



# Right-of-Way Utilization Permit

Please complete a separate application for each road

Date: \_\_\_\_\_

City of Clermont/ J. Dennis Westrick, PE  
Business / Applicant's Name ("Permittee")

3335 Hancock Road  
Applicant's Street Address

Clermont, FL 34711  
Applicant's City, State, Zip

352.241.0178  
Telephone Number

jwestrick@clermontfl.org  
Applicant's e-mail address

34 / 22S / 26E  
Section Township Range

Johns Lake Rd Water Main Replacement  
Project Road Name

Subdivision and/or Site Plan Name (if applicable)

3/7/14 / Credit Card  
Paid Date Rec'd By

### Check appropriate box:

- Underground Utility
- Overhead Utility
- Wireless Facility
- Other Utilization

Description of Work: Replace an 8" water main with a 12" water main to improve system reliability via open-cut trench from the tie-in at the intersection of Sunburst Ln and C W Harrell Rd to the tie-in at Friendship Rd north of Johns Lake Rd.

Contractor: n/a  
Start of Construction Date: Oct 2019  
Is proposed work within city limits? some/mostly county

Telephone Number: n/a  
Construction duration: 180 days  
If so, what city? Clermont

Applicant declares that he/she has determined the location of all existing underground and aerial utilities. A letter of notification was mailed on 09/04/2018 to the following utilities & municipalities: City of Clermont, Charter Communications, CenturyLink- Phone & Fiber Optic, MCI- Fiber Communication Lines, Duke Energy- Electric- Transmission, Duke Energy- Electric- Distribution.

By submitting and signing this application, the Applicant ("Permittee") declares that he/she has read the attached and agrees to be bound by the permit requirements and any and all general and special conditions herein.

<b>Road #</b> <u>1158</u>	<b>To be completed by County Staff</b>		
Permit # <u>8855</u>	Permit Fee: \$100.00	Fee Code: <b>PWRW</b>	<input type="checkbox"/> Security Instrument Required
Checked by: _____	Date Checked: _____		
Approved by: _____	Date Approved: _____		
Special Conditions: _____	Date Permit Expires: _____		
<p><b>For inspection, call the Lake County Public Works Department at 352-253-6019</b>  <b>Submit Permit to: Lake County Public Works, Post Office Box 7800, Tavares, FL 32778</b></p>			

3/7/14  
3/7/14  
\_\_\_\_\_



## Right-of-Way Utilization Permit Requirements

The purpose of a Right-of-Way Utilization permit is to control the use of public rights-of-way and public easements in the interest of the health, safety and welfare of the public. Any work within public rights-of-way and public easements requires an approved right-of-way utilization permit pursuant to Section 14.14.05, Lake County Code/Land Development Regulations. *Once approved, a notice of issuance of the permit may be recorded in the Official Records of Lake County, Florida.*

- I. Application Requirements.** Unless otherwise noted, permittee must submit one (1) original completed application and the following supporting documentation:
- A. A sketch or construction plans drawn to scale, showing the following if applicable to the work:
    - 1. The offset from the centerline of the right-of-way or roadway to the proposed installation, the road right-of-way width and pavement width, the distance from the edge of pavement to the utility, sidewalks, and the location of all other utilities, including traffic signal utilities, within the area of work.
    - 2. One or more typical cross sections to adequately reflect the location of the utility. Please indicate the minimum vertical clearance above or below the pavement or natural ground.
    - 3. The location of the area of work in relation to the nearest road intersection, bridges, railroad crossings, and other physical features. Please include a location or vicinity map showing the general location of the installation.
    - 4. If this project will result in any new above ground structures, poles, or facilities please state where and what is proposed. Applicant may be requested to provide an engineer's certification that roadway clearance and sight distances have been met.
  - B. Projects of significant length and land size may require a complete right-of-way survey.
- II. General Conditions.**
- A. This permit is a permissive use only and the placing of facilities in public rights-of-way or easements does not create or vest a property right in the permittee.
  - B. **Permittee agrees that the rights and privileges herein set out are granted only to the extent of the County's right, title and interest in the land to be entered upon and used by the permittee, and the permittee will, at all times, assume all risk of and indemnify, defend and save harmless Lake County, its commissioners and employees from and against any and all loss, damage, cost, or expense arising in any manner on account of the exercise or attempted exercises by said holder of the aforesaid rights and privileges.**
  - C. Permittee agrees it is the responsibility of the permittee, not the County, to determine if the work completed meets Americans with Disabilities Act (ADA) requirements and accessibility guidelines.
  - D. At least fourteen (14) days prior to construction, permittee shall provide the County with proof that written notification has been given by permittee to all adjacent property owners stating the anticipated construction schedule, maintenance of traffic plan, and any impacts to the adjacent properties, if any. The notice must provide the name and telephone number of the permittee or permittee's project manager.
  - E. Permittee shall post a copy of the approved permit on site at all times during the work.
  - F. Permittee shall notify the County at least twenty-four (24) hours in advance of starting work. Permittee agrees all work shall take place during daylight hours, unless specifically authorized, and discontinued by sunset with proper signage and traffic control devices maintained during off hours.
  - G. All work, materials and equipment shall meet all Lake County codes and standards. All right-of-way disturbed by this work shall be restored to its original condition or better and in accordance to applicable County Codes. All disturbed areas must be sodded with sod matching existing grass type. Bahia sod shall be used if no grass is present at time of construction. All work is subject to inspection by the County.
  - H. The construction and maintenance shall not interfere with the property and rights of a prior applicant.
  - I. Final inspection and acceptance of work by the County must be obtained to document the completion of the work.
  - J. If this permit is being received for sealing, painting or surfacing of a driveway apron located in a right-of-way, the permittee acknowledges that the County is not responsible for maintenance or upkeep of the

sealant or paint. If the permittee or permittee's contractor causes damage to the County's property permittee shall be liable for the current cost of repair or replacement. Permittee shall not saw-cut, obstruct, or remove any portion of a sidewalk within a right-of-way without prior approval from the County.

### **III. Construction Conditions.**

- A. Excavation shall not be allowed within five (5) feet from the edge of the pavement, unless prior approval is received from the Lake County Engineer.
- B. A traffic detour or lane closure shall require specific approval by the County. All traffic detours shall be restricted to the limits of right-of-way with necessary flagmen and marking devices. All construction and maintenance shall be performed with proper shoring, barricades, and maintenance of traffic signage in accordance with the FHWA Manual on Uniform Traffic Control Devices (MUTCD), OSHA law and regulations, and the Florida Department of Transportation (FDOT) Highway Safety Plan.
- C. Written approval from the Lake County Engineer shall be required before any alterations to existing traffic signal equipment including, but not limited to: vehicle detection loops and signal timing. If traffic signal vehicle detection loops are rendered inoperable, temporary detection shall be installed within twenty-four (24) hours. All traffic signal utilities disturbed by this work shall be restored to their original condition or better. Traffic signal utilities include but not limited to: vehicle detection loops, conduit, cabling, pull boxes, pedestrian signal equipment, span assemblies, signal heads, cabinet assemblies, cameras and fiber optic infrastructure.
- D. Open cuts of roads will not be allowed unless specifically authorized by Lake County. Underground pneumatic/missile boring is strictly prohibited under Lake County roadways. Only directional bore or jack and bore operations are acceptable. Unless Lake County determines it is impractical, bore operations and excavations shall maintain a five (5) foot minimum clearance from edge of pavement on road crossing each side. Bore depths shall be in accordance with FDOT Utility Accommodation Manual (UAM) unless specifically authorized by Lake County. Minimum bore depth under pavement is thirty-six inches (36") and a minimum bore depth below unpaved ground is thirty inches (30"). Any overhead installations should maintain a minimum of eighteen (18) feet vertical clearance over all roadways and driveways.
- E. Pursuant to Section 337.403(1), Florida Statutes, any utility placed upon, under, over, or along any public road or publicly owned rail corridor that is found by the County to be unreasonably interfering in any way with the convenient, safe, or continuous use, or maintenance, improvement, extension, or expansion of such public road or publicly owned rail corridor shall, upon thirty (30) days written notice, be removed or relocated by permittee at its own expense.
- F. It is agreed that in the event the installation, adjustment or relocation of utilities are scheduled to be done simultaneously with Lake County construction work, the permittee shall coordinate with Lake County before proceeding and shall cooperate with the County's contractor to arrange the sequence of work so as not to delay the work of the County's contractor, defend any legal claims of the County's contractor due to delays caused by the permittee's failure to comply with the approved schedule, and shall comply with all provisions of the law and Lake County's current *Utility Accommodation Manual*.
- G. Permittee shall report all right-of-way utilization activities to Sunshine State One-Call at least seventy-two (72) hours prior to commencement.
- H. If above ground utilities are being replaced, the old utilities and utility appurtenances must be removed from County right-of-way within thirty (30) days after new utilities are installed.

### **IV. Guarantee and Compliance.**

- A. A performance bond or irrevocable letter of credit may be required of the applicant in the event the work covered by the right-of-way utilization permit has the potential to significantly damage the right-of-way. The security instrument shall comply with the applicable provisions of the Florida Statutes for public construction bonds and be in a form acceptable to the Lake County Attorney's Office. The security instrument shall be made payable to the Lake County Board of County Commissioners in the amount of one hundred ten percent (110%) of estimated cost to repair such damage, as determined by Lake County, and shall remain in effect until the work covered by the right-of-way utilization permit has been completed and accepted by the County.

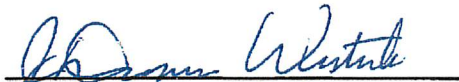
- B. In the case of noncompliance with the requirements and conditions of this permit, the facility will be brought into compliance by the permittee or removed from the right-of-way or easement by the permittee at no cost to the County.
- C. The County may issue "Stop Work" order(s) upon any permittee committing or creating an unsafe act which may create a public hazard or who is not complying with this permit or the applicable codes. The order shall remain in effect until such time as these matters are corrected. Permits shall be issued with the understanding that the applicant shall guarantee all work performed under the terms of the permit for a period of one (1) year from the date of final inspection and acceptance of work.
- D. Any failure(s) shall be repaired by the permittee, at no cost to the County, within five (5) days, unless the urgency of the problem requires a quicker reaction time. The permittee shall be responsible for all repair costs incurred due to damages to existing utilities, including, but not limited to, errors in locating existing utilities during construction.
- E. **Removal/Relocation:** Whenever the County deems necessary and upon the County's request, any or all of the work or appurtenances authorized by this permit shall be immediately removed from the right-of-way, relocated, and the right-of-way returned to original state, as required by the County, at the expense of the permittee, unless reimbursement is specifically authorized. Upon ten (10) days written notice, the permittee shall be required to remove and relocate the improvements placed within the right-of-way at the applicant's sole expense.

**V. Wireless Facilities.**

- A. Right-of-way may be used for wireless facilities pursuant to Section 337.401, Florida Statutes, Advanced Wireless Infrastructure Deployment Act. Wireless providers are encouraged to collocate.
- B. Prior to installing a small wireless facility and associated wireless equipment, a wireless provider shall apply and obtain a right-of-way utilization permit. An application shall be submitted for each facility location. Within fourteen (14) days of submitting an application, the County may request the proposed location for the facility be moved to another location or negotiate an alternative location.
- C. In addition to the documents required in Section I above, a wireless provider must submit the following: (1) a sketch of the equipment to be used, (2) the registration and permit fee, (3) proof of insurance, (4) a copy of federal or state certification or license authorizing the permittee to provide communications services.
- D. Permittee shall be liable to the County for the costs of any repairs made necessary by any such displacement, damage or destruction of facilities belonging to the County. In the case of an emergency, the County may commence repairs without any prior notice to the registrant.
- E. **Removal/Relocation of Wireless Facilities:** Whenever the County deems necessary and upon the County's written request, permittee shall remove the wireless facility and associated wireless equipment at the expense of the permittee. If permittee fails to remove after 30 days from the County's request, the County may remove or relocate the facilities at the sole cost and expense of the permittee, without the County incurring liability for damages.
- F. A wireless provider shall provide the County notice upon any assignment or transfer of this permit, and any assignee, buyer, or transferee shall be bound by these permit requirements.

**The County shall not be responsible for damages to any structure, facilities, or equipment placed within the right-of-way by permittee, permittee's successors or assigns. All structures shall be properly maintained by permittee, at permittee's expense, and shall be adequately visible or properly delineated to prevent damage due to normal maintenance of the right-of-way.**

**I have read, understand, and agree to be bound by the above requirements:**

  
Signature

J. Dennis Westrick, P.E.  
Print Name

2/11/2019  
Date

**RECEIPT**

**LAKE COUNTY BOCC**  
**315 W MAIN ST**  
**Tavares , FL 32778**  
**Phone**

**Transaction Type :** Sale

**Comment :**

**Merchant-Defined Data Fields**

**Merchant-Defined Data Field 1 :** Right-of-Way Utilization Permit  
**Department :** Public Works  
**Merchant-Defined Data Field 3 :** 5056260.341213

<b>Total : 101.00 USD</b>
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**Cardholder Information**

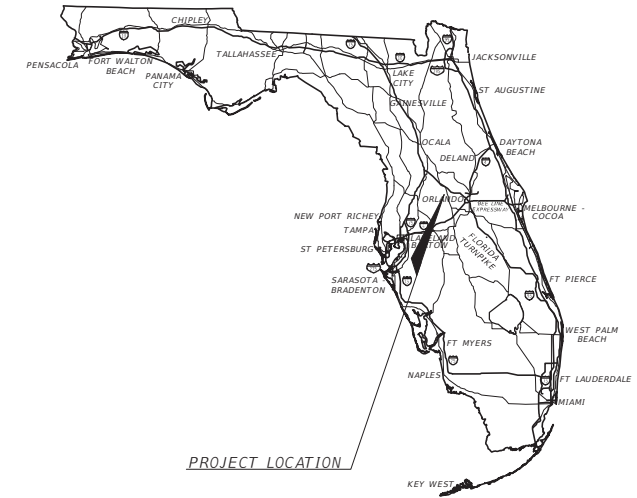
**Name** Teresa Meeks  
**Credit Card Type :** MasterCard  
**Credit Card Number :** #####6421

**Company :** Environment and Infrastructure Solutions, Inc.  
**Phone :** 8636672345  
**Email :** tonya.morris@woodplc.com

# CONSTRUCTION PLANS FOR: JOHNS LAKE ROAD WATER MAIN REPLACEMENT

LAKE COUNTY, FLORIDA

WOOD PROJECT NUMBER: 600365.13



**wood.**

ENVIRONMENT &  
INFRASTRUCTURE SOLUTIONS, INC.  
2000 E Edgewood Drive, Suite 215  
Lakeland, FL 33803  
Phone: 1.863.667.2345  
Fax: 1.863.667.2662  
www.woodplc.com  
CA-5392

DAVID W. BUTCHER, P.E.  
STATE OF FLORIDA  
PROFESSIONAL ENGINEER  
LICENSE NO. 55431  
THIS ITEM HAS BEEN  
ELECTRONICALLY SIGNED AND SEALED  
BY DAVID W. BUTCHER, P.E.  
ON JANUARY 22, 2019  
USING A DIGITAL SIGNATURE.  
PRINTED COPIES OF THIS  
DOCUMENT ARE NOT CONSIDERED  
SIGNED AND SEALED AND THE  
SIGNATURE MUST BE VERIFIED ON ANY  
ELECTRONIC COPIES.

PROJECT:  
**JOHNS LAKE  
ROAD WATER  
MAIN  
REPLACEMENT**  
CLERMONT, FL

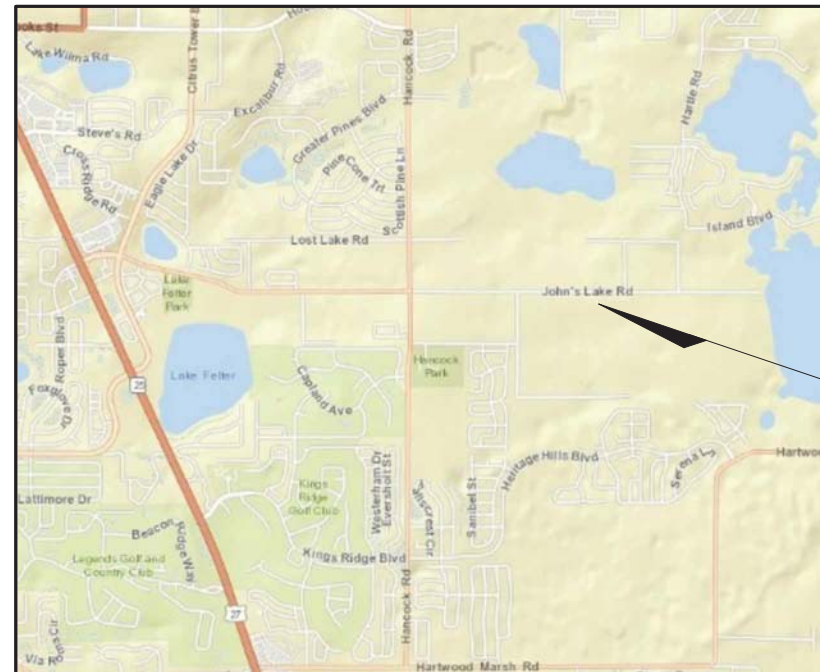


**CITY OF CLERMONT**  
3335 HANCOCK ROAD  
CLERMONT, FL 34711  
PHONE: (352) 241-0178  
FAX: (352) 241-0542

WOOD PROJECT No:  
600365.13

## INDEX OF DRAWINGS

SHEET NUMBER	SHEET TITLE
C100	COVER
C200 - C201	GENERAL NOTES
C202	SUMMARY OF PAY ITEMS
C300	KEY SHEET
C301	PLAN & PROFILE 100+00 TO 101+77
C302	PLAN & PROFILE 101+77 TO 104+54
C303	PLAN & PROFILE 104+54 TO 107+30
C304	PLAN & PROFILE 107+30 TO 110+07
C305	PLAN & PROFILE 110+07 TO 112+50
C306	PLAN & PROFILE 200+00 TO 202+48
C307	PLAN & PROFILE 202+48 TO 205+25
C308	PLAN & PROFILE 205+25 TO 208+01
C309	PLAN & PROFILE 208+01 TO 210+78
C310	PLAN & PROFILE 210+78 TO 213+54
C311	PLAN & PROFILE 213+54 TO 216+31
C312	PLAN & PROFILE 216+31 TO 219+07
C313	PLAN & PROFILE 219+07 TO 221+84
C314	PLAN & PROFILE 221+84 TO 224+60
C315	PLAN & PROFILE 224+60 TO 227+25
C316	PLAN & PROFILE 300+00 TO 302+00
C400 - C403	UTILITY DETAILS



PROJECT LOCATION

**S I T E L O C A T I O N M A P**  
LAKE COUNTY, FLORIDA  
SECTION 34, TOWNSHIP 22 SOUTH, RANGE 26 EAST

ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN REDUCED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED DATA.



Know what's below.  
Call before you dig.

CONTRACTOR IS TO VERIFY EXISTING CONDITIONS PRIOR TO CONSTRUCTION.

NOTE:  
CONSTRUCTION PLANS ARE AVAILABLE IN AUTODESK CIVIL 3D FORMAT ONLY.  
ANY FILE CONVERSIONS WILL BE AT THE CONTRACTOR'S EXPENSE.

I HEREBY CERTIFY THAT I AM A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF FLORIDA PRACTICING WITH WOOD ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC., 2000 E. EDGEWOOD DRIVE, SUITE 215, LAKELAND, FL 33803, A CORPORATION AUTHORIZED TO OPERATE AS A BUSINESS PROVIDING ENGINEERING CONSULTING SERVICES (CA-5392) BY THE STATE OF FLORIDA DEPARTMENT OF PROFESSIONAL REGULATION, BOARD OF PROFESSIONAL ENGINEERS. I FURTHER CERTIFY THAT I, OR OTHERS UNDER MY DIRECT SUPERVISION, HAVE PREPARED THE ENGINEERING EVALUATIONS, FINDINGS, OPINIONS, CALCULATIONS OR TECHNICAL ADVICE HEREBY REPRESENTED IN THESE PLANS.

**100% PLANS**  
01/22/2018

Rev	Date	Description	Sheets

REVISIONS

REVISIONS			
NO.	DATE	BY	APPROVED
X	X	X	X

DESIGNED BY:	DWB
DRAWN BY:	TAC
CHECKED BY:	DWB
APPROVED BY:	DWB
DATE:	1/21/2019

SHEET TITLE:  
  
**COVER**

SHEET NUMBER:	REV. #
<b>C100</b>	----
SHEET 1 OF 25 SHEETS	

GENERAL CONSTRUCTION NOTES

- 1. LOCATIONS, ELEVATIONS, AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES, AND OTHER FEATURES ARE SHOWN ACCORDING TO INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS...

ASBUILTS

THE ENGINEER SHALL DELIVER ASBUILT DRAWING PLANS IN DWG FORMAT IN AUTOCAD FILES VERSION 2000 TO 2010. STANDARD TRANSFER MEDIA WILL BE ACCEPTED...

THE ENGINEER SHALL DELIVER ONE SCANNED SET OF APPROVED ASBUILT DRAWING PLANS. THE SCANNED SETS SHALL BE COMPLETE AND INCLUDE THE TITLE SHEET, PLAN/PROFILE SHEETS, CROSS-SECTIONS AND DETAILS...

- 1. INCLUDE A LABEL ON THE MEDIA INDICATING PROJECT NAME AND NUMBER, CONSULTANT NAME, PROJECT MANAGER AND TELEPHONE NUMBER, TYPE OF SUBMITTAL (APPROVED CONSTRUCTION PLANS OR ASBUILT DRAWINGS)...

PERMITS AND PERMIT REQUIREMENTS

THE CONTRACTOR SHALL OBTAIN FROM THE OWNER COPIES OF ALL REGULATORY AND LOCAL AGENCY PERMITS. THE CONTRACTOR SHALL BE EXPECTED TO REVIEW AND ABIDE BY ALL THE REQUIREMENTS AND LIMITATIONS SET FORTH...

LAYOUT AND CONTROL

UNLESS OTHERWISE NOTED ON THE PLANS, THE CONTRACTOR SHALL PROVIDE FOR THE LAYOUT OF ALL THE WORK TO BE CONSTRUCTED. BENCHMARK INFORMATION SHALL BE PROVIDED TO THE CONTRACTOR BY THE OWNER OR OWNER'S SURVEYOR...

COUNTY RIGHT-OF-WAY CONSTRUCTION

- 1. ALL WORK PERFORMED WITHIN THE COUNTY RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH FOOT DESIGN STANDARDS, SPECIFICATIONS FOR ROADWAY AND BRIDGE CONSTRUCTION AND THE UTILITY ACCOMMODATION MANUAL, LATEST EDITION...

STANDARD UTILITY NOTES

- 1. CHAPTER 77-153 OF THE FLORIDA STATUTES REQUIRES THAT AN EXCAVATOR NOTIFY ALL GAS UTILITIES AT A MINIMUM OF TWO WORKING DAYS PRIOR TO EXCAVATING...

4. THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THE PLANS HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR ACCURACY...

QUALITY CONTROL TESTING REQUIREMENTS

ALL TESTING RESULTS SHALL BE PROVIDED TO THE OWNER/OPERATOR, CITY OF CLERMONT, AND THE ENGINEER. TESTING REQUIREMENTS ARE TO BE IN ACCORDANCE WITH THE OWNER/OPERATOR'S SPECIFICATIONS AND REQUIREMENTS...

SHOP DRAWINGS

SHOP DRAWINGS AND CERTIFICATIONS FOR ALL STORM DRAINAGE, WATER SYSTEM, SEWER SYSTEM, AND PAVING SYSTEM MATERIALS AND STRUCTURES ARE REQUIRED. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL PRIOR TO ORDERING THE MATERIALS REQUIRED FOR CONSTRUCTION...

EARTHWORK

EARTHWORK QUANTITIES

THE CONTRACTOR SHALL PERFORM HIS OWN INVESTIGATIONS AND CALCULATIONS AS NECESSARY TO ASSURE HIMSELF OF EARTHWORK QUANTITIES. THERE IS NO IMPLICATION THAT EARTHWORK BALANCES, AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY IMPORT FILL NEEDED, OR FOR REMOVAL AND DISPOSAL OF EXCESS MATERIALS...

EROSION CONTROL

EROSION AND SILTATION CONTROL MEASURES ARE TO BE PROVIDED AND INSTALLED PRIOR TO COMMENCEMENT OF CONSTRUCTION. THESE MEASURES ARE TO BE INSPECTED BY THE CONTRACTOR ON A REGULAR BASIS AND ARE TO BE MAINTAINED OR REPAIRED ON AN IMMEDIATE BASIS AS REQUIRED...

WETLAND PROTECTION

THE LIMITS OF THE ON-SITE WETLANDS HAVE BEEN PROVIDED TO THE CONTRACTOR ON THE CONSTRUCTION PLANS OR ON PERMIT MATERIALS. THE WETLANDS ARE TO BE PROTECTED FROM DISTURBANCE AT ALL TIMES. CONTRACTOR SHALL PROVIDE EROSION, SILTATION, AND DIVERSION MEASURES PRIOR TO COMMENCEMENT OF CONSTRUCTION...

LIMITS OF DISTURBANCE

AT NO TIME SHALL THE CONTRACTOR DISTURB SURROUNDING PROPERTIES OR TRAVEL ON SURROUNDING PROPERTIES WITHOUT WRITTEN CONSENT FROM THE PROPERTY OWNER. REPAIR OR RECONSTRUCTION OF DAMAGED AREAS ON SURROUNDING PROPERTIES SHALL BE PERFORMED BY THE CONTRACTOR ON AN IMMEDIATE BASIS...

TREE REMOVAL

THE CONTRACTOR SHALL NOTIFY THE OWNER AND THE ENGINEER WHEN ALL WORK IS LAID OUT (SURVEY STAKED), SO THAT A DETERMINATION MAY BE MADE OF SPECIFIC TREES TO BE REMOVED. NO TREES ON THE CONSTRUCTION PLANS AS BEING SAVED SHALL BE REMOVED WITHOUT PERMISSION FROM THE OWNER, ENGINEER AND THE CITY OF CLERMONT...

CLEARING AND GRUBBING

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEARING AND GRUBBING FOR SITE CONSTRUCTION INCLUDING CLEARING FOR PAVING, UTILITIES, DRAINAGE FACILITIES AND BUILDING CONSTRUCTION. ALL AREAS TO BE CLEARED SHALL BE FIELD STAKED AND REVIEWED BY THE OWNER AND ENGINEER PRIOR TO ANY CONSTRUCTION...

NO BURN PERMITS (INCLUDING THOSE FOR LAND CLEARING) WILL BE ISSUED IN THE CITY OF CLERMONT WITHOUT PRIOR AUTHORIZATION FROM THE CITY MANAGER.

