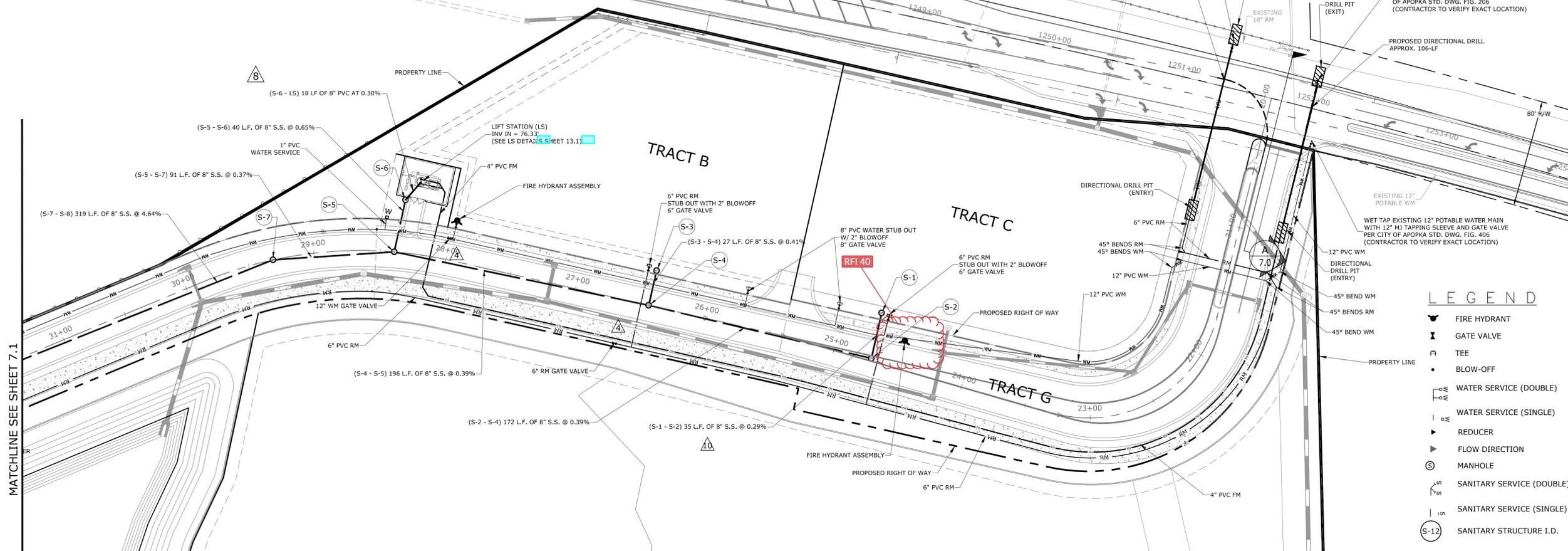


STATE ROAD 429  
(RIGHT OF WAY VARIES)

OCOEE APOPKA ROAD  
(C.R. 437A)  
PER FDOT R/W MAP SECTION 75520-2601

**EVANS ENGINEERING, INC.**  
CIVIL ENGINEERING LAND PLANNING PERMITTING SERVICES  
719 IRMA AVENUE  
ORLANDO, FLORIDA 32803  
(407) 872-1515  
www.evansenginc.com  
CERTIFICATE OF AUTHORIZATION NO. 0006788

**EVANS ENGINEERING, INC.**  
CERTIFICATE OF AUTHORIZATION NO. 6788  
No. 46586  
STATE OF FLORIDA  
PROFESSIONAL ENGINEER  
DAVID A. EVANS  
FLORIDA P.E. NO. 46586  
DATE:



**LEGEND**

- FIRE HYDRANT
- GATE VALVE
- TEE
- BLOW-OFF
- WATER SERVICE (DOUBLE)
- WATER SERVICE (SINGLE)
- REDUCER
- FLOW DIRECTION
- MANHOLE
- SANITARY SERVICE (DOUBLE)
- SANITARY SERVICE (SINGLE)
- SANITARY STRUCTURE I.D.

MATCHLINE SEE SHEET 7.1

**OAK POINTE - NORTH**  
FOR THOMPSON HILLS ESTATES, LLC  
FINAL DEVELOPMENT PLAN (NORTH)  
CITY OF APOPKA, FLORIDA  
UTILITY PLAN

