

WATERMAIN CONSTRUCTION PLANS  
FOR

NORTH U.S. 41 16-INCH WATER MAIN  
(LITTLETON ROAD TO DEL PRADO BOULEVARD)  
100% SUBMITTAL

PART OF SECTION 22 & 27, TOWNSHIP 43 SOUTH, RANGE 24 EAST  
FORT MYERS, LEE COUNTY, FLORIDA

LEE COUNTY COMMISSIONERS

DISTRICT 1. KEVIN RUANE  
DISTRICT 2. CECIL PENDERGRASS  
DISTRICT 3. RAY SANDELLI  
DISTRICT 4. BRIAN HAMMAN  
DISTRICT 5. MIKE GREENWELL

COUNTY MANAGER

ROGER DESJARLAIS

DIRECTOR OF PUBLIC WORKS

MICHAEL SISTRUNK

DIRECTOR OF UTILITIES

PAMELA KEYES, P.E.

PERMIT REQUIREMENTS

AGENCY	STATUS	NOTES
LEE COUNTY DEVELOPMENT ORDER	APPROVED	LDO2022-00336
FLORIDA DEPARTMENT OF HEALTH	APPROVED	0193717-127 DSC
FLORIDA DEPT. OF ENVIRONMENTAL PROTECTION	PENDING	-
F.D.O.T. UTILITY CONNECTION PERMIT	APPROVED	200-H-192-00135
F.D.E.P. NOTICE OF INTENT	PENDING	-

NOTE: CONTRACTOR MUST OBTAIN AND KEEP ON FILE A COPY OF ALL PERMITS  
REQUIRED PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITY

DESIGN TEAM

PROJECT ENGINEER

WESLEY S. KAYNE, P.E.

PROJECT MANAGEMENT

DOUG TARN

DESIGN ENGINEER

WESLEY S. KAYNE, P.E.

PROJECT SURVEYOR

SCOTT A. WHEELER, P.S.M.

LEAD DESIGN TECHNICIAN

JAN BILDZUKEWICZ

SITE PLANNING

N/A

DESIGN STAFF

JAN BILDZUKEWICZ

LAND PLANNING

N/A

QUALITY CONTROL

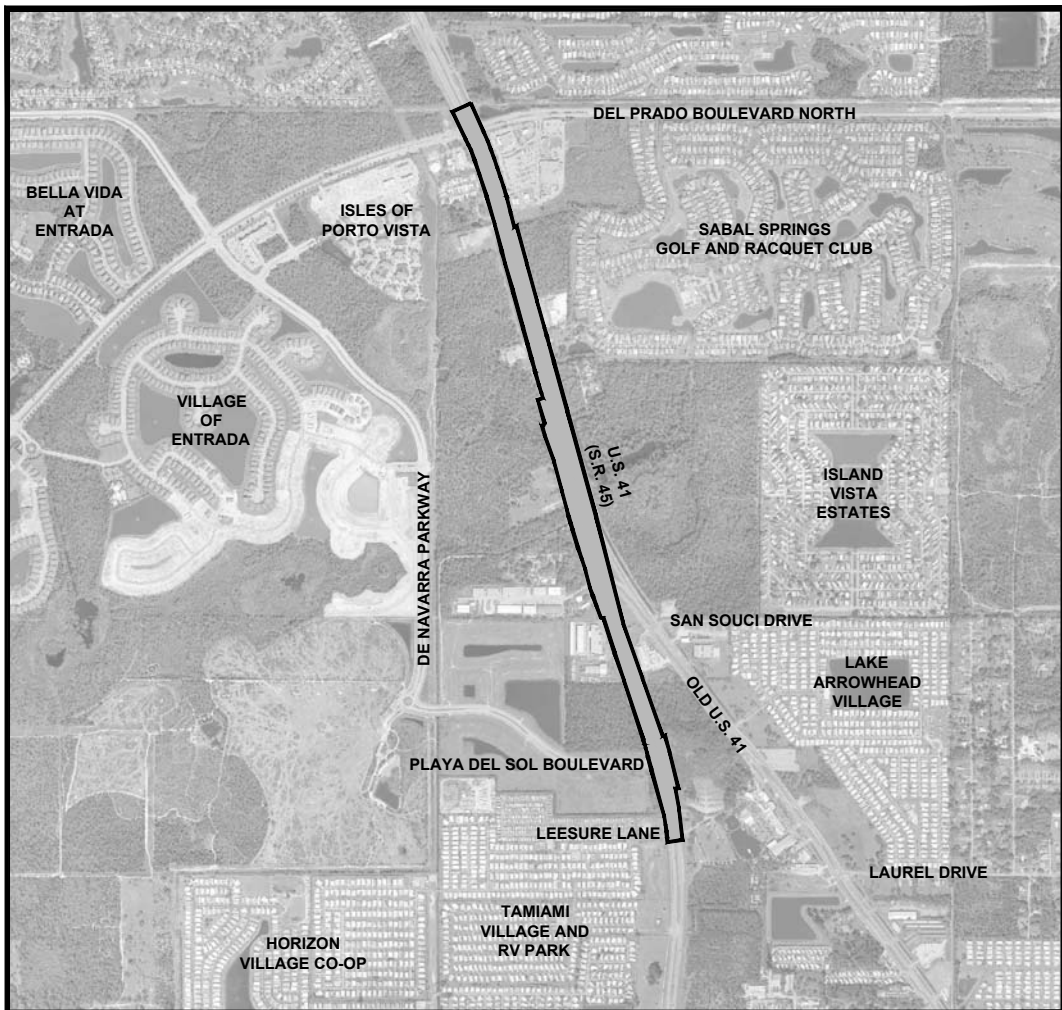
DOUG TARN

RECORD DRAWINGS

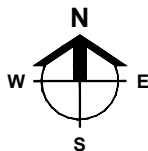
PENDING

THESE PLANS MAY HAVE BEEN MODIFIED IN SIZE BY REPRODUCTION.  
THIS MUST BE CONSIDERED WHEN OBTAINING SCALED DATA.

ALL DIMENSIONS ARE IN FEET.



PROJECT  
LOCATION



LOCATION MAP



SCALE IN FEET



INDEX OF DRAWINGS

ENGINEER OF RECORDS SIGNATURE AND SEAL APPLY TO THE FOLLOWING PLAN SHEETS, EXCLUDING ANY SUPPLEMENTS:

SHEET	DESCRIPTION	DRAWING NAME
1.0	COVER SHEET AND LOCATION MAP	23994A01.DWG
2.0	STANDARD NOTES	23994A02.DWG
3.0	L.C.U. NOTES	23994A03.DWG
4.0	AERIAL PHOTOGRAPH AND EXISTING CONDITIONS PLAN	23994A06.DWG
5.0	MASTER UTILITY PLAN, KEY SHEET, AND NOTES	23994A12.DWG
6.0	TYPICAL SECTIONS AND DETAILS	23994A18.DWG
7.0-7.15	PLAN AND PROFILE - U.S. 41 (S.R. 45)	23994A30.DWG
8.0-8.2	CROSS SECTIONS	23994A32.DWG
9.0-9.3	GROUTING AND REMOVAL PLAN	23994A35.DWG
10.0	EROSION CONTROL PLAN	23994A50.DWG
11.0-11.3	STORMWATER POLLUTION PREVENTION PLAN	23994A52.DWG
12.0-12.1	LEE COUNTY UTILITY DETAILS	23994A70.DWG

THIS IS TO CERTIFY THAT THESE PLANS AND THE ASSOCIATED CONSTRUCTION PROJECT ARE IN SUBSTANTIAL  
COMPLIANCE WITH THE LEE COUNTY LAND DEVELOPMENT CODE WITH THE EXCEPTION OF THE FOLLOWING  
DEVIATIONS WHICH HAVE BEEN APPROVED BY THE DIRECTOR OF PUBLIC WORKS:

WESLEY S. KAYNE, P.E. FL. P.E. LICENSE NO. 80507 DATE  
ENGINEER OF RECORD

DEVELOPMENT ORDER APPROVED:  
PUBLIC WORKS ADMINISTRATION

MICHAEL SISTRUNK DATE  
DIRECTOR OF PUBLIC WORKS

PLAN STATUS

100% SUBMITTAL PLANS  
2023-01-09

**Barraco**  
and Associates, Inc.

CIVIL ENGINEERING - LAND SURVEYING  
LAND PLANNING

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ENGINEERING 7995 - SURVEYING LB-6940

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PROJECT DESCRIPTION

NORTH U.S. 41  
(S.R. 45)  
16-INCH WATER MAIN

LITTLETON ROAD TO  
DEL PRADO BOULEVARD

PART OF SECTION 22 & 27,  
TOWNSHIP 43 SOUTH,  
RANGE 24 EAST  
FORT MYERS, LEE COUNTY, FLORIDA

ENGINEER OF RECORD

WESLEY S. KAYNE, P.E., FOR THE FIRM  
FLORIDA P.E. NO. 80507 - WESK@BARRACO.NET

This item has been digitally signed and sealed by  
Wesley S. Kayne on the date adjacent to the seal.

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FILE NAME: 23994A01.DWG

LOCATION: J:\23994\DWG\DOI

PLOT DATE: MON. 1-9-2023 - 11:14 AM

PLOT BY: JAN BILDZUKEWICZ

CROSS REFERENCED DRAWINGS

MASTER = BAI-COVER-1.DWG

PLAN REVISIONS

2022-09-16  LEE COUNTY COMMENTS

PLAN STATUS

100% SUBMITTAL PLANS  
2023-01-09

COVER SHEET  
AND  
LOCATION MAP

PROJECT / FILE NO.

23994

SHEET NUMBER

1.0

GENERAL NOTES:

NOTE: SEE ADDITIONAL NOTES ON SUBSEQUENT PLAN SHEETS WHICH ARE SPECIFIC TO THIS PROJECT. IN THE EVENT OF A CONFLICT, UTILIZE NOTES ON THE PLAN SHEETS.

1.

THESE PLANS HAVE BEEN PREPARED IN ACCORDANCE WITH AND ARE GOVERNED BY THE LATEST EDITIONS OF THE F.D.O.T. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, F.D.O.T. DESIGN STANDARDS AND APPLICABLE DESIGN STANDARDS MODIFICATIONS FOUND AT <http://www.dot.state.fl.us/rddesign> AND ALL LOCAL CODES.
2.

ALL APPROVALS REQUIRED IN CONJUNCTION WITH THESE NOTES MUST BE OBTAINED IN WRITING BY THE CONTRACTOR. ANY DEVIATIONS FROM THE PLANS AND / OR SPECIFICATIONS MUST BE APPROVED IN ADVANCE BY THE OWNER, ENGINEER AND APPROPRIATE REGULATORY AGENCY.
3.

CONTRACTOR SHALL ENSURE THAT ALL PERMITS ARE IN PLACE PRIOR TO CONSTRUCTION, THAT COPIES OF ALL PERMITS ARE RETAINED ON SITE AT ALL TIMES AND SHALL ADHERE TO ALL PERMIT CONDITIONS. AT LEAST 72 HOURS PRIOR TO CONSTRUCTION CONTRACTOR SHALL NOTIFY THE LOCAL MAINTENANCE ENGINEER'S OFFICE TO SECURE GENERAL USE PERMITS AND / OR OTHER PERMITS REQUIRED FOR WORK WITHIN F.D.O.T. AND LEE COUNTY RIGHT-OF-WAY AND EASEMENTS.
4.

ALL CONSTRUCTION SHALL COMPLY WITH THE LATEST VERSIONS OF THE AMERICANS WITH DISABILITIES ACT (A.D.A.), THE FLORIDA FIRE CODE AND THE FLORIDA ACCESSIBILITY CODE FOR BUILDING CONSTRUCTION (F.A.C.B.C.).
5.

SIDEWALKS ARE DESIGNED AND INTENDED FOR PEDESTRIAN TRAFFIC ONLY. ALL SIDEWALKS AND CURB CUTS SHALL BE IN ACCORDANCE WITH F.D.O.T. STANDARD PLAN INDEX 522-002 AND SHALL INCLUDE DETECTABLE WARNING SURFACES. VALLEY GUTTER ADJACENT TO CURB CUTS SHALL DEVIATE FROM STANDARD DETAIL BY NOT EXCEEDING 12:1 SLOPES.
6.

THE CONTRACTOR SHALL NOTIFY THE ENGINEER, OWNER'S REPRESENTATIVE AND APPROPRIATE AGENCY A MINIMUM OF 72 HOURS PRIOR TO ALL INSPECTIONS REQUIRED BY THE RESPECTIVE PERMIT.
7.

THE CONTRACTOR SHALL NOTIFY THE OWNER AND CONTACT ALL UTILITY COMPANIES FOR LOCATIONS OF EXISTING UTILITIES A MINIMUM OF 72 HOURS PRIOR TO COMMENCING CONSTRUCTION. CONTRACTOR SHALL DETERMINE IF UTILITIES OTHER THAN THOSE SHOWN ON THESE PLANS EXIST. THE LOCATION OF EXISTING UTILITIES, PAVEMENT, VEGETATION AND OTHER IMPROVEMENTS ARE APPROXIMATE ONLY. THE EXACT SIZES, ELEVATIONS AND LOCATIONS SHALL BE VERIFIED BY THE CONTRACTOR IN THE FIELD PRIOR TO COMMENCING CONSTRUCTION OR ORDERING MATERIALS. CONTRACTOR SHALL NOTIFY ENGINEER / OWNER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. COST ASSOCIATED WITH UTILITY LOCATING IS CONSIDERED INCIDENTAL TO THE PROJECT AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.
8.

ANY PUBLIC LAND CORNER OR BENCHMARK WITHIN THE LIMITS OF CONSTRUCTION IS TO BE PROTECTED AND IF IN DANGER OF BEING DESTROYED MUST BE PROPERLY REFERENCED AND REPLACED AT THE COMPLETION OF CONSTRUCTION BY THE CONTRACTOR.
9.

EXISTING IMPROVEMENTS SHALL REMAIN UNLESS NOTED OTHERWISE, AND SHALL BE RESTORED TO A CONDITION EQUIVALENT TO THAT WHICH EXISTED PRIOR TO COMMENCING CONSTRUCTION, AT NO ADDITIONAL COST TO THE OWNER. EXISTING OFF-SITE DRAINAGE PATTERNS SHALL BE MAINTAINED DURING CONSTRUCTION.
10.

THE CONTRACTOR SHALL OBTAIN ANY CLEARING, VEGETATION REMOVAL OR RIGHT-OF-WAY PERMITS REQUIRED FOR THIS PROJECT. ALL DEBRIS SHALL BE REMOVED FROM SITE AND PROPERLY DISPOSED OF.
11.

CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRAFFIC AND USAGE OF THE EXISTING STREETS ADJACENT TO THE PROJECT. ALL TRAFFIC MAINTENANCE CONTROL SHALL BE IN ACCORDANCE WITH D.O.T. ADMIN CODE AC-11-12 AND THE LATEST EDITION OF THE FLORIDA MANUAL OF TRAFFIC CONTROL AND SAFE PRACTICES FOR STREET CONSTRUCTION, MAINTENANCE, AND UTILITY OPERATIONS. CONTRACTOR SHALL ASSURE THAT ALL TRAFFIC CONTROL DEVICES MEET ACCEPTABLE STANDARDS AS OUTLINED IN THE LATEST EDITION OF THE AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION (ATSSA's) "QUALITY STANDARDS FOR WORK ZONE TRAFFIC CONTROL DEVICES", AND SHALL IMMEDIATELY REPAIR, REPLACE OR CLEAN DAMAGED, DEFACED OR DIRTY DEVICES. TRAFFIC CONTROL OPERATION PROCEDURES SHALL BE SUBMITTED TO OWNER FOR APPROVAL PRIOR TO BEGINNING CONSTRUCTION. ANY IMPACTS TO TRAFFIC FLOW SHALL BE COORDINATED WITH AND APPROVED BY THE APPROPRIATE LOCAL AGENCY.
12.

CONTRACTOR SHALL VERIFY ALL FIELD CONDITIONS, DIMENSIONS, AND ELEVATIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION. ANY DISCREPANCIES SHALL BE IMMEDIATELY REPORTED TO THE ENGINEER AND OWNER'S REPRESENTATIVE.
13.

THE LOCATIONS OF PROPOSED UTILITY LINES MAY BE FIELD ADJUSTED AS NECESSARY AS APPROVED IN ADVANCE BY THE ENGINEER. UNDERGROUND CONTRACTOR SHALL MINIMIZE THE WORK AREA AND WIDTH OF TRENCHES TO AVOID DISTURBANCES OF NATURAL VEGETATION. EXERCISE CARE TO PROTECT THE ROOTS OF TREES TO REMAIN. WITHIN THE BRANCH SPREAD OF SUCH TREES, PERFORM ALL TRENCHING BY HAND. OPEN THE TRENCH ONLY WHEN UTILITIES CAN BE INSTALLED IMMEDIATELY. PRUNE INJURED ROOTS CLEANLY AND BACKFILL AS SOON AS POSSIBLE. SPOIL FROM TRENCHES SHALL BE PLACED ONLY ON PREVIOUSLY CLEARED AREAS OR AS DIRECTED BY THE OWNER. CONTRACTOR SHALL NOT REMOVE OR DISTURB ANY TREES AND/OR SHRUBS WITHOUT PRIOR APPROVAL BY OWNER.
14.

INSTALLATION OF SUBSURFACE CONSTRUCTION, INCLUDING BUT NOT LIMITED TO WATER, SEWER AND IRRIGATION LINES, PUBLIC UTILITIES AND STORM DRAINAGE IS REQUIRED PRIOR TO COMPACTION OF THE ROADWAY SUBGRADE.
15.

SUBGRADE AND LIMEROCK BASE COURSES TO BE COMPACTED TO 98% MINIMUM OF THE MAXIMUM DRY DENSITY AS SPECIFIED BY AASHTO T-180 TESTING. CONTRACTOR SHALL PROVIDE THE ENGINEER SATISFACTORY DENSITY TESTS FOR SUBGRADE AND LIMEROCK PRIOR TO PAYMENT OR FINAL ACCEPTANCE. EXCESS ROAD BASE AND COMPACTED SOIL SHALL BE REMOVED FROM ALL LANDSCAPE AREAS PRIOR TO FINAL GRADING. UTILITY TRENCHES SHALL BE COMPACTED TO 95% MINIMUM OF THE MAXIMUM DRY DENSITY AS SPECIFIED BY AASHTO-99. ALL GEOTECHNICAL TESTING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. NO SEPARATE PAYMENT SHALL BE MADE FOR GEOTECHNICAL TESTING.
16.

SWALE ELEVATIONS SHOWN ARE TO TOP OF SOD. IF DISTURBED DURING CONSTRUCTION CONTRACTOR TO ADJUST SWALE GRADING THE THE FLOW LINE ACCORDINGLY. ALL UNPAVED AREAS SHALL BE GRADED TO DRAIN TO THE DRAINAGE SYSTEM TO PREVENT STANDING WATER. YARD DRAINS MAY BE ADDED IN GREEN AREAS AS NECESSARY AT THE DIRECTION OF THE ENGINEER, AND SHALL HAVE PEDESTRIAN-SAFE GRATES MEETING THE REQUIREMENTS OF H-20 LOADING.
17.

CASING AND/OR CONDUIT SHALL HAVE A MINIMUM OF 36" COVER, EXTEND 5' BEYOND THE EDGE OF
- PAVEMENT, BACK OF CURB AND/OR SIDEWALK AT EACH END, AND ENDS SHALL BE SEALED AND DENOTED WITH MARKING TAPE.

18.

THE CONTRACTOR IS REQUIRED TO ADJUST ALL EXISTING AND PROPOSED VALVE BOXES, MANHOLE RIMS, GRATES AND OTHER IMPROVEMENTS AS REQUIRED TO MATCH THE FINAL GRADE. ADA VALVE BOX LIDS ARE TO BE USED IN ADA SIDEWALK PEDESTRIAN AREAS.

19.

CONTRACTOR SHALL NOTIFY THE ENGINEER 24 HOURS PRIOR TO PLACING SOD ON AREAS THAT REQUIRE CRITICAL MINIMUM OR MAXIMUM ELEVATIONS IN ORDER FOR ENGINEER TO VERIFY SUCH ELEVATIONS. THE OBLIGATION TO ACHIEVE MINIMUM ELEVATIONS REMAINS WITH THE CONTRACTOR.

20.

SOD A 12" STRIP ADJACENT TO ALL PAVEMENT PER F.D.O.T. REQUIREMENTS. SOD ALL UNPAVED DISTURBED AREAS WITHIN F.D.O.T. RIGHT OF WAY.

21.

THE CONTRACTOR SHALL REMOVE ALL UNSUITABLE MATERIAL ENCOUNTERED FROM FILL AREAS PRIOR TO PLACEMENT OF FILL, AND SUCH MATERIAL SHALL BE STOCKPILED OR REMOVED AS DIRECTED BY OWNER. CONTRACTOR SHALL BE REQUIRED TO PROVIDE SUITABLE BACK FILL MATERIAL AS NEEDED FOR UTILITY BACK FILL ETC. AS IN ACCORDANCE WITH THE SPECIFICATIONS.

22.

ALL COMPONENTS OF THE POTABLE WATER SYSTEM SHALL BE IN CONFORMANCE WITH LEE COUNTY UTILITIES DESIGN STANDARDS AND TECHNICAL SPECIFICATIONS LATEST EDITION, AMERICAN NATIONAL STANDARDS INSTITUTE / NSF INTERNATIONAL STANDARD 61. ALL COMPONENTS, INSTALLATION AND TESTING OF THE POTABLE WATER SYSTEM SHALL BE IN ACCORDANCE WITH ALL A.W.W.A. APPLICABLE STANDARDS.

23.

NO VEGETATION OR OTHER OBSTRUCTIONS SHALL BE PLACED SO AS TO BLOCK ACCESS OR LINE OF SIGHT TO FIRE HYDRANTS, F.D.C, P.I.V, ETC. IN ACCORDANCE WITH LOCAL FIRE JURISDICTION AND / OR AS SHOWN IN DETAILS.

24.

SEPARATE PERMITS MAY BE REQUIRED FOR ANY DEDICATED FIRE LINE. UNDERGROUND FIRE LINES MUST MEET REQUIREMENT OF NFPA 24.

25.

THE CONTRACTOR SHALL RESTORE ALL PAVING ETC. TO MATCH ORIGINAL CONDITION. NO SEPARATE PAYMENT WILL BE MADE FOR THESE ITEMS UNLESS SPECIFICALLY INCLUDED IN THE BID TABULATION OR OUTLINED IN THE SPECIFICATIONS.

26.

EROSION AND SEDIMENT CONTROL FACILITIES SHALL BE INSTALLED PRIOR TO PERFORMING ANY EXCAVATION IN ANY AREA AND SHALL BE MAINTAINED DURING WORK AND REMOVED WHEN WORK IS COMPLETED. SEE EROSION CONTROL DETAILS FOR ADDITIONAL INFORMATION, IF APPLICABLE.

27.

LIMITS OF CONSTRUCTION SHALL BE CONFINED TO THE EXISTING RIGHTS-OF-WAYS AND EASEMENTS SHOWN ON THE PLANS.

28.

CONTRACTOR SHALL RECONSTRUCT ALL DRAINAGE DITCHES AND SWALES DISTURBED BY CONSTRUCTION ACTIVITIES TO THEIR ORIGINAL GRADE AND LOCATION.

29.

THE CONTRACTOR SHALL AT ALL TIMES PROVIDE AND MAINTAIN AMPLE MEANS AND EQUIPMENT WITH WHICH TO REMOVE AND PROPERLY DISPOSE OF ANY WATER ENTERING THE EXCAVATION OR OTHER PARTS OF THE WORK AND KEEP ALL EXCAVATIONS DRY UNTIL SUCH TIME AS PIPE LAYING AND GRADING IS COMPLETED AND STRUCTURES TO BE BUILT THEREIN ARE COMPLETED. NO WATER SHALL BE ALLOWED TO RISE AROUND THE PIPE IN OPEN TRENCHES NOR SHALL IT BE ALLOWED TO RISE OVER MASONRY UNTIL THE CONCRETE OR MORTAR HAS SET. ALL WATER PUMPED OR DRAINED FROM THE SITE SHALL BE DISPOSED OF IN SUCH A MANNER AS TO PREVENT SILTATION AND EROSION TO ADJACENT PROPERTY OR OTHER CONSTRUCTION. IF REQUIRED THE CONTRACTOR SHALL BE REQUIRED TO OBTAIN ANY LOCAL, STATE OR FEDERAL PERMITS REQUIRED FOR DEWATERING. NO OFFSITE DISCHARGE IS PERMITTED UNLESS SPECIFICALLY ALLOWED IN DEWATERING PERMIT.

30.

CONTRACTOR SHALL PROTECT OR REMOVE AND REINSTALL ALL SIGNS AND MAIL BOXES WITHIN THE RIGHT-OF-WAY OR EASEMENT LIMITS.

31.

CONTRACTOR SHALL PROVIDE 48 HOURS MINIMUM ADVANCE NOTICE OF ALL UTILITY SHUT DOWNS AND TIE-INS TO THE ENGINEER, THE PUBLIC INVOLVEMENT CONSULTANT (IF APPLICABLE) AND THE UTILITY COMPANY.

32.

ROADWAY LANE CLOSURES, DRIVEWAY CLOSURES, POTABLE WATERMAIN AND FORCEMAIN SHUT DOWNS MAY BE REQUIRED TO OCCUR AT NIGHT OR EARLY MORNING HOURS. NO ADDITIONAL COMPENSATION SHALL BE PROVIDED FOR REQUIRED NIGHT WORK.

33.

IN THE EVENT OF UNSCHEDULED WATERMAIN SHUT DOWNS (BREAKS) THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER, THE PUBLIC INVOLVEMENT CONSULTANT AND THE UTILITY COMPANY TO DETERMINE THE AFFECTED AREA FOR "BOIL WATER NOTICES". THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL THE NECESSARY REPAIRS AND REQUIRED BACTERIOLOGICAL TESTS NECESSARY TO RETURN THE SYSTEM TO ITS NORMAL OPERATING CONDITION. NO ADDITIONAL COMPENSATION WILL BE MADE FOR ACCIDENTAL BREAKS, REPAIRS AND TESTING.

34.

CONTRACTOR SHALL MAINTAIN REASONABLE ACCESS TO EXISTING BUSINESSES AT ALL TIMES. IN THE EVENT OF A DRIVEWAY CLOSURE, THE CONTRACTOR SHALL PROVIDE A "BUSINESS ACCESS" SIGN AT THE AVAILABLE ACCESS POINT UNTIL SUCH TIME THAT ALL ORIGINAL ACCESS POINTS ARE REOPENED.

35.

THESE PLANS HAVE BEEN PREPARED SUCH THAT ALL WATERMAIN TO BE PLACED OUT OF SERVICE SHALL BE REMOVED OR GROUTED IN PLACE. WHERE POSSIBLE, CONTRACTOR SHALL MAKE EVERY EFFORT POSSIBLE TO REMOVE EXISTING MAINS WHERE FEASIBLE WITHOUT IMPACTING EXISTING SIDEWALK, LANDSCAPING, PAVEMENT, AND OTHER PUBLIC FACILITIES.

36.

