

# DRAWINGS

for



L O C A L G O V E R N M E N T C O R P O R A T I O N

## TWDB - PHASE II PIPELINE

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AMBER BRIGGS BEARD

**OWNER:** S.S.L.G.C.  
P. O. Box 833  
SEGUIN, TEXAS 78156

### INDEX OF DRAWINGS

#### GENERAL

CS COVER SHEET

#### GENERAL

C001-C001A PROJECT NOTES  
C002 LEGENDS, ABBREVIATIONS, & SYMBOLS  
C003-C005 PROJECT LOCATION MAP  
C006-C007 PRESSURE CLASS AND TEST PRESSURE  
C008-C013 PROPERTY OWNERS PROVISIONS

#### WATERLINE PLANS

C100 - C194 PIPELINE PLAN AND PROFILES

#### DETAILS

D200 - D210 WATERLINE DETAILS  
D300 - D301 CONNECTION DETAILS  
D400 - D403 CATHODIC PROTECTION DETAILS

DRAWINGS  
as part of  
the  
Bidding Documents



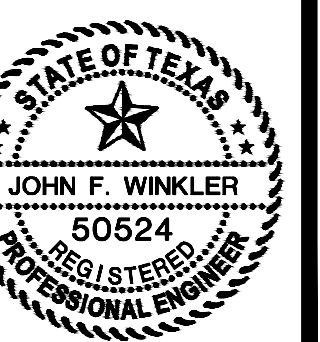
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7-30-20  
DATE

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T.B.P.E. REGISTRATION NO. 8053



1-03153 - SSLGC - TWDB PHASE II



GENERAL NOTES:

- 1. ALL CONSTRUCTION SHALL COMPLY WITH TECHNICAL SPECIFICATIONS.
2. FOR SLOPES OR TRENCHES GREATER THAN FIVE (5) FEET IN DEPTH, ALL CONSTRUCTION OPERATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH SPECIFICATION SECTION 31 23 15 - TRENCH SAFETY SYSTEMS.
3. THE LOCATIONS OF UNDERGROUND UTILITIES AS SHOWN HEREON ARE BASED ON ABOVE GROUND STRUCTURES AND RECORD DRAWINGS PROVIDED TO THE ENGINEER. LOCATIONS OF UNDERGROUND UTILITIES/STRUCTURES MAY VARY FROM LOCATIONS SHOWN HEREON. ADDITIONAL BURIED UTILITIES/STRUCTURES MAY BE ENCOUNTERED. NO EXCAVATIONS WERE MADE DURING THE PROCESS OF THIS SURVEY TO LOCATE BURIED UTILITIES/STRUCTURES. BEFORE EXCAVATIONS ARE BEGUN, THE FOLLOWING ENTITIES SHALL BE CONTACTED FOR VERIFICATION OF UTILITY TYPE AND FIELD LOCATIONS.
GAS, TELEPHONE, ELECTRIC, FIBER OPTIC: CALL TEXAS 811 AT 800-344-8377
4. CONTRACTOR SHALL TAKE ALL DUE PRECAUTIONS TO PROTECT EXISTING FACILITIES FROM DAMAGE DURING CONSTRUCTION. ANY DAMAGE TO EXISTING FACILITIES INCURRED AS A RESULT OF CONSTRUCTION OPERATIONS SHALL BE REPAIRED IMMEDIATELY BY THE CONTRACTOR, AT NO ADDITIONAL COST TO OWNER.
5. PRIOR TO BEGINNING ANY CONSTRUCTION, THE CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATIONS OF ALL KNOWN EXISTING UTILITIES WHICH WILL EITHER BE CONNECTED TO, ADJACENT, OR CROSSED, IF THERE ARE ANY CONFLICTS BETWEEN PROPOSED AND EXISTING UTILITIES, OR IF THE EXISTING UTILITIES ARE IN ANY WAY DIFFERENT FROM WHAT IS SHOWN ON THE DRAWINGS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE ENGINEER BEFORE PROCEEDING WITH ANY CONSTRUCTION. THE CONTRACTOR SHALL WORK WITH THE ENGINEER IN RESOLVING SUCH CONFLICTS BEFORE PROCEEDING WITH WORK.
6. CONTRACTOR SHALL GIVE NOTICE TO ALL AUTHORIZED INSPECTORS, SUPERINTENDENTS, OR PERSONS IN CHARGE OF PRIVATE AND PUBLIC UTILITIES AFFECTED BY HIS OPERATIONS PRIOR TO COMMENCEMENT OF WORK.
7. WHEN UNLOCATED OR INCORRECTLY LOCATED UNDERGROUND PIPING, OR A BREAK LOCATED IN THE LINE, OR OTHER UTILITIES AND SERVICES ARE ENCOUNTERED DURING WORK OPERATIONS, NOTIFY THE APPLICABLE UTILITY COMPANY IMMEDIATELY TO OBTAIN PROCEDURE DIRECTIONS. COOPERATE WITH THE APPLICABLE UTILITY COMPANY IN MAINTAINING ACTIVE SERVICES IN OPERATION.
8. THROUGHOUT THE CONSTRUCTION, AND AT THE COMPLETION OF STORM CONSTRUCTION, THE CONTRACTOR SHALL ENSURE THAT DRAINAGE OF STORM WATER RUNOFF IS NOT BLOCKED OR OBSTRUCTED.
9. CONTRACTOR SHALL INSTALL 2-INCH DIAMETER BY 36-INCH LONG CAPPED PVC PIPE VERTICALLY, WITH TWO (2) FEET OF SURVEYOR'S RIBBON ATTACHED, AT END OF ALL PIPE AND CONDUIT STUBS. TOP OF PIPE MARKER TO BE NOT LESS THAN 12 INCHES ABOVE THE FINISHED GRADE.
A. WHITE RIBBON - PROPOSED EXCAVATION
B. PINK RIBBON - TEMPORARY SURVEY MARKINGS
C. RED RIBBON - ELECTRIC POWER LINES, CABLES, CONDUIT AND LIGHTING CABLES
D. YELLOW RIBBON - GAS, OIL, STEAM, PETROLEUM OR GASEOUS MATERIALS
E. ORANGE RIBBON - COMMUNICATION, ALARM OR SIGNAL LINES, CABLES OR CONDUIT
F. BLUE RIBBON - POTABLE WATER
G. PURPLE RIBBON - RECLAIMED WATER, IRRIGATION AND SLURRY LINES
H. GREEN RIBBON - SEWERS AND DRAIN LINES
10. EXISTING PAVEMENT, INCLUDING SIDEWALKS AND DRIVEWAYS, SHALL BE SAWEED TO A SMOOTH STRAIGHT LINE AT ALL CONSTRUCTION LIMITS.
11. CONTRACTOR SHALL PROVIDE "AS-BUILT" DRAWINGS TO THE ENGINEER IN ACCORDANCE WITH SPECIFICATION SECTION 01 70 00 - EXECUTION AND CLOSEOUT REQUIREMENTS.
12. ANY EXISTING PAVEMENT DAMAGED OR REMOVED DURING CONSTRUCTION SHALL BE REPLACED OR REPAIRED IN ACCORDANCE WITH THE DRAWINGS AND/OR SPECIFICATIONS TO MATCH, OR EXCEED, EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
13. CONTRACTOR SHALL MAINTAIN ACCESS TO EXISTING DRIVEWAYS AT ALL TIMES.
14. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED CONSTRUCTION PERMITS PRIOR TO COMMENCING WORK AND IN ACCORDANCE WITH SPECIFICATION SECTION 01 10 00 - SUMMARY.
15. ANY DAMAGE TO EXISTING STRUCTURES (I.E., FENCES, WALLS, R.O.W. MONUMENTS, SIGNS, CULVERTS, AND CONCRETE APRONS, ETC.) DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED AT CONTRACTOR'S EXPENSE. REPLACEMENT MATERIALS SHALL MATCH EXISTING. ALL REPAIRS MUST BE APPROVED BY ENGINEER.
16. CONTRACTOR SHALL MAINTAIN A CLEAN CONSTRUCTION SITE AT ALL TIMES FREE FROM TRASH, LITTER, BLOWING DEBRIS, AND SILT RUNOFF IN ACCORDANCE WITH SPECIFICATION SECTION 01 50 00 - TEMPORARY CONTROLS.
17. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ADEQUATE SANITATION FACILITIES FOR ITS EMPLOYEES AND SUB-CONTRACTORS IN ACCORDANCE WITH SPECIFICATION SECTION 01 50 00 - TEMPORARY CONTROL.

ENVIRONMENTAL NOTES:

- 1. A STORMWATER POLLUTION PREVENTION PLAN (SWP3) SHALL BE PREPARED IN 01 10 14 - PROTECTION OF ENVIRONMENT.
2. ALL DISTURBED AREAS SHALL BE RESTORED AND CONTRACTOR SHALL REVEGETATE ALL EXPOSED CUT & FILL AREAS UPON COMPLETION OF CONSTRUCTION. THE SEEDING SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTION 32 92 19 - HYDROMULCH SEEDING.
3. IT IS THE INTENT OF THE DRAWINGS AND SPECIFICATIONS THAT THE SCOPE OF WORK INCLUDES CLEARING, EROSION CONTROLS, AND TREE PROTECTION REQUIRED FOR CONSTRUCTION. THE CONTRACTOR SHALL REMOVE ONLY TREES SO INDICATED, PLUS TREES SMALLER THAN 8" AS REQUIRED TO ENABLE CONSTRUCTION. REVEGETATION AND ENVIRONMENTAL RESTORATION IS INCLUDED IN THE SCOPE OF WORK.
4. EROSION CONTROL CONSTRUCTION SEQUENCE:
A. CONTRACTOR SHALL INSTALL STABILIZED CONSTRUCTION ENTRANCE AND INSTALL EROSION/SEDIMENTATION CONTROLS, AND TREE PROTECTION FENCING PRIOR TO BEGINNING OF ANY CLEARING OR EXCAVATION ACTIVITIES.
B. BEGIN CLEARING FOLLOWED BY CONSTRUCTION ACTIVITIES. PERFORM ALL CLEARING AT START OF PROJECT. INSPECT AND RESTORE EROSION CONTROL DEVICES AND TREE PROTECTION CONTROLS THROUGHOUT CONSTRUCTION PROJECT ACTIVITY.

- C. ALL TOPSOIL EXCAVATED SHALL BE STOCKPILED SEPARATELY IN A DESIGNATED AREA. UPON COMPLETION OF BACKFILL, TOPSOIL SHALL BE REPLACED OVER DISTURBED AREAS.
D. AFTER ACCEPTANCE OF REVEGETATION BY ENGINEER, CONTRACTOR SHALL REMOVE TEMPORARY EROSION/SEDIMENTATION CONTROLS.
5. INSTALL SILT FENCE, WHERE APPLICABLE, OUTSIDE OF CANOPY OF TREES TO BE RETAINED.
6. WHERE SILT FENCING CROSSES UTILITY TRENCH EXCAVATIONS, EROSION CONTROLS SHALL BE TEMPORARILY REMOVED DURING TRENCHING AND PIPE INSTALLATION AND REPLACED IMMEDIATELY UPON COMPLETION OF TRENCH BACKFILLING.
7. IF ANY ENVIRONMENTALLY SENSITIVE FEATURE IS DISCOVERED DURING CONSTRUCTION, ALL CONSTRUCTION ACTIVITIES NEAR THE SENSITIVE FEATURE MUST BE SUSPENDED IMMEDIATELY AND THE ENGINEER MUST BE NOTIFIED IMMEDIATELY.
8. LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS EXPOSED TO STORMWATER SHALL BE PREVENTED FROM BECOMING A POLLUTANT SOURCE FOR STORMWATER DISCHARGES.
9. ALL SPOILS (EXCAVATED MATERIAL) GENERATED FROM THE PROJECT SITE MUST BE STORED ON-SITE WITH PROPER EROSION AND SEDIMENTATION CONTROLS IN ACCORDANCE WITH SPECIFICATION SECTION 31 23 16 - EXCAVATION.

SAFETY NOTES:

- 1. ALL CONSTRUCTION OPERATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).
2. ELECTRICAL LINES MAY BE LOCATED CLOSE TO THE PROJECT AREA. THE ATTENTION OF THE CONTRACTOR IS DIRECTED TO THE STATE LAW (VERNON'S ANNOTATED TEXAS STATUTES, ARTICLE 1436(c)) CONCERNING OPERATION IN THE VICINITY OF ELECTRICAL LINES & THE NEED FOR EFFECTIVE PRECAUTIONARY MEASURES. IT IS A VIOLATION OF OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS TO OPERATE EQUIPMENT IN SUCH A MANNER THAT PERSONS OR EQUIPMENT COME WITHIN TEN FEET OF AN ENERGIZED ELECTRIC LINE. SUCH REGULATIONS ARE ENFORCED BY OSHA, FEDERAL LAWS. TEXAS CODE ANNOTATED 1990, HEALTH AND SAFETY CODES, SUBSECTION 752.001 ET.SEQ. V.A.T.S. WAS ENACTED FOR THE PURPOSE OF ENSURING THE SAFETY OF PERSONS ENGAGED IN ACTIVITIES WITHIN PROXIMITY OF OVERHEAD LINES. THE LAW PROHIBITS ANY FUNCTION OR ACTIVITY WHERE IT IS POSSIBLE FOR THE PERSON PERFORMING SUCH ACTIVITY TO COME WITHIN SIX FEET OF AN OVERHEAD POWER LINE. THE LAW ALSO FORBIDS ANY PART OF ANY TOOL, EQUIPMENT, MACHINERY OR MATERIAL USED BY SUCH PERSON TO BE BROUGHT WITHIN SIX FEET OF ANY OVERHEAD LINE DURING THE PERFORMANCE OF SUCH ACTIVITY. IN ADDITION, THE LAW PROHIBITS OPERATION OF EQUIPMENT OR MACHINES WITHIN TEN FEET OF ANY OVERHEAD POWER LINE UNLESS CONTACT WITH SUCH LINE HAS BEEN EFFECTIVELY GUARDED AGAINST PURSUANT TO THE PROVISIONS OF THE LAW. VIOLATORS OF THE LAW ARE SUBJECT TO A FINE OR INCARCERATION OR BOTH, IN ADDITION TO CIVIL LIABILITY.
3. WHEN WORKING IN OR ADJACENT TO PUBLIC RIGHT-OF-WAY, CONTRACTOR WILL BE RESPONSIBLE FOR ERECTING AND MAINTAINING ALL BARRICADES, FLAGGERS, SIGNS AND OTHER DEVICES NECESSARY TO PROTECT THE PUBLIC AND MAINTAIN TRAFFIC FLOW. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FURNISH AND MAINTAIN ALL NECESSARY WARNING AND SAFETY DEVICES (FLASHING LIGHTS, FLAG MEN, BARRICADES, SIGNS, ETC.), AS REQUIRED TO ENSURE TRAFFIC SAFETY AND TO PROTECT THE PUBLIC SAFETY AND HEALTH. NO LANE CLOSURES WILL BE PERMITTED AND CONTRACTOR SHALL MAINTAIN TRAFFIC FLOW AT ALL TIMES IN EXISTING ROADWAYS.
4. IN ACCORDANCE WITH THE LAWS OF THE STATE OF TEXAS AND THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATION, ALL TRENCHES OVER 5 FEET IN DEPTH IN EITHER HARD AND COMPACT OR SOFT AND UNSTABLE SOIL SHALL BE SLOPED, SHORED, SHEETED, BRACED OR OTHERWISE SUPPORTED. FURTHERMORE, ALL TRENCHES LESS THAN 5 FEET IN DEPTH SHALL ALSO BE EFFECTIVELY PROTECTED WHEN HAZARDOUS GROUND MOVEMENT MAY BE EXPECTED.
5. IN ACCORDANCE WITH THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATIONS, WHEN EMPLOYEES ARE REQUIRED TO BE IN TRENCHES 4 FEET DEEP OR MORE, ADEQUATE MEANS OF EXIT, SUCH AS A LADDER OR STEPS, MUST BE PROVIDED AND LOCATED SO AS TO REQUIRE NO MORE THAN 25 FEET OF LATERAL TRAVEL.
6. TRENCH SAFETY SYSTEMS ARE INCLUDED AS A SEPARATE PAY ITEM. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FURNISH ENGINEERING DESIGN, INSTALLATION, & MAINTENANCE OF THE SAFETY SYSTEMS IN ACCORDANCE WITH THE TRENCH SAFETY ENGINEER'S DRAWINGS AND SPECIFICATIONS. CONTRACTOR SHALL SUBMIT FOR REVIEW A PROJECT SPECIFIC TRENCH SAFETY SYSTEM DESIGNED BY A STATE OF TEXAS REGISTERED PROFESSIONAL ENGINEER. THE DESIGN SHALL BE SUBMITTED TO THE OWNER PRIOR TO CONSTRUCTION FOR SUBSTANTIATION OF DESIGN BY REGISTERED ENGINEER, AND FOR RECORDS OF OWNER'S FIELD REPRESENTATIVE.
7. THE WALLS AND FACES OF ALL EXCAVATIONS IN WHICH EMPLOYEES ARE EXPOSED TO DANGER FROM MOVING GROUND SHALL BE GUARDED BY A SHORING SYSTEM, OR SOME EQUIVALENT MEANS.
8. IN EXCAVATIONS WHICH CONTRACTOR'S EMPLOYEES MAY BE REQUIRED TO ENTER, EXCAVATED MATERIAL SHALL BE EFFECTIVELY STORED AND RETAINED AT LEAST 3 FEET OR MORE FROM THE EDGE OF THE OPEN TRENCH.
9. DIVERSION DIKES, DITCHES, OR OTHER SUITABLE MEANS SHALL BE USED TO PREVENT SURFACE WATER FROM ENTERING AN EXCAVATION. WATER SHALL NOT BE ALLOWED TO ACCUMULATE IN AN EXCAVATION. CONTRACTOR SHALL FOLLOW OSHA REQUIREMENTS FOR TRENCH SAFETY, INCLUDING DEWATERING AS NEEDED. THE CONTRACTOR SHALL FURNISH, INSTALL, OPERATE, AND MAINTAIN EFFECTIVE DEWATERING MEASURES. DEWATERING SHALL BE ACCOMPLISHED AT NO ADDED PAY.

PUBLIC WATER UTILITY DISTRIBUTION SYSTEM NOTES:

- 1. ALL PUBLIC WATER UTILITY DISTRIBUTION SYSTEM IMPROVEMENTS SHALL BE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATIONS.
2. THE CONTRACTOR SHALL NOTIFY AND COORDINATE WITH THE ENGINEER PRIOR TO THE START OF CONSTRUCTION AND PRIOR TO ANY WATER SHUT OFF OR TURN ON THAT WILL AFFECT A PUBLIC WATER SYSTEM (PWS).
3. 72 HOURS NOTICE SHALL BE REQUIRED FOR SCHEDULED WATERLINE SHUT-DOWNS.
4. THE CONTRACTOR SHALL CONTACT THE PWS OWNER 48 HOURS PRIOR TO CONNECTING TO EXISTING WATERLINES.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL AND REPLACEMENT OF ALL EXISTING PAVEMENTS, CURBS, DRIVEWAYS, SIDEWALKS, GRAVEL ROADWAYS, PIPE CULVERTS, CULVERT HEADWALLS, FENCES, BILLBOARDS AND MISCELLANEOUS ITEMS WHERE REQUIRED TO COMPLETE THE

- CONSTRUCTION.
6. THERE IS NO PAY ITEM FOR DEWATERING AND NO SEPARATE PAYMENT WILL BE MADE FOR DEWATERING. ANY DEWATERING OF THE TRENCH REQUIRED IS THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE INCIDENTAL TO THE BID ITEM FOR WHICH IT PERTAINS.
7. INSTALLATION OF ANY PIPE WITHIN 4' OF THE BACK OF CURB OR EDGE OF STREET (EITHER PROPOSED OR EXISTING STREET) SHALL REQUIRE THE SAME BACKFILL AS FOR INSTALLATION BENEATH PAVEMENTS.
8. CLOSED TRENCHES WITHIN THE ROADWAY LIMITS SHALL BE MADE SUITABLE FOR TRAFFIC USE DURING THE NON-WORKING HOURS. IN THE AREA OF THE TRENCH REMAINING OPEN, THE CONTRACTOR SHALL PROVIDE TWO TRAFFIC LANES (24 FT.), OR PORTIONS THEREOF, AND TRAFFIC CONTROL DEVICES IN SUCH A MANNER AS TO PROVIDE SAFE TRAFFIC CONDITIONS. WHERE TRAFFIC LANES ARE PROVIDED OUTSIDE OF THE EXISTING ROADWAY, AN ALL-WEATHER ROADWAY SUITABLE FOR SAFE TRAFFIC OPERATION SHALL BE PROVIDED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE ALL-WEATHER ROADWAY AT ALL TIMES IN A SATISFACTORY CONDITION ACCEPTABLE TO THE OWNER.
9. THE CONTRACTOR SHALL MAINTAIN WATER SERVICE TO ALL EXISTING CONNECTIONS AT ALL TIMES DURING CONSTRUCTION. CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL EXISTING CONNECTIONS IN THE FIELD.
10. WHERE NEW WATER SERVICES ARE INSTALLED UNDER EXISTING CURB AND GUTTER, THE CONTRACTOR WILL HAVE THE FOLLOWING OPTIONS:
A. REMOVE AND REPLACE ADEQUATE AMOUNT OF CURB AND GUTTER.
B. PLACE FLOWABLE BACKFILL BENEATH THE EXISTING CURB AND GUTTER.
11. ALL D.I.P. FITTINGS SHALL BE NEW AND SHALL BE NORTH AMERICAN FABRICATED. NO FOREIGN FITTINGS SHALL BE ALLOWED.
12. THE CONTRACTOR SHALL BE AWARE THAT CONNECTING TO EXISTING UTILITY LINES OR TERMINATING EXISTING LINES MAY HAVE TO OCCUR AT OFF-PEAK HOURS, AND ALL UTILITY TIE-INS MUST BE COORDINATED WITH AND APPROVED BY THE ENGINEER PRIOR TO BEGINNING WORK.
13. THE CONTRACTOR IS NOT AUTHORIZED TO OPEN OR CLOSE WATER VALVES WITH HIS OWN PERSONNEL. THE CONTRACTOR SHALL COORDINATE SUCH WORK EFFORT WITH THE PWS OWNER AND/OR ENGINEER.
14. THE CONTRACTOR SHALL OBTAIN A TEMPORARY CONSTRUCTION WATER METER WITH A BACKFLOW PREVENTION DEVICE FROM THE PWS OWNER. THE WATER CONSUMPTION, DEPOSIT, REPAIR COSTS, ETC., SHALL BE CONSIDERED SUBSIDIARY TO THE CONSTRUCTION OF THE WATER UTILITY DISTRIBUTION PIPING.
15. ALL WATERLINES ARE TO BE HYDROSTATICALLY TESTED BY THE CONTRACTOR IN ACCORDANCE WITH SPECIFICATION SECTION 33 26 90.
16. COMPLETED WATERLINES SHALL BE DISINFECTED IN ACCORDANCE WITH SPECIFICATION SECTION 33 26 90.
17. THE CONTRACTOR SHALL PROVIDE NO LESS THAN 48 HOURS NOTICE PRIOR TO PERFORMING DISINFECTION (CHLORINATION), DECHLORINATION, OR PRESSURE TESTING.
18. ALL WATER LINES SHALL BE COMPLETE IN PLACE INCLUDING ALL BENDS, THRUST BLOCKS, FITTINGS, SERVICES AND APPURTENANCES BEFORE PRESSURE TESTING.
19. ADJUSTMENT OF WATER METERS, VALVES, MANHOLES, IRRIGATION SYSTEMS, AND ANY OTHER PUBLIC OR PRIVATE UTILITY, ETC. ARE NOT SEPARATE PAY ITEMS. THE PRICE OF THE ADJUSTMENT SHALL BE SUBSIDIARY TO THE CONSTRUCTION OF VARIOUS BID ITEMS.

TCEQ WATERLINE LOCATION NOTES:

- 1. WHEN NEW POTABLE WATER DISTRIBUTION LINES ARE CONSTRUCTED, THEY SHALL BE INSTALLED NO CLOSER THAN NINE FEET IN ALL DIRECTIONS TO WASTEWATER COLLECTION FACILITIES. ALL SEPARATION DISTANCES SHALL BE MEASURED FROM THE OUTSIDE SURFACE OF EACH OF THE RESPECTIVE PIECES.
2. POTABLE WATER DISTRIBUTION LINES AND WASTEWATER MAINS OR LATERALS THAT FORM PARALLEL UTILITY LINES SHALL BE INSTALLED IN SEPARATE TRENCHES.
3. NO PHYSICAL CONNECTION SHALL BE MADE BETWEEN A DRINKING WATER SUPPLY AND A SEWER LINE. ANY APPURTENANCE SHALL BE DESIGNED AND CONSTRUCTED SO AS TO PREVENT ANY POSSIBILITY OF SEWAGE ENTERING THE DRINKING WATER SYSTEM.
4. WHERE THE NINE-FOOT SEPARATION DISTANCE CANNOT BE ACHIEVED, THE FOLLOWING CRITERIA SHALL APPLY.

NEW WATERLINE INSTALLATION - PARALLEL LINES:

- 1. WHERE A NEW POTABLE WATERLINE PARALLELS AN EXISTING, NON-PRESSURE OR PRESSURE RATED WASTEWATER MAIN OR LATERAL AND THE LICENSED PROFESSIONAL ENGINEER LICENSED IN THE STATE OF TEXAS IS ABLE TO DETERMINE THAT THE EXISTING WASTEWATER MAIN OR LATERAL IS NOT LEAKING, THE NEW POTABLE WATERLINE SHALL BE LOCATED AT LEAST TWO FEET ABOVE THE EXISTING WASTEWATER MAIN OR LATERAL, MEASURED VERTICALLY, AND AT LEAST FOUR FEET AWAY, MEASURED HORIZONTALLY, FROM THE EXISTING WASTEWATER MAIN OR LATERAL. EVERY EFFORT SHALL BE EXERTED NOT TO DISTURB THE BEDDING AND BACKFILL OF THE EXISTING WASTEWATER MAIN OR LATERAL.
2. WHERE A NEW POTABLE WATERLINE PARALLELS AN EXISTING PRESSURE RATED WASTEWATER MAIN OR LATERAL AND IT CANNOT BE DETERMINED BY THE LICENSED PROFESSIONAL ENGINEER IF THE EXISTING LINE IS LEAKING, THE EXISTING WASTEWATER MAIN OR LATERAL SHALL BE REPLACED WITH AT LEAST 150 PSI PRESSURE RATED PIPE. THE NEW POTABLE WATERLINE SHALL BE LOCATED AT LEAST TWO FEET ABOVE THE NEW WASTEWATER LINE, MEASURED VERTICALLY, AND AT LEAST FOUR FEET AWAY, MEASURED HORIZONTALLY, FROM THE REPLACED WASTEWATER MAIN OR LATERAL.
3. WHERE A NEW POTABLE WATERLINE PARALLELS A NEW WASTEWATER MAIN, THE WASTEWATER MAIN OR LATERAL SHALL BE CONSTRUCTED OF AT LEAST 150 PSI PRESSURE RATED PIPE. THE NEW POTABLE WATERLINE SHALL BE LOCATED AT LEAST TWO FEET ABOVE THE WASTEWATER MAIN OR LATERAL, MEASURED VERTICALLY, AND AT LEAST FOUR FEET AWAY, MEASURED HORIZONTALLY, FROM THE WASTEWATER MAIN OR LATERAL.

NEW WATERLINE INSTALLATION - CROSSING LINES:

- 1. WHERE A NEW POTABLE WATERLINE CROSSES AN EXISTING, NON-PRESSURE RATED WASTEWATER MAIN OR LATERAL, ONE SEGMENT OF THE WATERLINE PIPE SHALL BE CENTERED OVER THE WASTEWATER MAIN OR LATERAL SUCH THAT THE JOINTS OF THE WATERLINE PIPE ARE EQUIDISTANT AND AT LEAST NINE FEET HORIZONTALLY FROM THE CENTERLINE OF THE WASTEWATER MAIN OR LATERAL. THE POTABLE WATERLINE SHALL BE AT LEAST TWO FEET ABOVE THE WASTEWATER MAIN OR LATERAL. WHENEVER POSSIBLE, THE CROSSING SHALL BE CENTERED BETWEEN THE JOINTS OF THE WASTEWATER MAIN OR LATERAL. IF THE EXISTING WASTEWATER MAIN OR LATERAL IS DISTURBED OR SHOWS SIGNS OF LEAKING, IT SHALL BE REPLACED FOR AT LEAST NINE FEET IN BOTH DIRECTIONS (18 FEET TOTAL) WITH AT LEAST 150 PSI PRESSURE RATED PIPE.
2. WHERE A NEW POTABLE WATERLINE CROSSES AN EXISTING, PRESSURE RATED WASTEWATER MAIN OR LATERAL, ONE SEGMENT OF THE WATERLINE PIPE SHALL BE CENTERED OVER THE WASTEWATER MAIN OR LATERAL SUCH THAT

- THE JOINTS OF THE WATERLINE PIPE ARE EQUIDISTANT AND AT LEAST NINE FEET HORIZONTALLY FROM THE CENTERLINE OF THE WASTEWATER MAIN OR LATERAL. THE POTABLE WATERLINE SHALL BE AT LEAST SIX INCHES ABOVE THE WASTEWATER MAIN OR LATERAL. WHENEVER POSSIBLE, THE CROSSING SHALL BE CENTERED BETWEEN THE JOINTS OF THE WASTEWATER MAIN OR LATERAL. IF THE EXISTING WASTEWATER MAIN OR LATERAL SHOWS SIGNS OF LEAKING, IT SHALL BE REPLACED FOR AT LEAST NINE FEET IN BOTH DIRECTIONS (18 FEET TOTAL) WITH AT LEAST 150 PSI PRESSURE RATED PIPE.
3. WHERE A NEW POTABLE WATERLINE CROSSES A NEW, NON-PRESSURE RATED WASTEWATER MAIN OR LATERAL AND THE STANDARD PIPE SEGMENT LENGTH OF THE WASTEWATER MAIN OR LATERAL IS AT LEAST 18 FEET, ONE SEGMENT OF THE WATERLINE PIPE SHALL BE CENTERED OVER THE WASTEWATER MAIN OR LATERAL SUCH THAT THE JOINTS OF THE WATERLINE PIPE ARE EQUIDISTANT AND AT LEAST NINE FEET HORIZONTALLY FROM THE CENTERLINE OF THE WASTEWATER MAIN OR LATERAL. THE POTABLE WATERLINE SHALL BE AT LEAST TWO FEET ABOVE THE WASTEWATER MAIN OR LATERAL. WHENEVER POSSIBLE, THE CROSSING SHALL BE CENTERED BETWEEN THE JOINTS OF THE WASTEWATER MAIN OR LATERAL. THE WASTEWATER PIPE SHALL HAVE A MINIMUM PIPE STIFFNESS OF 115 PSI AT 5.0% DEFLECTION. THE WASTEWATER MAIN OR LATERAL SHALL BE EMBEDDED IN CEMENT STABILIZED SAND (SEE CLAUSE (V) OF THIS SUBPARAGRAPH) FOR THE TOTAL LENGTH OF ONE PIPE SEGMENT PLUS 12 INCHES BEYOND THE JOINT ON EACH END.
4. WHERE A NEW POTABLE WATERLINE CROSSES A NEW, NON-PRESSURE RATED WASTEWATER MAIN OR LATERAL AND A STANDARD LENGTH OF THE WASTEWATER PIPE IS LESS THAN 18 FEET IN LENGTH, THE POTABLE WATER PIPE SEGMENT SHALL BE CENTERED OVER THE WASTEWATER LINE. THE MATERIALS AND METHOD OF INSTALLATION SHALL CONFORM WITH ONE OF THE FOLLOWING OPTIONS.
5. WITHIN NINE FEET HORIZONTALLY OF EITHER SIDE OF THE WATERLINE, THE WASTEWATER PIPE AND JOINTS SHALL BE CONSTRUCTED WITH PIPE MATERIAL HAVING A MINIMUM PRESSURE RATING OF AT LEAST 150 PSI. AN ABSOLUTE MINIMUM VERTICAL SEPARATION DISTANCE OF TWO FEET SHALL BE PROVIDED. THE WASTEWATER MAIN OR LATERAL SHALL BE LOCATED BELOW THE WATERLINE.
6. ALL SECTIONS OF WASTEWATER MAIN OR LATERAL WITHIN NINE FEET HORIZONTALLY OF THE WATERLINE SHALL BE ENCASED IN AN 18-FOOT (OR LONGER) SECTION OF PIPE. FLEXIBLE ENCASEMENT PIPE SHALL HAVE A MINIMUM PIPE STIFFNESS OF 115 PSI AT 5.0% DEFLECTION. THE ENCASEMENT PIPE SHALL BE CENTERED ON THE WATERLINE AND SHALL BE AT LEAST TWO NOMINAL PIPE DIAMETERS LARGER THAN THE WASTEWATER MAIN OR LATERAL. THE SPACE AROUND THE CARRIER PIPE SHALL BE SUPPORTED AT FIVE-FOOT (OR LESS) INTERVALS WITH SPACERS OR BE FILLED TO THE SPRINGLINE WITH WASHED SAND. EACH END OF THE CASING SHALL BE SEALED WITH WATERTIGHT NON-SHRINK CEMENT GROUT OR A MANUFACTURED WATERTIGHT SEAL. AN ABSOLUTE MINIMUM SEPARATION DISTANCE OF SIX INCHES BETWEEN THE ENCASEMENT PIPE AND THE WATERLINE SHALL BE PROVIDED. THE WASTEWATER LINE SHALL BE LOCATED BELOW THE WATERLINE.
7. WHEN A NEW WATERLINE CROSSES UNDER A WASTEWATER MAIN OR LATERAL, THE WATERLINE SHALL BE ENCASED AS DESCRIBED FOR WASTEWATER MAINS OR LATERALS IN SUBCLAUSE (II) OF THIS CLAUSE OR CONSTRUCTED OF DUCTILE IRON OR STEEL PIPE WITH MECHANICAL OR WELDED JOINTS AS APPROPRIATE. AN ABSOLUTE MINIMUM SEPARATION DISTANCE OF ONE FOOT BETWEEN THE WATERLINE AND THE WASTEWATER MAIN OR LATERAL SHALL BE PROVIDED. BOTH THE WATERLINE AND WASTEWATER MAIN OR LATERAL MUST PASS A PRESSURE AND LEAKAGE TEST AS SPECIFIED IN AWWA C600 STANDARDS.
8. WHERE A NEW POTABLE WATERLINE CROSSES A NEW, PRESSURE RATED WASTEWATER MAIN OR LATERAL, ONE SEGMENT OF THE WATERLINE PIPE SHALL BE CENTERED OVER THE WASTEWATER LINE SUCH THAT THE JOINTS OF THE WATERLINE PIPE ARE EQUIDISTANT AND AT LEAST NINE FEET HORIZONTALLY FROM THE CENTER LINE OF THE WASTEWATER MAIN OR LATERAL. THE POTABLE WATERLINE SHALL BE AT LEAST SIX INCHES ABOVE THE WASTEWATER MAIN OR LATERAL. WHENEVER POSSIBLE, THE CROSSING SHALL BE CENTERED BETWEEN THE JOINTS OF THE WASTEWATER MAIN OR LATERAL. THE WASTEWATER PIPE SHALL HAVE A MINIMUM PRESSURE RATING OF AT LEAST 150 PSI. THE WASTEWATER MAIN OR LATERAL SHALL BE EMBEDDED IN CEMENT STABILIZED SAND (SEE CLAUSE (V) OF THIS SUBPARAGRAPH) FOR THE TOTAL LENGTH OF ONE PIPE SEGMENT PLUS 12 INCHES BEYOND THE JOINT ON EACH END.
9. WATERLINE AND WASTEWATER MAIN OR LATERAL MANHOLE OR CLEANOUT SEPARATION. THE SEPARATION DISTANCE FROM A POTABLE WATERLINE TO A WASTEWATER MAIN OR LATERAL MANHOLE OR CLEANOUT SHALL BE A MINIMUM OF NINE FEET. WHERE THE NINE-FOOT SEPARATION DISTANCE CANNOT BE ACHIEVED, THE POTABLE WATERLINE SHALL BE ENCASED IN A JOINT OF AT LEAST 150 PSI PRESSURE CLASS PIPE AT LEAST 18 FEET LONG AND TWO NOMINAL SIZES LARGER THAN THE NEW CONVEYANCE. THE SPACE AROUND THE CARRIER PIPE SHALL BE SUPPORTED AT FIVE-FOOT INTERVALS WITH SPACERS OR BE FILLED TO THE SPRINGLINE WITH WASHED SAND. THE ENCASEMENT PIPE SHALL BE CENTERED ON THE CROSSING AND BOTH ENDS SEALED WITH CEMENT GROUT OR MANUFACTURED SEALANT.
10. LOCATION OF FIRE HYDRANTS. FIRE HYDRANTS SHALL NOT BE INSTALLED WITHIN NINE FEET VERTICALLY OR HORIZONTALLY OF ANY WASTEWATER MAIN, WASTEWATER LATERAL, OR WASTEWATER SERVICE LINE REGARDLESS OF CONSTRUCTION.

TCEQ GENERAL NOTE

- 1. ALL MATERIALS USED ON PROJECT SHALL COMPLY WITH SAFE DRINKING WATER ACT LIMITING LEAD CONTENT ON ALL PIPE, FITTINGS FIXTURES, ETC. TO AM MAXIMUM OF 0.25%.

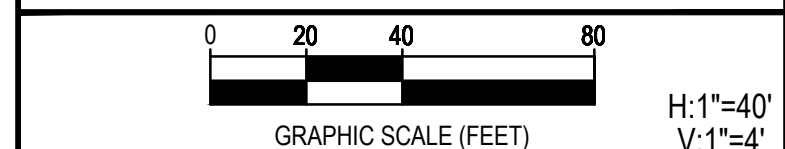


Table with 3 columns: REV., DESCRIPTION, DATE



SSLGC

TWDB PROJECT - PHASE 2

PROJECT NOTES

4-13-2020 DATE JOHN F. WINKLER

Professional Engineer seal for John F. Winkler, State of Texas, Registration No. 50524. Includes project number 1-03153 and drawing number C001.

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**TCEQ WATER DISTRIBUTION SYSTEM  
GENERAL CONSTRUCTION NOTES**

1. This water distribution system must be constructed in accordance with the current Texas Commission on Environmental Quality (TCEQ) Rules and Regulations for Public Water Systems 30 Texas Administrative Code (TAC) Chapter 290 Subchapter D. When conflicts are noted with local standards, the more stringent requirement shall be applied. At a minimum, construction for public water systems must always meet TCEQ's "Rules and Regulations for Public Water Systems."
2. All newly installed pipes and related products must conform to American National Standards Institute (ANSI)/NSF International Standard 61 and must be certified by an organization accredited by ANSI [§290.44(a)(1)].
3. Plastic pipe for use in public water systems must bear the NSF International Seal of Approval (NSF-pw) and have an ASTM design pressure rating of at least 150 psi or a standard dimension ratio of 26 or less [§290.44(a)(2)].
4. No pipe which has been used for any purpose other than the conveyance of drinking water shall be accepted or relocated for use in any public drinking water supply [§290.44(a)(3)].
5. All water line crossings of wastewater mains shall be perpendicular [§290.44(e)(4)(B)].
6. Water transmission and distribution lines shall be installed in accordance with the manufacturer's instructions. However, the top of the water line must be located below the frost line and in no case shall the top of the water line be less than 24 inches below ground surface [§290.44(a)(4)].
7. The maximum allowable lead content of pipes, pipe fittings, plumbing fittings, and fixtures is 0.25 percent [§290.44(b)].
8. The contractor shall install appropriate air release devices with vent openings to the atmosphere covered with 16-mesh or finer, corrosion resistant screening material or an acceptable equivalent [§290.44(d)(1)].
9. The contractor shall not place the pipe in water or where it can be flooded with water or sewage during its storage or installation [§290.44(f)(1)].
10. When waterlines are laid under any flowing or intermittent stream or semi-permanent body of water the waterline shall be installed in a separate watertight pipe encasement. Valves must be provided on each side of the crossing with facilities to allow the underwater portion of the system to be isolated and tested [§290.44(f)(2)].
11. Pursuant to 30 TAC §290.44(a)(5), the hydrostatic leakage rate shall not exceed the amount allowed or recommended by the most current AWWA formulas for PVC pipe, cast iron and ductile iron pipe. Include the formulas in the notes on the plans.
  - o The hydrostatic leakage rate for polyvinyl chloride (PVC) pipe and appurtenances shall not exceed the amount allowed or recommended by formulas in America Water Works Association (AWWA) C-605 as required in 30 TAC §290.44(a)(5). Please ensure that the formula for this calculation is correct and most current formula is in use;

$$Q = \frac{LD\sqrt{P}}{148,000}$$

Where:

- Q = the quantity of makeup water in gallons per hour,
  - L = the length of the pipe section being tested, in feet,
  - D = the nominal diameter of the pipe in inches, and
  - P = the average test pressure during the hydrostatic test in pounds per square inch (psi).
- o The hydrostatic leakage rate for ductile iron (DI) pipe and appurtenances shall not exceed the amount allowed or recommended by formulas in America Water Works Association (AWWA) C-600 as required in 30 TAC §290.44(a)(5). Please ensure that the formula for this calculation is correct and most current formula is in use;

$$L = \frac{SD\sqrt{P}}{148,000}$$

Where:

- L = the quantity of makeup water in gallons per hour,
- S = the length of the pipe section being tested, in feet,
- D = the nominal diameter of the pipe in inches, and
- P = the average test pressure during the hydrostatic test in pounds per square inch (psi).

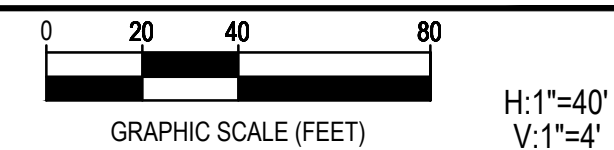
12. The contractor shall maintain a minimum separation distance in all directions of nine feet between the proposed waterline and wastewater collection facilities including manholes. If this distance cannot be maintained, the contractor must immediately notify the project engineer for further direction. Separation distances, installation methods, and materials utilized must meet §290.44(e)(1)-(4).
13. The separation distance from a potable waterline to a wastewater main or lateral manhole or cleanout shall be a minimum of nine feet. Where the nine-foot separation distance cannot be achieved, the potable waterline shall be encased in a joint of at least 150 psi pressure class pipe at least 18 feet long and two nominal sizes larger than the new conveyance. The space around the carrier pipe shall be supported at five-foot intervals with spacers or be filled to the springline with washed sand. The encasement pipe shall be centered on the crossing and both ends sealed with cement grout or manufactured sealant [§290.44(e)(5)].
14. Fire hydrants shall not be installed within nine feet vertically or horizontally of any wastewater line, wastewater lateral, or wastewater service line regardless of construction [§290.44(e)(6)].
15. Suction mains to pumping equipment shall not cross wastewater mains, wastewater laterals, or wastewater service lines. Raw water supply lines shall not be installed within five feet of any tile or concrete wastewater main, wastewater lateral, or wastewater service line [§290.44(e)(7)].
16. Waterlines shall not be installed closer than ten feet to septic tank drainfields [§290.44(e)(8)].
17. The contractor shall disinfect the new waterlines in accordance with AWWA Standard C-651-14 or most recent, then flush and sample the lines before being placed into service. Samples shall be collected for microbiological analysis to check the effectiveness of the disinfection procedure which shall be repeated if contamination persists. A minimum of one sample for each 1,000 feet of completed waterline will be required or at the next available sampling point beyond 1,000 feet as designated by the design engineer [§290.44(f)(3)].
18. Dechlorination of disinfecting water shall be in strict accordance with current AWWA Standard C655-09 or most recent.

United States Army Corps of Engineers, Fort Worth District

The USACE provided a response letter dated July 11, 2018 (Project Number SWF-2018-00081), stating that the project will involve activities subject to the requirements of Section 404 and that the project appears to qualify for a Nationwide Permit 12 for Utility Line Activities.

Provided that the permittee complies with all the terms and conditions therein, the project may proceed. The Nationwide Permit is valid until March 18, 2022 unless prior to that date the nationwide permit is suspended, revoke, or modified such that the activity would no longer comply with the terms and conditions of the nationwide permit on a regional or nation basis. The USACE will issue a public notice announcing the changes when they occur. Furthermore, activities that have commenced, or are under contract to commence, in reliance on a nationwide permit will remain authorized provided the activity is completed within 12 months of the date of the nationwide permit's expiration, modification, or revocation, unless discretionary authority has been exercised on a case-by-case basis to modify, suspend, or revoke the authorization in accordance with 33 CFR 330.4(e) and 33 CFR 330.5(c) or (d).

To avoid impacts to potential jurisdictional waters of the United States, including wetlands, the proposed pipeline that traverses surface water will use HDD technology. No impacts to these aquatic features are anticipated. No forested wetlands are located within the ROW.



REV.	DESCRIPTION	DATE



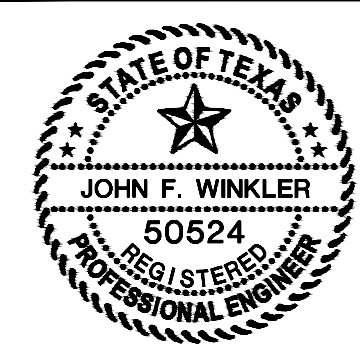
SSLGC

TWDB PROJECT - PHASE 2

PROJECT NOTES

7-29-20 DATE *John F. Winkler* JOHN F. WINKLER

DESIGNED	JFW
DRAFTED	JFW
CHECKED	ARC
PROJECT NO.	JFW
	1-03153



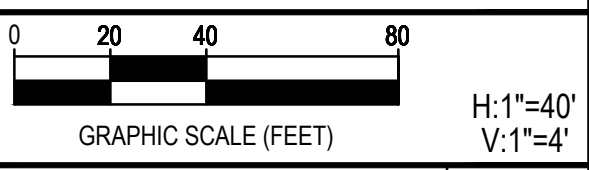
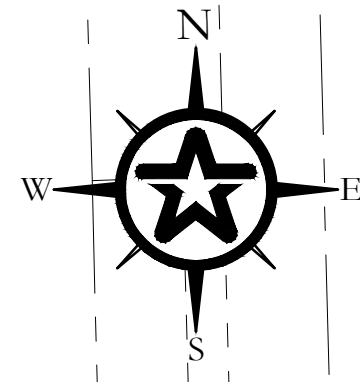
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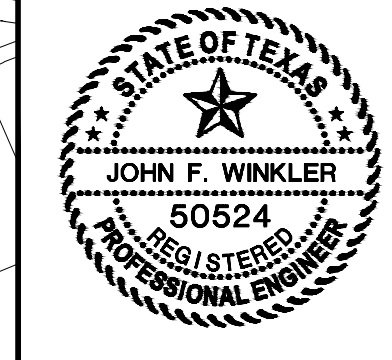
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TWDB PROJECT - PHASE 2

PROJECT LOCATION MAP

4-13-2020  
DATE

*John F. Winkler*  
JOHN F. WINKLER



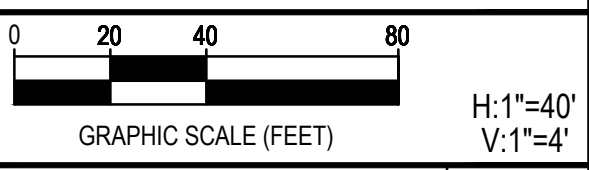
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PROJECT NO.	1-03153
DRAWING NO.	<b>C003</b>



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EQ. STATION  
STA. 506+34 BACK=  
STA. 506+50 FORWARD



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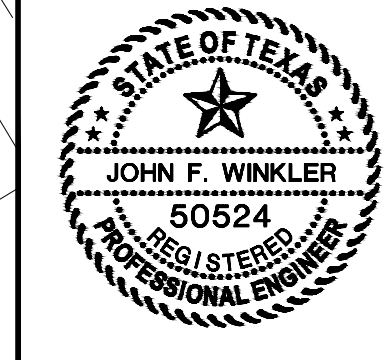
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TWDB PROJECT - PHASE 2

PROJECT LOCATION MAP

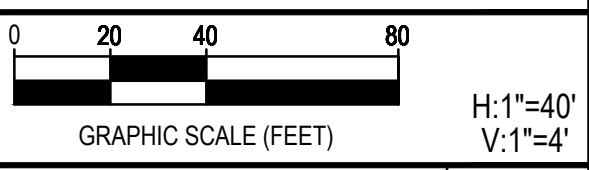
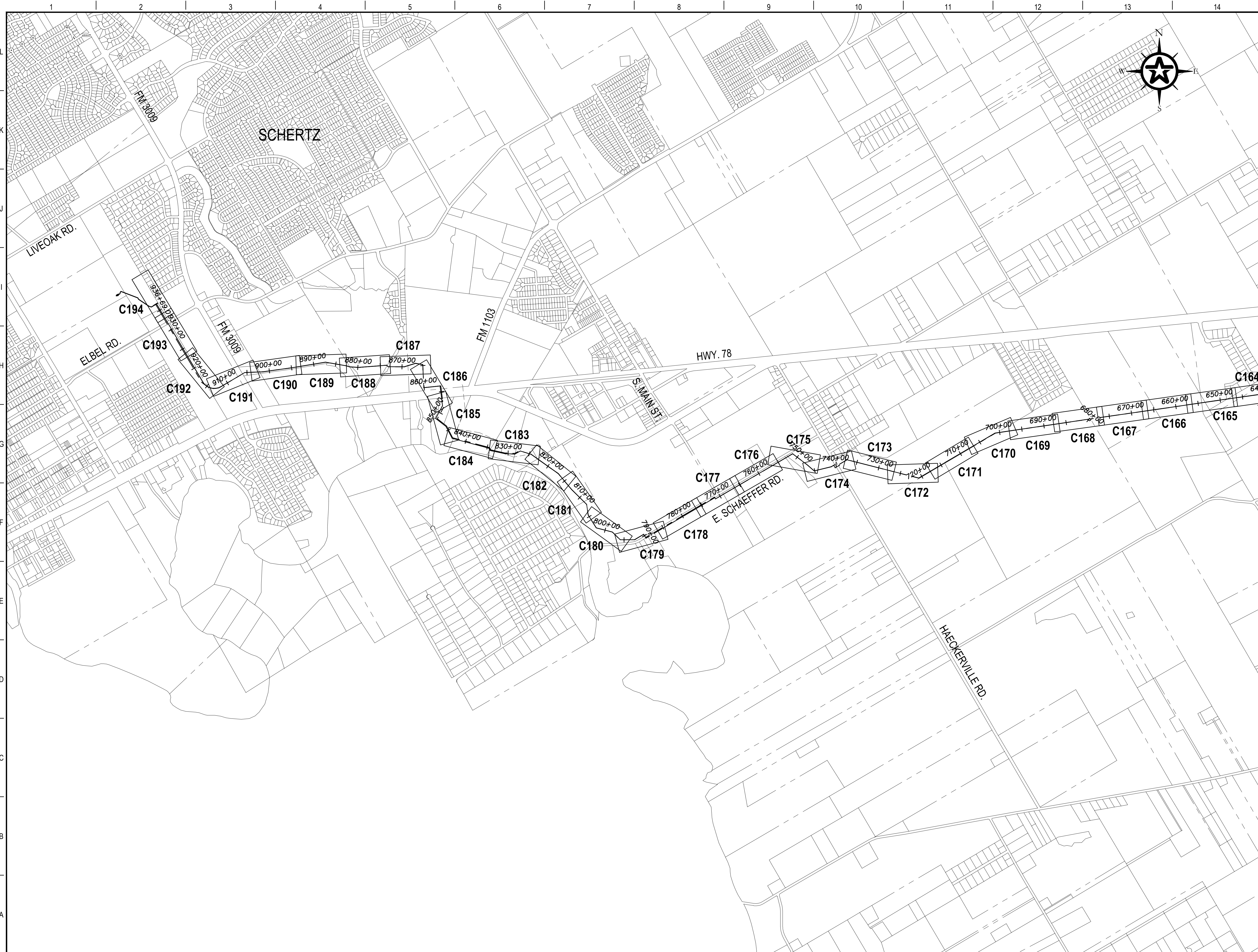
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JOHN F. WINKLER

PM	JFW
DESIGNED	JFW
DRAFTED	ARC
CHECKED	JFW
PROJECT NO.	1-03153
DRAWING NO.	<b>C004</b>





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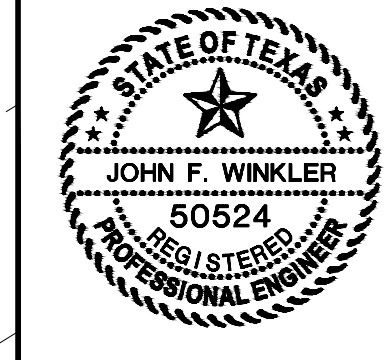
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PROJECT LOCATION MAP

4-13-2020  
DATE

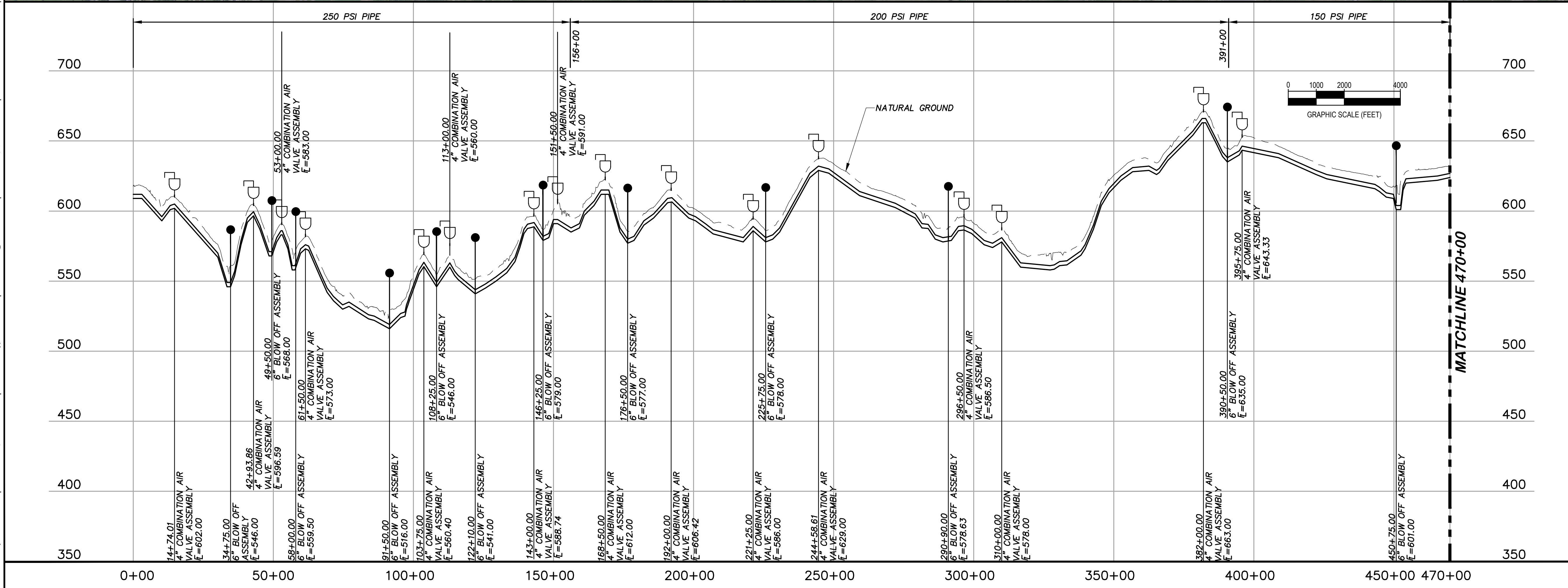
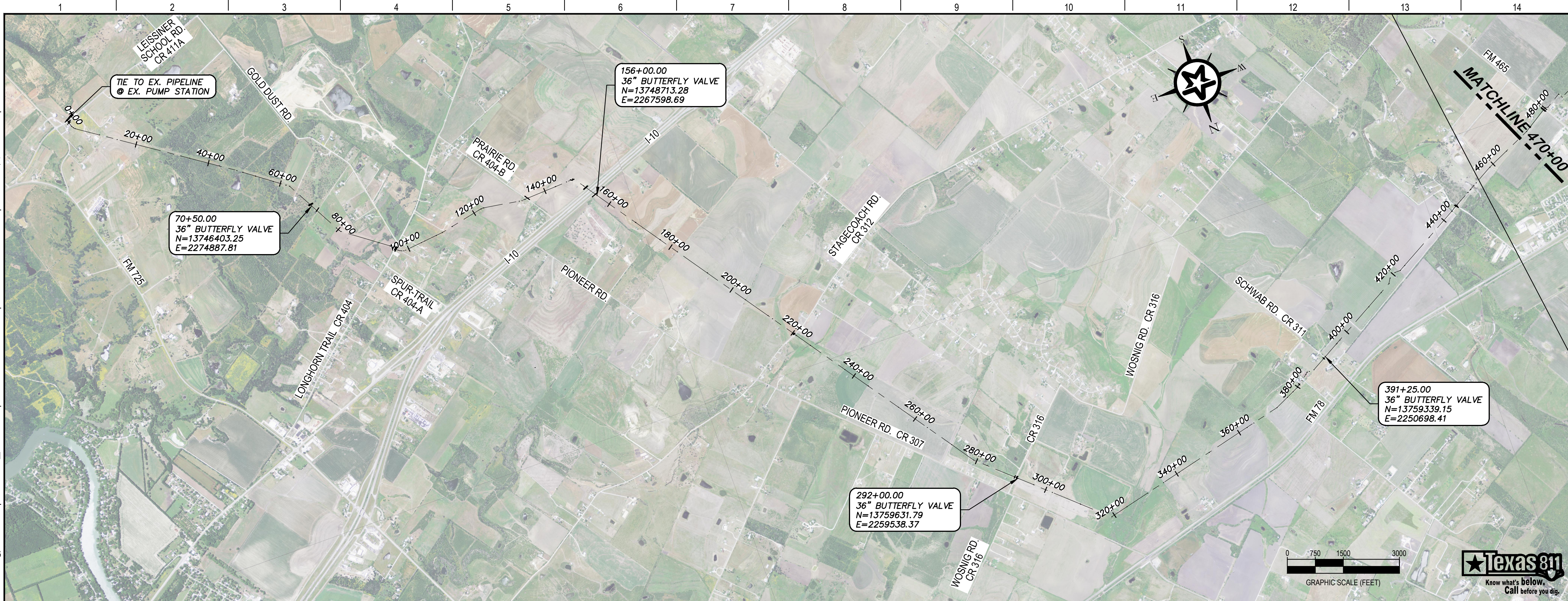
*John F. Winkler*  
JOHN F. WINKLER

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PROJECT NO.	1-03153
DRAWING NO.	<b>C005</b>





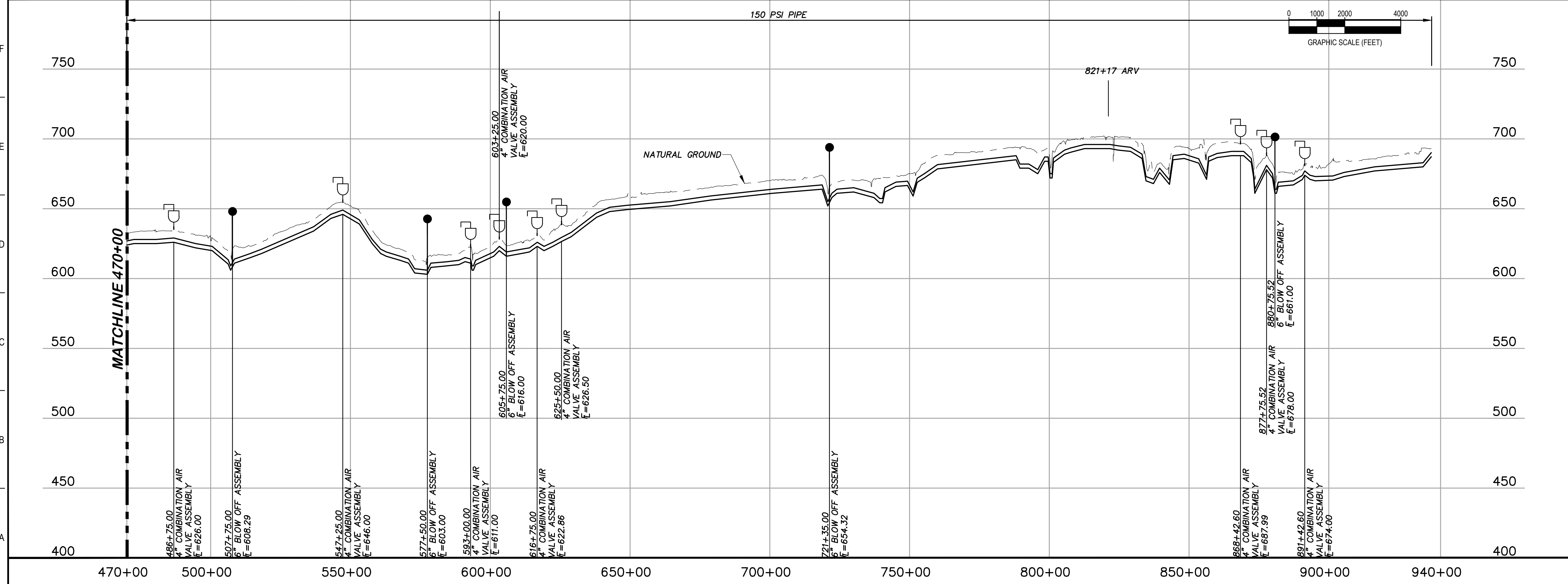
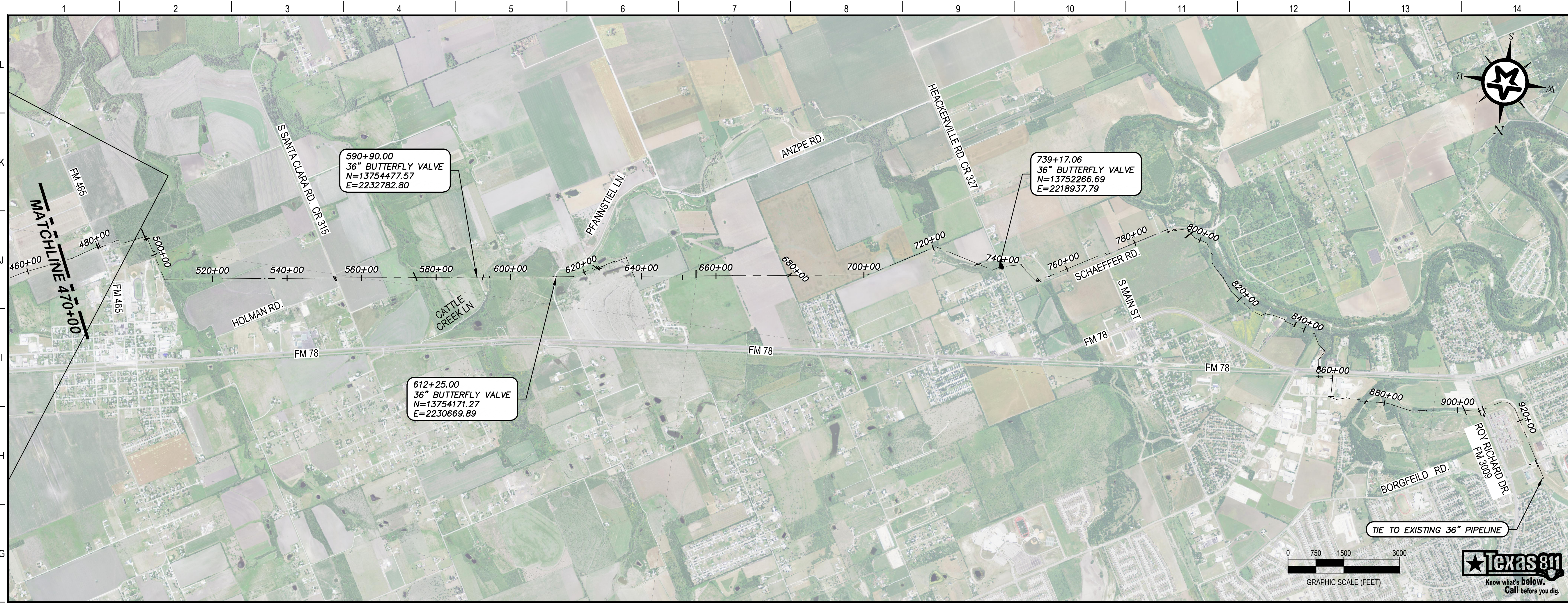
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REV.	DESCRIPTION	DATE
 <b>Walker Partners</b> engineers ★ surveyors <small>T.B.P.E. Registration No. 8053</small>		
<h2>SSLGC</h2>		
<b>TWDB PROJECT - PHASE 2</b>		
<b>OVERALL PROFILE OF PRESSURE CLASS AND TEST PRESSURE</b>		
4-13-2020	 JOHN F. WINKLER	
DESIGNED	JFW	
DRAFTED	ARC	
CHECKED	JFW	
PROJECT NO.	1-03153	
DRAWING NO.	<h1>C006</h1>	



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REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers ★ surveyors  
T.B.P.E. Registration No. 8053

**SSLGC**

TWDB PROJECT - PHASE 2

OVERALL PROFILE OF PRESSURE CLASS AND TEST PRESSURE

4-13-2020  
DATE

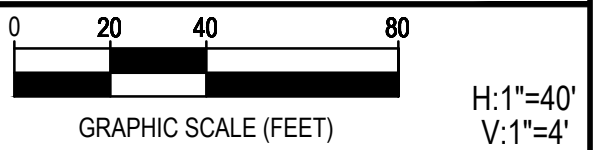
*John F. Winkler*  
JOHN F. WINKLER  
50524  
REGISTERED PROFESSIONAL ENGINEER

DESIGNED	JFW
DRAFTED	JFW
CHECKED	ARC
PROJECT NO.	1-03153
DRAWING NO.	<b>C007</b>



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Landowner	Parcel No.	MOA Provisions	Easement Provisions	Landowner	Parcel No.	MOA Provisions	Easement Provisions	Landowner	Parcel No.	MOA Provisions	Easement Provisions		
Luis & Erika Collazo	GU(II) 001	"1. Materials must be removed after construction 2. Debris removed daily (soda cans, bottles & food wrappers etc...) 3. No burying (except pipeline) or burning 4. Install silt fencing to minimize dirt running into any body of water on this property or adjoining property 5. No fishing hunting or firearms 6. Prevent cattle from escaping through any gate or fence, if not SSLGC, contractors & subcontractors will owe monetary damages for any reasonably preventable loss or damage"	Standard	Nancy Pope	GU(II) 005	"1. Provide 24-48 hours notice prior to accessing property 2. Materials must be removed after construction 3. Debris removed daily (soda cans, bottles & food wrappers etc...) 4. No burying (except pipeline) or burning 5. Install silt fencing to minimize dirt running into any body of water on this property or adjoining property 6. No fishing hunting or firearms 7. Prevent cattle from escaping through any gate or fence, if not SSLGC, contractors & subcontractors will owe monetary damages for any reasonably preventable loss or damage 8. Replace all fences damaged or removed for construction 9. Smooth and grade easement, replacing terraces as existed prior to construction 10. Remove any rocks on the surface greater than 6 inches in diameter 11. During construction install a mesh temporary boundary to keep cattle away from pipeline ditch"	Standard	Matthew & Stehanie Nolte	GU(II) 008	"1. Provide 24-48 hours notice prior to accessing property 2. Materials must be removed after construction 3. Debris removed daily (soda cans, bottles & food wrappers etc...) 4. No burying (except pipeline) or burning 5. Install silt fencing to minimize dirt running into any body of water on this property or adjoining property 6. No fishing hunting or firearms 7. Prevent cattle from escaping through any gate or fence, if not SSLGC, contractors & subcontractors will owe monetary damages for any reasonably preventable loss or damage 8. Replace all fences damaged or removed for construction 9. Smooth and grade easement, replacing terraces as existed prior to construction 10. Remove any rocks on the surface greater than 6 inches in diameter 11. During construction install a mesh temporary boundary to keep cattle away from pipeline ditch"	Standard		
Fernando Silva, Jr.	GU(II) 002.A	Standard	Standard										
Fernando Silva, Jr.	GU(II) 002.B												
Jimmy & Janet Franklin	GU(II) 003	"1. Provide 24-48 hours notice prior to accessing property 2. Materials must be removed after construction 3. Debris removed daily (soda cans, bottles & food wrappers etc...) 4. No burying (except pipeline) or burning 5. Install silt fencing to minimize dirt running into any body of water on this property or adjoining property 6. No fishing hunting or firearms 7. Prevent cattle from escaping through any gate or fence, if not SSLGC, contractors & subcontractors will owe monetary damages for any reasonably preventable loss or damage 8. Replace all fences damaged or removed for construction 9. Smooth and grade easement, replacing terraces as existed prior to construction 10. Remove any rocks on the surface greater than 6 inches in diameter 11. During construction install a mesh temporary boundary to keep cattle away from pipeline ditch"	Standard	Sammy & Mary Smith	GU(II) 006	"1. Provide 24-48 hours notice prior to accessing property 2. Materials must be removed after construction 3. Debris removed daily (soda cans, bottles & food wrappers etc...) 4. No burying (except pipeline) or burning 5. Install silt fencing to minimize dirt running into any body of water on this property or adjoining property 6. No fishing hunting or firearms 7. Prevent cattle from escaping through any gate or fence, if not SSLGC, contractors & subcontractors will owe monetary damages for any reasonably preventable loss or damage 8. Replace all fences damaged or removed for construction 9. Smooth and grade easement, replacing terraces as existed prior to construction 10. Remove any rocks on the surface greater than 6 inches in diameter 11. During construction install a mesh temporary boundary to keep cattle away from pipeline ditch"	Standard	Edward Woehler, Jr.	GU(II) 009A	Standard	"1. Provide 2 weeks advance notice prior to entry for any construction. 2. 48 hours notice prior to cutting any fence. A voicemail will satisfy the requirement to provide this notice. 3. Temporary Construction Easement is valid from when construction commences for 12 months from that date. 4. Double Ditch - remove and separate first 12 inches of topsoil from remaining subsoil. Backfill with subsoil first and topsoil last so topsoil is kept on the surface. 5. If settling occurs within 24 months of construction landowner will be reimbursed for fill dirt to rectify settling. 6. Only access property from the easement unless it is an emergency. 7. With any construction provide access for vehicles, equipment and any livestock over the pipeline ditch 8. Remove all debris from property including stakes, posts, welding rods and remnants of welding rods, pipe coating material, paper, trees, stumps, brush, rubbish etc..."		
Ricky and Kecia Pridgen	GU(II) 004	"1. Provide 24-48 hours notice prior to accessing property 2. Materials must be removed after construction 3. Debris removed daily (soda cans, bottles & food wrappers etc...) 4. No burying (except pipeline) or burning 5. Install silt fencing to minimize dirt running into any body of water on this property or adjoining property 6. No fishing hunting or firearms 7. Prevent cattle from escaping through any gate or fence, if not SSLGC, contractors & subcontractors will owe monetary damages for any reasonably preventable loss or damage 8. Replace all fences damaged or removed for construction 9. Smooth and grade easement, replacing terraces as existed prior to construction 10. Remove any rocks on the surface greater than 6 inches in diameter 11. During construction install a mesh temporary boundary to keep cattle away from pipeline ditch 12. 6 months after construction SSLGC will revisit site to correct settling of soil"	Standard	Edward & Lydia Woehler	GU(II) 007	"1. Provide 2 weeks advance notice prior to entry for any construction. 2. 48 hours notice prior to cutting any fence. A voicemail will satisfy the requirement to provide this notice. 3. Temporary Construction Easement is valid from when construction commences for 12 months from that date. 4. Double Ditch - remove and separate first 12 inches of topsoil from remaining subsoil. Backfill with subsoil first and topsoil last so topsoil is kept on the surface. 5. If settling occurs within 24 months of construction landowner will be reimbursed for fill dirt to rectify settling. 6. Only access property from the easement unless it is an emergency. 7. During any construction provide access for vehicles, equipment and any livestock over the pipeline ditch 8. Remove all debris from property including stakes, posts, welding rods and remnants of welding rods, pipe coating material, paper, trees, stumps, brush, rubbish etc..."							



REV.	DESCRIPTION	DATE



**SSLGC**

**TWDB PROJECT - PHASE 2**

**PROPERTY OWNER PROVISIONS**

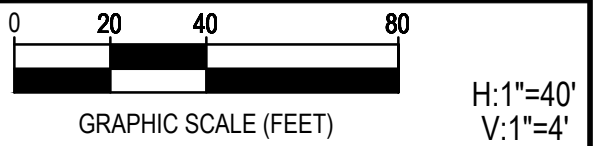
4-13-2020  
DATE: *John F. Winkler*  
JOHN F. WINKLER

DESIGNED	JFW
DRAFTED	JFW
CHECKED	ARC
PROJECT NO.	JFW
	1-03153
DRAWING NO.	<b>C008</b>



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Edward Woehler, Jr.	GU(II) 009B	Standard	"1. Provide 2 weeks advance notice prior to entry for any construction. 2. 48 hours notice prior to cutting any fence. A voicemail will satisfy the requirement to provide this notice. 3. Temporary Construction Easement is valid from when construction commences for 12 months from that date. 4. Double Ditch - remove and separate first 12 inches of topsoil from remaining subsoil. Backfill with subsoil first and topsoil last so topsoil is left on the surface. 5. If settling occurs within 24 months of construction landowner will be reimbursed for fill dirt to rectify settling. 6. Only access property from the easement unless it is an emergency. 7. With any construction provide access for vehicles, equipment and any livestock over the pipeline ditch 8. Remove all debris from property including stakes, posts, welding rods and remnants of welding rods, pipe coating material, paper, trees, stumps, brush, rubbish etc..."	Arturo Gonzalez	GU(II) 012	Standard	Standard	Carlton & Cecilia Coker	GU(II) 017	N/A									
				Marie Staton	GU(II) 013	Standard	Standard												
							VLB of Texas for benefit of Marie Staton												
								Randy Young	GU(II) 014	N/A	"Condemnation: 1. Pipeline drain valve assemblies, air releases, vacuum valve assemblies, cut off valves, testing devices & corrosion prevention devices may be installed above ground,, but only within the permanent easement. 2. Double Ditch - remove and separate first 18 inches of topsoil from remaining subsoil. Backfill with subsoil first and topsoil last so topsoil is left on the surface. 3. Brush or timber cut must be stacked at a location set by landowner, chipped and spread on the easement or removed from the property. 4. No trash, debris or refuse may exist on the ground "	Condemnation - Cause 18-2801-CV-D							
							Condemnation - Cause 19-0345-CV-A												
								Carlton Coker	GU(II) 015	N/A	"Condemnation: 1. Pipeline drain valve assemblies, air releases, vacuum valve assemblies, cut off valves, testing devices & corrosion prevention devices may be installed above ground,, but only within the permanent easement. 2. Double Ditch - remove and separate first 18 inches of topsoil from remaining subsoil. Backfill with subsoil first and topsoil last so topsoil is left on the surface. 3. Brush or timber cut must be stacked at a location set by landowner, chipped and spread on the easement or removed from the property. 4. No trash, debris or refuse may exist on the ground "	Juan & Percilla Gomez	GU(II) 018	"1. Provide 24-48 hours notice prior to accessing property 2. Materials must be removed after construction 3. Debris removed daily (soda cans, bottles & food wrappers etc...) 4. No burying (except pipeline) or burning 5. Install silt fencing to minimize dirt running into any body of water on this property or adjoining property 6. No fishing hunting or firearms 7. Prevent cattle from escaping through any gate or fence, if not SSLGC, contractors & subcontractors will owe monetary damages for any reasonably preventable loss or damage 8. Replace all fences damaged or removed for construction 9. Smooth and grade easement, replacing terraces as existed prior to construction 10. Remove any rocks on the surface greater than 6 inches in diameter 11. During construction install a mesh temporary boundary to keep cattle away from pipeline ditch"	Standard				
Alice Lawson	GU(II) 010	Standard	"1. May not install pig launchers/receivers, drips, tie-overs, wireleads, electric power and/or communication and control facilities. 2. Double Ditch - remove and separate first 12 inches of topsoil from remaining subsoil. Backfill with subsoil first and topsoil last so topsoil is left on the surface. "	Condemnation - Cause 18-2579-CV-C				Millennium Intrests	GU(II) 019	Standard	Standard	Install pipeline 48 inches below the surface of the ground.							
Dyess Children	GU(II) 011	Standard	"1. May not install pig launchers/receivers, drips, tie-overs, wireleads, electric power and/or communication and control facilities. 2. Double Ditch - remove and separate first 12 inches of topsoil from remaining subsoil. Backfill with subsoil first and topsoil last so topsoil is left on the surface. "					Nazario, McCurty, Cramer	GU(II) 020	Standard	Standard	Standard							
								Louise Nazario											
Matthew Engbrock				James Coker	GU(II) 016	Standard	Standard	Susan McCurty											
Denae Buzbee								Timothy Cramer											
Danna Dyess								Juan & Sonia Rojas	GU(II) 021	Standard	Standard	1. Metal awning should be moved by landowner prior to construction contractor entering property.							
								Manuel & Raquel Escobedo	GU(II) 022	Standard	Standard	Standard							
								Ezekiel & Karen Minica	GU(II) 023	Standard	Standard	Standard							
								Alford J. Scheffel	GU(II) 024A	Standard	Standard	Standard							



REV.	DESCRIPTION	DATE



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TWDB PROJECT - PHASE 2

PROPERTY OWNER PROVISIONS

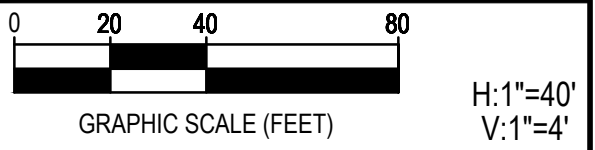
4-13-2020 DATE *John F. Winkler* JOHN F. WINKLER

DESIGNED	JFW
DRAFTED	JFW
CHECKED	ARC
PROJECT NO.	1-03153
DRAWING NO.	C009



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Landowner	Parcel No.	MOA Provisions	Easement Provisions	Landowner	Parcel No.	MOA Provisions	Easement Provisions	Landowner	Parcel No.	MOA Provisions	Easement Provisions
Alford J. Scheffel	GU(II) 024B	Standard	Standard	Goerge & Sherry Grimm	GU(II) 030	Standard	Standard	Glenn Kutz	GU(II) 036	"1. Install a mesh boundary on the Southern boundary of the permanent easement and Northern boundary of the temporary construction easement.	"1. Temporary Construction Easement expires Dec. 31, 2022.
Estates of Wiburn and Lola Scheffel	GU(II) 025	Standard	"1. At least 7 days prior to any construction, notice must be sent by certified mail or nationally recognized courier (FedEx or UPS) to: Beverly Szczech 13504 Arbor Hill Cove Manor, Texas 78653 2. Surface appurtenances limited to blow off valves, manholes, minor appurtenances such as cathodic protection boxes, line markers and vent pipes that shall not exceed 3 feet in height. 3. Temporary Construction Easement set to terminate on November 16, 2021. 4. Access is limited to the easement."	Dora Schmoekel	GU(II) 031	"1. All materials must be removed from the property after construction 2. Debris removed daily (soda cans, bottles & food wrappers etc...) 3. Prevent cattle from escaping through any gate or fence, if not SSLGC, contractors & subcontractors will owe monetary damages for any reasonably preventable loss or damage 4. Replace all fences damaged or removed for construction. 5. Access is limited to the easement only"	Standard	"1. Install a mesh boundary on the Southern boundary of the permanent easement and Northern boundary of the temporary construction easement sufficient to turn cattle away from the easements.	GU(II) 036.1	1. Install a mesh boundary on the Southern boundary of the permanent easement and Northern boundary of the temporary construction easement sufficient to turn cattle away from the easements.	Standard
Ricky Scheffel co-executor				Sharlene Martin	GU(II) 032	Unknown	Unknown				
Beverly Szczech co-executor				RHRP LLC	GU(II) 033	"1. Provide 24-48 hours notice prior to accessing property. Voicemail is sufficient to provide notice. 2. Replace all fences removed or damaged during construction. All replacement fencing and gates will have the same utility as existed prior to damage or removal. 3. During construction install a mesh temporary boundary to keep cattle away from pipeline ditch 4. During any construction provide access for vehicles, equipment and any livestock over the pipeline ditch"	"1. No above ground appurtenances 2. Restore roads to same condition that existed prior to construction. 3. Access limited to easement(s) only 4. All debris, trash and litter caused by construction shall be complete removed within 90 days of finishing construction."				
				Charmaine Baca							
David & Candice Schumann	GU(II) 026	"1. Install a mesh boundary on the Southern boundary of the permanent easement and Northern boundary of the temporary construction easement. 2. Maintain locks on all gates that provide access to the property and lock gates every night after accessing the property. 3. Replace all fences damaged or removed for construction. 4. Smooth and grade easement, replacing terraces as existed prior to construction 5. Any rocks on the surface greater than 6 inches in diameter shall be stacked at a location determined by landowner. 6. All leftover construction materials on surface of the property must be removed after construction is completed. 7. Debris and refuse such as soda cans, bottles & food wrappers etc... must be removed daily."	"1. Double Ditch - remove and separate first 12 inches of topsoil from remaining subsoil. Backfill with subsoil first and topsoil last so topsoil is left on the surface. 2. Landowner to reseed easement with Medio Blue Stem and will be reimbursed by SSLGC (for only 1 planting) after approval of amount of replanting. 3. Landowner will be reimbursed for settling of soil (1 time if construction work is out of warranty) after construction. This lasts for a 24 month period after construction is completed. 4. Do not remove any earth, sand or gravel from the premises. 5. Access is limited to the easement(s) only, except in the case of emergencies."	Charles Lackey	GU(II) 034	"1. 24-48 hours notice prior to accessing property. Voicemail is sufficient to provide notice. Call Charles Lackey 830-660-7896 2. During any construction provide access for vehicles, equipment and any livestock over the pipeline ditch 3. Roads must be restored to condition that existed prior to any construction activities. 4. If a water line on the property is broken or damaged during construction activites, the water line must be promptly repaired at the expense of SSLGC its contractors or subcontractors."	Standard	"1. 24-48 hours notice prior to accessing property. Voicemail is sufficient to provide notice. Jeanette Lackey 210-253-0607 or Brad Lackey 830-305-9370 2. During any construction provide access for vehicles, equipment and any livestock over the pipeline ditch 3. Roads must be restored to condition that existed prior to any construction activities. 4. If a water line on the property is broken or damaged during construction activites, the water line must be promptly repaired at the expense of SSLGC its contractors or subcontractors."	GU(II) 034B	Standard	
				Brad Lackey	GU(II) 034B						
				Garcia & Alvarado	GU(II) 035	1. 24-48 hours notice prior to accessing property. Voicemail is sufficient to provide notice. Frank Garcia 210-422-7109					
				Edward & Teresa Alvarado							
		Frank & Deborah Garcia									
Evelyn Wiederstein	GU(II) 027	Standard	Standard					Kenneth & Deborah Winston	GU(II) 037	"1. Install a mesh boundary on the Southern boundary of the permanent easement and Northern boundary of the temporary construction easement. 2. Maintain locks on all gates that provide access to the property and lock gates every night after accessing the property. 3. Replace all fences damaged or removed for construction. 4. Smooth and grade easement, replacing terraces as existed prior to construction 5. Any rocks on the surface greater than 6 inches in diameter shall be removed. 6. All leftover construction materials on surface of the property must be removed after construction is completed. 7. Debris and refuse such as soda cans, bottles & food wrappers etc... must be removed daily. 8. Landowner must be provided with the name and number of an English speaking construction supervisor overseeing installation of the pipeline."	"1. Double Ditch - remove and separate first 12 inches of topsoil from remaining subsoil. Backfill with subsoil first and topsoil last so topsoil is left on the surface. 2. Landowner to reseed easement with Medio Blue Stem and will be reimbursed by SSLGC (for only 1 planting) after approval of amount of replanting. 3. Landowner will be reimbursed for settling of soil (1 time if construction work is out of warranty) after construction is completed. 4. Waterstops shall be installed around the pipeline every 200 feet. The top of the waterstop will be a minimum of 24 inches below the surface. 6. Access limited to the easement(s) only."
Dollie Mergele	GU(II) 028A	1. Smooth and grade easement, replacing terraces as existed prior to construction	Standard								
Dollie Mergele	GU(II) 028B	2. Remove any rocks on the surface greater than 6 inches in diameter									
Robert & Lisa Dries	GU(II) 029	Standard	Standard								
Wells Fargo f/b/o - Dries											



REV.	DESCRIPTION	DATE



**SSLGC**

TWDB PROJECT - PHASE 2

PROPERTY OWNER PROVISIONS

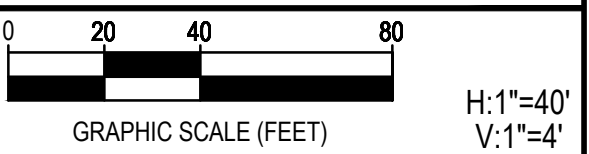
4-13-2020 DATE *John F. Winkler* JOHN F. WINKLER

DESIGNED	JFW
DRAFTED	JFW
CHECKED	ARC
PROJECT NO.	1-03153
DRAWING NO.	<b>C010</b>



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Landowner	Parcel No.	MOA Provisions	Easement Provisions	Landowner	Parcel No.	MOA Provisions	Easement Provisions	Landowner	Parcel No.	MOA Provisions	Easement Provisions						
L K J I H G F E D C B A	Fred Kutz GU(II) 038	"1. Install a mesh boundary on the Southern boundary of the permanent easement and Northern boundary of the temporary construction easement. 2. Maintain locks on all gates that provide access to the property and lock gates every night after accessing the property. 3. Replace all fences damaged or removed for construction. 4. Smooth and grade easement, replacing terraces as existed prior to construction 5. Any rocks on the surface greater than 6 inches in diameter shall be removed. 6. All leftover construction materials on surface of the property must be removed after construction is completed. 7. Debris and refuse such as soda cans, bottles & food wrappers etc... must be removed daily. 8. Landowner must be provided with the name and number of an English speaking construction supervisor overseeing installation of the pipeline."	"1. Temporary Construction Easement expires Dec. 31, 2022. 2. Double Ditch - remove and separate first 12 inches of topsoil from remaining subsoil. Backfill with subsoil first and topsoil last so topsoil is left on the surface. 3. Landowner to reseed easement with Medio Blue Stem and will be reimbursed by SSLGC (for only 1 planting) after approval of amount of replanting. 4. Landowner will be reimbursed for settling of soil (1 time if construction work is out of warranty) after construction. This lasts for a 24 month period after construction is completed. 5. Waterstops shall be installed around the pipeline every 200 feet. The top of the waterstop will be a minimum of 24 inches below the surface. 6. Access limited to the easement(s) only. 7. All debris, trash and litter caused by construction shall be complete removed within 90 days of finishing construction." "	Darren Ray Kutz Trust	GU(II) 040	"1. Install a mesh boundary on the Southern boundary of the permanent easement and Northern boundary of the temporary construction easement. 2. Maintain locks on all gates that provide access to the property and lock gates every night after accessing the property. 3. Replace all fences damaged or removed for construction. 4. Smooth and grade easement, replacing terraces as existed prior to construction 5. Any rocks on the surface greater than 6 inches in diameter shall be removed. 6. All leftover construction materials on surface of the property must be removed after construction is completed. 7. Debris and refuse such as soda cans, bottles & food wrappers etc... must be removed daily. 8. Landowner must be provided with the name and number of an English speaking construction supervisor overseeing installation of the pipeline."	"1. Double Ditch - remove and separate first 12 inches of topsoil from remaining subsoil. Backfill with subsoil first and topsoil last so topsoil is left on the surface. 2. Landowner to reseed easement with Medio Blue Stem and will be reimbursed by SSLGC (for only 1 planting) after approval of amount of replanting. 3. Landowner will be reimbursed for settling of soil (1 time if construction work is out of warranty) after construction. This lasts for a 24 month period after construction is completed. 4. Waterstops shall be installed around the pipeline every 200 feet. The top of the waterstop will be a minimum of 24 inches below the surface. 6. Access limited to the easement(s) only."	Ralph M. Peach c/o Corrie Peach	GU(II) 048	Standard	Standard						
				Flint Hills Resources	GU(II) 049	Standard	Standard	1. Access limited to easement(s) only									
				Victor & Marie Garza	GU(II) 050	"1. Smooth and grade easement, replacing terraces as existed prior to construction 2. Any rocks on the surface greater than 6 inches in diameter shall be removed. 3. Ditch for the pipeline installation shall not be left open for longer than 3 months. 4. Contractors are allowed to leave the easement(s) to the Southeast and drive around Santa Clara Creek on the property so they may access the easement on both sides of Santa Clara Creek 5. Debris and refuse such as soda cans, bottles & food wrappers etc... must be removed daily. 6. All leftover construction materials on surface of the property must be removed after construction is completed."	"1. Double Ditch - remove and separate first 12 inches of topsoil from remaining subsoil. Backfill with subsoil first and topsoil last so topsoil is left on the surface. 2. Bore under Santa Clara Creek"										
				Juan & Hortencia Pozos	GU(II) 051	Standard	Standard										
				DMK Land Development	GU(II) 051.1A	Standard	Standard										
				Abayomi & Sondra Ajasin	GU(II) 051.1B	"1. Install mesh temporary boundary to maintain a backyard for the landowner. 2. Upon completion of pipeline installation an access gate shall be installed on the North property boundary. The gate installed shall have the same functionality as the existing fencing prior to construction and installation of the water pipeline(s)."	"1. An above ground pool should be removed prior to installation. Provide landowner with 3 months advance notice to remove pool prior to accessing property. 2. Wooden fencing on the perimeter of the property should be removed prior to installation. Provide landowner with 3 months advance notice to remove fencing prior to accessing the property."										
				Marion Texas Gardens	GU(II) 041	Standard	Standard										
				Alton Dryer Trust	GU(II) 042	Standard	"1. TCE Expires January 6, 2023 2. If there are improvements in the easement provide 45 days notice prior to removing them. 3. Access limited to the easement(s) "										
				Dusty Edward Kutz Trust	GU(II) 039	"1. Install a mesh boundary on the Southern boundary of the permanent easement and Northern boundary of the temporary construction easement. 2. Maintain locks on all gates that provide access to the property and lock gates every night after accessing the property. 3. Replace all fences damaged or removed for construction. 4. Smooth and grade easement, replacing terraces as existed prior to construction 5. Any rocks on the surface greater than 6 inches in diameter shall be removed. 6. All leftover construction materials on surface of the property must be removed after construction is completed. 7. Debris and refuse such as soda cans, bottles & food wrappers etc... must be removed daily. 8. Landowner must be provided with the name and number of an English speaking construction supervisor overseeing installation of the pipeline."	"1. Double Ditch - remove and separate first 12 inches of topsoil from remaining subsoil. Backfill with subsoil first and topsoil last so topsoil is left on the surface. 2. Landowner to reseed easement with Medio Blue Stem and will be reimbursed by SSLGC (for only 1 planting) after approval of amount of replanting. 3. Landowner will be reimbursed for settling of soil (1 time if construction work is out of warranty) after construction. This lasts for a 24 month period after construction is completed. 4. Waterstops shall be installed around the pipeline every 200 feet. The top of the waterstop will be a minimum of 24 inches below the surface. 6. Access limited to the easement(s) only."	Leoma Steffen & Masha Bradley	GU(II) 043	Standard	Standard	Marion ISD	GU(II) 51.2	Standard	Standard		
								Marsha Dove				Santa Clara Creek LLC	GU(II) 053A	Standard	Standard		
Leoma Steffen								Santa Clara Creek LLC	GU(II) 053B	Standard	Standard						
Leoma Steffen & Masha Bradley	GU(II) 043.1							Four Farms LLC	GU(II) 054	Standard	Standard	1. Double Ditch - remove and separate first 12 inches of topsoil from remaining subsoil. Backfill with subsoil first and topsoil last so topsoil is left on the surface.					
Calvin & Leoma Steffen	GU(II) 044	1. Do not remove excess dirt from the property	"1. Double Ditch - remove and separate first 12 inches of topsoil from remaining subsoil. Backfill with subsoil first and topsoil last so topsoil is left on the surface. 2. Try not to remove any living trees in the fenced in yard area with the house."					Robert Ruedrich	GU(II) 055	Standard	Standard						
Peter & Melanie Kruse	GU(II) 045	Standard	Standard					Four Farms LLC	GU(II) 056	Standard	Standard	1. Double Ditch - remove and separate first 12 inches of topsoil from remaining subsoil. Backfill with subsoil first and topsoil last so topsoil is left on the surface.					
Engel Farms	GU(II) 046	1. During construction install a mesh temporary boundary sufficient to turn cattle away from pipeline ditch.	1. Bore under the holding pens that are utilized with the operation of the barn					Kenneth & Melody Popham	GU(II) 057	Standard	Standard						
Engel Farms LLC								Helen Brietzke Trust	GU(II) 058	Standard	Standard						
Clinton Gembler, Jr.	GU(II) 047	Standard	Standard														



REV.	DESCRIPTION	DATE



SSLGC

TWDB PROJECT - PHASE 2

PROPERTY OWNER PROVISIONS

4-13-2020 DATE *John F. Winkler* JOHN F. WINKLER

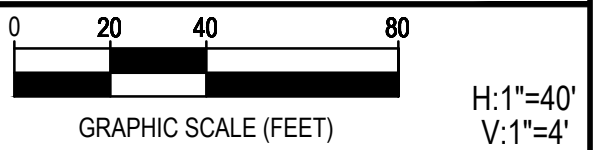
DESIGNED	JFW
DRAFTED	JFW
CHECKED	ARC
PROJECT NO.	JFW
	1-03153

DRAWING NO. **C011**



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Landowner	Parcel No.	MOA Provisions	Easement Provisions	Landowner	Parcel No.	MOA Provisions	Easement Provisions	Landowner	Parcel No.	MOA Provisions	Easement Provisions
Stanley & Cheryl Cielencki	GU(II) 059	1. 24 - 48 hours notice prior to access property. Voicemail is sufficient to provide notice.	Standard	Cibolo South Series 79.027	GU(II) 064.A	"1. Do not clear any trees prior to the 2020 fall dove season as defined by Texas Parks and Wildlife Department. 2. Do not clear any trees prior to the expiration of the first week (7 days) of the 2020 winter dove season as defined by Texas Parks and Wildlife Department. 3. Work will not be performed on the property on Saturdays or Sundays. "	"1. TCE expires September 25, 2022 or 90 days after the water pipeline is fully functional and operational. 2. Any above ground appurtenances are to be within 30 ft. of the property boundary. 3. Access limited to the easement(s) only. 4. Pipeline to have a minimum of 48" of cover from the top of the pipe to the surface. 5. SSLGC to reimburse landowner for cost to hydromulch and plant Cordillera seed mix after construction. 6. Apply pruning seal as soon as possible to any fresh cut oak trees. 7. Do not use any hazardous materials, chemicals or substances as deemed by the USDA to be harmful or fatal to wildlife, livestock or pets 8. Coordinate with landowner prior to cutting any existing fences or opening and removing any existing gates. 9. Only allow fence gaps and gates to be open during daylight hours and while on the property, prevent the escape of cattle through gaps. 10. Keep gates and gaps closed at night and install trench barricades and flashing warning signal lights overnight or when no construction activities are being conducted. 11. Leave interior cross fence gates open or closed as found prior to access on property. MORE BELOW* 18 Stipulations 12. Gates on the exterior property boundaries are to be kept closed and locked at all times unless passing through the gate. 13. If improvements are obstructing the easement provide notice to landowner and 30 days for the improvement to be removed. If it is not moved within 30 days it can be removed from the easment. 14. 24 hour notice prior to accessing property. Voicemail is considered sufficient for providing notice. 15. All leftover construction materials on surface of the property must be removed after construction is completed. 16. Debris and refuse such as soda cans, bottles & food wrappers etc... must be removed daily. 17. No hunting, fishing, camping, firearms, archery equipment, alcohol or explosives allowed. 18. Provide as built survey after construction. "	Cibolo South Series 226.523	GU(II) 064.B	"1. Do not clear any trees prior to the 2020 fall dove season as defined by Texas Parks and Wildlife Department. 2. Do not clear any trees prior to the expiration of the first week (7 days) of the 2020 winter dove season as defined by Texas Parks and Wildlife Department. 3. Work will not be performed on the property on Saturdays or Sundays. "	"1. TCE expires September 25, 2022 or 90 days after the water pipeline is fully functional and operational. 2. Any above ground appurtenances are to be within 30 ft. of the property boundary. 3. Access limited to the easement(s) only. 4. Pipeline to have a minimum of 48" of cover from the top of the pipe to the surface. 5. SSLGC to reimburse landowner for cost to hydromulch and plant Cordillera seed mix after construction. 6. Apply pruning seal as soon as possible to any fresh cut oak trees. 7. Do not use any hazardous materials, chemicals or substances as deemed by the USDA to be harmful or fatal to wildlife, livestock or pets 8. Coordinate with landowner prior to cutting any existing fences or opening and removing any existing gates. 9. Only allow fence gaps and gates to be open during daylight hours and while on the property, prevent the escape of cattle through gaps. 10. Keep gates and gaps closed at night and install trench barricades and flashing warning signal lights overnight or when no construction activities are being conducted. MORE BELOW* 18 Stipulations 11. Leave interior cross fence gates open or closed as found prior to access on property. 12. Gates on the exterior property boundaries are to be kept closed and locked at all times unless passing through the gate. 13. If improvements are obstructing the easement provide notice to landowner and 30 days for the improvement to be removed. If it is not moved within 30 days it can be removed from the easment. 14. 24 hour notice prior to accessing property. Voicemail is considered sufficient for providing notice. 15. All leftover construction materials on surface of the property must be removed after construction is completed. 16. Debris and refuse such as soda cans, bottles & food wrappers etc... must be removed daily. 17. No hunting, fishing, camping, firearms, archery equipment, alcohol or explosives allowed. 18. Provide as built survey after construction. "
Estate of Fred Wagner	GU(II) 060	Standard	Standard								
Pfannstiel Farms LLC	GU(II) 061	Standard	"1. TCE is valid for a maximum of 12 months from the date excavation begins on the property. 2. Double Ditch - remove and separate first 12 inches of topsoil from remaining subsoil. Backfill with subsoil first and topsoil last so topsoil is left on the surface. 3. Do not remove any excess soil or dirt from the property. 4. Landowner will be reimbursed for settling of soil (1 time if construction work is out of warranty) after construction. This lasts for a 24 month period after construction is completed. 5. SSLGC agreed to remove the current 16 ft. gate on the road to the easement at the intersection of the Pfannstiel property and the Wagner property and after installation of the pipeline, replace the 16 ft. gate with 2 10 ft. gates creating a gate opening that is 20 ft. in width. 6. Access limited to the easement(s) only. 7. Provide a minimum of 2 weeks written notice to landowner prior to accessing property. 8. During construction provide a reasonable number of crossings over the pipeline ditch for access across the ditch which are to be utilized by vehicles, farm equipment and livestock located on the property. 9. Prior to cutting any fence provide a minimum of 48 hours notice. Leaving a voicemail will be sufficient to provide notice. "								
Estate of Fred Wagner	GU(II) 061.1	Standard	Standard								
Clayton Stolte	GU(II) 062.A	1. Do not remove excess dirt from the property	Standard								
Clayton Stolte	GU(II) 062.B										
HDC Venado Crossing	GU(II) 063.A	Standard	"1. Provide construction and engineering plans to landowner for review prior to beginning construction. 2. Provide a minimum of 60 days advance notice of intended construction activities. 3. Provide written release of Temp Construction Esmt upon completion of pipeline installation. Release form included in Easement Agreement (Exhibit C) 4. Access limited to the easement(s) only. "								
	GU(II) 063.B										
	GU(II) 063.C										



REV.	DESCRIPTION	DATE



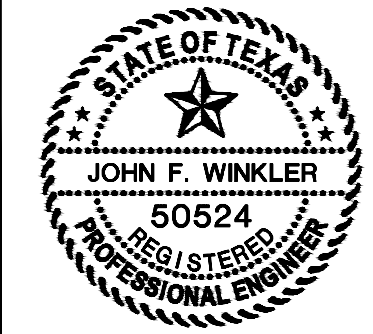
**SSLGC**

TWDB PROJECT - PHASE 2

PROPERTY OWNER PROVISIONS

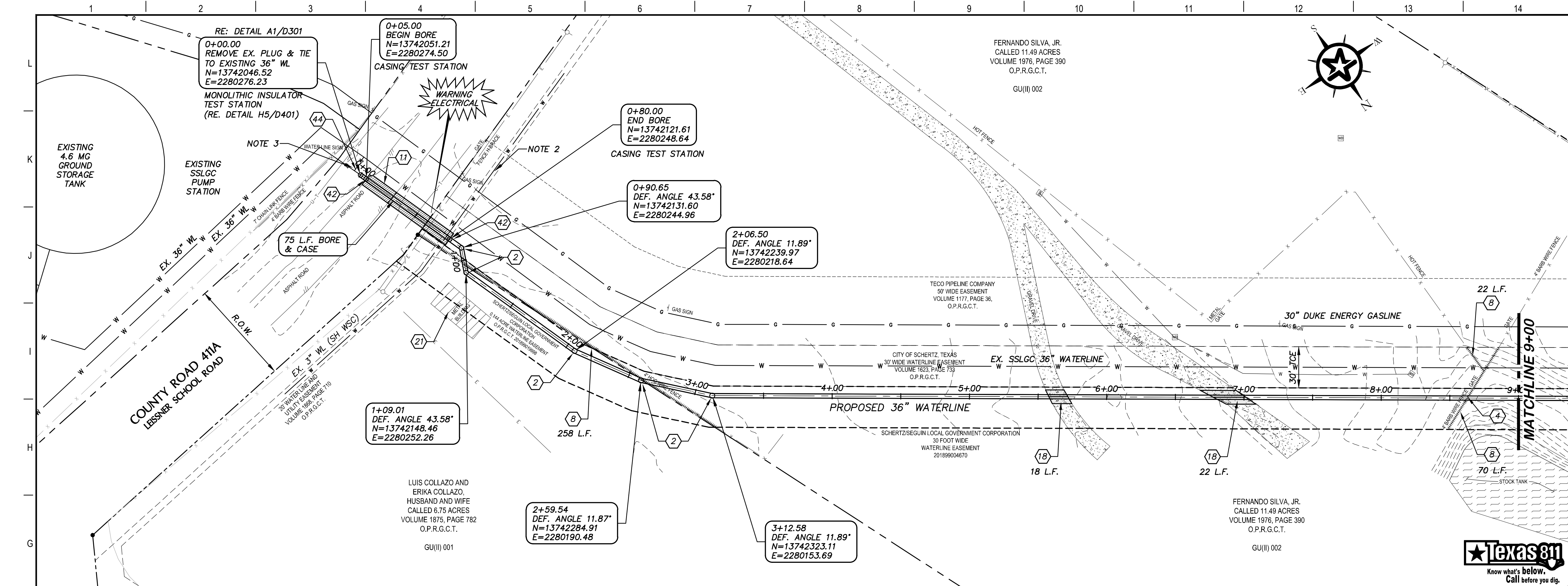
4-13-2020  
DATE

DESIGNED	JFW
DRAFTED	JFW
CHECKED	ARC
PROJECT NO.	1-03153
DRAWING NO.	<b>C012</b>



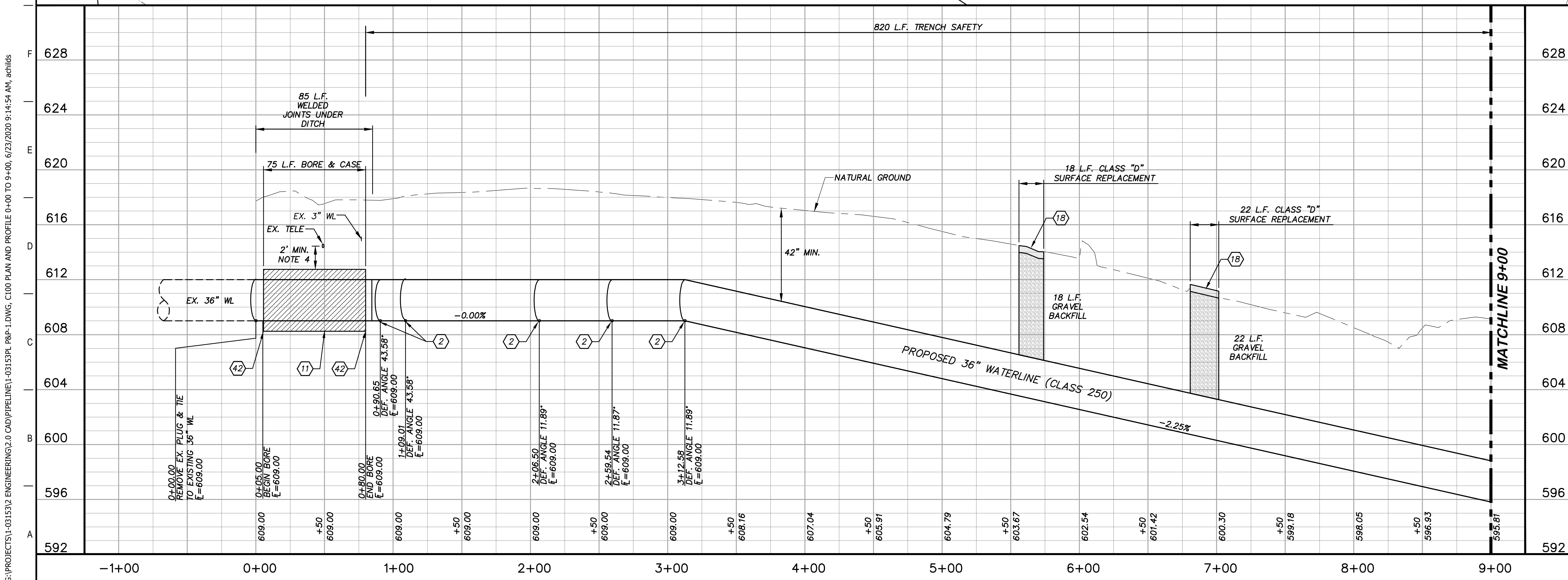






### KEY NOTES

- ② CONCRETE THRUST BLOCKING (RE. DETAIL G1/D206)
- ④ REMOVE AND REPLACE GATE (RE. DETAIL A1/D201)
- ⑧ REMOVE AND REPLACE 350 L.F. EXISTING FENCE (RE. DETAIL A1/D207)
- ⑪ BORE AND ENCASE STEEL CASING (RE. DETAIL A1/D206)
- ⑱ CLASS D SURFACE REPLACEMENT (RE. DETAIL G1/D208)
- ⑳ TO BE REMOVED BY CONTRACTOR
- ④② CASING TEST STATION (RE. DETAIL H1/D401)
- ④④ MONOLITHIC INSULATOR TEST STATION (RE. DETAIL H5/D401)



### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.
2. VERIFY DEPTHS OF ALL EXISTING UTILITIES.
3. VERIFY DEPTHS OF EX. 36" PRIOR TO FABRICATION OF PIPE.
4. FIELD VERIFY DEPTHS OF ALL EX. UTILITIES.

