFACE FLOW
	B#	SOIL BORING LOCATION
		STAKED EROSION CONTROL (BUFFER LIMIT WHEN ADJACENT TO PROTECTED WETLANDS)
SWFWL		SWFWMD WETLAND LINE
25' DS		25' OFFSET FROM THE SWFWMD WETLAND LINE. (SHOWN FOR INFORMATIONAL PURPOSES)
		FEMA FLOODPLAIN
FFE=54.50		FINISHED FLOOR ELEVATION

811 Know what's below. Call before you dig.

N

SCALE: 1" = 20'

CONTACT RACETRAC PETROLEUM, INC. PROJECT MANAGER PRIOR TO ANY REVISIONS TO THE PLAN SUPPLIED BYRACETRAC PETROLEUM, INC.

NO.	REVISIONS	BY	DATE
#3	PER PASCO COMMENTS	BGS	11-25-14
#2	PER PASCO COMMENTS	BGS	08-18-14
#1	REV. NWOOD PALMS DRIVEWAY, ADDED PAVEMENT SLOPES, REMOVED STORM DATA	BGS	03-28-14

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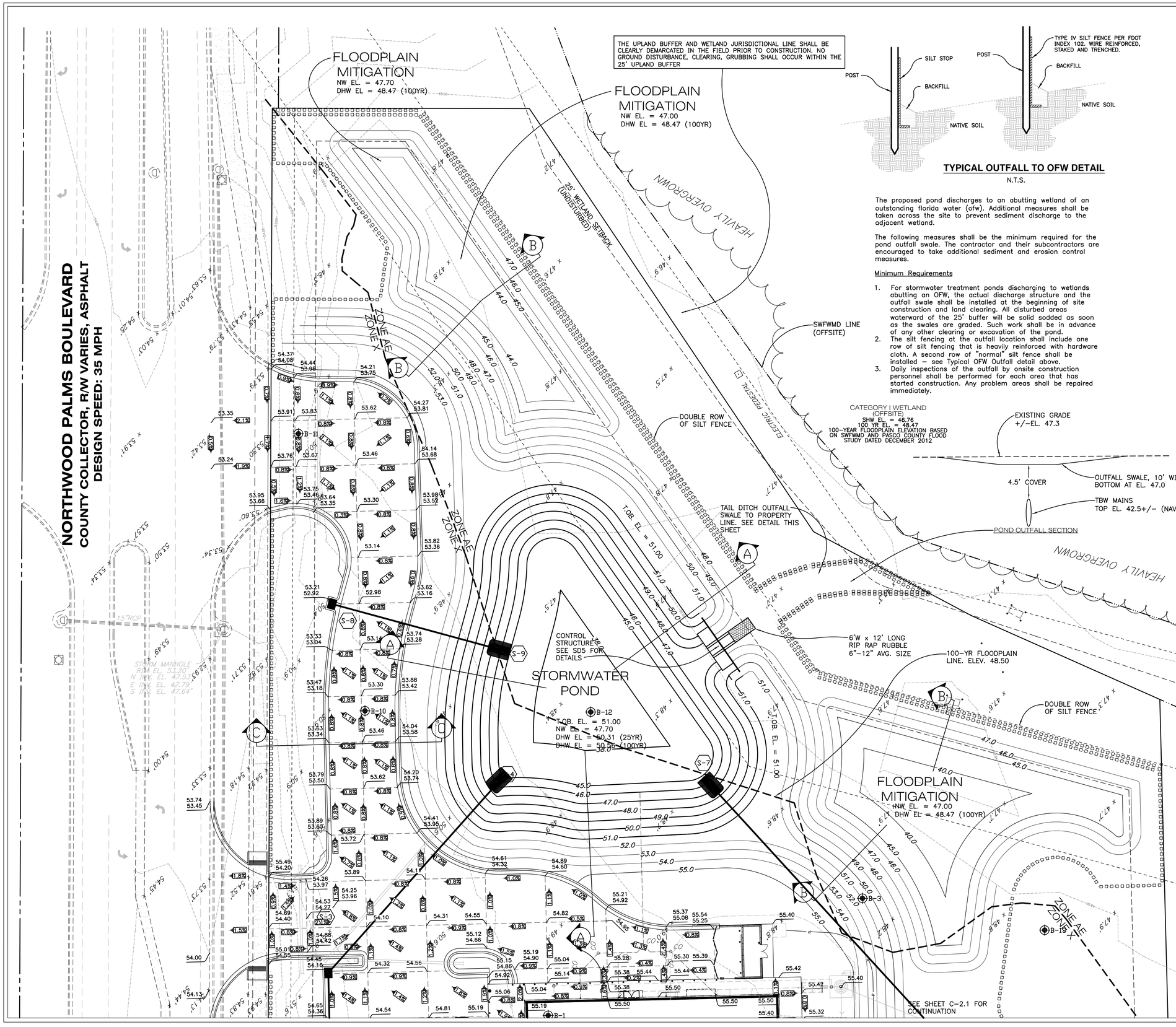
GRADING PLAN (NORTH)
RACETRAC MARKET
NORTHWOOD PALMS BLVD.
PASCO COUNTY, FLORIDA

SCALE	1" = 20 FEET	DATE	11/18/13
DRAWN	BGS	JOB NO.	13-RTR-001

C-2.1

SHEET NO. | REV.



TYPICAL OUTFALL TO OFW DETAIL

N.T.S.

The proposed pond discharges to an abutting wetland of an outstanding florida water (ofw). Additional measures shall be taken across the site to prevent sediment discharge to the adjacent wetland.

The following measures shall be the minimum required for the pond outfall swale. The contractor and their subcontractors are encouraged to take additional sediment and erosion control measures.

Minimum Requirements

1. For stormwater treatment ponds discharging to wetlands abutting an OFW, the actual discharge structure and the outfall swale shall be installed at the beginning of site construction and land clearing. All disturbed areas waterward of the 25' buffer will be solid sodded as soon as the swales are graded. Such work shall be in advance of any other clearing or excavation of the pond.
2. The silt fencing at the outfall location shall include one row of silt fencing that is heavily reinforced with hardware cloth. A second row of "normal" silt fence shall be installed – see Typical OFW Outfall detail above.
3. Daily inspections of the outfall by onsite construction personnel shall be performed for each area that has started construction. Any problem areas shall be repaired immediately.

GRADING PLAN NOTES

1. CONTRACTOR IS RESPONSIBLE FOR DEMOLITION OF EXISTING STRUCTURES INCLUDING REMOVAL OF ANY EXISTING UTILITIES SERVING THE STRUCTURE. UTILITIES ARE TO BE REMOVED TO THE RIGHT-OF-WAY AND CAPPED.
2. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF ALL EXISTING UTILITIES (ABOVE AND BELOW GROUND) AS SHOWN ON THESE PLANS ARE APPROXIMATE AND WERE LOCATED BASED ON EITHER VISUAL OBSERVATIONS AT THE SITE, EXISTING SURVEYS, AND/OR FROM UTILITY OWNERS. RACETRAC PETROLEUM DOES NOT GUARANTEE THAT EXISTING UTILITY LOCATIONS ARE EXACT. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXACT LOCATIONS OF EXISTING UTILITIES(ABOVE AND BELOW GROUND) BEFORE BEGINNING ANY CONSTRUCTION. THE CONTRACTOR SHALL CALL APPROPRIATE UTILITY COMPANIES AND THE UTILITIES PROTECTION CENTER AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY OWNER AND/OR ENGINEER OF ANY UTILITY CONFLICTS WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
3. ALL CUT OR FILL SLOPES SHALL BE 4:1 OR FLATTER UNLESS OTHERWISE NOTED.
4. EXISTING DRAINAGE STRUCTURES TO BE INSPECTED AND REPAIRED AS NEEDED, AND EXISTING PIPES TO BE CLEANED OUT TO REMOVE ALL SILTS AND DEBRIS.
5. IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITIONS OR BETTER.
6. ALL STORM PIPE ENTERING STRUCTURES SHALL BE GROUTED TO ASSURE CONNECTION AT STRUCTURE IS WATERTIGHT.
7. ALL STORM SEWER MANHOLES IN PAVED AREAS SHALL BE FLUSH WITH PAVEMENT, AND SHALL HAVE TRAFFIC BEARING RING AND COVERS. MANHOLES IN UNPAVED ARES SHALL BE 6" ABOVE FINISH GRADE. LIDS SHALL BE LABELED "STORM SEWER".
8. THE CONTRACTOR SHALL ADHERE TO ALL TERMS AND CONDITIONS AS OUTLINES IN THE GENERAL N.P.D.E.S. PERMIT FOR STORMWATER DISCHARGE ASSOCIATED WITH CONSTRUCTIONS ACTIVITIES.
9. CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE AWAY FROM BUILDING AND FOR ALL NATURAL AND PAVED AREAS.
10. ALL UNSURFACED AREAS DISTURBED BY GRADING OPERATION SHALL RECEIVE 4 INCHES OF TOPSOIL. CONTRACTOR SHALL GRASS DISTURBED AREAS IN ACCORDANCE WITH CITY/COUNTY SPECIFICATIONS UNTIL HEALTHY STAND OF GRASS IS OBTAINED.
11. CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND BE CONSTRUCTED TO SAME.
12. ALL RETAINING WALLS TO BE PROTECTED DURING BACKFILL BY CONTRACTOR. THIS INCLUDES BUT IS NOT LIMITED TO, PROVIDING AND INSTALLING PROPER BRACING DURING BACKFILL BEING PLACES ADJACENT TO RETAINING WALLS.
13. CONTRACTOR TO REVIEW GEOTECHNICAL REPORT PROVIDED BY RACETRAC.

STORM SEWER NOTES

1. ALL INLET AND MANHOLE STRUCTURE BOTTOMS ARE SPECIFIED AS TYPE "P" UNLESS OTHERWISE NOTED. REFER TO FDOT STANDARD INDEX #200 & #201.
2. ALL MITERED END SECTIONS (MES) ARE SPECIFIED FDOT INDEX #272 UNLESS OTHERWISE NOTED.
3. ALL PIPE LENGTHS ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE OR END OF MES, TO THE NEAREST FOOT.

LEGEND

EXISTING	PROPOSED	
24" RCP	15" RCP	STORM DRAINAGE STRUCTURE
	13	STRUCTURE NO.
+48	54.32 / 54.03	ELEVATION
38	40	CONTOUR
		DIRECTION OF SURFACE FLOW
	B#	SOIL BORING LOCATION
		STAKED EROSION CONTROL (BUFFER LIMIT WHEN ADJACENT TO PROTECTED WETLANDS)
	SWFWL	SWFWMD WETLAND LINE
	25' OS	25' OFFSET FROM THE SWFWMD WETLAND LINE. (SHOWN FOR INFORMATIONAL PURPOSES)
		FEMA FLOODPLAIN
FFE=54.50		FINISHED FLOOR ELEVATION

811 Know what's below. Call before you dig.

CONTACT RACETRAC PETROLEUM, INC. PROJECT MANAGER PRIOR TO ANY REVISIONS TO THE PLAN SUPPLIED BYRACETRAC PETROLEUM, INC.

NO.	REVISIONS	BY	DATE
3	PER PASCO COMMENTS	BGS	08.18.14
2	REMOVED STORM INFO, ADDED PAVEMENT SLOPES	BGS	03.26.14
1	ADDED OFW OUTFALL DETAIL AND NOTES PER SWFWMD	BGS	12.19.13

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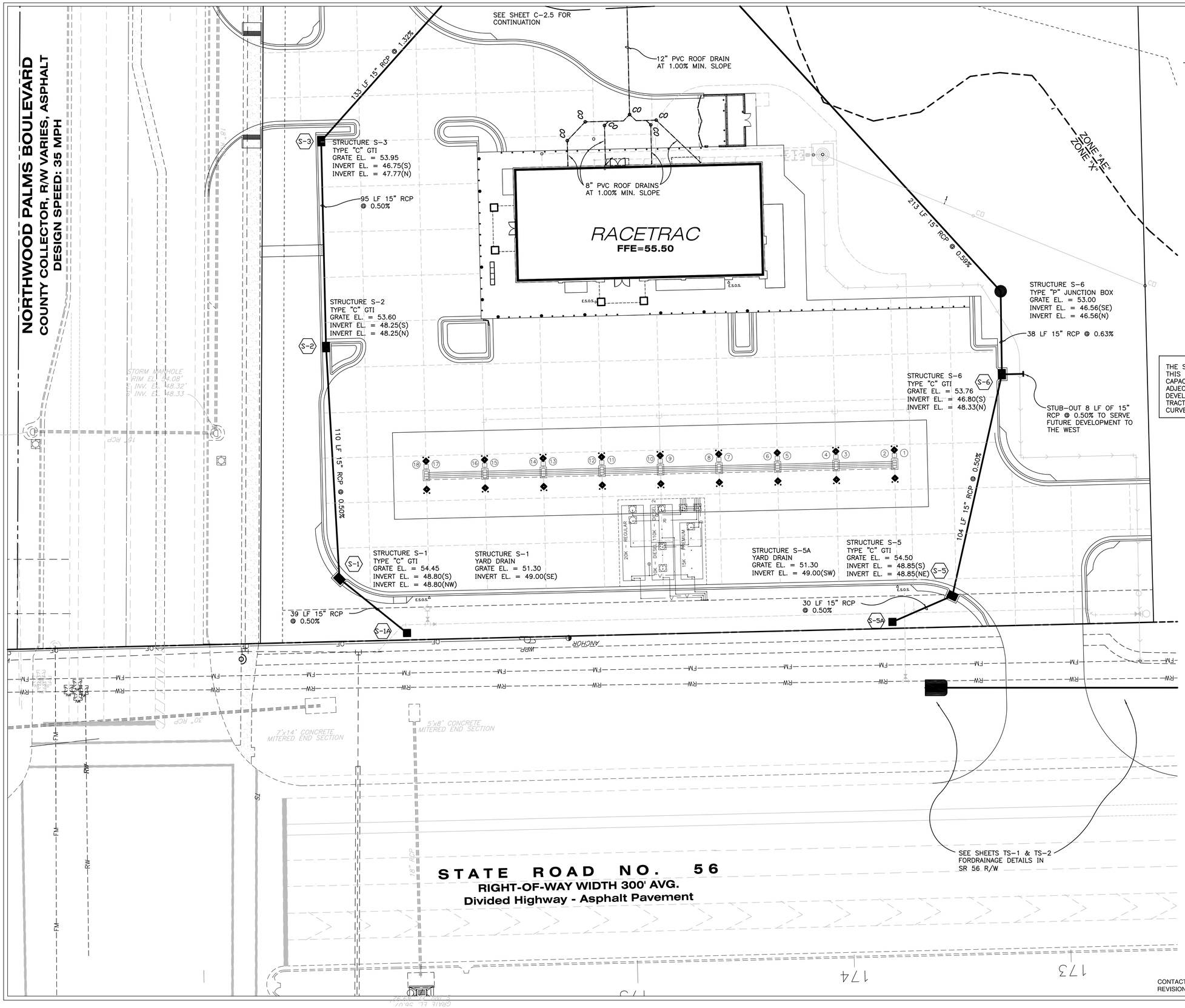
GRADING PLAN (SOUTH)
RACETRAC MARKET
NORTHWOOD PALMS BLVD.
PASCO COUNTY, FLORIDA

SCALE	1" = 20 FEET	DATE	11/18/13
DRAWN	BGS	JOB NO.	13-RTR-001

C-2.2

SHEET NO. | REV.

NORTHWOOD PALMS BOULEVARD
COUNTY COLLECTOR, R/W VARIES, ASPHALT
DESIGN SPEED: 35 MPH



THE STORMWATER POND SERVING THIS PROJECT ALSO INCLUDES CAPACITY FOR 0.47 ACRES OF THE ADJECENT TRACT TO THE WEST. DEVELOPMENT OF THE ADJACENT TRACT CAN HAVE A MAXIMUM CURVE NUMBER OF 95.

LEGEND

EXISTING	PROPOSED	
24" RCP	15" RCP	STORM DRAINAGE STRUCTURE
	13	STRUCTURE NO.
468	54.32 / 54.03	ELEVATION
98	40	CONTOUR
		DIRECTION OF SURFACE FLOW
	B#	SOIL BORING LOCATION
		STAKED EROSION CONTROL (BUFFER LIMIT WHEN ADJACENT TO PROTECTED WETLANDS)
	SWFWL	SWFWMD WETLAND LINE
	25' OS	25' OFFSET FROM THE SWFWMD WETLAND LINE. (SHOWN FOR INFORMATIONAL PURPOSES)
		FEMA FLOODPLAIN
	FFE=54.50	FINISHED FLOOR ELEVATION

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NO.	REVISIONS	BY	DATE
#3	PER PASCO COMMENTS	BGS	11-25-14
#2	PER PASCO COMMENTS	BGS	08-18-14
#1	ADDED NEW SHEET. ADDED STORM DRAINAGE AT NORTHWOOD DRIVEWAY	BGS	03-26-14

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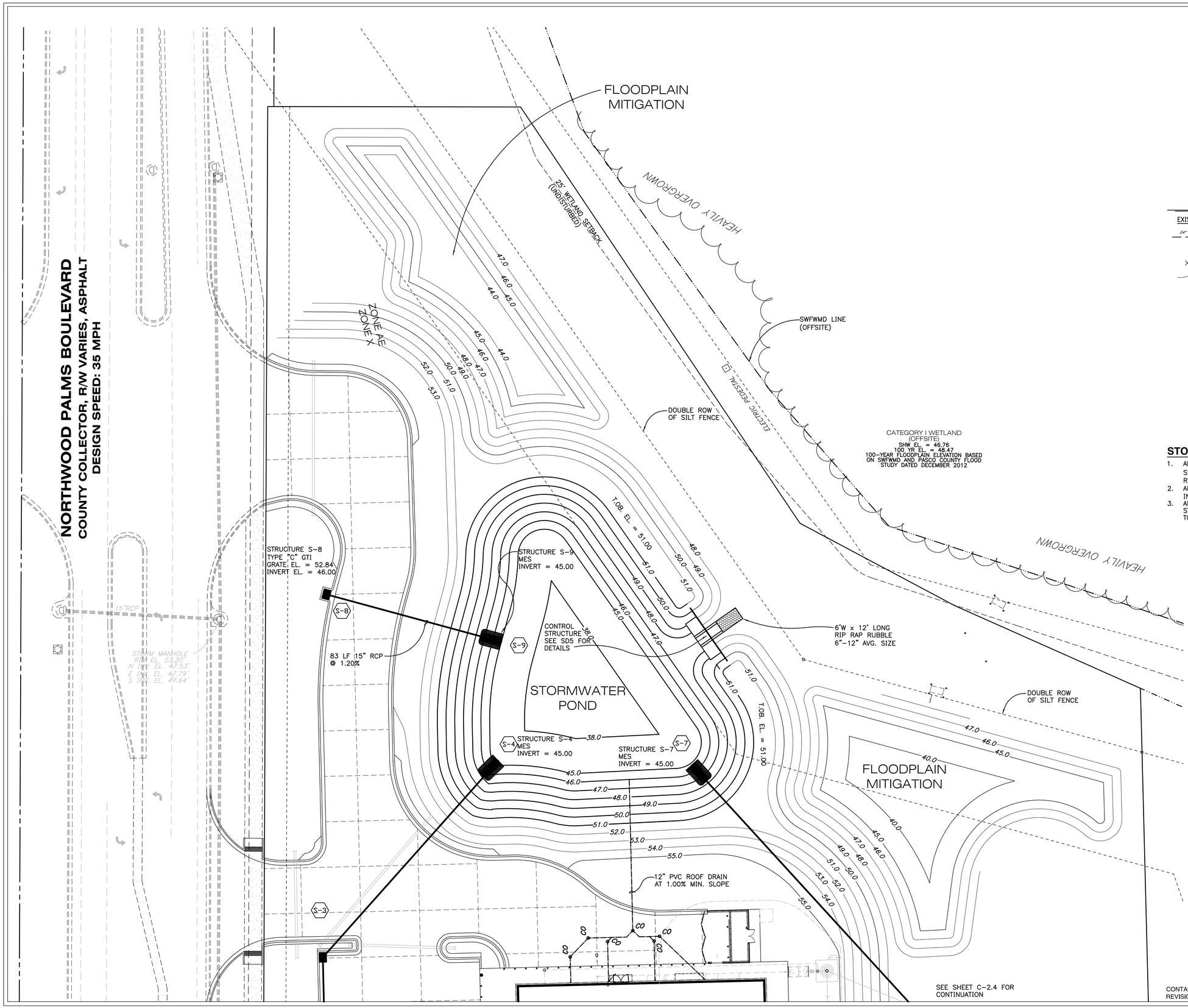
STORM SEWER PLAN (NORTH)
RACETRAC MARKET
NORTHWOOD PALMS BLVD.
PASCO COUNTY, FLORIDA

SCALE	1" = 20 FEET	DATE	11/18/13
DRAWN	BGS	JOB NO.	13-RTR-001

C-2.3

SHEET NO. | REV.



LEGEND

EXISTING	PROPOSED	
24" RCP	15" RCP	STORM DRAINAGE STRUCTURE
	13	STRUCTURE NO.
+48	54.32 / 54.03	ELEVATION
38	40	CONTOUR
		DIRECTION OF SURFACE FLOW
	B#	SOIL BORING LOCATION
		STAKED EROSION CONTROL (BUFFER LIMIT WHEN ADJACENT TO PROTECTED WETLANDS)
SWFWL		SWFWMD WETLAND LINE
25' OS		25' OFFSET FROM THE SWFWMD WETLAND LINE. (SHOWN FOR INFORMATIONAL PURPOSES)
		FEMA FLOODPLAIN
FFE=54.50		FINISHED FLOOR ELEVATION

STORM SEWER NOTES

1. ALL INLET AND MANHOLE STRUCTURE BOTTOMS ARE SPECIFIED AS TYPE "P" UNLESS OTHERWISE NOTED. REFER TO FDOT STANDARD INDEX #200 & #201.
2. ALL MITERED END SECTIONS (MES) ARE SPECIFIED FDOT INDEX #272 UNLESS OTHERWISE NOTED.
3. ALL PIPE LENGTHS ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE OR END OF MES, TO THE NEAREST FOOT.

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NO.	REVISIONS	BY	DATE
#2	PER PASCO COMMENTS	BGS	08-18-14
1	ADDED NEW SHEET	BGS	03.26.14

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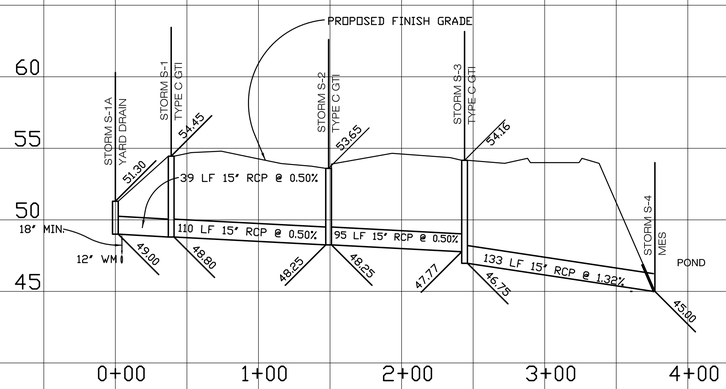
STORM SEWER PLAN (SOUTH)
RACETRAC MARKET
NORTHWOOD PALMS BLVD.
PASCO COUNTY, FLORIDA

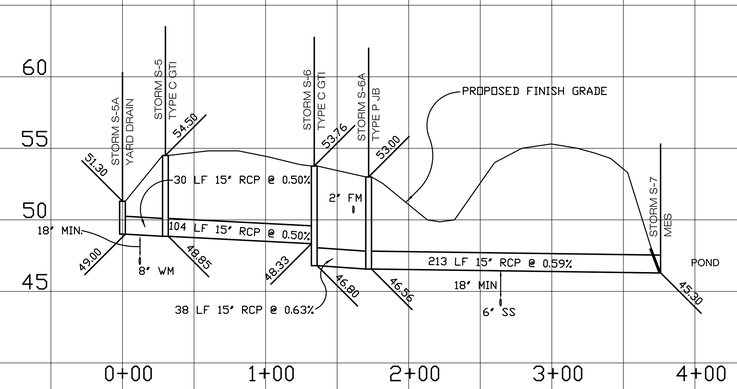
SCALE	1" = 20 FEET	DATE	11/18/13
DRAWN	BGS	JOB NO.	13-RTR-001

C-2.4

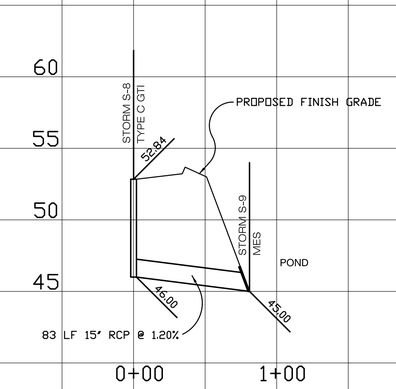
SHEET NO. | REV.



STORM PROFILE S-1 TO S-4



STORM PROFILE S-5 TO S-7



STORM PROFILE S-8 TO S-9

STORM SEWER NOTES:

1. ALL INLET AND MANHOLE STRUCTURE BOTTOMS ARE SPECIFIED TYPE 'P' UNLESS OTHERWISE NOTED. REFER TO FDOT DESIGN STANDARDS INDEX #200 & #201.
2. ALL MITERED END SECTIONS (MES) ARE SPECIFIED FDOT INDEX #272 UNLESS OTHERWISE NOTED.
3. ALL PIPE LENGTHS ARE MEASURED FROM CENTER OF STRUCTURE TO THE CENTER OF STRUCTURE OR END OF MES, TO THE NEAREST FOOT.

SCALE: 1"= 5' VERTICAL
1"= 50' HORIZONTAL

NO.	REVISIONS	BY	DATE
#2	PER PASCO COMMENTS	BGS	08-18-14
#1	REVISED STORM PROFILES	BGS	03-26-14

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STORM SEWER PROFILES

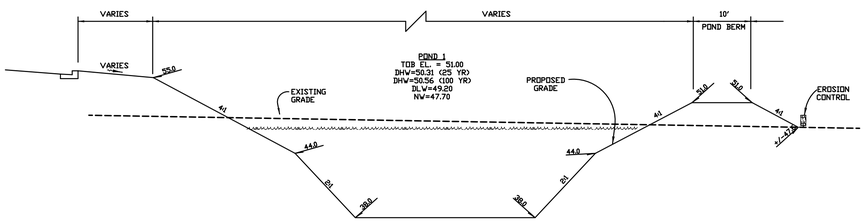
RACETRAC MARKET

NORTHWOOD PALMS BLVD.
PASCO COUNTY, FLORIDA

SCALE	VARIES	DATE	11/18/13
DRAWN	BGS	JOB NO.	13-RTR-001

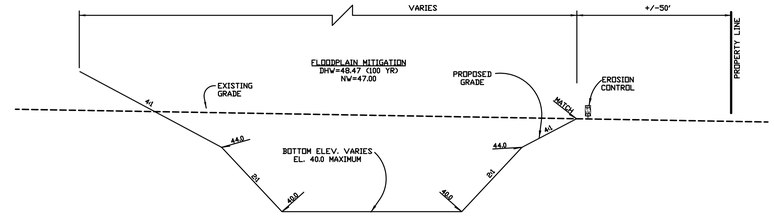
C-2.3

SHEET NO. | REV.



SECTION A-A

ALL SLOPES SHALL BE SODDED. LIMITS OF SOD SHALL EXTEND TO THE NORMAL WATER ELEVATION



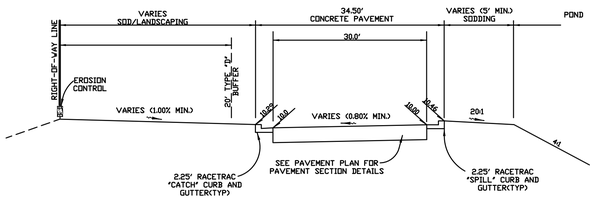
SECTION B-B

POND EXCAVATION NOTES:

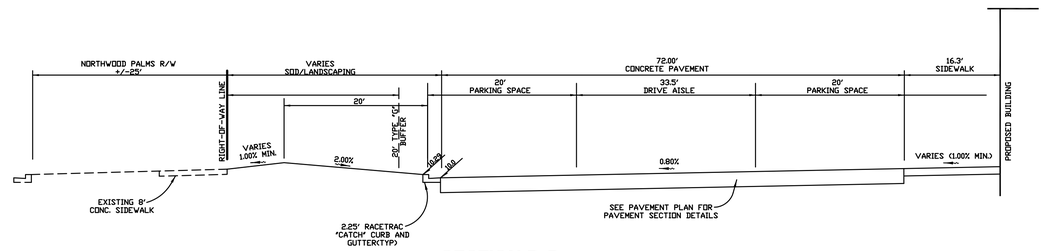
1. No pond/lake excavation (for any purpose) shall extend beyond or below the permitted design depths/elevations shown on the construction drawings (unless additional testing supports otherwise, and such operation is consistent with permit requirements); and no lower semi-confining unit clayey materials and no weathered limestone materials shall be excavated, regardless if these materials are encountered within the permitted excavation depths/elevations shown on the drawings. Any excavations proposed below the permitted bottom elevations will require a Modification to the SWFWMD Environmental Resources Permit.

2. No temporary dewatering ditches or sumps (for pond/lake excavation) shall extend below the permitted design depths/elevations shown on the construction drawings.

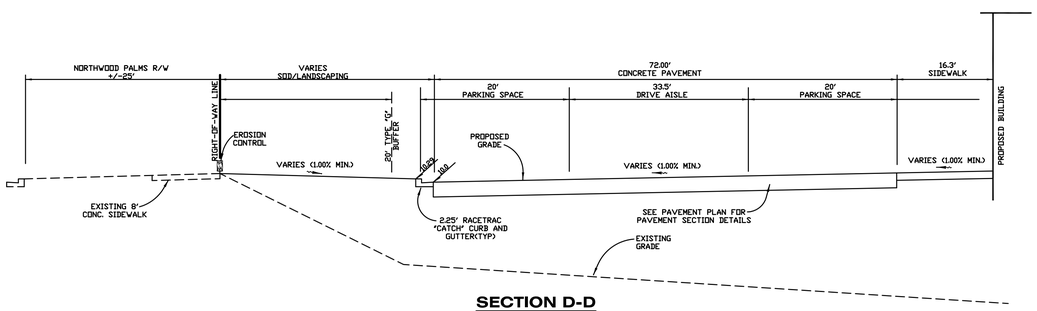
3. If any lower semi-confining unit clayey materials or weathered limestone materials are encountered above the permitted excavation depths/elevations, then excavation operations in that pond/lake area shall immediately cease in the general area, and the Geotechnical Consultant shall be notified to provide subsequent evaluations/recommendations, as appropriate, which shall be implemented by for each pond/lake area, the Contractor shall arrange for and coordinate the inspection/observation of the required proofrolling /compaction operations over the completed pond/lake bottom area, in a dewatered state, by the Geotechnical Consultant, Owner and Civil Engineer, prior to any refilling of the pond/lake with water or any unsuitable soils.



SECTION C-C



SECTION D-D



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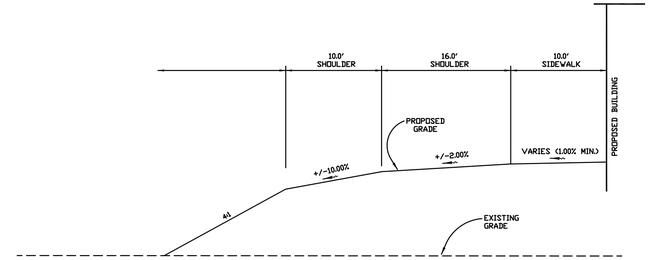
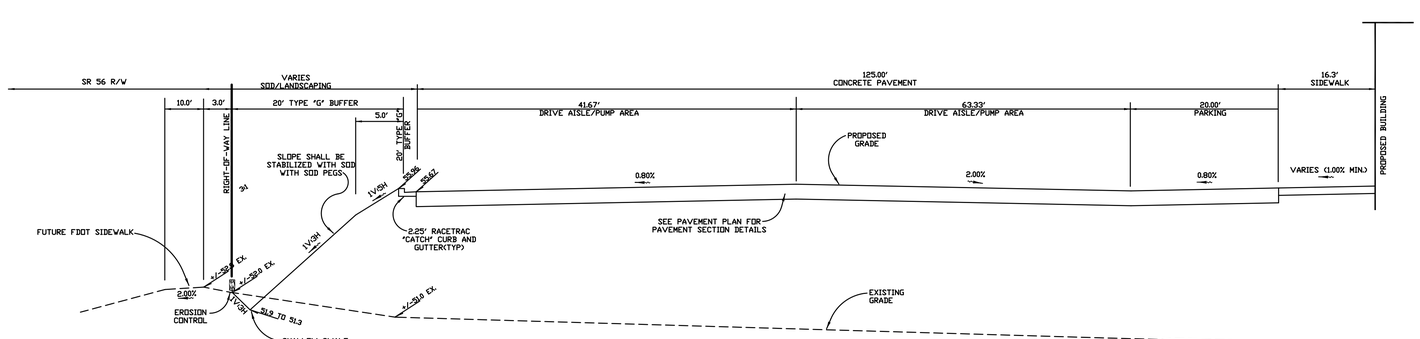
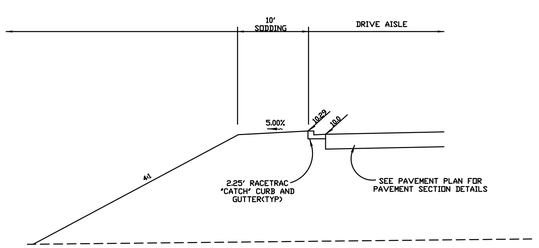


SECTION F-F



SECTION E-E



SECTION G-G

NO.	REVISIONS	BY	DATE
#2	PER PASCO/FDOT COMMENTS	BGS	08-18-14
#1	UPDATED SECTIONS PER PLAN REVISIONS	BGS	03-26-14

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FL ENGINEERING BUSINESS CERTIFICATE OF AUTHORIZATION NO. 28789

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GRADING/DRAINAGE SECTIONS

RACETRAC MARKET

NORTHWOOD PALMS BLVD.
PASCO COUNTY, FLORIDA

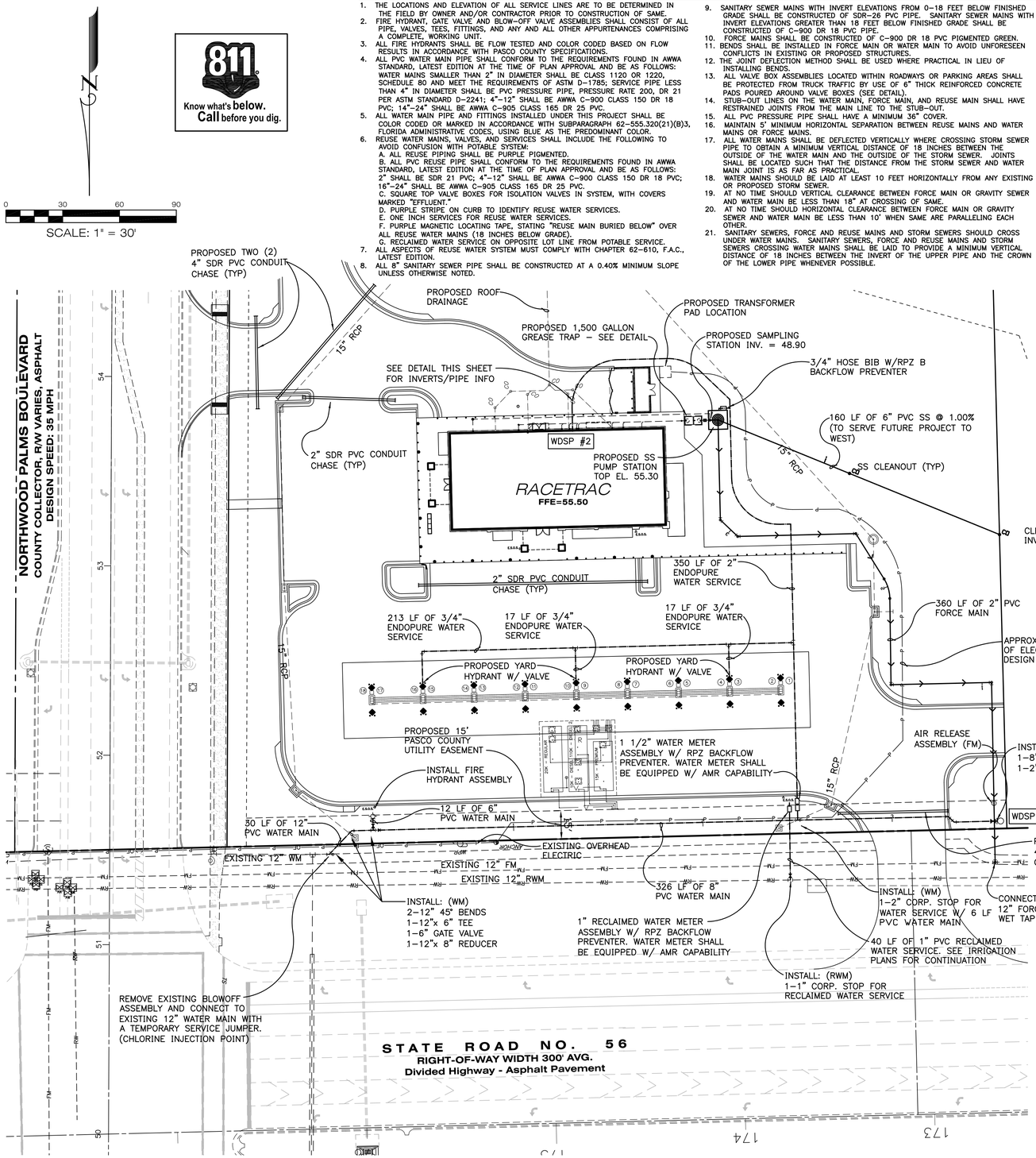
SCALE	NTS	DATE	11/18/13
DRAWN	BGS	JOB NO.	13-RTR-001

C-2.4

SHEET NO. | REV.