MATERIAL STORAGE/DEBRIS REMOVAL

1) NO COMBUSTIBLE BUILDING MATERIALS MAY BE ACCUMULATED ON THE SITE AND NO CONSTRUCTION WORK INVOLVING COMBUSTIBLE MATERIALS MAY BEGIN UNTIL INSTALLATION OF ALL REQUIRED WATER MAINS AND FIRE HYDRANTS HAVE BEEN COMPLETED...

2) ALL MATERIALS EXCAVATED SHALL REMAIN THE PROPERTY OF THE OWNER AND SHALL BE STOCKPILED AT ON-SITE LOCATIONS AS SPECIFIED BY THE OWNER. MATERIALS SHALL BE STOCKPILED SEPARATELY AS TO USABLE (HOMOGENIC) FILL STOCKPILES AND ORGANIC (MUCK) STOCKPILES IF MUCK IS ENCOUNTERED...

FILL MATERIAL

ALL MATERIALS SHALL CONTAIN NO MUCK, STUMPS, ROOTS, BRUSH, VEGETATIVE MATTER, RUBBISH OR OTHER MATERIAL THAT WILL NOT COMPACT INTO A SUITABLE AND ENDURING BACKFILL. FILL SHALL BE CLEAN, NON-ORGANIC, GRANULAR MATERIAL WITH NOT MORE THAN 10% PASSING THE NO. 200 SIEVE.

COMPACTION

FILL MATERIALS PLACED UNDER ROADWAYS SHALL BE COMPACTED TO AT LEAST 98% OF THE MAXIMUM DENSITY AS SPECIFIED IN AASHTO T-180. ALL OTHER FILL AREAS ARE TO BE COMPACTED TO AT LEAST 95% MAXIMUM DENSITY AS SPECIFIED IN AASHTO T-180...

PAVEMENT AND/OR ROAD AND RIGHT-OF-WAY WORK

ALL PRESSURE PIPE UNDER ROADWAY SHALL BE DIP EXTENDING 5' FROM EDGE OF PAVEMENT.

OWNER/OPERATOR

THE ENTITY THAT WILL OWN, OPERATE AND MAINTAIN THE ROADWAYS SHOWN ON THESE PLANS IS FOOT LAKE COUNTY OR THE CITY OF CLERMONT. THE CONTRACTOR SHALL BE EXPECTED TO MEET ALL THE REQUIREMENTS OF THAT ENTITY.

SITE ACCESS

ALL ACCESS TO THE JOB SITE FOR CONSTRUCTION AND RELATED ACTIVITIES SHALL BE BY EXISTING STREETS AND ROADS, OR BY THE CONSTRUCTION EASEMENT AS APPROVED BY THE CITY OF CLERMONT.

GENERAL DESIGN INTENT

ALL PAVING SURFACES IN INTERSECTIONS AND ADJACENT SECTIONS SHALL BE GRADED TO DRAIN POSITIVELY IN THE DIRECTION SHOWN BY THE FLOW ARROWS ON THE PLANS AND TO PROVIDE A SMOOTHLY TRANSITIONED DRIVING SURFACE FOR VEHICLES WITH NO SHARP BREAKS IN GRADE...

MATERIALS/CONSTRUCTION SPECIFICATIONS

MATERIALS AND CONSTRUCTION METHODS FOR THE ROADWAY CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION 1991, OR LATEST EDITION.

PAVEMENT SECTION REQUIREMENTS

CONSTRUCTION OF ROADWAYS SHALL BE 12" OF STABILIZED SUBBASE WITH A LIME ROCK BEARING PATIO OF (LBR) 40 COMPACTED TO THE MODIFIED PROCTOR MAXIMUM DRY DENSITY OF 98% PER AASHTO T-180...

SIDEWALKS

SIDEWALKS ARE TO BE CONSTRUCTED IN THE AREA AS SHOWN ON THE CONSTRUCTION PLANS. THE 5' SIDEWALK SHALL BE CONSTRUCTED OF 4 INCHES OF CONCRETE WITH A 28 DAY COMPRESSION STRENGTH OF 2500 PSI. JOINTS SHALL BE EITHER TOoled OR SAW CUT AT A DISTANCE OF 5' LENGTHS...

PAVEMENT MARKINGS/SIGNAGE

PAVEMENT MARKINGS AND SIGNAGE SHALL BE PROVIDED AS SHOWN ON THE CONSTRUCTION PLANS AND SHALL MEET THE REQUIREMENTS OF THE OWNER/OPERATOR. SIGNAGE SHALL BE IN CONFORMANCE WITH MUTCD (LATEST EDITION). A 48-HOUR PAVEMENT CURING TIME WILL BE PROVIDED PRIOR TO APPLICATION OF THE PAVEMENT MARKINGS...

TRAFFIC CONTROL

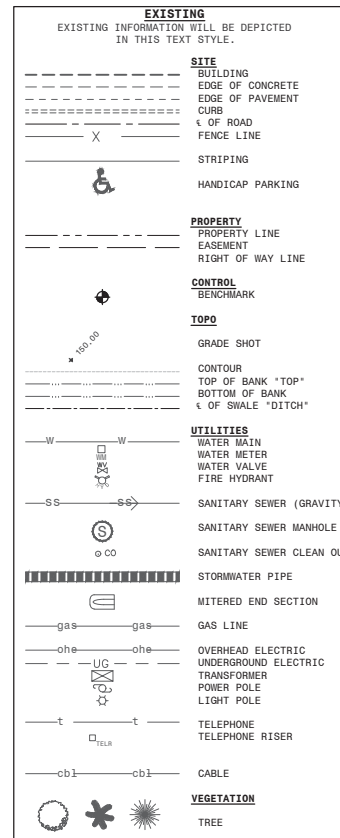
AN MOT PLAN SHALL BE SUBMITTED TO THE INSPECTOR PRIOR TO COMMENCEMENT OF WORK. A MINIMUM OF 2-WAY, ONE LANE TRAFFIC SHALL BE MAINTAINED IN THE WORK SITE AREA. ALL CONSTRUCTION WARNING SIGNAGE SHALL BE IN PLACE PRIOR TO COMMENCEMENT OF CONSTRUCTION AND BE MAINTAINED THROUGHOUT CONSTRUCTION...

CURBING

CURBING SHALL BE CONSTRUCTED WHERE NOTED ON THE CONSTRUCTION PLANS. CONCRETE FOR CURBS SHALL BE DEPARTMENT OF TRANSPORTATION CLASS 11 CONCRETE WITH A 28 DAY COMPRESSION STRENGTH OF 2500 PSI. ALL CURBS SHALL HAVE SAW CUT CONTRACTION JOINTS AND SHALL BE CONSTRUCTED AT INTERVALS NOT TO EXCEED 10'-0" ON CENTER...

R/W RESTORATION

ALL AREAS WITHIN THE RIGHT-OF-WAYS SHALL BE FINISH GRADED WITH A SMOOTH TRANSITION INTO EXISTING GROUND. ALL SWALES SHALL BE STABILIZED IMMEDIATELY AFTER FINAL GRADING. ALL DISTURBED AREAS SHALL BE RAKED CLEAN OF ALL LIMBEROCK AND ROCKS AND SOODED AFTER FINAL GRADING...



ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC. 2000 E Edgewood Drive, Suite 215 Lakeland, FL 33803 Phone: 1.863.667.2345 Fax: 1.863.667.2662 www.woodpic.com CA-5392

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PROJECT: JOHNS LAKE ROAD WATER MAIN REPLACEMENT CLERMONT, FL



CITY OF CLERMONT 3335 HANCOCK ROAD CLERMONT, FL 34711 PHONE: (352) 241-0178 FAX: (352) 241-0542

WOOD PROJECT NO: 600365.13

Table with 4 columns: NO., DATE, BY, APPROVED. Row 1: X, X, X, X. Row 2: X, X, X, X. Row 3: X, X, X, X. Row 4: X, X, X, X. Row 5: X, X, X, X. Row 6: X, X, X, X.

Table with 2 columns: DESIGNED BY, DRAWN BY, CHECKED BY, APPROVED BY, DATE. Values: DWB, TAC, DWB, DWB, 1/21/2019.

SHEET TITLE:

GENERAL NOTES

Table with 2 columns: SHEET NUMBER, REV. #. Values: C200, ---. Below: SHEET 2 OF 25 SHEETS





J  
I  
H  
G  
F  
E  
D  
C  
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A

BASE BID FOR JOHNS LAKE WATER MAIN REPLACEMENT				
BID ITEM #	FDOT SPEC (IF APPLICABLE)	ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY
1	0101-1	MOBILIZATION	LS	1
2	0102-1	MAINTENANCE OF TRAFFIC	LS	1
3	104	SEDIMENT & EROSION CONTROL	LS	1
4	0110-1-1	CLEARING & GRUBBING	AC	1.4
5	0110-4-10	REMOVAL OF EXISTING CONCRETE	SY	11
6	0160-4	TYPE B STABILIZATION	SY	119
7	0285-704	OPTIONAL BASE GROUP 04	SY	119
8	0334-1-12	SUPERPAVE ASPHALTIC CONC, TRAFFIC B	TN	13
9	0522-1-137	CONCRETE DRIVEWAYS, 4"	SY	11
10	0570-1-2	PERFORMANCE TURF, SOD	SY	2987
11	1050-18-003	UTILITY PIPE, PLUG & OUT OF SERV, 5-7.9"	LF	1291
12	1050-18-004	UTILITY PIPE, PLUG & OUT OF SERV, 8-19.9"	LF	2647
13	1050-31-206	UTILITY PIPE & FITTINGS - PVC, F&I, 6"	LF	12
14	1050-31-212	UTILITY PIPE - PVC, F&I, 12"	LF	3841
15	1050-51-206	UTILITY PIPE & FITTINGS - DI, F&I, 6"	LF	3
16	1050-51-208	UTILITY PIPE - DI, F&I, 8"	LF	144
17	1050-51-212	UTILITY PIPE - DI, F&I, 12"	LF	170
18	1055-16	UTILITY FITTING, REMOVE & DISPOSE	EA	1
19	1055-31-112	UTILITY FITTINGS, F&I, PVC, ELBOW, 12"	EA	1
20	1055-31-212	UTILITY FITTINGS, F&I, PVC, TEE, 12"	EA	9
21	1055-31-312	UTILITY FITTINGS, F&I, PVC, REDUCER, 12"	EA	1
22	1055-31-316	UTILITY FITTINGS, F&I, PVC, REDUCER, 16"	EA	1
23	1055-31-508	UTILITY FITTINGS, F&I, PVC, CAP, 8"	EA	1
24	1055-31-816	UTILITY FITTINGS, F&I, PVC, CROSS, 16"	EA	1
25	1055-51-108	UTILITY FITTINGS, F&I, DI, ELBOW, 8"	EA	1
26	1055-51-112	UTILITY FITTINGS, F&I, DI, ELBOW, 12"	EA	1
27	1055-51-212	UTILITY FITTINGS, F&I, DI, TEE, 12"	EA	3
28	1055-51-312	UTILITY FITTINGS, F&I, DI, REDUCER, 12"	EA	2
29	1055-51-412	UTILITY FITTINGS, F&I, DI, ADAPTER, 12"	EA	1
30	1055-51-508	UTILITY FITTINGS, F&I, DI, CAP, 8"	EA	6
31	1080-21-106	VALVE BOX, F&I, 6"	EA	5
32	1080-21-108	VALVE BOX, F&I, 8"	EA	5
33	1080-21-112	VALVE BOX, F&I, 12"	EA	11
34	1080-24-106	VALVE ASSEMBLY, F&I, 6"	EA	5
35	1080-24-108	VALVE ASSEMBLY, F&I, 8"	EA	5
36	1080-24-112	VALVE ASSEMBLY, F&I, 12"	EA	11
37	1644-113-08	FIRE HYDRANT, F&I, STD, 2 HOSE, 1 PUMP, 6"	EA	5
38	CITY SPEC	F&I 1" WATER SERVICE	LF	20
39	CITY SPEC	F&I WATER METER AND BOX	EA	6

**TEST HOLE DATA**

Testhole #	Northing	Easting	Utility Elevation (Top)	Size (inches)	Material	Type
TH1	1524226.30	434476.53	159.47	8	PVC	WL
TH2	1524229.41	434117.23	165.81	8	PVC	WL
TH3	1524222.11	434458.30	158.20	2	GREY CONDUIT	BT
TH4	1524227.28	434468.26	159.79	8 (E.W.); 6 (N.S.)	METAL TEE	WL
TH5	1524286.54	434451.74	159.62	0.5	DBC	BT
TH6	1524286.52	434452.36	159.35	6	PVC	WL
TH7	1524287.67	434471.85	158.74	0.5	DBC	BT
TH8	1524223.37	434117.54	167.64	1	GREY CONDUIT	BT
TH9	1524233.21	433895.50	165.08	8	PVC	WL
TH10	1524227.67	433895.58	166.32	1	DBC	BT
TH11	1524242.13	432805.96	167.89	8	PVC	WL
TH12	1524236.24	432806.13	168.42	1	DBC	BT
TH13	1524246.01	432281.13	173.93	8	PVC	WL
TH14	1524240.90	432280.91	174.89	1	DBC	BT
TH15	1524247.16	432159.85	175.46	8	PVC	WL
TH16	1524242.17	432160.01	177.65	1	DBC	BT
TH17	1524201.29	431807.06	175.83	6	PVC	WL
TH18	1524199.86	431827.75	176.44	0.5	DBC	BT
TH19	1524251.43	431812.47	175.66	6	PVC	WL
TH20	1524248.45	431812.06	176.91	2	GREY CONDUIT	BT
TH21	1523769.20	431806.58	178.17	6	PVC	WL
TH22	1523769.93	431826.47	178.19	0.5	DBC	BT
TH23	1523346.93	431806.39	176.86	6	PVC	WL
TH24	1523346.74	431825.11	176.82	0.5	DBC	BT
TH25	1523146.55	431814.19	171.32	2	METAL	BT
TH26	1523042.84	431807.04	170.16	6	PVC	WL
TH27	1523042.89	431805.83	170.66	0.5	DBC	BT
TH28	1523044.73	431823.32	170.36	0.5	DBC	BT



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PROJECT:  
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**CITY OF CLERMONT**  
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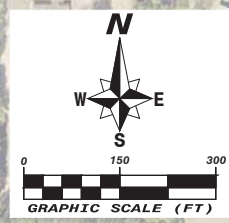
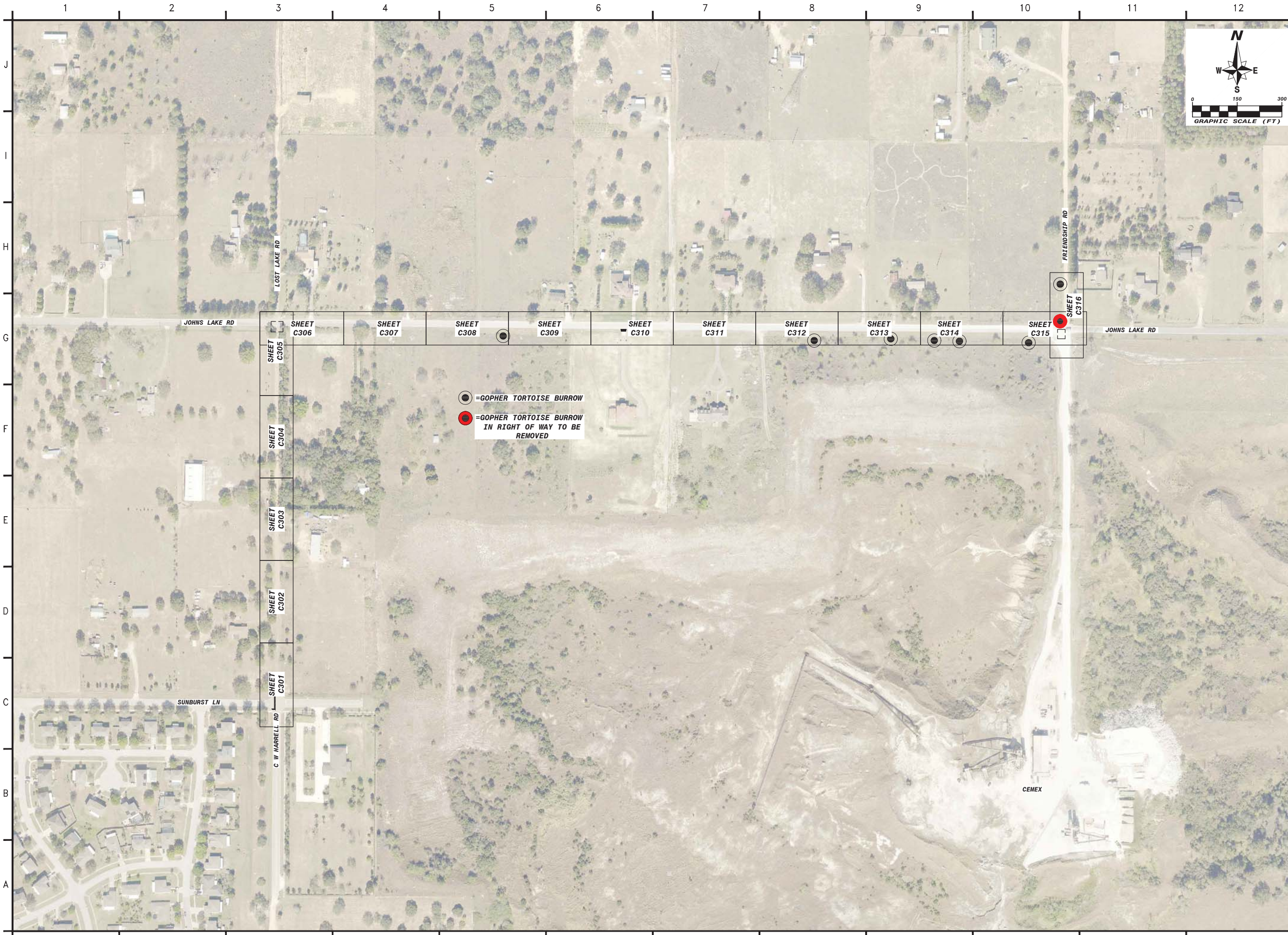
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**600365.13**

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NO.	DATE	BY	APPROVED
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DESIGNED BY:	DWB
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CHECKED BY:	DWB
APPROVED BY:	DWB
DATE:	1/21/2019

SHEET TITLE:  
**SUMMARY OF PAY ITEMS**

SHEET NUMBER:	REV. #
<b>C202</b>	----
SHEET 3 OF 25 SHEETS	



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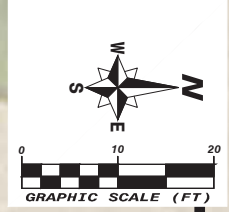
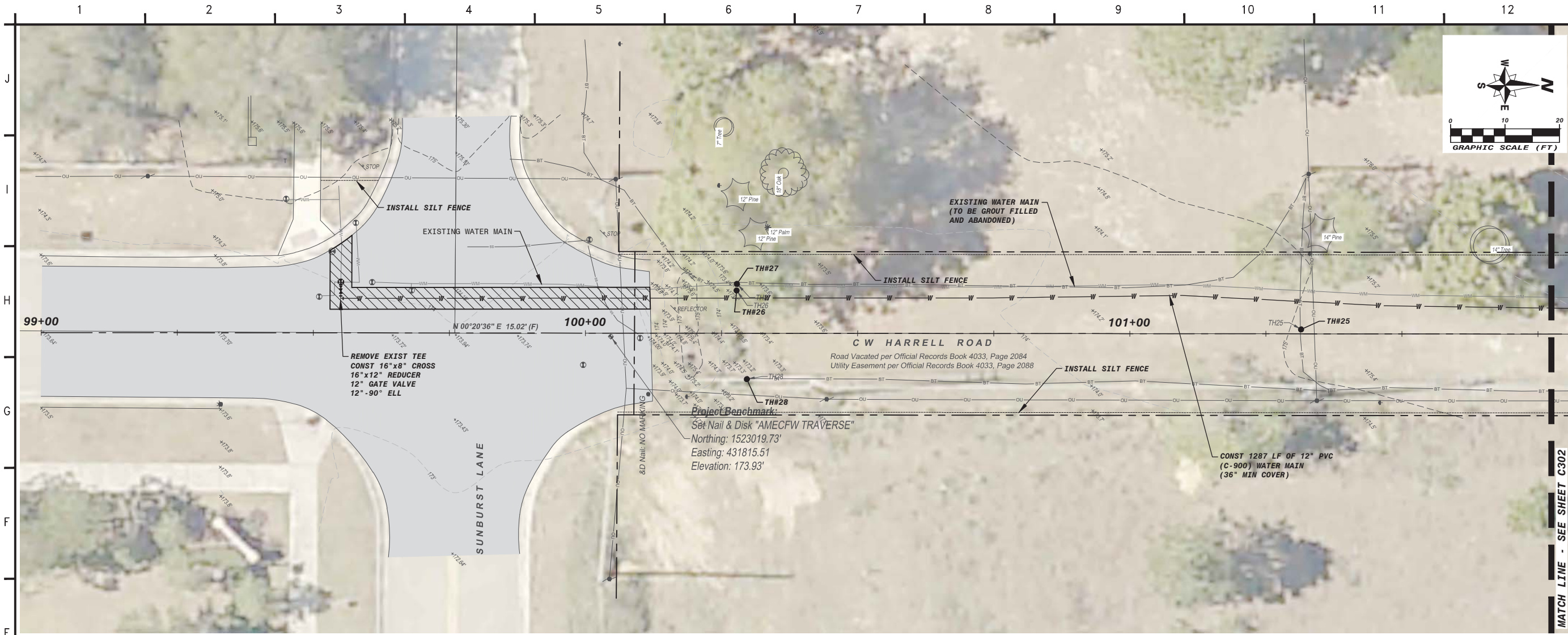
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SHEET TITLE:  
**KEY SHEET**

SHEET NUMBER: <b>C300</b>	REV. # ----
SHEET 4 OF 25 SHEETS	



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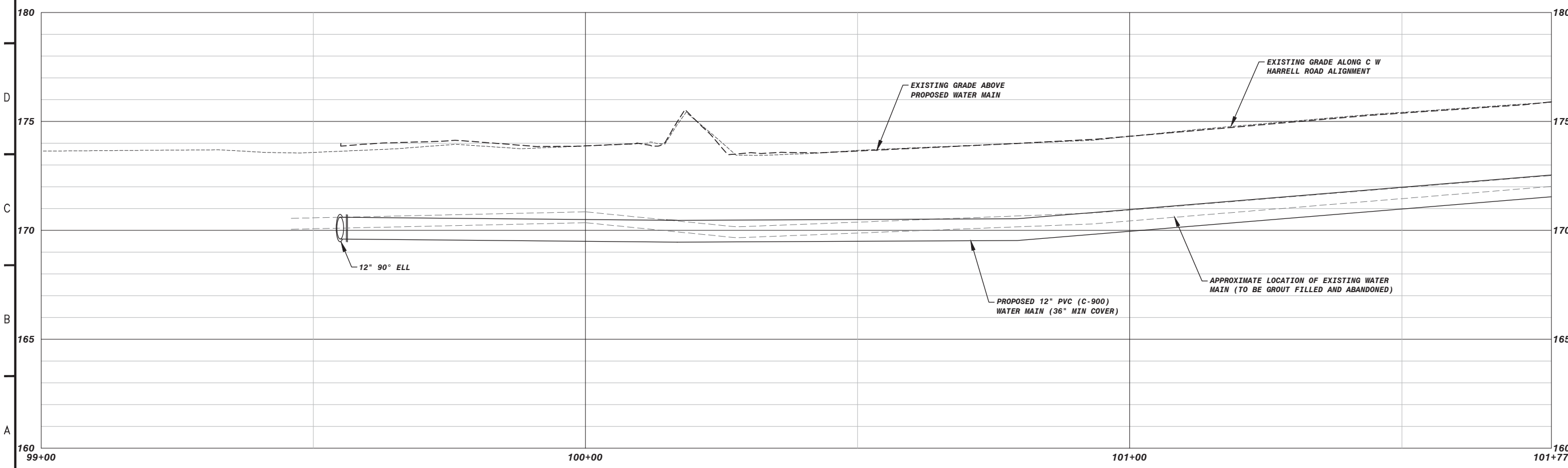
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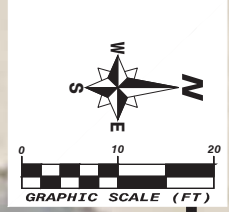
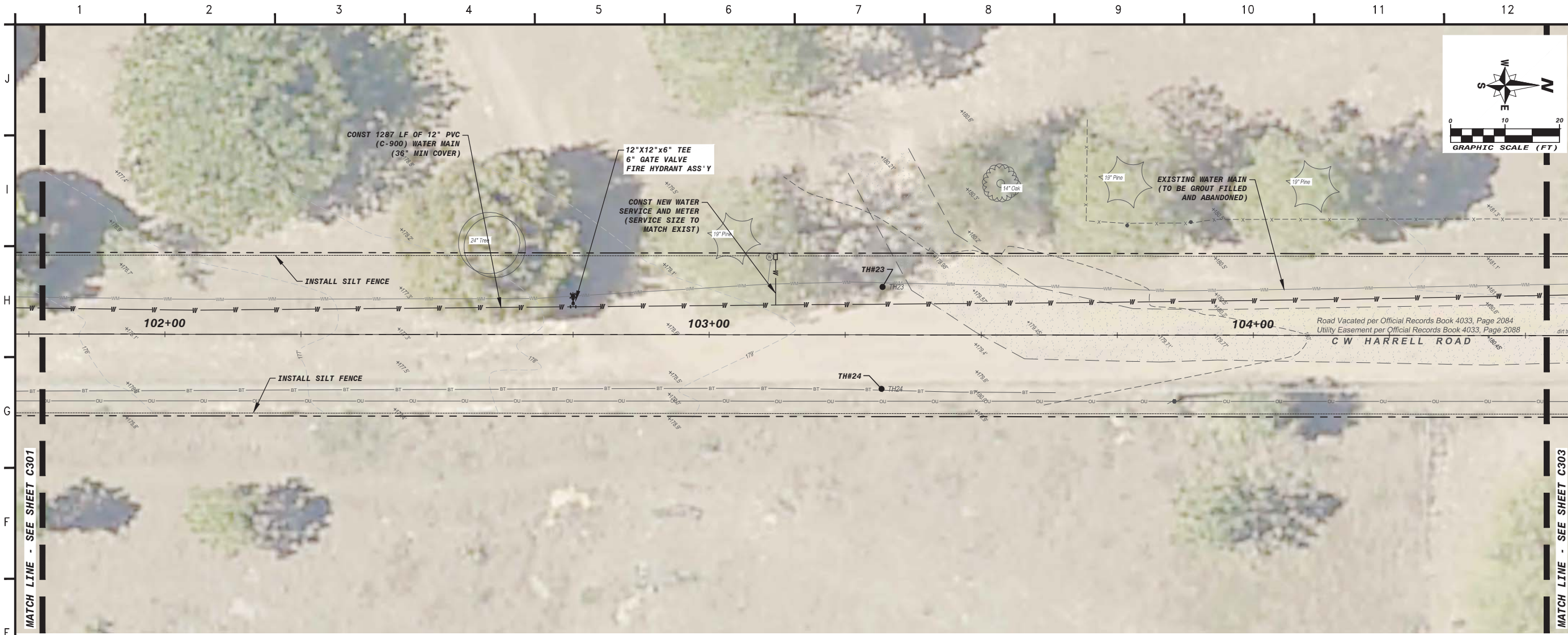
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APPROVED BY:	DWB
DATE:	1/21/2019