0 20 40 80  
GRAPHIC SCALE (FEET) H:1"=40' V:1"=4'

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers • surveyors  
T.B.P.E. Registration No. 8053

**SSLGC**

TWDB PROJECT - PHASE 2

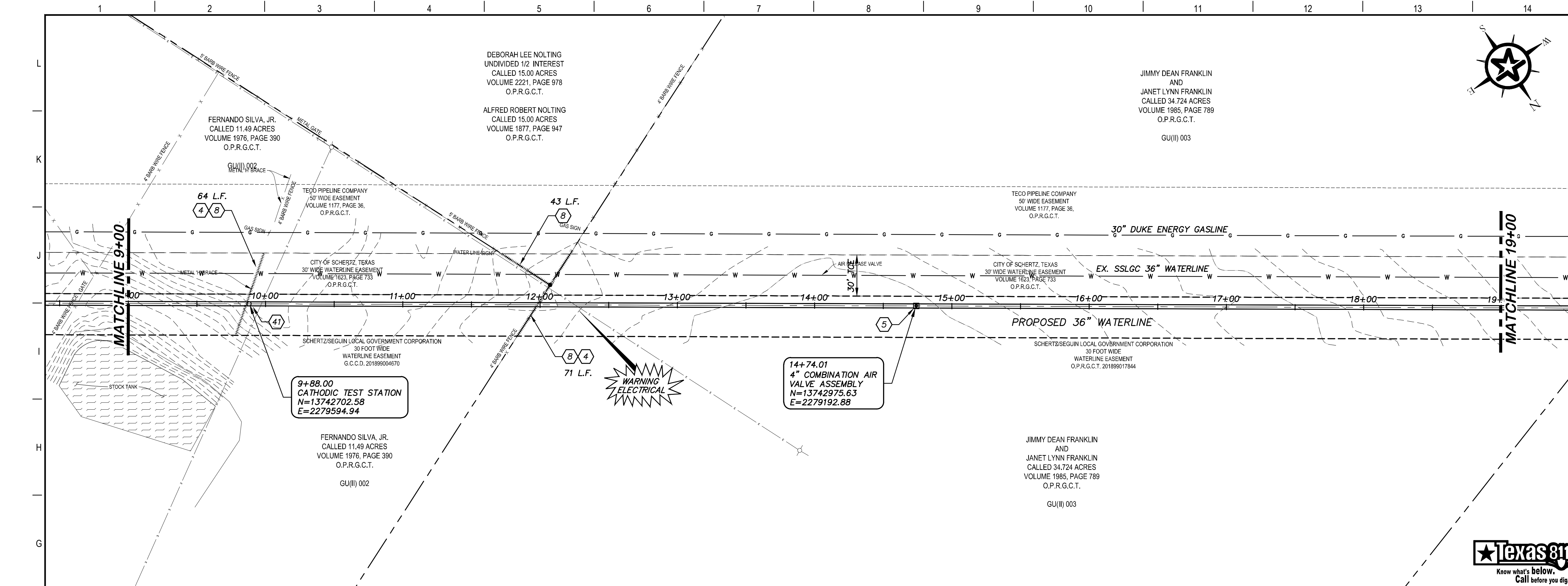
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0+00 TO 9+00

4-13-2020  
DATE

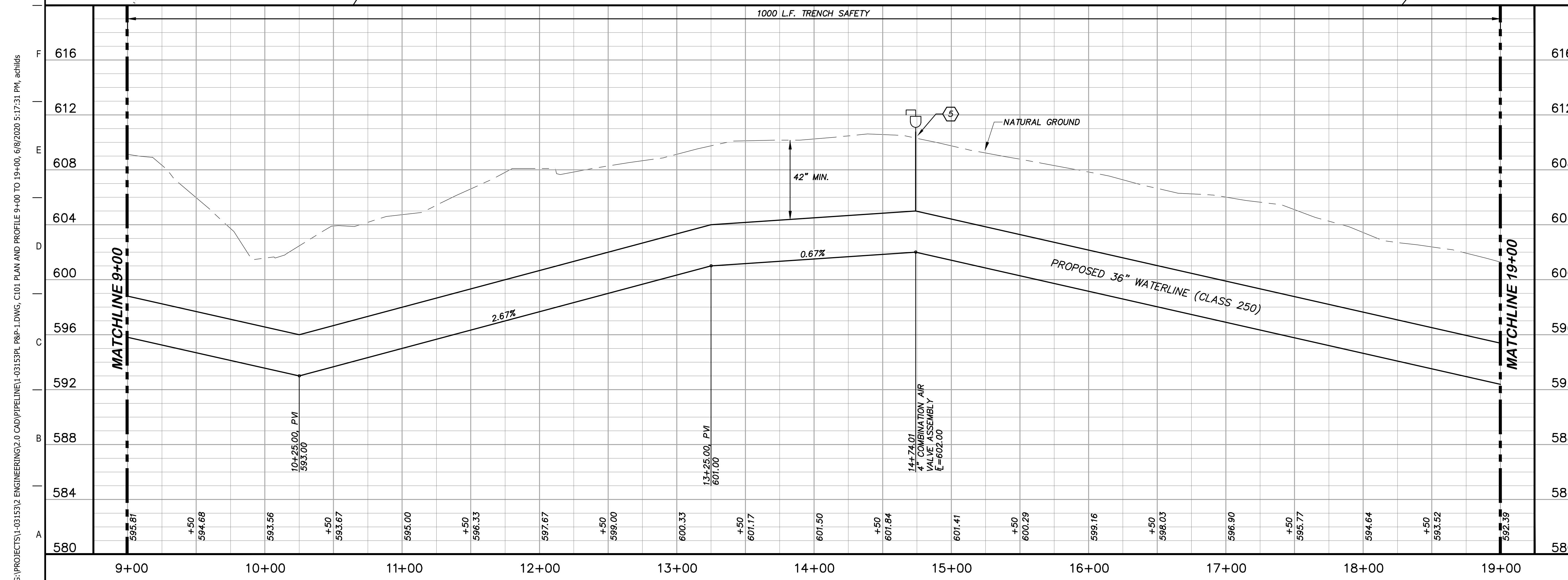
*John F. Winkler*  
JOHN F. WINKLER

DESIGNED	JFW
DRAFTED	ARC
CHECKED	JFW
PROJECT NO.	1-03153
DRAWING NO.	<b>C100</b>

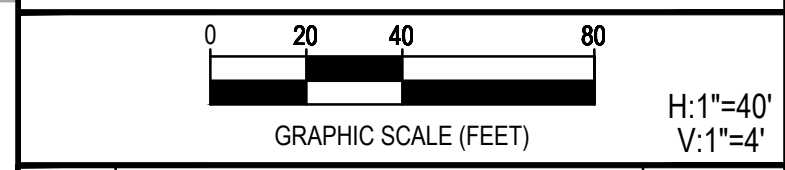
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- ### KEY NOTES
- 4 REMOVE AND REPLACE GATE (RE. DETAIL D207)
  - 5 COMBINATION VACUUM & AIR RELEASE VALVE & MANHOLE VAULT (RE. DETAIL A1/D201)
  - 8 REMOVE AND REPLACE 178 L.F. EXISTING FENCE (RE. DETAIL A1/D207)
  - 41 CATHODIC TEST STATION (RE. DETAIL A1/D403)



- ### GENERAL NOTES
- TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.



REV.	DESCRIPTION	DATE



**SSLGC**  
 TWDB PROJECT - PHASE 2

**PLAN AND PROFILE**  
 9+00 TO 19+00

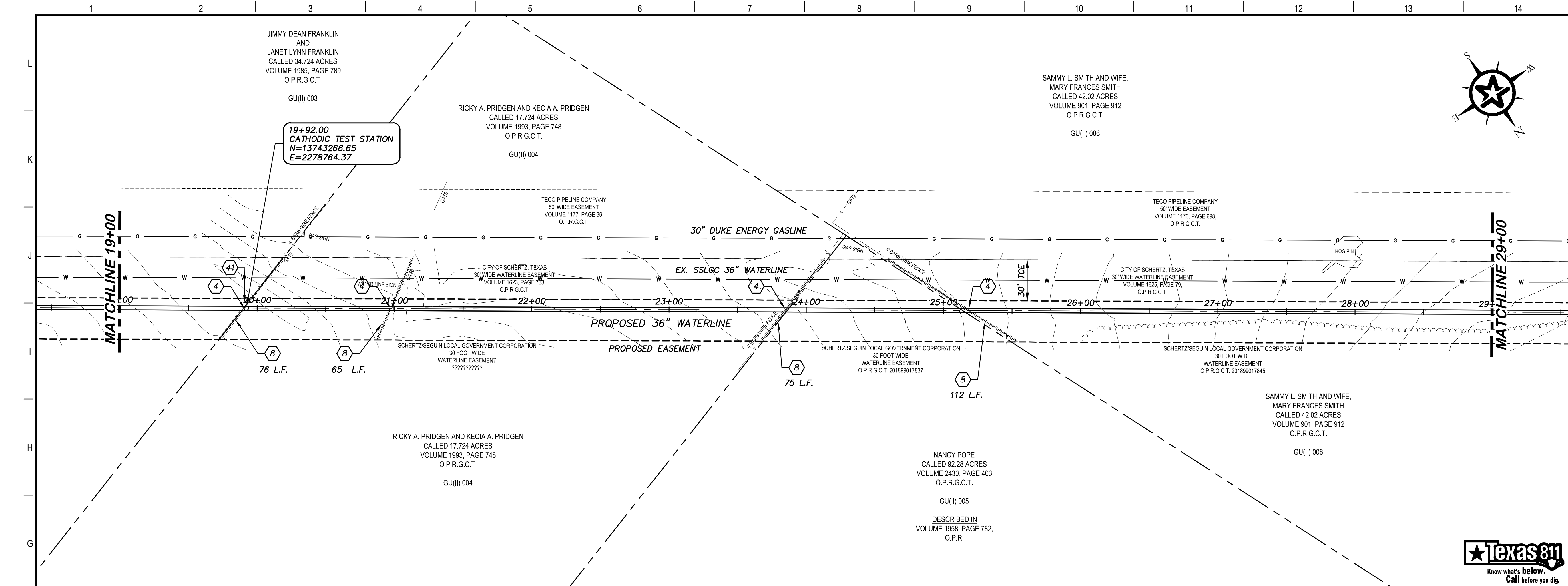
4-13-2020  
 DATE: *John F. Winkler*  
 JOHN F. WINKLER

STATE OF TEXAS  
 JOHN F. WINKLER  
 50524  
 REGISTERED PROFESSIONAL ENGINEER

DESIGNED	JFW
DRAFTED	JFW
CHECKED	ARC
PROJECT NO.	1-03153
DRAWING NO.	<b>C101</b>

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### KEY NOTES

- ④ REMOVE AND REPLACE GATE (RE. DETAIL D207)
- ⑧ REMOVE AND REPLACE 328 L.F. EXISTING FENCE (RE. DETAIL A1/D207)
- ④1 CATHODIC TEST STATION (RE. DETAIL A1/D403)

### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.

GRAPHIC SCALE (FEET)      H: 1"=40'  
V: 1"=4'

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers ★ surveyors  
T.B.P.E. Registration No. 8053

## SSLGC

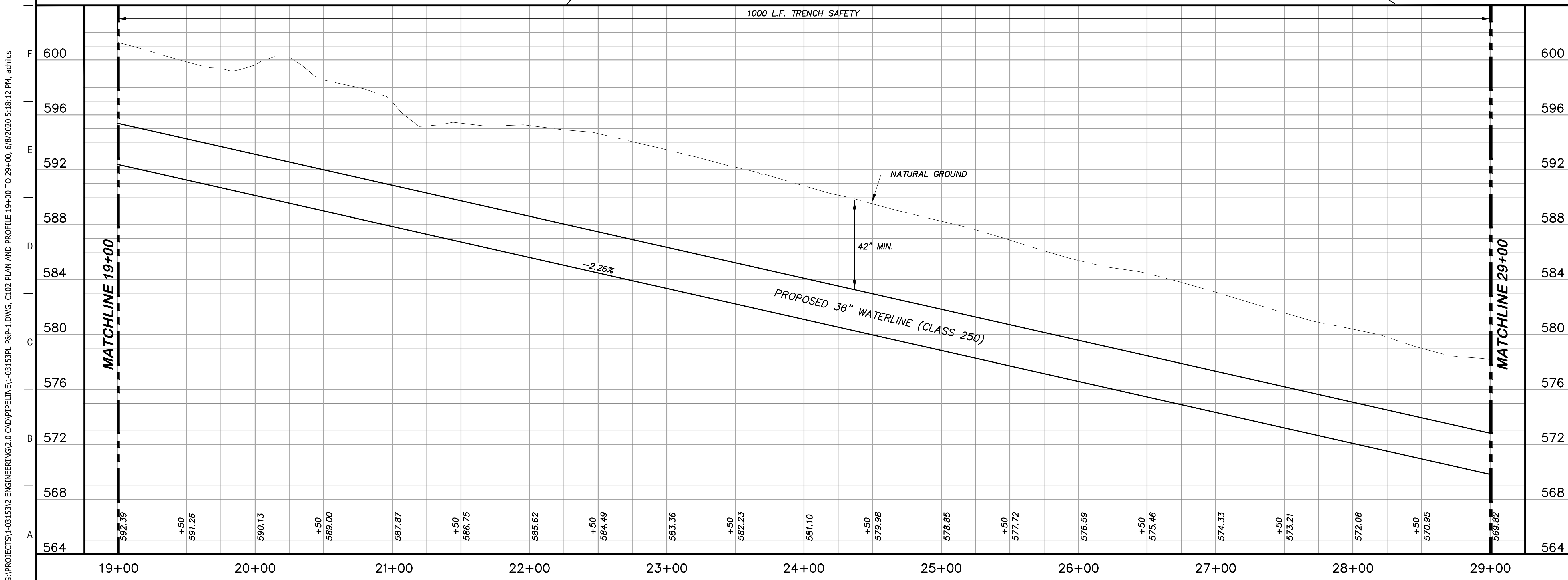
TWDB PROJECT - PHASE 2

### PLAN AND PROFILE 19+00 TO 29+00

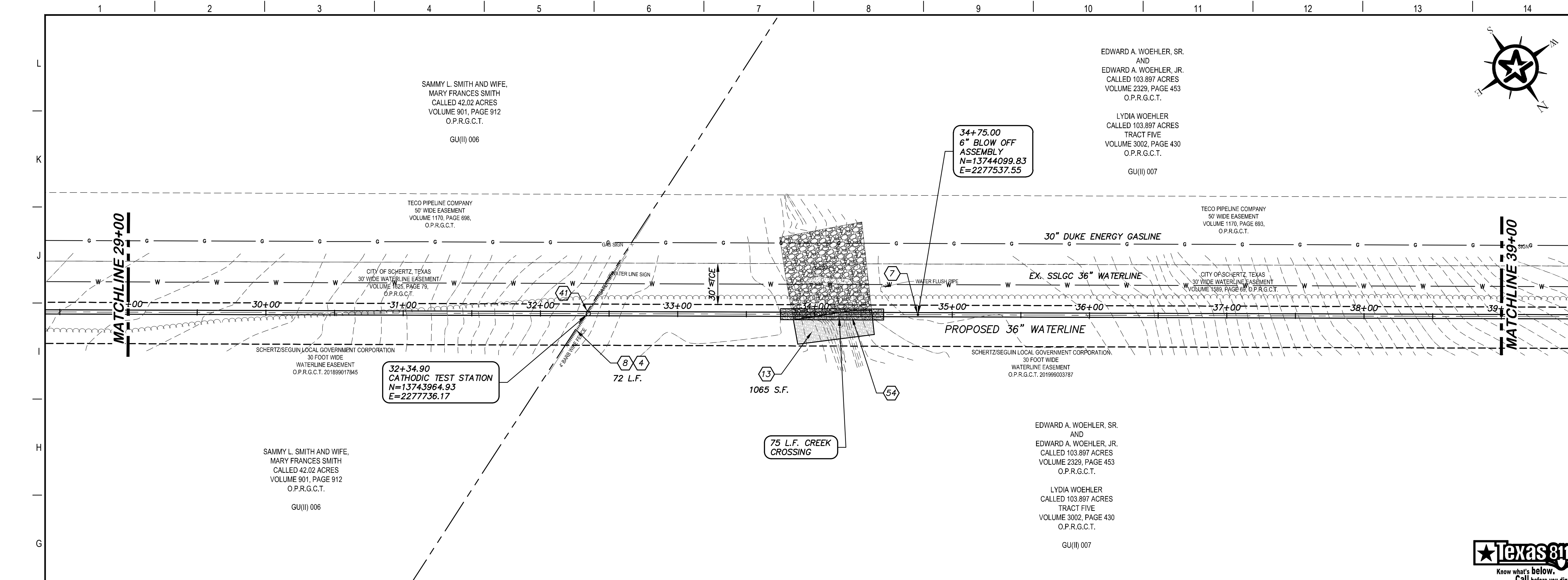
4-13-2020  
DATE

**JOHN F. WINKLER**  
50524  
REGISTERED PROFESSIONAL ENGINEER

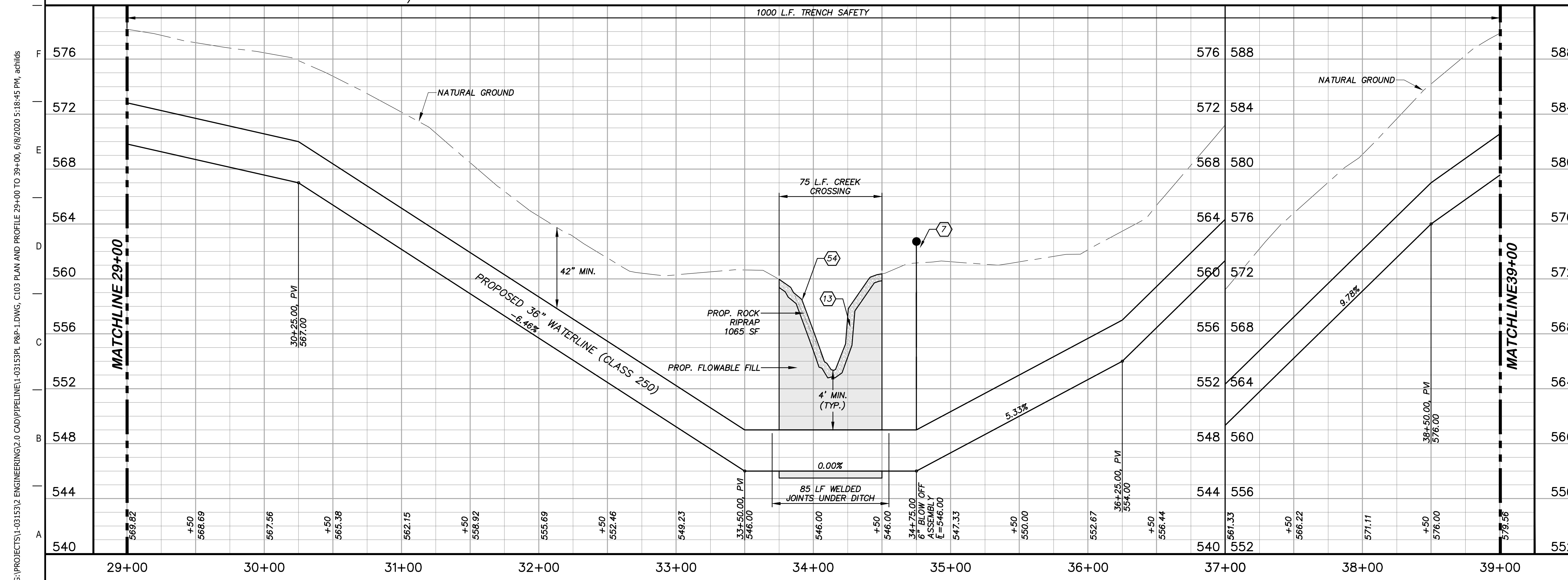
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DESIGNED	JFW
DRAFTED	ARC
CHECKED	JFW
PROJECT NO.	1-03153
DRAWING NO.	<b>C102</b>



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- ### KEY NOTES
- 4 REMOVE AND REPLACE GATE (RE. DETAIL D207)
  - 7 6" BLOW OFF VALVE ASSEMBLY (RE. DETAIL A1/D202)
  - 8 REMOVE AND REPLACE 72 L.F. EXISTING FENCE (RE. DETAIL A1/D207)
  - 13 STONE RIP-RAP (DRY) INCLUDING WOVEN FILTER FABRIC, COMPLETED IN PLACE (RE. DETAIL A10/D200)
  - 41 CATHODIC TEST STATION (RE. DETAIL A1/D403)
  - 54 CREEK CROSSING (RE. DETAIL A1/D209)



### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers & surveyors  
T.B.P.E. Registration No. 8053

### SSLGC

TWDB PROJECT - PHASE 2

### PLAN AND PROFILE 29+00 TO 39+00

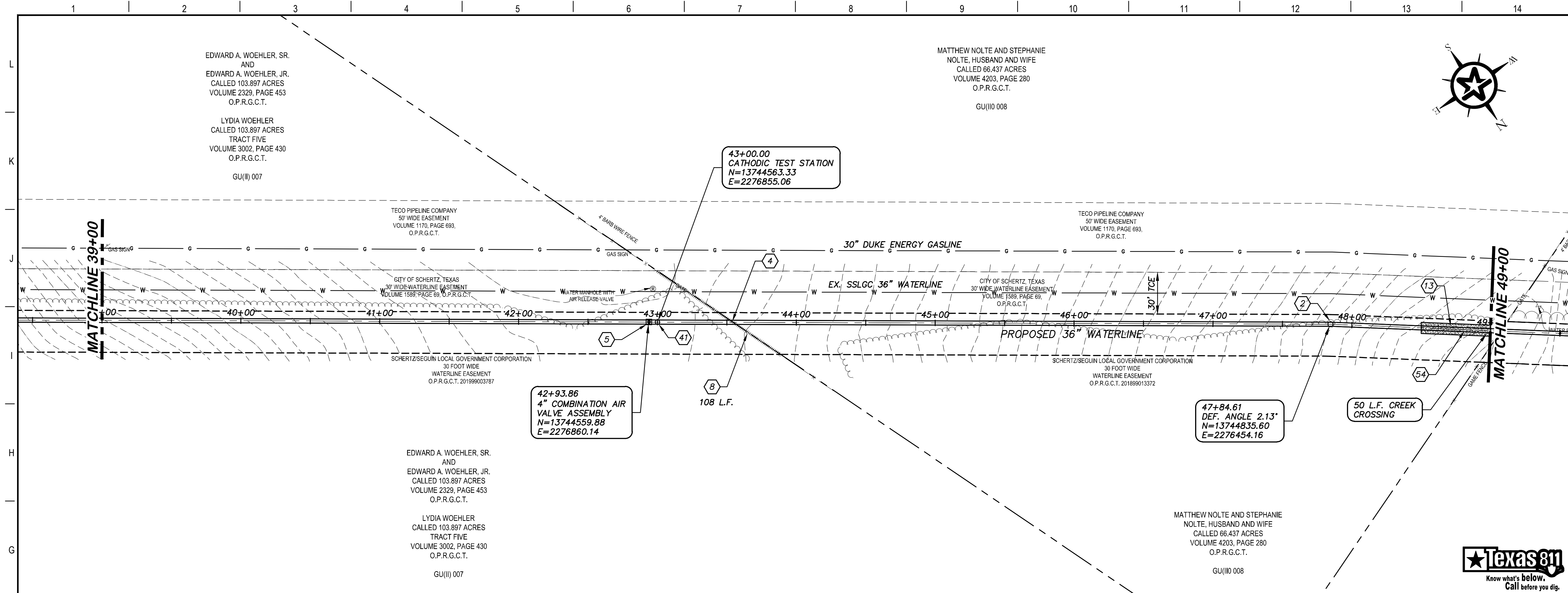
4-13-2020  
DATE: *John F. Winkler*  
JOHN F. WINKLER

STATE OF TEXAS  
REGISTERED PROFESSIONAL ENGINEER  
JOHN F. WINKLER  
50524

DESIGNED	JFW
DRAFTED	JFW
CHECKED	ARC
PROJECT NO.	1-03153
DRAWING NO.	<b>C103</b>

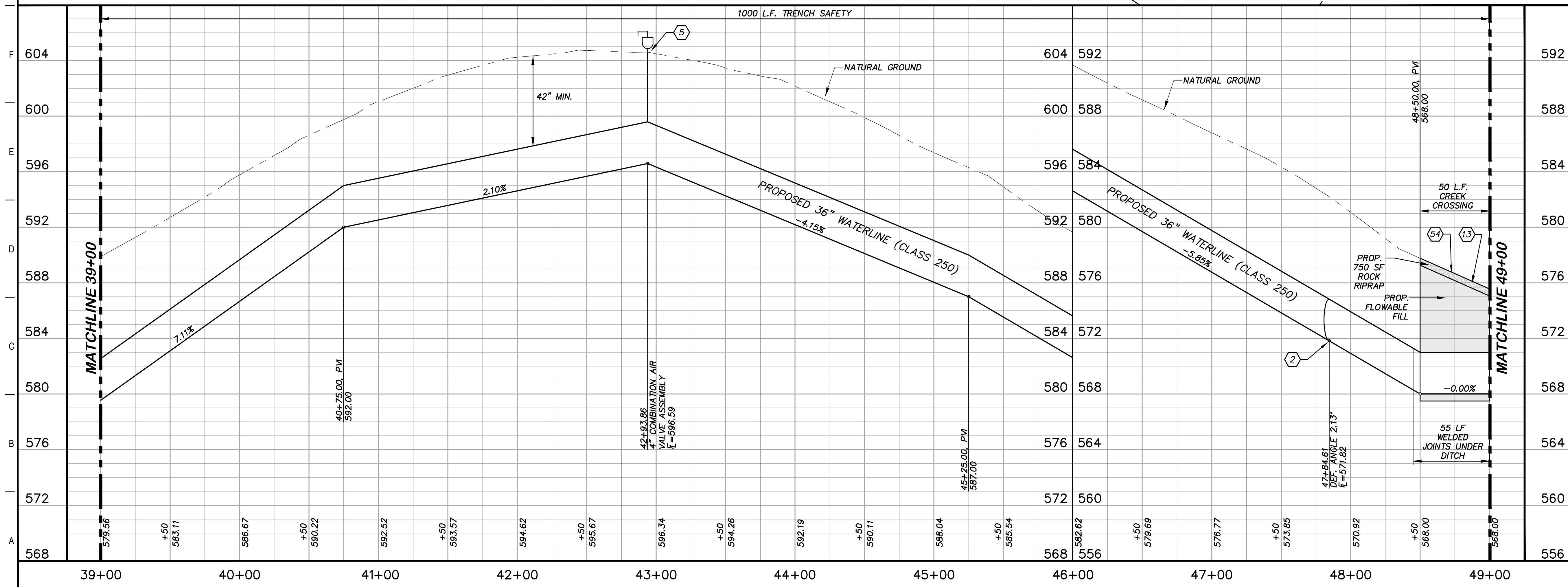
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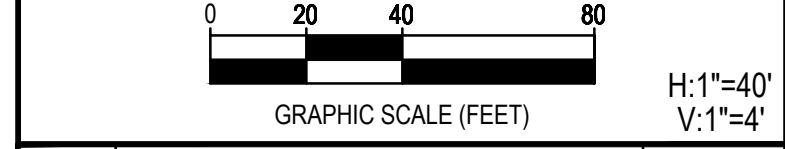
**KEY NOTES**

- ② CONCRETE THRUST BLOCKING (RE. DETAIL G1/D206)
- ④ REMOVE AND REPLACE GATE (RE. DETAIL D207)
- ⑤ COMBINATION VACUUM & AIR RELEASE VALVE & MANHOLE VAULT (RE. DETAIL A1/D201)
- ⑧ REMOVE AND REPLACE 108 L.F. EXISTING FENCE (RE. DETAIL A1/D207)
- ⑬ STONE RIP-RAP (DRY) INCLUDING WOVEN FILTER FABRIC, COMPLETED IN PLACE (RE. DETAIL A10/D200)
- ④① CATHODIC TEST STATION (RE. DETAIL A1/D403)
- ⑤④ CREEK CROSSING (RE. DETAIL A1/D209)



**GENERAL NOTES**

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.



REV.	DESCRIPTION	DATE



**SSLGC**

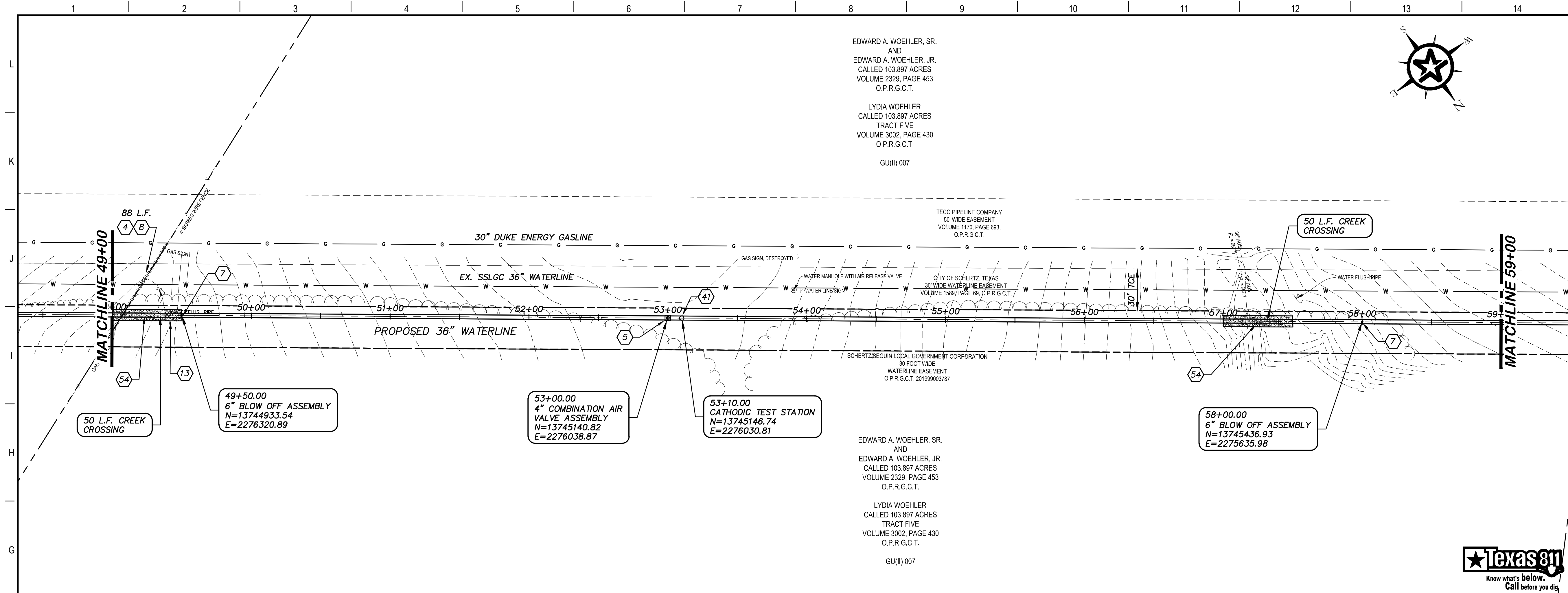
TWDB PROJECT - PHASE 2

**PLAN AND PROFILE  
39+00 TO 49+00**

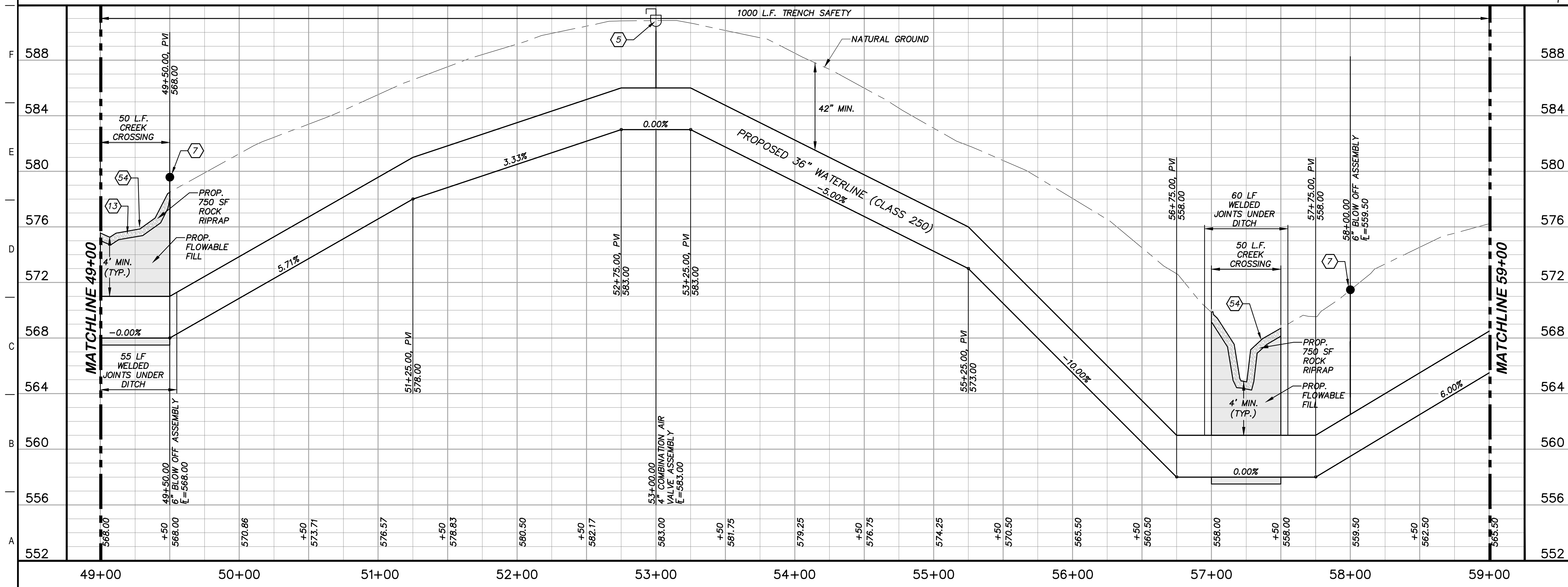
DATE: 4-13-2020  
 JOHN F. WINKLER  
 JOHN F. WINKLER  
 50524  
 REGISTERED PROFESSIONAL ENGINEER

DESIGNED	JFW
DRAFTED	JFW
CHECKED	ARC
PROJECT NO.	1-03153
DRAWING NO.	<b>C104</b>

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- ### KEY NOTES
- 4 REMOVE AND REPLACE GATE (RE. DETAIL D207)
  - 5 COMBINATION VACUUM & AIR RELEASE VALVE & MANHOLE VAULT (RE. DETAIL A1/D201)
  - 7 6" BLOW OFF VALVE ASSEMBLY (RE. DETAIL A1/D202)
  - 8 REMOVE AND REPLACE 88 L.F. EXISTING FENCE (RE. DETAIL A1/D207)
  - 13 STONE RIP-RAP (DRY) INCLUDING WOVEN FILTER FABRIC, COMPLETED IN PLACE (RE. DETAIL A10/D200)
  - 41 CATHODIC TEST STATION (RE. DETAIL A1/D403)
  - 54 CREEK CROSSING (RE. DETAIL A1/D209)



### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.

0 20 40 80  
GRAPHIC SCALE (FEET) H:1"=40' V:1"=4'

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers ★ surveyors  
T.B.P.E. Registration No. 8093

## SSLGC

TWDB PROJECT - PHASE 2

### PLAN AND PROFILE 49+00 TO 59+00

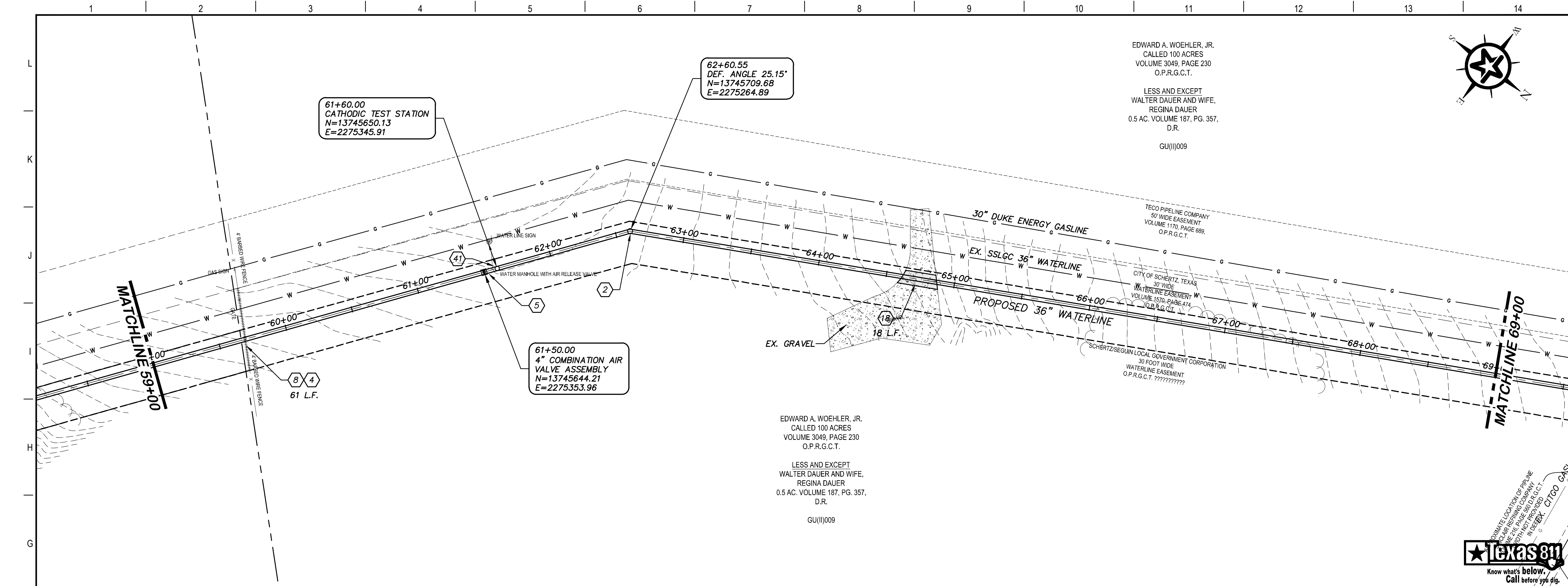
4-13-2020  
DATE

JOHN F. WINKLER  
DESIGNED JFW  
DRAFTED JFW  
CHECKED ARC  
PROJECT NO. 1-03153  
DRAWING NO. C105

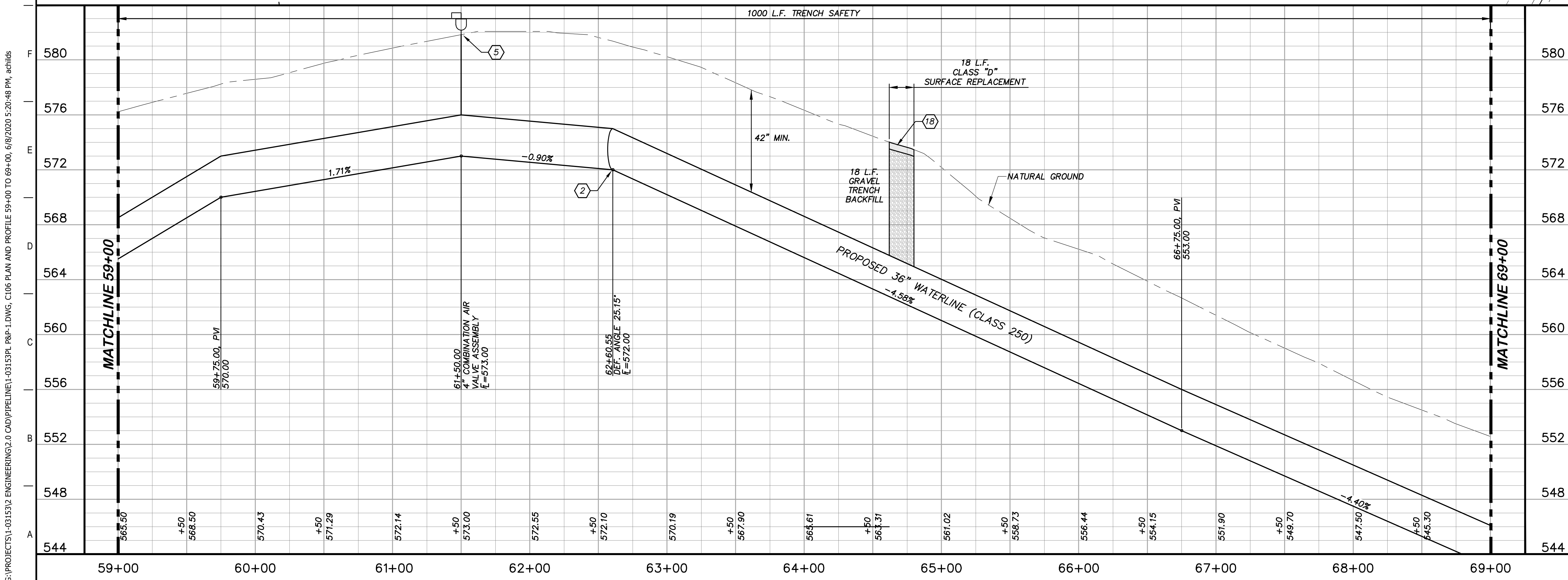
STATE OF TEXAS  
JOHN F. WINKLER  
50524  
REGISTERED PROFESSIONAL ENGINEER

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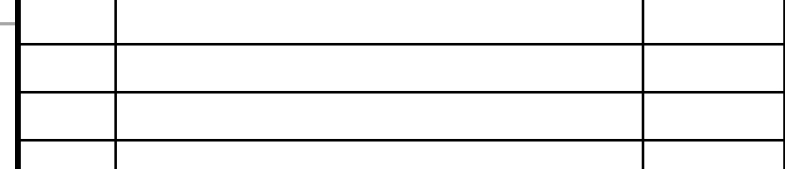


- ### KEY NOTES
- ② CONCRETE THRUST BLOCKING (RE. DETAIL G1/D206)
  - ④ REMOVE AND REPLACE GATE (RE. DETAIL D207)
  - ⑤ COMBINATION VACUUM & AIR RELEASE VALVE & MANHOLE VAULT (RE. DETAIL A1/D201)
  - ⑧ REMOVE AND REPLACE 61 L.F. EXISTING FENCE (RE. DETAIL A1/D207)
  - ⑩ CLASS D SURFACE REPLACEMENT (RE. DETAIL G1/D208)
  - ⑪ CATHODIC TEST STATION (RE. DETAIL A1/D403)



### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.



REV.	DESCRIPTION	DATE



### SSLGC

TWDB PROJECT - PHASE 2

### PLAN AND PROFILE 59+00 TO 69+00

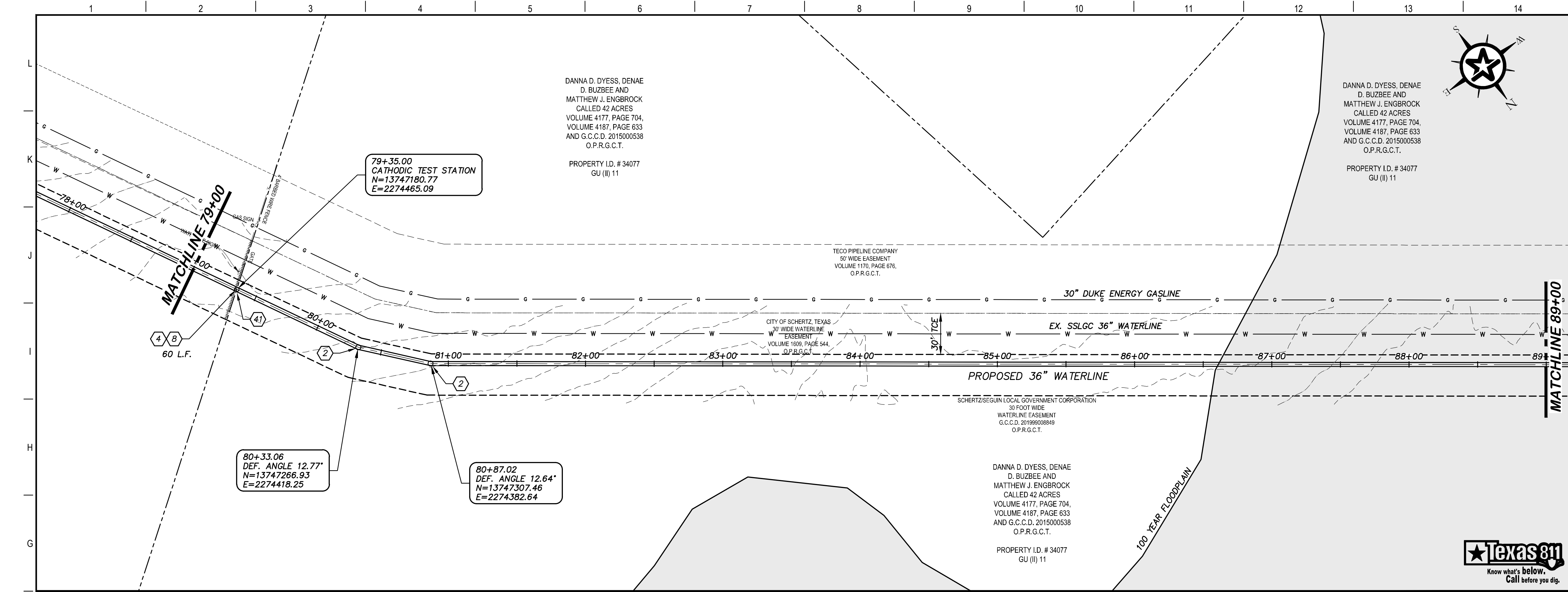
4-13-2020  
DATE: JOHN F. WINKLER

DESIGNED	JFW
DRAFTED	JFW
CHECKED	ARC
PROJECT NO.	1-03153
DRAWING NO.	<b>C106</b>

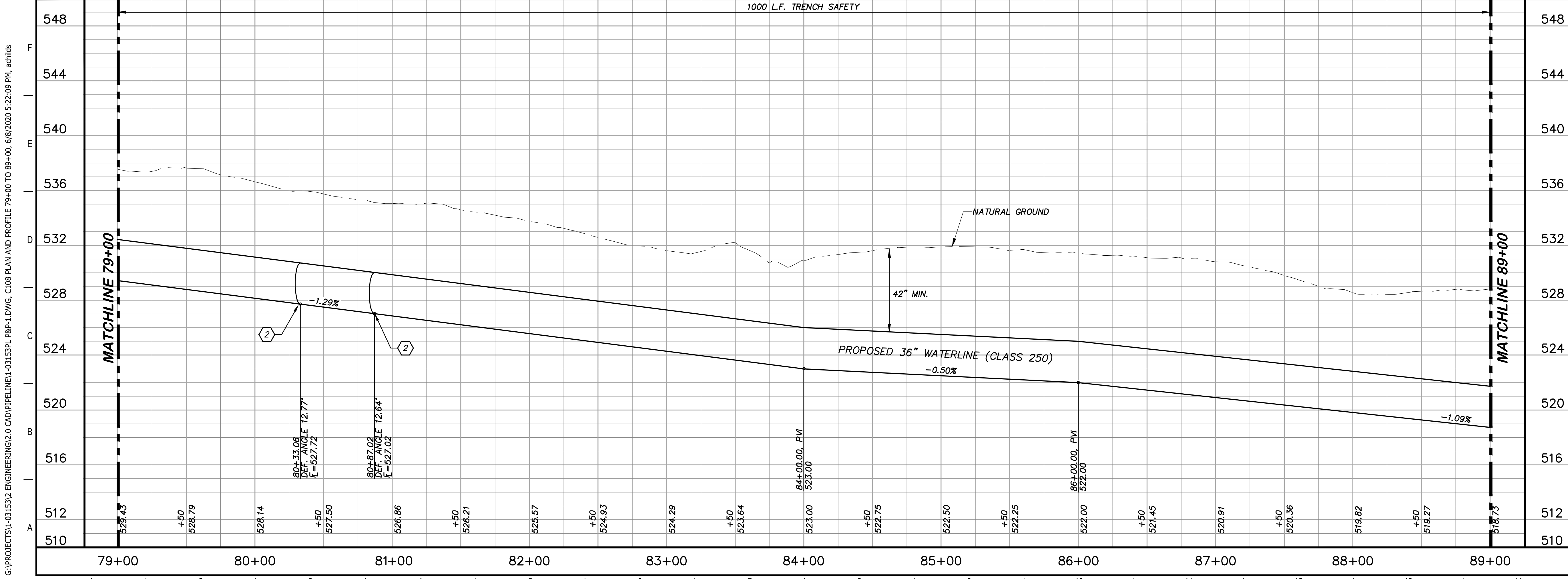
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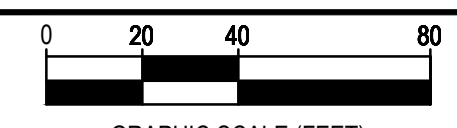


- ### KEY NOTES
- ② CONCRETE THRUST BLOCKING (RE. DETAIL G1/D206)
  - ④ REMOVE AND REPLACE GATE (RE. DETAIL D207)
  - ⑧ REMOVE AND REPLACE 60 L.F. EXISTING FENCE (RE. DETAIL A1/D207)
  - ④① CATHODIC TEST STATION (RE. DETAIL A1/D403)



### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.



H: 1"=40'

V: 1"=4'

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers • surveyors  
T.B.P.E. Registration No. 8053

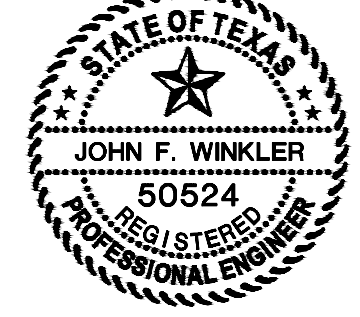
**SSLGC**

TWDB PROJECT - PHASE 2

PLAN AND PROFILE  
79+00 TO 89+00

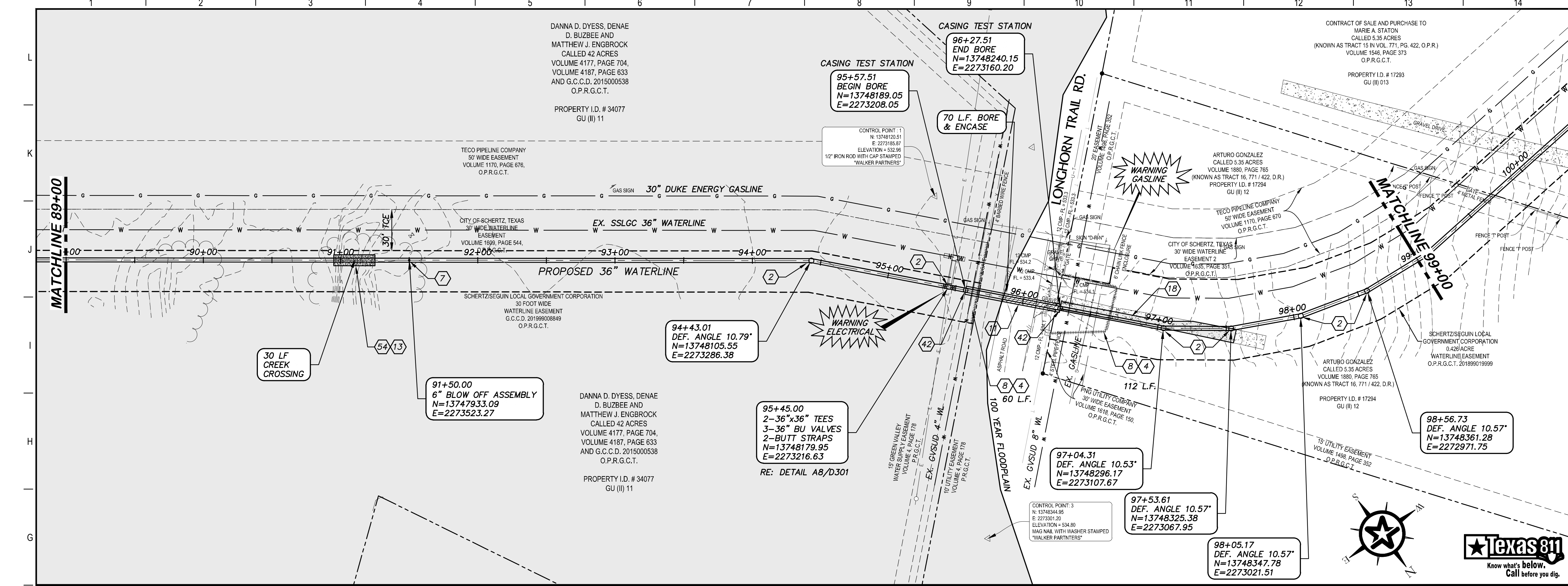
4-13-2020  
DATE

*John F. Winkler*  
JOHN F. WINKLER

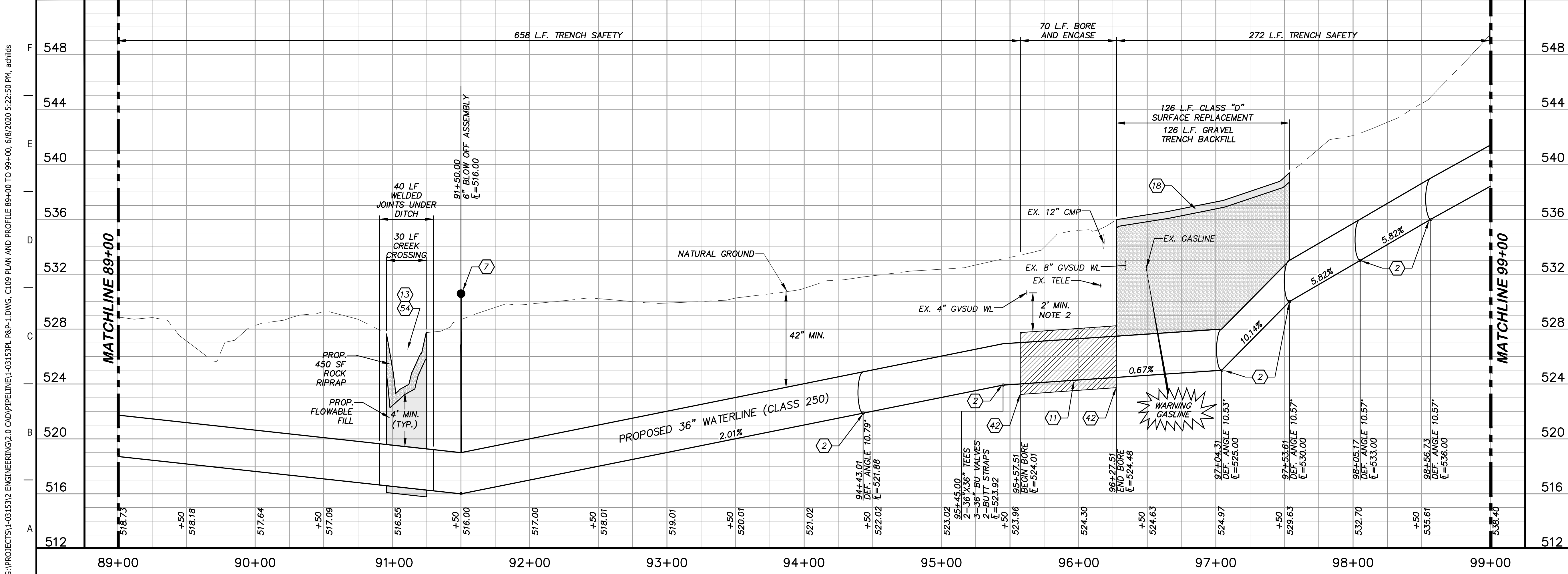


DESIGNED	JFW
DRAFTED	JFW
CHECKED	ARC
PROJECT NO.	1-03153
DRAWING NO.	<b>C108</b>

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- ### KEY NOTES
- ② CONCRETE THRUST BLOCKING (RE. DETAIL G1/D206)
  - ④ REMOVE AND REPLACE GATE (RE. DETAIL D207)
  - ⑦ 6" BLOW OFF VALVE ASSEMBLY (RE. DETAIL A1/D202)
  - ⑧ REMOVE AND REPLACE 172 L.F. EXISTING FENCE (RE. DETAIL A1/D207)
  - ⑪ BORE AND ENCASE STEEL CASING (RE. DETAIL A1/D206)
  - ⑬ CLASS D SURFACE REPLACEMENT (RE. DETAIL G1/D208)
  - ⑬ STONE RIP-RAP (DRY) INCLUDING WOVEN FILTER FABRIC, COMPLETED IN PLACE (RE. DETAIL A10/D200)
  - ④② CASING TEST STATION (RE. DETAIL H1/D401)
  - ⑤④ CREEK CROSSING (RE. DETAIL A1/D209)



### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.
2. VERIFY DEPTHS OF ALL EXISTING UTILITIES.

0 20 40 80  
GRAPHIC SCALE (FEET) H:1"=40' V:1"=4'

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers ★ surveyors  
T.B.P.E. Registration No. 8053

## SSLGC

TWDB PROJECT - PHASE 2

### PLAN AND PROFILE 89+00 TO 99+00

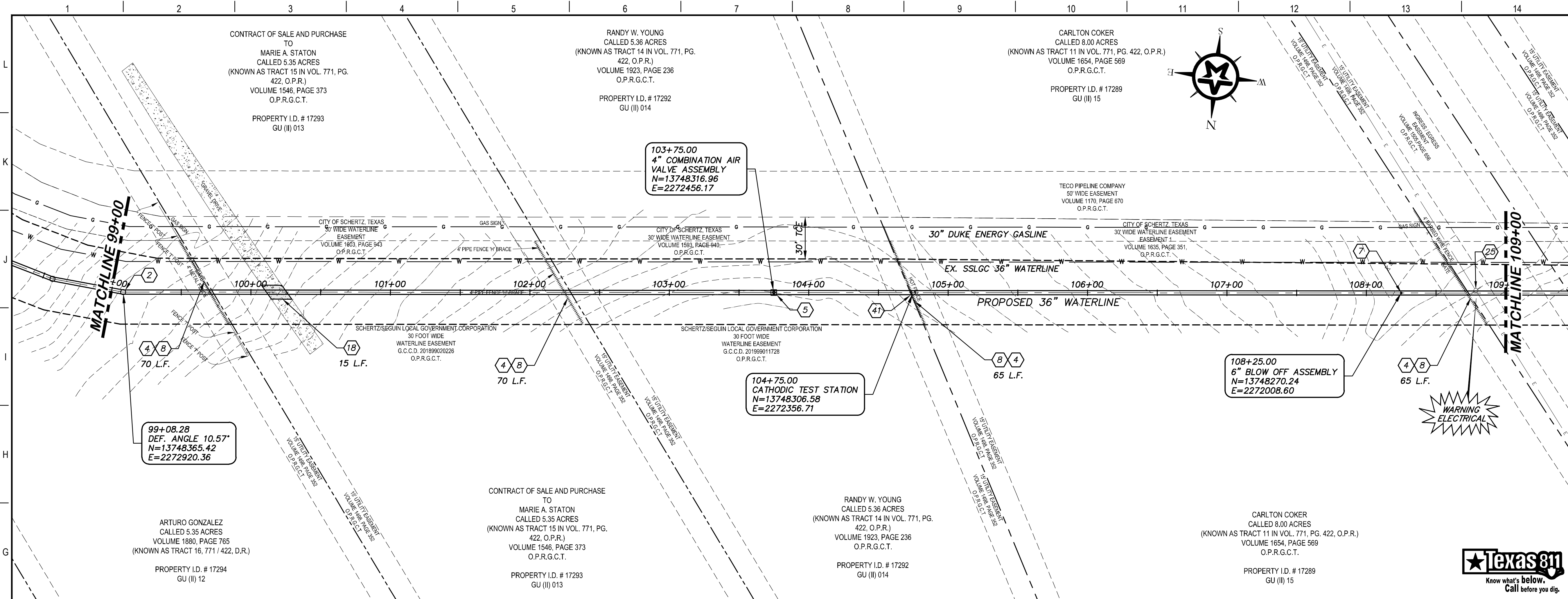
4-13-2020  
DATE

*John F. Winkler*  
JOHN F. WINKLER  
50524  
REGISTERED PROFESSIONAL ENGINEER

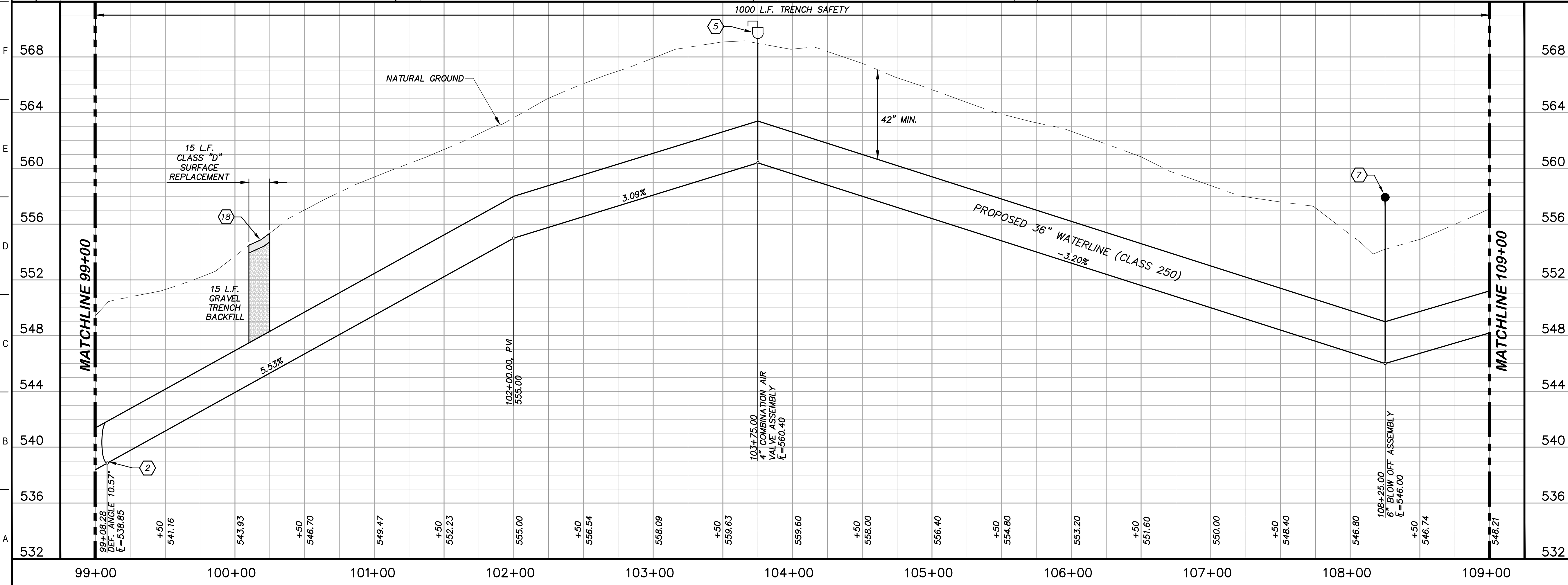
DESIGNED	JFW
DRAFTED	ARC
CHECKED	JFW
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DRAWING NO.	<b>C109</b>

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- ### KEY NOTES
- ② CONCRETE THRUST BLOCKING (RE. DETAIL G1/D206)
  - ④ REMOVE AND REPLACE GATE (RE. DETAIL D207)
  - ⑧ REMOVE AND REPLACE 270 L.F. EXISTING FENCE (RE. DETAIL A1/D207)
  - ⑤ COMBINATION VACUUM & AIR RELEASE VALVE & MANHOLE VAULT (RE. DETAIL A1/D201)
  - ⑦ 6" BLOW OFF VALVE ASSEMBLY (RE. DETAIL A1/D202)
  - ⑱ CLASS D SURFACE REPLACEMENT (RE. DETAIL G1/D208)
  - ②⑤ THE CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH THE APPROPRIATE UTILITIES OWNING ANY POLES OR SIGNS THAT MAY BE IMPACTED DURING THE WORK OF THIS CONTRACT. BRACING AND PROTECTIVE MEASURES PER THE REQUIREMENTS OF THE SIGNS' OWNERS SHALL BE PROVIDED BY THE CONTRACTOR, AND SHALL BE CONSIDERED SUDDIARY TO THE WORK.
  - ④① CATHODIC TEST STATION (RE. DETAIL A1/D403)



### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.

0 20 40 80  
GRAPHIC SCALE (FEET) H: 1"=40' V: 1"=4'

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers & surveyors  
T.B.P.E. Registration No. 8053

**SSLGC**

TWDB PROJECT - PHASE 2

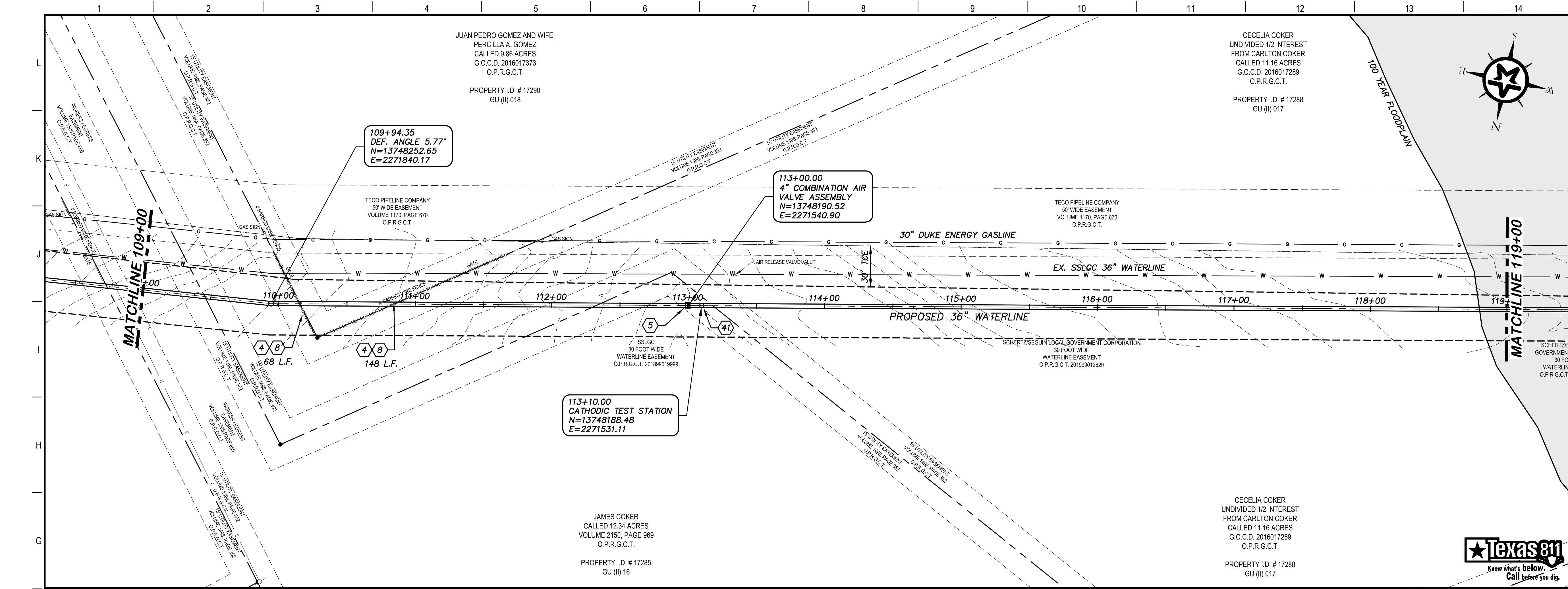
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4-13-2020  
DATE

JOHN F. WINKLER  
PROJECT NO. 1-03153

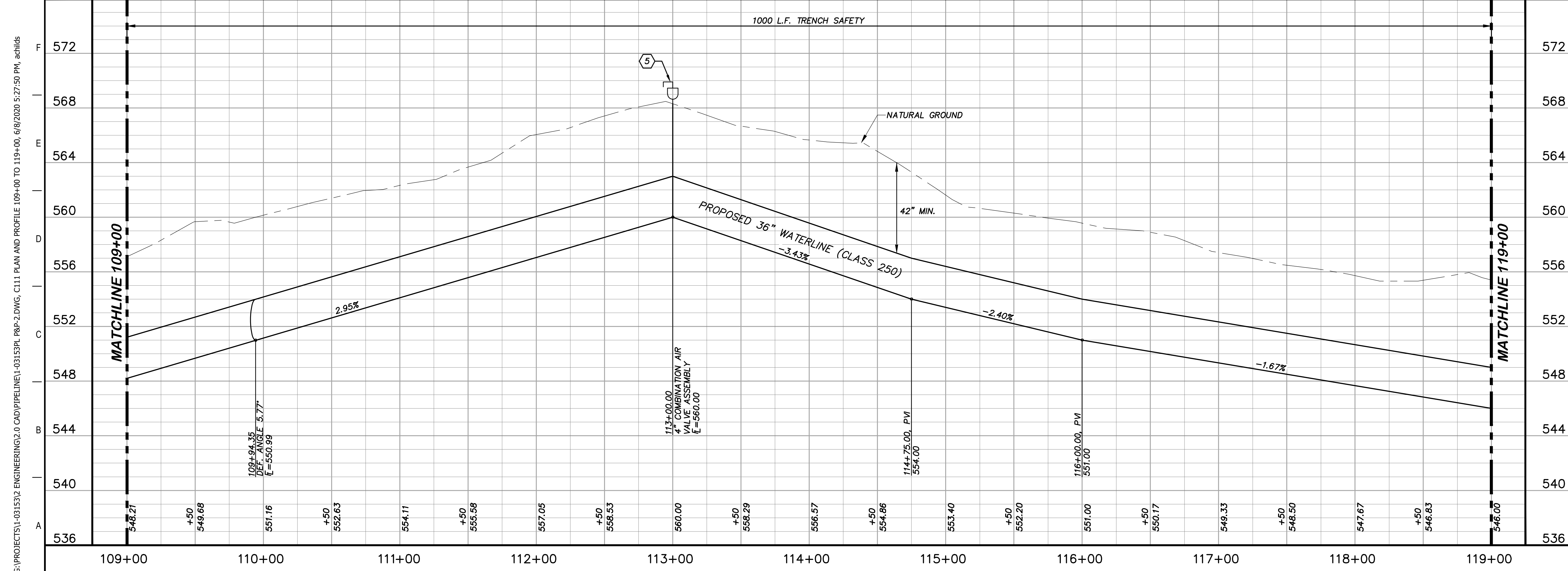
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CHECKED: JFW  
PROJECT NO. 1-03153  
DRAWING NO. **C110**

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### KEY NOTES

- 4 REMOVE AND REPLACE GATE (RE. DETAIL D207)
- 5 COMBINATION VACUUM & AIR RELEASE VALVE & MANHOLE VAULT (RE. DETAIL A1/D201)
- 8 REMOVE AND REPLACE 216 L.F. EXISTING FENCE (RE. DETAIL A1/D207)
- 41 CATHODIC TEST STATION (RE. DETAIL A1/D403)



### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.

0 20 40 80  
GRAPHIC SCALE (FEET) H: 1"=40' V: 1"=4'

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers ★ surveyors  
T.B.P.E. Registration No. 8053

**SSLGC**

TWDB PROJECT - PHASE 2

PLAN AND PROFILE  
109+00 TO 119+00

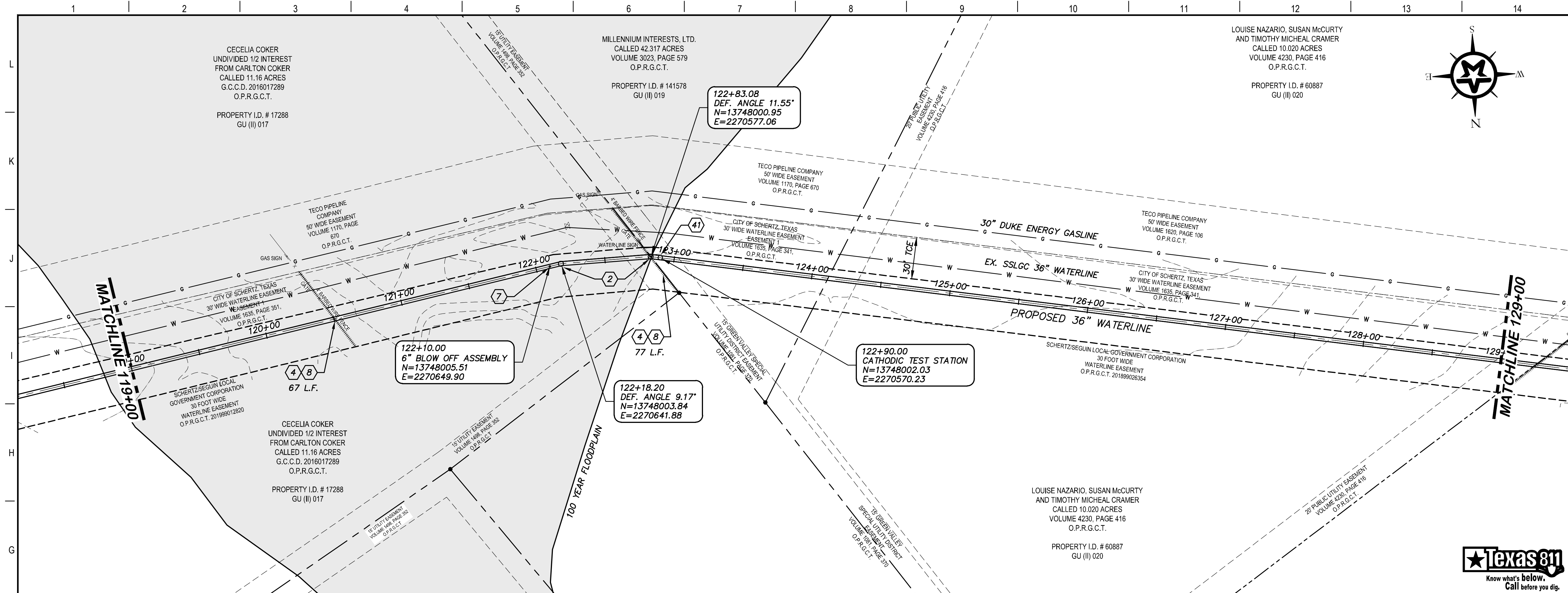
4-13-2020  
DATE

JOHN F. WINKLER  
PROFESSIONAL ENGINEER

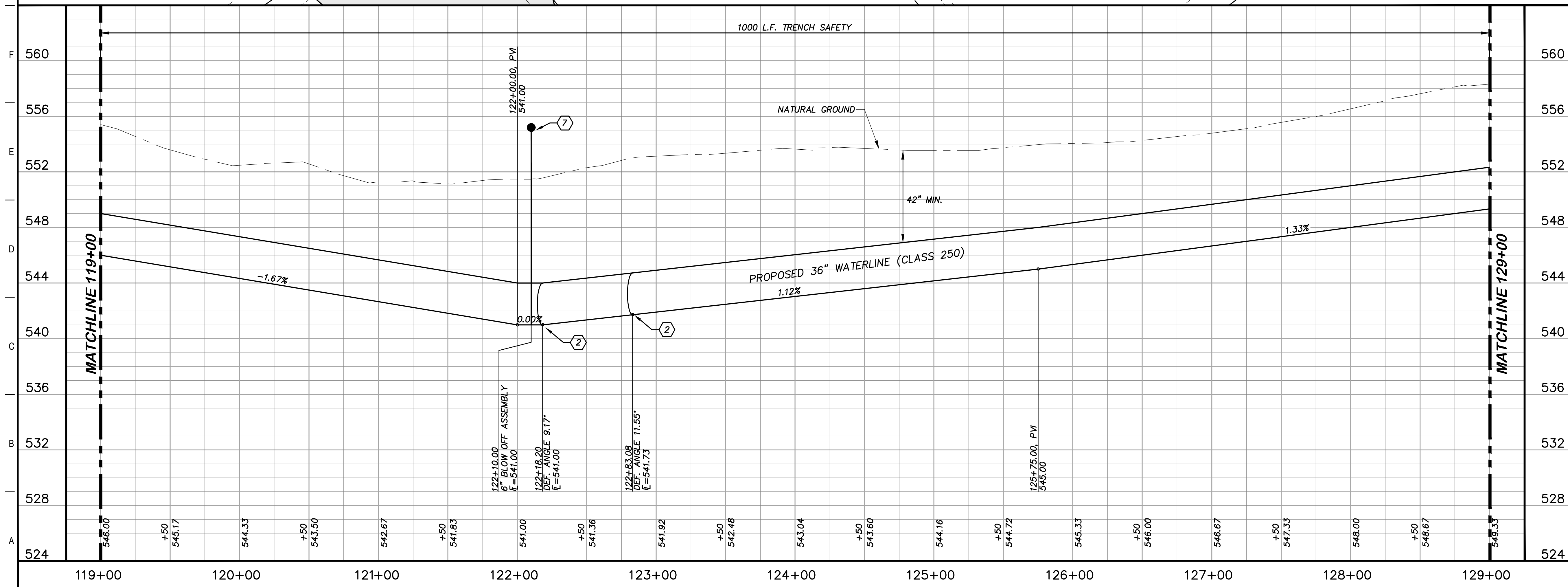
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DRAFTED	JFW
CHECKED	ARC
PROJECT NO.	1-03153
DRAWING NO.	<b>C111</b>

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- ### KEY NOTES
- ② CONCRETE THRUST BLOCKING (RE. DETAIL G1/D206)
  - ④ REMOVE AND REPLACE GATE (RE. DETAIL D207)
  - ⑦ 6" BLOW OFF VALVE ASSEMBLY (RE. DETAIL A1/D202)
  - ⑧ REMOVE AND REPLACE 144 L.F. EXISTING FENCE (RE. DETAIL A1/D207)
  - ④① CATHODIC TEST STATION (RE. DETAIL A1/D403)



### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.

0 20 40 80  
GRAPHIC SCALE (FEET) H: 1"=40' V: 1"=4'

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers ★ surveyors  
T.B.P.E. Registration No. 8053

**SSLGC**

TWDB PROJECT - PHASE 2

PLAN AND PROFILE  
119+00 TO 129+00

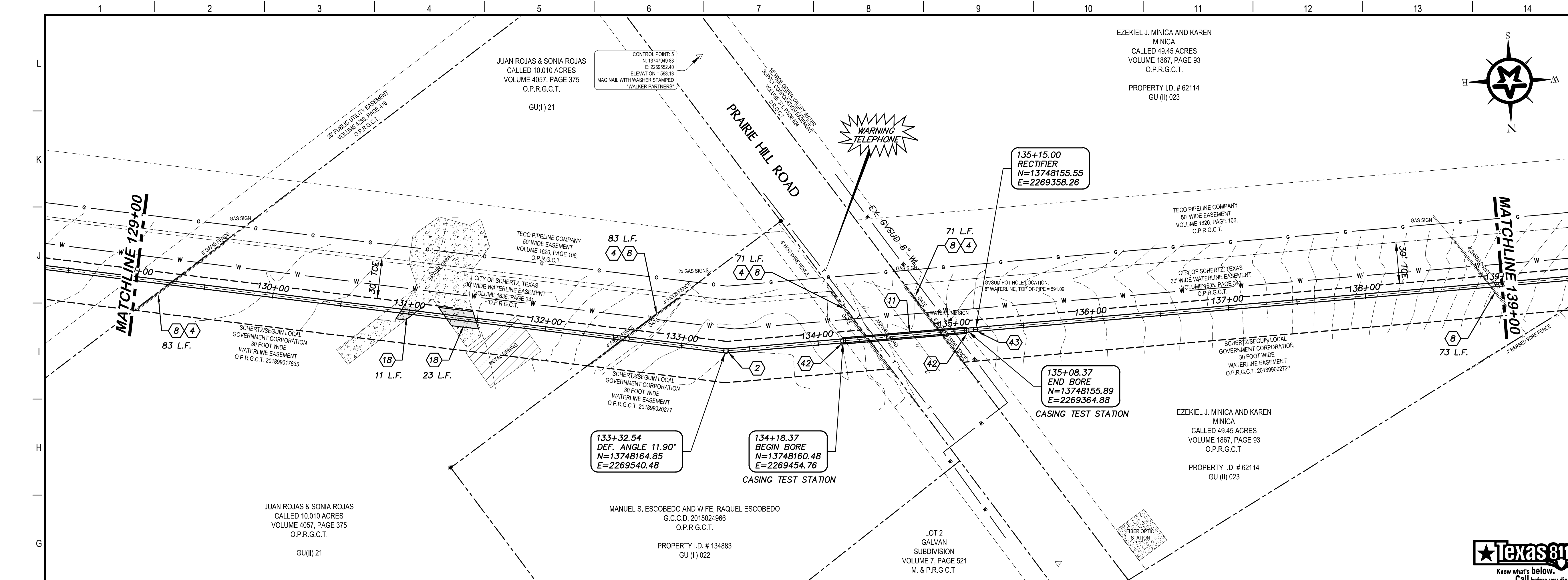
4-13-2020  
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JOHN F. WINKLER  
DATE

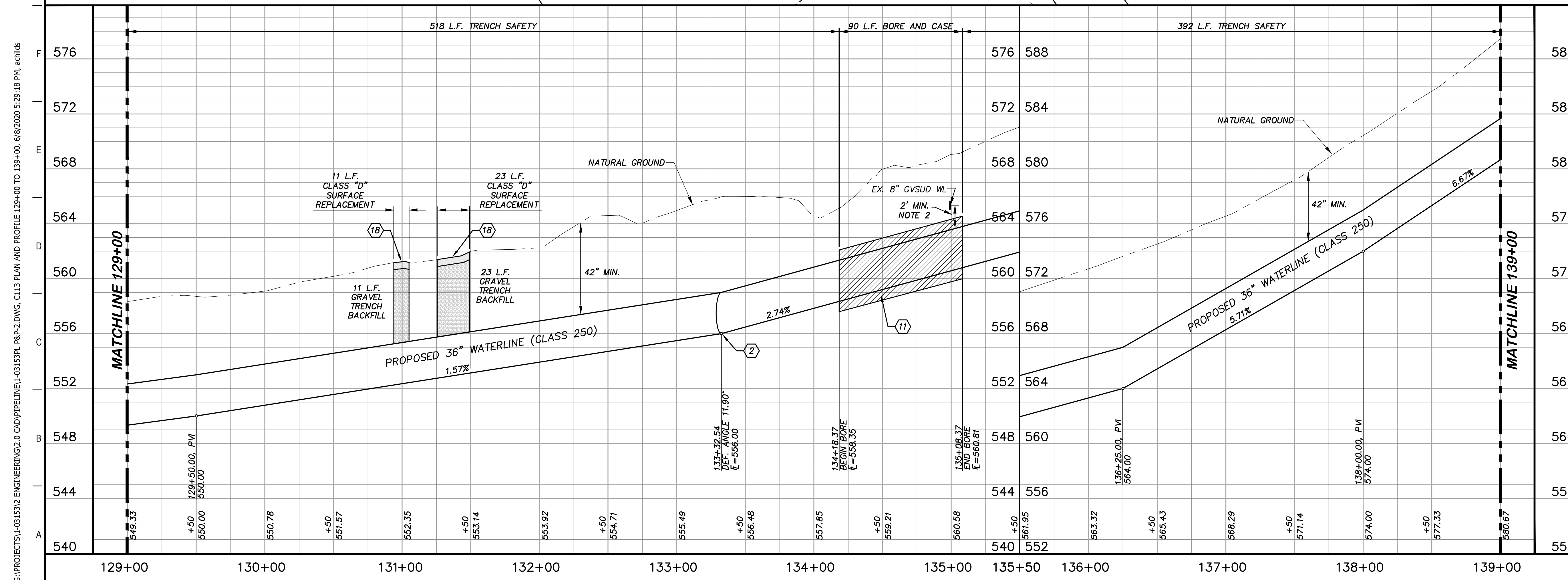
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DRAFTED	ARC
CHECKED	JFW
PROJECT NO.	1-03153
DRAWING NO.	<b>C112</b>

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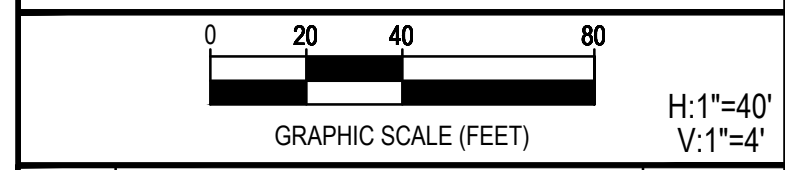




- ### KEY NOTES
- 2 CONCRETE THRUST BLOCKING (RE. DETAIL G1/D206)
  - 4 REMOVE AND REPLACE GATE (RE. DETAIL D207)
  - 8 REMOVE AND REPLACE 381 L.F. EXISTING FENCE (RE. DETAIL A1/D207)
  - 11 BORE AND ENCASE STEEL CASING (RE. DETAIL A1/D206)
  - 18 CLASS D SURFACE REPLACEMENT (RE. DETAIL G1/D208)
  - 42 CASING TEST STATION (RE. DETAIL H1/D401)
  - 43 RECTIFIER (RE. DETAIL H9/D401)



- ### GENERAL NOTES
1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.
  2. FIELD VERIFY DEPTHS OF ALL EX. UTILITIES.



REV.	DESCRIPTION	DATE



**SSLGC**  
 TWDB PROJECT - PHASE 2

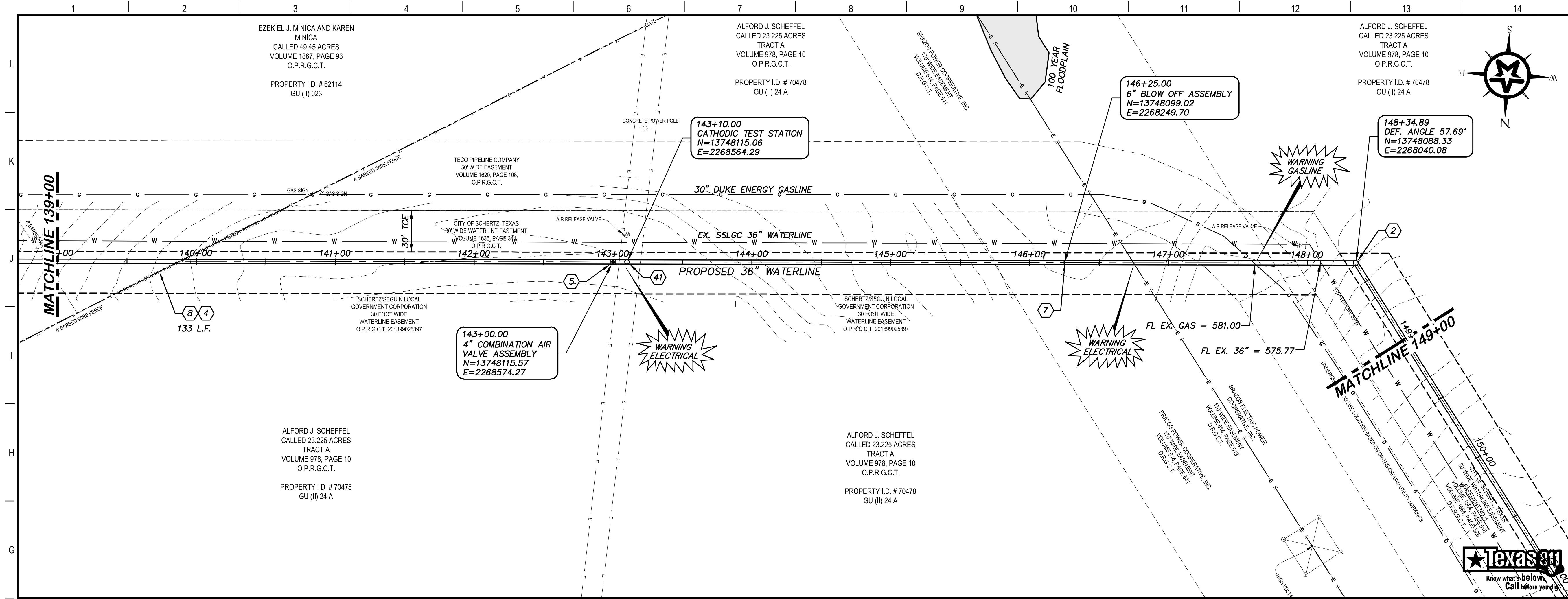
PLAN AND PROFILE  
 129+00 TO 139+00

4-13-2020  
 DATE: *John F. Winkler*  
 JOHN F. WINKLER

DESIGNED	JFW
DRAFTED	JFW
CHECKED	ARC
PROJECT NO.	1-03153
DRAWING NO.	<b>C113</b>

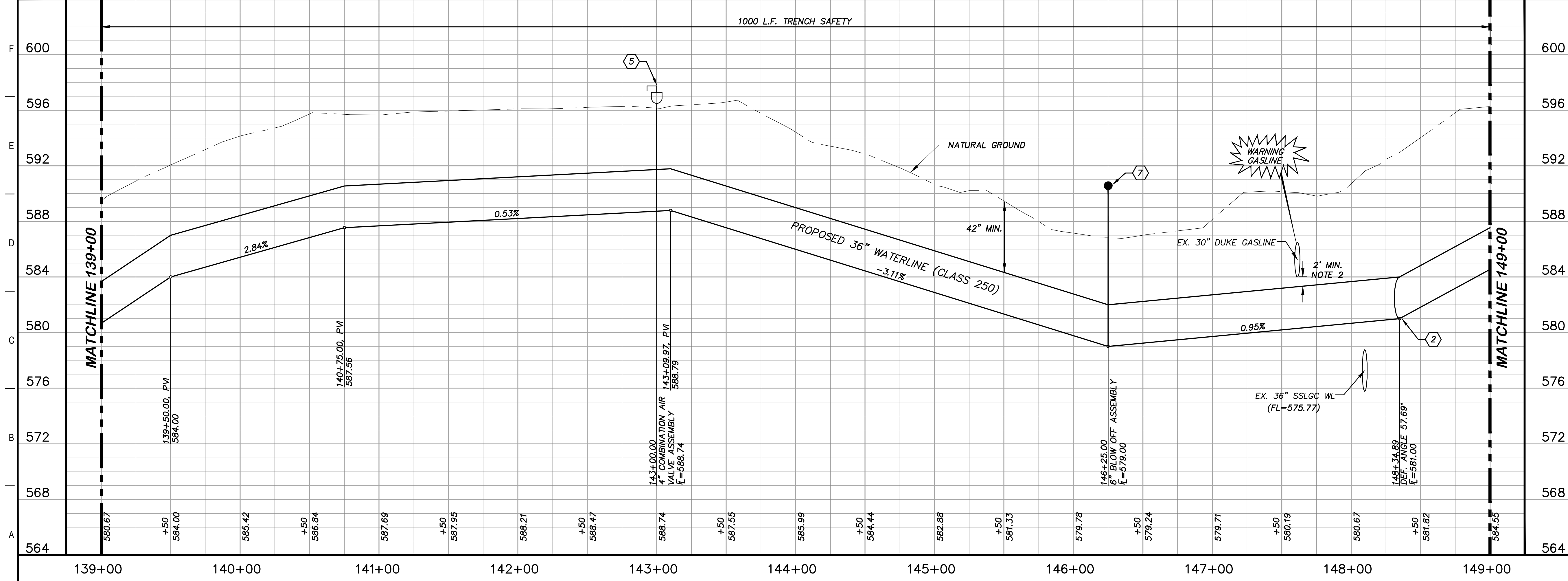
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### KEY NOTES

- 2 CONCRETE THRUST BLOCKING (RE. DETAIL G1/D206)
- 4 REMOVE AND REPLACE GATE (RE. DETAIL D207)
- 5 COMBINATION VACUUM & AIR RELEASE VALVE & MANHOLE VAULT (RE. DETAIL A1/D201)
- 7 6" BLOW OFF VALVE ASSEMBLY (RE. DETAIL A1/D202)
- 8 REMOVE AND REPLACE 133 L.F. EXISTING FENCE (RE. DETAIL A1/D207)
- 41 CATHODIC TEST STATION (RE. DETAIL A1/D403)



### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.
2. FIELD VERIFY DEPTHS OF ALL EX. UTILITIES.

0 20 40 80  
GRAPHIC SCALE (FEET) H: 1"=40' V: 1"=4'

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers & surveyors  
T.B.P.E. Registration No. 8053

## SSLGC

TWDB PROJECT - PHASE 2

### PLAN AND PROFILE 139+00 TO 149+00

4-13-2020  
DATE

JOHN F. WINKLER  
DESIGNED  
JFW

JOHN F. WINKLER  
DRAFTED  
JFW

JOHN F. WINKLER  
CHECKED  
JFW

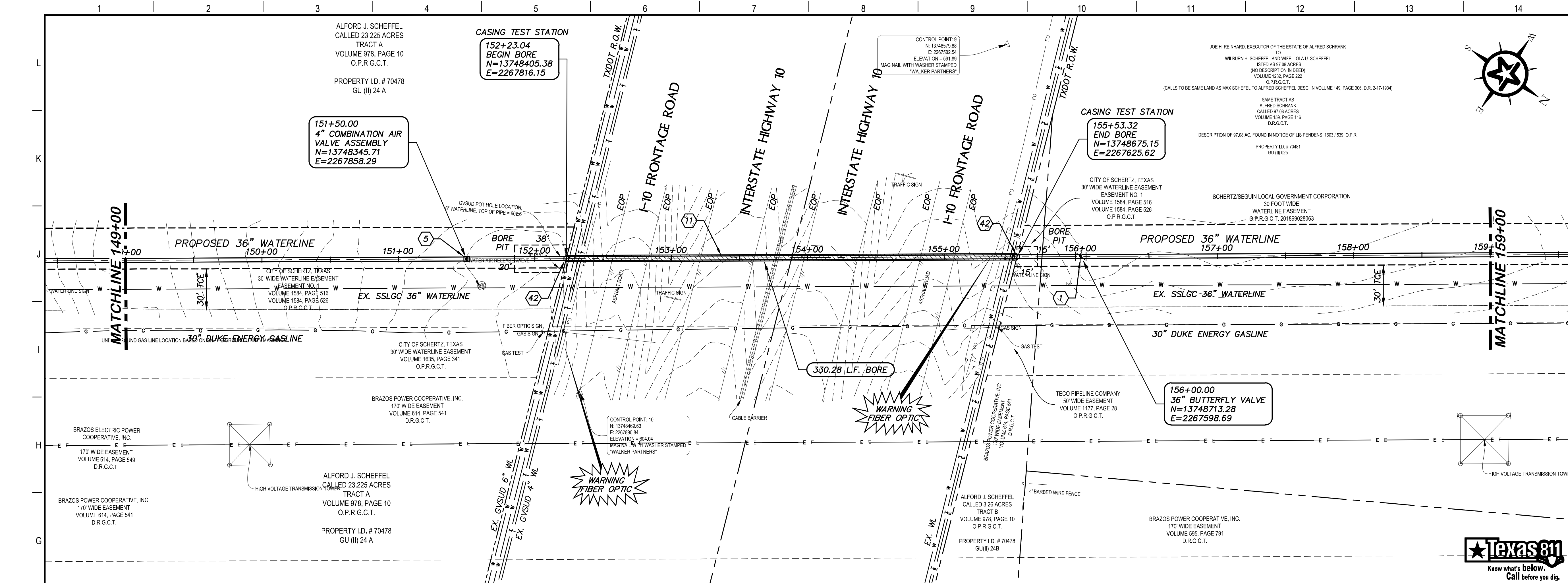
JOHN F. WINKLER  
PROJECT NO. 1-03153

JOHN F. WINKLER  
REGISTERED PROFESSIONAL ENGINEER  
50524

DRAWING NO.  
**C114**

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### KEY NOTES

- ① BUTTERFLY VALVE (RE. DETAIL G1/D202)
- ⑤ COMBINATION VACUUM & AIR RELEASE VALVE & MANHOLE VAULT (RE. DETAIL A1/D201)
- ⑪ BORE AND ENCASE STEEL CASING (RE. DETAIL A1/D206)
- ④2 CASING TEST STATION (RE. DETAIL H1/D401)

### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.
2. FIELD VERIFY DEPTHS OF ALL EX. UTILITIES.

0 20 40 80  
GRAPHIC SCALE (FEET) H:1"=40'  
V:1"=4'

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers ★ surveyors  
T.B.P.E. Registration No. 8053

## SSLGC

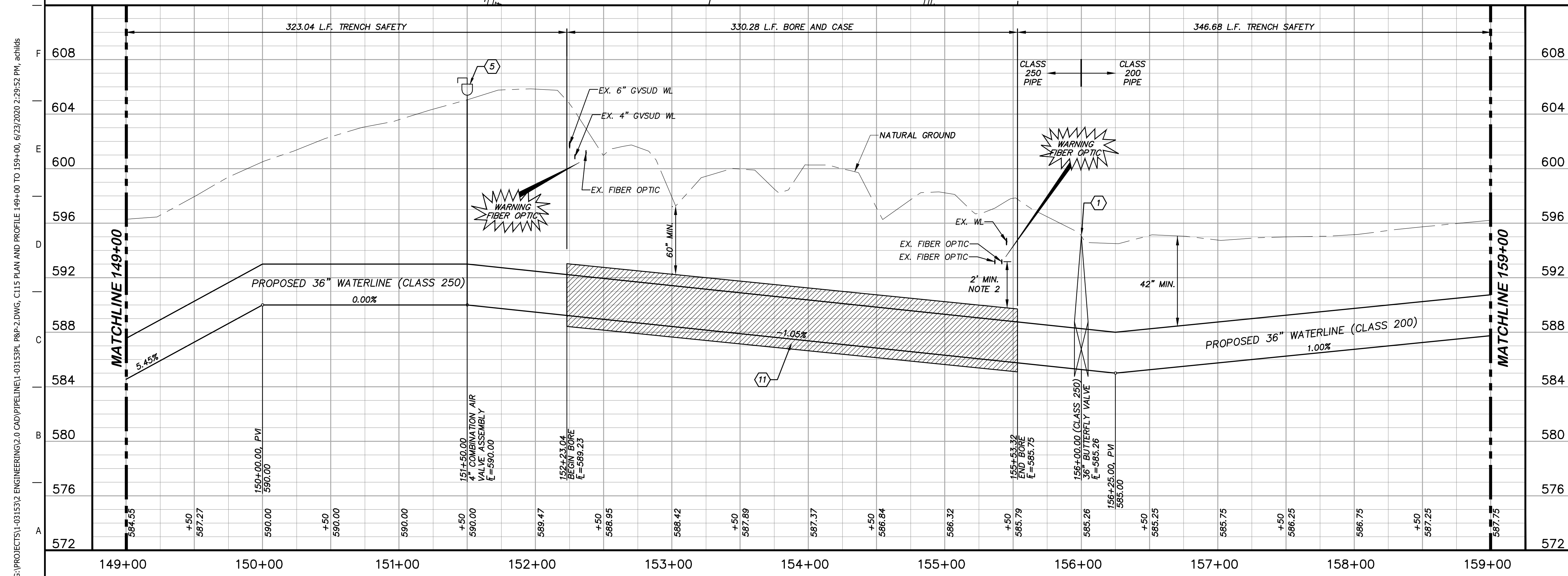
TWDB PROJECT - PHASE 2

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4-13-2020  
DATE

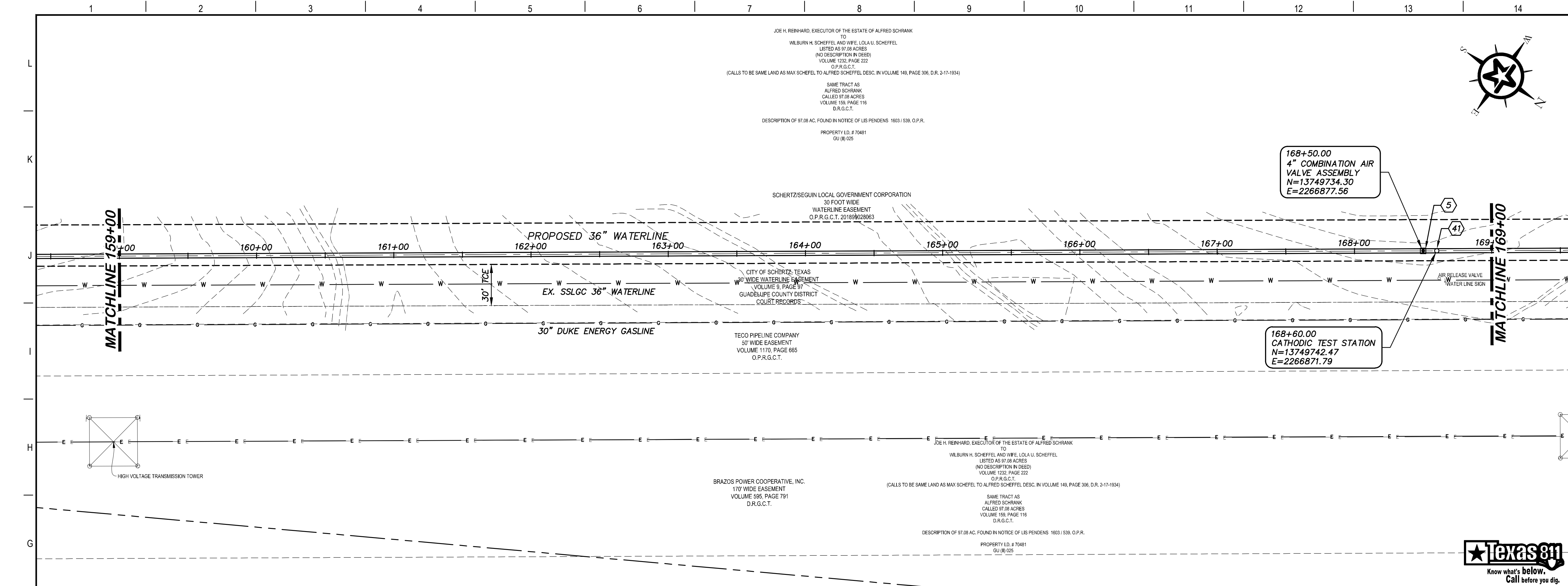
*John F. Winkler*  
JOHN F. WINKLER  
50524  
REGISTERED PROFESSIONAL ENGINEER

PM	JFW
DESIGNED	JFW
DRAFTED	ARC
CHECKED	JFW
PROJECT NO.	1-03153
DRAWING NO.	<b>C115</b>



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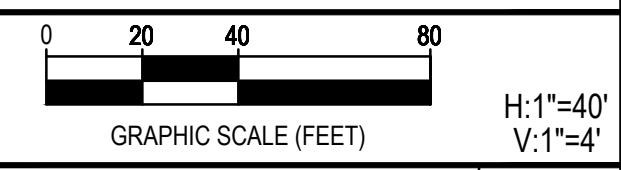


**KEY NOTES**

- 5 COMBINATION VACUUM & AIR RELEASE VALVE & MANHOLE VAULT (RE. DETAIL A1/D201)
- 41 CATHODIC TEST STATION (RE. DETAIL A1/D403)

**GENERAL NOTES**

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.



REV.	DESCRIPTION	DATE

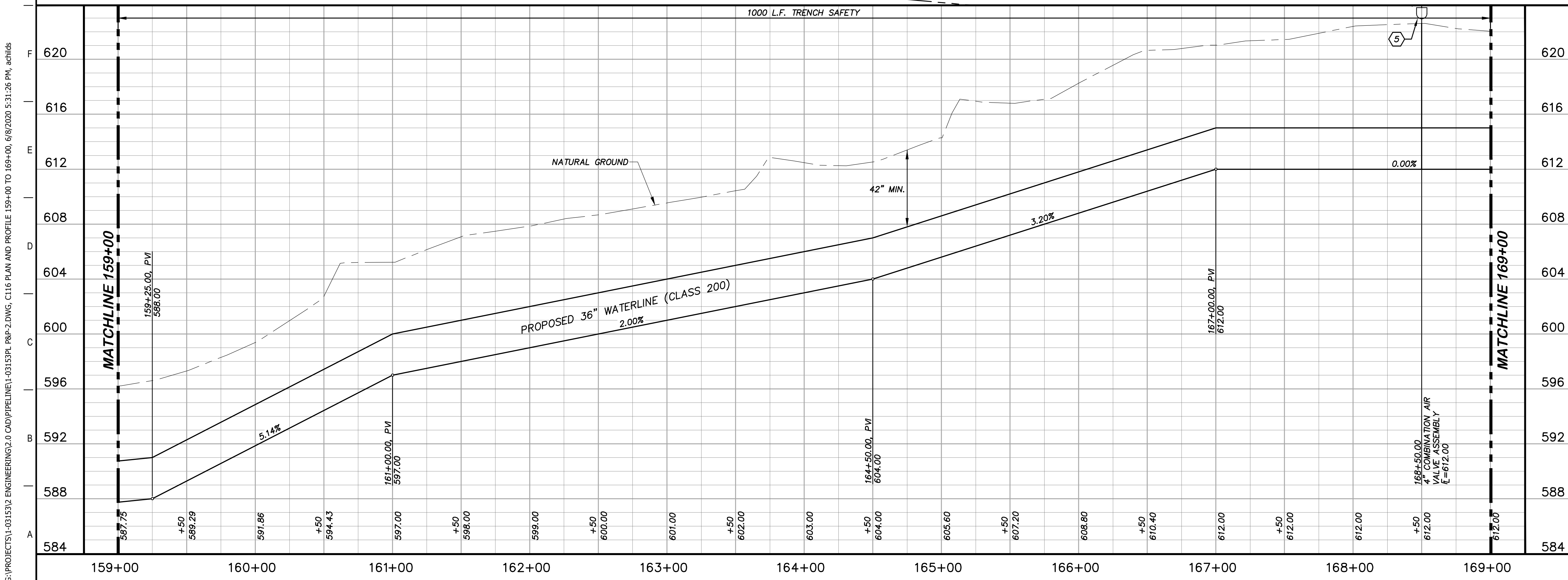


**SSLGC**  
TWDB PROJECT - PHASE 2

**PLAN AND PROFILE**  
159+00 TO 169+00

4-13-2020  
DATE: *John F. Winkler*  
JOHN F. WINKLER

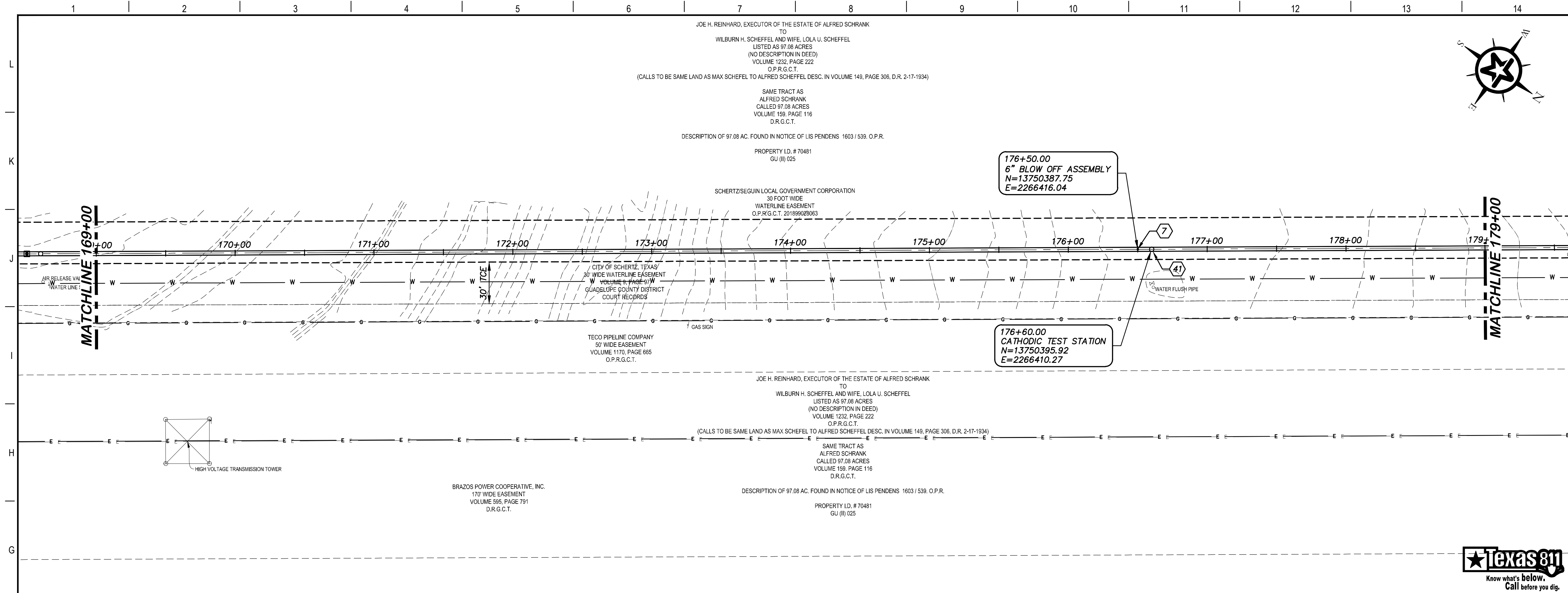
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	CHECKED	ARC
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DRAWING NO.		1-03153
		<b>C116</b>



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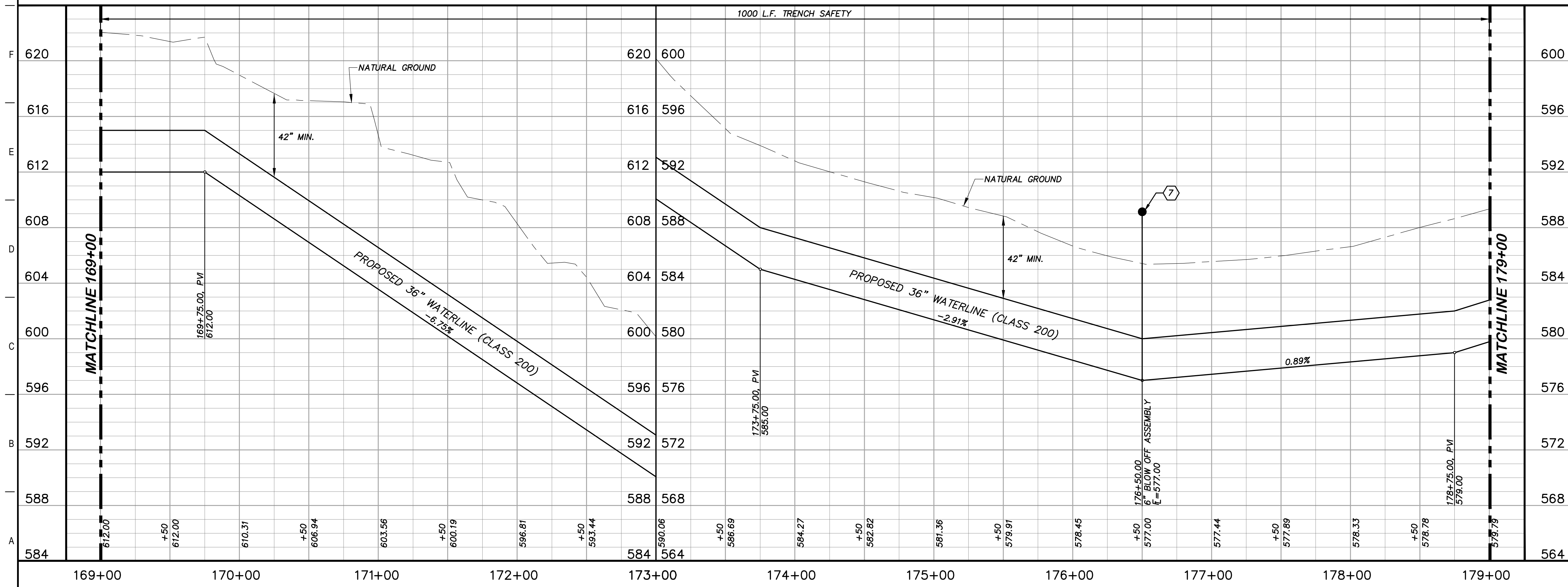
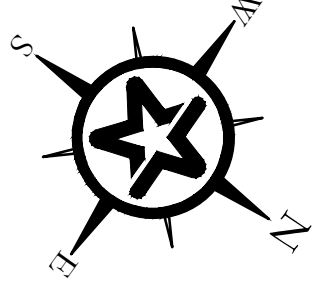


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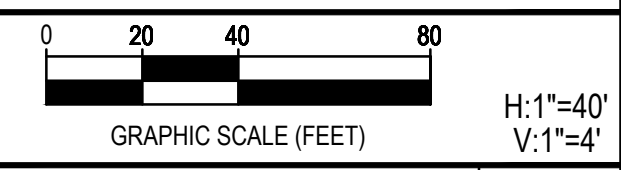
**KEY NOTES**

- 7 6" BLOW OFF VALVE ASSEMBLY (RE. DETAIL A1/D202)
- 41 CATHODIC TEST STATION (RE. DETAIL A1/D403)



**GENERAL NOTES**

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.