ALL DRIVEWAYS AND ROADWAY OPEN CUTS WITHIN F.D.O.T. RIGHT-OF-WAY SHALL CONFORM TO THE UTILITIES ACCOMMODATIONS MANUAL. SECTION 4.1.8.2 AS FOLLOWS:

1.

NOTIFY USERS SEVEN (7) DAYS IN ADVANCE USING DOOR-HANGER TYPE NOTICES OR ON-SITE SIGNS AS APPROPRIATE AND APPROVED BY F.D.O.T.

2.

MAINTAIN USERS' ACCESS TO THE PROPERTY.

3.

RESTORE THE DRIVEWAYS TO AT LEAST AN EQUIVALENT CONDITION AND TYPES OF MATERIAL TO WHAT EXISTED PRIOR TO CUTTING. RESTORE FULL SECTIONS JOINT TO JOINT.

MAINTENANCE OF TRAFFIC:

THESE NOTES ARE FOR WORK IN LEE COUNTY DEPARTMENT OF TRANSPORTATION (LCDOT) RIGHT-OF-WAYS ONLY. FOR WORK WITHIN F.D.O.T. RIGHT-OF-WAYS REFER TO F.D.O.T. PERMIT.

1.

MAINTENANCE OF TRAFFIC (M.O.T.) PLANS ARE REQUIRED TO BE SUBMITTED BY THE CONTRACTOR FOR VEHICULAR AND PEDESTRIAN TRAFFIC. THIS PLAN SHOULD BE SUBMITTED AND APPROVED BY THE L.C.D.O.T. AT LEAST 14 DAYS PRIOR TO MOBILIZATION. M.O.T. PLANS SHALL INCLUDE, BUT NOT LIMITED TO, DETAILS OF ALLOWED LANE CLOSURES, PEDESTRIAN ACCESS CLOSURES, AND HOURS OF OPERATION.

2.

ACCESS FOR LOCAL TRAFFIC WITH DESTINATIONS WITHIN THE PROJECT LIMITS SHALL BE MAINTAINED. IF DURING CONSTRUCTION ACCESS FOR LOCAL TRAFFIC IS CHANGED, THE CONTRACTOR SHALL NOTIFY THE L.C.D.O.T. A MINIMUM OF THREE (3) WORKING DAYS IN ADVANCE. IF DURING CONSTRUCTION ROAD CLOSURES ARE REQUIRED AND APPROVED BY LEE COUNTY, THE CONTRACTOR SHALL NOTIFY THE L.C.D.O.T. A MINIMUM OF FIVE (5) WORKING DAYS IN ADVANCE.

3.

PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL FURNISH, ERECT AND MAINTAIN ALL BARRICADES, WARNING SIGNS, AND MARKINGS FOR HAZARDS AND THE CONTROL OF TRAFFIC, IN REASONABLE CONFORMITY WITH THE U.S. DEPARTMENT OF TRANSPORTATION MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, OR AS DIRECTED BY THE L.C.D.O.T., SUCH AS TO EFFECTIVELY PREVENT ACCIDENTS IN ALL PLACES WHERE THE WORK CAUSES OBSTRUCTION TO THE NORMAL TRAFFIC PATTERN OR CONSTITUTES IN ANY WAY A HAZARD TO THE PUBLIC.

4.

THE CONTRACTOR SHALL COORDINATE AND OBTAIN APPROVAL FOR ALL LANE CLOSURES WITHIN LEE COUNTY RIGHT-OF-WAYS WITH L.C.D.O.T. A MINIMUM OF 14 DAYS PRIOR TO THE REQUIRED CLOSINGS.

SIGNING AND PAVEMENT MARKING NOTES:

1.

ALL SIGNING AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE F.D.O.T. STANDARDS FOR ROAD AND BRIDGE CONSTRUCTION, THE F.D.O.T DESIGN STANDARDS INDEX, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.) AND ALL APPLICABLE LOCAL STANDARDS. UTILIZATION OF THE 2009 M.U.T.C.D. SHALL BE IN ACCORDANCE WITH F.D.O.T. POLICY.

2.

DURING CONSTRUCTION, THE CONTRACTOR SHALL COMPLY WITH THE LATEST EDITIONS OF THE "STATE OF FLORIDA MANUAL OF TRAFFIC CONTROL AND SAFE PRACTICES FOR STREET AND HIGHWAY CONSTRUCTION, MAINTENANCE, AND UTILITY OPERATIONS" AND WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND WITH ALL OTHER GOVERNING SAFETY REGULATIONS.

3.

PAVEMENT MARKINGS SHALL BE PERMANENT REFLECTIVE TRAFFIC PAINT WITH GLASS BEADS IN ACCORDANCE WITH F.D.O.T. STANDARD SPECIFICATIONS SECTION 710 UNLESS NOTED OTHERWISE. PERMANENT PAVEMENT MARKINGS WITHIN F.D.O.T. RIGHT-OF-WAY SHALL BE THERMOPLASTIC UNLESS NOTED OTHERWISE.

4.

MATCH EXISTING PAVEMENT MARKINGS AT EXISTING ROADS. ALL EXISTING PAVEMENT MARKINGS THAT ARE IN CONFLICT WITH PROPOSED MARKINGS SHALL BE REMOVED BY HYDRO-BLASTING. EXISTING SIGNS SHALL REMAIN UNLESS NOTED OTHERWISE.

5.

ALL STOP SIGN LOCATIONS SHALL INCLUDE A 24" PAINTED WHITE STOP BAR. AS AN ALTERNATIVE, ROADS WITH PAVER BRICK SURFACES MAY UTILIZE CONTRASTING COLOR PAVERS IN LIEU OF PAINT.

6.

THE CONTRACTOR SHALL FURNISH AND INSTALL STREET NAME SIGNS IN ACCORDANCE WITH LOCAL DEVELOPMENT STANDARDS. IF POSSIBLE, STREET NAME SIGNAGE TO BE ATOP ALL STOP SIGNS.

7.

THE CONTRACTOR SHALL PROVIDE AND INSTALL BLUE / BLUE REFLECTIVE PAVEMENT MARKERS AT THE CENTER OF THE TRAFFIC LANE NEAREST ALL PROPOSED FIRE HYDRANTS.

8.

ALL ROADWAY SIGNING AND PAVEMENT MARKINGS, STREET NAME SIGNS, ETC. (EXCLUDING PROJECT IDENTIFICATION SIGNING) ARE TO BE INCLUDED IN THE LUMP SUM PRICE FOR SIGNING AND MARKING UNLESS A DETAILED BID QUANTITY BREAKDOWN IS PROVIDED.

9.

ANY EXISTING SIGN TO REMAIN THAT IS RELOCATED OR DISTURBED DURING CONSTRUCTION SHALL BE RESET TO CURRENT F.D.O.T. STANDARD INDEXES 11860 AND 17302 FOR HEIGHT, OFFSET AND METHOD OF INSTALLATION. ANY SIGNS DAMAGED BY CONTRACTOR SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR.

10.

ALL SIGNS THAT ARE EMBEDDED IN CONCRETE OR ASPHALT SHALL BE INSTALLED IN A F.D.O.T. APPROVED PIPE SLEEVE.

QUANTITIES AND PAYMENT:

1.

CONTRACTOR SHALL REFER TO THE PROJECT SPECIFIC CONTRACT DOCUMENTS WHICH INCLUDE THE BID TABULATION AND PROJECT TECHNICAL SPECIFICATIONS FOR NOTES REGARDING THE METHOD OF PAYMENT FOR SPECIFIC PAY ITEMS.

2.

DIRECTIONAL BORE CASING AND CARRIER PIPE WILL BE PAID BASED ON QUANTITY PROVIDED IN PLANS AND BID TABULATION. NO ADDITIONAL PAYMENT SHALL BE MADE DUE TO CONTRACTOR MEANS AND METHODS, EQUIPMENT CAPABILITIES OR PRESENCE OF ROCK. DURING THE BID, THE CONTRACTOR SHALL ANALYZE THE DIRECTIONAL BORE LENGTHS TO DETERMINE FEASIBILITY BASED UPON SITE CONDITIONS, MEANS AND METHODS, EQUIPMENT TO BE USED, AND THE PRESENCE OF ROCK. NO ADDITIONAL PAYMENTS SHALL BE MADE FOR EXTENSIONS BEYOND PLAN AND BID LENGTHS.

**NOTE:**  
EXISTING UTILITIES DEPICTED ARE BASED UPON SUBSURFACE UTILITY ENGINEERING SERVICES QL-B AND QL-A PROVIDED BY AIM ENGINEERING & SURVEYING, INC. DATED 2022-02-11

Barraco

and Associates, Inc.


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PROJECT DESCRIPTION
<div><div><div>NORTH U.S. 41</div><div>(S.R. 45)</div><div>16-INCH WATER MAIN</div></div></div>
<div>LITTLETON ROAD TO DEL PRADO BOULEVARD</div>
<div>PART OF SECTION 22 &amp; 27, TOWNSHIP 43 SOUTH, RANGE 24 EAST FORT MYERS, LEE COUNTY, FLORIDA</div>
ENGINEER OF RECORD
<div>WESLEY S. KAYNE, P.E., FOR THE FIRM FLORIDA P.E. NO. 80507 - WESK@BARRACO.NET</div>
FILE NAME: 23994A02.DWG
LOCATION: J:\23994\DWG\DOI\
PLOT DATE: MON. 1-9-2023 - 11:14 AM
PLOT BY: JAN BILDZUKEWICZ
CROSS REFERENCED DRAWINGS

PLAN REVISIONS

PLAN STATUS
100% SUBMITTAL PLANS 2023-01-09

STANDARD NOTES
PROJECT / FILE NO.
23994
SHEET NUMBER
2.0

LEE COUNTY UTILITIES STANDARD PLAN NOTES:

THE STANDARD NOTES SHOWN BELOW SHALL BE INCLUDED ON ALL WATER AND SEWER PLANS SUBMITTED FOR APPROVAL TO LEE COUNTY UTILITIES (LCU).

1.

ALL WORK SHALL CONFORM TO LATEST REVISION OF THE LCU DESIGN MANUAL WHICH IS AVAILABLE ON OUR WEB-PAGE VIA THE FOLLOWING LINK: [HTTPS://WWW.LEEGOV.COM/UTILITIES/DESIGN-MANUAL](https://www.leegov.com/utilities/design-manual)
2.

ALL REGULATORY AND PERMITTING AGENCIES' REQUIREMENTS SHALL BE COMPLIED WITH AS WELL.
3.

ANY QUANTITIES SHOWN ON PLANS ARE NOT VERIFIED BY LCU.
4.

THE INFORMATION PROVIDED IN THESE PLANS IS SOLELY TO ASSIST THE CONTRACTOR IN ASSESSING THE NATURE AND EXTENT OF CONDITIONS THAT MAY BE ENCOUNTERED DURING THE COURSE OF WORK. ALL CONTRACTORS ARE DIRECTED, PRIOR TO BIDDING, TO CONDUCT WHATEVER INVESTIGATIONS THEY MAY DEEM NECESSARY TO ARRIVE AT THEIR OWN CONCLUSION REGARDING THE ACTUAL CONDITIONS THAT WILL BE ENCOUNTERED, AND UPON WHICH THEIR BIDS WILL BE BASED.
5.

ALL CONSTRUCTION WORK PERFORMED MUST BE DONE BY A CONTRACTOR LICENSED IN THE STATE OF FLORIDA TO DO THE WORK INTENDED.
6.

A PRE-CONSTRUCTION MEETING IS REQUIRED BEFORE WORK MAY BEGIN. REQUIRED ATTENDEES INCLUDE BUT ARE NOT LIMITED TO; THE ENGINEER OF RECORD OR HIS DESIGNEE, THE UNDERGROUND CONTRACTOR AND THE LCU INSPECTOR ASSIGNED TO THE PROJECT. LCU IS TO BE NOTIFIED TWO (2) WORKING DAYS PRIOR TO THE PRE-CONSTRUCTION MEETING.
7.

ONE COPY OF THE LCU APPROVED/STAMPED CONSTRUCTION PLANS, ALL CONTRACT DOCUMENTS, REFERENCE DOCUMENTS AND TECHNICAL DOCUMENTS SUBMITTED MUST BE KEPT AT THE SITE AND MAINTAINED IN GOOD ORDER.
8.

ALL WORK AND MATERIALS, WHICH DO NOT CONFORM TO LCU SPECIFICATIONS, ARE SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
9.

ANY WORK PERFORMED WITHOUT THE KNOWLEDGE OF LCU IS SUBJECT TO RE-EXCAVATION, REMOVAL AND REPLACEMENT OF SAME TO BE DONE AT THE CONTRACTOR'S EXPENSE.
10.

LCU INSPECTION STAFF IS TO BE PRESENT FOR ALL HOT TAPS, PRESSURE TESTS, LIFT STATION START-UPS AND FOR ANY NECESSARY INSPECTION. THE CONTRACTOR IS TO PROVIDE A MINIMUM OF TWO (2) WORKING DAYS NOTICE PRIOR TO SCHEDULING ANY OF THE ABOVE WITH THE EXCEPTION OF THE LIFT STATION START-UP WHICH REQUIRES ONE-WEEK NOTICE.
11.

TRAFFIC MUST BE MAINTAINED AT ALL TIMES AS PER LEE COUNTY DEPARTMENT OF TRANSPORTATION (LCDOT) AND PER FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.
12.

THE CONTRACTOR IS TO UNCOVER ALL EXISTING LINES BEING TIED INTO AND VERIFY GRADES BEFORE BEGINNING CONSTRUCTION.
13.

LOCATIONS, ELEVATIONS, AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS, BUT DO NOT PURPORT TO BE ABSOLUTELY CORRECT. LCU WILL NOT GUARANTEE ANY LOCATIONS AS SHOWN ON THESE PLANS OR THOSE OMITTED FROM THESE PLANS.
14.

THE CONTRACTOR SHALL VERIFY ALL UTILITIES AND PROVIDE AT LEAST TWO (2) WORKING DAYS NOTICE TO THE INDIVIDUAL UTILITY COMPANIES, FDOT AND LCDOT PRIOR TO CONSTRUCTION.
15.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND TAKE ALL POSSIBLE PRECAUTIONS TO AVOID ANY DAMAGE TO ALL UNDERGROUND PIPELINES, TELEPHONE, CABLE TV, ELECTRIC LINES/CONDUITS AND STRUCTURES IN ADVANCE OF ANY CONSTRUCTION. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES THAT MAY OCCUR DUE TO HIS FAILURE TO EXACTLY LOCATE AND PROTECT EXISTING UTILITIES AND STRUCTURES.
16.

ANYTHING NOT SHOWN ON THESE DRAWINGS SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND SHALL NOT CONSTITUTE AN EXTRA, UNLESS APPROVED BY THE ENGINEER OF RECORD.
17.

THE CONTRACTOR SHALL CONTACT THE ENGINEER AND LCU IMMEDIATELY CONCERNING ANY CONFLICTS WITH LCU UTILITIES/STRUCTURES ARISING DURING CONSTRUCTION OF ANY FACILITIES SHOWN ON THESE DRAWINGS.
18.

THE CONTRACTOR SHALL VERIFY ALL QUANTITIES SHOWN ON THE PLANS. IF ANY DISCREPANCIES IN QUANTITIES ARE FOUND, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD AND LCU.
19.

THE CONTRACTOR SHALL REPLACE ALL PAVEMENT, CURBS, DRIVEWAYS, SIDEWALKS, FENCES, ETC., WITH THE SAME TYPE OF MATERIAL THAT WAS REMOVED DURING CONSTRUCTION OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL RESTORE ALL AREAS AFFECTED BY THE CONSTRUCTION TO ITS ORIGINAL CONDITION, OR BETTER.
20.

WITHIN THE FDOT AND LCDOT RIGHT-OF-WAY, ALL DISTURBED AREAS SHALL RECEIVE GRASSING (SEEDING) OR SODDING MATERIALS IN ACCORDANCE WITH FDOT SPECIFICATIONS. THOSE AREAS THAT ARE CLASSIFIED AS DRAINAGE DITCHES SHALL RECEIVE FULL SOLID SOD.
21.

ALL FRAMES, COVERS VALVE BOXES, METER BOXES AND MANHOLES SHALL BE ADJUSTED TO FINISHED GRADE UPON COMPLETION OF PAVING OR RELATED CONSTRUCTION. ALL VALVE PADS SHALL BE POURED IN PLACE. NO PRE-FORMED VALVE PADS WILL BE ALLOWED.
22.

APPROPRIATE TURBIDITY CONTROL DEVICES (E.G. SILT FENCES, HAY BALES) WILL BE UTILIZED DURING ALL PHASES OF INSTALLATION AND GRADING. CONTRACTOR IS RESPONSIBLE FOR SUBMITTING THE NOTICE OF INTENT AND NOTICE OF TERMINATION TO THE EPA IN COMPLIANCE WITH LEE COUNTY'S NPDES PERMIT.
23.

CONTRACTOR IS RESPONSIBLE FOR DEVELOPING AND MAINTAINING AN EFFECTIVE STORM WATER POLLUTION PREVENTION PLAN.
24.

LCU REQUIRES 30" OF COVER FOR ALL UNDERGROUND PIPING EXCEPT UNDER PAVEMENT, WHERE 36" OF COVER IS REQUIRED. IF LCU REQUIRED COVER CANNOT BE MAINTAINED, THE CONTRACTOR SHALL PROVIDE OTHER METHODS OF CONSTRUCTION OR PIPE PROTECTION, WHICH SHALL FIRST BE APPROVED BY LCU AND THE ENGINEER, AT NO ADDITIONAL COST TO THE COUNTY. IF STATE AGENCIES REQUIRE ADDITIONAL COVER, MEETING THE REQUIREMENTS SHALL BE DONE AT NO ADDITIONAL COST TO THE COUNTY.
25.

LCU REQUIRES THERE TO BE A MINIMUM OF TEN (10) FEET HORIZONTAL AND 18" VERTICAL SEPARATION BETWEEN POTABLE WATER & SANITARY SEWER MAINS. LCU ALSO REQUIRES MINIMUM OF TEN (10) FEET HORIZONTAL SEPARATION BETWEEN OTHER PUBLIC AND/OR PRIVATE UTILITIES, STRUCTURE(S), BUILDING(S), WALL(S), FOUNTAIN(S), FENCE(S) AND LCU INFRASTRUCTURE UNLESS SPECIFICALLY APPROVED BY LCU.

26.

LCU REQUIRES THERE TO BE A MINIMUM OF FIVE (5) FEET HORIZONTAL SEPARATION BETWEEN LCU INFRASTRUCTURE AND DRAINAGE INFRASTRUCTURE, MITERED END SECTIONS, INLETS, ETC. LCU ALSO REQUIRES MINIMUM OF FIVE (5) FEET HORIZONTAL SEPARATION BETWEEN LCU INFRASTRUCTURE AND ALL NEW LIGHT POLE FOUNDATIONS.
27.

THE ROOT BALL OF PALM TREES SHALL BE A MINIMUM OF FIVE (5) FEET AND THE ROOT BALL OF SHADE TREES SHALL BE A MINIMUM OF TEN (10) FEET FROM ANY EXISTING OR PROPOSED LCU OWNED AND MAINTAINED PIPE/INFRASTRUCTURE.
28.

AS THE WORK PROGRESSES THE CONTRACTOR SHALL RECORD ALL CHANGES AND DEVIATIONS FROM THE LCU STAMPED/APPROVED CONSTRUCTION PLANS. IN ADDITION, HE SHALL RECORD THE EXACT LOCATION OF ALL CHANGES IN VERTICAL AND HORIZONTAL ALIGNMENT WITH COORDINATES WITH RESPECT TO THE NAVD 1988 STATE PLANE FLORIDA WEST COORDINATE SYSTEM AS WELL AS ALL REQUIREMENTS SET FORTH IN THE LCU DESIGN MANUAL. THIS INFORMATION IS TO BE FORWARDED TO THE ENGINEER OF RECORD WHO PREPARED, SIGNED AND SEALED THE APPROVED CONSTRUCTION PLANS SO THAT HE CAN PREPARE 'RECORD DRAWINGS' PER THE REQUIREMENTS SET FORTH IN THE LCU DESIGN MANUAL.

**Barraco**  
and Associates, Inc.

CIVIL ENGINEERING - LAND SURVEYING  
LAND PLANNING

[www.barraco.net](http://www.barraco.net)

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FLORIDA CERTIFICATES OF AUTHORIZATION  
ENGINEERING 7995 - SURVEYING LB-6940

PREPARED FOR

 **UTILITIES  
LEE COUNTY**

1500 MONROE STREET  
FORT MYERS, FLORIDA 33901  
PHONE (239) 533-8181  
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PROJECT DESCRIPTION

**NORTH U.S. 41  
(S.R. 45)  
16-INCH WATER MAIN**

LITTLETON ROAD TO  
DEL PRADO BOULEVARD

PART OF SECTION 22 & 27,  
TOWNSHIP 43 SOUTH,  
RANGE 24 EAST  
FORT MYERS, LEE COUNTY, FLORIDA

ENGINEER OF RECORD

WESLEY S. KAYNE, P.E., FOR THE FIRM  
FLORIDA P.E. NO. 80507 - WESK@BARRACO.NET

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FILE NAME J:\23994\DWG\DWG

LOCATION J:\23994\DWG\DWG

PLOT DATE MON. 1-9-2023 - 11:14 AM

PLOT BY JAN BILDZUKEWICZ

CROSS REFERENCED DRAWINGS

PLAN REVISIONS

PLAN STATUS

100% SUBMITTAL PLANS  
2023-01-09

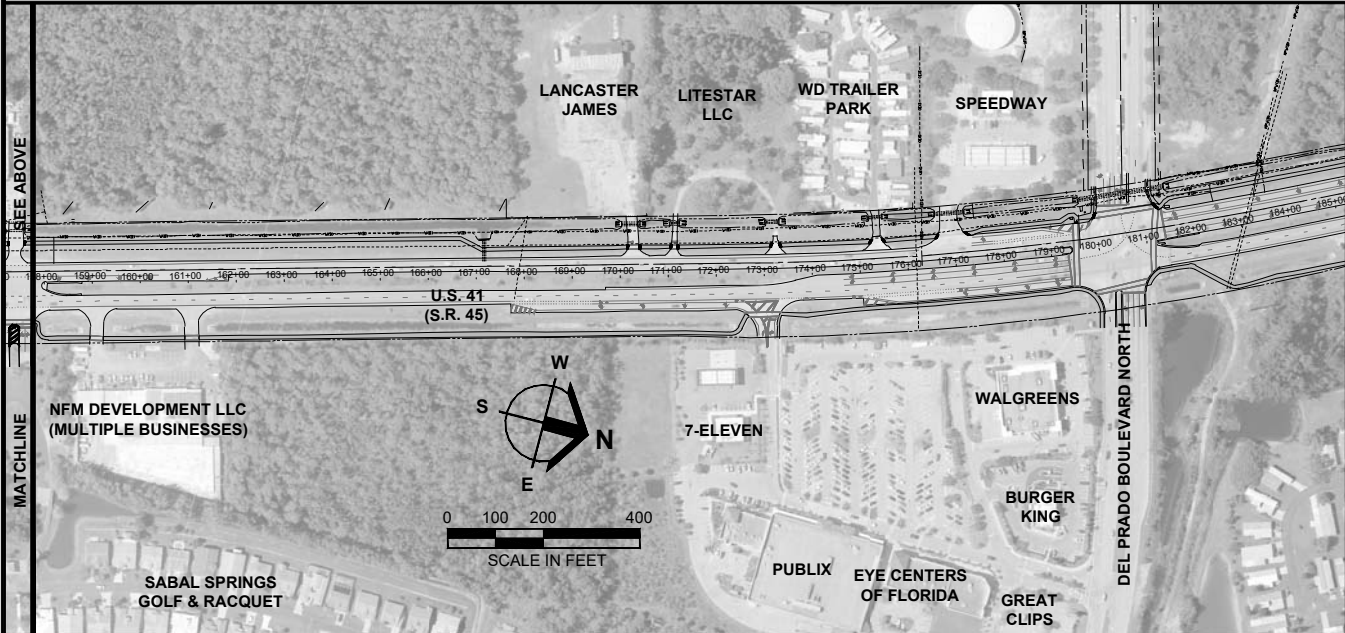
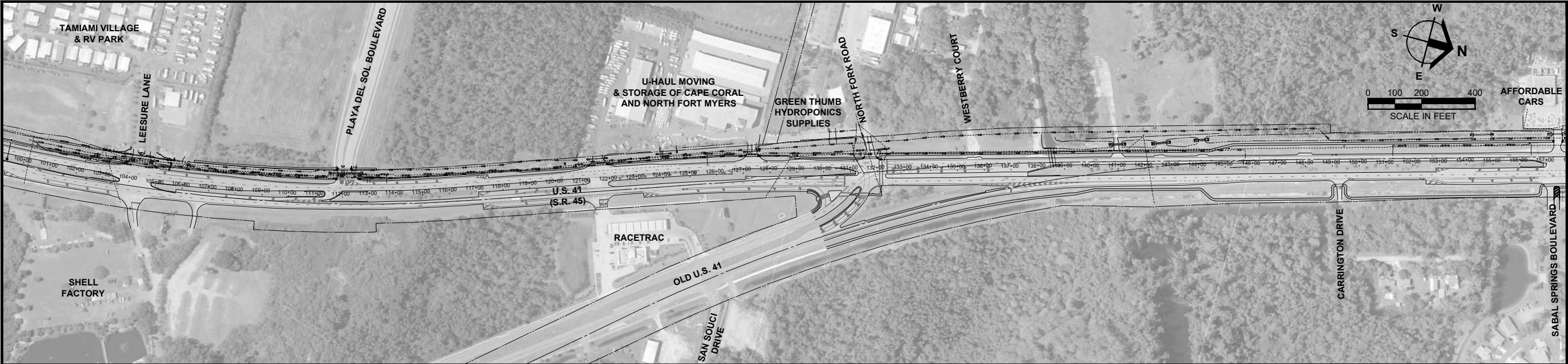
**L.C.U. NOTES**

PROJECT / FILE NO.