SHEET TITLE:  
**PLAN & PROFILE  
 C W HARRELL RD.  
 100+00 TO 101+77**

SHEET NUMBER:	REV. #
<b>C301</b>	----
SHEET 5 OF 25 SHEETS	





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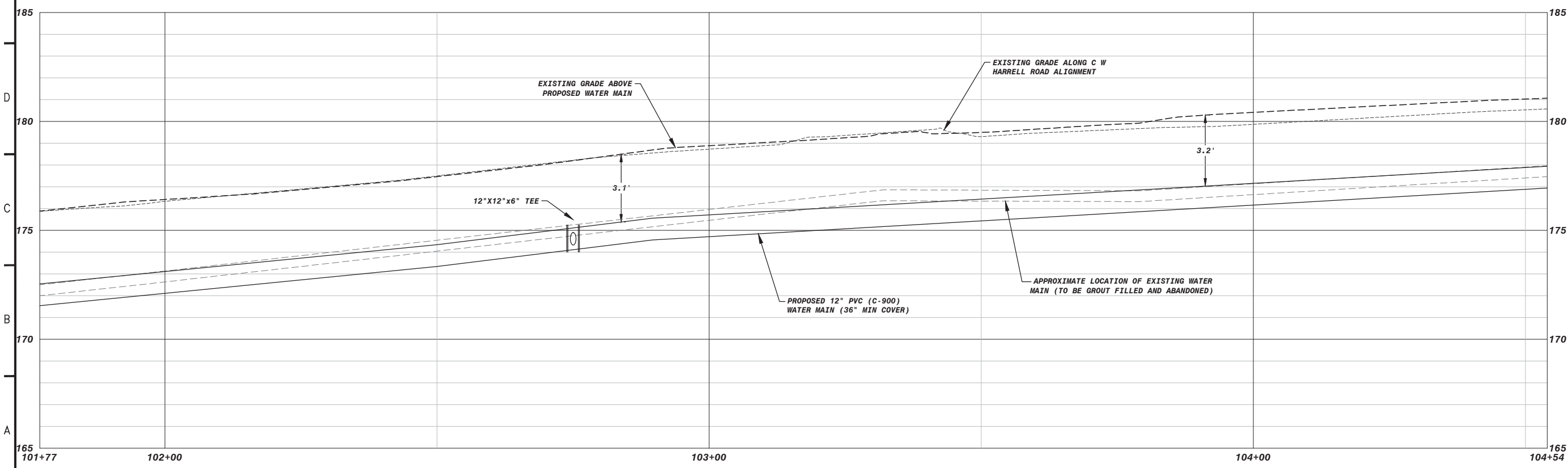
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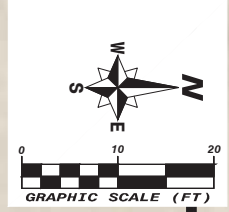
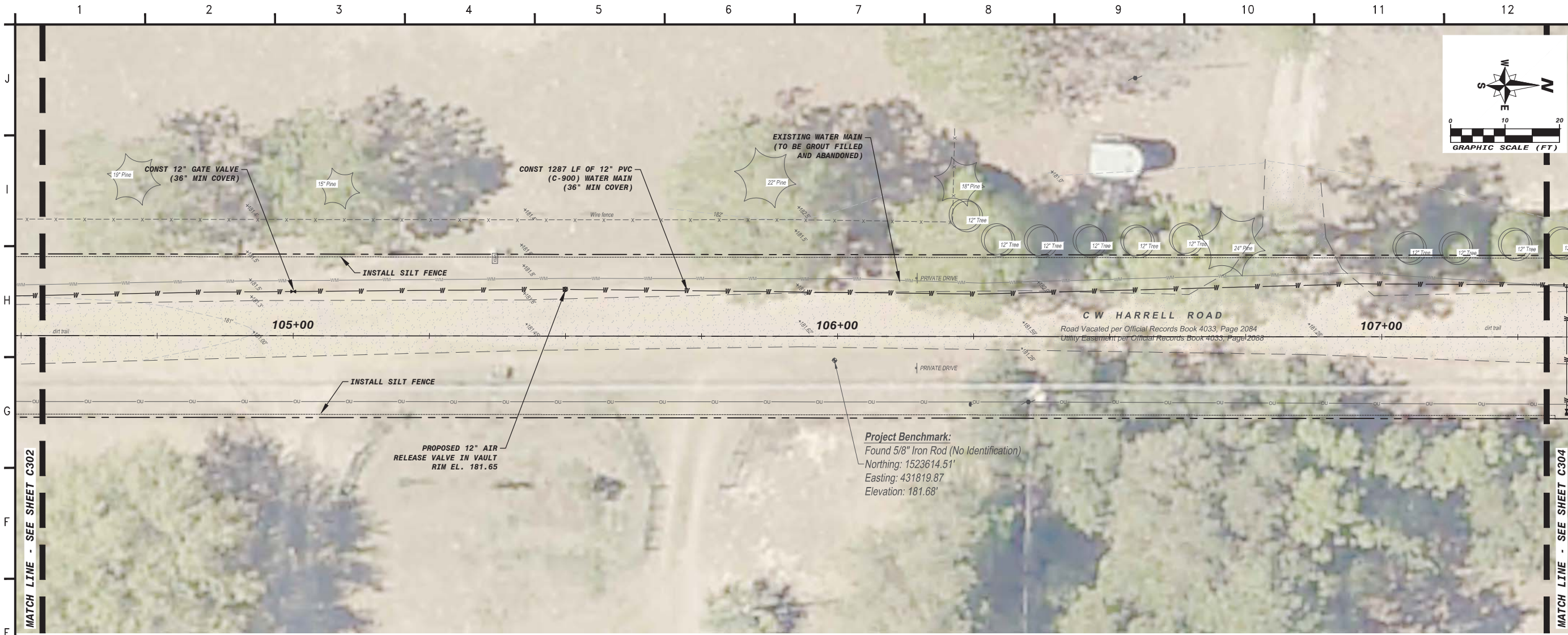
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APPROVED BY:	DWB
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SHEET TITLE:  
**PLAN & PROFILE  
 C W HARRELL RD  
 101+77 TO 104+54**

SHEET NUMBER:	REV. #
<b>C302</b>	----
SHEET 6 OF 25 SHEETS	





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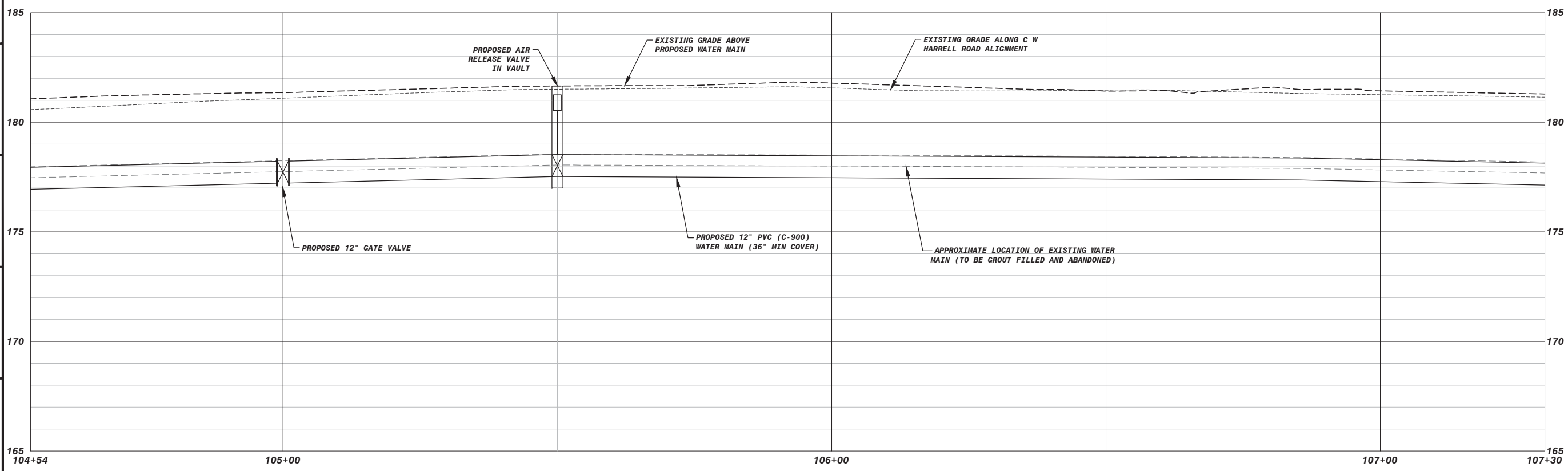
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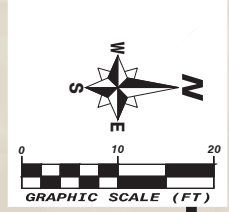
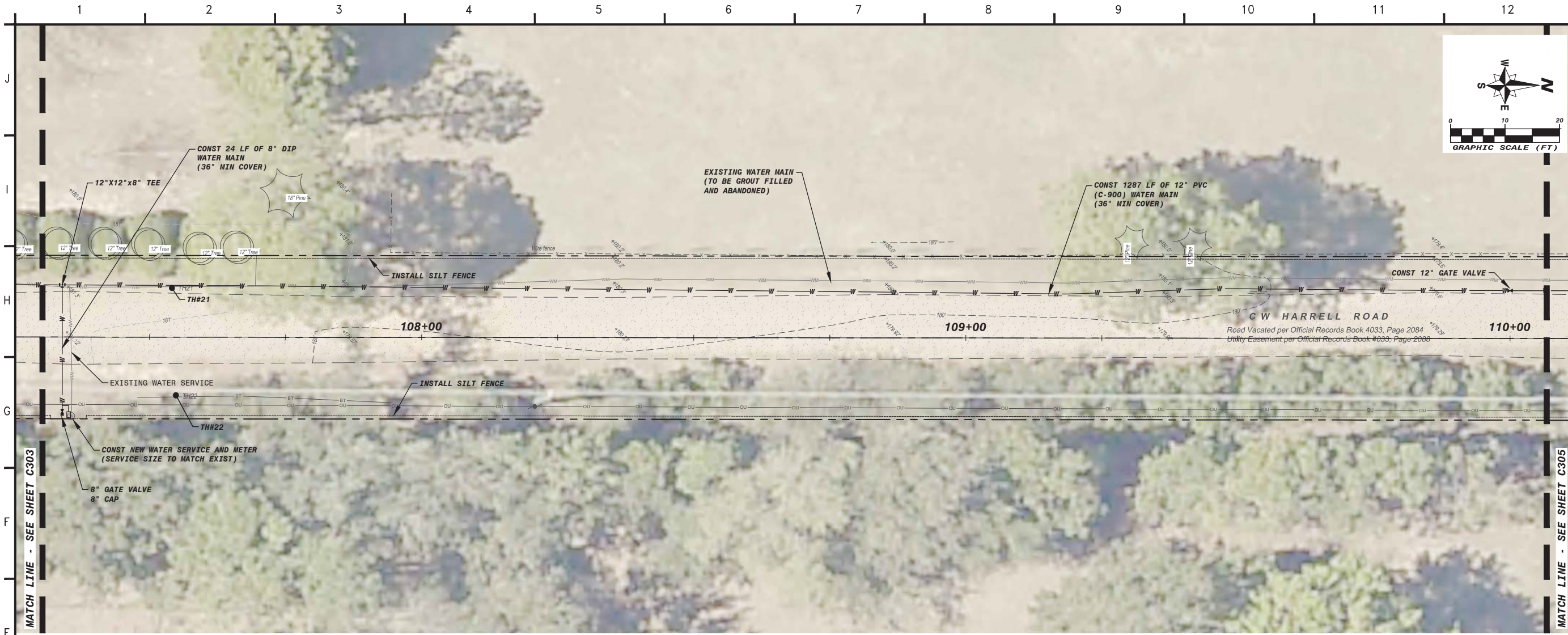
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APPROVED BY:	DWB
DATE:	1/21/2019

SHEET TITLE:  
**PLAN & PROFILE  
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 104+54 TO 107+30**

SHEET NUMBER:	REV. #
<b>C303</b>	----
SHEET 7 OF 25 SHEETS	





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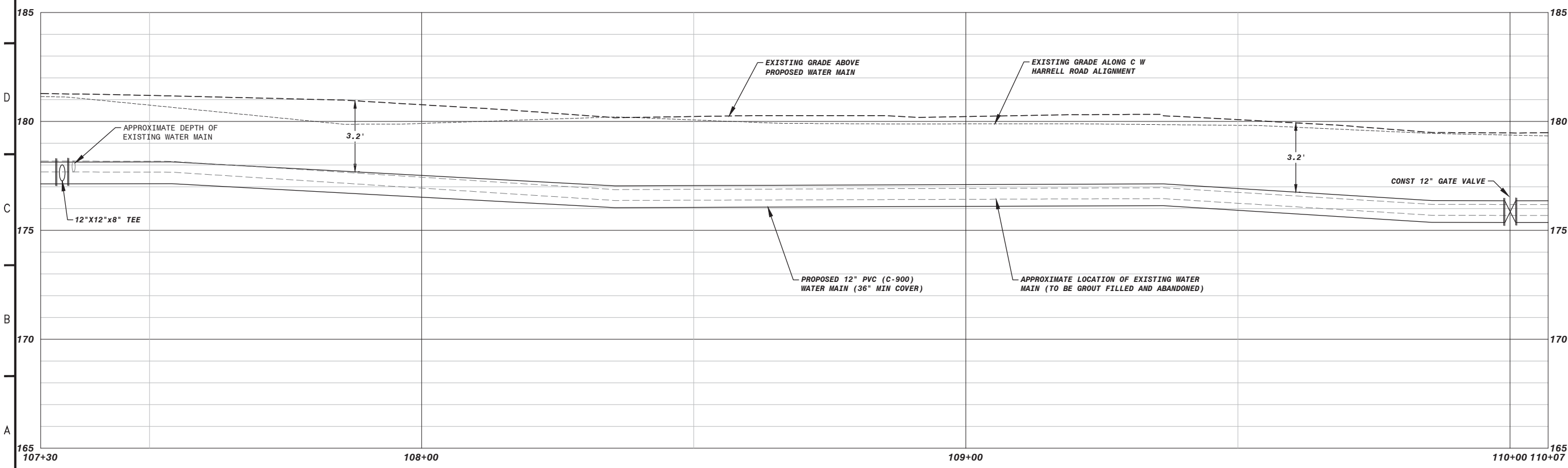
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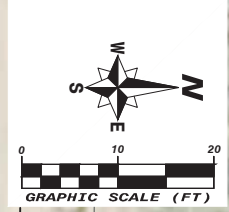
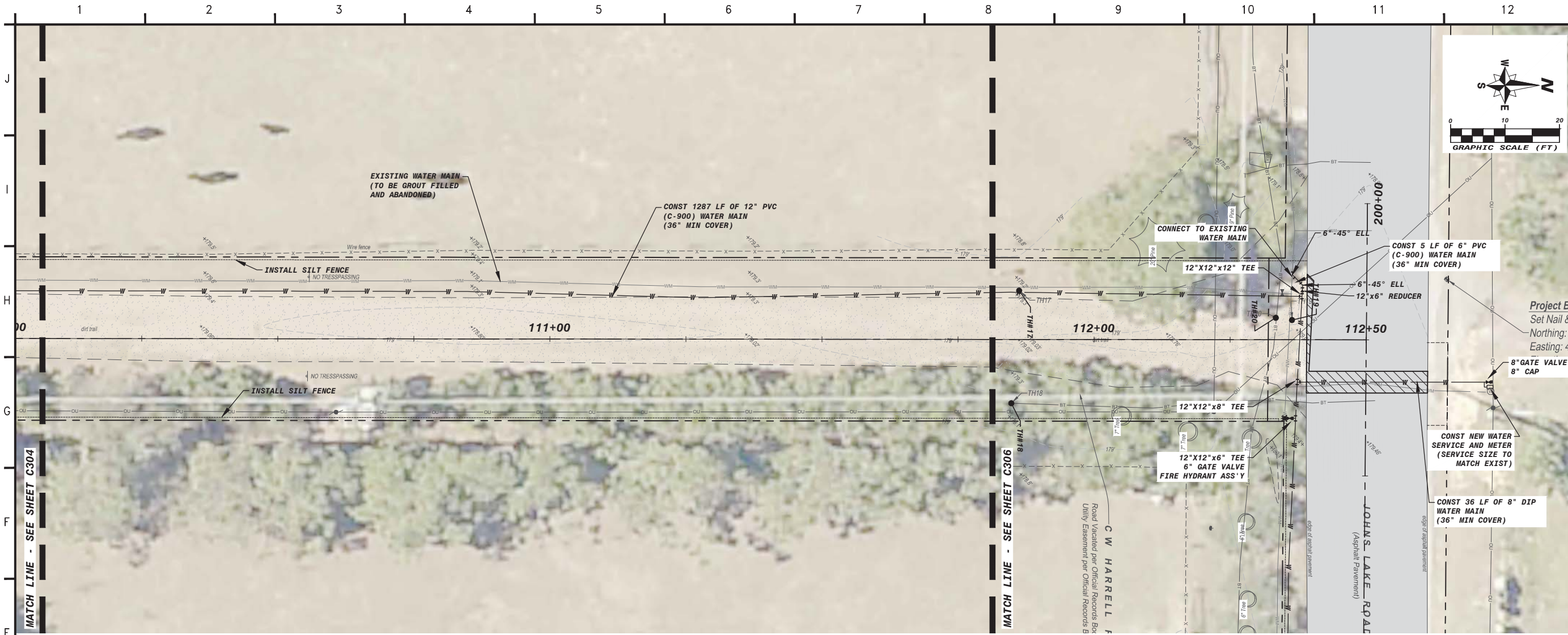
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SHEET TITLE:  
**PLAN & PROFILE  
 C W HARRELL RD.  
 107+30 TO 110+07**

SHEET NUMBER:	REV. #
<b>C304</b>	----
SHEET 8 OF 25 SHEETS	





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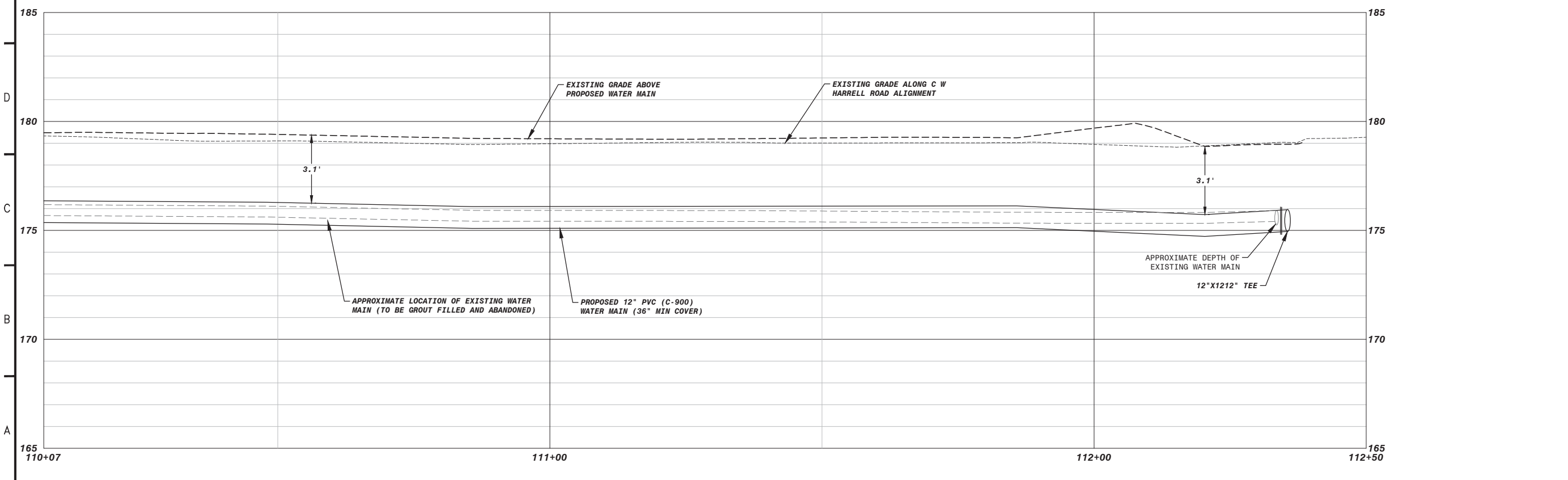
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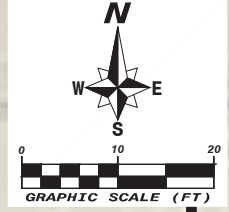
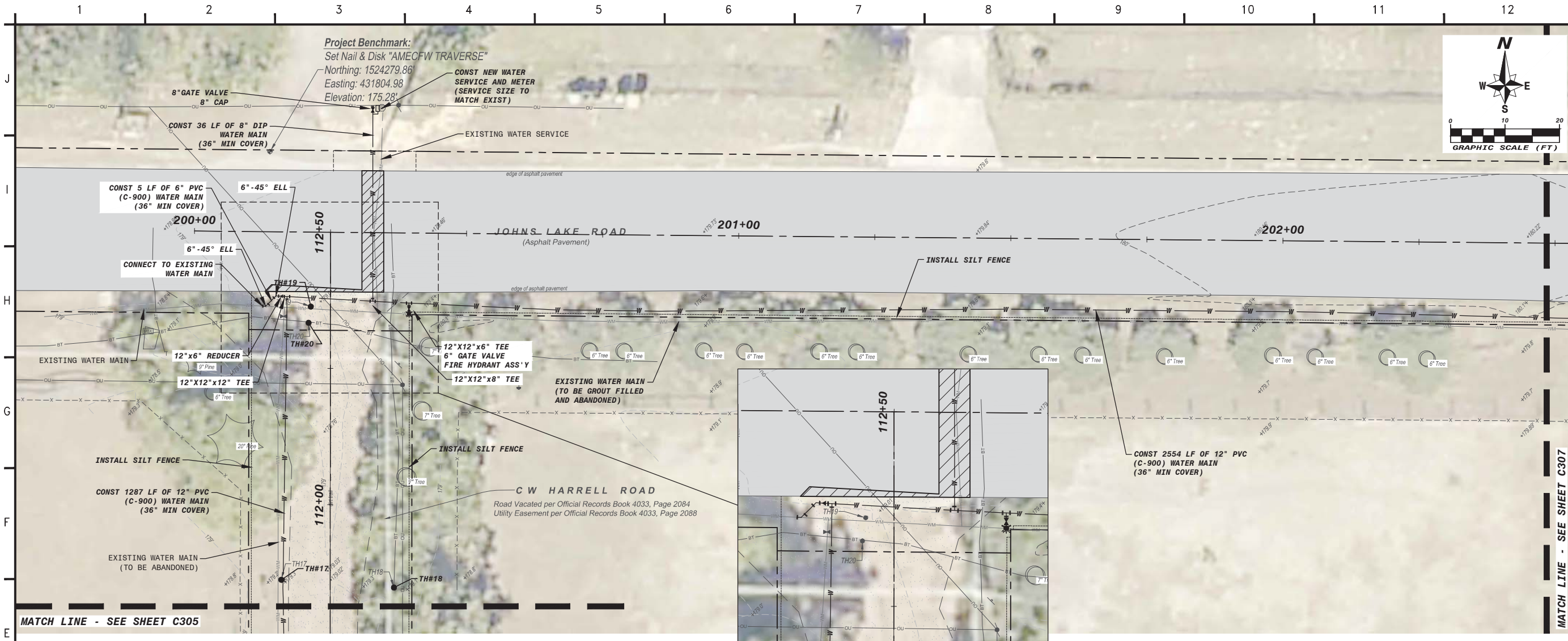
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SHEET TITLE:  
 PLAN & PROFILE  
 C W HARRELL RD.  
 110+07 TO 112+50