WATER, SANITARY SEWER & REUSE WATER CONSTRUCTION NOTES

1. THE LOCATIONS AND ELEVATION OF ALL SERVICE LINES ARE TO BE DETERMINED IN THE FIELD BY OWNER AND/OR CONTRACTOR PRIOR TO CONSTRUCTION OF SAME.
2. FIRE HYDRANT, GATE VALVE AND BLOW-OFF VALVE ASSEMBLIES SHALL CONSIST OF ALL PIPE, VALVES, TEES, FITTINGS, AND ANY AND ALL OTHER APPURTENANCES COMPRISING A COMPLETE, WORKING UNIT.
3. ALL FIRE HYDRANTS SHALL BE FLOW TESTED AND COLOR CODED BASED ON FLOW RESULTS IN ACCORDANCE WITH PASCO COUNTY SPECIFICATIONS.
4. ALL PVC WATER MAIN PIPE SHALL CONFORM TO THE REQUIREMENTS FOUND IN AWWA STANDARD, LATEST EDITION AT THE TIME OF PLAN APPROVAL AND BE AS FOLLOWS: WATER MAINS SMALLER THAN 2" IN DIAMETER SHALL BE CLASS 1120 OR 1220, SCHEDULE 80 AND MEET THE REQUIREMENTS OF ASTM D-1785; SERVICE PIPE LESS THAN 4" IN DIAMETER SHALL BE PVC PRESSURE PIPE, PRESSURE RATE 200, DR 21 PER ASTM STANDARD D-2241; 4"-12" SHALL BE AWWA C-900 CLASS 150 DR 18 PVC; 14"-24" SHALL BE AWWA C-905 CLASS 165 DR 25 PVC.
5. ALL WATER MAIN PIPE AND FITTINGS INSTALLED UNDER THIS PROJECT SHALL BE COLOR CODED OR MARKED IN ACCORDANCE WITH SUBPARAGRAPH 62-555.320(21)(B)3, FLORIDA ADMINISTRATIVE CODES, USING BLUE AS THE PREDOMINANT COLOR.
6. REUSE WATER MAINS, VALVES, AND SERVICES SHALL INCLUDE THE FOLLOWING TO AVOID CONFUSION WITH POTABLE SYSTEM:
   A. ALL REUSE PIPING SHALL BE PURPLE PIGMENTED.
   B. ALL PVC REUSE PIPE SHALL CONFORM TO THE REQUIREMENTS FOUND IN AWWA STANDARD, LATEST EDITION AT THE TIME OF PLAN APPROVAL AND BE AS FOLLOWS: 2" SHALL BE SDR 21 PVC; 4"-12" SHALL BE AWWA C-900 CLASS 150 DR 18 PVC; 16"-24" SHALL BE AWWA C-905 CLASS 165 DR 25 PVC.
   C. SQUARE TOP VALVE BOXES FOR ISOLATION VALVES IN SYSTEM, WITH COVERS MARKED "EFFLUENT."
   D. PURPLE STRIPE ON CURB TO IDENTIFY REUSE WATER SERVICES.
   E. ONE INCH SERVICES FOR REUSE WATER SERVICES.
   F. PURPLE MAGNETIC LOCATING TAPE, STATING "REUSE MAIN BURIED BELOW" OVER ALL REUSE WATER MAINS (18 INCHES BELOW GRADE).
   G. RECLAIMED WATER SERVICE ON OPPOSITE LOT LINE FROM POTABLE SERVICE.
7. ALL ASPECTS OF REUSE WATER SYSTEM MUST COMPLY WITH CHAPTER 62-610, F.A.C., LATEST EDITION.
8. ALL 8" SANITARY SEWER PIPE SHALL BE CONSTRUCTED AT A 0.40% MINIMUM SLOPE UNLESS OTHERWISE NOTED.
9. SANITARY SEWER MAINS WITH INVERT ELEVATIONS FROM 0-18 FEET BELOW FINISHED GRADE SHALL BE CONSTRUCTED OF SDR-26 PVC PIPE. SANITARY SEWER MAINS WITH INVERT ELEVATIONS GREATER THAN 18 FEET BELOW FINISHED GRADE SHALL BE CONSTRUCTED OF C-900 DR 18 PVC PIPE.
10. FORCE MAINS SHALL BE CONSTRUCTED OF C-900 DR 18 PVC PIGMENTED GREEN.
11. BENDS SHALL BE INSTALLED IN FORCE MAIN OR WATER MAIN TO AVOID UNFORESEEN CONFLICTS IN EXISTING OR PROPOSED STRUCTURES.
12. THE JOINT DEFLECTION METHOD SHALL BE USED WHERE PRACTICAL IN LIEU OF INSTALLING BENDS.
13. ALL VALVE BOX ASSEMBLIES LOCATED WITHIN ROADWAYS OR PARKING AREAS SHALL BE PROTECTED FROM TRUCK TRAFFIC BY USE OF 6" THICK REINFORCED CONCRETE PADS POURED AROUND VALVE BOXES (SEE DETAIL).
14. STUB-OUT LINES SHALL BE ARRANGED SO THAT THE SEWER AND REUSE PIPES JOINTS AND THE WATER MAIN PIPE JOINTS ARE EQUIDISTANT FROM THE POINT OF CROSSING (PIPES CENTERED ON THE CROSSING).
15. ALL PVC PRESSURE PIPE SHALL HAVE A MINIMUM 36" COVER.
16. MAINTAIN 5' MINIMUM HORIZONTAL SEPARATION BETWEEN REUSE MAINS AND WATER MAINS OR FORCE MAINS.
17. ALL WATER MAINS SHALL BE DEFLECTED VERTICALLY WHERE CROSSING STORM SEWER PIPE TO OBTAIN A MINIMUM VERTICAL DISTANCE OF 18 INCHES BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF THE STORM SEWER. JOINTS SHALL BE LOCATED SUCH THAT THE DISTANCE FROM THE STORM SEWER AND WATER MAIN JOINT IS AS FAR AS PRACTICAL.
18. WATER MAINS SHOULD BE LAID AT LEAST 10 FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED STORM SEWER.
19. AT NO TIME SHOULD VERTICAL CLEARANCE BETWEEN FORCE MAIN OR GRAVITY SEWER AND WATER MAIN BE LESS THAN 18" AT CROSSING OF SAME.
20. AT NO TIME SHOULD HORIZONTAL CLEARANCE BETWEEN FORCE MAIN OR GRAVITY SEWER AND WATER MAIN BE LESS THAN 10' WHEN SAME ARE PARALLELING EACH OTHER.
21. SANITARY SEWERS, FORCE AND REUSE MAINS AND STORM SEWERS SHOULD CROSS UNDER WATER MAINS. SANITARY SEWERS, FORCE AND REUSE MAINS AND STORM SEWERS CROSSING WATER MAINS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18 INCHES BETWEEN THE INVERT OF THE UPPER PIPE AND THE CROWN OF THE LOWER PIPE WHENEVER POSSIBLE.
22. WHEN SANITARY SEWERS, FORCE AND REUSE MAINS AND STORM SEWERS MUST CROSS A WATER MAIN WITH LESS THAN 18 INCHES VERTICAL DISTANCE, BOTH THE SEWER AND THE WATER MAIN SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE (DIP) AT THE CROSSING. (DIP IS NOT REQUIRED FOR STORM SEWERS IF IT IS NOT AVAILABLE IN THE SIZE PROPOSED.) SUFFICIENT LENGTHS OF DIP MUST BE USED TO PROVIDE A MINIMUM SEPARATION OF 10 FEET BETWEEN ANY TWO JOINTS. ALL JOINTS ON THE WATER MAIN WITHIN 20 FEET OF THE CROSSING MUST BE LEAK FREE AND MECHANICALLY RESTRAINED. A MINIMUM VERTICAL CLEARANCE OF 6 INCHES MUST BE MAINTAINED AT THE CROSSING.
23. WHERE THERE IS NO ALTERNATIVE TO SEWER AND REUSE PIPES CROSSING OVER A WATER MAIN, THE CRITERIA FOR MINIMUM SEPARATION OF 18 INCHES BETWEEN LINES AND 10 FEET BETWEEN JOINTS SHALL BE REQUIRED.
24. ALL CROSSINGS SHALL BE ARRANGED SO THAT THE SEWER AND REUSE PIPES JOINTS AND THE WATER MAIN PIPE JOINTS ARE EQUIDISTANT FROM THE POINT OF CROSSING (PIPES CENTERED ON THE CROSSING).
25. WHERE A NEW PIPE CONFLICTS WITH AN EXISTING PIPE, THE NEW PIPE SHALL BE CONSTRUCTED OF DIP AND THE CROSSING SHALL BE ARRANGED TO MEET THE REQUIREMENTS ABOVE.
26. A MINIMUM 10-FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED IN PARALLEL INSTALLATIONS BETWEEN ANY TYPE OF SEWER (INCLUDING DRAINAGE INLETS) AND WATER MAIN WHENEVER POSSIBLE. A MINIMUM 5-FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED IN PARALLEL INSTALLATION BETWEEN REUSE WATER MAINS AND WATER MAINS, AND BETWEEN REUSE WATER MAINS AND SANITARY SEWERS WHENEVER POSSIBLE.
27. IN CASES WHERE IT IS NOT POSSIBLE TO MAINTAIN A 10-FOOT HORIZONTAL SEPARATION BETWEEN ANY TYPE OF PARALLEL SEWER AND WATER MAIN, OR A 5-FOOT SEPARATION BETWEEN REUSE MAIN AND WATER MAIN, THE WATER MAIN MUST BE LAID IN A SEPARATE TRENCH OR ON AN UNDISTURBED EARTH SHELF LOCATED ON ONE SIDE OF THE SEWER, REUSE MAIN, OR FORCE MAIN AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER.
28. WHERE IT IS NOT POSSIBLE TO MAINTAIN A VERTICAL DISTANCE OF 18 INCHES OR A HORIZONTAL DISTANCE OF 10 FEET IN PARALLEL INSTALLATIONS, THE WATER MAIN SHALL BE CONSTRUCTED OF DIP AND THE SEWER, REUSE MAIN OR THE FORCE MAIN SHALL BE CONSTRUCTED OF DIP (IF AVAILABLE IN THE SIZE PROPOSED) WITH A MINIMUM VERTICAL DISTANCE OF 6 INCHES. THE WATER MAIN SHOULD BE ABOVE THE SEWER, REUSE MAIN, OR FORCE MAIN. JOINTS ON THE WATER MAIN SHALL BE LOCATED AS FAR APART AS POSSIBLE FROM JOINTS ON THE SEWER, REUSE MAIN, OR FORCE MAIN (STAGGERED JOINTS).
29. ALL SUBSURFACE CONSTRUCTION SHALL COMPLY WITH THE "TRENCH SAFETY ACT." THE CONTRACTOR SHALL ENSURE THAT THE METHOD OF TRENCH PROTECTION AND CONSTRUCTION IS IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS.
30. THE PASCO COUNTY UTILITIES SERVICES BRANCH SHALL NOT OWN OR MAINTAIN WATER AND SEWER LINES OR FACILITIES ON-SITE.
44. THE CONTRACTOR SHALL INSTALL MECHANICAL PLUGS IN THE GRAVITY SEWER SYSTEM AT THE LOCATIONS INDICATED ON THE CONSTRUCTION PLANS. THE SANITARY SEWER PLUGS SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION BY THE CONTRACTOR AND SHALL REMAIN IN PLACE UNTIL THE SYSTEM HAS BEEN CLEANED, INSPECTED AND APPROVED BY THE UTILITIES SERVICES BRANCH. WHEN THE SYSTEM HAS BEEN APPROVED THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF THE PLUGS.



WATER & SEWER LEGEND

EXISTING	PROPOSED	
		WATER MAIN (WM)
		FIRE MAIN & FIRE HYDRANT
		VALVE & BOX
		REDUCER
		PLUG
		BLOW-OFF
		BENDS
		WATER SERVICE W/VALVE
	WDSP	WATER DISTRIBUTION SAMPLING POINT
A2	A2	SANITARY SEWER (SM)
		6" SANITARY SERVICE W/CLEANOUT
		SANITARY FORCE MAIN (FM)
POS. IND. VALVE (TYP.)		SINGLE SERVICE (FIRE)

IRRIGATION NOTE

THE IRRIGATION DEMAND FOR THIS PROJECT IS ESTIMATED AT +/-3,000 GPD WITH A PEAK RATE OF 35 GPM

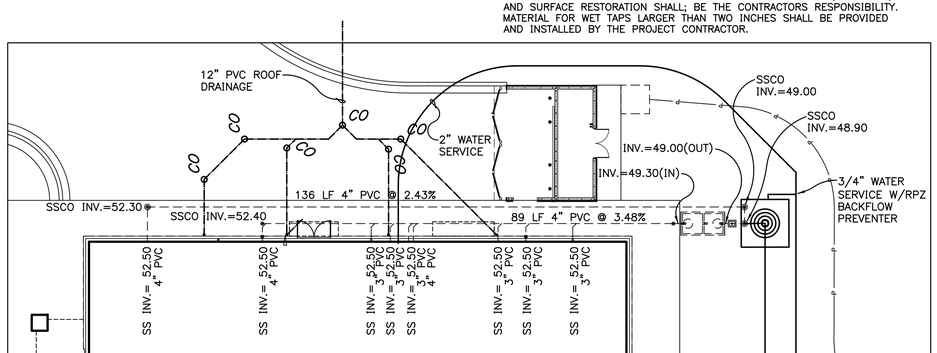
PASCO COUNTY WET TAP NOTES:

CONTRACTOR'S RESPONSIBILITIES REGARDING WET TAPS ARE AS FOLLOWS:

1. 2" ONLY: THIS EXCAVATED TRENCH MUST BE DRY OR THE TRENCH WILL REQUIRE ROCK AND A PUMP TO BE IN PLACE. THE MINIMUM DISTANCE FROM THE FACE OF THE VALVE TO THE WALL OF THE TRENCH IS TO BE SIX FEET.
2. 3" AND LARGER: THE CONTRACTOR WILL SUPPLY A TAPPING SADDLE BEING EPOXY COATED, A TAPPING VALVE WITH MECHANICAL JOINT AND THE EQUIPMENT TO PROVIDE AND CONDUCT A PRESSURE TEST. COUNTY PERSONNEL WILL WITNESS THE PRESSURE TEST WHICH MUST BE AT 150 PSI FOR A DURATION OF THIRTY MINUTES.
3. THE CONTRACTOR IS RESPONSIBLE FOR THE EXCAVATION BEFORE ANY COUNTY PERSONNEL WILL ENTER THE EXCAVATED AREA. IF THE TRENCH IS FOUR FEET IN DEPTH OR DEEPER, IT WILL REQUIRE A TRENCH BOX OR SLOPING, AND A LADDER ACCORDING TO OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OHSA) STANDARDS.
4. THE TAPPING VALVE WILL REQUIRE A BLOCKING DEVICE MADE OF SUITABLE MATERIAL OR DEVICE. THIS BLOCKING DEVICE WILL BE PLACED UNDER THE VALVE AND REMAIN IN PLACE UNTIL THE TAP MACHINE IS REMOVED AND THE TAP IS COMPLETED.
5. IF THE CONTRACTOR HAS NOT FULFILLED HIS RESPONSIBILITIES, AS STATED ABOVE, PRIOR TO THE ARRIVAL OF PASCO COUNTY UTILITIES OPERATIONS AND MAINTENANCE TAPPING CREW, THERE WILL BE AN ADDITIONAL CHARGE OF $92.00.
6. ANY QUESTIONS REGARDING WET TAPS MAY BE DIRECTED TO NELSON D. HOLT, FIELD SUPERVISOR, PASCO UTILITIES SERVICE BRANCH, AT 727-847-8145 OR EMAIL HOLT@PASCOCOUNTYFL.NET

UTILITY PLAN NOTES

1. ALL FILL MATERIAL IS TO BE IN PLACE AND COMPACTED BEFORE INSTALLATION OF PROPOSED UTILITIES.
2. CONTRACTOR IS RESPONSIBLE FOR COMPLYING TO THE SPECIFICATIONS OF THE LOCAL AUTHORITIES WITH REGARDS TO MATERIALS AND INSTALLATION OF THE WATER AND SEWER LINES.
3. CONTRACTOR SHALL NOTIFY UTILITY AUTHORITIES INSPECTORS 72 HOURS BEFORE CONNECTING TO ANY EXISTING LINE.
4. SANITARY SEWER PIPE SHALL BE AS FOLLOWS:
   8" PVC SDR35 PER ASTM D 3034, FOR PIPES LESS THAN 12' DEEP.
   8" PVC SDR26 PER ASTM D 3034, FOR PIPES MORE THAN 12' DEEP.
   6" PVC SCHEDULE 40
5. WATER LINE SHALL BE AS FOLLOWS:
   A. PIPE SIZES LESS THAN 3-INCHES THAT ARE INSTALLED BELOW GRADE AND OUTSIDE THE BUILDING SHALL COMPLY WITH THE FOLLOWING:
      1. ENDOPURE - ASTM D2737, 200 PSI - PE 4710/PE 3408
   B. PIPE SIZES 3-INCHES OR GREATER THAT ARE INSTALLED BELOW GRADE AND OUTSIDE THE BUILDING SHALL COMPLY WITH THE FOLLOWING:
      1. DUCTILE IRON WATER PIPE: AWWA C151, THICKNESS CLASS 50.
         a. FITTINGS: EITHER MECHANICAL JOINT OR PUSH-ON JOINT, AWWA C110 OR AWWA C111
         b. ELASTOMERIC GASKETS AND LUBRICANT: ASTM - F477
      2. POLYVINYL CHLORIDE (PVC) WATER PIPE: PIPE, AWWA C900, RATED DR 18 (CLASS 150), CONTINUALLY MARKED AS REQUIRED
         a. ELASTOMERIC GASKETS AND LUBRICANT: ASTM - F477 FOR SMALLER PIPES
         b. PIPE JOINTS: INTEGRALLY MOLDED BELL ENDS, ASTM D 3139
6. MINIMUM TRENCH WIDTH SHALL BE 2 FEET.
7. ALL WATER JOINTS ARE TO BE MECHANICAL JOINTS WITH THRUST BLOCKING AS CALLED OUT IN SPECIFICATIONS FOR WATER MAINS.
8. WATER AND SANITARY SEWER SHOULD BE KEPT TEN (10') APART (PARALLEL) OR 18" APART WHEN CROSSING (OUTSIDE EDGE OF PIPE TO OUTSIDE EDGE OF PIPE)
9. CONTRACTOR SHALL MAINTAIN 3'-0" COVER ON ALL WATERLINES.
10. ALL UTILITIES SHALL BE KEPT TEN (10') APART (PARALLEL) OR 18" APART WHEN CROSSING (OUTSIDE EDGE OF PIPE TO OUTSIDE EDGE OF PIPE)
11. LINES UNDERGROUND SHALL BE INSTALLED, INSPECTED, AND APPROVED PRIOR TO BACKFILLING.
12. TOPS OF EXISTING MANHOLES SHALL BE RAISED AS NECESSARY TO BE FLUSH WITH PROPOSED ELEVATIONS, AND TO BE ONE FOOT ABOVE FINISHED GROUND ELEVATIONS WITH WATER TIGHT LIDS.
13. ALL CONCRETE FOR ENCASEMENTS SHALL HAVE A MINIMUM 28 DAY COMPRESSION STRENGTH AT 3000 P.S.I.
14. DRAWINGS DON'T PURPORT TO SHOW ALL EXISTING UTILITIES.
15. EXISTING UTILITIES SHALL BE VERIFIED IN THE FIELD PRIOR TO INSTALLATION OF ANY NEW LINES.
16. REFER TO INTERIOR PLUMBING FOR TIE-IN ON ALL UTILITIES.
17. CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES FOR INSTALLATION REQUIREMENTS AND SPECIFICATIONS.
18. CONTRACTOR TO PROVIDE TRENCHING, CONDUIT, PULL WIRE, AND BACKFILL FOR TELEPHONE AND ELECTRIC LINES UNLESS OTHERWISE NOTED.
19. TRENCHES OF 20 FEET OF DEPTH OR GREATER
20. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING THE EXACT LOCATION, SIZE. AND MATERIAL OF ANY EXISTING WATER OR SEWER FACILITY FOR CONNECTION OR USE BY THIS PROJECT. THE RELOCATION OF ANY WATER/SEWER FACILITY REQUIRED TO AVOID ANY PART OF THIS DEVELOPMENT IS THE RESPONSIBILTY OF THE DEVELOPER.
21. REFER TO ARCHITECTURAL PLANS FOR SITE LIGHTING AND ELECTRICAL PLANS.
22. ALL WATER SERVICE AND FIRE LINES AFTER THE WATER METER LOCATED IN THE VAULT WILL BE PRIVATE LINE AND THE RESPONSIBILITY OF THE OWNER.
23. NO UTILITIES/STORM/SANITARY LINES ARE ALLOWED TO CROSS PETROLEUM PIPING.
24. ALL PUBLIC WATER MAINS MUST BE LOCATED IN RECORDED EASEMENTS.
25. ALL CONSTRUCTION TO CONFORM TO APPLICABLE CITY/COUNTY SPECIFICATIONS AND IN ACCORDANCE WITH CITY/ COUNTY ORDINANCES.
26. WATER METERS SHALL BE INSTALLED BY PASCO COUNTY UTILITIES UPON PAYMENT OF CAPACITY AND METER FEES.
27. NO UTILITY LINES SHALL CROSS PROPOSED PETROLEUM PIPING.
28. ALL UTILITY SYSTEM DESIGN MATERIALS AND WORKMANSHIP SHALL COMPLY WITH "STANDARDS FOR DESIGN AND CONSTRUCTION OF WATER, WASTEWATER AND RECLAIMED WATER FACILITIES SPECIFICATIONS," LATEST EDITION.
29. CONNECTIONS INTO AN EXISTING COUNTY-OWNED SYSTEM SHALL BE VIA WET TAP. WET TAPS SHALL BE PERFORMED EXCLUSIVELY BY THE UTILITIES SERVICES BRANCH AT THE DEVELOPER'S EXPENSE. EXCAVATION, BACKFILL, AND SURFACE RESTORATION SHALL; BE THE CONTRACTORS RESPONSIBILITY. MATERIAL FOR WET TAPS LARGER THAN TWO INCHES SHALL BE PROVIDED AND INSTALLED BY THE PROJECT CONTRACTOR.



BUILDING SEWER SERVICE DETAIL

CONTACT RACETRAC PETROLEUM, INC. PROJECT MANAGER PRIOR TO ANY REVISIONS TO THE PLAN SUPPLIED BYRACETRAC PETROLEUM, INC.

NO.	REVISIONS	BY	DATE
#3	PER PASCO COMMENTS	BGS	11-25-14
#2	PER PASCO COMMENTS	BGS	08-18-14
#1	REVISED WATER SERVICE LOCATION, ADDED FM AIR RELEASE, ADJUSTED INFLUENT INV.	BGS	03-28-14

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bsurak@verizon.net
FL ENGINEERING BUSINESS CERTIFICATE OF AUTHORIZATION NO. 28789
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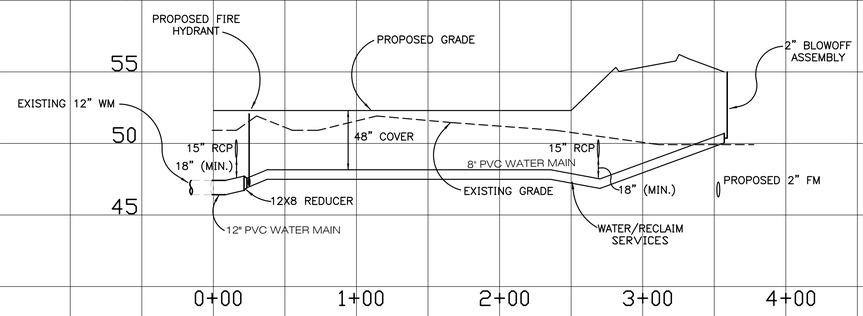
UTILITY PLAN
RACETRAC MARKET
NORTHWOOD PALMS BLVD.
PASCO COUNTY, FLORIDA

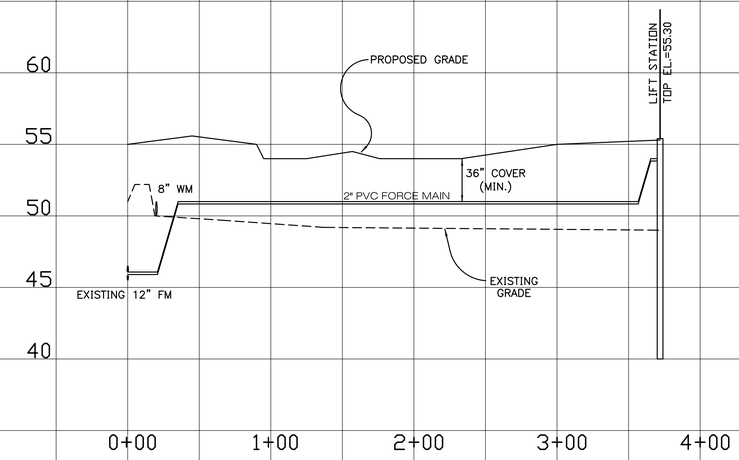
SCALE	1" = 20 FEET	DATE	11/18/13
DRAWN	BGS	JOB NO.	13-RTR-001

C-3.1

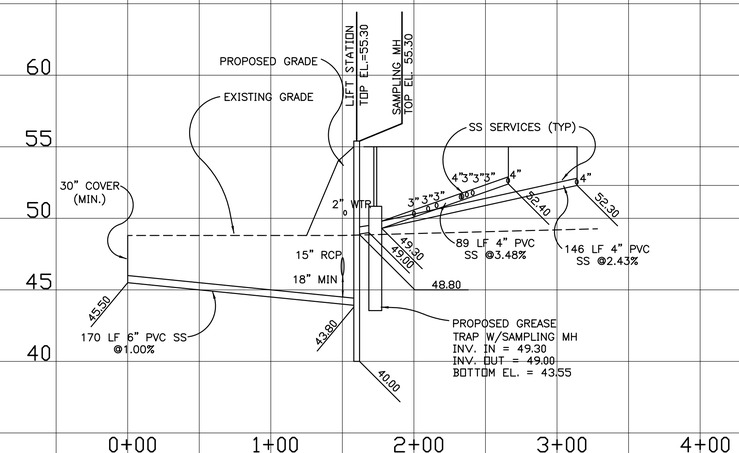
SHEET NO. | REV.



WATER MAIN EXTENSION



SANITARY FORCE MAIN



SANITARY SERVICE - BUILDING

SCALE: 1"= 5' VERTICAL
1"= 50' HORIZONTAL

NO.	REVISIONS	BY	DATE
#2	PER PASCO COMMENTS	BGS	08-18-14
#1	REVISED UTILITY PROFILES PER PLAN REVISIONS	BGS	03-26-14

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WATER AND SEWER PROFILES

RACETRAC MARKET

NORTHWOOD PALMS BLVD.
PASCO COUNTY, FLORIDA

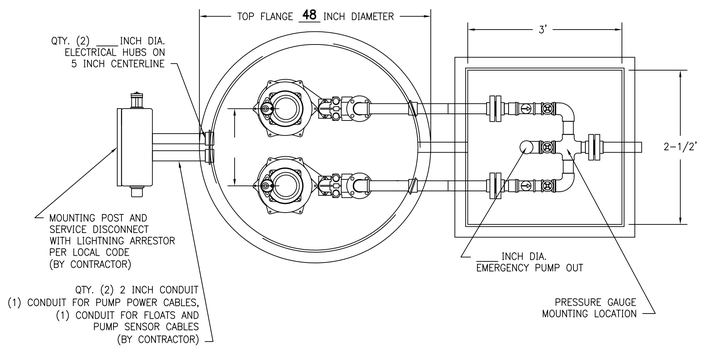
SCALE	VARIES	DATE	11/18/13
DRAWN	BGS	JOB NO.	13-RTR-001

C-3.2

SHEET NO. | REV.

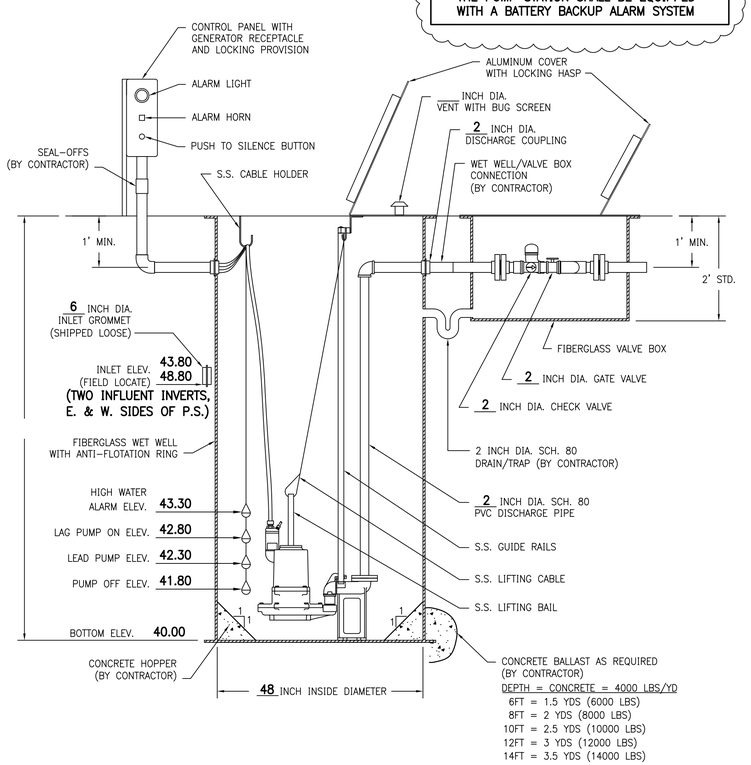
WET WELL/VALVE BOX LAYOUT

PLAN VIEW



SECTION VIEW

THE PUMP STATION SHALL BE EQUIPPED WITH A BATTERY BACKUP ALARM SYSTEM



FDEP REQUIRMENTS

PROVIDE CONCRETE HOPPER WITH 1:1 SLOPE.
PROVIDE 3/4" WATER LINE WITH A 3/4" RPZ.
ALL ELECTRICAL PANELS SHALL BE ABOVE THE 100 YEAR FLOOD ELEVATION.

GENERAL NOTES

DESIGN CONDITIONS

MODEL	HYDROMATIC HPG/HPGX	2 HP	HP
GPM	25 GPM	82	FT/TDH
VOLTAGE	480 V	3	PHASE
DISCHARGE	2"	5"	IMPELLER

PUMPS SHALL BE OF THE SUBMERSIBLE TYPE. EACH PUMP SHALL BE MOUNTED ON A Ø2" RAIL SYSTEM. THE RAIL SYSTEM SHALL BE SELF ENGAGING RESULTING IN A LEAKPROOF COUPLING. THE RAIL SYSTEM SHALL INCLUDE THE BASE ELBOW, DISCHARGE FLANGE ASSEMBLY, Ø1" 304SS GUIDE RAILS, 316SS UPPER GUIDE BRACKET, 316SS LIFTING BAIL AND CABLE, AND A SIX-HOOK 316SS CABLE HOLDER. THE RAIL SYSTEM SHALL BE MOUNTED AND PRE-PIPED BY THE PUMP SUPPLIER.

PUMP CONSTRUCTION
THE PUMP VOLUTE, MOTOR AND SEAL HOUSING SHALL BE CONSTRUCTED OF CAST IRON, ASTM A-48. ALL EXTERNAL FASTENERS SHALL BE SERIES 300 STAINLESS STEEL. THE PUMP SHAFT SHALL BE CONSTRUCTED OF SERIES 416 STAINLESS STEEL.

IMPELLER
THE IMPELLER SHALL BE OF MULTI-VANE, SEMI-OPEN BRONZE CONSTRUCTION. THE IMPELLER SHALL INCLUDE PUMP-OUT VANES ON THE BACK OF THE IMPELLER AND SHALL BE STATICALLY AND HYDRAULICALLY BALANCED.