REV.	DESCRIPTION	DATE



**SSLGC**

TWDB PROJECT - PHASE 2

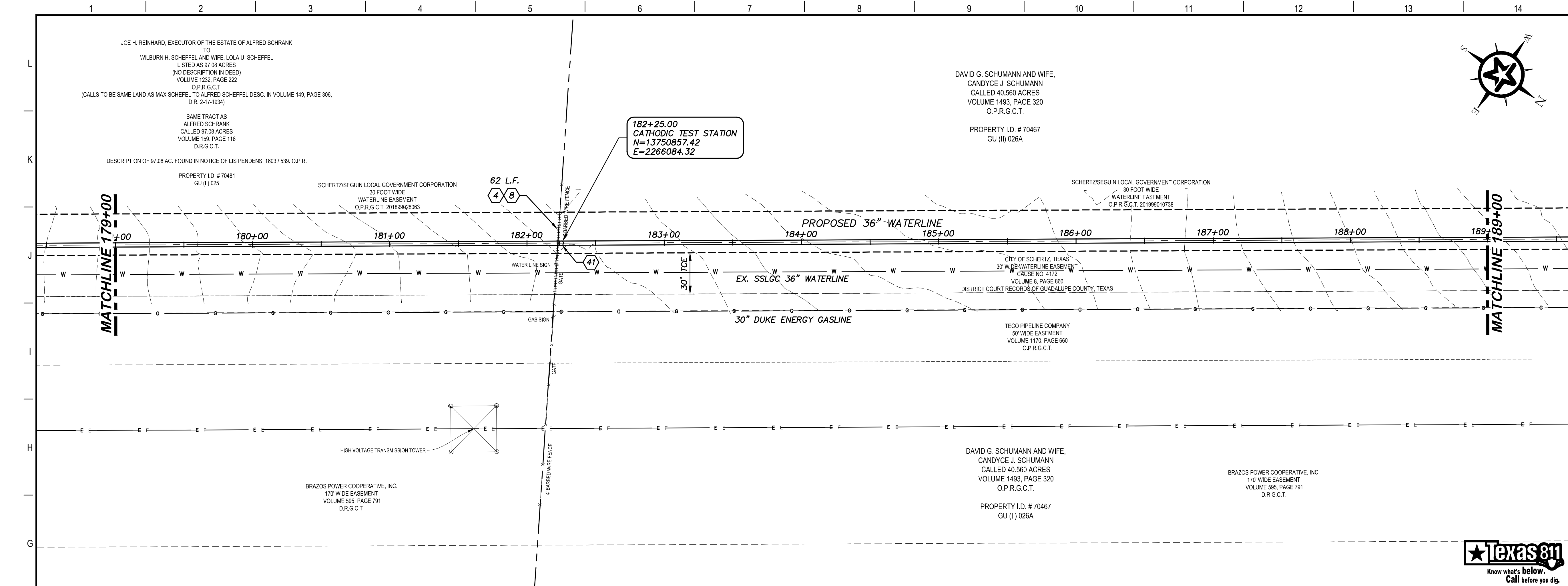
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169+00 TO 179+00

4-13-2020  
DATE

*John F. Winkler*  
JOHN F. WINKLER

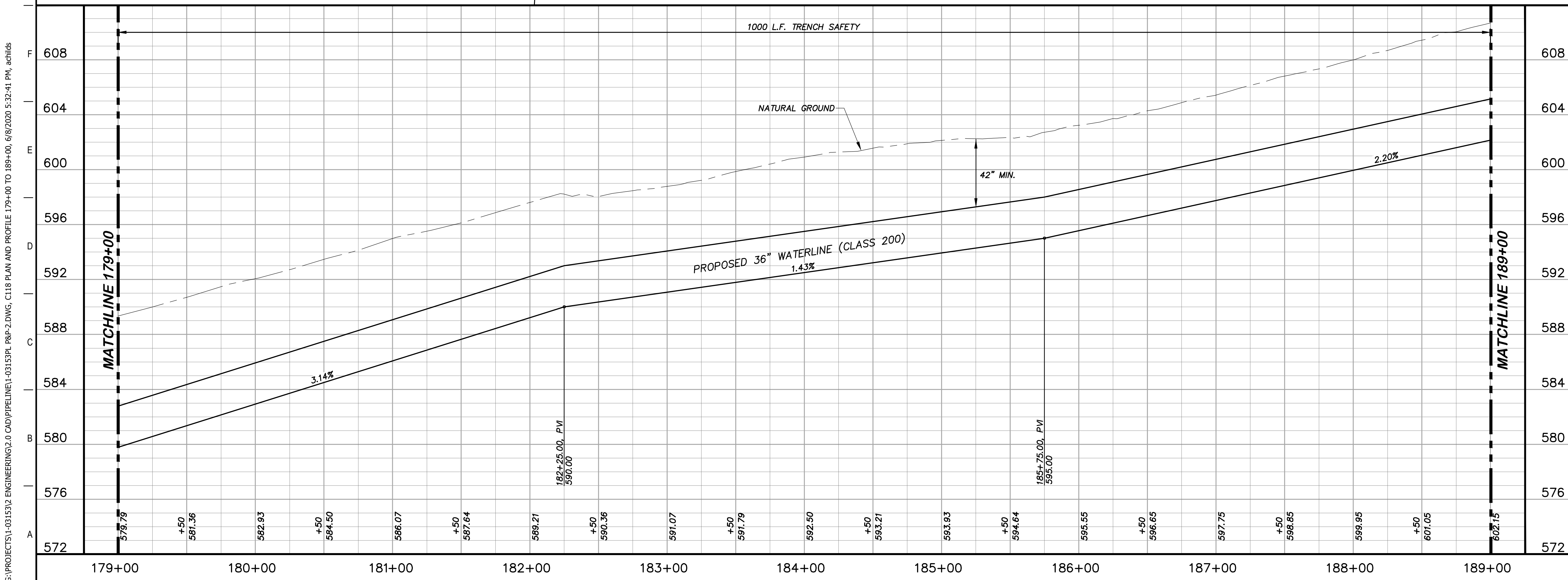
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DRAWING NO.		<b>C117</b>





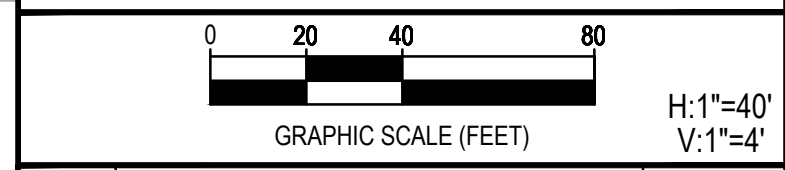
**KEY NOTES**

- 4 REMOVE AND REPLACE GATE (RE. DETAIL D207)
- 8 REMOVE AND REPLACE 62 L.F. EXISTING FENCE (RE. DETAIL A1/D207)
- 41 CATHODIC TEST STATION (RE. DETAIL A1/D403)



**GENERAL NOTES**

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.



REV.	DESCRIPTION	DATE



**SSLGC**

TWDB PROJECT - PHASE 2

**PLAN AND PROFILE  
179+00 TO 189+00**

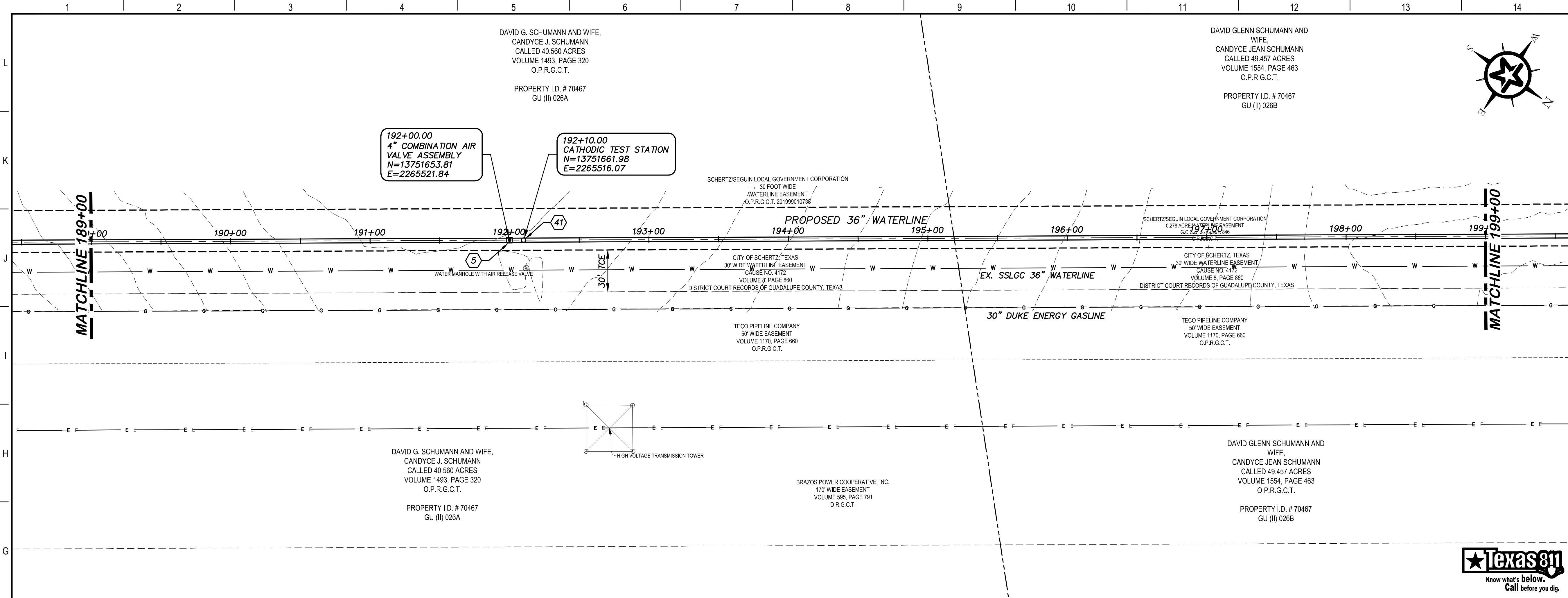
4-13-2020 DATE *John F. Winkler* JOHN F. WINKLER

	DESIGNED	JFW
	DRAFTED	JFW
	CHECKED	ARC
	PROJECT NO.	JFW
DRAWING NO.		1-03153
		<b>C118</b>

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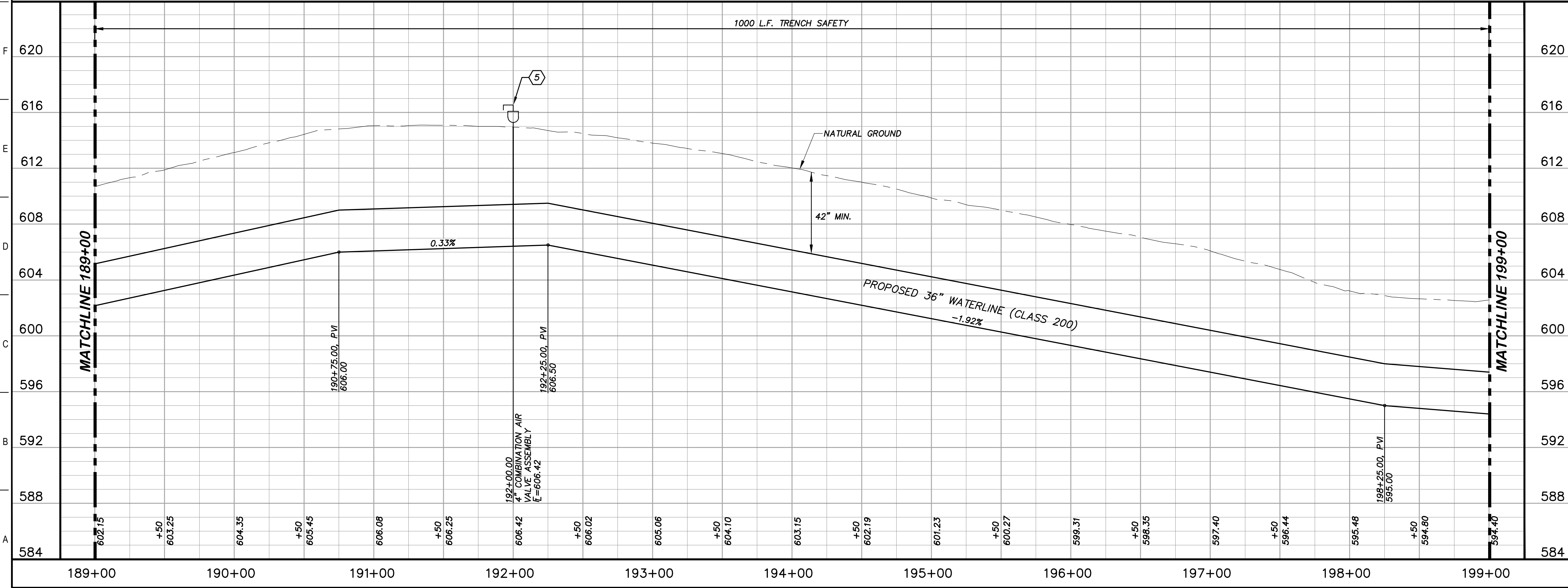


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### KEY NOTES

- 5 COMBINATION VACUUM & AIR RELEASE VALVE & MANHOLE VAULT (RE. DETAIL A1/D201)
- 41 CATHODIC TEST STATION (RE. DETAIL A1/D403)



### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.

0 20 40 80  
GRAPHIC SCALE (FEET) H: 1"=40' V: 1"=4'

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers ★ surveyors  
T.B.P.E. Registration No. 8053

## SSLGC

TWDB PROJECT - PHASE 2

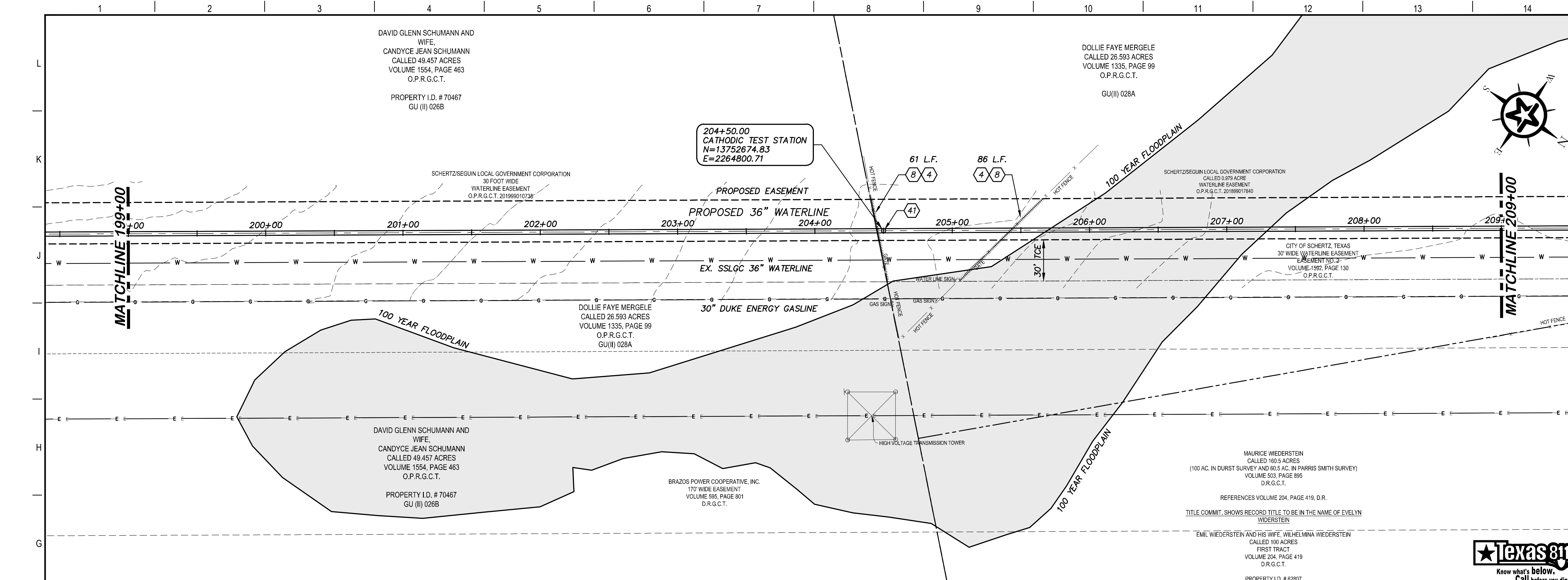
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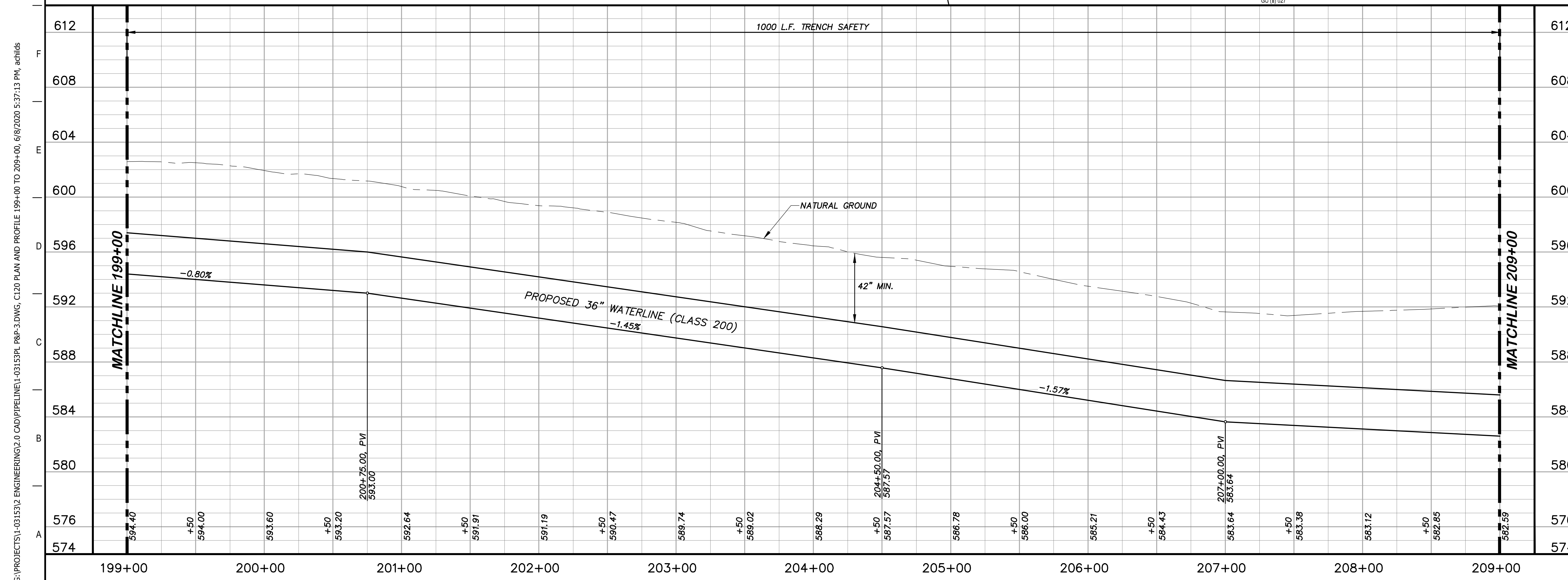
JOHN F. WINKLER  
PROFESSIONAL ENGINEER  
50524

DESIGNED	JFW
DRAFTED	JFW
CHECKED	ARC
PROJECT NO.	1-03153
DRAWING NO.	<b>C119</b>



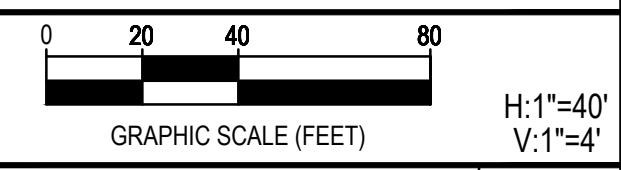


- ### KEY NOTES
- ④ REMOVE AND REPLACE GATE RE: DETAIL A1/D201
  - ⑧ REMOVE AND REPLACE 147 L.F. EXISTING FENCE (RE. DETAIL A1/D207)
  - ④1 CATHODIC TEST STATION (RE. DETAIL A1/D403)



### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.



REV.	DESCRIPTION	DATE



## SSLGC

TWDB PROJECT - PHASE 2

PLAN AND PROFILE  
199+00 TO 209+00

4-13-2020  
DATE: *John F. Winkler*  
JOHN F. WINKLER

STATE OF TEXAS

REGISTERED PROFESSIONAL ENGINEER

JOHN F. WINKLER

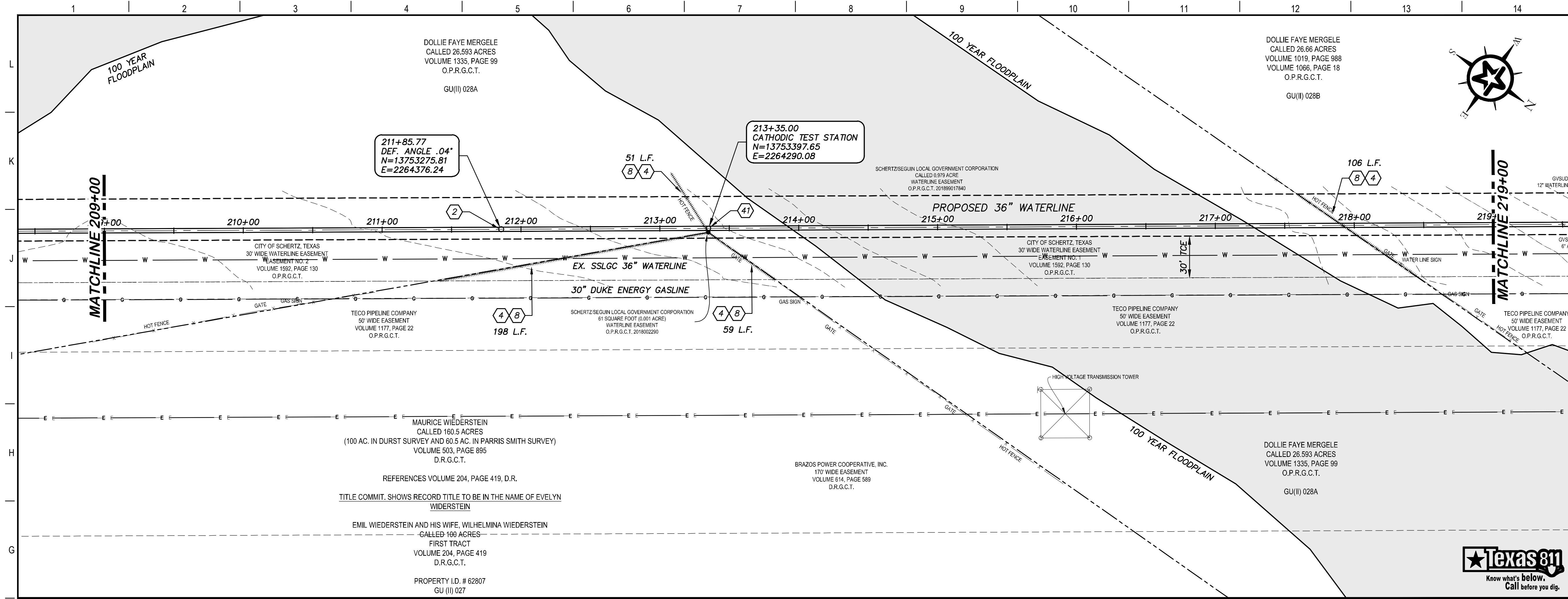
50524

DESIGNED	JFW
DRAFTED	JFW
CHECKED	ARC
PROJECT NO.	1-03153
DRAWING NO.	<b>C120</b>

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### KEY NOTES

- ② CONCRETE THRUST BLOCKING (RE. DETAIL G1/D206)
- ④ REMOVE AND REPLACE GATE (RE. DETAIL A1/D201)
- ⑧ REMOVE AND REPLACE 414 L.F. EXISTING FENCE (RE. DETAIL A1/D207)
- ④1 CATHODIC TEST STATION (RE. DETAIL A1/D403)

### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.

0 20 40 80  
GRAPHIC SCALE (FEET) H: 1"=40' V: 1"=4'

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers ★ surveyors  
T.B.P.E. Registration No. 8053

**SSLGC**

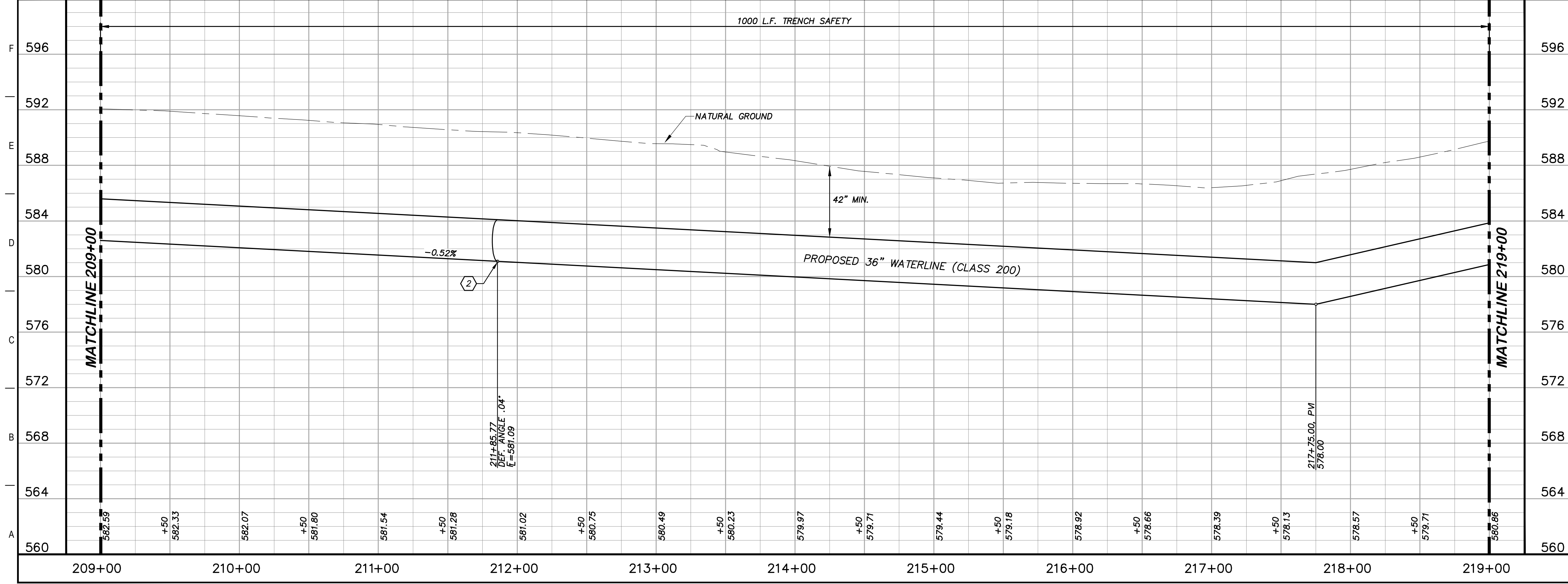
TWDB PROJECT - PHASE 2

PLAN AND PROFILE  
209+00 TO 219+00

4-13-2020  
DATE

*John F. Winkler*  
JOHN F. WINKLER

PM	JFW
DESIGNED	JFW
DRAFTED	ARC
CHECKED	JFW
PROJECT NO.	1-03153
DRAWING NO.	<b>C121</b>



1000 L.F. TRENCH SAFETY

NATURAL GROUND

42" MIN.

PROPOSED 36" WATERLINE (CLASS 200)

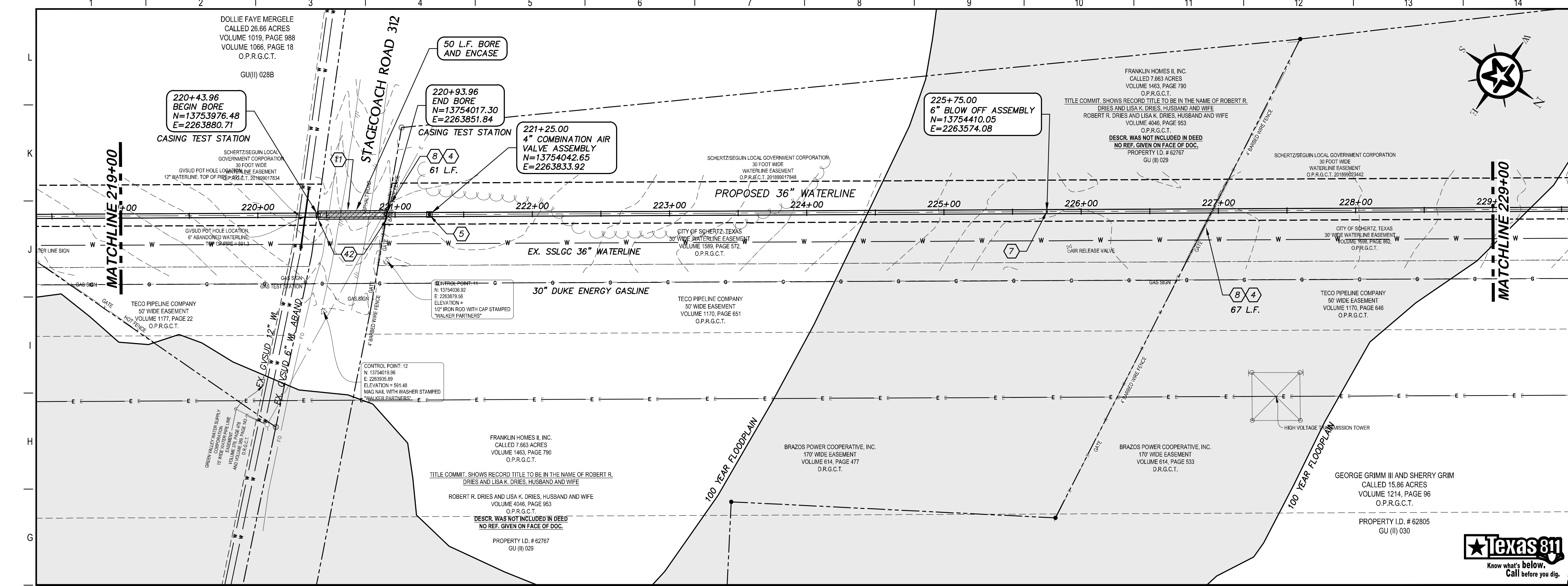
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211+85.77  
DEF. ANGLE .04°  
L = 597.09

217+75.00, PVI  
578.00

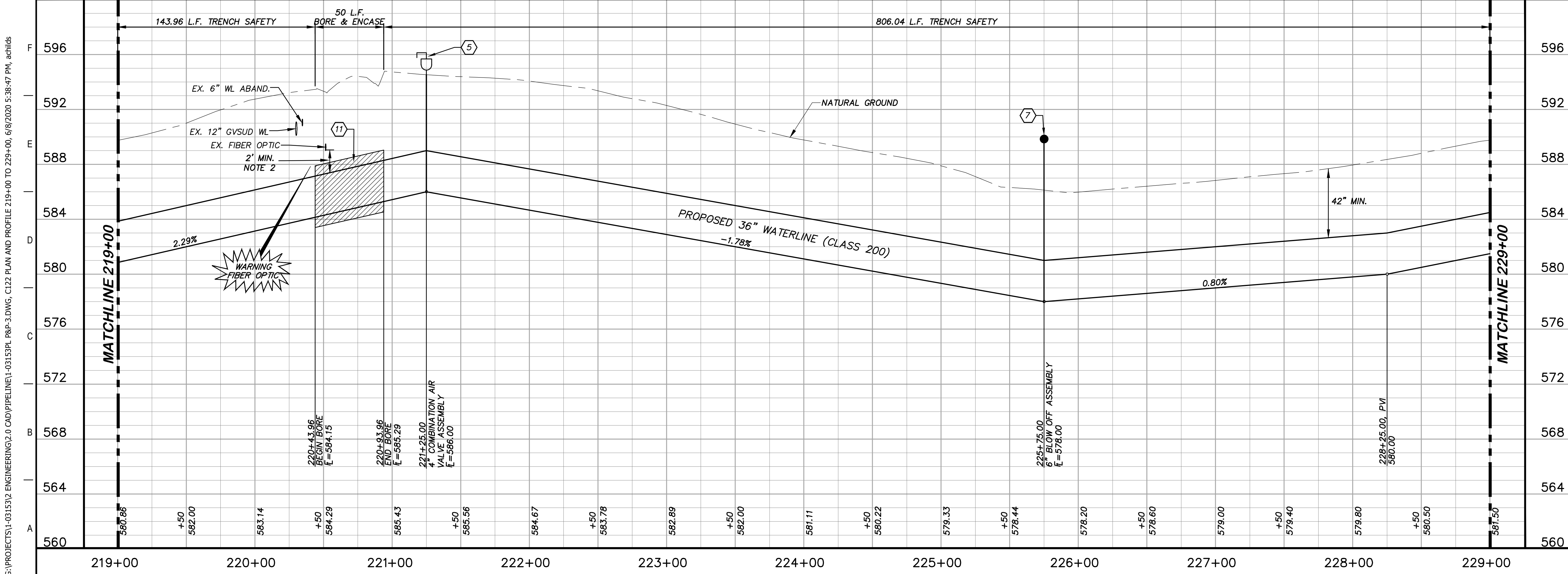
209+00 210+00 211+00 212+00 213+00 214+00 215+00 216+00 217+00 218+00 219+00





### KEY NOTES

- 4 REMOVE AND REPLACE GATE (RE. DETAIL A1/D201)
- 5 COMBINATION VACUUM & AIR RELEASE VALVE & MANHOLE VAULT (RE. DETAIL A1/D201)
- 7 6" BLOW OFF VALVE ASSEMBLY (RE. DETAIL A1/D202)
- 8 REMOVE AND REPLACE 128 L.F. EXISTING FENCE (RE. DETAIL A1/D207)
- 11 BORE AND ENCASE STEEL CASING (RE. DETAIL A1/D206)
- 42 CASING TEST STATION (RE. DETAIL H1/D401)



### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.
2. FIELD VERIFY DEPTHS OF ALL EX. UTILITIES.

0 20 40 80  
GRAPHIC SCALE (FEET) H:1"=40' V:1"=4'

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers ★ surveyors  
T.B.P.E. Registration No. 8053

## SSLGC

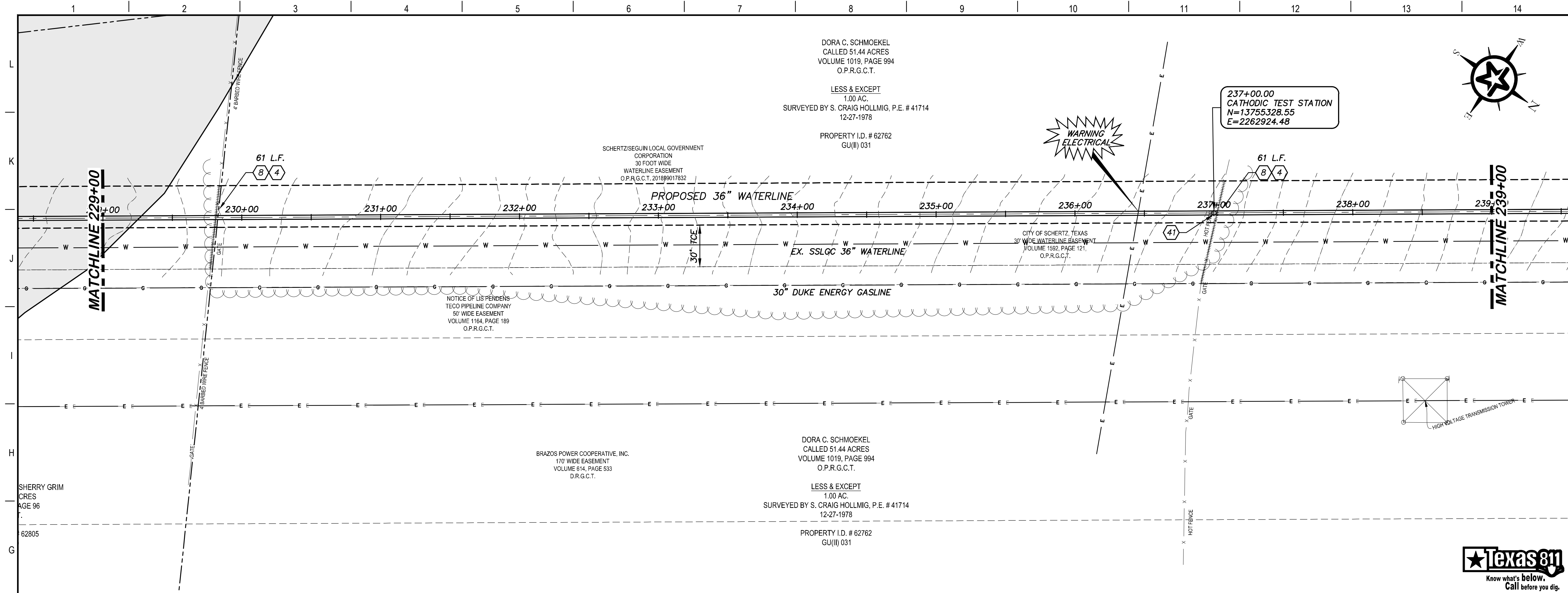
TWDB PROJECT - PHASE 2

### PLAN AND PROFILE 219+00 TO 229+00

4-13-2020  
DATE

*John F. Winkler*  
JOHN F. WINKLER  
DESIGNED JFW  
DRAFTED JFW  
CHECKED JFW  
PROJECT NO. 1-03153  
DRAWING NO. **C122**

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### KEY NOTES

- 4 REMOVE AND REPLACE GATE  
RE: DETAIL A1/D201
- 8 REMOVE AND REPLACE 122 L.F. EXISTING  
FENCE (RE: DETAIL A1/D207)
- 41 CATHODIC TEST STATION  
(RE: DETAIL A1/D403)

### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.

0 20 40 80  
GRAPHIC SCALE (FEET) H:1"=40'  
V:1"=4'

REV.	DESCRIPTION	DATE

**Walker Partners**  
 engineers ★ surveyors  
T.B.P.E. Registration No. 8053

## SSLGC

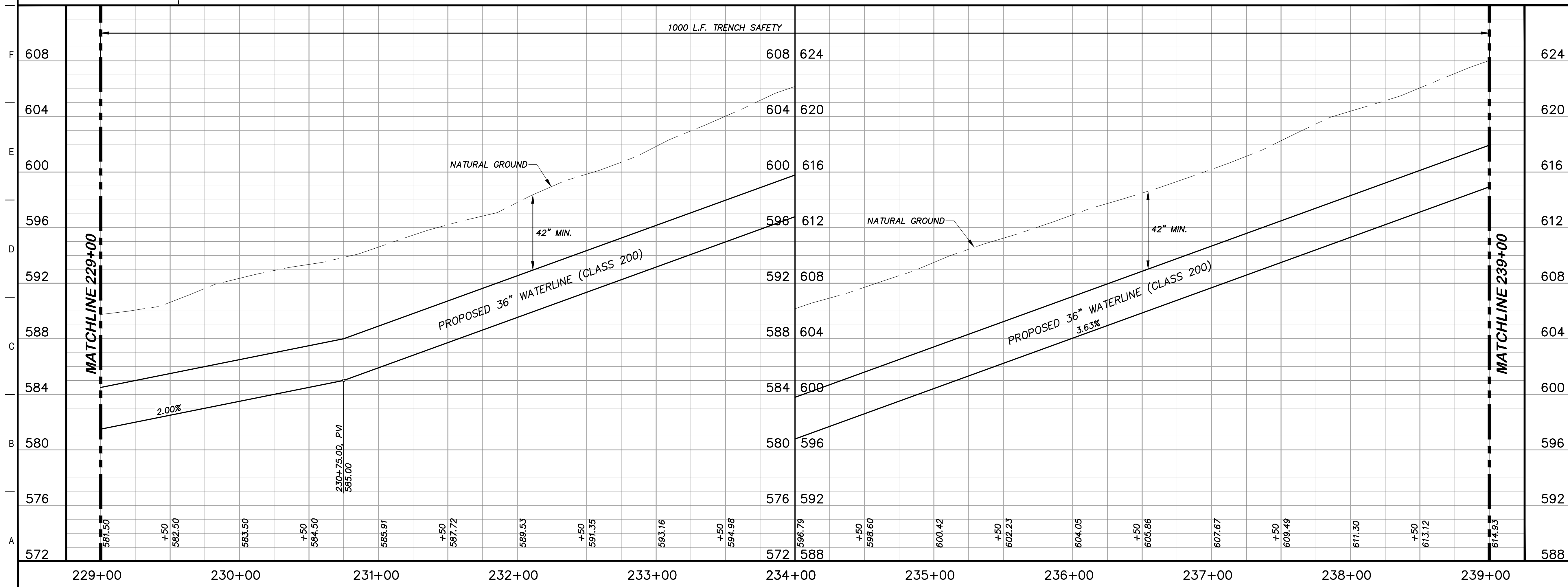
TWDB PROJECT - PHASE 2

### PLAN AND PROFILE 229+00 TO 239+00

4-13-2020  
DATE

JOHN F. WINKLER  
REGISTERED PROFESSIONAL ENGINEER

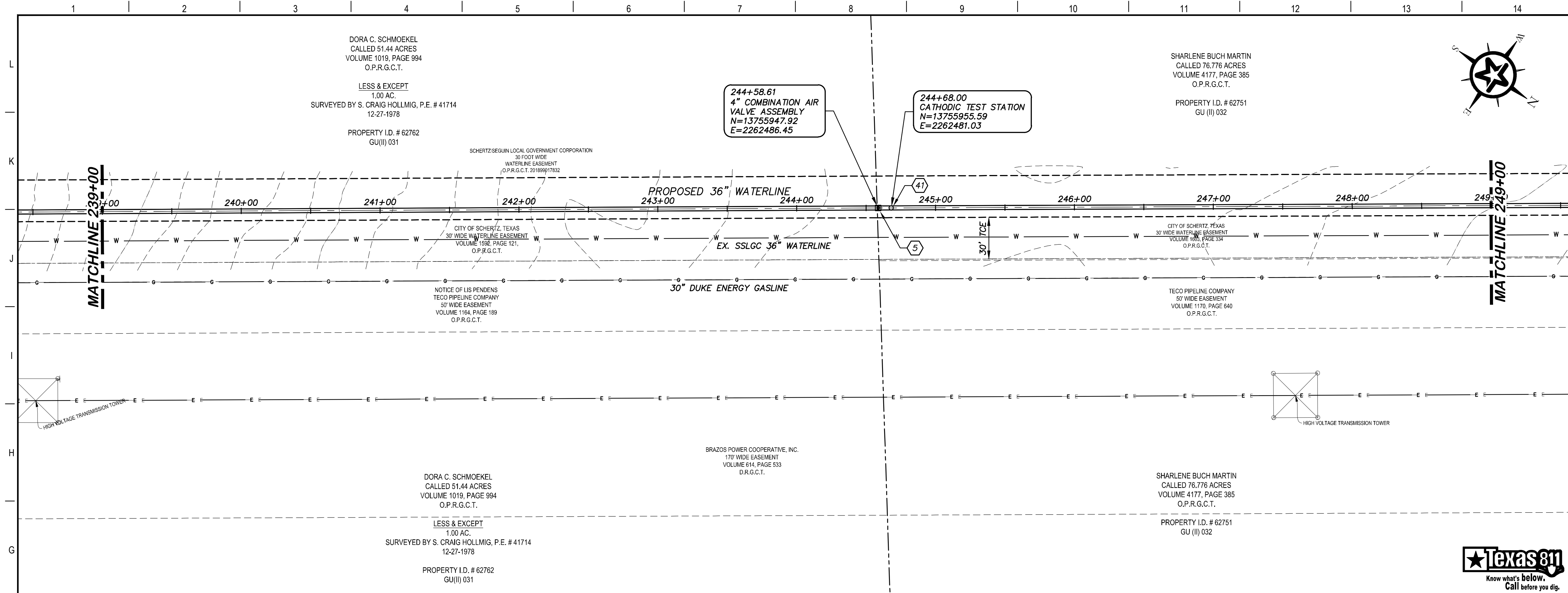
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DRAFTED	ARC
CHECKED	JFW
PROJECT NO.	1-03153
DRAWING NO.	<b>C123</b>



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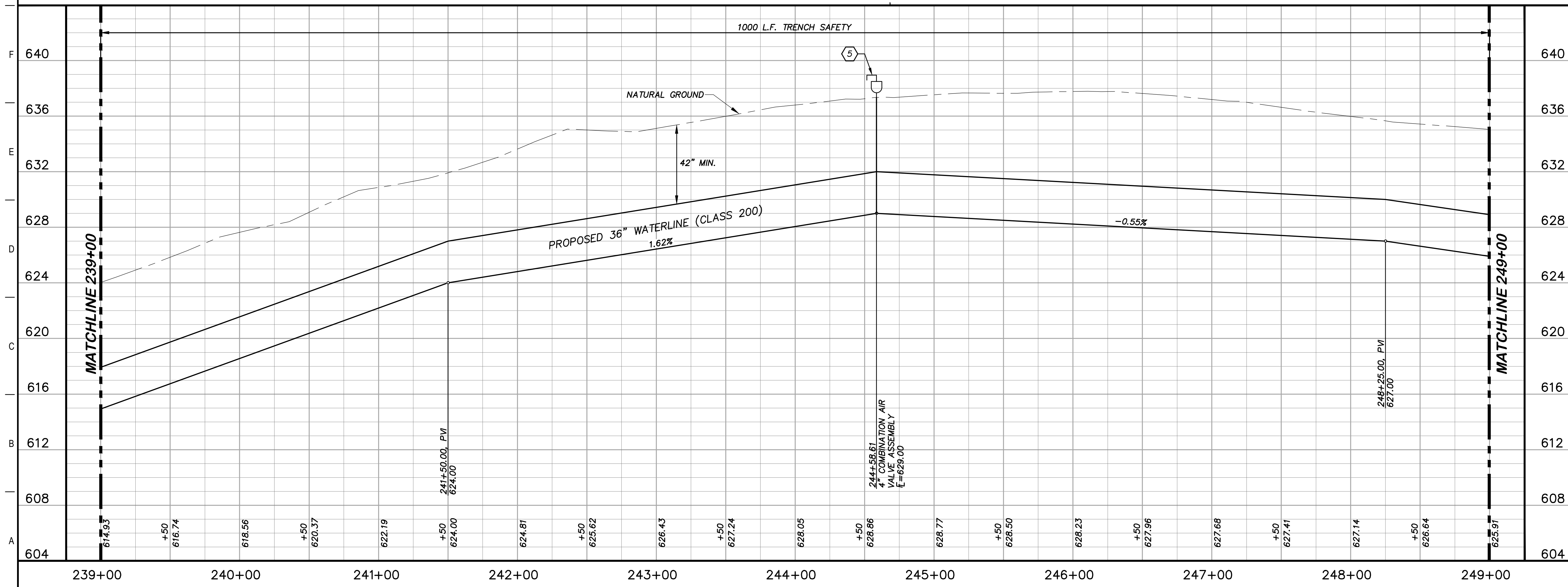


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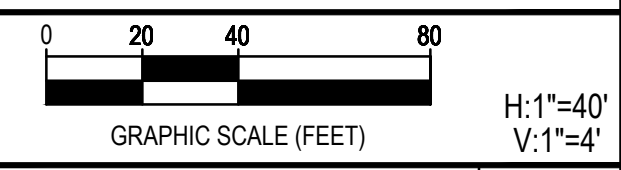
**KEY NOTES**

- (5) COMBINATION VACUUM & AIR RELEASE VALVE & MANHOLE VAULT (RE. DETAIL A1/D201)
- (41) CATHODIC TEST STATION (RE. DETAIL A1/D403)



**GENERAL NOTES**

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.



REV.	DESCRIPTION	DATE



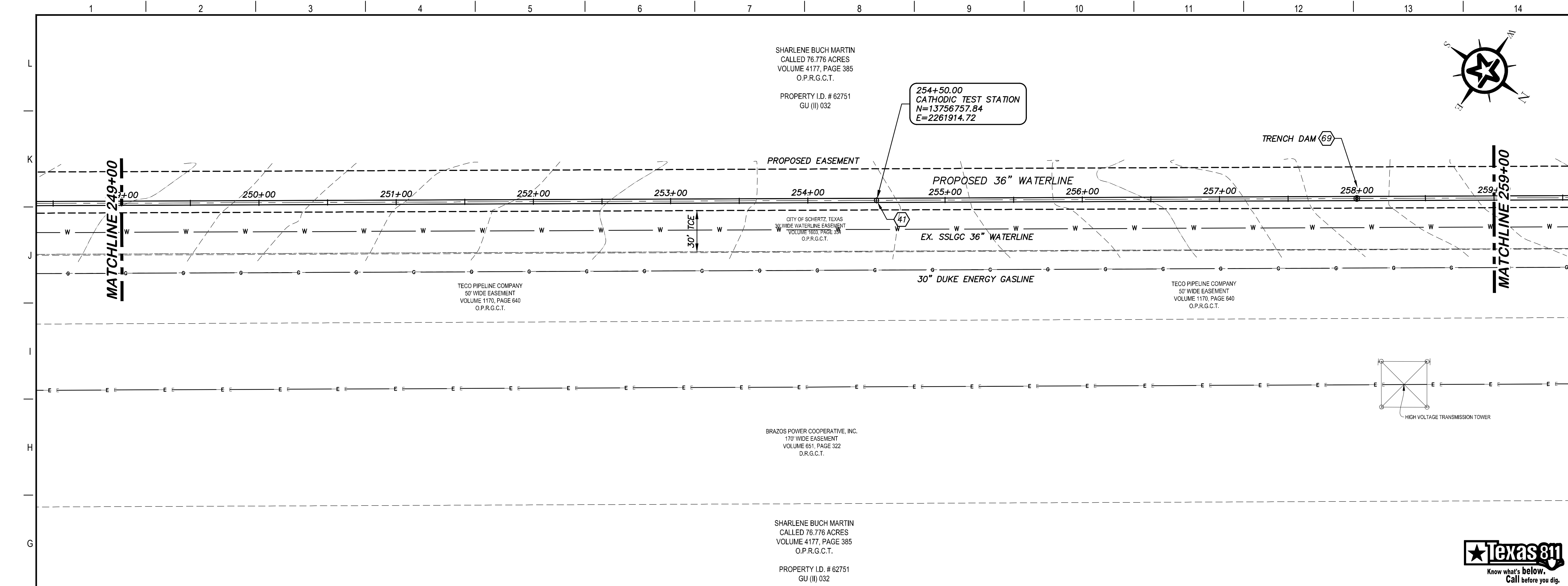
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TWDB PROJECT - PHASE 2

**PLAN AND PROFILE  
239+00 TO 249+00**

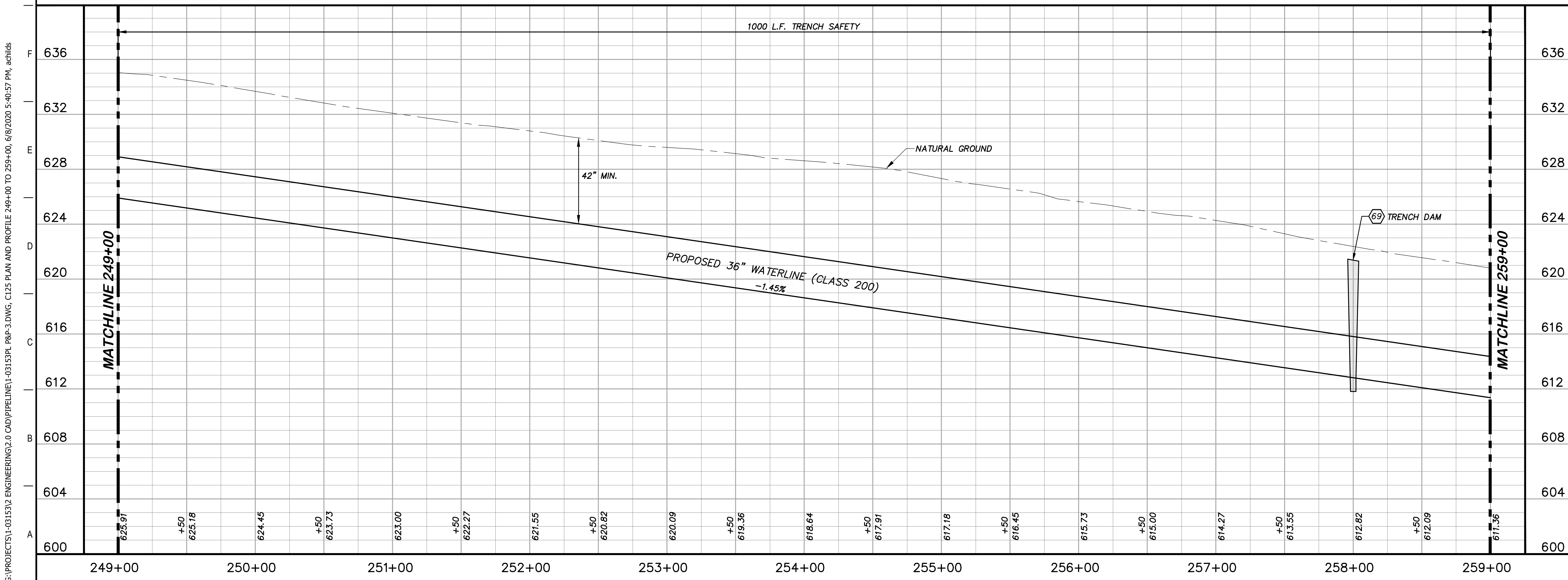
4-13-2020  
DATE: JOHN F. WINKLER

	DESIGNED	JFW
	DRAFTED	JFW
	CHECKED	ARC
	PROJECT NO.	1-03153
DRAWING NO.		<b>C124</b>



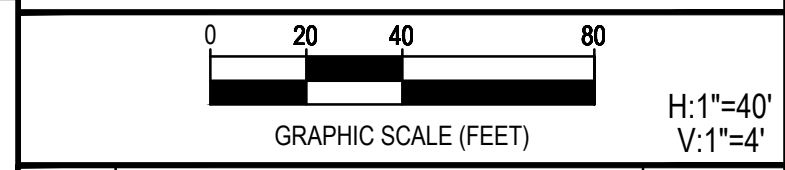
**KEY NOTES**

41	CATHODIC TEST STATION (RE. DETAIL A1/D403)
69	TRENCH DAM (RE. DETAIL G1/D200)



**GENERAL NOTES**

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.



REV.	DESCRIPTION	DATE



**SSLGC**

TWDB PROJECT - PHASE 2

PLAN AND PROFILE  
249+00 TO 259+00

4-13-2020  
DATE

*John F. Winkler*  
JOHN F. WINKLER

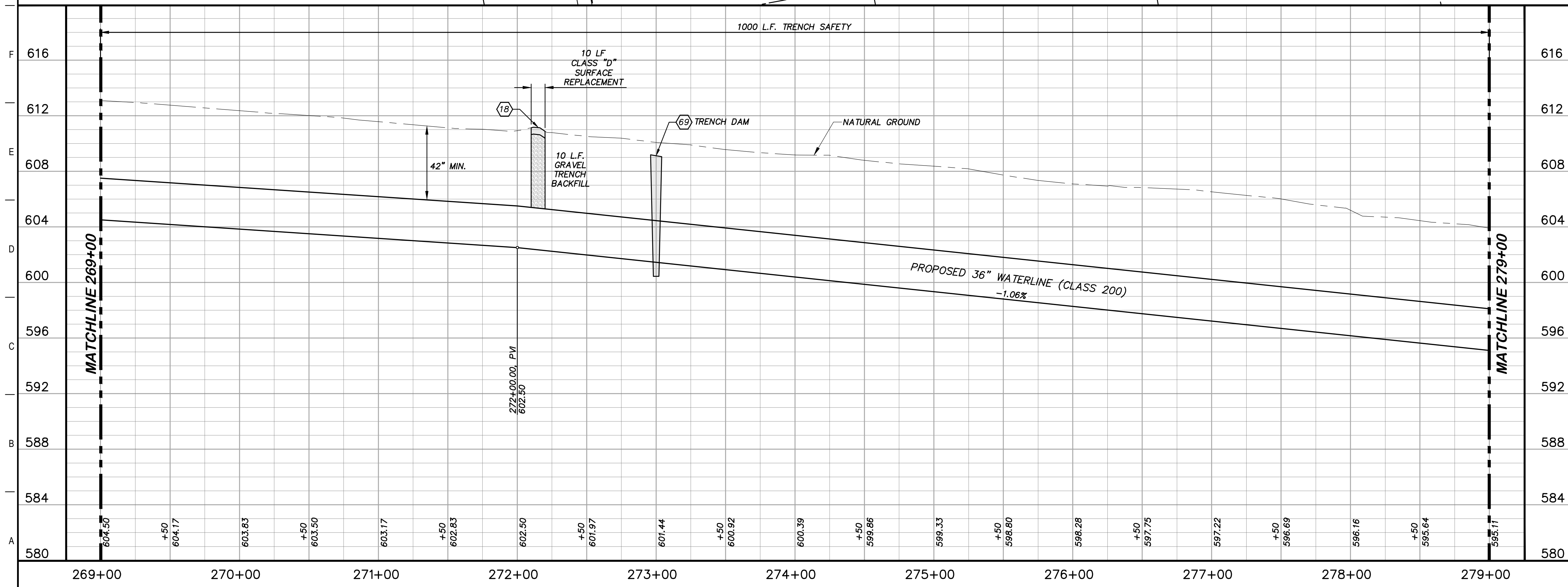
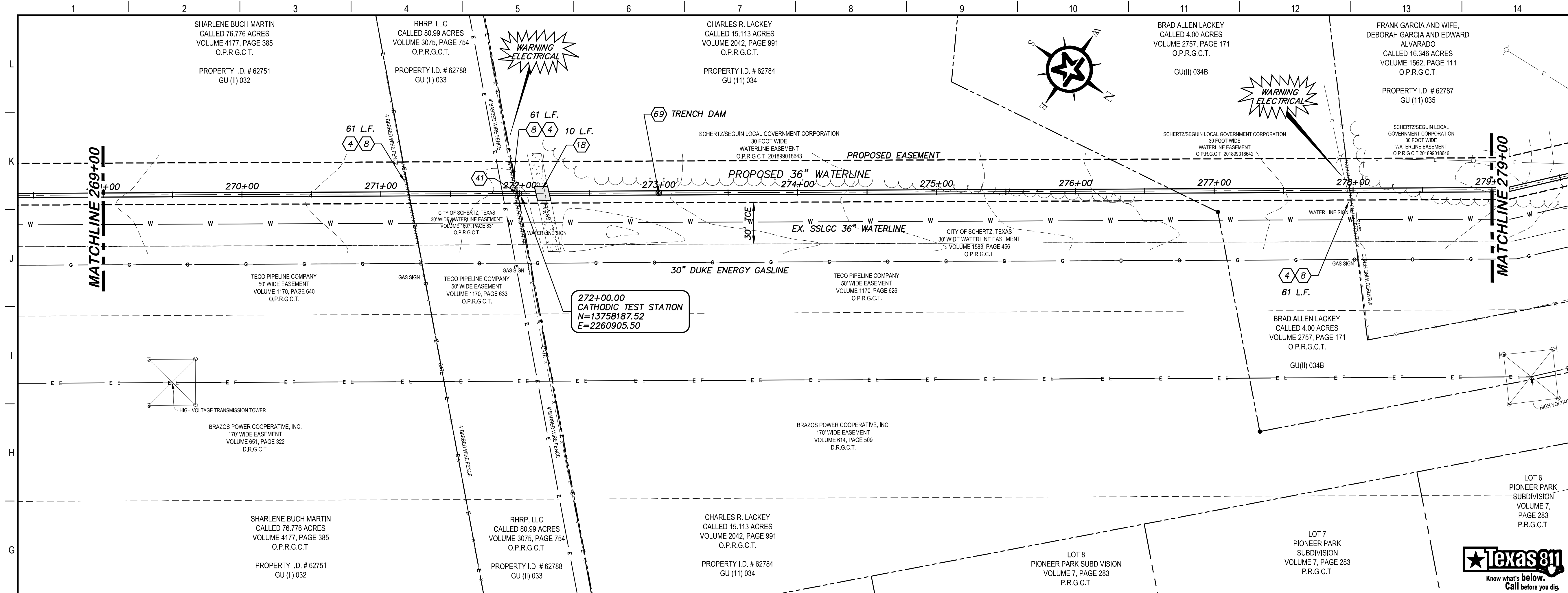
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CHECKED	ARC
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DRAWING NO.	<b>C125</b>

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### KEY NOTES

- 4 REMOVE AND REPLACE GATE RE: DETAIL A1/D201
- 8 REMOVE AND REPLACE 183 L.F. EXISTING FENCE (RE: DETAIL A1/D207)
- 18 CLASS D SURFACE REPLACEMENT (RE: DETAIL G1/D208)
- 41 CATHODIC TEST STATION (RE: DETAIL A1/D403)
- 69 TRENCH DAM (RE: DETAIL G1/D200)

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

### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.

0 20 40 80  
GRAPHIC SCALE (FEET) H:1"=40' V:1"=4'

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers \* surveyors  
T.B.P.E. Registration No. 8053

## SSLGC

TWDB PROJECT - PHASE 2

### PLAN AND PROFILE 269+00 TO 279+00

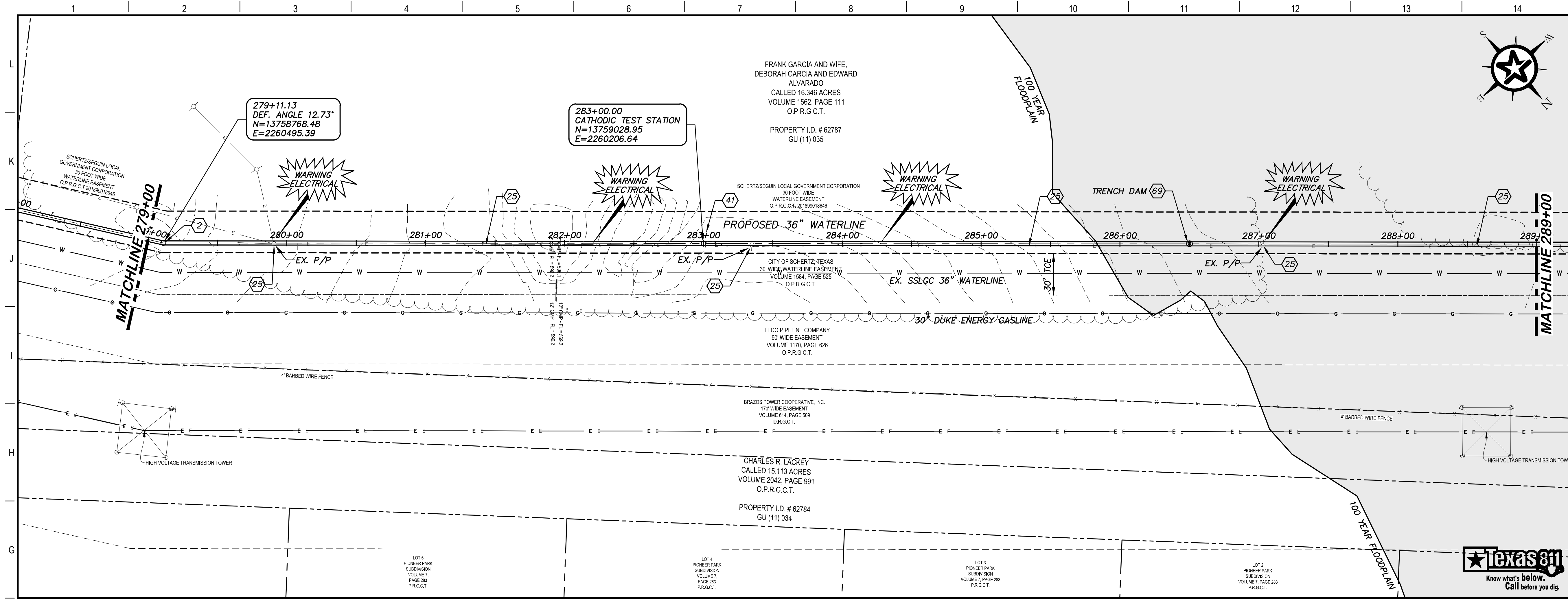
4-13-2020  
DATE

JOHN F. WINKLER  
DATE

DESIGNED	JFW
DRAFTED	JFW
CHECKED	ARC
PROJECT NO.	1-03153
DRAWING NO.	C127

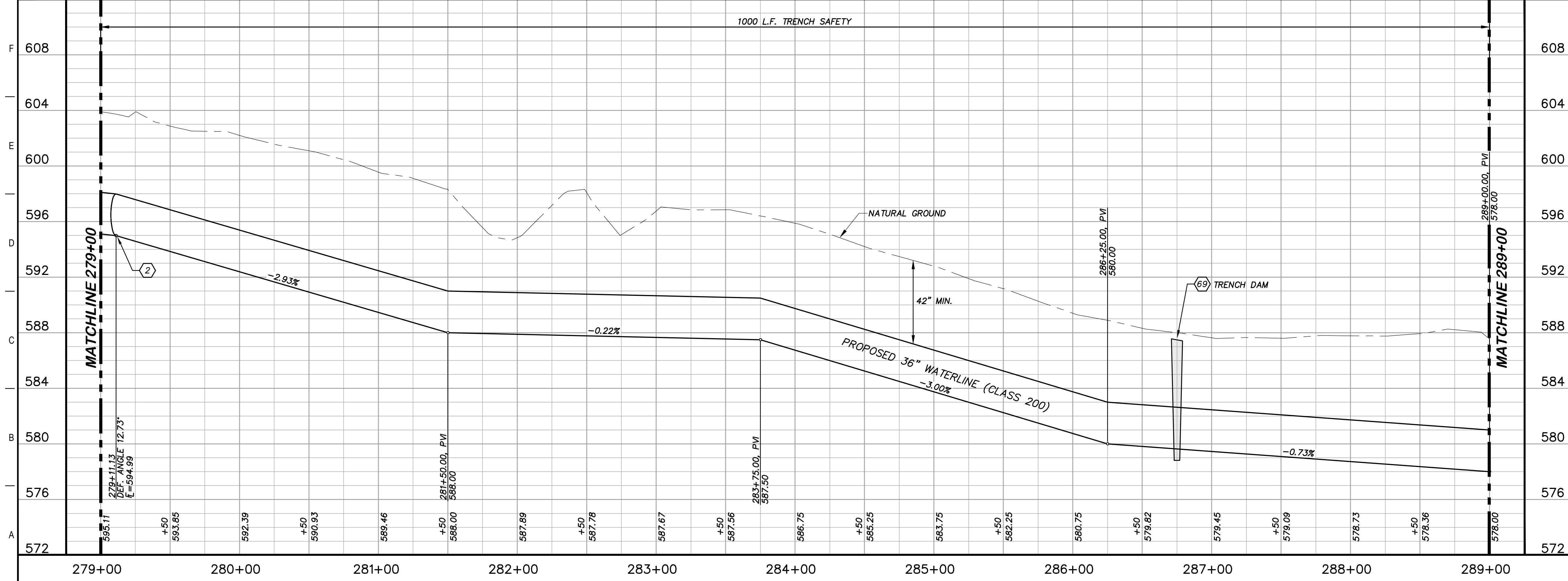


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### KEY NOTES

- (2) CONCRETE THRUST BLOCKING (RE. DETAIL G1/D206)
- THE CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH THE APPROPRIATE UTILITIES OWNING ANY POLES OR SIGNS THAT MAY BE IMPACTED DURING THE WORK OF THIS CONTRACT. BRACING AND PROTECTIVE MEASURES PER THE REQUIREMENTS OF THE SIGNS' OWNERS SHALL BE PROVIDED BY THE CONTRACTOR, AND SHALL BE CONSIDERED SUBSIDIARY TO THE WORK.
- (41) CATHODIC TEST STATION (RE. DETAIL A1/D403)
- (69) TRENCH DAM (RE. DETAIL G1/D200)



### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.

GRAPHIC SCALE (FEET) 0 20 40 80  
H: 1"=40'  
V: 1"=4'

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers \* surveyors  
T.B.P.E. Registration No. 8053

**SSLGC**

TWDB PROJECT - PHASE 2

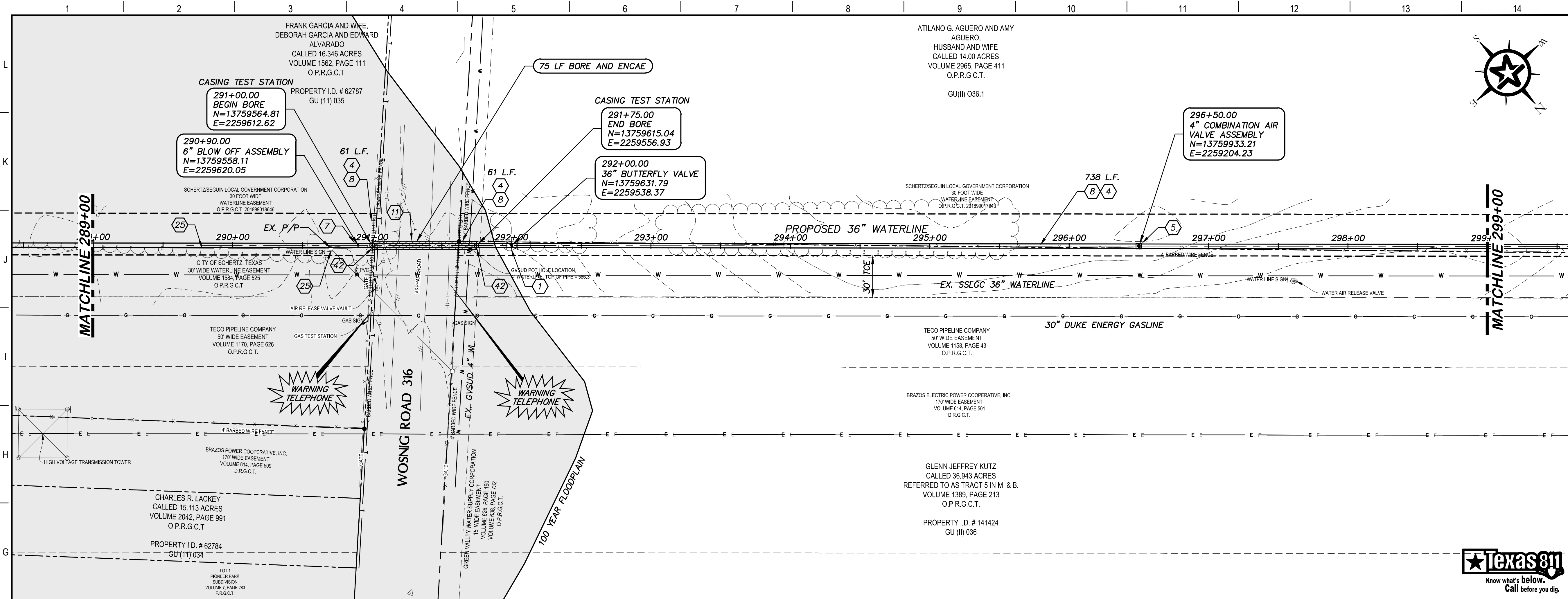
PLAN AND PROFILE  
279+00 TO 289+00

4-13-2020  
DATE

JOHN F. WINKLER  
PROFESSIONAL ENGINEER

DESIGNED	JFW
DRAFTED	JFW
CHECKED	ARC
PROJECT NO.	1-03153
DRAWING NO.	C128

G:\PROJECTS\1-03153\2 ENGINEERING\2.0 CAD\PIPELINE\1-03153PL P&P-3.DWG, C129 PLAN AND PROFILE 289+00 TO 299+00, 6/8/2020 5:43:38 PM, achids

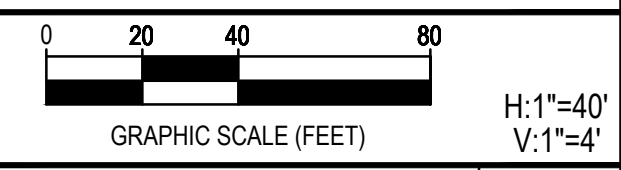


**KEY NOTES**

- 1 BUTTERFLY VALVE (RE. DETAIL G1/D200)
- 4 REMOVE AND REPLACE GATE (RE. DETAIL A1/D201)
- 5 COMBINATION VACUUM & AIR RELEASE VALVE & MANHOLE VAULT (RE. DETAIL A1/D201)
- 7 6" BLOW OFF VALVE ASSEMBLY (RE. DETAIL A1/D202)
- 8 REMOVE AND REPLACE 860 L.F. EXISTING FENCE (RE. DETAIL A1/D207)
- 11 BORE AND ENCASE STEEL CASING (RE. DETAIL A1/D206)
- 25 THE CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH THE APPROPRIATE UTILITIES OWNING ANY POLES OR SIGNS THAT MAY BE IMPACTED DURING THE WORK OF THIS CONTRACT. BRACING AND PROTECTIVE MEASURES PER THE REQUIREMENTS OF THE SIGNS' OWNERS SHALL BE PROVIDED BY THE CONTRACTOR, AND SHALL BE CONSIDERED SUDDIARY TO THE WORK.
- 42 CASING TEST STATION (RE. DETAIL H1/D401)

**GENERAL NOTES**

- 1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.
- 2. FIELD VERIFY DEPTHS OF ALL EX. UTILITIES.



REV.	DESCRIPTION	DATE



**SSLGC**

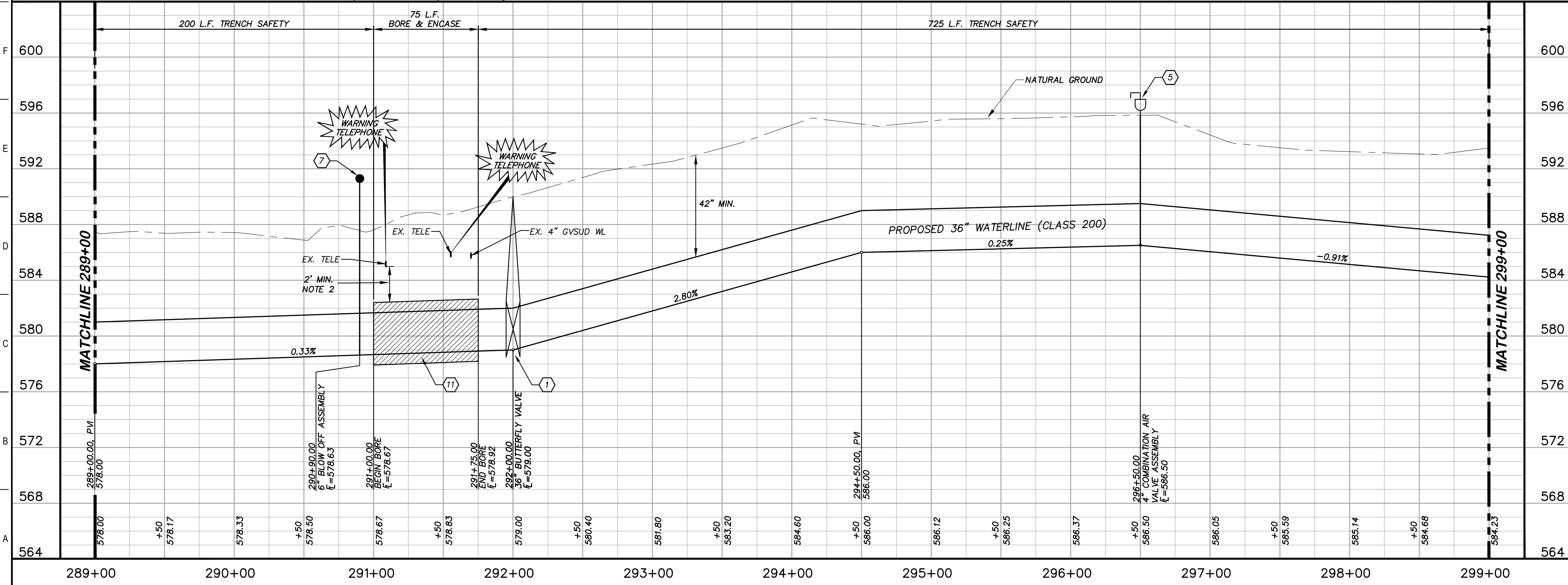
TWDB PROJECT - PHASE 2

PLAN AND PROFILE  
289+00 TO 299+00

4-13-2020  
DATE  
JOHN F. WINKLER  
DESIGNED

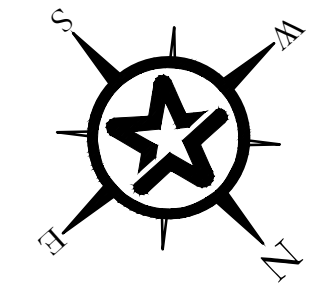
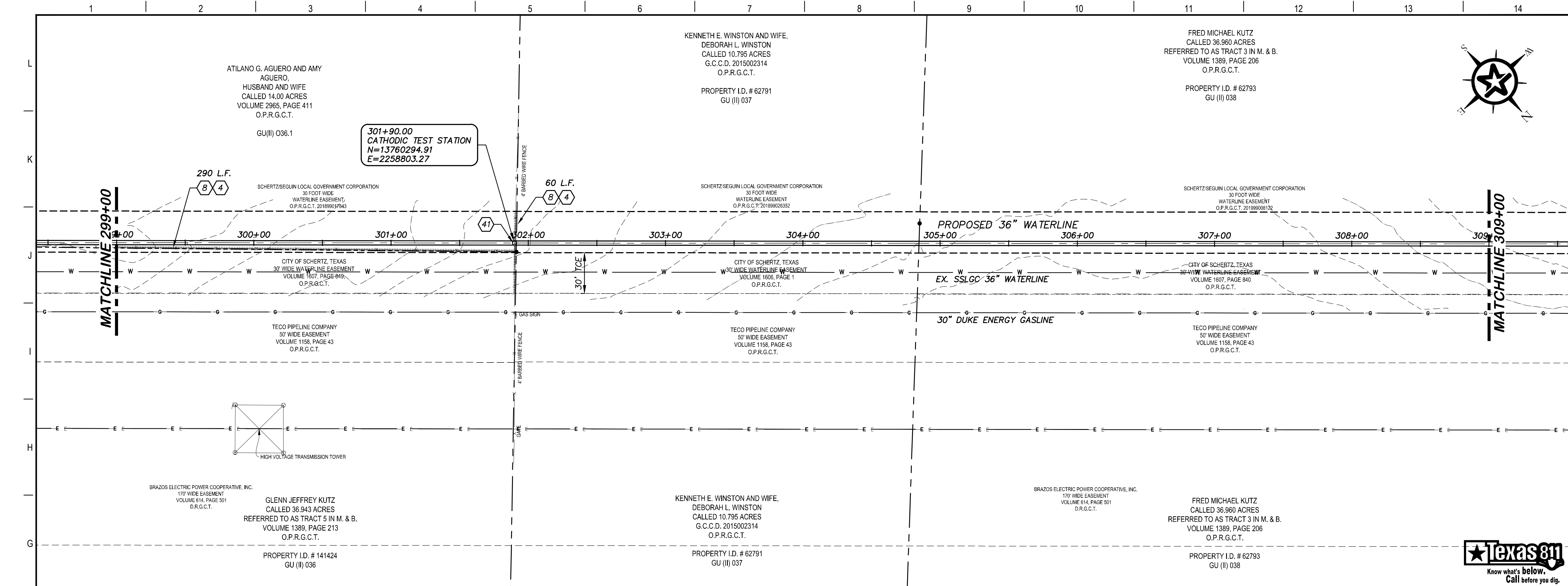
JOHN F. WINKLER  
50524  
REGISTERED PROFESSIONAL ENGINEER

DRAWING NO.  
**C129**

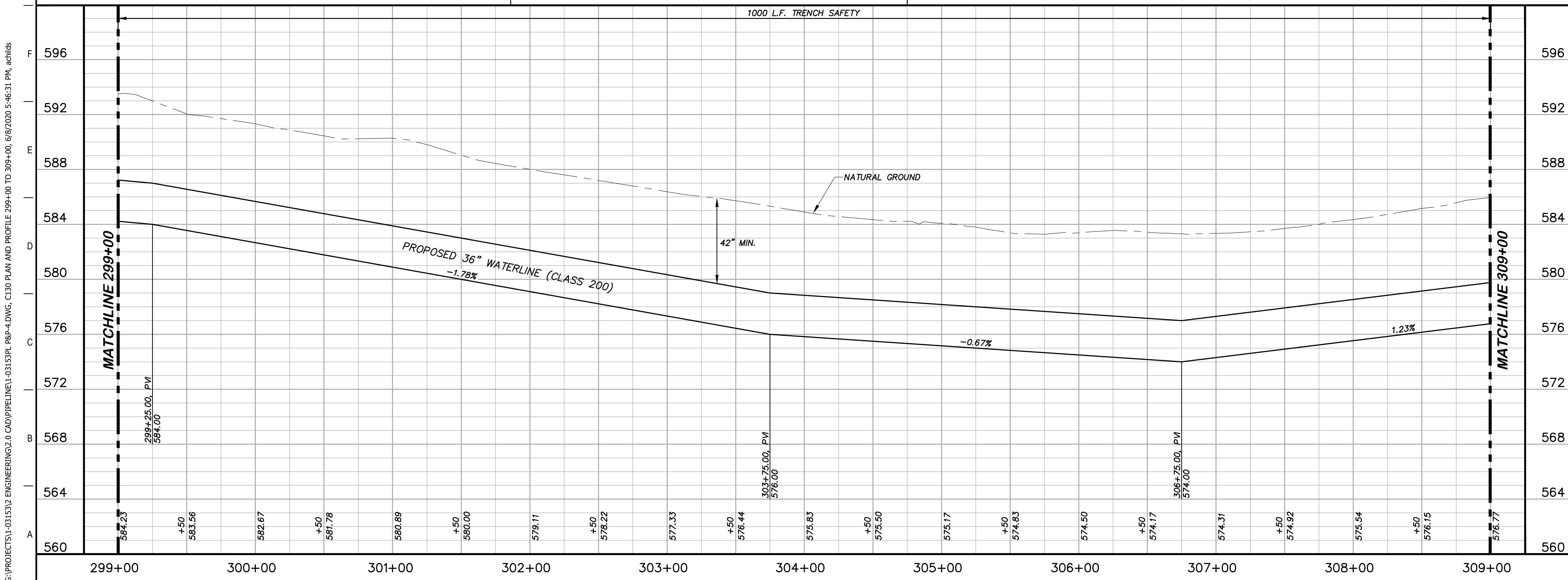


DESIGNED	JFW
DRAFTED	ARC
CHECKED	JFW
PROJECT NO.	1-03153
DRAWING NO.	<b>C129</b>



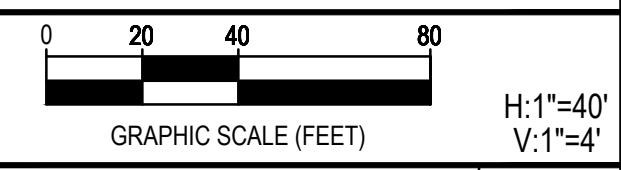


- ### KEY NOTES
- ④ REMOVE AND REPLACE GATE  
RE: DETAIL A1/D201
  - ⑧ REMOVE AND REPLACE 350 L.F. EXISTING  
FENCE (RE: DETAIL A1/D207)
  - ④1 CATHODIC TEST STATION  
(RE: DETAIL A1/D403)



### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES  
MAY NOT BE SHOWN OUTSIDE THE PERMANENT  
AND TEMPORARY EASEMENT.



REV.	DESCRIPTION	DATE



### SSLGC

TWDB PROJECT - PHASE 2

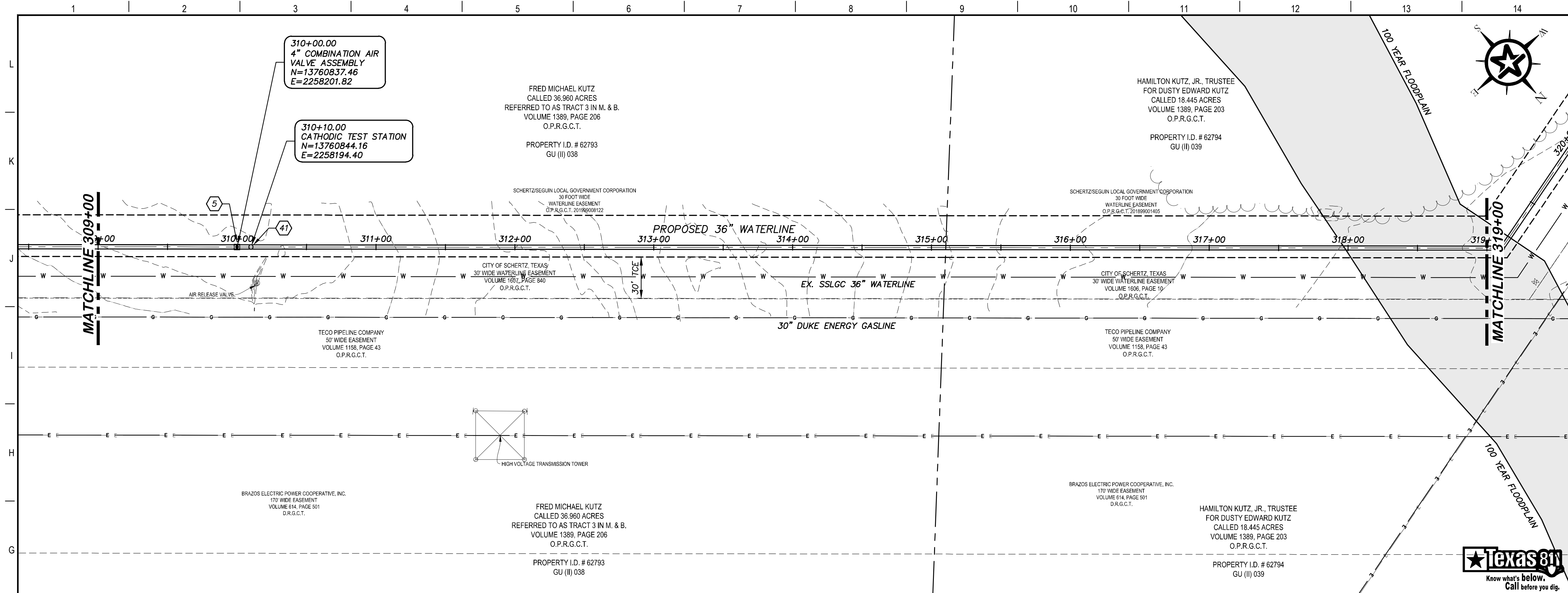
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4-13-2020  
DATE: *John F. Winkler*  
JOHN F. WINKLER

	DESIGNED	JFW
	DRAFTED	JFW
	CHECKED	ARC
	PROJECT NO.	JFW
DRAWING NO.		1-03153
		<b>C130</b>

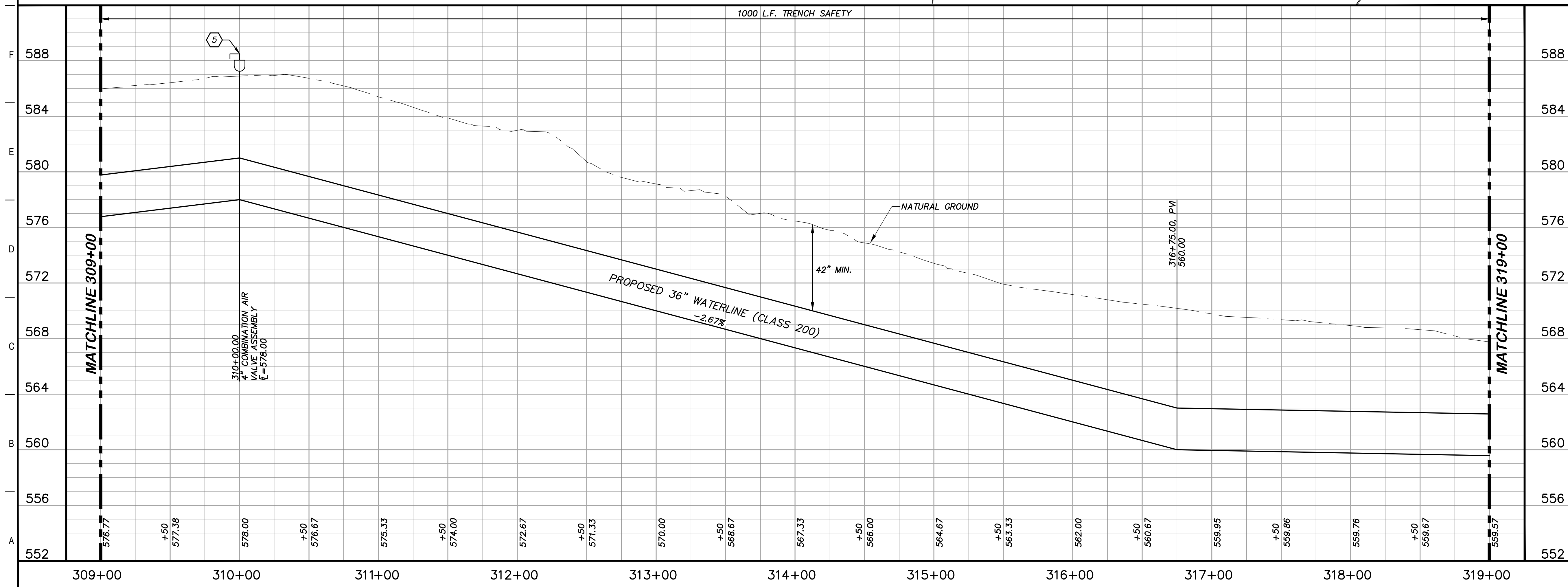
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### KEY NOTES

- 5 COMBINATION VACUUM & AIR RELEASE VALVE & MANHOLE VAULT (RE. DETAIL A1/D201)
- 41 CATHODIC TEST STATION (RE. DETAIL A1/D403)



### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.

GRAPHIC SCALE (FEET) 0 20 40 80 H:1"=40' V:1"=4'

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers ★ surveyors  
T.B.P.E. Registration No. 8053

**SSLGC**

TWDB PROJECT - PHASE 2

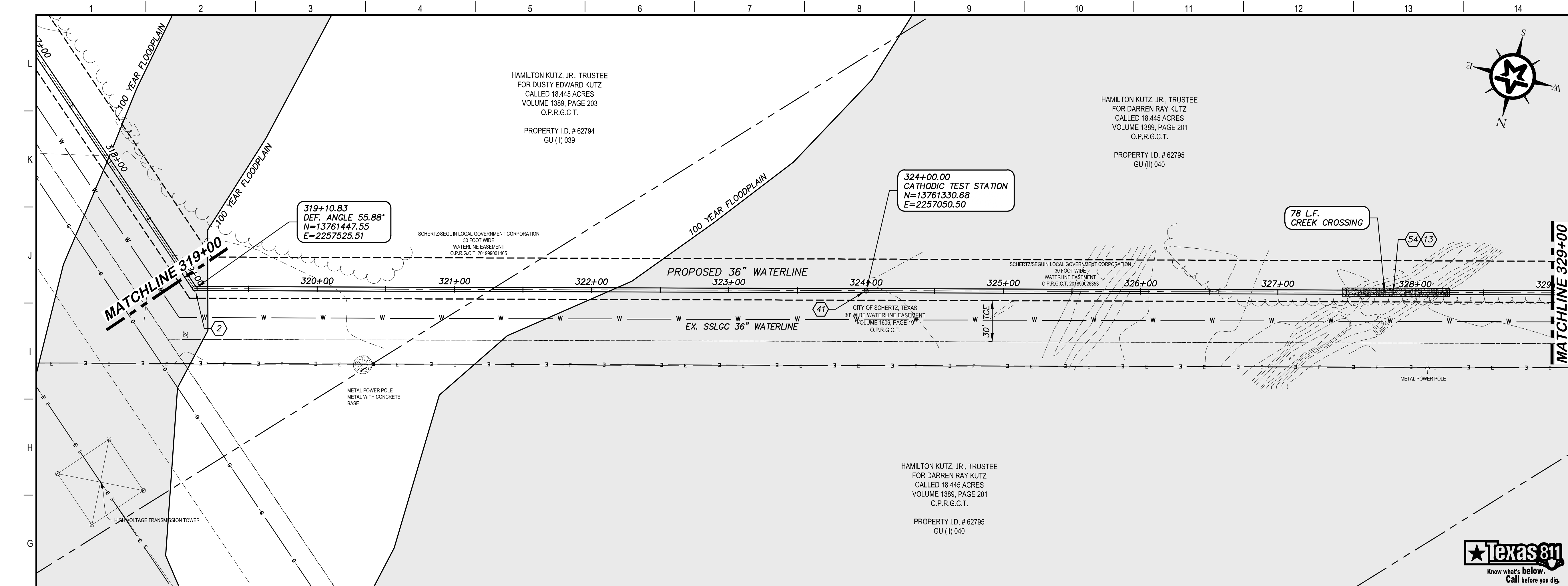
PLAN AND PROFILE  
309+00 TO 319+00

4-13-2020  
DATE

JOHN F. WINKLER  
DESIGNED JFW  
DRAFTED JFW  
CHECKED ARC  
PROJECT NO. 1-03153  
DRAWING NO. C131

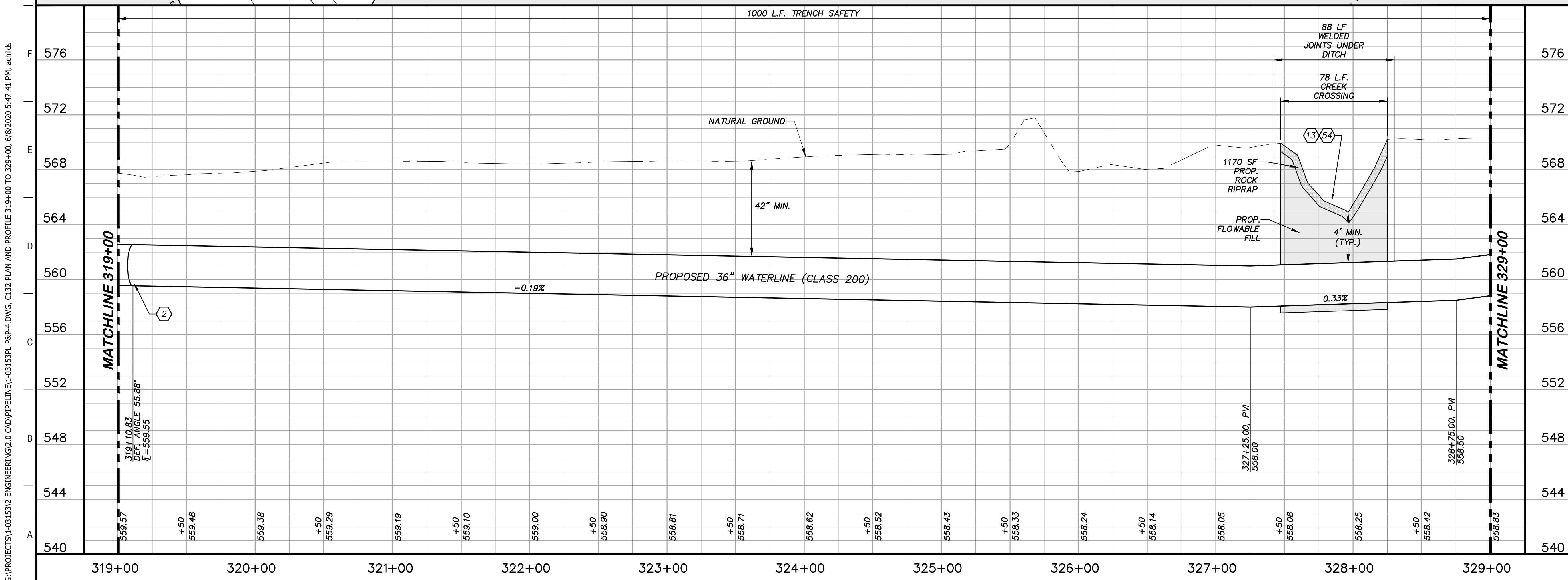
STATE OF TEXAS  
JOHN F. WINKLER  
50524  
REGISTERED PROFESSIONAL ENGINEER





### KEY NOTES

- ② CONCRETE THRUST BLOCKING (RE. DETAIL G1/D206)
- ⑬ STONE RIP-RAP (DRY) INCLUDING WOVEN FILTER FABRIC, COMPLETED IN PLACE (RE. DETAIL A10/D200)
- ④① CATHODIC TEST STATION (RE. DETAIL A1/D403)
- ⑤④ CREEK CROSSING (RE. DETAIL A1/D209)



### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.

0 20 40 80  
GRAPHIC SCALE (FEET) H: 1"=40' V: 1"=4'

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers ★ surveyors  
T.B.P.E. Registration No. 8053

**SSLGC**

TWDB PROJECT - PHASE 2

PLAN AND PROFILE  
319+00 TO 329+00

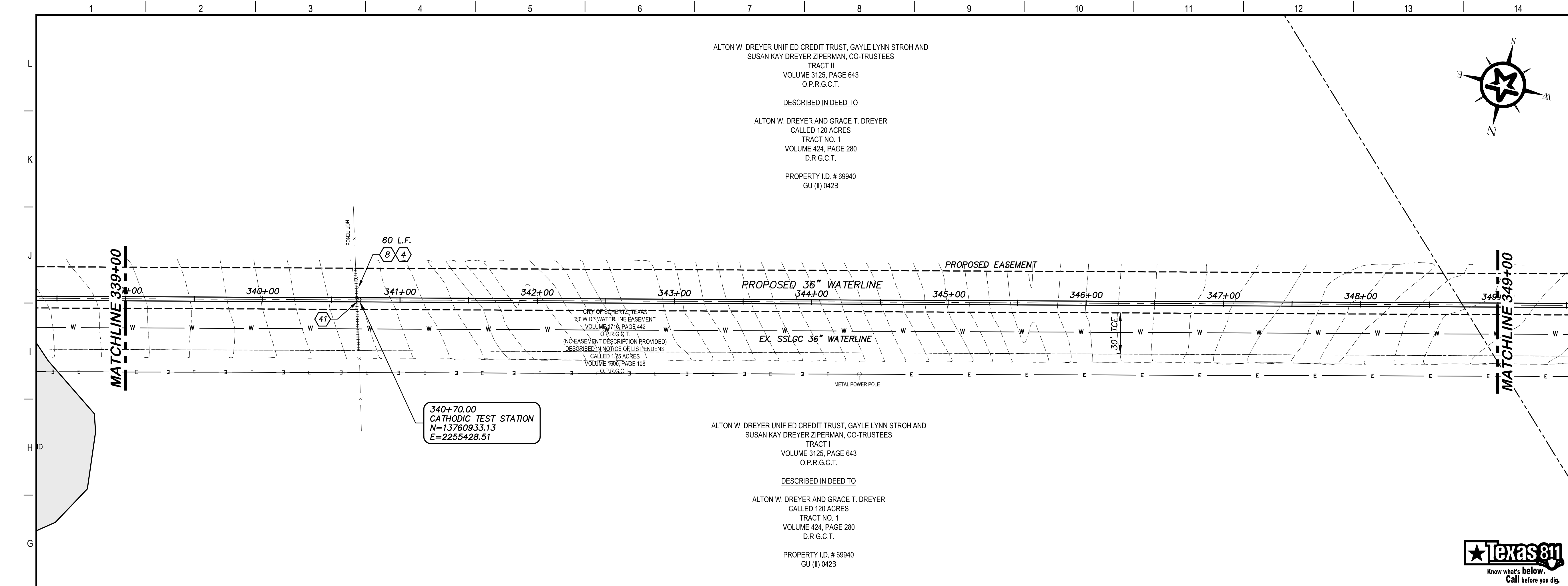
4-13-2020  
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JOHN F. WINKLER  
DESIGNED JFW  
DRAFTED JFW  
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PROJECT NO. 1-03153  
DRAWING NO. **C132**

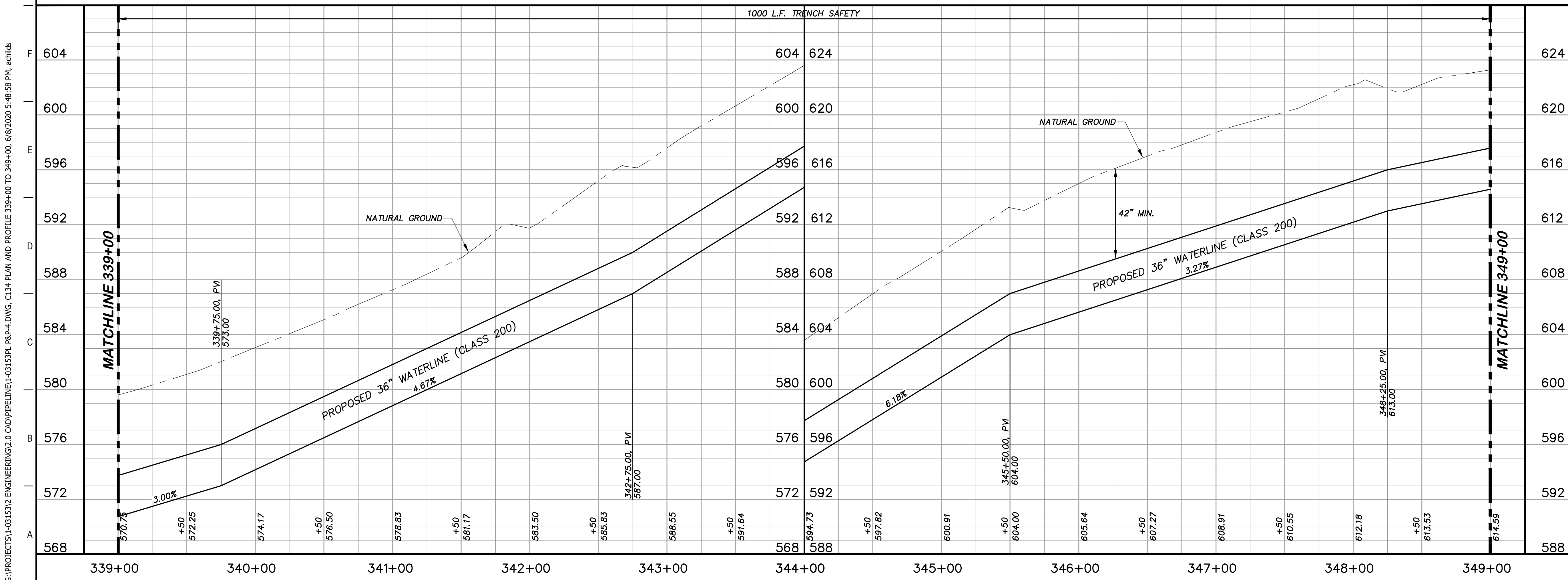
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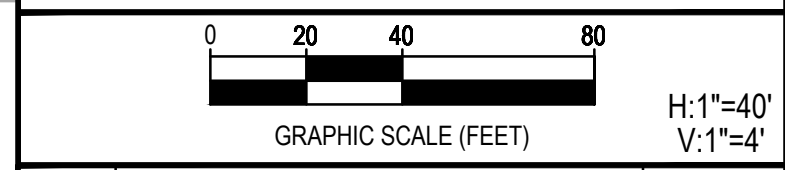


- ### KEY NOTES
- 4 REMOVE AND REPLACE GATE  
RE: DETAIL A1/D201
  - 8 REMOVE AND REPLACE 60 L.F. EXISTING  
FENCE (RE. DETAIL A1/D207)
  - 41 CATHODIC TEST STATION  
(RE. DETAIL A1/D403)



### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.



REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers ★ surveyors  
T.B.P.E. Registration No. 8053

**SSLGC**

TWDB PROJECT - PHASE 2

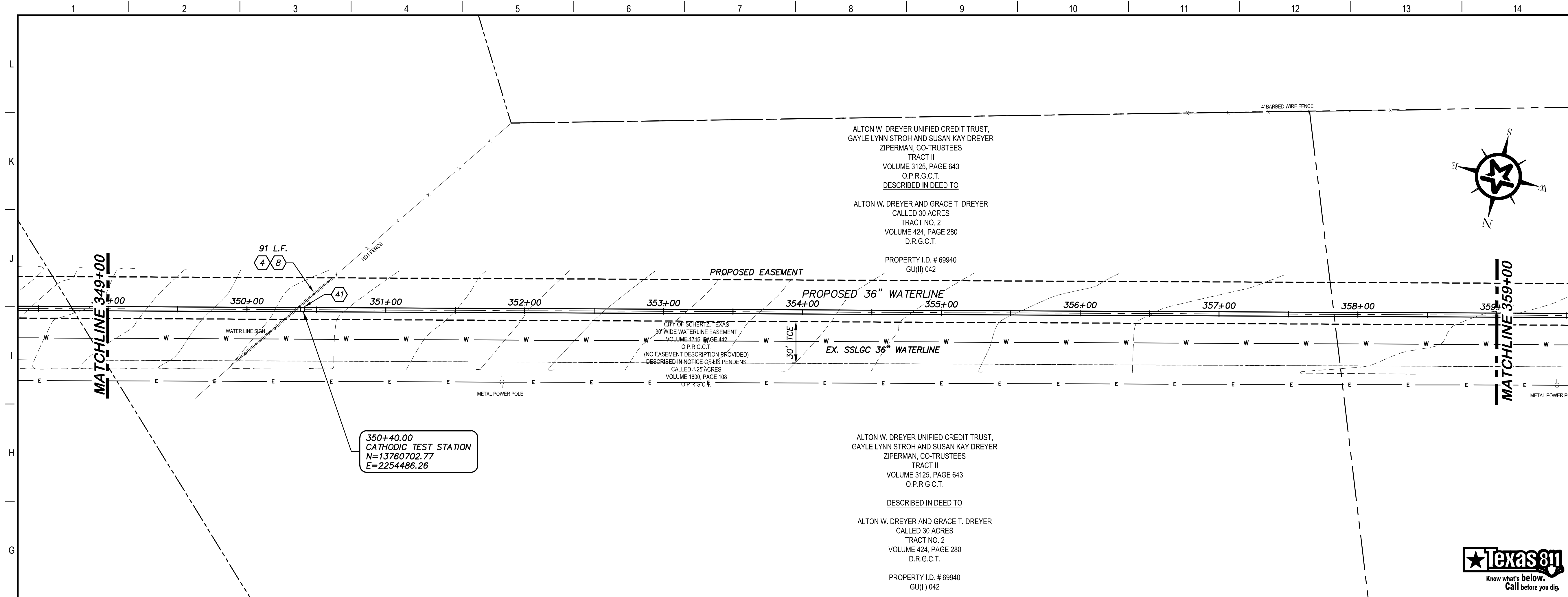
PLAN AND PROFILE  
339+00 TO 349+00

4-13-2020  
DATE  
JOHN F. WINKLER

DESIGNED	JFW
DRAFTED	JFW
CHECKED	ARC
PROJECT NO.	1-03153
DRAWING NO.	<b>C134</b>

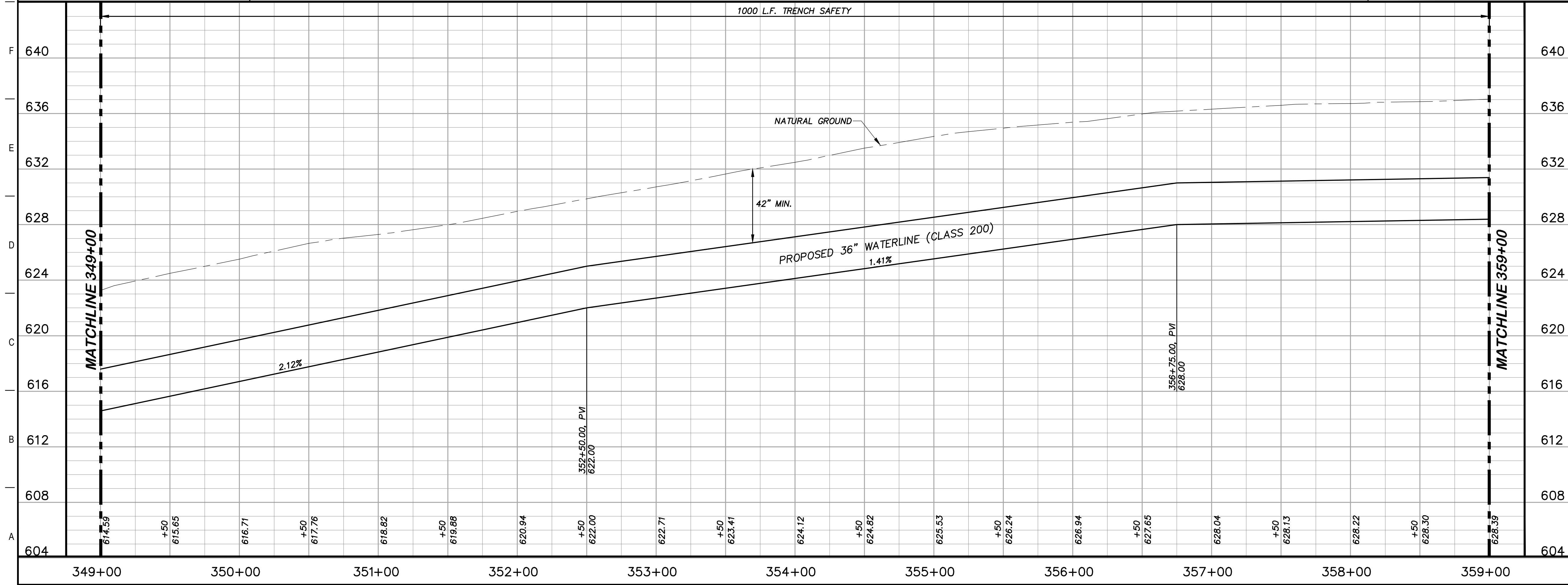
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G:\PROJECTS\1-031533\ENGINEERING\2.0 CAD\PIPELINE\1-031533\1-P&P-4.DWG, C135 PLAN AND PROFILE 349+00 TO 359+00, 6/8/2020 5:49:37 PM, achids



### KEY NOTES

- ④ REMOVE AND REPLACE GATE  
RE: DETAIL A1/D201
- ⑧ REMOVE AND REPLACE 91 L.F. EXISTING FENCE  
(RE: DETAIL A1/D207)
- ④① CATHODIC TEST STATION  
(RE: DETAIL A1/D403)



### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.

