



CONSTRUCTION PLANS FOR LITTLE LAKE CONWAY BAFFLE BOX IMPROVEMENTS (BOGGY CREEK BASIN PROJECT)

ORANGE COUNTY - DISTRICT NO. 4
PROJECT NO: EPD

THERESA JACOBS, COUNTY MAYOR

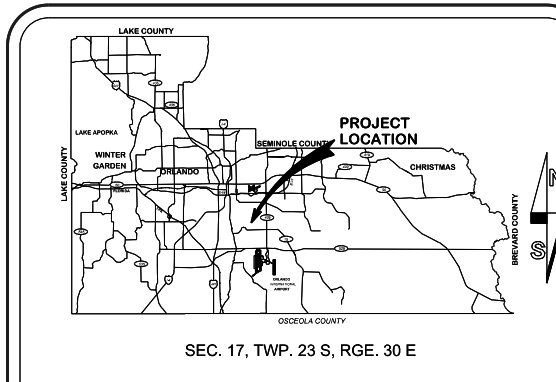
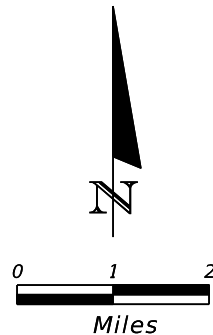
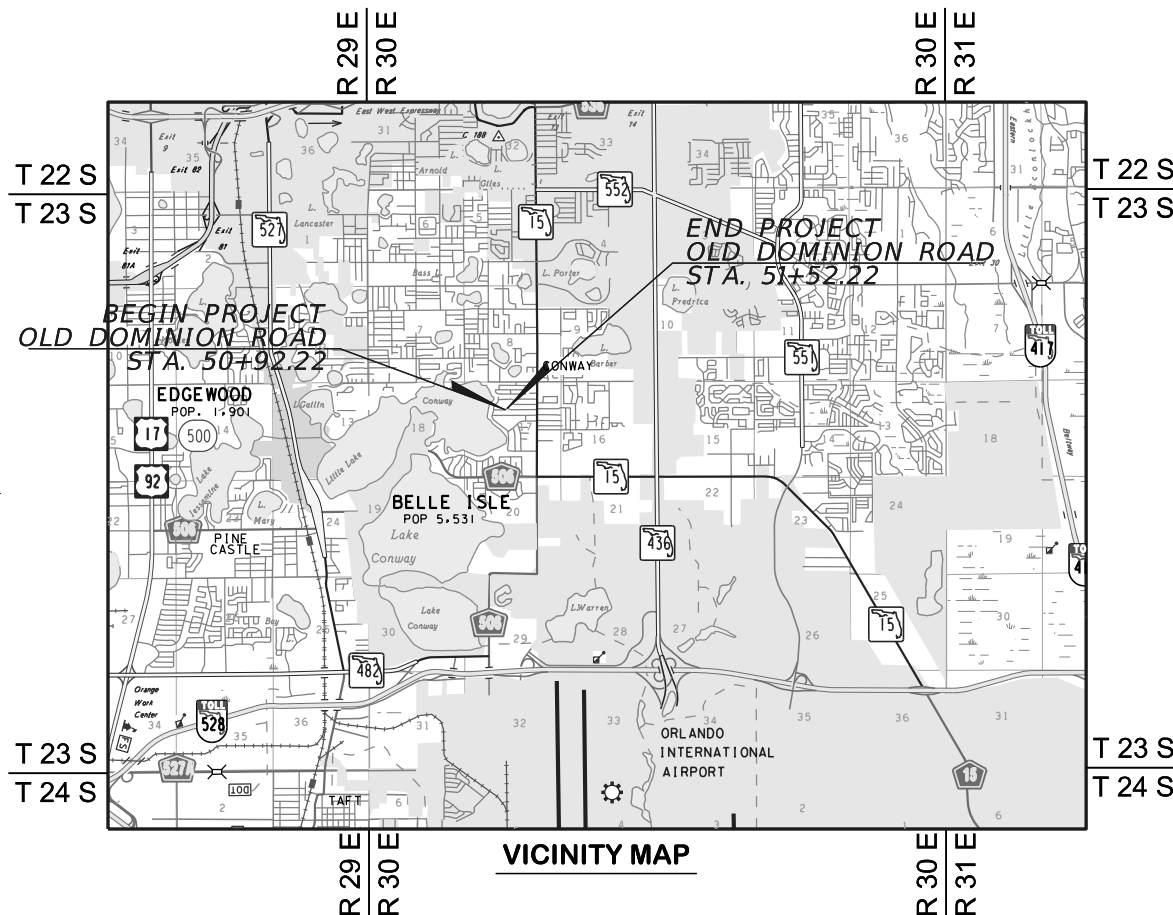
BOARD OF COUNTY COMMISSIONERS

- | | |
|--------------------|------------|
| S. SCOTT BOYD | DISTRICT 1 |
| BYRON NELSON | DISTRICT 2 |
| PETE CLARKE | DISTRICT 3 |
| JENNIFER THOMPSON | DISTRICT 4 |
| TED EDWARDS | DISTRICT 5 |
| VICTORIA P. SIPLIN | DISTRICT 6 |

MARK V. MASSARO, P.E., PUBLIC WORKS DIRECTOR

GOVERNING STANDARDS AND SPECIFICATIONS:
FLORIDA DEPARTMENT OF TRANSPORTATION
DESIGN STANDARDS DATED 2014,
AND STANDARD SPECIFICATIONS FOR ROAD AND
BRIDGE CONSTRUCTION DATED 2014, AS AMENDED
BY CONTRACT DOCUMENTS.

NOTE: THE SCALE OF THESE PLANS MAY HAVE
CHANGED DUE TO REPRODUCTION.



LOCATION MAP

INDEX OF SHEETS

| SHEET | DESCRIPTION |
|-------|----------------------------------|
| 1 | COVER SHEET |
| 2 | GENERAL NOTES |
| 3 | STANDARD DRAWINGS AND DETAILS |
| 4 | SUMMARY OF PAY ITEMS |
| 5 | SURVEY CONTROL SHEET |
| 6 | PLAN SHEET |
| 7 | PROFILE SHEET |
| 8 | DRAINAGE STRUCTURE CROSS SECTION |
| 9 | EROSION CONTROL PLAN |
| 10 | UTILITY ADJUSTMENT SHEET |
| 11-12 | BAFFLE BOX DETAIL |

UTILITIES ENCOUNTERED

| | |
|-------------------------|--------------|
| DUKE ENERGY | 407-905-3321 |
| BRIGHT HOUSE NETWORKS | 407-448-5506 |
| COMCAST | 407-312-5944 |
| ORANGE COUNTY UTILITIES | 407-254-9706 |
| AT&T DISTRIBUTION | 407-380-0938 |

| LENGTH OF PROJECT | | |
|-----------------------|------------|-------|
| | LINEAR FT. | MILES |
| NET LENGTH OF PROJ. | 60.00 | 0.111 |
| EXCEPTIONS | 0.00 | 0.000 |
| GROSS LENGTH OF PROJ. | 60.00 | 0.111 |

NOTE:
PLANS WERE PREPARED ACCORDING TO AVAILABLE INFORMATION TO ADEQUATELY ADDRESS CONDITIONS AS THEY EXISTED AT THE TIME OF PLANS PREPARATION. NEEDS, CONDITIONS AND OWNERSHIP OF PROPERTIES MAY HAVE CHANGED SINCE PROJECT DESIGN. THE COUNTY'S REPRESENTATIVE WILL ADDRESS CHANGES AND NEEDS WITH THE PROPERTY OWNER OR THEIR REPRESENTATIVES. CONTRACTOR SHALL WORK WITH THE COUNTY'S REPRESENTATIVE IN ADDRESSING AND MEETING NEEDS AND CONDITIONS THAT MAY HAVE CHANGED SINCE PLANS PREPARATION.

SOURCE OF BENCH MARK DATUM

L910002 - FOUND ORANGE COUNTY CONTROL DISK "L-910-002" 22'± NORTH OF CENTERLINE OF YACHTSMAN COURT AND 37'± EAST OF CENTERLINE OF LANDLUBBER STREET. DISK IS SET IN NORTHEAST CORNER OF INTERSECTION IN THE SOUTHWEST CORNER OF A CURB INLET. PUBLISHED ELEVATION = 105.254 FEET (NAVD88)

L910004 - FOUND A SQUARE CUT IN THE CENTERLINE OF A CONCRETE BASE FOR TELEPHONE J-BOX #4600 GATLIN AVENUE 44'± SOUTH OF CENTERLINE OF GATLIN AVENUE AND 185'± WEST OF EVANDER DRIVE. PUBLISHED ELEVATION = 107.603 FEET (NAVD88)

CERTIFICATION TO PLANS

I HEREBY CERTIFY that the design for this project and the attached construction plans comply with the requirements of Section 336.045 of the Florida Statutes and are in substantial conformance with the standards contained in the edition of the "Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways" in effect on this date as adopted by the Florida Department of Transportation pursuant to Subsection 336.045(1) of the Florida Statutes.

DATE: _____ ENGINEER: CLAUDE L. CASSAGNOL, P.E. REG. NO. 35490
State of Florida

GTC Engineering Corporation
98 South Semoran Blvd, Orlando, FL 32807
Phone Number - 407.380.0402

Certificate of Authorization Number 6758 Claude L. Cassagnol, P.E.
P.E. Number 35490

| REVISIONS | DATE | BY |
|-----------|------|----|
| | | |
| | | |
| | | |

| | |
|----------------------|--------------|
| DESIGNED BY: CLC/CMY | DATE: 6/6/14 |
| DRAWN BY: CMY | DATE: 6/6/14 |
| CHECKED BY: CLC | DATE: 6/6/14 |
| APPROVED BY: CLC | DATE: 6/6/14 |
| PROJECT NO: EPD | |