**23994**

SHEET NUMBER

**3.0**



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LEE COUNTY

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PROJECT DESCRIPTION

NORTH U.S. 41  
(S.R. 45)  
16-INCH WATER MAIN

LITTLETON ROAD TO  
DEL PRADO BOULEVARD

PART OF SECTION 22 & 27,  
TOWNSHIP 43 SOUTH,  
RANGE 24 EAST  
FORT MYERS, LEE COUNTY, FLORIDA

ENGINEER OF RECORD  
WESLEY S. KAYNE, P.E., FOR THE FIRM  
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PLOT BY	JAN BILDZUKEWICZ

CROSS REFERENCED DRAWINGS
SURVEY = 22759500.DWG

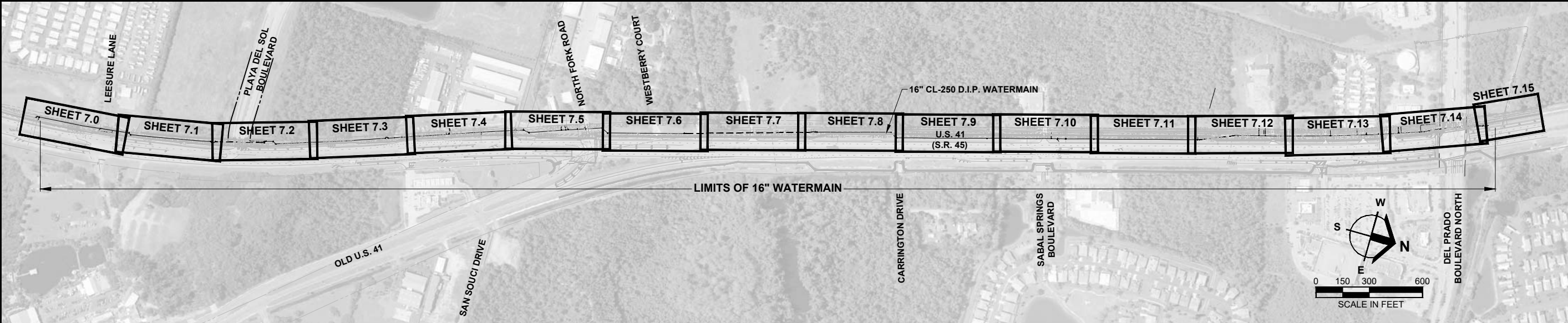
PLAN REVISIONS	

PLAN STATUS
EXHIBIT

AERIAL PHOTOGRAPH  
AND EXISTING  
CONDITIONS PLAN

PROJECT / FILE NO.	SHEET NUMBER
23063	4.0





UTILITIES PROVIDING SERVICE:

WATER
LEE COUNTY UTILITIES 1500 MONROE ST. FORT MYERS, FL 33901 PHONE (239) 533-8160 WASTE WATER
F.G.U.A. 5660 BAYSHORE ROAD, SUITE 36 NORTH FORT MYERS, FL 33917 PHONE (239) 543-1005 TELEPHONE
CENTURYLINK TELEPHONE CO. 5100 DANIELS PARKWAY #300 FORT MYERS, FL 33912 PHONE (239) 590-0440 ELECTRIC
LEE COUNTY ELECTRIC COOPERATIVE 4941 BAYLINE DRIVE NORTH FORT MYERS, FL 33917 PHONE (800)599-2356 FIRE CONTROL DISTRICT
NORTH FORT MYERS FIRE DISTRICT 2900 TRAIL DAIRY CIRCLE NORTH FORT MYERS, FL 33917 PHONE (239) 997-8654 GAS
TECO PEOPLE'S GAS 5901 ENTERPRISE PARKWAY FORT MYERS, FL 33905 PHONE (239) 832-6747
CABLE TELEVISION:
COMCAST 12641 CORPORATE LAKES DRIVE FORT MYERS, FL 33913 PHONE (239) 908-6571 UTILITY LOCATING SERVICE
SUNSHINE STATE ONE CALL CENTER PHONE 811 (MINIMUM 48 HOURS NOTICE REQUIRED)

GENERAL PROJECT NOTES:

1.

EXISTING CONDITIONS DEPICTED IN THESE PLANS DO NOT NECESSARILY REFLECT UTILITY AND DRAINAGE ADJUSTMENTS THAT MAY BE UNDER CONSTRUCTION BY F.D.O.T.
2.

ELEVATIONS REFER TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
3.

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% AND THE LONGITUDINAL SLOPE SHALL NOT EXCEED 5%, INCLUDING SIDEWALK CROSSINGS AT DRIVEWAYS.
4.

PROPOSED VALVES, BLOW-OFFS AND OTHER UTILITY APPURTENANCES SHALL NOT BE LOCATED WITHIN PROPOSED OR EXISTING SIDEWALKS UNLESS SPECIFICALLY APPROVED BY LEE COUNTY UTILITIES.
5.

ALL EXISTING MAINS TO BE TAKEN OUT OF SERVICE SHALL BE REMOVED WITH THE EXCEPTION OF MAINS UNDER EXISTING ROADWAYS WHICH SHALL BE GROUTED.
6.

WHERE TRACER WIRE DOES NOT PROVIDE ACCURATE SIGNAL FOR LOCATION OF EXISTING WATERMAIN OR FORCEMAIN PIPE SOFT DIG HOLE EVERY 100 FEET TO LOCATE PIPE.
7.

BETWEEN AIR RELEASE VALVES THERE SHALL BE NO HIGH POINTS IN PIPE. CONTRACTOR SHALL ADJUST PIPE DEPTH OF COVER AS NECESSARY TO MEET THIS REQUIREMENT.
8.

ALL DISTURBED AREAS SHALL RECEIVE SOD UPON COMPLETION OF CONSTRUCTION.
9.

PAVEMENT DAMAGED BEYOND THE LIMITS SHOWN SHALL BE REPAIRED BY THE CONTRACTOR. REPAIRS SHALL INCORPORATE THE ENTIRE LENGTH OF DAMAGE FOR THE FULL WIDTH OF A TRAVEL LANE. NO ADDITIONAL COMPENSATION SHALL BE MADE.
10.

DRIVEWAY AND SIDEWALK REPLACEMENT SHALL BE FROM EDGE OF PAVEMENT / CONCRETE TO THE NEAREST EXPANSION JOINT OR RIGHT-OF-WAY LINE, WHICHEVER IS CLOSEST TO INSTALLED UTILITY.
11.

TREES THAT ARE REPLACED IN-KIND SHALL BE PLACED AT THE DIRECTION OF THE ENGINEER, BUT SHALL NOT BE PLANTED DIRECTLY OVER THE NEWLY INSTALLED UTILITY.
12.

HORIZONTAL DIRECTIONAL DRILL GEOMETRY OF 13° ENTRANCE AND EXIT ANGLES AND 450' BENDING RADIUS SHOWN FOR REFERENCE ONLY. VERTICAL AND HORIZONTAL CLEARANCES SHALL BE STRICTLY OBSERVED. THE CONTRACTOR MAY ADJUST THE ENTRY AND EXIT ANGLES AND RADIUS OF CURVATURE AS REQUIRED BASED ON FIELD CONDITIONS ENCOUNTERED AT THE TIME OF CONSTRUCTION AND THE CAPABILITIES OF THE EQUIPMENT UTILIZED. ANY MODIFICATIONS SHALL BE COORDINATED WITH THE OWNER AND ENGINEER PRIOR TO CONSTRUCTION.
13.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONSTRUCT HORIZONTAL AND VERTICAL TRANSITION OF FORCEMAINS AND WATERMAINS USING NO MORE THAN 75% OF THE MAXIMUM ALLOWABLE DEFLECTION RECOMMENDED BY THE PIPE MANUFACTURER. SHOP DRAWINGS SHALL BE FURNISHED TO THE ENGINEER FOR APPROVAL OF ALL PIPE CONNECTIONS, TRANSITIONS, ETC. PRIOR TO FABRICATION OR DELIVERY TO JOB SITE.
14.

CONTRACTOR SHALL BE RESPONSIBLE FOR ANY WASTEWATER SPILLS THAT OCCUR DURING CONSTRUCTION AND FOR ASSOCIATED MONETARY FINES FROM STATE REGULATORY AGENCIES.
15.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL AND DISPOSAL OF ALL WASTE MATERIAL TO INCLUDE EXCESS SPOILS, DRILLING FLUID, DEMOLITION DEBRIS AND ROCK. CONTRACTOR SHALL TRANSPORT AND DISPOSE OF ALL MATERIAL AT AN OFF-SITE FACILITY MEETING ALL LOCAL, STATE AND FEDERAL REQUIREMENTS.
16.

CONTRACTOR TO COORDINATE BRACING, PROTECTION AND OR RELOCATION OF EXISTING UTILITIES WITH THE UTILITY OWNER. ANY COST ASSOCIATED WITH THESE UTILITIES IS CONSIDERED INCIDENTAL TO THE PIPE INSTALLATION AND SHALL BE BORNE BY THE CONTRACTOR. NO ADDITIONAL COMPENSATION SHALL BE MADE.
17.

ALL EXISTING MAINS WHICH ARE TO BE REPLACED AS PART OF THIS PROJECT SHALL BE REMOVED WHERE PRACTICAL. ANY EXISTING MAINS NOT DEPICTED IN THESE PLANS WHICH ARE UNCOVERED DURING CONSTRUCTION SHALL BE REMOVED OR GROUTED IN PLACE, AS DIRECTED BY THE ENGINEER OF RECORD, ONCE PROPOSED REPLACEMENT MAIN IS PUT INTO SERVICE.
18.

ALL ASBESTOS CONCRETE PIPE TO BE REMOVED AND DISPOSED OF SHALL BE PERFORMED BY A CONTRACTOR LICENSED AND CERTIFIED TO DO SO AND SHALL BE DONE IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS, INCLUDING, BUT NOT LIMITED TO, THOSE OF F.D.E.P., O.S.H.A., AND F.D.O.T.
19.

REQUIRED CONSTRUCTION STAKING BY A LICENSED STATE OF FLORIDA P.S.M. SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. COST OF CONSTRUCTION STAKING SHALL BE PAID FOR UNDER MISC. BID TABULATION ITEMS, AND NO ADDITIONAL PAYMENT SHALL BE MADE FOR THIS SERVICE.
20.

IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO MAINTAIN CONTINUOUS OPERATION OF ALL TRAFFIC SIGNALS, STREET LIGHTING, IRRIGATION SYSTEMS, DRAINAGE SYSTEMS, AND ANY OTHER ABOVE GROUND OR UNDERGROUND UTILITIES WITHIN THE CONSTRUCTION LIMITS OR FACILITIES AFFECTED BY CONSTRUCTION.
21.

IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO MAINTAIN PEDESTRIAN ACCESS WITHIN THE CONSTRUCTION LIMITS. IF NOT FEASIBLE DUE TO SAFETY CONCERNS, AND UPON APPROVAL, THE CONTRACTOR MAY PROVIDE PROPER SIGNAGE AND CONTROLS TO CLOSE LIMITED SIDEWALKS WITHIN THE RIGHT-OF-WAY. CLOSURE SHALL BE AT THE COST OF THE CONTRACTOR AND DETOURS MUST BE PROVIDED TO DIRECT AND RE-DIRECT PEDESTRIAN PATTERNS AT CONTROLLED INTERSECTIONS.
22.

IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO OBTAIN STILL PHOTOS AND VIDEO TAPING OF THE ENTIRE PROJECT LIMITS OF ALL EXISTING AND NEAR FACILITIES WITHIN THE CONSTRUCTION WORK AREA. COPIES OF THE COMPLETE REPORT SHALL BE REQUIRED PRIOR TO THE START OF CONSTRUCTION.

ASBUILT PLANS AND RECORD DRAWINGS:

1.

THE SIZE, MATERIAL, AND MATERIAL CLASSIFICATION OF EACH WATERMAIN SHALL BE SHOWN AT LEAST ONCE ON EACH SHEET AND AT EVERY TRANSITION / CHANGE IN SIZE, MATERIAL, ETC. POTABLE WATERMAINS, SANITARY SEWER FORCE MAINS AND RECLAIMED WATERMAINS SHALL ALSO INCLUDE:
2.

VERTICAL ALIGNMENT (ELEVATIONS) AND COORDINATES (NAVD 1988 STATE PLAN WEST (FEET) COORDINATE SYSTEM) EVERY 100 FEET IF MAIN INSTALLED IS BETWEEN 2-5 FEET. IF WATERMAIN IS CONSTRUCTED BELOW 5 FEET THE LOCATION POINTS SHALL BE REDUCED TO ONE EVERY 20 FEET.
- THE COORDINATES SHALL BE WITH RESPECT TO NAVD 1988 STATE PLANE FLORIDA WEST (FEET) COORDINATE SYSTEM (X,Y, AND Z) TO THE NEAREST HUNDREDTH FOR ALL FIRE HYDRANTS, FITTINGS, VALVES, WATER METERS, AND WATERMAINS ALONG THE WATERMAIN (I.E., E:698055.12 N: 839365.27).
- ELEVATIONS SHALL BE TO THE NEAREST TENTH AND SHALL ALSO BE REQUIRED AT THESE LOCATIONS.

SUBSURFACE INVESTIGATION:

1.

SOIL BORING RECORDS WERE OBTAINED FOR THE PROJECT BY LOMSKI ENGINEERING AND TESTING. THE REPORTS WERE GENERATED ONLY FOR THE ENGINEER'S USE IN DESIGN. THE REPORT IS INCLUDED IN THE BID DOCUMENTS AS A COURTESY, BUT IS NOT A WARRANTY OR GUARANTEE OF SUBSURFACE CONDITIONS.
2.

BIDDERS SHOULD VISIT THE SITE AND ACQUAINT THEMSELVES WITH ALL EXISTING CONDITIONS. PRIOR TO BIDDING, BIDDERS MAY MAKE THEIR OWN SUBSURFACE INVESTIGATIONS (AS APPROVED BY THE STATE) TO SATISFY THEMSELVES AS TO SITE AND SUBSURFACE CONDITIONS, BUT ALL SUCH INVESTIGATIONS SHALL BE PREFORMED UNDER TIME SCHEDULES AND ARRANGEMENTS APPROVED IN ADVANCE BY THE OWNER.
3.

ALL COSTS OF ROCK EXCAVATION SHALL BE INCLUDED IN THE APPROPRIATE ITEMS OF WORK CONTAINED WITHIN THE CONTRACT. NO EXTRA COMPENSATION OR TIME EXTENSION WILL BE ALLOWED FOR ADDITIONAL WORK DIRECTLY OR INDIRECTLY ASSOCIATED WITH THE PRESENCE, SPLITTING, EXCAVATING, CRUSHING, DISPOSAL, REPLACEMENT OF DISPLACED VOLUME OF EXTRACTED ROCK WITH FILL MATERIAL OR SPECIAL HANDLING OF ROCK.

MAINTENANCE OF TRAFFIC:

1.

TEMPORARY TRAFFIC CONTROL (T.T.C.) PLANS ARE REQUIRED TO BE SUBMITTED BY THE CONTRACTOR FOR VEHICULAR AND PEDESTRIAN TRAFFIC. THIS PLAN SHOULD BE SUBMITTED AND APPROVED BY THE F.D.O.T. AT LEAST 14 DAYS PRIOR TO MOBILIZATION. T.T.C. PLANS SHALL INCLUDE, BUT NOT LIMITED TO, DETAILS OF ALLOWED LANE CLOSURES, PEDESTRIAN ACCESS CLOSURES, AND HOURS OF OPERATION. REFER TO THE APPROVED F.D.O.T. PERMIT WHEN CREATING THE TEMPORARY TRAFFIC CONTROL PLANS (T.T.C.)
2.

ACCESS FOR LOCAL TRAFFIC WITH DESTINATIONS WITHIN THE PROJECT LIMITS SHALL BE MAINTAINED. IF DURING CONSTRUCTION ACCESS FOR LOCAL TRAFFIC IS CHANGED, THE CONTRACTOR SHALL NOTIFY THE F.D.O.T. A MINIMUM OF THREE (3) WORKING DAYS IN ADVANCE. IF DURING CONSTRUCTION ROAD CLOSURES ARE REQUIRED AND APPROVED BY F.D.O.T., THE CONTRACTOR SHALL NOTIFY THE F.D.O.T. A MINIMUM OF FIVE (5) WORKING DAYS IN ADVANCE.
3.

PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL FURNISH, ERECT AND MAINTAIN ALL BARRICADES, WARNING SIGNS, AND MARKINGS FOR HAZARDS AND THE CONTROL OF TRAFFIC, IN REASONABLE CONFORMITY WITH THE U.S. DEPARTMENT OF TRANSPORTATION MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, OR AS DIRECTED BY THE L.C.D.O.T., SUCH AS TO EFFECTIVELY PREVENT ACCIDENTS IN ALL PLACES WHERE THE WORK CAUSES OBSTRUCTION TO THE NORMAL TRAFFIC PATTERN OR CONSTITUTES IN ANY WAY A HAZARD TO THE PUBLIC.
4.

THE CONTRACTOR SHALL COORDINATE AND OBTAIN APPROVAL FOR ALL LANE CLOSURES WITHIN LEE COUNTY RIGHT-OF-WAYS WITH L.C.D.O.T. A MINIMUM OF 14 DAYS PRIOR TO THE REQUIRED CLOSINGS.

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FLORIDA CERTIFICATES OF AUTHORIZATION  
ENGINEERING 7995 - SURVEYING LB-6940

PREPARED FOR

UTILITIES

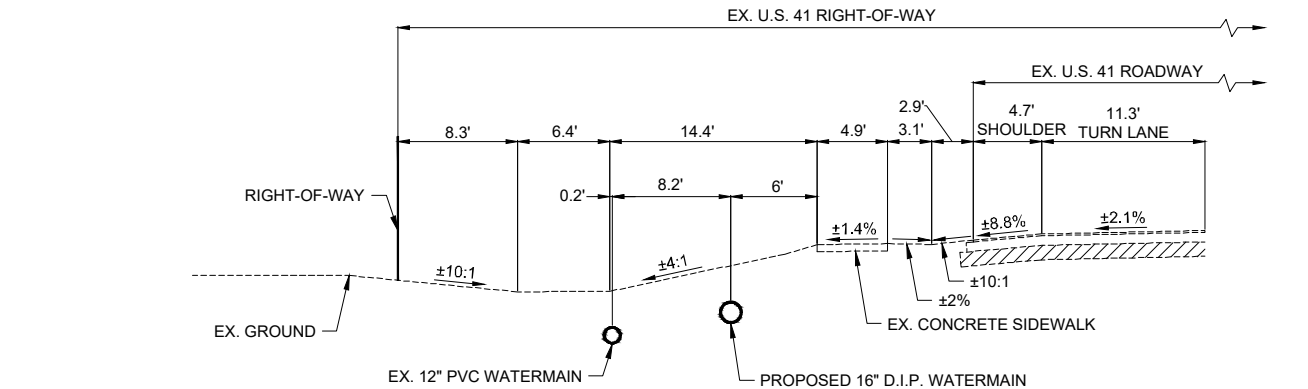
LEE COUNTY

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WWW.LEEGOV.COM/UTILITIES

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LITTLETON ROAD TO DEL PRADO BOULEVARD	
PART OF SECTION 22 & 27, TOWNSHIP 43 SOUTH, RANGE 24 EAST FORT MYERS, LEE COUNTY, FLORIDA	
ENGINEER OF RECORD WESLEY S. KAYNE, P.E., FOR THE FIRM FLORIDA P.E. NO. 80507 - WESK@BARRACO.NET	
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PLOT BY	JAN BILDZUKEWICZ
CROSS REFERENCED DRAWINGS	
BASEPLAN = 23994A00.DWG SURVEY = 22759500.DWG	
PLAN REVISIONS	
PLAN STATUS	
100% SUBMITTAL PLANS 2023-01-09	
MASTER UTILITY PLAN, KEY SHEET, AND NOTES	
PROJECT / FILE NO.	SHEET NUMBER
23994	5.0

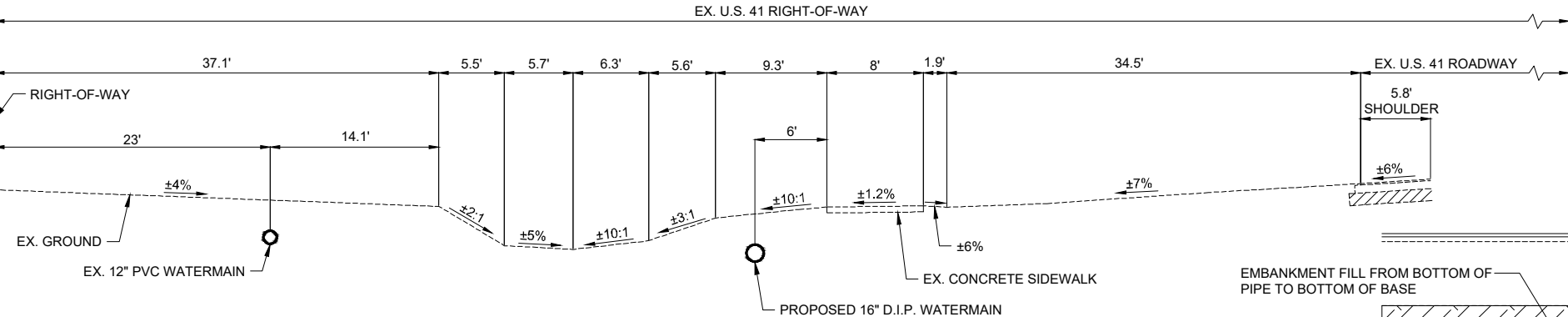
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TYPICAL SECTION NO.1

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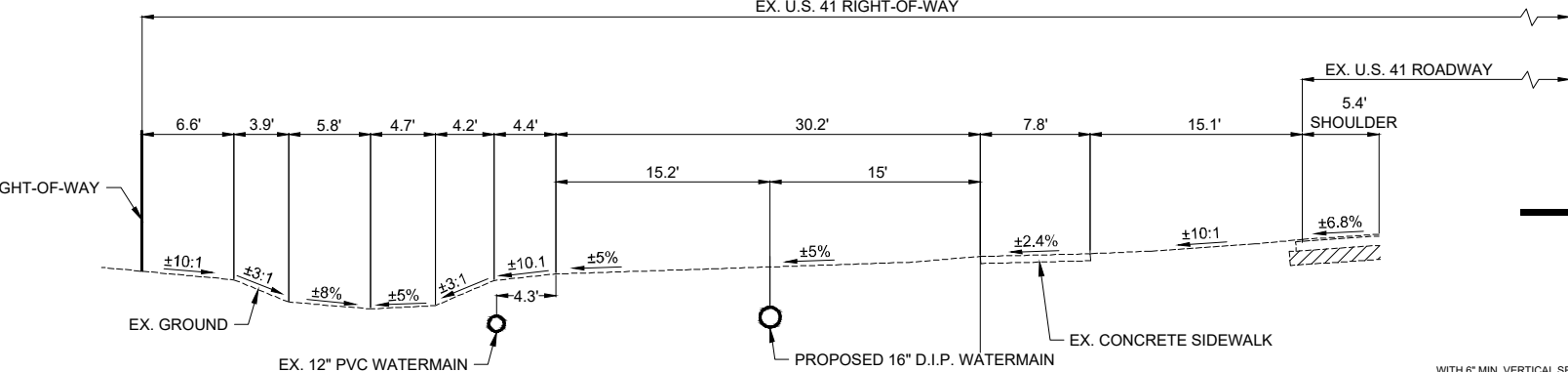
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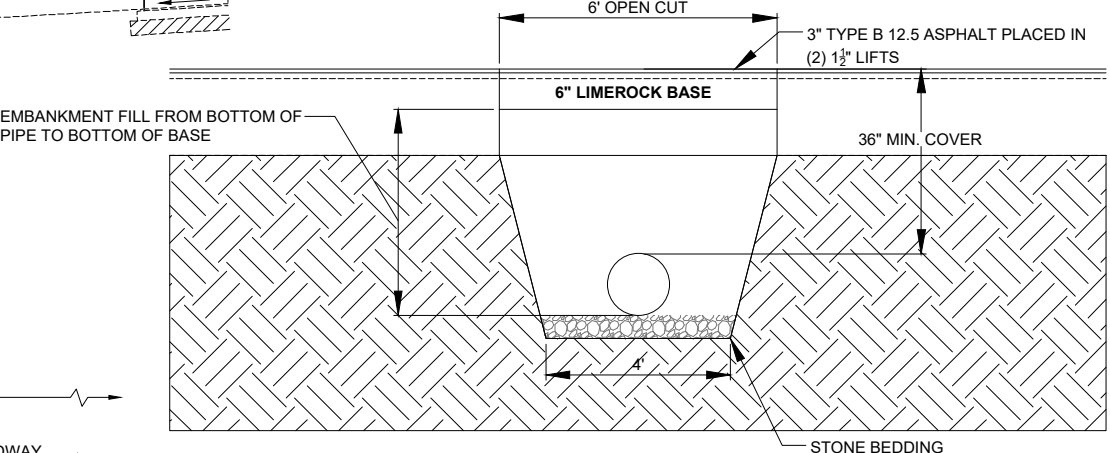
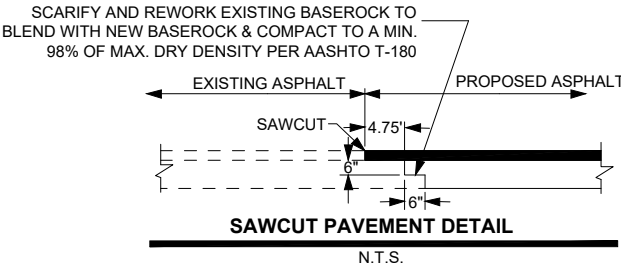
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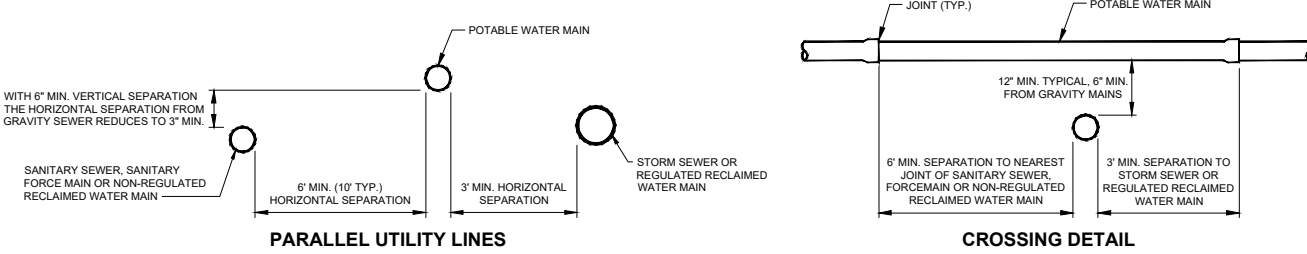
TYPICAL SECTION NO.3

N.T.S.



FULL DEPTH OPEN CUT SECTION (EMBANKMENT)

N.T.S.



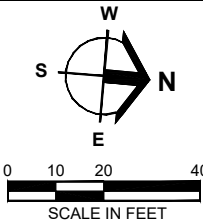
- UTILITY LOCATION NOTES:
- THE REFERENCED UTILITY SEPARATIONS ARE IN ACCORDANCE WITH F.A.C. CHAPTER 62-555. SEE UTILITY DETAILS OR SPECIFICATIONS FOR ADDITIONAL SEPARATION REQUIREMENTS OF THE LOCAL UTILITY PROVIDER.
  - WHERE POSSIBLE THE POTABLE WATER MAIN SHALL CROSS ABOVE ANY SANITARY SEWER, FORCEMAIN, STORM SEWER OR RECLAIMED WATER LINES.
  - PREFERABLY ONE FULL LENGTH OF WATER SHALL BE CENTERED AT CROSSING SO THE WATERMAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE.
  - ALL DIMENSIONS ARE TO THE OUTSIDE OF THE PIPE.
  - LOCAL UTILITY AUTHORITY REQUIREMENTS MAY BE MORE RESTRICTIVE.