GRAPHIC SCALE (FEET) H: 1"=40'  
V: 1"=4'

REV.	DESCRIPTION	DATE

## SSLGC

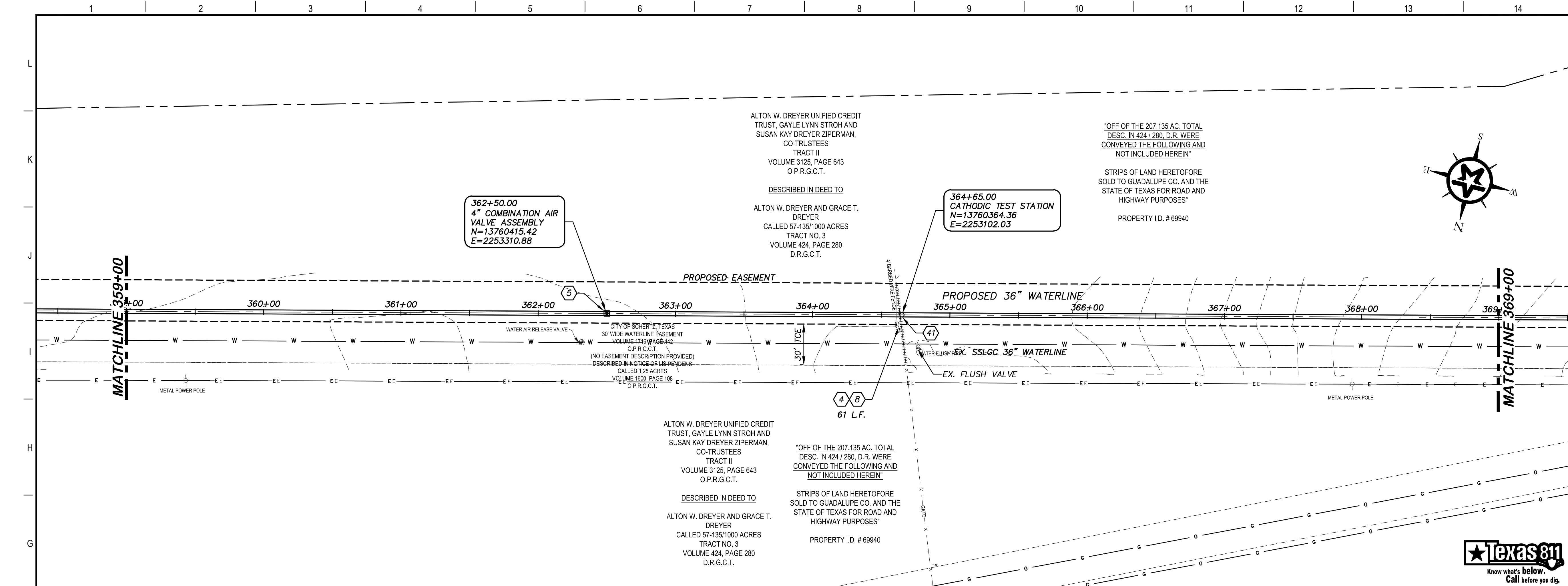
TWDB PROJECT - PHASE 2

### PLAN AND PROFILE 349+00 TO 359+00

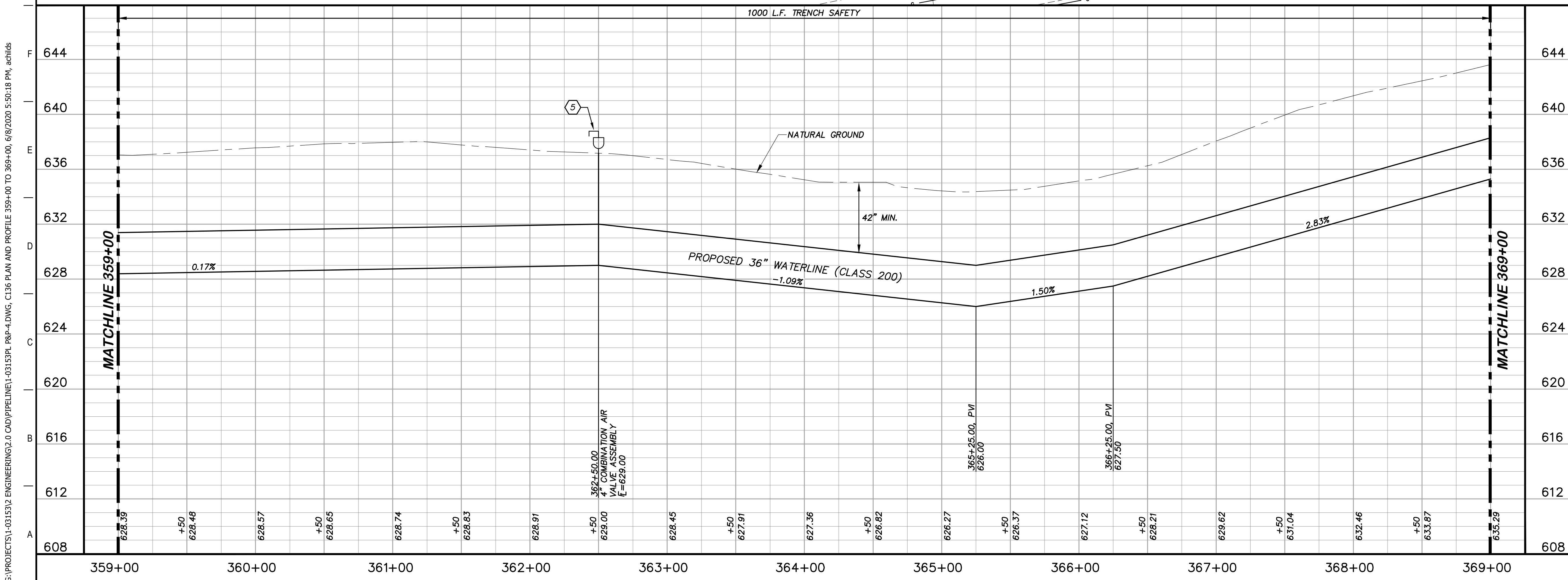
4-13-2020 *John F. Winkler*  
JOHN F. WINKLER

PM	JFW
DESIGNED	JFW
DRAFTED	ARC
CHECKED	JFW
PROJECT NO.	1-03153
DRAWING NO.	<b>C135</b>





- ### KEY NOTES
- 4 REMOVE AND REPLACE GATE  
RE: DETAIL A1/D201
  - 5 COMBINATION VACUUM & AIR RELEASE  
VALVE & MANHOLE VAULT  
(RE: DETAIL A1/D201)
  - 8 REMOVE AND REPLACE 61 L.F. EXISTING  
FENCE (RE: DETAIL A1/D207)
  - 41 CATHODIC TEST STATION  
(RE: DETAIL A1/D403)



### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.

0 20 40 80  
GRAPHIC SCALE (FEET) H:1"=40'  
V:1"=4'

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers • surveyors  
T.B.P.E. Registration No. 8053

## SSLGC

TWDB PROJECT - PHASE 2

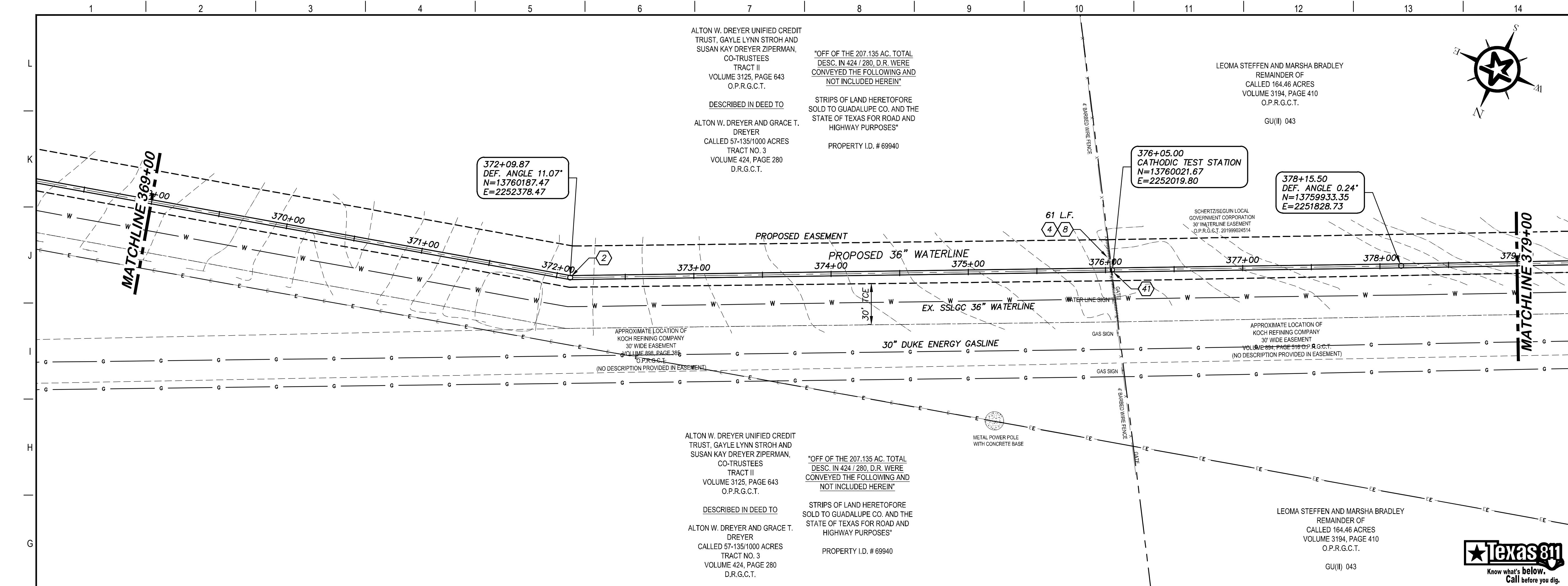
### PLAN AND PROFILE 359+00 TO 369+00

4-13-2020  
DATE

JOHN F. WINKLER  
DESIGNED JFW  
DRAFTED JFW  
CHECKED ARC  
PROJECT NO. 1-03153  
DRAWING NO. **C136**

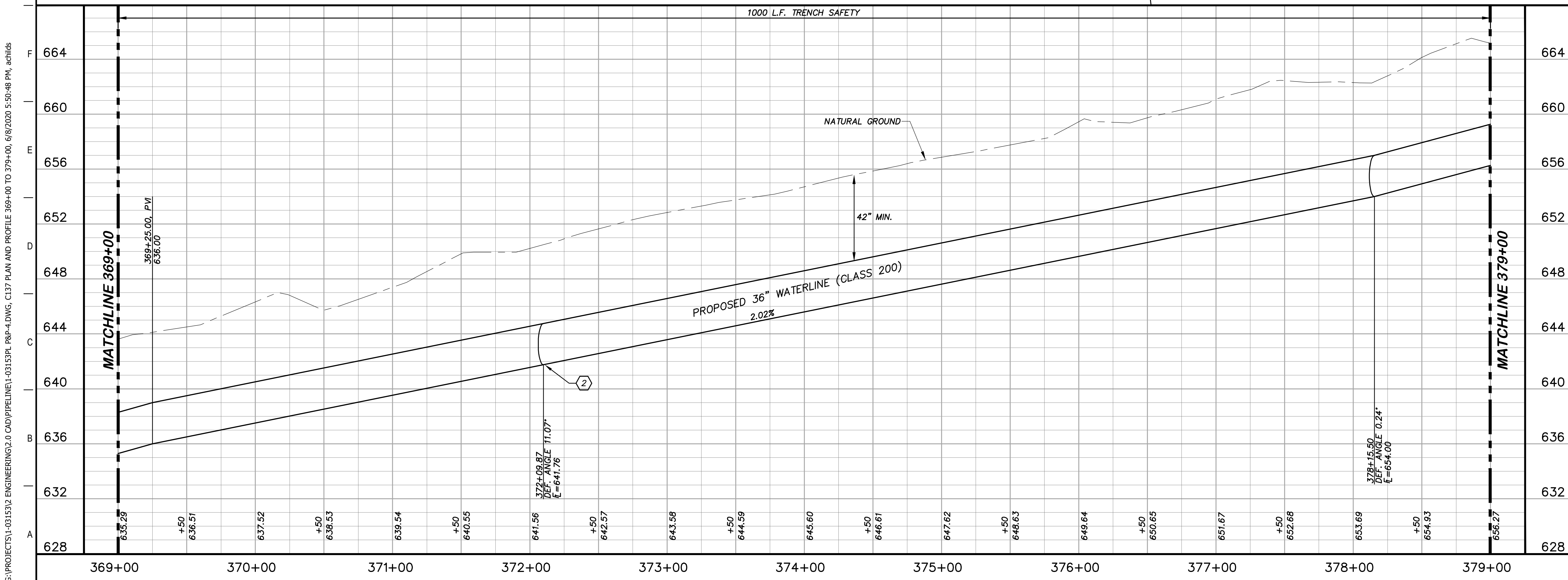
STATE OF TEXAS  
JOHN F. WINKLER  
50524  
REGISTERED PROFESSIONAL ENGINEER

G:\PROJECTS\1-03153\ENGINEERING\2.0 CAD\PIPELINE\1-03153PL P&P-4.DWG, C136 PLAN AND PROFILE 359+00 TO 369+00, 6/8/2020 5:50:18 PM, achids



### KEY NOTES

- ② CONCRETE THRUST BLOCKING (RE: DETAIL G1/D206)
- ④ REMOVE AND REPLACE GATE (RE: DETAIL A1/D201)
- ⑧ REMOVE AND REPLACE 61 L.F. EXISTING FENCE (RE: DETAIL A1/D207)
- ④1 CATHODIC TEST STATION (RE: DETAIL A1/D403)



### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.

GRAPHIC SCALE (FEET) H: 1"=40' V: 1"=4'

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers ★ surveyors  
T.B.P.E. Registration No. 8053

**SSLGC**

TWDB PROJECT - PHASE 2

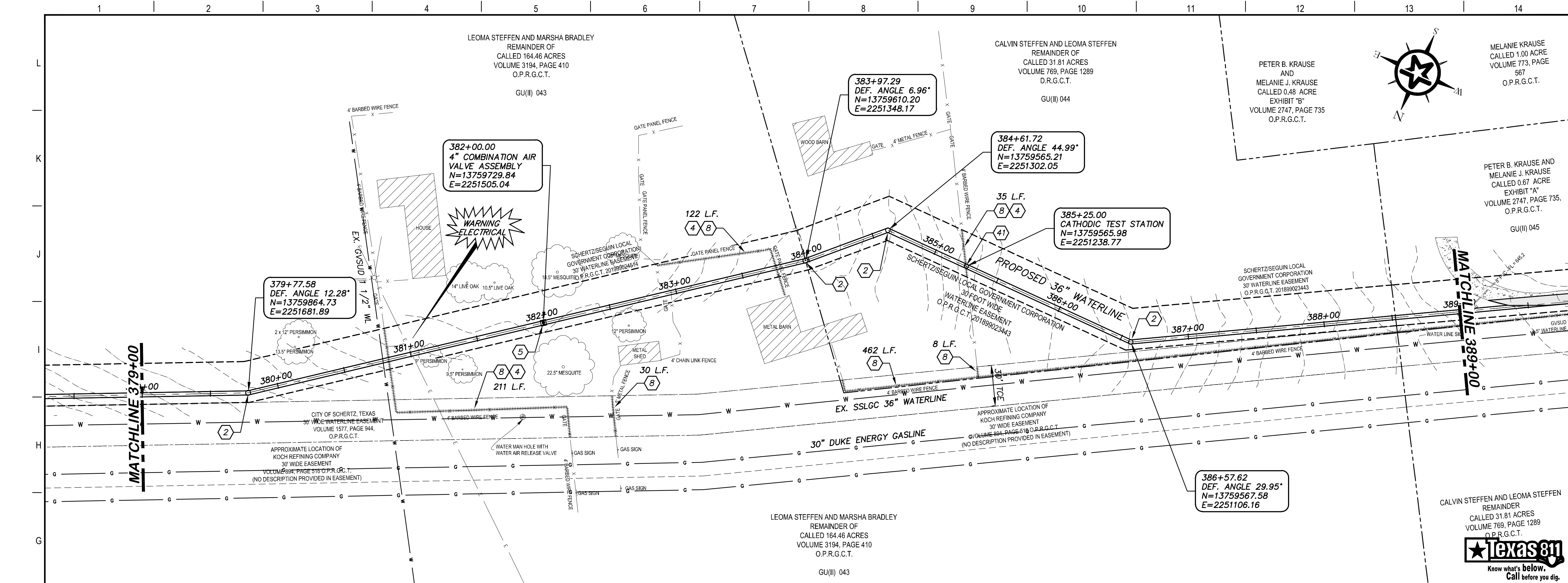
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4-13-2020  
DATE

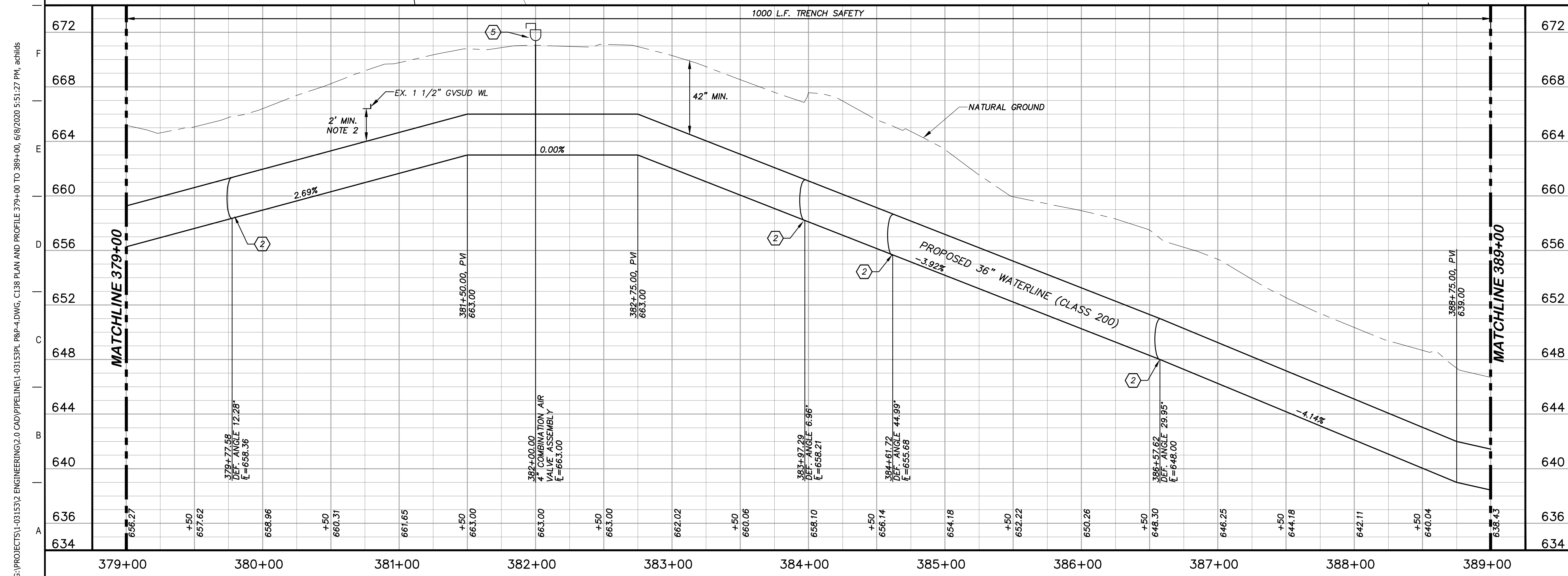
JOHN F. WINKLER  
DESIGNED JFW  
DRAFTED JFW  
CHECKED ARC  
PROJECT NO. 1-03153  
DRAWING NO. **C137**

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- ### KEY NOTES
- ② CONCRETE THRUST BLOCKING (RE. DETAIL G1/D206)
  - ④ REMOVE AND REPLACE GATE RE: DETAIL A1/D201)
  - ⑤ COMBINATION VACUUM & AIR RELEASE VALVE & MANHOLE VAULT (RE. DETAIL A1/D201)
  - ⑧ REMOVE AND REPLACE 868 L.F. EXISTING FENCE (RE. DETAIL A1/D207)
  - ④1 CATHODIC TEST STATION (RE. DETAIL A1/D403)



### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.
2. FIELD VERIFY DEPTHS OF ALL EX. UTILITIES.

0 20 40 80  
GRAPHIC SCALE (FEET) H:V=40:1

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers & surveyors  
T.B.P.E. Registration No. 8053

## SSLGC

TWDB PROJECT - PHASE 2

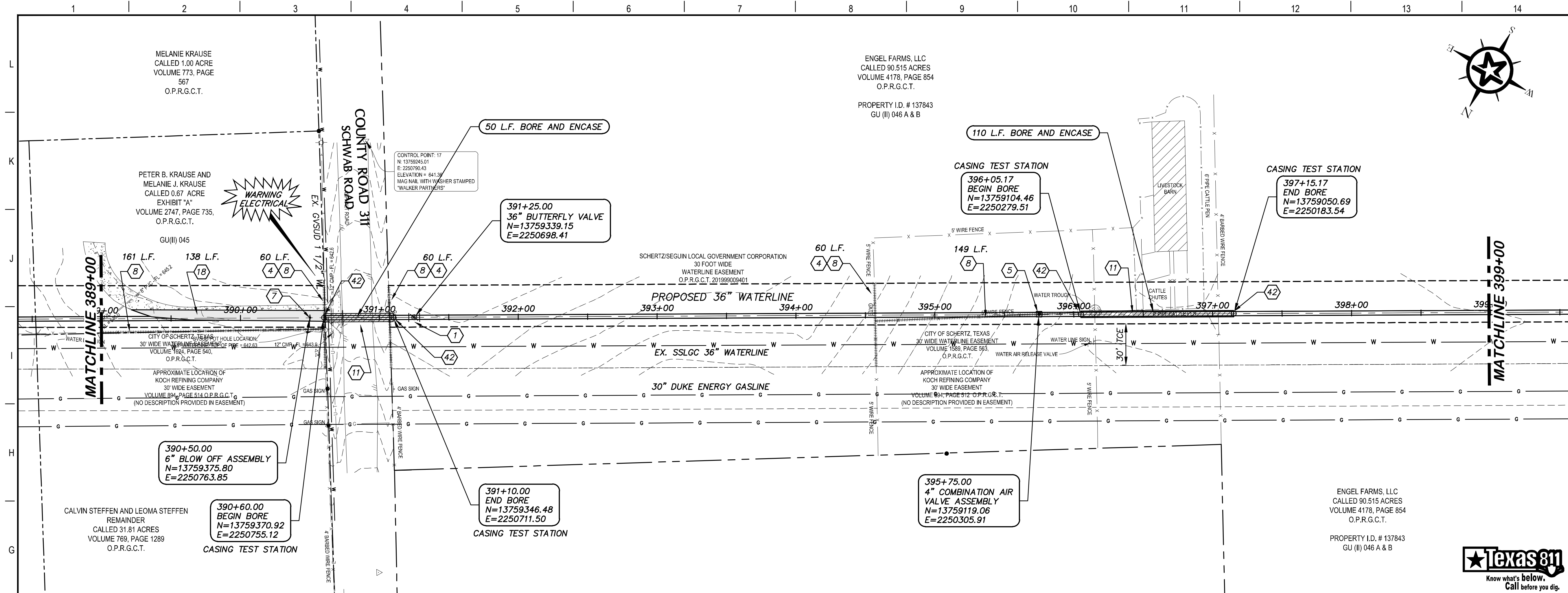
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4-13-2020  
DATE

*John F. Winkler*  
JOHN F. WINKLER  
PROFESSIONAL ENGINEER

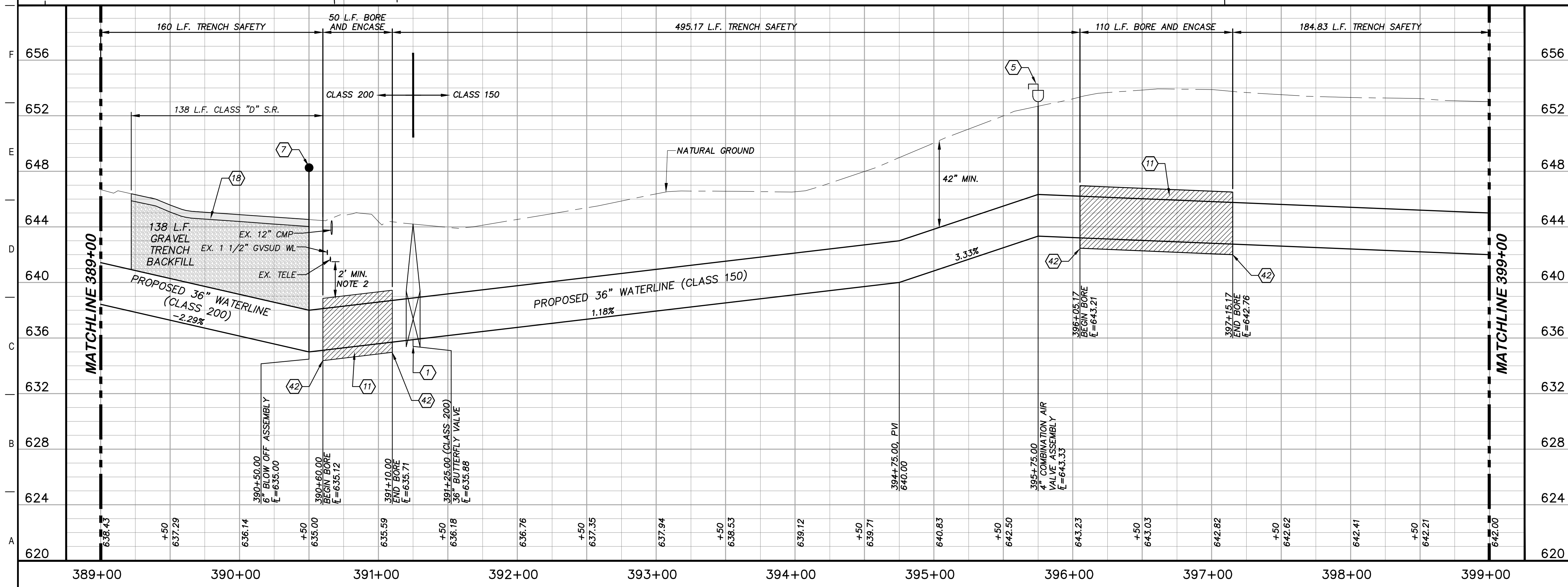
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DRAFTED	ARC
CHECKED	JFW
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DRAWING NO.	<b>C138</b>

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**KEY NOTES**

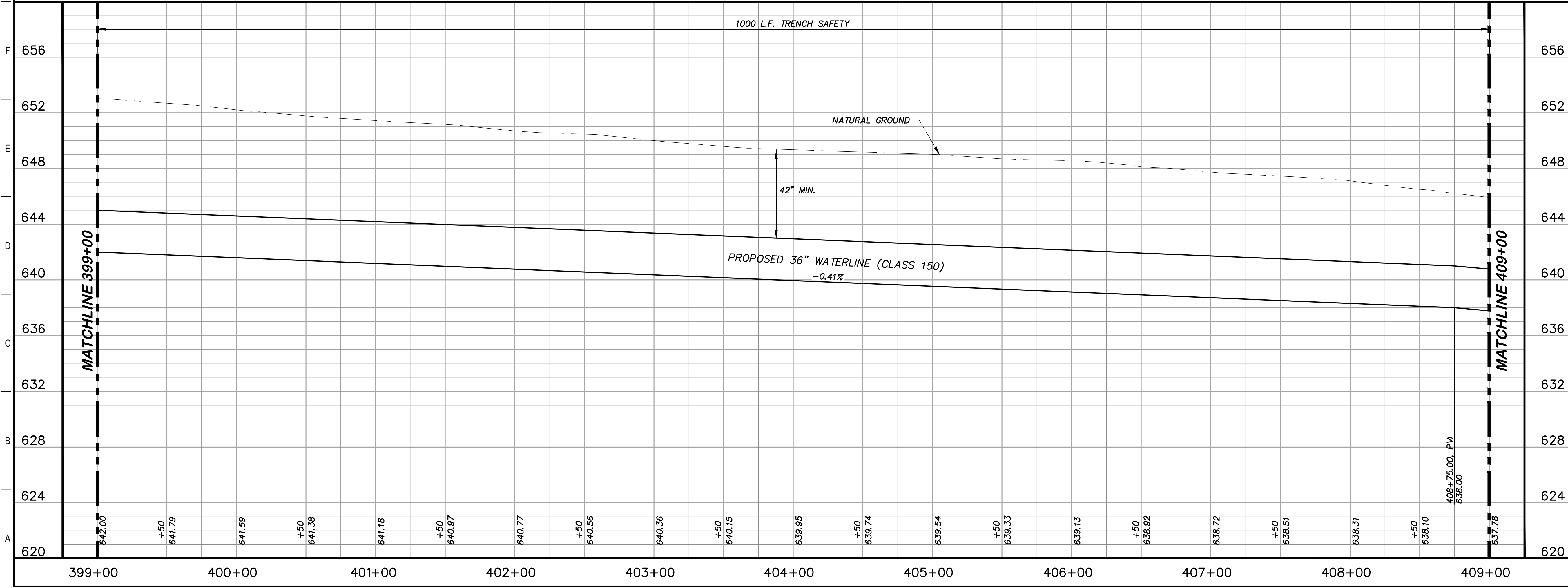
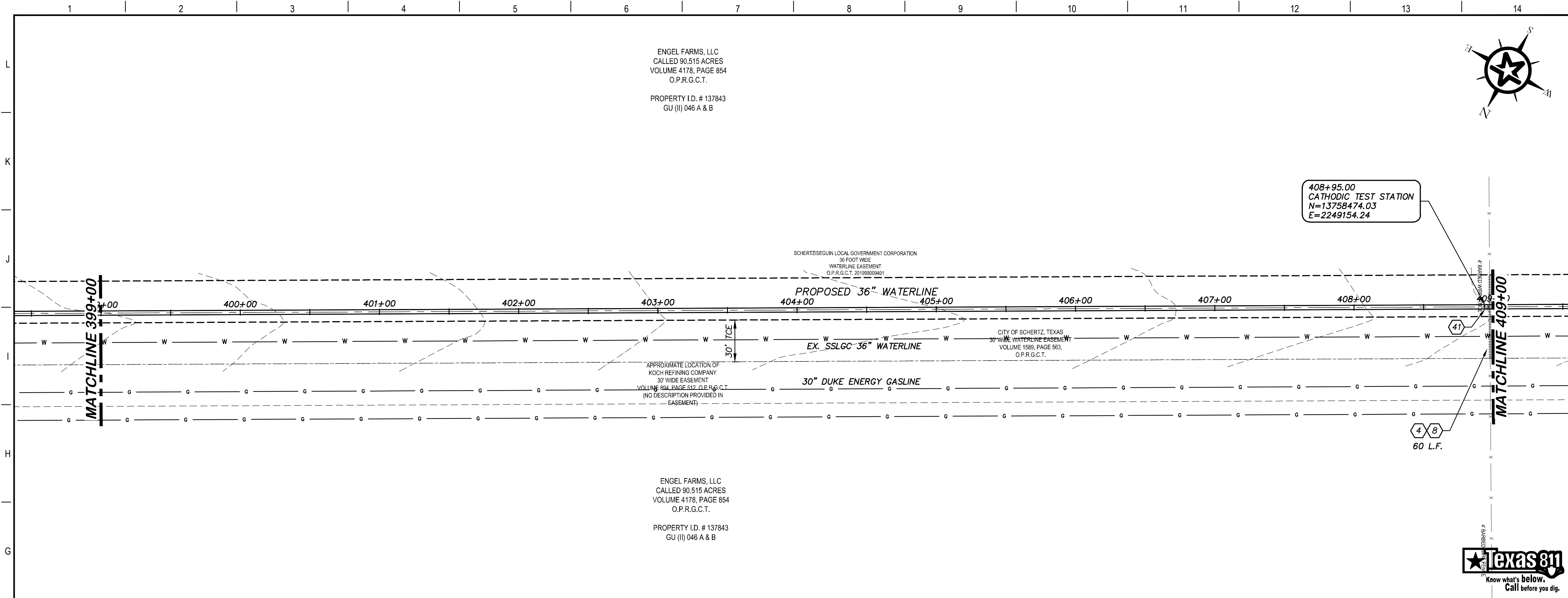
- 1 BUTTERFLY VALVE (RE. DETAIL G1/D202)
- 4 REMOVE AND REPLACE GATE (RE. DETAIL A1/D201)
- 5 COMBINATION VACUUM & AIR RELEASE VALVE & MANHOLE VAULT (RE. DETAIL A1/D201)
- 7 6" BLOW OFF VALVE ASSEMBLY (RE. DETAIL A1/D202)
- 8 REMOVE AND REPLACE 490 L.F. EXISTING FENCE (RE. DETAIL A1/D207)
- 11 BORE AND ENCASE STEEL CASING (RE. DETAIL A1/D206)
- 18 CLASS D SURFACE REPLACEMENT (RE. DETAIL G1/D208)
- 42 CASING TEST STATION (RE. DETAIL H1/D401)



G:\PROJECTS\1-03153\ENGINEERING\2.0 CAD\PIPELINE\1-03153PL P&P-4.DWG, C139 PLAN AND PROFILE 389+00 TO 399+00, 6/8/2020 5:52:06 PM, achids



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### KEY NOTES

- ④ REMOVE AND REPLACE GATE (RE. DETAIL D207)
- ⑧ REMOVE AND REPLACE 60 L.F. EXISTING FENCE (RE. DETAIL A1/D207)
- ④① CATHODIC TEST STATION (RE. DETAIL A1/D403)

408+95.00  
CATHODIC TEST STATION  
N=13758474.03  
E=2249154.24

60 L.F.

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

### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.

0 20 40 80  
GRAPHIC SCALE (FEET) H:1"=40'  
V:1"=4'

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers ★ surveyors  
T.B.P.E. Registration No. 8053

**SSLGC**

TWDB PROJECT - PHASE 2

PLAN AND PROFILE  
399+00 TO 409+00

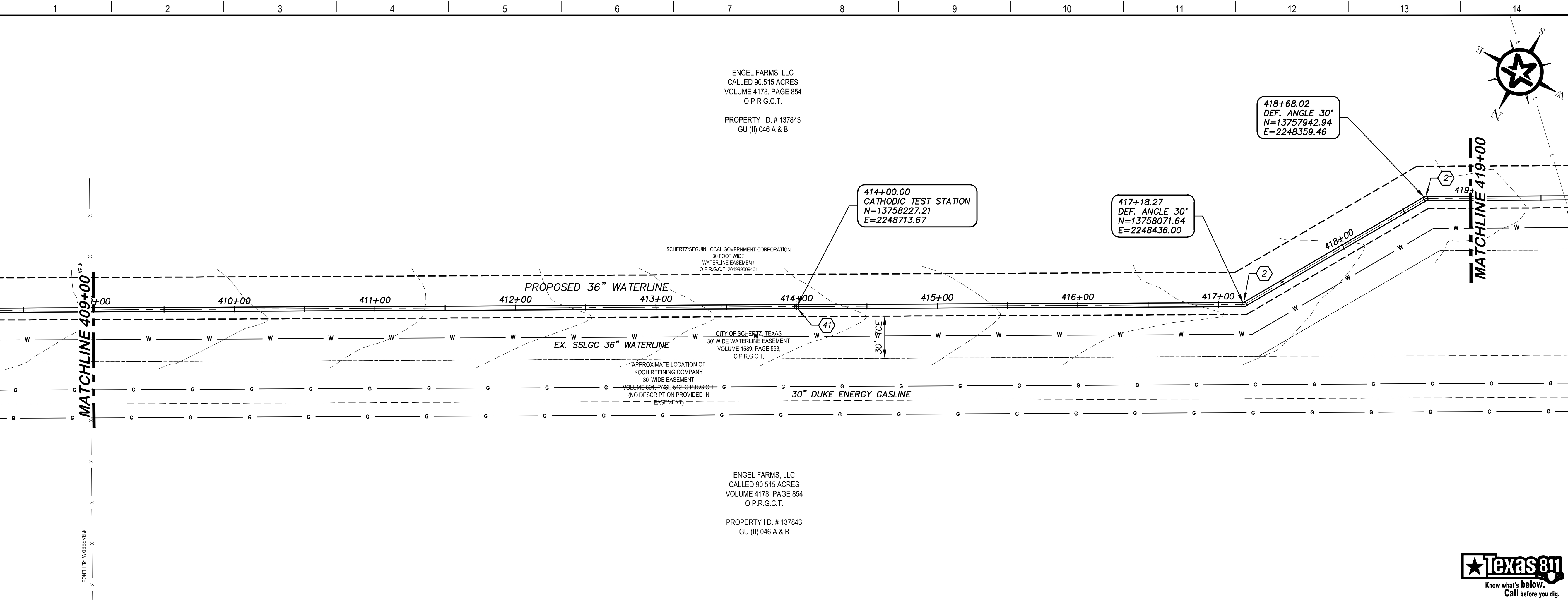
4-13-2020  
DATE

JOHN F. WINKLER  
DATE

PM	JFW
DESIGNED	JFW
DRAFTED	ARC
CHECKED	JFW
PROJECT NO.	1-03153
DRAWING NO.	<b>C140</b>

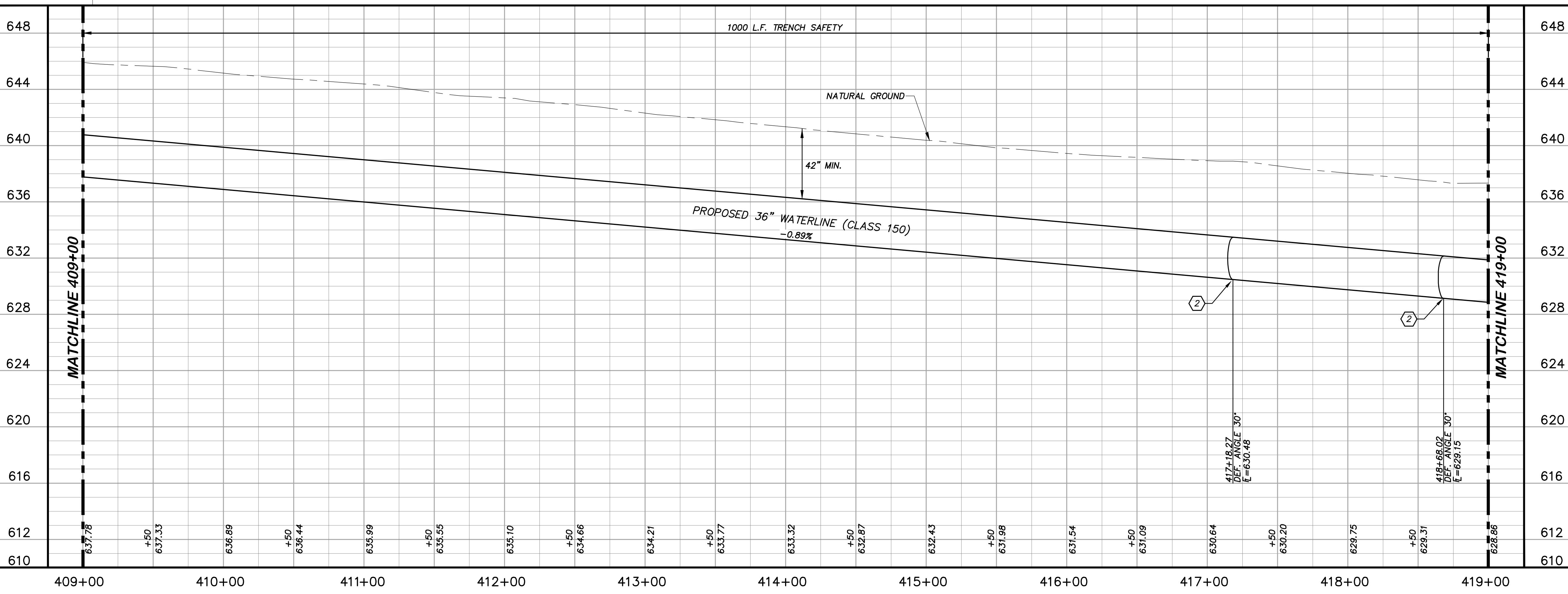
STATE OF TEXAS  
JOHN F. WINKLER  
50524  
REGISTERED PROFESSIONAL ENGINEER

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### KEY NOTES

- (2) CONCRETE THRUST BLOCKING (RE. DETAIL G1/D206)
- (41) CATHODIC TEST STATION (RE. DETAIL A1/D403)



### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.

H: 1"=40'  
 V: 1"=4'

REV.	DESCRIPTION	DATE

## SSLGC

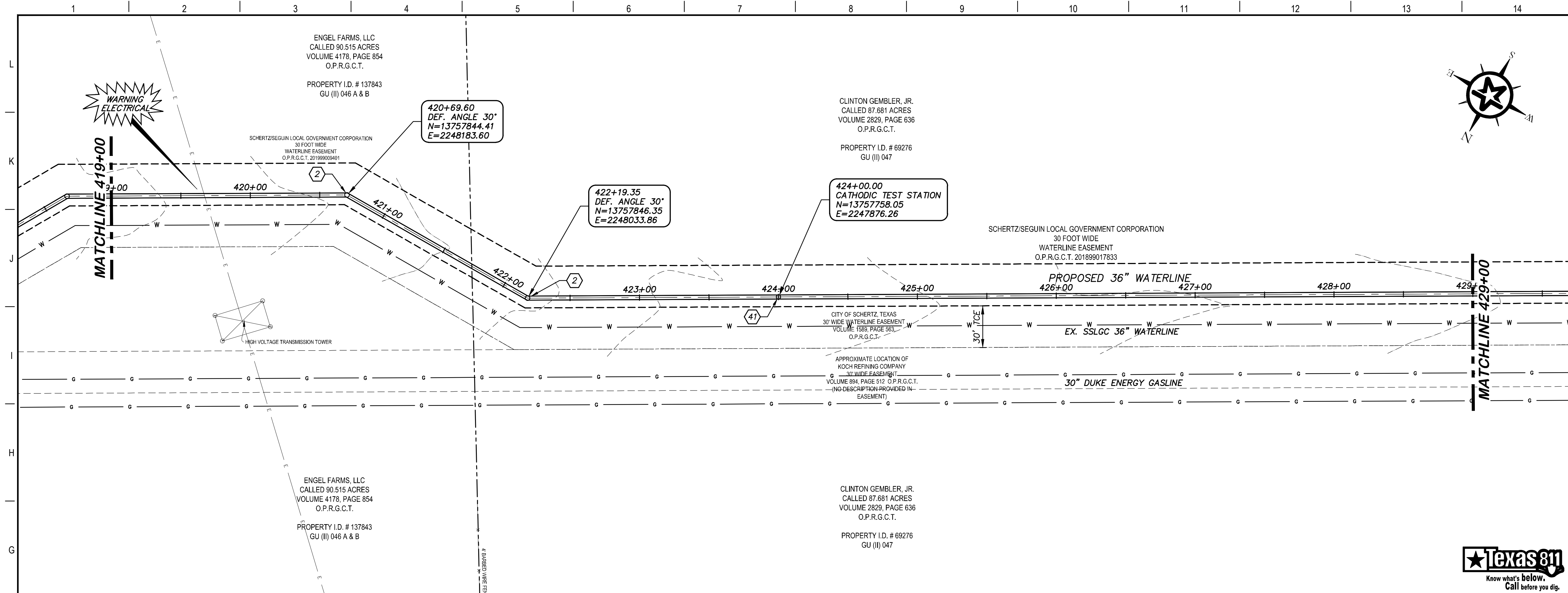
TWDB PROJECT - PHASE 2

### PLAN AND PROFILE 409+00 TO 419+00

4-13-2020 DATE JOHN F. WINKLER

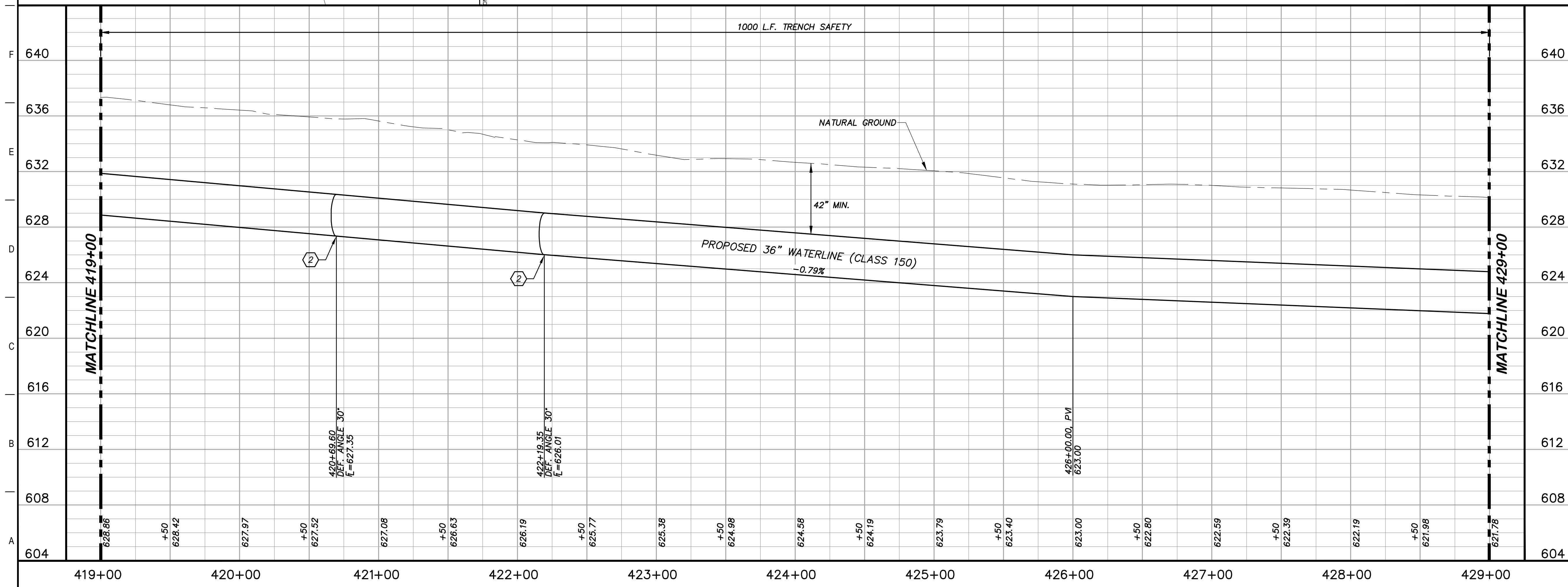
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DRAFTED	ARC
CHECKED	JFW
PROJECT NO.	1-03153
DRAWING NO.	<b>C141</b>





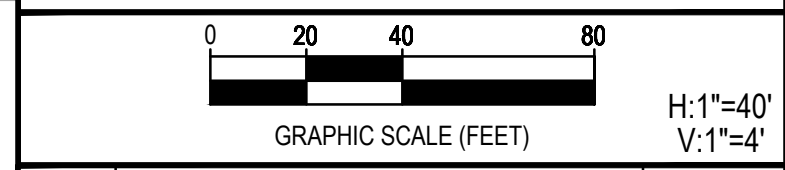
### KEY NOTES

- ② CONCRETE THRUST BLOCKING (RE. DETAIL G1/D206)
- ④1 CATHODIC TEST STATION (RE. DETAIL A1/D403)



### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.



REV.	DESCRIPTION	DATE



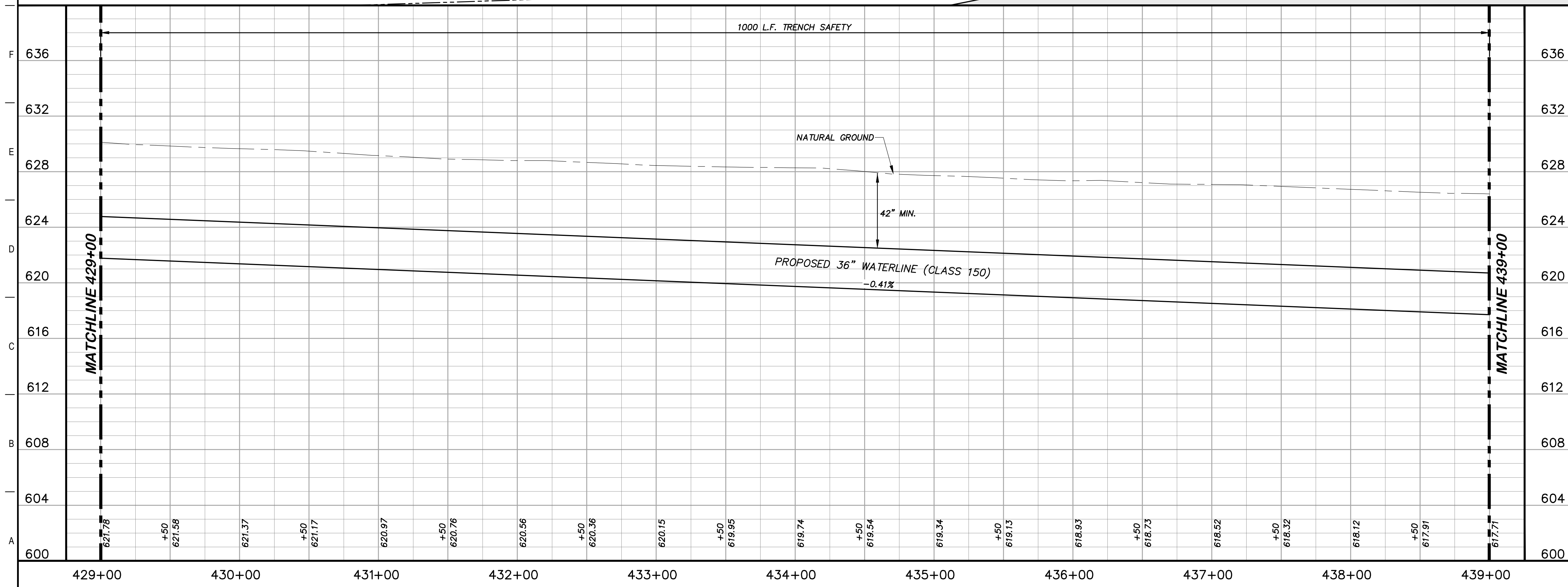
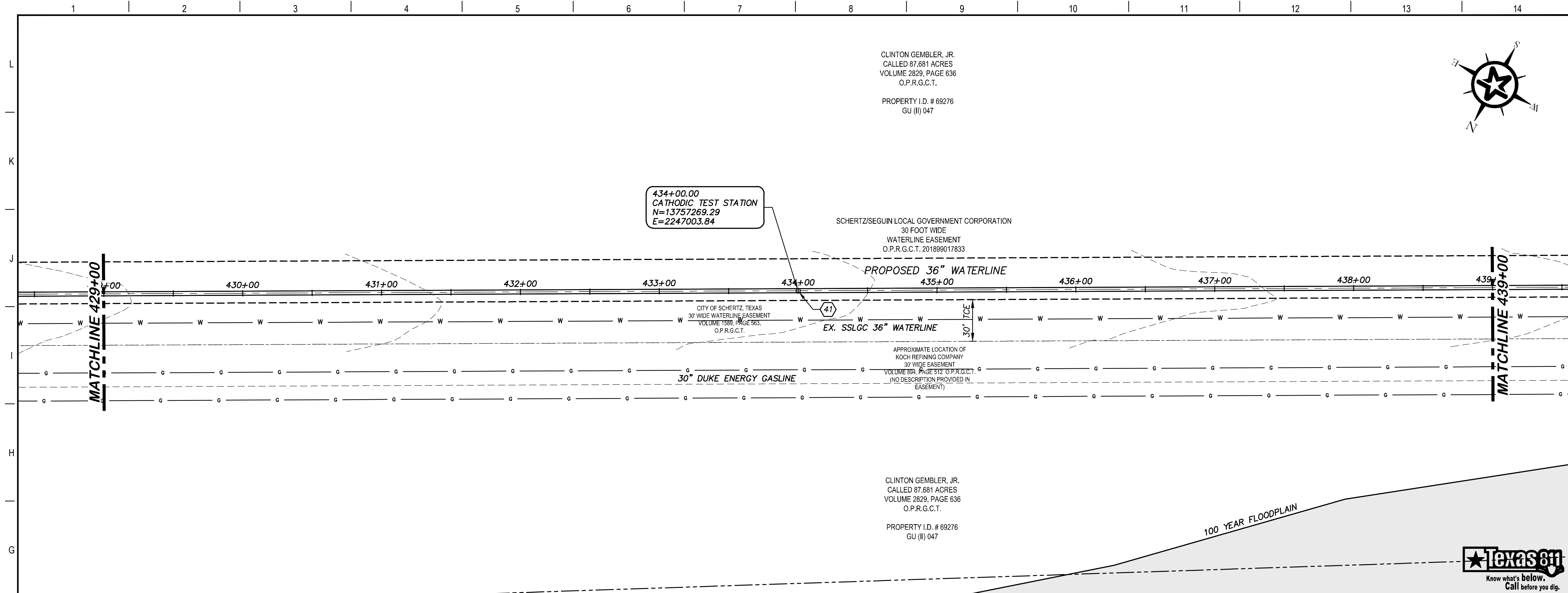
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TWDB PROJECT - PHASE 2

### PLAN AND PROFILE 419+00 TO 429+00

4-13-2020  
DATE: *John F. Winkler*  
JOHN F. WINKLER

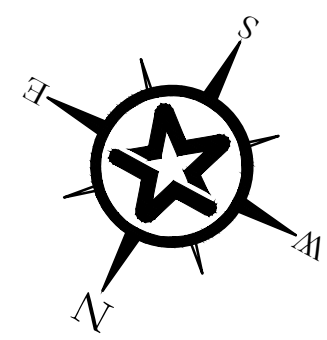
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PROJECT NO.		1-03153
DRAWING NO.		<b>C142</b>

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KEY NOTES

(41) CATHODIC TEST STATION  
(RE. DETAIL A1/D403)



434+00.00  
CATHODIC TEST STATION  
N=13757269.29  
E=2247003.84

SCHERTZ/SEGUN LOCAL GOVERNMENT CORPORATION  
30 FOOT WIDE  
WATERLINE EASEMENT  
O.P.R.G.C.T. 201899017833

CITY OF SCHERTZ, TEXAS  
30' WIDE WATERLINE EASEMENT  
VOLUME 1589, PAGE 583,  
O.P.R.G.C.T.

APPROXIMATE LOCATION OF  
KOCHE REFINING COMPANY  
30' WIDE EASEMENT  
VOLUME 898, PAGE 512, O.P.R.G.C.T.  
(NO DESCRIPTION PROVIDED IN  
EASEMENT)

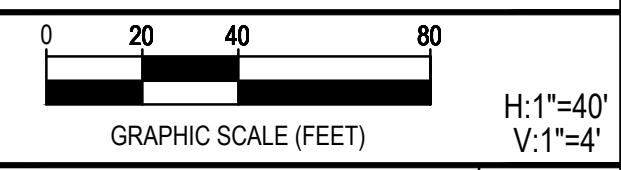
CLINTON GEMBLER, JR.  
CALLED 87.681 ACRES  
VOLUME 2829, PAGE 636  
O.P.R.G.C.T.

PROPERTY I.D. # 69276  
GU (II) 047



GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES  
MAY NOT BE SHOWN OUTSIDE THE PERMANENT  
AND TEMPORARY EASEMENT.



REV.	DESCRIPTION	DATE



SSLGC

TWDB PROJECT - PHASE 2

PLAN AND PROFILE  
429+00 TO 439+00

4-13-2020  
DATE

JOHN F. WINKLER

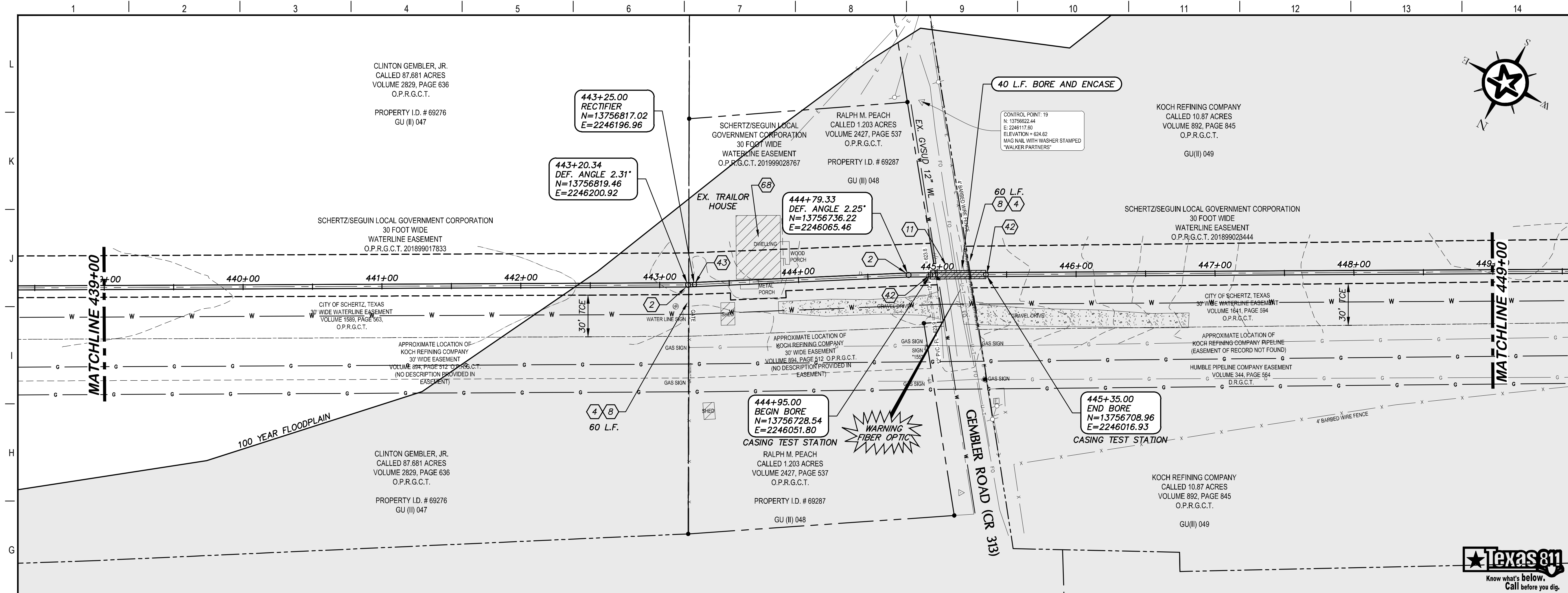


DESIGNED	JFW
DRAFTED	JFW
CHECKED	ARC
PROJECT NO.	1-03153

DRAWING NO.  
**C143**

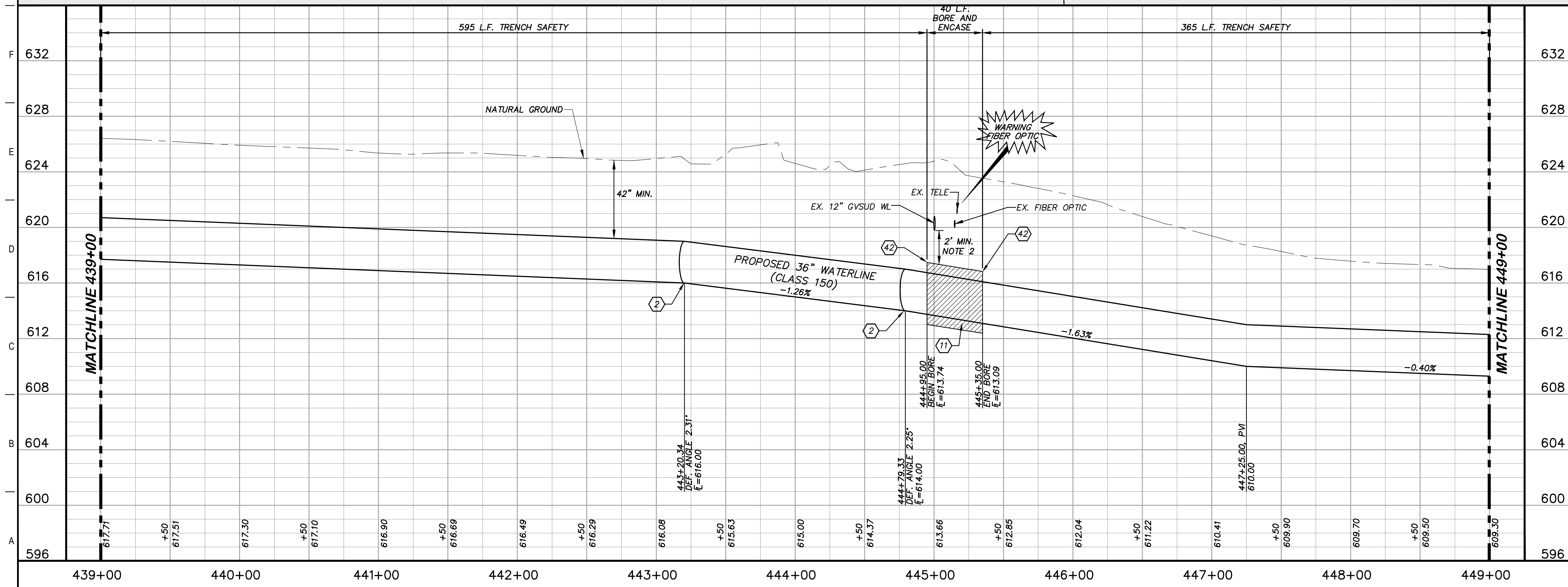


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### KEY NOTES

- ② CONCRETE THRUST BLOCKING (RE. DETAIL G1/D206)
- ④ REMOVE AND REPLACE GATE (RE. DETAIL A1/D201)
- ⑧ REMOVE AND REPLACE 120 L.F. EXISTING FENCE (RE. DETAIL A1/D207)
- ⑪ BORE AND ENCASE STEEL CASING (RE. DETAIL A1/D206)
- ④② CASING TEST STATION (RE. DETAIL H1/D401)
- ④③ RECTIFIER (RE. DETAIL H9/D401)
- ⑥⑧ EXISTING STRUCTURE TO BE REMOVED



### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.
2. FIELD VERIFY DEPTHS OF ALL EX. UTILITIES.

GRAPHIC SCALE (FEET) H: 1"=40' V: 1"=4'

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers ★ surveyors  
T.B.P.E. Registration No. 8053

## SSLGC

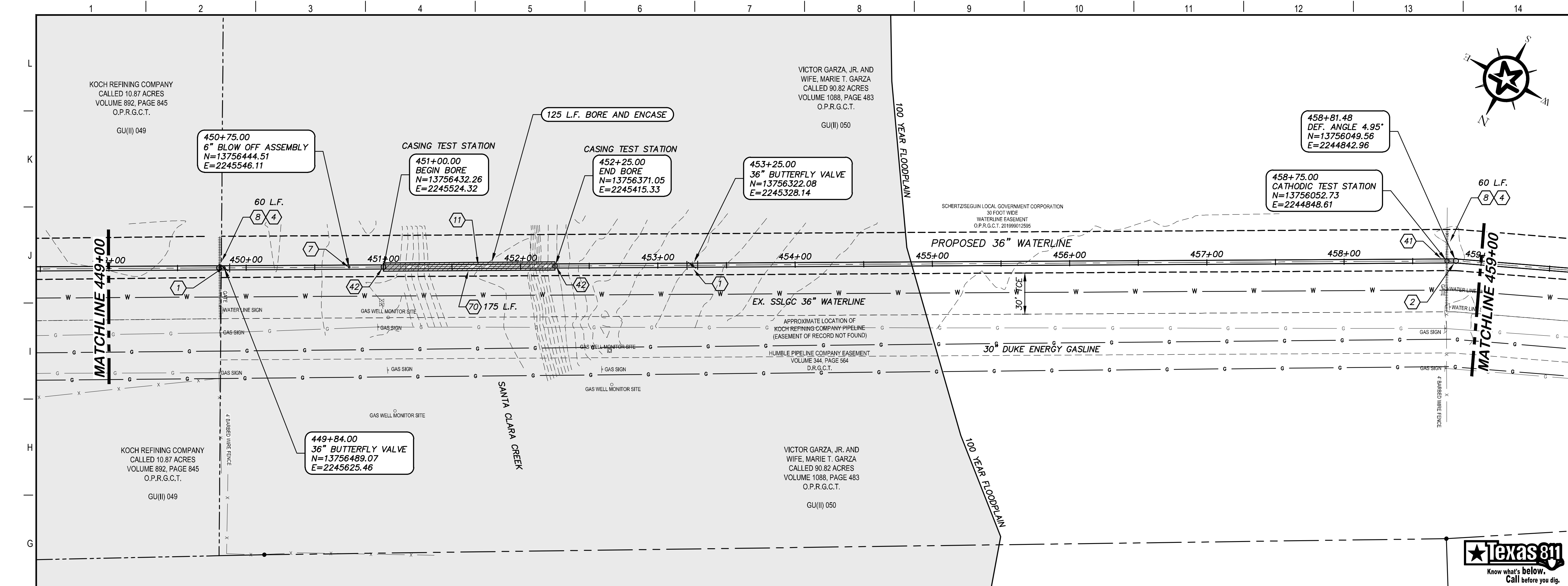
TWDB PROJECT - PHASE 2

### PLAN AND PROFILE 439+00 TO 449+00

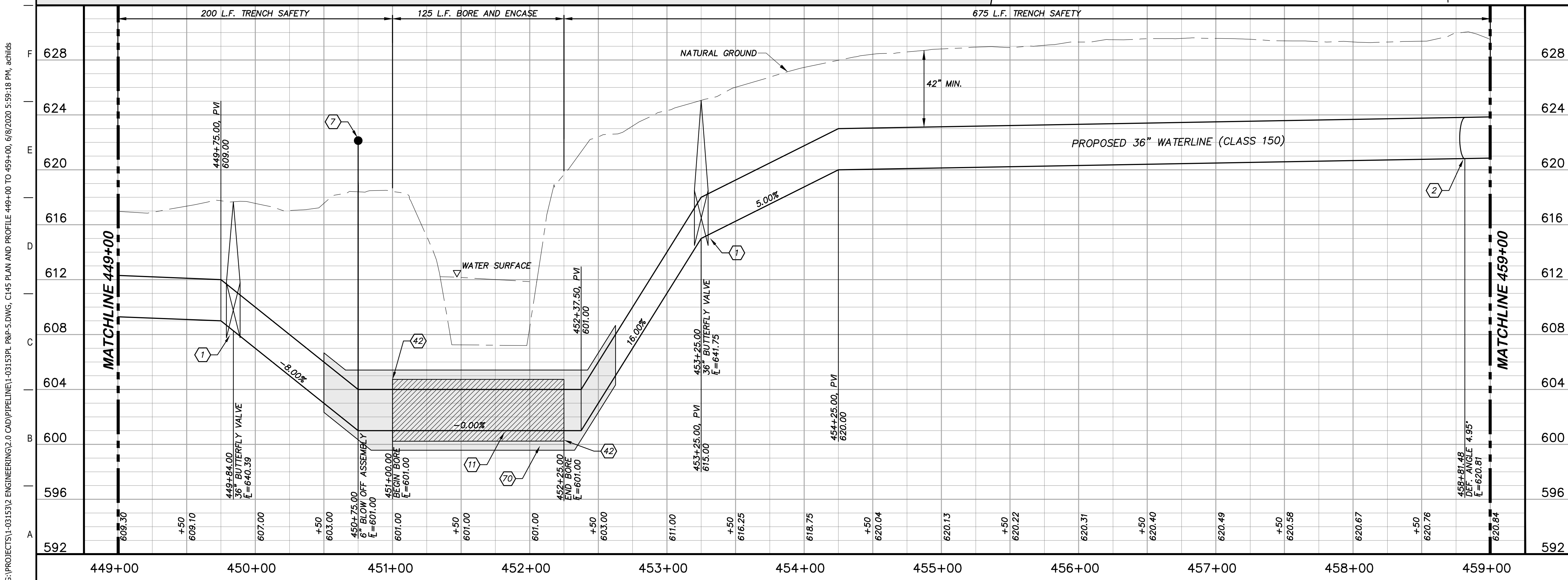
4-13-2020  
DATE

*John F. Winkler*  
JOHN F. WINKLER  
REGISTERED PROFESSIONAL ENGINEER  
50524

PM	JFW
DESIGNED	JFW
DRAFTED	ARC
CHECKED	JFW
PROJECT NO.	1-03153
DRAWING NO.	<b>C144</b>



- ### KEY NOTES
- 1 BUTTERFLY VALVE (RE. DETAIL G1/D200)
  - 2 CONCRETE THRUST BLOCKING (RE. DETAIL G1/D206)
  - 4 REMOVE AND REPLACE GATE (RE. DETAIL A1/D201)
  - 7 6" BLOW OFF VALVE ASSEMBLY (RE. DETAIL A1/D202)
  - 8 REMOVE AND REPLACE 120 L.F. EXISTING FENCE (RE. DETAIL A1/D207)
  - 11 BORE AND ENCASE STEEL CASING (RE. DETAIL A1/D206)
  - 41 CATHODIC TEST STATION (RE. DETAIL A1/D403)
  - 42 CASING TEST STATION (RE. DETAIL H1/D401)
  - 70 FLOWABLE FILL PIPE ENCASEMENT (RE. DETAIL G6/D200)



### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.

0 20 40 80  
GRAPHIC SCALE (FEET) H:1"=40' V:1"=4'

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers • surveyors  
T.B.P.E. Registration No. 8053

**SSLGC**

TWDB PROJECT - PHASE 2

PLAN AND PROFILE  
449+00 TO 459+00

4-13-2020  
DATE

JOHN F. WINKLER  
PROFESSIONAL ENGINEER

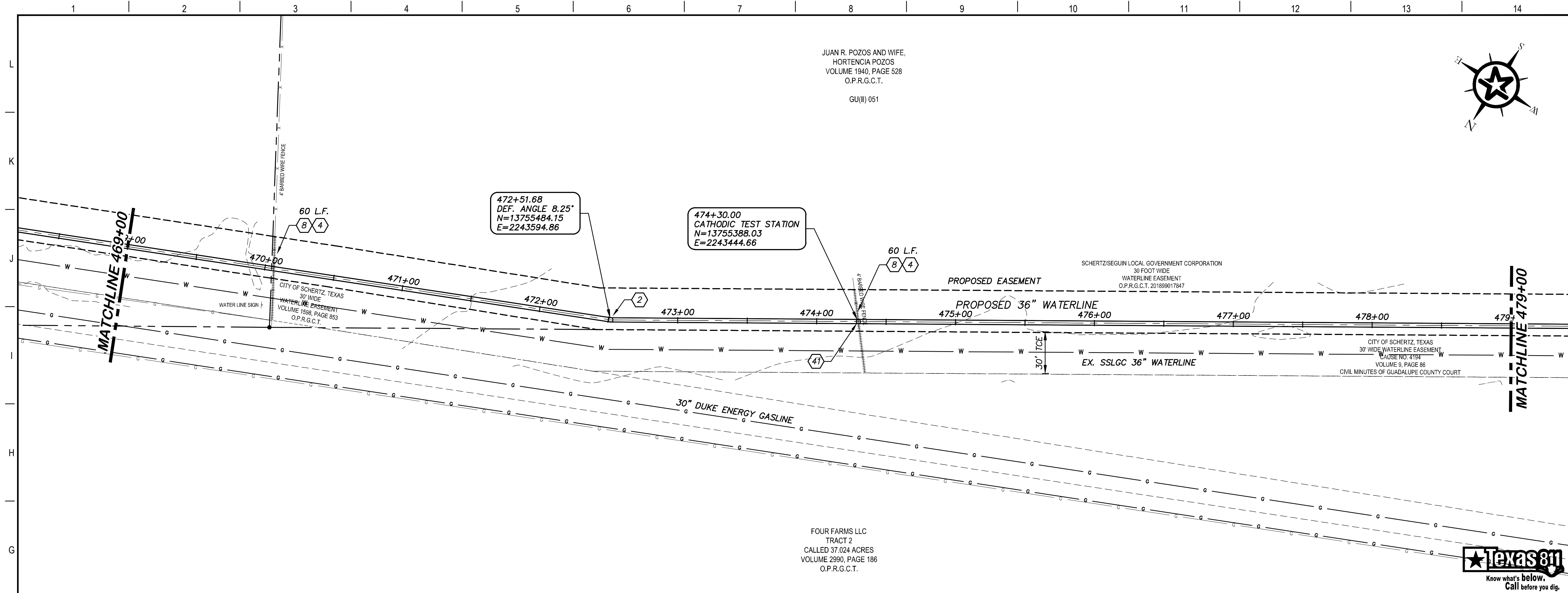
DESIGNED	JFW
DRAFTED	JFW
CHECKED	ARC
PROJECT NO.	1-03153
DRAWING NO.	<b>C145</b>

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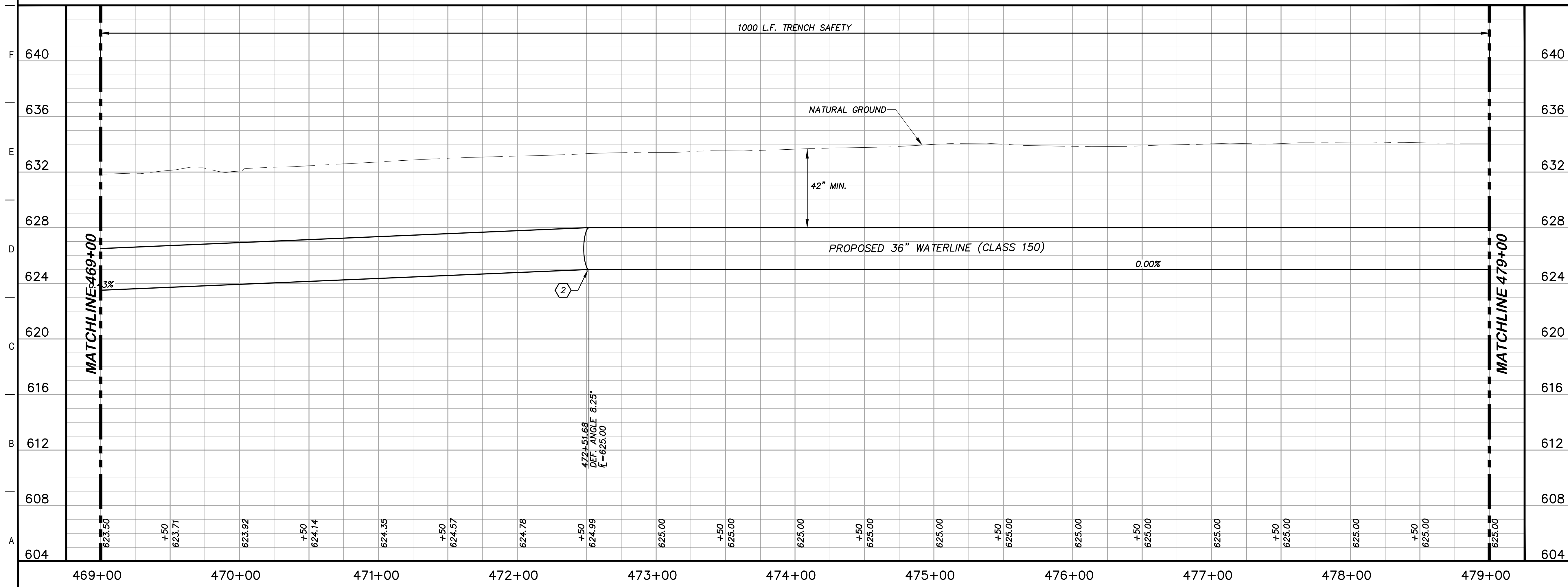


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### KEY NOTES

- (2) CONCRETE THRUST BLOCKING (RE. DETAIL G1/D206)
- (4) REMOVE AND REPLACE GATE (RE. DETAIL A1/D201)
- (8) REMOVE AND REPLACE 120 L.F. EXISTING FENCE (RE. DETAIL A1/D207)
- (41) CATHODIC TEST STATION (RE. DETAIL A1/D403)



### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.

GRAPHIC SCALE (FEET)      H: 1"=40'  
V: 1"=4'

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers ★ surveyors  
T.B.P.E. Registration No. 8053

**SSLGC**

TWDB PROJECT - PHASE 2

PLAN AND PROFILE  
469+00 TO 479+00

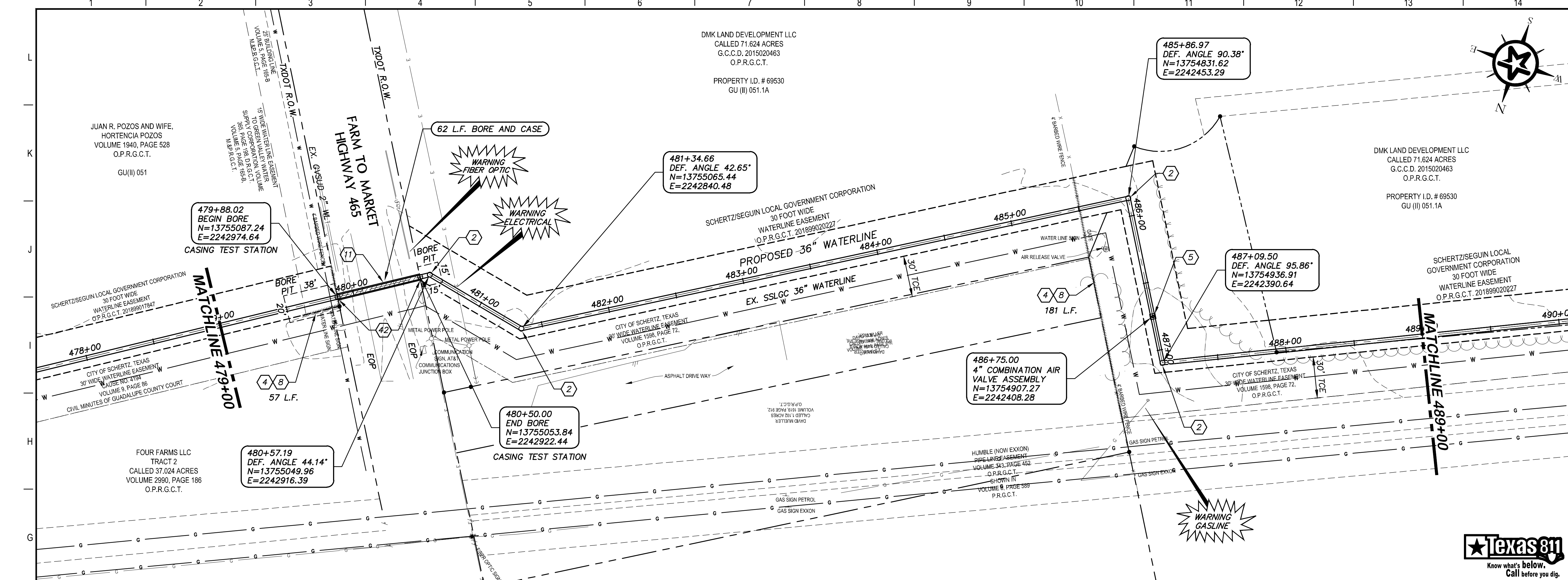
4-13-2020  
DATE: *John F. Winkler*  
JOHN F. WINKLER

PM	JFW
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DRAFTED	ARC
CHECKED	JFW
PROJECT NO.	1-03153

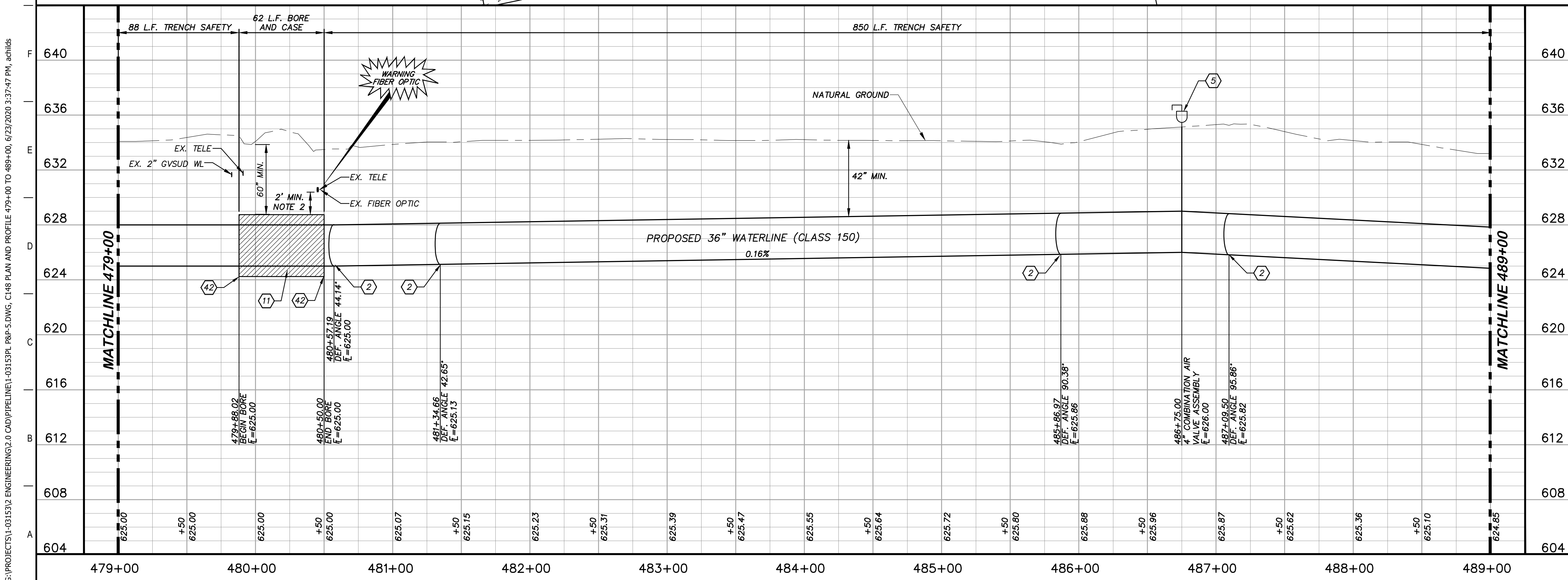
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**C147**



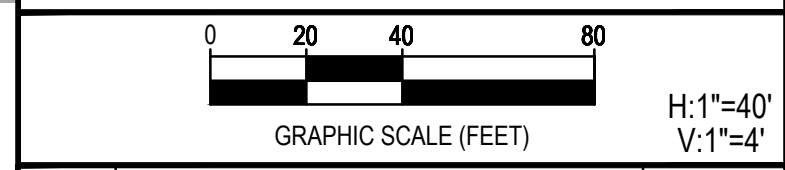




- ### KEY NOTES
- ② CONCRETE THRUST BLOCKING (RE. DETAIL G1/D206)
  - ④ REMOVE AND REPLACE GATE (RE. DETAIL A1/D201)
  - ⑤ COMBINATION VACUUM & AIR RELEASE VALVE & MANHOLE VAULT (RE. DETAIL A1/D201)
  - ⑧ REMOVE AND REPLACE 238 L.F. EXISTING FENCE (RE. DETAIL A1/D207)
  - ⑪ BORE AND ENCASE STEEL CASING (RE. DETAIL A1/D206)
  - ⑫ CASING TEST STATION (RE. DETAIL H1/D401)



- ### GENERAL NOTES
1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.
  2. FIELD VERIFY DEPTHS OF ALL EX. UTILITIES.



REV.	DESCRIPTION	DATE



SSLGC  
TWDB PROJECT - PHASE 2

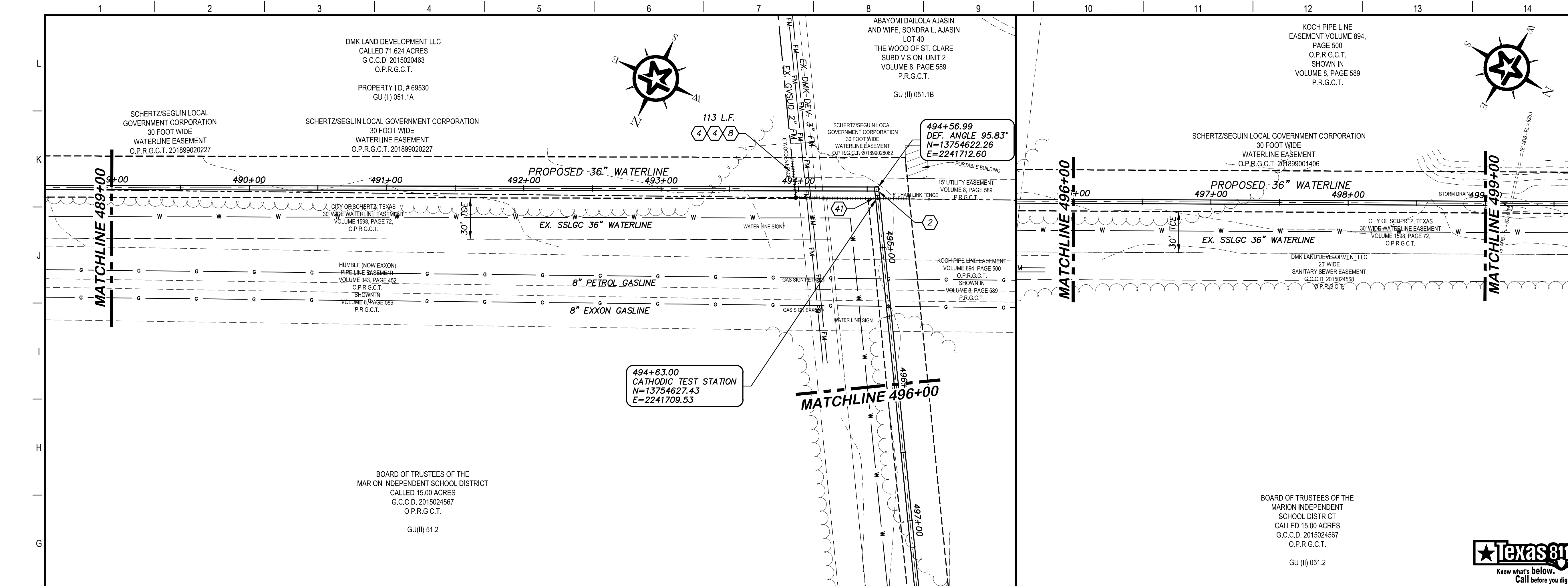
PLAN AND PROFILE  
479+00 TO 489+00

4-13-2020  
DATE

JOHN F. WINKLER  
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DRAFTED JFW  
CHECKED JFW  
PROJECT NO. 1-03153  
DRAWING NO. C148

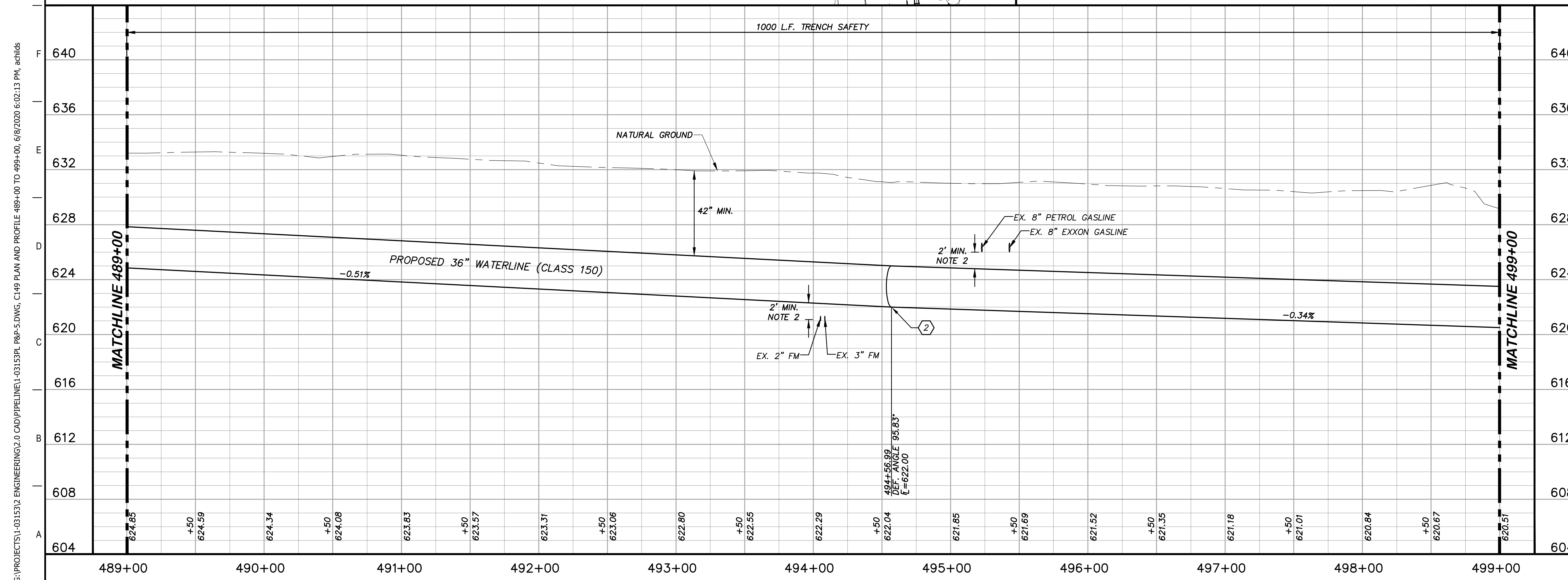
STATE OF TEXAS  
JOHN F. WINKLER  
50524  
REGISTERED PROFESSIONAL ENGINEER

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### KEY NOTES

- (2) CONCRETE THRUST BLOCKING (RE: DETAIL G1/D206)
- (4) REMOVE AND REPLACE GATE (RE: DETAIL A1/D201)
- (8) REMOVE AND REPLACE 113 L.F. EXISTING FENCE (RE: DETAIL A1/D207)
- (41) CATHODIC TEST STATION (RE: DETAIL A1/D403)



### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.
2. FIELD VERIFY DEPTHS OF ALL EX. UTILITIES.

H: 1"=40'  
V: 1"=4'

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers ★ surveyors  
T.B.P.E. Registration No. 8053

## SSLGC

TWDB PROJECT - PHASE 2

### PLAN AND PROFILE 489+00 TO 499+00

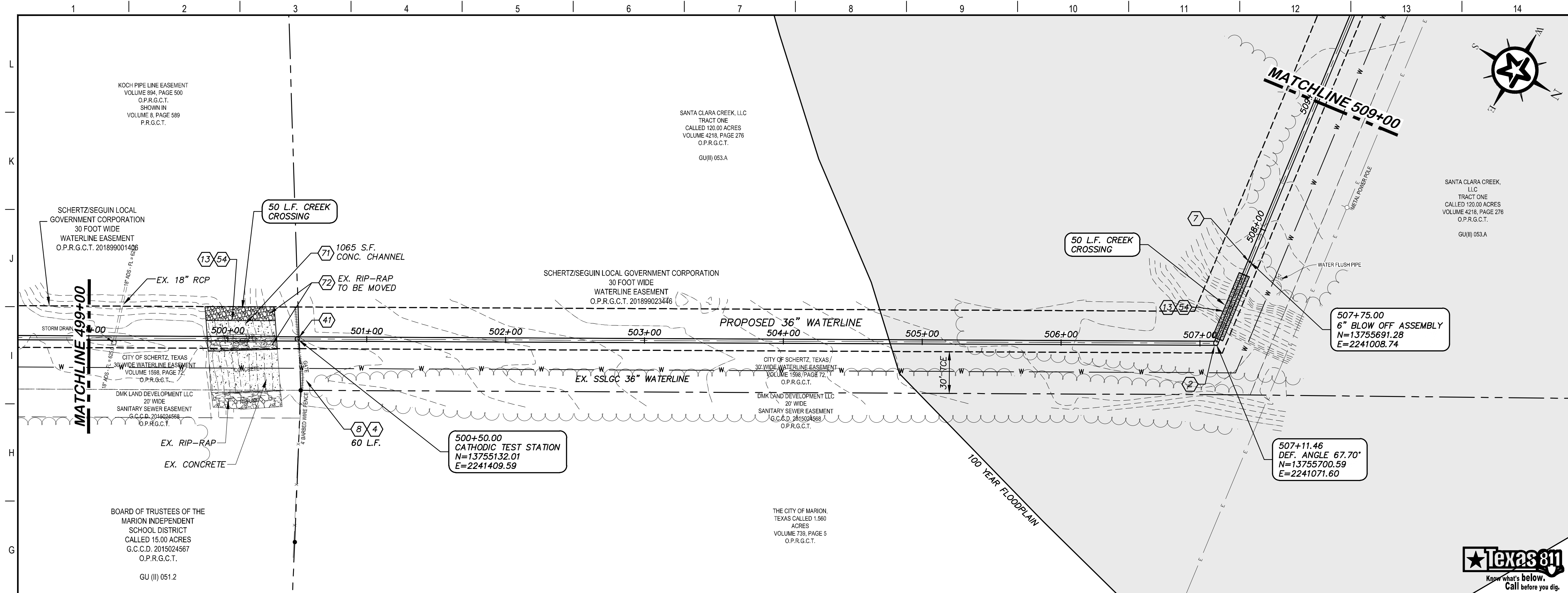
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*John F. Winkler*  
JOHN F. WINKLER  
50524  
REGISTERED PROFESSIONAL ENGINEER

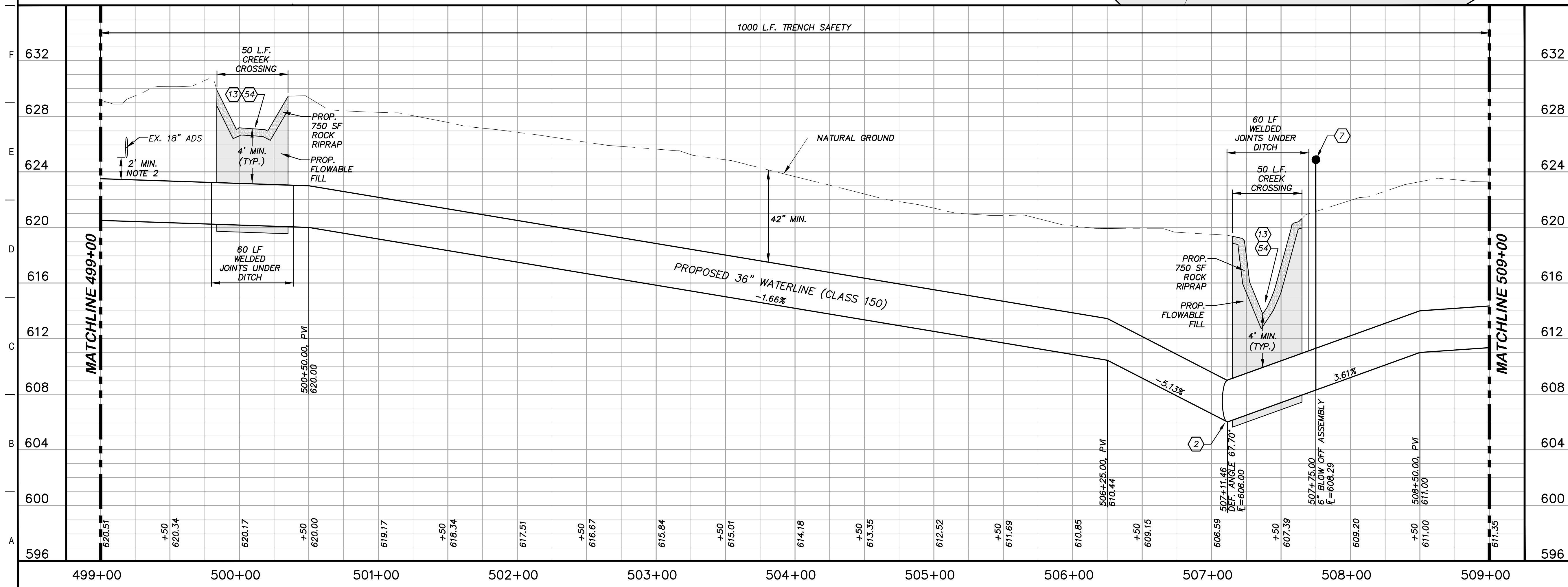
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DRAFTED	ARC
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DRAWING NO.	<b>C149</b>

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- ### KEY NOTES
- ② CONCRETE THRUST BLOCKING (RE. DETAIL G1/D206)
  - ④ REMOVE AND REPLACE GATE (RE. DETAIL D207)
  - ⑦ 6" BLOW OFF VALVE ASSEMBLY (RE. DETAIL A1/D202)
  - ⑧ REMOVE AND REPLACE 60 L.F. EXISTING FENCE (RE. DETAIL A1/D207)
  - ⑬ STONE RIP-RAP (DRY) INCLUDING WOVEN FILTER FABRIC, COMPLETED IN PLACE (RE. DETAIL A10/D200)
  - ④① CATHODIC TEST STATION (RE. DETAIL A1/D403)
  - ⑤④ CREEK CROSSING (RE. DETAIL A1/D209)
  - ⑦① CONCRETE CHANNEL
  - ⑦② EX. RIP-RAP TO BE MOVED AND REPLACED



### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.
2. FIELD VERIFY DEPTHS OF ALL EX. UTILITIES.

0 20 40 80  
GRAPHIC SCALE (FEET) H:1"=40' V:1"=4'

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers ★ surveyors  
T.B.P.E. Registration No. 8053

## SSLGC

TWDB PROJECT - PHASE 2

### PLAN AND PROFILE 499+00 TO 509+00

4-13-2020  
DATE

JOHN F. WINKLER  
DESIGNED

JOHN F. WINKLER  
DRAFTED

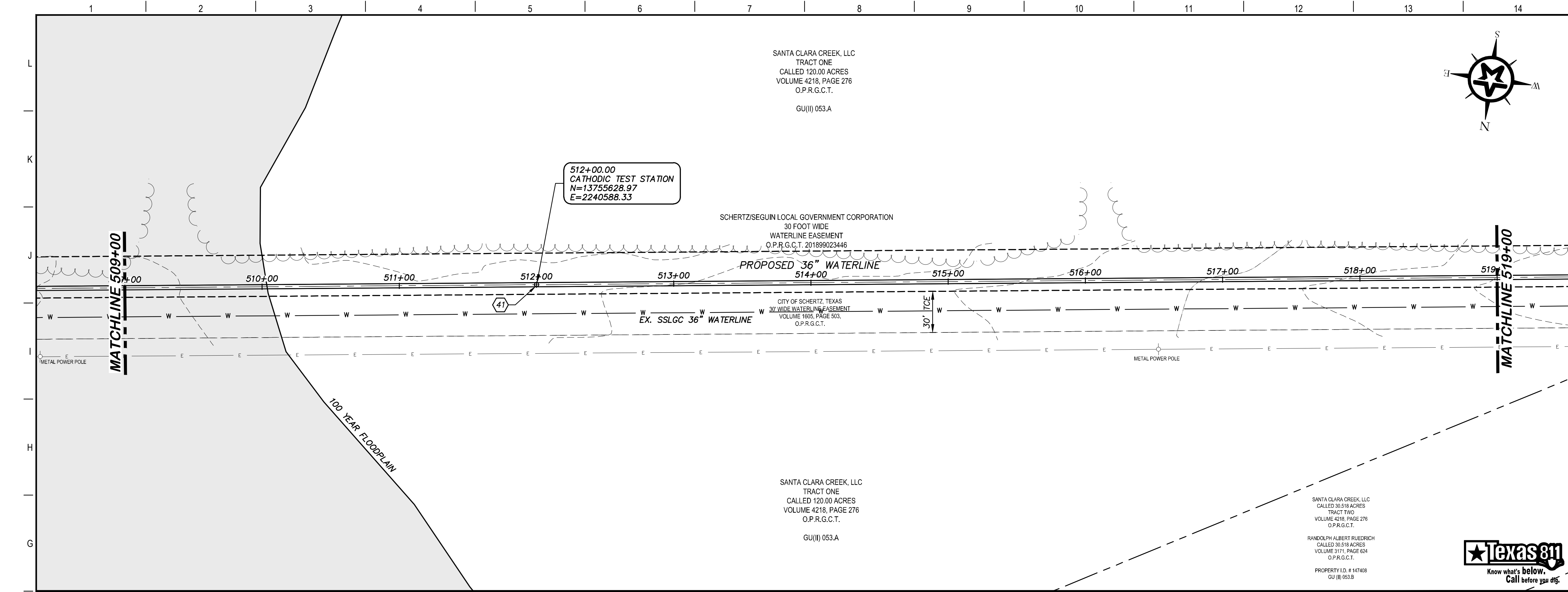
JOHN F. WINKLER  
CHECKED

JOHN F. WINKLER  
PROJECT NO. 1-03153

JOHN F. WINKLER  
REGISTERED PROFESSIONAL ENGINEER  
50524

DRAWING NO.  
**C150**

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### KEY NOTES

(41) CATHODIC TEST STATION  
(RE. DETAIL A1/D403)

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### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.

0 20 40 80  
GRAPHIC SCALE (FEET) H:1"=40'  
V:1"=4'

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers • surveyors  
T.B.P.E. Registration No. 8053

**SSLGC**

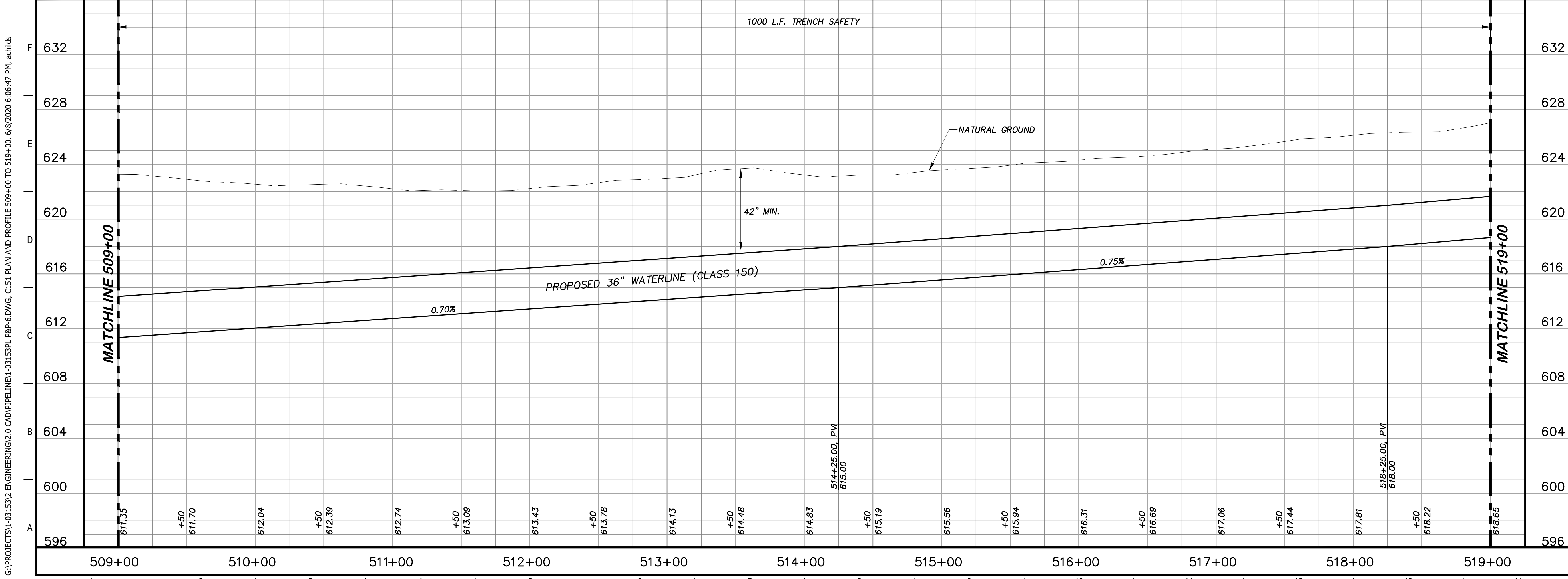
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4-13-2020  
DATE

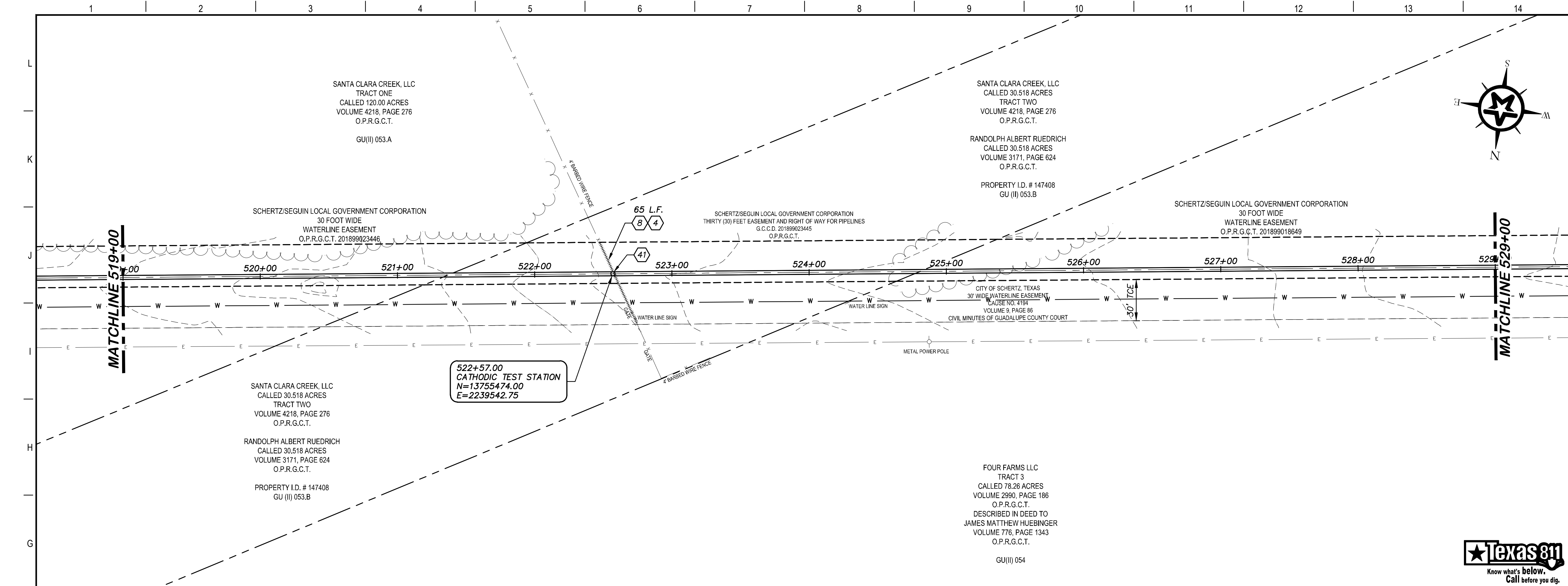
*John F. Winkler*  
JOHN F. WINKLER  
50524  
REGISTERED PROFESSIONAL ENGINEER

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CHECKED	JFW
PROJECT NO.	1-03153
DRAWING NO.	<b>C151</b>



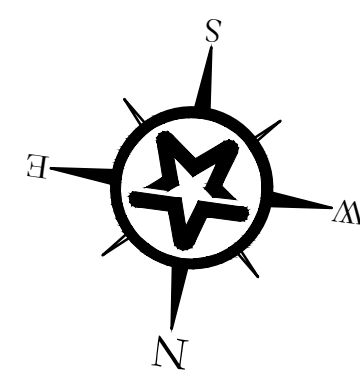
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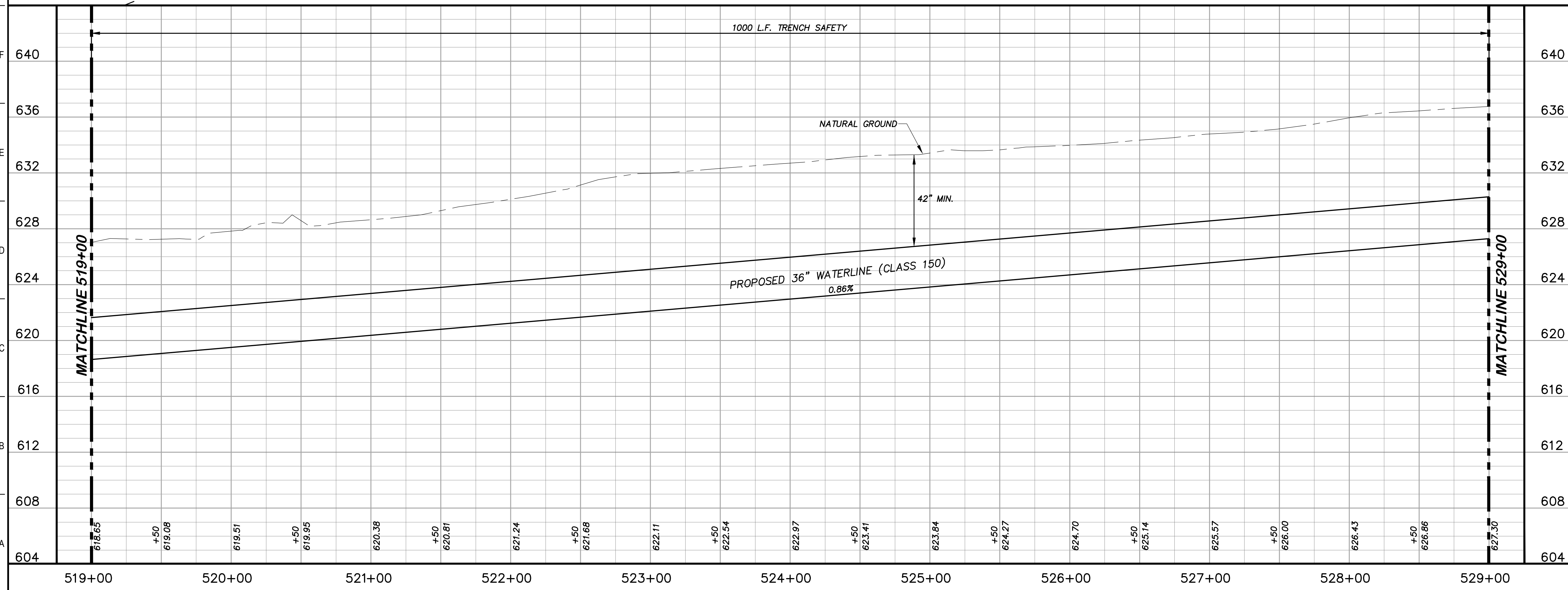


**KEY NOTES**

- 4 REMOVE AND REPLACE GATE (RE. DETAIL D207)
- 8 REMOVE AND REPLACE 65 L.F. EXISTING FENCE AND GATE (RE. DETAIL A1/D207)
- 41 CATHODIC TEST STATION (RE. DETAIL A1/D403)

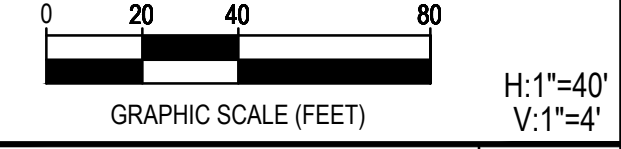


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**GENERAL NOTES**

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.