SHEET 1
OF 12

**FINAL SUBMITTAL
FEBRUARY, 2015**

GENERAL NOTES

- 1 ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH AND CONFORM TO THE MOST STRINGENT REQUIREMENT OF THE PROJECT SPECIFICATIONS, THE YEAR 2014 EDITION OF THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (FDOT), AND SUPPLEMENTS THERETO, AND ORANGE COUNTY ROAD CONSTRUCTION SPECIFICATIONS.
- 2 SUBSURFACE INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FOR USE IN ESTABLISHING DESIGN CRITERIA FOR THE PROJECT. THE ACCURACY OF THIS INFORMATION IS NOT GUARANTEED AND IS NOT TO BE CONSTRUED AS PART OF THE PLANS GOVERNING CONSTRUCTION OF THE PROJECT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INQUIRE OF THE ENGINEER IF ADDITIONAL INFORMATION IS AVAILABLE, TO MAKE ARRANGEMENTS TO REVIEW SAME PRIOR TO BIDDING, AND TO MAKE HIS OWN DETERMINATION AS TO ALL SUBSURFACE CONDITIONS.
- 3 ALL PERSONAL PROPERTY, EXCEPT MAIL BOXES, WITHIN THE RIGHT-OF-WAY NOT RELOCATED BY THE PROPERTY OWNER SHALL BE REMOVED BY THE CONTRACTOR AS NECESSARY TO CONSTRUCT THE PROJECT IN ACCORDANCE WITH THE PLANS. MAIL BOXES SHALL BE RELOCATED BY THE CONTRACTOR IN ACCORDANCE WITH FDOT DESIGN STANDARD 532. PAYMENT WILL BE INCLUDED IN THE PAY ITEM NO. 110-1 (CLEARING & GRUBBING).
- 4 THE DISPOSAL OF EXCESS EARTHWORK MATERIALS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. APPROVALS OF DISPOSAL SITES SHALL BE OBTAINED FROM ORANGE COUNTY PRIOR TO DISPOSAL. ALL EXCESS MATERIAL IS THE PROPERTY OF THE CONTRACTOR.
- 5 ALL EXISTING TREES WITHIN THE LIMITS OF CONSTRUCTION ARE TO BE REMOVED UNLESS OTHERWISE NOTED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. ANY TREE REMOVAL TO BE PERFORMED UNDER CLEARING AND GRUBBING.
- 6 SOD ALL DISTURBED AREAS UNLESS OTHERWISE SHOWN ON THE PLANS. SOD SHALL MATCH EXISTING TYPE SOD UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- 7 INSTALL TOPSOIL TREATMENT ON ALL PERMANENT GRASS AREAS. COST TO BE INCLUDED IN CONTRACT UNIT PRICE FOR SOD.
- 8 PEGGED SOD TO BE PLACED ON ALL SLOPES 2:1 OR STEEPER.
- 9 SAWCUT CONCRETE DRIVEWAYS AS REQUIRED FOR CONSTRUCTION. COST TO BE INCLUDED IN PAY ITEM 110-1-1 CLEARING & GRUBBING.
- 10 ALL PAVEMENT OFFSETS SHOWN ARE FROM PROPOSED CENTERLINE OF CONSTRUCTION; ALL RADII AND DIMENSIONS ARE TO PROPOSED EDGE OF PAVEMENT.
- 11 FOR STABILIZATION AT TURNOUTS AND DRIVEWAY CONNECTIONS, SEE STANDARD INDEX No. 515 AND TYPICAL SECTIONS FOR DEPTH AND LBR.
- 12 DRIVEWAY LOCATIONS AND WIDTHS SHOWN ARE APPROXIMATE AND MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER.
- 13 THE CONTRACTOR SHALL PERFORM HIS WORK IN ACCORDANCE WITH REQUIREMENTS OF THE VARIOUS PERMITS INCLUDED IN THE BID SPECIFICATIONS. PAYMENT IS INCLUDED IN THE BID PRICE FOR SECTION 104; "PREVENTION, CONTROL, AND ABATEMENT OF EROSION AND WATER POLLUTION (LS)", EXCLUDING ITEMS SPECIFIED ELSEWHERE. ENVIRONMENTAL CONTROLS SHALL BE USED AT LOCATIONS DESIGNATED IN THE PLANS AND/OR DESIGNATED BY THE ENGINEER.
- 14 THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND AND OTHER UTILITIES IS BASED ON AVAILABLE RECORDS AND SURVEYS BUT IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR SHALL MAKE HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO AND IS RESPONSIBLE FOR COORDINATING UTILITY RELOCATION WITH PROJECT CONSTRUCTION. PRIOR TO ORDERING DRAINAGE STRUCTURES, THE CONTRACTOR SHALL DETERMINE IF DRAINAGE/UTILITY CONFLICTS EXIST. INFORMATION ON CONFLICTS IS TO BE SUBMITTED TO THE ENGINEER AS SOON AS POSSIBLE AFTER DISCOVERY FOR RESOLUTION. SUNSHINE STATE ONE CALL MUST BE NOTIFIED FOR LOCATES AT 1-800-432-4770.
- 15 UTILITIES ARE TO BE ADJUSTED BY OTHERS OR AS DIRECTED BY THE ENGINEER.

- 16 THE CONTRACTOR SHALL NOTIFY ALL GAS UTILITY COMPANIES A MINIMUM OF TWO WORKING DAYS PRIOR TO EXCAVATION AS REQUIRED BY CHAPTER 553.851 AND 556.105 OF THE FLORIDA STATUTES.
- 17 ALL DRAINAGE PIPES SHALL BE STEEL REINFORCED CONCRETE PIPE, CLASS III, UNLESS OTHERWISE NOTED.
- 18 MEASUREMENT OF DRAINAGE PIPE FOR PAYMENT SHALL BE DETERMINED FROM ACTUAL LENGTHS INSTALLED.
- 19 ALL MANHOLE COVERS SHALL INCLUDE THE ORANGE COUNTY LOGO AND BE IDENTIFIED AS "ORANGE COUNTY SANITARY", "ORANGE COUNTY STORM", OR "ORANGE COUNTY WATER", AS APPROPRIATE. (SEE STANDARD DRAWINGS AND DETAILS SHEET)
- 20 ALL INLET/MANHOLE - PIPE JOINTS SHALL BE FILLED WITH NON-SHRINK GROUT, COVERED WITH AN ASPHALTIC MASTIC COATING, AND WRAPPED WITH A FILTER FABRIC MATERIAL PER SECTION 13.03.03 OF THE ORANGE COUNTY ROAD CONSTRUCTION SPECIFICATIONS.
- 21 ALL CURB INLETS, DITCH BOTTOM INLETS, AND MANHOLES SHALL HAVE TRAFFIC BEARING FRAMES AND COVERS OR GRATES MEETING HS-20 LOADING REQUIREMENTS.
- 22 DESIGN CHANGES OF PIPE INVERTS NOT EXCEEDING PLUS OR MINUS ONE FOOT WILL NOT BE CONSIDERED AS A BASIS FOR ADDITIONAL COMPENSATION FOR THE PERTINENT PIPE BID ITEM OR FOR MODIFICATION OF PRECAST STRUCTURES.
- 23 ALL (P.R.M.'s) IRONS AND MONUMENTS SHOWN ON PLANS, OR FOUND, SHALL BE PRESERVED. THOSE SHOWN IN PROPOSED PAVEMENT SHALL BE PROTECTED WITH A CAST IRON VALVE BOX.
- 24 ANY U.S.C. AND G.S. MONUMENTS WITHIN THE LIMITS OF CONSTRUCTION SHALL BE PROTECTED. IF IN DANGER OF DAMAGE, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER, ORANGE COUNTY SURVEY SECTION AT 407-836-7940, AND BOTH SHALL NOTIFY:

| | |
|--|---|
| STATE GEODETIC ADVISOR, BUREAU OF SURVEY AND MAPPING MS 105 3800 COMMONWEALTH BLVD. TALLAHASSEE, FL 32399-3000 PHONE: (850) 245-2555 FAX: (850) 245-2645 | ORANGE COUNTY SURVEYOR ENGINEERING DIVISION, PUBLIC WORKS DEPT. 4200 S. JOHN YOUNG PARKWAY ORLANDO, FL 32839-9205 PHONE: (407) 836-7940 FAX: (407) 836-8024 |
|--|---|
- 25 PUBLIC LAND CORNERS WITHIN THE LIMITS OF CONSTRUCTION SHALL BE PROTECTED. IF A CORNER MONUMENT IS IN DANGER OF BEING DESTROYED OR DISTURBED, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER AND THE COUNTY SURVEYOR, WITHOUT DELAY, BY TELEPHONE (407-836-7940). THE CONTRACTOR SHALL PROVIDE WRITTEN FOLLOW UP CONFIRMATION WITHIN 48 HOURS OF TELEPHONE NOTIFICATION.
- 26 PRIOR TO BEGINNING ANY CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT TO ORANGE COUNTY HIGHWAY CONSTRUCTION DIVISION A SET OF FIELD NOTES VERIFYING THE BENCHMARK ELEVATIONS AND THE REFERENCE POINT TIES SHOWN ON THE TITLE SHEET, SURVEY CONTROL SHEET, AND PLAN/PROFILE SHEETS, AND/OR A SET OF FIELD NOTES FOR ALL ADDITIONAL BENCHMARK AND REFERENCE POINT TIES PROPOSED TO BE USED IN CONSTRUCTING THE PROJECT WITH THEIR LOCATION, DESCRIPTION AND ELEVATION, BASED ON ORANGE COUNTY DATUM. ALL SUBMITTALS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF FLORIDA.
- 27 WITHIN 21 CALENDAR DAYS AFTER NOTICE TO PROCEED, THE CONTRACTOR SHALL STAKE THE RIGHT-OF-WAY AT 100' INTERVALS AND AT RIGHT-OF-WAY BREAKS WITH STATIONING SHOWN ON THE STAKES. NO INVOICE FOR PAYMENT WILL BE PROCESSED UNTIL THE RIGHT-OF-WAY HAS BEEN STAKED TO THE SATISFACTION OF THE ENGINEER. PAYMENT IS INCLUDED IN THE PRICE BID FOR ITEM NO. 101-1 "MOBILIZATION".
- 28 EXISTING TRAFFIC SIGNS SHALL REMAIN IN PLACE OR BE RELOCATED AS NEEDED BY THE CONTRACTOR UNTIL THE NEW SIGNS ARE INSTALLED. ONCE THE NEW SIGNS HAVE BEEN INSTALLED, THE EXISTING SIGNS SHALL BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE ORANGE COUNTY SIGN SHOP AT 4200 SOUTH JOHN YOUNG PARKWAY. COST OF RELOCATION, MAINTENANCE, REMOVAL, AND DELIVERY SHALL BE INCLUDED IN PAY ITEM 102-1, MAINTENANCE OF TRAFFIC.