SHEET NUMBER:	REV. #
<b>C305</b>	----
SHEET 9 OF 25 SHEETS	





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CLERMONT, FL



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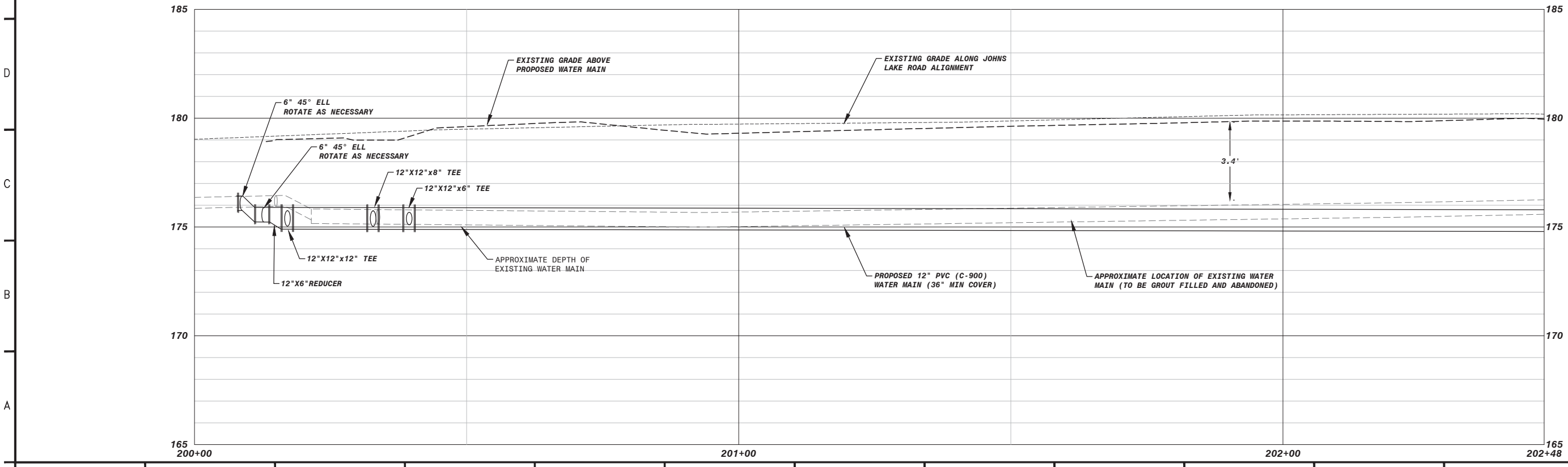
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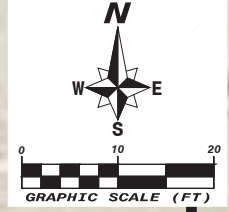
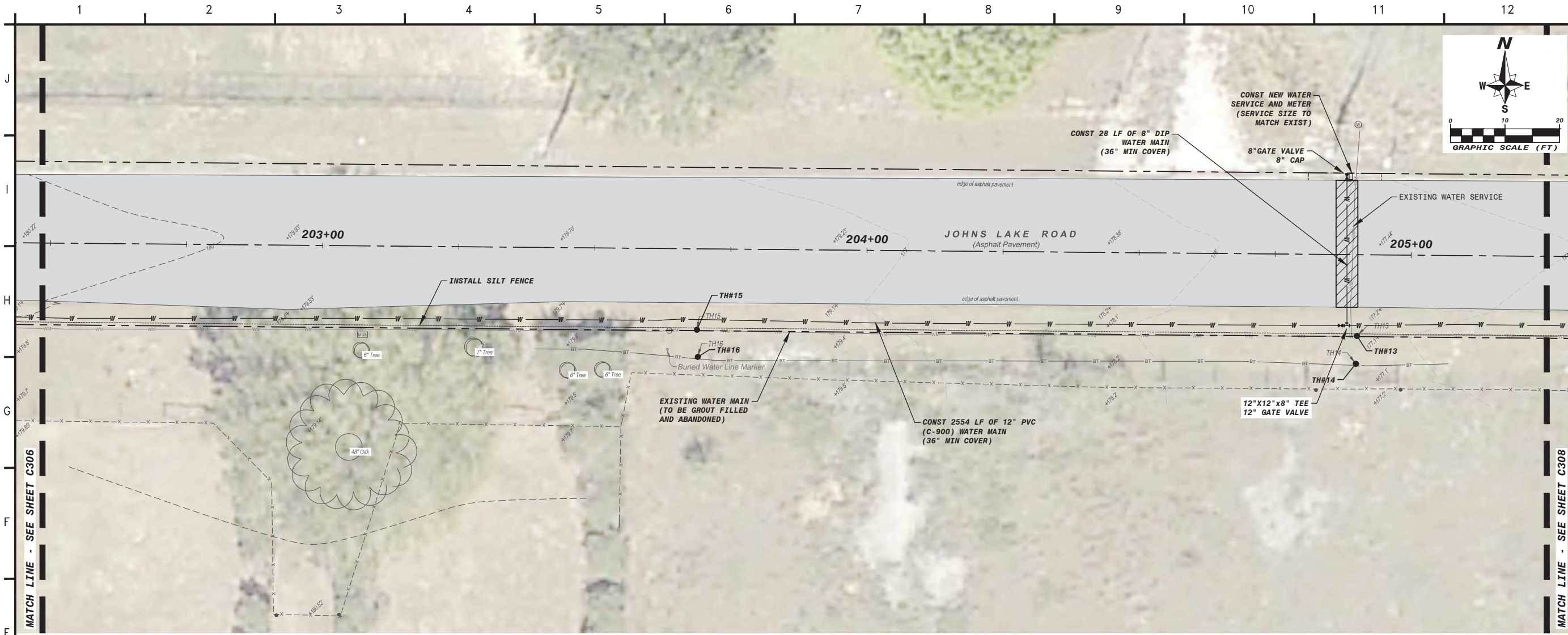
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APPROVED BY:	DWB
DATE:	1/21/2019

**SHEET TITLE:**  
**PLAN & PROFILE**  
**JOHNS LAKE RD.**  
**200+00 TO 202+48**

SHEET NUMBER:	REV. #
<b>C306</b>	----
SHEET 10 OF 25 SHEETS	







**wood.**

ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC.  
 2000 E Edgewood Drive, Suite 215  
 Lakeland, FL 33803  
 Phone: 1.863.667.2345  
 Fax: 1.863.667.2662  
 www.woodpic.com  
 CA-5392

DAVID W. BUTCHER, P.E.  
 STATE OF FLORIDA  
 PROFESSIONAL ENGINEER  
 LICENSE NO. 55431  
 THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY DAVID W. BUTCHER, P.E. ON JANUARY 22, 2019 USING A DIGITAL SIGNATURE. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

PROJECT:  
**JOHNS LAKE ROAD WATER MAIN REPLACEMENT**  
 CLERMONT, FL



**CITY OF CLERMONT**  
 3335 HANCOCK ROAD  
 CLERMONT, FL 34711  
 PHONE: (352) 241-0178  
 FAX: (352) 241-0642

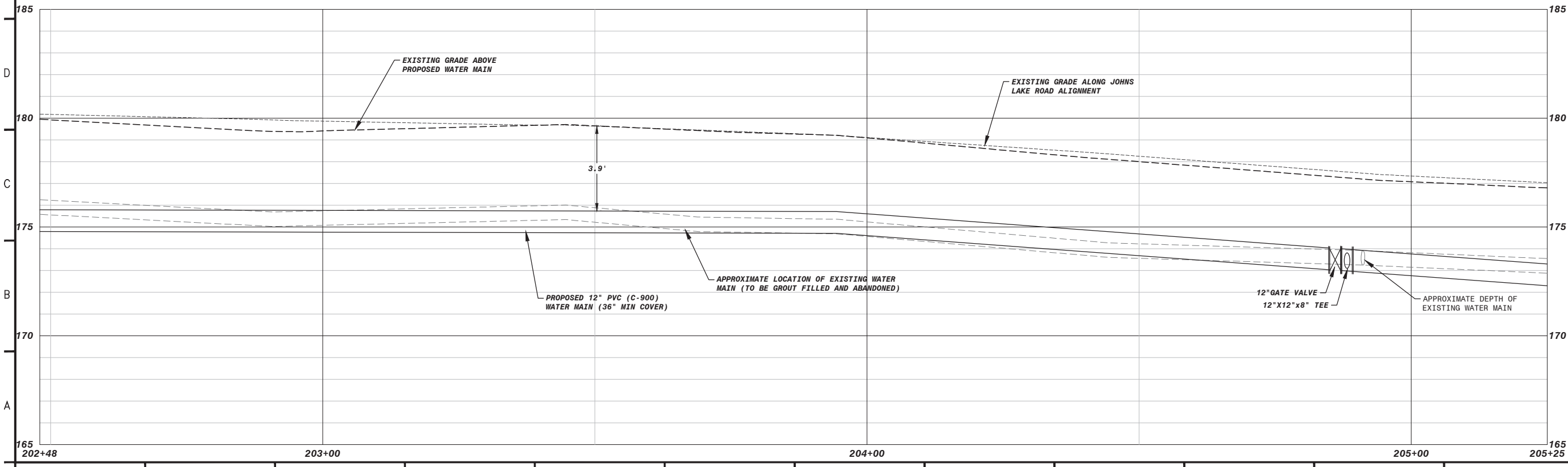
WOOD PROJECT No:  
**600365.13**

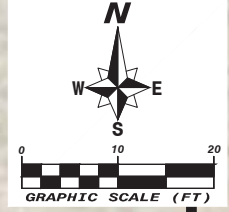
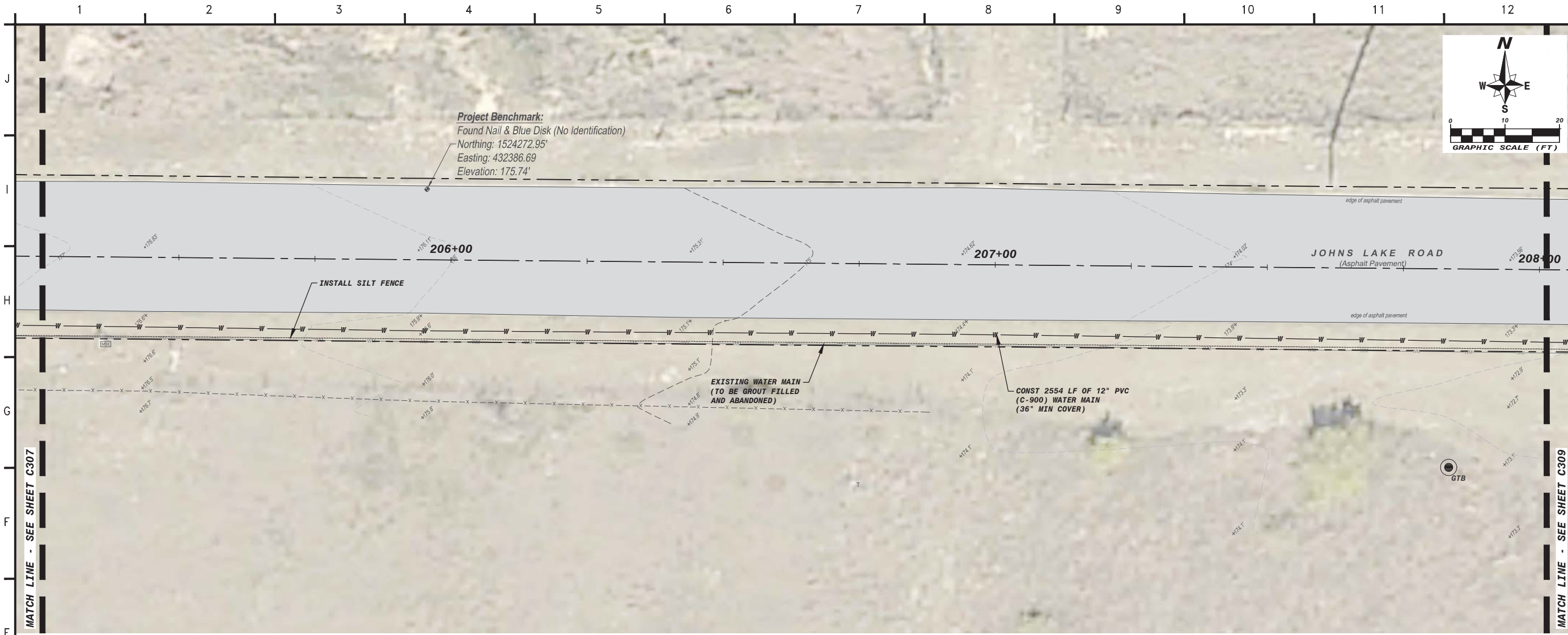
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NO.	DATE	BY	APPROVED
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DESIGNED BY:	DWB
DRAWN BY:	TAC
CHECKED BY:	DWB
APPROVED BY:	DWB
DATE:	1/21/2019

SHEET TITLE:  
**PLAN & PROFILE  
 JOHNS LAKE RD.  
 202+48 TO 205+25**

SHEET NUMBER:	REV. #
<b>C307</b>	----
SHEET 11 OF 25 SHEETS	





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**PROJECT:**  
**JOHNS LAKE ROAD WATER MAIN REPLACEMENT**  
 CLERMONT, FL



**CITY OF CLERMONT**  
 3335 HANCOCK ROAD  
 CLERMONT, FL 34711  
 PHONE: (352) 241-0178  
 FAX: (352) 241-0642

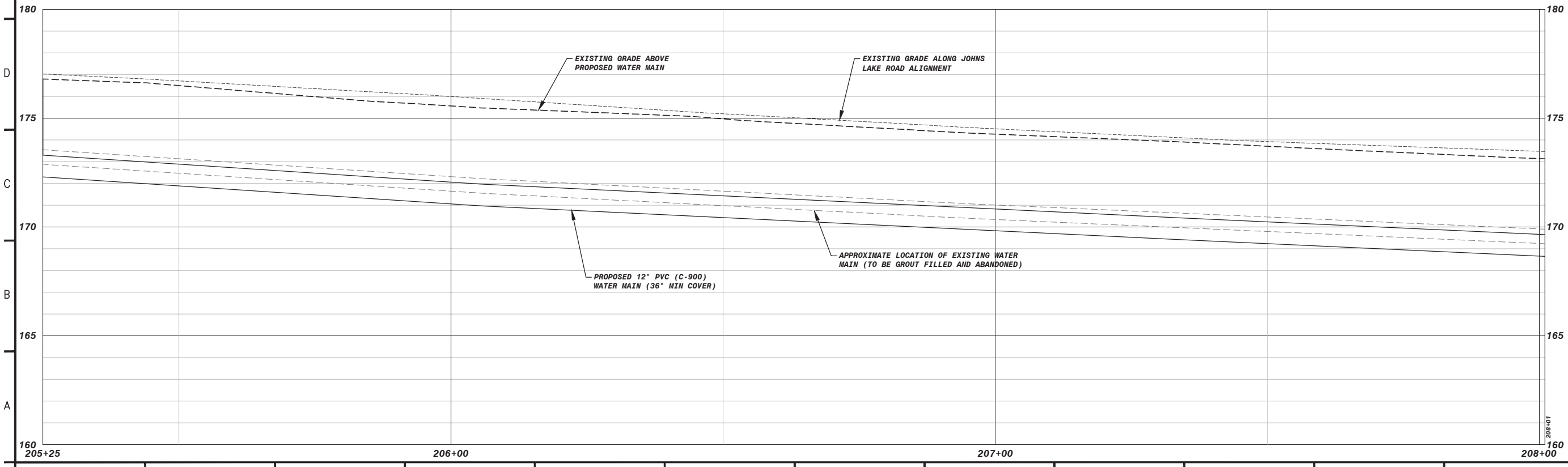
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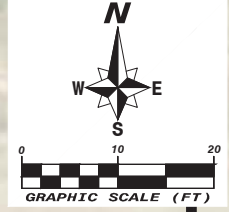
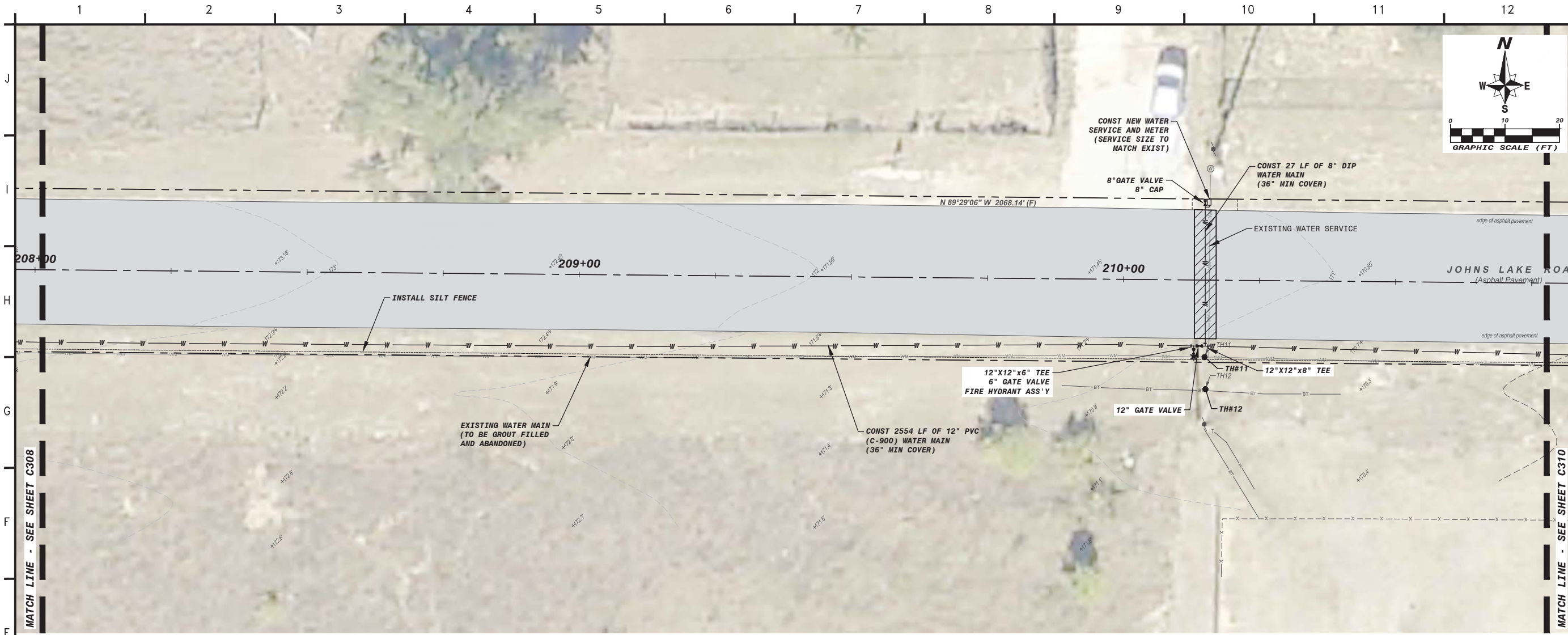
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NO.	DATE	BY	APPROVED
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DESIGNED BY: DWB  
 DRAWN BY: TAC  
 CHECKED BY: DWB  
 APPROVED BY: DWB  
 DATE: 1/21/2019

**SHEET TITLE:**  
 PLAN & PROFILE  
 JOHNS LAKE RD.  
 205+25 TO 208+01

SHEET NUMBER:	REV. #
<b>C308</b>	----
SHEET 12 OF 25 SHEETS	





**wood.**

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PROJECT:  
**JOHNS LAKE ROAD WATER MAIN REPLACEMENT**  
 CLERMONT, FL



**CITY OF CLERMONT**  
 3335 HANCOCK ROAD  
 CLERMONT, FL 34711  
 PHONE: (352) 241-0178  
 FAX: (352) 241-0642

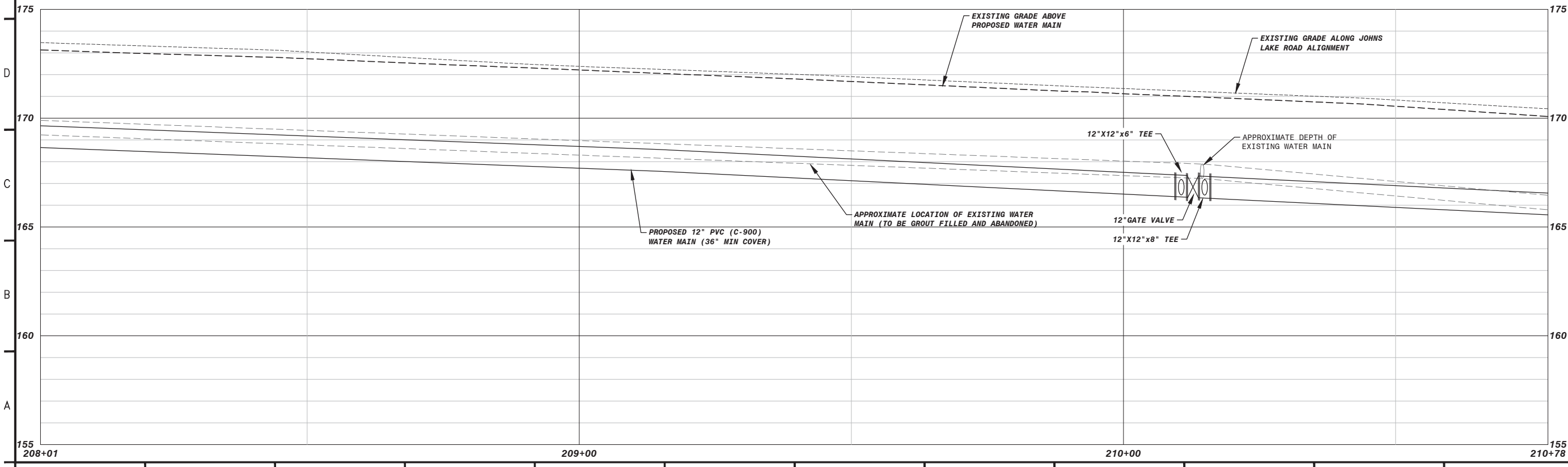
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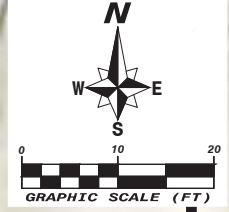
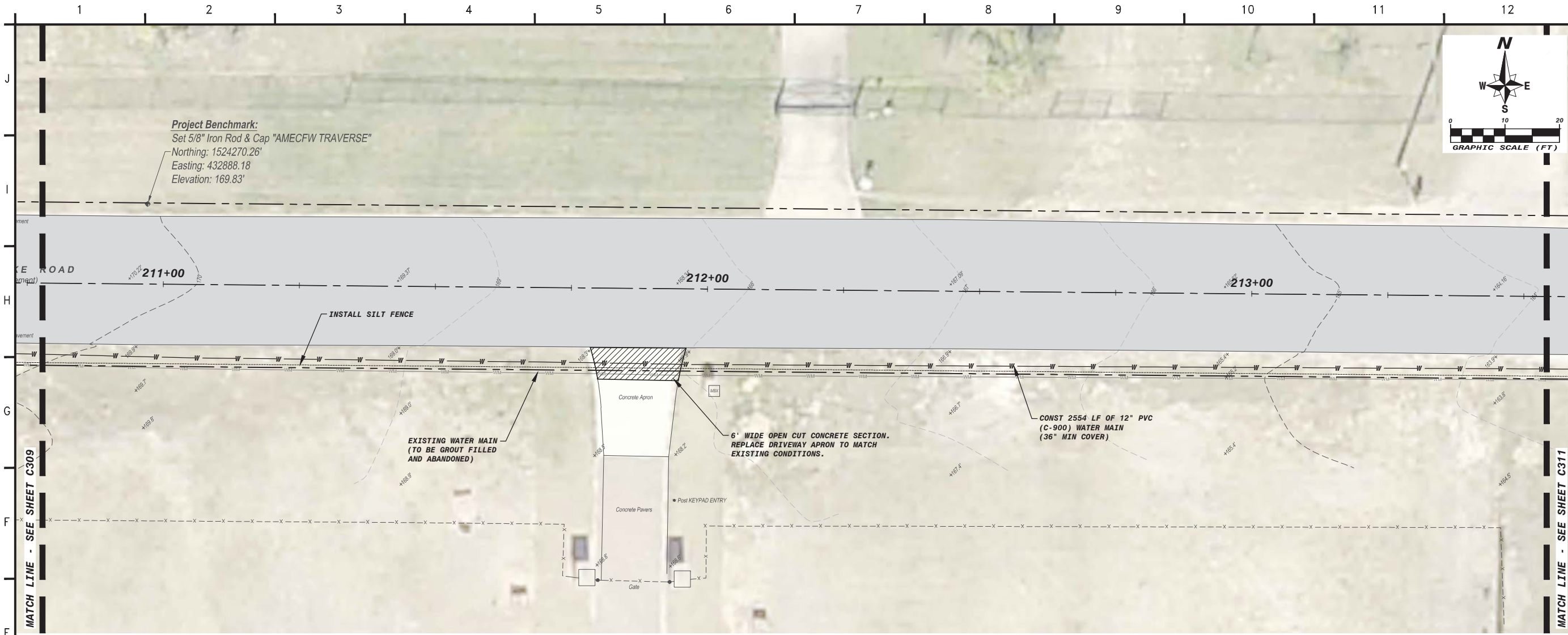
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DESIGNED BY:	DWB
DRAWN BY:	TAC
CHECKED BY:	DWB
APPROVED BY:	DWB
DATE:	1/21/2019

SHEET TITLE:  
**PLAN & PROFILE  
 JOHNS LAKE RD.  
 208+01 TO 210+78**

SHEET NUMBER:	REV. #
<b>C309</b>	----
SHEET 13 OF 25 SHEETS	





**Project Benchmark:**  
 Set 5/8" Iron Rod & Cap "AMECFW TRAVERSE"  
 Northing: 1524270.26'  
 Easting: 432888.18  
 Elevation: 169.83'

**wood.**  
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 INFRASTRUCTURE SOLUTIONS, INC.  
 2000 E Edgewood Drive, Suite 215  
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**PROJECT:**  
**JOHNS LAKE  
 ROAD WATER  
 MAIN  
 REPLACEMENT**  
 CLERMONT, FL



**CITY OF CLERMONT**  
 3335 HANCOCK ROAD  
 CLERMONT, FL 34711  
 PHONE: (352) 241-0178  
 FAX: (352) 241-0542

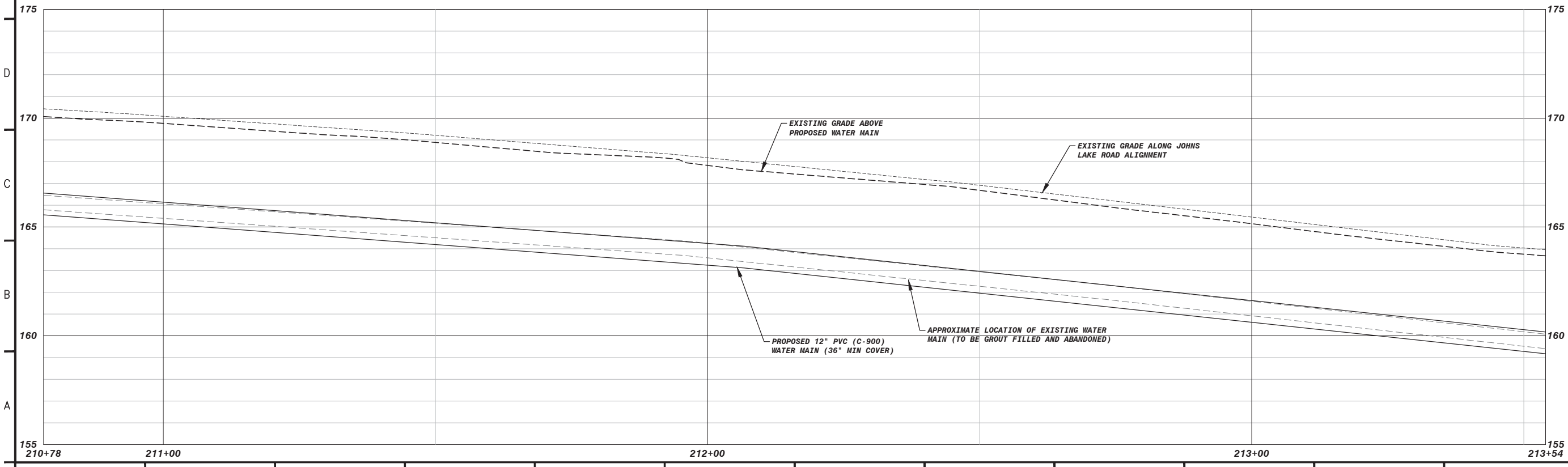
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**600365.13**