CUTTERS
A TWO-STAGE CUTTER ASSEMBLY SHALL BE MOUNTED ON THE SUCTION SIDE OF THE PUMP WITH DIRECT DISCHARGE INTO THE PUMP IMPELLER. THE GRINDER SHALL BE CAPABLE OF GRINDING ALL MATERIALS FOUND IN NORMAL, DOMESTIC SEWAGE, INCLUDING PLASTICS, RUBBER, SANITARY NAPKINS, DISPOSABLE DIAPERS AND WOOD PARTICLES, INTO A FINE SLURRY. BOTH THE STATIONARY AND ROTATING CUTTERS SHALL BE CONSTRUCTED OF HARDENED 440C STAINLESS STEEL.

MOTOR
THE MOTOR SHALL BE MOUNTED IN A SEALED, SUBMERSIBLE TYPE HOUSING. THE STATOR SHALL BE SECURELY HELD IN PLACE WITH A REMOVABLE END RING AND THREADED FASTENERS FOR EASE OF REMOVAL WITHOUT THE USE OF HEAT OR A PRESS. THE MOTOR WILL HAVE TWO HEAVY-DUTY BALL BEARINGS; ONE UPPER (RADIAL) AND ONE LOWER (THRUST), TO SUPPORT THE SHAFT. THE MOTOR SHALL BE EQUIPPED WITH A WINDING THERMOSTAT THAT AUTOMATICALLY SHUTS THE MOTOR OFF IN CASE OF MOTOR OVERHEATING.

SEAL CHAMBER
THE PUMP SHALL HAVE TWO MECHANICAL SEALS, MOUNTED IN TANDEM WITH AN OIL CHAMBER BETWEEN THE SEALS. THE PUMP SHALL BE EQUIPPED WITH A SEAL LEAK DETECTION PROBE AND WARNING SYSTEM BY USING A SEAL FAILURE SENSOR INSTALLED IN THE SEAL CHAMBER.

WET WELL
THE PUMP SUPPLIER SHALL PROVIDE THE FIBERGLASS WET WELL. THIS GLASS FIBER-REINFORCED POLYESTER BASIN SHALL BE CONSTRUCTED OF A COMMERCIAL GRADE OF GLASS FIBER AND SHALL BE PROVIDED WITH AN ANTI-FLOTATION RING WITH A MINIMUM DIAMETER OF THREE INCHES LARGER THAN THE BASIN DIAMETER. THE RAIL SYSTEM, INTERNAL PIPING AND DISCHARGE CONNECTIONS SHALL BE PRE-INSTALLED BY THE PUMP SUPPLIER.

HATCH COVER
THE HATCH COVER SHALL BE 2/3 HINGED TO ALLOW FOR MAXIMUM ACCESS TO THE WET WELL. THE HATCH COVER SHALL BE ALUMINUM WITH STAINLESS STEEL FASTENERS, RATED FOR 150 PSF OR GREATER. THE HATCH COVER SHALL INCLUDE A SINGLE OR DUAL DOOR OF DIMENSIONS SPECIFIED BY THE PUMP MANUFACTURER FOR PROPER PUMP CLEARANCE. THE COVER SHALL BE MANUFACTURED BY US FABRICATION, OR EQUAL.

VALVE BOX
THE VALVE BOX IS FIBERGLASS WITH ALUMINUM LOCKABLE COVER. STANDARD SIZE VALVE BOX IS 3' X 2 1/2' X 2'.

VALVES
VALVES SHALL BE SEWAGE SWING CHECK WITH CLEAN-OUT PORTS AND BRASS GATE VALVES.

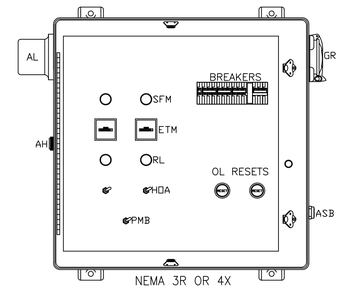
FLOATS
FLOATS SHALL BE ANCHOR SCIENTIFIC ROTO-FLOATS OR EQUAL.

CONTROLS
THE CONTROL PANEL SHALL BE UL508 LISTED. A NEMA 3R OR 4X ENCLOSURE SHALL BE PROVIDED. THE PANEL SHALL INCLUDE AN ALTERNATING CONTROL SCHEME (DUPLEX AND ABOVE), MAIN CIRCUIT BREAKER, GENERATOR RECEPTACLE, HIGH LEVEL ALARM LIGHT AND HORN, ELAPSED TIME METERS, VOLTAGE OR PHASE MONITOR, SEAL FAILURE AND OVERLOAD SENSORS. THE LIGHTNING ARRESTOR SHALL BE SHIPPED LOOSE FOR FIELD INSTALLATION.

SUPPLIER
PUMP SUPPLIER SHALL PROVIDE SUBMERSIBLE PUMPS, SLIDE RAIL ASSEMBLIES, CONTROL PANEL, FLOAT SWITCHES, ALUMINUM HATCHES AND ACCESSORIES TO INSURE PROPER OPERATIONS AND WARRANTY. THE COMPLETE PACKAGE PUMPING STATION SHALL HAVE PUMP BASES, RAIL ASSEMBLIES, AND DISCHARGE PIPING ASSEMBLED BY BARNEY'S PUMPS INC. READY FOR FIELD INSTALLATION.

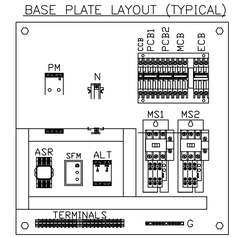
PUMP PACKAGE SHALL BE SUPPLIED BY BARNEY'S PUMPS IN LAKELAND (863-665-8500), CORAL SPRINGS (954-346-0669), OR JACKSONVILLE (904-260-0669), FL.

ENCLOSURE AND DEADFRONT LAYOUT (TYPICAL)
(OUTER DOOR REMOVED)

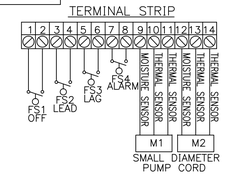


NEMA 3R OR 4X
FIBERGLASS ENCLOSURE

BASE PLATE LAYOUT (TYPICAL)



TERMINAL STRIP



ALL PANELS SHALL CONFORM TO FLORIDA DEP 17-604.400

1) GENERATOR RECEPTACLE WITH INTERLOCK FOR EMERGENCY POWER CONNECTION.
2) SURGE AND LIGHTNING PROTECTION SHALL BE PROVIDED BY CONTRACTOR AND MOUNTED EXTERNAL TO THE CONTROL PANEL.
3) PHASE OR VOLTAGE MONITOR SHALL BE PROVIDED IN CONTROL PANEL.
4) ALL PANELS, WET WELL, VALVE BOX, AND ACCESS DOORS SHALL HAVE LOCKABLE MECHANISMS. CONTRACTOR TO PROVIDE KEYED LOCKS.
5) POST UNOBSTRUCTED SIGN MADE OF DURABLE WEATHER RESISTANT MATERIAL WITH THE FOLLOWING: PUBLIC NOTICE: IN CASE OF EMERGENCY CONTACT:
6) THE CONTROL PANEL SHALL BE SUITABLY INSTALLED TO PREVENT SETTLING OR TIPPING.
7) ELECTRICAL CONTRACTOR TO PROVIDE SERVICE DISCONNECT WITH LIGHTNING ARRESTOR MOUNTED PER LOCAL CODES.
8) FLOAT SWITCHES SHALL BE UL LISTED.

LEGEND

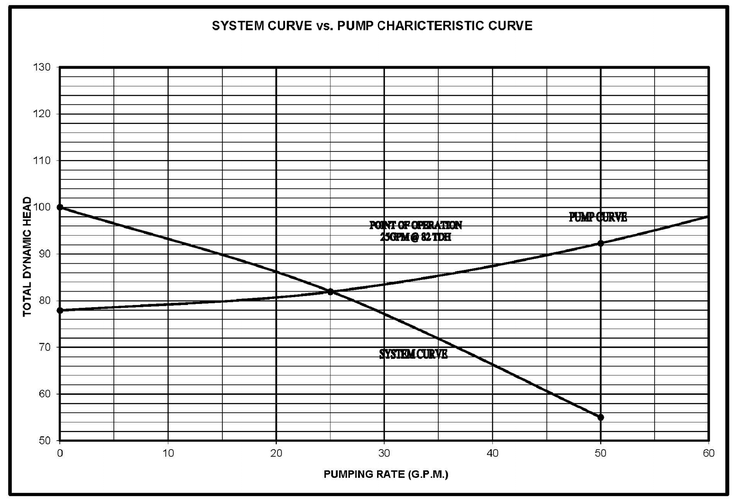
ENC	ENCLOSURE
MCB	MAIN CIRCUIT BREAKER
ECB	EMERGENCY CIRCUIT BREAKER
PCB1,2	PUMP CIRCUIT BREAKER
CCB	CONTROL CIRCUIT BREAKER
MS1,2	MOTOR STARTER
OL	OVERLOAD HEATER
GR	GENERATOR RECEPTACLE
VM	VOLT MONITOR
ETM	ELAPSED TIME METER
ALT	ALTERNATOR
AH	ALARM HORN
AL	ALARM LIGHT
ASB	ALARM SILENCE BUTTON
HOA	HAND OFF AUTO SWITCH
VMB	VOLT MONITOR BYPASS
RL	RUN LIGHT
IL	INDICATING LIGHT
SFM	SEAL FAIL MODULE
ASR	ALARM SILENCE RELAY
	RUN CAPACITOR
	START CAPACITOR
	START RELAY
PM	PHASE MONITOR
PMB	PHASE MONITOR BYPASS

PANEL MANUFACTURER SHALL BE UL 508 AND UL 698A LISTED.

SURAK ENGINEERING NOT RESPONSIBLE FOR ELECTRICAL DESIGN. OWNER/CONTRACTOR SHALL CONSULT WITH AN ELECTRICAL ENGINEER PRIOR TO CONSTRUCTION. ELECTRICAL DIAGRAMS SHOWN HEREIN PROVIDED BY PUMP VENDOR BARNEYS PUMPS

BARNEY'S PUMPS, INC.
3907 HWY 98 SOUTH,LAKELAND,FL 33813 PHONE: (863) 665-8500
PO BOX 3529-33802,LAKELAND,FL 33802 FAX: (863) 666-3858

TITLE/PROJECT: WW LIFT STATION MULTI-SPEC SHEET			
CUSTOMER: –			
SALESPERSON: –		DWG. #: WWMULTI	REV.: A
DWG. BY: S. TOWLES	DATE: 09/09/2005	PAGE: 1 OF 1	



NO.	DATE	BY	REVISIONS
#2	08-18-14	BGS	PER PASCO COMMENTS
#1	03-26-14	BGS	PER PASCO COMMENTS / PLAN REVISIONS

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FL ENGINEERING BUSINESS CERTIFICATE OF AUTHORIZATION NO. 28789
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BRIAN G. SURAK P.E. NO. 59064
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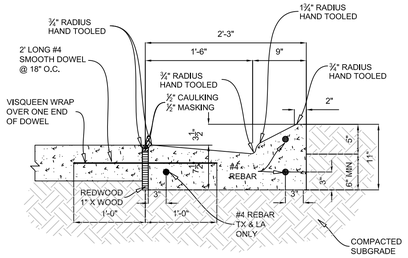
ATLANTA, GA 30339 (770) 431-7600

PUMP STATION DETAILS
RACETRAC MARKET
NORTHWOOD PALMS BLVD.
PASCO COUNTY, FLORIDA

SCALE		DATE	11/18/13
DRAWN	BGS	JOB NO.	13-RTR-001

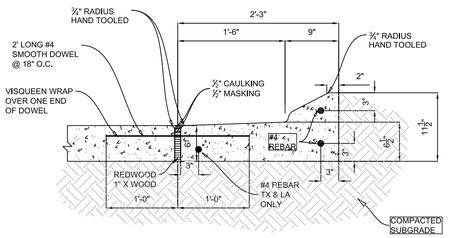
C-3.3
SHEET NO. REV.



CATCH CURB DETAIL @ CONCRETE SLAB

1/SD1 N.T.S.

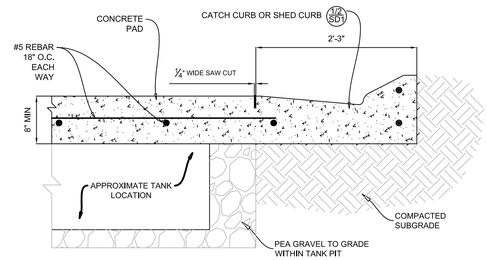
1. REFER TO PAVING PLAN FOR EXACT CURB DEPTHS.
2. REFER TO PAVING PLAN FOR EXACT CONCRETE THICKNESS.
3. REFER TO PAVING PLAN FOR CONCRETE COMPRESSIVE STRENGTH & SUBGRADE COMPACTION REQUIREMENTS.



SHED CURB DETAIL @ CONCRETE SLAB

2/SD1 N.T.S.

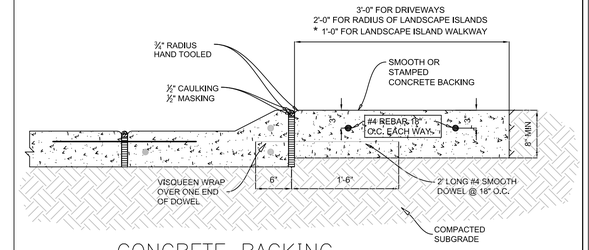
1. REFER TO PAVING PLAN FOR EXACT CURB DEPTHS.
2. REFER TO PAVING PLAN FOR EXACT CONCRETE THICKNESS.
3. REFER TO PAVING PLAN FOR CONCRETE COMPRESSIVE STRENGTH & SUBGRADE COMPACTION REQUIREMENTS.
4. USED WHEN ADJACENT PAVEMENT SLOPES AWAY FROM CURBING.



TANK AREA CURB DETAIL

3/SD1 N.T.S.

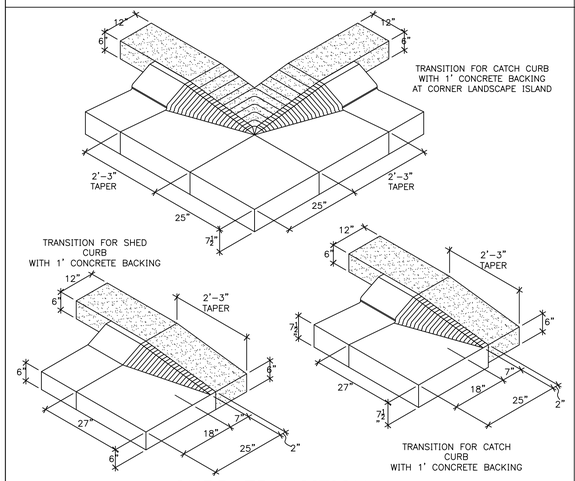
1. REFER TO PAVING PLAN FOR EXACT CURB DEPTHS.
2. REFER TO PAVING PLAN FOR EXACT CONCRETE THICKNESS.
3. REFER TO PAVING PLAN FOR CONCRETE COMPRESSIVE STRENGTH & SUBGRADE COMPACTION REQUIREMENTS.
4. THIS CURB TYPE IS TO BE USED ALONG THE CURB LINE ADJACENT TO THE TANK PAD. REFER TO "SITE PLAN" FOR EXACT LOCATIONS.



CONCRETE BACKING FOR ON-SITE CURB

4/SD1 N.T.S.

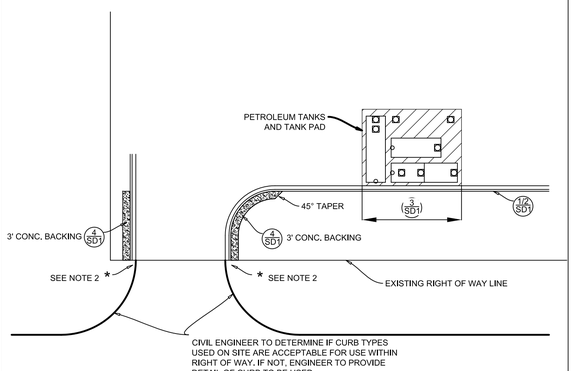
1. REFER TO PAVING PLAN FOR EXACT CURB DEPTHS.
2. REFER TO PAVING PLAN FOR EXACT CONCRETE THICKNESS.
3. REFER TO PAVING PLAN FOR CONCRETE COMPRESSIVE STRENGTH & SUBGRADE COMPACTION REQUIREMENTS.
4. THREE (3) FOOT BACKING IS TO BE USED ALONG THE RADIUS OF DRIVEWAYS. TWO (2) FOOT BACKING IS TO BE USED ALONG THE RADIUS OF LANDSCAPE ISLANDS WITHIN HIGH TRAFFIC AREAS. ONE (1) FOOT BACKING IS TO BE USED AS A PEDESTRIAN WALKWAY WITHIN LANDSCAPE ISLANDS.
5. * IF LANDSCAPE ISLANDS HAVE TO BE INCREASED, DUE TO THE ONE (1) FOOT BACKING, TO MEET SQUARE FOOTAGE REQUIREMENTS AND PARKING SPACES ARE LOST, ONE (1) FOOT BACKING WILL NOT BE USED IN THOSE AREAS.
6. REFER TO "SITE PLAN" FOR EXACT LOCATIONS.



CURB TRANSITION DETAILS

5/SD1 N.T.S.

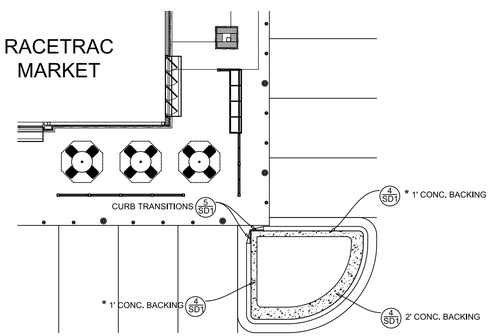
1. SEE SITE PLAN FOR EXACT LOCATIONS



CURB LAYOUT PLAN VIEW

6/SD1 N.T.S.

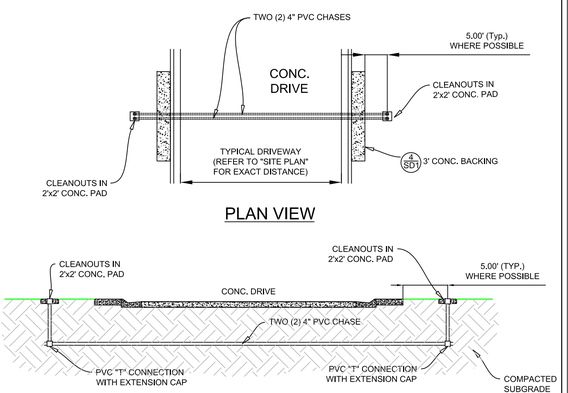
1. REFER TO "SITE PLAN" FOR EXACT LOCATIONS OF THE DIFFERING CURB TYPES.
2. * = RACETRAC CONSTRUCTION PROJECT MANAGER TO COORDINATE WITH CONCRETE SUBCONTRACTOR TO DETERMINE BEST TRANSITION METHOD BETWEEN DIFFERING CURB TYPES.



CONCRETE BACKING PLAN VIEW

7/SD1 N.T.S.

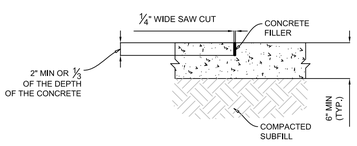
1. REFER TO "SITE PLAN" FOR EXACT LOCATIONS OF THE DIFFERING CURB TYPES.
2. * IF LANDSCAPE ISLANDS HAVE TO BE INCREASED, DUE TO THE ONE (1) FOOT BACKING, TO MEET SQUARE FOOTAGE REQUIREMENTS AND PARKING SPACES ARE LOST, ONE (1) FOOT BACKING WILL NOT BE USED IN THOSE AREAS. REFER TO SITE PLAN FOR EXACT LOCATIONS.



PVC CHASE DETAIL

8/SD1 N.T.S.

1. PVC CHASE TO BE PLACED UNDER ALL DRIVEWAYS. (REFER TO "SITE PLAN" FOR EXACT LOCATIONS)
2. CHASES ARE NOT TO BE USED FOR IRRIGATION INSTALLED WITH THIS DEVELOPMENT. IRRIGATION SLEEVES WILL BE SEPARATE. REFER TO UTILITY PLAN AND SHEET "L-2.1" FOR IRRIGATION SLEEVE LOCATIONS.



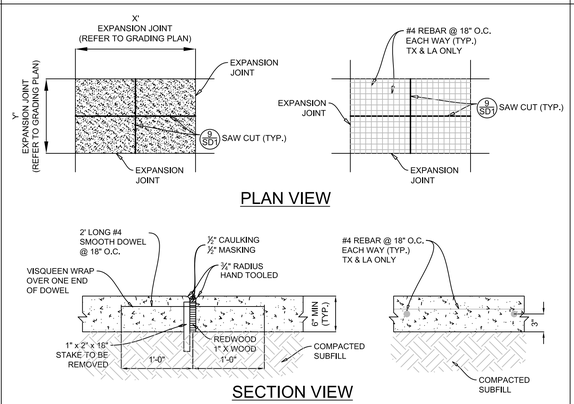
NOTE:
THOROUGHLY CLEAN JOINT OF ALL SAND, SOIL AND MISC. DEBRIS. APPLY MASKING TAPE ALONG SIDES OF JOINT FOR TEMPORARY PROTECTION DURING SEALANT APPLICATIONS. APPLY FULL BEAD OF VULKEM 116 OR 245 (NON SAG) POURABLE CONCRETE FILLER AND TOOL LIGHTLY. REMOVE TAPE IMMEDIATELY. SAW CUT SHALL BE ⅓ OF THE DEPTH OF THE CONCRETE.

CONCRETE FILLER:
VULKEM 116 OR 245 (NON SAG) JOINT MATERIAL TO BE INSTALLED PER MANUFACTURERS SPECIFICATIONS. PROVIDE LIGHT GRAY COLOR TO MATCH CONCRETE. SAW CUT MUST BE COMPLETE WITHIN 24 HOURS OF POUR.

TYP. SAW CUT DETAIL

9/SD1 N.T.S.

1. CONCRETE TO BE 8" THICK MIN. OVER TANKS AND AT DUMPSTER ENCLOSURE & 6" THICK MIN. IN ALL OTHER AREAS.
2. REFER TO PAVING PLAN FOR EXACT CONCRETE THICKNESS.
3. REFER TO PAVING PLAN FOR CONCRETE COMPRESSIVE STRENGTH & SUBGRADE COMPACTION REQUIREMENTS.
4. REFER TO "GRADING PLAN" FOR EXACT LOCATIONS.

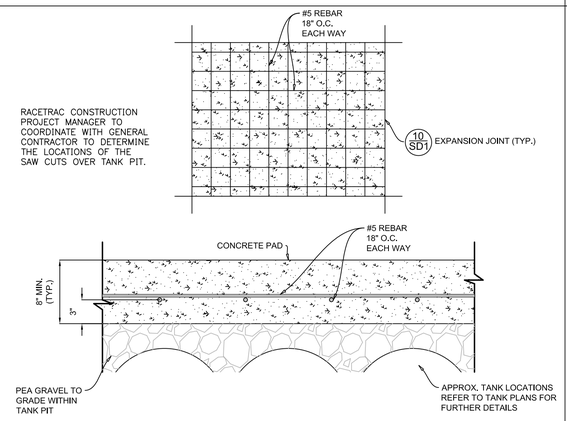


TYP. EXPANSION JOINT, CONCRETE & REBAR LAYOUT DETAIL

10/SD1 N.T.S.

1. CONCRETE TO BE 8" THICK MIN. OVER TANKS AND AT DUMPSTER ENCLOSURE & 6" THICK MIN. IN ALL OTHER AREAS.
2. REFER TO PAVING PLAN FOR EXACT CONCRETE THICKNESS.
3. REFER TO PAVING PLAN FOR CONCRETE COMPRESSIVE STRENGTH & SUBGRADE COMPACTION REQUIREMENTS.
4. REFER TO "GRADING PLAN" FOR EXACT LOCATIONS.

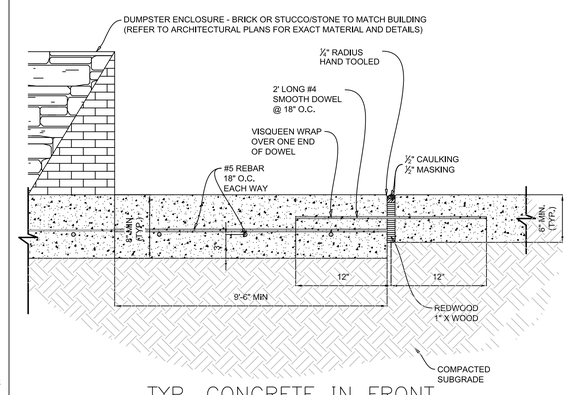
RACETRAC CONSTRUCTION PROJECT MANAGER TO COORDINATE WITH GENERAL CONTRACTOR TO DETERMINE THE LOCATIONS OF THE SAW CUTS OVER TANK PIT.



TYP. CONCRETE & REBAR LAYOUT DETAIL @ TANK PAD

11/SD1 N.T.S.

1. CONCRETE TO BE 8" THICK MIN. OVER TANKS AND AT DUMPSTER ENCLOSURE & 6" THICK MIN. IN ALL OTHER AREAS.
2. REFER TO PAVING PLAN FOR EXACT CONCRETE THICKNESS.
3. REFER TO PAVING PLAN FOR CONCRETE COMPRESSIVE STRENGTH & SUBGRADE COMPACTION REQUIREMENTS.
4. REFER TO "GRADING PLAN" FOR EXACT LOCATIONS.



TYP. CONCRETE IN FRONT OF DUMPSTER ENCLOSURE

12/SD1 N.T.S.

1. CONCRETE TO BE 8" THICK MIN. OVER TANKS AND AT DUMPSTER ENCLOSURE & 6" THICK MIN. IN ALL OTHER AREAS.
2. REFER TO PAVING PLAN FOR EXACT CONCRETE THICKNESS.
3. REFER TO PAVING PLAN FOR CONCRETE COMPRESSIVE STRENGTH & SUBGRADE COMPACTION REQUIREMENTS.
4. REFER TO "GRADING PLAN" FOR EXACT LOCATIONS.

NO.	REVISIONS	BY	DATE

SURAK ENGINEERING
3628 VALENCIA COVE COURT
LAND O'LAKES, FLORIDA 34639
(813) 244 - 5136
bsurak@verizon.net

FL ENGINEERING BUSINESS CERTIFICATE OF AUTHORIZATION NO. 28789

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BRIAN G. SURAK P.E. NO. 59064
FLORIDA PROFESSIONAL ENGINEER

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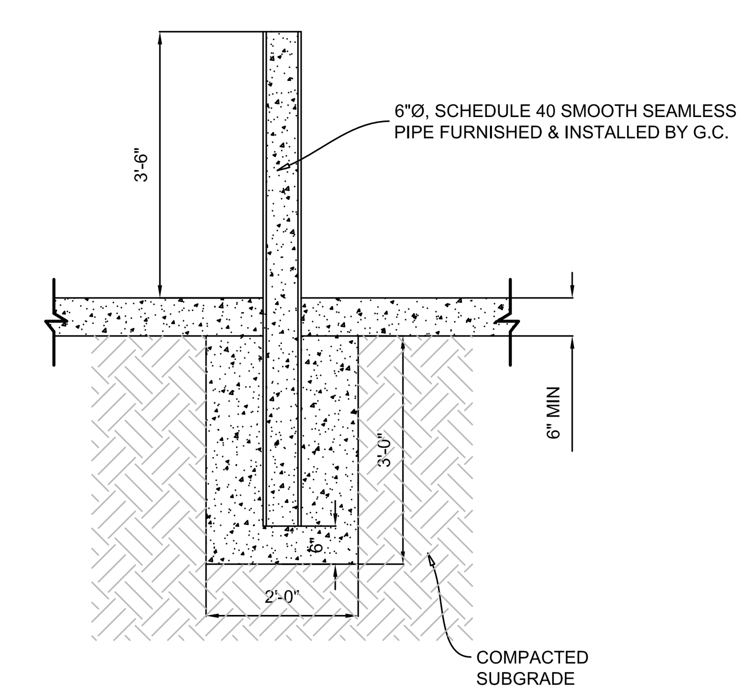
STANDARD DETAILS
RACETRAC MARKET
NORTHWOOD PALMS BLVD.
PASCO COUNTY, FLORIDA

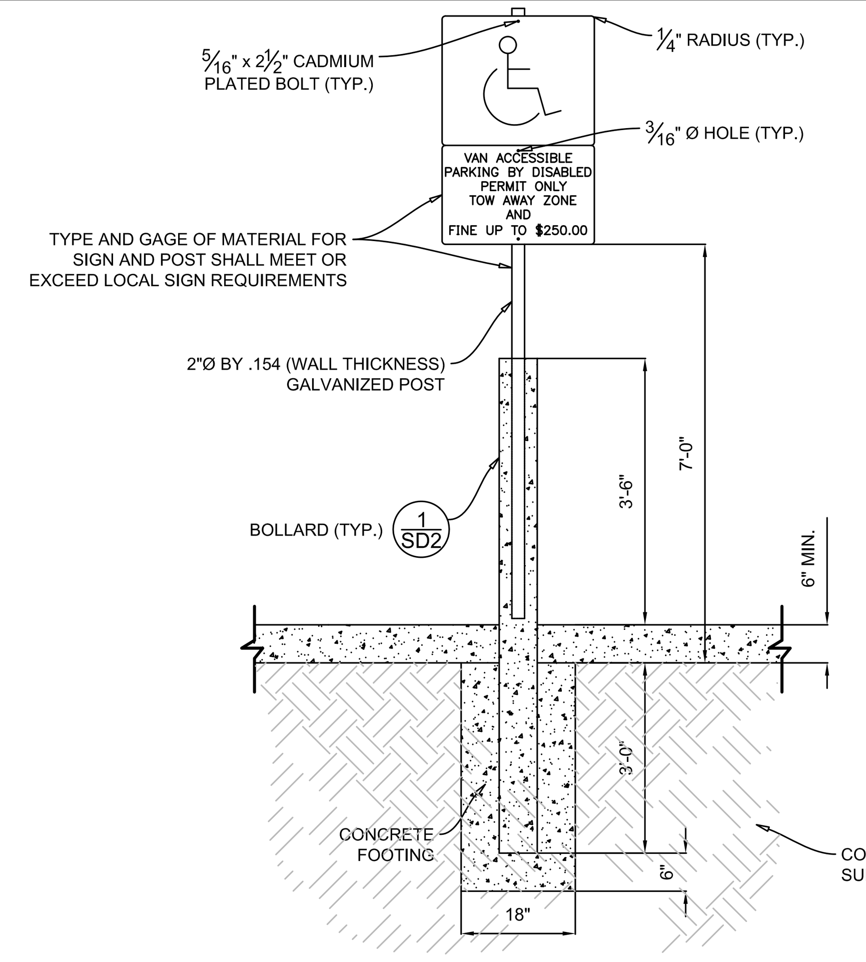
SCALE	DATE	11/18/13
DRAWN	BGS	JOB NO. 13-RTR-001

SD1
SHEET NO. | REV.



1/SD2 TYP. BOLLARD DETAIL N.T.S.

1. 6"ø, SCHEDULE 40 SMOOTH SEAMLESS PIPE FURNISHED AND INSTALLED GENERAL CONTRACTOR.
2. BUMPER POSTS TO BE PLUMB AND ALIGNED IN A STRAIGHT LINE AND FILLED WITH CONCRETE.U
3. TOPS TO BE GROUND SMOOTH W/ SQUARE EDGE, THE PRIMED WITH "END RUST" BY DURO AND PAINTED WITH INDUSTRIAL OIL BASED ENAMEL. COLOR TO MATCH DECORATIVE LIGHT POLES.
4. REFER TO PAVING PLAN FOR EXACT CONCRETE THICKNESS.
5. REFER TO PAVING PLAN FOR CONCRETE COMPRESSIVE STRENGTH & SUBGRADE COMPACTION REQUIREMENTS.



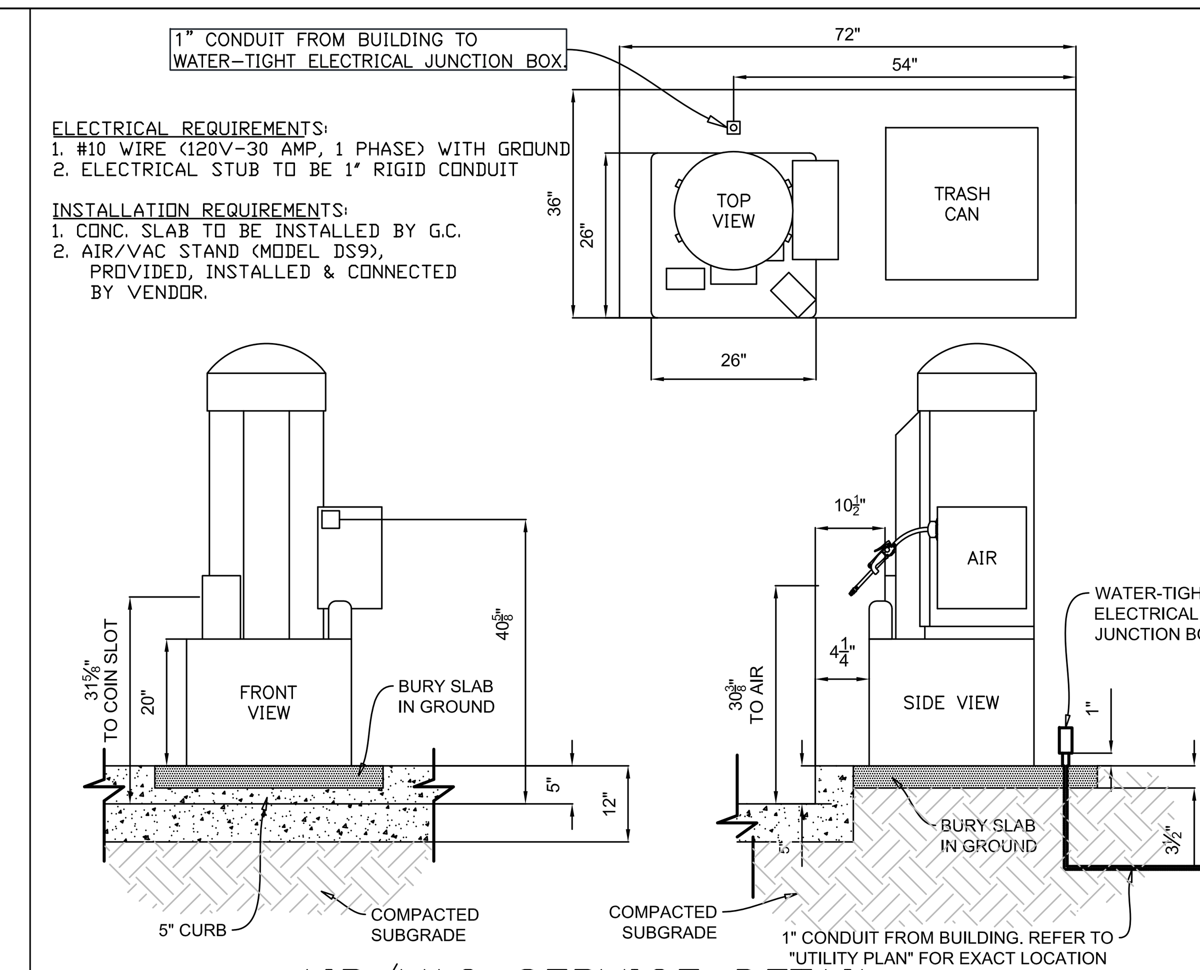
2/SD2 TYP. HANDICAP SIGNAGE DETAIL N.T.S.