- DIRECTIONAL DRILL NOTES:**
- THE ANGLE OF ENTRY SHALL NOT EXCEED 15° AND SHALL NOT EXCEED THE MANUFACTURERS RECOMMENDATIONS ON DEFLECTION, ANGLE, OR RADIUS OF CURVATURE.
  - EXIT ANGLE SHALL BE BETWEEN 6 TO 12 DEGREES TO FACILITATE PULLBACK, AND SHALL NOT EXCEED MANUFACTURER'S RECOMMENDATIONS ON DEFLECTION, ANGLE, OR RADIUS OF CURVATURE.
  - COMPOUND CURVATURES MAY BE USED, BUT SHALL NOT EXCEED THE MAXIMUM DEFLECTIONS, AS SET FORTH BY THE PIPE MANUFACTURER OR AWWA STANDARDS, WHICH EVER IS MORE STRINGENT.
  - THE MINIMUM RADIUS SHALL COMPLY WITH OCU SPECIFICATIONS MANUAL TABLE 3115-2. (OCU MANUAL SECTION 3115, PART 3)
  - LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES SHALL BE FIELD VERIFIED BY CONTRACTOR AND MAINTAIN 18" MINIMUM VERTICAL SEPARATION.
  - PVC TO CONFORM TO THE FOLLOWING: AWWA C905, PRESSURE CLASS 200, DR 18, NSF APPROVED FOR POTABLE WATER.

**DIRECTIONAL DRILL SECTION KEY**

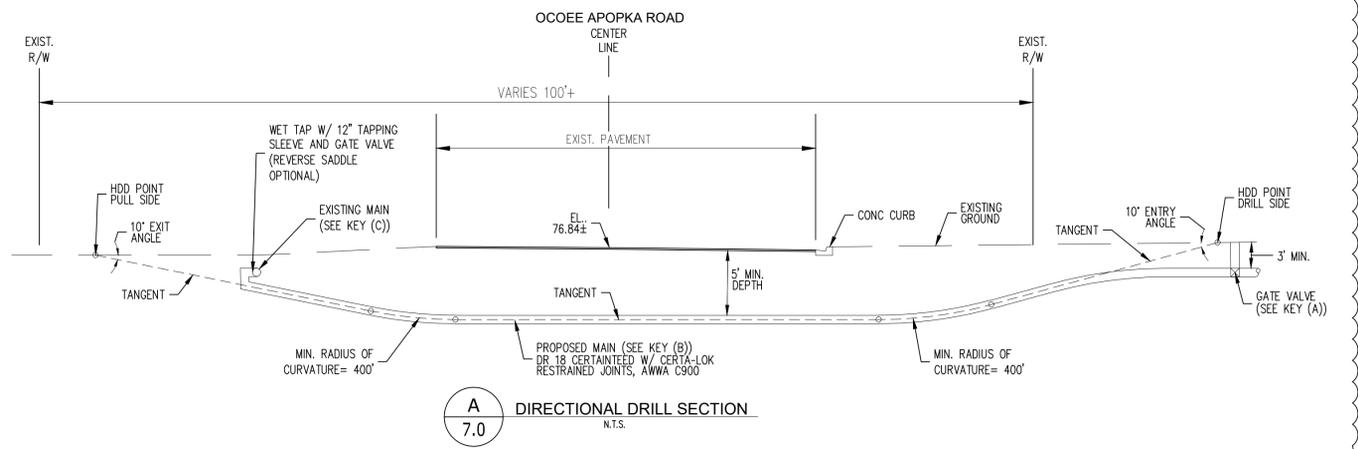
| KEY | FM            | RWM           |
|-----|---------------|---------------|
| A   | 4" GATE VALVE | 6" GATE VALVE |
| B   | 4" PVC        | 6" PVC        |
| C   | 12" EXISTING  | 18" EXISTING  |