UTILITY LOCATION DETAIL

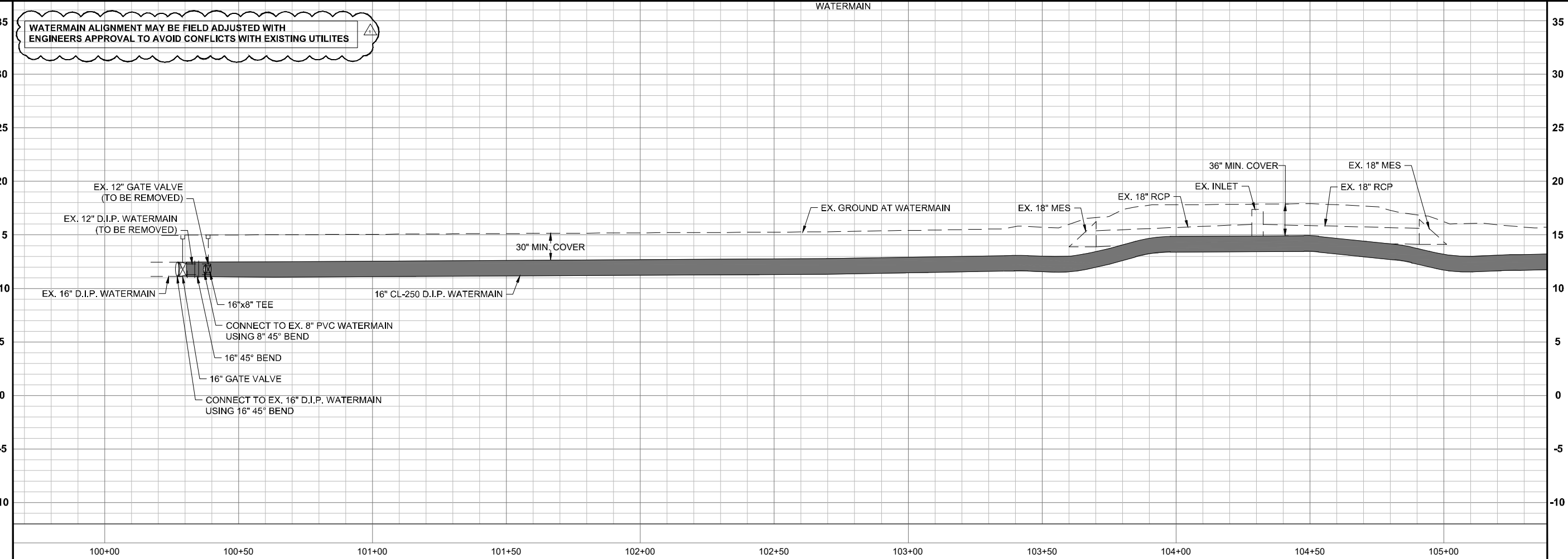
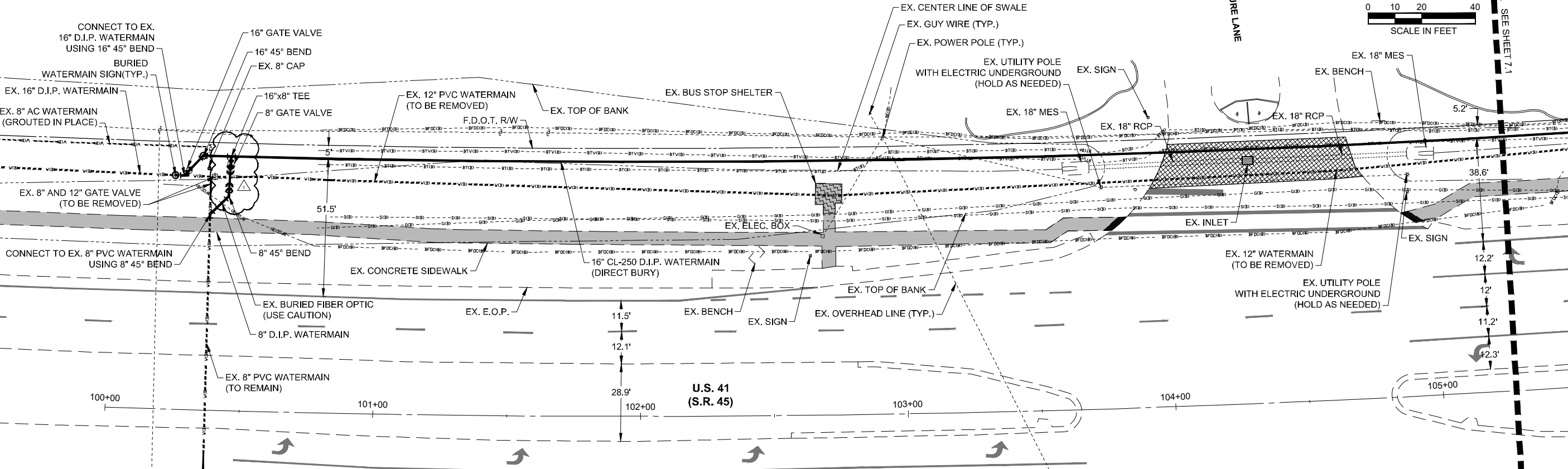
EXIST. SIDEWALK / CONC. DRIVEWAY  
FULL DEPTH OPEN CUT  
REMOVE AND REPLACE SIDEWALK

TAMIAMI MASTER ASSN. INC.  
16555-A N. CLEVELAND AVE. STE. A  
NORTH FORT MYERS, FL 33903

TAMIAMI MASTER ASSN. INC.  
16555 N. CLEVELAND AVE. STE. A  
NORTH FORT MYERS, FL 33903



MATCHLINE SEE SHEET 7.1



WATERMAIN ALIGNMENT MAY BE FIELD ADJUSTED WITH ENGINEERS APPROVAL TO AVOID CONFLICTS WITH EXISTING UTILITIES

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PHONE (239) 461-3170  
FAX (239) 461-3169  
FLORIDA CERTIFICATES OF AUTHORIZATION  
ENGINEERING 7995 - SURVEYING LB-6940

PREPARED FOR

**UTILITIES**  
LEE COUNTY  
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FORT MYERS, FLORIDA 33901  
PHONE (239) 533-8181  
FAX (239) 485-8845  
[WWW.LEEGOV.COM/UTILITIES](http://WWW.LEEGOV.COM/UTILITIES)

PROJECT DESCRIPTION

**NORTH U.S. 41**  
(S.R. 45)  
**16-INCH WATER MAIN**

LITTLETON ROAD TO  
DEL PRADO BOULEVARD

PART OF SECTION 22 & 27,  
TOWNSHIP 43 SOUTH,  
RANGE 24 EAST  
FORT MYERS, LEE COUNTY, FLORIDA

ENGINEER OF RECORD  
WESLEY S. KAYNE, P.E., FOR THE FIRM  
FLORIDA P.E. NO. 80507 - [WESK@BARRACO.NET](mailto:WESK@BARRACO.NET)

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LOCATION	J:\23994\DWG\DOI
PLOT DATE	MON. 1-9-2023 - 11:16 AM
PLOT BY	JAN BILDZUKEWICZ

CROSS REFERENCED DRAWINGS

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SURVEY =	22759500.DWG

PLAN REVISIONS

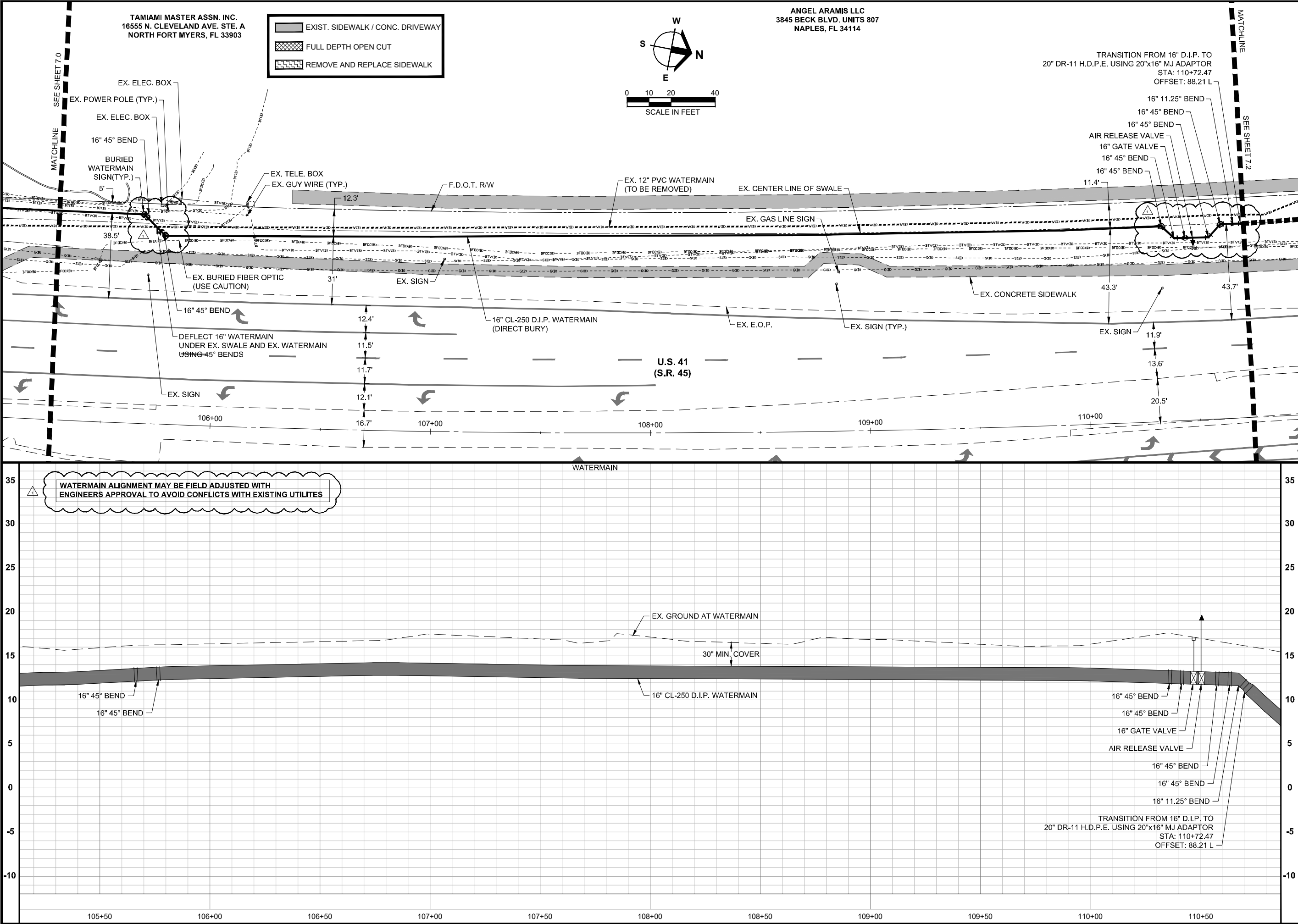
2022-09-16	LEE COUNTY COMMENTS
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PLAN STATUS

100% SUBMITTAL PLANS  
2023-01-09

**PLAN AND PROFILE**  
**U.S. 41 (S.R. 45)**  
**STA: 100+00 TO 105+27**

PROJECT / FILE NO.	SHEET NUMBER
<b>23994</b>	<b>7.0</b>



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PROJECT DESCRIPTION

**NORTH U.S. 41**  
(S.R. 45)  
**16-INCH WATER MAIN**

LITTLETON ROAD TO  
DEL PRADO BOULEVARD

PART OF SECTION 22 & 27,  
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PLOT BY JAN BILDZUKEWICZ

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SURVEY = 22759500.DWG

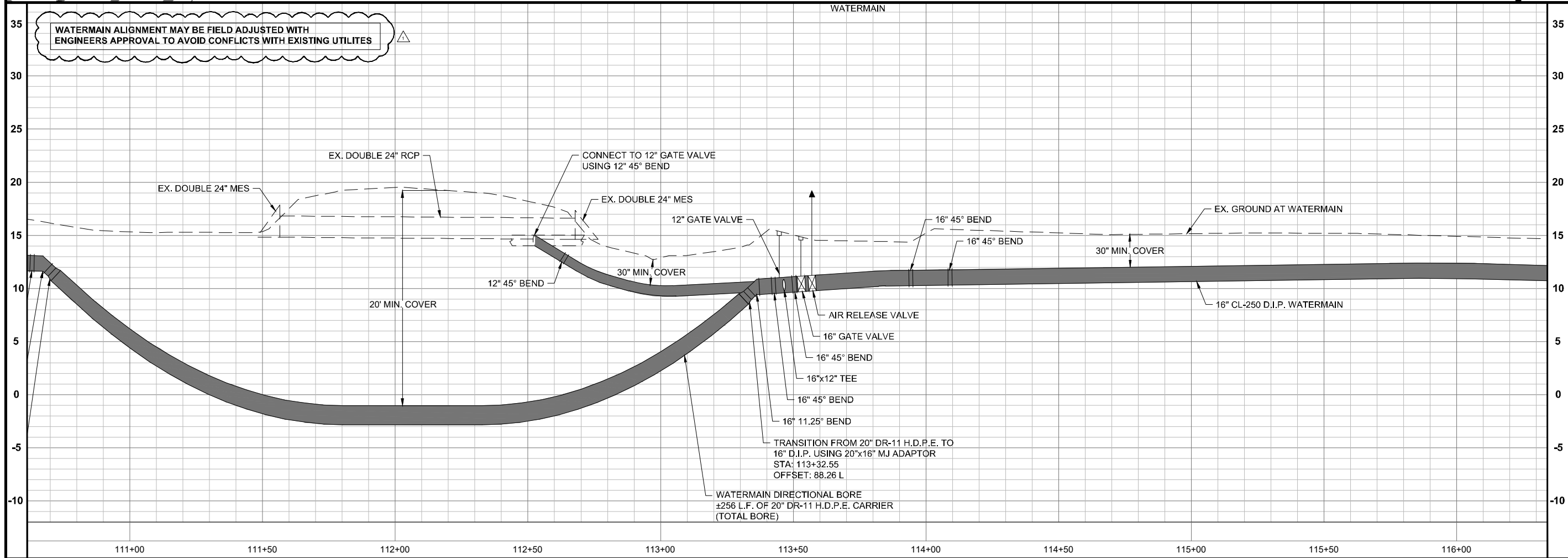
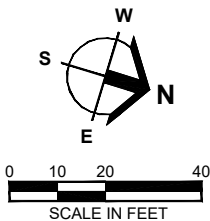
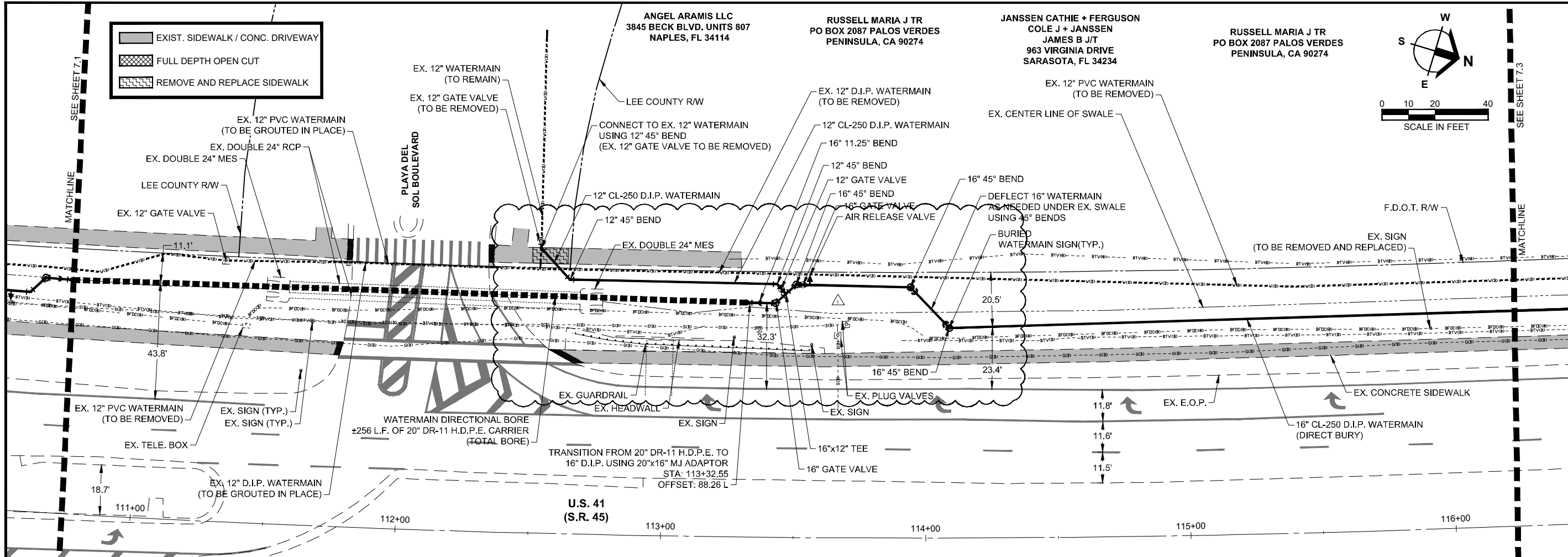
PLAN REVISIONS  
2022-09-16 LEE COUNTY COMMENTS

PLAN STATUS  
100% SUBMITTAL PLANS  
2023-01-09

**PLAN AND PROFILE**  
**U.S. 41 (S.R. 45)**  
**STA: 105+27 TO 110+74**

PROJECT / FILE NO.	SHEET NUMBER
<b>23994</b>	<b>7.1</b>





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PROJECT DESCRIPTION

**NORTH U.S. 41  
(S.R. 45)  
16-INCH WATER MAIN**

LITTLETON ROAD TO  
DEL PRADO BOULEVARD

PART OF SECTION 22 & 27,  
TOWNSHIP 43 SOUTH,  
RANGE 24 EAST  
FORT MYERS, LEE COUNTY, FLORIDA

ENGINEER OF RECORD  
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FILE NAME J:\23994A\DWG\DWG  
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PLOT BY JAN BILDZUKEWICZ

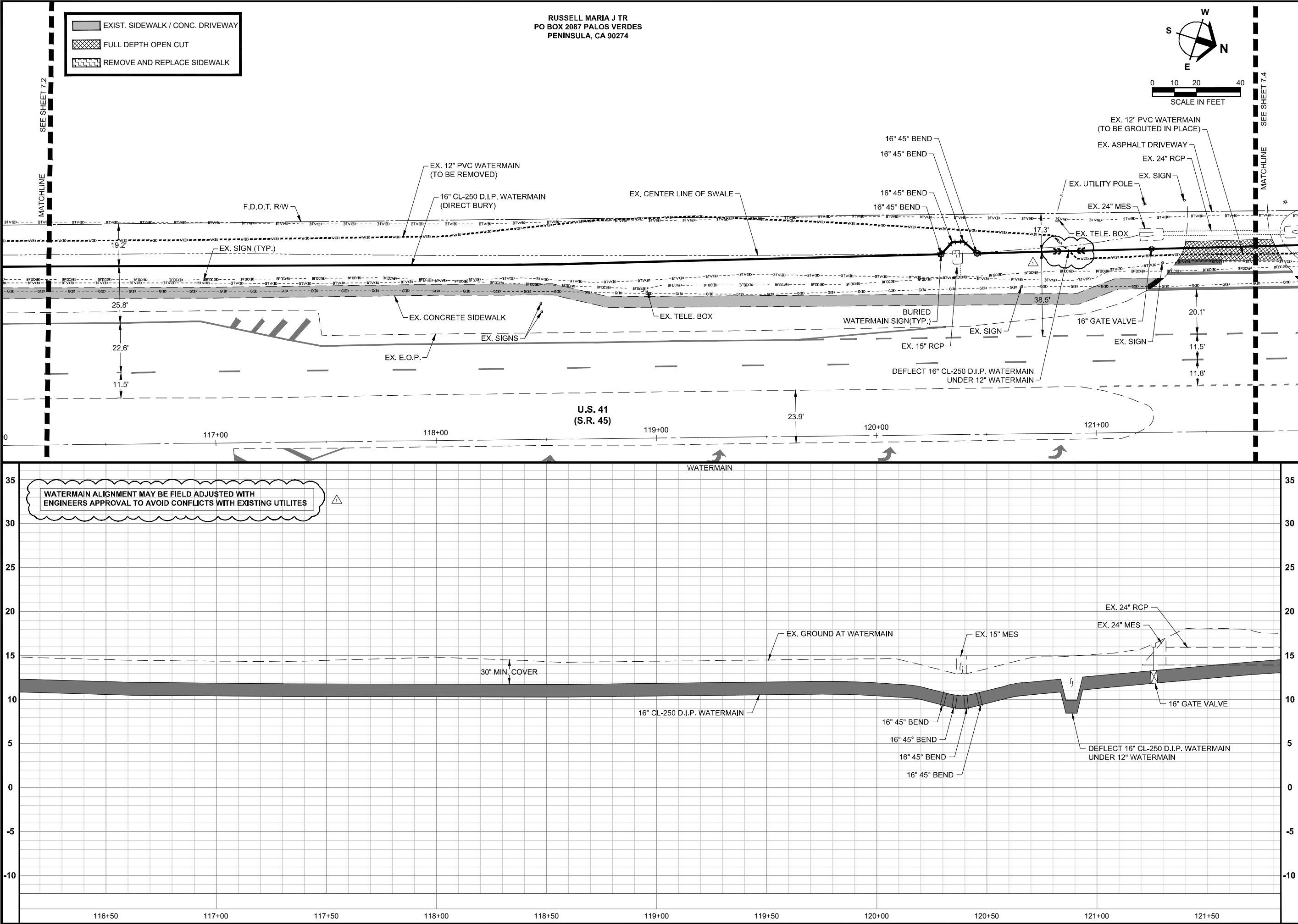
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SURVEY = 22759500.DWG

PLAN REVISIONS  
2022-09-16 LEE COUNTY COMMENTS

PLAN STATUS  
100% SUBMITTAL PLANS  
2023-01-09

**PLAN AND PROFILE  
U.S. 41 (S.R. 45)  
STA: 110+74 TO 116+23**

PROJECT / FILE NO. 23994  
SHEET NUMBER 7.2



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PREPARED FOR

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PROJECT DESCRIPTION

**NORTH U.S. 41**  
**(S.R. 45)**  
**16-INCH WATER MAIN**

LITTLETON ROAD TO  
DEL PRADO BOULEVARD

PART OF SECTION 22 & 27,  
TOWNSHIP 43 SOUTH,  
RANGE 24 EAST  
FORT MYERS, LEE COUNTY, FLORIDA

ENGINEER OF RECORD  
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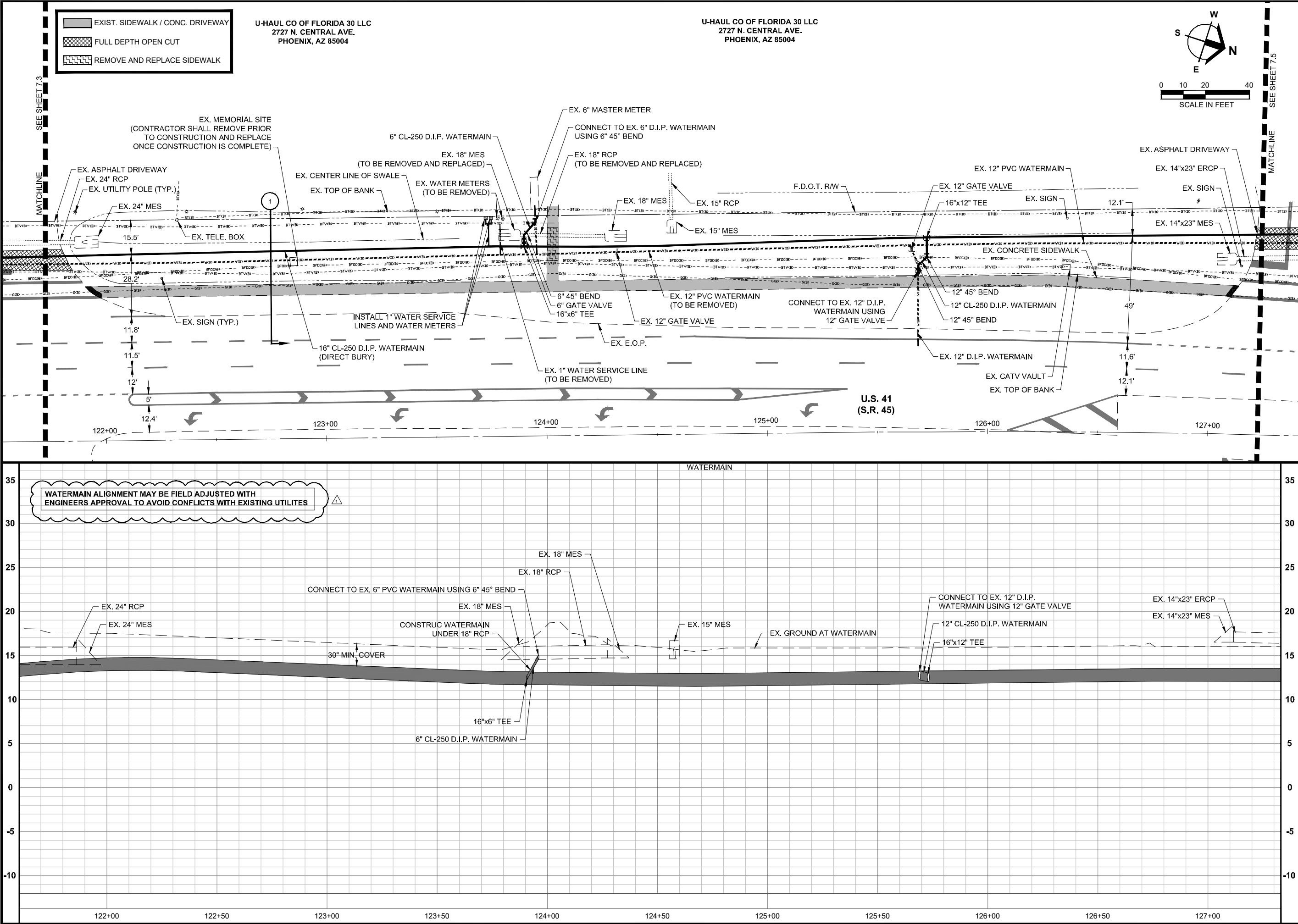
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PLAN REVISIONS  
2022-09-16 LEE COUNTY COMMENTS