1. REFER TO LOCAL JURISDICTION REQUIREMENTS FOR SPECIFIC DETAILS.
2. CONTRACTOR SHALL VERIFY ALL THE REQUIRED INFORMATION NECESSARY AT EACH SIGN WITH LOCAL AUTHORITIES PRIOR TO PURCHASING.
3. REFER TO PAVING PLAN FOR EXACT CONCRETE THICKNESS.
4. REFER TO PAVING PLAN FOR CONCRETE COMPRESSIVE STRENGTH & SUBGRADE COMPACTION REQUIREMENTS.

1" CONDUIT FROM BUILDING TO WATER-TIGHT ELECTRICAL JUNCTION BOX.

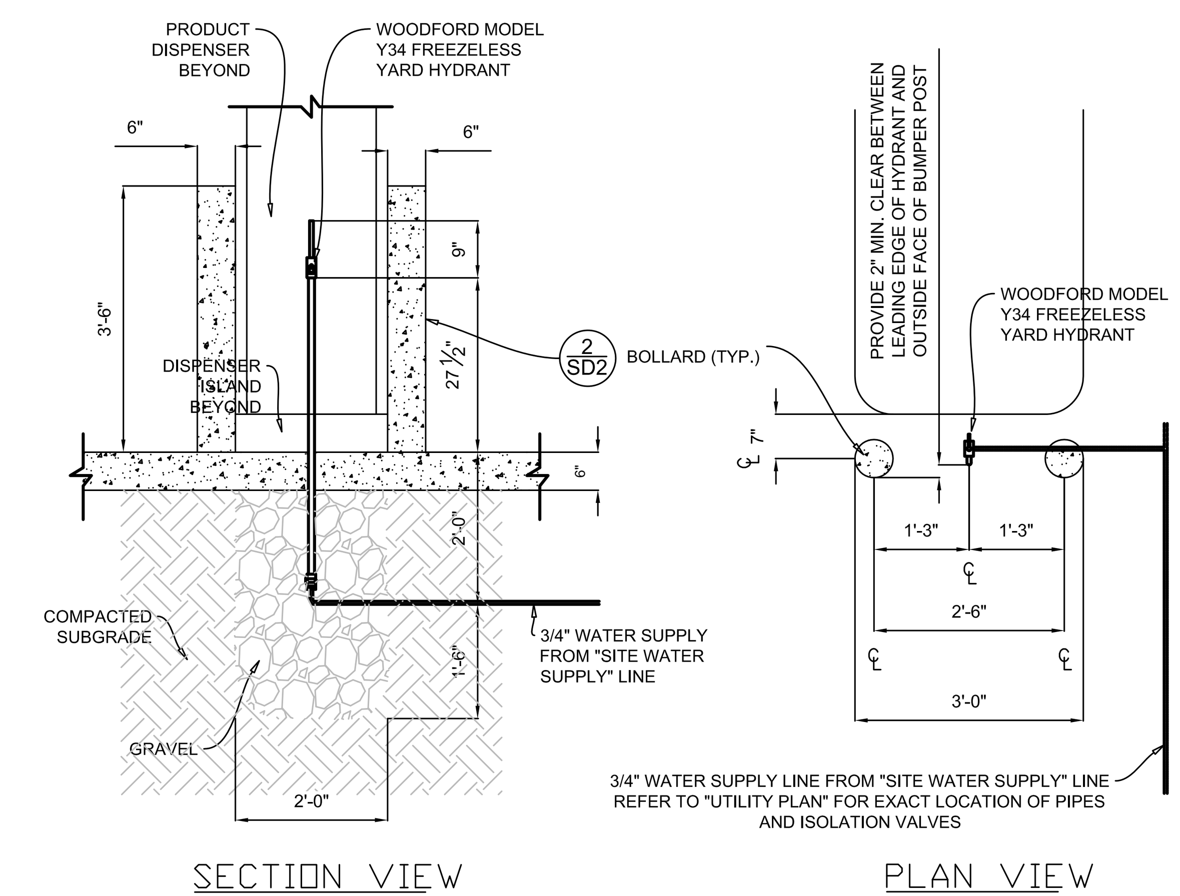
ELECTRICAL REQUIREMENTS:
1. #10 WIRE (120V-30 AMP, 1 PHASE) WITH GROUND
2. ELECTRICAL STUB TO BE 1" RIGID CONDUIT

INSTALLATION REQUIREMENTS:
1. CONC. SLAB TO BE INSTALLED BY G.C.
2. AIR/VAC STAND (MODEL DS9), PROVIDED, INSTALLED & CONNECTED BY VENDOR.



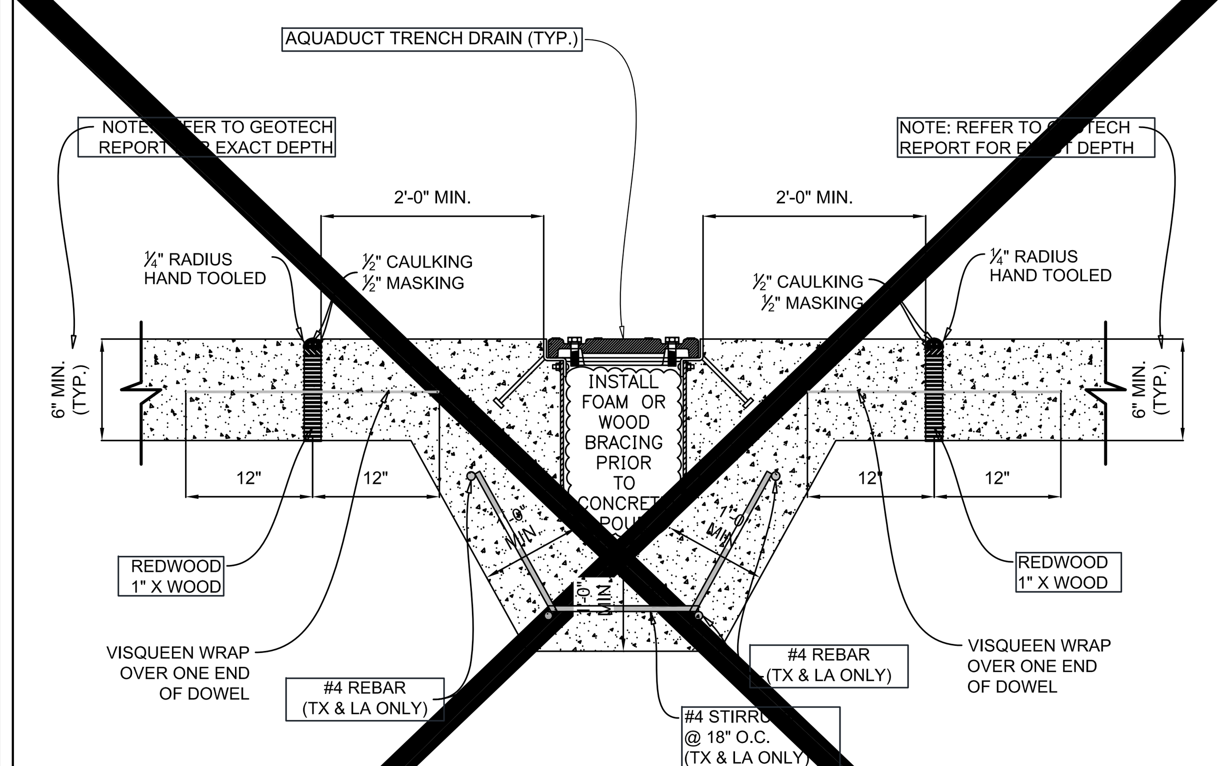
3/SD2 AIR/VAC SERVICE DETAIL N.T.S.

1. SECURE VAULT TO PAD W/ TWO (2) 29-00450 ANGLE BRACKETS AND FOUR (4) ½"ø x 4" SIMPSON TITAN HD SCREWTYPE ANCHORS (TYP.)
2. REFER TO PAVING PLAN FOR EXACT CONCRETE THICKNESS.
3. REFER TO PAVING PLAN FOR CONCRETE COMPRESSIVE STRENGTH & SUBGRADE COMPACTION REQUIREMENTS.



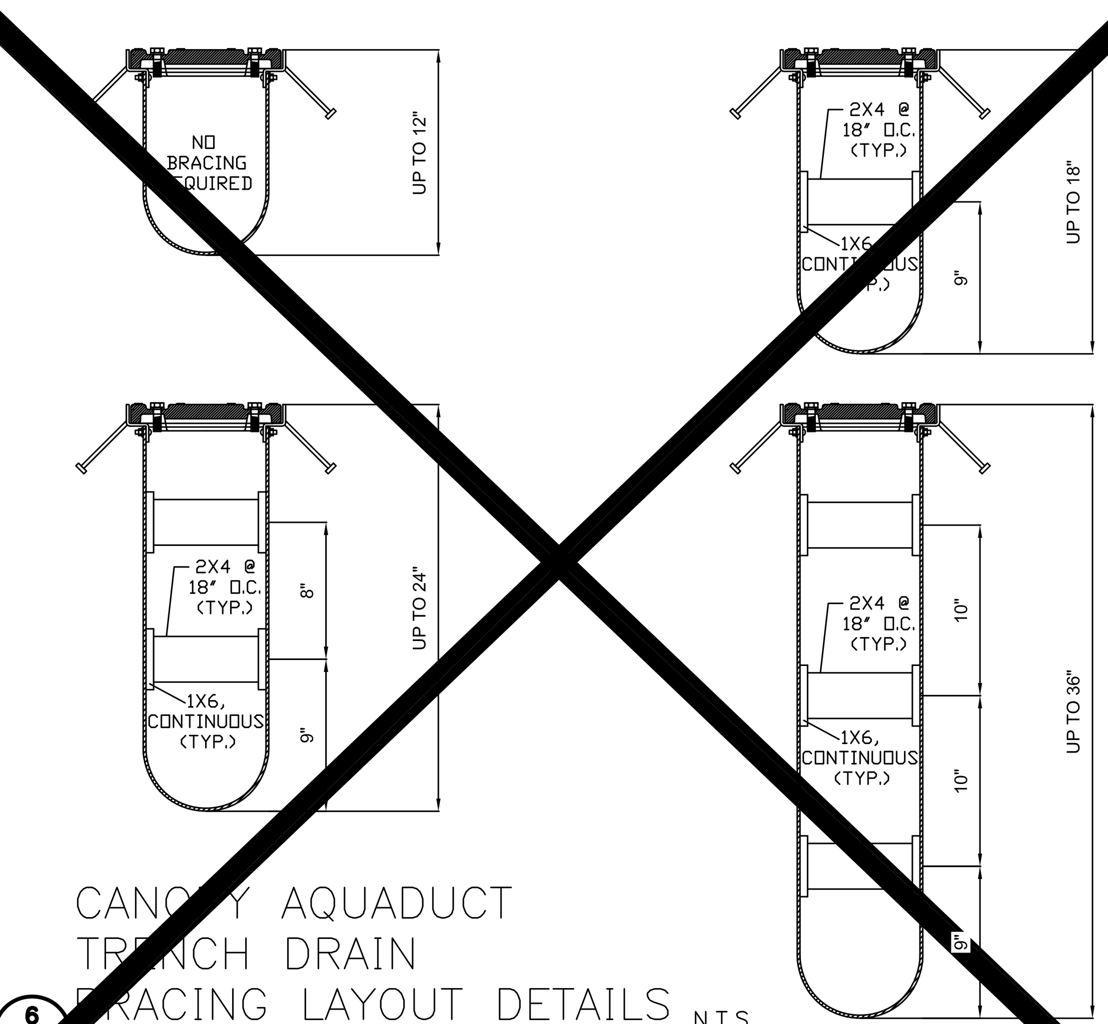
4/SD2 YARD HYDRANT DETAIL N.T.S.

1. SEE "SITE PLAN" FOR EXACT LOCATIONS.
2. REFER TO PAVING PLAN FOR EXACT CONCRETE THICKNESS.
3. REFER TO PAVING PLAN FOR CONCRETE COMPRESSIVE STRENGTH & SUBGRADE COMPACTION REQUIREMENTS.



5/SD2 TYP. CONCRETE DETAIL @ CANOPY AQUADUCT TRENCH DRAIN N.T.S.

1. G.C. MUST READ INSTALLATION INSTRUCTIONS PRIOR TO INSTALLATION OF AQUADUCT TRENCH DRAIN.
2. REFER TO DETAIL 6-SD2 FOR BRACING RECOMMENDATIONS.
3. EACH TRENCH DRAIN IS INDIVIDUALLY DESIGNED AND SIZED BY AQUADUCT, INC. (REFER TO DESIGN SPECS FOR EXACT SIZING.)
4. SOME PROJECTS MAY HAVE MULTIPLE TRENCH DRAINS ON SITE. (REFER TO "GRADING PLAN" FOR EXACT LOCATIONS.)

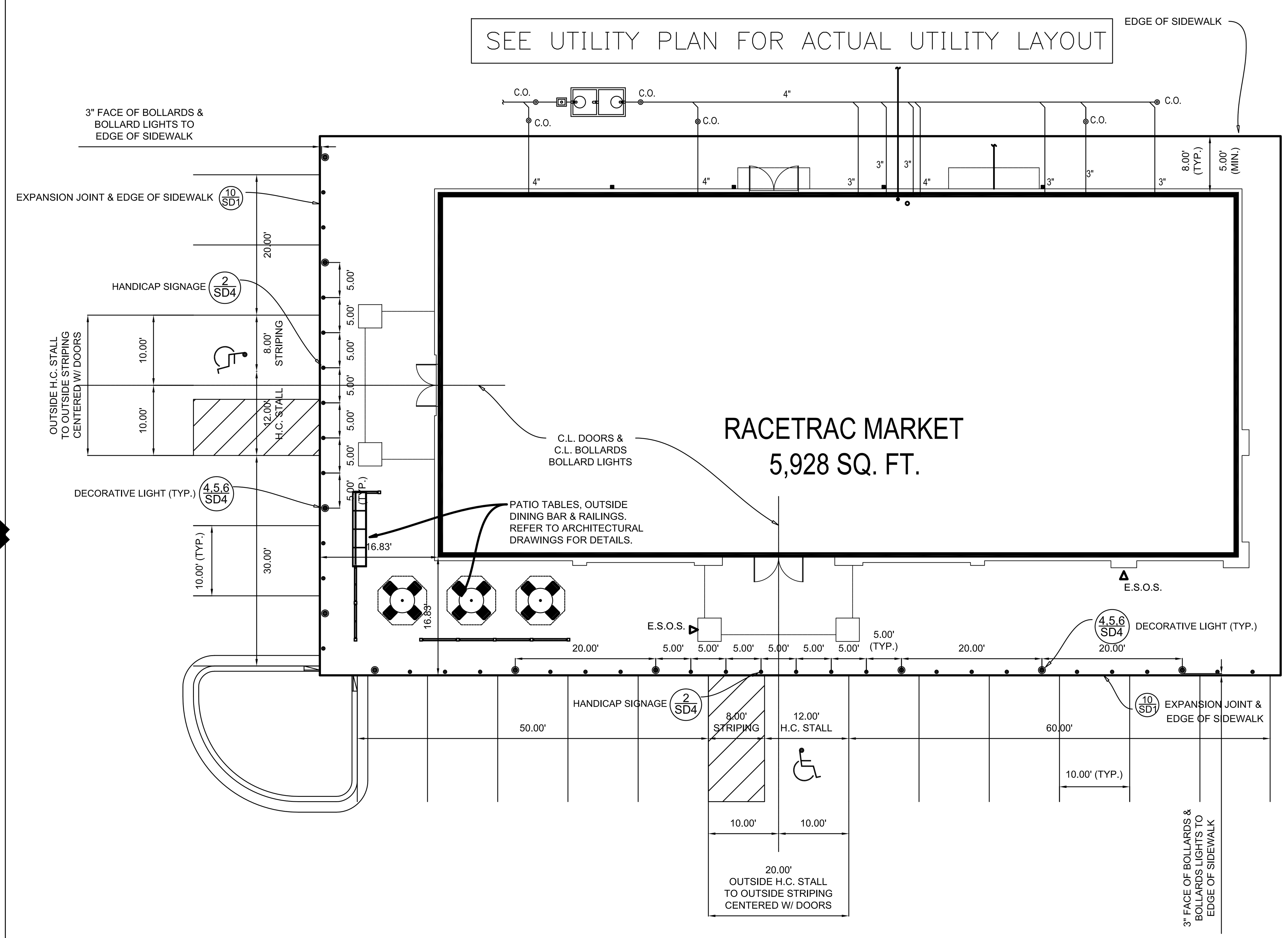


6/SD2 CANOPY AQUADUCT TRENCH DRAIN BRACING LAYOUT DETAILS N.T.S.

1. OVER 36" ADD AN ADDITIONAL LEVEL OF BRACING FOR EACH ADDITIONAL 12" OF DEPTH.

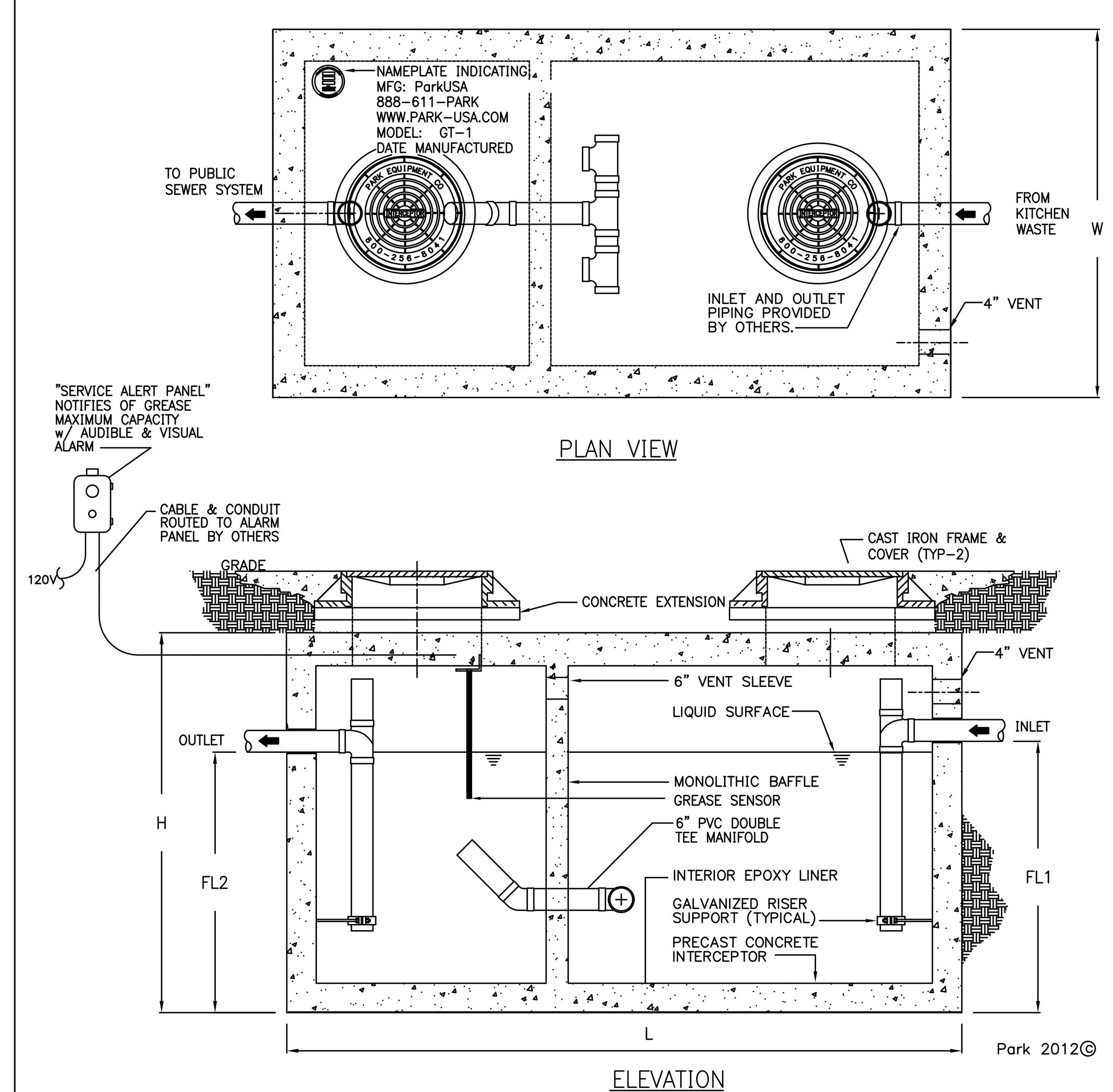
Bldg Entry Left - Standard Patio

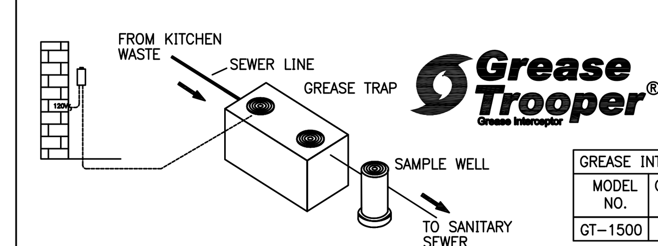
SEE UTILITY PLAN FOR ACTUAL UTILITY LAYOUT



8/SD2 BOLLARD & SIDEWALK LAYOUT DETAIL FOR RT-6000 BUILDING N.T.S.

1. HANDICAP STRIPING SHALL COMPLY WITH LOCAL AUTHORITIES AND/OR STATE AND NATIONAL A.D.A CODES AND REGULATIONS.
2. ALL BOLLARDS AND LIGHT POSTS ARE TO BE ON THE BUILDING SIDE OF THE EXPANSION JOINT BETWEEN THE BUILDING AND FRONT PARKING.
3. FACE OF BOLLARDS AND LIGHT POSTS ALIGN 3" OFF EXPANSION JOINT





Grease Trooper® Grease Interceptor

GREASE INTERCEPTOR SCHEDULE								
MODEL NO.	CAPACITY USGal	GREASE CAP. (LBS)	EMPTY WT (LBS)	LENGTH L	WIDTH W	HEIGHT H	INLET FL1	OUTLET FL2
GT-1500	1,500	3,500	16,050	9'-2"	5'-8"	7'-0"	5'-9"	5'-6"

OTHER SIZES ARE AVAILABLE. CONTACT US FOR MORE INFORMATION

Typical applications include commercial and industrial food service kitchens where excessive grease may interfere with the proper drainage of the sewer system. The grease interceptor is generally buried below grade for gravity flow sewer systems. A sample well is utilized on the outlet side for sampling by the local water authority.

Specifications

CONCRETE : Class II concrete with design strength of 4500 PSI at 28 days. Unit is of monolithic construction at floor, first stage of wall and baffle with sectional riser to required depth. (Monolithic baffle required, slide-in type is not acceptable)

REINFORCEMENT: Grade 60 reinforced with steel rebar conforming to ASTM A615 on required centers or equal.

C.I. CASTINGS: Manhole frames, covers or grates are manufactured of gray cast iron conforming to ASTM A48-76 Class 30. Manhole shall be nominal 24 inch diameter and be traffic duty.

Engineering Data

The grease interceptor is structurally & hydraulically engineered to conform to regional plumbing codes recommended in most cities. Consult with local authorities for specific application requirements.

Shop drawings shall include complete structural & buoyancy calculations certified by a licensed professional engineer.

Consult with Park Equipment Company for exact excavation dimensions & shipping information.

ANSI Z1001 · NPCA CERTIFIED PLANT · EPA · AMERICAN SOCIETY OF SANITARY ENGINEERING · ASPE MEMBER · ASTM C-1613

888.611.7275
www.park-usa.com
PARK USA — Design for Water

GREASE INTERCEPTOR SERIES GT
1,500 GALLON CAPACITY

SCALE	NONE	DWG. NO.	GT-1	REV.
DATE	2012			A

9/SD2 GREASE TRAP (1,500 GALLON CAPACITY) & SAMPLE WELL DETAILS "OR APPROVED EQUAL" N.T.S.

NO.	REVISIONS	BY	DATE

SURAK ENGINEERING
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bsurak@verizon.net
FL ENGINEERING BUSINESS CERTIFICATE OF AUTHORIZATION NO. 28789

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BRIAN G. SURAK P.E. NO. 59064
FLORIDA PROFESSIONAL ENGINEER

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STANDARD DETAILS
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NORTHWOOD PALMS BLVD.
PASCO COUNTY, FLORIDA

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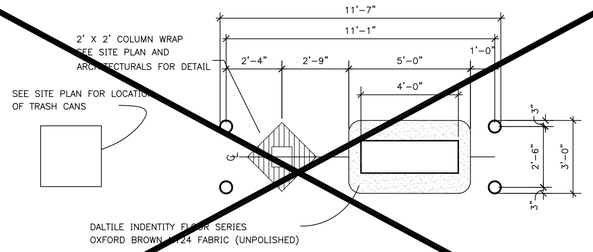
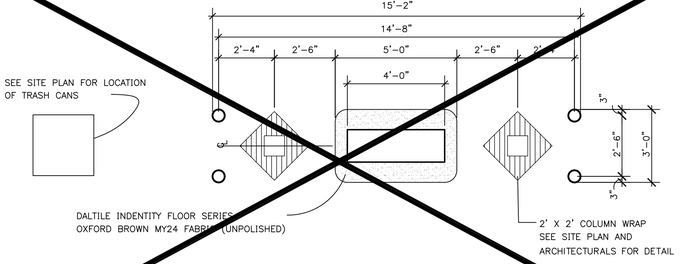
DRAWN	BGS	JOB NO.	13-RTR-001

SHEET NO.	REV.
SD2	



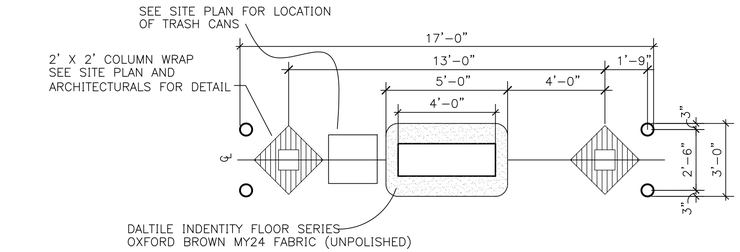
PUMP ISLAND DETAIL (1 / SD3) N.T.S.

1. SEE SITE PLAN FOR SPECIFIC ISLAND LAYOUTS.



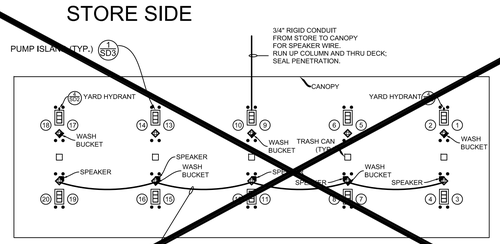
PUMP ISLAND DETAIL (2 / SD3) N.T.S.

1. SEE SITE PLAN FOR SPECIFIC ISLAND LAYOUTS.



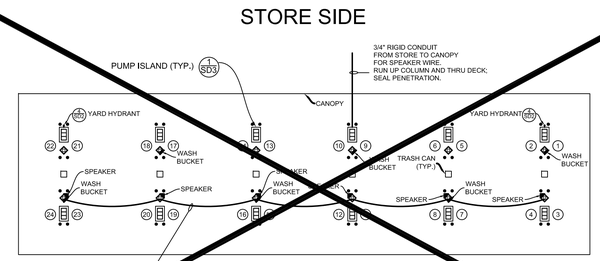
PUMP ISLAND DETAIL (3 / SD3) N.T.S.

1. SEE SITE PLAN FOR SPECIFIC ISLAND LAYOUTS.



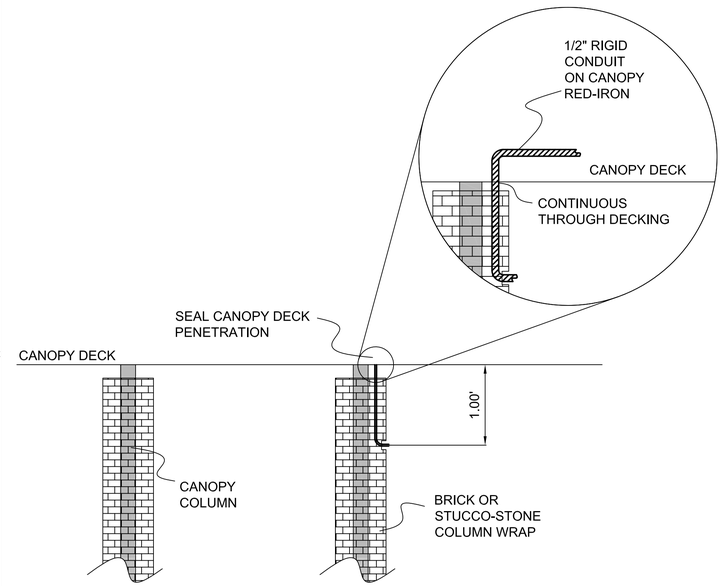
CANOPY ACCESSORY LAYOUT (4 / SD3) N.T.S.

1. DOUBLE ROW OF FIVE (5) SINGLE COLUMN MPD'S.
2. REFER TO CANOPY PLANS FOR CANOPY DIMENSIONS AND COLUMN LOCATIONS.

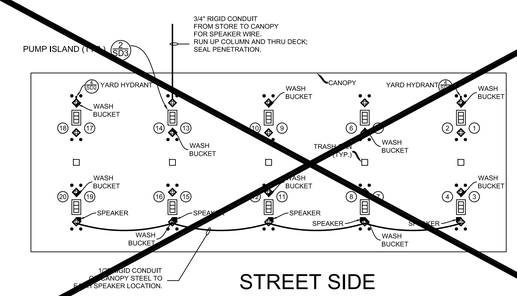


CANOPY ACCESSORY LAYOUT (5 / SD3) N.T.S.

1. DOUBLE ROW OF SIX (6) SINGLE COLUMN MPD'S.
2. REFER TO CANOPY PLANS FOR CANOPY DIMENSIONS AND COLUMN LOCATIONS.

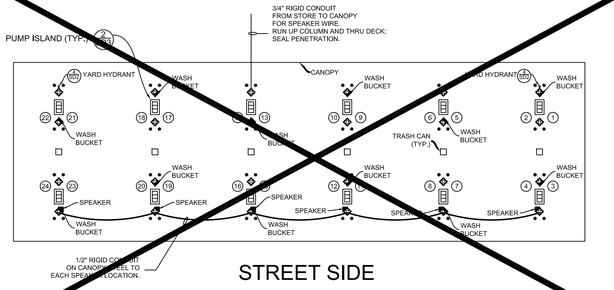


CONDUIT ATTACHMENT & PENETRATION DETAILS (11 / SD3) N.T.S.



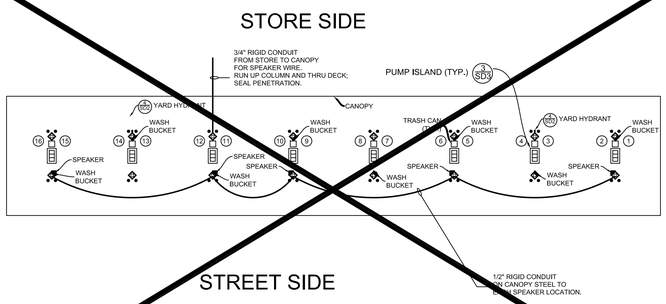
CANOPY ACCESSORY LAYOUT (6 / SD3) N.T.S.

1. DOUBLE ROW OF FIVE (5) DOUBLE COLUMN MPD'S
2. REFER TO CANOPY PLANS FOR CANOPY DIMENSIONS AND COLUMN LOCATIONS.



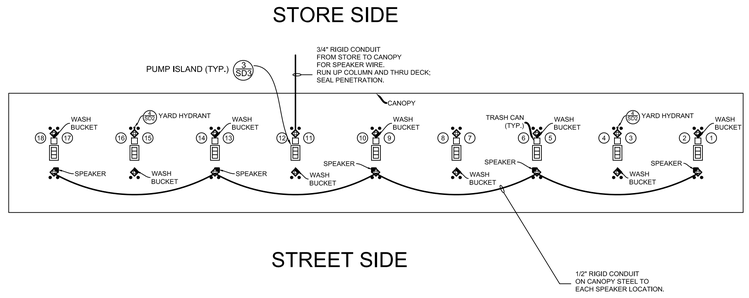
CANOPY ACCESSORY LAYOUT (7 / SD3) N.T.S.

1. DOUBLE ROW OF SIX (6) DOUBLE COLUMN MPD'S.
2. REFER TO CANOPY PLANS FOR CANOPY DIMENSIONS AND COLUMN LOCATIONS.



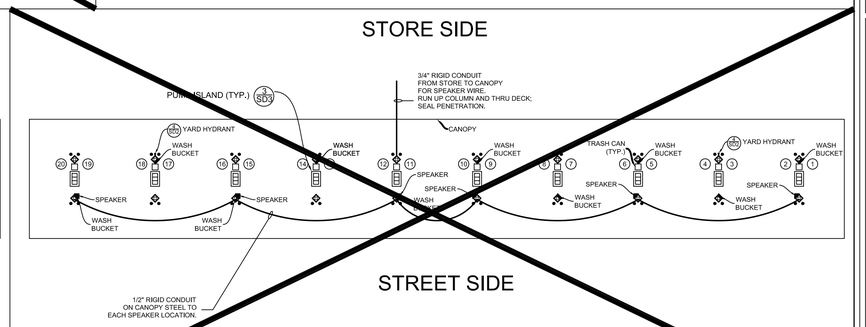
CANOPY ACCESSORY LAYOUT (8 / SD3) N.T.S.

1. SINGLE ROW OF EIGHT (8) MPD'S.
2. REFER TO CANOPY PLANS FOR CANOPY DIMENSIONS AND COLUMN LOCATIONS.



CANOPY ACCESSORY LAYOUT (9 / SD3) N.T.S.

1. SINGLE ROW OF NINE (9) MPD'S.
2. REFER TO CANOPY PLANS FOR CANOPY DIMENSIONS AND COLUMN LOCATIONS.



CANOPY ACCESSORY LAYOUT (10 / SD3) N.T.S.