**STRUCTURE TABLE**

| STRUCTURE NAME: | DETAILS:   | PIPES IN:  | PIPES OUT:                    | STATION  | OFFSET  |
|-----------------|--|--|-------------------------------|----------|---------|
| S-9             | 48"<br>RIM = 104.50<br>SUMP = 90.0<br>INV OUT = 93.50                                    |  | S-8 - S-9, 8" INV OUT = 93.50 | 32+64.86 | -46.00L |
| S-8             | 48"<br>RIM = 102.09<br>SUMP = 85.9<br>INV IN = 92.10<br>INV OUT = 92.00                  | S-8 - S-9, 8" INV IN = 92.10                                 | S-7 - S-8, 8" INV OUT = 92.00 | 32+50.37 | 0.00    |
| S-7             | 48"<br>RIM = 88.83<br>SUMP = 77.1<br>INV IN = 77.20<br>INV OUT = 77.10                   | S-7 - S-8, 8" INV IN = 77.20                                 | S-5 - S-7, 8" INV OUT = 77.10 | 29+31.14 | 0.00    |
| S-6             | 48"<br>RIM = 87.83<br>SUMP = 76.4<br>INV IN = 76.40<br>INV OUT = 76.40                   | S-5 - S-6, 8" INV IN = 76.40                                 | S-6 - LS, 8" INV OUT = 76.40  | 28+34.67 | 39.52R  |
| S-5             | 48"<br>RIM = 87.47<br>SUMP = 76.7<br>INV IN = 76.76<br>INV IN = 76.76<br>INV OUT = 76.66 | S-4 - S-5, 8" INV IN = 76.76<br>S-5 - S-7, 8" INV IN = 76.76 | S-5 - S-6, 8" INV OUT = 76.66 | 28+39.35 | 0.00    |
| S-4             | 48"<br>RIM = 86.49<br>SUMP = 77.5<br>INV IN = 77.63<br>INV IN = 77.63<br>INV OUT = 77.53 | S-2 - S-4, 8" INV IN = 77.63<br>S-3 - S-4, 8" INV IN = 77.63 | S-4 - S-5, 8" INV OUT = 77.53 | 26+43.48 | 0.00    |
| S-1             | 48"<br>RIM = 86.14<br>SUMP = 78.5<br>INV OUT = 78.50                                     |  | S-1 - S-2, 8" INV OUT = 78.50 | 24+72.94 | 36.77R  |
| S-3             | 48"<br>RIM = 86.00<br>SUMP = 77.7<br>INV OUT = 77.74                                     |  | S-3 - S-4, 8" INV OUT = 77.74 | 26+43.37 | 26.71R  |
| S-2             | 48"<br>RIM = 85.59<br>SUMP = 78.3<br>INV IN = 78.40<br>INV OUT = 78.30                   | S-1 - S-2, 8" INV IN = 78.40                                 | S-2 - S-4, 8" INV OUT = 78.30 | 24+71.15 | 1.91R   |

**Pipe Table**

| NAME      | SIZE | LENGTH  | SLOPE | MATERIAL |
|-----------|------|---------|-------|----------|
| S-1 - S-2 | 8"   | 34.91'  | 0.29% |          |
| S-2 - S-4 | 8"   | 172.34' | 0.39% |          |
| S-4 - S-5 | 8"   | 195.76' | 0.39% |          |
| S-5 - S-6 | 8"   | 39.83'  | 0.65% |          |
| S-3 - S-4 | 8"   | 26.71'  | 0.41% |          |
| S-5 - S-7 | 8"   | 91.46'  | 0.37% |          |
| S-8 - S-9 | 8"   | 46.24'  | 3.03% |          |
| S-7 - S-8 | 8"   | 318.97' | 4.64% |          |
| S-6 - LS  | 8"   | 18.17'  | 0.40% |          |



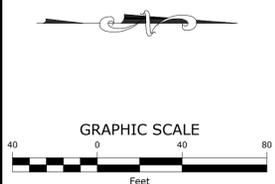
**NOTE:**  
1. FIRE PROTECTION SYSTEM FOR BUILDINGS NOT INCLUDED ON CIVIL PLANS.

**UTILITY NOTES:**  
1. WATER SERVICE WILL BE PROVIDED BY THE CITY OF APOPKA.  
2. SANITARY SEWER SERVICE WILL BE PROVIDED BY THE CITY OF APOPKA.  
3. THE PROPOSED WATER SYSTEM WILL OWNED AND MAINTAINED BY THE CITY OF APOPKA. THE PROPOSED WATER MAIN PIPE SIZES ARE FINAL DESIGN.  
4. THE PROPOSED SANITARY SEWER SYSTEM AND LIFT STATION WILL BE OWNED AND MAINTAINED BY THE CITY OF APOPKA. THE PROPOSED FORCE MAIN SIZE IS FINAL DESIGN.  
5. THE EXISTING UTILITIES SHOWN ARE APPROXIMATE LOCATIONS AND HAVE NOT BEEN FIELD VERIFIED. EXACT LOCATIONS OF EXISTING UTILITIES WILL BE DETERMINED PRIOR TO FINAL SUBDIVISION PLAN SUBMITTAL.

**REVISIONS**

| DATE     | NO. | DETAIL   | BY  |
|----------|-----|--|-----|
| 9-14-18  | 1   | REVISED PER OCM COMMENTS DATED 9-11-18             | VT  |
| 01-02-19 | 2   | REVISED PER CITY OF APOPKA COMMENTS DATED 12-10-18 | SHS |
| 03-27-19 | 3   | REVISED PER CITY OF APOPKA COMMENTS DATED 03-15-19 | SHS |
| 05-01-19 | 4   | REVISED PER CITY OF APOPKA COMMENTS DATED 04-25-19 | SHS |
| 09-26-21 | 5   | ADD IRRIGATION METER                               | SHS |

DRAWN BY: CA  
CHECKED BY: DLE  
DATE: AUG, 2019  
JOB #: 25801



SHEET #:  
**7.0**  
OF SHEETS 26

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED BOUND AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES. J:\0005\25801 - Oak Pointe\Drawings\Plan\North\25801 Final North Sheet 7 Utility Plan.dwg (SPT 07) Plotted on: Jun 14, 2021 1:10:38pm by Taylor Burke