PLAN STATUS  
100% SUBMITTAL PLANS  
2023-01-09

**PLAN AND PROFILE**  
**U.S. 41 (S.R. 45)**  
**STA: 116+23 TO 121+72**

PROJECT / FILE NO. **23994**  
SHEET NUMBER **7.3**



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PROJECT DESCRIPTION

**NORTH U.S. 41  
(S.R. 45)  
16-INCH WATER MAIN**

LITTLETON ROAD TO  
DEL PRADO BOULEVARD

PART OF SECTION 22 & 27,  
TOWNSHIP 43 SOUTH,  
RANGE 24 EAST  
FORT MYERS, LEE COUNTY, FLORIDA

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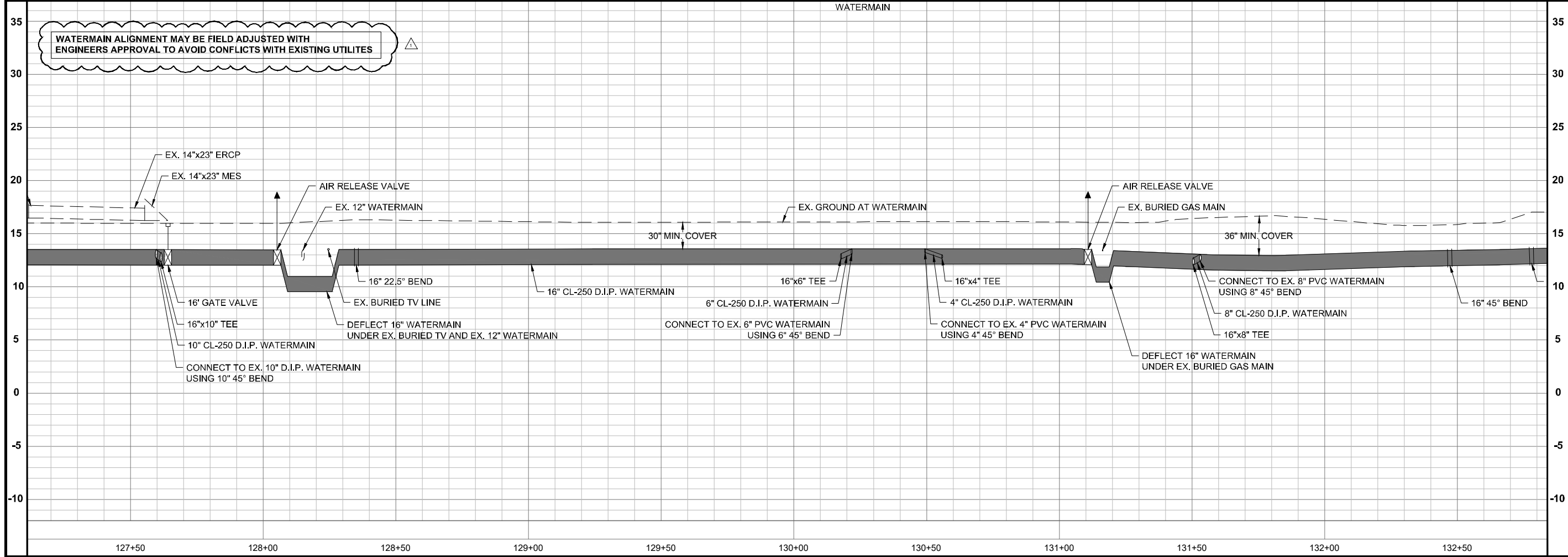
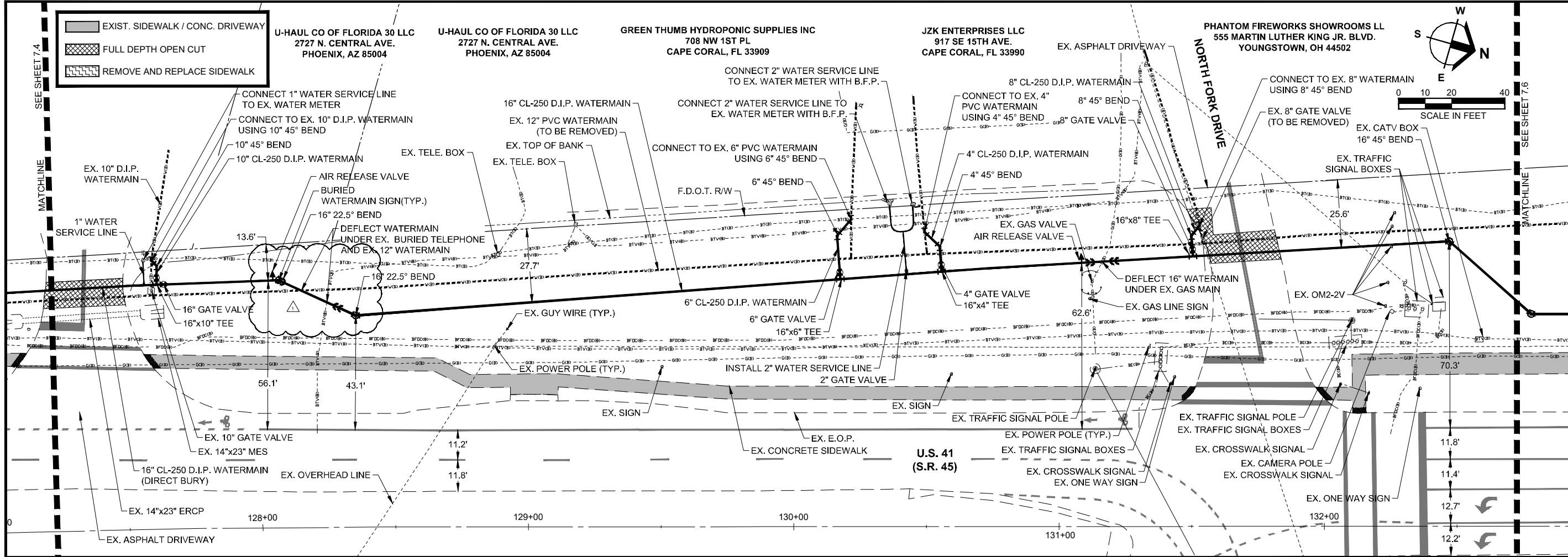
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PLAN REVISIONS

PLAN STATUS  
100% SUBMITTAL PLANS  
2023-01-09

**PLAN AND PROFILE  
U.S. 41 (S.R. 45)  
STA: 121+72 TO 127+23**

PROJECT / FILE NO. 23994  
SHEET NUMBER 7.4



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PROJECT DESCRIPTION

**NORTH U.S. 41**  
**(S.R. 45)**  
**16-INCH WATER MAIN**

LITTLETON ROAD TO  
DEL PRADO BOULEVARD

PART OF SECTION 22 & 27,  
TOWNSHIP 43 SOUTH,  
RANGE 24 EAST  
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LOCATION: J:\23994\DWG\DO\I  
PLOT DATE: MON. 1-9-2023 - 11:18 AM  
PLOT BY: JAN BILDZUKEWICZ

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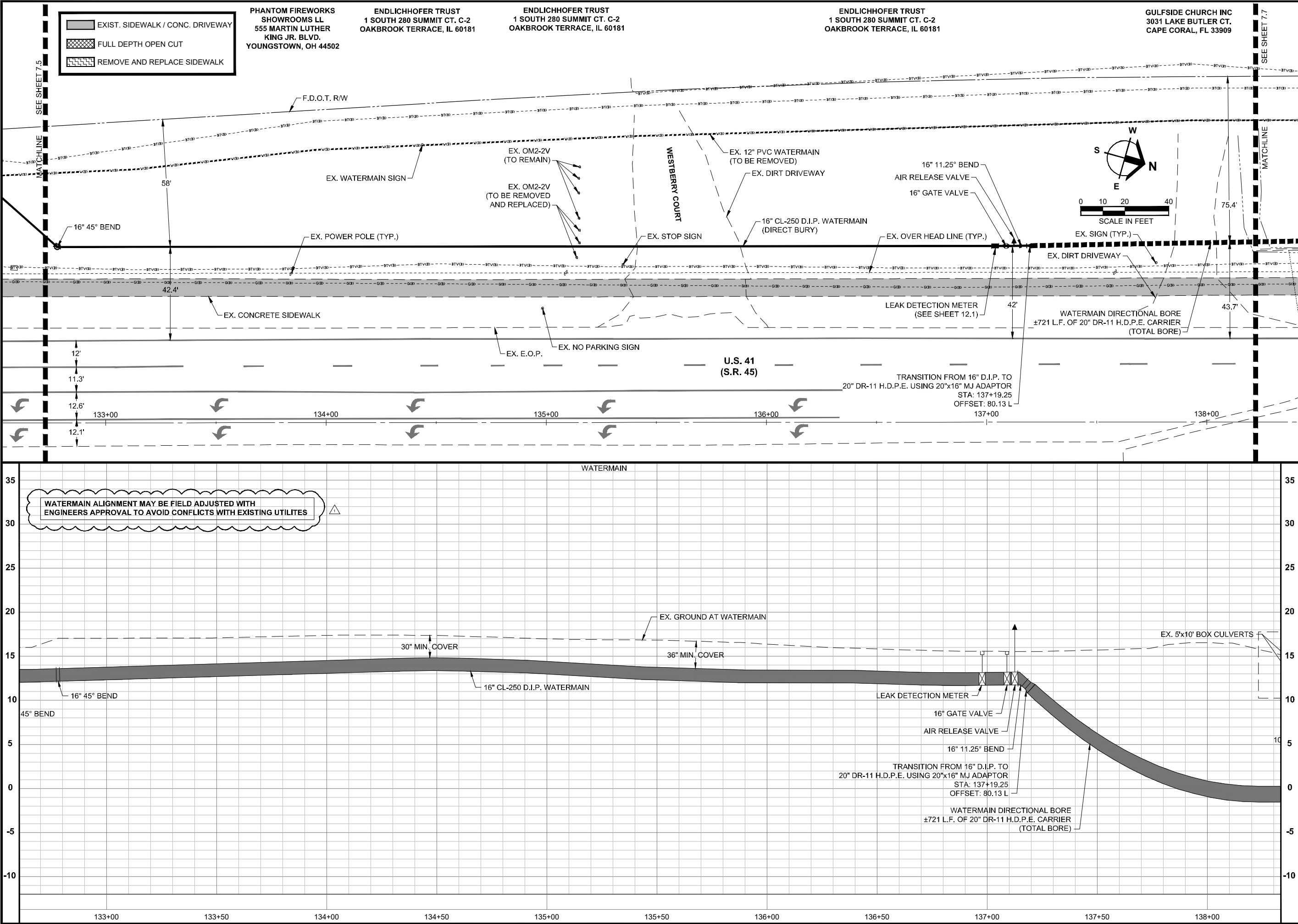
PLAN REVISIONS

PLAN STATUS  
100% SUBMITTAL PLANS  
2023-01-09

**PLAN AND PROFILE**  
**U.S. 41 (S.R. 45)**  
**STA: 127+23 TO 132+73**

PROJECT / FILE NO.  
**23994**

SHEET NUMBER  
**7.5**



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PREPARED FOR

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PROJECT DESCRIPTION

**NORTH U.S. 41  
(S.R. 45)  
16-INCH WATER MAIN**

LITTLETON ROAD TO  
DEL PRADO BOULEVARD

PART OF SECTION 22 & 27,  
TOWNSHIP 43 SOUTH,  
RANGE 24 EAST  
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FILE NAME: 23994A30.DWG  
LOCATION: J:\23994\DWG\DO  
PLOT DATE: MON. 1-9-2023 - 11:19 AM  
PLOT BY: JAN BILDZUKEWICZ

CROSS REFERENCED DRAWINGS  
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SURVEY = 22759S00.DWG

PLAN REVISIONS

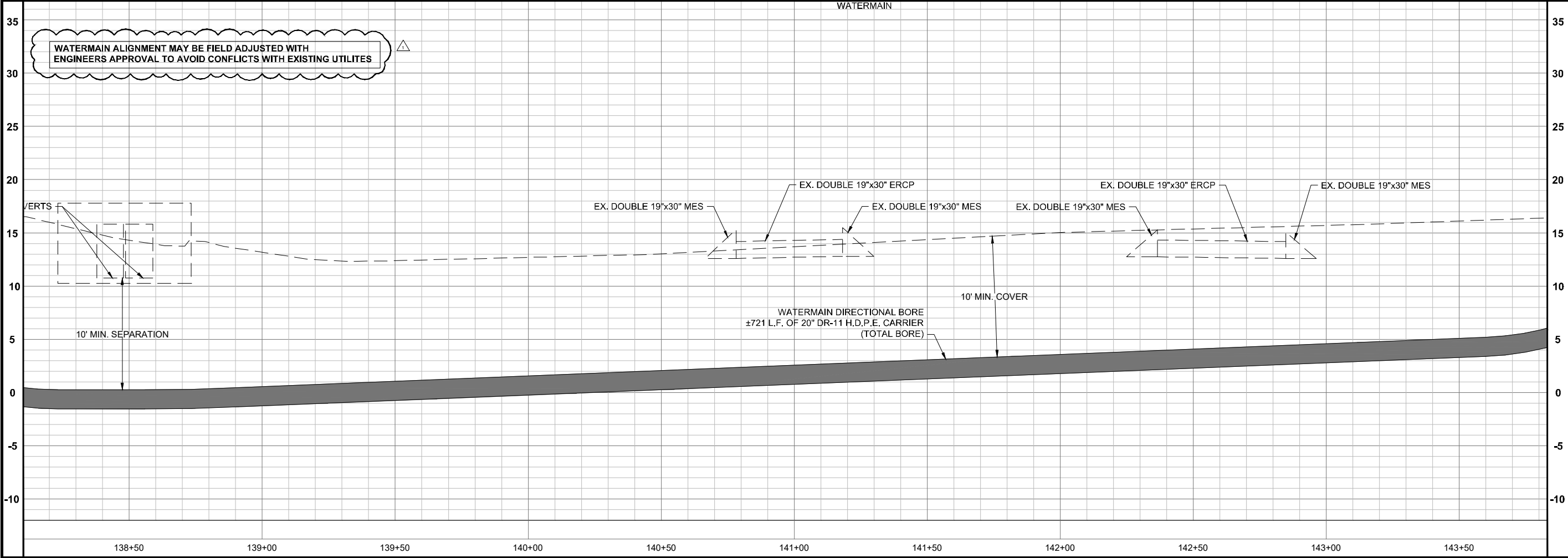
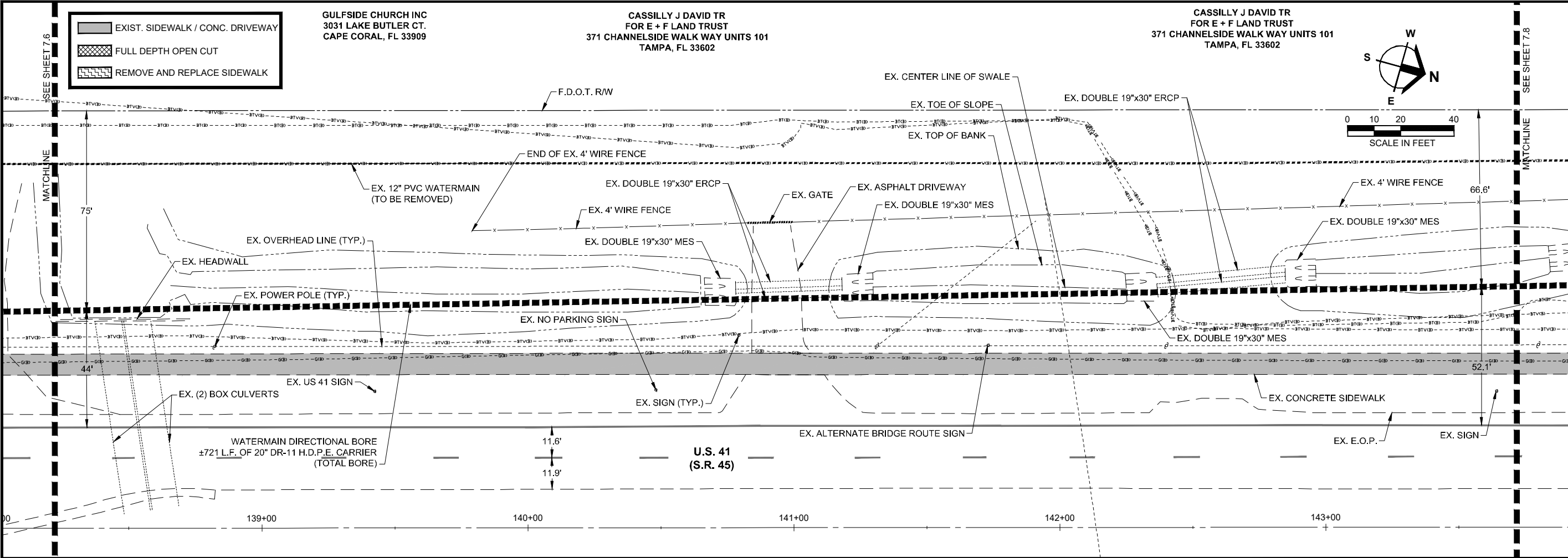
PLAN STATUS  
100% SUBMITTAL PLANS  
2023-01-09

PLAN AND PROFILE  
U.S. 41 (S.R. 45)  
STA: 132+73 TO 138+22

PROJECT / FILE NO.  
23994

SHEET NUMBER  
7.6





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FLORIDA CERTIFICATES OF AUTHORIZATION  
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PREPARED FOR

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LEE COUNTY

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PROJECT DESCRIPTION

**NORTH U.S. 41  
(S.R. 45)  
16-INCH WATER MAIN**

LITTLETON ROAD TO  
DEL PRADO BOULEVARD

PART OF SECTION 22 & 27,  
TOWNSHIP 43 SOUTH,  
RANGE 24 EAST  
FORT MYERS, LEE COUNTY, FLORIDA

ENGINEER OF RECORD  
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FILE NAME J:\23994\DWG\DWG  
LOCATION J:\23994\DWG\DWG  
PLOT DATE MON. 1-9-2023 - 11:19 AM  
PLOT BY JAN BILDZUKEWICZ

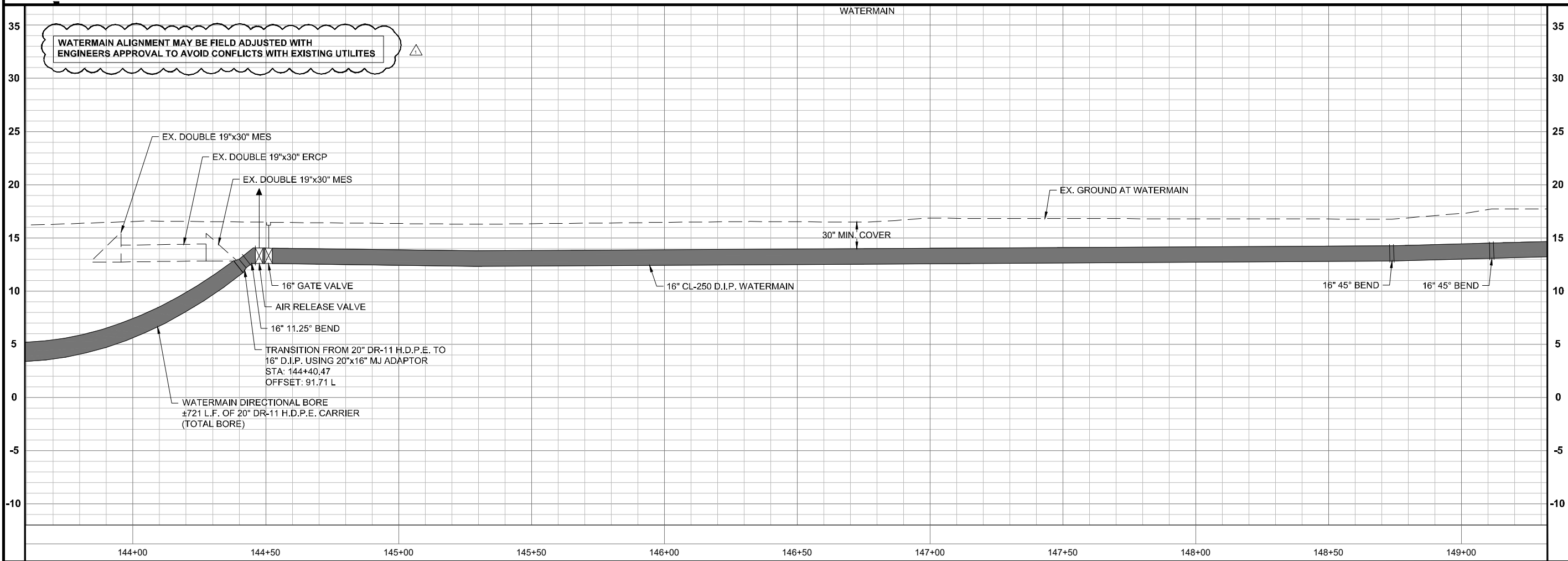
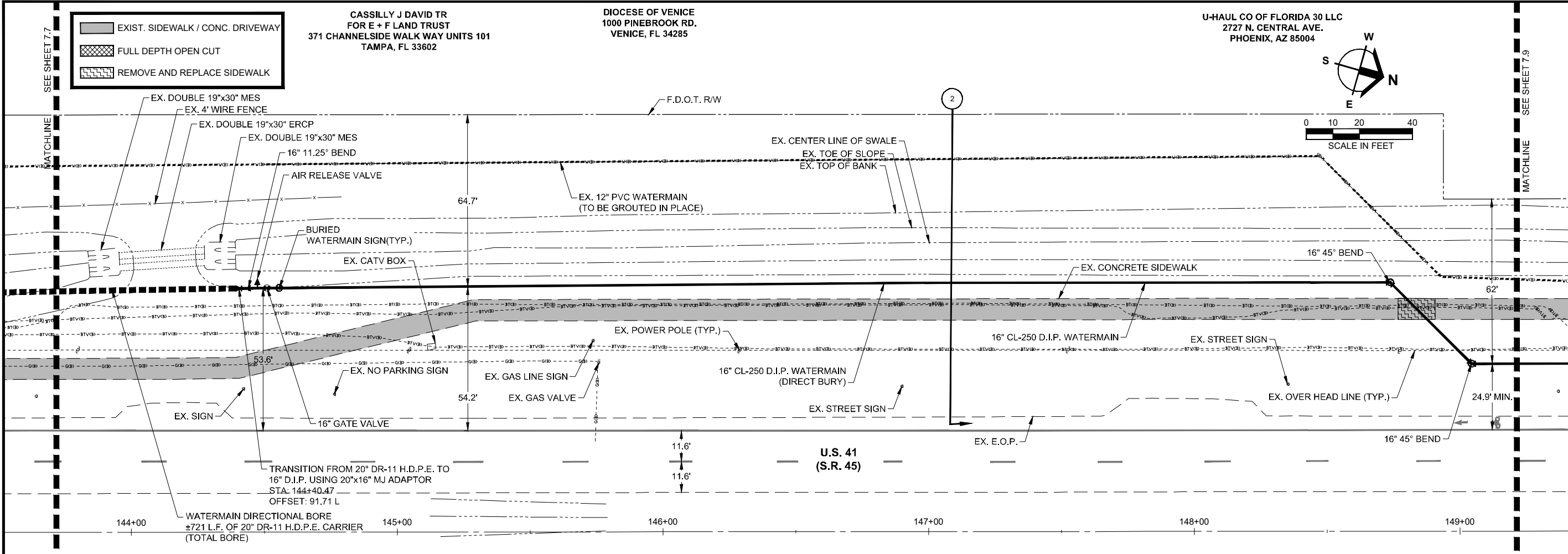
CROSS REFERENCED DRAWINGS  
BASEPLAN = 23994A00.DWG  
SURVEY = 22759S00.DWG

PLAN REVISIONS

PLAN STATUS  
100% SUBMITTAL PLANS  
2023-01-09

**PLAN AND PROFILE  
U.S. 41 (S.R. 45)  
STA: 138+22 TO 143+72**

PROJECT / FILE NO. 23994  
SHEET NUMBER 7.7



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FAX (239) 461-3169  
FLORIDA CERTIFICATES OF AUTHORIZATION  
ENGINEERING 7995 - SURVEYING LB-6940

PREPARED FOR

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PROJECT DESCRIPTION

**NORTH U.S. 41  
(S.R. 45)  
16-INCH WATER MAIN**

LITTLETON ROAD TO  
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PART OF SECTION 22 & 27,  
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FORT MYERS, LEE COUNTY, FLORIDA

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PLOT BY: JAN BILDZUKEWICZ

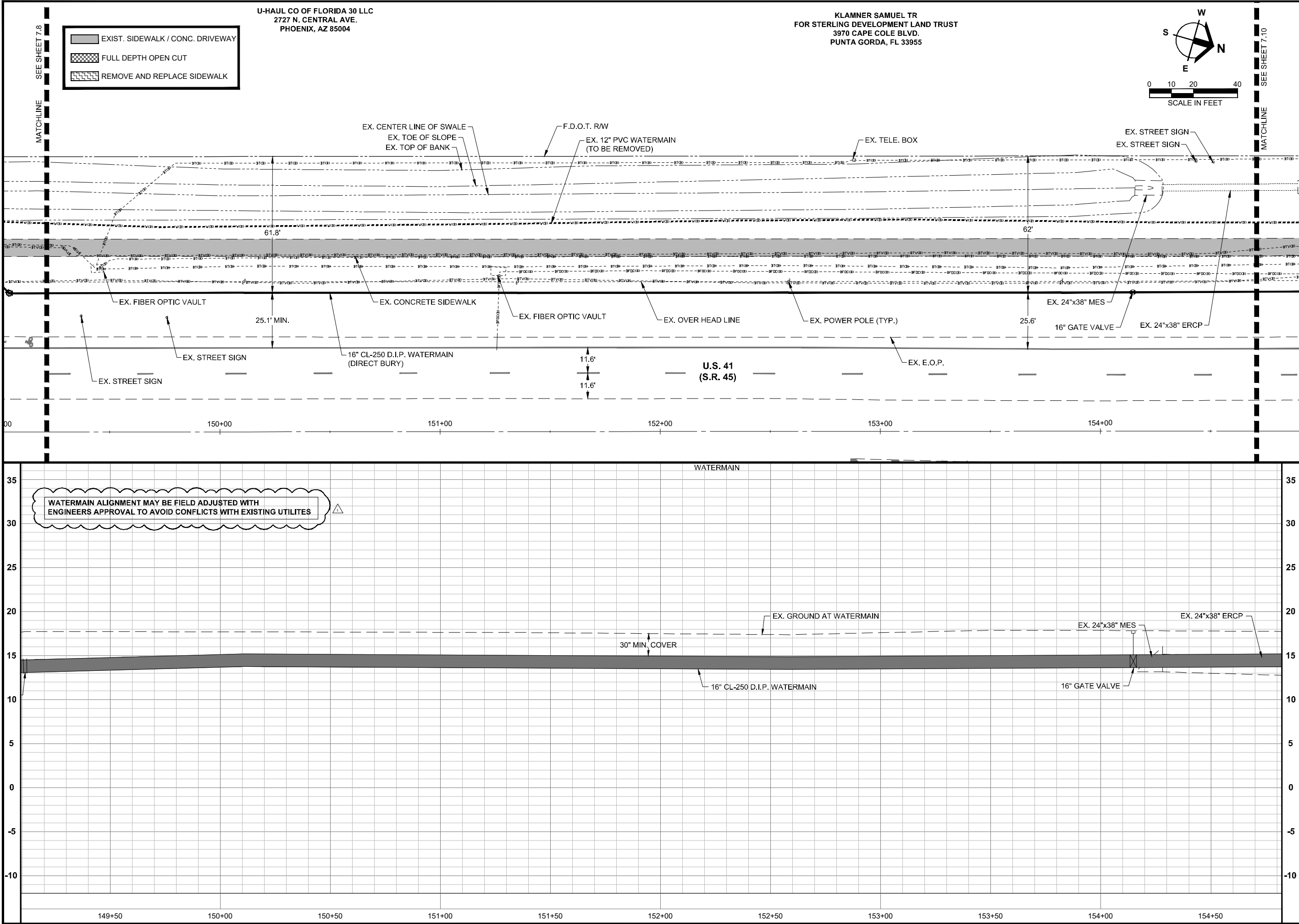
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SURVEY = 22759500.DWG

PLAN REVISIONS

PLAN STATUS  
100% SUBMITTAL PLANS  
2023-01-09

**PLAN AND PROFILE  
U.S. 41 (S.R. 45)  
STA: 143+72 TO 149+21**

PROJECT / FILE NO. **23994**  
SHEET NUMBER **7.8**



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PREPARED FOR

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LEE COUNTY

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PHONE (239) 533-8181  
FAX (239) 485-8845  
[WWW.LEEGOV.COM/UTILITIES](http://WWW.LEEGOV.COM/UTILITIES)