1. SINGLE ROW OF 10 MPD'S.
2. REFER TO CANOPY PLANS FOR CANOPY DIMENSIONS AND COLUMN LOCATIONS.

NO.	REVISIONS	BY	DATE

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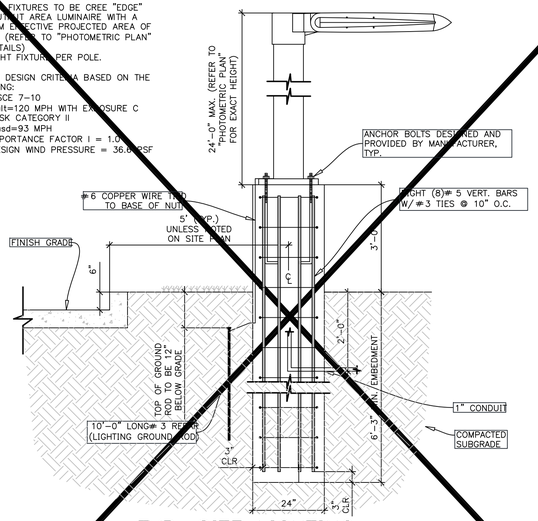
PASCO COUNTY, FLORIDA

SCALE	DATE	11/18/13
DRAWN	BGS	JOB NO. 13-RTR-001

SD3

SHEET NO. | REV.

NOTES:
1).LIGHT POLES TO BE CREE, PROVIDED BY RACETRAC AND TO BE INSTALLED BY GENERAL CONTRACTOR. SEE SITE PLAN FOR POLE LOCATIONS.
2) LIGHT FIXTURES TO BE CREE "EDGE" HIGH OUTPUT AREA LUMINAIRE WITH A MAXIMUM EFFECTIVE PROJECTED AREA OF 2.0 S.F. (REFER TO "PHOTOMETRIC PLAN" FOR DETAILS)
ONE LIGHT FIXTURE PER POLE.
3) WIND DESIGN CRITERIA BASED ON THE FOLLOWING:
A) ASCE 7-10
B) Vult=120 MPH WITH EXPOSURE C RISK CATEGORY II
C) Vasd=93 MPH
D) IMPORTANCE FACTOR I = 1.0
E) DESIGN WIND PRESSURE = 36.6 PSF

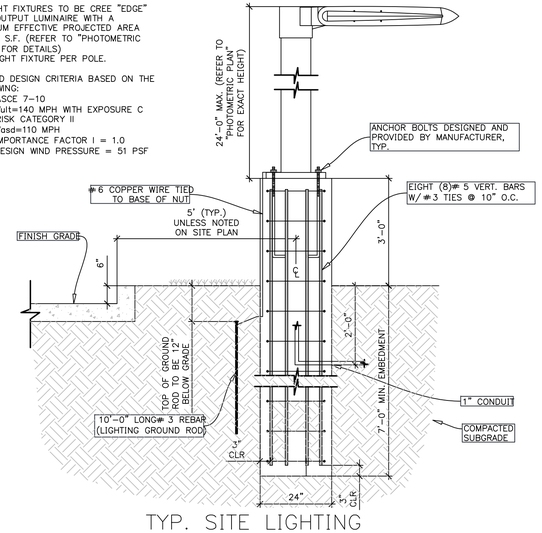


TYP. SITE LIGHTING
SECTION 120 MPH WIND
(Vult)
N.T.S.

1 / SD4

NOTES: 1. LIGHT POLES SHALL MEET 93 MPH WIND (Vasd); 120 MPH (Vult) .
2. CONCRETE SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH (F'c) OF 3,500 PSI FOR ALL LIGHT POLE FOOTINGS.
3. ALL REINFORCING STEEL SHALL BE NEW DOMESTIC DEFORMED BILLET STEEL CONFORMING TO ASTM A-615 GRADE 60.
4. CONCRETE ABOVE FINISH GRADE TO BE SMOOTH WITH RUBBED FINISH.
5. CONCRETE LIGHT POLE BASES TO BE PAINTED TO MATCH BOLLARD.

NOTES:
1).LIGHT POLES TO BE CREE, PROVIDED BY RACETRAC AND TO BE INSTALLED BY GENERAL CONTRACTOR. SEE SITE PLAN FOR POLE LOCATIONS.
2) LIGHT FIXTURES TO BE CREE "EDGE" HIGH OUTPUT LUMINAIRE WITH A MAXIMUM EFFECTIVE PROJECTED AREA OF 2.0 S.F. (REFER TO "PHOTOMETRIC PLAN" FOR DETAILS)
ONE LIGHT FIXTURE PER POLE.
3) WIND DESIGN CRITERIA BASED ON THE FOLLOWING:
A) ASCE 7-10
B) Vult=140 MPH WITH EXPOSURE C RISK CATEGORY II
C) Vasd=110 MPH
D) IMPORTANCE FACTOR I = 1.0
E) DESIGN WIND PRESSURE = 51 PSF

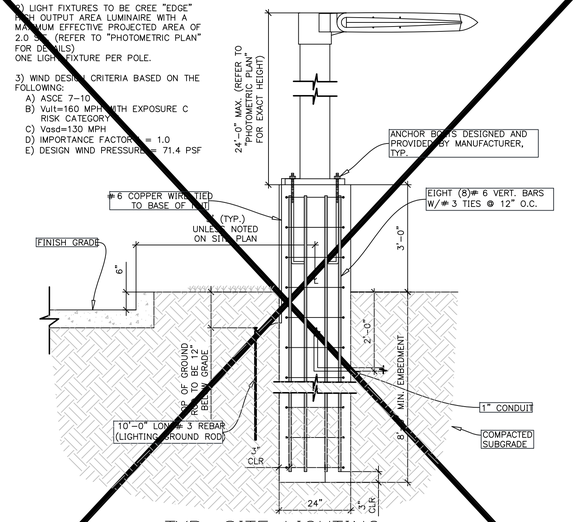


TYP. SITE LIGHTING
SECTION 140 MPH WIND
(Vult)
N.T.S.

2 / SD4

NOTES: 1. LIGHT POLES SHALL MEET 110 MPH WIND (Vasd); 140 MPH (Vult) .
2. CONCRETE SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH (F'c) OF 3,500 PSI FOR ALL LIGHT POLE FOOTINGS.
3. ALL REINFORCING STEEL SHALL BE NEW DOMESTIC DEFORMED BILLET STEEL CONFORMING TO ASTM A-615 GRADE 60.
4. CONCRETE ABOVE FINISH GRADE TO BE SMOOTH WITH RUBBED FINISH.
5. CONCRETE LIGHT POLE BASES TO BE PAINTED TO MATCH BOLLARD.

NOTES:
1).LIGHT POLES TO BE SPAULDING LIGHTING, PROVIDED BY RACETRAC AND TO BE INSTALLED BY GENERAL CONTRACTOR.SEE SITE PLAN FOR POLE LOCATIONS.
2) LIGHT FIXTURES TO BE CREE "EDGE" HIGH OUTPUT AREA LUMINAIRE WITH A MAXIMUM EFFECTIVE PROJECTED AREA OF 2.0 S.F. (REFER TO "PHOTOMETRIC PLAN" FOR DETAILS)
ONE LIGHT FIXTURE PER POLE.
3) WIND DESIGN CRITERIA BASED ON THE FOLLOWING:
A) ASCE 7-10
B) Vult=160 MPH WITH EXPOSURE C RISK CATEGORY II
C) Vasd=130 MPH
D) IMPORTANCE FACTOR I = 1.0
E) DESIGN WIND PRESSURE = 71.4 PSF

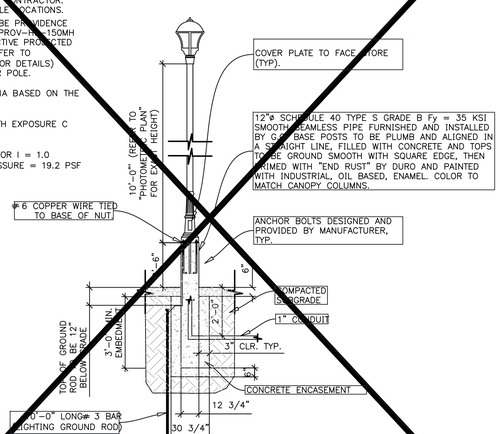


TYP. SITE LIGHTING
SECTION 160 MPH WIND
(Vult)
N.T.S.

3 / SD4

NOTES: 1. LIGHT POLES SHALL MEET 130 MPH WIND (Vasd); 160 MPH (Vult) .
2. CONCRETE SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH (F'c) OF 3,500 PSI FOR ALL LIGHT POLE FOOTINGS.
3. ALL REINFORCING STEEL SHALL BE NEW DOMESTIC DEFORMED BILLET STEEL CONFORMING TO ASTM A-615 GRADE 60.
4. CONCRETE ABOVE FINISH GRADE TO BE SMOOTH WITH RUBBED FINISH.
5. CONCRETE LIGHT POLE BASES TO BE PAINTED TO MATCH BOLLARD.

NOTES:
1).LIGHT POLES TO BE PROVIDENCE, PROVIDED BY RACETRAC AND TO BE INSTALLED BY GENERAL CONTRACTOR. SEE SITE PLAN FOR POLE LOCATIONS.
2) LIGHT FIXTURES TO BE PROVIDENCE AREA LIGHTING MODEL PROV-H5-150MH WITH A MAXIMUM EFFECTIVE PROJECTED AREA OF 0.96 S.F. (REFER TO "PHOTOMETRIC PLAN" FOR DETAILS)
ONE LIGHT FIXTURE PER POLE.
3) WIND DESIGN CRITERIA BASED ON THE FOLLOWING:
A) ASCE 7-10
B) Vult=120 MPH WITH EXPOSURE C RISK CATEGORY II
C) Vasd=93 MPH
D) IMPORTANCE FACTOR I = 1.0
E) DESIGN WIND PRESSURE = 19.2 PSF

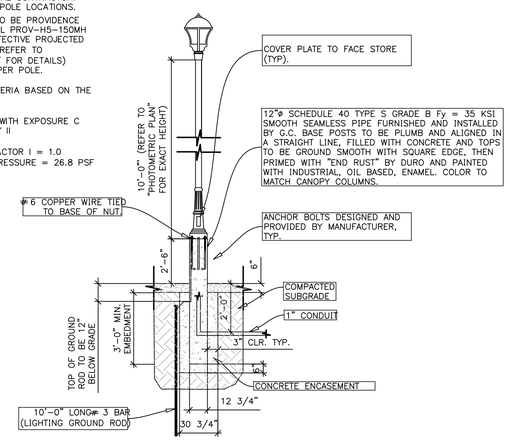


TYP. DECORATIVE LIGHTING
SECTION 120 MPH WIND (Vult)
N.T.S.

4 / SD4

NOTES: 1. LIGHT POLES SHALL MEET 93 MPH WIND (Vasd); 120 MPH (Vult).
2. CONCRETE SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH (F'c) OF 3,500 PSI FOR ALL LIGHT POLE FOOTINGS.
3. ALL REINFORCING STEEL SHALL BE NEW DOMESTIC DEFORMED BILLET STEEL CONFORMING TO ASTM A-615 GRADE 60.

NOTES:
1).LIGHT POLES TO BE PROVIDENCE, PROVIDED BY RACETRAC AND TO BE INSTALLED BY GENERAL CONTRACTOR. SEE SITE PLAN FOR POLE LOCATIONS.
2) LIGHT FIXTURES TO BE PROVIDENCE AREA LIGHTING MODEL PROV-H5-150MH WITH A MAXIMUM EFFECTIVE PROJECTED AREA OF 0.96 S.F. (REFER TO "PHOTOMETRIC PLAN" FOR DETAILS)
ONE LIGHT FIXTURE PER POLE.
3) WIND DESIGN CRITERIA BASED ON THE FOLLOWING:
A) ASCE 7-10
B) Vult=140 MPH WITH EXPOSURE C RISK CATEGORY II
C) Vasd=110 MPH
D) IMPORTANCE FACTOR I = 1.0
E) DESIGN WIND PRESSURE = 26.8 PSF

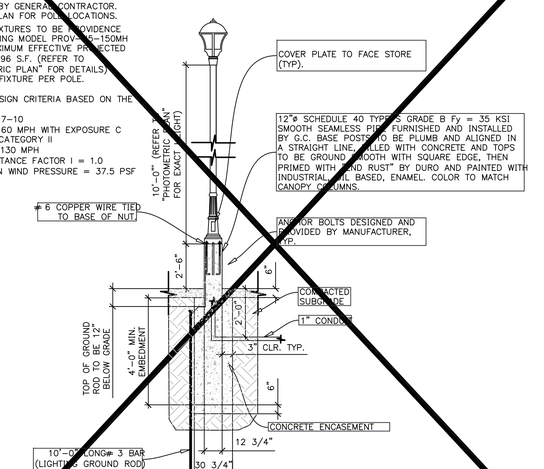


TYP. DECORATIVE LIGHTING
SECTION 140 MPH WIND (Vult)
N.T.S.

5 / SD4

NOTES: 1. LIGHT POLES SHALL MEET 110 MPH WIND (Vasd); 140 MPH (Vult).
2. CONCRETE SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH (F'c) OF 3,500 PSI FOR ALL LIGHT POLE FOOTINGS.
3. ALL REINFORCING STEEL SHALL BE NEW DOMESTIC DEFORMED BILLET STEEL CONFORMING TO ASTM A-615 GRADE 60.

NOTES:
1).LIGHT POLES TO BE PROVIDENCE, PROVIDED BY RACETRAC AND TO BE INSTALLED BY GENERAL CONTRACTOR. SEE SITE PLAN FOR POLE LOCATIONS.
2) LIGHT FIXTURES TO BE PROVIDENCE AREA LIGHTING MODEL PROV-H5-150MH WITH A MAXIMUM EFFECTIVE PROJECTED AREA OF 0.96 S.F. (REFER TO "PHOTOMETRIC PLAN" FOR DETAILS)
ONE LIGHT FIXTURE PER POLE.
3) WIND DESIGN CRITERIA BASED ON THE FOLLOWING:
A) ASCE 7-10
B) Vult=160 MPH WITH EXPOSURE C RISK CATEGORY II
C) Vasd=130 MPH
D) IMPORTANCE FACTOR I = 1.0
E) DESIGN WIND PRESSURE = 37.5 PSF



TYP. DECORATIVE LIGHTING
SECTION 160 MPH WIND (Vult)
N.T.S.

6 / SD4

NOTES: 1. LIGHT POLES SHALL MEET 130 MPH WIND (Vasd); 160 MPH (Vult).
2. CONCRETE SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH (F'c) OF 3,500 PSI FOR ALL LIGHT POLE FOOTINGS.
3. ALL REINFORCING STEEL SHALL BE NEW DOMESTIC DEFORMED BILLET STEEL CONFORMING TO ASTM A-615 GRADE 60.

NO.	REVISIONS	BY	DATE

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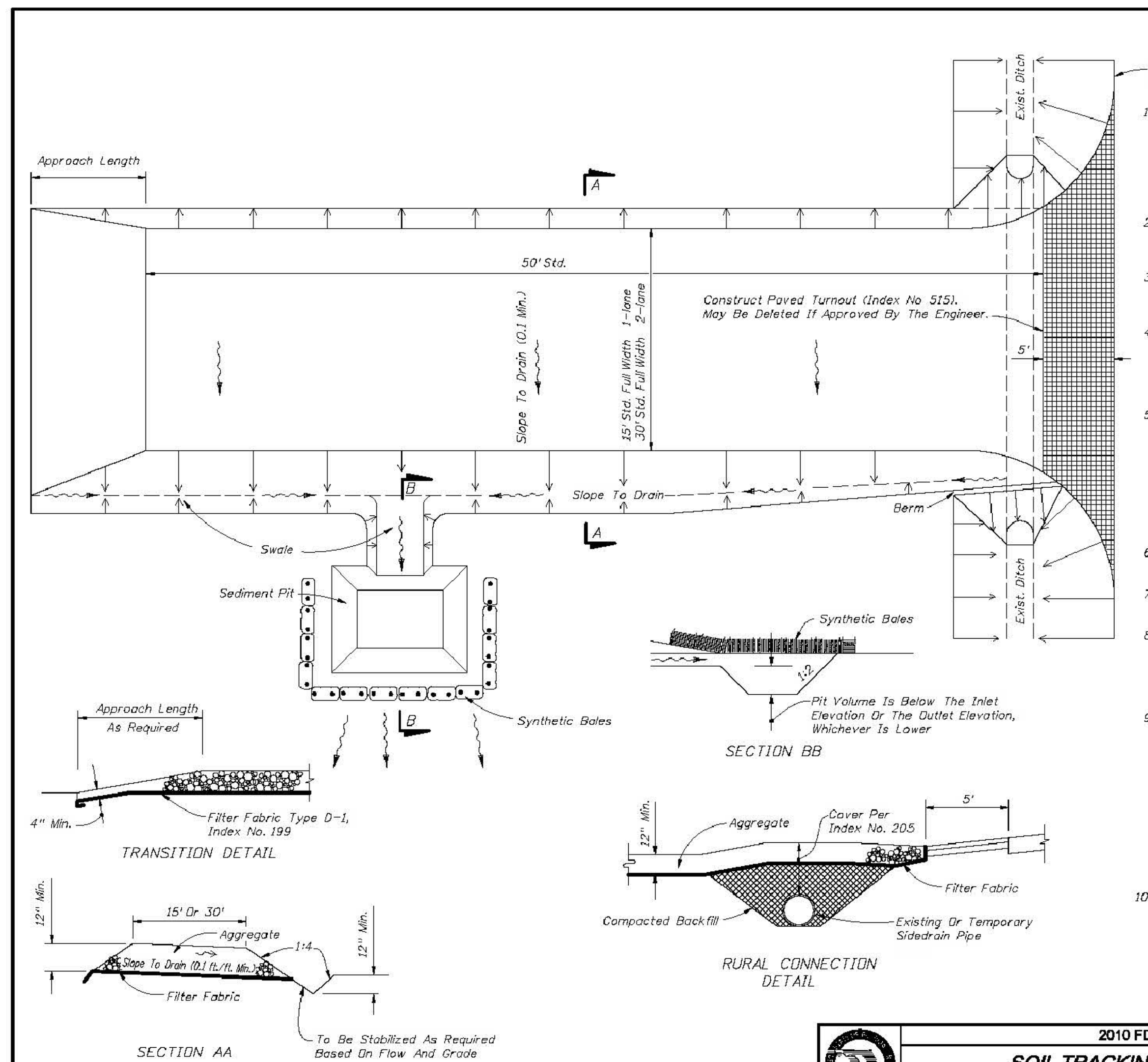
NORTHWOOD PALMS BLVD.
PASCO COUNTY, FLORIDA

SCALE		DATE	11/18/13
DRAWN	BGS	JOB NO.	13-RTR-001

SD4
SHEET NO. | REV.



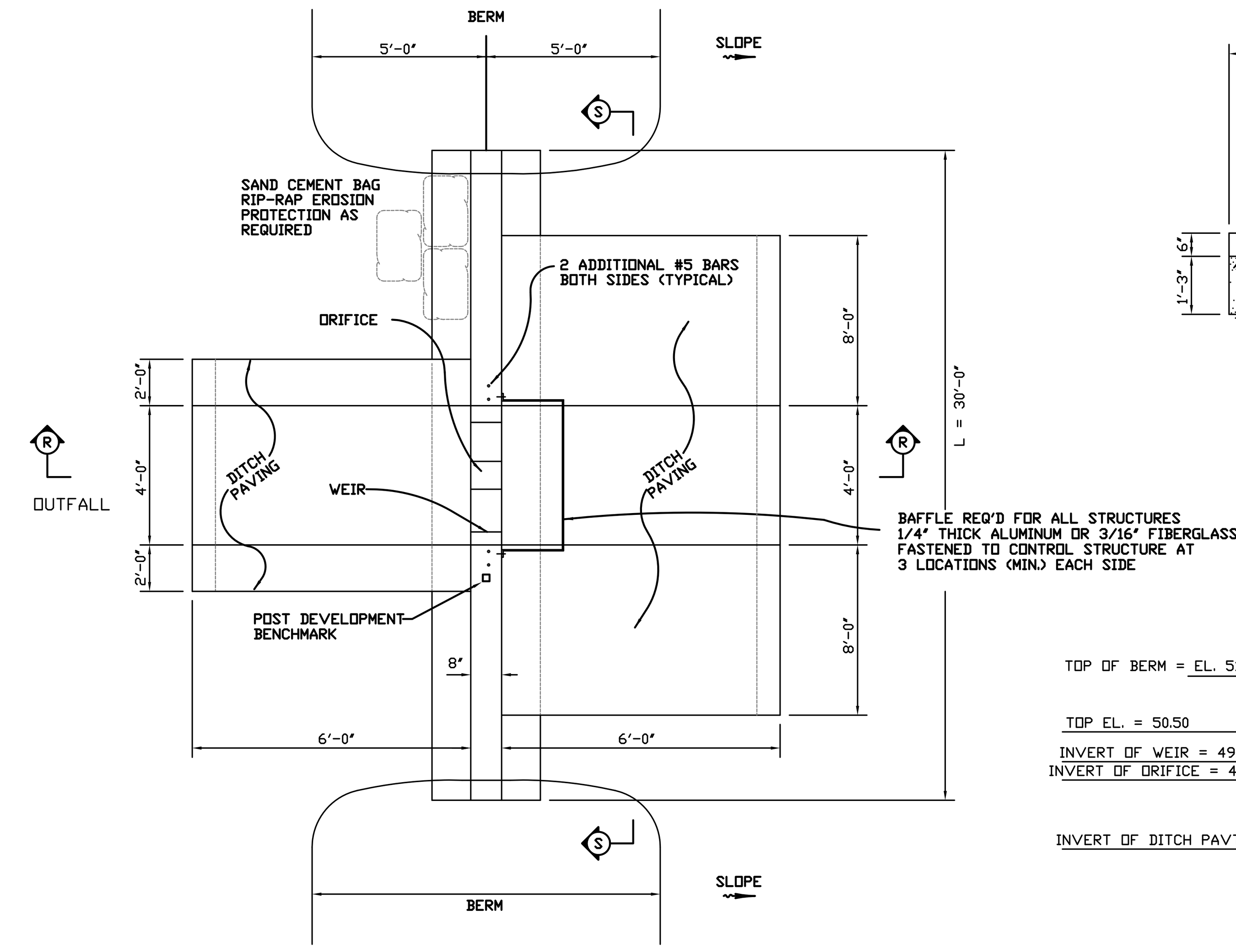
GENERAL NOTES

1. A Soil Tracking Prevention Device (STPD) shall be constructed at locations designated by the engineer for points of egress from unstabilized areas of the project to public roads where off-site tracking of mud could occur. Traffic from unstabilized areas of the construction project shall be directed thru a STPD. Barriers, flagging, or other positive means shall be used as required to limit and direct vehicular egress across the STPD.
2. The Contractor may propose an alternative technique to minimize off-site tracking of sediment. The alternative must be reviewed and approved by the Engineer prior to its use.
3. All materials spilled, dropped, or tracked onto public roads (including the STPD aggregate and construction mud) shall be removed daily, or more frequently if so directed by the Engineer.
4. Aggregates shall be as described in Section 901 excluding 901-2.3. Aggregates shall be FDOT size #1. If this size is not available, the next available smaller size aggregate may be substituted with the approval of the Engineer. Sizes containing excessive small aggregate will track off the project and are unsuitable.
5. The sediment pit should provide a retention volume of 3600 cubic feet/acre of surface area draining to the pit. When the STPD is isolated from other drainage areas, the following pit volumes will satisfy this requirement: 15' x 50'=100 ft.³ 30' x 50'=200 ft.³ As an option to the sediment pit, the width of the swale bottom can be increased to obtain the volume. When the sediment pit or swale volume has been reduced to one half, it shall be cleaned. When a swale is used, synthetic bales or silt fence shall be placed along the entire length.
6. The swale ditch draining the STPD shall have a 0.02% minimum and a 1.0% maximum grade along the STPD and to the sediment pit.
7. Mitered end sections are not required when the sidedrain pipe satisfies the clear zone requirements.
8. The STPD shall be maintained in a condition that will allow it to perform its function. To prevent off-site tracking, the STPD shall be rinsed (daily when in use) to move accumulated mud downward thru the stone. Additional stabilization of the vehicular route leading to the STPD may be required to limit the mud tracked.
9. A STPD shall be paid for under the contract unit price for Soil Tracking Prevention Device, EA. The unit price shall constitute full compensation for construction, maintenance, replacement of materials, removal, and restoration of the area utilized for the STPD; including but not limited to excavation, grading, temporary pipe (including MES when required), filter fabric, aggregate, paved turnout (including asphalt and base construction), ditch stabilization, approach route stabilization, sediment removal and disposal, water, rinsing and cleaning of the STPD and cleaning of public roads, grassing and sod. Synthetic Bale or Bale Type Barrier shall be paid for under the contract unit price for Synthetic Bales, LF. Silt fence shall be paid for under the contract unit price for Staked Silt Fence, LF.
10. The nominal size of a standard STPD is 15' x 50' unless otherwise shown in the plans. If the volume of entering and existing vehicles warrant, a 30' width STPD may be used if approved by the Engineer. When a double width (30') STPD is used, the pay quantity shall be 2 for each location.

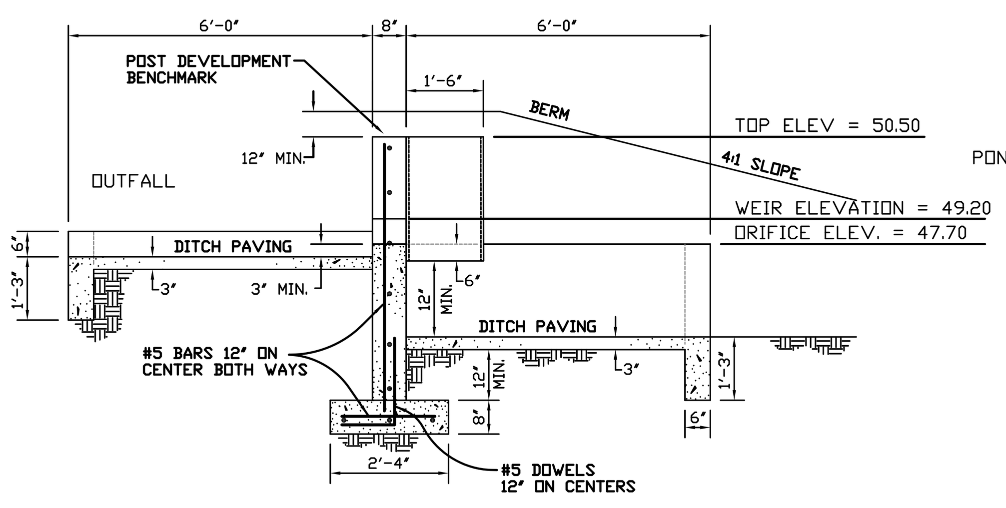
2010 FDOT Design Standards

SOIL TRACKING PREVENTION DEVICE TYPE A

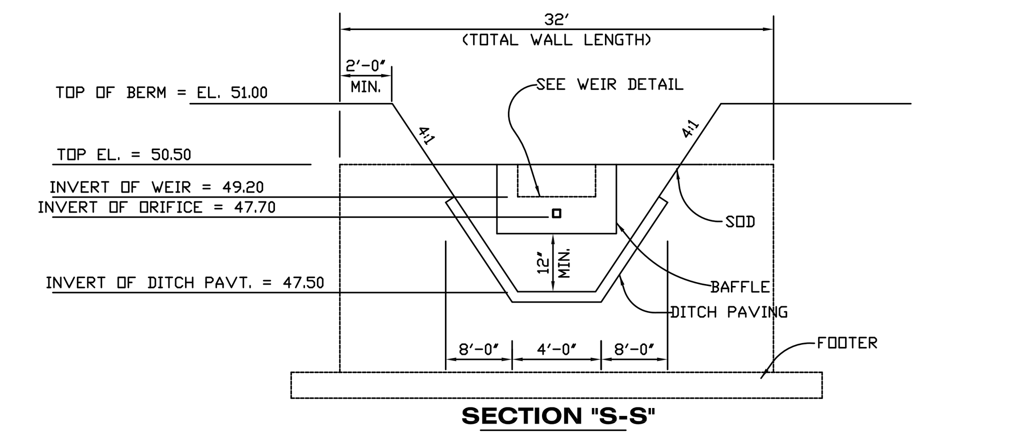
Last Revision 07/01/07 | Sheet No. 1 of 1 | Index No. 106



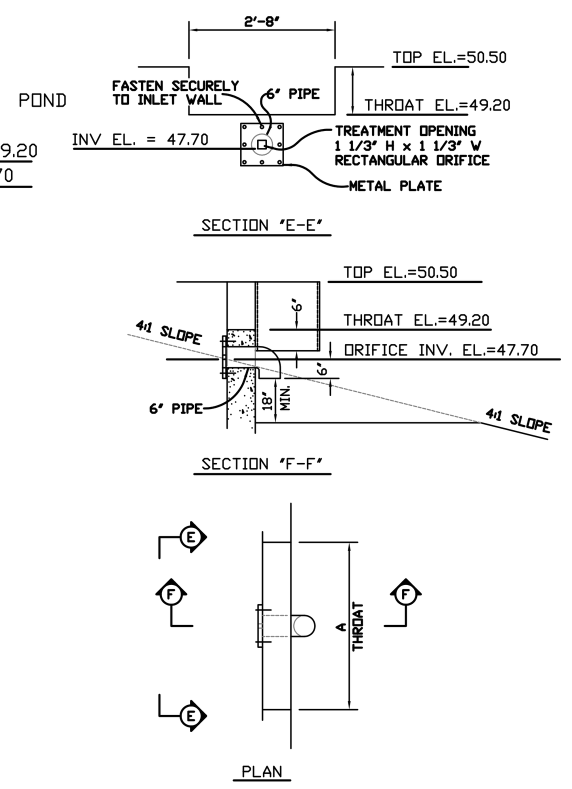
WALL



SECTION "R-R"
DETENTION POND



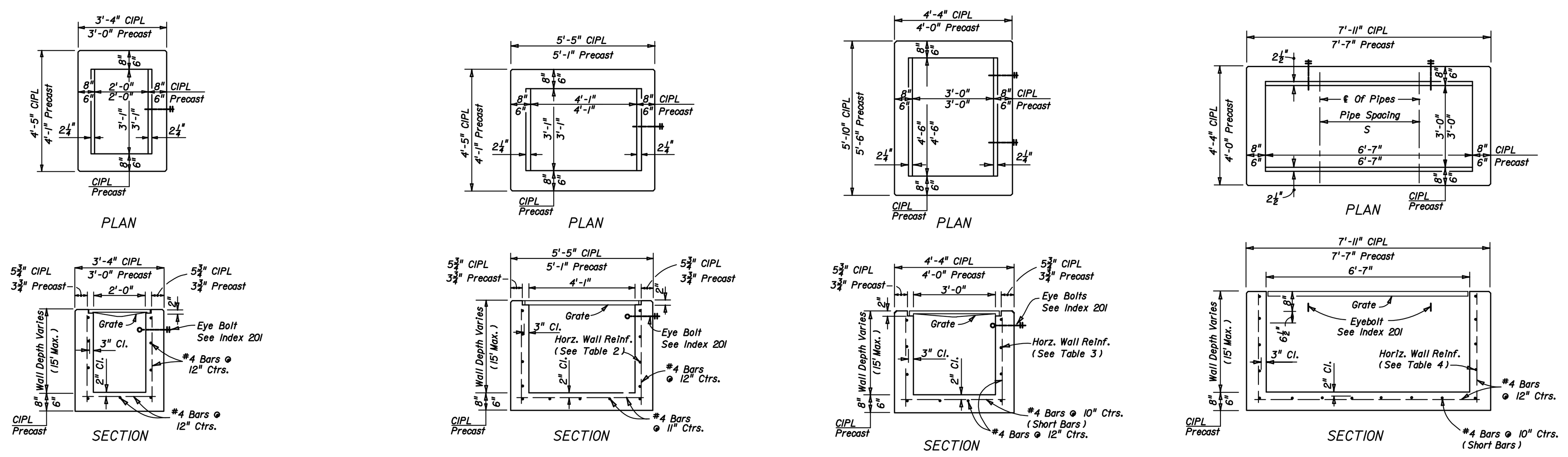
SECTION "S-S"
NOT TO SCALE



ORIFICE DETAIL

NOTE:
DRAWING NOT TO SCALE

NOTE:
CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTING CONTROL STRUCTURES



HORIZONTAL WALL REINFORCING SCHEDULES (TABLE 1)

WALL DEPTH	SCHEDULE	AREA (in²/ft)	MAX. SPACING BARS	MAX. SPACING WWF
0'-15'	A12	0.20	12"	8"

TYPE C
Recommended Maximum Pipe Size:
2'-0" Wall - 18" Pipe
3'-1" Wall - 24" Pipe (18" where an 18" pipe enters a 2'-0" wall)

HORIZONTAL WALL REINFORCING SCHEDULES (TABLE 2)

WALL DEPTH	SCHEDULE	AREA (in²/ft)	MAX. SPACING BARS	MAX. SPACING WWF
0'-6'	A12	0.20	12"	8"
6'-10'	A6	0.20	6"	5"
10'-13'	A4	0.20	4"	3"
10'-15'	B5.5	0.24	5½"	5"

TYPE D
Recommended Maximum Pipe Size:
3'-1" Wall - 24" Pipe
4'-1" Wall - 36" Pipe

HORIZONTAL WALL REINFORCING SCHEDULES (TABLE 3)

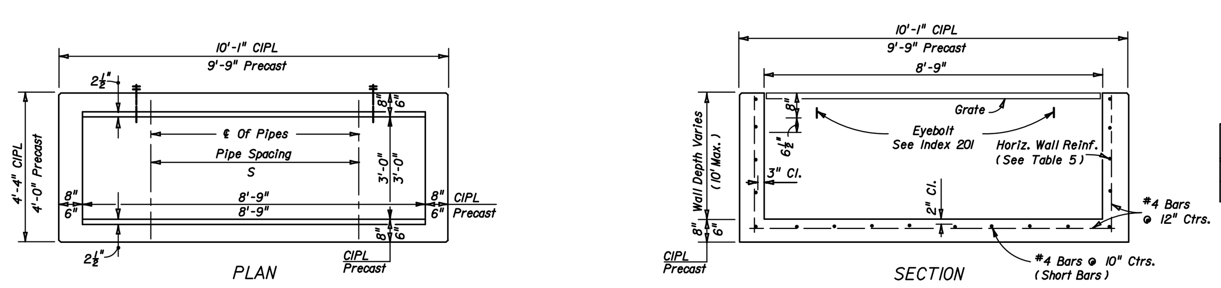
WALL DEPTH	SCHEDULE	AREA (in²/ft)	MAX. SPACING BARS	MAX. SPACING WWF
0'-5'	A12	0.20	12"	8"
0'-7.5'	A6	0.20	6"	5"
7.5'-10'	B5.5	0.24	5½"	5"
10'-15'	C6.5	0.37	6½"	6"

TYPE E
Recommended Maximum Pipe Size:
3'-0" Wall - 24" Pipe
4'-6" Wall - 36" Pipe

HORIZONTAL WALL REINFORCING SCHEDULES (TABLE 4)

WALL DEPTH	SCHEDULE	AREA (in²/ft)	MAX. SPACING BARS	MAX. SPACING WWF
0'-5'	B5.5	0.24	5½"	5"
5'-7'	C6.5	0.37	6½"	6"
7'-15'	D4.5	0.53	4½"	4"

TYPE H (2 & 3-GRATE INLET)
Recommended Maximum Pipe Size:
3'-0" Wall - 24" Pipe
6'-7" Wall - 1-60" Pipe
Or 2-24" Pipe (S=3'-5")



HORIZONTAL WALL REINFORCING SCHEDULES (TABLE 5)

WALL DEPTH	SCHEDULE	AREA (in²/ft)	MAX. SPACING BARS	MAX. SPACING WWF
0'-5'	C3.5	0.37	3½"	3"
5'-10'	D4.5	0.53	4½"	4"

TYPE H (4-GRATE INLET)
Recommended Maximum Pipe Size:
3'-0" Wall - 24" Pipe
8'-9" Wall - 1-78" Pipe
Or 2-30" Pipe (S=4'-3")

GENERAL NOTES
See Sheet 2 of 6.