- 29 ALL EXISTING DRAINAGE PIPE AND STRUCTURES AND UTILITIES WITHIN THE LIMITS OF CONSTRUCTION ARE TO REMAIN UNLESS OTHERWISE NOTED.
- 30 INLET ELEVATIONS SHOWN IN THE PLANS REFER TO THE TOP OF THE GRATE FOR DITCH BOTTOM INLETS.
- 31 ALL EXCAVATIONS SHALL BE REQUIRED TO CONFORM WITH THE PROVISIONS OF PART IV OF CHAPTER 553.60, F.S., ALSO KNOWN AS THE "TRENCH SAFETY ACT", TO PROTECT EXISTING PAVEMENT, STRUCTURES, FOUNDATIONS, AND CONSTRUCTION PERSONNEL DURING CONSTRUCTION OF THE PROJECT.
- 32 THE CONTRACTOR SHALL PROTECT EXISTING TREES THAT ARE TO REMAIN, INCLUDING MAINTAINING MINIMUM UNDISTURBED AREAS. WHEN NECESSARY TO CUT ROOTS OVER 1-1/2" DIA, THE CUT MUST BE CLEAN. TEMPORARILY COVER EXPOSED ROOTS WITH WET BURLAP TO PREVENT DRYING AND COVER WITH EARTH AS SOON AS POSSIBLE. INTERFERING BRANCHES MAY BE REMOVED AT THE DIRECTION OF A QUALIFIED TREE SURGEON PROVIDED BY THE CONTRACTOR. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT OF TREES DAMAGED BEYOND REPAIR WITH 3 TREES OF SIMILAR QUALITY AND SPECIES SIZED AT THE DIRECTION OF THE COUNTY. THIS WORK IS TO BE PAID FOR AND INCLUDED UNDER CLEARING AND GRUBBING.
- 33 EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED IN ACCORDANCE WITH THE REQUIREMENTS OF THE FLORIDA EROSION AND SEDIMENT CONTROL MANUAL, LATEST EDITION, PRIOR TO OR AS THE FIRST STEP IN CONSTRUCTION. SILT FENCE, ROCK BAGS, TURBIDITY BARRIERS, SYNTHETIC BALES, AND ALL OTHER EROSION AND SEDIMENT CONTROL DEVICES MUST REMAIN IN PLACE AND IN GOOD CONDITION AT ALL LOCATIONS SHOWN IN PLANS OR AS REQUIRED UNTIL THE CONTRACT IS COMPLETED AND SOILS ARE STABILIZED AND VEGETATION HAS BEEN ESTABLISHED. MEASURES SHOWN ARE THE MINIMUM REQUIRED, AND THE CONTRACTOR WILL ENSURE THAT THERE IS NO DIRECT OR INDIRECT DISCHARGE OF CONSTRUCTION MATERIALS OR TURBID WATER TO THE STORM SYSTEM, WATERS, WATERWAYS, OR OFFSITE AREAS.
- 34 CONTRACTOR IS TO MAINTAIN UNINTERRUPTED ACCESS TO ALL DRIVEWAYS AND SIDESTREETS AT ALL TIMES AND TO NOTIFY PROPERTY OWNERS FIVE DAYS PRIOR TO STARTING CONSTRUCTION.

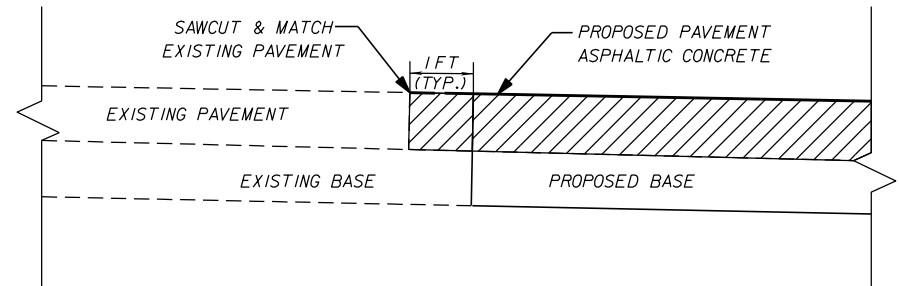
LEGEND

- | | | |
|---|---|--|
| <ul style="list-style-type: none"> = CLEANOUT = DRAINAGE MANHOLE = ELECTRIC METER = GUY ANCHOR = LIGHT POLE = PEDESTRIAN SIGNAL = POWER POLE = SANITARY MANHOLE = SIGNAL MAST ARM = SINGLE SUPPORT SIGN = TELEPHONE PEDESTAL = TRANSFORMER = TREE (UNKNOWN UNLESS OTHERWISE NOTED) = TREE OAK = TREE PALM = TREE PINE | <ul style="list-style-type: none"> = TURN ARROW = UNKNOWN MANHOLE (UNLESS OTHERWISE NOTED) = UTILITY MARKER = WATER VALVE = WIRING PULL BOX = END NOT FOUND/LOCATED = FENCE = BURIED ELECTRIC LINE = BURIED FIBER OPTIC LINE = BURIED CABLE TELEVISION LINE = BURIED TELEPHONE LINE = GAS LINE = NON POTABLE (RECLAIM) WATER LINE = OVERHEAD ELECTRIC LINE = SANITARY LINE/FORCE MAIN LINE = WATER LINE | |
|---|---|--|

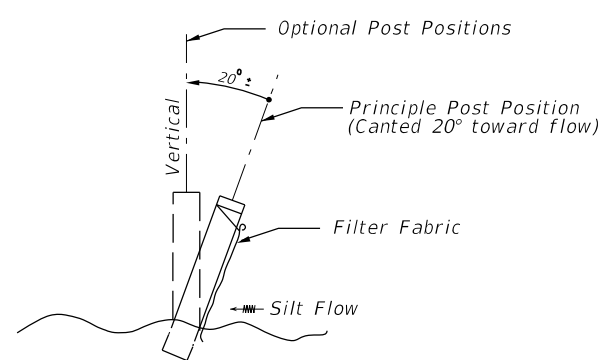
ABBREVIATIONS

- | | | |
|-------------------------|--|--------------------------------|
| APPROX = APPROXIMATE | E: = EASTING | PVC = POLYVINYL CHLORIDE |
| B = BASELINE | EL = ELEVATION | RCP = REINFORCED CONCRETE PIPE |
| BC = BACK OF CURB | EP = EDGE OF PAVEMENT | STA = STATION |
| CLF = CHAIN LINK FENCE | INV = INVERT | TOE = TOE OF SLOPE |
| CRM = CRAPE MYRTLE | LSA = LANDSCAPE AREA | TOP = TOP OF BANK |
| CONC = CONCRETE | N: = NORTHING | WIF = WROUGHT IRON FENCE |
| DIP = DUCTILE IRON PIPE | NAVD88 = NORTH AMERICAN VERTICAL DATUM OF 1988 | WS = WHEEL STOP |

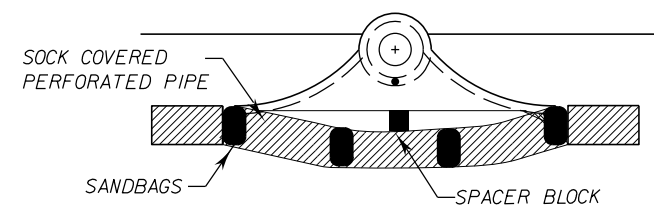
| REVISIONS | | | | GTC Engineering Corporation | | | ORANGE COUNTY PUBLIC WORKS | | | SHEET NO. |
|-----------|-------------|------|-------------|---|--|-----------|---|---------------|--|-----------|
| DATE | DESCRIPTION | DATE | DESCRIPTION | 98 South Semoran Blvd, Orlando, FL 32807 Phone Number - 407.380.0402 | | | GTC PROJECT NO. LITTLE LAKE CONWAY BAFFLE BOX IMPROVEMENTS OCPW PROJECT NO. | | | 2 |
| | | | | Certificate of Authorization Number 6758 | Claude L. Cassagnol, P.E. P.E. Number 35490 | FLO 20.02 | EPD | GENERAL NOTES | | |



TYPICAL PAVEMENT SPLICE DETAIL
N.T.S.

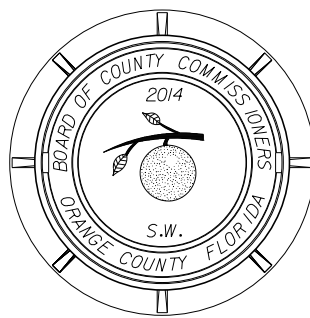
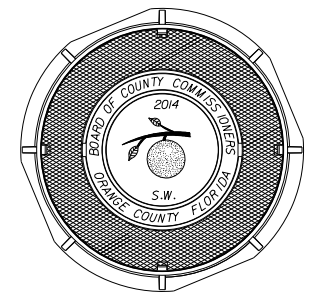


TYPE III SILT FENCE



CURB INLET SEDIMENT BARRIER

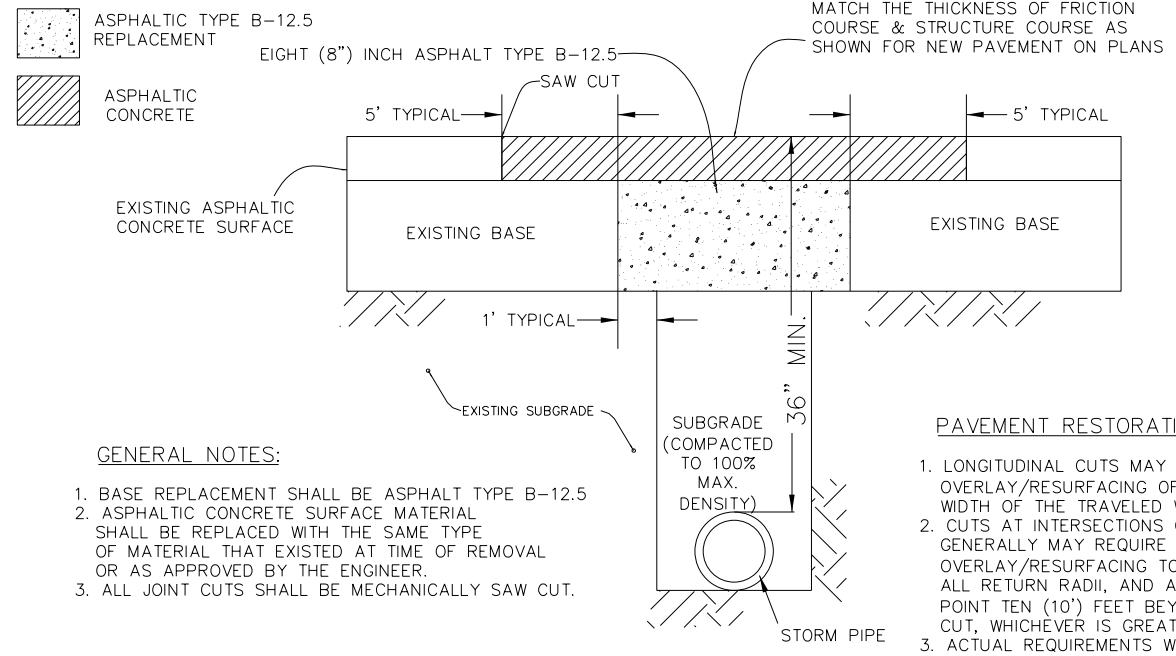
INLET PROTECTION HAS SPACER BLOCK TO ALLOW MORE FLOW TO GO INTO INLET DURING CONSTRUCTION, TO BE USED IN AREAS WHERE INLET PROTECTION COULD CAUSE FLOODING DURING LARGE RAINFALL AMOUNTS



STANDARD MANHOLE COVER
N.T.S.

NOTE:

SUB-GRADE CUT TO BE COMPACTED TO 100% MAX. DENSITY AS DETERMINED BY AASHTO T - 180. CUT TO BE REPLACED WITH AN EIGHT (8") INCH 3000 PSI HIGH EARLY CONCRETE TO TOP OF EXISTING BASE. CUT AREA TO BE PLATED OR PROTECTED ON DAY OF POUR. EXISTING SURFACE TO BE SAW CUT TO AN AREA FIVE (5') FEET, BEYOND THE BASE CUT.