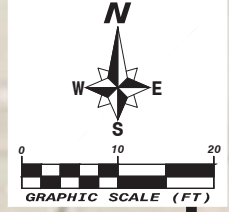
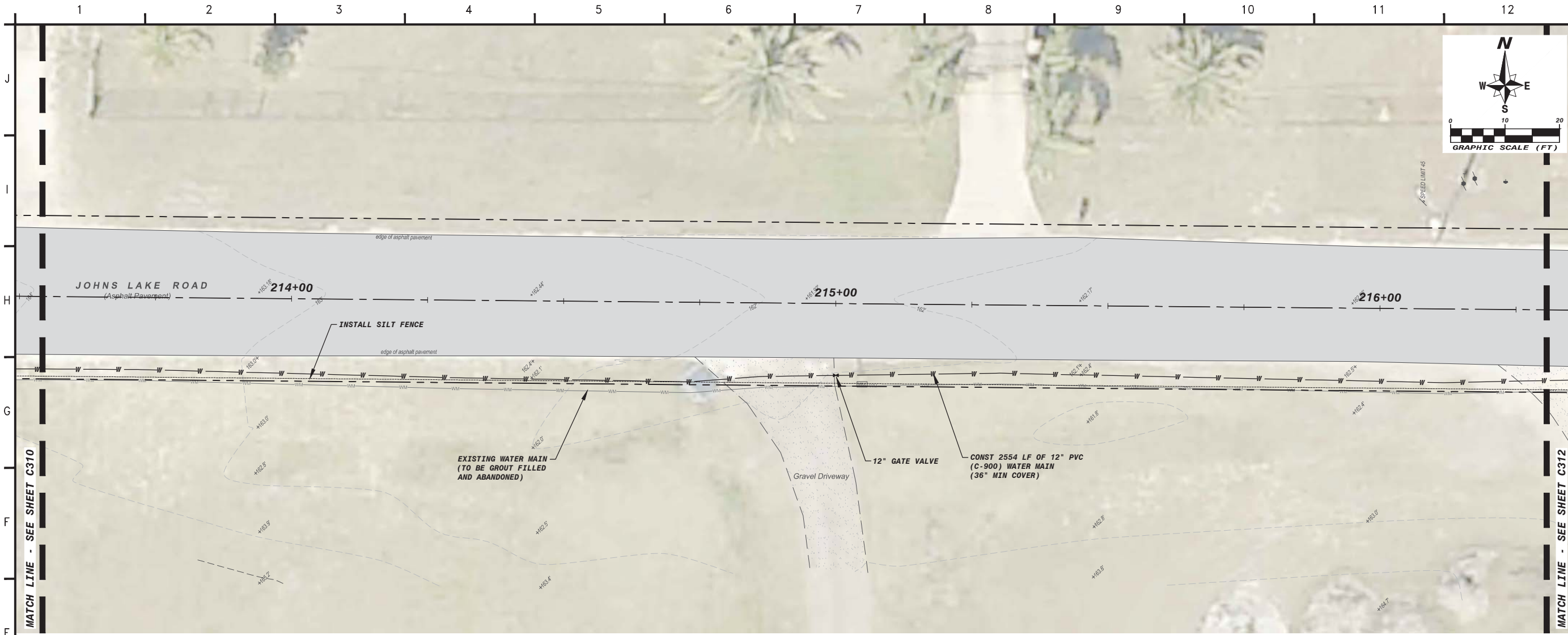
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NO.	DATE	BY	APPROVED
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DESIGNED BY: DWB  
 DRAWN BY: TAC  
 CHECKED BY: DWB  
 APPROVED BY: DWB  
 DATE: 1/21/2019

**SHEET TITLE:**  
**PLAN & PROFILE  
 JOHNS LAKE RD.  
 210+78 TO 213+54**

SHEET NUMBER:	REV. #
<b>C310</b>	----
SHEET 14 OF 25 SHEETS	





**wood.**

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PROJECT:  
**JOHNS LAKE ROAD WATER MAIN REPLACEMENT**  
 CLERMONT, FL



**CITY OF CLERMONT**  
 3335 HANCOCK ROAD  
 CLERMONT, FL 34711  
 PHONE: (352) 241-0178  
 FAX: (352) 241-0542

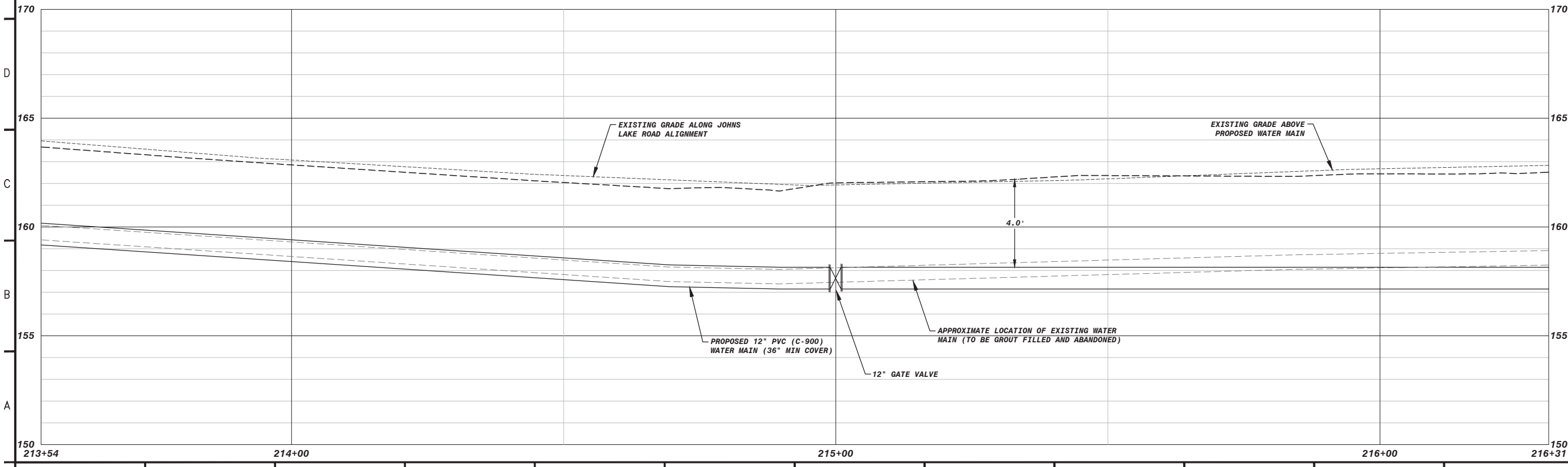
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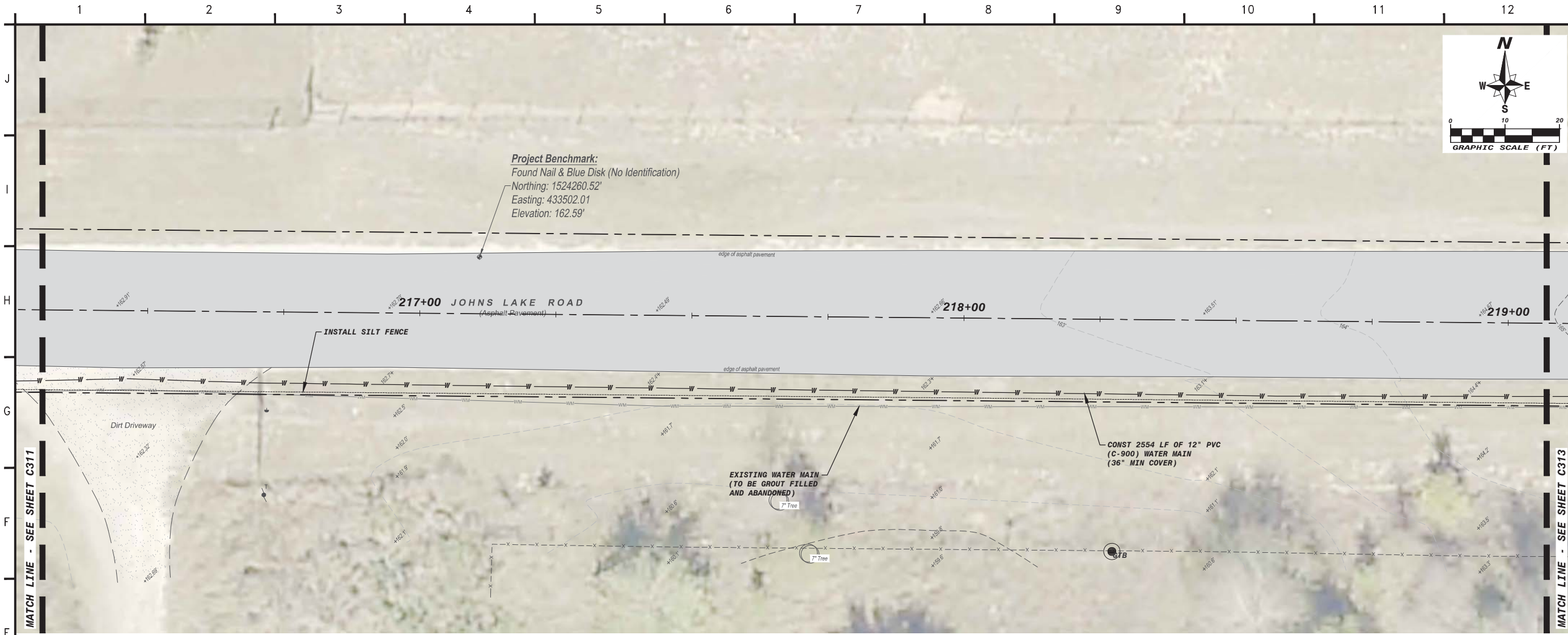
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NO.	DATE	BY	APPROVED
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DESIGNED BY:	DWB
DRAWN BY:	TAC
CHECKED BY:	DWB
APPROVED BY:	DWB
DATE:	1/21/2019

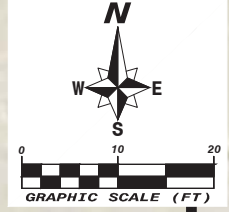
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**PLAN & PROFILE  
 JOHNS LAKE RD.  
 213+54 TO 216+31**

SHEET NUMBER:	REV. #
<b>C311</b>	----
SHEET 15 OF 25 SHEETS	





**Project Benchmark:**  
 Found Nail & Blue Disk (No Identification)  
 Northing: 1524260.52'  
 Easting: 433502.01  
 Elevation: 162.59'



**wood.**  
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**PROJECT:**  
**JOHNS LAKE  
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 MAIN  
 REPLACEMENT**  
 CLERMONT, FL



**CITY OF CLERMONT**  
 3335 HANCOCK ROAD  
 CLERMONT, FL 34711  
 PHONE: (352) 241-0178  
 FAX: (352) 241-0642

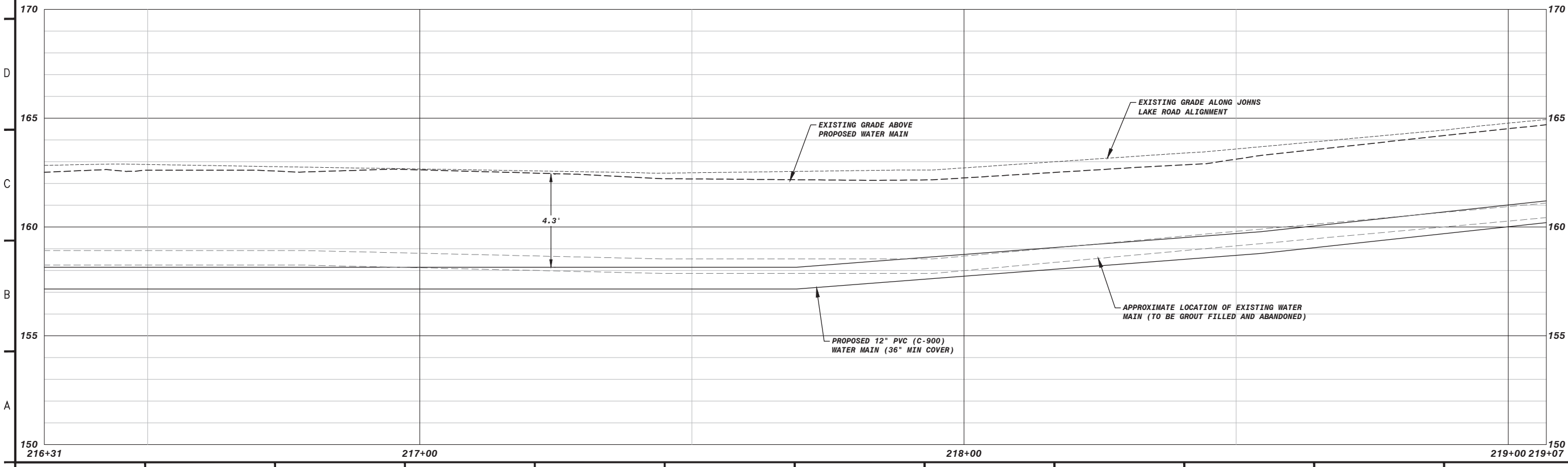
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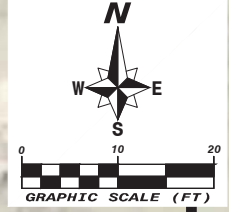
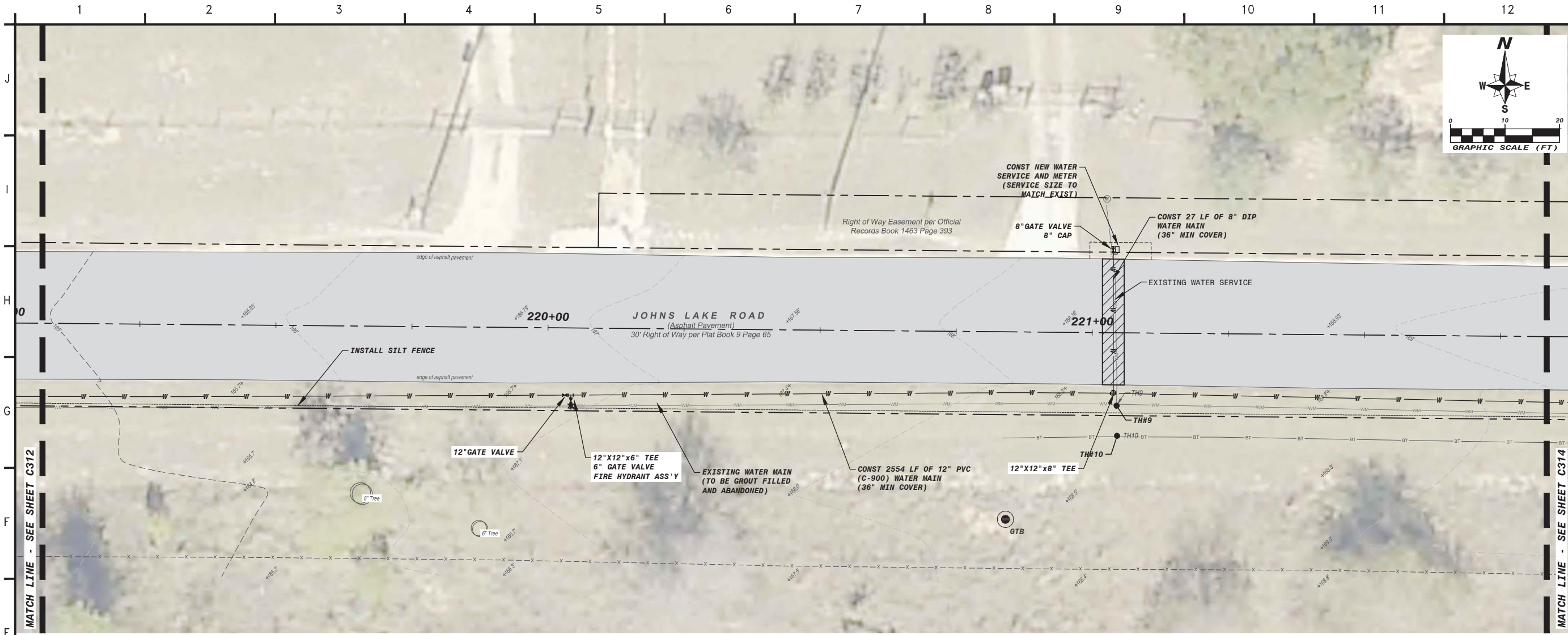
REVISIONS			
NO.	DATE	BY	APPROVED
X	X	X	X

DESIGNED BY:	DWB
DRAWN BY:	TAC
CHECKED BY:	DWB
APPROVED BY:	DWB
DATE:	1/21/2019

**SHEET TITLE:**  
 PLAN & PROFILE  
 JOHNS LAKE RD.  
 216+31 TO 219+07

SHEET NUMBER:	REV. #
<b>C312</b>	----
SHEET 16 OF 25 SHEETS	





**wood.**

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PROJECT:  
**JOHNS LAKE ROAD WATER MAIN REPLACEMENT**  
 CLERMONT, FL



**CITY OF CLERMONT**  
 3335 HANCOCK ROAD  
 CLERMONT, FL 34711  
 PHONE: (352) 241-0178  
 FAX: (352) 241-0642

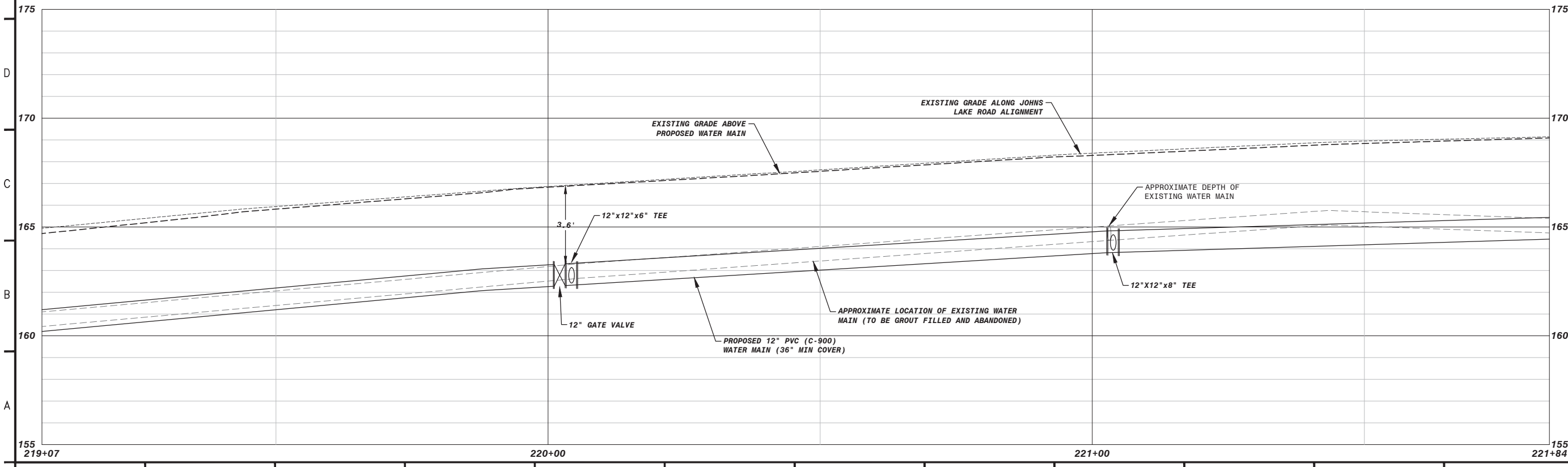
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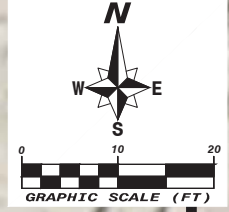
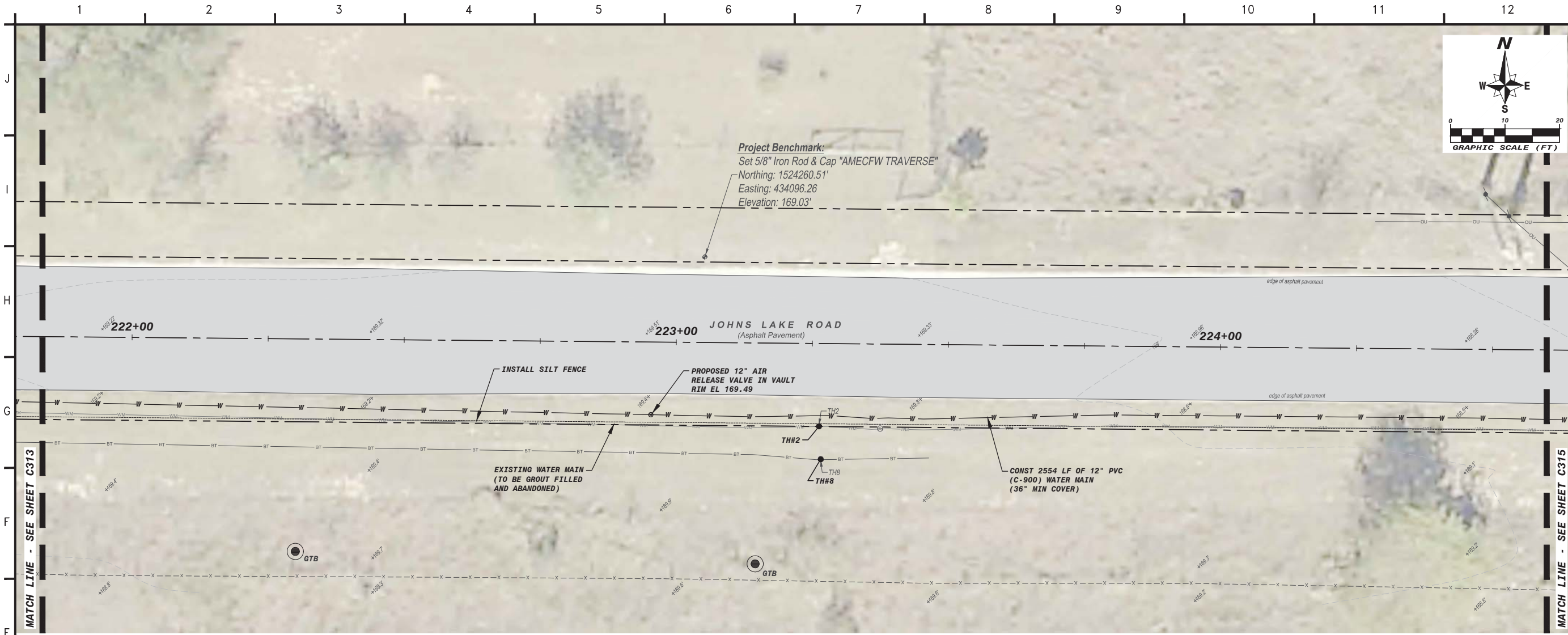
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NO.	DATE	BY	APPROVED
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DESIGNED BY:	DWB
DRAWN BY:	TAC
CHECKED BY:	DWB
APPROVED BY:	DWB
DATE:	1/21/2019

SHEET TITLE:  
**PLAN & PROFILE  
 JOHNS LAKE RD.  
 219+07 TO 221+84**

SHEET NUMBER:	REV. #
<b>C313</b>	----
SHEET 17 OF 25 SHEETS	





Project Benchmark:  
 Set 5/8" Iron Rod & Cap "AMECFW TRAVERSE"  
 Northing: 1524260.51'  
 Easting: 434096.26  
 Elevation: 169.03'

**wood.**  
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PROJECT:  
**JOHNS LAKE  
 ROAD WATER  
 MAIN  
 REPLACEMENT**  
 CLERMONT, FL



**CITY OF CLERMONT**  
 3335 HANCOCK ROAD  
 CLERMONT, FL 34711  
 PHONE: (352) 241-0178  
 FAX: (352) 241-0642

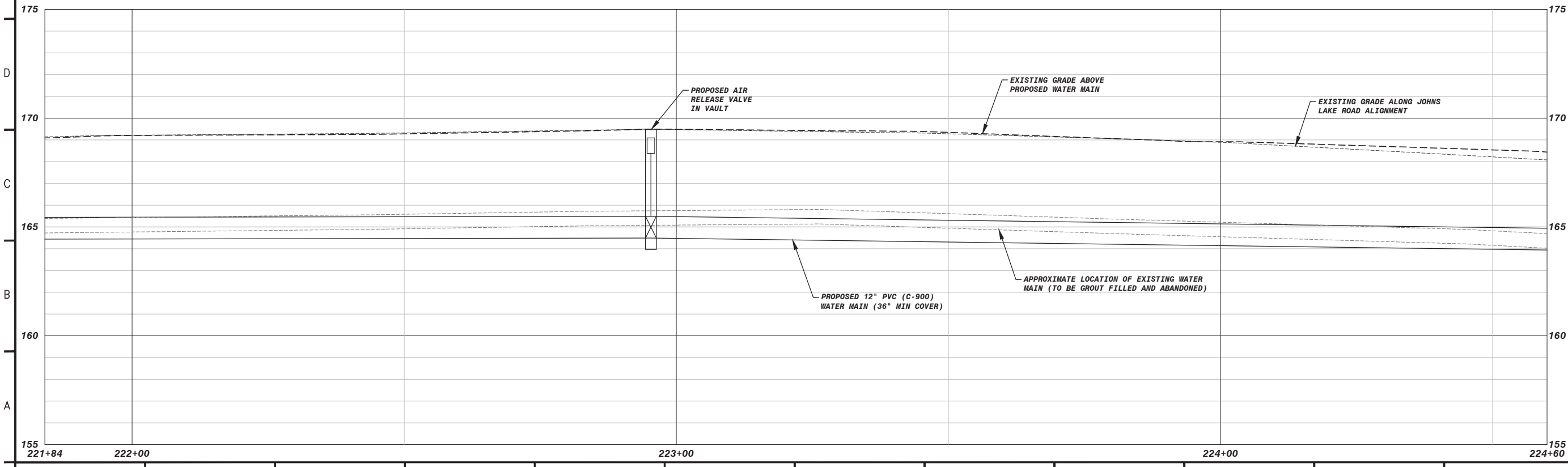
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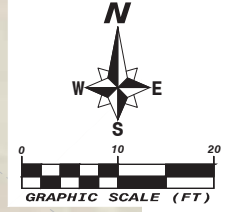
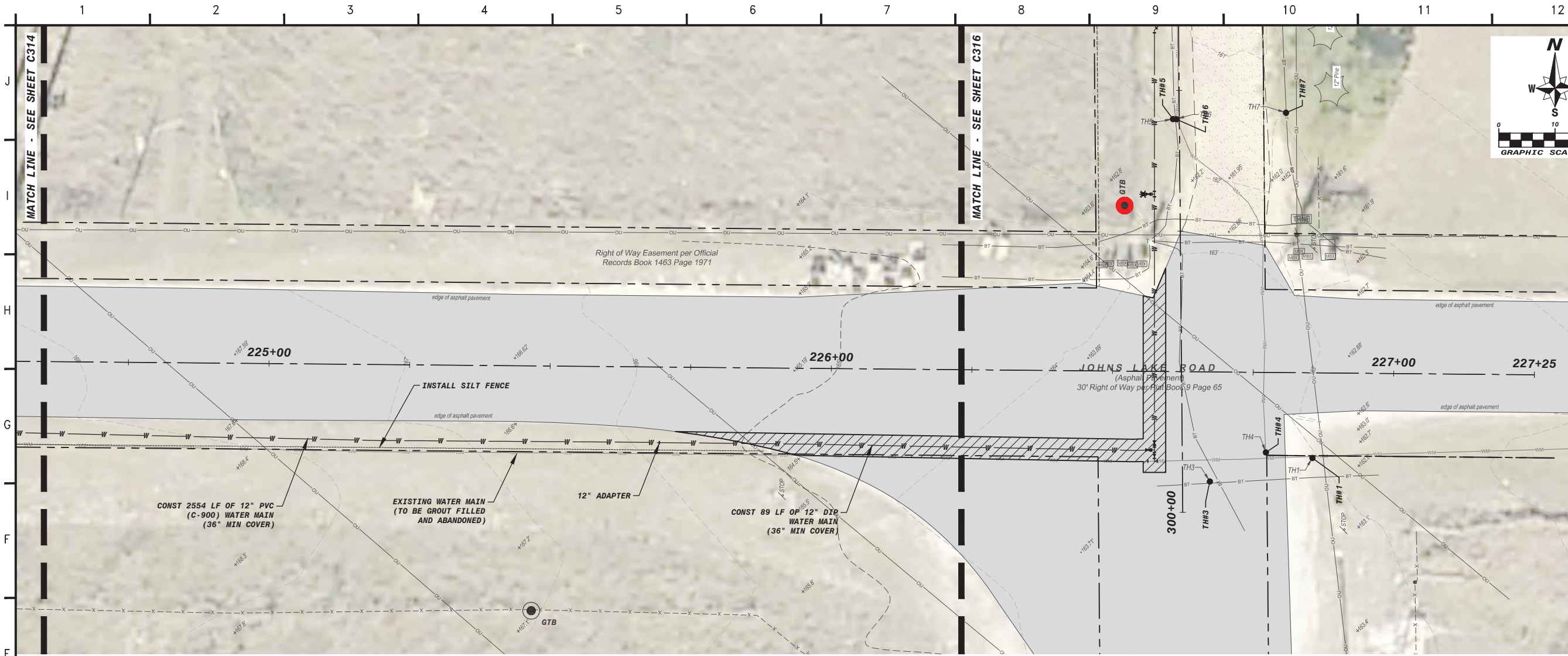
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 DRAWN BY: TAC  
 CHECKED BY: DWB  
 APPROVED BY: DWB  
 DATE: 1/21/2019