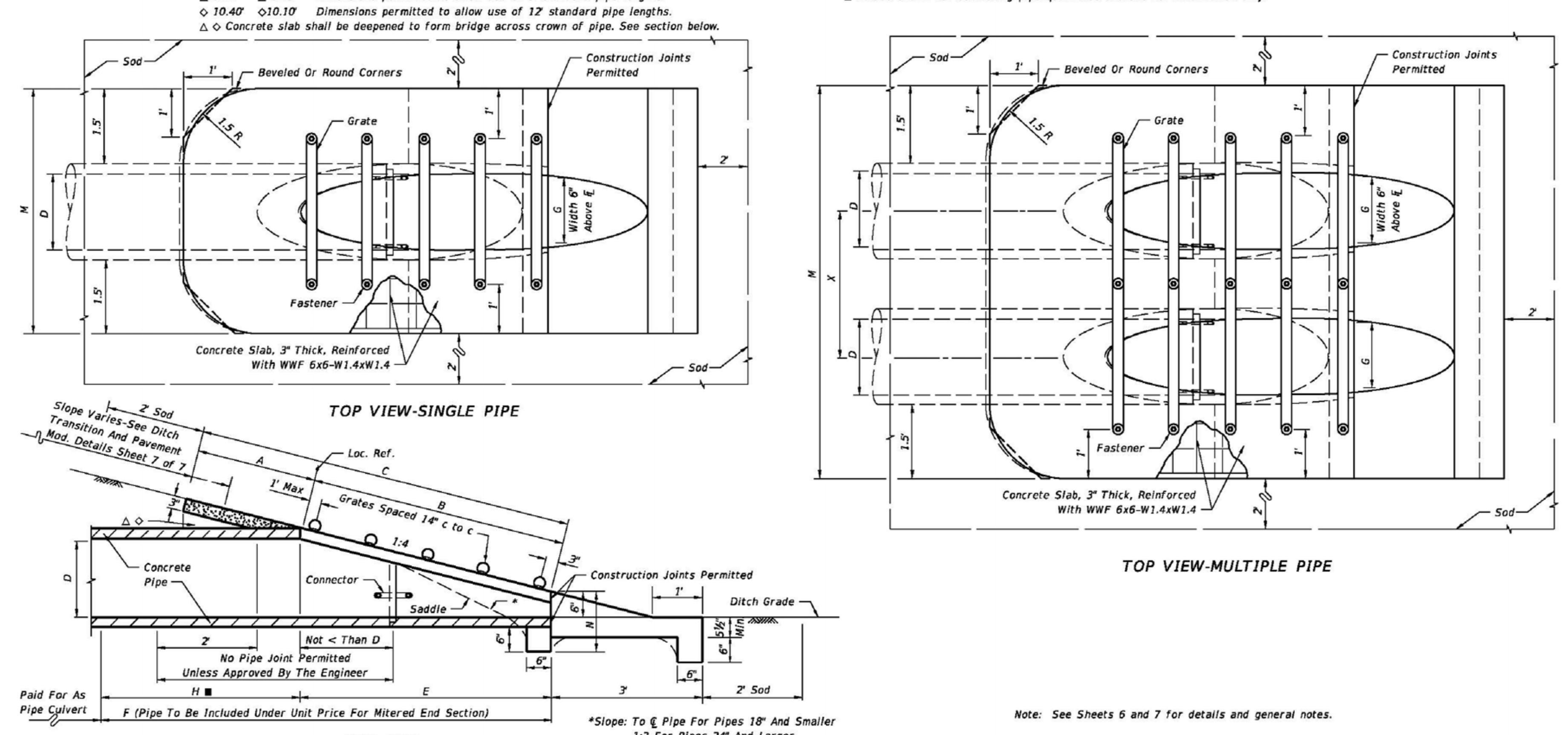
DITCH BOTTOM INLET TYPES C, D, E & H

Sheet No. 1 of 6 | Index No. 232

DIMENSIONS & QUANTITIES

D	X	A	B	C	E	F	G	H ■	M Single Pipe	M Double Pipe	M Triple Pipe	M Quad Pipe	N	Grate Sizes Standard Weight Pipe	Grate Sizes Extra Strong Pipe	Concrete (CY) Single Pipe	Concrete (CY) Double Pipe	Concrete (CY) Triple Pipe	Concrete (CY) Quad Pipe	Sodding (SY) Single Pipe	Sodding (SY) Double Pipe	Sodding (SY) Triple Pipe	Sodding (SY) Quad Pipe
15"	2'-7"	2.27'	4.09'	6.36'	4.03'	8'	1.22'	4.0'	4.63'	7.21'	9.79'	12.37'	1.19'			0.76	1.16	1.54	1.94	8	10	11	12
18"	2'-10"	2.36'	5.12'	7.48'	5.03'	9'	1.41'	4.0'	4.92'	7.75'	10.58'	13.42'	1.21'			0.85	1.28	1.71	2.17	9	10	12	13
24"	3'-5"	2.53'	7.18' △	9.71'	7.03' △	11'	1.73'	4.0'	5.50'	8.92'	12.33'	15.75'	1.25'			1.02	1.58	2.15	2.75	10	12	13	15
30"	4'-3"	2.70'	9.25'	11.95'	9.03'	13'	2.00'	4.0'	6.08'	10.33'	14.58'	18.83'	1.29'	2½"	3"	1.23	1.98	2.74	3.50	12	14	15	17
36"	5'-1"	2.87'	11.31' ◇	14.18'	11.03' ◇	15'	2.24'	4.0'	6.67'	11.75'	16.83'	21.92'	1.33'	2½"	3"	1.40	2.38	3.33	4.24	13	15	17	20
42"	6'-0"	3.05'	13.37'	16.42'	13.03'	17'	2.45'	4.0'	7.25'	13.25'	19.25'	25.25'	1.38'	2½"	3½"	1.60	2.83	4.04	5.26	14	17	19	22
48"	6'-9"	3.22'	15.43'	18.65'	15.03'	19'	2.65'	4.0'	7.83'	14.58'	21.33'	28.08'	1.42'	2½"	3½"	1.81	3.26	4.70	6.14	15	18	21	24
54"	7'-8"	3.39'	17.49'	20.88'	17.03'	21'	2.83'	4.0'	8.42'	16.08'	23.75'	31.42'	1.46'	3"	4"	2.03	3.78	5.54	7.28	17	20	23	27
60"	8'-6"	3.56'	19.55'	23.11'	19.03'	23'	3.00'	4.0'	9.00'	17.50'	26.00'	34.50'	1.50'	3"	4"	2.28	4.36	6.43	8.50	18	22	25	29

△ 6.42' △ 6.25' Dimensions permitted to allow use of 8' standard pipe lengths.
◇ 10.40' ◇10.10' Dimensions permitted to allow use of 12' standard pipe lengths.
△ ◇ Concrete slab shall be deepened to form bridge across crown of pipe. See section below.
■ Values shown for estimating pipe quantities and are for information only.



Note: See Sheets 6 and 7 for details and general notes.

SINGLE AND MULTIPLE ROUND CONCRETE PIPE

LAST REVISION 07/01/02 | DESCRIPTION: | FDOT 2014 DESIGN STANDARDS | SIDE DRAIN MITERED END SECTION | INDEX NO. 273 | SHEET NO. 1 of 7

NO.	REVISIONS	BY	DATE
#2	PER PASCO AND FDOT COMMENTS	BGS	08*18-14
#1	REVISED WEIR DETAIL	BGS	03-26-14

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ATLANTA, GA 30339 (770) 431-7600

DRAINAGE DETAILS
RACETRAC MARKET
NORTHWOOD PALMS BLVD.
PASCO COUNTY, FLORIDA

SCALE		DATE	11/18/13
DRAWN	BGS	JOB NO.	13-RTR-001

SHEET NO. SD5 | REV.

PIPE RESTRAINT LENGTHS IN FEET
COMMON FITTINGS

PIPE SIZE	WATER MAINS - TEST PRESSURE 150 PSI				
	FITTING TYPE				
	11-1/4°	22-1/2°	45°	90°	DEAD END
4"	2'	4'	8'	20'	45'
6"	3'	6'	12'	28'	63'
8"	4'	7'	15'	36'	82'
10"	4'	9'	18'	43'	98'
12"	5'	10'	21'	50'	116'
16"	6'	13'	26'	63'	148'
20"	7'	15'	31'	76'	179'
24"	9'	17'	36'	87'	208'

PIPE SIZE	FORCE MAINS - TEST PRESSURE 100 PSI				
	FITTING TYPE				
	11-1/4°	22-1/2°	45°	90°	DEAD END
4"	1'	3'	6'	13'	30'
6"	2'	4'	8'	19'	42'
8"	2'	5'	10'	24'	55'
10"	3'	6'	12'	29'	66'
12"	3'	7'	14'	34'	77'
16"	4'	8'	18'	42'	99'
20"	5'	10'	21'	50'	119'
24"	6'	11'	24'	58'	139'

RESTRAINT LENGTHS ARE MEASURED FROM THE CENTER LINE OF THE FITTING ALONG THE PIPE IN BOTH DIRECTIONS (EXCEPT DEAD ENDS).

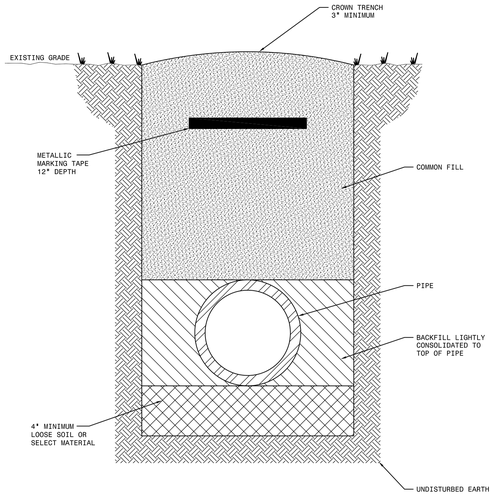
CREATED 02/24/03	RESTRAINED JOINT TABLE COMMON FITTINGS	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
REVISED	**PASCO COUNTY UTILITIES**	DETAIL 28

PIPE RESTRAINT LENGTHS IN FEET
TEES (BRANCH SIDE)

RUN SIZE	WATER MAINS - TEST PRESSURE 150 PSI								
	BRANCH SIZE								
	3"	4"	6"	8"	10"	12"	16"	20"	24"
3"	6'	14'	30'	—	—	—	—	—	—
4"	2'	11'	28'	44'	—	—	—	—	—
6"	1'	2'	22'	40'	52'	—	—	—	—
8"	1'	1'	16'	35'	48'	62'	—	—	—
10"	1'	1'	10'	30'	44'	58'	83'	—	—
12"	1'	1'	3'	25'	40'	55'	80'	103'	—
16"	1'	1'	1'	14'	31'	48'	75'	98'	119'
20"	1'	1'	1'	2'	22'	40'	69'	94'	116'
24"	1'	1'	1'	1'	11'	31'	63'	89'	111'

RESTRAINT LENGTHS ARE MEASURED FROM THE CENTER LINE OF THE TEE ALONG THE BRANCH FOR THE DISTANCE INDICATED. A MINIMUM OF 5 FEET OF RESTRAINED PIPE MUST BE INSTALLED ON BOTH RUNS OF THE TEE. MEGALUG TYPE RESTRAINERS ARE REQUIRED ON ALL JOINTS.

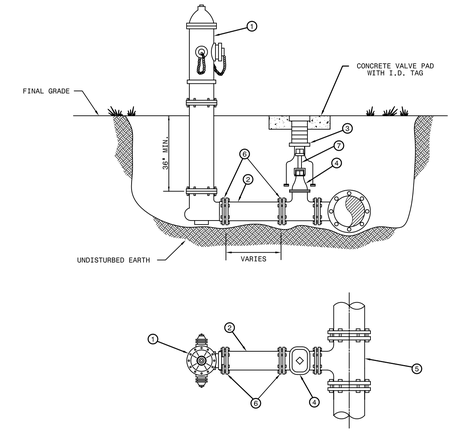
CREATED 02/24/03	RESTRAINED JOINT TABLE TEES (BRANCH SIDE)	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
REVISED	**PASCO COUNTY UTILITIES**	DETAIL 29



NOTES: -LOOSE SOIL OR SELECT MATERIAL IS NATIVE SOIL EXCAVATED FROM THE TRENCH FREE OF ROCKS AND FOREIGN MATERIAL.
-COMMON FILL TO BE PLACED AND COMPACTED IN 12" LAYERS. ROLLING EQUIPMENT SHALL NOT BE USED FOR COMPACTION UNTIL A MINIMUM OF 18" OF COMMON FILL HAS BEEN PLACED AND COMPACTED OVER THE PIPE. THREE FEET OF FILL SHALL BE PLACED BEFORE A HYDROHAMMER MAY BE USED FOR COMPACTION.

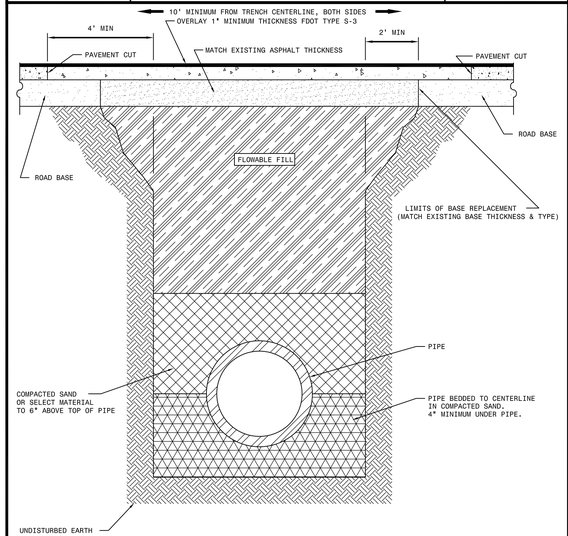
NTS

CREATED 02/24/03	PIPE LAYING CONDITIONS STANDARD UNPAVED AREAS	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
REVISED	PASCO COUNTY UTILITIES	DETAIL 32



ITEM	QUANT.	MATERIALS DESCRIPTION
1	1	HYDRANT, FIRE (5 1/4" VALVE MIN.), PAINTED YELLOW
2	■	6" PIPE, P.V.C. (DR-18)
3	1	BOX, VALVE SLIP TYPE
4	1	6" VALVE, GATE, M.J. RESILIENT WEDGE
5	1	TEE, ANCHORING, M.J.
6	■	6" RESTRAINER GLAND (MEGALUG)
7	■	VALVE EXTENSION ROD, AS NECESSARY (3' MAX. BELOW GRADE)

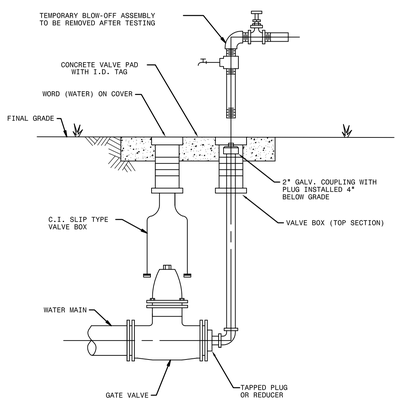
CREATED 02/24/03	FIRE HYDRANT PERPENDICULAR TO THE MAIN	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
REVISED	PASCO COUNTY UTILITIES	DETAIL 24



NOTE: -SELECT MATERIAL IS NATIVE SOIL EXCAVATED FROM THE TRENCH FREE OF ROCKS AND FOREIGN MATERIAL.
-COMPACTION TO TOP OF PILE IS TO BE APPROXIMATELY 90 % STANDARD PROCTOR, AASHTO T-99.
-EXISTING CONCRETE/ASPHALT PAVEMENT SURFACE AND BASE TO BE CUT SQUARE WITH CONCRETE SAW.

NTS

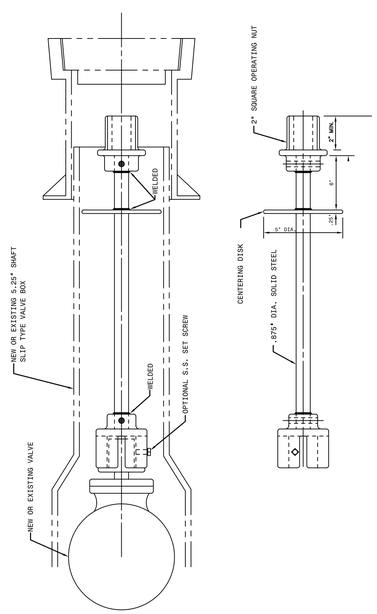
CREATED 03/06/03	PIPE LAYING CONDITIONS FLOWABLE FILL BACKFILL STANDARD EXISTING PAVED AREAS & ROADWAYS	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
REVISED	PASCO COUNTY UTILITIES	DETAIL 33



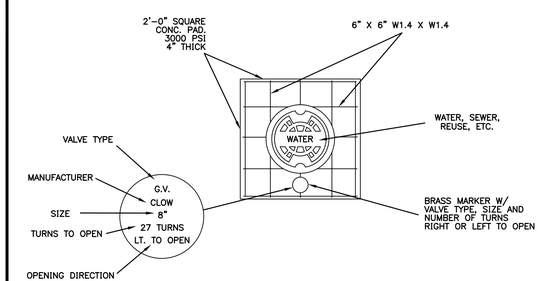
NOTES:
- MECHANICAL JOINTS/UNDERGROUND PIPING SHALL BE RESTRAINED AS SPECIFIED IN JOINT RESTRAINT TABLE (DETAIL 46)
- VALVE EXTENSION ROD SHALL BE UTILIZED, AS NECESSARY, SO THAT VALVE OPERATING NUT IS A MAXIMUM OF 3' BELOW GRADE.

CREATED 02/24/03	PERMANENT BLOW-OFF DETAIL	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
REVISED	PASCO COUNTY UTILITIES	DETAIL 25

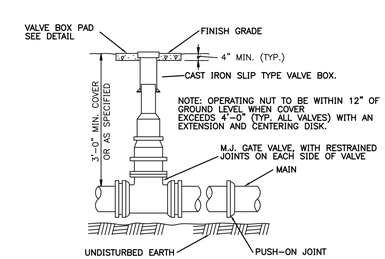
NOTE: ALL VALVE BOXES SHALL INCLUDE CONCRETE PAD W/ I.D. TAG



CREATED 02/24/03	VALVE EXTENSION RODS	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
REVISED	PASCO COUNTY UTILITIES	DETAIL 26



TYPICAL CONCRETE VALVE PAD



CREATED 02/24/03	VALVE BOX DETAIL SLIP TYPE	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
REVISED	PASCO COUNTY UTILITIES	DETAIL 27

NO.	REVISIONS	BY	DATE

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WATER AND SEWER DETAILS

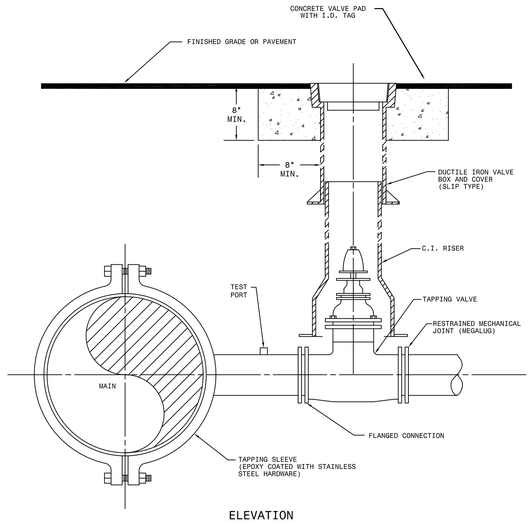
RACETRAC MARKET

NORTHWOOD PALMS BLVD.
PASCO COUNTY, FLORIDA

SCALE	BGS	DATE	10/28/13
DRAWN		JOB NO.	13-RTR-001

SD6

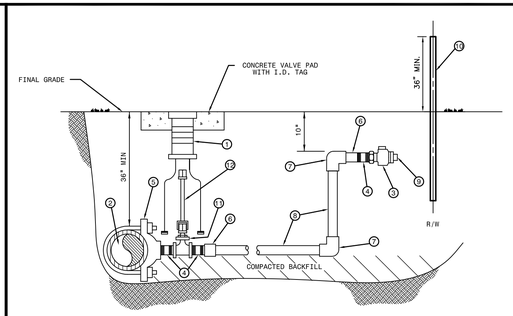
SHEET NO. | REV.



ELEVATION

NOTES:
- SADDLE CONNECTION WILL BE TESTED TO 150 PSI PRIOR TO TAPPING MAIN.
- MECHANICAL JOINTS/UNDERGROUND PIPING SHALL BE RESTRAINED AS SPECIFIED BY COUNTY/ENGINEER.
- VALVE EXTENSION ROD SHALL BE UTILIZED, AS NECESSARY, SO THAT VALVE OPERATING NUT IS A MAXIMUM OF 3' BELOW GRADE.

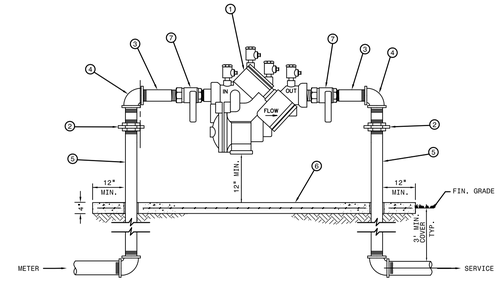
CREATED 02/24/03	WATER, REUSE, AND FORCE MAIN TAPPING DETAIL W/ VALVE LOCATION	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
REVISED	PASCO COUNTY UTILITIES	DETAIL 37



MATERIALS		
ITEM	QUANT.	DESCRIPTION
1	1	BOX, VALVE CAST IRON SLIP TYPE
2	*	4" & LARGER PIPE, PVC (DR-18) OR D.I.P. (CLASS 50)
3	2	1 1/2", 2" CURB STOP BALL VALVE W/ LOCK WINGS (FIP x FIP OR FIP x CTS)
4	3	1 1/2", 2" NIPPLE, BRASS OR STAINLESS STEEL
5	1	1 1/2", 2" SADDLE, SERVICE (I.P. THREADS)
6	2	1 1/2", 2" ADAPTER (PVC SCH 40 / SLIP x FPT OR BRASS MIP x CTS)
7	2	1 1/2", 2" 90° ELBOW (SLIP x SLIP) SCH 40 (NOT REQUIRED FOR HDPE)
8	*	1 1/2", 2" PIPE, PVC (SCH 40) OR HDPE (34QB) - LENGTH VARIES
9	1	1 1/2", 2" PLUG, THREADED (W/ TEFLON TAPE)
10	1	2" x 4" P.T. MARKER STAKE
11	1	2" GATE VALVE, IRON BODY W/ SQUARE NUT
12	1	VALVE EXTENSION ROD, AS REQUIRED (3' MAX. BELOW GRADE)

NOTE:
- A VALVE BOX SHALL BE REQUIRED ON ALL GATE VALVES.
- SERVICE SADDLES SHALL BE INSTALLED ON ALL TAPS TO P.V.C. (DR-18) WATER MAINS.
- 2" GATE VALVE TO BE RESILIENT WEDGE IRON BODY TYPE WITH 2" OPERATING UNIT.
- SADDLES 4" AND LARGER TO BE DUCTILE IRON DUAL STRAP TYPE.
- 1 1/2" BRASS REDUCER BUSHING REQUIRED WITH ITEM NO. 11 FOR 1 1/2" SERVICE.
- MARKER STAKES PAINTED SAFETY BLUE FOR WATER, PURPLE FOR REUSE.
- 4" DIAMETER CASING REQUIRED FOR ROAD CROSSINGS

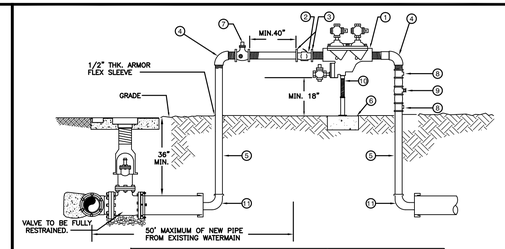
CREATED 02/24/03	WATER AND REUSE LATERAL SERVICE 1 1/2" OR 2" SERVICE LATERAL PVC (SCHEDULE 40)	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
REVISED	PASCO COUNTY UTILITIES	DETAIL 21



MATERIALS		
ITEM	QUANT.	DESCRIPTION
1	1	BACKFLOW PREVENTER ASSEMBLY, REDUCED PRESSURE ZONE
2	2	UNIONS - GALV.
3	2	NIPPLES - BRASS
4	2	ELBOWS - GALV. 90°
5	2	RISER - GALV.
6	*	CONCRETE SLAB
7	2	BALL VALVES - BRASS OR S.S. (PROVIDED WITH BFP ASS'Y)

NOTE:
- FIELD ADJUST AND CUT ITEM 5 TO THE PROPER LENGTH.
- MINIMUM CLEARANCE OF 24" TO BE MAINTAINED AROUND DEVICE FOR TESTING.
- ENTIRE ASSEMBLY TO BE PAINTED SAFETY BLUE.
- CONCRETE SLAB TO EXTEND 12" MIN. AROUND ENTIRE DEVICE.
- DEVICE MUST BE LISTED WITH THE UNIVERSITY OF SOUTHERN CALIFORNIA FOUNDATION FOR CROSS CONNECTION CONTROL AND HYDRAULIC RESEARCH.

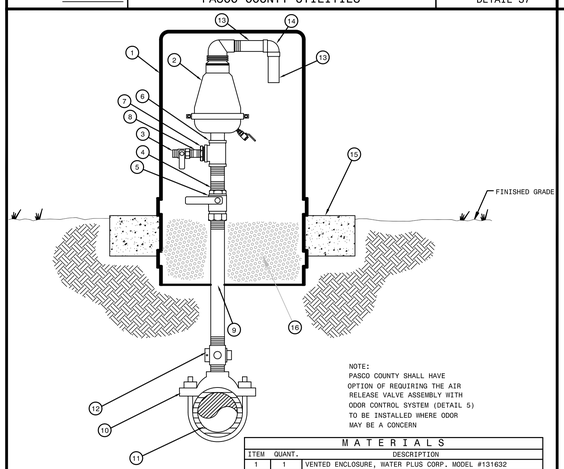
CREATED 02/24/03	REDUCED PRESSURE BACKFLOW PREVENTER (SINGLE SERVICE: 3/4", 1", 1-1/2", 2")	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
REVISED	**PASCO COUNTY UTILITIES**	DETAIL 12



MATERIALS		
ITEM	QUANT.	DESCRIPTION
1	1	2" BACKFLOW PREVENTER ASSEMBLY, REDUCED PRESSURE ZONE
2	1	2" METER FURNISHED BY PASCO COUNTY UTILITIES
3	2	BRASS-METER FLANGES OR ADAPTORS
4	2	2" ELBOWS - GALV. 90°
5	2	2" RISER - GALV.
6	*	CONCRETE SLAB
7	1	2" VALVE - BRASS OR S.S.
8	2	TEE/ VALVES - BRASS OR S.S.
9	1	2" GATE VALVE - BRASS OR S.S.
10	1	PIPE STAND (SUPPORT)
11	2	M.J. CAP WITH 2" TAP

NOTE:
- CONTRACTOR/CUSTOMER SHALL APPLY AT PASCO COUNTY UTILITIES CUSTOMER SERVICE FOR TEMPORARY WATER SERVICE AT LEAST THREE DAYS PRIOR TO REQUIRED SERVICE DATE.
- THE METER WILL BE FURNISHED, INSTALLED AND INITIAL READING TAKEN BY PASCO COUNTY UTILITIES. ALL FITTINGS, PIPING, VALVES AND MATERIALS INCLUDING THE PASCO COUNTY APPROVED REDUCED PRESSURE BACKFLOW PREVENTION DEVICE SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR/CUSTOMER.
- CONTRACTOR/CUSTOMER FURNISHED REDUCED PRESSURE BACKFLOW PREVENTION DEVICE MUST BE INSTALLED BEFORE THE METER IS INSTALLED BY PASCO COUNTY UTILITIES. THE APPROVED BACKFLOW PREVENTION DEVICE SHALL BE TESTED AND CERTIFIED BY PASCO COUNTY UTILITIES CERTIFIED BACKFLOW PREVENTION TECHNICIAN AT TIME OF METER INSTALLATION.
- CONTRACTOR/CUSTOMER SHALL PROTECT THE JUMPER/METER ASSEMBLY FROM DAMAGE.
- CONTRACTOR/CUSTOMER IS RESPONSIBLE FOR BACTERIOLOGICAL TESTING AFTER CONNECTION OF TEMPORARY WATER SERVICE.
- TEMPORARY CONSTRUCTION JUMPER/METER ASSEMBLY SHALL NOT BE REMOVED UNTIL SYSTEM IS ACCEPTED AND DEPARTMENT OF HEALTH CERTIFICATION AND CLEARANCE FOR SERVICE FORM HAS BEEN RECEIVED BY PASCO COUNTY UTILITIES.
- WHEN THE NEW SYSTEM IS ACCEPTED AND THE FINAL METER READING TAKEN BY PASCO COUNTY, THE TEMPORARY CONSTRUCTION JUMPER/METER ASSEMBLY MUST BE COMPLETELY REMOVED FROM M.J CAP TO M.J. CAP AND A NEW WATER MAIN IS TO BE CHLORINATED AND INSTALLED COMPLETING THE FINAL CONNECTION.
- BY APPLYING FOR SERVICE, CONTRACTOR/CUSTOMER AGREES TO TAKE WATER SERVICE FROM PASCO COUNTY UTILITIES IN ACCORDANCE WITH THE APPROPRIATE RATE SCHEDULE AND IN ACCORDANCE WITH PASCO COUNTY UTILITIES RULES AND REGULATION.

CREATED 11/18/05	TEMPORARY CONSTRUCTION WATER SERVICE	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
REVISED 05/30/06	**PASCO COUNTY UTILITIES**	DETAIL 01



NOTE:
PASCO COUNTY SHALL HAVE
OPTION OF REQUIRING THE AIR
RELEASE VALVE ASSEMBLY WITH
ODOR CONTROL SYSTEM (DETAIL 5)
TO BE INSTALLED WHERE ODOR
MAY BE A CONCERN

MATERIALS		
ITEM	QUANT.	DESCRIPTION
1	1	VENTED ENCLOSURE, WATER PLUS CORP. MODEL #131632
2	1	AIR RELEASE VALVE 2" NPT (SEE BELOW)
		SEWER AIR RELEASE VALVES SHALL BE ARI MODEL D-025
		WATER AIR RELEASE VALVES SHALL BE VALMATIC OR EQUAL
3	1	1" CURB STOP, S.S.
4	1	2" x 4" NIPPLE, S.S.
5	1	2" BALL VALVE, S.S.
6	1	2" TEE, S.S.
7	1	2" X 1" REDUCER, S.S.
8	1	1" SHORT NIPPLE, S.S.
9	1	2" PIPE, S.S. LENGTH AS REQUIRED
10	1	2" DOUBLE STRAP TAPPING SADDLE, S.S.
11	1	4" & LARGER PIPE, D.I. OR PVC (DR-18)
12	1	2" CORPORATION BRASS
13	2	1-1/2" PIPE, PVC, LENGTH AS REQUIRED
14	1	1-1/2" x 90° ELBOW, PVC
15	1	CONCRETE SLAB AROUND ENCLOSURE
16	1	#57 WHITE ROCK

NOTE:

VENTED ENCLOSURE TO BE COLOR CODED
AS FOLLOWS:

WATER MAIN - BLUE
FORCE MAIN - GREEN
REUSE MAIN - PURPLE

CREATED 02/24/03	STANDARD AIR RELEASE VALVE ASSEMBLY (VERTICAL PIPE LAYOUT)	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
REVISED	PASCO COUNTY UTILITIES	DETAIL 4

PASCO COUNTY UTILITIES DATA SHEET FOR SIZING WATER METERS

Customer: RACETRAC PETROLEUM, INC.

Type of Occupancy: COMMERCIAL

Property Identification No.36-26-19-0000-00200-0030

Fixture	Fixture Value at 35 psi	x	No. of Fixtures	=	Fixture Value
Bathtub	8	x		=	
Bedpan washer	10	x		=	
Combination Sink & Tray	3	x		=	
Dental Unit	1	x		=	
Dental Lavatory	2	x		=	
Drinking Fountain - Cooler	1	x		=	
Drinking Fountain - Public	2	x	1	=	2
Kitchen Sink - 1/2" connection	3	x		=	
- 3/4" connection	7	x		=	
Lavatory - 3/8" connection	2	x		=	
- 1/2" connection	4	x	2	=	8
Laundry Tray - 1/2" connection	3	x		=	
- 3/4" connection	7	x		=	
Shower head (shower only)	4	x		=	
Service Sink - 1/2" connection	3	x	3	=	9
- 3/4" connection	7	x		=	
Urinal - Pedestal Flush Valve	10	x		=	
- Wall Flush Valve	10	x	2	=	20
- Trough (2 ft. Unit)	2	x		=	
Wash Sink (each set of faucets)	4	x	7	=	28
Water Closet - Flush Valve	10	x	5	=	50
- Tank Type	3	x		=	
Dishwasher - 1/2" connection	5	x		=	
- 3/4" connection	10	x		=	
- 1" connection	25	x		=	
Washing Machine - 1/2" connection	5	x		=	
- 3/4" connection	10	x		=	
- 1" connection	25	x		=	
Hose connection - 1/2"	6	x		=	
- 3/4"	10	x	2	=	20
Hose (50 ft.) - 1/2"	6	x		=	
- 3/4"	9	x		=	
- 1"	12	x		=	
Combined Fixture Value Total				=	137
Customer Peak demand from Curves				=	54 gpm
Enter Line Pressure and Pressure Factor					
Customer Peak demand from Curves X Pressure factor				=	54 gpm

NO.	REVISIONS	BY	DATE
#2	REVISED ARV DETAIL	BGS	08-18-14
#1	ADDED ARV DETAIL	BGS	03-26-14

SURAK ENGINEERING
3628 VALENCIA COVE COURT
LAND O'LAKES, FLORIDA 34639
(813) 244 - 5136
bsurak@verizon.net

FL ENGINEERING BUSINESS CERTIFICATE OF AUTHORIZATION NO. 28789

FL ENGINEERING BUSINESS CERTIFICATE OF AUTHORIZATION NO. 28789

BRIAN G. SURAK P.E. NO. 59064
FLORIDA PROFESSIONAL ENGINEER

THESE PLANS ARE SUBJECT TO FEDERAL COPYRIGHT LAWS: ANY USE OF SAME WITHOUT THE EXPRESSED WRITTEN PERMISSION OF RACETRAC PETROLEUM, INC. IS PROHIBITED.