REV.	DESCRIPTION	DATE



**SSLGC**

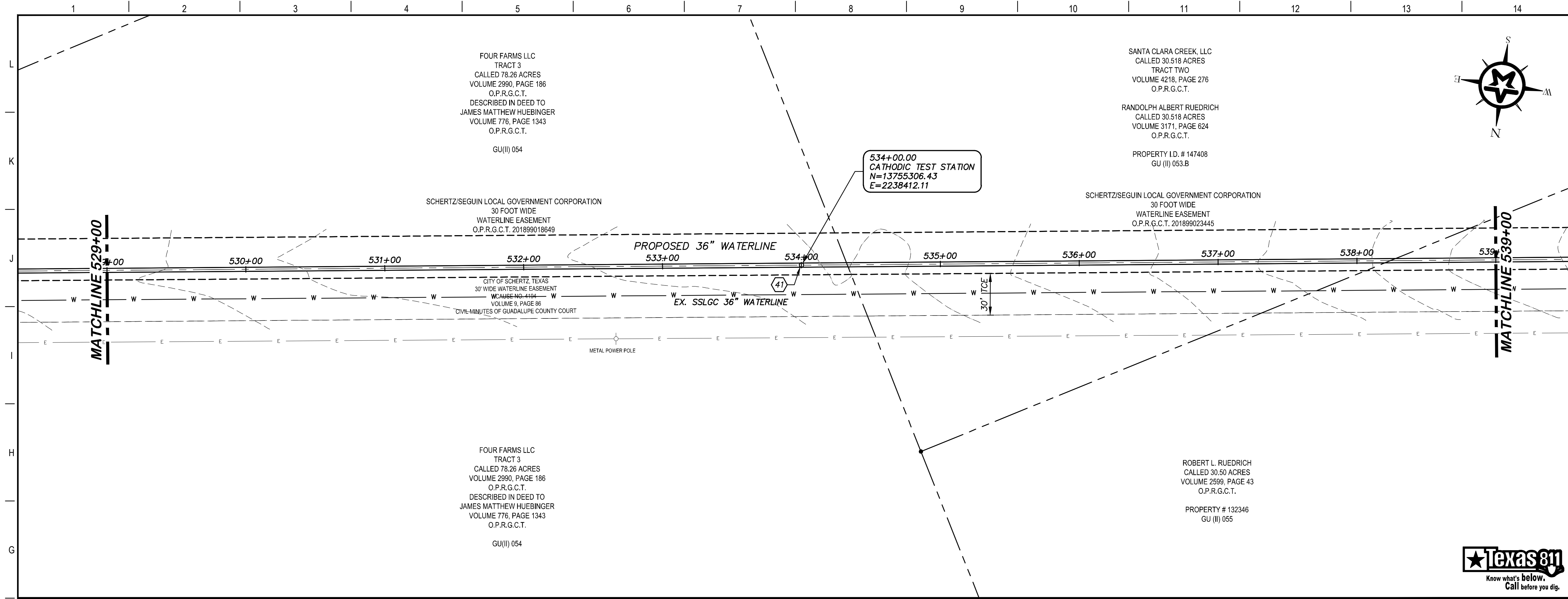
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4-13-2020  
DATE: *John F. Winkler*  
JOHN F. WINKLER

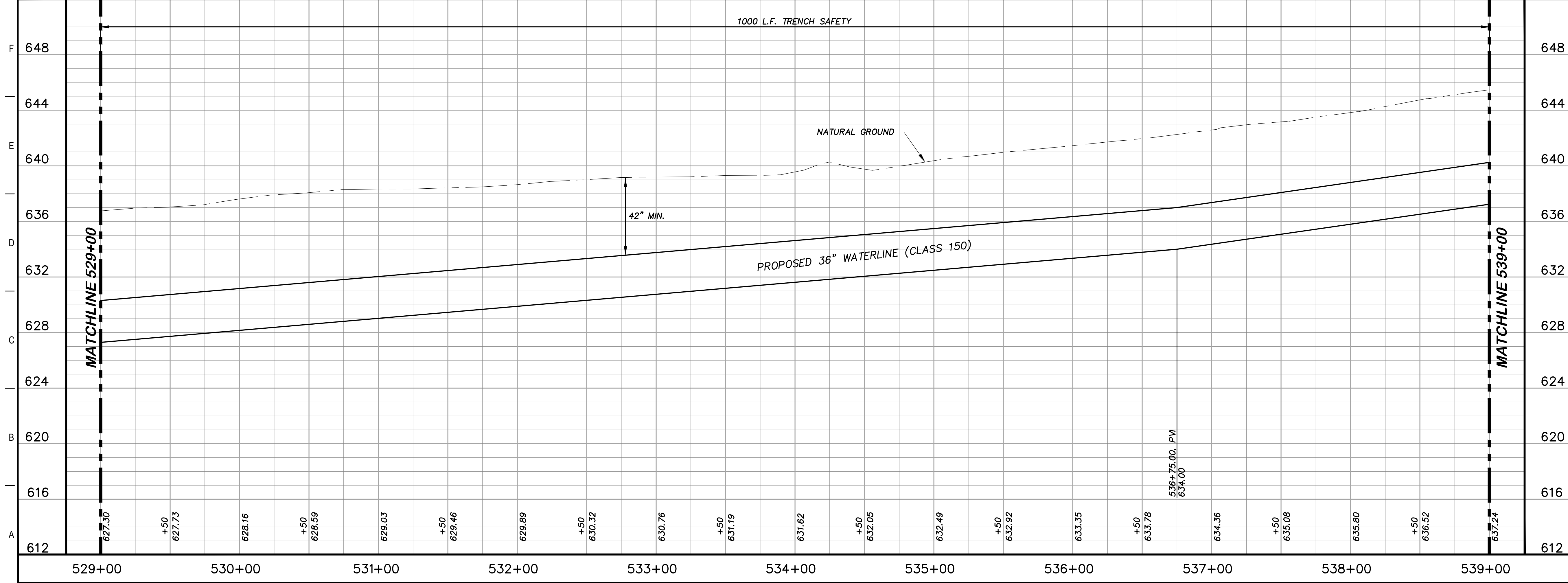
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### KEY NOTES

41 CATHODIC TEST STATION  
(RE. DETAIL A1/D403)



### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.

0 20 40 80  
GRAPHIC SCALE (FEET) H:1"=40' V:1"=4'

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers \* surveyors  
T.B.P.E. Registration No. 8053

**SSLGC**

TWDB PROJECT - PHASE 2

PLAN AND PROFILE  
529+00 TO 539+00

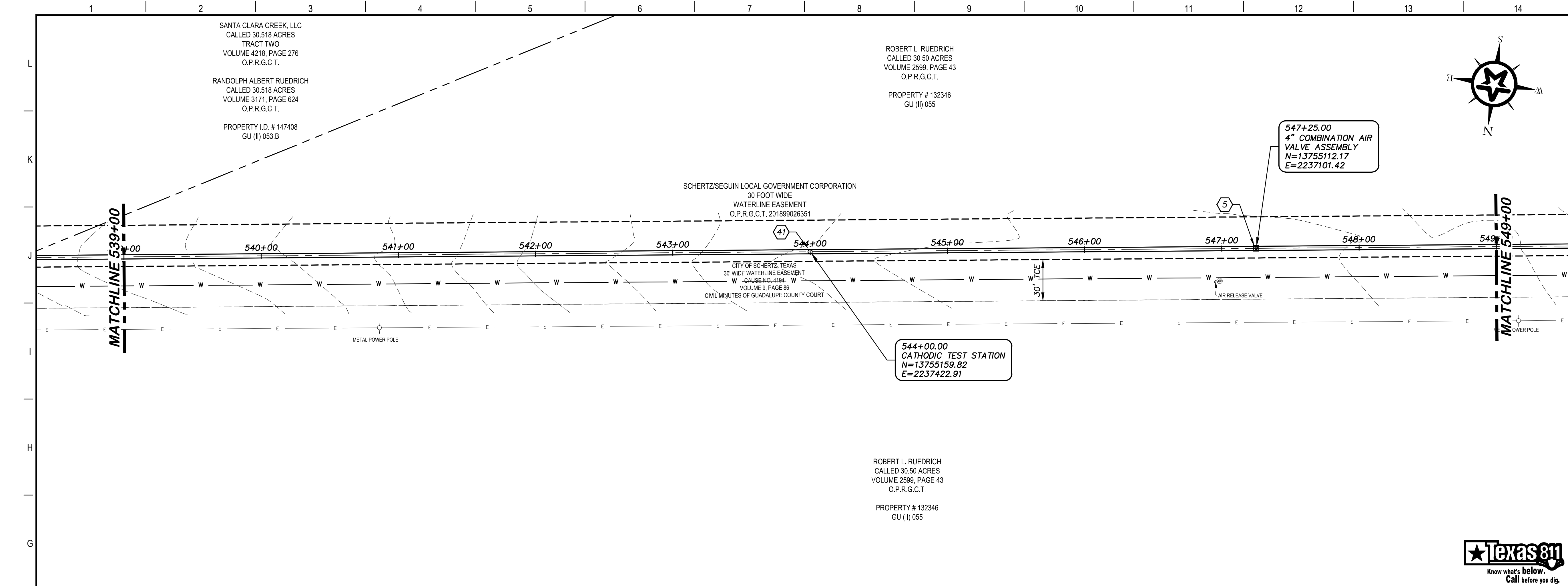
4-13-2020  
DATE

JOHN F. WINKLER  
DATE

PM	JFW
DESIGNED	JFW
DRAFTED	ARC
CHECKED	JFW
PROJECT NO.	1-03153
DRAWING NO.	<b>C153</b>







### KEY NOTES

- 5 COMBINATION VACUUM & AIR RELEASE VALVE & MANHOLE VAULT (RE. DETAIL A1/D201)
- 41 CATHODIC TEST STATION (RE. DETAIL A1/D403)

### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.

0 20 40 80  
GRAPHIC SCALE (FEET) H:1"=40' V:1"=4'

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers ★ surveyors  
T.B.P.E. Registration No. 8053

**SSLGC**

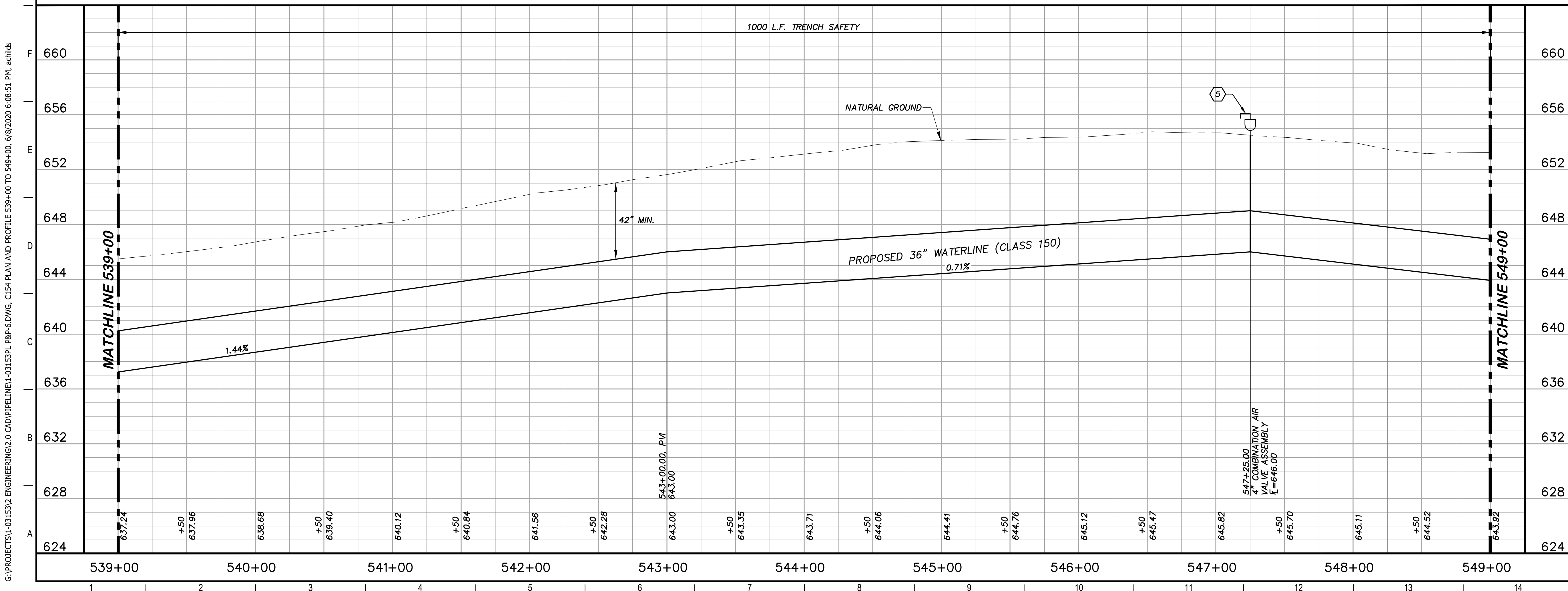
TWDB PROJECT - PHASE 2

PLAN AND PROFILE  
539+00 TO 549+00

4-13-2020  
DATE

*John F. Winkler*  
JOHN F. WINKLER

DESIGNED	JFW
DRAFTED	JFW
CHECKED	ARC
PROJECT NO.	1-03153
DRAWING NO.	<b>C154</b>



660  
656  
652  
648  
644  
640  
636  
632  
628  
624

539+00 540+00 541+00 542+00 543+00 544+00 545+00 546+00 547+00 548+00 549+00

637.24 +50 637.96 638.68 +50 639.40 640.12 +50 640.84 641.56 +50 642.28 643.00 643.00 643.00 643.35 +50 643.71 +50 644.06 644.41 +50 644.76 645.12 +50 645.47 645.82 +50 645.70 645.11 +50 644.52 643.92

1000 L.F. TRENCH SAFETY

NATURAL GROUND

42" MIN.

PROPOSED 36" WATERLINE (CLASS 150)  
0.71%

1.44%

547+25.00  
4" COMBINATION AIR VALVE ASSEMBLY  
L=646.00

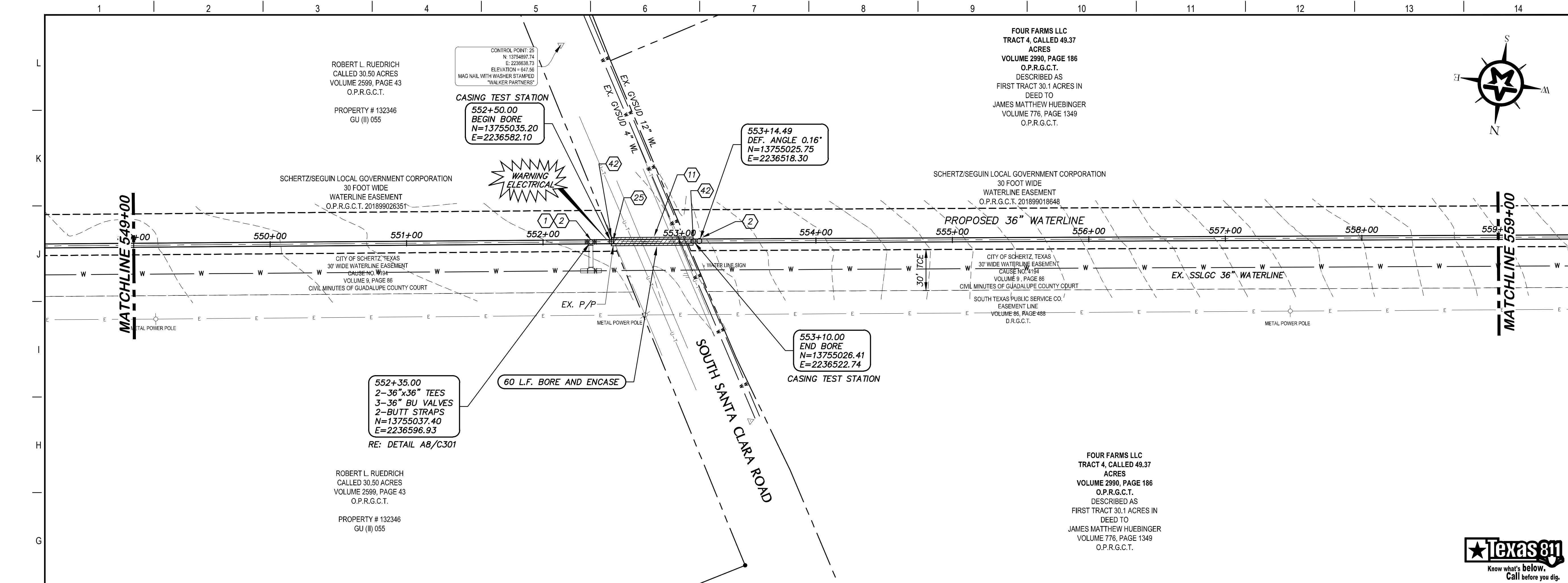
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30' TRENCH SAFETY

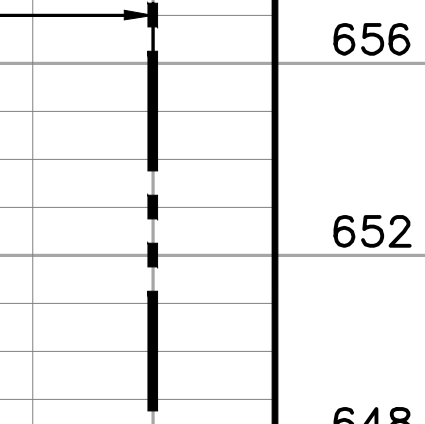
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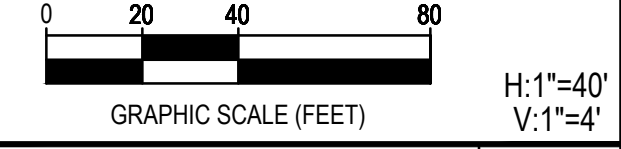
**KEY NOTES**

- ① BUTTERFLY VALVE (RE. DETAIL G1/D202)
- ② CONCRETE THRUST BLOCKING (RE. DETAIL G1/D206)
- ⑪ BORE AND ENCASE STEEL CASING (RE. DETAIL A1/D206)
- ⑫ THE CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH THE APPROPRIATE UTILITIES OWNING ANY POLES OR SIGNS THAT MAY BE IMPACTED DURING THE WORK OF THIS CONTRACT. BRACING AND PROTECTIVE MEASURES PER THE REQUIREMENTS OF THE SIGNS' OWNERS SHALL BE PROVIDED BY THE CONTRACTOR, AND SHALL BE CONSIDERED SUDDIARY TO THE WORK.
- ⑫ CASING TEST STATION (RE. DETAIL H1/D401)



**GENERAL NOTES**

- 1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.
- 2. FIELD VERIFY DEPTHS OF ALL EX. UTILITIES.



REV.	DESCRIPTION	DATE



**SSLGC**

TWDB PROJECT - PHASE 2

PLAN AND PROFILE  
549+00 TO 559+00

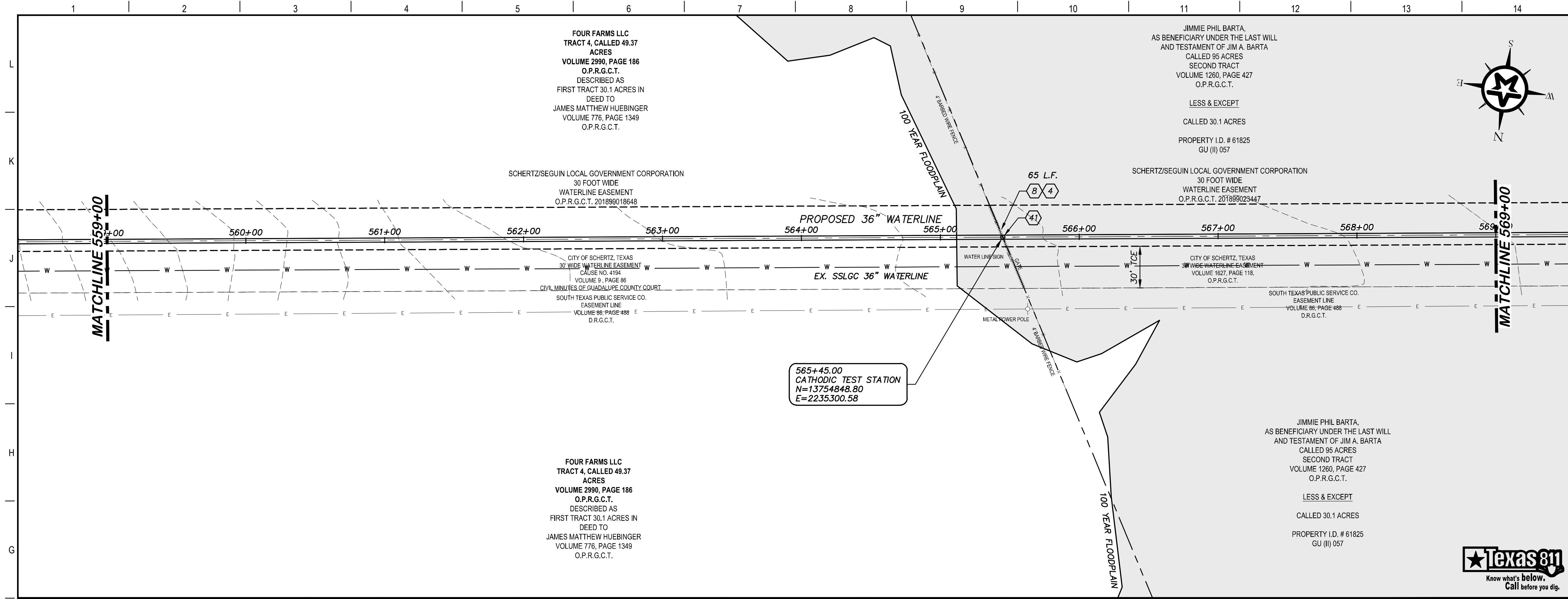
4-13-2020  
DATE: JOHN F. WINKLER

	DESIGNED	JFW
	DRAFTED	JFW
	CHECKED	ARC
	PROJECT NO.	1-03153
DRAWING NO.		<b>C155</b>

G:\PROJECTS\1-03153\ENGINEERING\2.0 CAD\PIPELINE\1-03153PL\_P&P-6.DWG, C155 PLAN AND PROFILE 549+00 TO 559+00, 6/8/2020 6:09:32 PM, achids



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### KEY NOTES

- 4 REMOVE AND REPLACE GATE (RE. DETAIL D207)
- 8 REMOVE AND REPLACE 65 L.F. EXISTING FENCE AND GATE (RE. DETAIL A1/D207)
- 41 CATHODIC TEST STATION (RE. DETAIL A1/D403)

### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.

0 20 40 80  
GRAPHIC SCALE (FEET) H:1"=40' V:1"=4'

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers \* surveyors  
T.B.P.E. Registration No. 8053

**SSLGC**

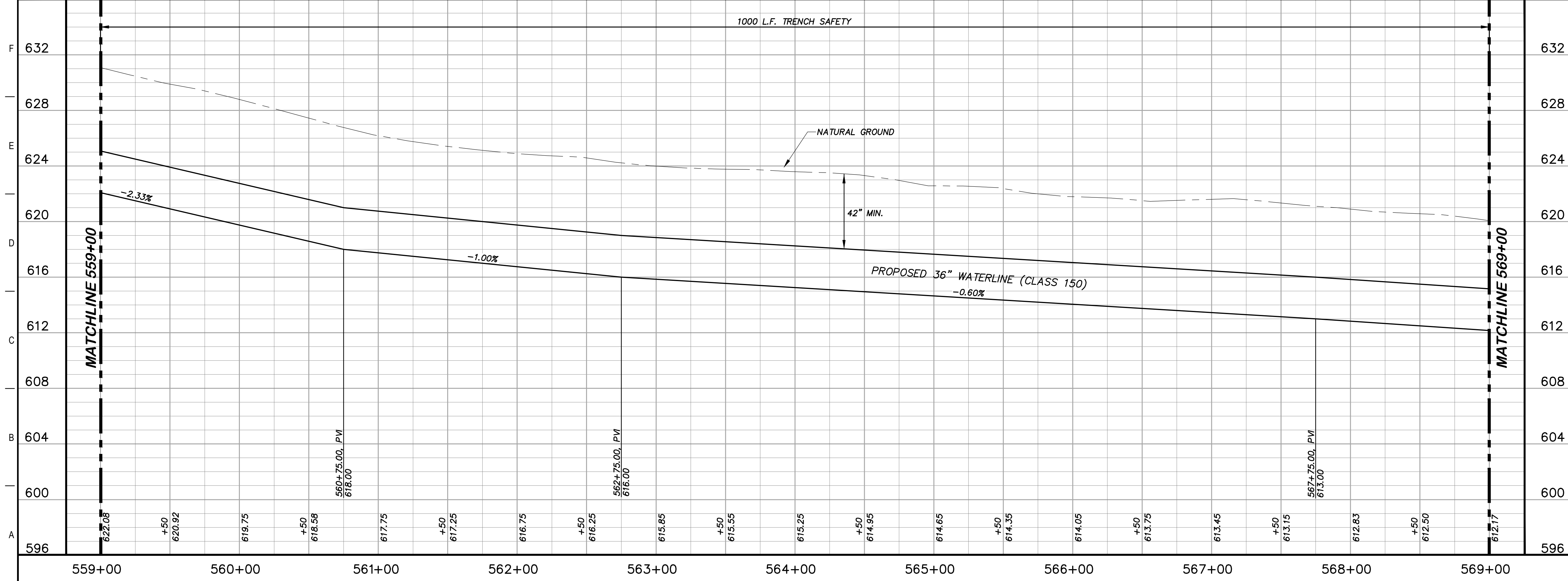
TWDB PROJECT - PHASE 2

PLAN AND PROFILE  
559+00 TO 569+00

4-13-2020  
DATE

*John F. Winkler*  
JOHN F. WINKLER  
PROFESSIONAL ENGINEER  
50524

PM	JFW
DESIGNED	JFW
DRAFTED	ARC
CHECKED	JFW
PROJECT NO.	1-03153
DRAWING NO.	<b>C156</b>



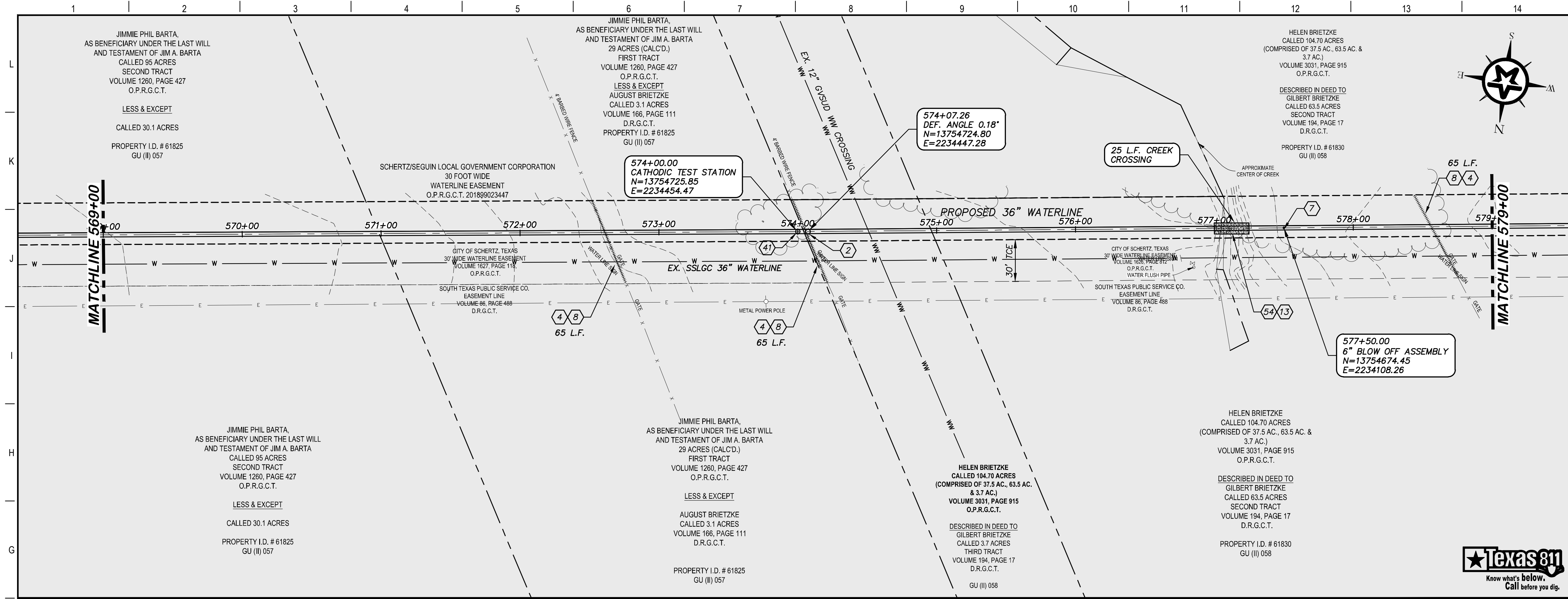
1000 L.F. TRENCH SAFETY

42" MIN.

PROPOSED 36" WATERLINE (CLASS 150)

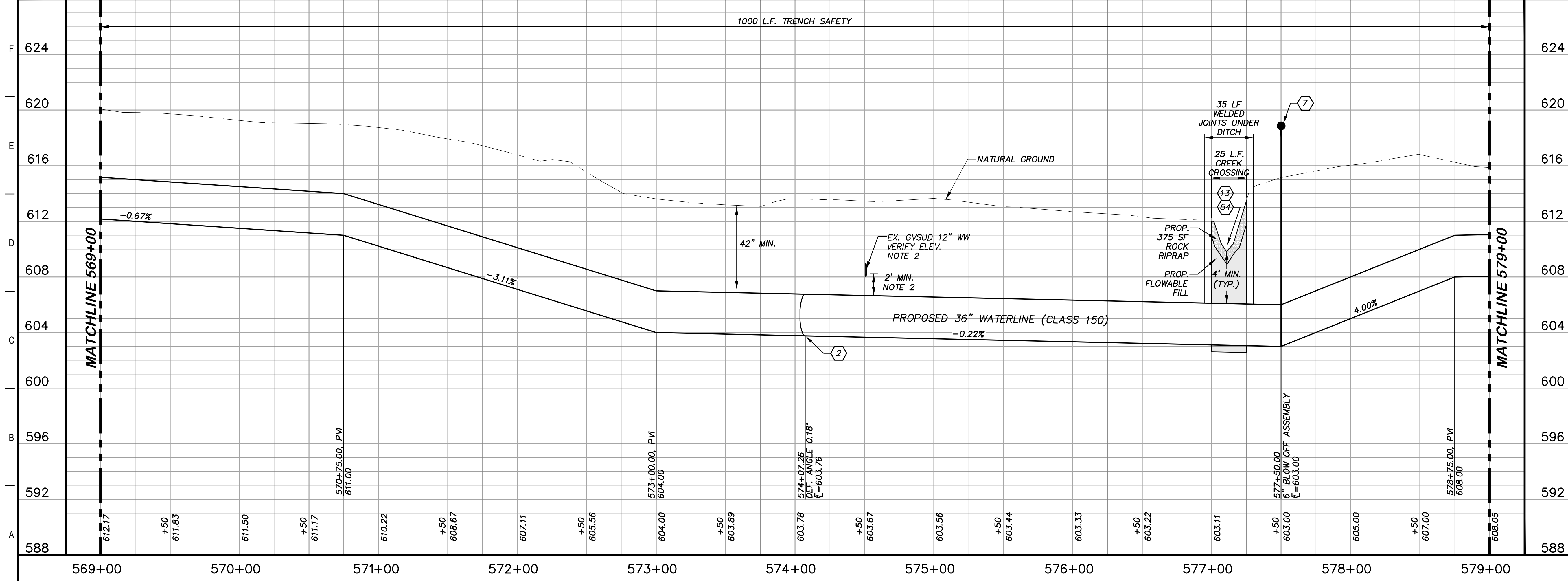
GRADES: -2.33%, -1.00%, -0.60%

VERTICAL CURVES:  
 560+75.00, PVI 618.00  
 562+75.00, PVI 616.00  
 567+75.00, PVI 613.00



### KEY NOTES

- CONCRETE THRUST BLOCKING (RE. DETAIL G1/D206)
- REMOVE AND REPLACE GATE (RE. DETAIL D207)
- 6" BLOW OFF VALVE ASSEMBLY (RE. DETAIL A1/D202)
- REMOVE AND REPLACE 195 L.F. EXISTING FENCE AND GATE (RE. DETAIL A1/D207)
- STONE RIP-RAP (DRY) INCLUDING WOVEN FILTER FABRIC, COMPLETED IN PLACE (RE. DETAIL A10/D200)
- CATHODIC TEST STATION (RE. DETAIL A1/D403)
- CREEK CROSSING (RE. DETAIL A1/D209)



### GENERAL NOTES

- TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.
- FIELD VERIFY DEPTHS OF ALL EX. UTILITIES.

0 20 40 80  
GRAPHIC SCALE (FEET) H:1"=40' V:1"=4'

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers \* surveyors  
T.B.P.E. Registration No. 8053

## SSLGC

TWDB PROJECT - PHASE 2

### PLAN AND PROFILE 569+00 TO 579+00

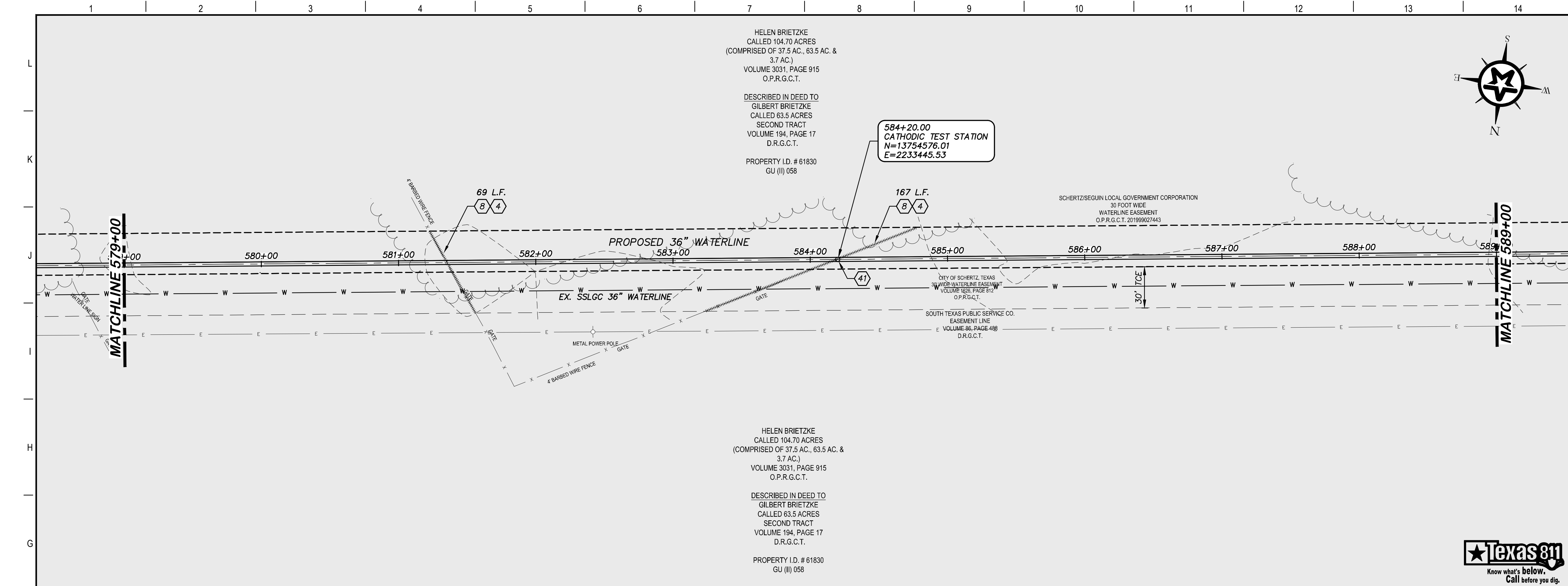
4-13-2020  
DATE

JOHN F. WINKLER  
DATE

DESIGNED	JFW
DRAFTED	JFW
CHECKED	ARC
PROJECT NO.	1-03153
DRAWING NO.	C157

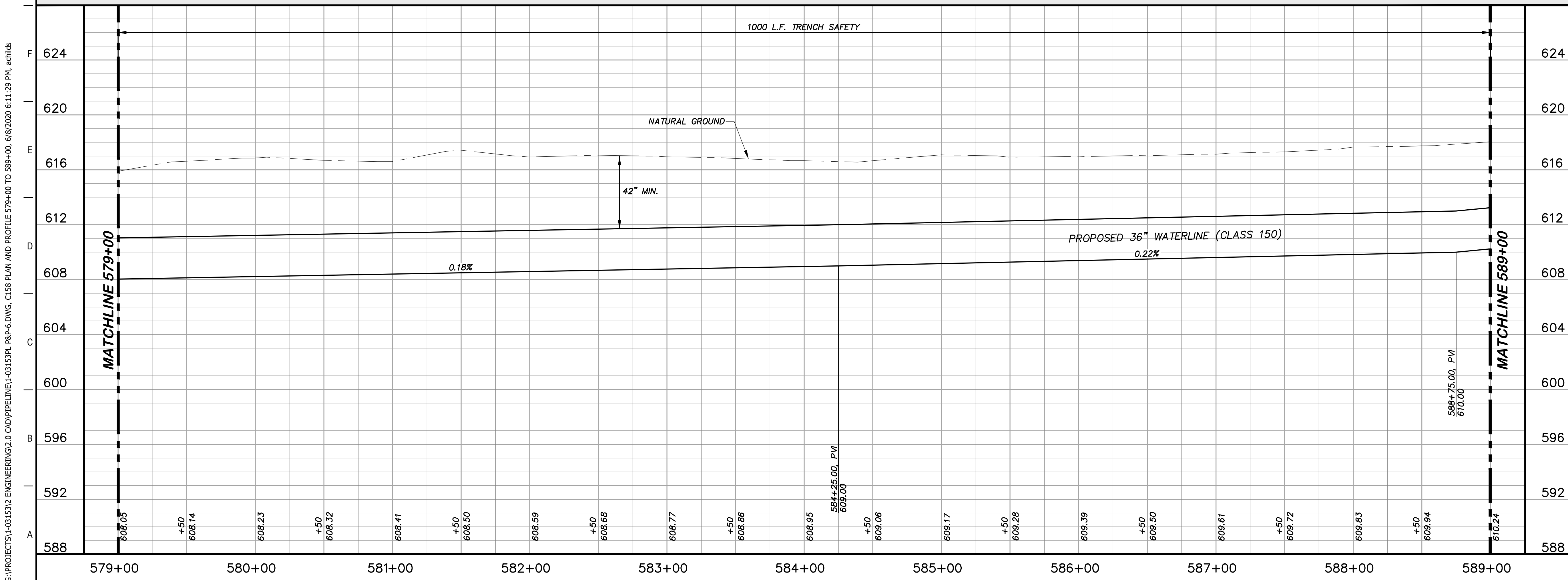
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### KEY NOTES

- 4 REMOVE AND REPLACE GATE (RE. DETAIL D207)
- 8 REMOVE AND REPLACE 236 L.F. EXISTING FENCE AND GATE (RE. DETAIL A1/D207)
- 41 CATHODIC TEST STATION (RE. DETAIL A1/D403)



### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.

0 20 40 80  
GRAPHIC SCALE (FEET) H:1"=40' V:1"=4'

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers \* surveyors  
T.B.P.E. Registration No. 8053

**SSLGC**

TWDB PROJECT - PHASE 2

PLAN AND PROFILE  
579+00 TO 589+00

4-13-2020  
DATE

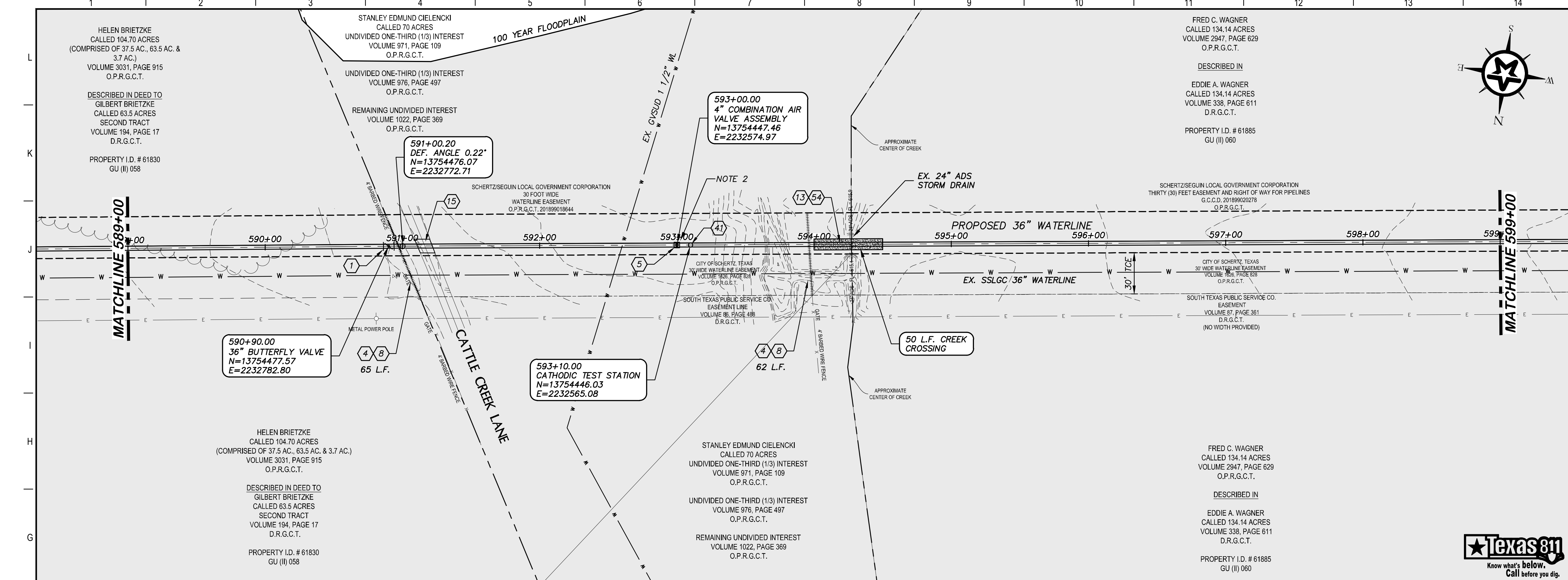
JOHN F. WINKLER  
DATE

DESIGNED	JFW
DRAFTED	JFW
CHECKED	ARC
PROJECT NO.	1-03153

STATE OF TEXAS  
JOHN F. WINKLER  
50524  
REGISTERED PROFESSIONAL ENGINEER

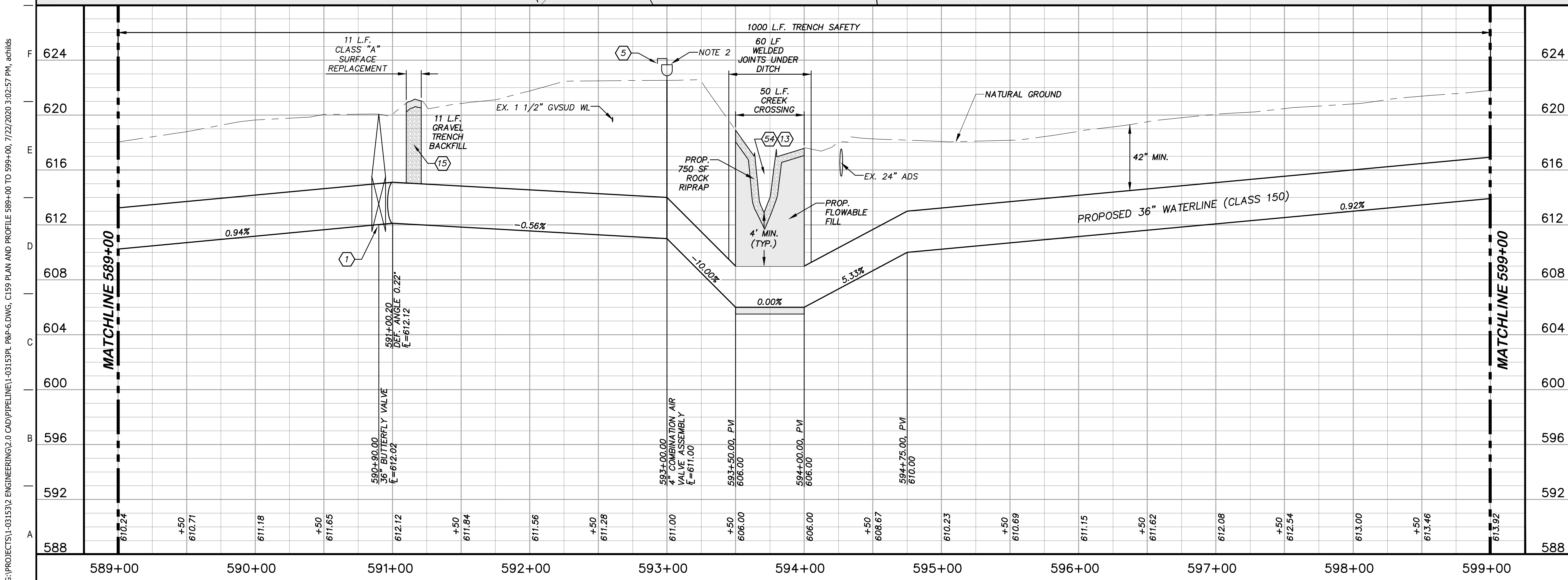
DRAWING NO.  
**C158**

G:\PROJECTS\1-03153\2 ENGINEERING\2.0 CAD\PIPELINE\1-03153PL P&P-6.DWG, C158 PLAN AND PROFILE 579+00 TO 589+00, 6/8/2020 6:11:29 PM, achids



### KEY NOTES

- 1 BUTTERFLY VALVE (RE. DETAIL G1/D202)
- 4 REMOVE AND REPLACE GATE (RE. DETAIL D207)
- 5 COMBINATION VACUUM & AIR RELEASE VALVE & MANHOLE VAULT (RE. DETAIL A1/D201)
- 8 REMOVE AND REPLACE 127 L.F. EXISTING FENCE AND GATE (RE. DETAIL A1/D207)
- 13 STONE RIP-RAP (DRY) INCLUDING WOVEN FILTER FABRIC, COMPLETED IN PLACE (RE. DETAIL A10/D200)
- 15 CLASS A SURFACE REPLACEMENT (RE. DETAIL G1/D208)
- 41 CATHODIC TEST STATION (RE. DETAIL A1/D403)
- 54 CREEK CROSSING (RE. DETAIL A1/D209)



### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.
2. EXTEND VENT PIPE ON ARV TO ELEV. 625.00

GRAPHIC SCALE (FEET) H: 1"=40' V: 1"=4'

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers • surveyors  
T.B.P.E. Registration No. 8053

## SSLGC

TWDB PROJECT - PHASE 2

### PLAN AND PROFILE 589+00 TO 599+00

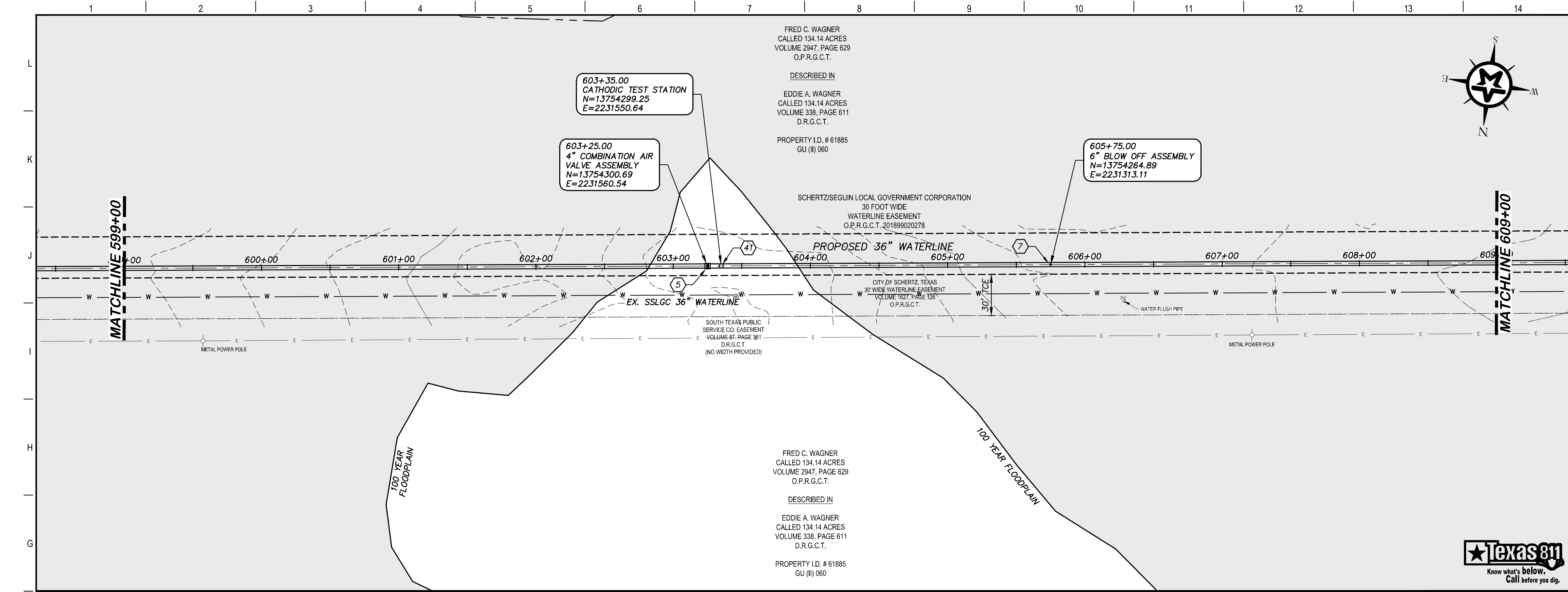
4-13-2020  
DATE

*John F. Winkler*  
JOHN F. WINKLER

DESIGNED	JFW
DRAFTED	JFW
CHECKED	ARC
PROJECT NO.	1-03153
DRAWING NO.	<b>C159</b>

G:\PROJECTS\1-03153\ENGINEERING\2.0 CAD\PIPELINE\1-03153PL P&P-6.DWG, C159 PLAN AND PROFILE 589+00 TO 599+00, 7/22/2020 3:02:57 PM, achids





### KEY NOTES

- 5 COMBINATION VACUUM & AIR RELEASE VALVE & MANHOLE VAULT (RE. DETAIL A1/D201)
- 7 6" BLOW OFF VALVE ASSEMBLY (RE. DETAIL A1/D202)
- 41 CATHODIC TEST STATION (RE. DETAIL A1/D403)

**GENERAL NOTES**

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.

0 20 40 80  
GRAPHIC SCALE (FEET) H:1"=40' V:1"=4'

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers \* surveyors  
T.B.P.E. Registration No. 8053

**SSLGC**

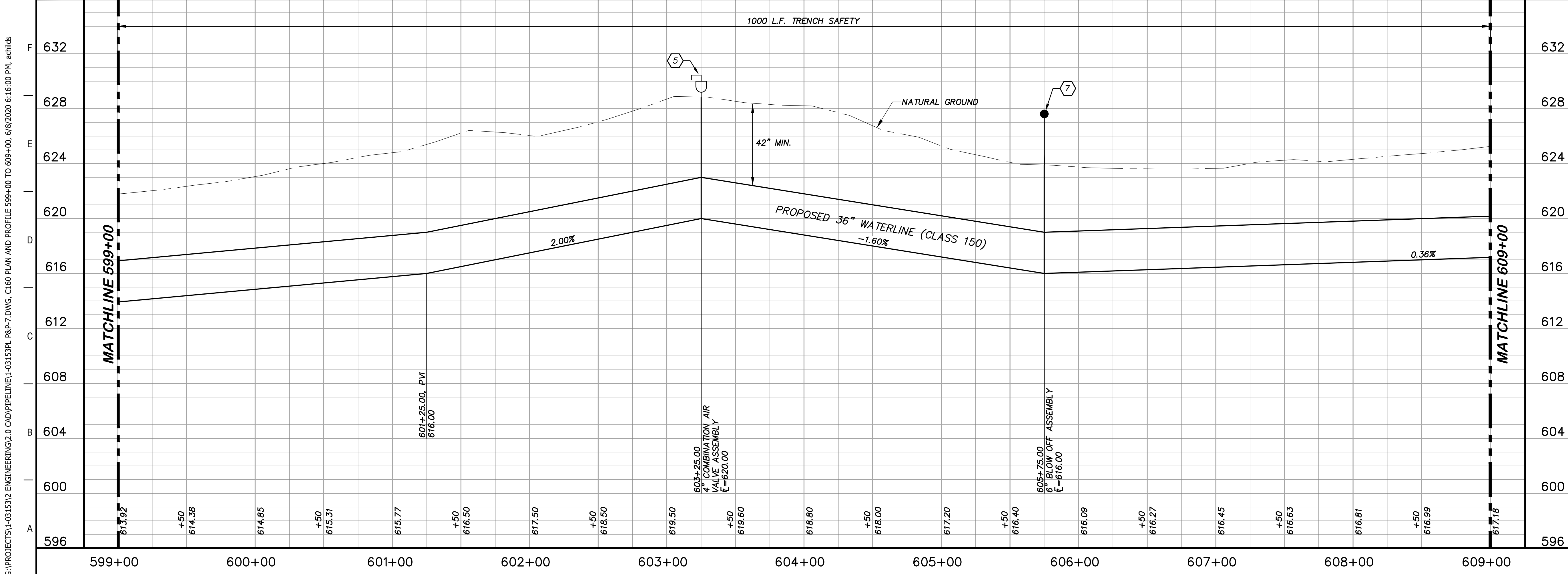
TWDB PROJECT - PHASE 2

PLAN AND PROFILE  
599+00 TO 609+00

4-13-2020  
DATE

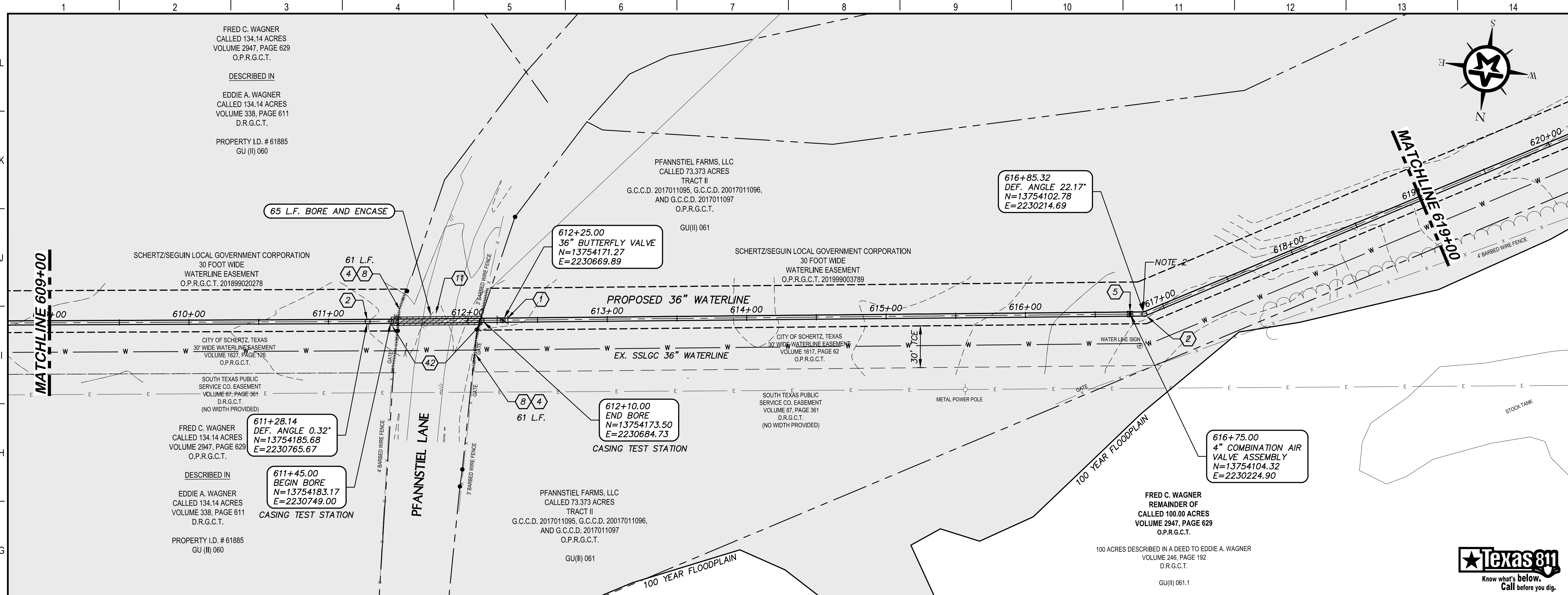
JOHN F. WINKLER  
PROFESSIONAL ENGINEER

DESIGNED	JFW
DRAFTED	ARC
CHECKED	JFW
PROJECT NO.	1-03153
DRAWING NO.	<b>C160</b>



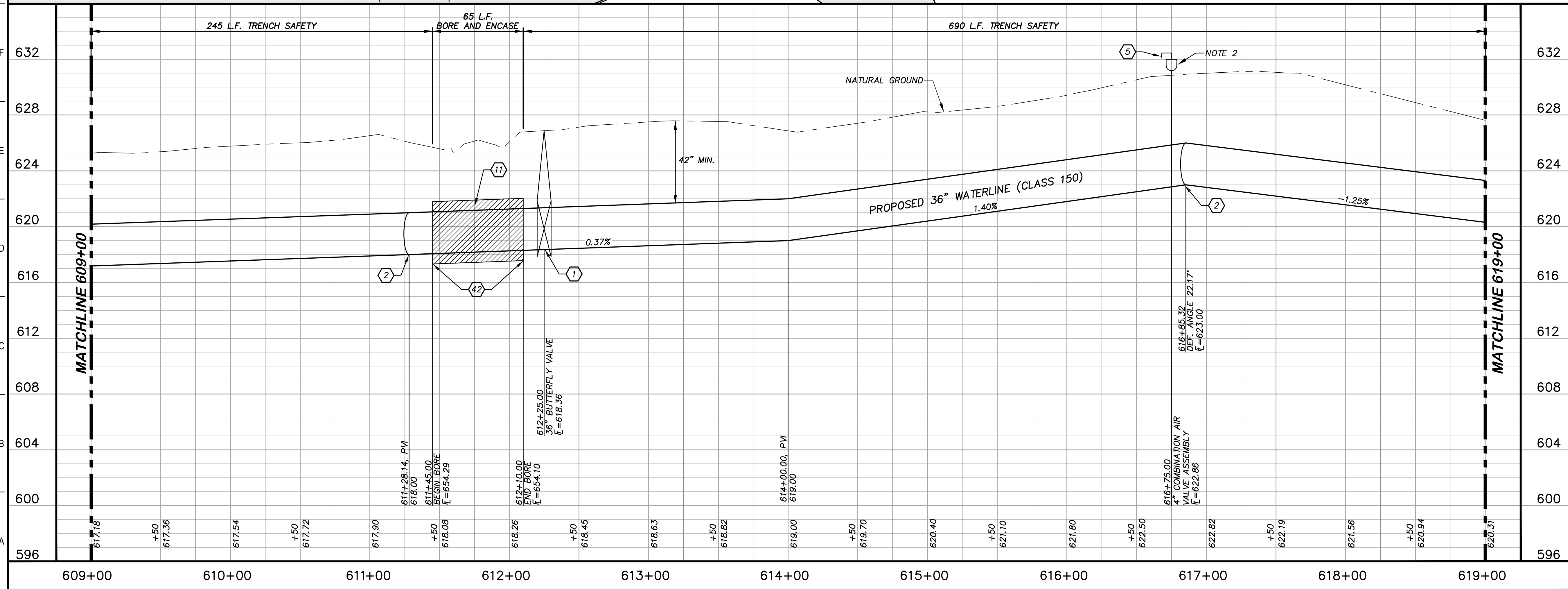
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### KEY NOTES

- 1 BUTTERFLY VALVE (RE. DETAIL G1/D202)
- 2 CONCRETE THRUST BLOCKING (RE. DETAIL G1/D206)
- 4 REMOVE AND REPLACE GATE (RE. DETAIL D207)
- 5 COMBINATION VACUUM & AIR RELEASE VALVE & MANHOLE VAULT (RE. DETAIL A1/D201)
- 8 REMOVE AND REPLACE 122 L.F. EXISTING FENCE AND GATE (RE. DETAIL A1/D207)
- 11 BORE AND ENCASE STEEL CASING (RE. DETAIL A1/D206)
- 42 CASING TEST STATION (RE. DETAIL H1/D401)



### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.
2. EXTEND VENT PIPE ON ARV TO ELEV. 634.00

GRAPHIC SCALE (FEET)

REV	DESCRIPTION	DATE

**Walker Partners**  
engineers • surveyors  
T.B.P.E. Registration No. 8053

**SSLGC**

TWDB PROJECT - PHASE 2

PLAN AND PROFILE  
609+00 TO 619+00

4-13-2020  
DATE

*John F. Winkler*  
JOHN F. WINKLER

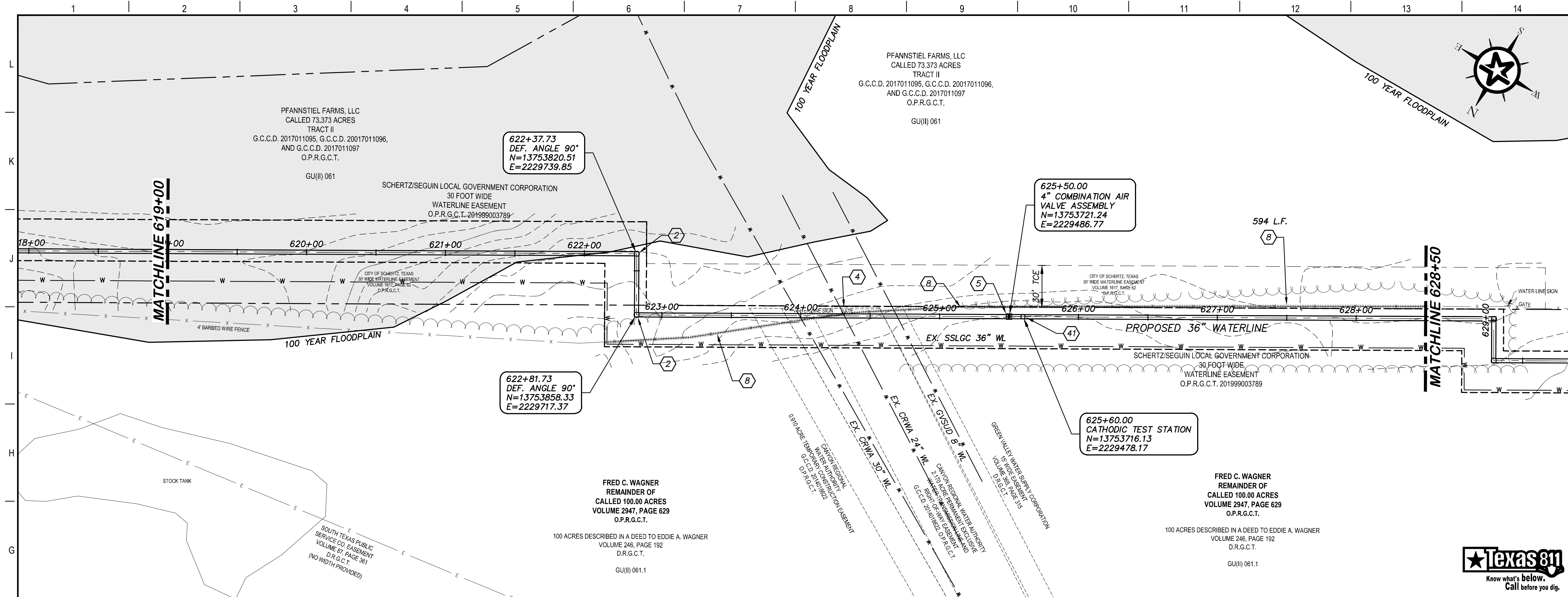
DESIGNED	JFW
DRAFTED	ARC
CHECKED	JFW
PROJECT NO.	1-03153

**STATE OF TEXAS**  
5052  
REGISTERED PROFESSIONAL ENGINEER  
JOHN F. WINKLER

DRAWING NO.  
**C161**



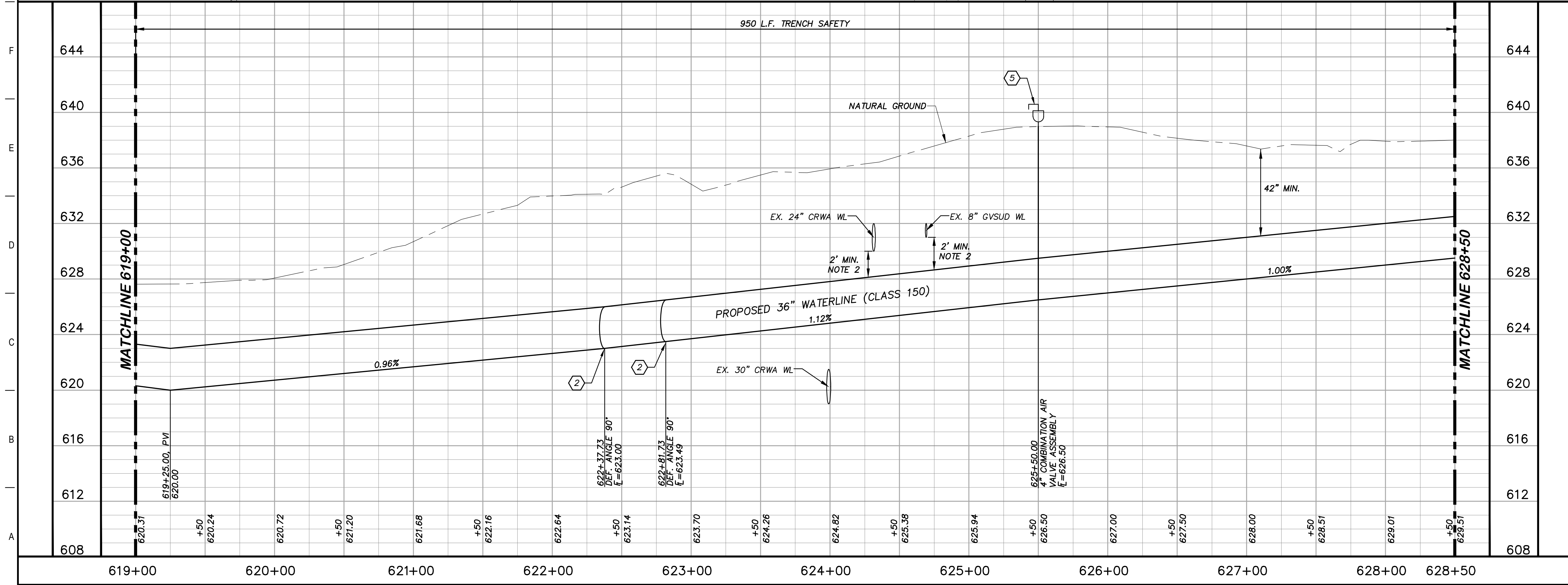
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### KEY NOTES

- ② CONCRETE THRUST BLOCKING (RE. DETAIL G1/D206)
- ④ REMOVE AND REPLACE GATE (RE. DETAIL D207)
- ⑤ COMBINATION VACUUM & AIR RELEASE VALVE & MANHOLE VAULT (RE. DETAIL A1/D201)
- ⑧ REMOVE AND REPLACE 594 L.F. EXISTING FENCE AND GATE (RE. DETAIL A1/D207)
- ④1 CATHODIC TEST STATION (RE. DETAIL A1/D403)

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



### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.
2. FIELD VERIFY DEPTHS OF ALL EX. UTILITIES.

0 20 40 80  
GRAPHIC SCALE (FEET) H:1"=40' V:1"=4'

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers • surveyors  
T.B.P.E. Registration No. 8053

## SSLGC

TWDB PROJECT - PHASE 2

### PLAN AND PROFILE 619+00 TO 628+50

4-13-2020  
DATE

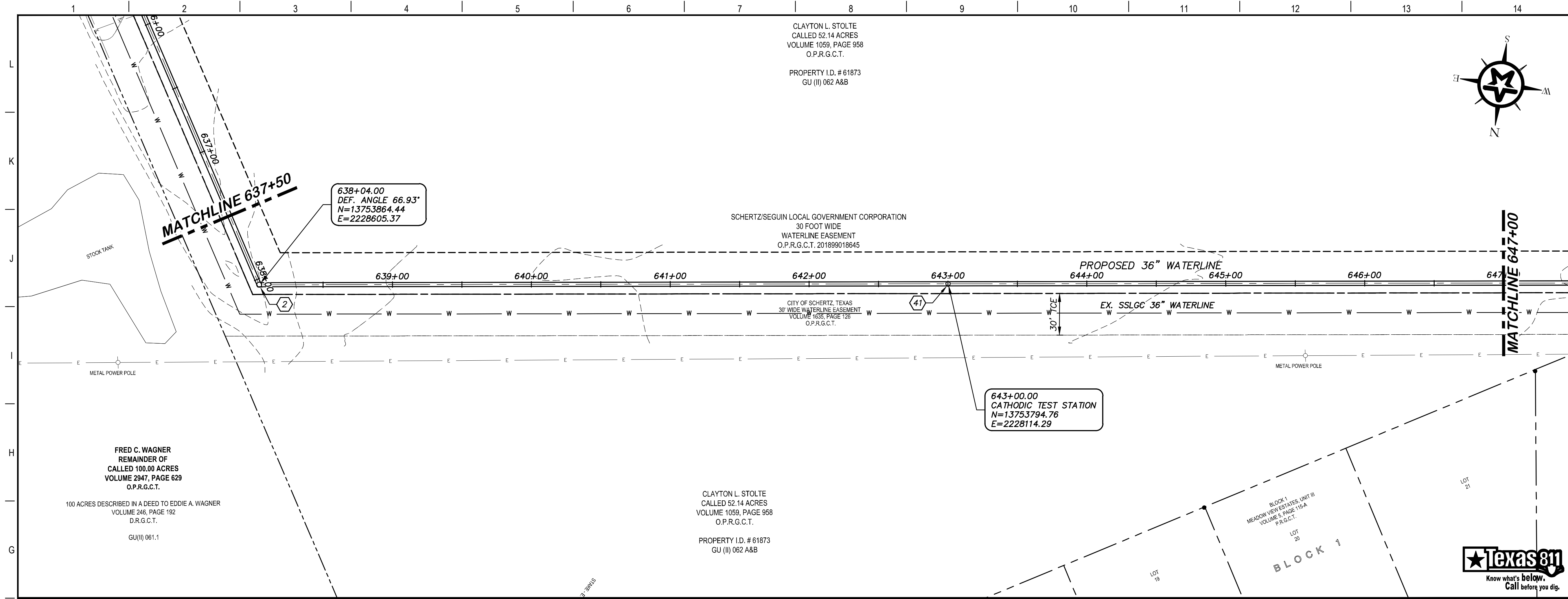
*John F. Winkler*  
JOHN F. WINKLER  
50524  
REGISTERED PROFESSIONAL ENGINEER

PM	JFW
DESIGNED	JFW
DRAFTED	ARC
CHECKED	JFW
PROJECT NO.	1-03153
DRAWING NO.	<b>C162</b>





G:\PROJECTS\1-03153\2 ENGINEERING\2.0 CAD\PIPELINE\1-03153\1 P&P-7.DWG, C164 PLAN AND PROFILE 637+50 TO 647+00, 6/8/2020 6:18:45 PM, achids



### KEY NOTES

- (2) CONCRETE THRUST BLOCKING  
(RE. DETAIL G1/D206)
- (41) CATHODIC TEST STATION  
(RE. DETAIL A1/D403)

### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.

REV. DESCRIPTION DATE

**Walker Partners**  
engineers ★ surveyors  
T.B.P.E. Registration No. 8053

## SSLGC

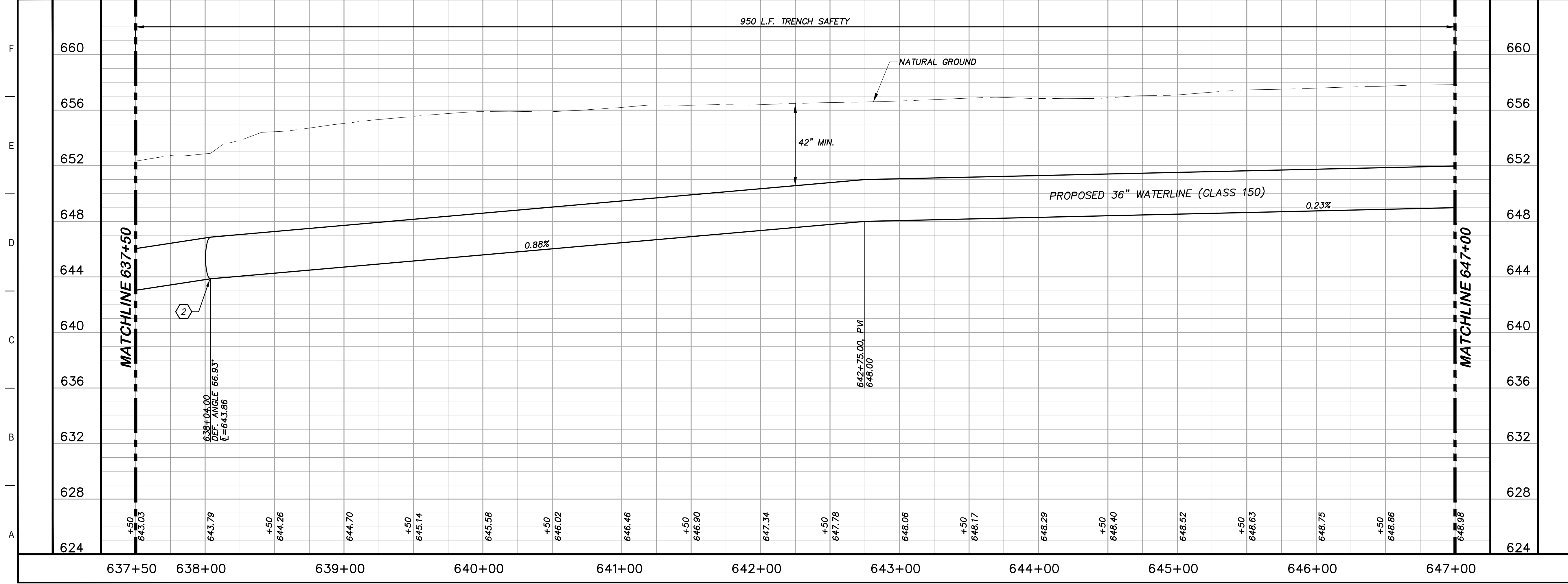
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### PLAN AND PROFILE 637+50 TO 647+00

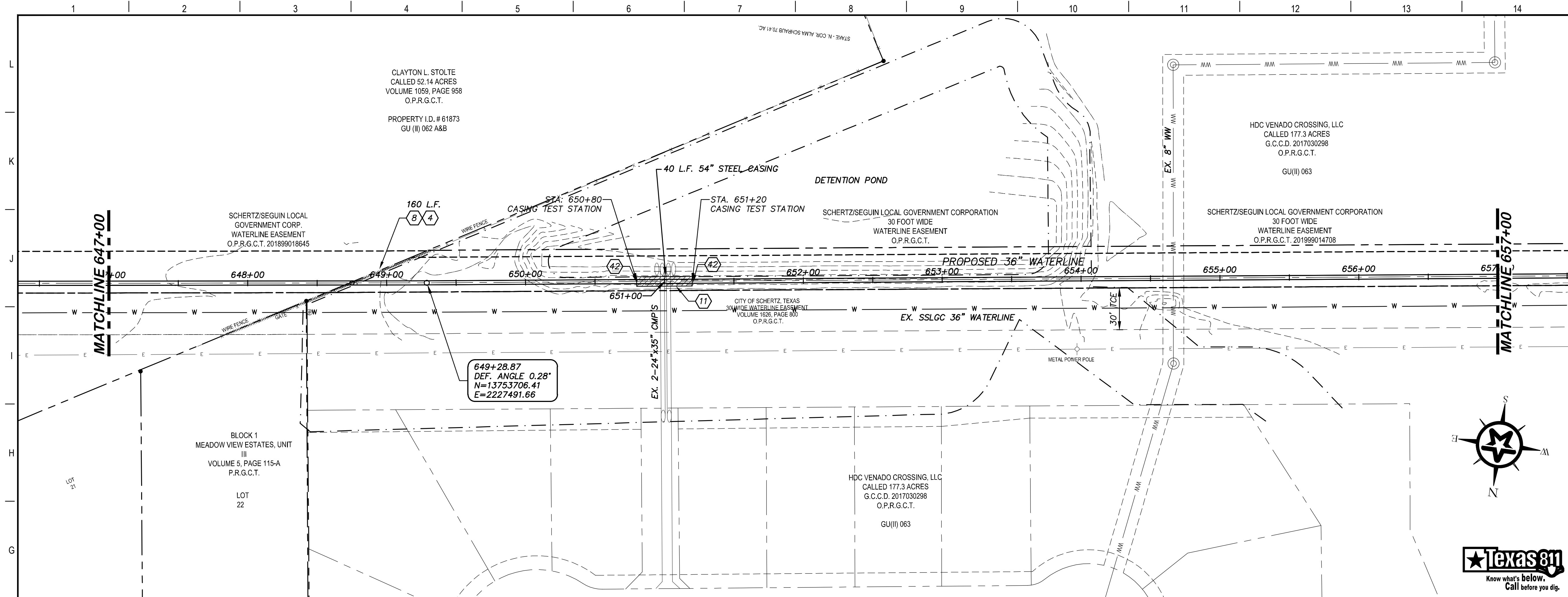
4-13-2020  
DATE

*John F. Winkler*  
JOHN F. WINKLER  
PROFESSIONAL ENGINEER  
50524

PM	JFW
DESIGNED	JFW
DRAFTED	ARC
CHECKED	JFW
PROJECT NO.	1-03153
DRAWING NO.	<b>C164</b>

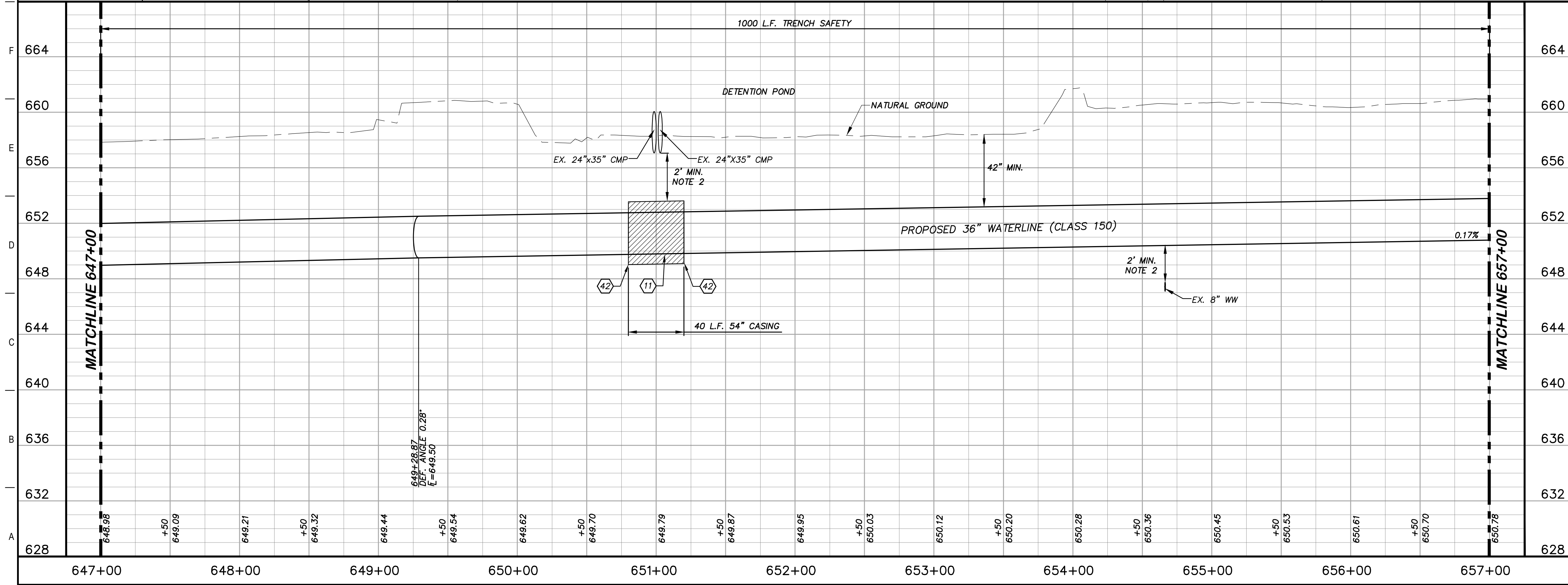


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### KEY NOTES

- 4 REMOVE AND REPLACE GATE (RE. DETAIL D207)
- 8 REMOVE AND REPLACE 160 L.F. EXISTING FENCE AND GATE (RE. DETAIL A1/D207)
- 11 54" STEEL CASING (RE. DETAIL A1/D206)
- 42 CASING TEST STATION (RE. DETAIL H1/D401)



### GENERAL NOTES

- TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.
- FIELD VERIFY DEPTHS OF ALL EX. UTILITIES.

0 20 40 80  
GRAPHIC SCALE (FEET) H:1"=40' V:1"=4'

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers ★ surveyors  
T.B.P.E. Registration No. 8053

**SSLGC**

TWDB PROJECT - PHASE 2

PLAN AND PROFILE  
647+00 TO 657+00

4-13-2020  
DATE

JOHN F. WINKLER  
DESIGNED

JOHN F. WINKLER  
DRAFTED

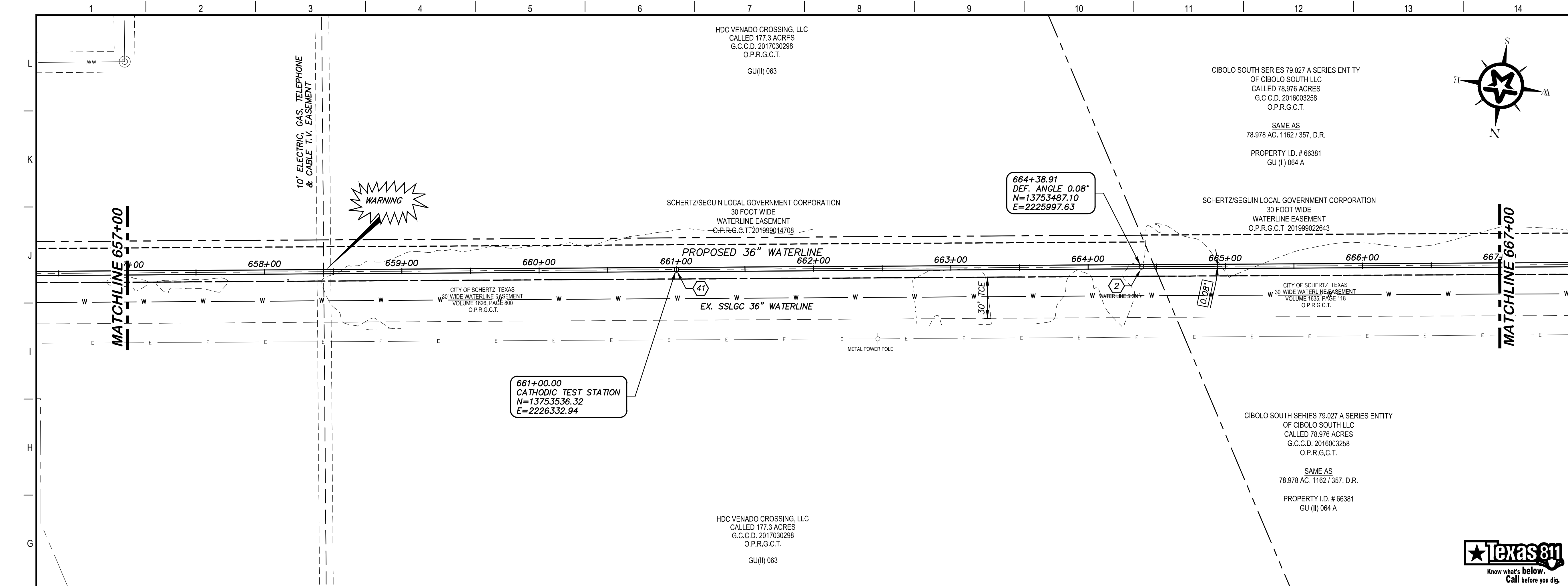
JOHN F. WINKLER  
CHECKED

JOHN F. WINKLER  
PROJECT NO. 1-03153

STATE OF TEXAS  
REGISTERED PROFESSIONAL ENGINEER  
JOHN F. WINKLER  
50524

DRAWING NO.  
**C165**





### KEY NOTES

- (2) CONCRETE THRUST BLOCKING (RE. DETAIL G1/D206)
- (41) CATHODIC TEST STATION (RE. DETAIL A1/D403)

### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.
2. FIELD VERIFY DEPTHS OF ALL EX. UTILITIES.

0 20 40 80  
GRAPHIC SCALE (FEET) H: 1"=40' V: 1"=4'

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers ★ surveyors  
T.B.P.E. Registration No. 8053

**SSLGC**

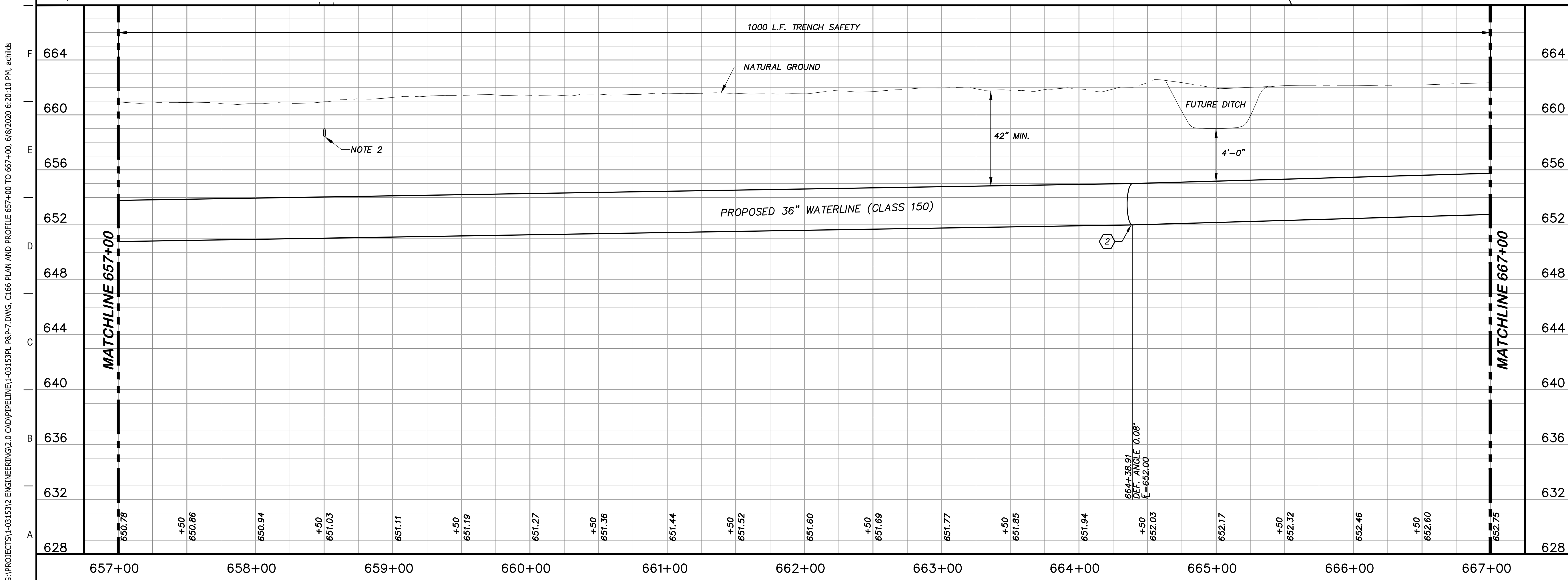
TWDB PROJECT - PHASE 2

PLAN AND PROFILE  
657+00 TO 667+00

4-13-2020  
DATE

JOHN F. WINKLER  
PROFESSIONAL ENGINEER

DESIGNED	JFW
DRAFTED	JFW
CHECKED	ARC
PROJECT NO.	1-03153
DRAWING NO.	<b>C166</b>



G:\PROJECTS\1-03153\ENGINEERING\2.0 CAD\PIPELINE\1-03153PL P&P-7.DWG, C166 PLAN AND PROFILE 657+00 TO 667+00, 6/8/2020 6:20:10 PM, achids

G:\PROJECTS\1-03153\2 ENGINEERING\2.0 CAD\PIPELINE\1-03153\PL P&P-7.DWG, C167 PLAN AND PROFILE 667+00 TO 677+00, 6/8/2020 6:20:53 PM, achids

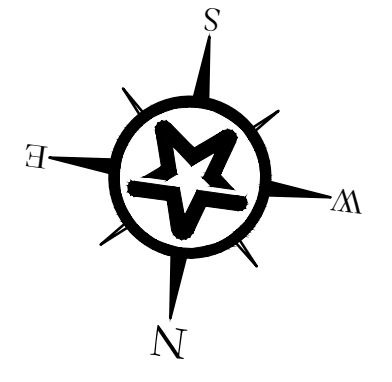
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 OF CIBOLO SOUTH LLC  
 CALLED 78.976 ACRES  
 G.C.C.D. 2016003258  
 O.P.R.G.C.T.  
 SAME AS  
 78.978 AC. 1162 / 357, D.R.  
 PROPERTY I.D. # 66381  
 GU (II) 064 A

SCHERTZ/SEGUIN LOCAL GOVERNMENT CORPORATION  
 30 FOOT WIDE  
 WATERLINE EASEMENT  
 O.P.R.G.C.T. 201999022643

CITY OF SCHERTZ, TEXAS  
 30' WIDE WATERLINE EASEMENT  
 VOLUME 1635, PAGE 118  
 O.P.R.G.C.T.

672+00.00  
 CATHODIC TEST STATION  
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 E=2225244.45

CIBOLO SOUTH SERIES 79.027 A SERIES ENTITY  
 OF CIBOLO SOUTH LLC  
 CALLED 78.976 ACRES  
 G.C.C.D. 2016003258  
 O.P.R.G.C.T.  
 SAME AS  
 78.978 AC. 1162 / 357, D.R.  
 PROPERTY I.D. # 66381  
 GU (II) 064 A

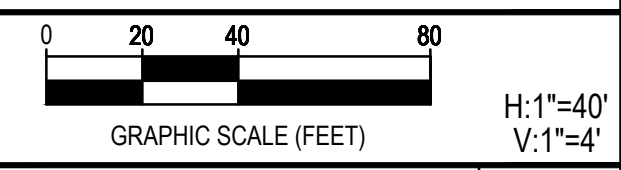


**KEY NOTES**

41 CATHODIC TEST STATION  
 (RE. DETAIL A1/D403)

**GENERAL NOTES**

1. TOPOGRAPHIC FEATURES INCLUDING TREES  
 MAY NOT BE SHOWN OUTSIDE THE PERMANENT  
 AND TEMPORARY EASEMENT.



REV.	DESCRIPTION	DATE



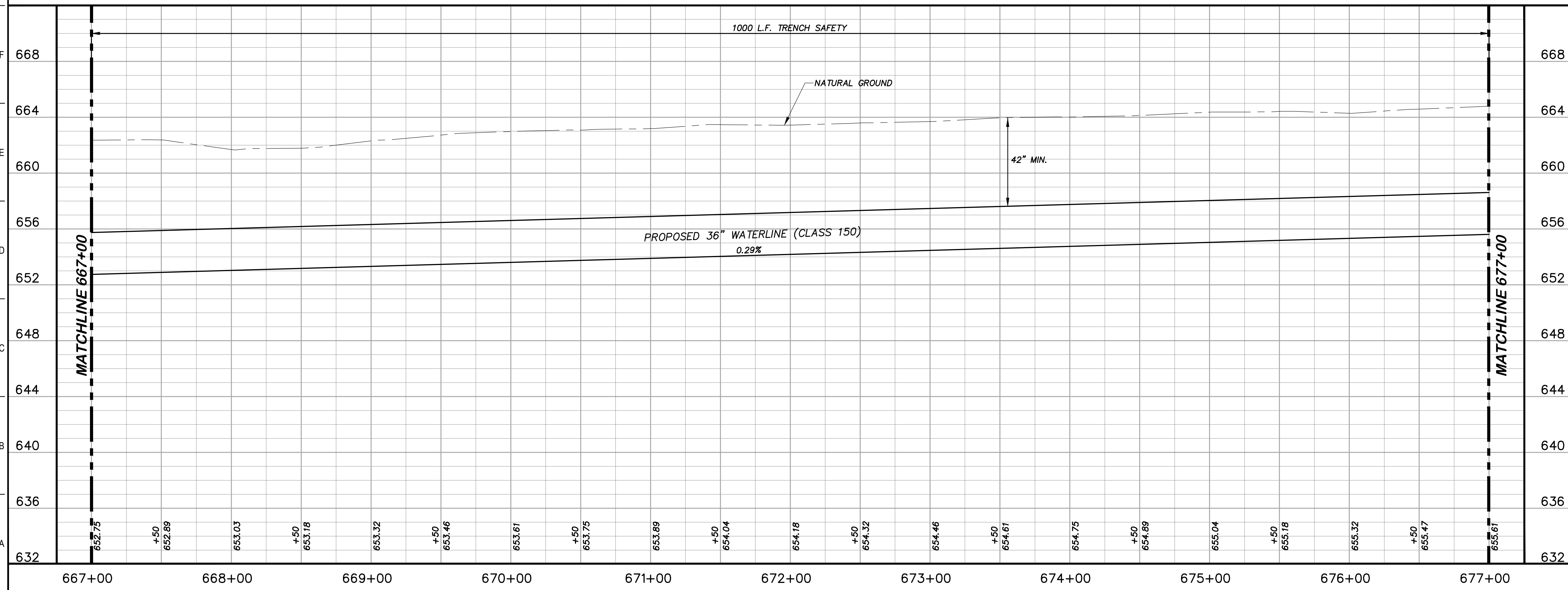
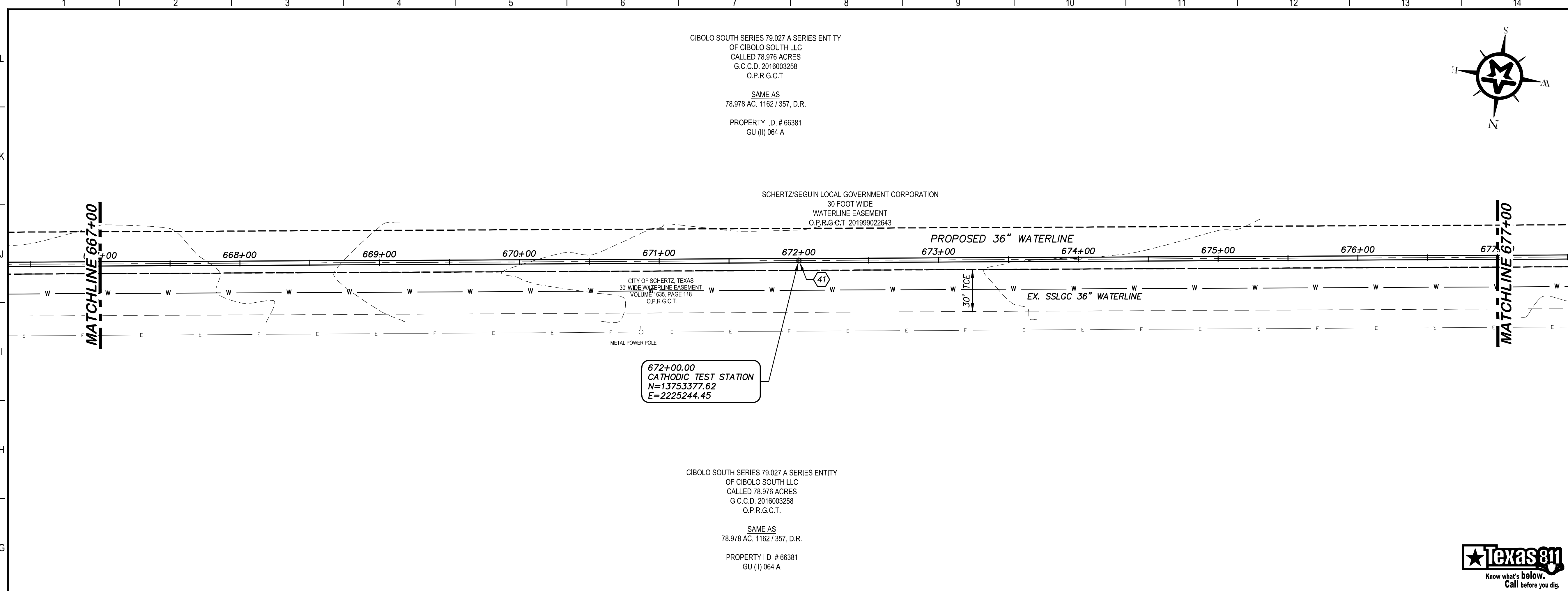
**SSLGC**

TWDB PROJECT - PHASE 2

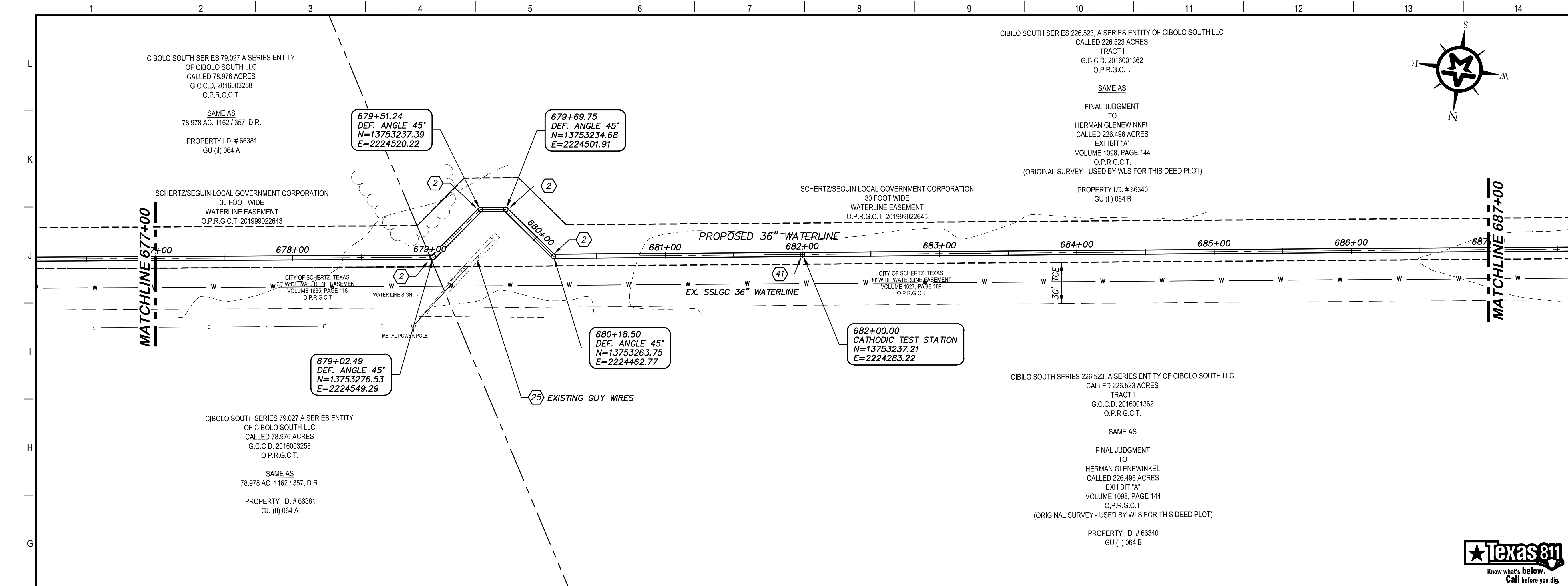
PLAN AND PROFILE  
 667+00 TO 677+00

4-13-2020  
 DATE *John F. Winkler*  
 JOHN F. WINKLER

DESIGNED	JFW
DRAFTED	JFW
CHECKED	ARC
PROJECT NO.	1-03153
DRAWING NO.	<b>C167</b>

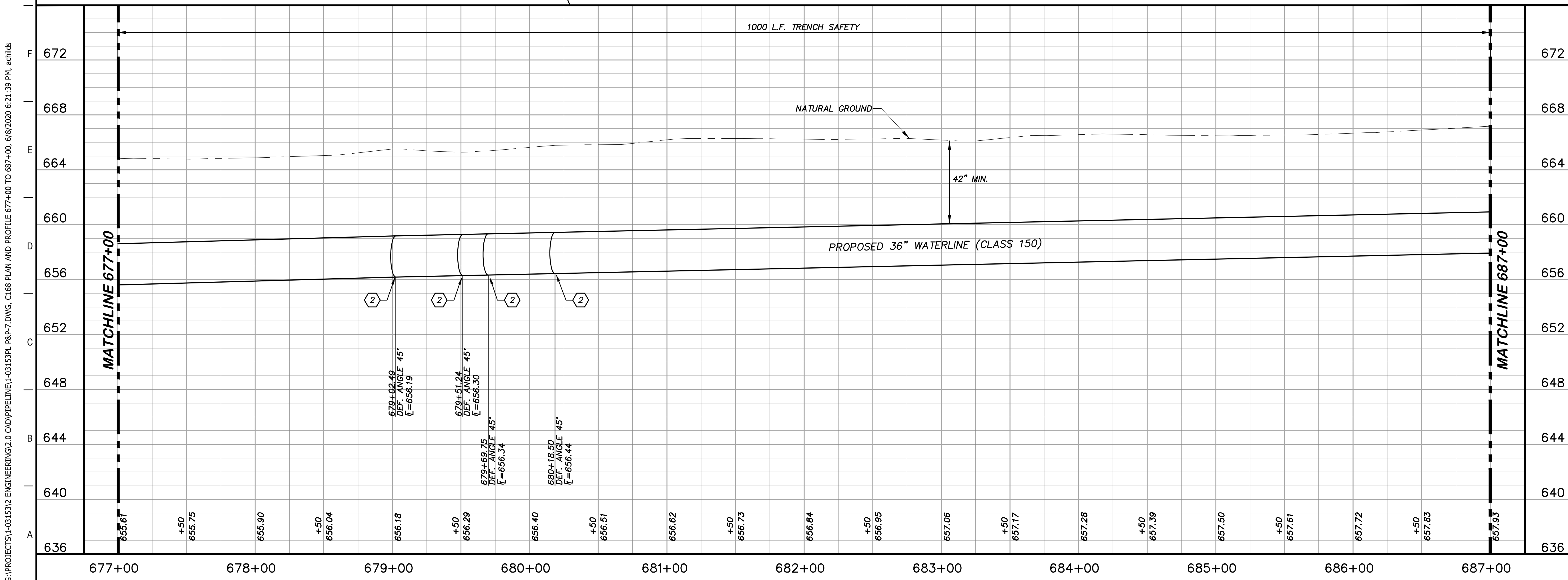






### KEY NOTES

- (2) CONCRETE THRUST BLOCKING (RE. DETAIL G1/D206)
- (25) THE CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH THE APPROPRIATE UTILITIES OWNING ANY POLES OR SIGNS THAT MAY BE IMPACTED DURING THE WORK OF THIS CONTRACT. BRACING AND PROTECTIVE MEASURES PER THE REQUIREMENTS OF THE SIGNS' OWNERS SHALL BE PROVIDED BY THE CONTRACTOR, AND SHALL BE CONSIDERED SUDDIARY TO THE WORK.
- (41) CATHODIC TEST STATION (RE. DETAIL A1/D403)



### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.