GENERAL NOTES:

1. BASE REPLACEMENT SHALL BE ASPHALT TYPE B-12.5
2. ASPHALTIC CONCRETE SURFACE MATERIAL SHALL BE REPLACED WITH THE SAME TYPE OF MATERIAL THAT EXISTED AT TIME OF REMOVAL OR AS APPROVED BY THE ENGINEER.
3. ALL JOINT CUTS SHALL BE MECHANICALLY SAW CUT.

PAVEMENT RESTORATION:

1. LONGITUDINAL CUTS MAY REQUIRE OVERLAY/RESURFACING OF THE COMPLETE WIDTH OF THE TRAVELED WAY.
2. CUTS AT INTERSECTIONS OF STREETS GENERALLY MAY REQUIRE A COMPLETE OVERLAY/RESURFACING TO THE END OF ALL RETURN RADII, AND ALSO TO A POINT TEN (10') FEET BEYOND THE CUT, WHICHEVER IS GREATER.
3. ACTUAL REQUIREMENTS WILL BE AS STATED ON THE APPROVED PERMIT OR AS DIRECTED BY THE ENGINEER.

STANDARD ROADWAY OPEN CUT CROSS SECTION DETAIL

FINAL RESTORATION - TYPICAL OF MAJOR OPEN CUTS

| REVISIONS | | | |
|-----------|-------------|------|-------------|
| DATE | DESCRIPTION | DATE | DESCRIPTION |
| | | | |

GTC Engineering Corporation
98 South Semoran Blvd, Orlando, FL 32807
Phone Number - 407.380.0402
Certificate of Authorization Number 6758
Claude L. Cassagnol, P.E.
P.E. Number 35490

ORANGE COUNTY PUBLIC WORKS
GTC PROJECT NO. FLO 20.02
LITTLE LAKE CONWAY BAFFLE BOX IMPROVEMENTS
OCPW PROJECT NO. EPD

STANDARD DRAWINGS AND DETAILS

SHEET NO. 3

FILE: H:\Jobs\FLO20.02-LittleLakeConway\roadway\SPDTRD01.DGN
DATE: 3/25/2015 11:11:53 AM

SUMMARY OF PAY ITEMS

| ITEM NUMBER | DESCRIPTION | UNIT | QUANTITY TOTAL | |
|-------------|--|------|----------------|-------|
| | | | PLANS | FINAL |
| 101-1 | MOBILIZATION | LS | 1 | |
| 102-1 | MAINTENANCE OF TRAFFIC | LS | 1 | |
| 104-14 | PREVENTION, CONTROL AND ABATEMENT OF EROSION AND WATER POLLUTION | LS | 1 | |
| 110-1-1 | CLEARING & GRUBBING | LS | 1 | |
| 120-9 | EXCAVATION, EMBANKMENT, AND GRADING | LS | 1 | |
| 327-70-6 | MILLING EXISTING ASPHALT PAVEMENT (1.5" AVG DEPTH) | SY | 150 | |
| 334-1-13 | TYPE SP-9.5 ASPHALTIC CONCRETE (1.5") (TRAFFIC LEVEL C) | SY | 150 | |
| 425-1-341 | INLETS, CURB, TYPE P-4, <10' | EA | 1 | |
| 430-175-118 | PIPE CULVERT, STEEL REINFORCED CONCRETE, CLASS III, ROUND, 18" | LF | 32 | |
| 520-1-8 | CONCRETE CURB & GUTTER (MIAMI) | LF | 120 | |
| 522-1 | CONCRETE SIDEWALK, 4" THICK (INCLUDES COMPACTION) | SY | 32 | |
| 522-2 | CONCRETE SIDEWALK, 6" THICK (INCLUDES COMPACTION) | SY | 28 | |
| 570-1-2 | PERFORMANCE TURF (SOD) | SY | 150 | |
| 900-1 | AS-BUILT PLANS | LS | 1 | |
| 900-2 | INDEMNIFICATION | LS | 1 | |
| 900-3 | GROUNDWATER TREATMENT AND DISPOSAL | DA | 30 | |
| 900-4 | BAFFLE BOX | EA | 1 | |

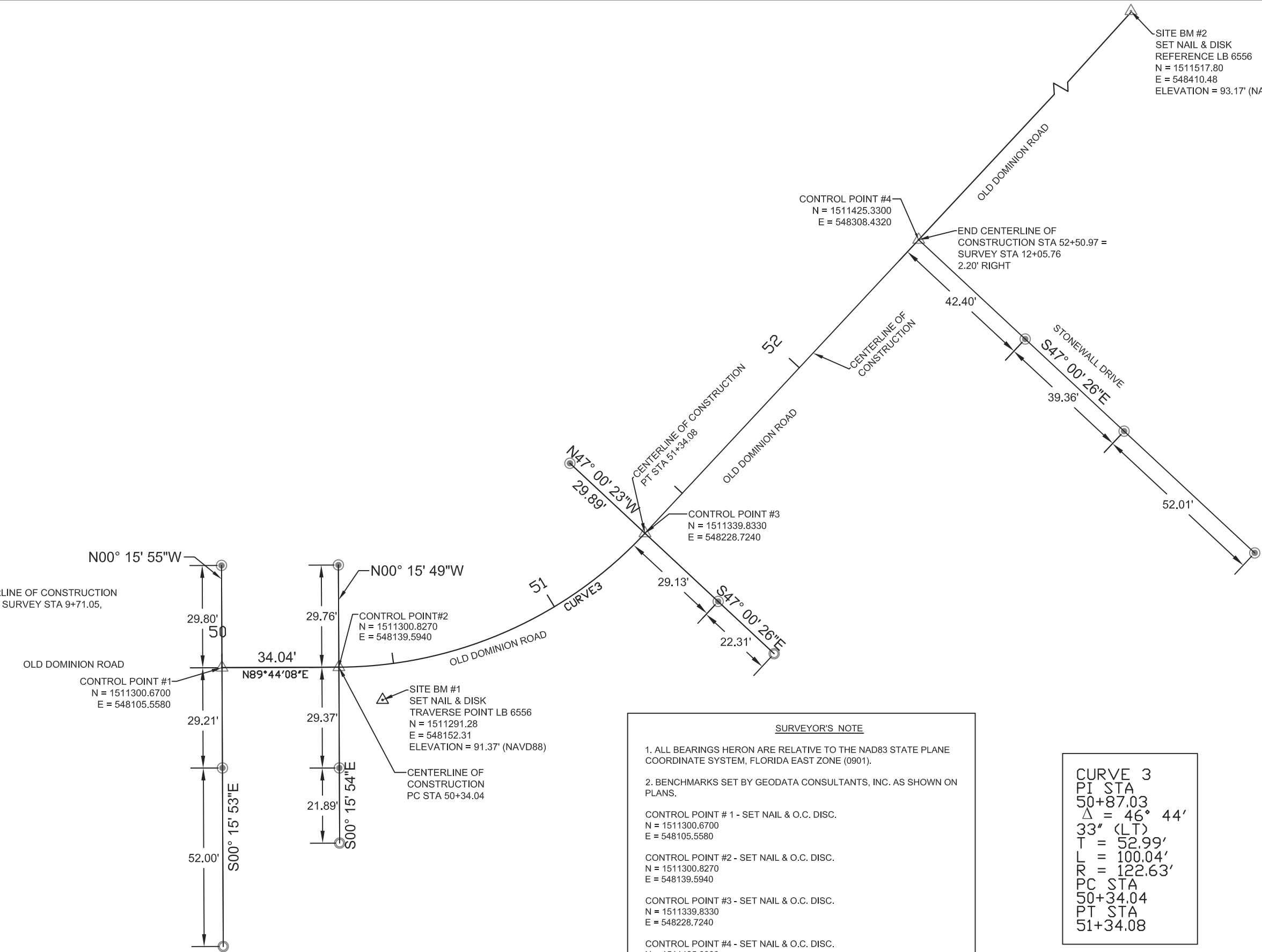
PAY ITEM FOOTNOTES

- 102-1 INCLUDES ALL ITEMS OF MAINTENANCE OF TRAFFIC INCLUDING, BUT NOT LIMITED TO, THE DESIGN OF THE MAINTENANCE OF TRAFFIC PLAN BY THE CONTRACTOR AND APPROVAL OF THE PLANS BY ORANGE COUNTY TRAFFIC ENGINEERING AND HIGHWAY CONSTRUCTION. ALSO INCLUDES ALL TEMPORARY AND PERMANENT STRIPING, REMOVAL OF EXISTING AND TEMPORARY STRIPING VIA HYDRO BLASTING, SIGNING, FLAGGERS, DETOURING TRAFFIC, ETC. REQUIRED TO MAINTAIN TRAFFIC DURING CONSTRUCTION IN ACCORDANCE WITH THE MUTCD AND THE FDOT ROADWAY AND DESIGN STANDARDS, 2014 EDITION. ATTENTION IS DIRECTED TO THE 600 SERIES INDEX NUMBERS. NOTE THAT THE MAINTENANCE OF TRAFFIC PLAN SHOWN IN THE CONSTRUCTION PLANS IS FOR INFORMATION ONLY, FINAL PLAN TO BE SUBMITTED TO AND APPROVED BY THE COUNTY. THE MAINTENANCE OF TRAFFIC PLAN DONE BY THE CONTRACTOR SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF FLORIDA.
- 104-14 INCLUDES THE COST OF ALL ITEMS REQUIRED FOR EROSION CONTROL INCLUDING, BUT NOT LIMITED TO SYNTHETIC BALES, TURBIDITY BARRIERS, SILT FENCES, TEMPORARY GRASSING, DEWATERING AND TEMPORARY DIVERSION AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER.
- 110-1-1 INCLUDES, BUT IS NOT LIMITED TO, THE COST OF REMOVAL AND DISPOSAL OF CONCRETE CURBS, DRIVEWAYS, STRUCTURES, WALLS, BRICK WALLS, VARIOUS TYPES OF FENCES, CAPPING WELLS, REMOVAL AND DISPOSAL OF SEPTIC TANKS AND DRAIN FIELDS, UNDERGROUND STORAGE TANKS, PAVEMENT, BASE, DRAINAGE STRUCTURES AND PIPES, AND TRIMMING OF TREES AND SHRUBS AS REQUIRED TO CONSTRUCT THE PROJECT. ALSO INCLUDES THE COST FOR SAWCUTTING EXISTING PAVEMENT AND CONCRETE.
- 120-9 INCLUDES THE COST OF ALL EARTHWORK OPERATIONS TO CONSTRUCT THE PROJECT.
- 425-3-82 INCLUDES THE COST OF INCIDENTAL ADDITIONAL PIPE, CONCRETE COLLARS (PER FDOT INDEX 280), AND ANY ADDITIONAL MATERIAL/METHOD NEEDED TO MAKE CONNECTIONS TO EXISTING PIPE WHERE EXISTING STRUCTURES ARE BEING REPLACED TO MATCH EXISTING REMAINING PIPE. ALSO INCLUDES THE COST OF ALL ITEMS REQUIRED FOR VIDEO INSPECTION OF THE EXISTING 8" CLAY PIPE WITHIN THE RIGHT-OF-WAY AND THE COST OF TEMPORARY SHEET PILE.
- 430-175-118 INCLUDES THE COST OF SAWCUTS, PAVEMENT, BASE & SUBGRADE REPLACEMENT PER THE OPEN CUT DETAIL ON THE STANDARD DRAWINGS AND DETAILS SHEET.
- 570-1-2 INCLUDES THE COST OF SOD (MATCH EXISTING), PEGGING THE SOD, FERTILIZER AND WATER AS REQUIRED FOR ESTABLISHMENT OF PERMANENT SODDING. ALSO INCLUDES THE COST OF MOWING UNTIL FINAL PROJECT ACCEPTANCE BY THE COUNTY.