SHEET TITLE:  
**PLAN & PROFILE  
 JOHNS LAKE RD.  
 221+84 TO 224+60**

SHEET NUMBER: **C314** REV. #  
 SHEET 18 OF 25 SHEETS







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PROJECT:  
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 CLERMONT, FL



**CITY OF CLERMONT**  
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 CLERMONT, FL 34711  
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 FAX: (352) 241-0542

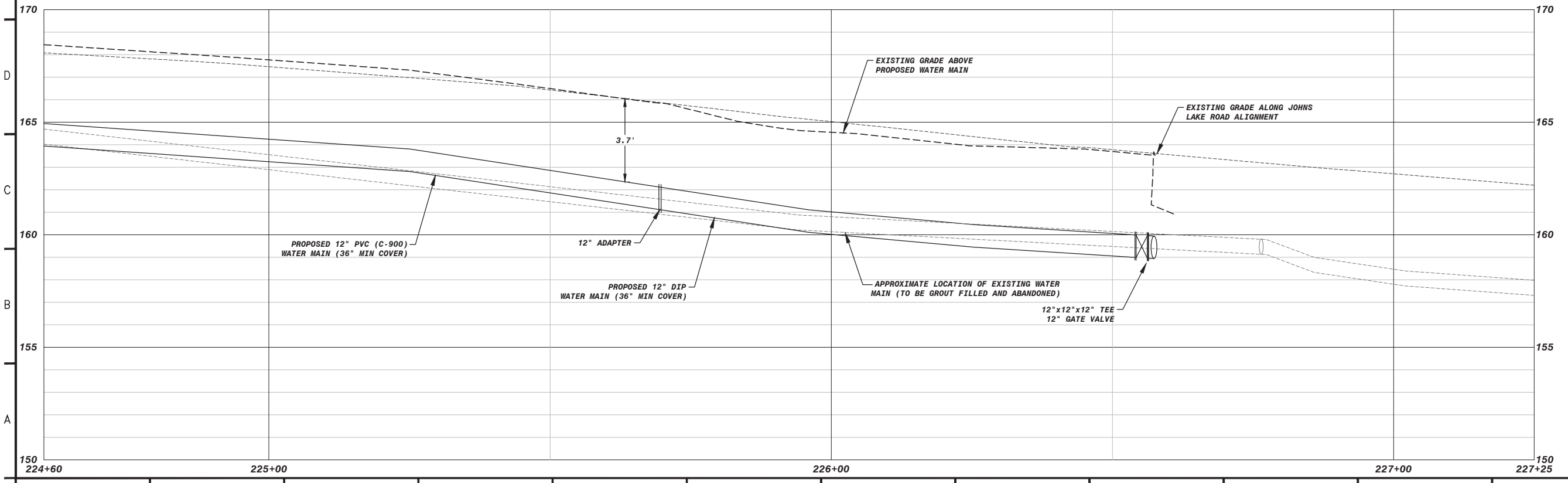
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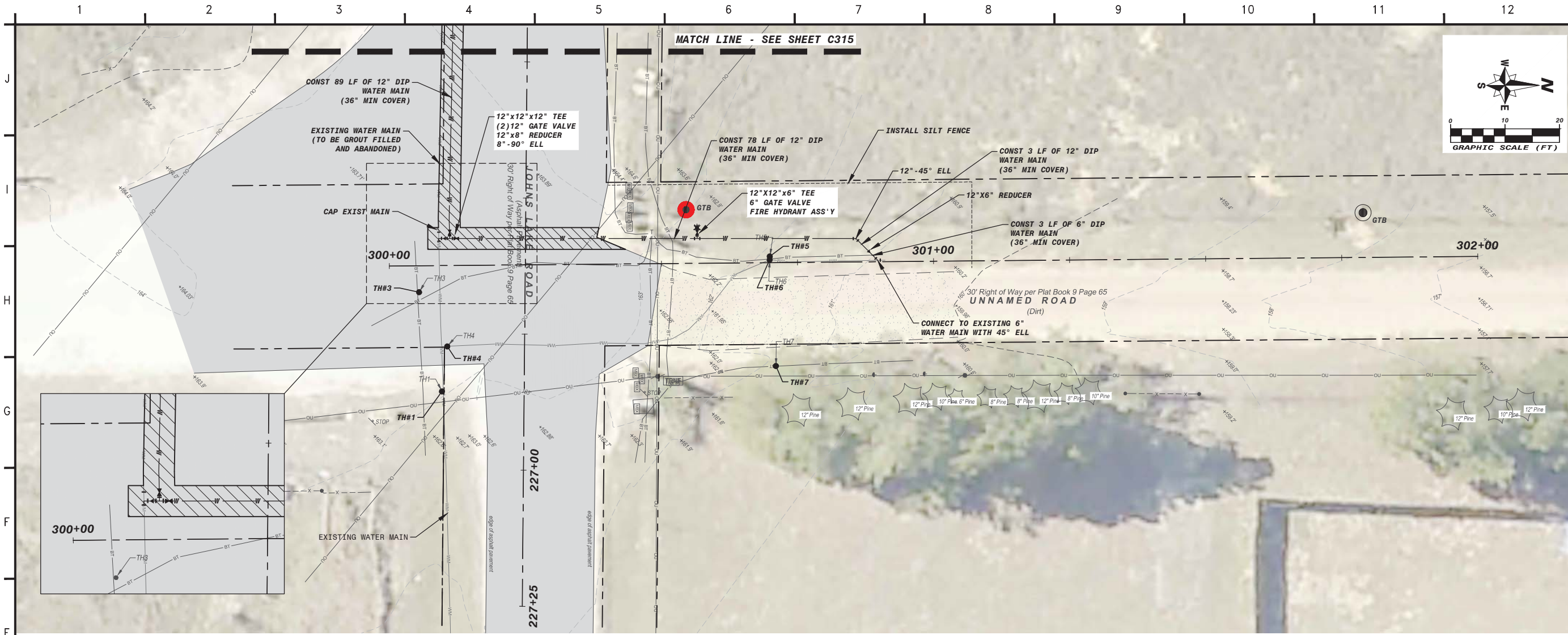
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DESIGNED BY:	DWB
DRAWN BY:	TAC
CHECKED BY:	DWB
APPROVED BY:	DWB
DATE:	1/21/2019

SHEET TITLE:  
**PLAN & PROFILE  
 JOHNS LAKE RD.  
 224+60 TO 227+25**

SHEET NUMBER:	REV. #
<b>C315</b>	----
SHEET 19 OF 25 SHEETS	





**wood.**

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**PROJECT:**  
**JOHNS LAKE ROAD WATER MAIN REPLACEMENT**  
CLERMONT, FL



**CITY OF CLERMONT**  
3335 HANCOCK ROAD  
CLERMONT, FL 34711  
PHONE: (352) 241-0178  
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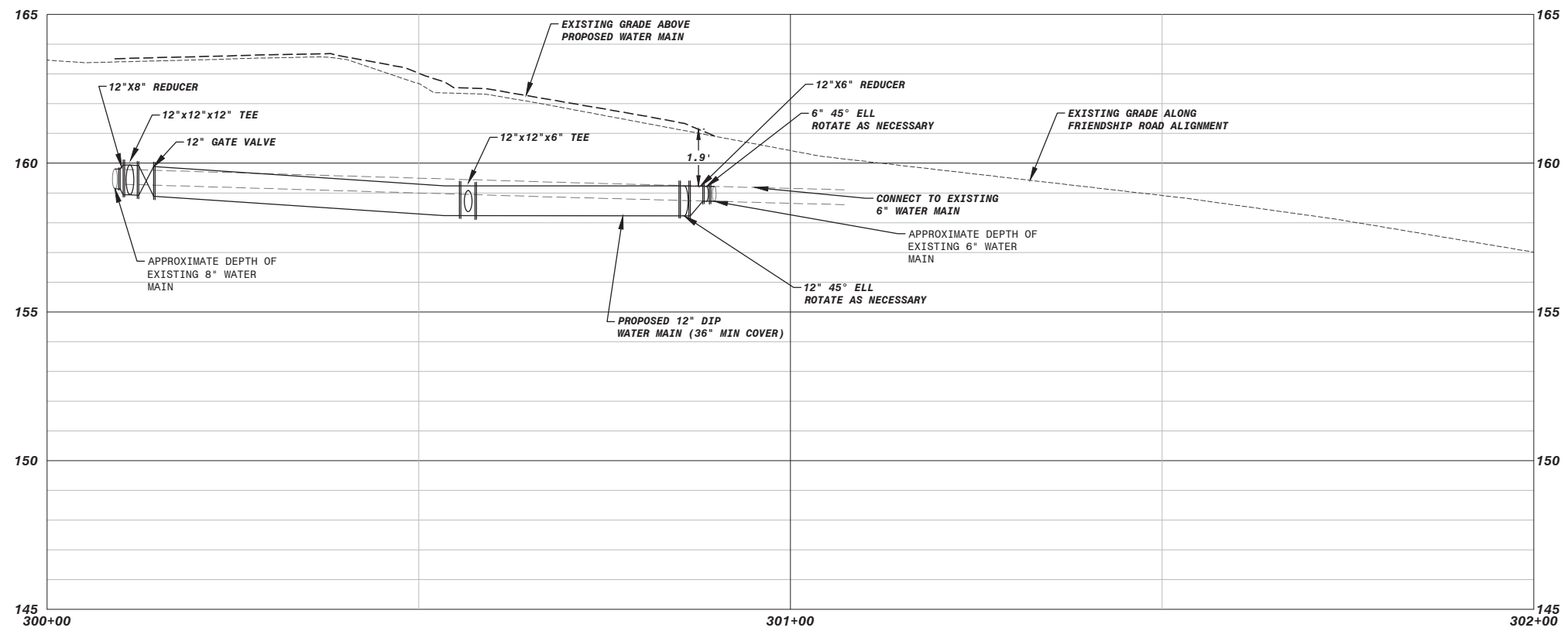
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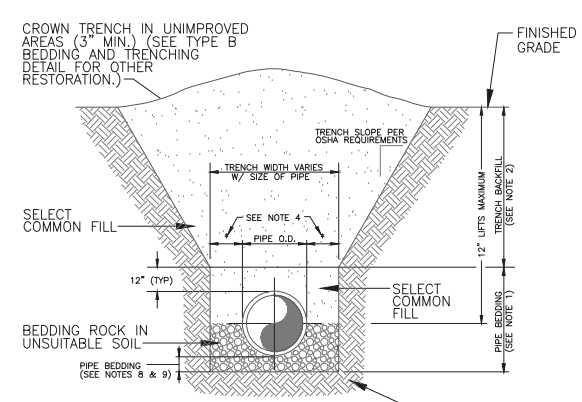
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DESIGNED BY:	DWB
DRAWN BY:	TAC
CHECKED BY:	DWB
APPROVED BY:	DWB
DATE:	1/21/2019

**SHEET TITLE:**  
  
**PLAN & PROFILE**  
**FRIENDSHIP RD.**  
**300+00 TO 302+00**

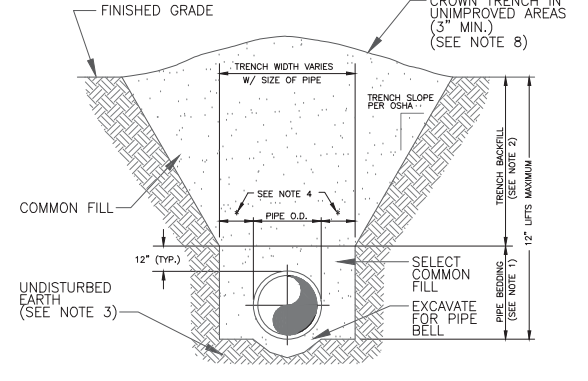
SHEET NUMBER:	REV. #
<b>C316</b>	----
SHEET 20 OF 25 SHEETS	





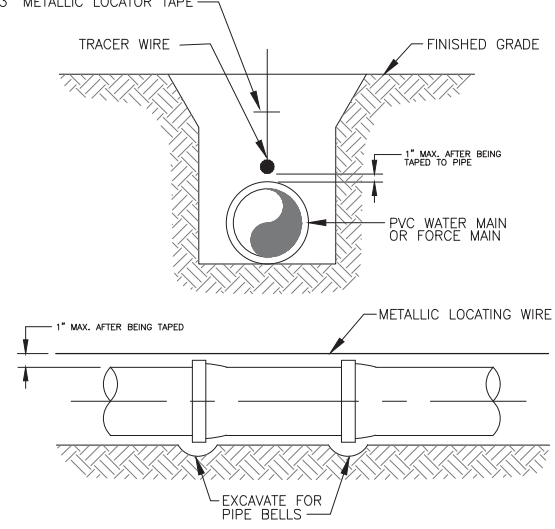
- NOTES:**
- PIPE BEDDING: SELECT COMMON FILL COMPACTED TO 95% OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
  - TRENCH BACKFILL: COMMON FILL COMPACTED TO 95% OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
  - USE TYPE A BEDDING TO BE DETERMINED IN THE FIELD AS DIRECTED BY THE CITY OF CLERMONT.
  - (\*) 15" MAX. FOR PIPE DIAMETER LESS THAN 24", AND 24" MAX. FOR PIPE DIAMETER 24" AND LARGER.
  - WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION.
  - ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF THE FLOW.
  - SHEETING AND BRACING SHALL BE USED IN ACCORDANCE WITH CURRENT TRENCHING REGULATIONS AND WHERE UNSAFE CONDITIONS EXIST.
  - GRAVITY SEWERS SHALL UTILIZE TYPE A BEDDINGS IF REQUIRED BY THE ENGINEER. BEDDING DEPTH SHALL BE 4" MINIMUM FOR PIPE DIAMETER LESS THAN 15", AND 6" MINIMUM FOR PIPE DIAMETER 16" AND LARGER.
  - DEPTH FOR REMOVAL OF UNSUITABLE MATERIAL SHALL GOVERN DEPTH OF BEDDING ROCK BELOW THE PIPE. CITY OF CLERMONT SHALL DETERMINE IN THE FIELD REQUIRED REMOVAL OF UNSUITABLE MATERIAL TO REACH SUITABLE FOUNDATION.

**TYPE A BEDDING AND TRENCHING DETAIL**  
NOT TO SCALE



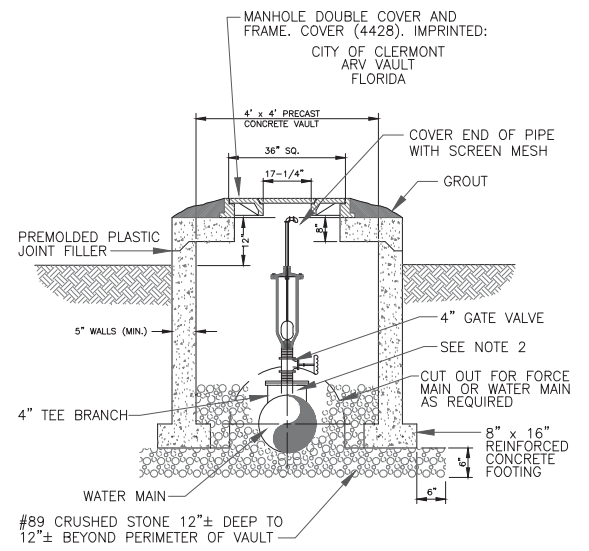
- NOTES:**
- PIPE BEDDING: SELECT COMMON FILL COMPACTED TO 95% OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
  - TRENCH BACKFILL: COMMON FILL COMPACTED TO 95% OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
  - PIPE BEDDING UTILIZING SELECT COMMON FILL OR BEDDING ROCK IN ACCORDANCE WITH TYPE A BEDDING AND TRENCHING DETAIL MAY BE REQUIRED AS DIRECTED BY THE ENGINEER.
  - (\*) 15" MAX. FOR PIPE DIAMETER LESS THAN 24", AND 24" MAX. FOR PIPE DIAMETER 24" AND LARGER.
  - WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION.
  - ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF THE FLOW.
  - SHEETING AND BRACING SHALL BE USED IN ACCORDANCE WITH CURRENT TRENCHING REGULATIONS AND WHERE UNSAFE CONDITIONS EXIST.
  - FINAL RESTORATION IN IMPROVED AREAS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS OF GOVERNING AGENCIES. SURFACE RESTORATION WITHIN CITY OF CLERMONT RIGHT-OF-WAY SHALL COMPLY WITH REQUIREMENTS OF RIGHT-OF-WAY UTILIZATION REGULATIONS AND ROAD CONSTRUCTION SPECIFICATIONS.

**TYPE B BEDDING AND TRENCHING DETAIL**  
NOT TO SCALE



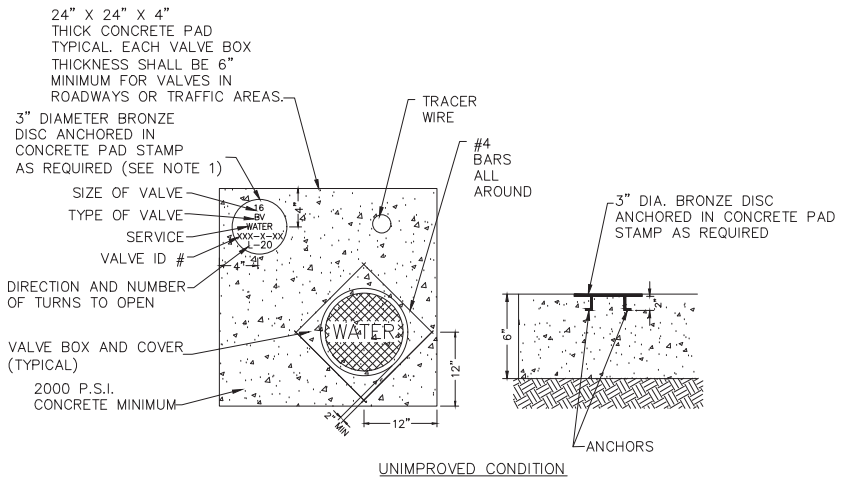
- NOTES:**
- PVC PIPE SHALL REQUIRE INSULATED METALLIC LOCATING WIRE (14 GAUGE COPPER) CAPABLE OF DETECTION BY A CABLE LOCATOR.
  - AND SHALL BE BURIED DIRECTLY ABOVE THE CENTERLINE OF THE PIPE. LOCATING WIRE SHALL TERMINATE AT THE TOP OF EACH VALVE BOX.
  - AND BE CAPABLE OF EXTENDING 12" ABOVE TOP OF BOX IN SUCH A MANNER SO AS NOT TO INTERFERE WITH VALVE OPERATION. USE DUCT TAPE AS NECESSARY TO HOLD WIRE DIRECTLY ON THE TOP OF THE PIPE.

**PVC PIPE LOCATING WIRE DETAIL**  
NOT TO SCALE



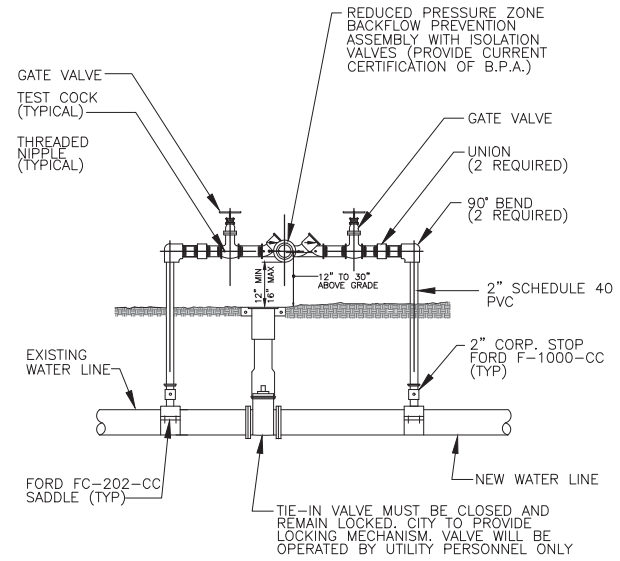
- NOTES:**
- ABOVE DETAIL IS BASED ON 4" COMBINATION AIR/VACUUM RELEASE VALVE. CHANGE PIPE AND FITTINGS ACCORDINGLY FOR OTHER VALVE SIZES AND TYPES. VALVE SIZES TO BE DETERMINED BY THE ENGINEER AND APPROVED BY THE CITY PRIOR TO INSTALLATION.
  - THE MINIMUM DIMENSION FROM TOP OF PIPE TO FINISHED GRADE SHALL BE 4.0 FEET.

**AIR OR COMBINATION AIR/VACUUM RELEASE VALVE DETAIL**  
NOT TO SCALE



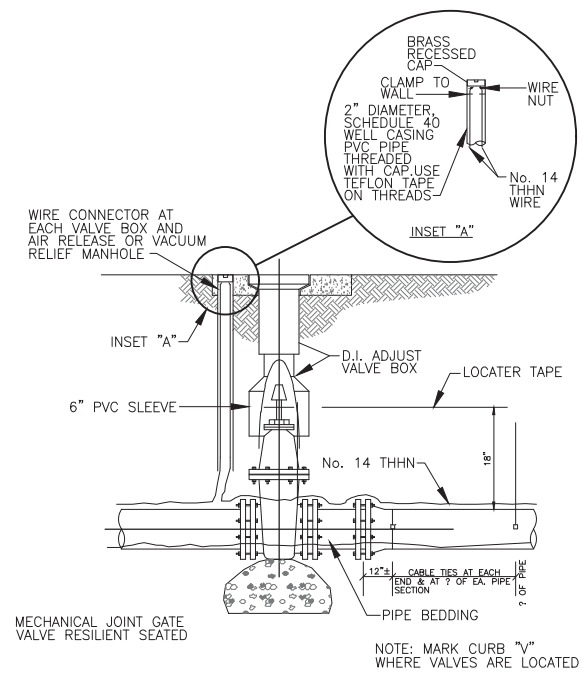
- NOTES:**
- BRONZE IDENTIFICATION DISC SHALL BE REQUIRED FOR ALL VALVES
  - REUSE VALVES TO HAVE SQUARE VALVE BOX TOP

**VALVE COLLAR**  
NOT TO SCALE



- NOTE:** LOCATION TO BE DETERMINED AT TIME OF PRECONSTRUCTION CONFERENCE WITH THE CITY.