0 20 40 80  
GRAPHIC SCALE (FEET) H:1"=40' V:1"=4'

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers \* surveyors  
T.B.P.E. Registration No. 8053

**SSLGC**

TWDB PROJECT - PHASE 2

PLAN AND PROFILE  
677+00 TO 687+00

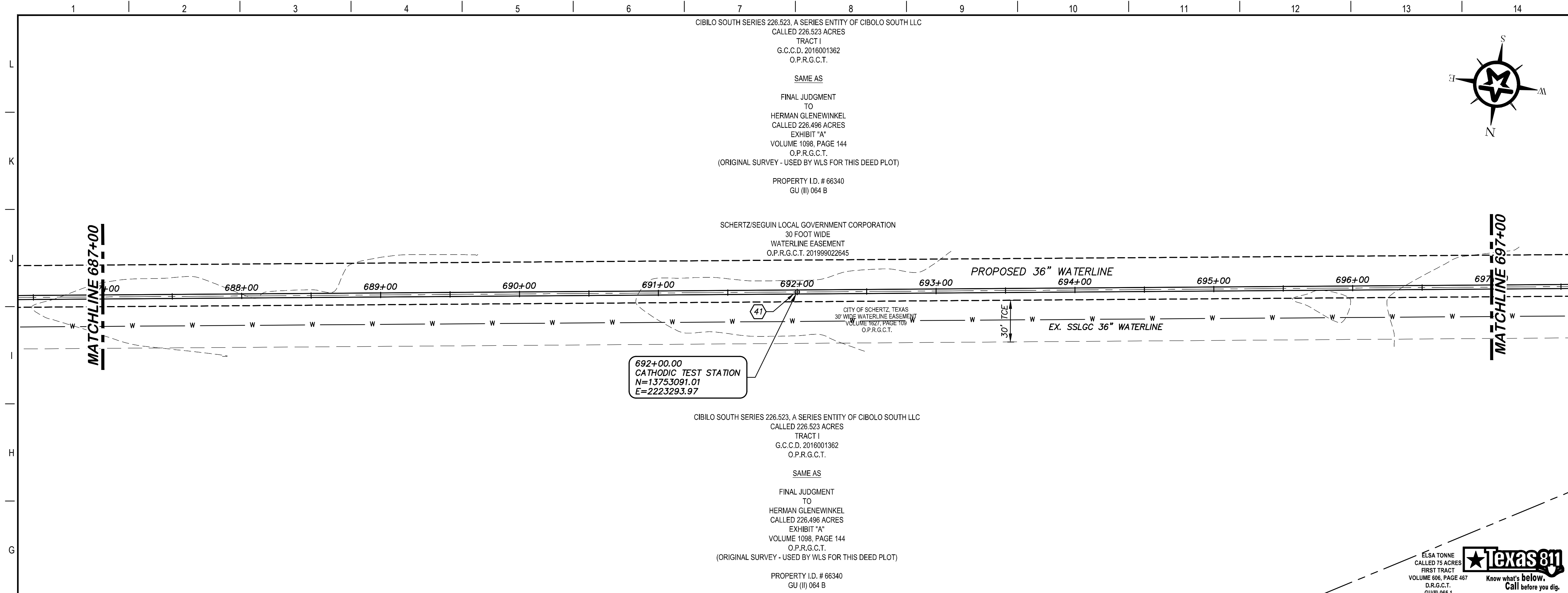
4-13-2020  
DATE

*John F. Winkler*  
JOHN F. WINKLER

PM	JFW
DESIGNED	JFW
DRAFTED	ARC
CHECKED	JFW
PROJECT NO.	1-03153
DRAWING NO.	<b>C168</b>

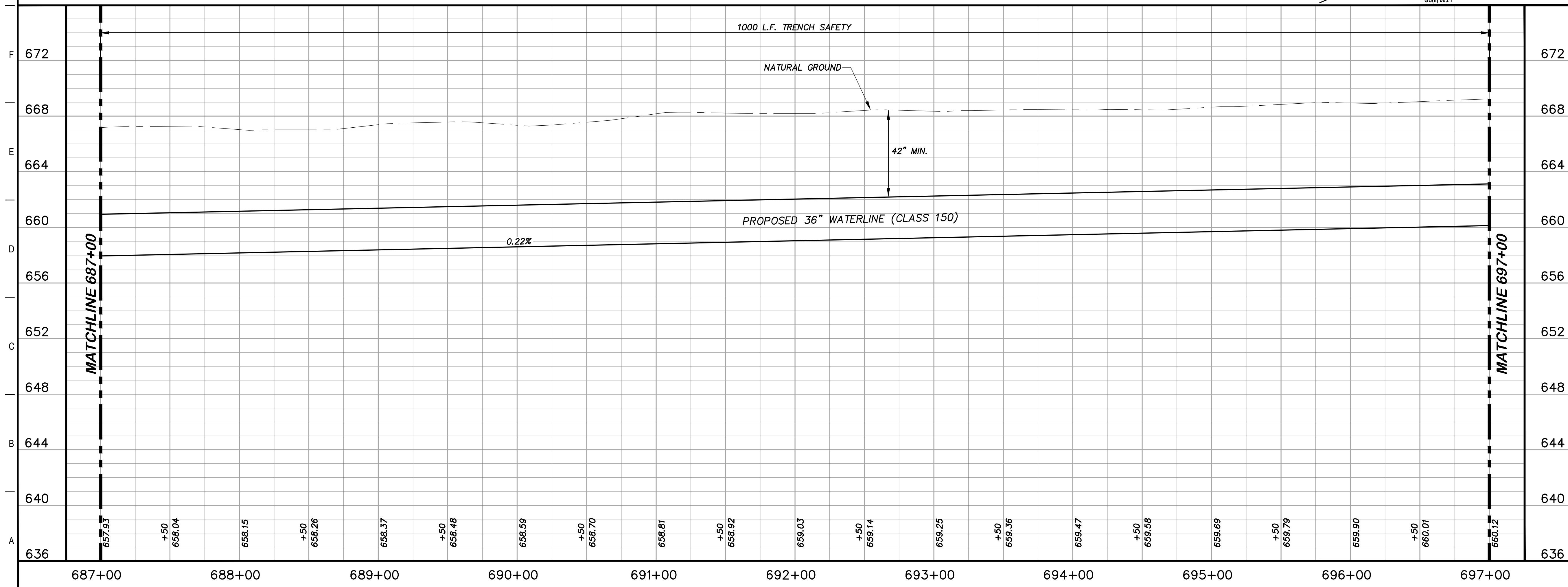
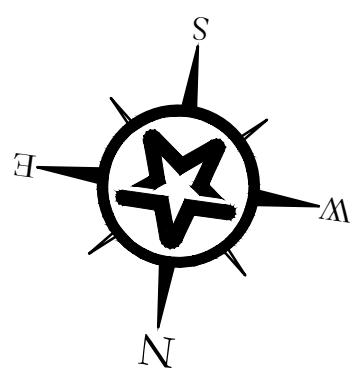
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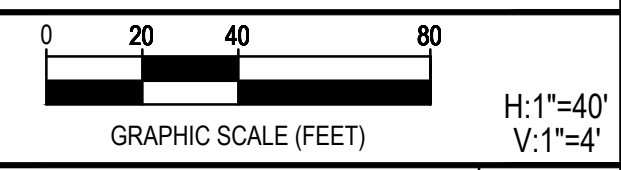
**KEY NOTES**

(41) CATHODIC TEST STATION  
(RE. DETAIL A1/D403)



**GENERAL NOTES**

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.



REV.	DESCRIPTION	DATE



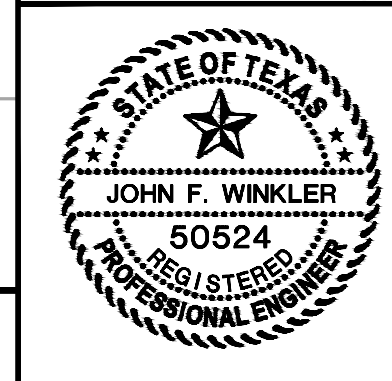
**SSLGC**

TWDB PROJECT - PHASE 2

PLAN AND PROFILE  
687+00 TO 697+00

4-13-2020  
DATE

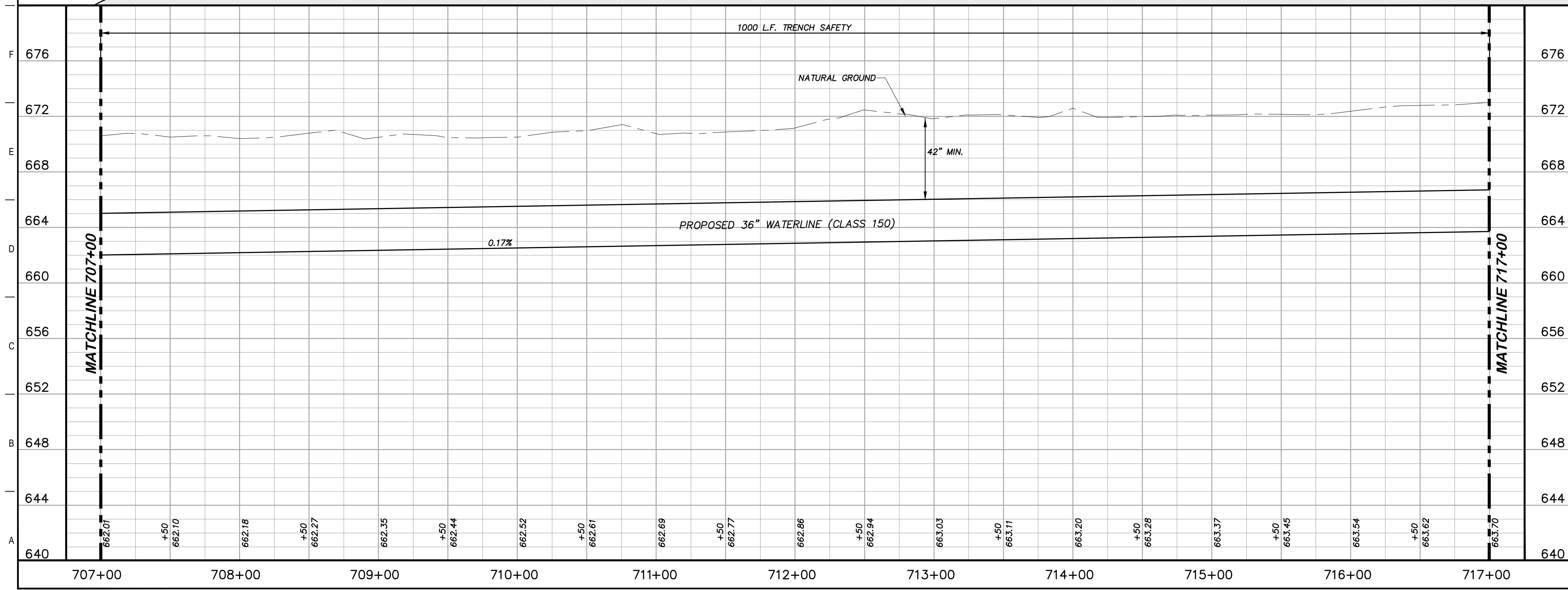
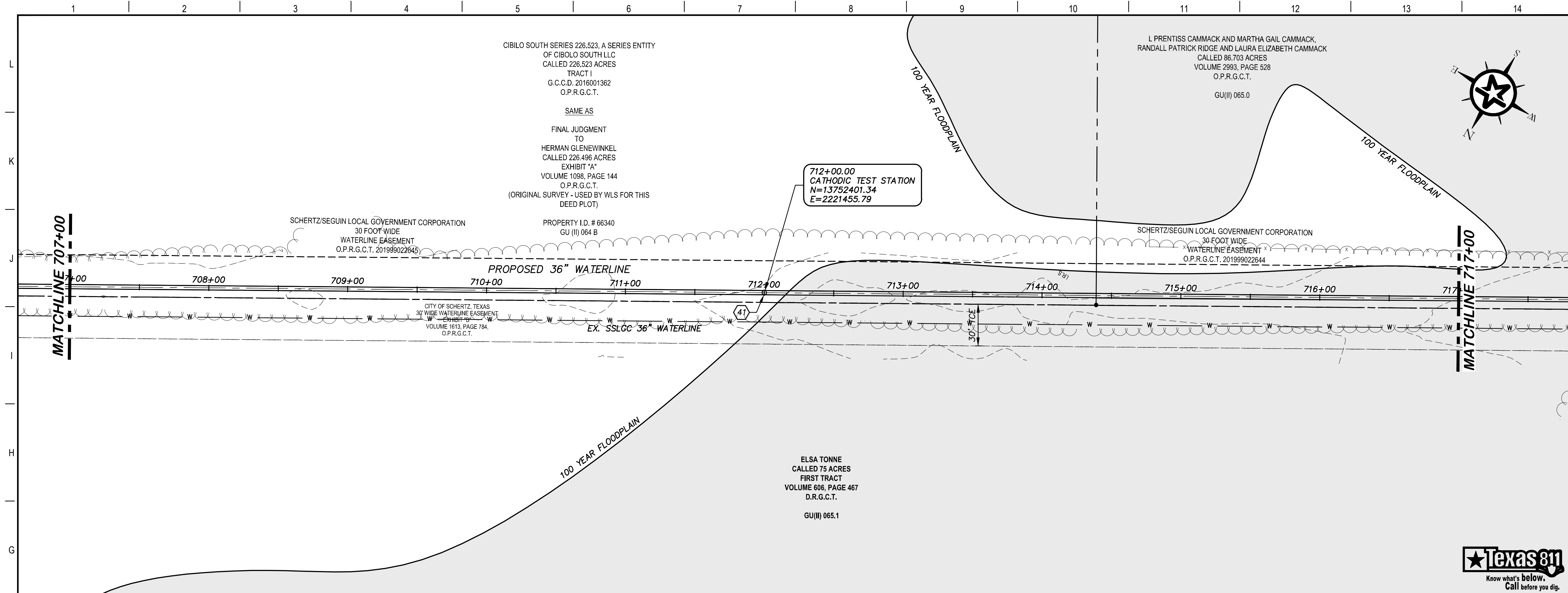
DESIGNED	JFW
DRAFTED	JFW
CHECKED	ARC
PROJECT NO.	1-03153
DRAWING NO.	<b>C169</b>





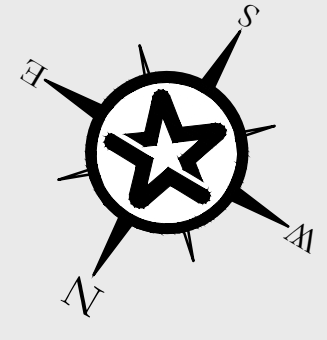


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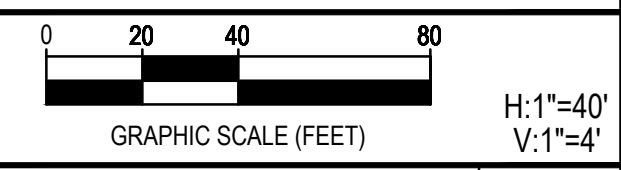
**KEY NOTES**

(41) CATHODIC TEST STATION  
(RE. DETAIL A1/D403)



**GENERAL NOTES**

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.



REV.	DESCRIPTION	DATE



**SSLGC**

TWDB PROJECT - PHASE 2

PLAN AND PROFILE  
707+00 TO 717+00

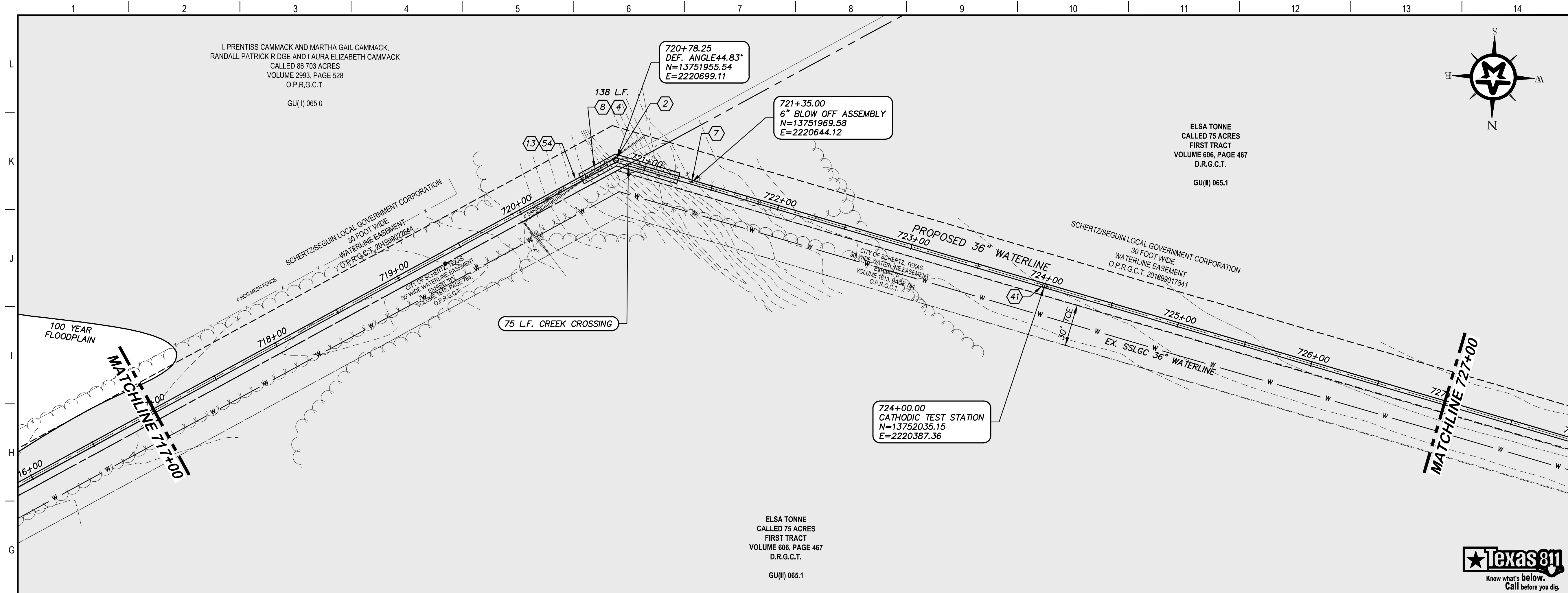
4-13-2020  
DATE

DESIGNED	JFW
DRAFTED	JFW
CHECKED	ARC
PROJECT NO.	1-03153
DRAWING NO.	C171

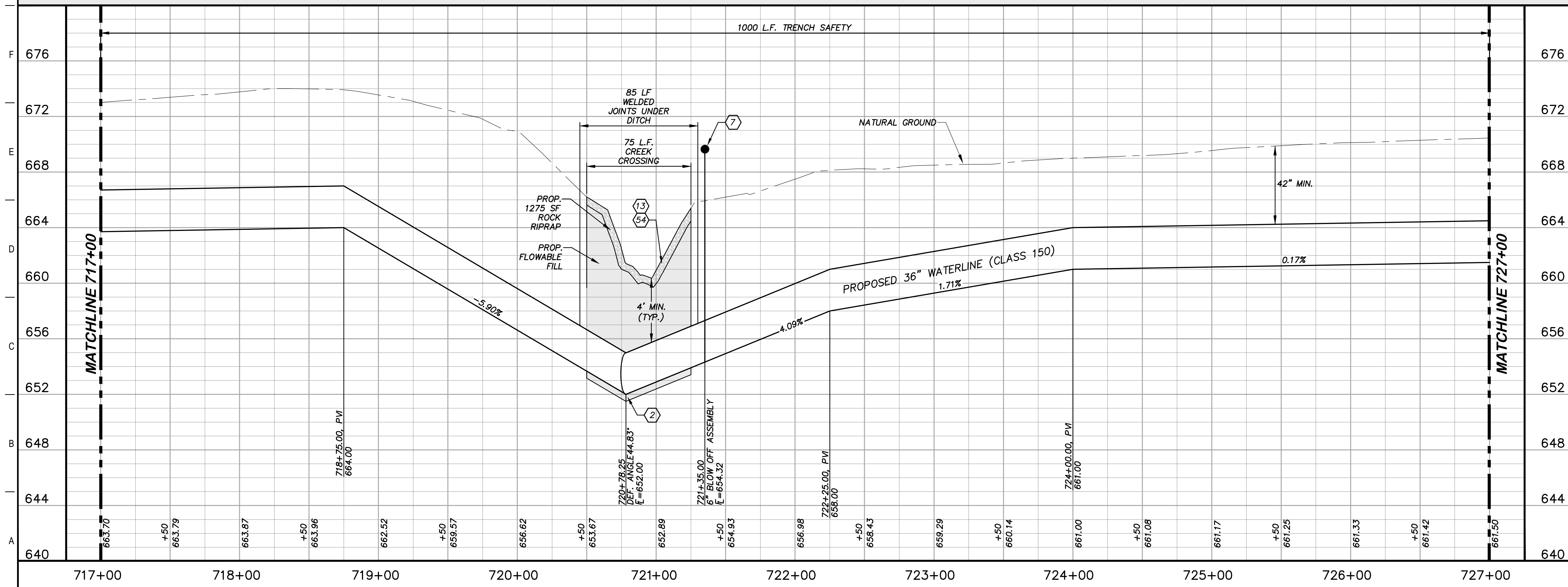


JOHN F. WINKLER  
PROFESSIONAL ENGINEER



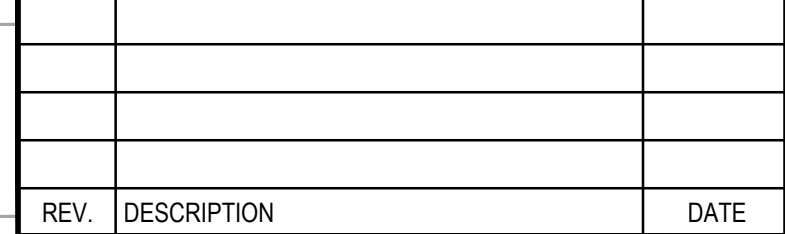


- ### KEY NOTES
- ② CONCRETE THRUST BLOCKING (RE. DETAIL G1/D206)
  - ④ REMOVE AND REPLACE GATE (RE. DETAIL D207)
  - ⑦ 6" BLOW OFF VALVE ASSEMBLY (RE. DETAIL A1/D202)
  - ⑧ REMOVE AND REPLACE 138 L.F. EXISTING FENCE AND GATE (RE. DETAIL A1/D207)
  - ⑬ STONE RIP-RAP (DRY) INCLUDING WOVEN FILTER FABRIC, COMPLETED IN PLACE (RE. DETAIL A10/D200)
  - ④① CATHODIC TEST STATION (RE. DETAIL A1/D403)
  - ⑤④ CREEK CROSSING (RE. DETAIL A1/D209)



### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.



REV.	DESCRIPTION	DATE

Walker Partners  
engineers \* surveyors  
T.B.P.E. Registration No. 8053

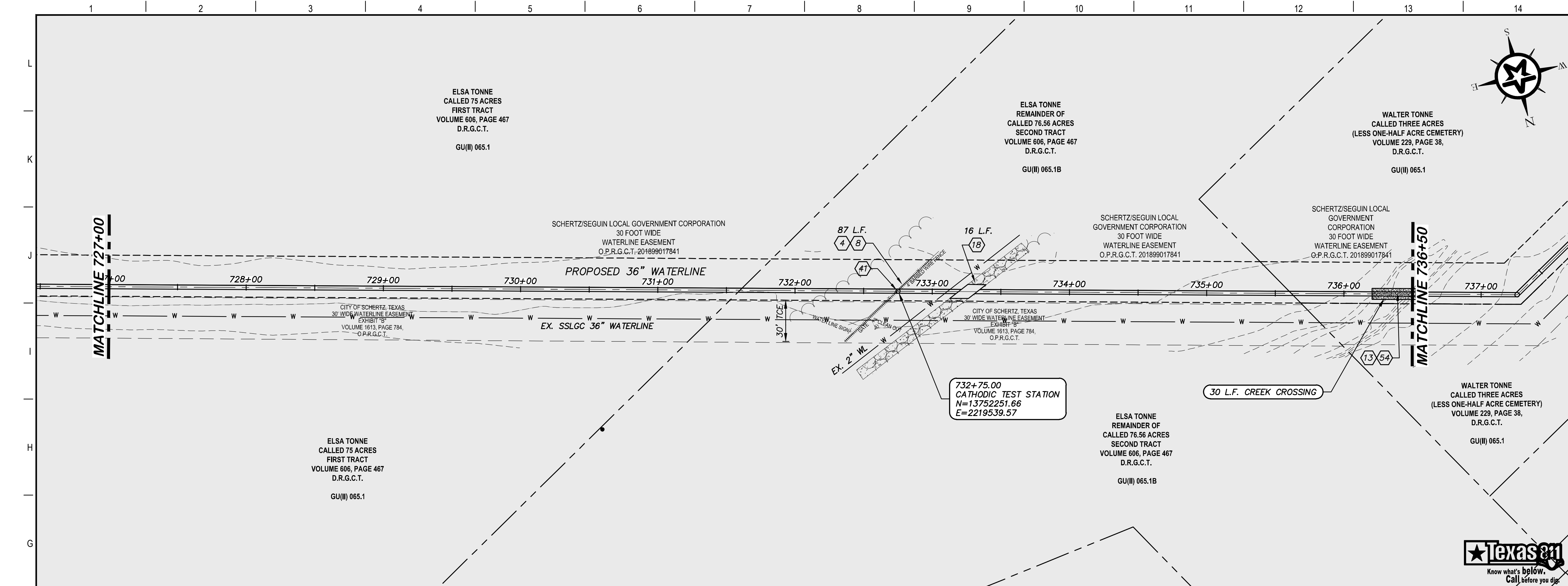
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TWDB PROJECT - PHASE 2

PLAN AND PROFILE  
717+00 TO 727+00

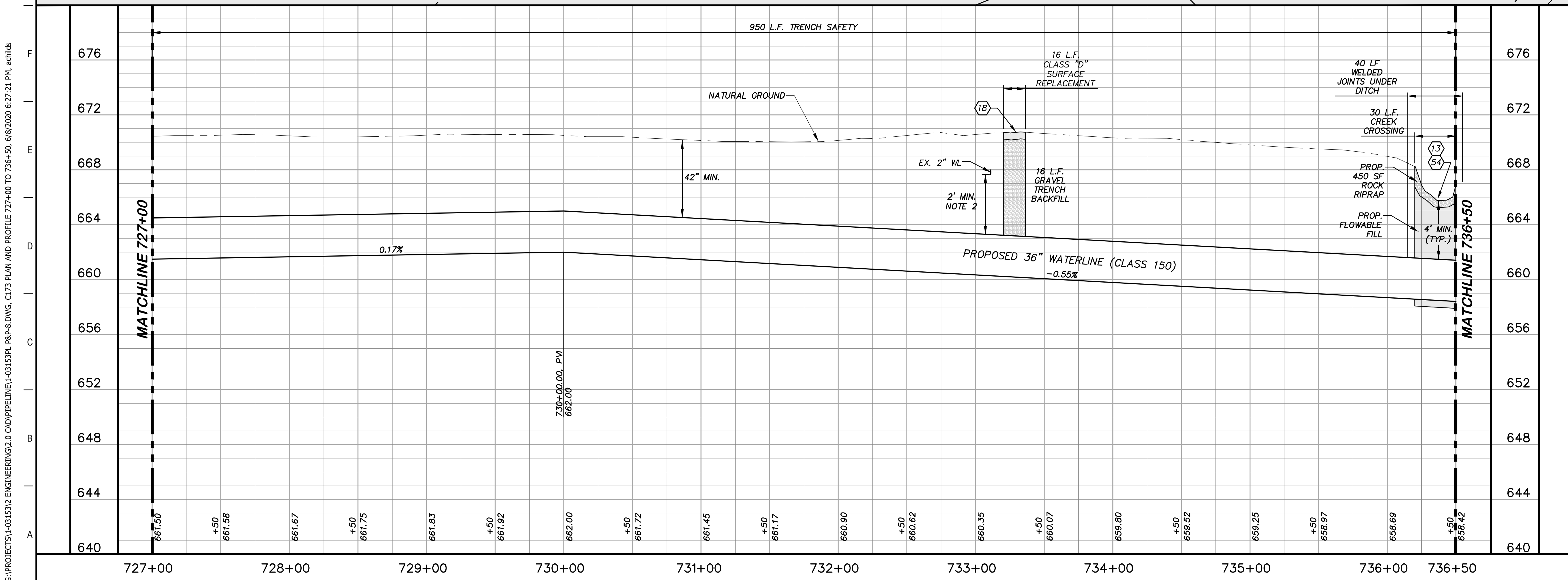
4-13-2020  
DATE  
JOHN F. WINKLER

	DESIGNED	JFW
	DRAFTED	ARC
	CHECKED	JFW
	PROJECT NO.	1-03153
DRAWING NO.		<b>C172</b>

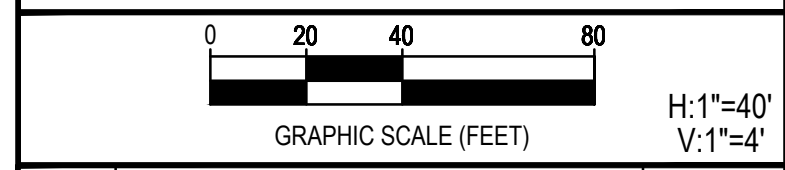
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- ### KEY NOTES
- 4 REMOVE AND REPLACE GATE (RE. DETAIL D207)
  - 8 REMOVE AND REPLACE 87 L.F. EXISTING FENCE AND GATE (RE. DETAIL A1/D207)
  - 18 CLASS D SURFACE REPLACEMENT (RE. DETAIL G1/D208)
  - 13 STONE RIP-RAP (DRY) INCLUDING WOVEN FILTER FABRIC, COMPLETED IN PLACE (RE. DETAIL A10/D200)
  - 41 CATHODIC TEST STATION (RE. DETAIL A1/D403)
  - 54 CREEK CROSSING (RE. DETAIL A1/D209)



- ### GENERAL NOTES
1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.
  2. FIELD VERIFY DEPTHS OF ALL EX. UTILITIES.



REV.	DESCRIPTION	DATE



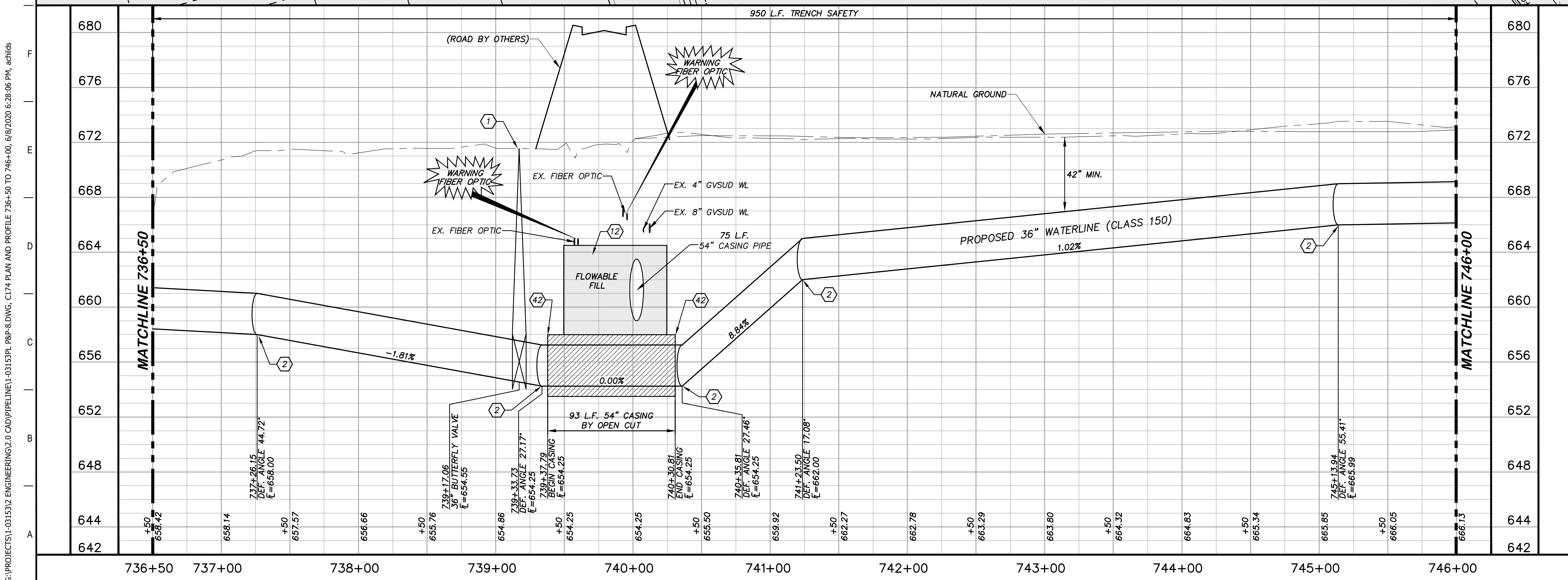
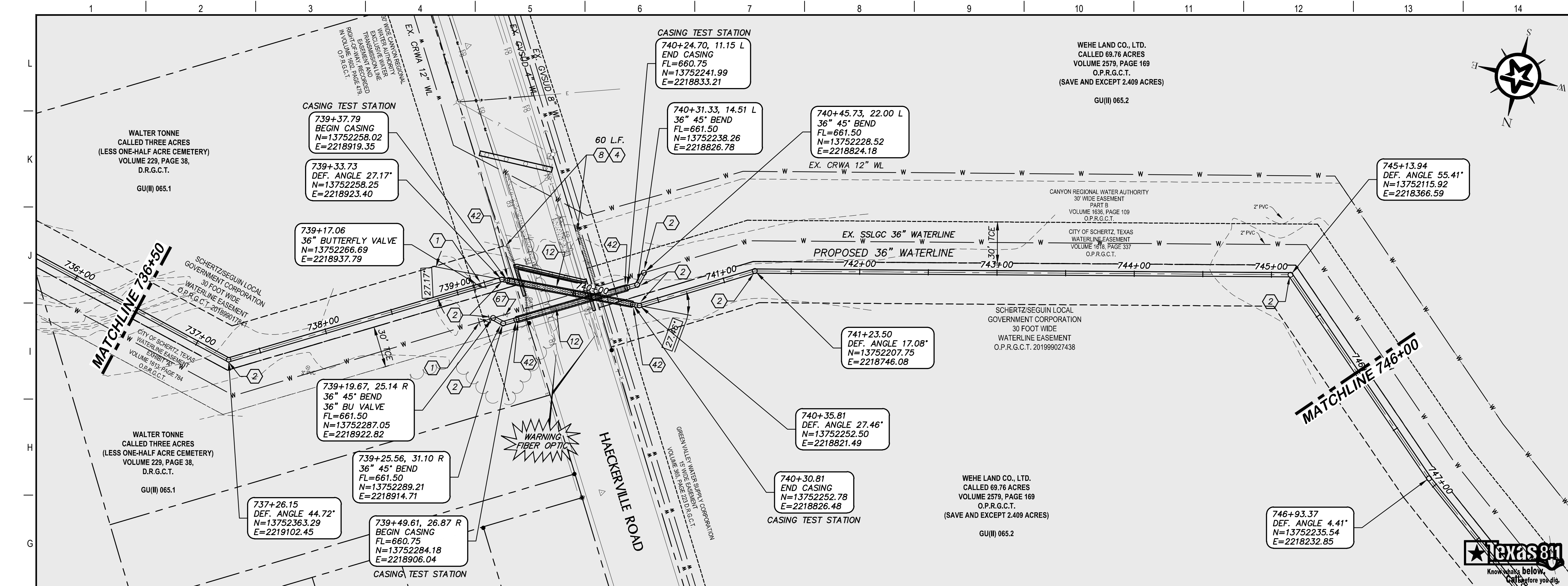
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 TWDB PROJECT - PHASE 2

PLAN AND PROFILE  
 727+00 TO 736+50

4-13-2020  
 DATE: JOHN F. WINKLER

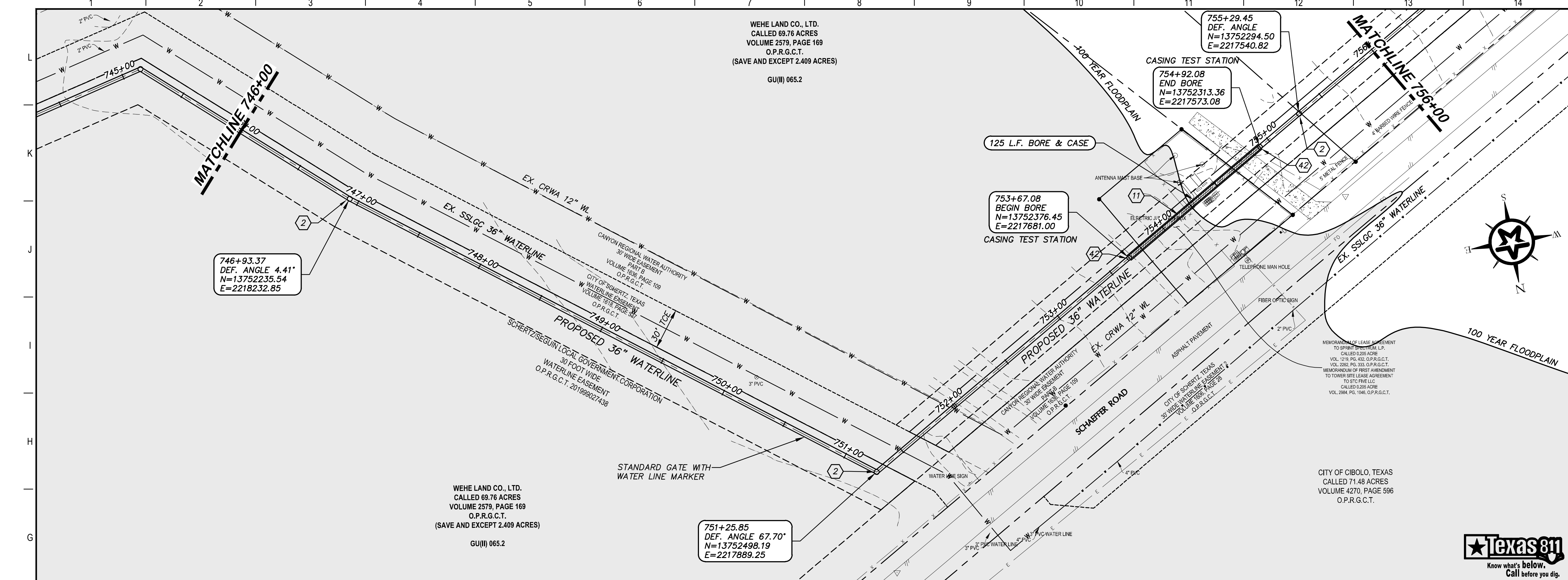
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	PROJECT NO.	1-03153
DRAWING NO.		<b>C173</b>

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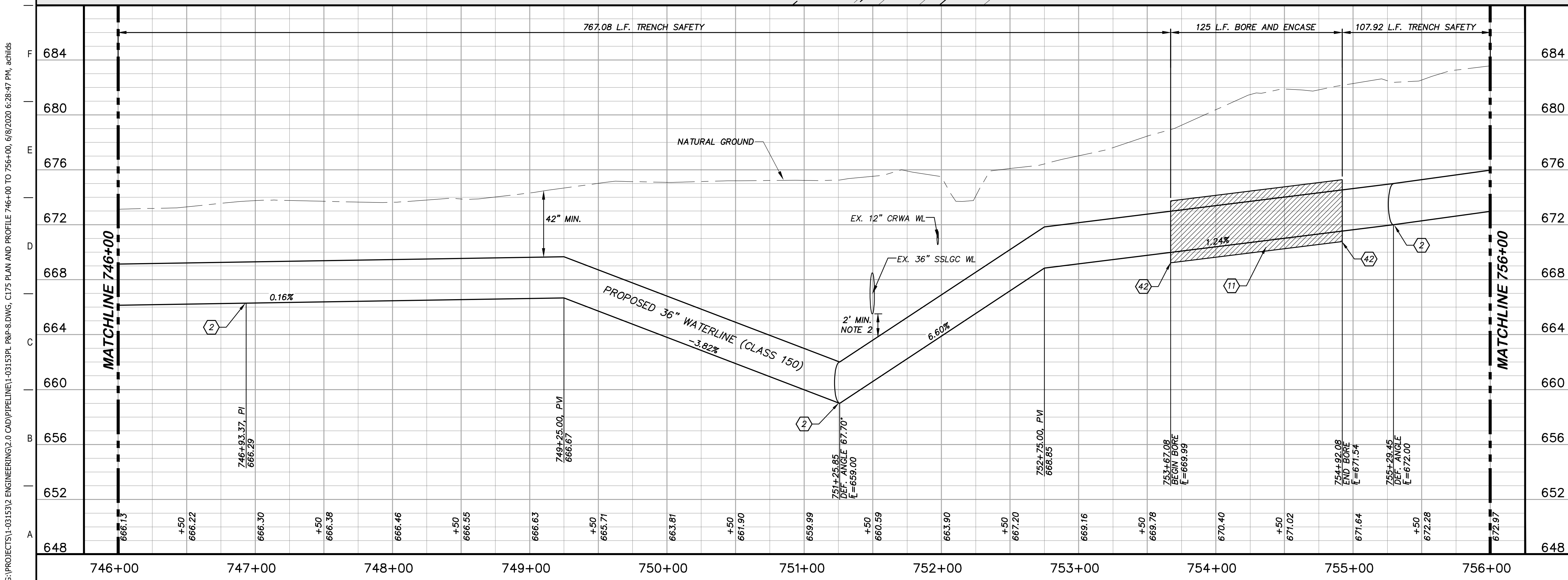
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### KEY NOTES

- (2) CONCRETE THRUST BLOCKING (RE. DETAIL G1/D206)
- (11) BORE AND ENCASE STEEL CASING (RE. DETAIL A1/D206)
- (42) CASING TEST STATION (RE. DETAIL H1/D401)



### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.
2. FIELD VERIFY DEPTHS OF ALL EX. UTILITIES.

0 20 40 80  
GRAPHIC SCALE (FEET) H:1"=40' V:1"=4'

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers ★ surveyors  
T.B.P.E. Registration No. 8093

## SSLGC

TWDB PROJECT - PHASE 2

### PLAN AND PROFILE 746+00 TO 756+00

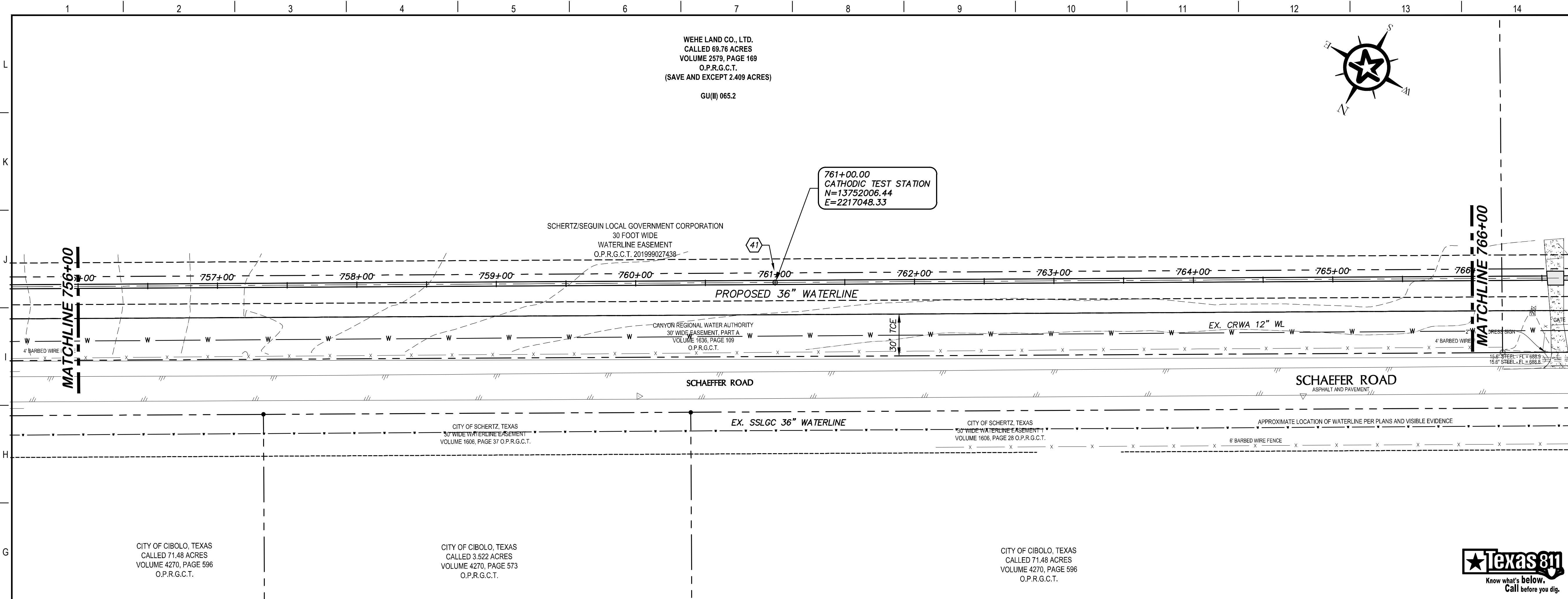
4-13-2020  
DATE

JOHN F. WINKLER  
PROFESSIONAL ENGINEER

PM	JFW
DESIGNED	JFW
DRAFTED	ARC
CHECKED	JFW
PROJECT NO.	1-03153
DRAWING NO.	C175

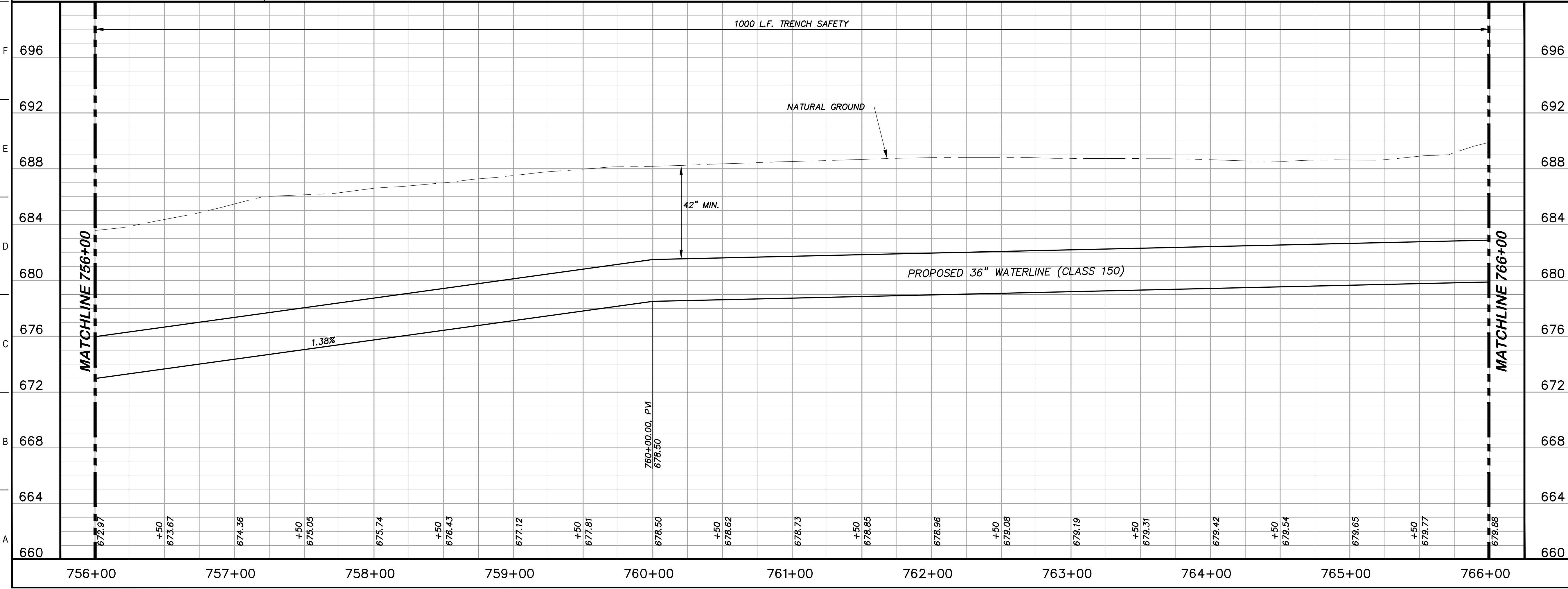
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### KEY NOTES

41 CATHODIC TEST STATION  
(RE. DETAIL A1/D403)



### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.

0 20 40 80  
GRAPHIC SCALE (FEET) H:1"=40'  
V:1"=4'

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers \* surveyors  
T.B.P.E. Registration No. 8053

**SSLGC**

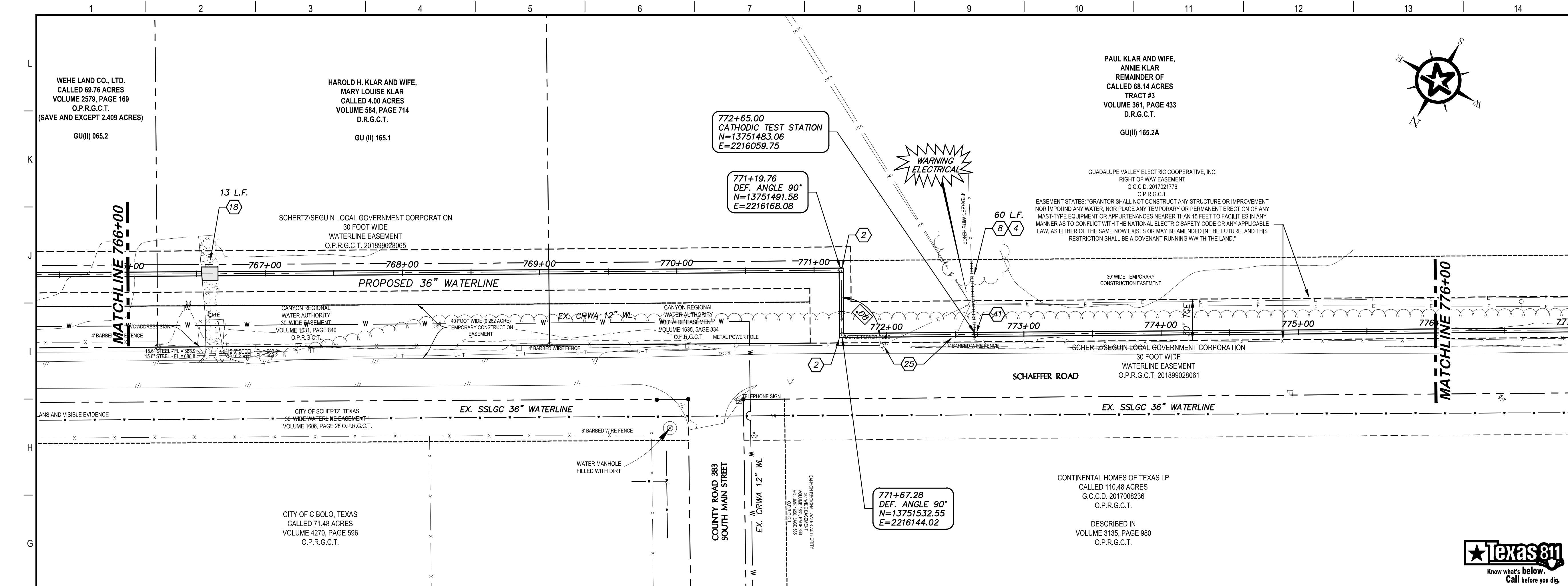
**TWDB PROJECT - PHASE 2**

**PLAN AND PROFILE**  
756+00 TO 766+00

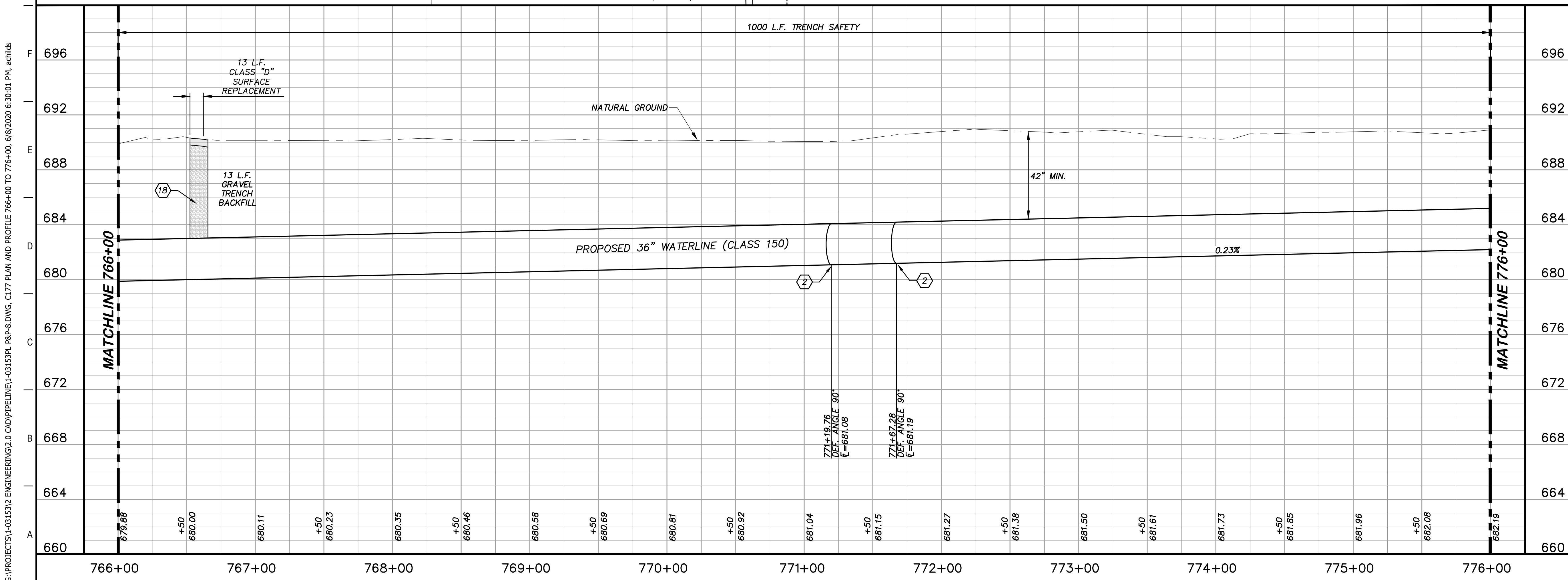
4-13-2020  
DATE

*John F. Winkler*  
JOHN F. WINKLER  
PROFESSIONAL ENGINEER  
50524

PM	JFW
DESIGNED	JFW
DRAFTED	ARC
CHECKED	JFW
PROJECT NO.	1-03153
DRAWING NO.	<b>C176</b>



- ### KEY NOTES
- (2) CONCRETE THRUST BLOCKING (RE. DETAIL G1/D206)
  - (4) REMOVE AND REPLACE GATE (RE. DETAIL D207)
  - (8) REMOVE AND REPLACE 60 L.F. EXISTING FENCE AND GATE (RE. DETAIL A1/D207)
  - (18) CLASS D SURFACE REPLACEMENT (RE. DETAIL G1/D208)
  - (25) THE CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH THE APPROPRIATE UTILITIES OWNING ANY POLES OR SIGNS THAT MAY BE IMPACTED DURING THE WORK OF THIS CONTRACT. BRACING AND PROTECTIVE MEASURES PER THE REQUIREMENTS OF THE SIGNS' OWNERS SHALL BE PROVIDED BY THE CONTRACTOR, AND SHALL BE CONSIDERED SUDDIARY TO THE WORK.
  - (41) CATHODIC TEST STATION (RE. DETAIL A1/D403)



### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.

0 20 40 80  
GRAPHIC SCALE (FEET) H:1"=40' V:1"=4'

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers • surveyors  
T.B.P.E. Registration No. 8053

**SSLGC**

TWDB PROJECT - PHASE 2

PLAN AND PROFILE  
766+00 TO 776+00

4-13-2020  
DATE

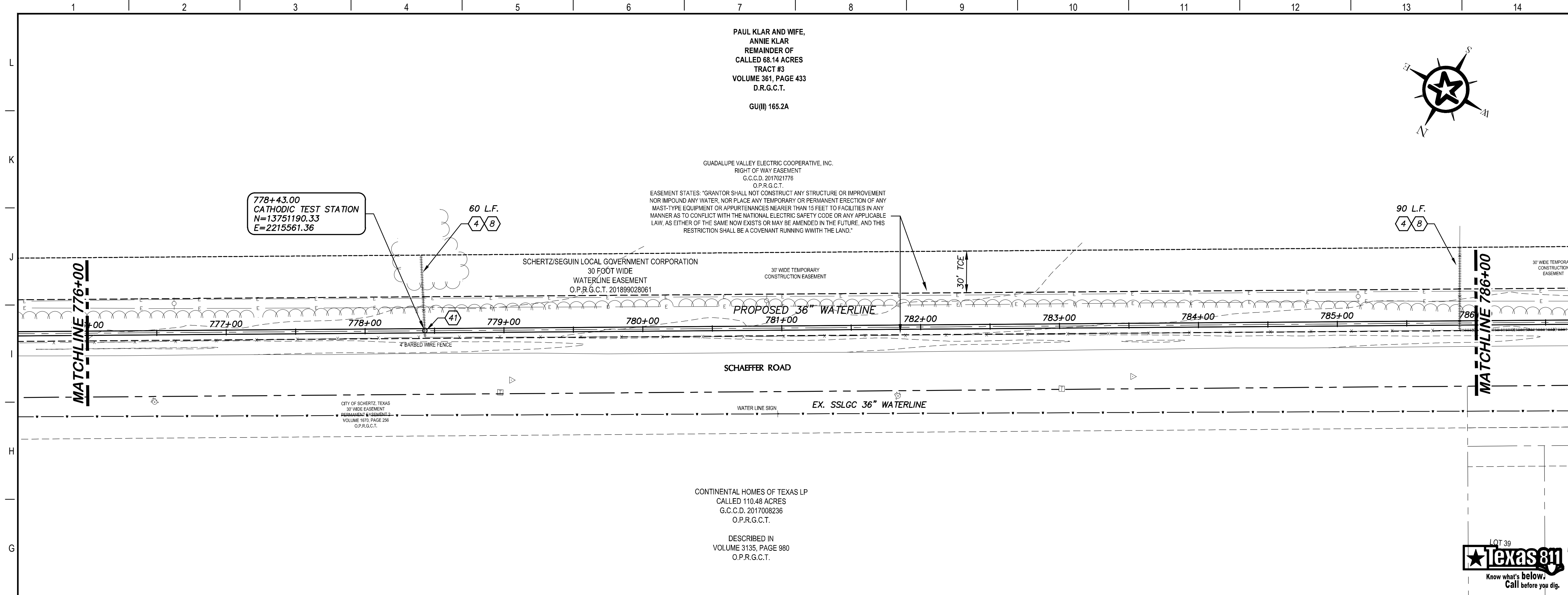
*John F. Winkler*  
JOHN F. WINKLER

DESIGNED	JFW
DRAFTED	JFW
CHECKED	ARC
PROJECT NO.	1-03153
DRAWING NO.	<b>C177</b>

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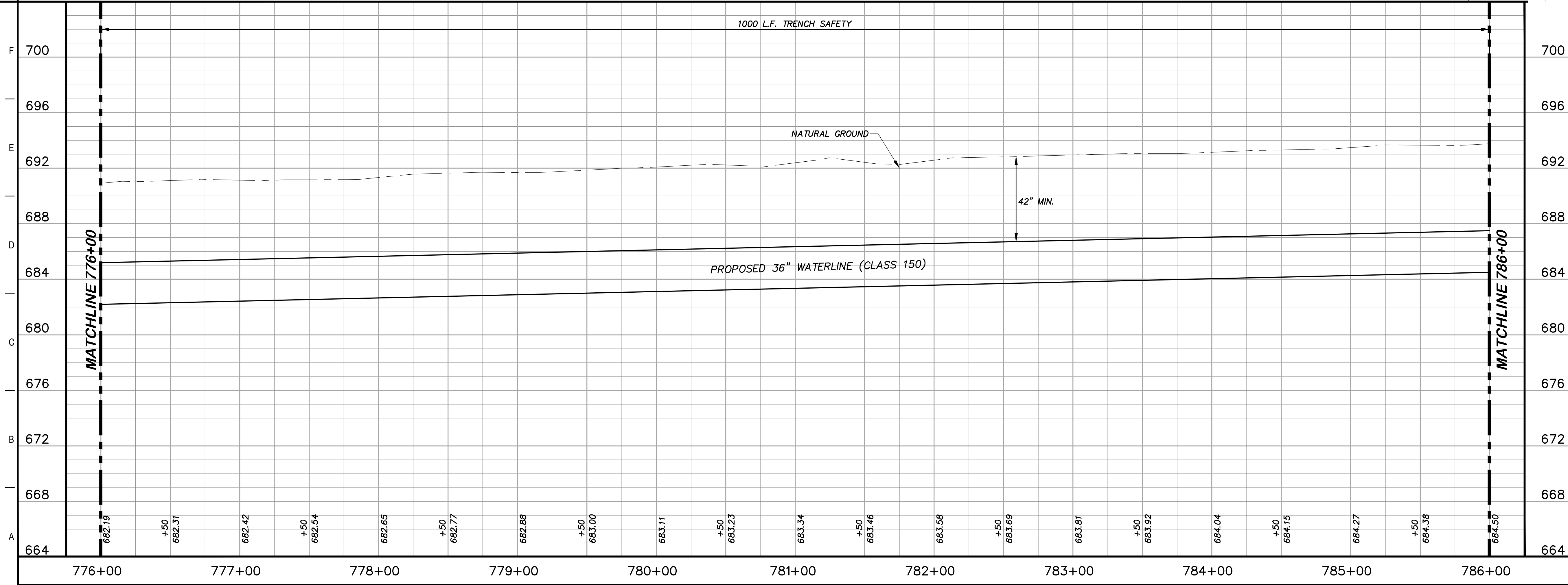


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### KEY NOTES

- ④ REMOVE AND REPLACE GATE (RE. DETAIL D207)
- ⑧ REMOVE AND REPLACE 150 L.F. EXISTING FENCE (RE. DETAIL A1/D207)
- ④① CATHODIC TEST STATION (RE. DETAIL A1/D403)



### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.

0 20 40 80  
GRAPHIC SCALE (FEET) H:1"=40' V:1"=4'

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers ★ surveyors  
T.B.P.E. Registration No. 8053

**SSLGC**

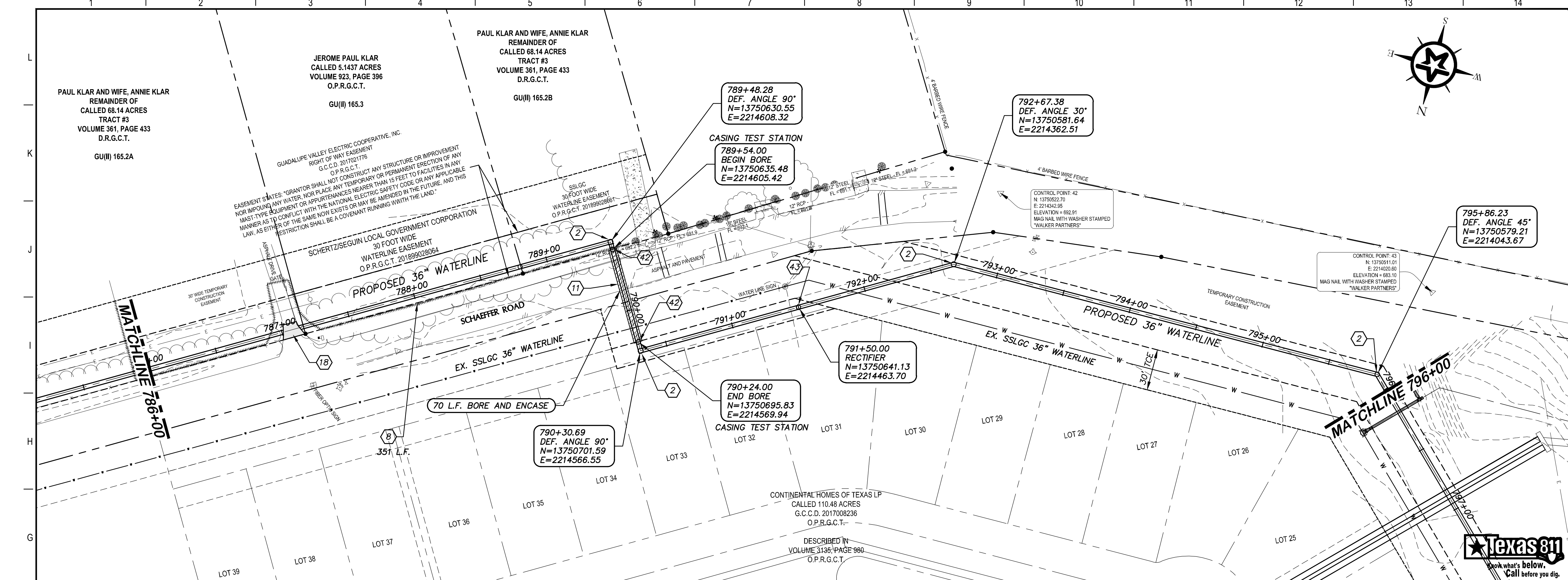
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PLAN AND PROFILE  
776+00 TO 786+00

4-13-2020  
DATE

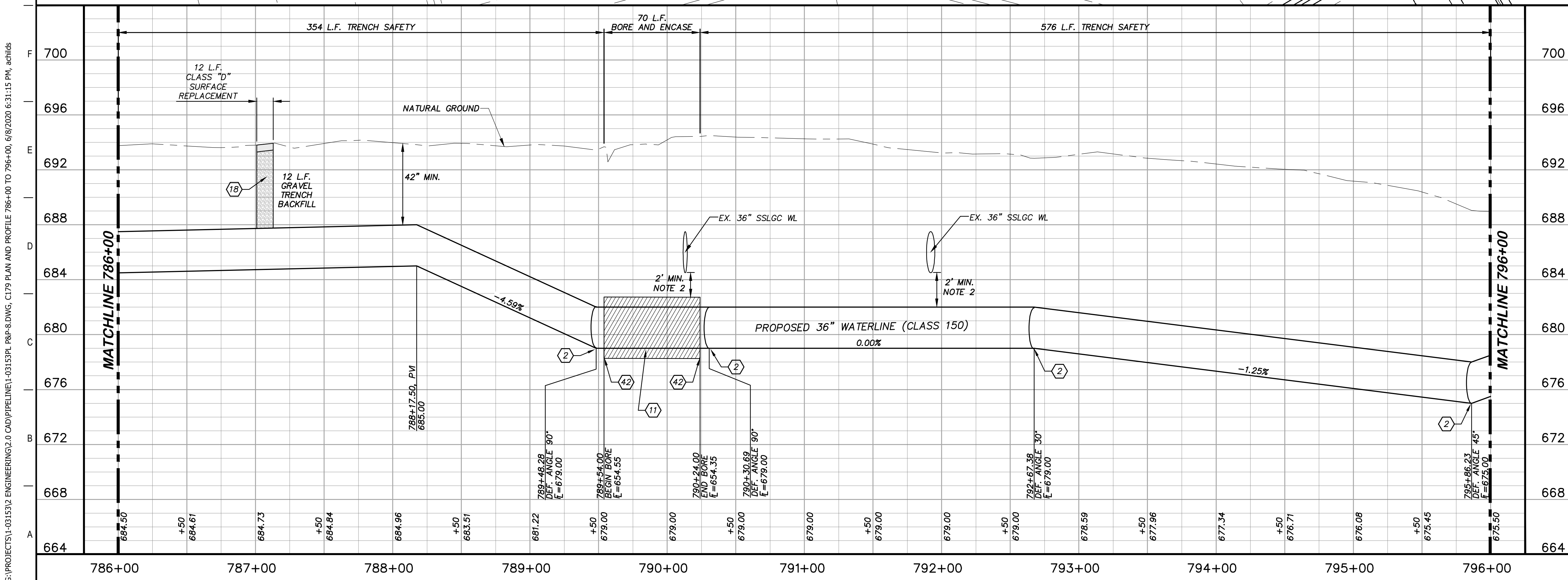
*John F. Winkler*  
JOHN F. WINKLER  
PROFESSIONAL ENGINEER  
50524

PM	JFW
DESIGNED	JFW
DRAFTED	ARC
CHECKED	JFW
PROJECT NO.	1-03153
DRAWING NO.	<b>C178</b>



### KEY NOTES

- ② CONCRETE THRUST BLOCKING (RE. DETAIL G1/D206)
- ⑧ REMOVE AND REPLACE 351 L.F. EXISTING FENCE AND GATE (RE. DETAIL A1/D207)
- ⑪ BORE AND ENCASE STEEL CASING (RE. DETAIL A1/D206)
- ⑱ CLASS D SURFACE REPLACEMENT (RE. DETAIL G1/D208)
- ④② CASING TEST STATION (RE. DETAIL H1/D401)
- ④③ RECTIFIER (RE. DETAIL H9/D401)



### GENERAL NOTES

- TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.
- FIELD VERIFY DEPTHS OF ALL EX. UTILITIES.

0 20 40 80  
GRAPHIC SCALE (FEET) H:1"=40' V:1"=4'

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers ★ surveyors  
T.B.P.E. Registration No. 8053

## SSLGC

TWDB PROJECT - PHASE 2

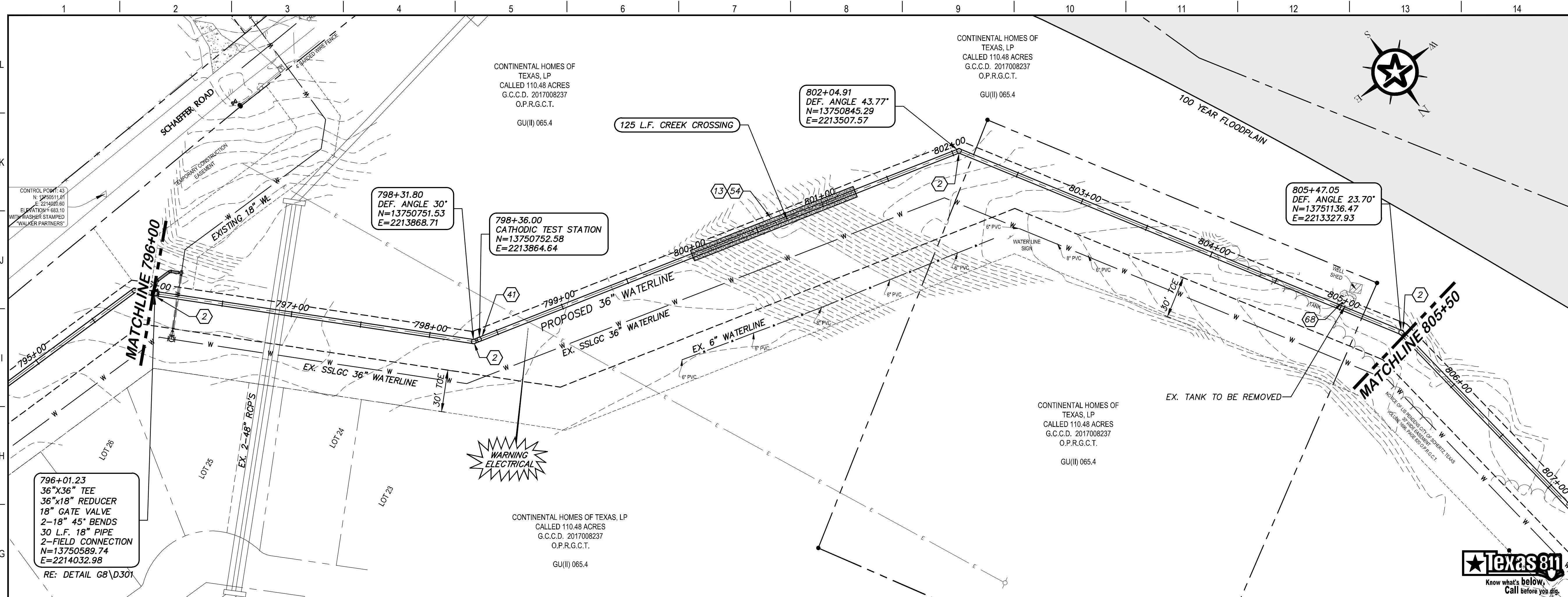
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4-13-2020  
DATE

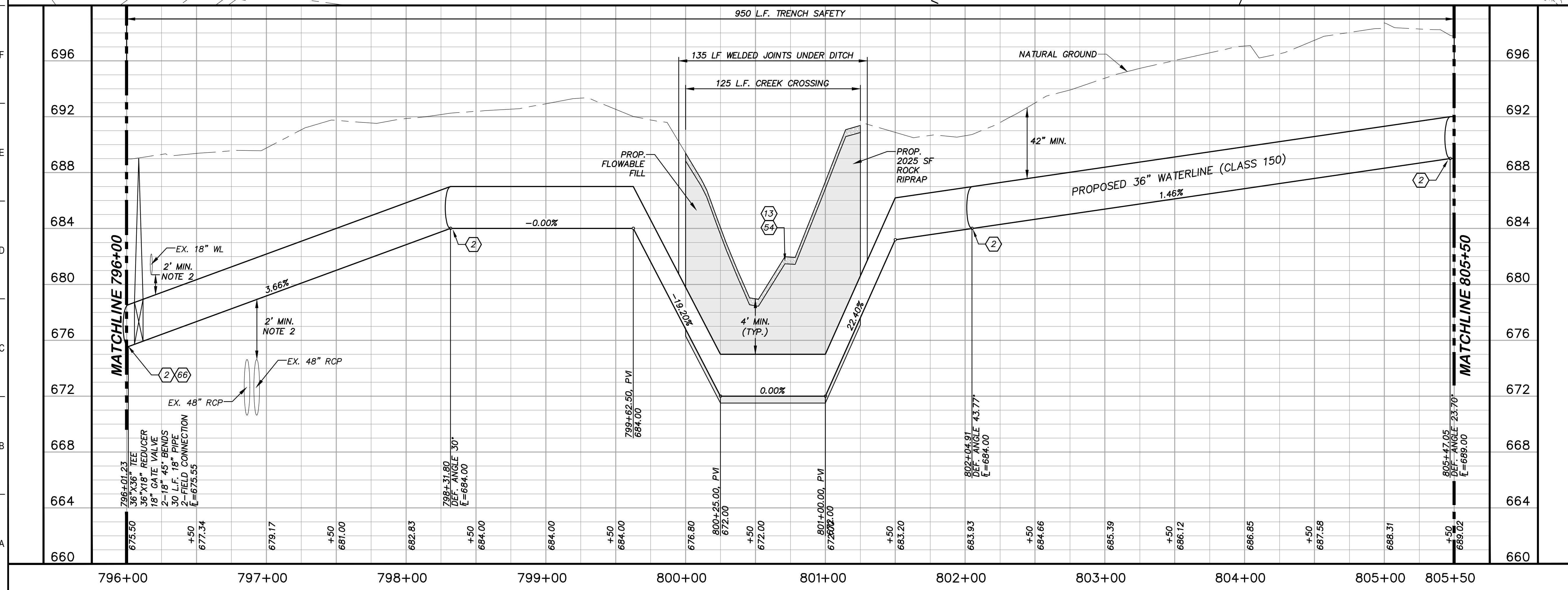
*John F. Winkler*  
JOHN F. WINKLER  
50524  
REGISTERED PROFESSIONAL ENGINEER

PM	JFW
DESIGNED	JFW
DRAFTED	ARC
CHECKED	JFW
PROJECT NO.	1-03153
DRAWING NO.	<b>C179</b>

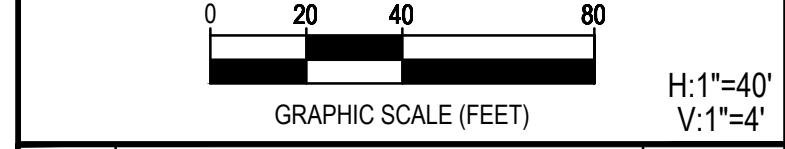
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- ### KEY NOTES
- ② CONCRETE THRUST BLOCKING (RE. DETAIL G1/D206)
  - ⑬ STONE RIP-RAP (DRY) INCLUDING WOVEN FILTER FABRIC, COMPLETED IN PLACE (RE. DETAIL A10/D200)
  - ④ CATHODIC TEST STATION (RE. DETAIL A1/D403)
  - ⑤ CREEK CROSSING (RE. DETAIL A1/D209)
  - ⑥ EXISTING STRUCTURE TO BE REMOVED



- ### GENERAL NOTES
1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.
  2. FIELD VERIFY DEPTHS OF ALL EX. UTILITIES.



REV.	DESCRIPTION	DATE



**SSLGC**

TWDB PROJECT - PHASE 2

PLAN AND PROFILE  
796+00 TO 805+50

4-13-2020  
DATE

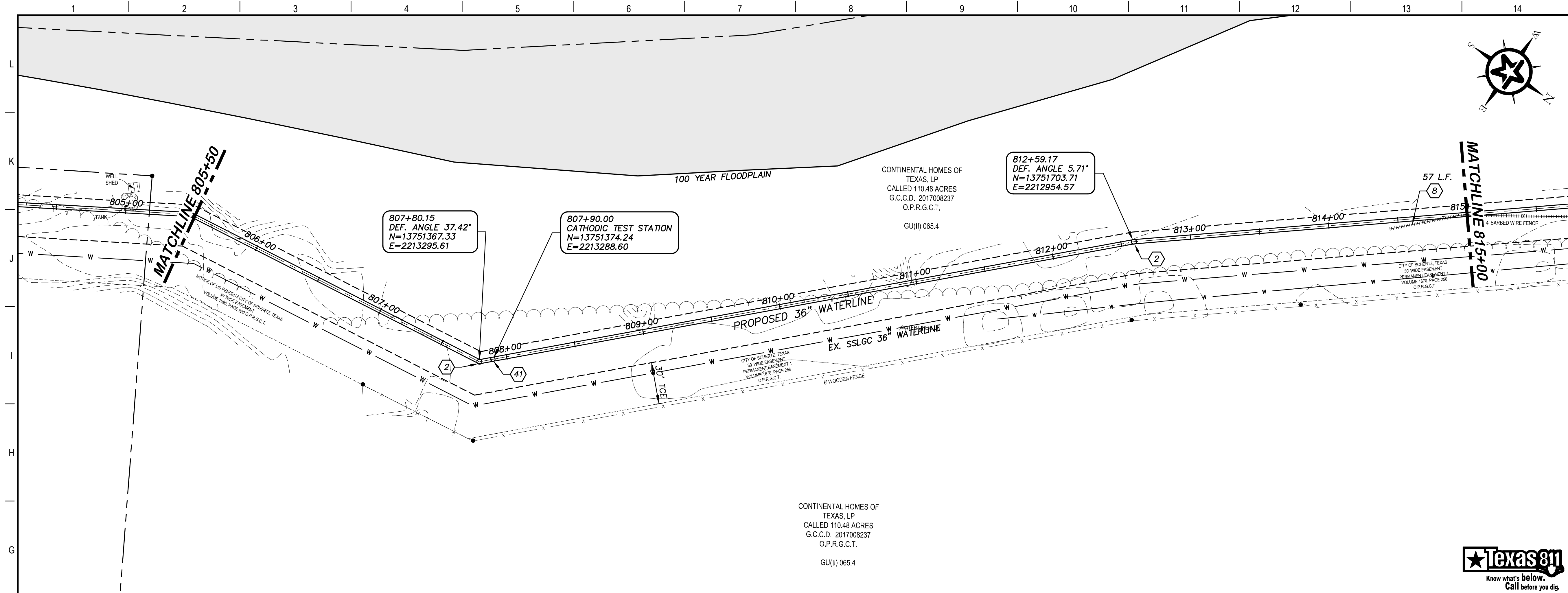
*John F. Winkler*  
JOHN F. WINKLER

DESIGNED	JFW
DRAFTED	JFW
CHECKED	ARC
PROJECT NO.	1-03153
DRAWING NO.	<b>C180</b>

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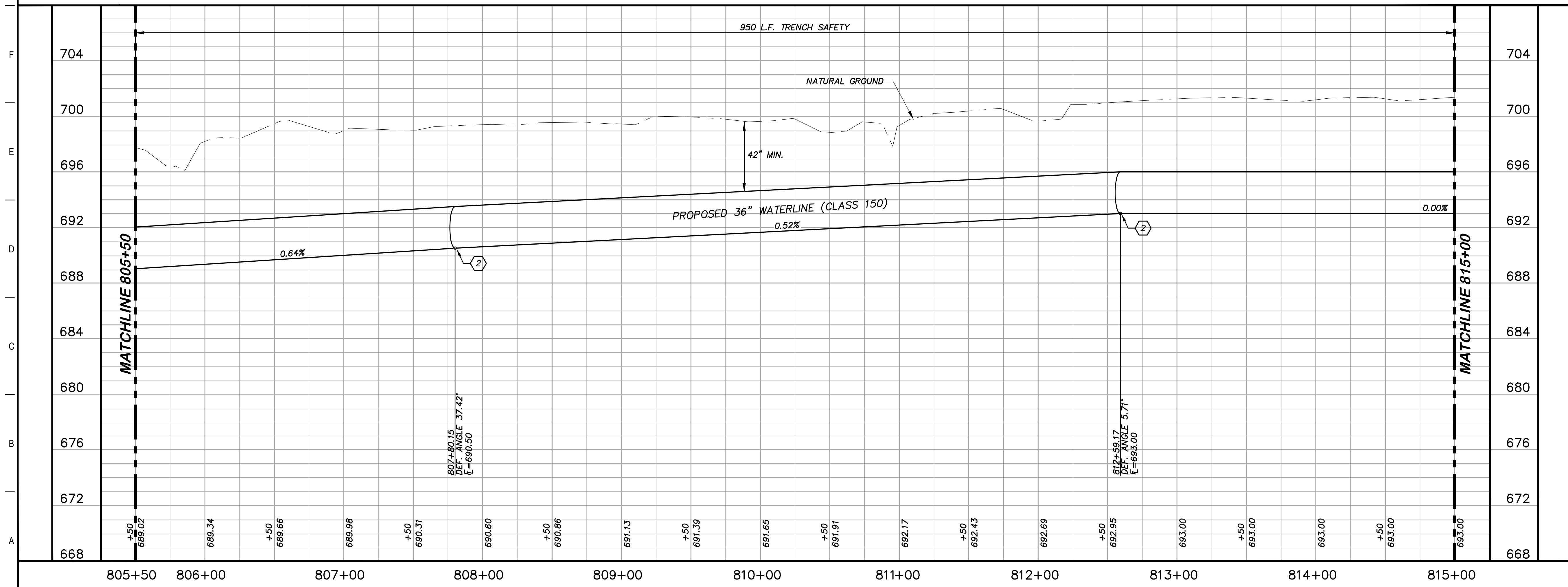
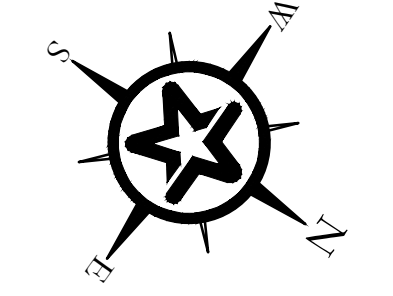


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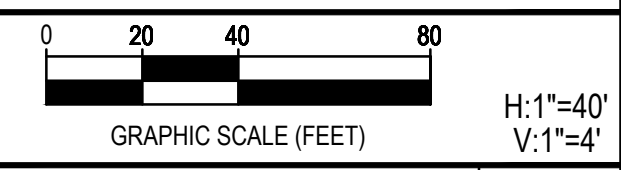
**KEY NOTES**

- (2) CONCRETE THRUST BLOCKING (RE. DETAIL G1/D206)
- (8) REMOVE AND REPLACE 57 L.F. EXISTING FENCE (RE. DETAIL A1/D207)
- (41) CATHODIC TEST STATION (RE. DETAIL A1/D403)



**GENERAL NOTES**

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.



REV.	DESCRIPTION	DATE



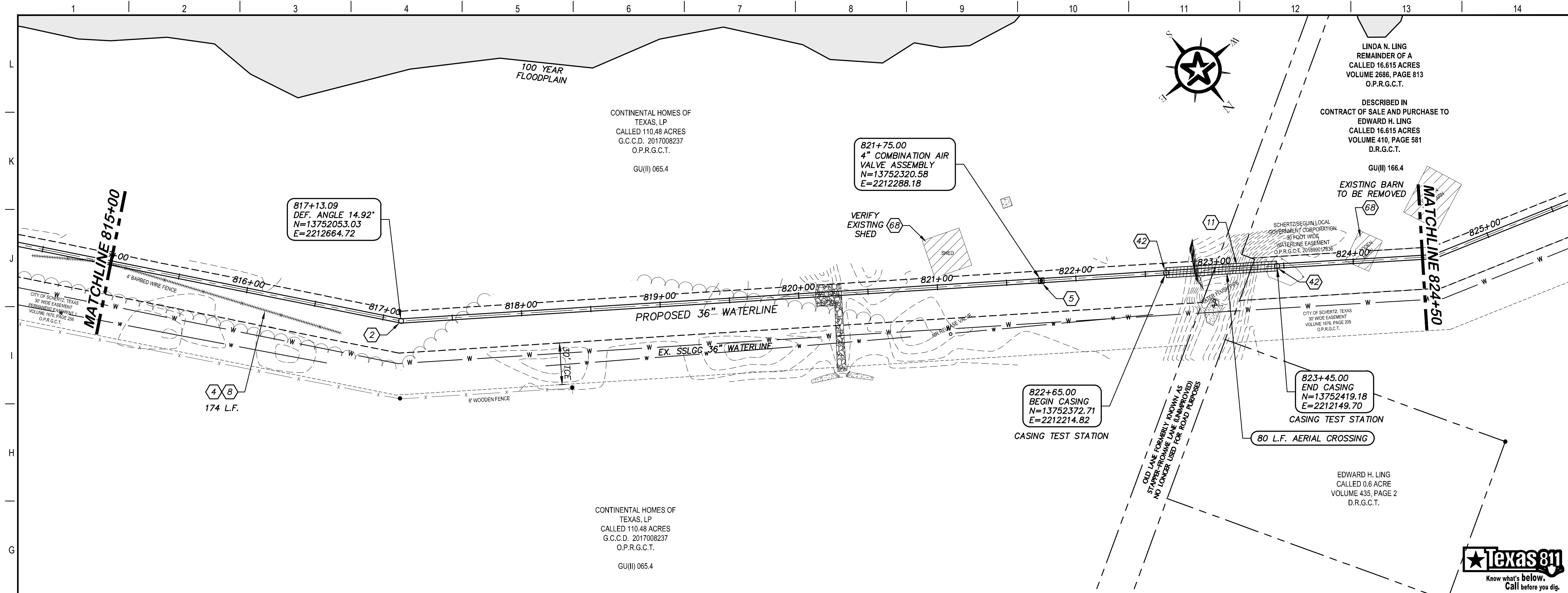
**SSLGC**

TWDB PROJECT - PHASE 2

PLAN AND PROFILE  
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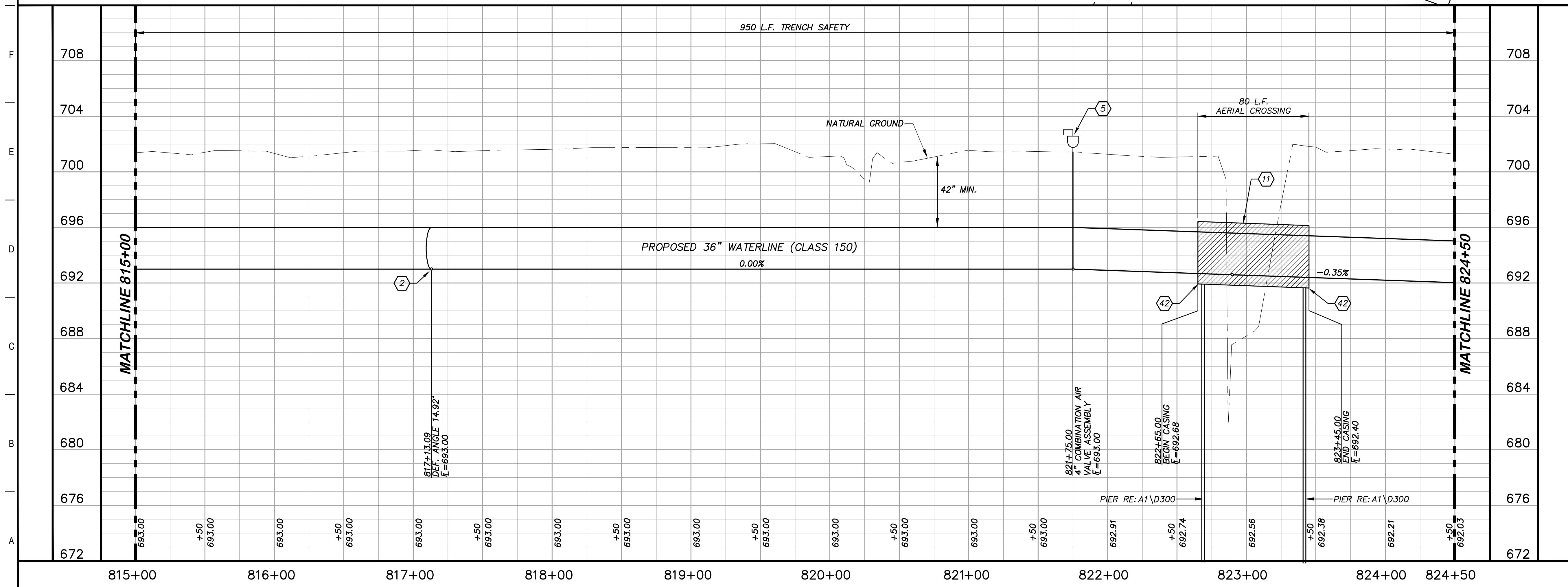
4-13-2020 DATE *John F. Winkler* JOHN F. WINKLER

	PM	JFW
	DESIGNED	JFW
	DRAFTED	ARC
	CHECKED	JFW
	PROJECT NO.	1-03153
DRAWING NO.		<b>C181</b>



### KEY NOTES

- 2 CONCRETE THRUST BLOCKING (RE. DETAIL G1/D206)
- 4 REMOVE AND REPLACE GATE (RE. DETAIL D207)
- 5 COMBINATION VACUUM & AIR RELEASE VALVE & MANHOLE VAULT (RE. DETAIL A1/D201)
- 8 REMOVE AND REPLACE 174 L.F. EXISTING FENCE AND GATE (RE. DETAIL A1/D207)
- 11 STEEL CASING (RE. DETAIL A1/D206)
- 42 CASING TEST STATION (RE. DETAIL H1/D401)
- 68 EXISTING STRUCTURE TO BE REMOVED



### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.

0 20 40 80  
GRAPHIC SCALE (FEET) H:1"=40' V:1"=4'

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers ★ surveyors  
T.B.P.E. Registration No. 8053

## SSLGC

TWDB PROJECT - PHASE 2

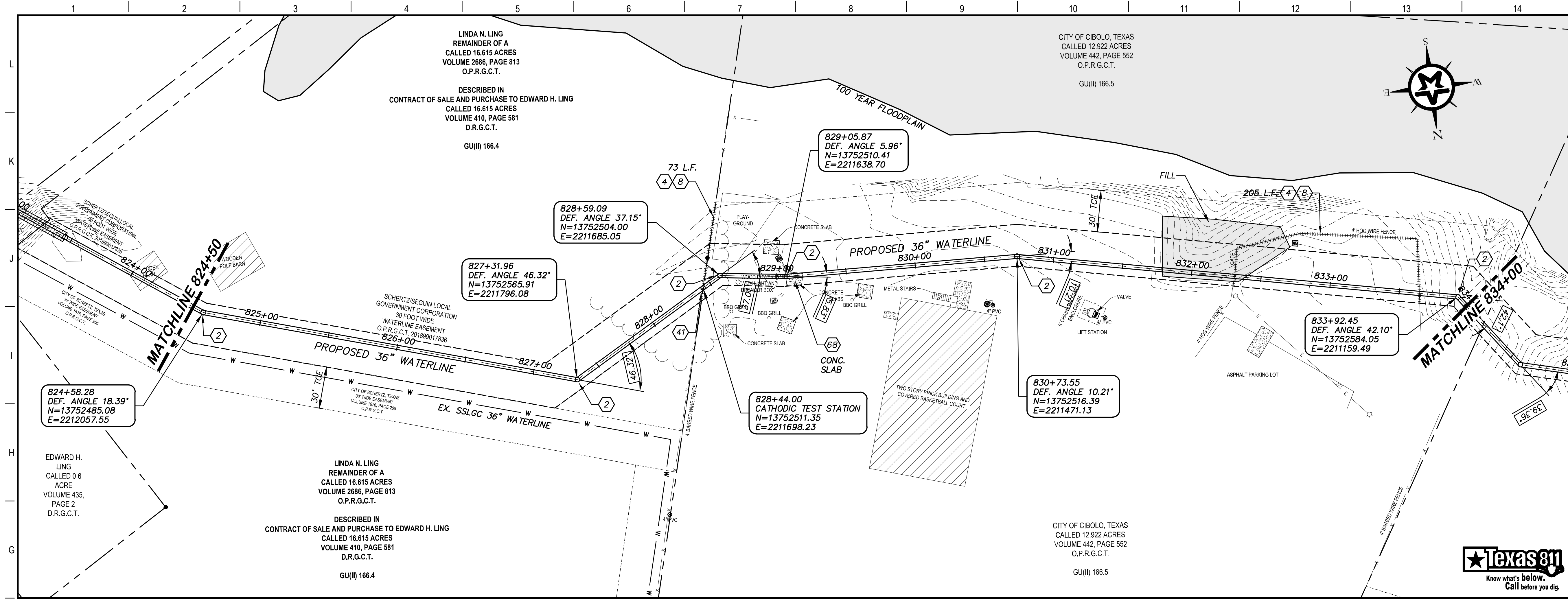
### PLAN AND PROFILE 815+00 TO 824+50

4-13-2020  
DATE

JOHN F. WINKLER  
PROFESSIONAL ENGINEER

PM	JFW
DESIGNED	JFW
DRAFTED	ARC
CHECKED	JFW
PROJECT NO.	1-03153
DRAWING NO.	<b>C182</b>

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### KEY NOTES

- 2 CONCRETE THRUST BLOCKING (RE. DETAIL G1/D206)
- 4 REMOVE AND REPLACE GATE (RE. DETAIL D207)
- 8 REMOVE AND REPLACE 278 L.F. EXISTING FENCE AND GATE (RE. DETAIL A1/D207)
- 41 CATHODIC TEST STATION (RE. DETAIL A1/D403)
- 68 EXISTING STRUCTURE TO BE REMOVED

---

### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.

0 20 40 80  
GRAPHIC SCALE (FEET) H:1"=40' V:1"=4'

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers ★ surveyors  
T.B.P.E. Registration No. 8053

## SSLGC

TWDB PROJECT - PHASE 2

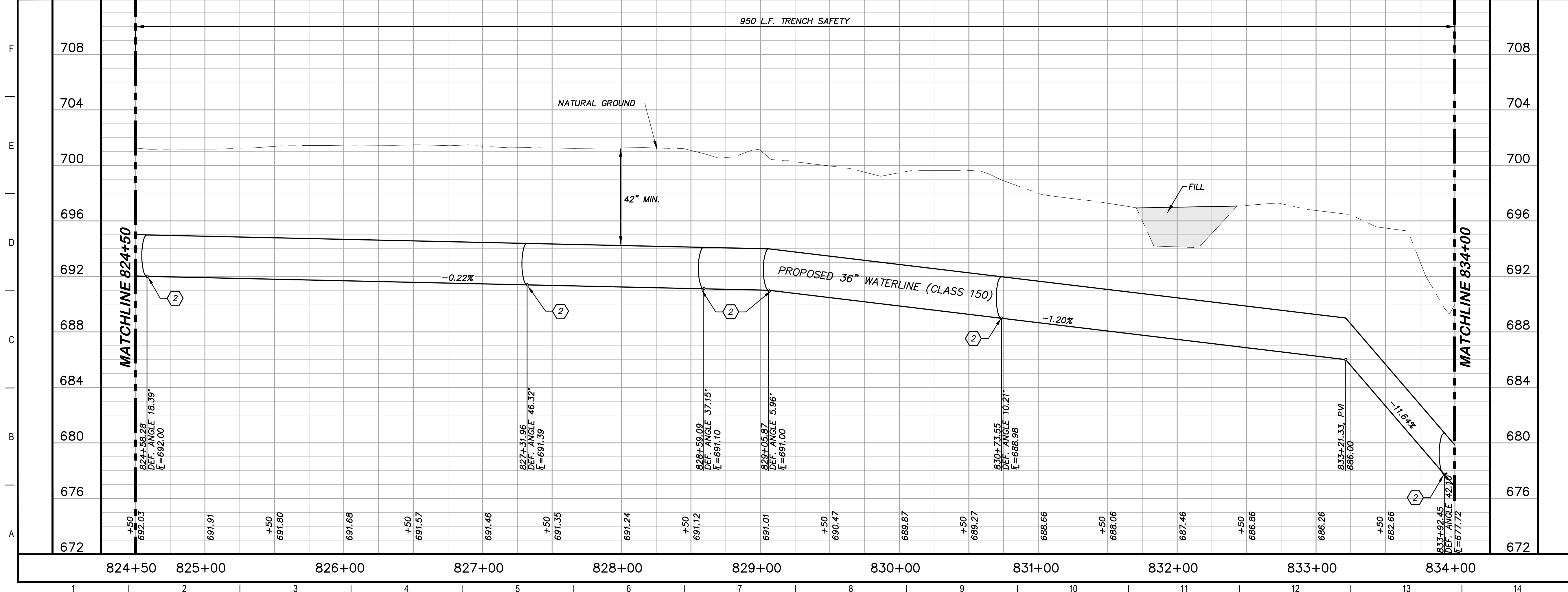
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824+50 TO 834+00

4-13-2020  
DATE

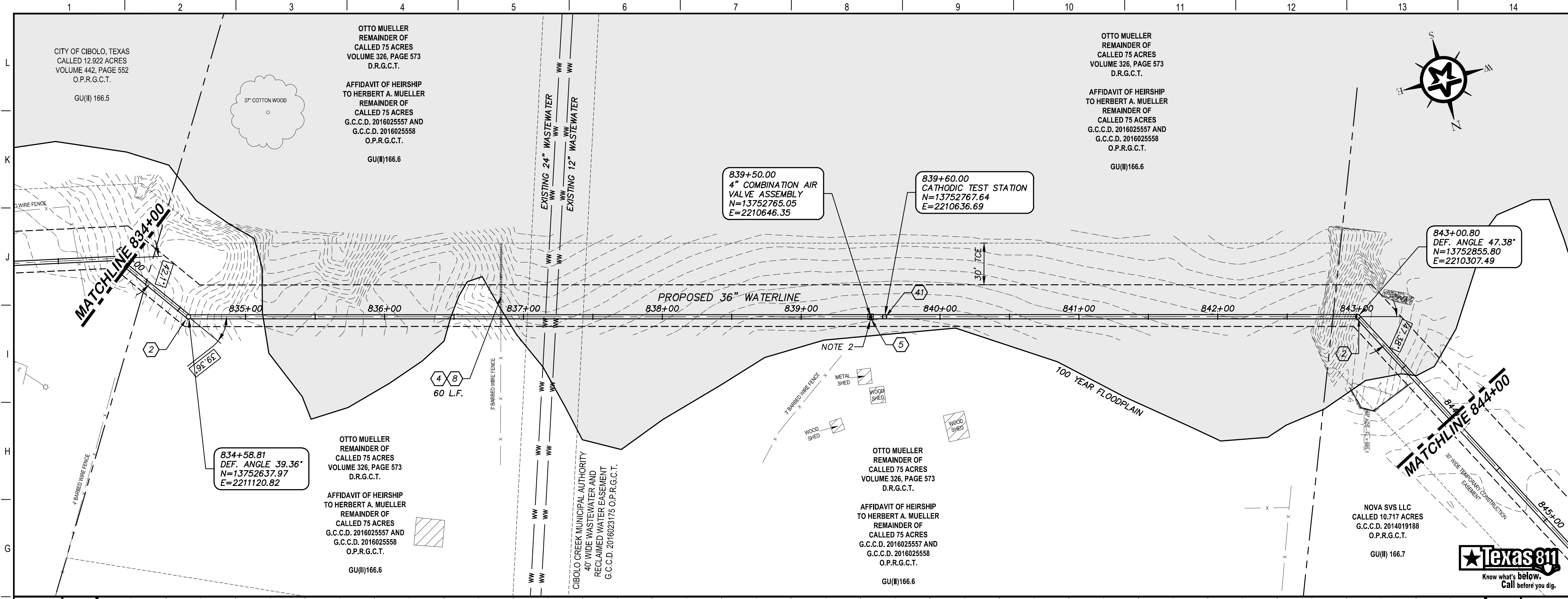
*John F. Winkler*  
JOHN F. WINKLER  
PROFESSIONAL ENGINEER

DESIGNED	JFW
DRAFTED	ARC
CHECKED	JFW
PROJECT NO.	1-03153
DRAWING NO.	<b>C183</b>



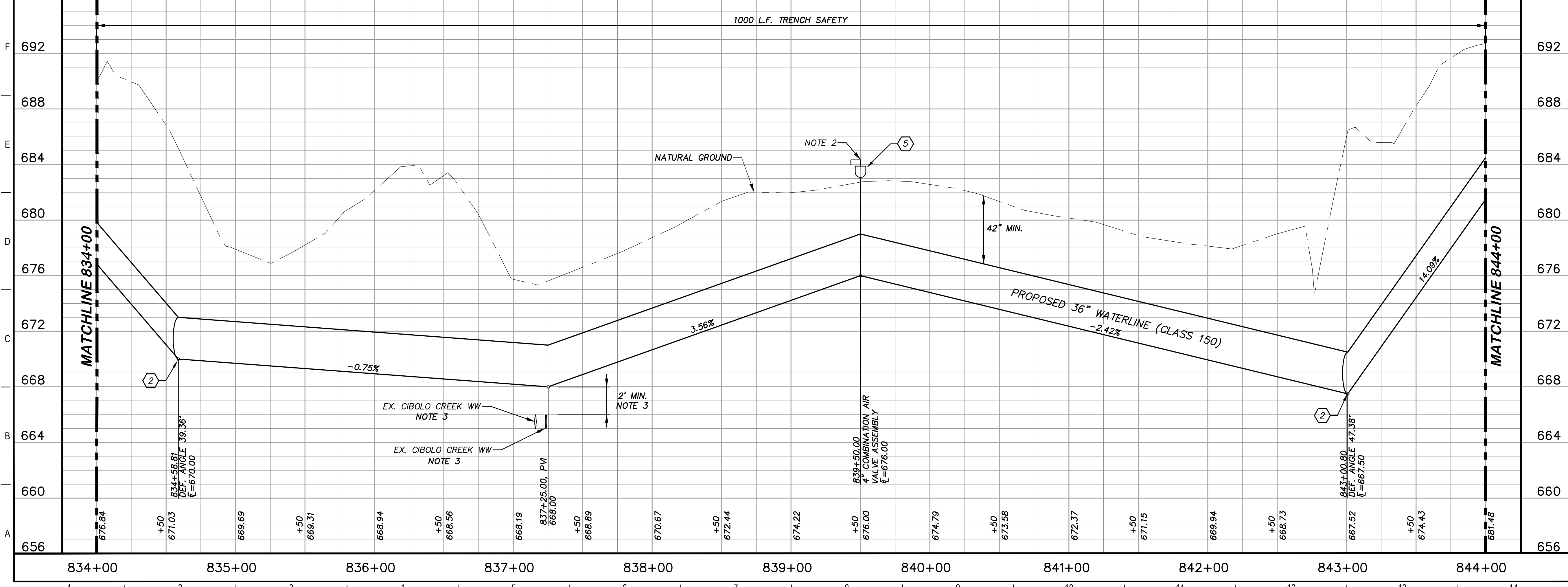
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### KEY NOTES

- 2 CONCRETE THRUST BLOCKING (RE. DETAIL G1/D206)
- 4 REMOVE AND REPLACE GATE (RE. DETAIL D207)
- 5 COMBINATION VACUUM & AIR RELEASE VALVE & MANHOLE VAULT (RE. DETAIL A1/D201)
- 8 REMOVE AND REPLACE 60 L.F. EXISTING FENCE AND GATE (RE. DETAIL A1/D207)
- 41 CATHODIC TEST STATION (RE. DETAIL A1/D403)



### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.
2. EXTEND VENT PIPE ON PRV TO ELEV. 685.50
3. FIELD VERIFY DEPTHS OF ALL EX. UTILITIES.

0 20 40 80  
GRAPHIC SCALE (FEET)

H:1"=40'  
V:1"=4'

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers • surveyors  
T.B.P.E. Registration No. 8053

**SSLGC**

TWDB PROJECT - PHASE 2

PLAN AND PROFILE  
834+00 TO 844+00

4-13-2020  
DATE

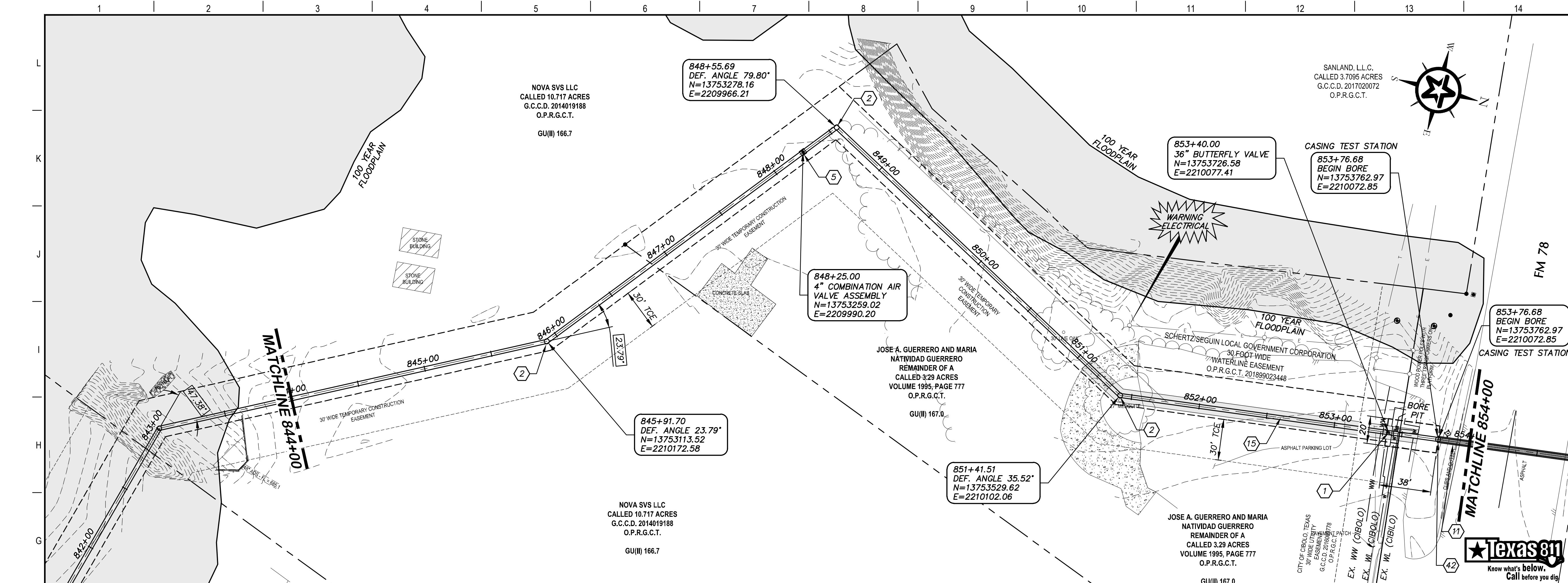
*John F. Winkler*  
JOHN F. WINKLER

DESIGNED	JFW
DRAFTED	JFW
CHECKED	ARC
PROJECT NO.	JFW
DRAWING NO.	1-03153

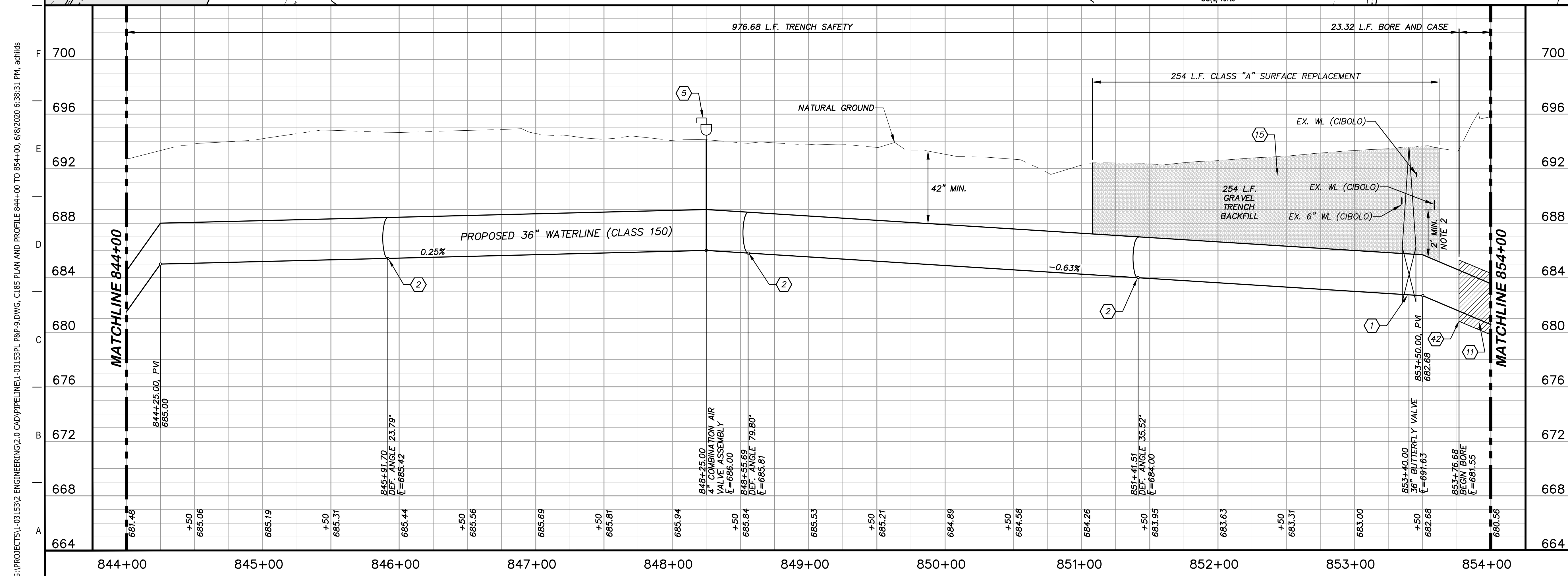
**STATE OF TEXAS**  
JOHN F. WINKLER  
50524  
REGISTERED PROFESSIONAL ENGINEER

**C184**

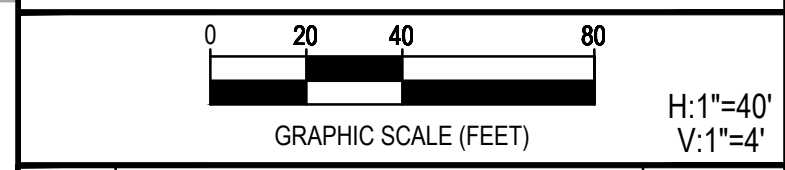
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- ### KEY NOTES
- 1 BUTTERFLY VALVE (RE. DETAIL G1/D202)
  - 2 CONCRETE THRUST BLOCKING (RE. DETAIL G1/D206)
  - 5 COMBINATION VACUUM & AIR RELEASE VALVE & MANHOLE VAULT (RE. DETAIL A1/D201)
  - 11 BORE AND ENCASE STEEL CASING (RE. DETAIL A1/D206)
  - 15 CLASS A SURFACE REPLACEMENT (RE. DETAIL G1/D208)
  - 42 CASING TEST STATION (RE. DETAIL H1/D401)



- ### GENERAL NOTES
1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.
  2. FIELD VERIFY DEPTHS OF ALL EX. UTILITIES.