| REVISIONS | | | | GTC Engineering Corporation 98 South Semoran Blvd, Orlando, FL 32807 Phone Number - 407.380.0402 Certificate of Authorization Number 6758 | ORANGE COUNTY PUBLIC WORKS | | SUMMARY OF PAY ITEMS | SHEET NO. 4 |
|-----------|-------------|------|-------------|--|------------------------------|---|----------------------|----------------|
| DATE | DESCRIPTION | DATE | DESCRIPTION | | GTC PROJECT NO. FLO 20.02 | LITTLE LAKE CONWAY BAFFLE BOX IMPROVEMENTS OCPW PROJECT NO. EPD | | |
| | | | | | | | | |



SITE BM #2
 SET NAIL & DISK
 REFERENCE LB 6556
 N = 1511517.80
 E = 548410.48
 ELEVATION = 93.17' (NAVD88)



BEGIN CENTERLINE OF CONSTRUCTION
 STA 50+00.00 = SURVEY STA 9+71.05,
 37.90' LEFT

SURVEYOR'S NOTE

- ALL BEARINGS HERON ARE RELATIVE TO THE NAD83 STATE PLANE COORDINATE SYSTEM, FLORIDA EAST ZONE (0901).
- BENCHMARKS SET BY GEODATA CONSULTANTS, INC. AS SHOWN ON PLANS.

CONTROL POINT # 1 - SET NAIL & O.C. DISC.
 N = 1511300.6700
 E = 548105.5580

CONTROL POINT #2 - SET NAIL & O.C. DISC.
 N = 1511300.8270
 E = 548139.5940

CONTROL POINT #3 - SET NAIL & O.C. DISC.
 N = 1511339.8330
 E = 548228.7240

CONTROL POINT #4 - SET NAIL & O.C. DISC.
 N = 1511425.3300
 E = 548308.4320

CURVE 3
 PI STA
 50+87.03
 $\Delta = 46^\circ 44'$
 33" (LT)
 T = 52.99'
 L = 100.04'
 R = 122.63'
 PC STA
 50+34.04
 PT STA
 51+34.08

| LEGEND | |
|--------|---------------------------------|
| | SET NAIL & O.C. DISC |
| | SET 1" IRON PIPE WITH O.C. CAP. |
| | SET NAIL & BRASS O.C. DISC |
| | DELTA |
| O.C. | ORANGE COUNTY |
| P.C. | POINT OF CURVATURE |
| P.I. | POINT OF INTERSECTION |
| P.T. | POINT OF TANGENCY |
| LB | LAND BUSINESS |
| T | TANGENT |
| L | LENGTH |
| R | RADIUS |

| REVISIONS | | |
|-----------|----|-------------|
| DATE | BY | DESCRIPTION |
| | | |

ORANGE COUNTY PUBLIC WORKS
 ENGINEERING DIVISION
 4200 SOUTH JOHN YOUNG PARKWAY
 ORLANDO, FLORIDA 32839-9205
 (407) 836-7908

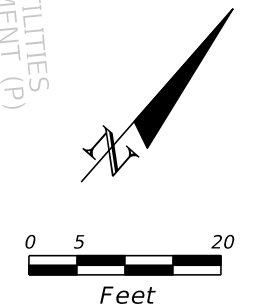
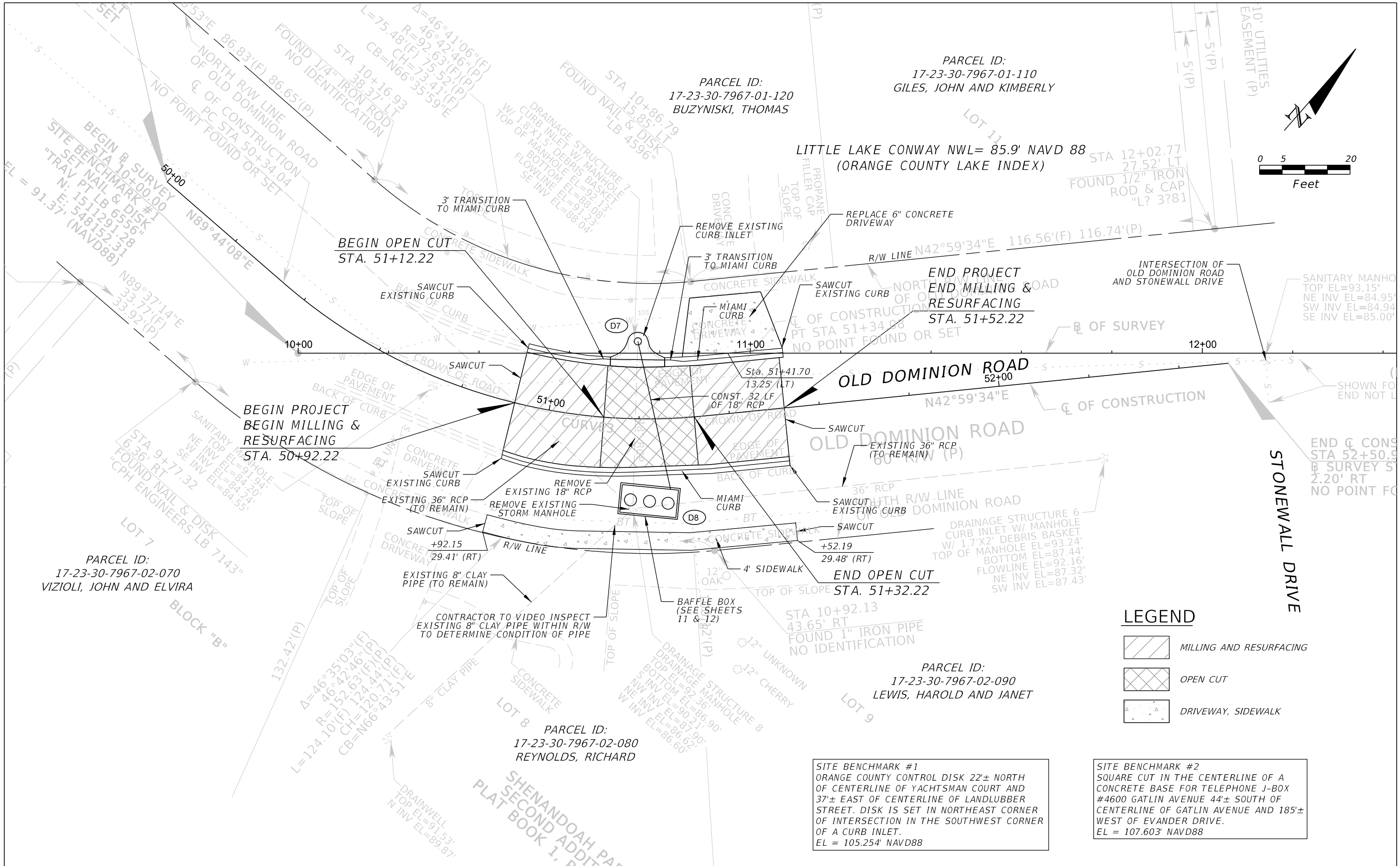


SURVEY SECTION
 4200 SOUTH JOHN YOUNG PARKWAY
 ORLANDO, FLORIDA 32839-9205
 (407) 836-7940

SURVEY CONTROL SHEET
 LITTLE LAKE CONWAY PROJECT
 17-23-30

| | |
|---------------------------|---------------|
| DRAWN BY: Alvarez, Marie | DATE: 6/26/14 |
| SURVEYED BY: CREW #3 | DATE: 6/20/14 |
| CALCULATED BY: Clark, Ron | DATE: 6/20/14 |
| APPROVED BY: Daynes, Mark | DATE: 6/26/14 |

| | |
|-------------------------------------|---------------------------------|
| DRAWING SCALE: 1" = 30' | DRAWING PROJECT NUMBER: 7501 |
| PREPARED FOR: Engineering Design | SHEET 5 |



PARCEL ID:
17-23-30-7967-01-110
GILES, JOHN AND KIMBERLY




PARCEL ID:
17-23-30-7967-01-120
BUZYNISKI, THOMAS

PARCEL ID:
17-23-30-7967-02-070
VIZIOLI, JOHN AND ELVIRA

PARCEL ID:
17-23-30-7967-02-080
REYNOLDS, RICHARD

PARCEL ID:
17-23-30-7967-02-090
LEWIS, HAROLD AND JANET

LEGEND

-  MILLING AND RESURFACING
-  OPEN CUT
-  DRIVEWAY, SIDEWALK

SITE BENCHMARK #1
ORANGE COUNTY CONTROL DISK 22± NORTH
OF CENTERLINE OF YACHTSMAN COURT AND
37± EAST OF CENTERLINE OF LANDLUBBER
STREET. DISK IS SET IN NORTHEAST CORNER
OF INTERSECTION IN THE SOUTHWEST CORNER
OF A CURB INLET.
EL = 105.254' NAVD88

SITE BENCHMARK #2
SQUARE CUT IN THE CENTERLINE OF A
CONCRETE BASE FOR TELEPHONE J-BOX
#4600 GATLIN AVENUE 44± SOUTH OF
CENTERLINE OF GATLIN AVENUE AND 185±
WEST OF EVANDER DRIVE.
EL = 107.603' NAVD88

| REVISIONS | | | |
|-----------|-------------|------|-------------|
| DATE | DESCRIPTION | DATE | DESCRIPTION |
| | | | |

GTC Engineering Corporation
98 South Semoran Blvd, Orlando, FL 32807
Phone Number - 407.380.0402

ORANGE COUNTY PUBLIC WORKS

| | | | |
|-----------------|--|------------------|-----|
| GTC PROJECT NO. | LITTLE LAKE CONWAY BAFFLE BOX IMPROVEMENTS | OCPW PROJECT NO. | EPD |
| FLO 20.02 | | | |

Certificate of Authorization Number 6758 Claude L. Cassagnol, P.E. P.E. Number 35490