RACETRAC PETROLEUM, INC.
3225 CUMBERLAND BOULEVARD
SUITE 100
ATLANTA, GA 30339 (770) 431-7600

WATER AND SEWER DETAILS

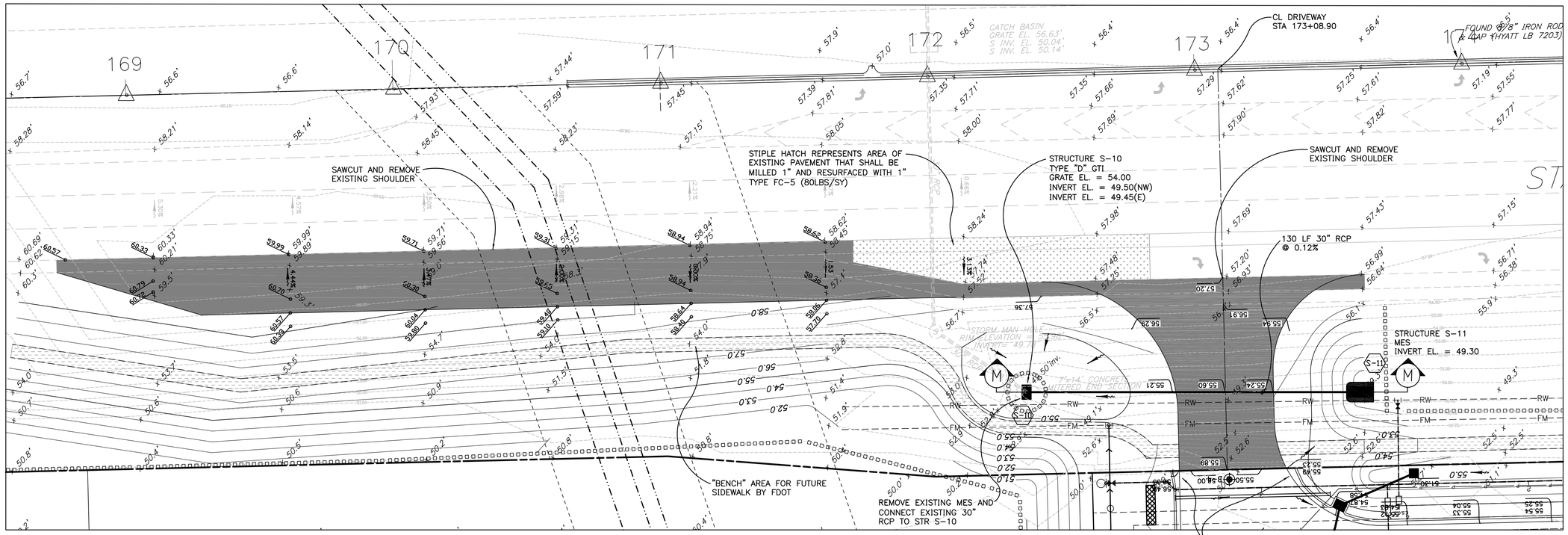
RACETRAC MARKET

NORTHWOOD PALMS BLVD.
PASCO COUNTY, FLORIDA

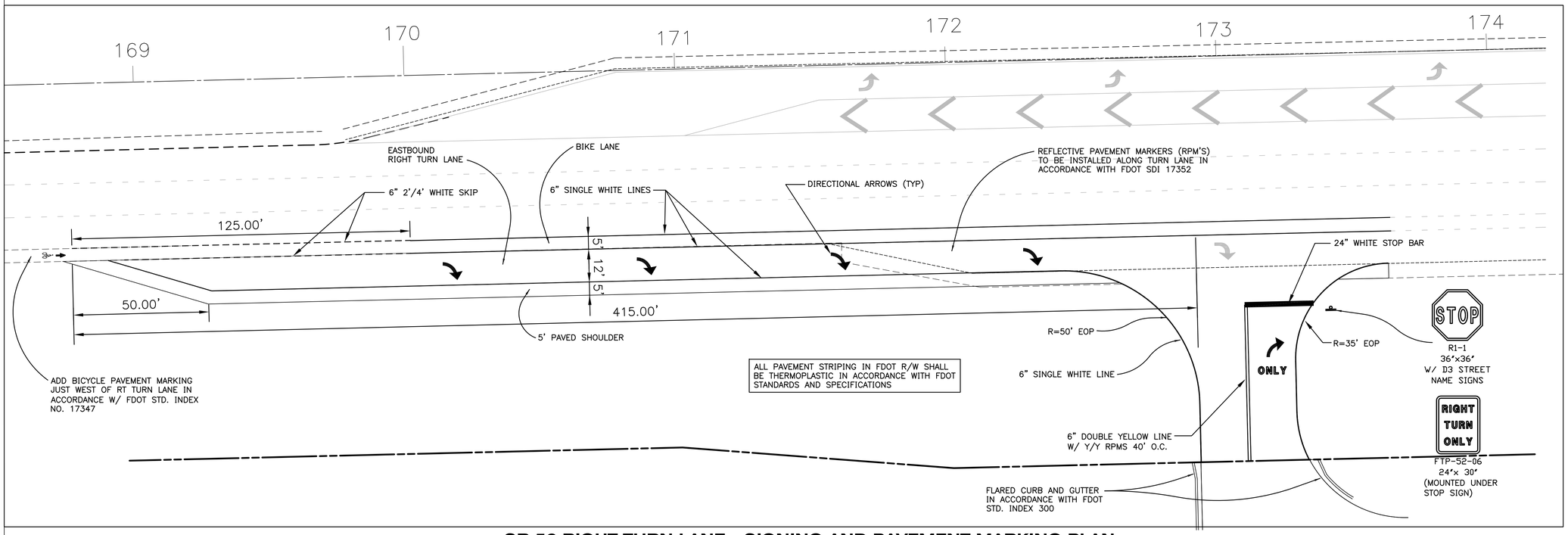
SCALE		DATE	11/18/13
DRAWN	BGS	JOB NO.	13-RTR-001

SD7

SHEET NO. | REV.



SR 56 RIGHT TURN LANE - GRADING AND DRAINAGE PLAN



SR 56 RIGHT TURN LANE - SIGNING AND PAVEMENT MARKING PLAN

811 Know what's below. Call before you dig.

0 20 40 60
SCALE: 1" = 20'

FDOT PERMIT NUMBER: 2013-A-798-30

NO.	REVISIONS	BY	DATE
#3	PER FDOT COMMENTS	BGS	08-18-14
#2	PER FDOT COMMENTS	BGS	07-21-14
#1	REVISED SR 56 DRIVEWAY PER FDOT	BGS	03-28-14

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RaceTrac
RACETRAC PETROLEUM, INC.
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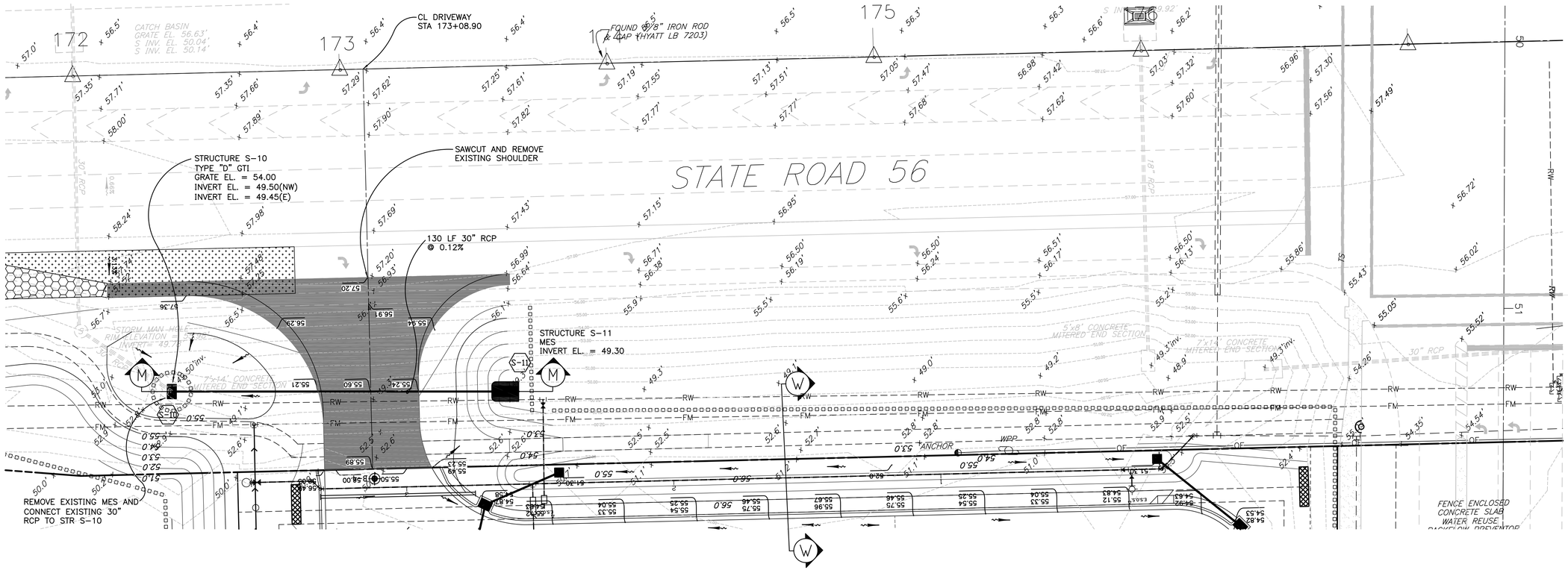
SUITE 100
ATLANTA, GA 30339 (770) 431-7600

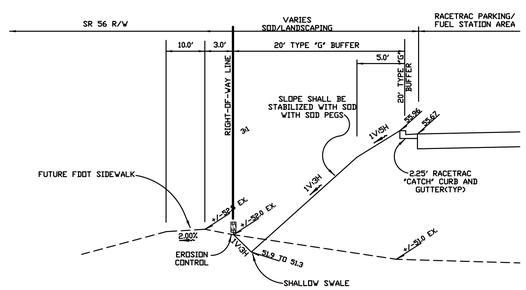
SR 56 RIGHT TURN LANE PLAN
RACETRAC MARKET
NORTHWOOD PALMS BLVD.
PASCO COUNTY, FLORIDA

SCALE	1" = 20 FEET	DATE	11/18/13
DRAWN	BGS	JOB NO.	13-RTR-001

TS-1
SHEET NO. REV.



SR 56 RIGHT-OF-WAY - GRADING AND DRAINAGE PLAN



SECTION W-W

FDOT PERMIT NUMBER: 2013-A-798-30

0 20 40 60
SCALE: 1" = 20'

811
Know what's below.
Call before you dig.

NO.	REVISIONS	BY	DATE
#1	REVISED PER FDOT COMMENTS	BGS	08-18-14
#1	ADDED NEW PLAN TO SHOW RIGHT-OF-WAY	BGS	06.27.14

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RACETRAC PETROLEUM, INC.
3225 CUMBERLAND BOULEVARD
SUITE 100
ATLANTA, GA 30339 (770) 431-7600

SR 56 RIGHT-OF-WAY PLAN
RACETRAC MARKET
NORTHWOOD PALMS BLVD.
PASCO COUNTY, FLORIDA

SCALE	1" = 20 FEET	DATE	11/18/13
DRAWN	BGS	JOB NO.	13-RTR-001

TS-1A

SHEET NO. | REV.

GENERAL NOTES

ALL WORK PERFROMED IN FDOT R/W SHALL BE DONE IN ACCORDANCE WITH THE MOST CURRENT EDITIONS OF:
A) F.D.O.T. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
B) F.D.O.T. DESIGN STANDARDS FOR DESIGN, CONSTRUCTION, MAINTENANCE AND UTILITY OPERATIONS ON THE STATE HIGHWAY SYSTEM.
C) F.D.O.T. ROADWAY PLANS PREPARATION MANUAL VOLUME I, CHAPTER 2 AND/OR 25.
D) F.D.O.T. FLEXIBLE PAVEMENT DESIGN MANUAL FOR NEW CONSTRUCTION AND PAVEMENT REHABILITATION.

1. ALL AREAS IN THE FDOT R/W DISTURBED DURING CONSTRUCTION SHALL BE RESTORED, COMPACTED, SODDED AND WATERED IN CONFORMANCE WITH THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, SECTION 575 AND 981 AND DESIGN STANDARDS INDEX 105.

2. DAYTIME WORK ONLY. THE FDOT ENGINEER MUST APPROVE NIGHT WORK AND LANE CLOSURES AT LEAST 48 HOURS IN ADVANCE. THE APPLICANT MUST NOTIFY THE FDOT LOCAL MAINTENANCE OFFICE 48 HOURS IN ADVANCE OF STARTING ANY PROPOSED WORK. CALL: BROOKSVILLE MAINTENANCE, JOHN KILKENNY @ 352-848-2600.

3. ALL TRAFFIC STRIPES AND PAVEMENT MARKINGS ARE TO BE LEAD-FREE, NON-SOLVENT BASED THERMOPLASTIC. THE PERMITEE SHALL FURNISH THE FDOT WITH THE MANUFACTURER'S CERTIFICATION THAT THE THERMOPLASTIC IS "LEAD-FREE." REMOVAL OF EXISTING STRIPING SHALL BE DONE BY MILLING AND RESURFACING OF THE FRICTION/SURFACE COURSE TO OBLITERATE OBSOLETE PAVEMENT MARKINGS.

4. ALL PROPOSED TRAFFIC SIGNS AND PAVEMENT MARKINGS SHALL BE IN CONFORMANCE WITH AND CONSTRUCTED TO THE FDOT DESIGN STANDARDS INDEX SERIES 11000 AND 17000 SERIES. THE PROPERTY OWNER MUST MAINTAIN THE TRAFFIC SIGNS AND MARKINGS FOR THE DRIVEWAY.

5. FOR WORK WITHIN FDOT R/W, THE FDOT REQUIRES DOCUMENTATION FOR SUCCESSFUL COMPLETION OF AN APPROVED WORK ZONE TRAFFIC CONTROL PLAN TRAINING COURSE FOR THE AGENCY, UTILITY, CONTRACTOR EMPLOYEE(S) DESIGNING, INSTALLING AND/OR MAINTAINING THE APPROVED MAINTENANCE OF TRAFFIC PLAN IN ACCORDANCE WITH DEPARTMENT PROCEDURE, TOPIC 625-010-010. DOCUMENTATION IS TO BE FURNISHED TO THE FDOT AT THE PRE-CONSTRUCTION MEETING OR BEFORE OCCUPYING STATE RIGHT-OF-WAY.

6. MAINTENANCE OF TRAFFIC PLAN FOR WORK ZONES SHALL BE IN CONFORMANCE WITH ALL APPLICABLE INDICES OF THE FDOT DESIGN STANDARDS INDEX 600 SERIES ACCORDING TO THE TYPE OF ROADWAY AND TYPE OF WORK BEING PERFORMED.

7. SILT FENCE FOR EROSION CONTROL IN CONFORMANCE WITH DESIGN STANDARDS INDEX (DSI) 102 IS REQUIRED FOR ALL AREAS OF CONSTRUCTION WITH FDOT R/W; PERPEDICULAR TO AND PARALLEL WITH THE STATE ROAD.

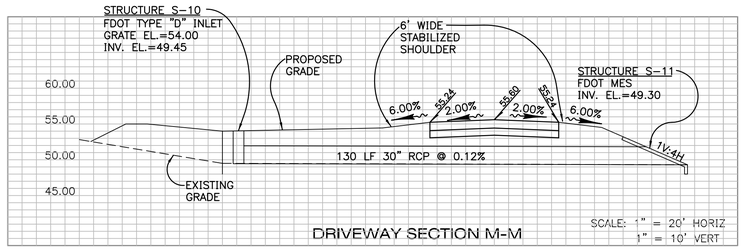
8. **SIDEWALK SHALL BE CONSTRUCTED PER FDOT INDEX 304 AND 310. DETECTABLE WARNING STRIPS, AKA TRUNCATED DOMES, FOR DISTRICT SEVEN CONSTRUCTION AND MAINTENANCE SHOULD BE EITHER CERAMIC TILES OR THERMOPLASTIC DETECTABLE WARNING STRIPS. THESE WARNING SURFACES SHALL ONLY BE PROVIDED BY THE FOLLOWING VENDORS/MANUFACTURERS:
A) INLINE TRUNCATED DOME EZ TILE SUPPLIED BY PROFESSIONAL PAVEMENT PRODUCTS.
B) TOPMARK SUPPLIED BY FLINT TRADING
C) VANGUARD TRUNCATED DOME SUPPLIED BY VANGUARD

9. **MAINTENANCE OF TRAFFIC PLAN MUST INCLUDE FDOT DESIGN STANDARDS INDEX 660 PEDESTRIAN CONTROL FOR CLOSURE OF SIDEWALKS.

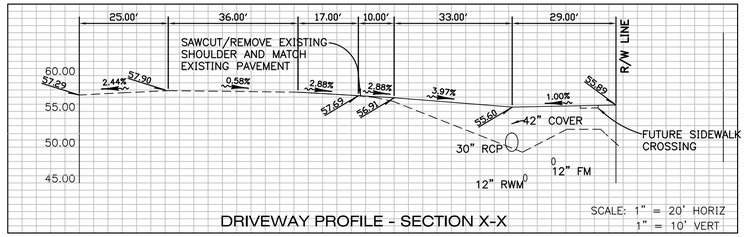
10. FOR WORK WITHIN FDOT R/W, THE CONTRACTOR SHALL PROVIDE A TEMPORARY TRAFFIC CONTROL PLAN PREPARED UNDER THE DIRECTION OF, AND SIGNED AND SEALED BY A LICENSED FLORIDA PROFESSIONAL ENGINEER WHO IS EXPERIENCED IN PREPARING TRAFFIC CONTROL PLANS AND WHO IS CERTIFIED BY FDOT PROCEDURE, TOPIC 625-010-010.

11. ALL TEMPORARY TRAFFIC CONTROL DEVICES FOR SR 56 SHALL BE DESIGNED AND INSTALLED TO MEET THE EXISTING POSTED SPEED LIMIT OF 55 MPH.

SITE CONTRACTOR SHALL REFER TO FDOT STANDARD INDEX NOS. 611 AND 612 FOR POSSIBLE ALTERNATE MAINTENANCE OF TRAFFIC OPTIONS



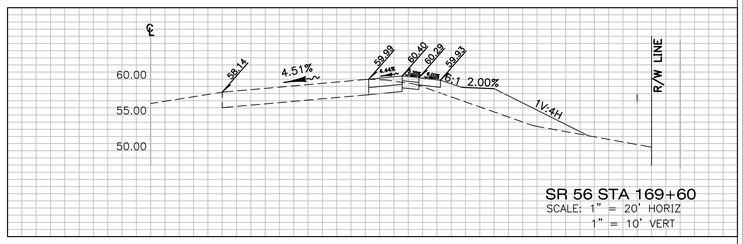
DRIVEWAY SECTION M-M

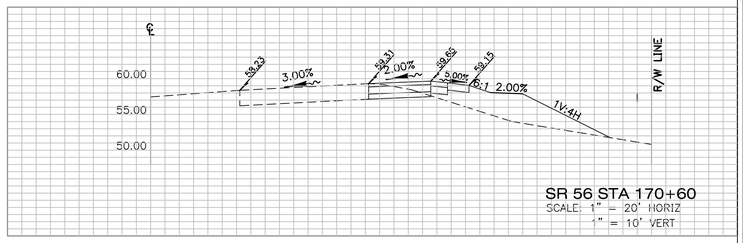


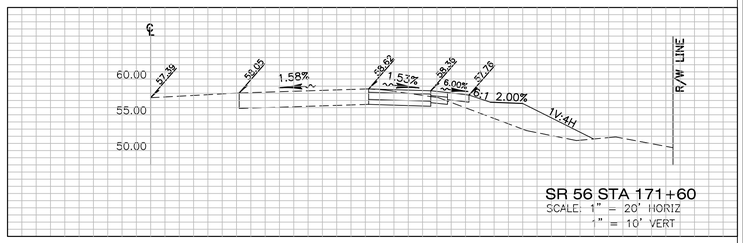
DRIVEWAY PROFILE - SECTION X-X

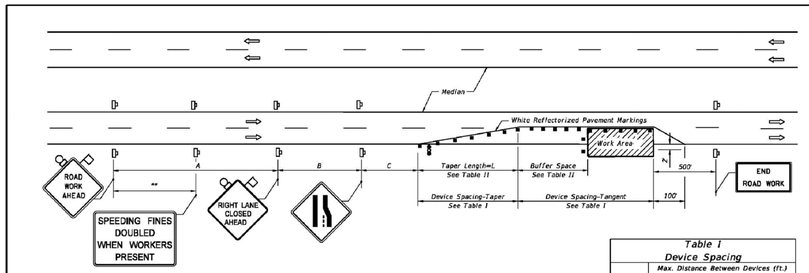
ENTRANCE DRIVEWAY
OPTIONAL BASE GROUP 9 WITH TYPE SP STRUCTURAL COURSE (TRAFFIC D)(2"), TYPE SP STRUCTURAL COURSE (TRAFFIC D)(1 1/2") (PG 76-22 (PMA)) W/ 12" TYPE B STABILIZATION(LBR 40)

PROJECT DRIVEWAY - TYPICAL SECTION
NTS









DISTANCE BETWEEN SIGNS			
Speed	Spacing (ft.)		
	A	B	C
40 mph or less	200	200	200
45 mph	350	350	350
50 mph	500	500	500
*55 mph or greater	2640	1640	1000

* The ROAD WORK 1 MILE sign may be used as an alternate to the ROAD WORK AHEAD sign and the RIGHT LANE CLOSED ½ MILE sign may be used as an alternate to the RIGHT LANE CLOSED AHEAD sign.

** 500' beyond the ROAD WORK AHEAD sign or midway between signs whichever is less.

SYMBOLS

Work Area

Sign With 18"x 18" (Min.) Orange Flag And Type B Light

Channelizing Device (See Index No. 600)

Work Zone Sign

Advance Warning Arrow Board

GENERAL NOTES

1. Work operations shall be confined to one traffic lane, leaving the adjacent lane open to traffic.

2. On undivided highways the median signs as shown are to be omitted.

3. When work is performed in the median lane on divided highways, the channelizing device plan is inverted and left lane closed and lane ends signs substituted for the right lane closed and lane end signs.

The same applies to undivided highways with the following exceptions:
a. Work shall be confined within one median lane.
b. Additional barricades, cones, or drums shall be placed along the centerline abutting the work area and across the trailing end of the work area.

When work on undivided highways occurs across the centerline so as to encroach on both median lanes, the inverted plan is applied to the approach of both roadways.

4. Signs and traffic control devices are to be modified in accordance with INTERMITTENT WORK STOPPAGE details (sheet 2 of 2) when no work is being performed and the highway is open to traffic.

5. The two channelizing devices directly in front of the work area may be omitted provided vehicles in the work area have high-intensity rotating, flashing, oscillating, or strobe lights operating.

6. When paved shoulders having a width of 8 ft. or more are closed, channelizing devices shall be used to close the shoulder in advance of the merging taper to direct vehicular traffic to remain within the travel way. See Index No. 612 for shoulder taper formulas.

7. When a side road intersects the highway within the TTC zone, additional TTC devices shall be placed in accordance with other applicable TCZ Indexes.

8. This TCZ plan does not apply when work is being performed in the middle lane(s) of a six or more lane highway. See Index No. 614.

9. For general TCZ requirements and additional information, refer to Index No. 600.

Table I
Device Spacing

Speed (mph)	Max. Distance Between Devices (ft.)			
	Cones or Tubular Markers		Type I or Type II Barricades or Vertical Panels or Drums	
	Taper	Tangent	Taper	Tangent
25	25	50	25	50
30 to 45	25	50	30	50
50 to 70	25	50	50	100

Table II
Buffer Space and Taper Length

Speed (mph)	Buffer Space	Taper Length (12' Lateral Transition)	
	Dist. (ft.)	L (ft.)	Notes (Merge)
25	155	125	$L = \frac{WS^2}{60}$
30	200	180	
35	250	245	
40	305	320	$L = WS$
45	360	540	
50	425	600	
55	495	660	
60	570	720	
65	645	780	
70	730	840	

When Buffer Space cannot be attained due to geometric constraints, the greatest attainable length shall be used, but not less than 200 ft.

For lateral transitions other than 12', use where:

L = Length of taper in feet
W = Width of lateral transition in feet
S = Posted speed limit (mph)

DURATION NOTES

1. Temporary white edgeline may be omitted for work operations less than 3 consecutive calendar days.

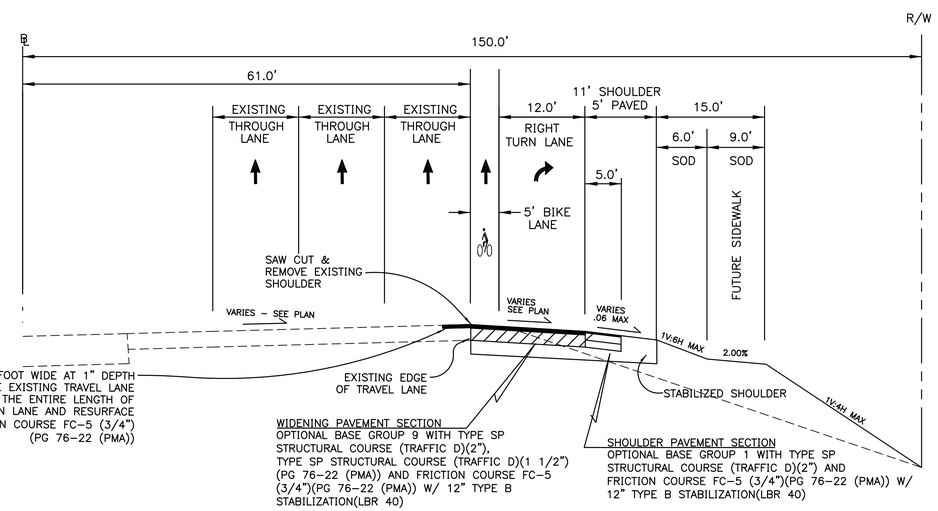
2. For work operations up to approximately 15 minutes, signs, channelizing devices, arrow board, and buffer space may be omitted if all of the following conditions are met:
a. Speed limit is 45 mph or less.
b. No sight obstructions to vehicles approaching the work area for a distance equal to the buffer space and the taper length combined.
c. Volume and complexity of the roadway has been considered.
d. The closed lane is occupied by a class 5 or larger, medium duty truck(s) with a minimum gross weight vehicle rating (GWVR) of 16,001 lb with high-intensity, rotating, flashing, oscillating, or strobe lights mounted above the cab height and operating.

3. For work operations up to 60 minutes, arrow board and buffer space may be omitted if conditions a, b, and c in DURATION NOTE 2 are met, and vehicles in the work area have high-intensity, rotating, flashing, oscillating, or strobe lights operating.

CONDITIONS

WHERE ANY VEHICLE, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCROACH ON THE LANE ADJACENT TO EITHER SHOULDER AND THE AREA 2' OUTSIDE THE EDGE OF TRAVEL WAY.

LAST REVISION	DESCRIPTION:	FDOT 2014 DESIGN STANDARDS	MULTILANE, WORK WITHIN TRAVEL WAY MEDIAN OR OUTSIDE LANE	INDEX NO.	SHEET NO.
07/01/09				613	1 of 2



WIDENING PAVEMENT SECTION
OPTIONAL BASE GROUP 9 WITH TYPE SP STRUCTURAL COURSE (TRAFFIC D)(2"), TYPE SP STRUCTURAL COURSE (TRAFFIC D)(1 1/2") (PG 76-22 (PMA)) AND FRICTION COURSE FC-5 (3/4")(PG 76-22 (PMA)) W/ 12" TYPE B STABILIZATION(LBR 40)

SHOULDER PAVEMENT SECTION
OPTIONAL BASE GROUP 1 WITH TYPE SP STRUCTURAL COURSE (TRAFFIC D)(2") AND FRICTION COURSE FC-5 (3/4")(PG 76-22 (PMA)) W/ 12" TYPE B STABILIZATION(LBR 40)

SR 56 RIGHT TURN LANE - TYPICAL SECTION - NORMAL CROWN
NTS

NO.	REVISIONS	BY	DATE
#2	REVISED SR 56 DRIVEWAY PER FDOT	BGS	08-18-14
#2	REVISED SR 56 DRIVEWAY PER FDOT	BGS	06-27-14
#1	REVISED SR 56 DRIVEWAY PER FDOT	BGS	03-26-14

SURAK ENGINEERING
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(813) 244 - 5136
bsurak@verizon.net

FL ENGINEERING BUSINESS CERTIFICATE OF AUTHORIZATION NO. 28789

FL ENGINEERING BUSINESS CERTIFICATE OF AUTHORIZATION NO. 28789

BRIAN G. SURAK P.E. NO. 59064
FLORIDA PROFESSIONAL ENGINEER

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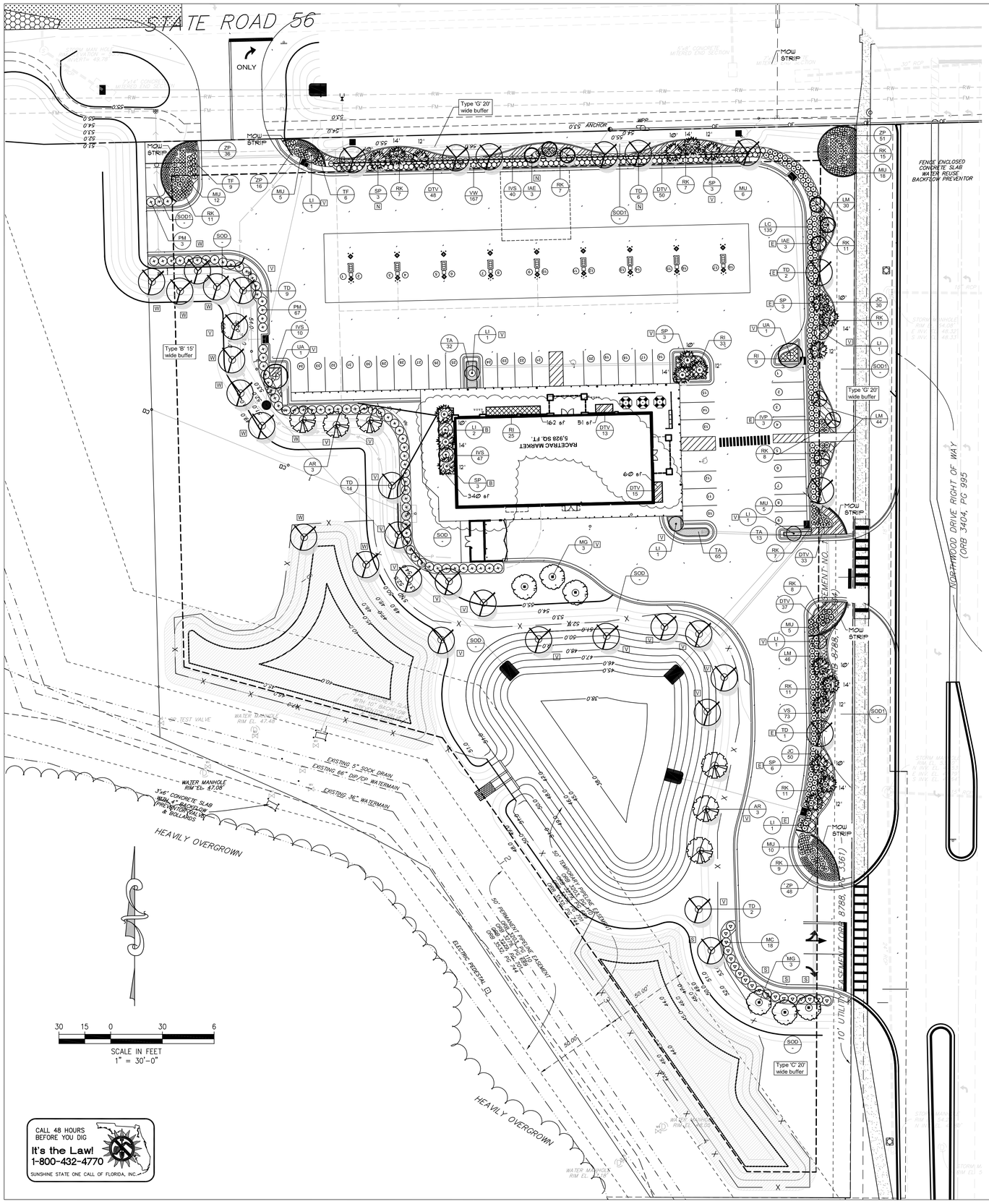
3225 CUMBERLAND BOULEVARD
SUITE 100
ATLANTA, GA 30339 (770) 431-7600

SR 56 RT TURN LANE SECTIONS
RACETRAC MARKET
NORTHWOOD PALMS BLVD.
PASCO COUNTY, FLORIDA

SCALE	1" = 20'	DATE	11/18/13
DRAWN	BGS	JOB NO.	13-RTR-001

TS-2

SHEET NO. | REV.