REV.	DESCRIPTION	DATE



SSLGC

TWDB PROJECT - PHASE 2

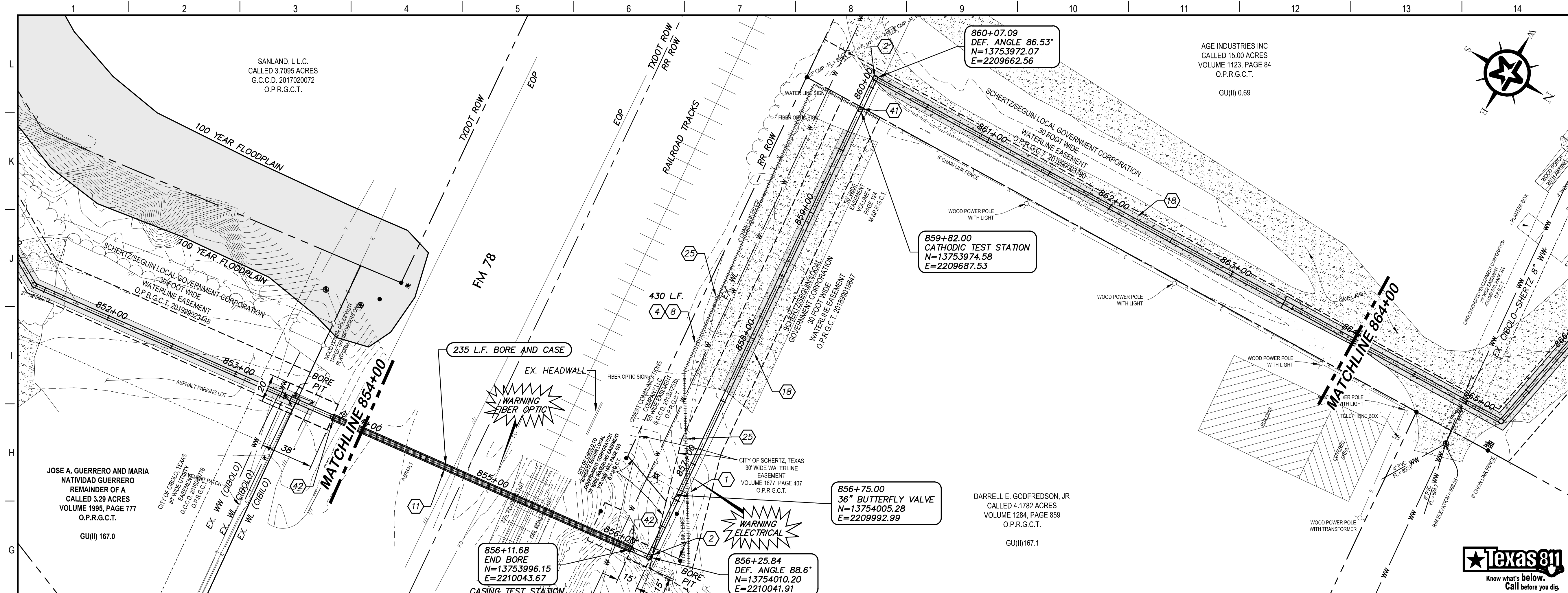
PLAN AND PROFILE  
844+00 TO 854+00

4-13-2020  
DATE: JOHN F. WINKLER

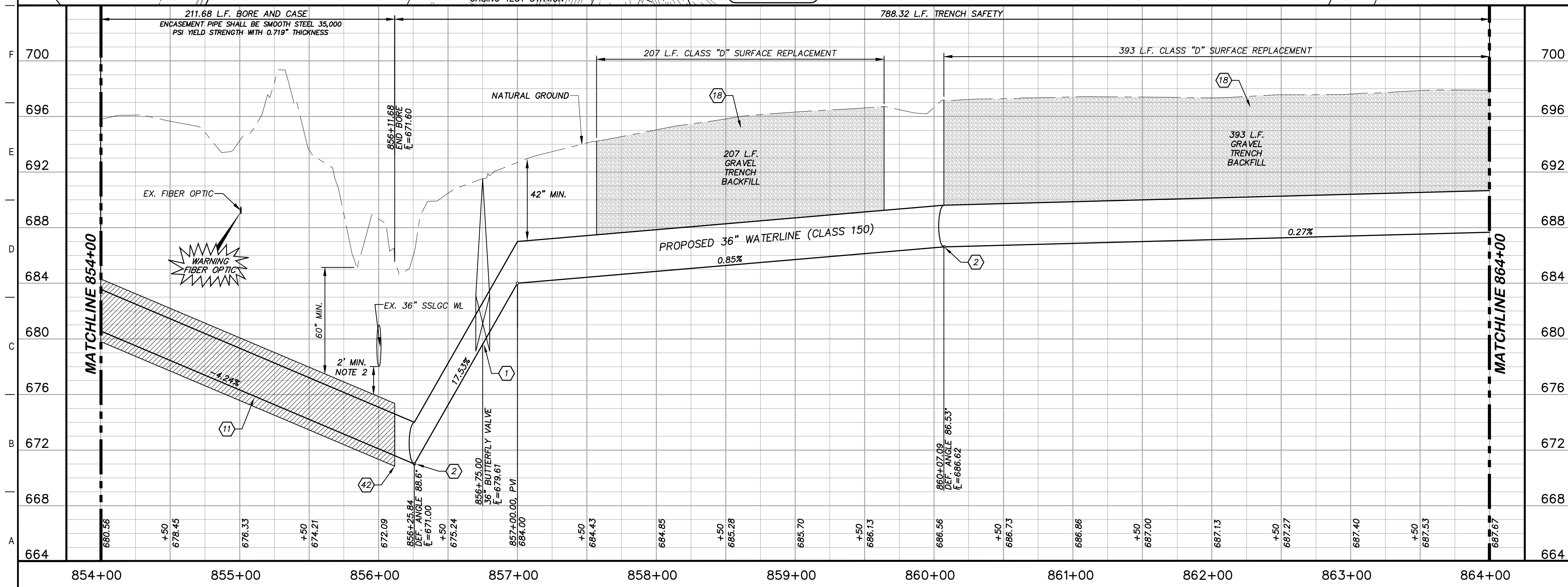
DESIGNED	JFW
DRAFTED	JFW
CHECKED	ARC
PROJECT NO.	1-03153
DRAWING NO.	<b>C185</b>

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- ### KEY NOTES
- BUTTERFLY VALVE (RE. DETAIL G1/D202)
  - CONCRETE THRUST BLOCKING (RE. DETAIL G1/D206)
  - REMOVE AND REPLACE GATE (RE. DETAIL D207)
  - REMOVE AND REPLACE 430 L.F. EXISTING FENCE AND GATE (RE. DETAIL A1/D207)
  - BORE AND ENCASE STEEL CASING (RE. DETAIL A1/D206)
  - CLASS D SURFACE REPLACEMENT (RE. DETAIL G1/D208)
  - THE CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH THE APPROPRIATE UTILITIES OWNING ANY POLES OR SIGNS THAT MAY BE IMPACTED DURING THE WORK OF THIS CONTRACT. BRACING AND PROTECTIVE MEASURES PER THE REQUIREMENTS OF THE SIGNS' OWNERS SHALL BE PROVIDED BY THE CONTRACTOR, AND SHALL BE CONSIDERED SUDDIARY TO THE WORK.
  - CATHODIC TEST STATION (RE. DETAIL A1/D403)
  - CASING TEST STATION (RE. DETAIL H1/D401)



### GENERAL NOTES

- TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.
- FIELD VERIFY DEPTHS OF ALL EX. UTILITIES.
- UNION PACIFIC RAILROAD "CALL BEFORE YOU DIG" PHONE NUMBER: 1 (800) 336-9193

GRAPHIC SCALE (FEET): 0, 20, 40, 80. H:1"=40', V:1"=4'

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers • surveyors  
T.B.P.E. Registration No. 8053

## SSLGC

TWDB PROJECT - PHASE 2

### PLAN AND PROFILE 854+00 TO 864+00

DATE: 4-13-2020  
DESIGNED BY: JOHN F. WINKLER

PM	JFW
DESIGNED	JFW
DRAFTED	ARC
CHECKED	JFW
PROJECT NO.	1-03153
DRAWING NO.	<b>C186</b>

G:\PROJECTS\1-03153\ENGINEERING\2.0 CAD\PIPELINE\1-03153PL P&P-9.DWG, C186 PLAN AND PROFILE 854+00 TO 864+00, 6/23/2020 4:00:14 PM, achids

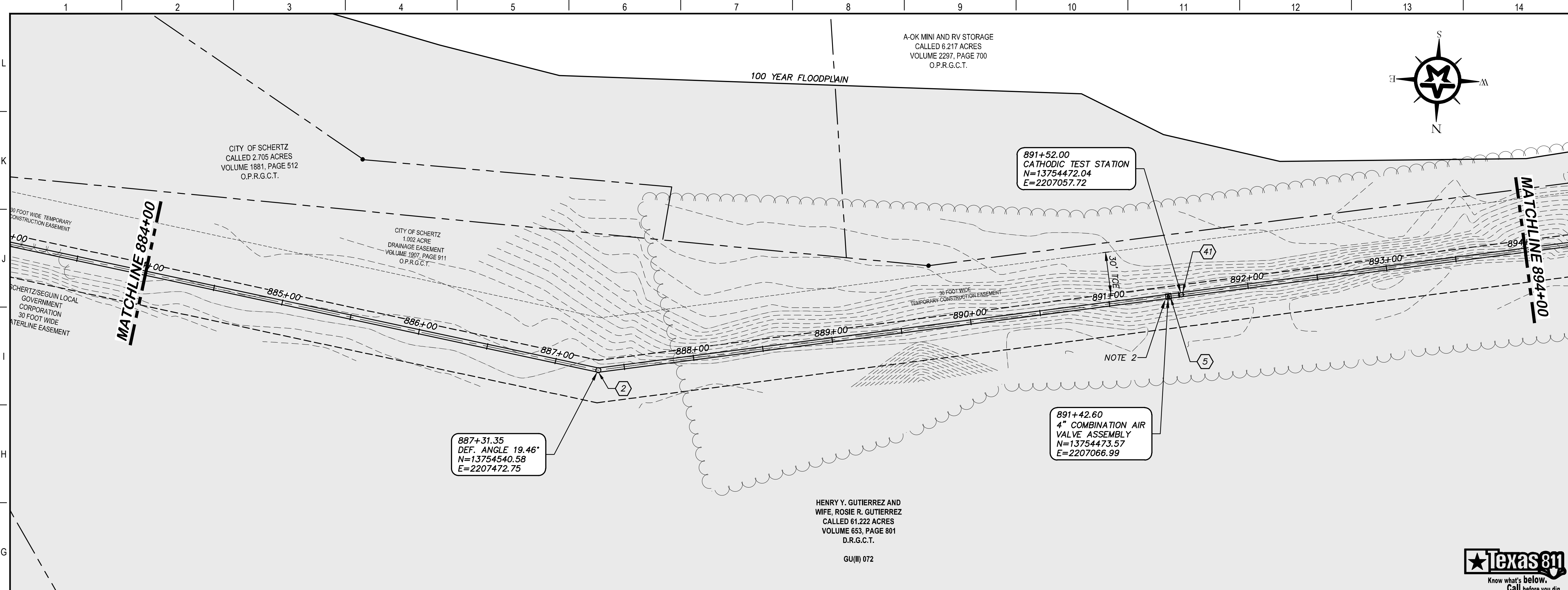








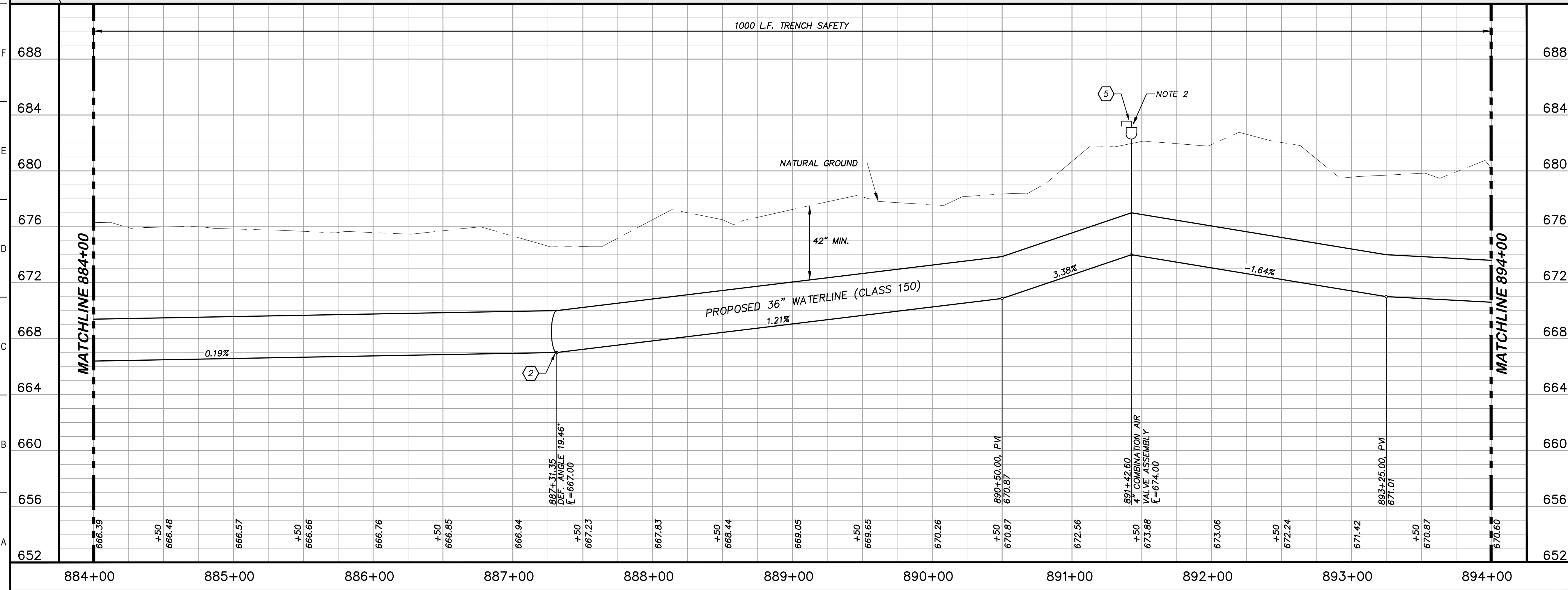
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### KEY NOTES

- (2) CONCRETE THRUST BLOCKING (RE. DETAIL G1/D206)
- (5) COMBINATION VACUUM & AIR RELEASE VALVE & MANHOLE VAULT (RE. DETAIL A1/D201)
- (41) CATHODIC TEST STATION (RE. DETAIL A1/D403)

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



### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.
2. EXTEND VENT PIPE ON ARV TO ELEV. 692.00

0 20 40 80  
GRAPHIC SCALE (FEET) H:1"=40'  
V:1"=4'

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers ★ surveyors  
T.B.P.E. Registration No. 9053

## SSLGC

TWDB PROJECT - PHASE 2

### PLAN AND PROFILE 884+00 TO 894+00

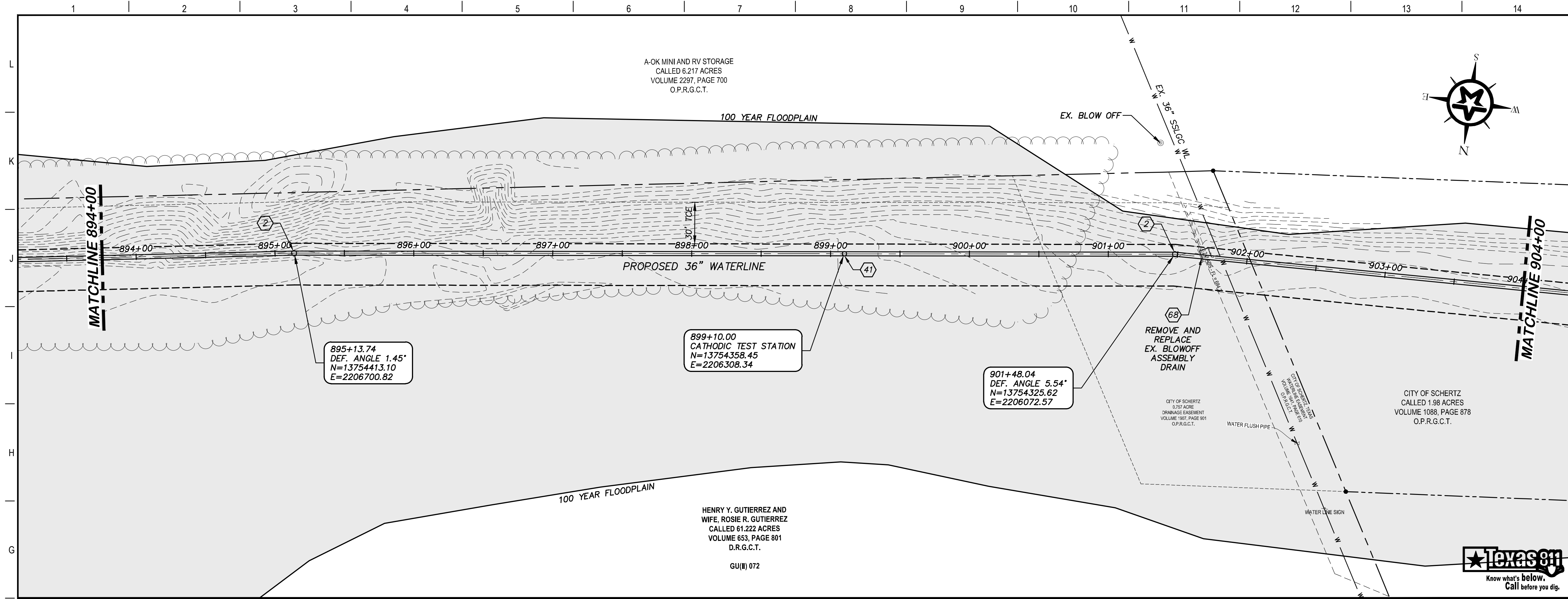
4-13-2020  
DATE *John F. Winkler*  
JOHN F. WINKLER

DESIGNED	JFW
DRAFTED	ARC
CHECKED	JFW
PROJECT NO.	1-03153

DRAWING NO.  
**C189**

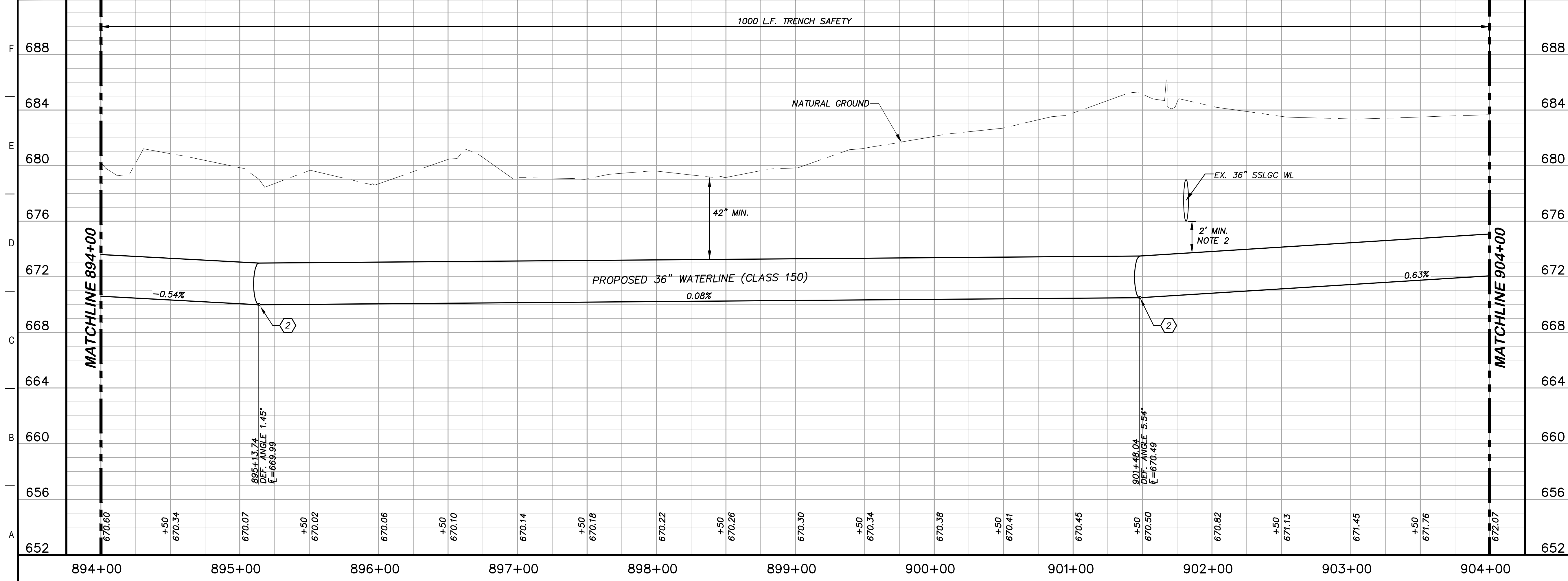


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### KEY NOTES

- (2) CONCRETE THRUST BLOCKING (RE. DETAIL G1/D206)
- (41) CATHODIC TEST STATION (RE. DETAIL A1/D403)
- (68) EXISTING STRUCTURE TO BE REMOVED AND REPLACED



### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.
2. FIELD VERIFY DEPTHS OF ALL EX. UTILITIES.

REV.	DESCRIPTION	DATE

## SSLGC

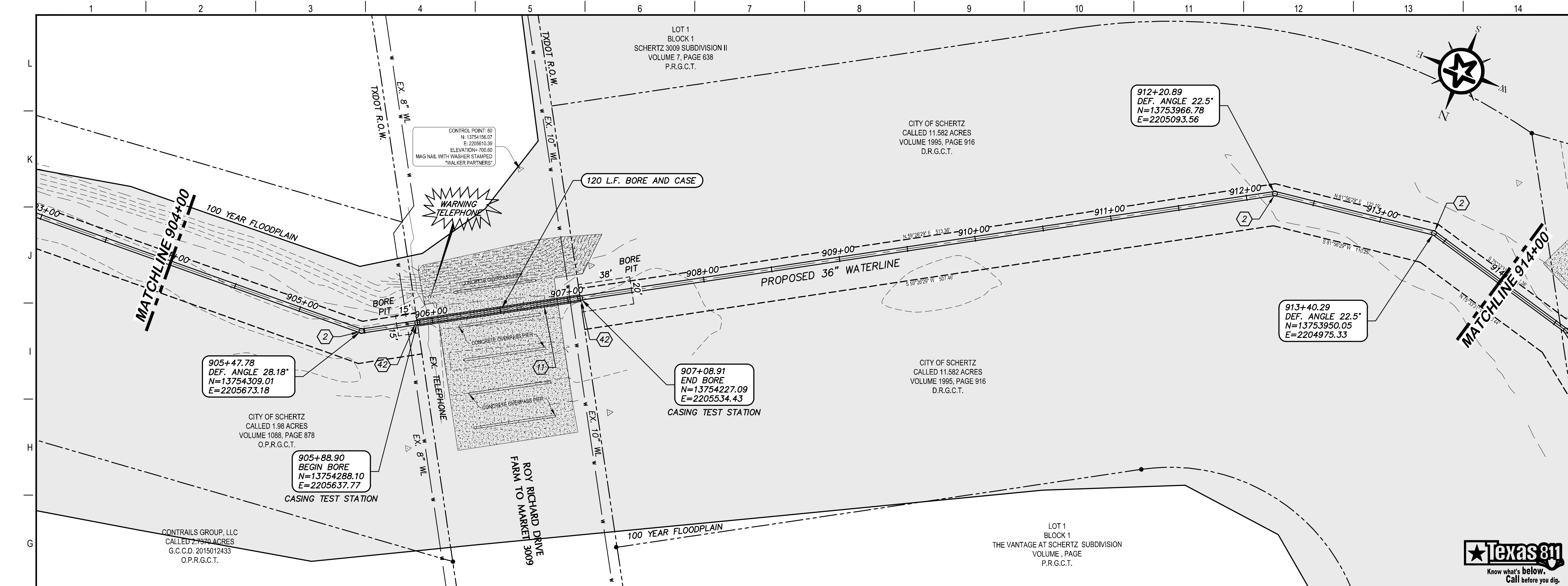
TWDB PROJECT - PHASE 2

### PLAN AND PROFILE 894+00 TO 904+00

4-13-2020  
DATE

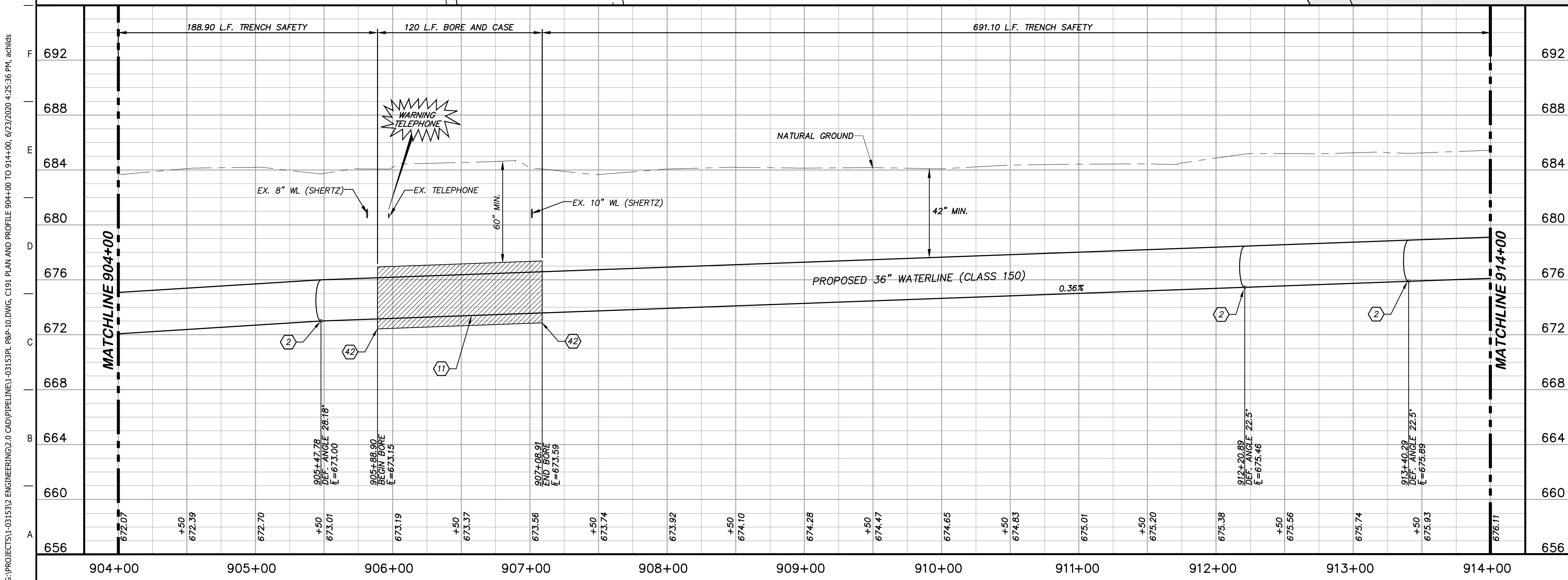
JOHN F. WINKLER

PM	JFW
DESIGNED	JFW
DRAFTED	ARC
CHECKED	JFW
PROJECT NO.	1-03153
DRAWING NO.	<b>C190</b>



### KEY NOTES

- (2) CONCRETE THRUST BLOCKING (RE. DETAIL G1/D206)
- (11) BORE AND ENCASE STEEL CASING (RE. DETAIL A1/D206)
- (42) CASING TEST STATION (RE. DETAIL H1/D401)



### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.

0 20 40 80  
GRAPHIC SCALE (FEET) H:1"=40' V:1"=4'

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers • surveyors  
T.B.P.E. Registration No. 8053

## SSLGC

TWDB PROJECT - PHASE 2

### PLAN AND PROFILE 904+00 TO 914+00

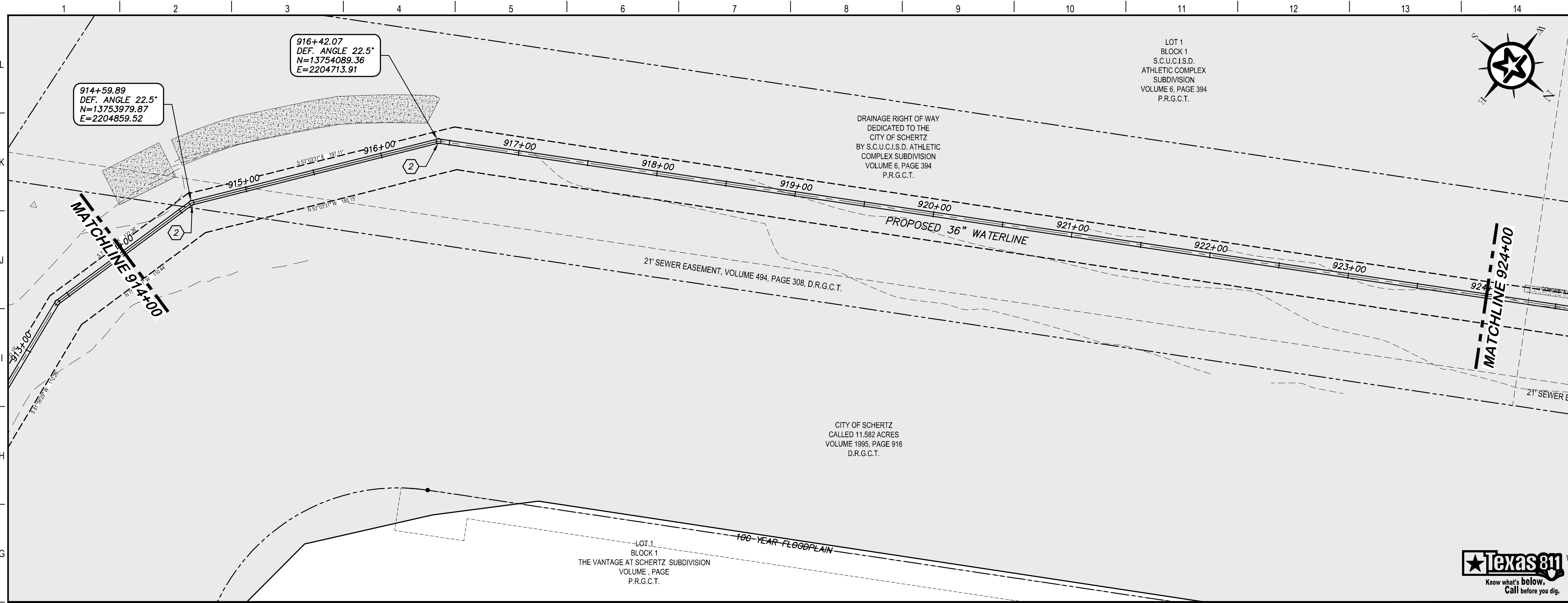
4-13-2020  
DATE

JOHN F. WINKLER  
PROFESSIONAL ENGINEER

DESIGNED	JFW
DRAWN	JFW
CHECKED	ARC
PROJECT NO.	1-03153
DRAWING NO.	<b>C191</b>

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### KEY NOTES

(2) CONCRETE THRUST BLOCKING  
(RE. DETAIL G1/D206)

LOT 1  
BLOCK 1  
S.C.U.C.I.S.D.  
ATHLETIC COMPLEX  
SUBDIVISION  
VOLUME 6, PAGE 394  
P.R.G.C.T.

DRAINAGE RIGHT OF WAY  
DEDICATED TO THE  
CITY OF SCHERTZ  
BY S.C.U.C.I.S.D. ATHLETIC  
COMPLEX SUBDIVISION  
VOLUME 6, PAGE 394  
P.R.G.C.T.

21' SEWER EASEMENT, VOLUME 494, PAGE 308, D.R.G.C.T.

CITY OF SCHERTZ  
CALLED 11.882 ACRES  
VOLUME 1995, PAGE 916  
D.R.G.C.T.

LOT 1  
BLOCK 1  
THE VANTAGE AT SCHERTZ SUBDIVISION  
VOLUME , PAGE  
P.R.G.C.T.

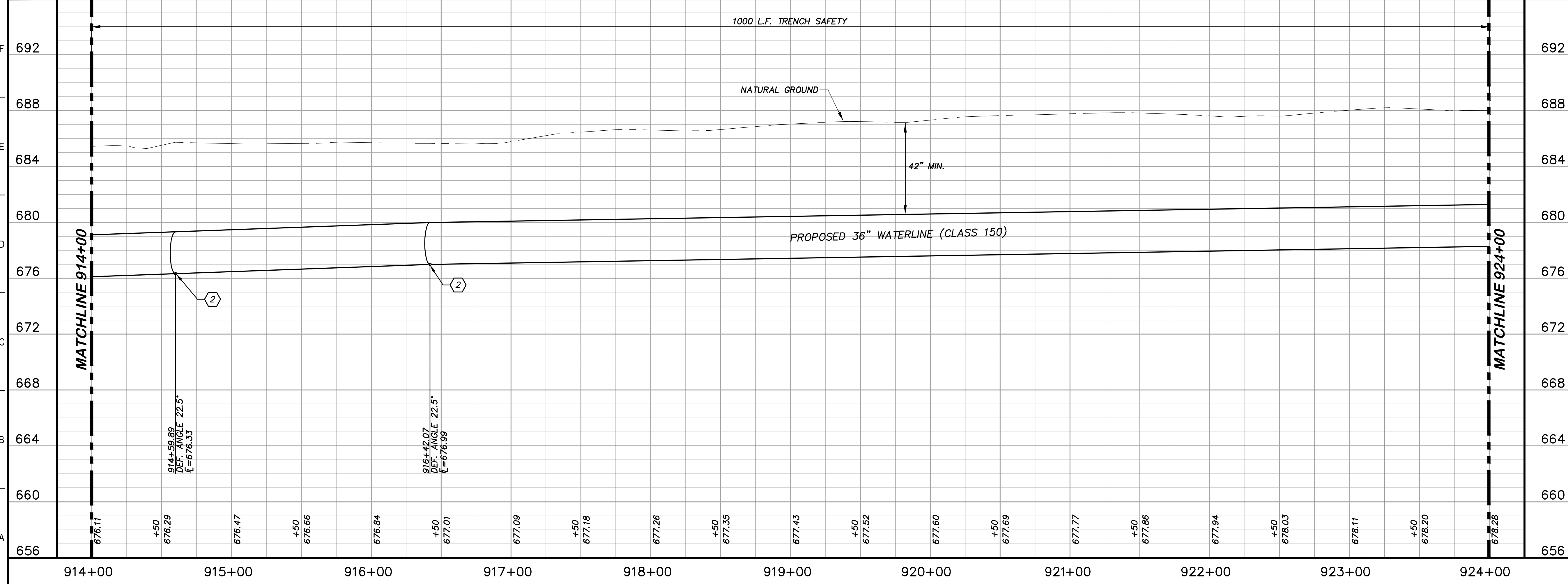
100-YEAR FLOODPLAIN

MATCHLINE 914+00

MATCHLINE 924+00

PROPOSED 36" WATERLINE

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



### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.

0 20 40 80  
GRAPHIC SCALE (FEET) H:1"=40'  
V:1"=4'

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers ★ surveyors  
T.B.P.E. Registration No. 8053

**SSLGC**

TWDB PROJECT - PHASE 2

PLAN AND PROFILE  
914+00 TO 924+00

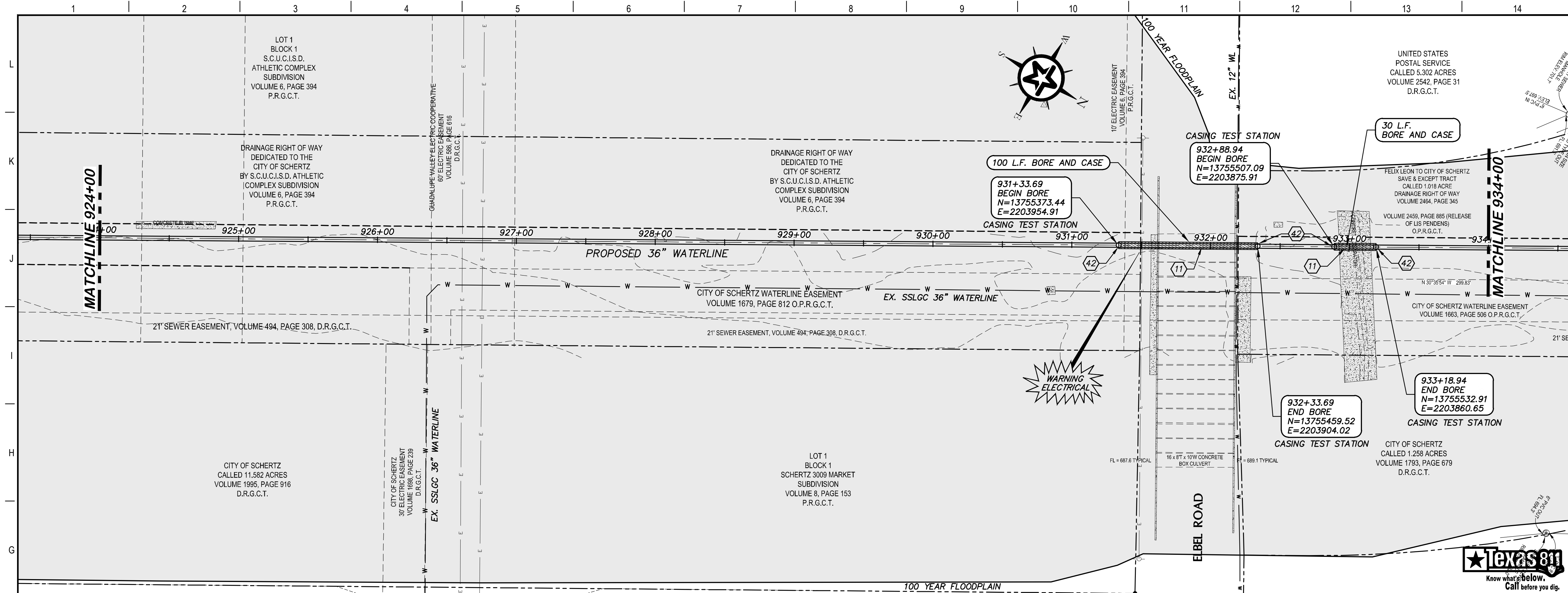
4-13-2020  
DATE

JOHN F. WINKLER  
PROFESSIONAL ENGINEER

DESIGNED	JFW
DRAFTED	JFW
CHECKED	ARC
PROJECT NO.	1-03153
DRAWING NO.	<b>C192</b>



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### KEY NOTES

- 11 BORE AND ENCASE STEEL CASING (RE. DETAIL A1/D206)
- 42 CASING TEST STATION (RE. DETAIL H1/D401)

### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.
2. FIELD VERIFY DEPTHS OF ALL EX. UTILITIES.

0 20 40 80  
GRAPHIC SCALE (FEET) H:1"=40' V:1"=4'

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers ★ surveyors  
T.B.P.E. Registration No. 8053

## SSLGC

TWDB PROJECT - PHASE 2

### PLAN AND PROFILE 924+00 TO 934+00

4-13-2020  
DATE

JOHN F. WINKLER  
DESIGNED

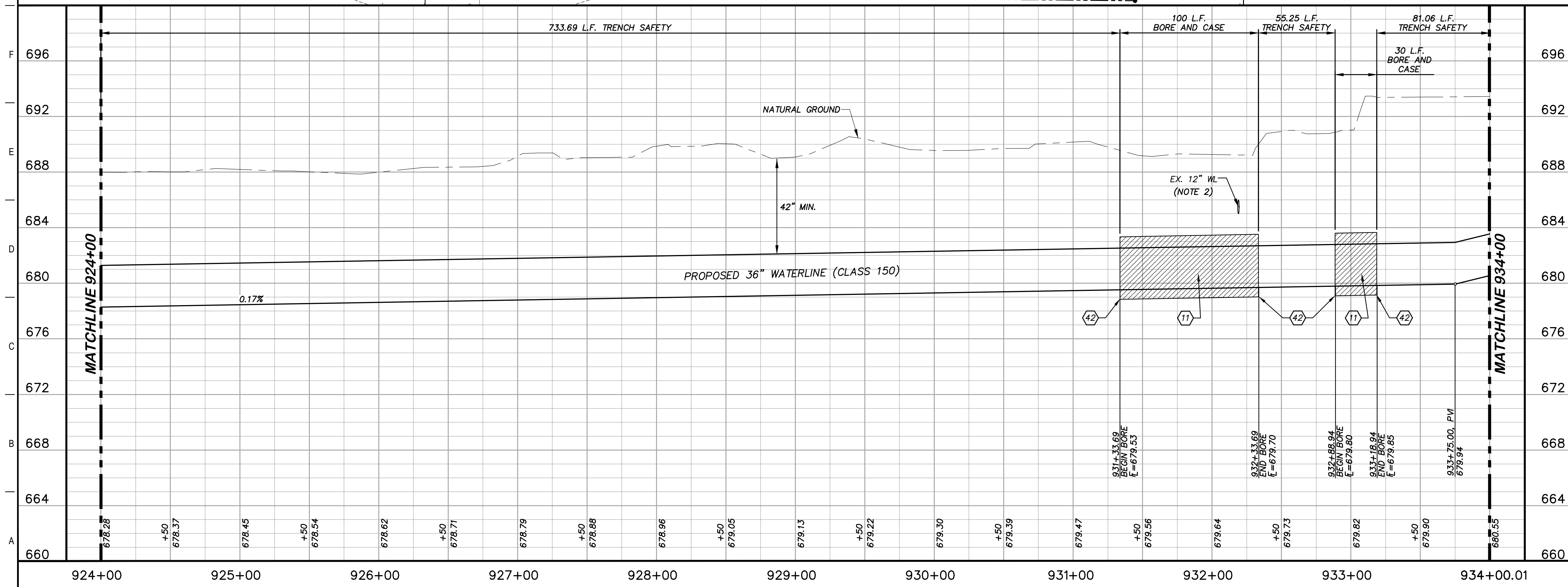
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DRAFTED

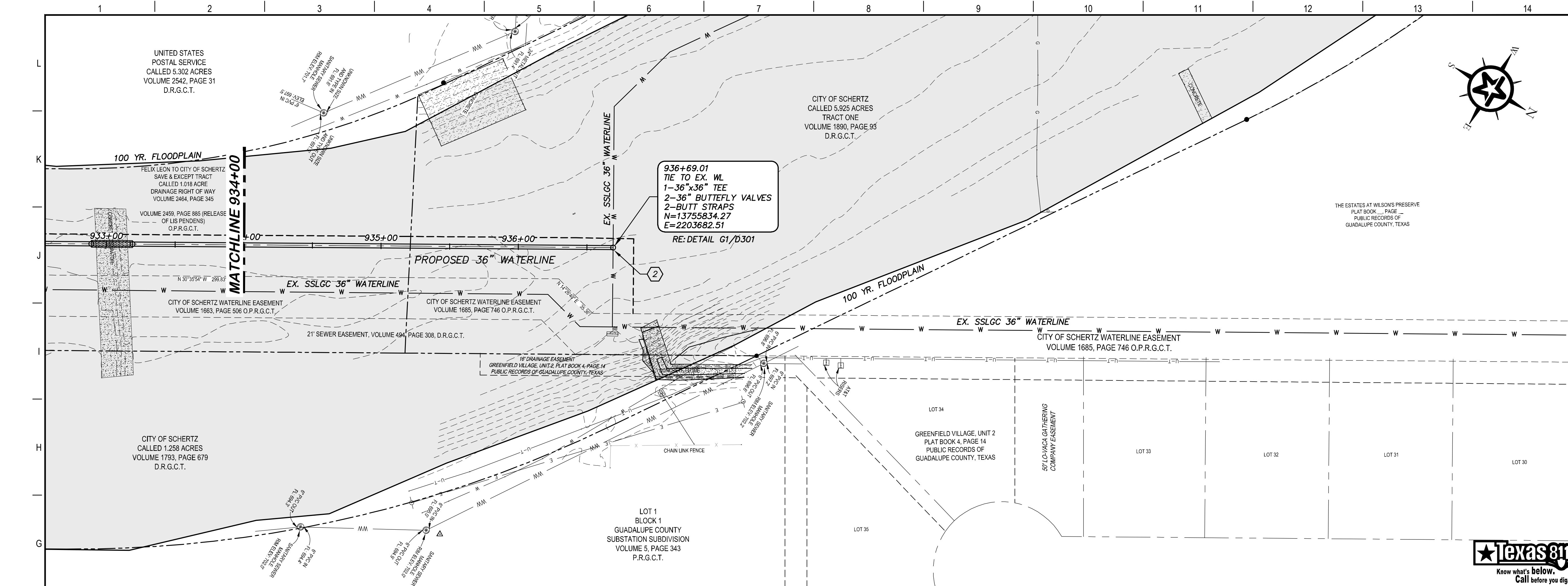
JOHN F. WINKLER  
CHECKED

JOHN F. WINKLER  
PROJECT NO. 1-03153

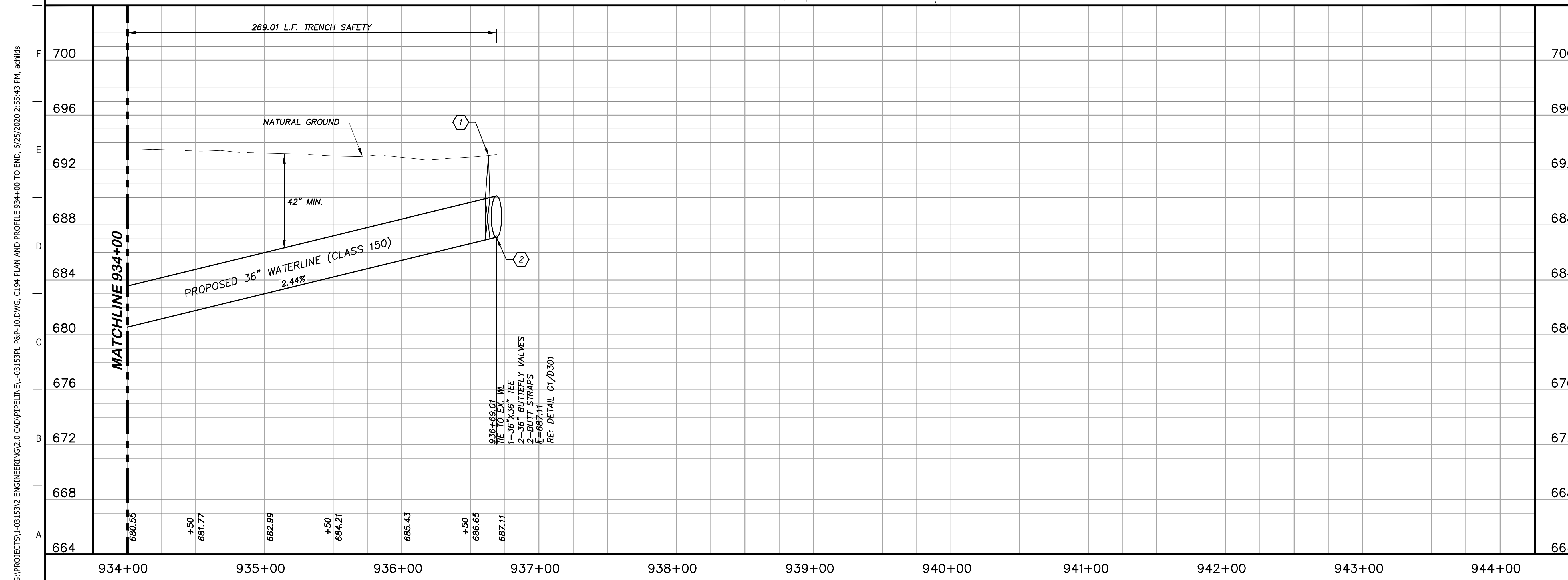
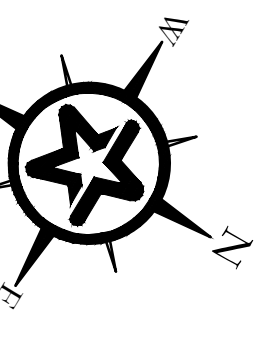
STATE OF TEXAS  
JOHN F. WINKLER  
50524  
REGISTERED PROFESSIONAL ENGINEER

DRAWING NO. **C193**



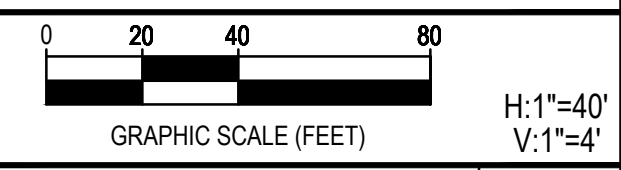


- ### KEY NOTES
- 1 BUTTERFLY VALVE (RE. DETAIL G1/D200)
  - 2 CONCRETE THRUST BLOCKING (RE. DETAIL G1/D206)



### GENERAL NOTES

1. TOPOGRAPHIC FEATURES INCLUDING TREES MAY NOT BE SHOWN OUTSIDE THE PERMANENT AND TEMPORARY EASEMENT.



REV.	DESCRIPTION	DATE



## SSLGC

TWDB PROJECT - PHASE 2

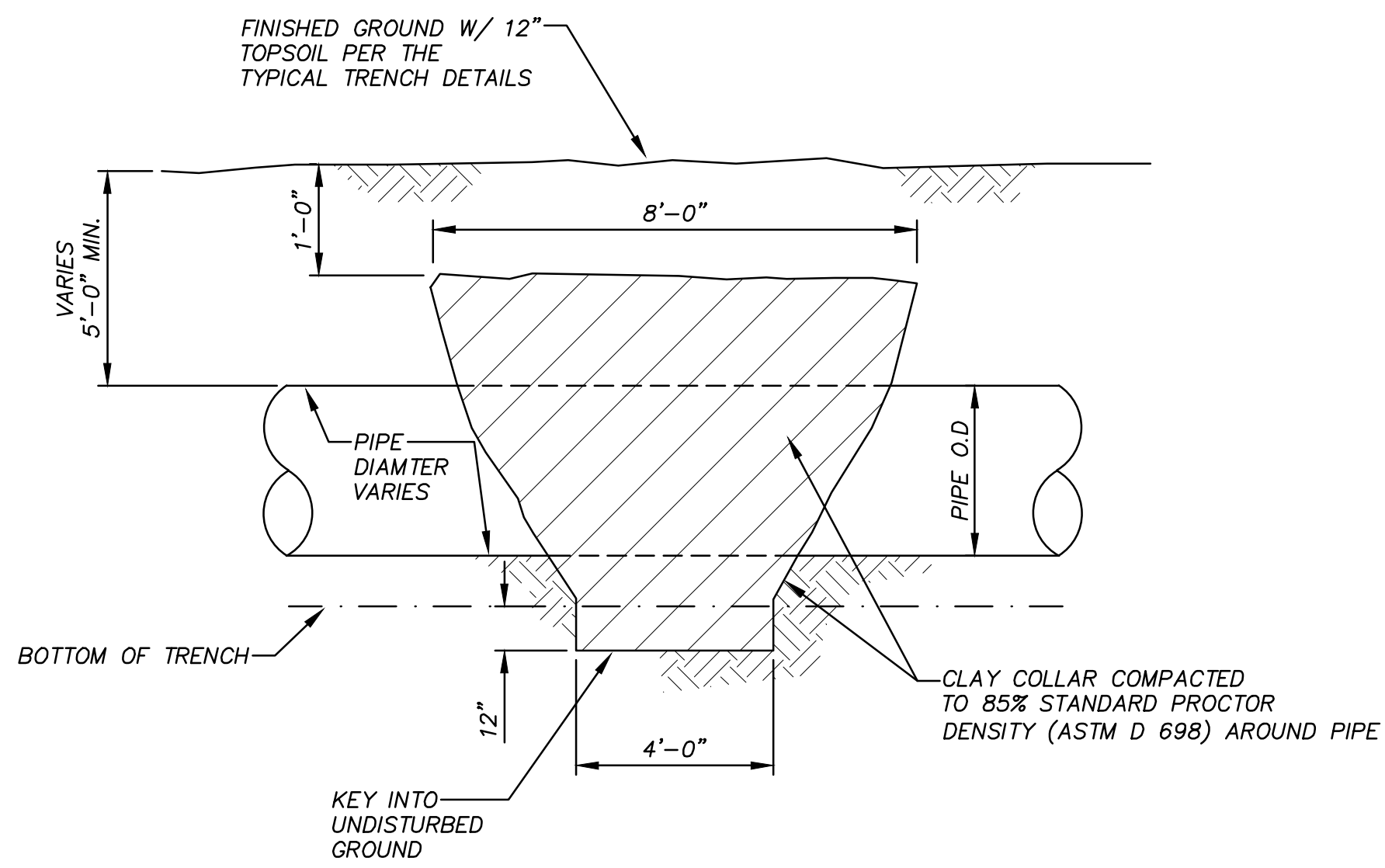
PLAN AND PROFILE  
934+00 TO END

4-13-2020  
DATE: *John F. Winkler*  
JOHN F. WINKLER

	DESIGNED	JFW
	DRAFTED	JFW
	CHECKED	ARC
	PROJECT NO.	JFW
DRAWING NO.		1-03153
		<b>C194</b>

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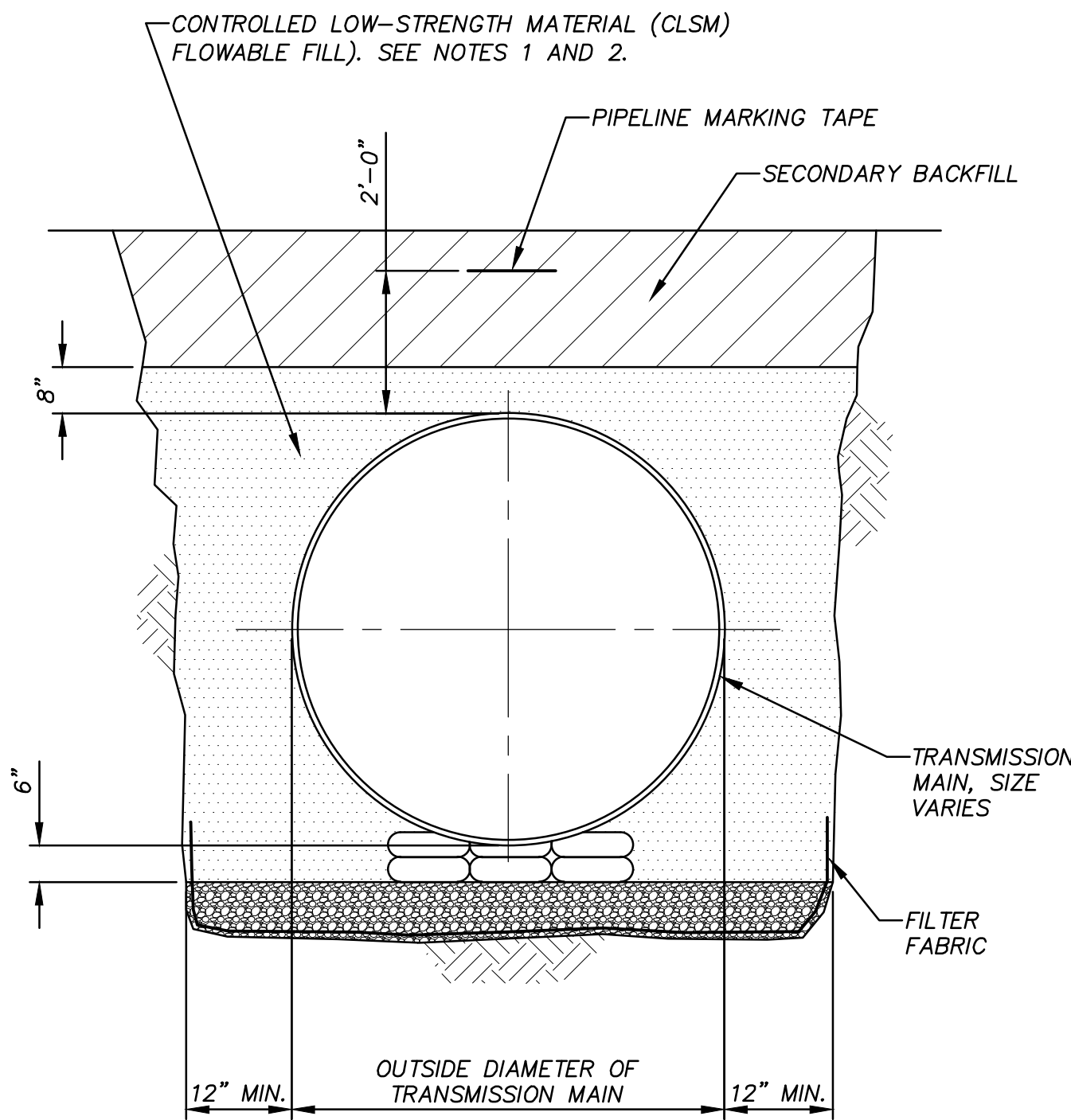
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1. CLAY SHALL HAVE P.I. NOT LESS THAN 20. CONTRACTOR TO SUBMIT LABORATORY DATA (BASIC SOIL CLASSIFICATION AND ATTERBERG LIMITS) FOR PROPOSED CLAY MATERIAL.
2. SEE PLAN AND PROFILE SHEETS FOR LOCATION OF CLAY COLLARS.
3. TWO SACK (PER CUBIC YARD) FIELD-MIXED SOIL CEMENT OR FLOWABLE FILL BACKFILL MAY BE USED IN PLACE OF CLAY.

**G1** TRENCH DAM DETAIL

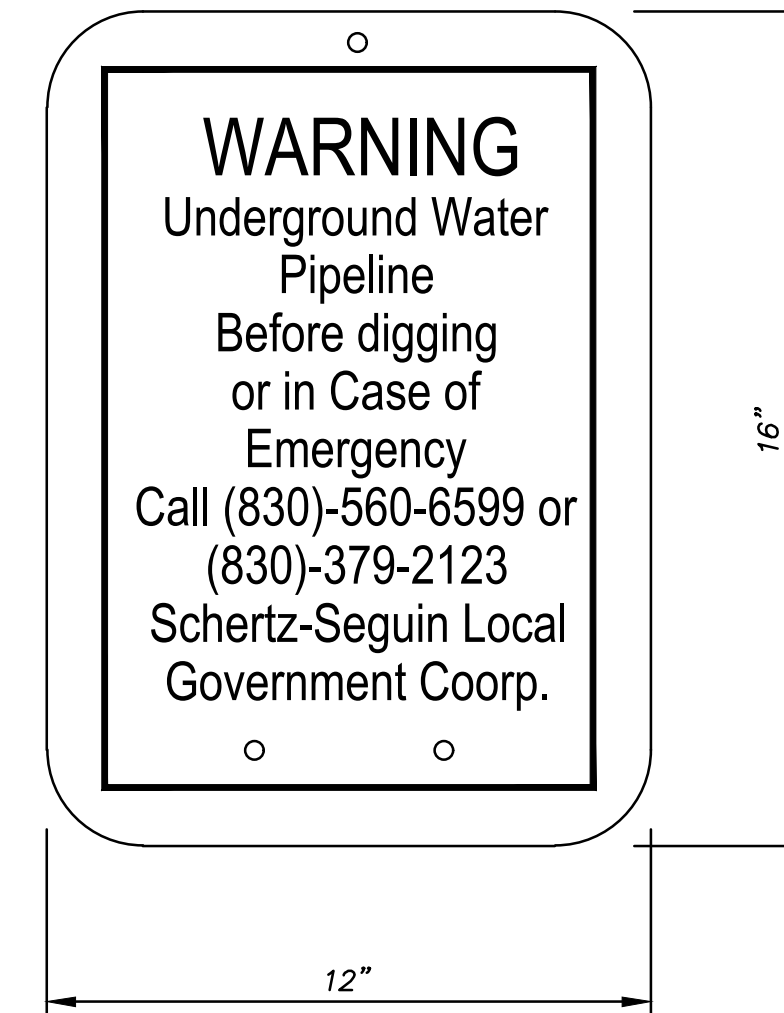
N.T.S.



1. CONTRACTOR SHALL TAKE REQUIRED PREVENTIVE MEASURES TO HOLD PIPE IN PLACE TO PREVENT PIPE FLOATATION DURING PLACEMENT OF CONTROLLED LOW STRENGTH MATERIAL (CLSM)
2. CLSM SHALL BE CLASS A AND B AS SPECIFIED IN SECTION 31 23 24 CONTROLLED LOW-STRENGTH MATERIAL (FLOWABLE FILL).

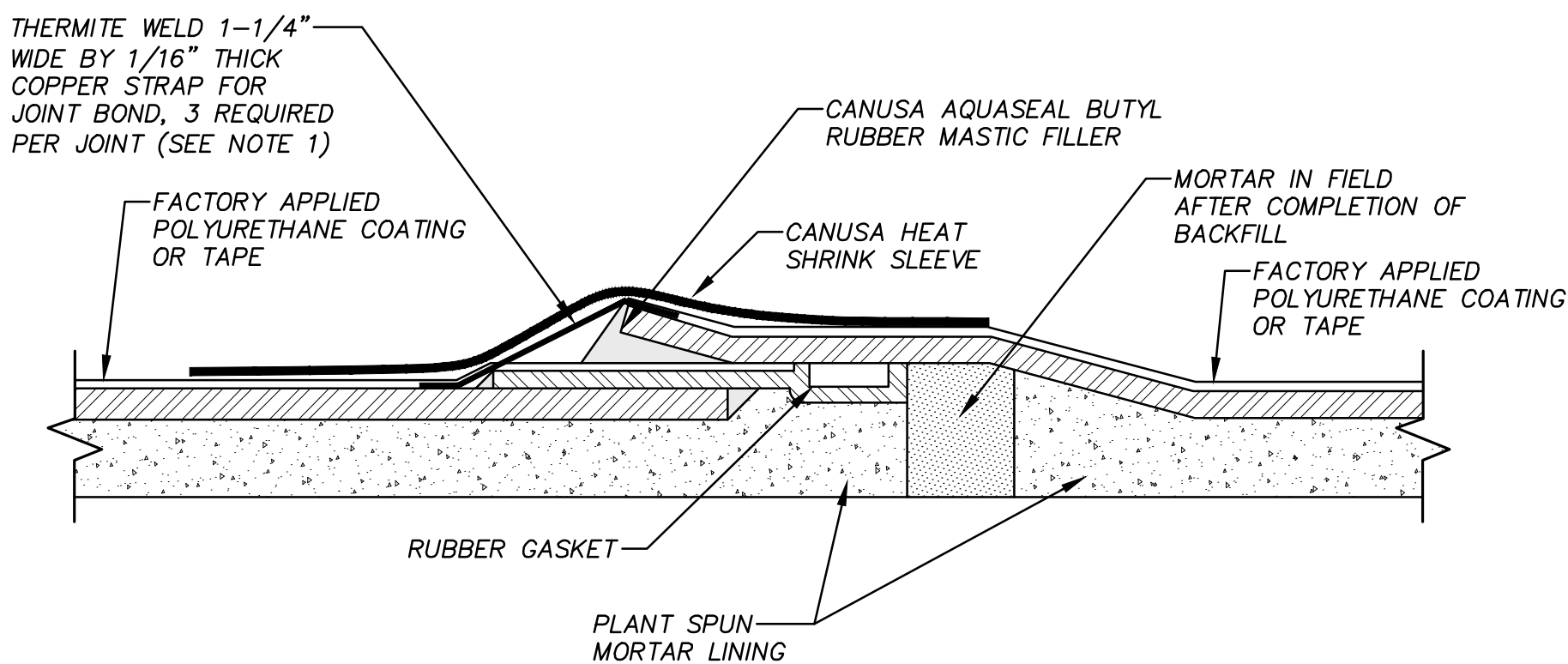
**G6** FLOWABLE FILL PIPE ENCASEMENT

N.T.S.



**G11** SSLGC FENCE SIGN DETAIL

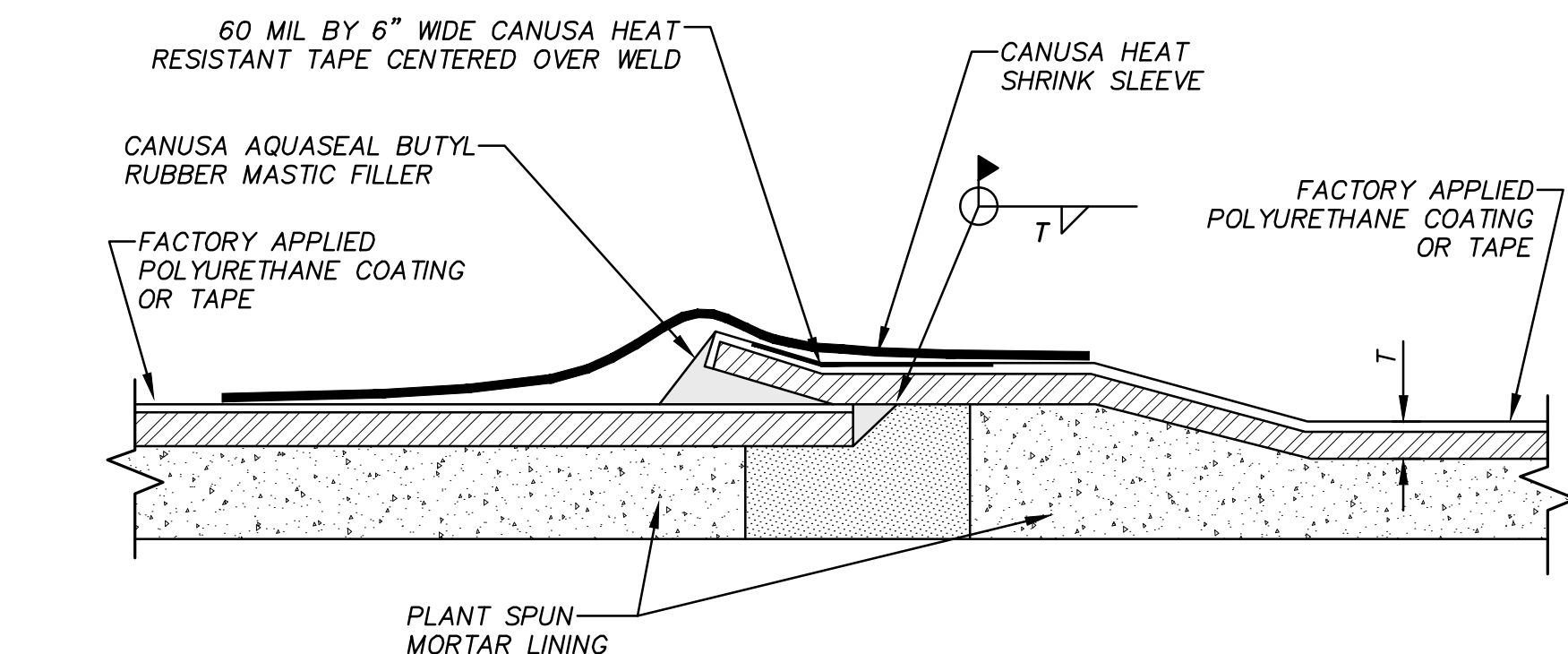
N.T.S.



- NOTES:**
1. COPPER STRAP SHALL BE 12" LONG WITH PUNCHED HOLES AT EACH END TO FACILITATE THERMITE WELDING TO PIPE. POWER GRIND WELD AREA TO BARE METAL.
  2. ROLLED SPIGOT RUBBER GASKET JOINT MAY BE USED IN LIEU OF CARNEGIE JOINT FOR STEEL PIPE 42" AND SMALLER, AND FOR 250 PSI CLASS OR LESS.

**D1** JOINT DETAIL POLYURETHANE COATED STEEL PIPE

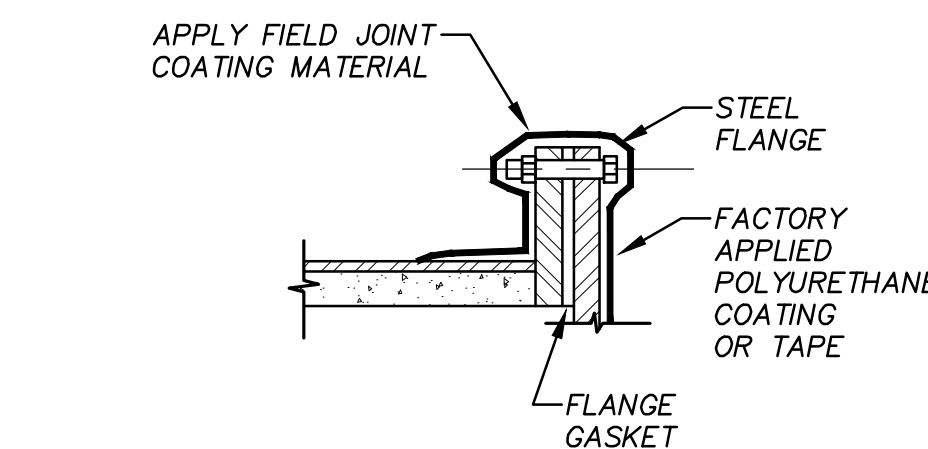
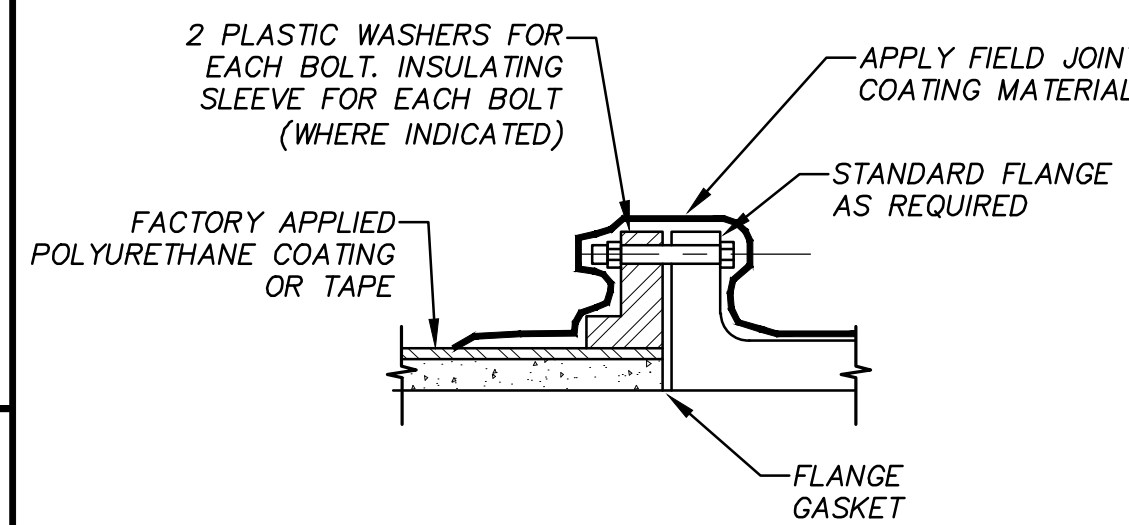
N.T.S.



- NOTES:**
1. COPPER STRAP SHALL BE 12" LONG WITH PUNCHED HOLES AT EACH END TO FACILITATE THERMITE WELDING TO PIPE. POWER GRIND WELD AREA TO BARE METAL.
  2. ROLLED SPIGOT RUBBER GASKET JOINT MAY BE USED IN LIEU OF CARNEGIE JOINT FOR STEEL PIPE 42" AND SMALLER, AND FOR 250 PSI CLASS OR LESS.

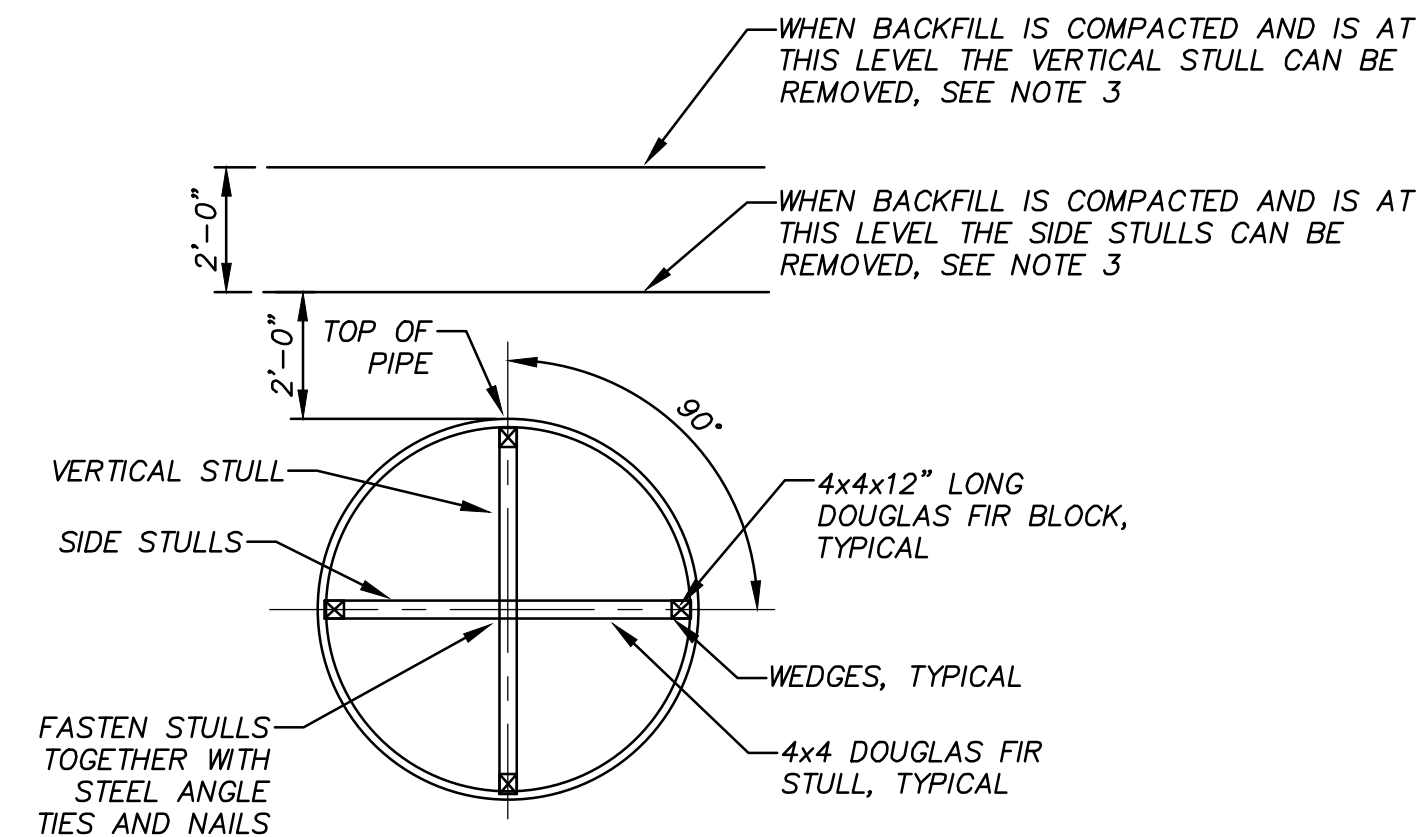
**A1** WELDED JOINT DETAIL POLYURETHANE COATED STEEL PIPE

N.T.S.



**A8** FLANGED CONNECTIONS FOR STEEL PIPE

N.T.S.



- NOTES:**
1. STULLING SHALL BE INSTALLED AS SPECIFIED IN THE SPECIFICATIONS AND AT MINIMUM 1/3 POINTS OF EACH PIPE SECTION FOR JOINTS UP TO 36' LONG, AND ONE SET OF STULLS SHALL BE SET AT 1/4 POINTS FOR JOINTS 36' TO 50' LENGTH.
  2. STULLING SHALL BE INSTALLED AT PIPE FACTORY PRIOR TO SHIPPING AND SHALL NOT BE REMOVED UNTIL COMPACTED BACKFILL IS INSTALLED. AS PER THIS DETAIL.
  3. COMPACTED BACKFILL DEPTHS MAY VARY IF THE TYPE OF COMPACTION EQUIPMENT CAUSES PIPE DEFLECTION BEYOND ALLOWABLE LIMITS. CONTRACTOR SHALL MONITOR AND CONTROL DEFLECTION.

**A11** PIPE STULLING DETAIL

N.T.S.

SCALE: N.T.S.

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers \* surveyors  
T.B.P.E. Registration No. 8053

**SSLGC**  
TWDB PROJECT - PHASE 2  
DETAILS

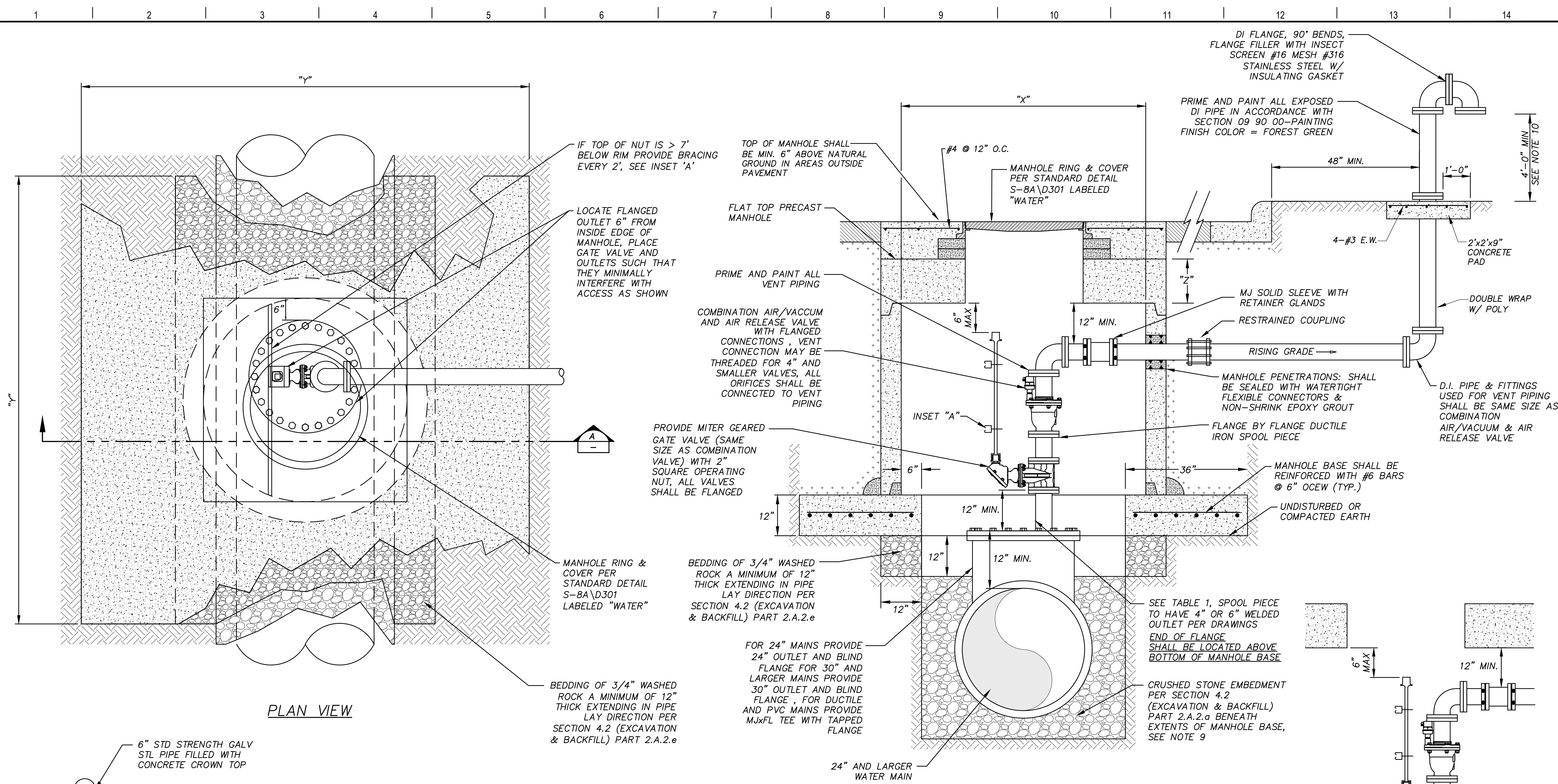
4-13-2020  
DATE

JOHN F. WINKLER  
PROFESSIONAL ENGINEER

DESIGNED: JFW  
DRAFTED: ARC  
CHECKED: JFW  
PROJECT NO.: 1-03153  
DRAWING NO.: D200



**GENERAL NOTES**



**PLAN VIEW**

**SECTION A-A - 4" & 6" COMBINATION ARV**

**DETAIL "B" - 2" COMBINATION ARV**

**TABLE 2: VALVE SELECTION**

NOM. PIPE Ø	VALVE SIZE
24"	PER DRAWINGS
30"	PER DRAWINGS
36"	PER DRAWINGS
42"	PER DRAWINGS
48"	PER DRAWINGS
54"	PER DRAWINGS

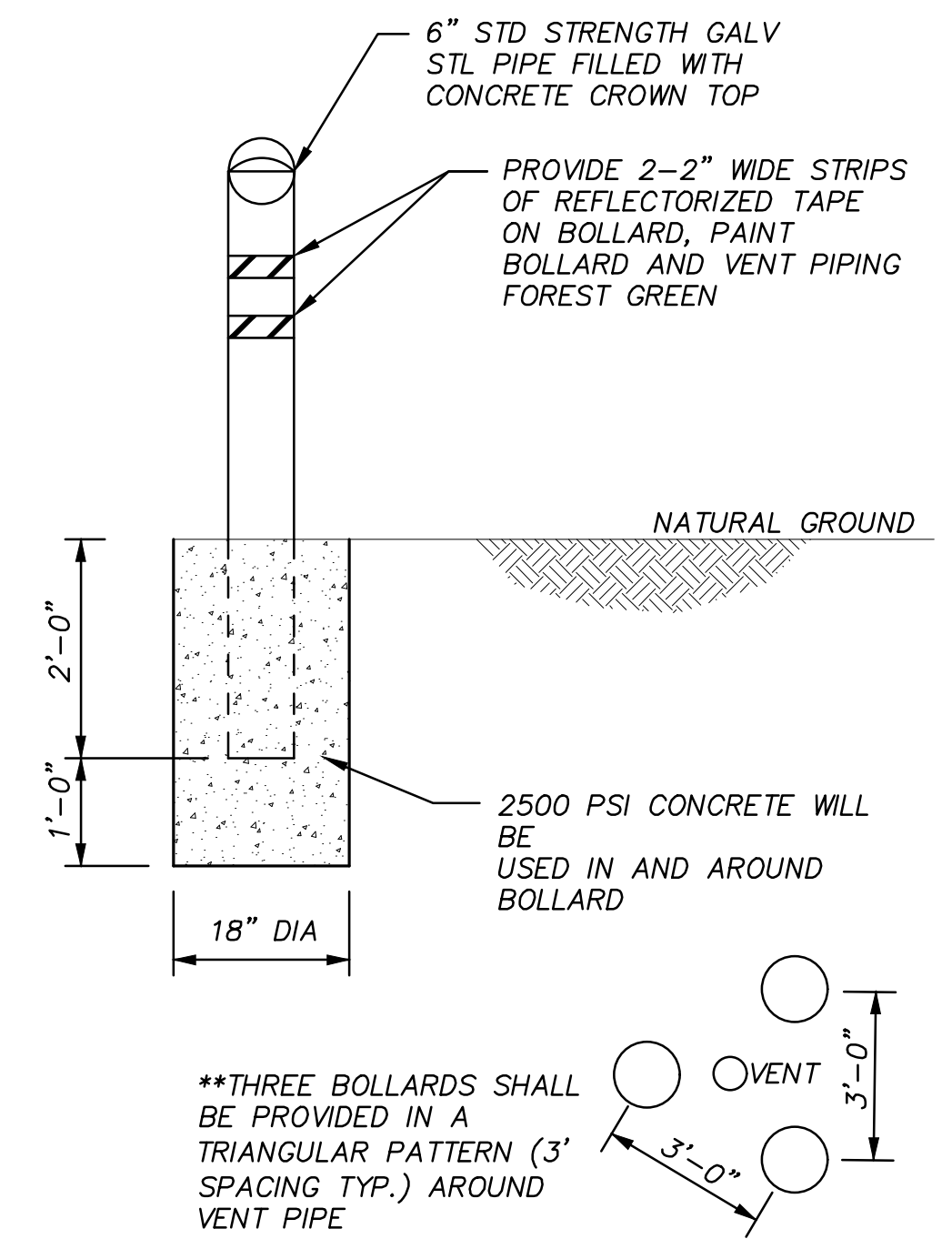
**TABLE 3: MANHOLE DIMENSIONS**

VALVE SIZE	"X" DIM.	"Y" DIM.	"Z" DIM.
2"	6'Ø	11'	13"
3"	6'Ø	11'	13"
4"	6'Ø	11'	13"
6"	7'Ø	12'	16"
8"	7'Ø	12'	16"

**TABLE 1: 2" TO 8" COMBINATION AIR VALVE ASSEMBLY MATERIALS**

MAIN MATERIAL	TEE/OUTLET	INLET PIPING	OUTLET PIPING	SPECIAL REQUIREMENTS
BURIED STEEL OR CONCRETE PRESSURE PIPE	FABRICATED STEEL REDUCING FLANGE	FLANGED STEEL	FLANGED DUCTILE IRON	PROVIDE ISOLATION KIT BETWEEN STEEL SPOOL PIECE AND GATE VALVE, WAX TAPE ALL FLANGES
DUCTILE IRON OR PVC PIPE	MJxFL TEE, BLIND FLANGE WITH THREADED OR WELDED FLANGED OUTLET	FLANGED DUCTILE IRON	FLANGED DUCTILE IRON	WAX TAPE ALL FLANGES

- NOTES:**
- VAULT TOP SHALL BE PER MANHOLE LID ASSEMBLY DETAILS AS INDICATED ON THE DRAWINGS.
  - MANHOLE LID MAY BE CAST IN MANHOLE TOP WHERE VERTICAL REQUIREMENTS PREVENT THE USE OF RISER RINGS.
  - VAULTS SHALL ONLY BE PRE-CAST MANHOLES.
  - SECURE VALVE TO VAULT WALL WITH STAINLESS STEEL BRACKET BY GRINELL OR APPROVED EQUAL.
  - INLET PIPING, ISOLATION VALVE AND VENT PIPING SHALL BE SAME SIZE AS AIR RELEASE VALVE AS SPECIFIED IN THE DRAWINGS.
  - ORIENT VALVE IN VAULT SUCH THAT OPERATING NUT IS 6" FROM MANHOLE EDGE AS SHOWN IN DETAIL.
  - PIPE PENETRATION THROUGH VAULT WALL SHALL BE SEALED WITH WATERTIGHT FLEXIBLE CONNECTORS & NON-SHRINK EPOXY GROUT.
  - WHERE TOP OF OPERATING NUT IS GREATER THAN 7" BELOW RIM, PROVIDE BRACING PER INSET 'A' EVERY 2'.
  - PROVIDE A FILTER FABRIC BARRIER UPSTREAM AND DOWNSTREAM OF ROCK EMBEDMENT UNDER AIR VALVE VAULT.
  - VERIFY THAT LOCATION OF SCREEN IS 2 FOOT ABOVE 100-YEAR FLOOD PLAIN ELEVATION OR 4 FEET ABOVE NATURAL GROUND, WHICHEVER IS HIGHER.
  - ALL COMPONENTS SHOWN ARE INCLUDED AS PART OF THE COMBINATION AIR/VACUUM AND AIR RELEASE VALVE & VAULT BID ITEMS.
  - ALL BOLTS SHALL BE 316 STAINLESS STEEL.
- VALVE TYPES:**
- 6" COMBINATION AIR/VACUUM AND AIR RELEASE VALVE SHALL BE VACUUM BREAKER TYPE CLA-VAL MODEL NO.386VB/34AR316.
  - 2" & 4" COMBINATION AIR/VACUUM AND AIR RELEASE VALVE SHALL BE VACUUM BREAKER TYPE CLA-VAL MODEL NO.33A.



**A1 COMBINATION AIR VALVE ASSEMBLY - 2" TO 8" VALVES**

REV.	DESCRIPTION	DATE

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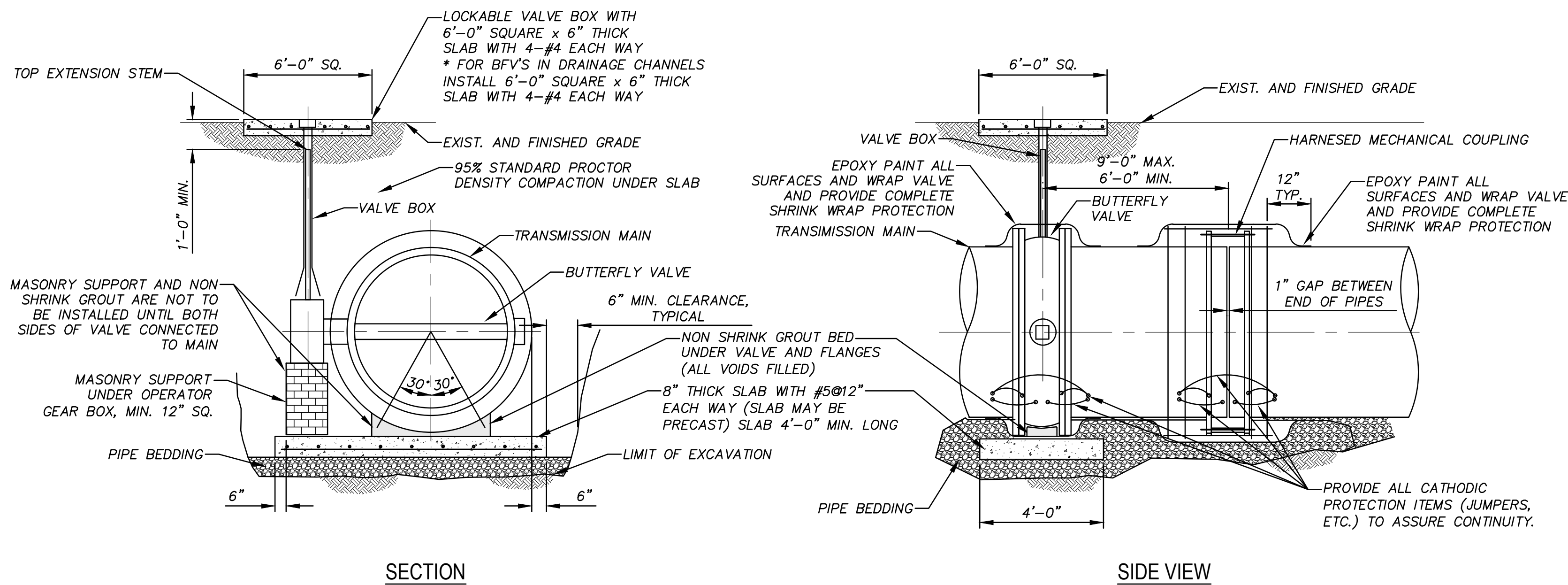
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4-13-2020  
DATE

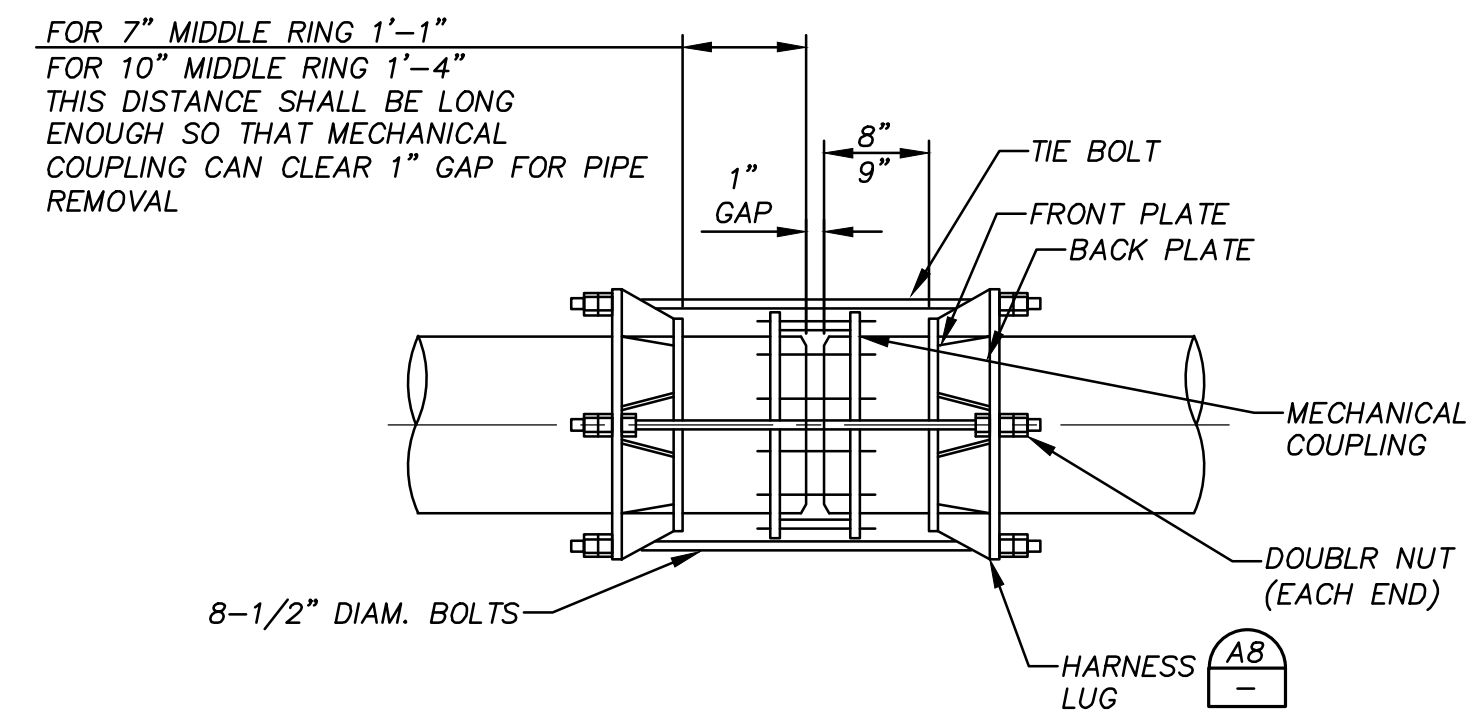
JOHN F. WINKLER  
DESIGNED: JFW  
DRAFTED: ARC  
CHECKED: JFW  
PROJECT NO.: 1-03153  
DRAWING NO.: **D201**

STATE OF TEXAS  
JOHN F. WINKLER  
50524  
REGISTERED PROFESSIONAL ENGINEER

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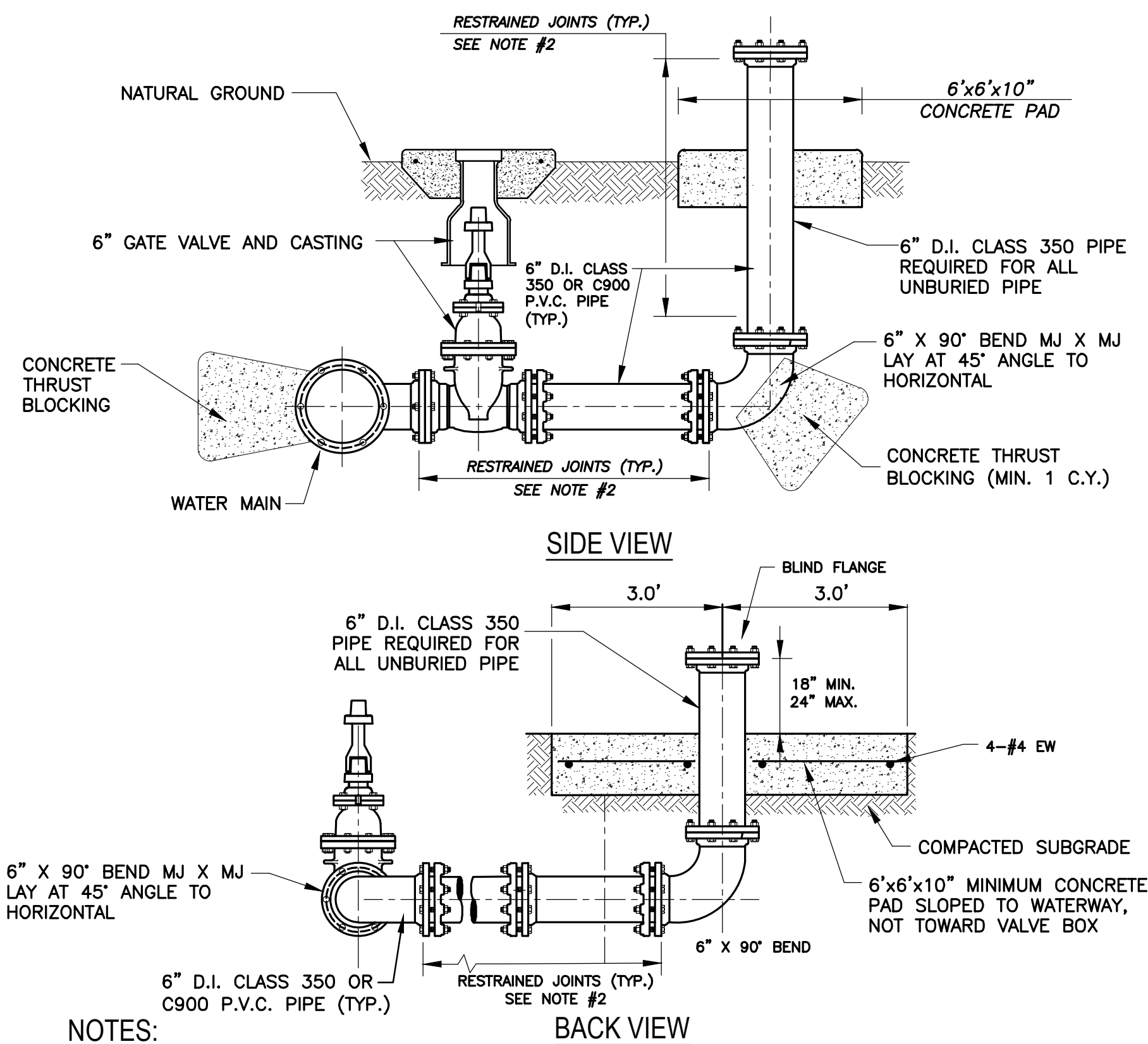
- NOTES:
1. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI UNLESS OTHERWISE INDICATED.
  2. MINIMUM CLEARANCE FOR REINFORCING SHALL BE 2".
  3. BFV DISC MUST BE UNOBSTRUCTED WHEN OPENED.



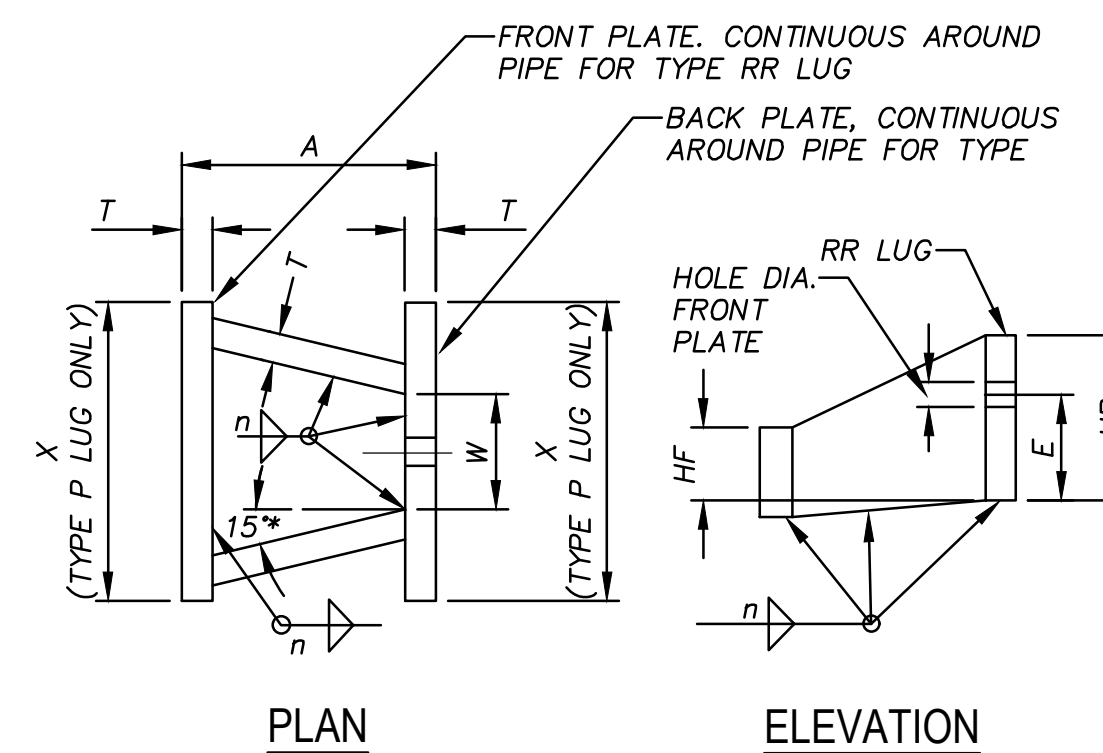
- NOTES:
1. UNLESS OTHERWISE INDICATED, TIE BOLTS SHALL BE SPACED UNIFORMLY AROUND THE PIPE, BEGINNING WITH THE FIRST TWO AT THE HORIZONTAL CL OF THE PIPE, SUBJECT TO THE APPROVAL OF THE ENGINEER.
  2. IN BURIED LOCATIONS THE CONTRACTOR IS CAUTIONED TO PROVIDE ALL CATHODIC PROTECTION ITEMS (JUMPERS, ETC.) TO ASSURE CONTINUITY, SEE CATHODIC PROTECTION SHEETS.
  3. IN BURIED LOCATIONS 100% SOLIDS EPOXY PAINT ALL SURFACES AND PROVIDE COMPLETE SHRINK WRAP PROTECTION. EXTEND HEAT SHRINK 12" BEYOND THE EDGES OF BOLTS OR APPURTENANCES BEING PROTECTED.
  4. BOLTS, NUTS, & WASHERS SHALL BE 316 S.S.

**G1 BUTTERFLY VALVE DETAIL**

**G10 STEEL PIPE HARNESSES MECHANICAL COUPLING WITH TYPE RR LUGS**



- NOTES:
1. WRAP 8 MIL. POLY-FILM WRAP ON ALL BURIED DUCTILE IRON PIPE AND FITTINGS.
  2. PROVIDE RESTRAINED JOINTS AND THRUST BLOCKING. FLG X FLG JOINTS ARE ACCEPTABLE FROM 90° BEND TO BLIND FLANGE.
  3. EXTERIOR SURFACES OF EXPOSED PIPE SHALL BE PAINTED SAFETY BLUE.



DIMENSIONS IN INCHES

TIE BOLT DIA.	T	A	Y	W	X	HB	E	HF	HOLE DIA
1 1/2	3/4	10	RING	2 1/4	RING	5 1/2	3 7/8	2 1/2	1 5/8

- NOTES:
1. n = PIPE WALL THICKNESS.
  2. FOR HARNESS LUG TYPE RR, THE GUSSET PLATES BETWEEN THE FRONT PLATE AND THE BACK PLATE MAY BE PERPENDICULAR TO THE FRONT AND BACK PLATES ON DIMENSION W. DIMENSION W SHALL BE INCREASED IF REQUIRED TO FACILITATE ROTATION OF THE TIE BOLT NUT.