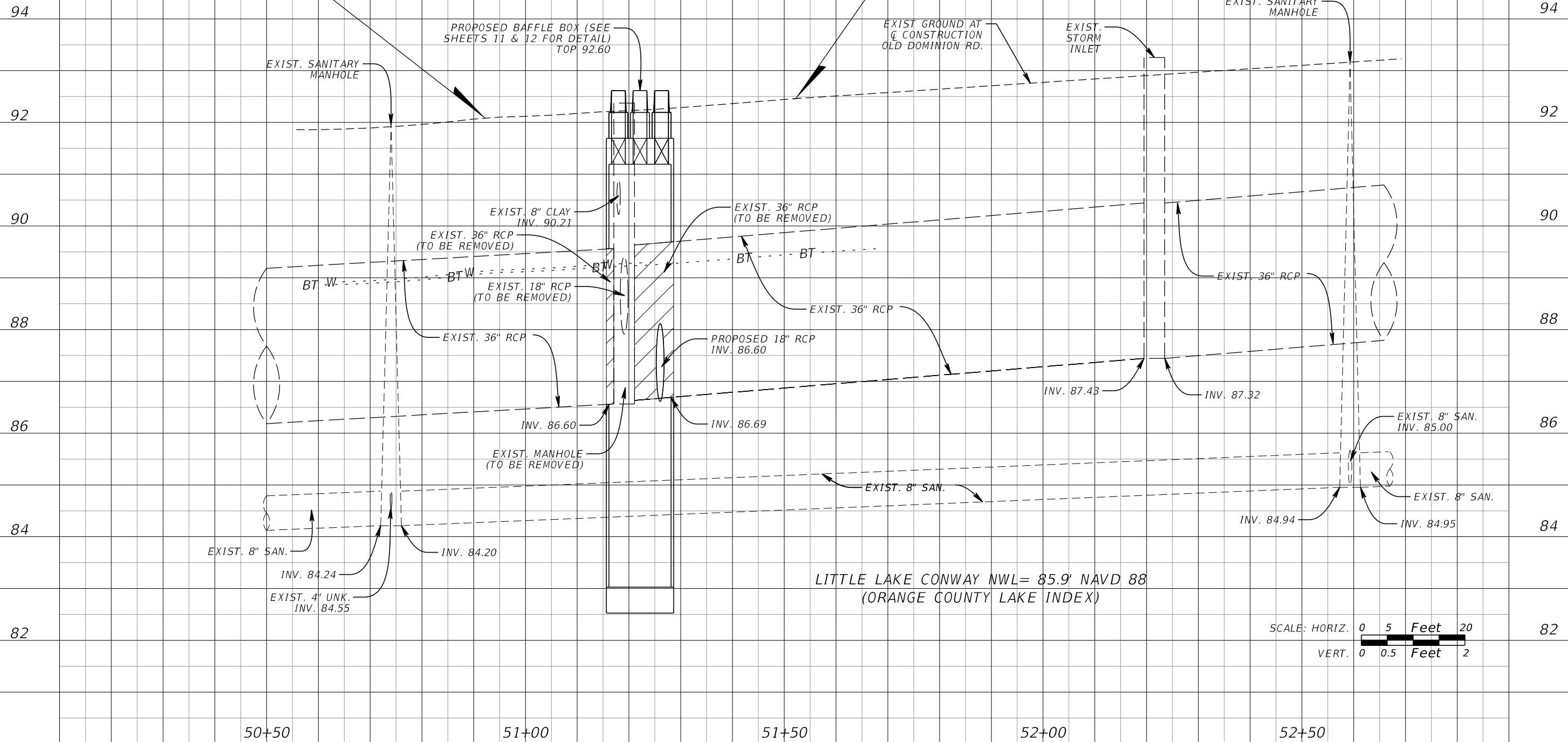
PLAN SHEET

SHEET NO.
6

FILE: H:\Jobs\FLO20.02-LittleLakeConway\roadway\PLPRR01.DGN DATE: 3/25/2015 11:11:36 AM

BEGIN PROJECT
BEGIN MILLING &
RESURFACING
STA. 50+92.22

END PROJECT
END MILLING &
RESURFACING
STA. 51+52.22



LITTLE LAKE CONWAY NWL= 85.9' NAVD 88
(ORANGE COUNTY LAKE INDEX)

| REVISIONS | | | |
|-----------|-------------|------|-------------|
| DATE | DESCRIPTION | DATE | DESCRIPTION |
| | | | |

| | | | |
|---|--|--|--|
| GTC Engineering Corporation 98 South Semoran Blvd, Orlando, FL 32807 Phone Number - 407.380.0402 Certificate of Authorization Number 6758 Claude L. Cassagnol, P.E. P.E. Number 35490 | | ORANGE COUNTY PUBLIC WORKS GTC PROJECT NO.: FLO 20.02 LITTLE LAKE CONWAY BAFFLE BOX IMPROVEMENTS OCPW PROJECT NO.: EPD | |
|---|--|--|--|

PROFILE SHEET

SHEET NO.
7

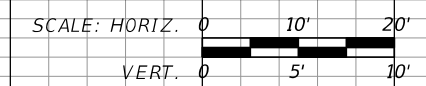
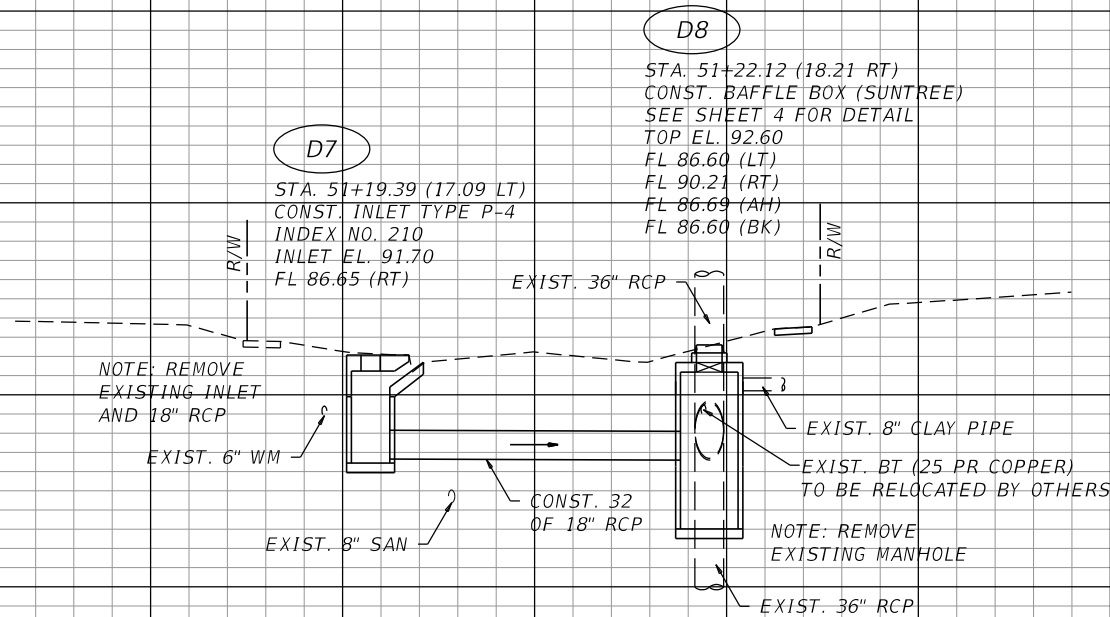
FILE: H:\Jobs\FLO20.02-LittleLakeConway\roadway\PLPRR02.DGN
DATE: 3/25/2015 11:11:37 AM

NOTE:
ALL UTILITIES THAT ARE IN CONFLICT WILL
BE RELOCATED OR REMOVED BY OTHERS IN
COORDINATION WITH THE CONTRACTOR.

☐ CONSTRUCTION

98
96
94
92
90
88
86
84
82
80

98
96
94
92
90
88
86
84
82
80



☐ CONSTRUCTION

100 80 60 40 20 0 20 40 60 80 100

| REVISIONS | | | |
|-----------|-------------|------|-------------|
| DATE | DESCRIPTION | DATE | DESCRIPTION |
| | | | |

GTC Engineering Corporation
98 South Semoran Blvd, Orlando, FL 32807
Phone Number - 407.380.0402

Certificate of Authorization Number 6758 Claude L. Cassagnol, P.E. P.E. Number 35490

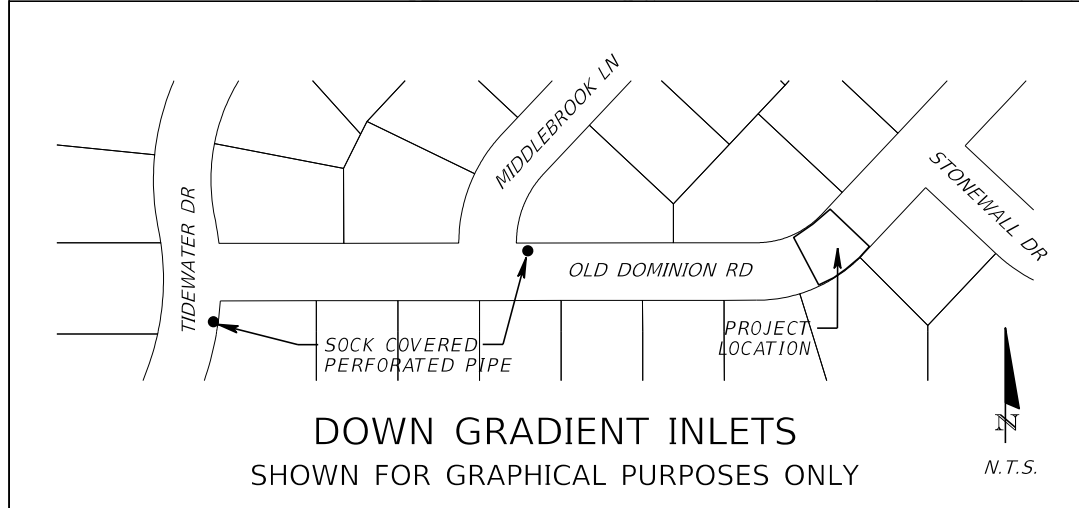
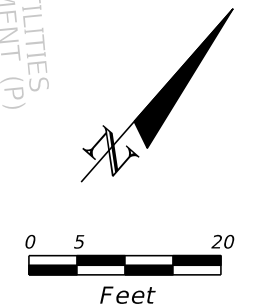
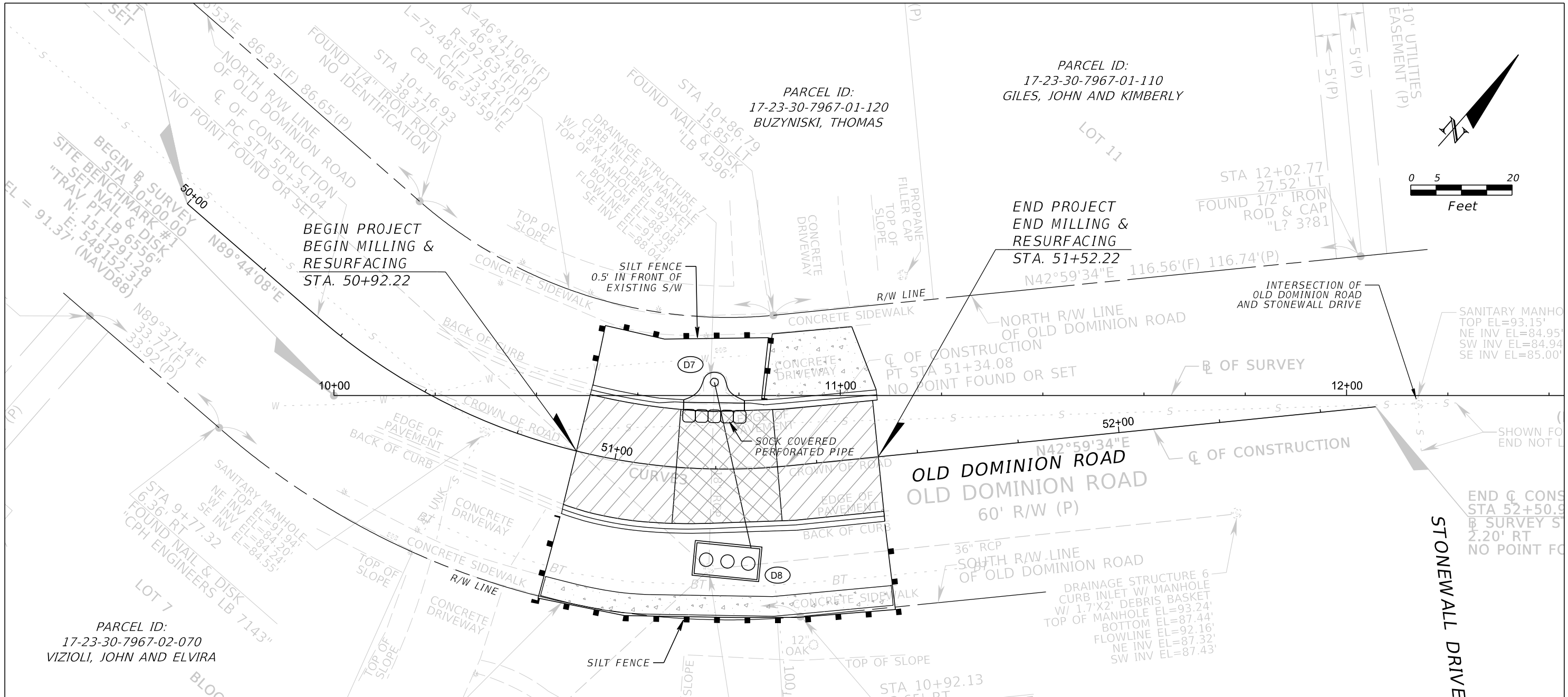
ORANGE COUNTY PUBLIC WORKS