PROJECT DESCRIPTION

**NORTH U.S. 41  
(S.R. 45)  
16-INCH WATER MAIN**

LITTLETON ROAD TO  
DEL PRADO BOULEVARD

PART OF SECTION 22 & 27,  
TOWNSHIP 43 SOUTH,  
RANGE 24 EAST  
FORT MYERS, LEE COUNTY, FLORIDA

ENGINEER OF RECORD  
WESLEY S. KAYNE, P.E., FOR THE FIRM  
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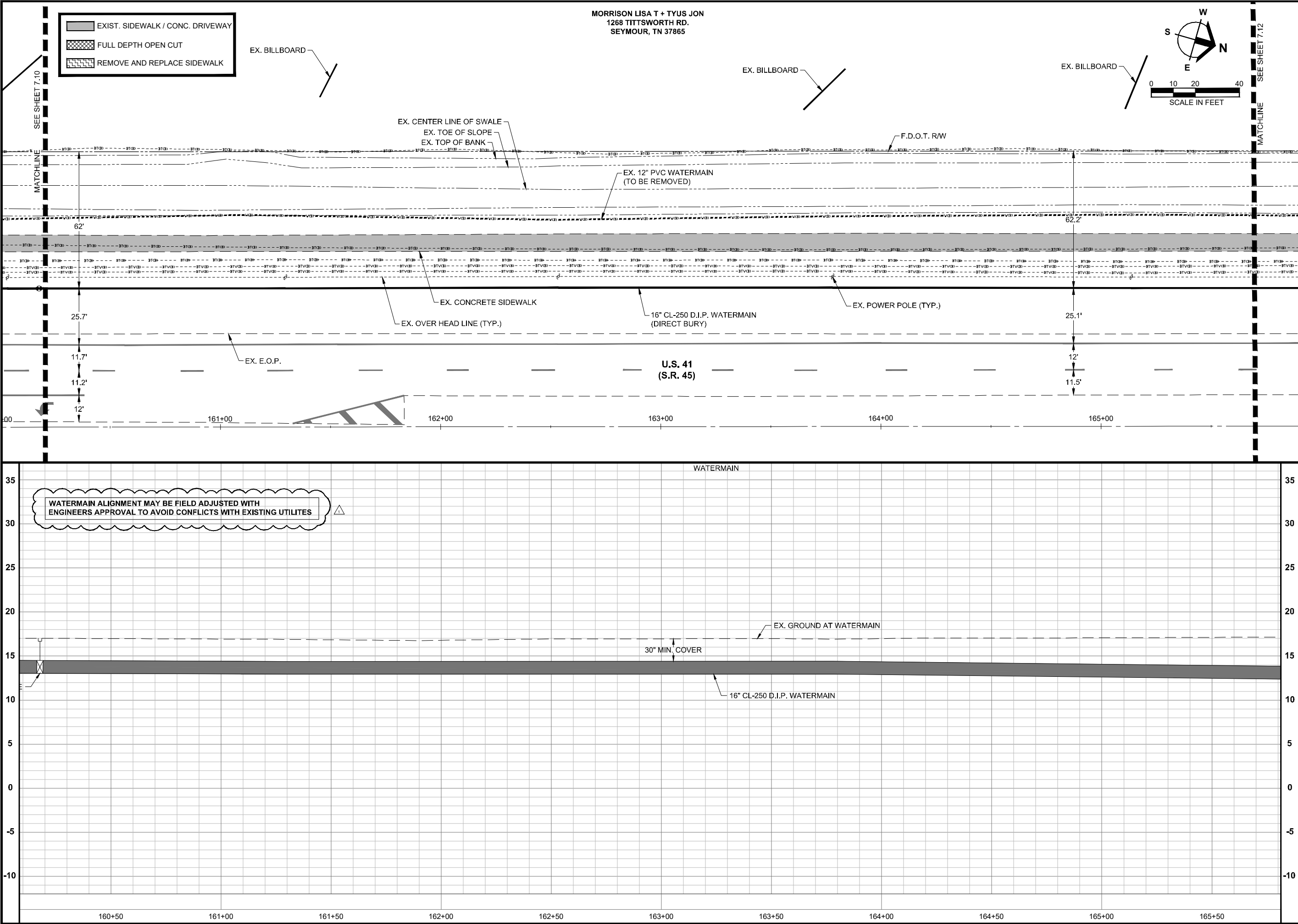
PLAN REVISIONS

PLAN STATUS  
100% SUBMITTAL PLANS  
2023-01-09

**PLAN AND PROFILE  
U.S. 41 (S.R. 45)  
STA: 149+21 TO 154+71**

PROJECT / FILE NO.	SHEET NUMBER
<b>23994</b>	<b>7.9</b>





MORRISON LISA T + TYUS JON  
1268 TITTSWORTH RD.  
SEYMOUR, TN 37865

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PROJECT DESCRIPTION

**NORTH U.S. 41**  
**(S.R. 45)**  
**16-INCH WATER MAIN**

LITTLETON ROAD TO  
DEL PRADO BOULEVARD

PART OF SECTION 22 & 27,  
TOWNSHIP 43 SOUTH,  
RANGE 24 EAST  
FORT MYERS, LEE COUNTY, FLORIDA

ENGINEER OF RECORD

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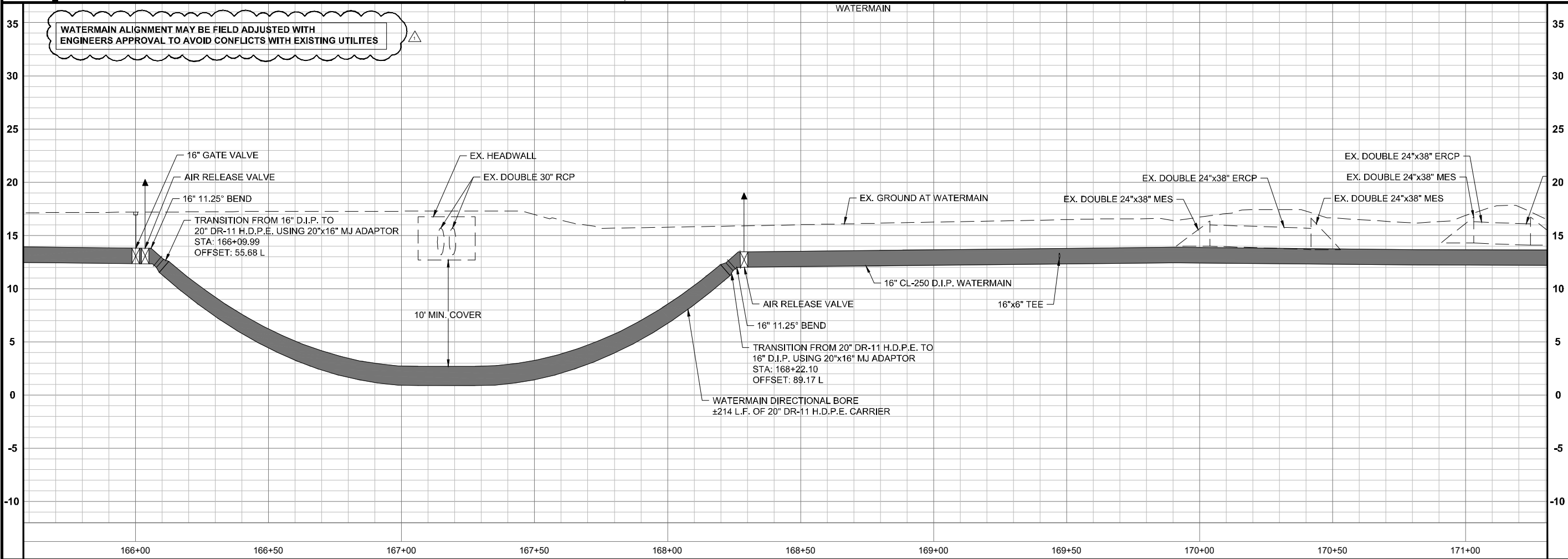
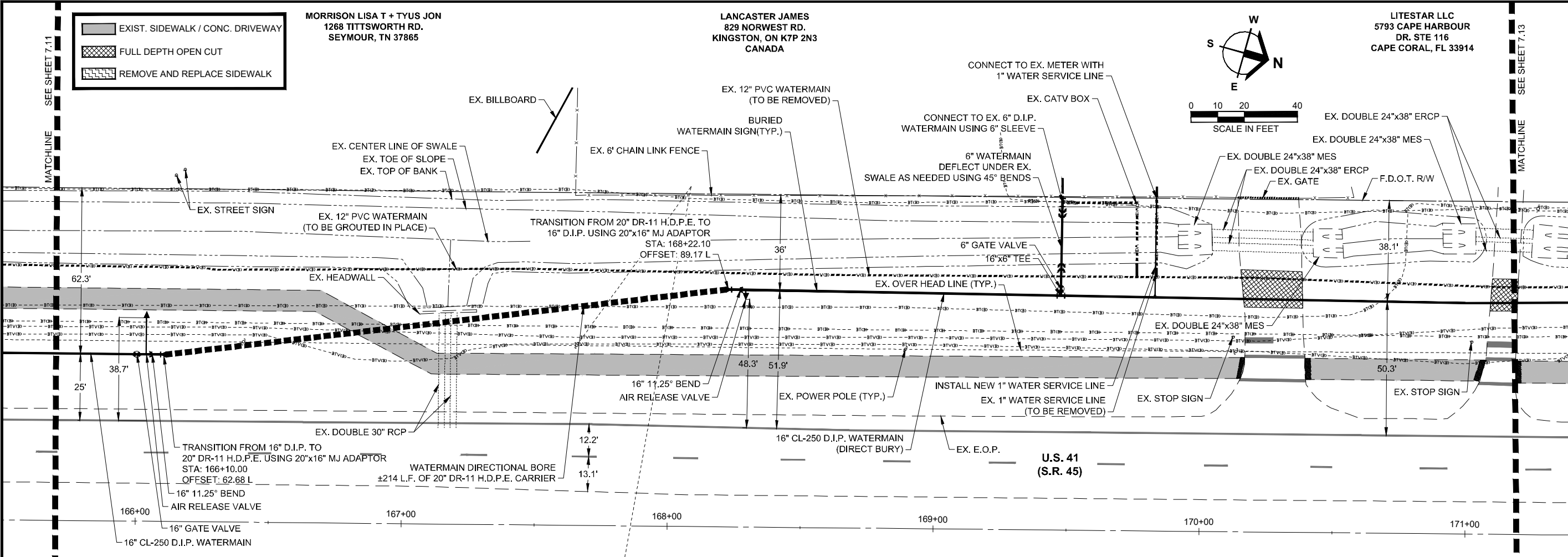
PLAN REVISIONS	

PLAN STATUS	
100% SUBMITTAL PLANS	
2023-01-09	

**PLAN AND PROFILE**  
**U.S. 41 (S.R. 45)**  
**STA: 160+21 TO 165+70**

PROJECT / FILE NO.	SHEET NUMBER
<b>23994</b>	<b>7.11</b>





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PROJECT DESCRIPTION

**NORTH U.S. 41**  
(S.R. 45)  
**16-INCH WATER MAIN**

LITTLETON ROAD TO  
DEL PRADO BOULEVARD

PART OF SECTION 22 & 27,  
TOWNSHIP 43 SOUTH,  
RANGE 24 EAST  
FORT MYERS, LEE COUNTY, FLORIDA

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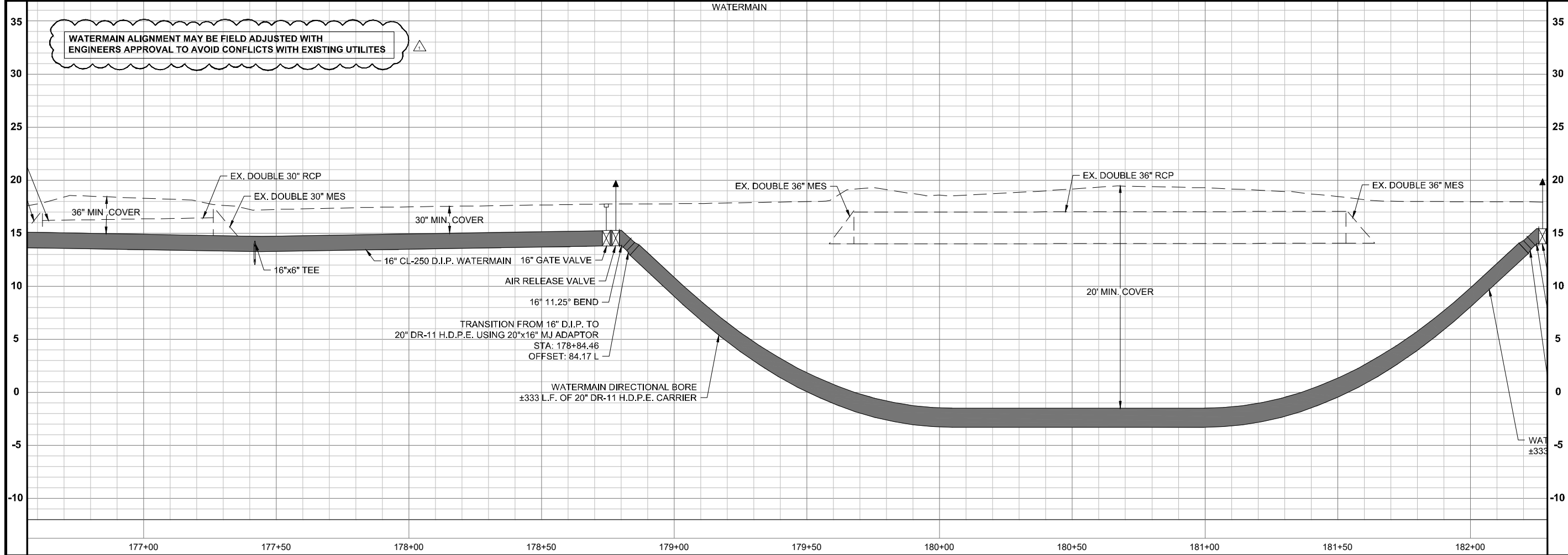
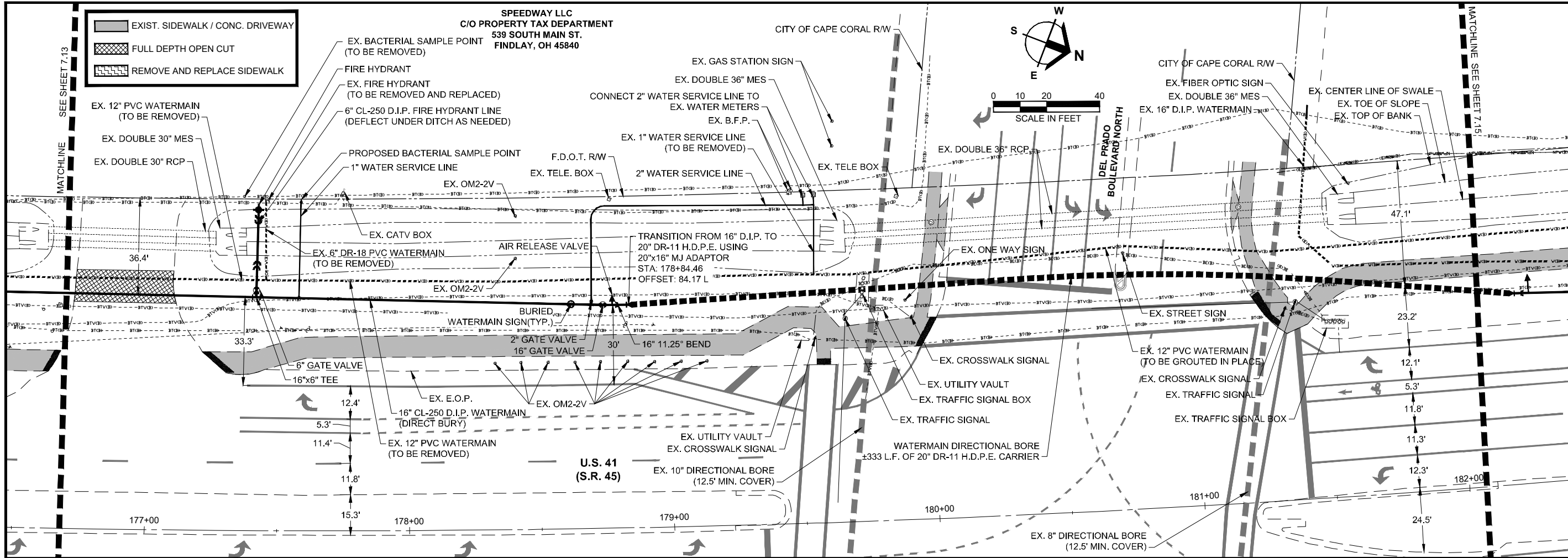
PLAN REVISIONS

PLAN STATUS  
100% SUBMITTAL PLANS  
2023-01-09

**PLAN AND PROFILE**  
**U.S. 41 (S.R. 45)**  
**STA: 165+70 TO 171+19**

PROJECT / FILE NO. **23994**  
SHEET NUMBER **7.12**





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PROJECT DESCRIPTION

**NORTH U.S. 41**  
**(S.R. 45)**  
**16-INCH WATER MAIN**

LITTLETON ROAD TO  
DEL PRADO BOULEVARD

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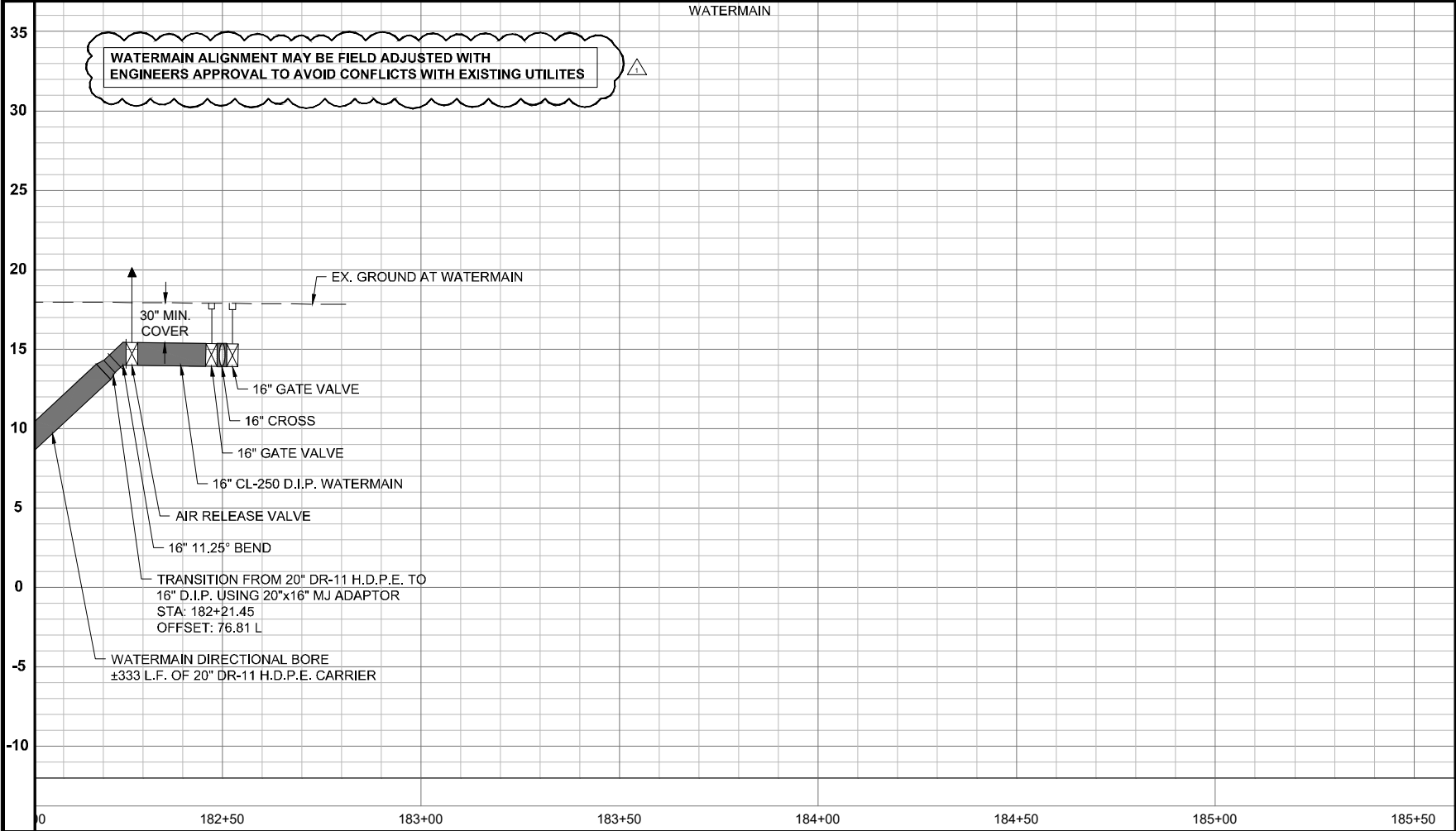
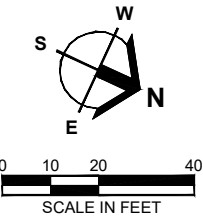
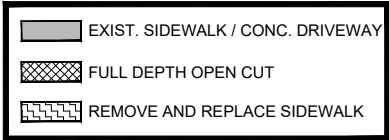
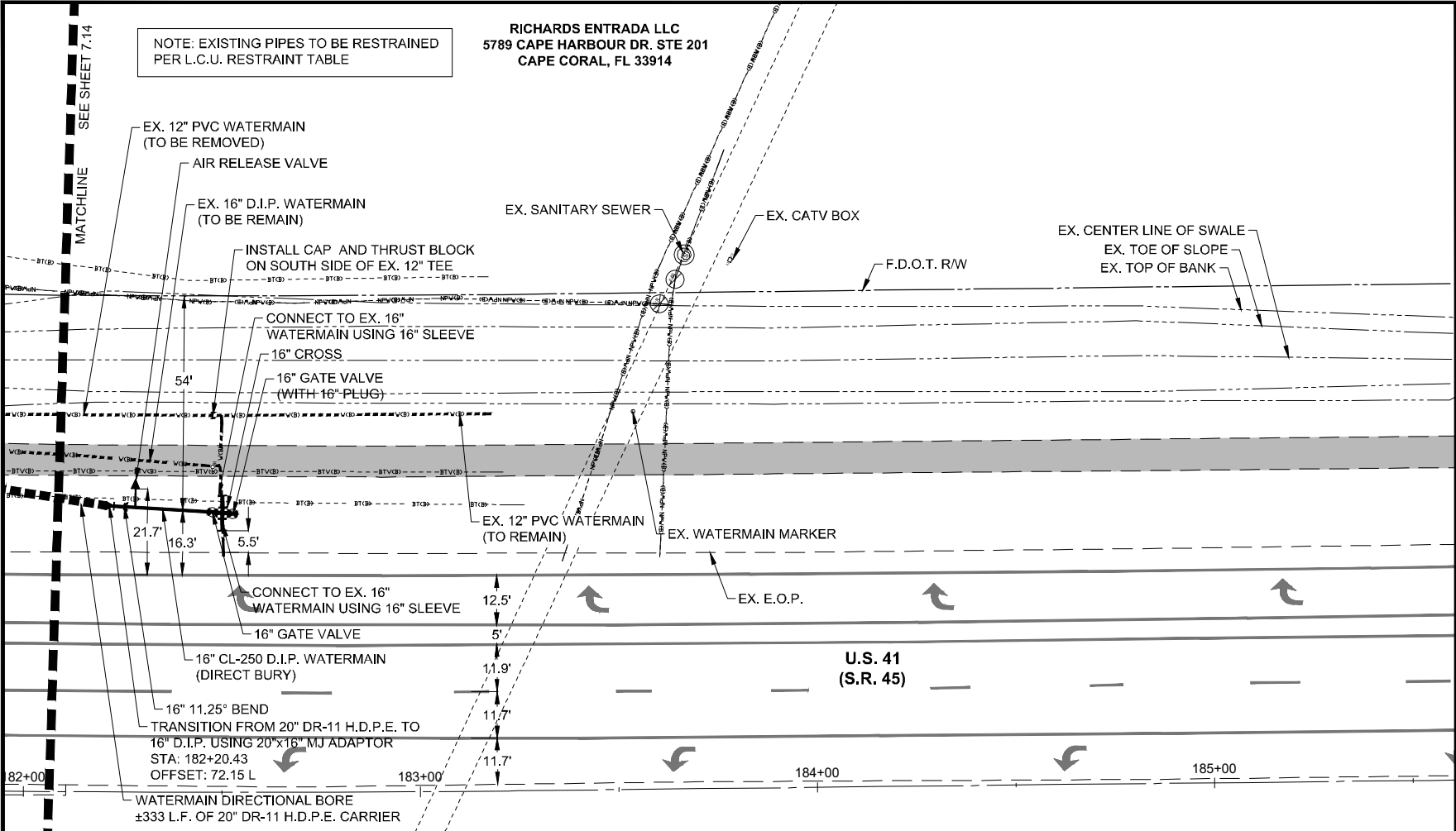
PLAN REVISIONS