**TEMPORARY JUMPER CONNECTION DETAIL**  
NOT TO SCALE



- NOTE:** MARK CURB "V" WHERE VALVES ARE LOCATED

**PIPE DETECTOR WIRE MARKER TAPE INSTALLATION**  
NOT TO SCALE

**wood.**

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DAVID W. BUTCHER, P.E.  
STATE OF FLORIDA  
PROFESSIONAL ENGINEER  
LICENSE NO. 55431  
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**PROJECT:**  
**JOHNS LAKE ROAD WATER MAIN REPLACEMENT**  
CLERMONT, FL



**CITY OF CLERMONT**  
3335 HANCOCK ROAD  
CLERMONT, FL 34711  
PHONE: (352) 241-0178  
FAX: (352) 241-0542

**WOOD PROJECT No:**  
600365.13

REVISIONS			
NO.	DATE	BY	APPROVED
X	X	X	X

DESIGNED BY:	DWB
DRAWN BY:	TAC
CHECKED BY:	DWB
APPROVED BY:	DWB
DATE:	1/21/2019

**SHEET TITLE:**  
**UTILITY DETAILS**

SHEET NUMBER:	REV. #
<b>C400</b>	----
SHEET 21 OF 25 SHEETS	

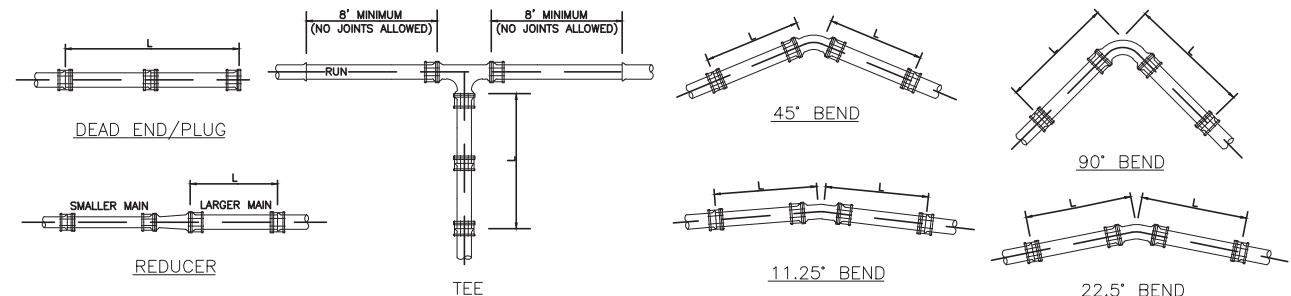
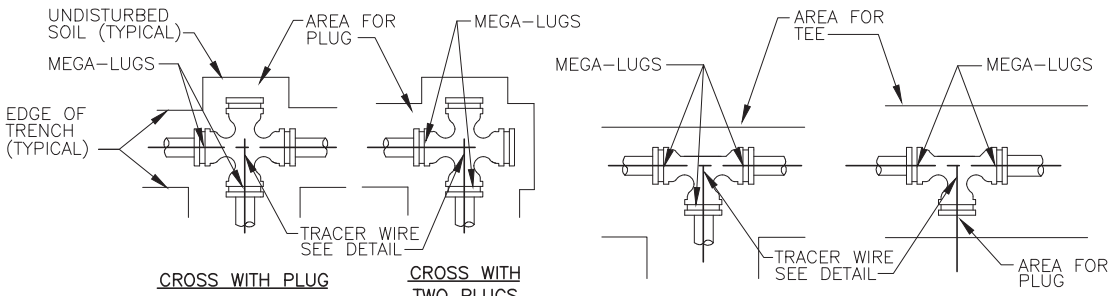


TABLE OF THRUST RESTRAINT LENGTHS

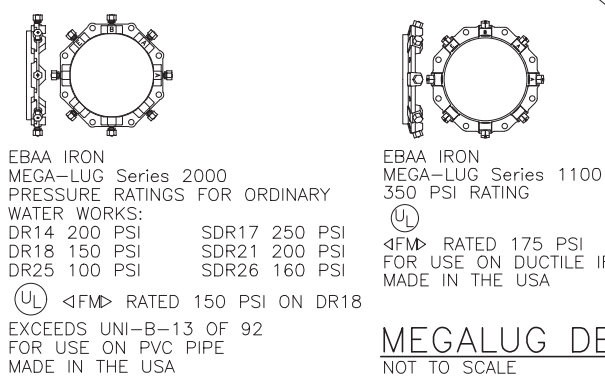
PIPE SIZE (INCHES)	90° BEND		45° BEND		22.5° BEND		11.25° BEND		TEES		DEAD END & PLUG		REDUCER		
	P.V.C. (L)	DUCTILE IRON (L)	P.V.C. (L)	DUCTILE IRON (L)	P.V.C. (L)	DUCTILE IRON (L)	P.V.C. (L)	DUCTILE IRON (L)	P.V.C. (L)	DUCTILE IRON (L)	P.V.C. (L)	DUCTILE IRON (L)	PIPE SIZES	P.V.C. (L)	DUCTILE IRON (L)
4	20'	16'	8'	7'	4'	3'	2'	2'	15'	10'	45'	28'	6"x4"	32'	21'
6	28'	22'	12'	9'	6'	4'	3'	2'	33'	21'	63'	40'	8"x6"	34'	22'
8	36'	29'	15'	12'	7'	6'	4'	3'	52'	33'	82'	52'	10"x8"	33'	21'
10	43'	34'	18'	14'	9'	7'	4'	3'	68'	43'	98'	62'	12"x10"	34'	21'
12	50'	40'	21'	17'	10'	8'	5'	4'	85'	53'	116'	73'	14"x12"	63'	40'
14	57'	46'	24'	20'	12'	9'	6'	5'	102'	63'	132'	84'	16"x14"	63'	40'
16	63'	51'	26'	21'	13'	10'	6'	5'	116'	73'	148'	93'			

- THRUST RESTRAINT DESIGN NOTES**
- RESTRAINT JOINTS, FITTINGS AND VALVE REQUIREMENTS CALCULATED BY THE THRUST RESTRAINT DESIGN PROGRAM PROVIDED BY EBAA IRON SALES, INC.
  - DATA BASED ON MAXIMUM WATER PRESSURE OF 150 PSI, THE UNIFIED SOILS CLASSIFICATION SYSTEM (SOIL TYPE SP), THE PIPE BEDDED IN NATIVE SOIL WITH A MINIMUM 2.5' COMPACTED FILL OVER THE PIPE, AND USING A SAFETY FACTOR OF 1.5 FOR THE DATA.
  - ALL FITTINGS AND VALVES TO BE RESTRAINED WITH "MEGA-LUG" RESTRAINTS, AND ALL BELL AND SPIGOT JOINTS TO BE RESTRAINED WITH A RESTRAINING HARNESS WITHIN THE REQUIRED LENGTH OF RESTRAINED PIPE (L).

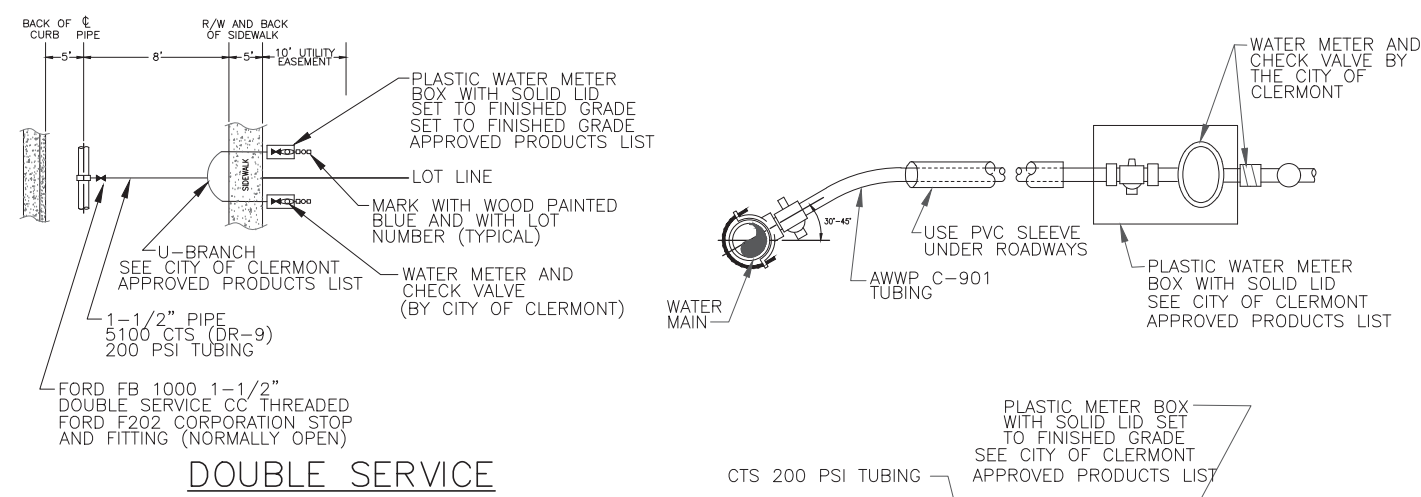
**THRUST RESTRAINT DETAILS**  
NOT TO SCALE



**NOTES:**  
USE "MEGA-LUG" FITTINGS AS APPROVED BY THE PROJECT ENGINEER. "MEGA-LUG" CALCULATIONS TO BE PROVIDED BY THE CONTRACTOR AND APPROVED BY THE CITY ENGINEER PRIOR TO CONSTRUCTION.

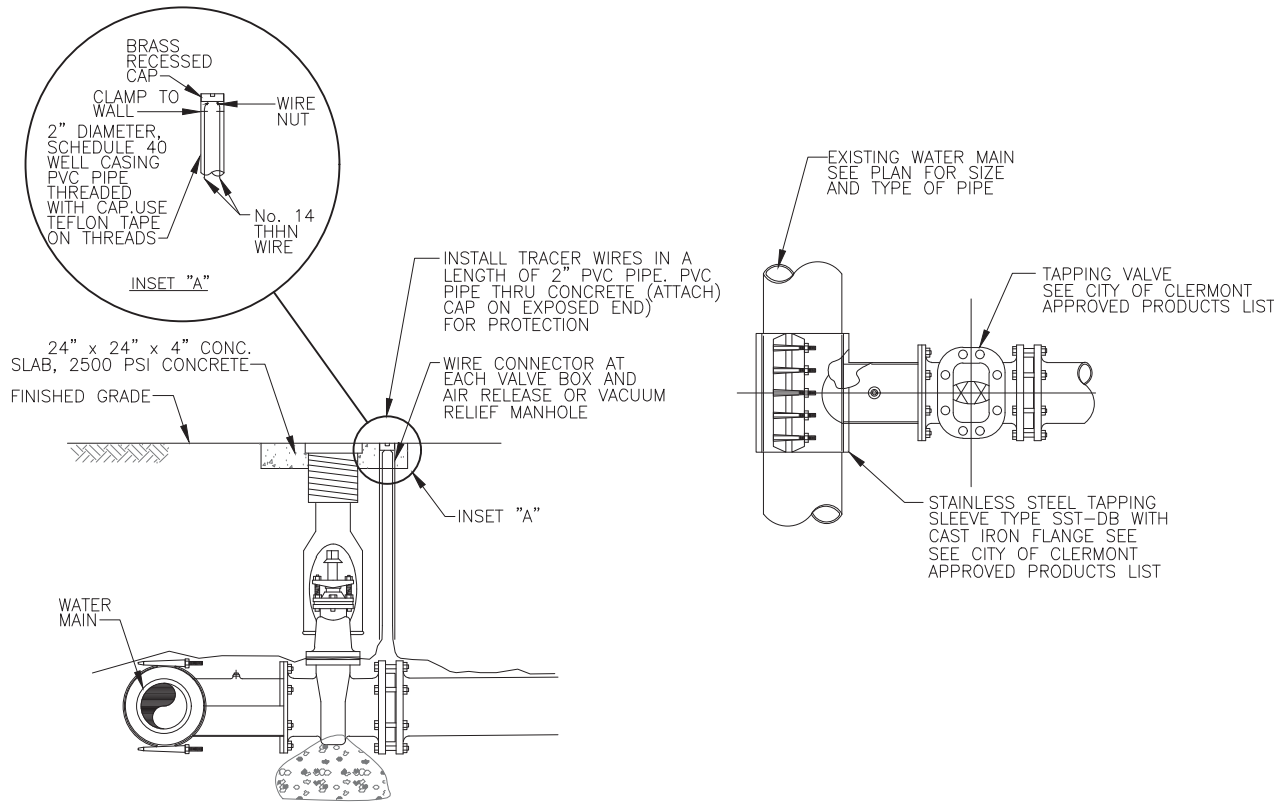


**MEGALUG DETAILS**  
NOT TO SCALE



- NOTES:**
- ALL WATER SERVICES AND METER BOXES SHALL BE LOCATED INSIDE THE 10' UTILITY EASEMENT. SERVICE LINES SHALL BE CONTINUOUS FROM CORPORATION STOP TO CURB STOP.
  - ALL CLERMONT SERVICE LINES SHALL BE 1" (1-1/2" DBL. SERV.) CTS (DR-9), 200 PSI TUBING.
  - EACH SERVICE SHALL TERMINATE AT A CURB STOP WHICH SHALL BE CLEARLY MARKED WITH A 2" X 2" X 18" STAKE
  - SEE CITY OF CLERMONT APPROVED PRODUCT LIST.
  - ALL WATER SERVICES CROSSING UNDER ROADWAYS TO BE ENCASED IN LARGER SIZE SCHEDULE 40 PVC.
  - EXISTING METER BOXES TO REMAIN. PROVIDE NEW METER BOX FOR NEW SERVICES.
  - MARK CURB "W" WHERE SERVICES ARE LOCATED.
  - PROVIDE TRACER WIRE ALONG SERVICE LINES.
  - SERVICE SADDLES 1" SHALL BE CC THREAD, 1.5" - 2" FIP THREAD.
  - NO LOOPING OR EXCESSIVE BENDING OF POLY TUBING. IF SERVICE NEEDS TO BE SHORTENED, CRIMP THE POLY TUBING AND INSTALL A SS FULL CIRCLE CLAMP AROUND CRIMPED AREA WHEN COMPLETED.

**WATER SERVICE CONNECTION DETAILS**  
NOT TO SCALE



**TAPPING SLEEVE DETAIL ELEVATION VIEW**  
NOT TO SCALE

**TAPPING SLEEVE DETAIL PLAN VIEW**  
NOT TO SCALE

**wood.**

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**PROJECT:**  
**JOHNS LAKE ROAD WATER MAIN REPLACEMENT**  
CLERMONT, FL



**CITY OF CLERMONT**  
3335 HANCOCK ROAD  
CLERMONT, FL 34711  
PHONE: (352) 241-0178  
FAX: (352) 241-0542

**WOOD PROJECT No:**  
600365.13

REVISIONS

NO.	DATE	BY	APPROVED
X	X	X	X

DESIGNED BY: DWB  
DRAWN BY: TAC  
CHECKED BY: DWB  
APPROVED BY: DWB  
DATE: 1/21/2019

**SHEET TITLE:**  
UTILITY DETAILS

SHEET NUMBER: C401  
REV. #: ----  
SHEET 22 OF 25 SHEETS

**General Water Notes**

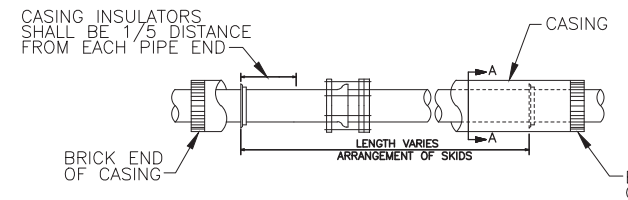
- WATER SYSTEM COMPONENTS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND REGULATIONS, CLEANED, DISINFECTED AND BACTERIOLOGICALLY CLEARED FOR SERVICE IN ACCORDANCE WITH THE LATEST AWWA STANDARDS AND CHAPTER 62-555 FLORIDA ADMINISTRATIVE CODE.
- ALL PIPING SHALL BEAR THE "NSF" SEAL FOR POTABLE WATER.
- WATER MAINS SHALL BE PVC CONFORMING TO AWWA C-900, DR 18 FOR PIPE SIZES 4"-12". PIPES 14" OR LARGER SHALL BE AWWA C-905, DR 18. ALL COUPLINGS, CLEANING COMPOUNDS, SOLVENTS, LUBRICANTS, AND PIPE PREPARATION, FOR LAYING, SHALL BE IN ACCORDANCE WITH THE PIPE MANUFACTURERS LATEST RECOMMENDATIONS.
- DEPTH OF WATER LINES TO BE 36" MINIMUM COVER FROM FINISH GRADE.
- WATER MAINS TO BE LOCATED 6.00' FROM BACK OF CURB OR EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
- ALL SLEEVES UNDER PAVEMENT SHALL EXTEND 5' BEYOND THE BACK OF CURB.
- DISINFECTING: FOLLOWING THE PRESSURE TESTING, THE CONTRACTOR SHALL DISINFECT SECTIONS OF THE WATER DISTRIBUTION SYSTEM. DISINFECTING SHALL BE IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF AWWA STANDARD C651 "DISINFECTING WATER MAINS", AND ALL APPROPRIATE AGENCY APPROVAL.
- ALL HYDROSTATIC TEST SHALL BE IN ACCORDANCE WITH AWWA C600 FOR DUCTILE IRON PIPE AND C605/M23 FOR PVC PIPE.
- ALL WATER MAINS SHALL BE INSTALLED, PRESSURE AND LEAK TESTED IN ACCORDANCE WITH AWWA C600, (62-555.320(2)(b)) AND 62-555.330, F.A.C. ALL INSTALLATION, TESTING AND FIELD PROCEDURES MUST BE PROVIDED AND MUST CONFORM TO THE APPLICABLE AWWA STANDARDS.
- ALL PIPING MATERIALS AND SPECIFICATIONS COVERING PIPES, JOINTS AND PACKING MATERIALS, INTERNAL COATING AND LININGS, FITTINGS, SPECIALS AND APPURTENANCES SHALL ALL BE IN ACCORDANCE WITH THE CORRESPONDING AWWA STANDARDS AND BE CONFORMING TO NSF REQUIREMENTS, AS MAY BE APPLICABLE, WITH EXCEPTIONS ALLOWED ONLY IF DOCUMENTATION AND ASSURANCES ARE PROVIDED IN COMPLIANCE WITH PARAGRAPHS 62-555.320(3) (d) 62-555.320 (3) (b), AND 62-555.320 (21) (c), F.A.C. THE LEAD USE PROHIBITION IN RULE 62-555.322, F.A.C. SHALL ALSO APPLY. POLYETHYLENE TUBING SHALL BE PER AWWA C901. UNDERGROUND SERVICE LINES, AND VALVES SHALL BE PER AWWA C800.

**COLOR CODING**

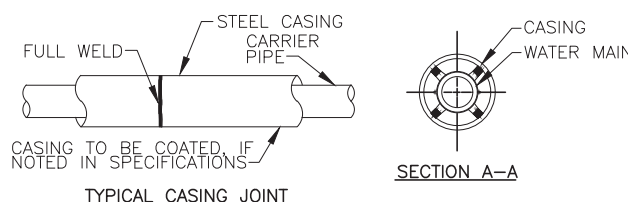
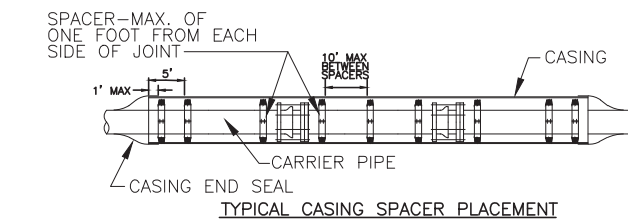
All water main pipe, including fittings, installed on or after August 28, 2003, except pipe installed under a construction permit for which the Department received a complete application before August 28, 2003, shall be color coded or marked using blue as a predominate color to differentiate drinking water from reclaimed or other water. Underground plastic pipe shall be solid-wall blue pipe, shall have a co-extruded blue external skin, or shall be white or black pipe with blue stripes incorporated into, or applied to, the pipe wall; and underground metal or concrete pipe shall have blue stripes applied to the pipe wall. Pipe striped during manufacturing of the pipe shall have continuous stripes that run parallel to the axis of the pipe, that are located at no greater than 90° intervals around the pipe, and will remain intact during and after installation of the pipe. If tape or paint is used to stripe pipe during installation of the pipe, the tape or paint shall be applied in a continuous line that runs parallel to the axis of the pipe and that is located along the top of the pipe; for pipes with an internal diameter of 24 inches or greater, tape or paint shall be applied in continuous lines along each side of the pipe as well as along the top of the pipe. Aboveground pipe as drinking water treatment plants shall be color coded and labeled in accordance with subsection 62-555.320(10), F.A.C., and all other aboveground pipe shall be painted blue or shall be color coded or marked like underground pipe.

**Utility Construction Notes (DEP)**

- 62-555.314 Location of Public Water System Mains:  
For the purpose of this section, the phrase "Water Mains" shall mean Mains, including treatment plant process piping, conveying either raw, partially treated, or finished drinking water; Fire Hydrant leads; and service lines that are under the control of a Public Water System and that have an inside diameter of three (3) inches or greater.
- Horizontal Separation Between Underground Water Mains and Sanitary or Storm Sewers, Wastewater or Storm water Force Mains, Reclaimed Water Pipelines, and On-site Sewage Treatment and Disposal Systems:
    - New or relocated, underground WATER MAINS shall be laid to provide a horizontal distance of at least (3) Three Feet between the outside of the WATER MAIN and the outside of any existing or proposed Storm Sewer, Storm water Force Main, or pipeline conveying reclaimed water regulated under Part III of Chapter 62-610, F.A.C.
    - New or relocated, underground WATER MAINS shall be laid to provide a horizontal distance of at least (3) three feet, and preferably (10) Ten Feet, between the outside of the WATER MAIN and the outside of any existing or proposed vacuum-type Sanitary Sewer.
    - New or relocated, underground WATER MAINS shall be laid to provide a horizontal distance of at least (6) Six Feet, and preferably (10) Ten Feet, between the outside of the WATER MAIN and the outside of any existing or proposed Gravity- or Pressure-type Sanitary Sewer, Wastewater Force Main, or pipeline conveying reclaimed water not regulated under Part III of Chapter 62-610 F.A.C. The Minimum Horizontal Separation distance between WATER MAINS and Gravity-type Sanitary Sewers shall be reduced to (3) Three Feet where the BOTTOM of the WATER MAIN is laid at least (6) Six inches above the Top of the Sewer.
    - New or relocated, underground WATER MAINS shall be laid to provide a horizontal distance of at least (10) Ten Feet between the outside of the WATER MAIN and all parts of any existing or proposed "On site Sewage Treatment and Disposal System" as defined in Section 381.0065(2), F.S. and Rule 64E-6.002, F.A.C.
  - Vertical Separation Between Underground WATER MAINS and Sanitary or Storm Sewers, Wastewater or Storm water Force Mains, and Reclaimed Water Pipelines:
    - New or relocated underground WATER MAINS crossing any existing or proposed gravity- or vacuum-type sanitary sewer or storm sewer shall be laid so the outside of the WATER MAIN is at least (6) Six inches, and preferably 12 inches above, or at least 12 inches below the outside of the other pipeline. However, it is preferable to lay the WATER MAIN "ABOVE" the other pipeline.
    - New or relocated, Underground WATER MAINS crossing any existing or proposed pressure-type sanitary sewer, wastewater or stormwater Force Main, or Pipeline conveying reclaimed water shall be laid so the outside of the WATER MAIN is at least (12) inches ABOVE or BELOW the Outside of the other pipeline. However, it is preferable to lay the WATER MAIN above the other pipeline.
    - At the Utility crossings described in paragraphs (a) & (b) Above, one full length of Water Main Pipe shall be centered above or below the other pipeline so the WATER MAIN joints will be as far as possible from the other pipeline. Alternatively, at such crossings, the pipes shall be arranged so that all WATER MAIN joints are at least (3) Three feet from all joints in Vacuum-type Sanitary Sewers, Storm Sewers, Stormwater Force Mains, or pipelines conveying reclaimed water regulated under Part III of Chapter 62-610, F.A.C., and at least (6) Six Feet from all joints in Gravity- or Pressure-type Sanitary Sewers, Wastewater force mains, or pipelines conveying reclaimed water not regulated under Part III of Chapter 62-610, F.A.C.
  - Separation Between WATER MAINS and Sanitary or Storm Sewer Manholes:
    - No WATER MAIN shall pass thru, or come into contact with any part of a Sanitary Manhole or a Storm Sewer Manhole.
    - Separation Between Fire Hydrant Drains and Sanitary or Storm Sewers, Wastewater or Stormwater Force Mains, reclaimed Water Pipelines, and On-Site Sewage Treatment and Disposal Systems. New or relocated Fire Hydrants with underground Drains shall be located so that the drains are at least (3) Three Feet from any existing or proposed storm sewer, Stormwater force main, or pipeline conveying reclaimed water regulated under Part III of Chapter 62-610, F.A.C.; at least (3) Three Feet, and preferably (10) Ten Feet, from any existing or proposed gravity- or Pressure-type Sanitary Sewer, Wastewater force main, or pipeline conveying reclaimed water not regulated under Part III of Chapter 62-610, F.A.C.; and at least (10) Ten Feet from any existing or proposed "on-site sewage treatment and disposal system" as defined in Section 381.0065(2), F.S. and Rule 64E-6.002, F.A.C.
  - Exceptions/Mitigation:  
Adherence to the above Constraints and Separations in Items 1 through 4 shall be Compelled to, "WITHOUT EXCEPTION". If for some reason where it is not technically feasible or Economically Sensible that Items 1 through 4 cannot be complied with, Contractor will Stop Work and Notify the Engineer of record for the appropriate solution, which will be submitted to The Department of Environmental Protection for APPROVAL, prior to work commencement.



NOTE: CASING JOINTS WILL NOT BE ALLOWED UNDER TRAFFIC LANES. CONTRACTOR TO SPACE JOINTS AND SUBMIT SHOP DRAWING FOR APPROVAL BY ENGINEER BEFORE JACK & BORE BEGINS.

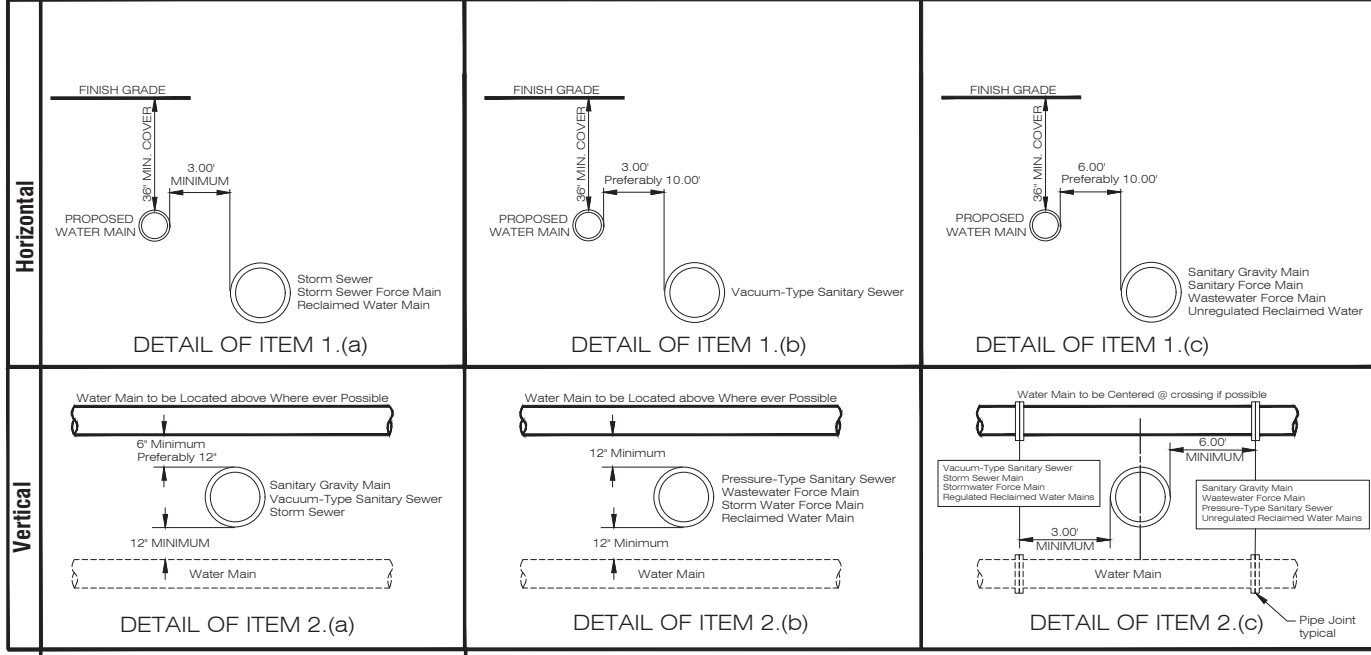


NOTE: USE FUSION COATED STEEL CASING INSULATORS 12" WIDE WITH 2" GLASS REINFORCED RUNNERS FOR PIPE SKIDS.