| | | |
|-----------------|--|------------------|
| GTC PROJECT NO. | LITTLE LAKE CONWAY BAFFLE BOX IMPROVEMENTS | OCPW PROJECT NO. |
| FLO 20.02 | | EPD |

DRAINAGE STRUCTURES

SHEET NO.
8

FILE: H:\Jobs\FLO20.02-LittleLakeConway\Drainage\DRXSRD01.DGN
DATE: 3/25/2015 11:11:38 AM



NOTE: CONTRACTOR TO PROVIDE INLET PROTECTION FOR INLETS DOWN GRADIENT OF THE WORK AREA, AT NORTHEAST CORNER OF MIDDLEBROOK LANE AND OLD DOMINION ROAD, AND SOUTHEAST CORNER OF TIDEWATER DRIVE AND OLD DOMINION ROAD (SEE INSET).

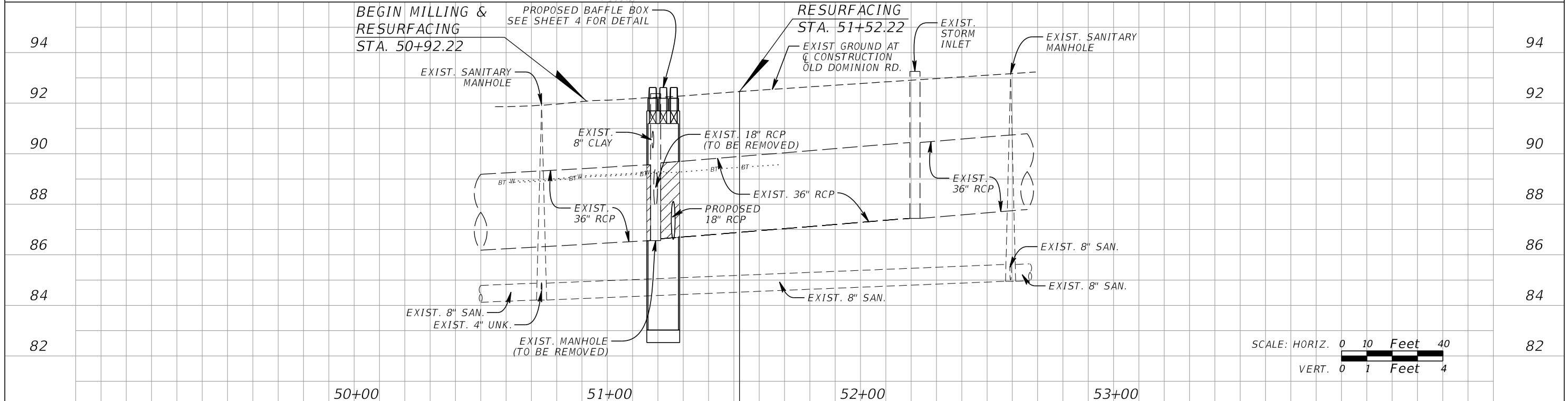
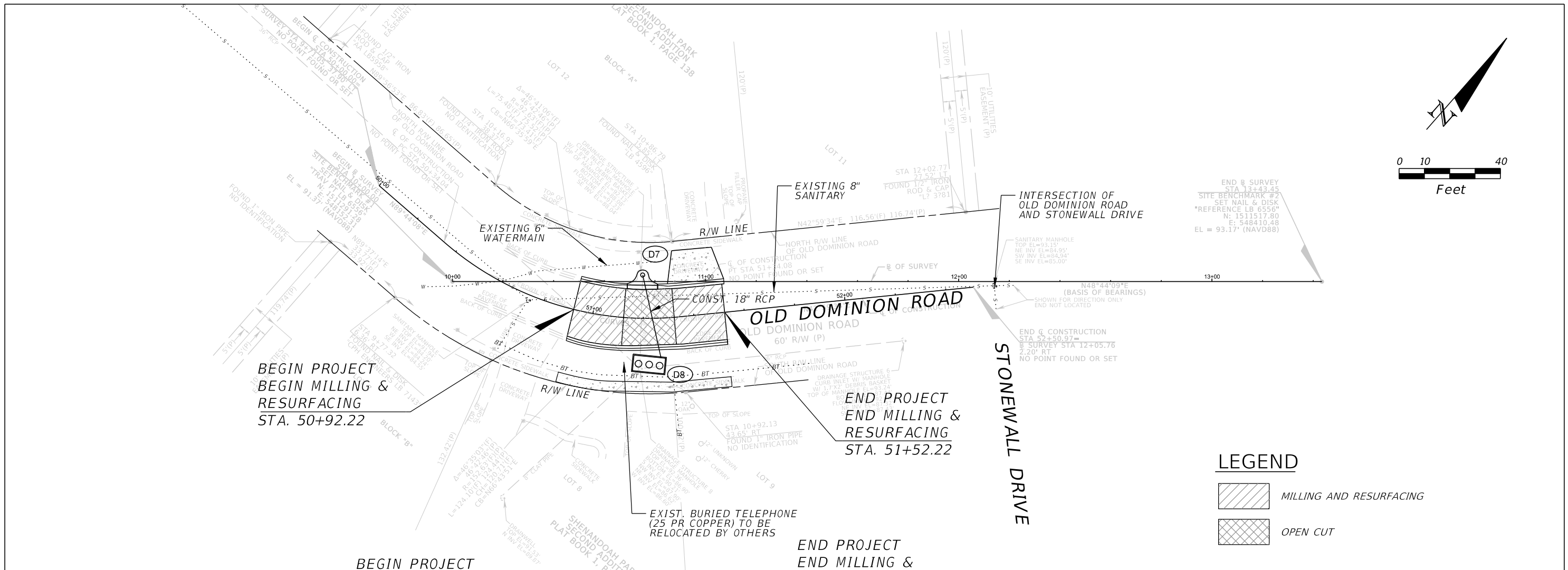
LEGEND

| | |
|--|-------------------------|
| | MILLING AND RESURFACING |
| | OPEN CUT |

| REVISIONS | | | |
|-----------|-------------|------|-------------|
| DATE | DESCRIPTION | DATE | DESCRIPTION |
| | | | |

| | | | | |
|---|--|--|--|--|
| GTC Engineering Corporation 98 South Semoran Blvd, Orlando, FL 32807 Phone Number - 407.380.0402 Certificate of Authorization Number 6758 Claude L. Cassagnol, P.E. P.E. Number 35490 | | ORANGE COUNTY PUBLIC WORKS GTC PROJECT NO. FLO 20.02 LITTLE LAKE CONWAY BAFFLE BOX IMPROVEMENTS OCPW PROJECT NO. EPD | | EROSION CONTROL PLAN SHEET NO. 9 |
|---|--|--|--|--|

FILE: H:\Jobs\FLO20.02-LittleLakeConway\roadway\ERCTRD01.DGN
 DATE: 3/25/2015 11:11:44 AM



| REVISIONS | | DESCRIPTION | | GTC Engineering Corporation | | ORANGE COUNTY PUBLIC WORKS | | SHEET NO. |
|-----------|-------------|-------------|-------------|--|--|--|--|-----------|
| DATE | DESCRIPTION | DATE | DESCRIPTION | 98 South Semoran Blvd, Orlando, FL 32807 Phone Number - 407.380.0402 | | GTC PROJECT NO. / OCPW PROJECT NO. | | |
| | | | | Certificate of Authorization Number 6758 / Claude L. Cassagnol, P.E. P.E. Number 35490 | | FLO 20.02 / LITTLE LAKE CONWAY BAFFLE BOX IMPROVEMENTS / EPD | | 10 |

FILE: H:\Jobs\FLO20.02-LittleLakeConway\utilis\UTADRD01.DGN
 DATE: 3/25/2015 11:11:46 AM

Notes:

1. CONCRETE 28 DAY COMPRESSIVE STRENGTH f_c -5,000 PSI.
2. REINFORCING: ASTM A-615, GRADE 60.
3. SUPPORTS AN H2O LOADING AS INDICATED BY AASHTO.
4. JOINT SEALANT: BUTYL RUBBER SS-S-00210
5. ALL WALLS, TOP, AND BOTTOM ARE 6" THICK.
6. INFLOW AND OUTFLOW PIPES ARE TO BE FLUSH WITH THE INSIDE SURFACE OF THE CONCRETE STRUCTURE. (CAN NOT INTRUDE BEYOND FLUSH)
7. HINGED LIDS FOR THE SCREEN SYSTEM ARE AVAILABLE UPON REQUEST.
8. BAFFLES WILL BE SEALED WITH GROUT TO FORM THREE WATER TIGHT CHAMBERS.