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LANDSCAPE MATERIALS LIST

SHADE TREES — Different species each 5 trees

(UP TO 8 SPECIES MIN. WITH 40 TREES)

Symbol	No	Scientific Name	Common Name	Size Requirements	Native Florida	Drought Tolerant
AR	6	Acer rubrum 'Florida Flame'	Florida Flame Red Maple	B/B, min. 10' oah X 4' spr, 2" caliper	YES	YES
IVP	3	Ilex vomitoria 'Pendula'	Weeping Yaupon Holly	B/B, min. 8' oah X 3' spr, 2" caliper	YES	YES
LAE	6	Ilex x attenuata 'Eagleston'	Eagleston Holly	B/B, min. 8' oah X 4' spr, 2" caliper	YES	YES
LI	9	Lagerstroemia indica 'Natchez'	Crape Myrtle	B/B, min. 9' oah X 4' spr, 2" caliper, std.	NO	YES
MG	6	Magnolia grandiflora	Bracken's Brown Beauty Magnolia	B/B, min. 8' oah X 4' spr, 2" caliper	YES	YES
SP	21	Sabal palmetto	Sabal Palm	B/B, min. 10' - 18' clear-trunk hts. as list, tied fronds	YES	YES
TD	35	Taxodium distichum	Bald Cypress	B/B, min. 9' oah X 3' spr, 2" caliper	YES	YES
UA	2	Ulmus alata	Winged Elm	B/B, min. 10' oah X 4' spr, 2" caliper	YES	YES

Palms may be substituted, 3 palms for 1 shade tree, max. 30% Clusters of 3' – 8' on center

SHRUBS — MAX 25% EACH SPECIES BY QUANTITY

(= MIN. 4 SPECIES)

Symbol	No	Scientific Name	Common Name	Size Requirements	Native Florida	Drought Tolerant
IVS	97	Ilex vomitoria 'Schillings'	Schillings Holly	min. 3 gallon, min. 14" ht. 30" o.c.	YES	YES
LC	135	Loropetalum chinense	Loropetalum	min. 7 gallon, 36" ht. 36" o.c.	NO	YES
MC	18	Myrica cerifera	Wax Myrtle	min. 15 gallon, min. 6' ht. @ 60" o.c.	YES	YES
PM	70	Podocarpus macrophyllus	Podocarpus	min. 15 gallon, min. 6' ht. @ 60" o.c.	NO	YES
RI	84	Raphiolepis indica 'Alba'	Dwarf Indian Hawthorn	min. 3 gallon, min. 14" ht. 30" o.c.	NO	YES
RK	119	Rosa cv. 'Knockout'	Double Red Knockout Roses	min. 3 gallon @ 36" o.c.	NO	YES
VS	84	Viburnum suspensum	Sandankwa Viburnum	min. 7 gallon, min. 36" ht, 36" o.c.	NO	YES
VW	167	Viburnum obovatum	Walter's Viburnum	min. 7 gallon, min. 36" ht, 36" o.c.	YES	YES

Max. 30% of required landscaped area may be grassed

GROUNDCOVER — MAX 25% EACH SPECIES BY QUANTITY

(= MIN. 4 SPECIES)

Symbol	No	Scientific Name	Common Name	Size Requirements	Native Florida	Drought Tolerant
DTV	197	Dianella tasmanica	Variegated Flax Lilly	min. 1 gallon, @ 24" o.c.	NO	YES
JC	80	Juniperus chinensis 'Parsonii'	Parson's Juniper	min. 1 gallon, @ 24" o.c.	NO	YES
LM	120	Liriope muscari 'Emerald Goddess'	Emerald Goddess Liriope	min. 1 gallon, @ 24" o.c.	NO	YES
MU	56	Muhlenbergia capillaris	Muhly Grass	min. 1 gallon @ 36" o.c.	YES	YES
TA	110	Trachelospermum asiaticum	Minima Jasmine	min. 1 gallon @ 24" o.c.	NO	YES
TF	15	Tripsacum floridana	Dwarf Fakahatchee Grass	min. 1 gallon @ 24" o.c.	YES	YES
ZP	153	Zamia pumila	Coontie Palm	min. 1 gallon, @ 24" o.c.	YES	YES
Sod1	-	Zoysia japonica	Empire Zoysia Sod	Sq Ft, Install in rolls		
Sod	-	Paspalum notatum	Bahia Sod	Sq Ft,		
MULCH			Enviro Mulch	Mulch to 3" depth; supplied by Florida Mulch Inc. (407) 891-8400		

Spaced to present finished appearance & obtain a reasonably complete coverage in one year
Max 30% of required landscaped area may be grassed - Note type and percent on plans

REQUIRED TREE LEGEND

(label indicates how each tree satisfies the code requirement)

- N — North buffer requirement along S.R. 56 (Qty: 10)
- E — East buffer requirement along Northwood Dr. (Qty: 13)
- W — West buffer requirement (Qty: 2)
- S — South buffer requirement (Qty: 2)
- V — Vehicular use area tree requirement. (Qty: 32)
- B — Building perimeter tree requirement. (Qty: 4)

TREE REMOVAL AND REPLACEMENT

TREES TO BE REMOVED

LIVE OAKS SIZE (IN.)	LIVE OAKS NO.	LIVE OAKS TOTAL INCHES	OTHER TREES NO.	OTHER TREES TOTAL INCHES
10	2	20	-	0
11	1	11	-	0
12	5	60	-	0
13	1	13	-	0
14	2	28	-	0
15	3	45	-	0
16	3	48	-	0
17	2	34	-	0
18	0	0	-	0
19	1	19	-	0
20	0	0	-	0
21	1	21	-	0
22	1	22	-	0
23	0	0	-	0
24	3	72	-	0
25	1	25	-	0
26	3	78	-	0
27	4	108	-	0
28	0	0	-	0
29	2	58	-	0
30	2	60	-	0
31	3	93	-	0
32	1	32	-	0
33	1	33	-	0
34	1	34	-	0
35	0	0	-	0
37	1	37	-	0
39	1	39	-	0
41	1	41	-	0
42	1	42	-	0
TOTAL OAK:	47	1,073	TOTAL OTHER : 1/3 *	0
TOTAL INCHES REMOVED : 1,073"				

LIVE OAKS TO BE REPLACED INCH FOR INCH.
OTHERS TO BE REPLACED INCH FOR 1/3 INCH.

TREES TO BE PLANTED

LIVE OAKS SIZE (IN.)	LIVE OAKS NO.	LIVE OAKS TOTAL INCHES	OTHER TREES NO.	OTHER TREES TOTAL INCHES
2	6	12"	69	110 *

NET INCHES

	LIVE OAKS	OTHER TREES
DIFFERENCE:	-1,063"	110" *

TREE BANK FUND

953" X $50 / INCH = $47,650
OR

5,928 SF BUILDING / 2,000 = 2.964
2.964 X $500.00 = $1,482.00

CALCULATION NOTES:
SABAL PALMS COUNTED AT 3:1 RATIO
* (21) PALMS = 7 - 2" CALIPER TREES

LANDSCAPE REQUIREMENTS

Per Pasco County code (Chapter 900, Section 905),

LANDSCAPE DATA

LANDSCAPE BUFFER REQUIREMENT - (Type G buffer)
20' wide buffer with groundcover and shrubs planted in staggered double rows provided between vua and r.o.w

Shade trees shall be planted in staggered double rows with in maximum spacing of 30 lf on center

S.R. 56 -
314' / 30 = (10) req'd; (9) trees and (3) palms provided

Northwood Palm Dr. -
382' / 30 = (13) req'd: (10) trees and (9) palms provided

LANDSCAPE BUFFER REQUIREMENT - (Type B buffer)
15' wide buffer
West -
(1) tree / 60 lf and a 6' ht hedge at 5' on center
319' / 60 = (5) trees

LANDSCAPE BUFFER REQUIREMENT - (Type C buffer)
20' wide buffer
South -
Trees shall be planted with (2) staggered rows with a maximum spacing of 60 lf on center and a 6' ht hedge at 5' on center
116' / 60 x (2) = (4) trees

VUA LANDSCAPE REQUIREMENTS -
10% of vua shall be landscape
(1) tree /200 sf of req'd landscape areas
63,084 sf x .10 = 6,308 req'd
6,308 / 200 = (32) trees req'd;
(30) trees and (6) palms provided

A min. (1) shade tree with shrubs / groundcover per each landscape island

A max. 30% of req'd landscape area may be grassed
6,308 x .70 = 4,416 sf req'd

BUILDING PERIMETER LANDSCAPE REQUIREMENT -
10% of building sf
5' wide landscape area adjacent to building
50% lf of building shall be landscape =
326 /2 = 163 lf req'd

Landscape areas shall contain trees, shrubs and groundcovers
5,928 x .10 = 593 sf req'd
(1) trees and (3) palms provided

TREE SPECIES REQUIREMENT -
(1) specie for every (5) required trees
up to 8 species when 40 or more trees are required
total required trees = (57)
(8) species req'd

NATIVE SPECIES REQUIREMENT -
A min. 30% of total shrubs and groundcovers shall be native species
Total shrubs and groundcovers used
= 1,489 x 30% = (447) native species req'd
(506) provided

SHRUB AND GROUNDCOVER SPECIES REQUIREMENT -
No one species shall be greater than 25% of total provided

Total shrubs used = 761 x 25% = 190 max

Total groundcovers used = 728 x 25% = 182 max

ADDITIONAL NOTES -
Areas not planted with trees, shrubs, or groundcovers shall be sodded with bahia sod.

Contractor shall install new irrigation system to provide 100% coverage to all landscape areas.

GENERAL LANDSCAPE NOTES:

1. All landscape material shall be fla. no. 1 grade or better, as specified in grades and standards for nursery plants, parts I and II, by Division of Plant Industry, Florida Department of Agriculture and Consumer Services, and shall conform to current American Association of Nurseryman Standards for Nursery Stock. Landscape material shall be planted according to sound nursery practices.

2. All shrubs used for a hedge shall be a minimum of 18" high at the time of planting and spaced no greater than 36" on center. Shrubs shall not adversely impact existing tree root systems and shall be field adjusted if necessary.

3. All required trees shall be a minimum of 6' overall height with a min. 2" trunk caliper at time of planting. Adjust tree locations as necessary to avoid utilities, obstructions, etc. see materials list for exact specifications.

4. All required trees shall be located a minimum of 5 feet from impervious surfaces, all shrubs 2 feet.

5. An automatic underground Irrigation system shall be Installed to maintaln the landscape area In a healthy manner and provide 100% coverage.

6. The contractor shall sod all disturbed areas. All planting shall be mulched to a 3" minimum depth.

7. The contractor shall be responsible for the clean up of premises and removal of all discarded and surplus materials, and rubbish.

8. Verify the locations of existing trees, lawns, and shrubs. Remove extraneous materials such as rocks, branches, building materials or unacceptable soils prior to planting sod, trees, and shrubs, where encountered.

9. Contractor shall become acquainted with the related paving, site grading , and all utilities (including water, sewer, and electrical supply) to preclude any misunderstandings and ensure a trouble free installation.

10. The exact location of all existing structures, underground utilities, and pipes may not be as indicated on drawings; the contractor shall determine the location of these items and shall conduct his work in a manner to prevent interruption or damage to existing systems which must remain operational. The contractor shall protect existing structures and utility services which must remain operational and shall be responsible for their replacement if damaged by him.

11. Contractor shall call Sunshine State One-Call at least 48 hours prior to digging. (1-800-432-4770).

12. Quantities on plan take precedence over materials list. Quantities on materials list are provided as a courtesy only.

13. All landscape material shall be maintained in perpetuity to provided all required FDOT and local site clearance distances for vehicles.

HARDEMAN · KEMPTON & ASSOCIATES, INC.
Landscape Architects
2207 W. North A Street
Tampa, Florida 33606
Ph: 813-258-0066
www.hka-design.com

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PROJECT NAME: RACETRAC #1106

SHEET TITLE: LANDSCAPE PLAN (Alternate Standards)

PREPARED FOR: Surak Engineering

ADDRESS: SR 56 and Northwood Dr. Wesley Chapel, Pasco County, FL

Revisions:

NO.	DATE :	DESCRIPTION :
1.	3/27/14	per comments
2.	6/30/14	per comments
3.	11/25/14	Foundation planting revisions

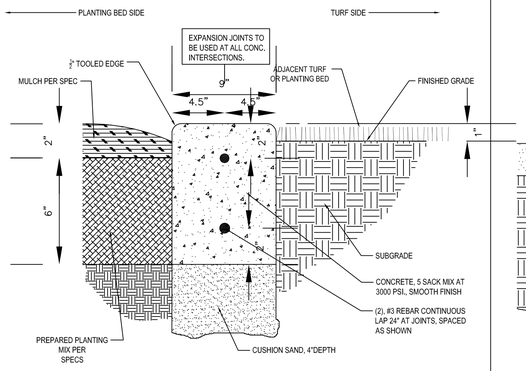
PROJ. NO. : C024013K
DATE : 11-01-13
DRAWN : KC
DESIGNED :
CHECKED : JER

JASON E. RINARD, R.L.A.
REG NO FL LA 0001608
LANDSCAPE ARCHITECT

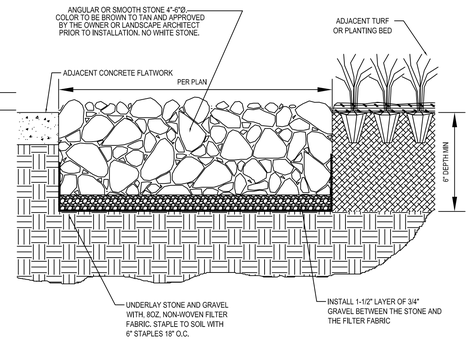
THIS PLAN IS NOT VALID UNLESS SIGNED, DATED & RAISED SEAL AFFIXED

SHEET:

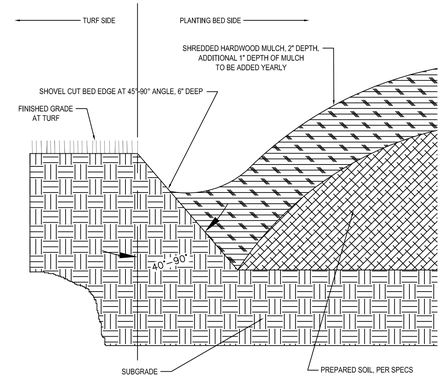
L-1.1a



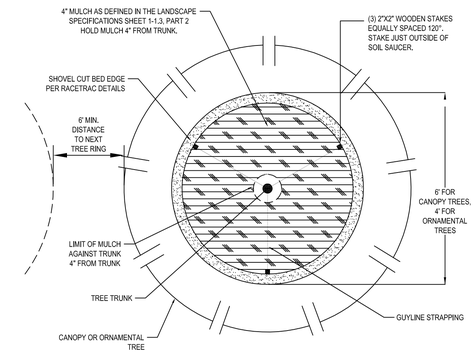
1 L1.2 REINFORCED CONCRETE BED EDGE (MOW STRIP)
NTS



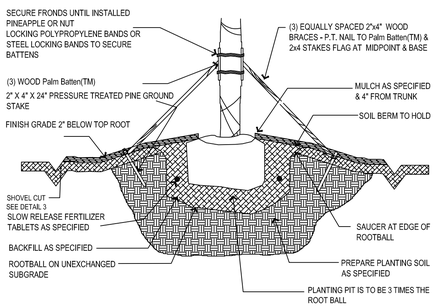
2 L1.2 SIGNATURE RIVER ROCK MULCH
NTS



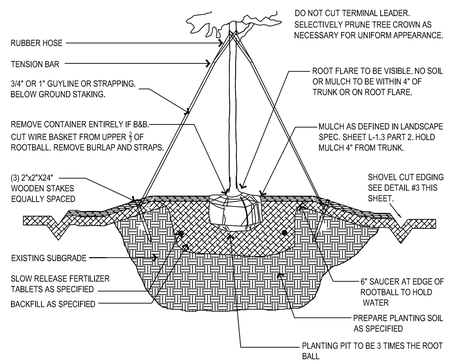
3 L1.2 SHOVEL CUT BED EDGE
NTS



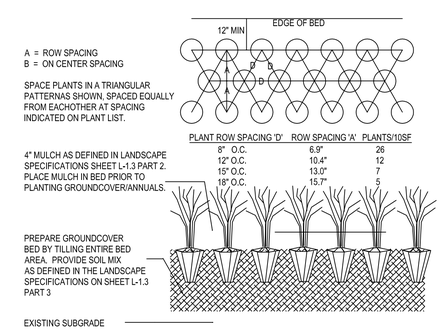
4 L1.2 MULCHING RING AT TREES
NTS



5 L1.2 STAKED PALM TREE
NTS

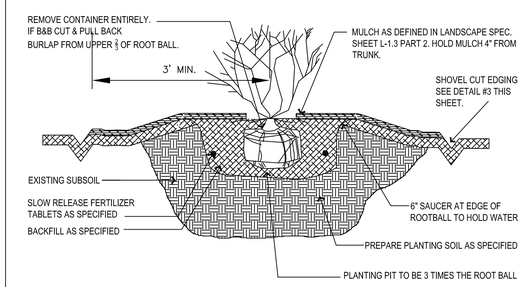


6 L1.2 STAKED TREE(GENERAL)
NTS

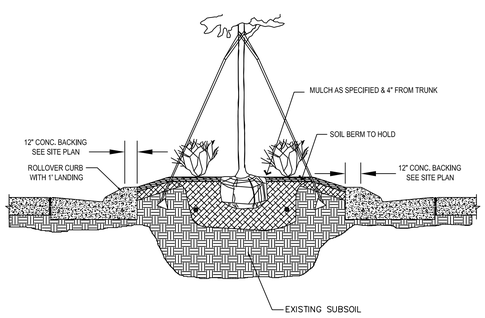


PLANT ROW SPACING 'D'	ROW SPACING 'A'	PLANTS/10SF
8" O.C.	6.9"	26
12" O.C.	10.4"	12
15" O.C.	13.0"	7
18" O.C.	15.7"	5

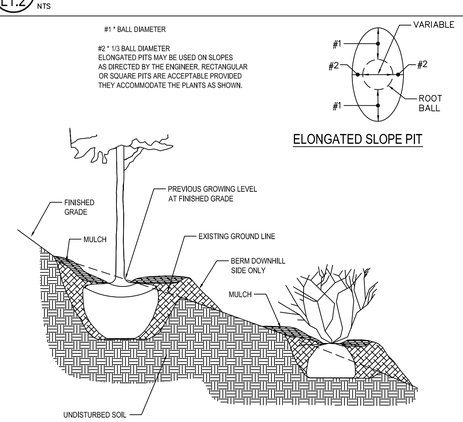
7 L1.2 GROUNDCOVER PLANTING
NTS



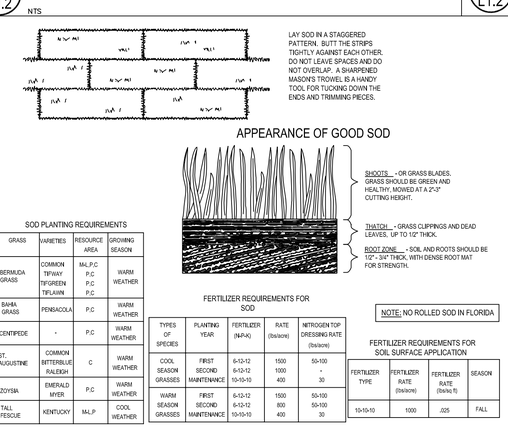
8 L1.2 SHRUB(GENERAL)
NTS



9 L1.2 LANDSCAPE ISLAND BED (TYP)
NTS



10 L1.2 PLANT PLACEMENT ON SLOPE
NTS



SOD PLANTING REQUIREMENTS

GRASS	VARIETIES	RESOURCE AREA	GROWING SEASON
BERMUDA GRASS	COMMON TIFWAY TIFGREEN TIFLAWN	M-L,P,C P,C P,C P,C	WARM WEATHER
BAHIA GRASS	PENSACOLA	P,C	WARM WEATHER
CENTIPEDE	-	P,C	WARM WEATHER
ST. AUGUSTINE	COMMON BITTERBLUE RALEIGH	C	WARM WEATHER
ZOYSIA	EMERALD MYER	P,C	WARM WEATHER
TALL FESCUE	KENTUCKY	M-L,P	COOL WEATHER

FERTILIZER REQUIREMENTS FOR SOD

TYPES OF SPECIES	PLANTING YEAR	FERTILIZER (N-P-K)	RATE (lbs/acre)	NITROGEN TOP DRESSING RATE (lbs/acre)
COOL SEASON GRASSES	FIRST	6-12-12	1500	50-100
	SECOND	6-12-12	1000	-
	MAINTENANCE	10-10-10	400	30
WARM SEASON GRASSES	FIRST	6-12-12	1500	50-100
	SECOND	6-12-12	800	50-100
	MAINTENANCE	10-10-10	400	30

NOTE: NO ROLLED SOD IN FLORIDA

FERTILIZER REQUIREMENTS FOR SOIL SURFACE APPLICATION

FERTILIZER TYPE	FERTILIZER RATE (lbs/acre)	FERTILIZER RATE (lbs/sq ft)	SEASON
10-10-10	1000	.025	FALL

11 L1.2 SOD
NTS

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PROJECT NAME: RACETRAC #1106

SHEET TITLE: LANDSCAPE DETAILS

PREPARED FOR: Surak Engineering

ADDRESS: SR 56 and Northwood Dr. Wesley Chapel, Pasco County, FL

Revisions:

NO.	DATE:	DESCRIPTION:
1.		
2.		
3.		

PROJ. NO.: C024013K
DATE: 11-01-13
DRAWN: KC
DESIGNED:
CHECKED: JER

JASON E. RINARD, R.L.A.
REG NO FL LA 0001608
LANDSCAPE ARCHITECT

THIS PLAN IS NOT VALID UNLESS SIGNED, DATED & RAISED SEAL AFFIXED

SHEET:

L-1.2

PART 1 - GENERAL

DESCRIPTION

Provide trees, plants and ground covers as shown and specified. The work includes:

1. Soil preparation. (Topsoil to be provided by GC)
2. Trees, plants and ground covers.
3. Planting mixes.
4. Mulch and planting accessories.
5. Maintenance until final acceptance by RaceTrac Construction Manager

Related Work:

1. Irrigation System.

QUALITY ASSURANCE

Plant names indicated, comply with "Standardized Plant Names" as adopted by the latest edition of the American Joint Committee of Horticultural Nomenclature. Names of varieties not listed conform generally with names accepted by the nursery trade. Provide stock true to botanical name and legibly tagged.

Comply with sizing and grading standards of the latest edition of "American Standard for Nursery Stock". A plant shall be dimensioned as it stands in its natural position.

All plants shall be nursery grown under climatic conditions similar to those in the locality of the project for a minimum of 2 years.

Stock finished shall be at least the minimum size indicated. Larger stock is acceptable, at no additional cost, and providing that the larger plants will not be cut back to size indicated. Provide plants indicated by two measurements so that only a maximum of 25% are of the minimum size indicated and 75% are of the maximum size indicated.

Before submitting bid, the Contractor shall have investigated the sources of supply and satisfied himself that he can supply the listed plants in the size, variety and quality listed and specified. Failure to take this precaution will not relieve the Contractor from his responsibility for furnishing and installing all plant materials in strict accordance with the Contract Documents without additional cost to the Owner. Landscape Architect shall approve any substitutes of plant material or changes in plant material size prior to contractor submitting a bid.

SUBMITTALS

The Landscape Contractor shall submit the following materials certification:

1. Photographs of landscape material to be used or locations of nurseries for Landscape Architect to tag material.
2. Boulders and rock mulch samples on site and available for approval by Landscape Architect on first site visit during construction. Photographs of boulders and rock mulch may be offered as alternatives to samples on site.
3. Red Oak double shredded hardwood mulch sample on site for approval by Landscape Architect on first site visit during construction.
4. Routine soil test by approved laboratory and or state cooperative. Mix together a minimum of 5 soil cores per site for testing.
5. Upon plant material acceptance, submit written maintenance instructions recommending procedures for maintenance of plant materials.

Upon plant material acceptance, submit written maintenance instructions recommending procedures for maintenance of plant materials.

DELIVERY, STORAGE AND HANDLING

Deliver fertilizer materials in original, unopened, and undamaged containers showing weight, analysis, and name of manufacturer. Store in manner to prevent wetting and deterioration.

Take all precautions customary in good trade practice in preparing plants for moving. Workmanship that fails to meet the highest standards will be rejected. Spray deciduous plants in foliage with an approved "Anti-Desiccant" immediately after digging to prevent dehydration. Dig, pack, transport, and handle plants with care to ensure protection against injury. Inspection certificates required by law shall accompany each shipment invoice or order to stock. Protect all plants from drying out. If plants cannot be planted immediately upon delivery, properly protect them with soil, wet peat moss, or in a manner acceptable to the Landscape Architect. Water heeled-in plantings daily. No plant shall be bound with rope or wire in a manner that could damage or break the branches or trunk.

Cover plants transported on open vehicles with a protective covering to prevent wind burn.

Provide dry, friable, loose topsoil for planting bed mixes. Amend with 4 parts screened topsoil and 1 part organic material (ie. Nature's Helper, Pro-Mix). Frozen or muddy topsoil is not acceptable.

PROJECT CONDITIONS

Protect existing utilities, paving, and other facilities from damage caused by landscaping operations.

A complete list of plants, including a schedule of sizes, quantities, and other requirements is shown on the drawings. In the event that quantity discrepancies or material omissions occur in the plant materials list, the planting plans shall govern.

The irrigation system will be installed prior to planting. Locate, protect and maintain the irrigation system during planting operations. Repair irrigation system components, damaged during planting operations, at this Contractor's expense. Do not begin landscape accessory work before completion of final grading or surfacing.

WARRANTY

Warrant plant material to remain alive and be in a healthy, vigorous condition for a period of 1 year after completion and final acceptance of entire project.

Replace, in accordance with the drawings and specifications, all plants that are dead or, are in an unhealthy or unsightly condition, and have lost their natural shape due to dead branches, or other causes due to the Contractor's negligence. The cost of such replacement(s) is at Contractor's expense. Warrant all replacement plants for 1 year after installation.

Warranty shall not include damage or loss of trees, plants or ground covers caused by fires, floods, freezing rains, lightning storms or winds over 75 miles per hour, winter kill caused by extreme cold and severe winter conditions not typical of planting area; acts of vandalism or negligence on the part of the Owner.

Remove and immediately replace all plants, found to be unsatisfactory during the initial planting installation. Maintain plant material and lawns until final acceptance is made.

ACCEPTANCE

Inspection to determine acceptance of planted areas will be made by the Owner's representative or Landscape Architect.

1. Planted areas will be accepted provided all requirements, including maintenance, have been complied with and plant materials are alive and in a healthy, vigorous condition.

The Contractor will commence the specified plant maintenance once plants have been planted and until final acceptance.

CODES, PERMITS AND FEES

Obtain any necessary permits for this Section of Work and pay any fees required for permits.

The entire installation shall fully comply with all local and state laws and ordinances, and with all established codes applicable thereto.

PART 2 - PRODUCTS

MATERIALS

Plants: Provide plants typical of their species or variety; with normal, densely-developed branches and vigorous, fibrous root systems. Provide only sound, healthy, vigorous plants free from defects, disfiguring knots, sun scald injuries, frost cracks, abrasions of the bark, plant diseases, insect eggs, borers, and all forms of infestation. All plants shall have a fully developed form without voids and open spaces. Plants held in storage will be rejected if they show signs of growth during storage.

1. Dig balled and burlaped plants with firm, natural balls of earth of sufficient diameter and depth to encompass the fibrous and feeding root system necessary for full recovery of the plant. Provide ball sizes complying with the latest edition of the "American Standard for Nursery Stock". Cracked or mushroomed balls are not acceptable.
2. Container-grown stock: Grown in a container for sufficient length of time for the root system to have developed to hold its soil together, firm and whole.
   a. No plants shall be loose in the container.
   b. Container stock shall not be pot bound or have circling roots. Circling roots will be rejected.
3. Provide trees species that mature at heights over 25 feet with a single main trunk. Trees that have the main trunk forming a "Y" shape are not acceptable.
4. Plants planted in rows shall be matched in form.
5. Plants larger than those specified in the plant list may be used when acceptable to the Landscape Architect.
   a. If the use of larger plants is acceptable, increase the spread of roots or root ball in proportion to the size of the plant.
6. The height of the trees, measured from the crown of the roots to the top of the top branch, shall not be less than the minimum size designated in the plant list.
7. No pruning wounds shall be present with a diameter of more than 1" and such wounds must show vigorous bark on all edges.
8. Evergreen trees shall be branched to the ground unless specified otherwise.
9. Shrubs and small plants shall meet the requirements for spread and height indicated in the plant list.
   a. The measurements for height shall be taken from the ground level to the height of the top of the plant and not the longest branch.
   b. Single stemmed or thin plants will not be accepted.
   c. Side branches shall be generous, well-twigged, and the plant as a whole well-bushed to the ground.
   d. Plants shall be in a moist, vigorous condition, free from dead wood, bruises, or other root or branch injuries.

ACCESSORIES

Topsoil for Planting Beds: Fertile, friable, natural topsoil of loamy character, without admixture of subsoil material, obtained from a well-drained arable site, reasonably free from clay, lumps, coarse sands, stones, plants, roots, sticks, and other foreign materials, with acidity range of between pH 6.0 and 6.8. Topsoil to be at a minimum depth of 6" in planting beds and 4" depth in sodded areas.

Fertilizer: Similar or equal to Milorganite (6-3-0).

Anti-Desiccant: Protective film emulsion providing a protective film over plant surfaces; permeable to permit transpiration. Mixed and applied in accordance with manufacturer's instructions.

Mulch: See plans for type of mulch to be used.
A. Hardwood: 6 month old well rotted double shredded native hardwood mulch not larger than 4" in length and 1/2" in width, free of wood chips and sawdust. Install minimum depth of 4".
B. River Rock: Rock type to be tan to yellow-brown washed river slicks, 5" - 8" in size. Install in location as shown on Landscape Plan an even depth of 8".

Water: Free of substances harmful to plant growth. Hoses or other methods of transportation furnished by Contractor.

Guying/Staking/Wire: No. 10 or 12 gage galvanized wire.
1. Turnbuckles: Galvanized steel of size and gage required to provide tensile strength equal to that of the wire. Turnbuckle openings shall be at least 3".

Staking and Guying Hose: New, Two ply, reinforced garden hose not less than 1/2" inside diameter. Green or black in color, all same color for the project.

Tree Wrap: Standard waterproofed tree wrapping paper, 2-1/2" wide, made of 2 layers of crepe Kraft paper weighing not less than 30 lbs. Per ream, cemented together with asphalt.

Twine: Two-ply jute material.

PART 3 - EXECUTION

INSPECTION

Examine proposed planting areas and conditions of installation. Do not start planting work until unsatisfactory conditions are corrected.

PREPARATION

Time of planting:

1. Evergreen material: Plant evergreen materials between August 15 and October 15 or in spring before new growth begins. If project requirements require planting at other times, plants shall be sprayed with anti-desiccant prior to planting operations.
2. Deciduous material: Plant deciduous materials April 1 to June 1 and August 15 to November 15. If deciduous trees are planted in-leaf, they shall be sprayed with an anti-desiccant prior to planting operation.
3. Planting times other than those indicated shall be acceptable to the Owner.

Planting shall be performed only by experienced workmen familiar with planting procedures under the supervision of a qualified supervisor.

Locate plants as indicated or as approved in the field after staking by the Contractor. **If obstructions are encountered that are not shown on the drawings, do not proceed with planting operations. Contact Landscape Architect to determine new location.**

Excavate circular plant pits with vertical sides, except for plants specifically indicated to be planted in beds. Provide shrub and tree pits as shown in tree and shrub planting details. Depth of pit shall accommodate the root system. Provide undisturbed sub grade to hold root ball at nursery grade as shown on the drawings. Root flare must be visible after planting.

Provide pre-mixed planting mixture for use around the balls and roots of the plants consisting of 50% excavated material and 50% topsoil mix. Add plant fertilizer per manufacturer's recommendation for each cu. yd. of mixture.

Provide pre-mixed ground cover bed planting mixture consisting of 4 parts screened topsoil to 1 part peat moss and plant fertilizer per manufacturer's recommendation for each cu. yd. of mixture.

Remove loose material and debris from base surface before placing landscape accessories.

Drainage Test

Randomly select a representative number of shrub plant pits in each shrub planting area and test for drainage prior to planting. Randomly select a representative number of tree plant pits and test for drainage prior to planting. Fill each selected plant pit with water and let stand for twenty-four (24) hours. Do not proceed with planting where drainage problems are apparent. Report to the Owner's Representative areas which do not drain within twenty-four (24) hours.

INSTALLATION

Set plant material in the planting pit to proper grade and alignment. Set plants upright, plumb, and faced to give the best appearance or relationship to each other or adjacent structure. Set plant material 2"-3" above the finish grade. No filling will be permitted around trunks or stems. Backfill the pit with topsoil mix and excavated material. Do not use frozen or muddy mixtures for backfilling. Form a ring of soil around the edge of each planting pit to retain water as shown in detail.

After balled and burlapped plants are set, muddle planting soil mixture around bases of balls and fill all voids.

1. Remove all burlap, ropes, and wires from the top 2/3 of the root ball.

Space ground cover plants in accordance with indicated dimensions. Adjust spacing as necessary to evenly fill planting bed with indicated quantity of plants. Plant to within 24" of the trunks of trees and shrubs within planting bed and to within 12" of edge of bed.

Mulching:

1. Mulch tree and shrub planting pits and shrub beds with required (see landscape plan) mulching material 4" deep immediately after planting. Thoroughly water mulched areas. After watering, rake mulch to provide a uniform finished surface.

Wrapping, guying, staking:

1. Inspect trees for injury to trunks, evidence of insect infestation, and improper pruning before wrapping.
2. Staking/Guying:
   a. Stake/guy all trees immediately after lawn sodding operations and prior to acceptance.
   b. Stake deciduous trees 3" caliper and less. Stake evergreen trees under 8'-0" tall.
   c. Guy deciduous trees over 3" caliper. Guy evergreen trees 8'-0" tall and over.
3. All work shall be acceptable to the Landscape Architect.

Pruning:

1. Prune branches of deciduous stock, after planting, to balance the loss of roots and preserve the natural character appropriate to the particular plant requirements. In general, remove 1/4 to 1/3 of the leaf bearing buds. Remove or cut back broken, damaged, and unsymmetrical growth of new wood.
2. Multiple leader plants: Preserve the leader which will best promote the symmetry of the plant. Cut branches flush with the trunk or main branch, at a point beyond a lateral shoot or bud a distance of not less than 1/2 the diameter of the supporting branch. Make cut on an angle.
3. Prune evergreens only to remove broken or damaged branches.

Decorative stone: (where indicated on landscape plan)

1. Install weed control barrier over sub-grade prior to installing stone. Lap 6" on all sides.
2. Place stone without damaging weed barrier.
3. Arrange stones for best appearance.

Metal edging: Locate to separate rock mulch from organinc mulch areas or where indicated on landscape plan.

1. Assemble to the lines and elevations indicated.
2. Assemble, align, bend and adjust the sections before back filling. Stake in place per manufacturer's recommendations to prevent frost movement. Readjust after fill is in place.
3. Set top flush with adjoining surfaces.

MAINTENANCE

The Contractor shall provide as a separate bid, maintenance for a period of ***1 year*** after final acceptance of the project landscaping. The Contractor must be able to provide continued maintenance if requested by the Owner or provide the name of a reputable landscape contractor who can provide maintenance.

Maintenance shall include mowing, fertilizing, mulching, pruning, cultivating, weeding, watering, and application of appropriate insecticides and fungicides necessary to maintain plants and lawns free of insects and disease.

1. Re-set settled plants to proper grade and position. Restore planting saucer and adjacent material and remove dead material.
2. Tighten and repair guy wires and stakes as required. Remove guy wires after one year. Guy straps are not to be too tight some slack is required.
3. Correct defective work as soon as possible after deficiencies become apparent and weather and season permit.
4. Water trees, plants and ground cover beds within the first 24 hours of initial planting, and not less than twice per week until final acceptance.

CLEANING

Perform cleaning during installation of the work and upon completion of the work. Remove from site all excess materials, soils, debris, and equipment. Repair damage resulting from planting operations.

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PROJECT NAME : RACETRAC #1106

SHEET TITLE : LANDSCAPE SPECIFICATIONS

PREPARED FOR : Surak Engineering

ADDRESS : SR 56 and Northwood Dr. Wesley Chapel, Pasco County, FL

Revisions:

NO.	DATE :	DESCRIPTION :
1.		
2.		
3.		

PROJ. NO. : C024013K
DATE : 11-01-13
DRAWN : KC
DESIGNED :
CHECKED : JER

JASON E. RINARD, R.L.A.
REG NO FL LA 0001608
LANDSCAPE ARCHITECT

THIS PLAN IS NOT VALID UNLESS SIGNED, DATED & RAISED SEAL AFFIXED

SHEET:

L-1.3