PLAN STATUS  
100% SUBMITTAL PLANS  
2023-01-09

**PLAN AND PROFILE**  
**U.S. 41 (S.R. 45)**  
**STA: 176+68 TO 182+06**

PROJECT / FILE NO.  
**23994**

SHEET NUMBER  
**7.14**



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PROJECT DESCRIPTION

**NORTH U.S. 41  
(S.R. 45)  
16-INCH WATER MAIN**

LITTLETON ROAD TO  
DEL PRADO BOULEVARD

PART OF SECTION 22 & 27,  
TOWNSHIP 43 SOUTH,  
RANGE 24 EAST  
FORT MYERS, LEE COUNTY, FLORIDA

ENGINEER OF RECORD

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PLOT BY: JAN BILDZUKEWICZ

CROSS REFERENCED DRAWINGS

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SURVEY = 22759S00.DWG

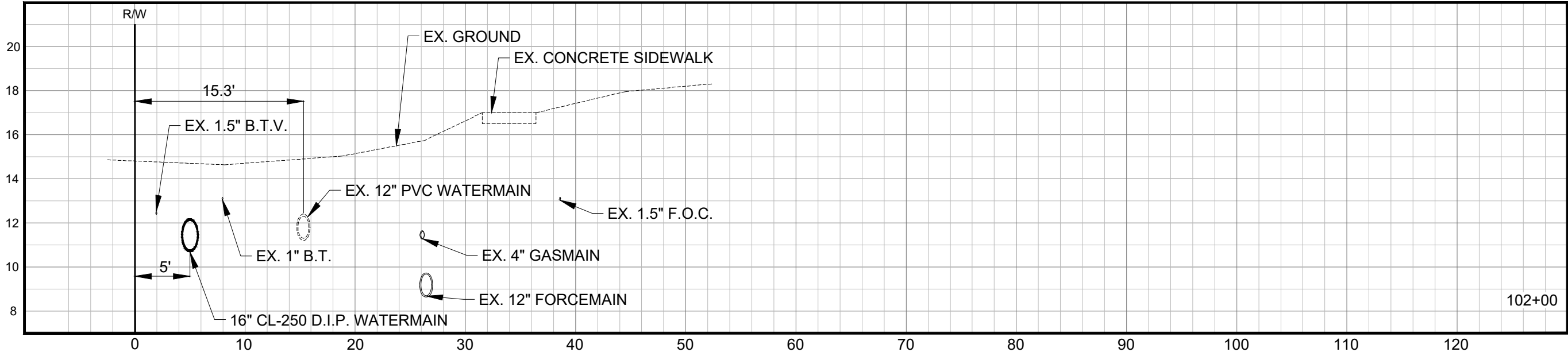
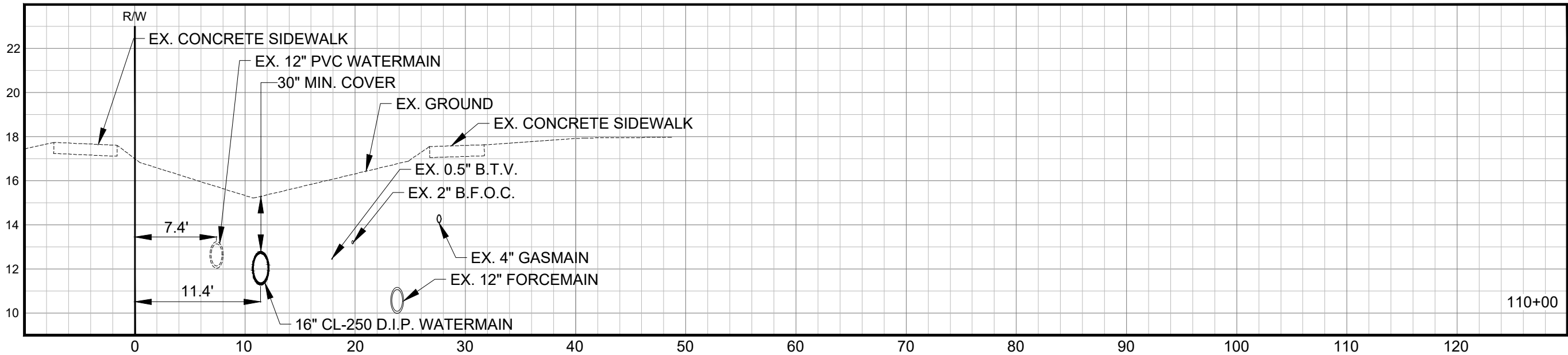
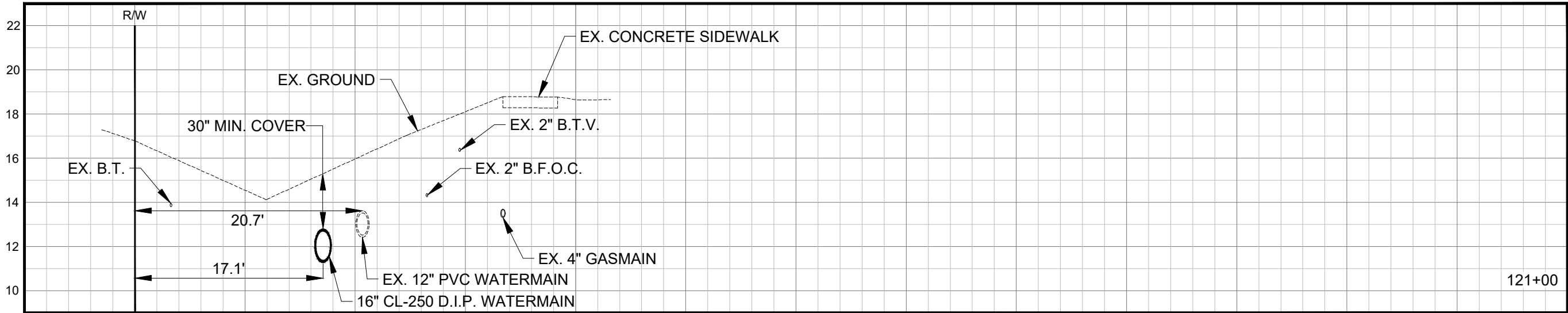
PLAN REVISIONS	

PLAN STATUS

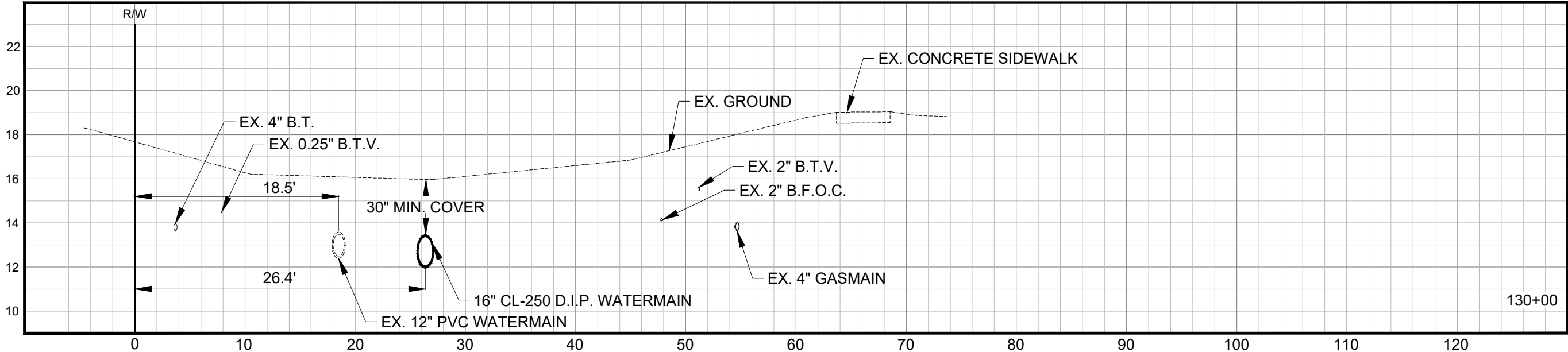
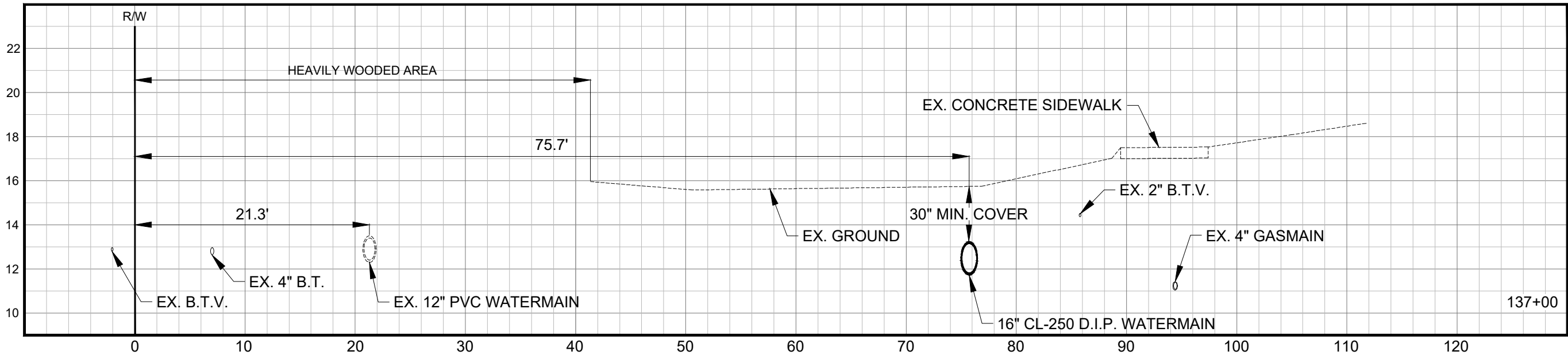
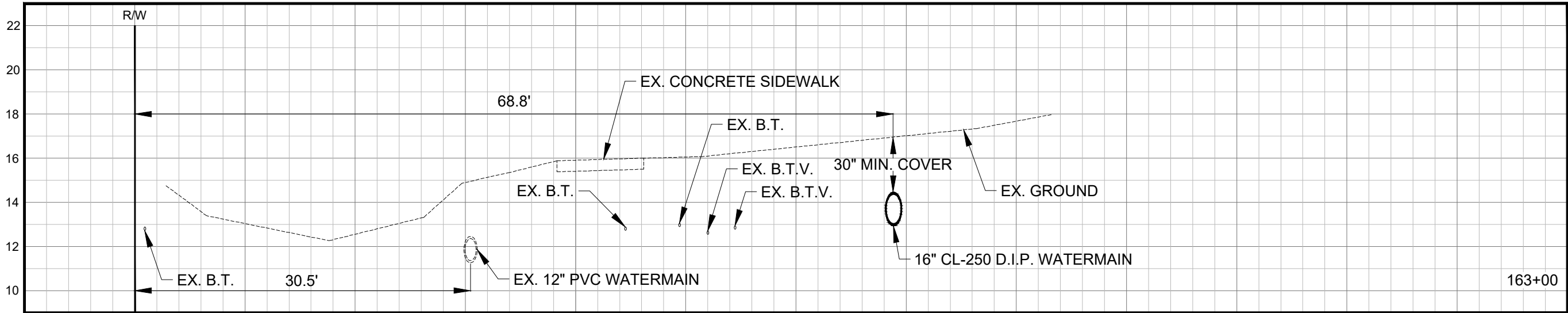
100% SUBMITTAL PLANS  
2023-01-09

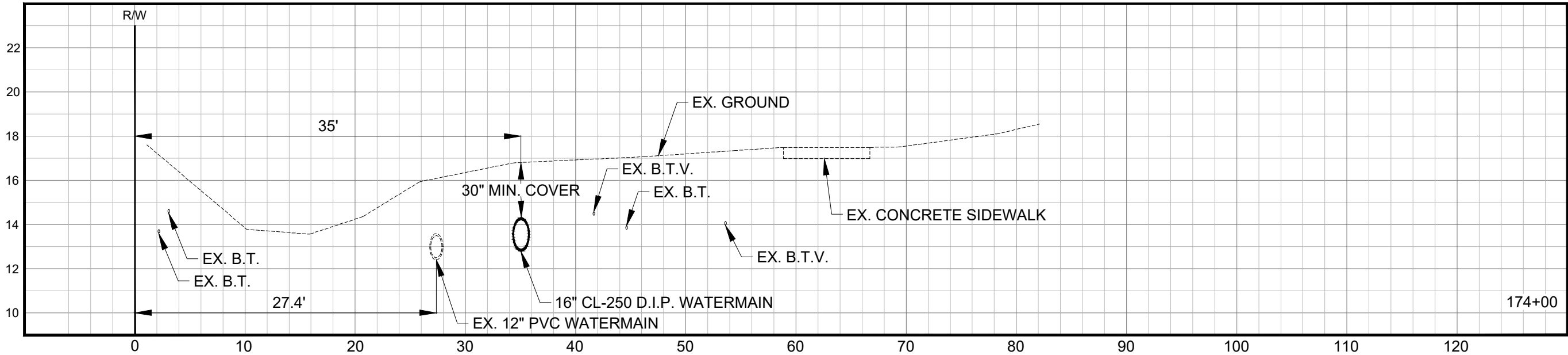
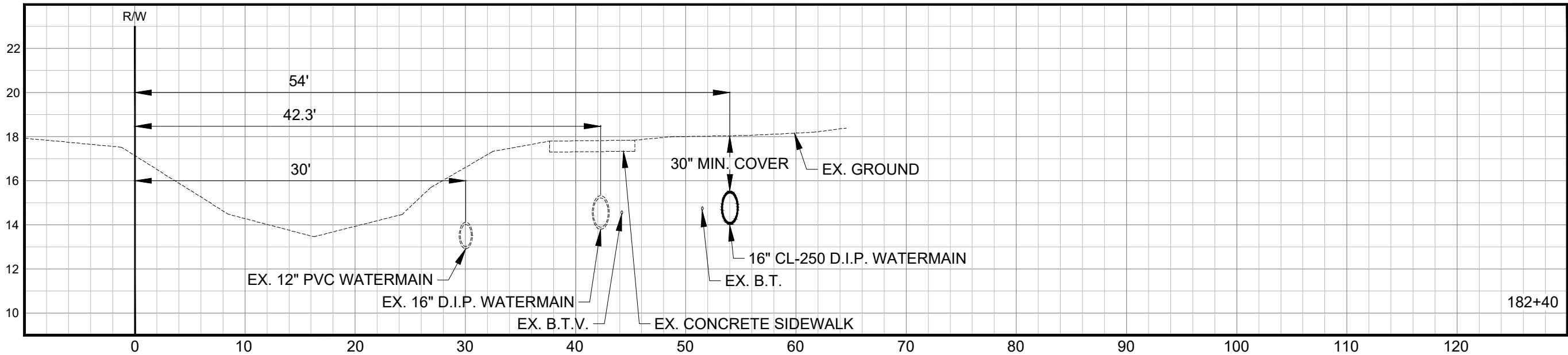
**PLAN AND PROFILE  
U.S. 41 (S.R. 45)  
STA: 182+06 TO END**

PROJECT / FILE NO.	SHEET NUMBER
<b>23994</b>	<b>7.15</b>

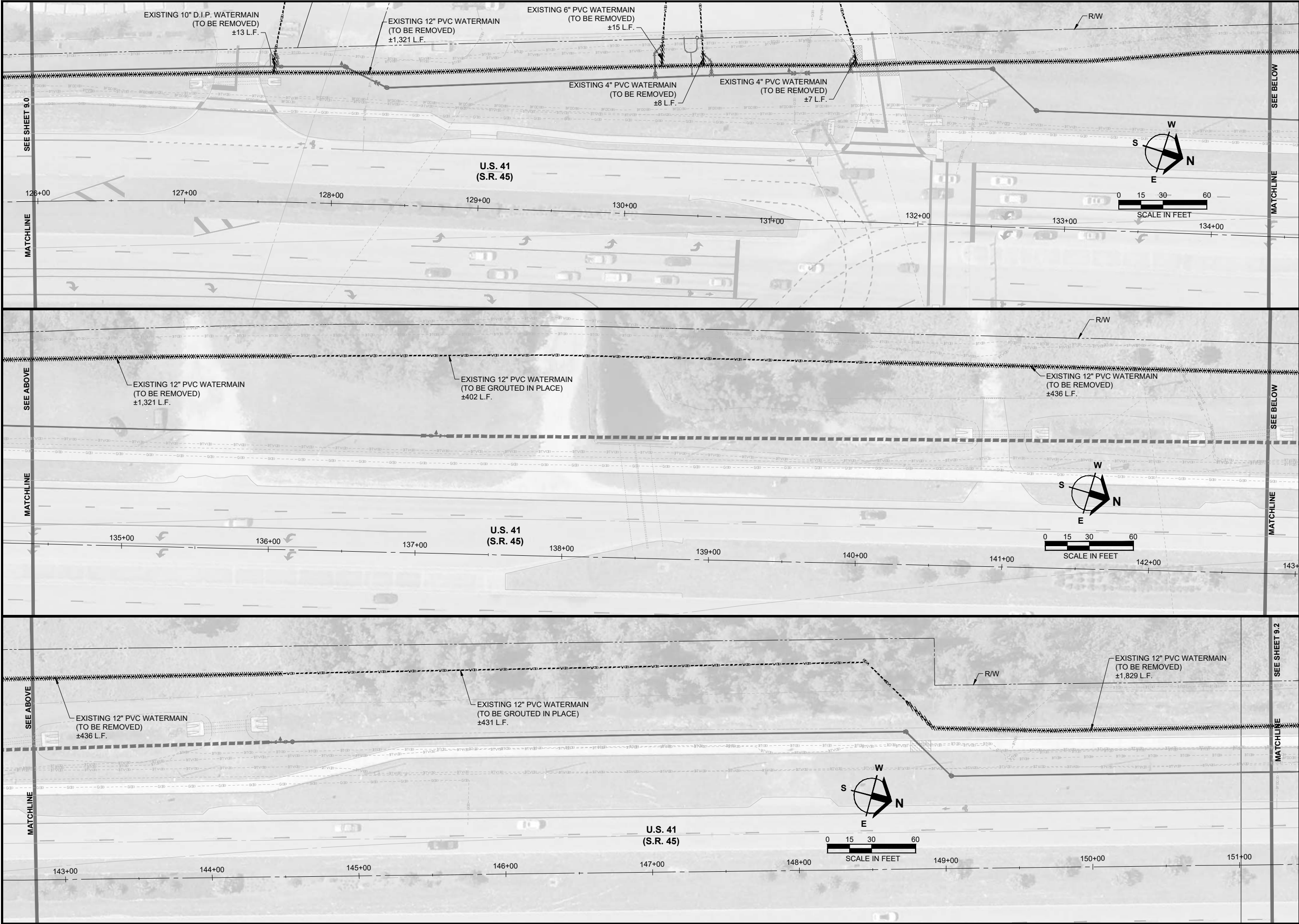












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PROJECT DESCRIPTION

NORTH U.S. 41  
(S.R. 45)  
16-INCH WATER MAIN

LITTLETON ROAD TO  
DEL PRADO BOULEVARD

PART OF SECTION 22 & 27,  
TOWNSHIP 43 SOUTH,  
RANGE 24 EAST  
FORT MYERS, LEE COUNTY, FLORIDA

ENGINEER OF RECORD  
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LOCATIONJ:23994\DWG\DOI

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PLOT BYJAN BILDZUKEWICZ

CROSS REFERENCED DRAWINGS

BASEPLAN = 23994A00.DWG

SURVEY = 22759S00.DWG

PLAN REVISIONS

PLAN STATUS

100% SUBMITTAL PLANS  
2023-01-09

GROUTING  
AND REMOVAL  
PLAN

PROJECT / FILE NO.  
23994

SHEET NUMBER  
9.1





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PROJECT DESCRIPTION

**NORTH U.S. 41**  
**(S.R. 45)**  
**16-INCH WATER MAIN**  
LITTLETON ROAD TO  
DEL PRADO BOULEVARD  
PART OF SECTION 22 & 27,  
TOWNSHIP 43 SOUTH,  
RANGE 24 EAST  
FORT MYERS, LEE COUNTY, FLORIDA

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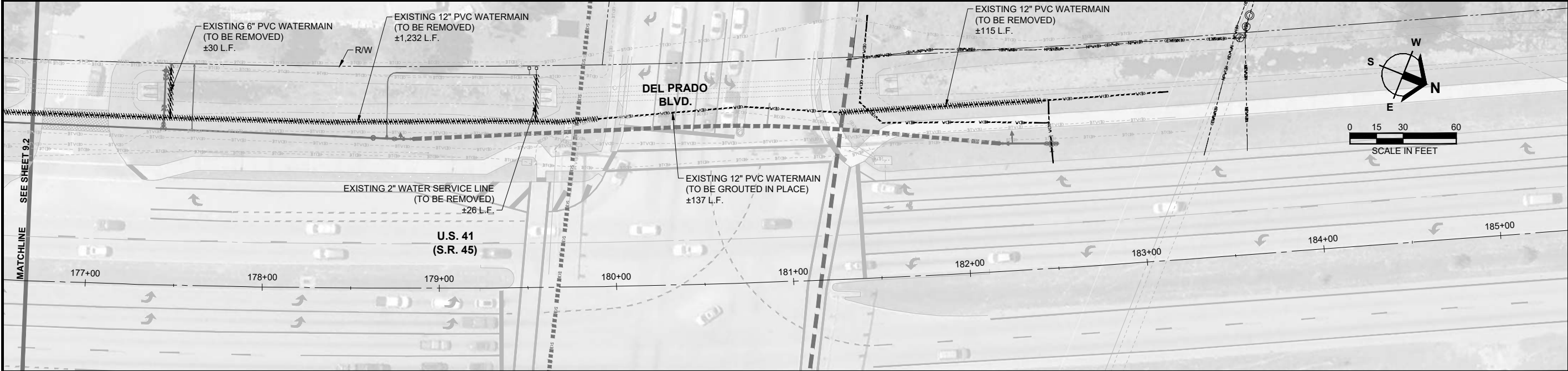
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PLAN REVISIONS	

PLAN STATUS	
100% SUBMITTAL PLANS	2023-01-09

GROUTING AND REMOVAL PLAN	
PROJECT / FILE NO.	SHEET NUMBER
<b>23994</b>	<b>9.2</b>





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PROJECT DESCRIPTION

NORTH U.S. 41  
(S.R. 45)  
16-INCH WATER MAIN

LITTLETON ROAD TO  
DEL PRADO BOULEVARD

PART OF SECTION 22 & 27,  
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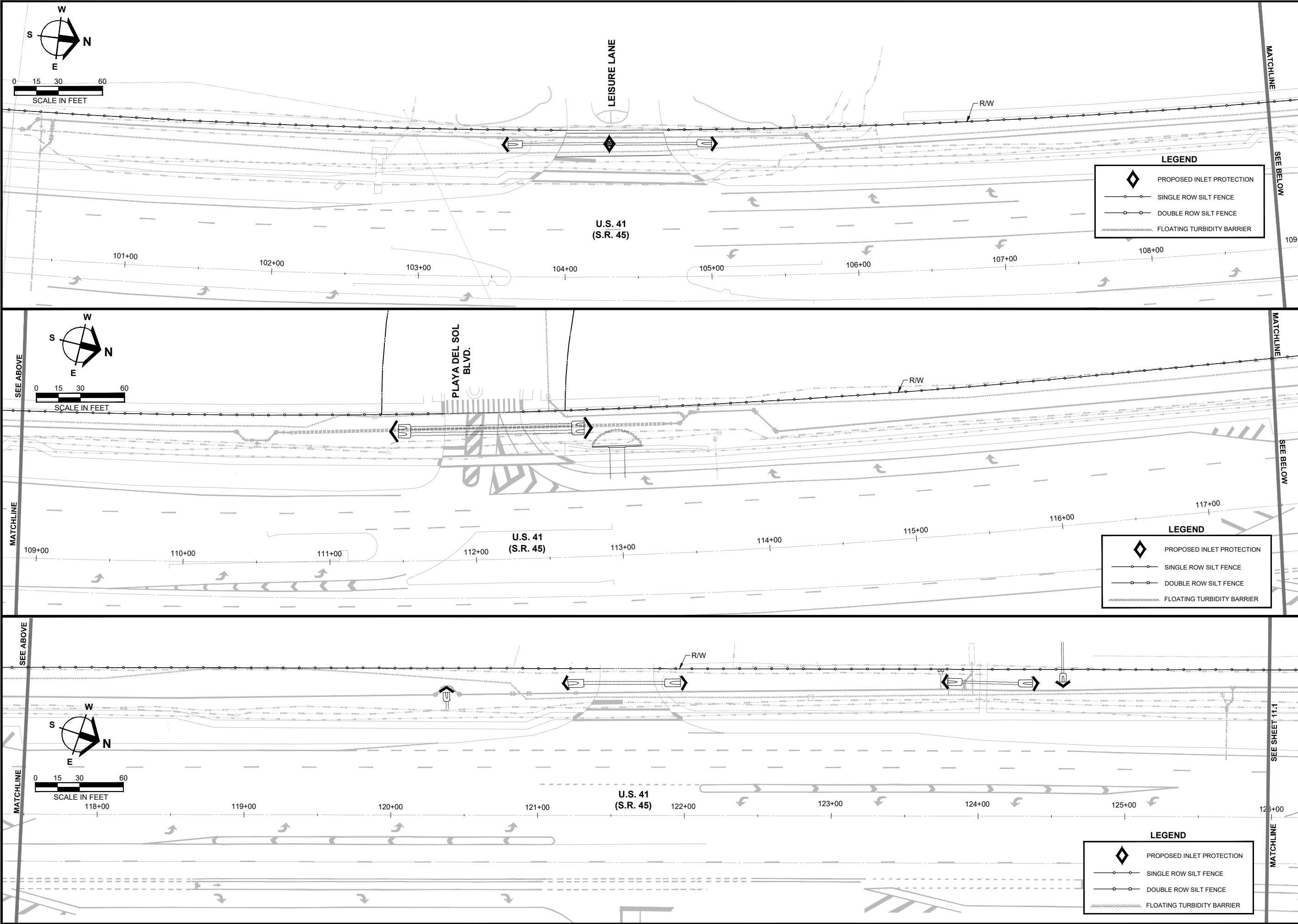
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SURVEY = 22759S00.DWG

PLAN REVISIONS	

PLAN STATUS
100% SUBMITTAL PLANS 2023-01-09

GROUTING AND REMOVAL PLAN	
PROJECT / FILE NO.	SHEET NUMBER
23994	9.3





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PROJECT DESCRIPTION

**NORTH U.S. 41  
(S.R. 45)  
16-INCH WATER MAIN**  
LITTLETON ROAD TO  
DEL PRADO BOULEVARD  
PART OF SECTION 22 & 27,  
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RANGE 24 EAST  
FORT MYERS, LEE COUNTY, FLORIDA

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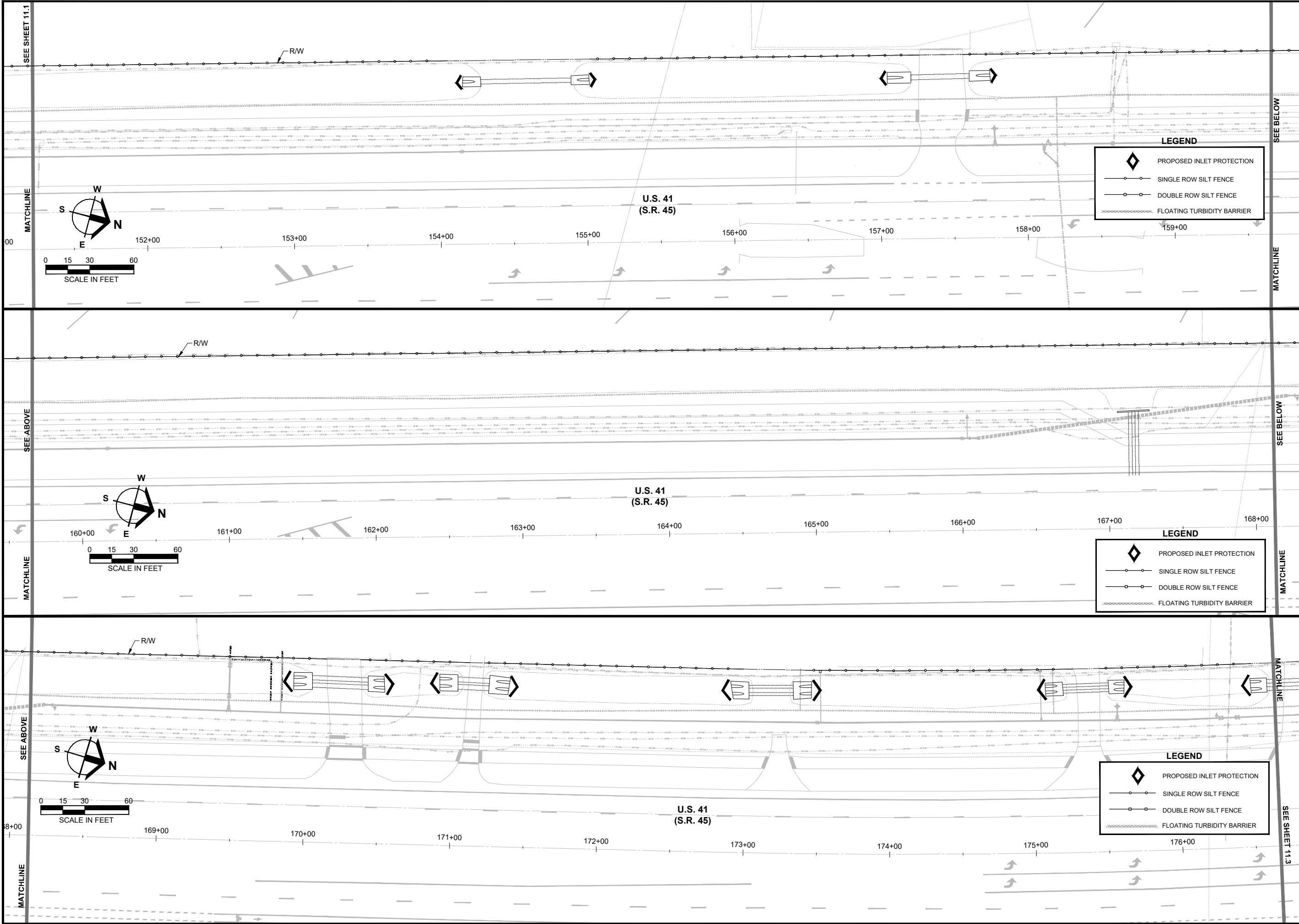
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SURVEY = 22759S00.DWG