JACK AND BORE STEEL CASING MINIMUM THICKNESS IN INCHES	
NOMINAL OUTSIDE DIAMETER	MINIMUM WALL THICKNESS
3/4"	0.113"
1"	0.133"
1-1/4"	0.140"
1-1/2"	0.145"
2"	0.154"
4"	0.188"
6"	0.188"
8"	0.188"
10"	0.188"
12"	0.188"
24"	0.250"
30"	0.312"
36"	0.375"
42" & GREATER	0.500"

MINIMUM THICKNESS FOR PIPE DIAMETERS NOT SHOWN SHALL BE THE SAME AS REQUIRED FOR THE FOR THE NEXT LARGER SIZE LISTED ABOVE.  
ALL STEEL CASINGS ARE TO MEET OR EXCEED FDOT REQUIREMENTS AS SET FORTH IN THE UTILITY ACCOMMODATION MANUAL.

**PAVEMENT CROSSING WITH CASING BORE, TUNNEL OR OPEN CUT**  
NOT TO SCALE



**PIPING CLEARANCES**  
NOT TO SCALE

**wood.**  
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PROJECT:  
**JOHNS LAKE ROAD WATER MAIN REPLACEMENT**  
CLERMONT, FL



**CITY OF CLERMONT**  
3335 HANCOCK ROAD  
CLERMONT, FL 34711  
PHONE: (352) 241-0178  
FAX: (352) 241-0542

WOOD PROJECT No:  
**600365.13**

REVISIONS			
NO.	DATE	BY	APPROVED
X	X	X	X

DESIGNED BY:	DWB
DRAWN BY:	TAC
CHECKED BY:	DWB
APPROVED BY:	DWB
DATE:	1/21/2019

SHEET TITLE:  
**UTILITY DETAILS**

SHEET NUMBER:	REV. #
<b>C402</b>	----
SHEET 23 OF 25 SHEETS	



**MATERIALS AS REQUIRED BY THE CITY OF CLERMONT**

THE CONTRACTOR SHALL CUT A "W" IN THE CURB TOP AT EACH WATER SERVICE AND A "V" AT ALL VALVE LOCATIONS. CUT W'S AND V'S SHALL BE HIGHLIGHTED WITH BLUE PAINT. SEE WATER SYSTEM DETAILS FOR OTHER SERVICE LOCATION AND MARKING REQUIREMENTS.

**PIPE INSTALLATION**

PIPE INSTALLATION OF PVC WATER MAIN SHALL BE IN CONFORMANCE WITH ASTM D2774 (LATEST EDITION). INSTALLATION OF DUCTILE IRON PIPE WATER MAIN SHALL BE IN CONFORMANCE WITH AWWA C600.87.

COMPACTED BACKFILL SHALL BE TO 98% MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180 UNDER ALL PAVEMENTS WITH 12" MAXIMUM LIFT THICKNESS. OTHER COMPACTION OF BACKFILL SHALL BE TO 95% MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180 WITH 12" MAXIMUM LIFT THICKNESS. SEE PIPE TRENCHING DETAILS.

MINIMUM COVER OVER ALL PIPE SHALL BE 36" FROM TOP OF PIPE TO FINISHED GRADE. SEE PLAN AND PROFILE SHEETS FOR REQUIRED DEPTH.

WATER MAINS ARE TO BE INSTALLED SO AS TO PROVIDE A MINIMUM VERTICAL CLEARANCE OF 12" OR A MINIMUM HORIZONTAL CLEARANCE OF 10' FROM ALL OTHER UTILITIES. IF THE MINIMUM CLEARANCE CAN NOT BE ACHIEVED, THEN DUCTILE IRON WATER MAIN SHALL BE SPECIFIED 10 FEET EITHER SIDE OF THE CROSSING. HORIZONTAL AND VERTICAL MINIMUM SEPARATION DISTANCE REQUIREMENTS BETWEEN WATER MAIN AND ALL OTHER UTILITIES SHALL COMPLY WITH 62-555.314 (1), (2), (3), (4) AND (5) FAC.

ALL WATER MAINS SHALL BE INSTALLED WITH RESTRAINED JOINT FITTINGS. NO CONCRETE THRUST BLOCKS TO BE USED.

ALL PLUGS, CAPS, TEES, BENDS, FIRE HYDRANTS, VALVES, ETC. SHALL BE PROVIDED WITH MEGALUG PIPE RESTRAINTS. FOR RESTRAINT CONSTRUCTION SPECIFICATIONS, REFER TO THE WATER SYSTEM DETAILS.

ALL VALVES TO BE RESTRAINED AS DEAD ENDS IN BOTH DIRECTIONS.

**PIPE IDENTIFICATION**

3" METALLIC LOCATOR TAPE SHALL BE BURIED IN THE WATER MAIN TRENCH 18" DIRECTLY ABOVE THE WATER MAIN. A CONTINUOUS COPPER DETECTOR WIRE SHALL BE ATTACHED AS SHOWN ON THE WATER DETAIL SHEET. WIRE CONNECTIONS (SPICES) SHALL BE DONE WITH WIRE NUT AND GREASE FILLED PROTECTIVE CAP.

ALL PIPE AND PIPE FITTINGS SHALL BE COLOR CODED OR MARKED IN ACCORDANCE WITH SUB- PARAGRAPH 62-555.320(21)(b)3, F.A.C., USING BLUE AS A PREDOMINANT COLOR. (UNDERGROUND PLASTIC PIPE SHALL BE SOLID-WALL BLUE PIPE, SHALL HAVE A CO-EXTRUDED BLUE EXTERNAL SKIN OR SHALL BE WHITE OR BLACK PIPE WITH BLUE STRIPES INCORPORATED INTO, OR APPLIED TO, THE PIPE WALL; AND UNDERGROUND METAL OR CONCRETE PIPE SHALL HAVE BLUE STRIPES APPLIED TO THE PIPE WALL. PIPE STRIPED DURING MANUFACTURING OF THE PIPE SHALL HAVE CONTINUOUS STRIPES THAT RUN PARALLEL TO THE AXIS OF THE PIPE, THAT ARE LOCATED AT NO GREATER THAN 90-DEGREE INTERVALS AROUND THE PIPE, AND THAT WILL REMAIN INTACT DURING AND AFTER INSTALLATION OF THE PIPE. IF TAPE OR PAINT IS USED TO STRIPE PIPE DURING INSTALLATION OF THE PIPE, THE TAPE OR PAINT SHALL BE APPLIED IN A CONTINUOUS LINE THAT RUNS PARALLEL TO THE AXIS OF THE PIPE AND THAT IS LOCATED ALONG THE TOP OF THE PIPE; FOR PIPE WITH AN INTERNAL DIAMETER OF 24 INCHES OR GREATER, TAPE OR PAINT SHALL BE APPLIED IN CONTINUOUS LINES ALONG EACH SIDE OF THE PIPE AS WELL AS ALONG THE TOP OF THE PIPE. ABOVE GROUND PIPE SHALL BE PAINTED BLUE OR SHALL BE COLOR CODED OR MARKED LINE UNDERGROUND PIPE.) RHINO TRIVIEW FLEXMARKING POST SHALL BE PLACED ON ALL TRANSMISSION MAINS AT 500 FEET.

**DISINFECTION AND TESTING**

ALL PIPE SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA STANDARD C651.86.

PVC WATER MAINS SHALL BE INSTALLED; PRESSURE AND LEAK TESTED IN ACCORDANCE WITH AWWA C605 AND DUCTILE IRON WATER MAINS IN ACCORDANCE WITH AWWA C600, [62-555.320(21)(B) 1 AND 62-555.330, F.A.C]. ALL INSTALLATION, TESTING AND FIELD PROCEDURES MUST BE PROVIDED AND MUST CONFORM TO THE APPLICABLE AWWA STANDARDS.

THE CONTRACTOR SHALL PROVIDE AT HIS OWN EXPENSE ALL NECESSARY TEST PUMPING EQUIPMENT, WATER, WATER METERS, PRESSURE GAUGES AND OTHER EQUIPMENT, MATERIAL AND FACILITIES REQUIRED FOR ALL HYDROSTATIC AND LEAKAGE TESTING. CONTRACTOR SHALL CONTACT THE ENGINEER, OWNER/OPERATOR AND CITY IN WRITTEN FORM, FORTY EIGHT (48) HOURS IN ADVANCE OF PROPOSED TESTING. THE CONTRACTOR SHALL PERFORM SATISFACTORY PRETESTING PRIOR TO NOTIFICATION.

THE WATER SYSTEM SHALL BE SOAK TESTED 24 HOURS @150 PSI AND TESTED FOR LEAKAGE AT 150 PSI FOR TWO (2) HOURS, WITH ALLOWABLE LEAKAGE IN ACCORDANCE WITH ABOVE STANDARDS.

CONTRACTOR SHALL OBTAIN A COPY OF THE FDEP WATER SYSTEM PERMIT AND PULL BACTERIOLOGICAL TEST SAMPLES FROM THE SAMPLE POINTS SPECIFIED IN THAT PERMIT. CONTINUITY TEST SHALL BE PERFORMED ON WIRE BY CONTRACTOR.

**CONNECTIONS TO EXISTING WATER MAINS**

PRIOR TO THE CONNECTION TO ANY EXISTING MAIN, THE PROPOSED WATER MAIN SHALL BE DISINFECTED, HAVE ENGINEER APPROVED PRESSURE TESTING AND HAVE FDEP CLEARANCE. REFER TO FDEP PERMIT FOR ANY ADDITIONAL REQUIREMENTS.

**ASBUILT DRAWINGS**

THE CONTRACTOR SHALL PROVIDE VERTICAL AND HORIZONTAL "ASBUILT" INFORMATION RELATIVE TO ALL CONSTRUCTED UTILITIES AND STRUCTURES. THREE SETS SHALL BE PROVIDED FOR REVIEW. ONCE APPROVED BY THE UTILITY, ONE REPRODUCIBLE SET SHALL BE PROVIDED.

AS-BUILT INFORMATION FOR THE WATER SYSTEM SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING:

1. LOCATION OF ALL VALVES, FITTINGS, HYDRANTS AND SERVICES – HORIZONTAL AND VERTICAL.
2. LOCATION OF THE WATER MAIN TIED WITH COORDINATES FOR THE SUBDIVISION.
3. CERTIFICATION AS TO THE SYSTEM MEETING THE MINIMUM COVER REQUIREMENTS.
4. HORIZONTAL AND VERTICAL DATA FOR ANY CONSTRUCTION WHICH DEVIATES FROM THE APPROVED ENGINEERING PLANS.
5. UTILITY LOCATES ON SYSTEMS INSTALLED UNDER THIS CONTRACT SHALL REMAIN THE RESPONSIBILITY OF THE CONTRACTOR/DEVELOPER UNTIL ASBUILT DRAWINGS ARE REVIEWED AND APPROVED BY THE UTILITY.

**TEMPORARY JUMPER CONNECTION NOTES**

A TEMPORARY JUMPER CONNECTION IS REQUIRED AT ALL CONNECTIONS BETWEEN EXISTING ACTIVE WATER MAINS AND PROPOSED NEW WATER MAIN IMPROVEMENTS. THE DETAIL PROVIDED IS TO BE USED FOR FILLING ANY NEW WATER MAIN OF ANY SIZE FROM EXISTING ACTIVE WATER MAINS AND FOR FLUSHING OF NEW MAINS UP TO 8" DIAMETER (2.5 FPS MINIMUM VELOCITY) AND FOR TAKING BACTERIOLOGICAL SAMPLES FROM ANY NEW WATER MAIN OF ANY SIZE. THE JUMPER CONNECTION SHALL BE MAINTAINED UNTIL AFTER FILLING, FLUSHING, TESTING AND DISINFECTING OF THE NEW MAIN HAS BEEN SUCCESSFULLY COMPLETED AND CLEARANCE FOR USE HAS BEEN OBTAINED FROM THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP) AND OTHER PERTINENT AGENCIES HAS BEEN RECEIVED BY THE CITY OF CLERMONT. THIS JUMPER CONNECTION SHALL ALSO BE USED TO MAINTAIN A MINIMUM LEVEL OF DISINFECTION AND UNTIL THE FDEP CLEARANCE LETTER IS OBTAINED AND THE LINES ARE PLACED INTO SERVICE.

ADEQUATE RESTRAINTS SHALL BE PROVIDED TEMPORARILY, AS REQUIRED.

PIPE AND FITTINGS USED FOR CONNECTING THE NEW PIPE TO THE EXISTING PIPE SHALL BE DISINFECTED PRIOR TO INSTALLATION IN ACCORDANCE WITH AWWA C651, 1992 EDITION. THE TAPPING SLEEVE AND THE EXTERIOR OF THE MAIN TO BE TAPPED SHALL BE DISINFECTED BY SPRAYING OR SWABBING PER SECTION II OF AWWA C651-92.

FLUSHING OF ALL WATER MAINS SHALL BE DONE THROUGH THE TIE-IN VALVE UNDER CONTROLLED CONDITIONS BY THE CITY ONLY. FULL BORE FLUSH IS REQUIRED. THE FOLLOWING PROCEDURES SHALL BE FOLLOWED:

- A. THE TIE-IN VALVES SHALL BE OPERATED ONLY BY THE CITY AND PRESSURE TESTED IN THE PRESENCE OF THE CITY AND ENGINEER TO VERIFY WATER TIGHTNESS PRIOR TO TIE-IN. VALVES WHICH ARE NOT WATERTIGHT SHALL BE REPLACED OR A NEW VALVE INSTALLED IMMEDIATELY ADJACENT TO THE LEAKING VALVE.
- B. THE TEMPORARY JUMPER CONNECTION SHALL BE CONSTRUCTED AS DETAILED. THE JUMPER CONNECTION SHALL BE USED TO FILL THE NEW WATER MAIN, FOR PROVIDING WATER FOR BACTERIOLOGICAL SAMPLING OF THE NEW MAIN AS REQUIRED BY THE FDEP PERMIT AND FOR MAINTAINING CHLORINE RESIDUALS IN THE MAINS.
  1. FLUSHING SHALL NOT BE ATTEMPTED DURING PEAK DEMAND HOURS OF THE EXISTING WATER MAIN.
  2. ALL DOWNSTREAM VALVES IN THE NEW SYSTEM MUST BE OPEN PRIOR TO THE CITY OPENING THE TIE-IN VALVE.
  3. PROVIDE FOR AND MONITOR THE PRESSURE AT THE TIE-IN POINT. THE PRESSURE IN THE EXISTING MAIN MUST NOT DROP BELOW 35 PSI.
  4. TIE-IN VALVE SHALL BE OPENED BY THE CITY A FEW TURNS ONLY, ENSURING A PRESSURE DROP ACROSS THE VALVE IS ALWAYS GREATER THAN 10 PSI.
- C. THE TIE-IN VALVE SHALL BE LOCKED CLOSED BY THE CITY UNTIL THE FLUSHING BEGINS.
- D. THE TIE-IN VALVE SHALL BE OPENED ONLY BY THE CITY FOR FLUSHING OF THE NEW MAIN. THE PROCEDURE SHALL BE DONE BY THE CITY AND OBSERVED BY THE ENGINEER.

E. AFTER FLUSHING, THE TIE-IN VALVE SHALL BE CLOSED AND LOCKED IN THE CLOSE POSITION BY THE CITY. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION DEMONSTRATING THAT THE RPZ BACK FLOW PREVENTION DEVICE HAS BEEN TESTED WITHIN ONE YEAR AT THE TIME OF INSTALLATION, AND IS IN GOOD WORKING ORDER AT THE TIME OF INSTALLATION. THE TEST SHALL BE PERFORMED BY A CERTIFIED BACK FLOW PREVENTION TECHNICIAN AS APPROVED BY THE CITY OF CLERMONT CROSS-CONNECTION CONTROL PROGRAM. A CERTIFICATE IS REQUIRED BY THE CITY.

EXCEPT AS REQUIRED TO FLUSH LINES TIE-IN VALVE SHALL REMAIN CLOSED AND SHALL BE LOCKED IN THE CLOSE POSITION BY THE CITY. THE TIE-IN VALVE SHALL REMAIN LOCKED CLOSED UNTIL THE NEW SYSTEM HAS BEEN CLEARED FOR USE BY FDEP AND ALL OTHER AGENCIES. UPON RECEIPT OF CLEARANCE FOR USE FROM FDEP AND ALL OTHER AGENCIES, THE CONTRACTOR SHALL REMOVE THE TEMPORARY JUMPER CONNECTION. THE CORPORATION STOPS ARE TO BE CLOSED AND PLUGGED WITH 2" BRASS PLUGS. THERE BE NO LEAKAGE.

ALL INSTALLATION AND MAINTENANCE OF THE TEMPORARY JUMPER CONNECTION AND ASSOCIATED BACK FLOW PREVENTION DEVICE, FITTINGS, VALVES, ETC., SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

WATER METERS SHALL BE PAID FOR AT THE CITY HALL AND SHALL BE DELIVERED TO THE JOB SITE BY THE UTILITIES DEPARTMENT.

**FIRE HYDRANTS**

FIRE HYDRANTS SHALL CONFORM TO THE LATEST EDITION OF AWWA C502.85 AND SHALL BE FURNISHED COMPLETE WITH WRENCH AND OTHER APPURTENANCES. MANUFACTURER'S CERTIFICATION OF COMPLIANCE WITH AWWA C502 AND TESTS LISTED THEREIN WILL BE REQUIRED. ALL HYDRANTS SHALL BE BREAKAWAY TYPE, WITH THE BREAKAWAY SECTION LOCATED SLIGHTLY ABOVE THE FINISH GROUND LINE. HYDRANTS SHALL CONTAIN TWO, TWO AND ONE-HALF INCH (2-1/2") HOSE CONNECTIONS, AND ONE, FOUR AND ONE-HALF INCH (4-1/2") STEAMER CONNECTION WITH NATIONAL STANDARD FIRE HOSE COUPLING SCREW THREADS, FIVE AND ONE-QUARTER INCH (5-1/4") VALVE OPENING, SIX INCH (6") DIAMETER MECHANICAL JOINT INLET, ONE AND ONE-HALF INCH (1-1/2") PENTAGON OPERATING NUT. SHALL OPEN COUNTERCLOCKWISE. HYDRANT MUST BE PAINTED AT FACTORY BY THE MANUFACTURER AND SHALL BE PAINTED IN CONFORMANCE WITH CITY OF CLERMONT REQUIREMENTS (COLORS BASED ON DELIVERED FIRE FLOW). HYDRANTS SHALL BE MUELLER CENTRON (TRAFFIC MODEL A-423) & AMERICAN (B84B-5 TRAFFIC MODEL) OR SEE CLERMONT'S LIST OF APPROVED PRODUCTS VIA THE CITY'S WEBSITE. NO SUBSTITUTE. FIRE HYDRANTS TO BE THE BREAK AWAY TYPE WITH A CAST IRON DUCTILE IRON MECHANICAL JOINT HYDRANT TEE, WITH RESILIENT SEAT AND MECHANICAL JOINT GATE VALVE.

**FIRE HYDRANTS CONT.**

1. BLUE PAVEMENT REFLECTORS SHALL BE PLACED IN THE CENTERLINE OF THE DRIVING LANE CLOSEST TO AND DIRECTLY IN FRONT OF EACH FIRE HYDRANT.
2. A POST-CONSTRUCTION FIRE FLOW TEST SHALL BE CONDUCTED. HYDRANTS SHALL DELIVER THE REQUIRED GPM PER THE CITY OF CLERMONT LAND DEVELOPMENT REGULATIONS WITH A RESIDUAL PRESSURE OF 20 PSI. CONTRACTOR SHALL NOTIFY CITY OF CLERMONT ENGINEERING DEPARTMENT WHEN HYDRANTS ARE READY TO BE FLOW TESTED. FOR FIRE HYDRANTS LOCATED WITHIN THE CITY OF CLERMONT, CONNECTED TO THE CITY OF CLERMONT'S WATER SYSTEM, AND/OR LOCATED WITHIN CLERMONT FIRE DEPARTMENT'S PROTECTION AREA, THIS TEST SHALL BE CONDUCTED BY CITY OF CLERMONT PERSONNEL. THIS TEST SHALL BE PROVIDED BY THE CONTRACTOR FOR LOCATIONS NOT INCLUDED ABOVE. THIS TEST MAY BE WITNESSED BY THE OWNER/OPERATOR IF REQUESTED AT TIME OF NOTIFICATION THAT HYDRANTS ARE READY FOR FLOW TEST.
3. IF A PERMIT FOR THE WATER SYSTEM IS REQUIRED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP), THE SYSTEM SHALL BE ACCEPTED AND APPROVED BY DEP PRIOR TO BEING PRESSURIZED OFF OF THE CITY SYSTEM AND PRIOR TO ANY FLOW TESTS BEING CONDUCTED.

4. FIRE HYDRANTS AND FIRE PROTECTION APPLIANCES SHALL BE KEPT ACCESSIBLE TO THE FIRE DEPARTMENT AT ALL TIMES. THE FOLLOWING CLEARANCES SHALL BE MAINTAINED FOR ALL FIRE HYDRANTS AND FIRE PROTECTION APPLIANCES. CLEAR PATH TO FRONT AND A 36" CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF FIRE HYDRANTS. NO PERSON SHALL PLACE OR KEEP ANY POST, FENCE, VEHICLE, GROWTH, VEGETATION, TRASH OR STORAGE OF OTHER MATERIALS THAT WOULD OBSTRUCT A FIRE HYDRANT OR FIRE PROTECTION APPLIANCE AND HINDER OR PREVENT ITS IMMEDIATE USE BY FIRE DEPARTMENT PERSONNEL. SUCH FIRE HYDRANT OR FIRE PROTECTION APPLIANCE SHALL BE KEPT READILY VISIBLE AT ALL TIMES.

5. FIRE HYDRANTS SHALL NOT BE LOCATED CLOSER THAN THREE (3) FEET TO OR MORE THAN TWENTY (20) FEET FROM THE EDGE OF A STREET, DRIVE OR OTHER ACCESSWAY. UNLESS OTHERWISE REQUESTED BY THE FIRE OFFICIAL, THE 4-1/2" CONNECTION SHALL FACE THE NEAREST ROADWAY, OR IF LOCATED WITHIN A COMPLEX PARKING AREA, SHALL FACE THE NEAREST TRAFFIC WAY. NO HYDRANT SHALL BE INSTALLED WHERE PEDESTRIAN OR VEHICULAR TRAFFIC WOULD INTERFERE WITH THE USE OF THE HYDRANT. THE STANDARD FIRE HYDRANT APPROVED FOR USE IN THE CITY CAN BE FOUND IN THE CITY'S LIST OF APPROVED PRODUCTS VIA THE CITY'S WEBSITE. THE CITY'S STANDARD FIRE HYDRANT DETAIL AND NOTES ARE AVAILABLE FROM THE CITY ENGINEER'S OFFICE AND MUST BE INCLUDED IN THE SITE PLANS. ALL FIRE HYDRANTS AND MAINS, INCLUDING THOSE PRIVATELY OWNED, THAT ARE CONNECTED TO THE CITY'S POTABLE WATER SYSTEM, SHALL CONFORM TO CITY STANDARDS.

6. A MINIMUM NUMBER OF FIRE HYDRANTS SHALL BE PROVIDED AND/OR AVAILABLE TO PROVIDE EQUAL TO OR GREATER THAN THE NEEDED FIRE FLOW FOR ALL BUILDINGS ON THE SITE BASED ON THE FOLLOWING CREDITS: HYDRANT(S) WITHIN 300 FEET OF THE BUILDING, 1,000 GPM CREDIT; HYDRANT(S) 301 TO 600 FEET, 670 GPM CREDIT; HYDRANT(S) 601 TO 1,000 FEET, 250 GPM CREDIT.

7. FIRE HYDRANTS THAT HAVE NOT BEEN TESTED AND PLACED INTO SERVICE MUST BE CLEARLY MARKED AS 'OUT OF SERVICE' USING INDUSTRY ACCEPTED METHODS (BAGGING, TAGGING, ETC).

**CONNECTIONS TO CITY WATER MAINS**

ALL DOUBLE DETECTOR CHECK VALVE ASSEMBLIES (DDCV) INSTALLED TO ISOLATE A PRIVATE FIRE SYSTEM SUPPLYING FIRE HYDRANTS FROM THE CITY'S POTABLE WATER SYSTEM SHALL HAVE TAMPER SWITCH DEVICES INSTALLED ON THE DDCV ASSEMBLY VALVES WHENEVER ANY AUTOMATIC FIRE SPRINKLER SYSTEM IS INSTALLED BEYOND THE DDCV. THESE TAMPER SWITCHES SHALL BE CONNECTED TO THE BUILDING FIRE ALARM SYSTEM FOR ALL INDIVIDUAL BUILDINGS PROTECTED BY A FIRE SPRINKLER SYSTEM.

**FIRE DEPARTMENT CONNECTIONS**

ANY FIRE DEPARTMENT CONNECTION SIAMESE (FDC) FOR FIRE SPRINKLER OR STANDPIPE SYSTEMS MUST BE WITHIN 100 FEET OF A FIRE HYDRANT. THE FDC MAY BE INSTALLED DIRECTLY ON THE DOUBLE DETECTOR CHECK VALVE BACK FLOW PREVENTOR AS LONG AS THE REQUIREMENT TO BE WITHIN 100 FEET OF A FIRE HYDRANT IS COMPLIED WITH. FIRE DEPARTMENT CONNECTIONS SHALL BE IDENTIFIED BY A SIGN THAT STATES, "NO PARKING FIRE DEPARTMENT CONNECTION" AND SHALL BE DESIGNED IN ACCORDANCE WITH FDOT STANDARDS FOR INFORMATION SIGNAGE. THE LOCATION OF ANY FDC MUST BE SHOWN ON THE SITE PLANS UTILITY SHEET. CLERMONT REQUIRES APPROVED LOCKING FDC CAPS.

**DEDICATED FIRE MAINS**

1. THE "POINT OF SERVICE" FOR ANY FIRE MAIN MUST BE CALLED OUT ON THE UTILITY SHEET OF THE SITE PLANS. THIS IS THE POINT WHERE A WATER LINE BECOMES DEDICATED TO ONLY FIRE PROTECTION, SUCH AS SUPPLYING ONLY A FIRE HYDRANT OR FIRE SPRINKLER SYSTEM, AND THERE IS NO POTABLE WATER SUPPLY COMING OFF OF THE WATER LINE BEYOND THIS POINT.
2. LABEL DEDICATED FIRE MAINS AT "FL" ON THE SUBMITTED PLANS.
3. FIRE MAINS WILL BE SEPARATELY PERMITTED AND INSPECTED BY THE CITY FIRE DEPARTMENT.

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**PROJECT:**  
**JOHNS LAKE ROAD WATER MAIN REPLACEMENT**  
 CLERMONT, FL

**CITY OF CLERMONT**  
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**WOOD PROJECT No:**  
**600365.13**

REVISIONS			
NO.	DATE	BY	APPROVED
X	X	X	X

DESIGNED BY:	DWB
DRAWN BY:	TAC
CHECKED BY:	DWB
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DATE:	1/21/2019

**SHEET TITLE:**

**UTILITY DETAILS**

SHEET NUMBER:	REV. #
<b>C403</b>	----
SHEET 24 OF 25 SHEETS	