FLOW & BY-PASS SPECIFICATIONS FOR BIOMASS SEPARATING SCREEN SYSTEM, SEDIMENT COLLECTION CHAMBERS, AND SKIMMER SPECIFICATIONS

1. Pipe inflow area (Drawn as 36" RCP) — 7.06 sq.ft.
 2. Pipe inflow area (Drawn as 18" RCP) — 1.77 sq.ft.
- SCREEN SPECIFICATIONS:
3. Open orifice area in screen system — 41.54 sq.ft.
 4. Open orifice area in screen system with 50% blockage — 20.77 sq.ft.
 5. Open orifice area in screen system with 75% blockage — 10.38 sq.ft.
 6. Minimum by-pass through screen system below the ceiling of the pipe — 8.30 sq.ft.
 7. Minimum by-pass around screen system below the ceiling of the pipe — 6.60 sq.ft.
 8. Screen system storage volume — 57.60 cu.ft.

SEDIMENT STORAGE:

9. Volume of first sediment chamber — 80.50 cu.ft.
10. Volume of second sediment chamber — 78.75 cu.ft.
11. Volume of third sediment chamber — 78.75 cu.ft.
12. Total sediment volume — 238 cu.ft.

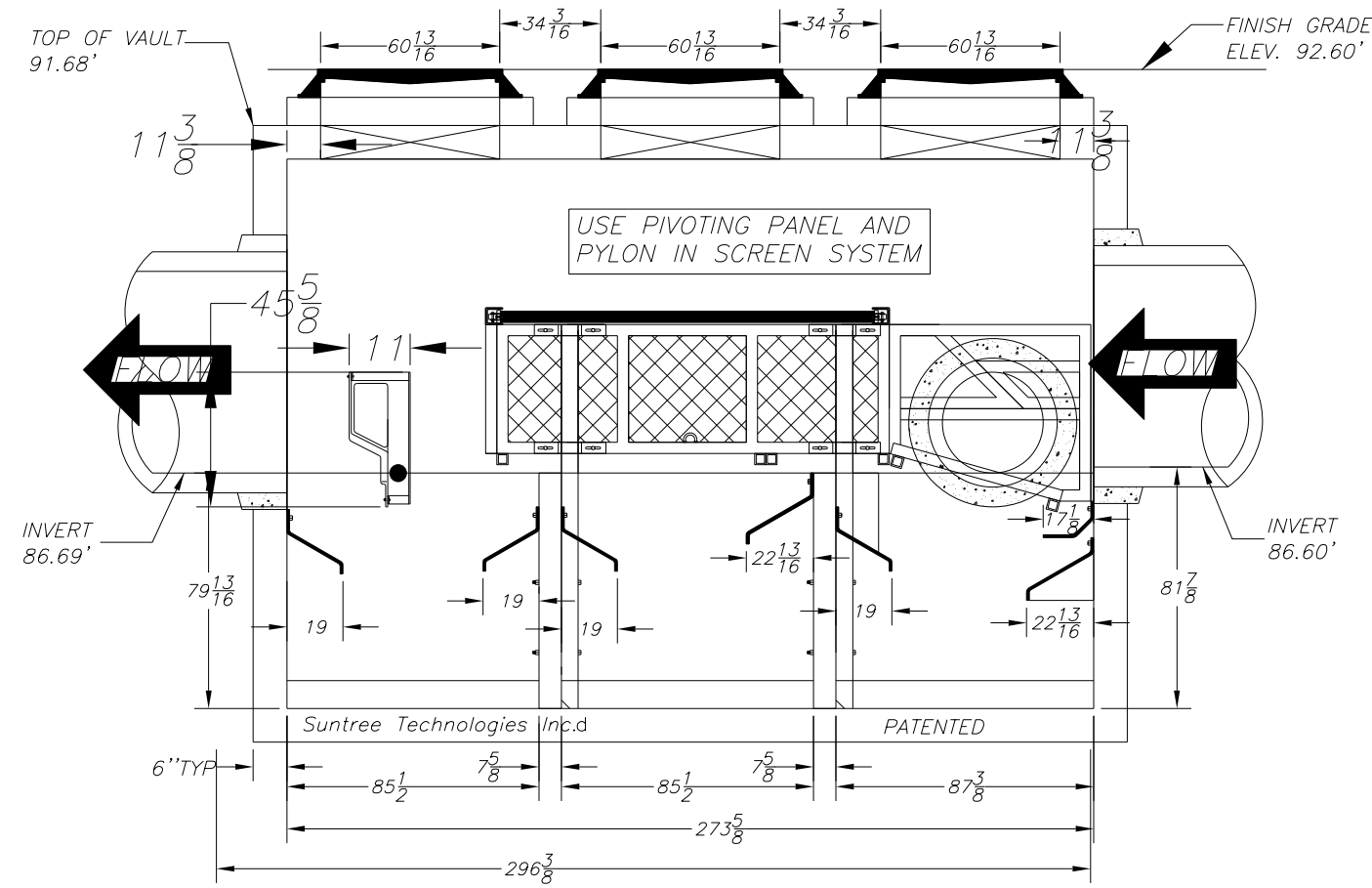
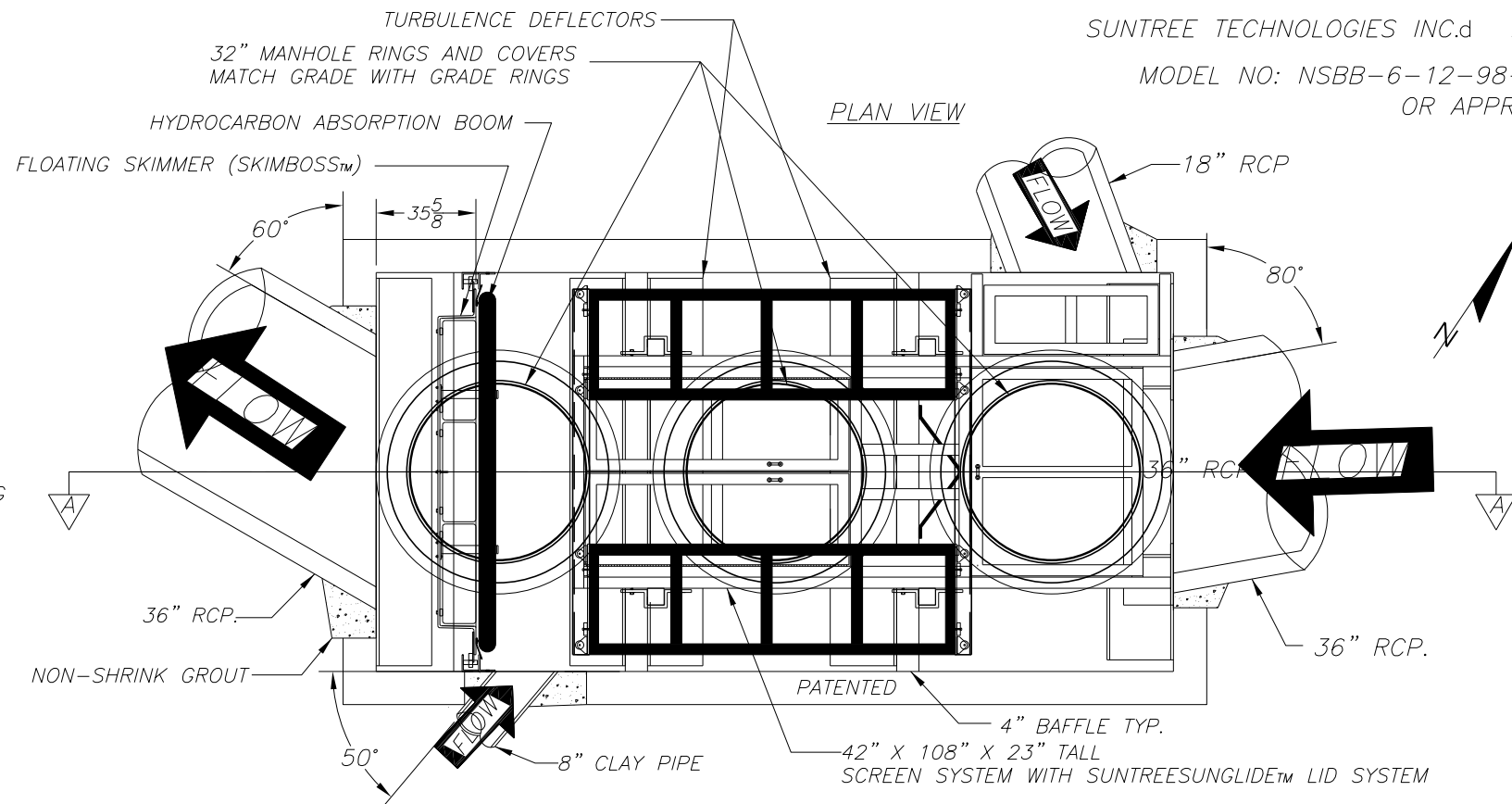
SKIMMER SPECIFICATIONS:

13. Flow area under skimmer — 8.75 sq.ft.
14. Area of pipe in line with skimmer — 5.52 sq.ft.
15. Area between the skimmer and the outflow pipe parallel with the surface of the pipe — 14-13 sq.ft.

INSTALLATION NOTES:

1. INFLOW AND OUTFLOW PIPES ARE TO BE FLUSH WITH THE INSIDE SURFACE OF THE CONCRETE STRUCTURE. (CAN NOT INTRUDE BEYOND FLUSH)
2. INVERT OF OUTFLOW PIPE SHOULD BE EVEN WITH THE TOP OF THE BAFFLES.
3. BAFFLES SHOULD BE SEALED WITH GROUT.
4. THE BOTTOM OF THE SKIMMER SHOULD BE 4" BELOW THE INVERT OF THE OUTFLOW PIPE.
5. INVERT OF THE INFLOW PIPE SHOULD NOT BE BELOW THE INVERT OF THE OUTFLOW PIPE.

Suntree Technologies Inc.
798 Clearlake Road, Cocoa, Florida 32922
PH: 321-637-7552 Fax: 321-637-7554



SUNTREE TECHNOLOGIES INC.d NUTRIENT SEPARATING BAFFLE BOX

MODEL NO: NSBB-6-12-98-LAKE CONWAY-ORANGE COUNTY OR APPROVED EQUAL

PATENTED UNDER THE FOLLOWING PATENT NUMBERS
6,42,8,692
7,270,747
7,846,327
8,142,666
8,366,923

PEAK TREATMENT DESIGN FLOW
24 ft³/sec
PEAK DESIGN FLOW
BASED ON SITE SPECIFIC
CRITERIA

| REVISIONS | | | |
|-----------|-------------|------|-------------|
| DATE | DESCRIPTION | DATE | DESCRIPTION |
| | | | |

SUNTREE TECHNOLOGIES INC.d
798 CLEARLAKE RD. SUITE #2
COCOA, FL. 32922
DATE: 09/10/14
DRAFTER: T.H.2. UNITS = INCHES
STUART D. GORKA-PE FL REG# 66059

ORANGE COUNTY PUBLIC WORKS
GTC PROJECT NO. FLO 20.02
LITTLE LAKE CONWAY BAFFLE BOX IMPROVEMENTS
OCPW PROJECT NO. EPD

BAFFLE BOX DETAILS
SHEET NO. 1 OF 2
11