PLAN REVISIONS

PLAN STATUS  
100% SUBMITTAL PLANS  
2023-01-09

**STORMWATER  
POLLUTION  
PREVENTION PLAN**

PROJECT / FILE NO. **23994**  
SHEET NUMBER **11.0**



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PROJECT DESCRIPTION

**NORTH U.S. 41  
(S.R. 45)  
16-INCH WATER MAIN**

LITTLETON ROAD TO  
DEL PRADO BOULEVARD

PART OF SECTION 22 & 27,  
TOWNSHIP 43 SOUTH,  
RANGE 24 EAST  
FORT MYERS, LEE COUNTY, FLORIDA

ENGINEER OF RECORD  
WESLEY S. KAYNE, P.E., FOR THE FIRM  
FLORIDA P.E. NO. 80507 - WESK@BARRACO.NET

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FILE NAME J:\23994\DWG\DWG01  
LOCATION J:\23994\DWG\DWG01  
PLOT DATE MON. 1-9-2023 - 11:28 AM  
PLOT BY JAN BILDZUKEWICZ

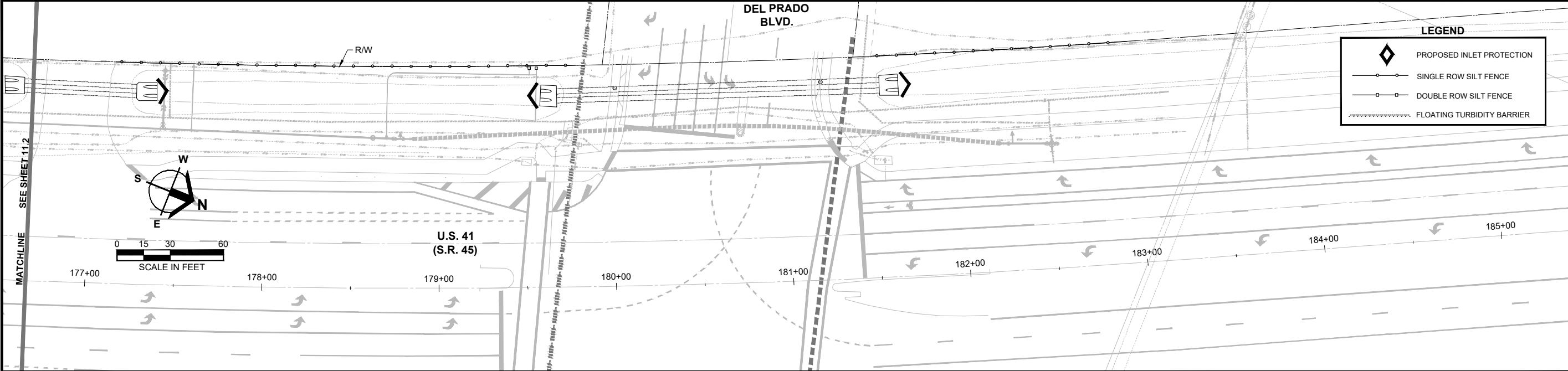
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BASEPLAN = 23994A00.DWG  
SURVEY = 22759S00.DWG

PLAN REVISIONS

PLAN STATUS  
100% SUBMITTAL PLANS  
2023-01-09

**STORMWATER  
POLLUTION  
PREVENTION PLAN**

PROJECT / FILE NO. **23994**  
SHEET NUMBER **11.2**



Barraco

and Associates, Inc.

CIVIL ENGINEERING - LAND SURVEYING

LAND PLANNING

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FLORIDA CERTIFICATES OF AUTHORIZATION  
ENGINEERING 7995 - SURVEYING LB-6940

PREPARED FOR

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NORTH U.S. 41  
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PLOT BYJAN BILDZUKEWICZ

CROSS REFERENCED DRAWINGS

BASEPLAN = 23994A00.DWG  
SURVEY = 22759S00.DWG

PLAN REVISIONS


PLAN STATUS

100% SUBMITTAL PLANS  
2023-01-09

STORMWATER  
POLLUTION  
PREVENTION PLAN

PROJECT / FILE NO.  
23994

SHEET NUMBER  
11.3

# STANDARD DETAIL NO. 6.1

## LEE COUNTY UTILITIES

### TAPPING SLEEVE AND VALVE

N.T.S.

SECTION VIEW

PLAN VIEW

1 CONCRETE PAD (SEE VALVE INSTALLATION DETAIL)  
2 SET TOP OF BOX FLUSH WITH FINISHED GRADE  
3 EXTENSION STEM IF TOP OF OPERATING NUT IS MORE THAN 30" BELOW FINISH GRADE  
4 VALVE BOX (SEE VALVE INSTALLATION DETAIL)  
5 OUTLET FOR TESTING  
6 MJ RESTRAINED  
7 MAIN SIZE VARIES  
8 TAPPING VALVE (SEE VALVE INSTALLATION DETAIL)  
9 LCU APPROVED ALL STAINLESS STEEL PRESSURE RATED TAPPING SLEEVE. FOR SIZE ON SIZE TAPS A FLANGED TAPPING SLEEVE IS REQUIRED. SPRING LOADED TAPPING SLEEVE IS REQUIRED WHEN CONNECTING TO HDPE (SEE APPROVED MATERIAL LIST).  
10 BRASS PLATE (SEE VALVE INSTALLATION DETAIL)  
11 CAST IRON DROP COVER MARKED "WATER," "SEWER," OR "REUSE"  
12 COMPACTED SUITABLE EARTH BACKFILL  
13 3/4" GRANULAR MATERIAL #57 STONE  
14 12 GAUGE DOUBLE INSULATED COPPER LOCATING WIRE (SEE LCU STANDARD DETAIL)

REV: 12/10/2015

# STANDARD DETAIL NO. 6.2

## LEE COUNTY UTILITIES

### VALVE INSTALLATION

---

N.T.S.

The drawing consists of three views: a detail view, a plan view, and an elevation view. The detail view shows a cross-section of the valve assembly with a brass plate (1) and anchor (2). The plan view shows a 30" square concrete pad (3) with a central valve box (4) and a water/sewer/fire label (5). The elevation view shows the valve (6) with a riser (7) and a drop cover (8). The valve is surrounded by compacted earth (9) and a 12 gauge double insulated copper locating wire (12). The valve is set 30" max below finish grade and 30" min above existing main.

DETAIL

PLAN VIEW  
(VALVE PAD)

VALVE

1 BRASS PLATE: SIZE OF VALVE, VALVE TYPE  
No. OF TURNS & DIRECTION TO OPEN  
VALVE M.F.G. & YEAR INSTALL  
SYSTEM "WATER" OR "SEWER" OR "REUSE" OR "FIRE"

2 ANCHOR

3 EIGHT (8) #4 BARS OVERLAP EACH CORNER BY 2"

4 30" SQ X 4" THK CONC. PAD SURROUNDING BOX, MIN.  
3,000 P.S.I. POURED IN PLACE

5 SET TOP OF BOX FLUSH WITH FINISHED GRADE

6 HEAVY DUTY TRAFFIC BEARING CAST IRON VALVE BOX, ADJUSTABLE SCREW  
TYPE, 5 1/4" DIAMETER SHAFT THAT IS LCU APPROVED

7 EXTENSION STEM WITH 2" OPERATING NUT AS REQUIRED, IF NUT IS  
MORE THAN 30" BELOW FINISH GRADE

8 RISER NOT TO BEAR ON VALVE OR PIPE

9 CAST IRON DROP COVER MARKED "WATER" OR "SEWER" OR "REUSE" OR "FIRE"

10 COMPACTED SUITABLE EARTH BACKFILL

11 3/4" GRANULAR MATERIAL #57 STONE

12 12 GAUGE DOUBLE INSULATED COPPER LOCATING WIRE (SEE LCU STANDARD DETAIL)

REV: 12/10/2015

# STANDARD DETAIL NO. 6.3

## LEE COUNTY UTILITIES

### LOCATING WIRE FOR PRESSURE MAINS

N.T.S.

TYPICAL LAYOUT

SPLICE DETAIL

VALVE DETAIL

#### NOTES

- 1 WIRE SHALL BE CONTINUOUS BETWEEN VALVE BOXES, THE PVC RISER PIPE SHALL BE NOTCHED AND THE WIRE ATTACHED TO THE RISER PIPE TO ALLOW FOR THE WIRE TO FIT INSIDE THE CAST IRON VALVE BOX WITHOUT SHEARING THE WIRE.
- 2 LOCATING WIRE SHALL BE LAID ON TOP OF THE MAIN, AND SHALL BE TAPED TO IT AT 10' INTERVALS AND TAPED AT ALL FITTINGS. TAPE SHALL BE 10 MIL POLYETHYLENE.
- 3 CONTRACTOR SHALL CONDUCT A CONTINUITY TEST ON ALL LOCATING WIRE SPICES, PRIOR TO SCHEDULING THE OFFICIAL FINAL INSPECTION WITH LCU.
- 4 ALL SPICES SHALL UTILIZE A DIRECT BURY WATERPROOF SPLICER KIT (SEE APPROVED MATERIAL LIST)

- ① SPLICE RUN TOGETHER, KEEP CLEAR OF FITTING, TYPICAL
- ② COVER SPLICE WITH 2 WRAPS OF 10 MIL POLYETHYLENE TAPE
- ③ 6" LOOP OF BARE WIRE, 9" MAX. DEPTH TO TOP OF BARE WIRE
- ④ 12 GAUGE DOUBLE INSULATED COPPER LOCATING WIRE
- ⑤ SPLICE (SEE DETAIL THIS SHEET)

REV: 12/10/2015

# **STANDARD DETAIL NO. 6.4** **LEE COUNTY UTILITIES** **AUTOMATIC AIR RELEASE VALVE**

N.T.S.

**SECTION**

- ① FINISHED GRADE
- ② PEDESTAL HOUSING (SEE APPROVED MATERIAL LIST)  
COLORS: BLUE-WATER  
GREEN-SEWER, PANTONE-REUSE
- ③ EDGE OF RIGHT-OF-WAY
- ④ PVC STREET ELL
- ⑤ S.S. POST WITH S.S. HARDWARE AND S.S. LOCKING HASP WITH BRASS LOCK
- ⑥ SHORT BODY AUTOMATIC AIR RELEASE VALVE (SEE APPROVED MATERIAL LIST)  
ALL INTERNAL WORKING PARTS SHALL BE 300 SERIES STAINLESS STEEL
- ⑦ PVC SCHEDULE 80
- ⑧ PVC REDUCER IF NEEDED
- ⑨ BRASS BALL CORP. STOP
- ⑩ 2" POLY-TUBE
- ⑪ 3/4" GRANULAR MATERIAL, #57 STONE
- ⑫ 2" BRASS FITTING IF NECESSARY
- ⑬ 1 1/2" MIN. SLOPE UP, 2" POLY-TUBE
- ⑭ TAP AT CROWN OF PIPE
- ⑮ 2" DOUBLE STRAP TAPPING SADDLE (SEE APPROVED MATERIAL LIST)
- ⑯ EXISTING PRESSURE MAIN
- ⑰ 24"
- ⑱ 30" MIN.

REV: 12/10/2015

# STANDARD DETAIL NO. 6.5

## LEE COUNTY UTILITIES

### TRENCH CROSS SECTION

---

N.T.S.

① EXCAVATED TRENCH

② FINISHED GRADE

③ MARKING TAPE 12" DEPTH MAX.

④ MATERIALS CLEAN DRY SAND, FINE LIME ROCK OR PIT SHELL MECHANICALLY COMPACTED IN 6" LIFTS TO AT LEAST 95% OF MAX DENSITY, OR 95% IF UNDER PAVED AREA OF ROADWAY.

⑤ #57 STONE LOCATED UNDER PIPE OR EXISTING UNDISTURBED SUITABLE MATERIAL

⑥ SPRING LINE

⑦ STANDARD 6" MIN TRENCH UNDERCUT AND BACKFILL WITH #57 STONE COMPACTED IN 6" LIFTS

⑧ ADDITIONAL UNDERCUT AND CRUSHED ROCK BEDDING FOUNDATION WHEN DIRECTED BY L.C.U. THE CONTRACTOR IS TO REMOVE UNSTABLE MATERIAL FROM THE TRENCH FOUNDATION. THEN INSTALL STABILIZED CRUSHED ROCK BACKFILL WITH #57 STONE COMPACTED IN 6" LIFTS

⑨ LOCATING WIRE IS REQUIRED FOR ALL PRESSURIZED PIPELINES.

REV: 12/10/2015

# STANDARD DETAIL NO. 6.7

## LEE COUNTY UTILITIES

### HORIZONTAL DIRECTIONAL DRILL UNDER A ROADWAY

N.T.S.

The diagram consists of two views: a Plan View and a Profile View. The Plan View shows a top-down perspective of a roadway with a proposed HDD alignment (2) crossing it. The alignment starts at an edge of pavement (1), goes under the roadway, and ends at another edge of pavement (1). The roadway has a right-of-way (3) and an existing utility (4). The Profile View shows a side elevation of the roadway surface (5) and the HDD alignment (2). The alignment is shown as a curved line under the roadway. Key dimensions and features are labeled: (6) Standard Trench Depth, (7) Paved Roadway Surface, (8) Existing Utility, (9) Length of HDD, (10) Minimum Clearance, (11) 30' Min. / 45' Max., and (12) Proposed HDD Alignment.

① EDGE OF PAVEMENT  
② PROPOSED HDD ALIGNMENT  
③ EXISTING RIGHT-OF-WAY  
④ EXISTING UTILITY

PLAN VIEW

⑤ STANDARD TRENCH DEPTH  
⑥ PAVED ROADWAY SURFACE  
⑦ EXISTING UTILITY  
⑧ LENGTH OF HDD  
⑨ MINIMUM CLEARANCE  
⑩ 30' MIN. / 45' MAX.  
⑪ PROPOSED HDD ALIGNMENT

PROFILE VIEW

**HDD INSTALLATION NOTES:**

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE LEE COUNTY UTILITIES DESIGN MANUAL.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFICATION OF AFFECTED AGENCIES AND COORDINATION WITH ALL UTILITIES PRIOR TO CONSTRUCTION.
3. ALL CONSTRUCTION MATERIALS, INCLUDING DRILLING FLUID, SHALL BE REMOVED FROM THE SITE PRIOR TO RESTORATION OF DISTURBED AREAS.
4. ALL RESTORATION WORK SHALL BE IN ACCORDANCE WITH THE LCU DESIGN MANUAL.
5. CASING DIAMETER SHALL BE IN ACCORDANCE WITH THE LCU DESIGN MANUAL.
6. NO CASING SPACERS REQUIRED.
7. WHEN CASING IS REQUIRED INSTALL 1" HDPE PIPE ATTACHED TO THE CASING PIPE WITH 12 GAUGE DOUBLE INSULATED COPPER WIRE INSIDE THE HDPE PIPE.

REV: 12/10/2015

# STANDARD DETAIL NO. 6.8

## LEE COUNTY UTILITIES

### WATER AND SEWER CROSSING DETAIL

N.T.S.

18" MINIMUM UNLESS OTHERWISE APPROVED BY LCU

① WATER MAIN  
② SANITARY SEWER MAIN

SECTION  
CROSSINGS

NOTE: IF LESS THAN 18" CLEARANCE  
ENCASE WATER MAIN IN  
STEEL CASING

N.T.S.

10" MINIMUM UNLESS OTHERWISE APPROVED BY LCU

① WATER MAIN  
② SANITARY SEWER MAIN

PLAN  
PARALLEL

NOTE: IF LESS THAN 10" CLEARANCE  
ENCASE WATER MAIN IN  
STEEL CASING

REV: 12/10/2015

# STANDARD DETAIL NO. 6.9

## LEE COUNTY UTILITIES

### SUBAQUEOUS CROSSING

N.T.S.

VARIES

VARIES

WATER

MIN. 4' COVER

4' MIN.

MIN. 4' COVER

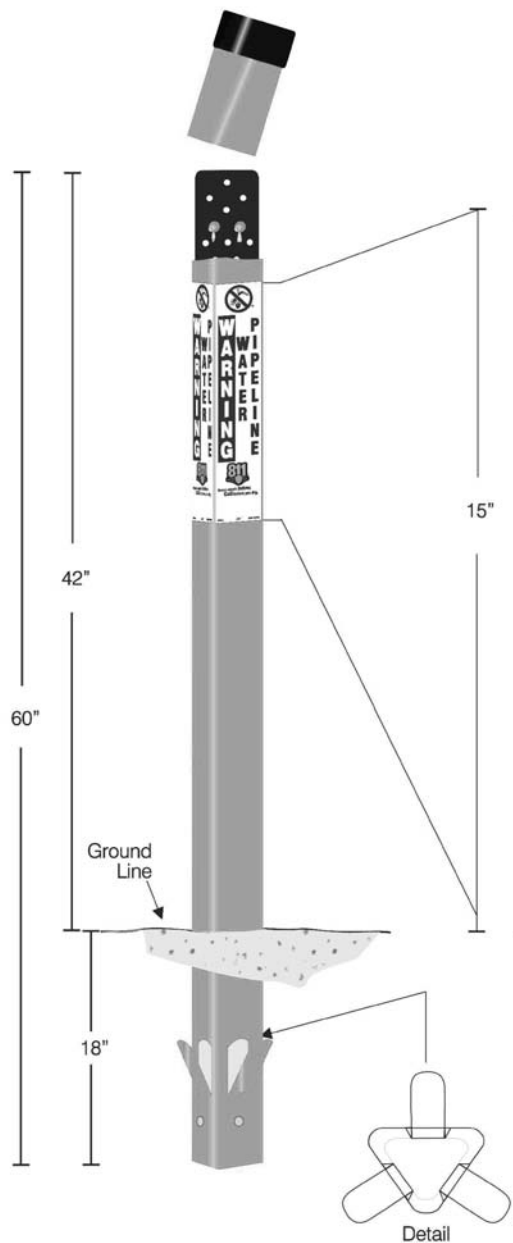
SECTION VIEW

PLAN VIEW

- ① 45° M.J. ELBOW RESTRAINED
- ② 2,500 MIN. P.S.I. CONCRETE PROTECTIVE PAD 4' WIDE MIN. X 4" THICK X OVERALL LENGTH OF PIPELINE CROSSING
- ③ 6" MIN. COMPACTED MATERIAL OR #57 STONE
- ④ USE PVC C-900 DR 14 MIN. FOR ALL SEWAGE FORCE MAINS. USE PRESSURE CLASS 350 DIP FOR ALL WATER MAINS
- ⑤ GATE VALVE OR PLUG VALVE INSTALLATION PER LCU STANDARD DETAIL
- ⑥ AIR RELEASE VALVE (SEE APPROVED MATERIAL LIST)
- ⑦ 12 GAUGE DOUBLE INSULATED COPPER LOCATING WIRE (SEE LCU STANDARD DETAIL)

REV: 12/10/2015





#### Parts List

- 1 - Rhino # TVT160UB2 Rhino TriView™ Test Station, 60" blue with black cap
- 3 - Rhino # GD8-1332 Decals TO BE FACTORY PLACED

#### NOTES:

All materials shall be provided by Rhino Marking and Protection Systems Inc., as listed or approved equivalent by the engineer

#### Physical Description:

The marker post shall be triangular in shape, with each side a minimum of 3" wide. Cap with contrasting color to be fused to top, TriGrip anchor integrated into the bottom of each post. Overall length determined by specific application. The terminal board has the industry standard 11 terminals that are all individually numbered and spaced 1" on center, allowing for easy use of shunts.

#### Performance:

Marker post shall be UV stable and capable of withstanding direct sunlight for at least 10 years without cracking or significant fading. Post installed via direct bury will withstand impacts at speeds of up to 60 mph and return to standing.

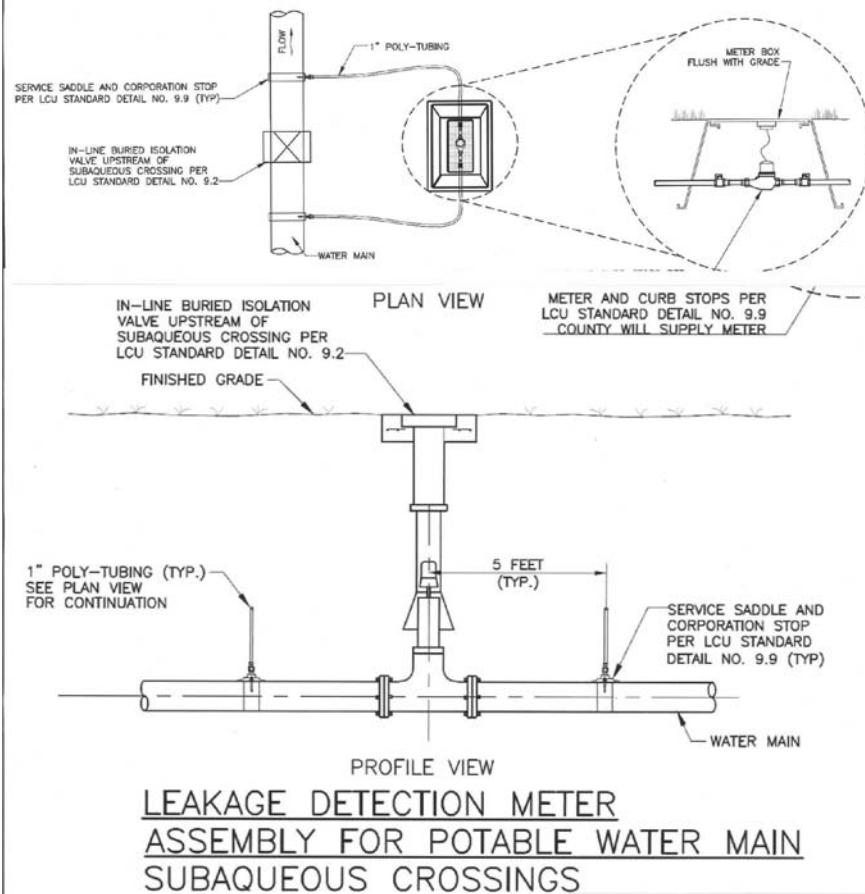
Post shall be corona or flame treated prior to decal installation to ensure maximum adhesion. Decals shall not significantly fade, crack, or curl for at least 10 years.

#### Installation:

Post shall be installed via direct bury. Hole must be at least 6" in diameter and 18" deep. Anchor flaps to be extended and soil compacted to complete installation.

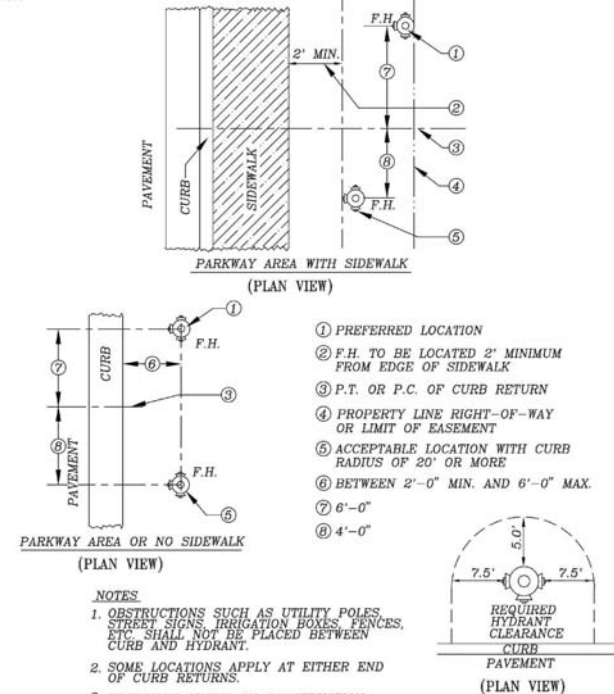


WATER PIPELINE WARNING HIGH VISIBILITY  
FLEXIBLE TEST STATION WITH INNER  
TERMINALS  
(DIRECT BURY INSTALLATION)



### STANDARD DETAIL NO. 6.25 LEE COUNTY UTILITIES FIRE HYDRANT LOCATIONS/CLEARANCE

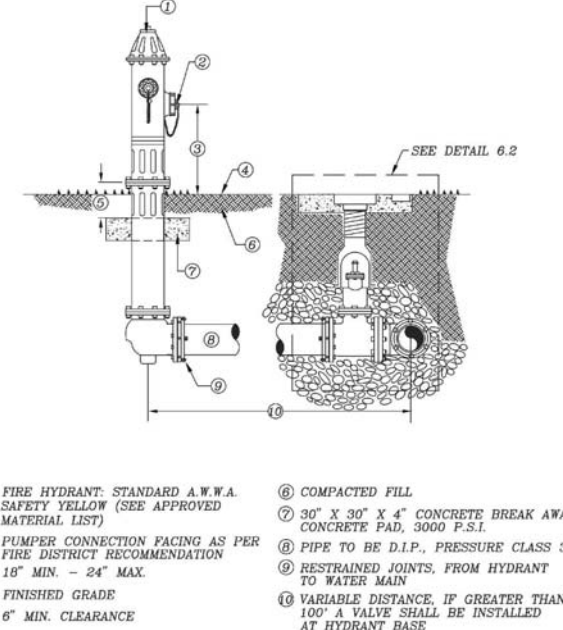
N.T.S.



REV: 12/10/2015

### STANDARD DETAIL NO. 6.24 LEE COUNTY UTILITIES FIRE HYDRANT ASSEMBLY

N.T.S.



REV: 12/10/2015

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FLORIDA CERTIFICATES OF AUTHORIZATION  
ENGINEERING 7995 - SURVEYING LB-6940

PREPARED FOR

## UTILITIES LEE COUNTY

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BARRACO AND ASSOCIATES, INC. AND ARE INCLUDED IN  
THIS PLAN SET AS REQUIRED BY LEE COUNTY UTILITIES.  
THE ENGINEERS CERTIFICATION INDICATES THAT THE  
ENGINEER HAS REVIEWED THESE DETAILS AND FOUND  
THEM TO BE SUITABLE FOR THIS PROJECT.

PLAN REVISIONS

PLAN STATUS

100% SUBMITTAL PLANS  
2023-01-09

LEE COUNTY  
UTILITY  
DETAILS

PROJECT / FILE NO. SHEET NUMBER

23994

12.1