**A1 BLOW OFF VALVE ASSEMBLY**

**A8 STEEL PIPE HARNESS LUG DETAIL**

REV.	DESCRIPTION	DATE



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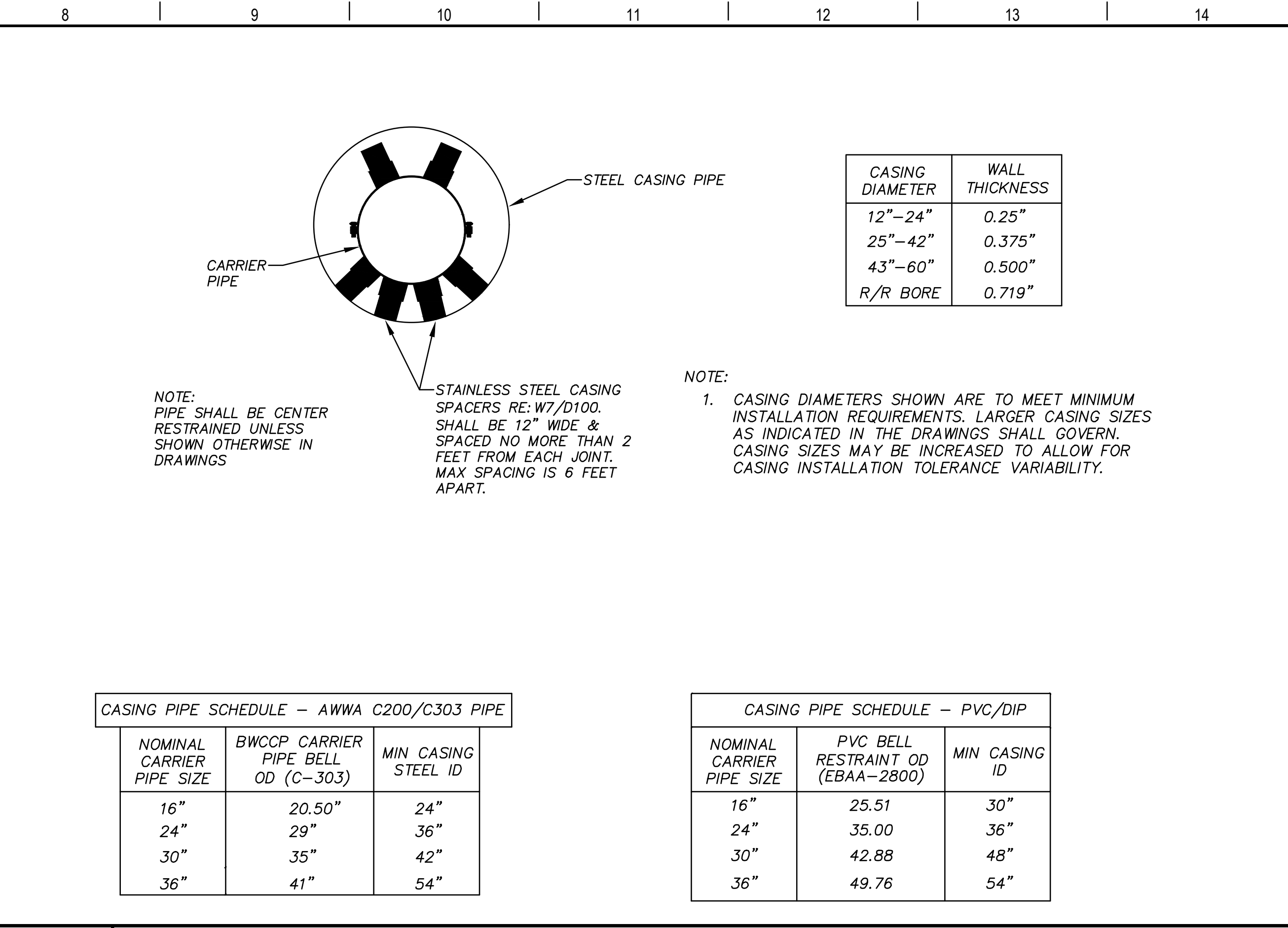
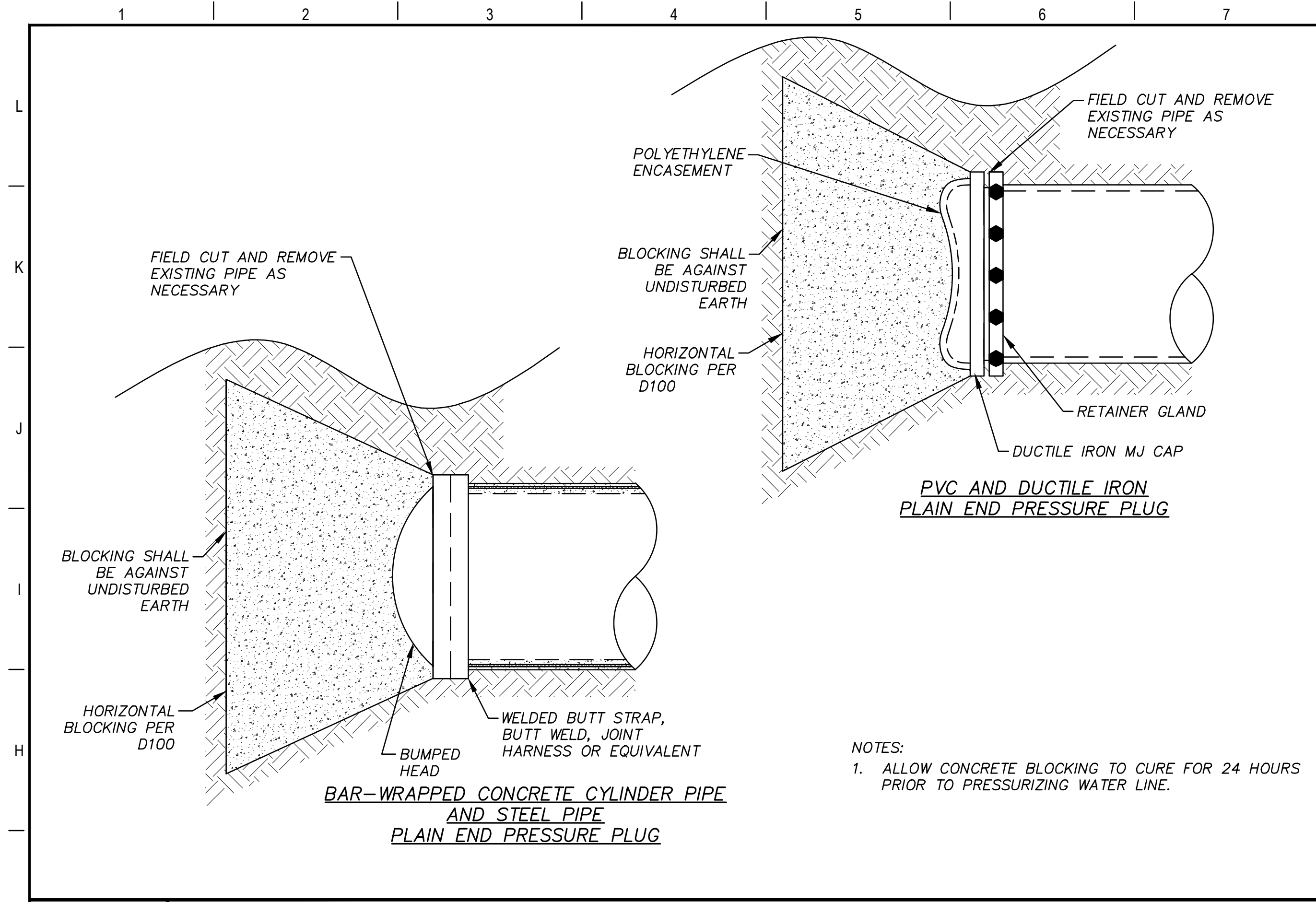
4-13-2020  
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DESIGNED	JFW
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PROJECT NO.	1-03153
DRAWING NO.	D202

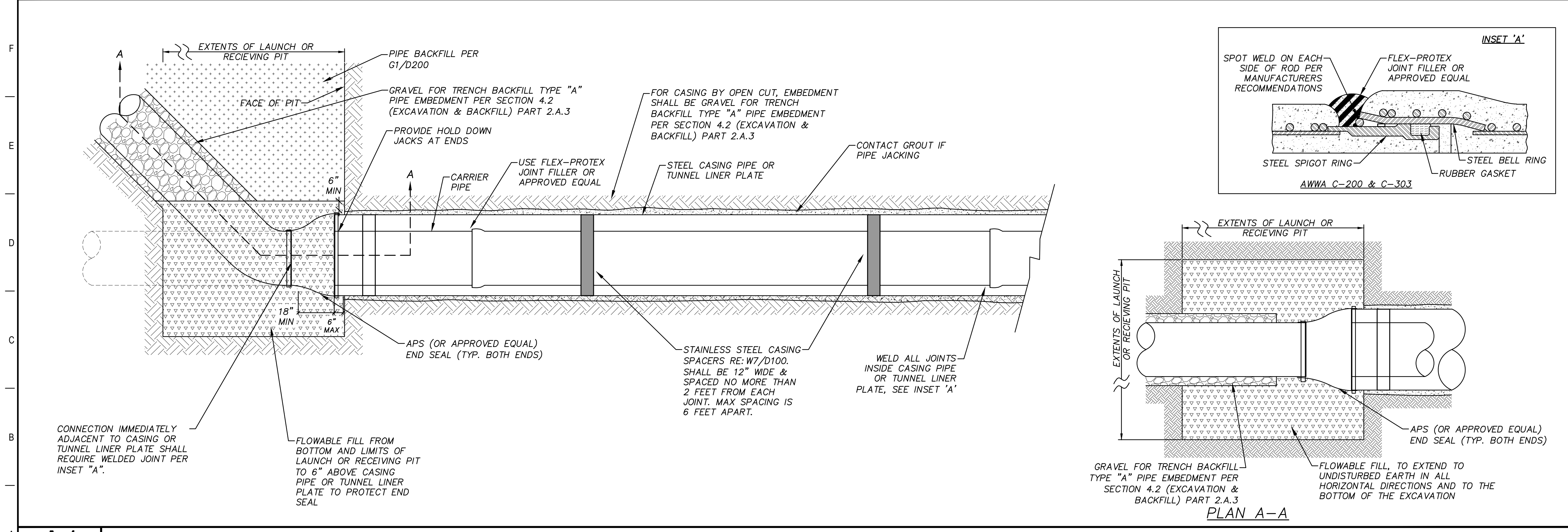
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**G1** PLAIN END PRESSURE PLUG  
N.T.S.

**G8** CASING PIPE DETAIL  
N.T.S.



**A1** CONCRETE PRESSURE PIPE CASING & TUNNEL LINER PLATE PROFILE

REV.	DESCRIPTION	DATE

**Walker Partners**  
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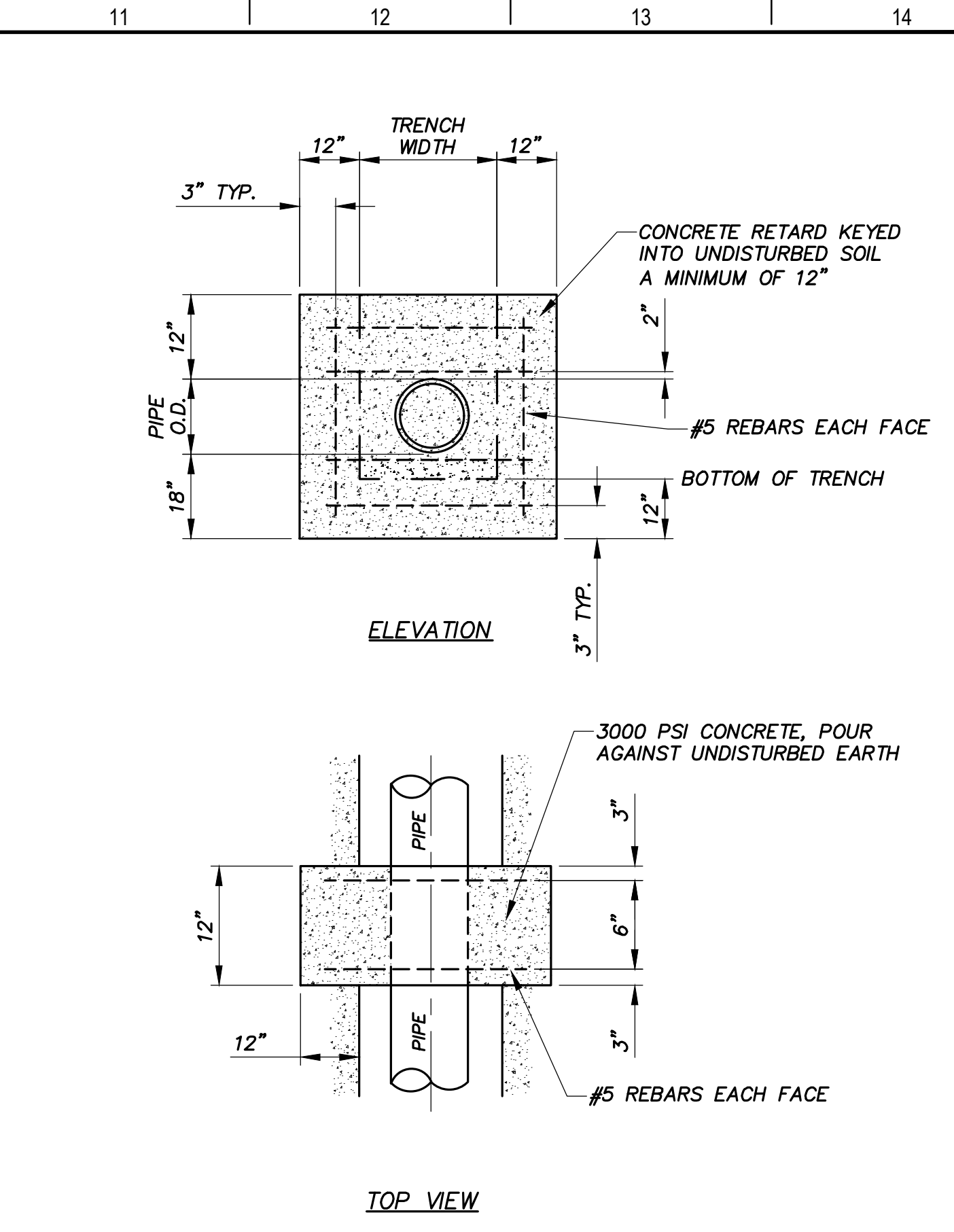
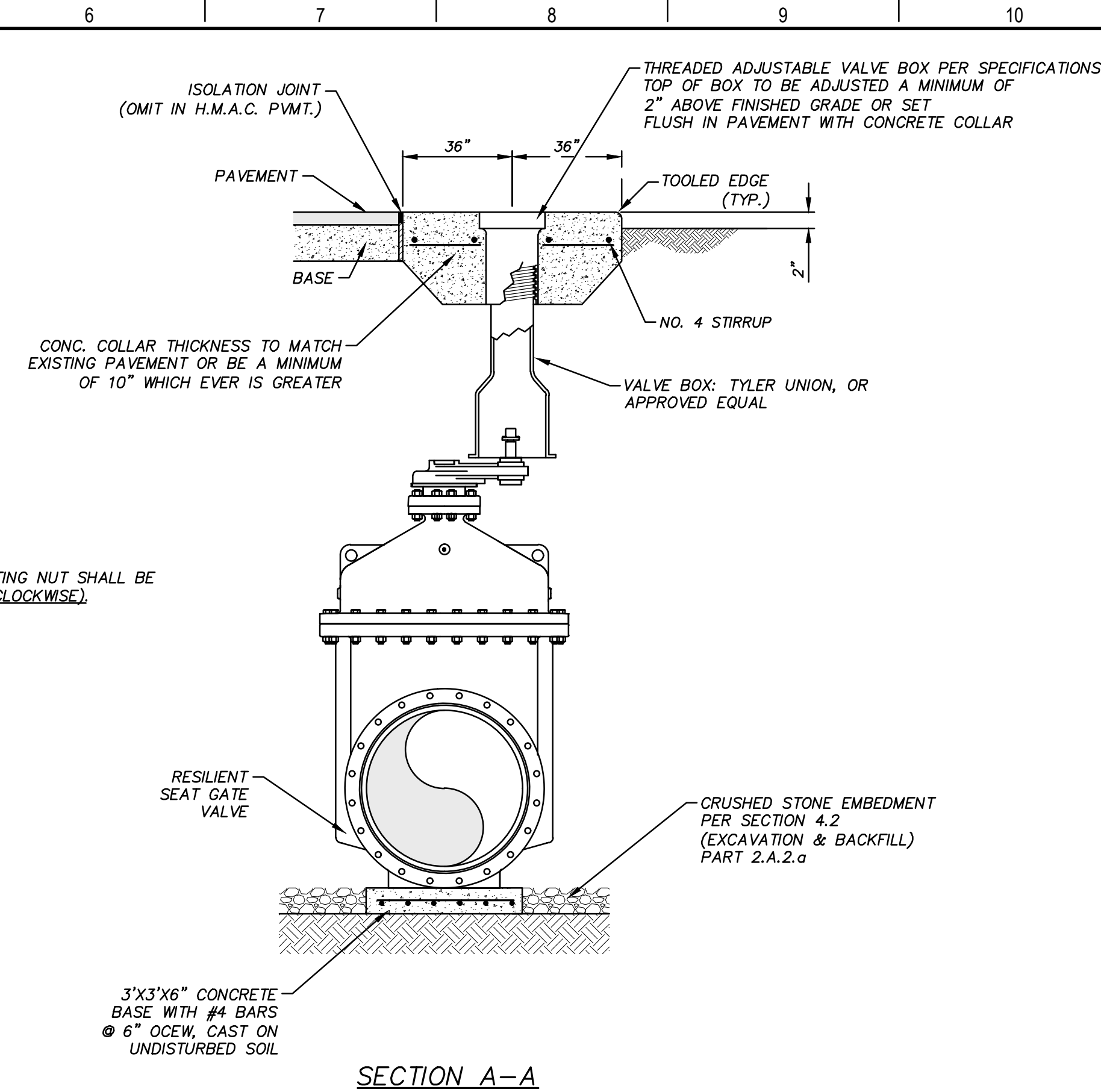
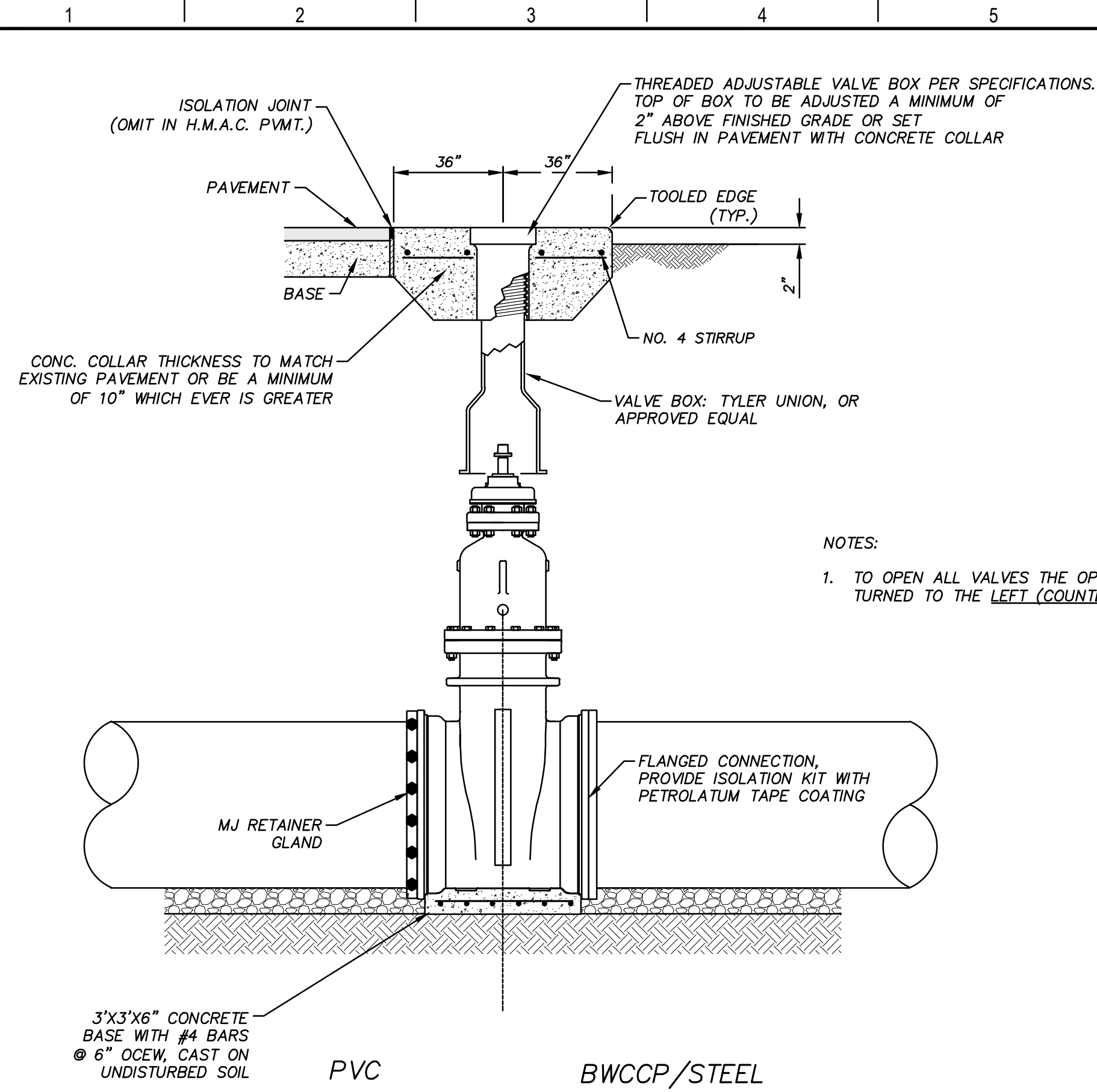
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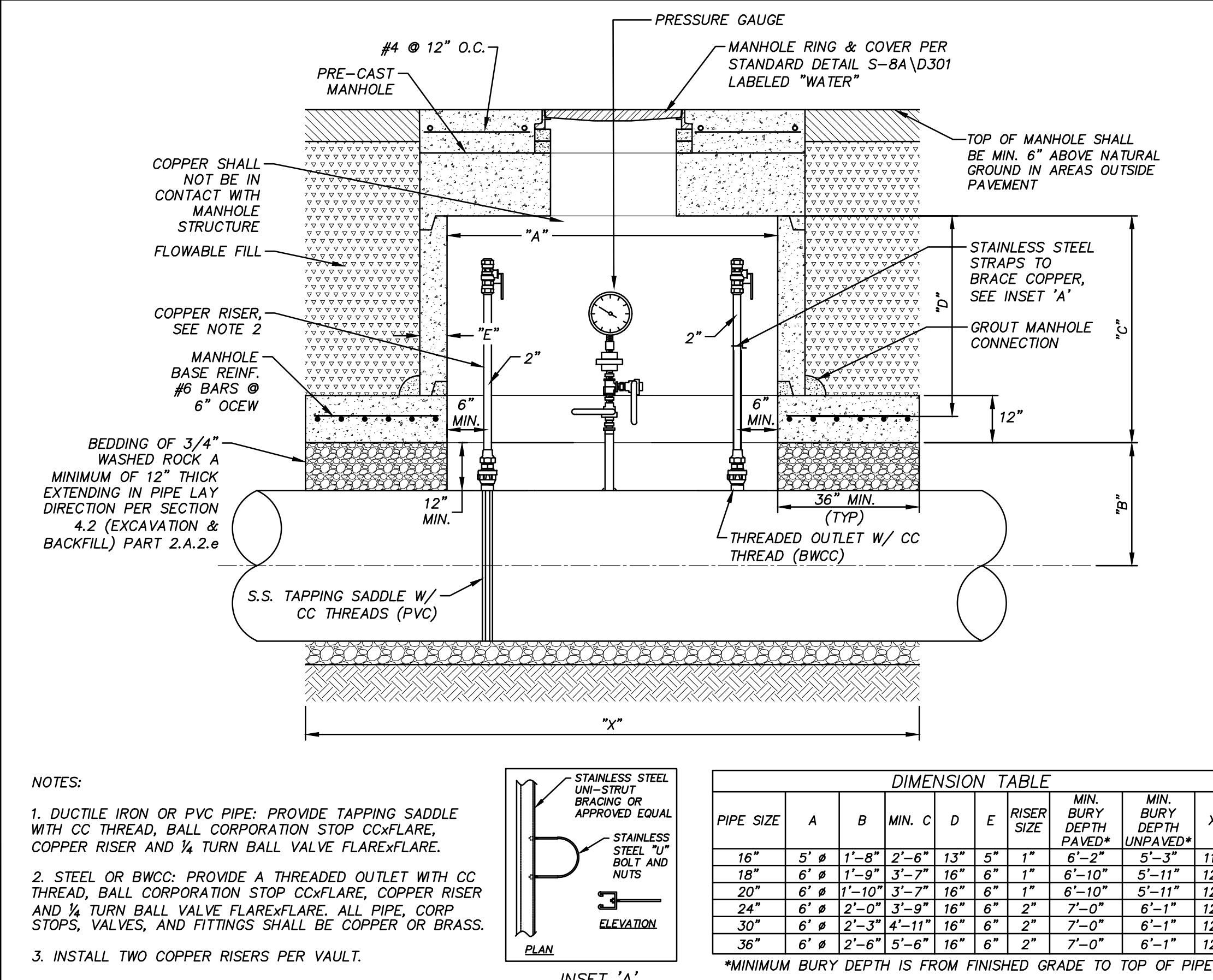
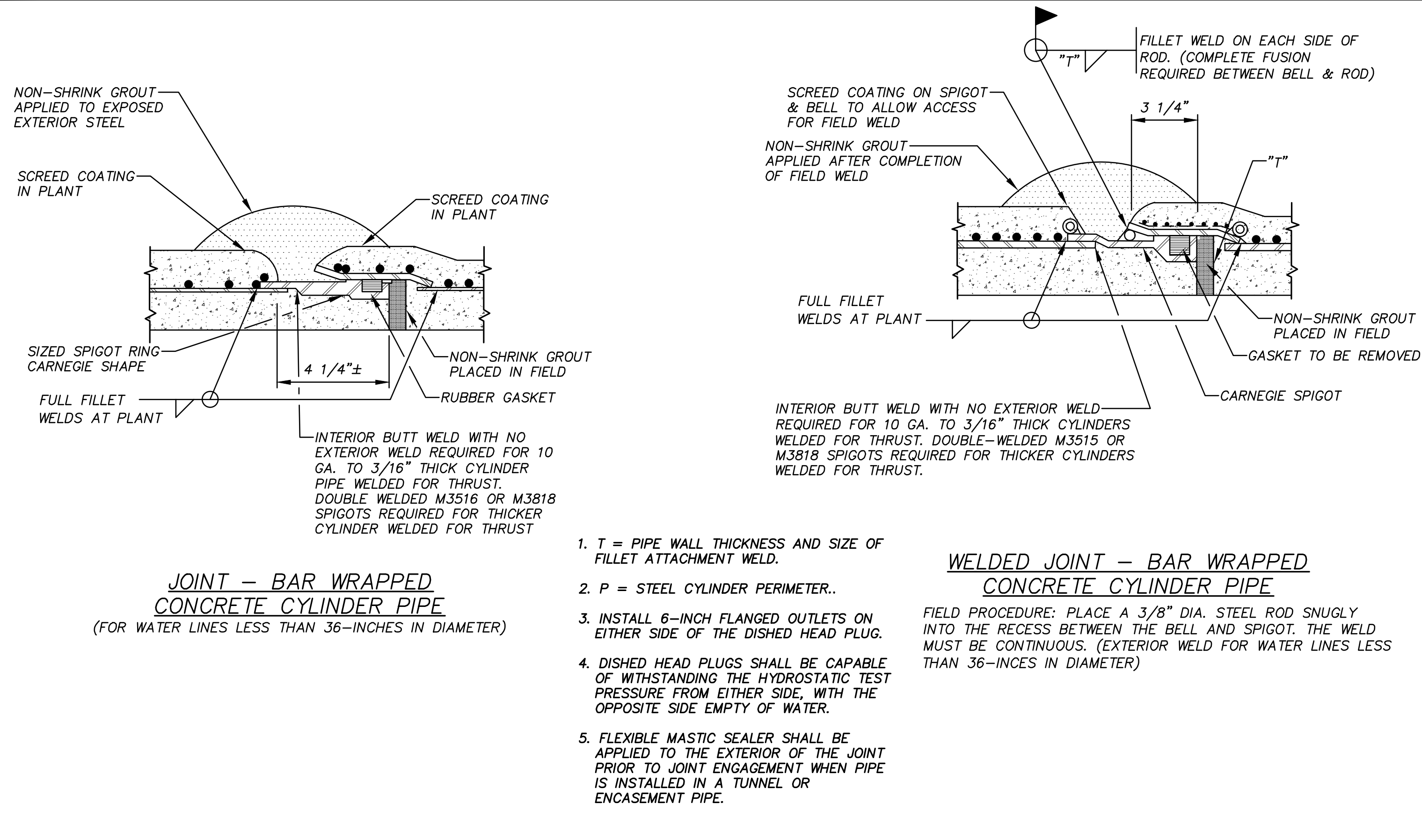
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**G1** BURIED GATE VALVE DETAIL  
N.T.S.

**G11** CONCRETE RETARD WALL DETAIL  
N.T.S.



**A1** WELDED JOINT DETAILS  
N.T.S.

**A9** PRESSURE TESTING VAULT  
N.T.S.

REV.	DESCRIPTION	DATE

**Walker Partners**  
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4-13-2020  
DATE

JOHN F. WINKLER  
DESIGNED: JFW  
DRAFTED: ARC  
CHECKED: JFW  
PROJECT NO.: 1-03153  
DRAWING NO.: **D204**

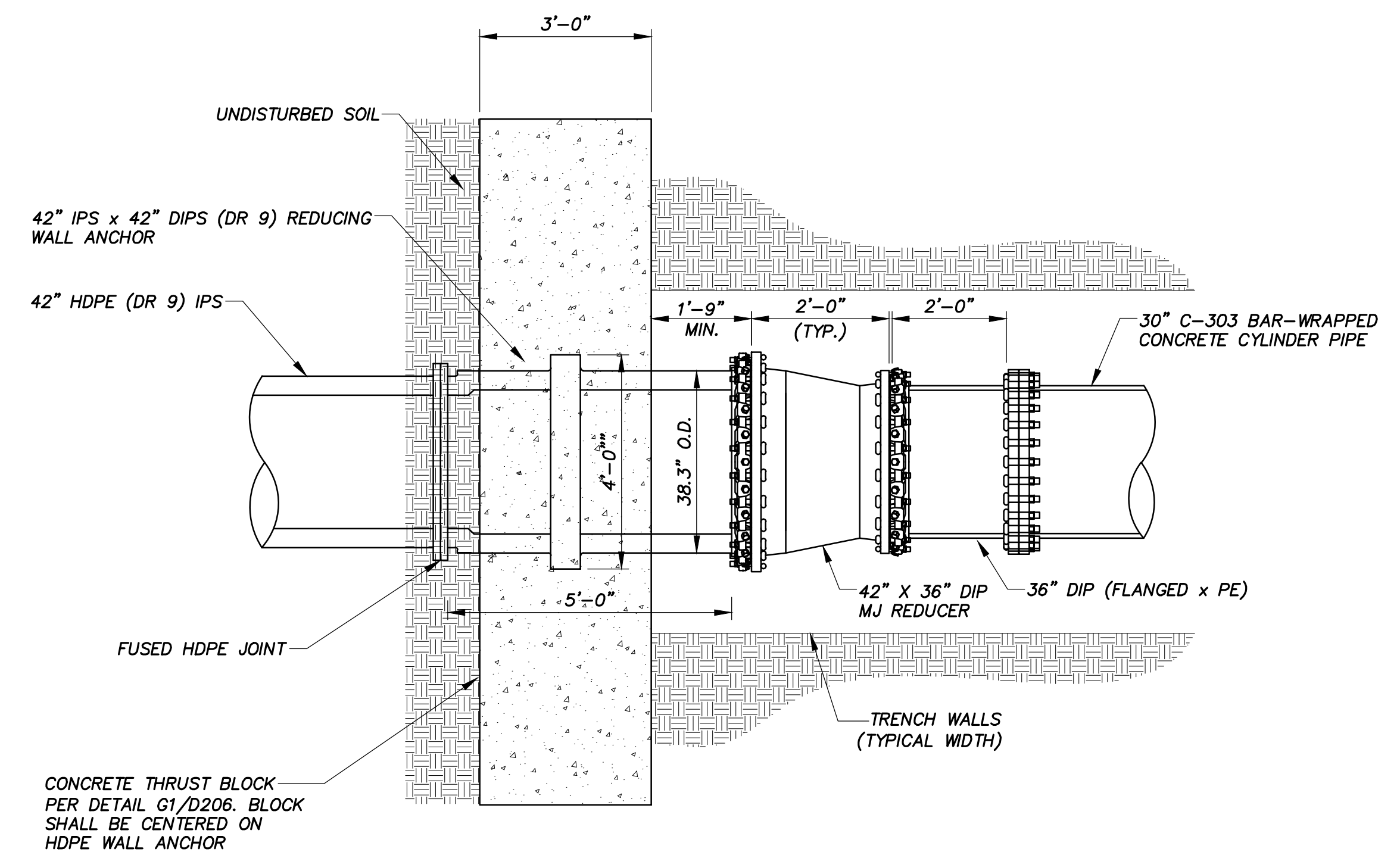
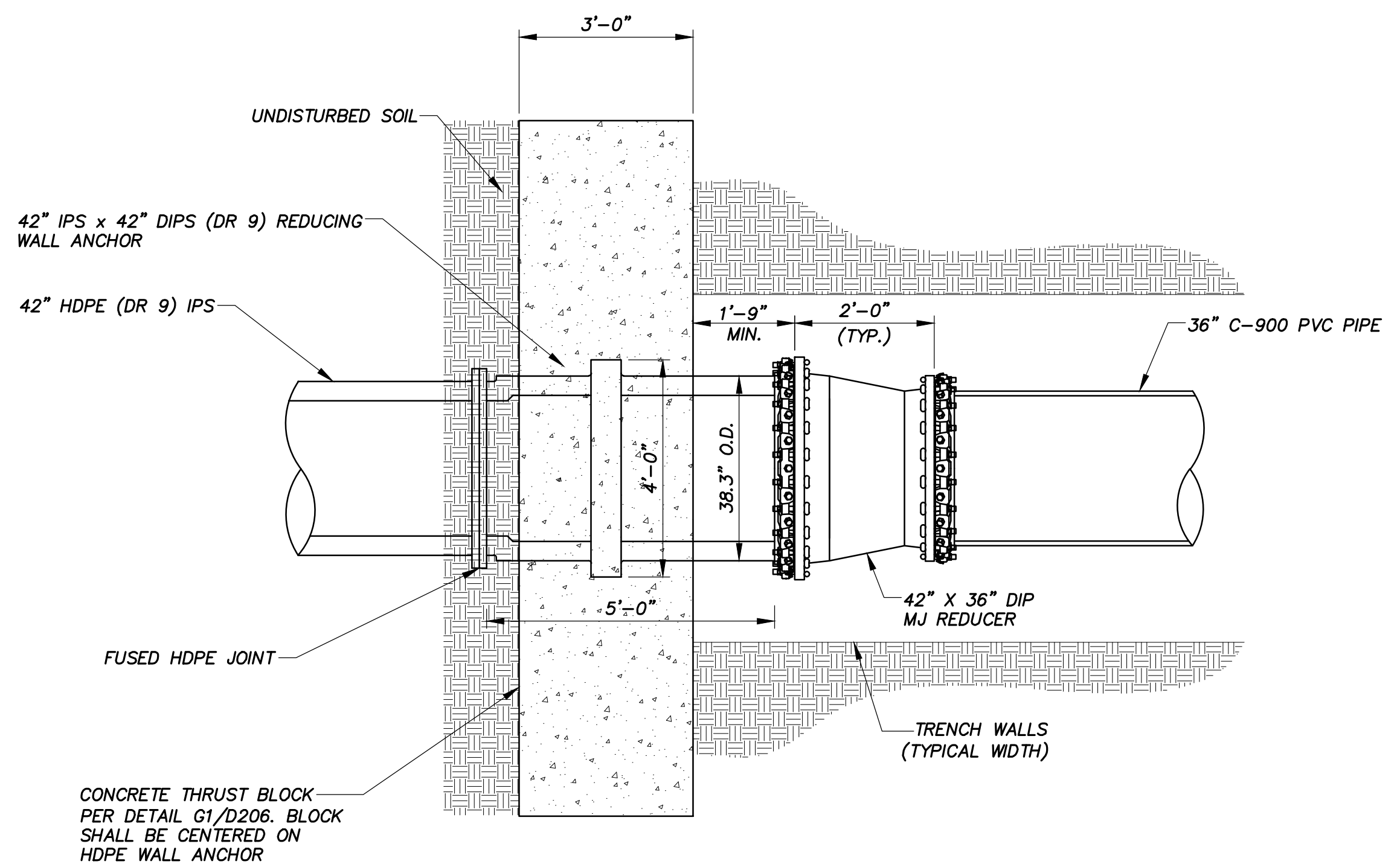
STATE OF TEXAS  
JOHN F. WINKLER  
50524  
REGISTERED PROFESSIONAL ENGINEER

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**GENERAL NOTES**

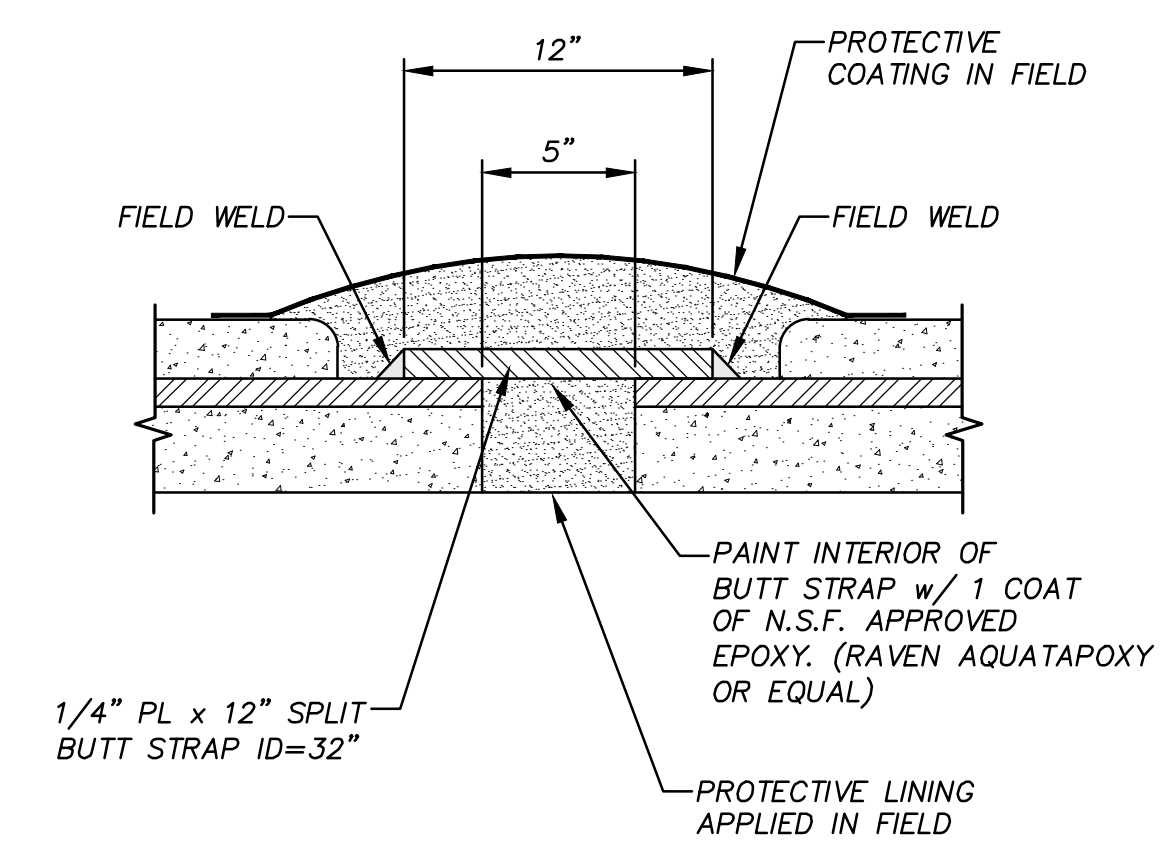
1. ALL MECHANICAL JOINTS SHALL BE RESTRAINED USING EBAA MEGALUG OR APPROVED EQUAL
2. CONCRETE FOR THRUST BLOCK SHALL MEET ALL REQUIREMENTS OF WACO STANDARD SPECIFICATIONS FOR CONSTRUCTION SECTION 5.1: CONCRETE AND REINFORCEMENT AND HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3,000 PSI (CLASS 'A').
3. CONTRACTOR SHALL BACKFILL WITH FLOWABLE FILL BETWEEN CONCRETE THRUST BLOCK AND UNDISTURBED, NATIVE SOILS; REFERENCE DETAIL G1/D200 FOR BACKFILL AROUND PIPING AND FITTINGS AND ABOVE CONCRETE THRUST BLOCK.

**G1** HDPE-PVC CONNECTION

N.T.S.

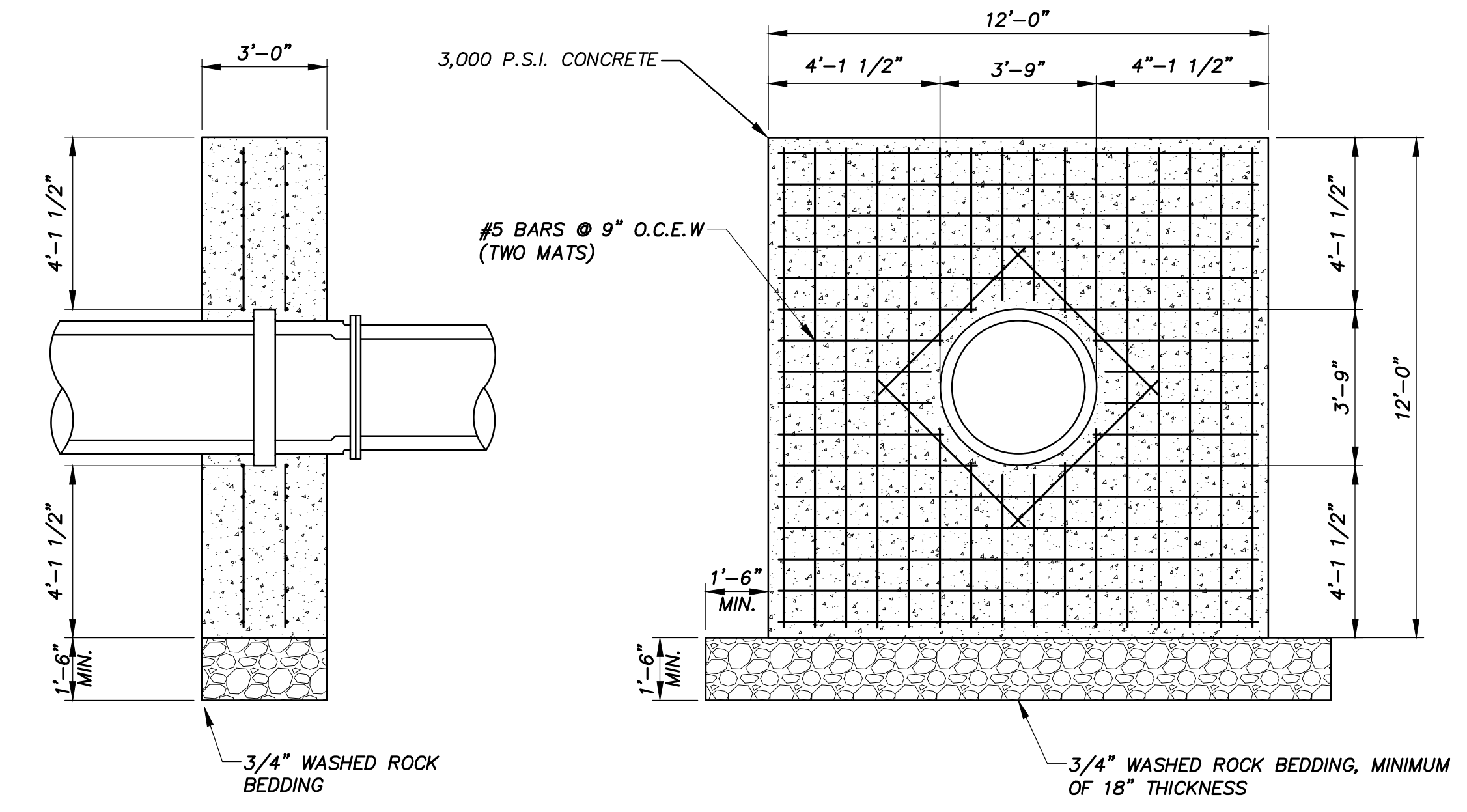
**G8** HDPE-BWCCP CONNECTION

N.T.S.



**A1** BUTT STRAP DETAIL

N.T.S.



**A8** CONCRETE THRUST BLOCK (PROFILE VIEW) FOR HORIZONTAL DIRECTION DRILL

N.T.S.

REV.	DESCRIPTION	DATE



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TWDB PROJECT - PHASE 2

DETAILS

4-13-2020  
DATE

*John F. Winkler*  
JOHN F. WINKLER

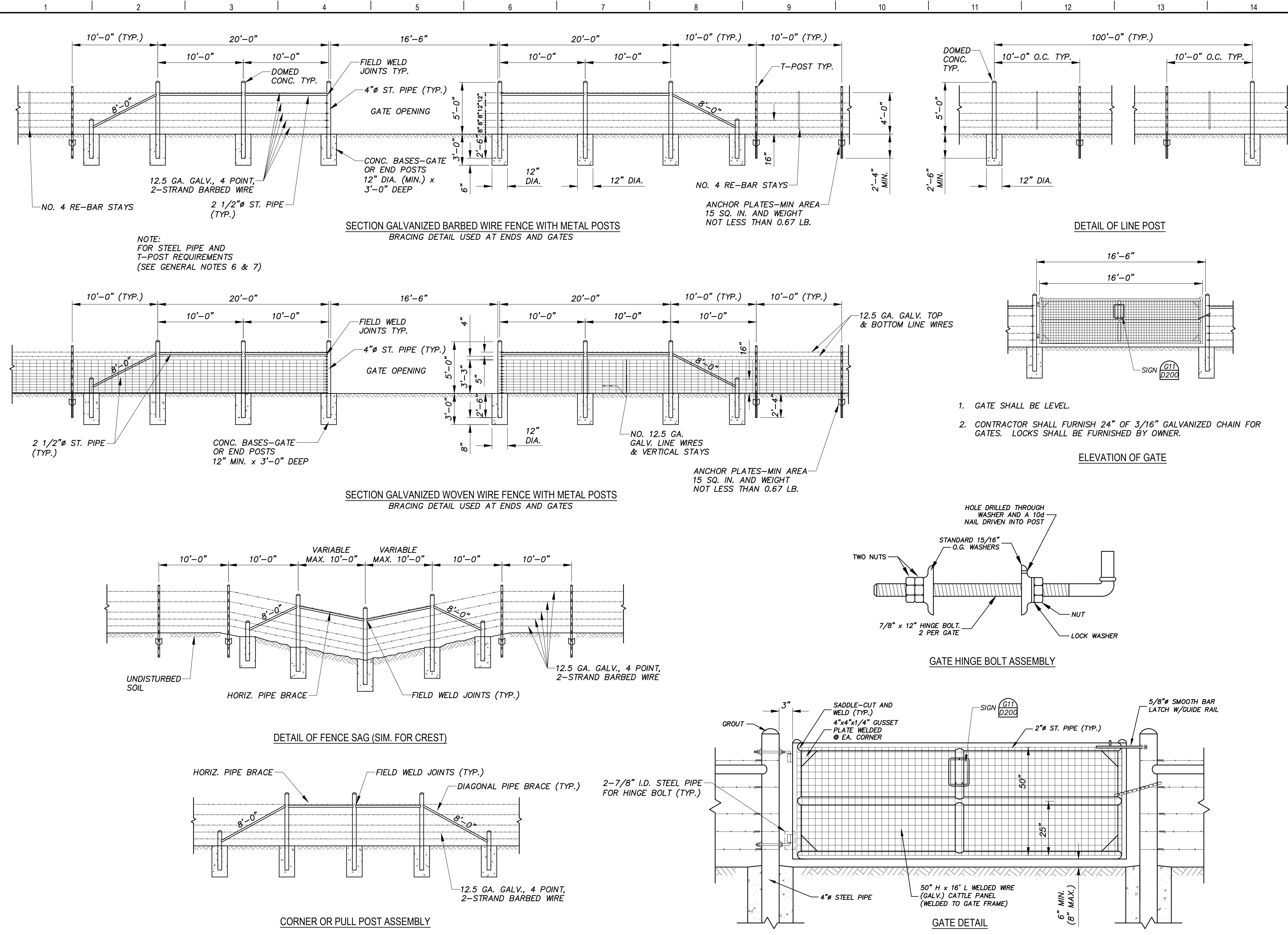
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DRAFTED	JFW
CHECKED	ARC
PROJECT NO.	JFW
	1-03153
DRAWING NO.	
	<b>D205</b>

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**GENERAL NOTES**

1. ANY HIGH POINT WHICH INTERFERES WITH THE PLACING OF WIRE MESH SHALL BE EXCAVATED TO PROVIDE A 2-INCH CLEARANCE.
2. LATCHES FOR GATES SHALL BE GOOD COMMERCIAL QUALITY AND DESIGN LATCH OF THE SPRING FORK OR CHAIN TYPE. ALL LATCHES SHALL BE SUITABLE TO THE GATE AND SHALL BE APPROVED BY THE ENGINEER.
3. HINGES FOR GATES SHALL BE A COMMERCIAL DESIGN APPROVED BY THE ENGINEER SUITABLE FOR POST AND GATE.
4. CONCRETE SHALL BE 2000 P.S.I. (MIN) CONCRETE FOOTINGS ARE TO BE CROWNED AT THE TOP TO SHED WATER.
5. STEEL ANCHOR PLATES SHALL BE OF A DESIGN AND THICKNESS SUFFICIENT TO PREVENT TURNING OF THE POST IN FIRM SOIL.
6. STEEL PIPE END POSTS, CORNER AND PULL POSTS SHALL BE A MINIMUM OF 4" STD. PIPE (4.5" O.D., 0.237" WALL THICKNESS) WITH A 2 1/2" STD. PIPE BRACE (2.875" O.D., 0.276" WALL THICKNESS). FASTENERS FOR SECURING BARBED WIRE OR WOVEN WIRE FENCE TO METAL POSTS SHALL BE A MINIMUM OF 11 GAUGE GALVANIZED STEEL WIRE. POSTS SHALL BE FITTED WITH WATER TIGHT IRON CAPS OR DOMED GROUT.
7. STEEL PIPE USED FOR POSTS AND BRACES, SHALL BE STANDARD PIPE IN ACCORDANCE WITH ASTM A 53, CLASS B OR A 501. FOR T-POSTS USE STEEL THAT MEETS ASTM A 702. STEEL T-POSTS SHALL BE NOT LESS THAN 7'-0" IN LENGTH AND SHALL WEIGH NOT LESS THAN (1.33 LBS./LN. FT.).
8. BARBED WIRE SHALL BE 12.5 GA. AND IN ACCORDANCE WITH ASTM A 121, CLASS 1 DESIGN DESIGNATION 12-2-4-1 4R OR 12-2-5-1 4R, OR AS APPROVED BY THE ENGINEER.
9. WOVEN WIRE FENCE SHALL BE IN ACCORDANCE WITH ASTM A 116, CLASS 1 NO. 12.5 GRADE 60 (SEE TABLE 1 ASTM A 116) TO THE HEIGHT AND DESIGN SHOWN ON THE PLANS, OR AS APPROVED BY THE ENGINEER.
10. THE LOCATION OF GATES WILL BE AS INDICATED ELSEWHERE IN THESE PLANS.

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers \* surveyors  
T.B.P.E. Registration No. 8053

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TWDB PROJECT - PHASE 2

DETAILS

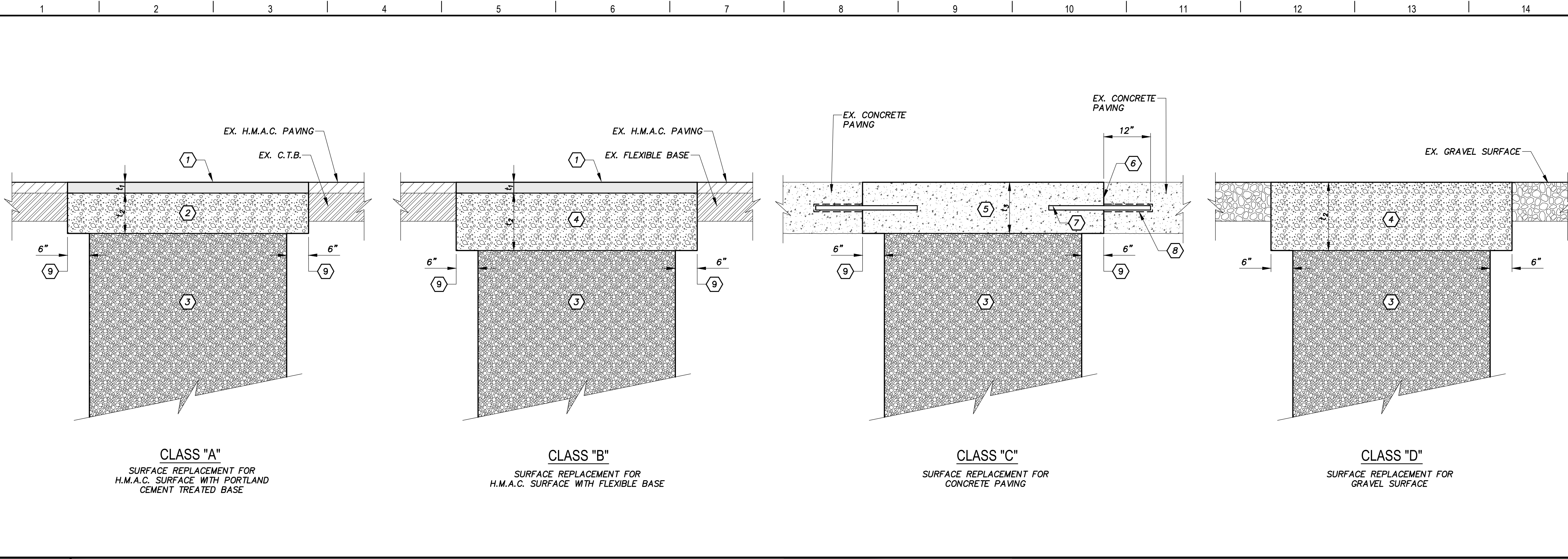
4-13-2020  
DATE

JOHN F. WINKLER  
DATE

JOHN F. WINKLER  
50524  
REGISTERED PROFESSIONAL ENGINEER

DESIGNED	JFW
DRAFTED	ARC
CHECKED	JFW
PROJECT NO.	1-03153
DRAWING NO.	D207

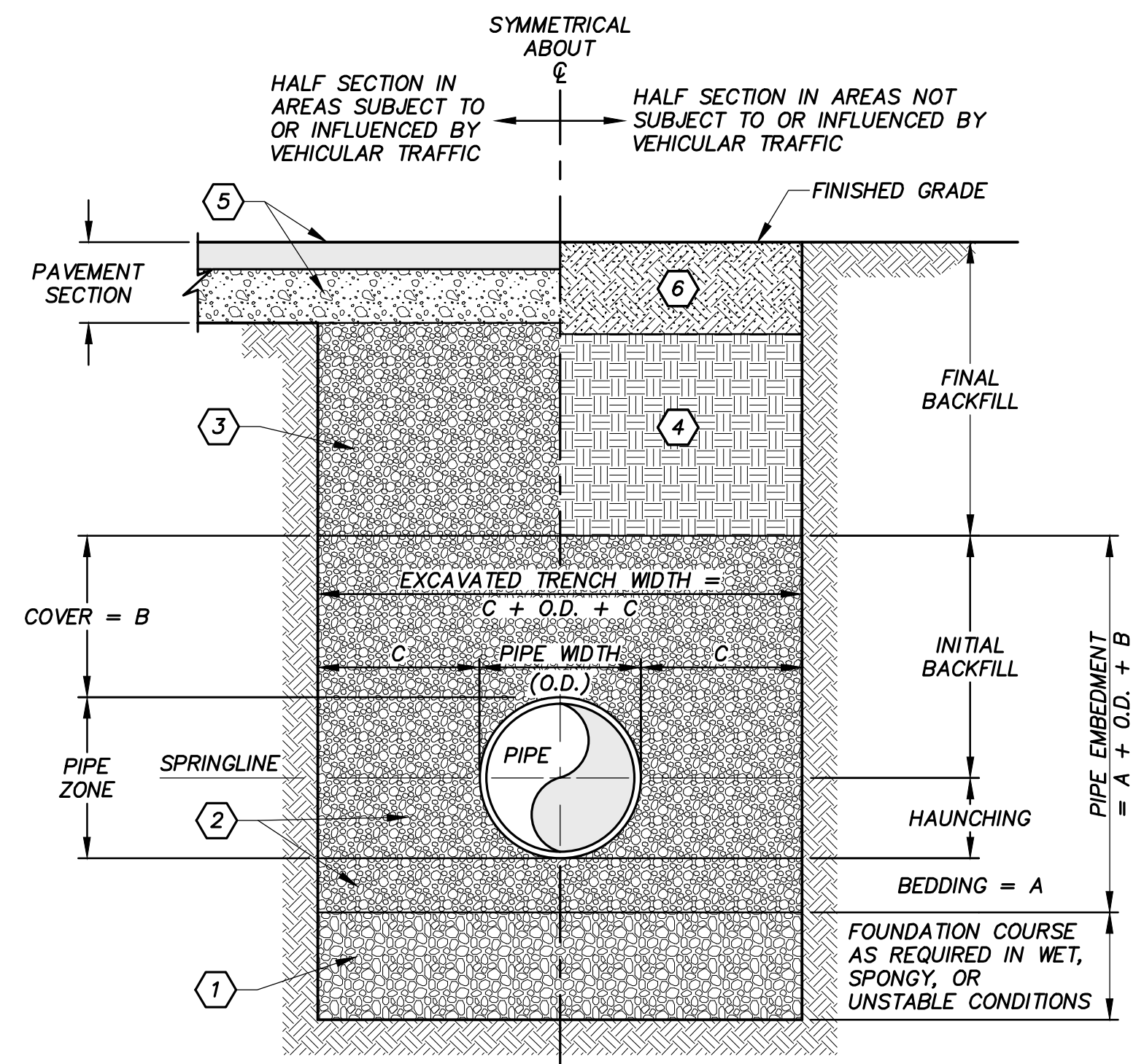
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- MATERIAL REQUIREMENTS**
- 1 HOT MIXED ASPHALTIC CONCRETE (H.M.A.C.) PAVING: PER SPECIFICATION SECTION 32 12 16 - HOT MIX ASPHALTIC CONCRETE PAVING. MINIMUM THICKNESS ( $t_1$ ) SHALL BE 1 1/2", OR MATCH EXISTING H.M.A.C. SURFACE, WHICHEVER IS GREATER.
  - 2 2500 PSI CONCRETE BASE MATERIAL: PER SPECIFICATION SECTION 03 30 00 - CAST IN-PLACE CONCRETE. THE MINIMUM THICKNESS ( $t_2$ ) FOR THE BASE SHALL BE 8 INCHES, OR MATCH THE EXISTING BASE THICKNESS, WHICHEVER IS GREATER.
  - 3 BACKFILL MATERIAL IN AREAS SUBJECT TO OR INFLUENCED BY VEHICULAR TRAFFIC: PER SPECIFICATION SECTION 31 23 17 - TRENCHING.
  - 4 FLEXIBLE BASE PER SPECIFICATION SECTION 32 11 23 - FLEXIBLE BASE. MINIMUM THICKNESS ( $t_3$ ) FOR THE BASE SHALL BE 12", OR MATCH THE EXISTING BASE THICKNESS, WHICHEVER IS GREATER.
  - 5 P.C. CONCRETE PAVEMENT (REINFORCED): PER SPECIFICATION SECTION 32 13 13 - CONCRETE PAVING. MINIMUM THICKNESS ( $t_4$ ) FOR THE CONCRETE PAVING SHALL BE 8 INCHES, OR MATCH THE EXISTING CONCRETE PAVING THICKNESS, WHICHEVER IS GREATER.
  - 6 CONSTRUCTION JOINTS TO THE EXISTING P.C. CONCRETE PAVEMENT SHALL BE IN ACCORDANCE WITH THE DRAWINGS.
  - 7 NO. 5'S x 24" DEFORMED DOWELS AT 12" O.C.
  - 8 3/4" DRILLED HOLES BLOWN CLEAN. COAT DOWELS WITH EPOXY RESIN, FILL HOLES WITH EPOXY RESIN, & SUPPORT DOWELS IN CENTER OF HOLE UNTIL EPOXY HAS CURED.
  - 9 SAWCUT EX. P.V.M.T. TO SMOOTH, NEAT LINES.

**G1** SURFACE REPLACEMENT DETAILS

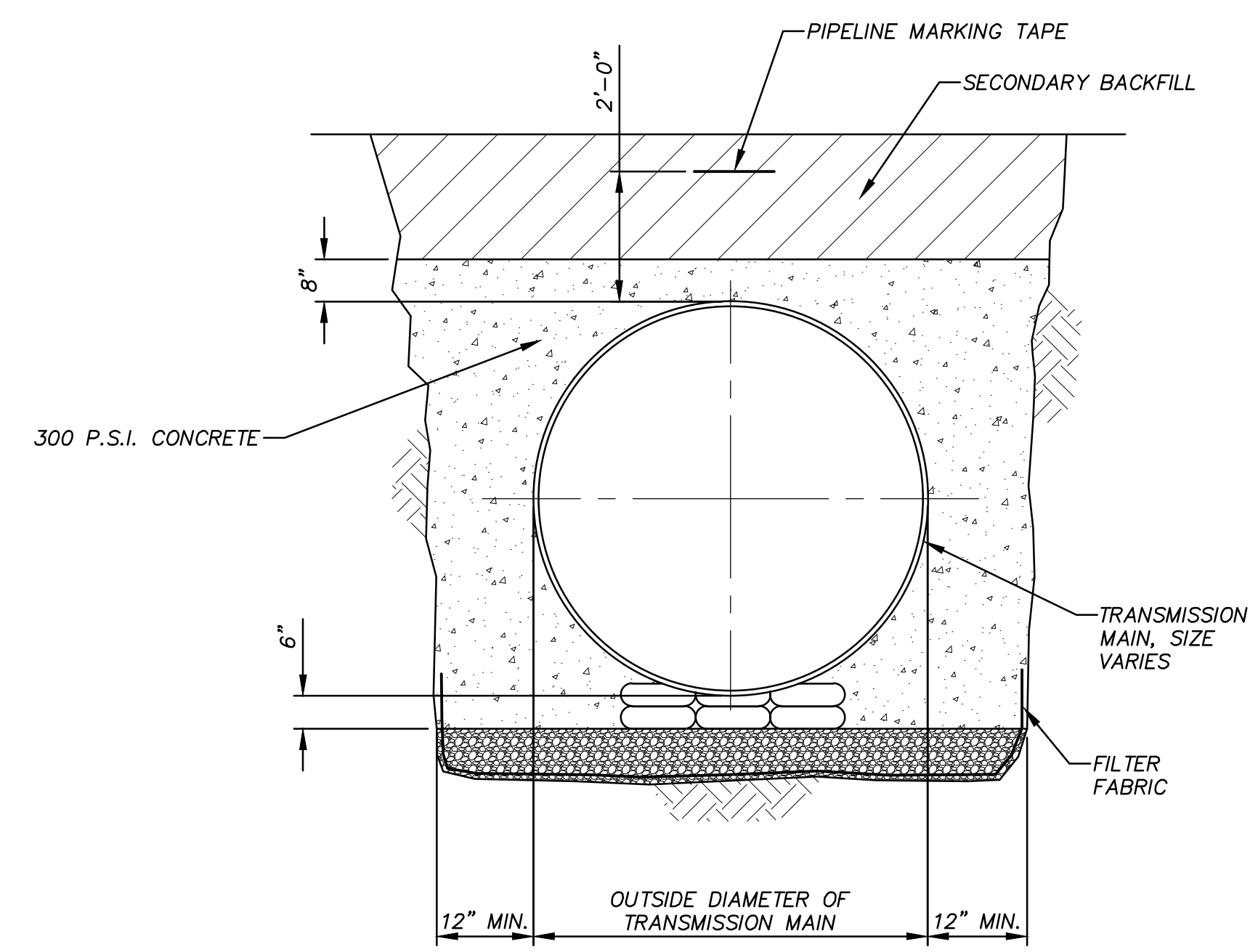
N.T.S. SCALE: N.T.S.



**DIMENSION SCHEDULE**

PIPE SIZE	A	B	C <sub>MIN</sub>
20" AND SMALLER	6"	12"	10"
21" THRU 48"	6"	12"	12"
54" THRU 66"	9"	12"	15"
72" AND LARGER	12"	18"	15"

- MATERIAL REQUIREMENTS**
- 1 FOUNDATION COURSE (AS REQUIRED) TO PROVIDE FIRM, STABLE, AND UNIFORM PIPE SUPPORT. FOUNDATION COURSE MATERIAL SHALL BE APPROVED BY ENGINEER PRIOR TO PLACEMENT.
  - 2 EMBEDMENT MATERIAL: PER SPECIFICATION SECTION 31 23 17 - TRENCHING.
  - 3 BACKFILL MATERIAL IN AREAS SUBJECT TO OR INFLUENCED BY VEHICULAR TRAFFIC: PER SPECIFICATION SECTION 31 23 17 - TRENCHING.
  - 4 BACKFILL MATERIAL IN AREAS NOT SUBJECT TO OR INFLUENCED BY VEHICULAR TRAFFIC (NON-TRAFFIC) SHALL BE SELECT SOIL MATERIAL FROM THE EXCAVATED TRENCH, PER SPECIFICATION SECTION 31 23 17 - TRENCHING.
  - 5 NEW PAVEMENT, BASE (AND SUBGRADE) AS PER THE DRAWINGS AND SPECIFICATIONS.  
-OR-  
REFERENCE "SURFACE REPLACEMENT DETAILS" WHEN TRENCHING IN EXISTING PAVEMENT.
  - 6 TOPSOIL, 12 INCHES THICK, EXCAVATED, SALVAGED, AND STOCKPILED FROM ORIGINAL GROUND SURFACE OF THE TRENCH (AND OR UTILITY EASEMENT) AND REPLACED AFTER INSTALLATION OR PIPELINE.



1. CONTRACTOR SHALL TAKE REQUIRED PREVENTIVE MEASURES TO HOLD PIPE IN PLACE TO PREVENT PIPE FLOATATION DURING PLACEMENT OF CONCRETE ENCASEMENT.
2. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI UNLESS NOTED OTHERWISE.

**A1** UTILITY TRENCH SECTION DETAIL

**A9** CONCRETE PIPE ENCASEMENT

N.T.S. SCALE: N.T.S.

REV.	DESCRIPTION	DATE

**Walker Partners**  
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TWDB PROJECT - PHASE 2

**DETAILS**

4-13-2020  
DATE: 4-13-2020  
DESIGNED: JFW  
DRAFTED: ARC  
CHECKED: JFW  
PROJECT NO.: 1-03153  
DRAWING NO.: **D208**

JOHN F. WINKLER  
REGISTERED PROFESSIONAL ENGINEER  
50524

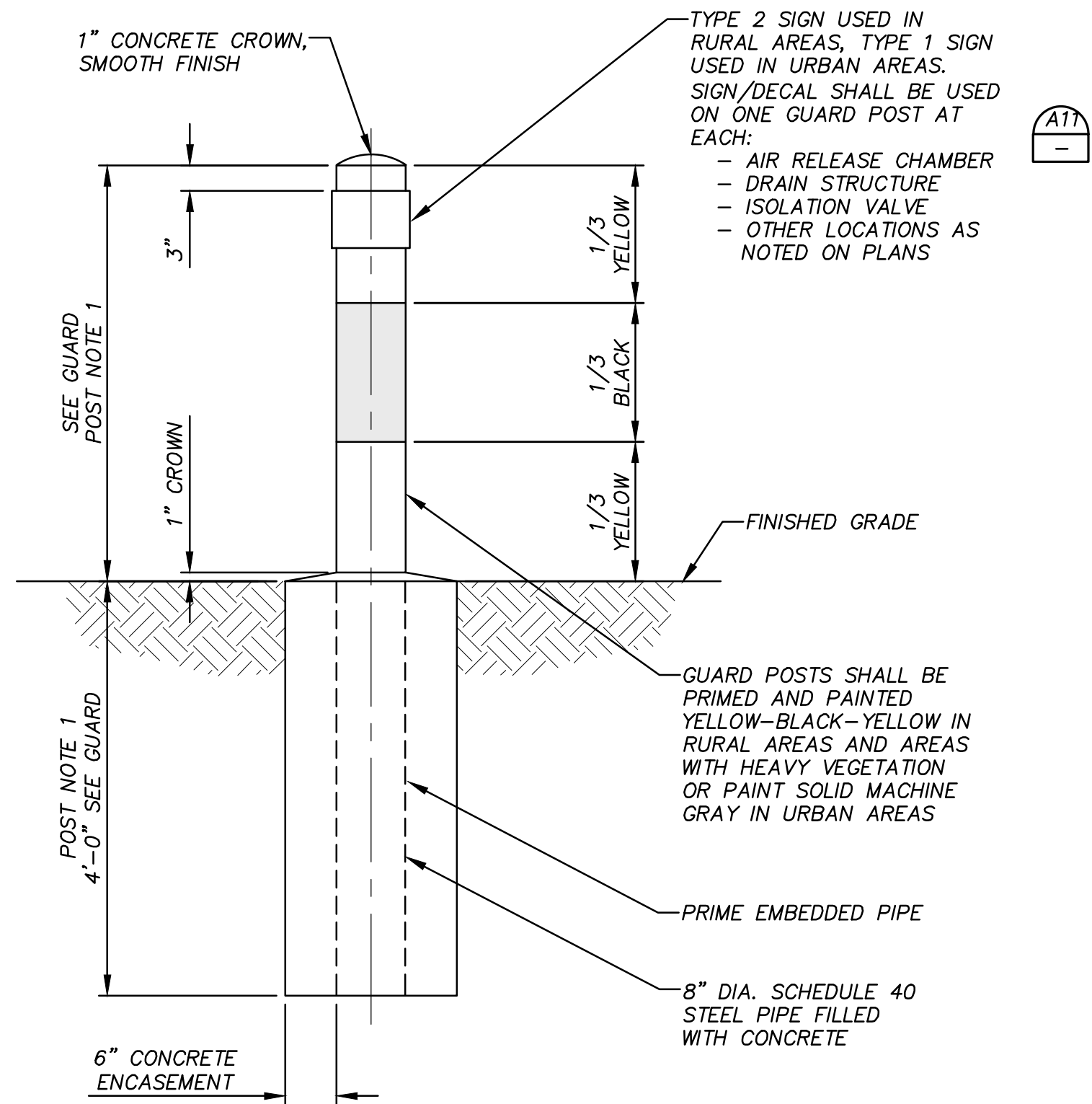
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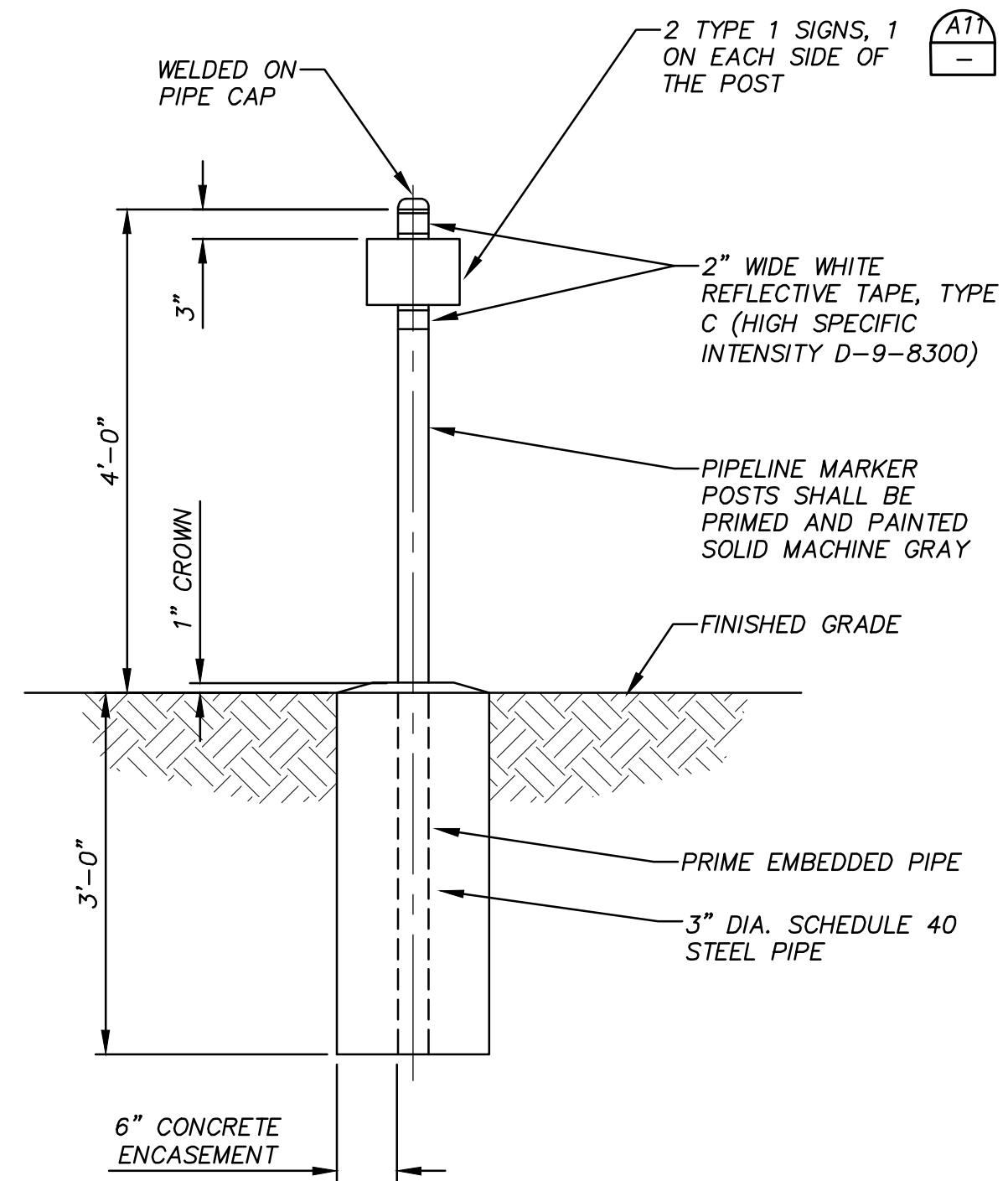


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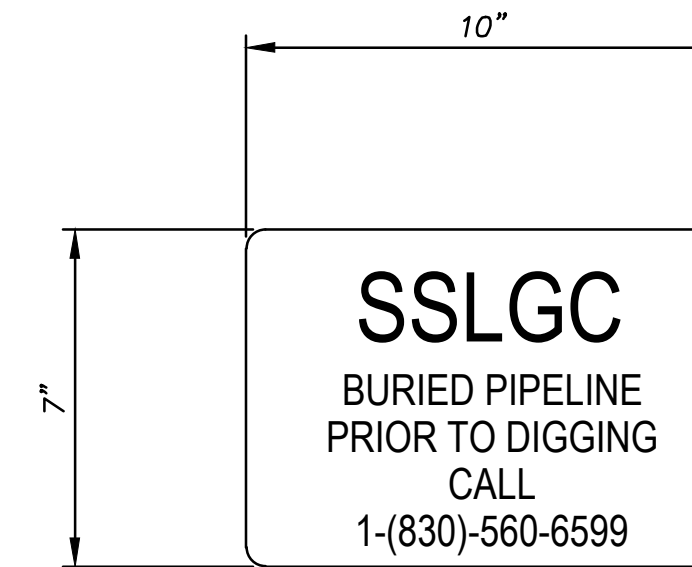
**GUARD POST NOTES:**

1. GUARD POST HEIGHT 4'-0" ABOVE GRADE FOR ISOLATION VALVES AND 6'-0" ABOVE GRADE FOR ALL OTHER LOCATIONS UNLESS NOTED OTHERWISE ON THE PLAN AND PROFILE SHEET.
2. GUARD POST PROTECTING STRUCTURES IN AREAS WITH DENSE VEGETATION (WILD OR CULTIVATED) SHALL BE INCREASED TO 8' HIGH. (ISOLATION VALVE LOCATIONS EXCLUDED).
3. GUARD POST TO BE USED IN LOCATIONS AS DETAILED ON STRUCTURE SHEETS AND AT ANY OTHER LOCATIONS NOTED ON THE PLANS.
4. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI UNLESS OTHERWISE INDICATED.



**PIPELINE MARKER NOTES:**

1. PIPELINE MARKER POSTS SHALL BE INSTALLED AT EACH SIDE OF WHERE THE PIPE CROSSES ROADWAYS, RAILROADS, MAJOR SURFACE WATER CHANNELS AND OTHER LOCATIONS AS INDICATED ON PLANS. ONE SIGN SHALL BE INSTALLED AT WHERE THE PIPE CROSS PROPERTY LINES AND AT ANY OTHER LOCATIONS SHOWN ON THE PLAN SHEETS.



**TYPE 1 SIGN AND DECAL**



**TYPE 2 SIGN**

**SIGN/DECAL NOTES:**

1. SIGNS AND DECALS SHALL BE WHITE BACKGROUND WITH DARK BLUE LETTERING. FINISH SHALL BE DESIGNED FOR LONG TERM OUTDOOR USE AND SHALL BE UV RESISTANT AND WATER DAMAGE RESISTANT.
2. SIGNS SHALL BE FABRICATED FROM 14 GAUGE ALUMINUM. PRE-DRILL SIGNS FOR MOUNTING BOLTS.
3. BLUE LETTERING SHALL BE 2 MIL CAST VINYL BY ARKON OR EQUAL.
4. SIGNS SHALL BE MOUNTED TO MARKER POSTS WITH 2-3/8" DIA. THROUGH-BOLTS AND TAMPER-PROOF NUTS. SIGNS SHALL BE MOUNTED TO GUARD POSTS WITH STAINLESS STEEL BANDING.

**A1** GUARD POST  
N.T.S.

**A6** PIPELINE MARKER

**A11** SIGN DECAL

REV.	DESCRIPTION	DATE



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TWDB PROJECT - PHASE 2  
DETAILS

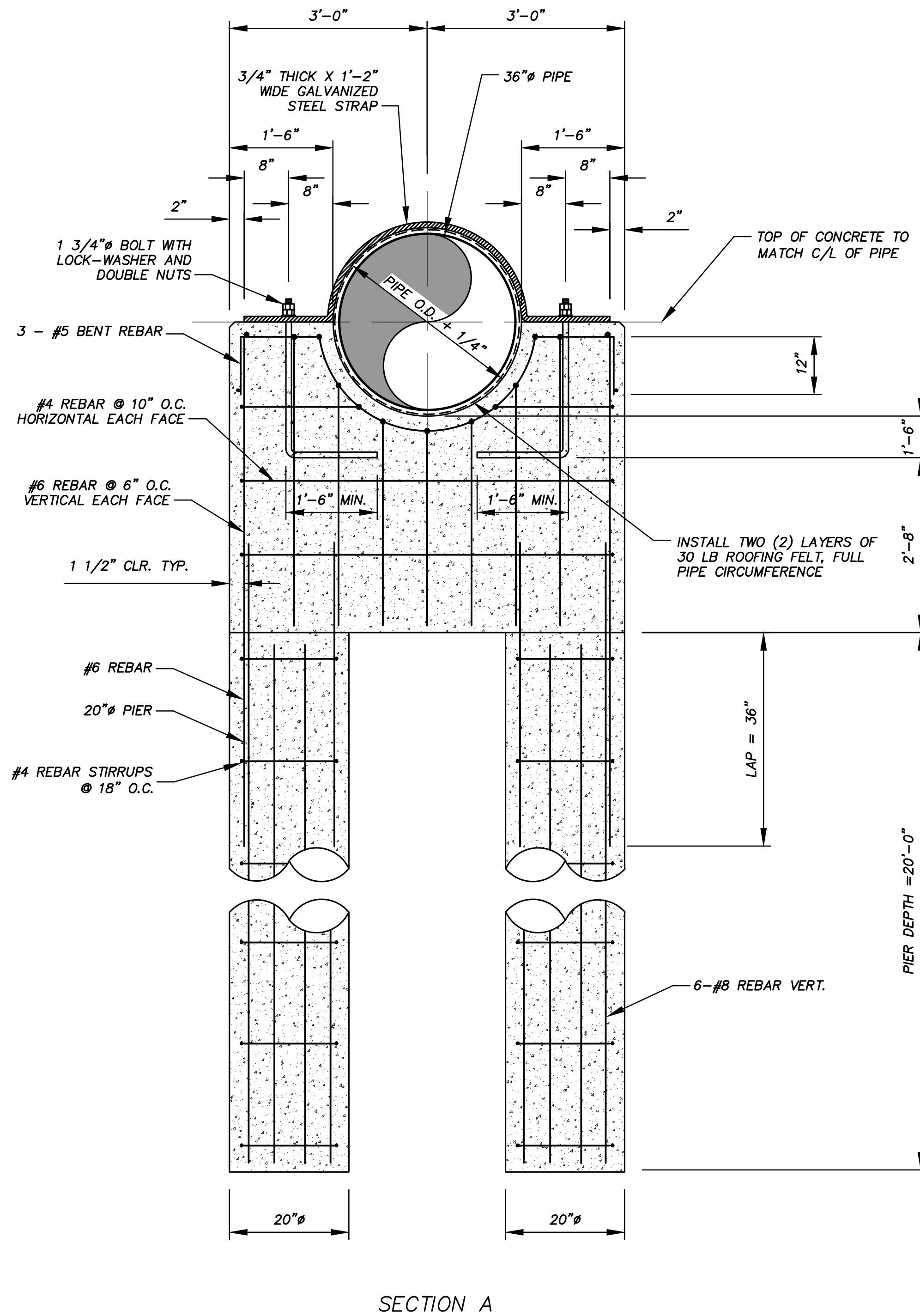
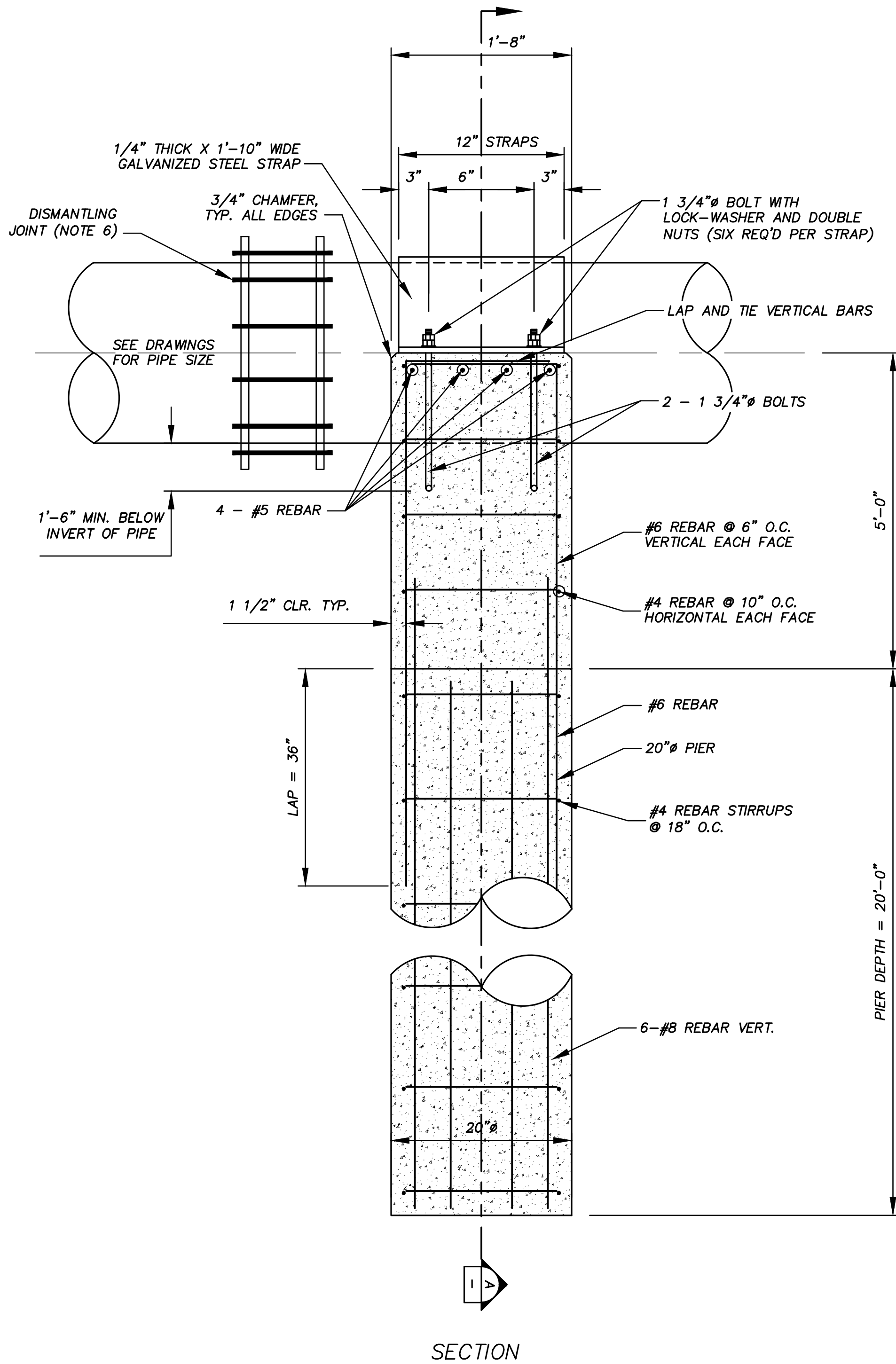
4-13-2020  
DATE

*John F. Winkler*  
JOHN F. WINKLER

PM	JFW
DESIGNED	JFW
DRAFTED	ARC
CHECKED	JFW
PROJECT NO.	1-03153
DRAWING NO.	<b>D210</b>

**GRATING NOTES**

- ANCHORS & ALL-THREADS: USE S.S. ALL-THREADS, WASHERS, AND NUTS. INSTALL PER MANUFACTURER'S WRITTEN INSTRUCTIONS. EMBEDMENT DEPTH AND TYPE SHALL BE AS RECOMMENDED BY THE MFR. OR 12 X DIAMETER, WHICHEVER IS GREATER. BEAM CLAMPS MAY BE USED IN LIEU OF EPOXY ANCHORAGE WHERE SUITABLE CONDITIONS EXIST. BEAM CLAMPS TO BE S.S. TO MATCH HANGER RODS.
- SWAY BRACING: PROVIDE BRACING ADJACENT TO 90° BENDS FOR SUSPENDED PIPE. USE GRINNEL FIG. 211 SIZE A FOR PIPE 6" AND SMALLER, SIZE B FOR PIPE 8" AND LARGER. ALTERNATE TYPE OF BRACING IS ACCEPTABLE.
- CUTTING FRP: CUT AND COAT ENDS OF ALL FRP COMPONENTS W/ RESIN AS RECOMMENDED BY COMPONENT MFR.
- ALL CUT EDGES SHALL BE SEALED WITH RESIN.
- BONDING: USE EPOXY ADHESIVE BONDING AGENT.
- PROVIDE ONE 36" DISMANTLING JOINT @ EACH PIER, INCLUDING IN BID ITEM FOR PIER



REV.	DESCRIPTION	DATE

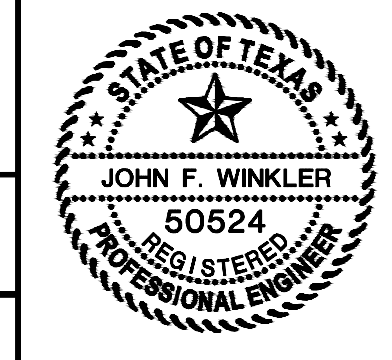


**SSLGC**

**WTP #2**

**STRUCTURAL DETAILS**

DATE	05-26-2020	DESIGNED	JFW
DATE		DRAFTED	JFW
		CHECKED	ARC, TFG
		CHECKED	JFW
		PROJECT NO.	1-03153
		DRAWING NO.	<b>D300</b>

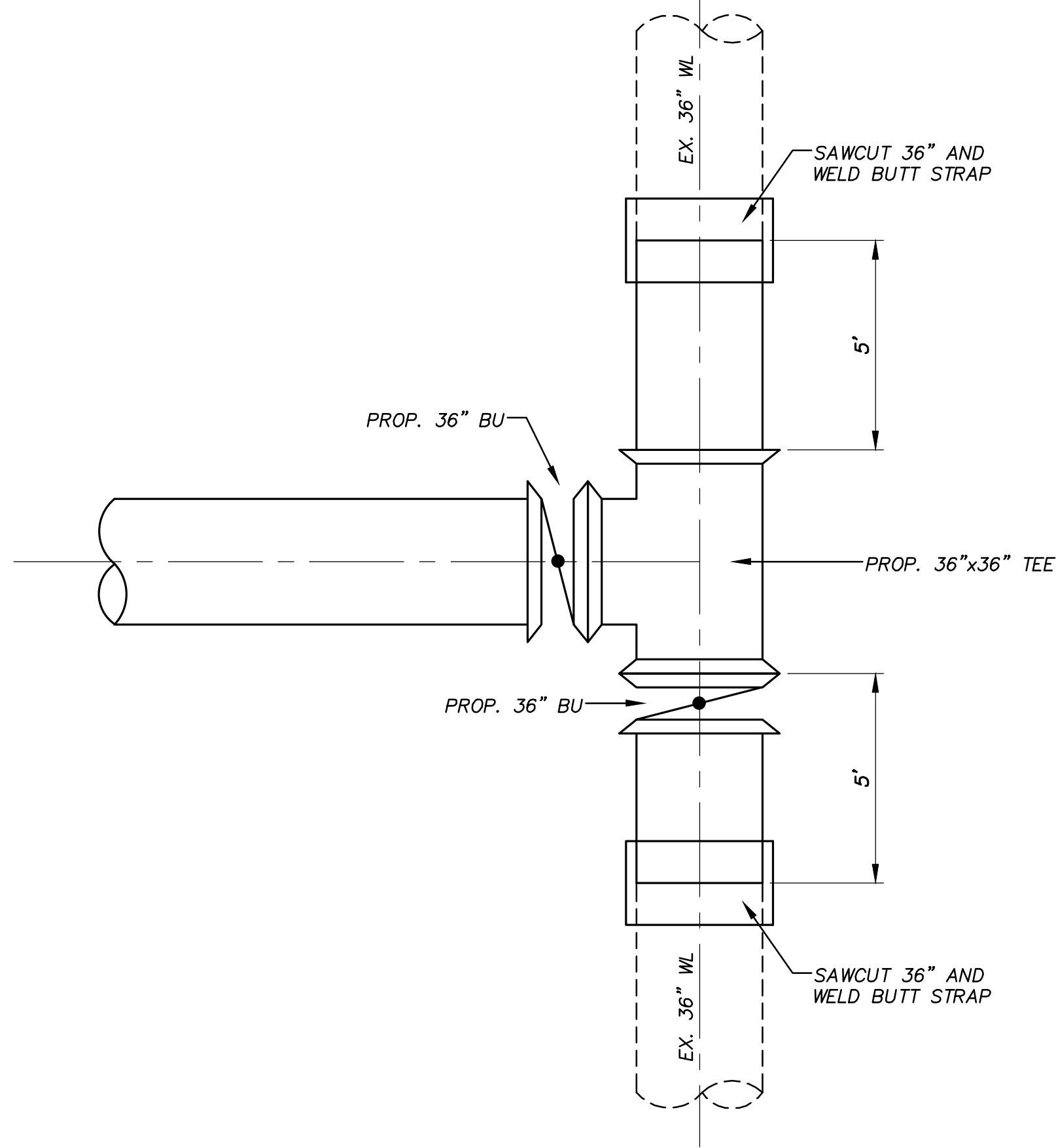


G:\PROJECTS\1-03153\ENGINEERING\2.0 CAD\PIPELINE\1-03153 PIER DETAILS.DWG, D300 PIER DETAILS, 6/8/2020 6:51:23 PM, achids

**A1** PIER DETAILS (TYPICAL 2 PLACES)

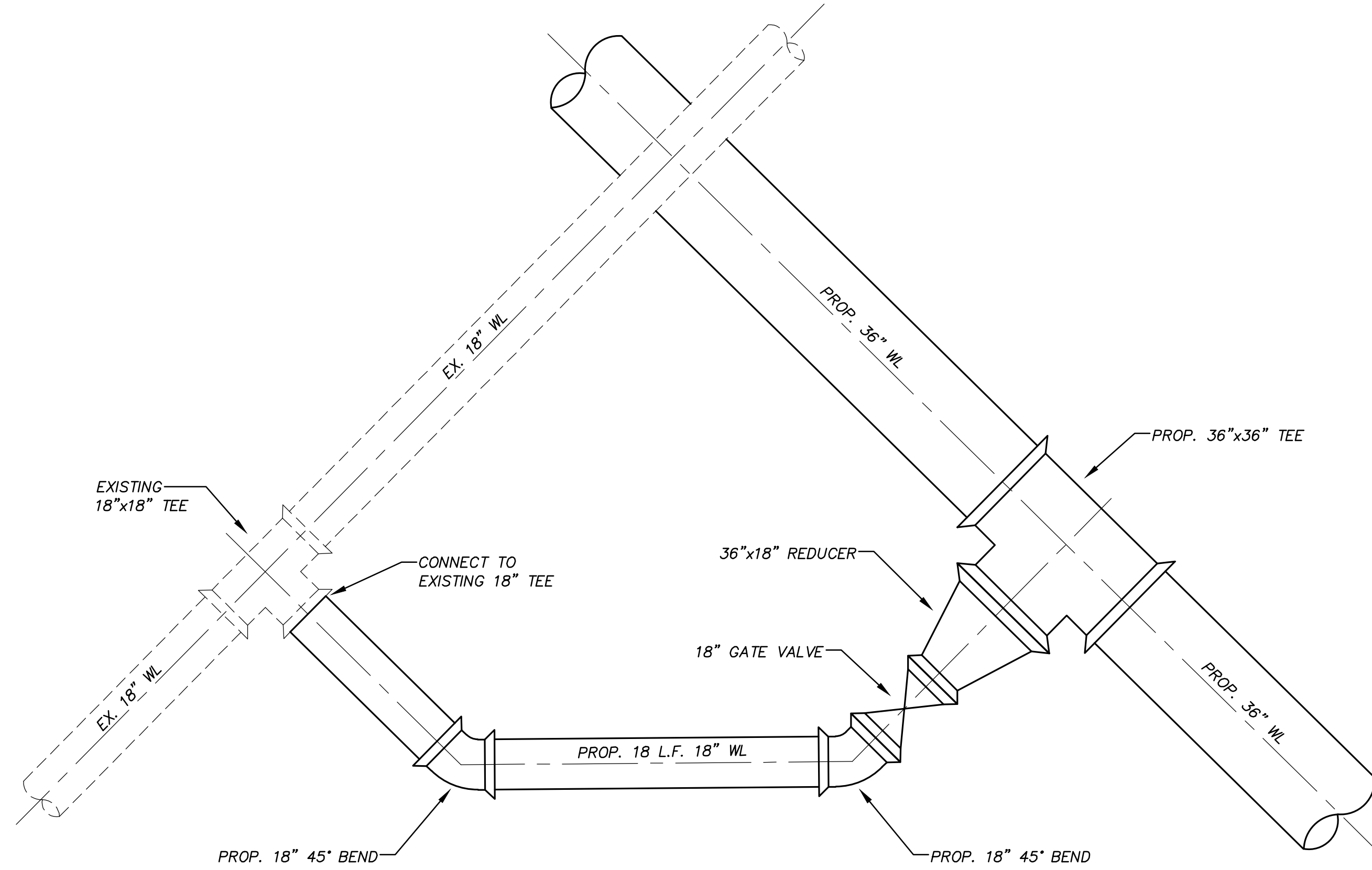
NOT TO SCALE

G:\PROJECTS\1-031532 ENGINEERING\2.0 CAD\PIPELINE\1-031532L DETAILS.DWG, D301 CONNECTION DETAILS, 6/8/2020 6:51:54 PM, achld



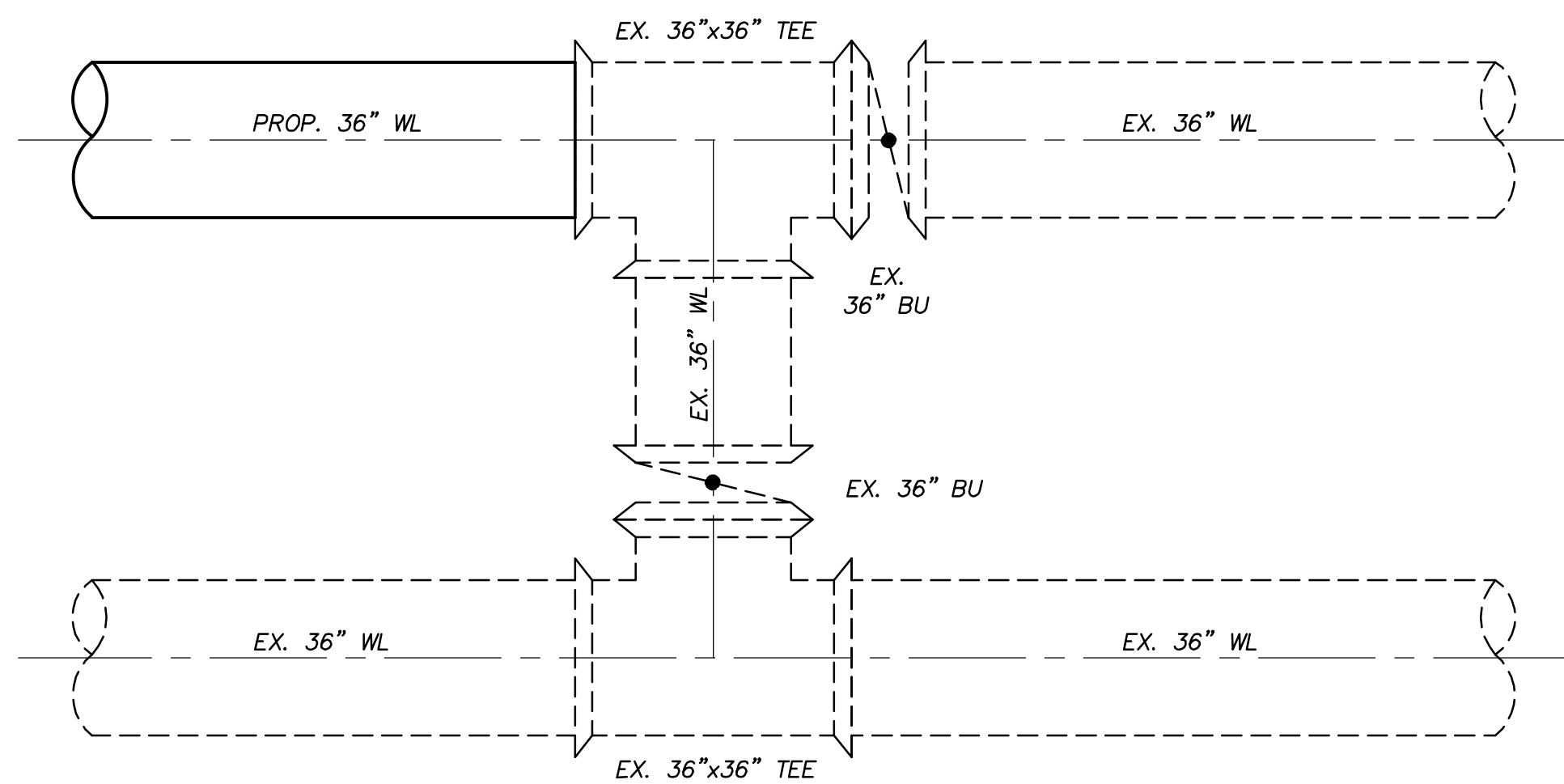
**G1** CONNECTION DETAIL (SHEET C194)

N.T.S.



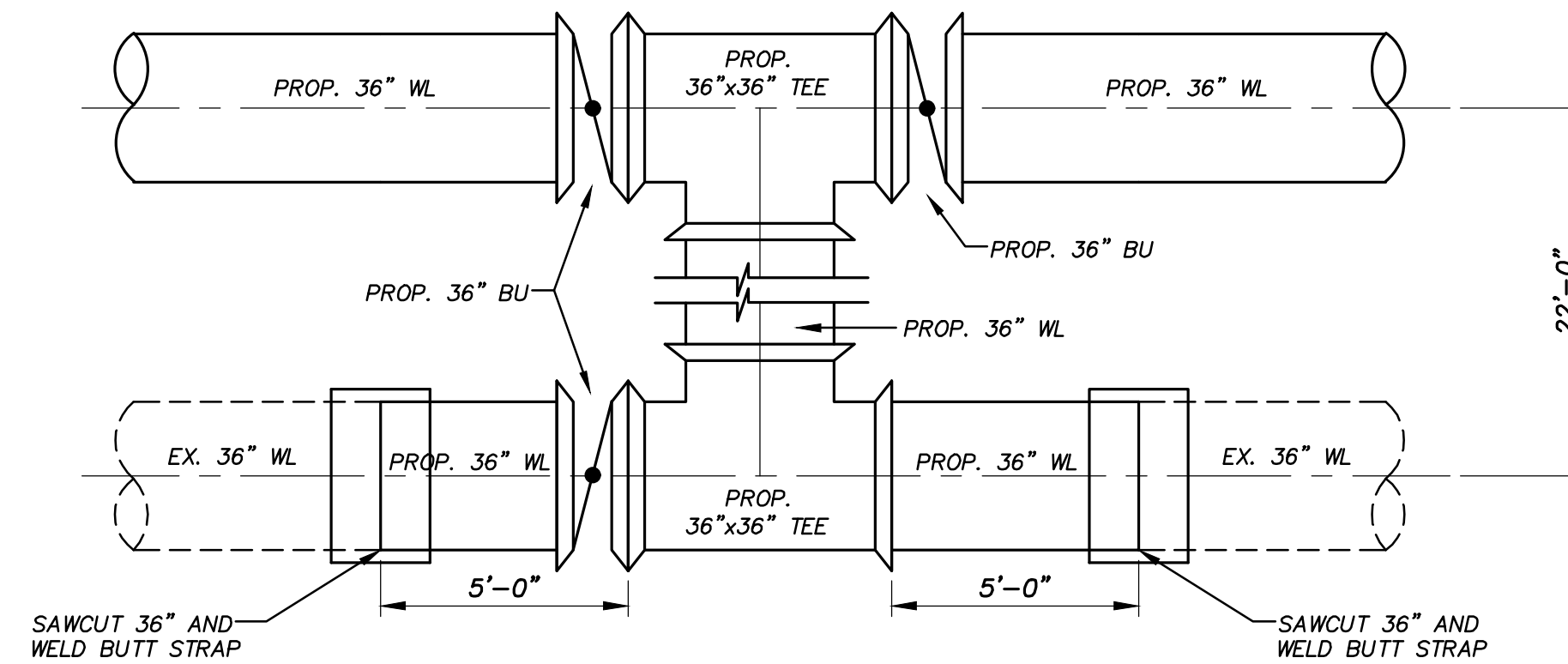
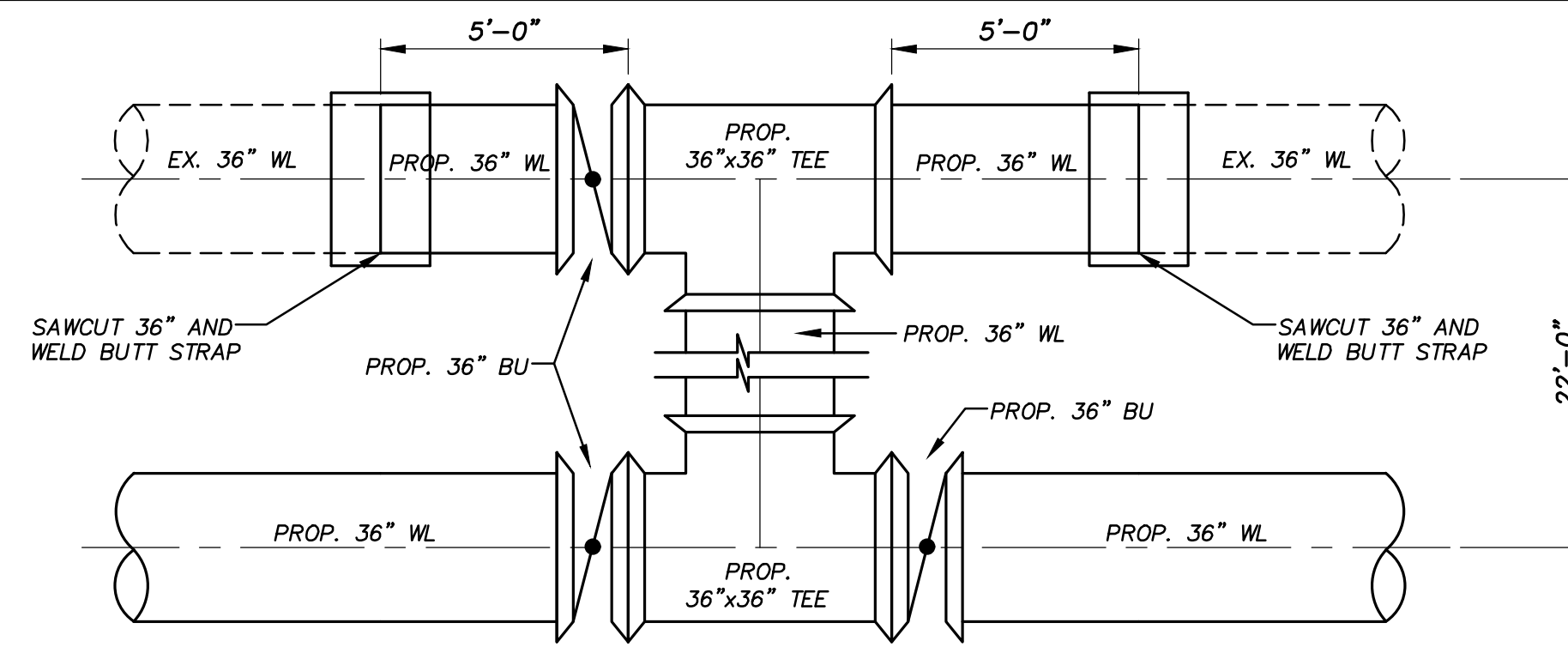
**G8** CONNECTION DETAIL (SHEET C180)

N.T.S.



**A1** CONNECTION DETAIL (SHEET C100)

N.T.S.



**A8** CONNECTION DETAIL (SHEET C109 & SHEET C155) TYPICAL

N.T.S.

REV.	DESCRIPTION	DATE

**Walker Partners**  
engineers ★ surveyors  
T.B.P.E. Registration No. 8053

**SSLGC**

TWDB PROJECT - PHASE 2

CONNECTION DETAILS

4-13-2020  
DATE

*John F. Winkler*  
JOHN F. WINKLER

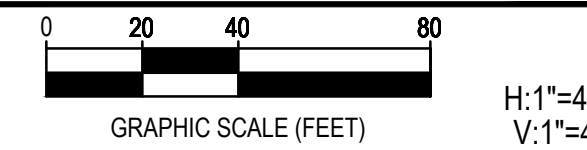
PM	JFW
DESIGNED	JFW
DRAFTED	ARC
CHECKED	JFW
PROJECT NO.	1-03153
DRAWING NO.	<b>D301</b>

**STATE OF TEXAS**  
REGISTERED PROFESSIONAL ENGINEER  
JOHN F. WINKLER  
50524



G:\PROJECTS\1-031532\ENGINEERING\2.0 CAD\PIPELINE\1-031532\CATH PROT DETAILS.DWG, D400 CATHODIC PROTECTION SCHEDULE, 6/8/2020 6:52:19 PM, achids

Description	Station	Description	Station	Description	Station	Description
MONOLITHIC INSULATOR	0+00.00	CATHODIC TEST STATION	424+00.00	CASING TEST STATION	822+65.00	
CASING TEST STATION	0+05.58	CATHODIC TEST STATION	434+00.00	CASING TEST STATION	823+45.00	
CASING TEST STATION	0+28.41	RECTIFIER	443+25.00	CATHODIC TEST STATION	828+44.00	
CATHODIC TEST STATION	0+99.00	CASING TEST STATION	444+95.00	CATHODIC TEST STATION	839+60.00	
CATHODIC TEST STATION	9+88.00	CASING TEST STATION	445+35.00	CASING TEST STATION	853+76.68	
CATHODIC TEST STATION	19+92.00	CATHODIC TEST STATION	449+80.00	CASING TEST STATION	856+11.68	
CATHODIC TEST STATION	32+34.90	CASING TEST STATION	451+00.00	CATHODIC TEST STATION	859+82.00	
CATHODIC TEST STATION	43+00.00	CASING TEST STATION	452+25.00	CATHODIC TEST STATION	869+60.00	
CATHODIC TEST STATION	53+10.00	CATHODIC TEST STATION	458+75.00	CASING TEST STATION	874+75.00	
CATHODIC TEST STATION	61+60.00	CATHODIC TEST STATION	465+00.00	CASING TEST STATION	875+35.00	
CATHODIC TEST STATION	72+28.00	CATHODIC TEST STATION	474+30.00	CATHODIC TEST STATION	891+52.00	
CATHODIC TEST STATION	79+35.00	CASING TEST STATION	479+88.02	CATHODIC TEST STATION	899+10.00	
CASING TEST STATION	95+57.51	CASING TEST STATION	480+50.00	CASING TEST STATION	905+88.90	
CASING TEST STATION	96+57.51	CATHODIC TEST STATION	494+63.00	CASING TEST STATION	907+08.90	
CATHODIC TEST STATION	104+75.00	CATHODIC TEST STATION	500+50.00	CASING TEST STATION	931+33.69	
CATHODIC TEST STATION	112+34.99	CATHODIC TEST STATION	512+00.00	CASING TEST STATION	932+33.69	
CATHODIC TEST STATION	113+10.00	CATHODIC TEST STATION	522+57.00	CASING TEST STATION	932+88.94	
CATHODIC TEST STATION	122+90.00	CATHODIC TEST STATION	534+00.00	CASING TEST STATION	933+18.94	
CATHODIC TEST STATION	132+60.00	CATHODIC TEST STATION	544+00.00			
CASING TEST STATION	134+18.37	CASING TEST STATION	552+50.00			
CASING TEST STATION	135+08.37	CASING TEST STATION	553+10.00			
RECTIFIER	135+15.00	CATHODIC TEST STATION	565+45.00			
CATHODIC TEST STATION	143+10.00	CATHODIC TEST STATION	574+00.00			
CASING TEST STATION	152+15.00	CATHODIC TEST STATION	584+20.00			
CASING TEST STATION	155+53.32	CATHODIC TEST STATION	593+10.00			
CATHODIC TEST STATION	168+60.00	CATHODIC TEST STATION	603+35.00			
CATHODIC TEST STATION	176+60.00	CASING TEST STATION	611+45.00			
CATHODIC TEST STATION	182+25.00	CASING TEST STATION	612+10.00			
CATHODIC TEST STATION	192+10.00	CATHODIC TEST STATION	625+60.00			
CATHODIC TEST STATION	204+50.00	CATHODIC TEST STATION	635+90.00			
CATHODIC TEST STATION	213+35.00	CATHODIC TEST STATION	643+00.00			
CASING TEST STATION	220+43.96	CATHODIC TEST STATION	648+75.00			
CASING TEST STATION	220+53.96	CASING TEST STATION	650+80.00			
CATHODIC TEST STATION	237+00.00	CASING TEST STATION	651+20.00			
CATHODIC TEST STATION	244+68.00	CATHODIC TEST STATION	661+00.00			
CATHODIC TEST STATION	254+50.00	CATHODIC TEST STATION	672+00.00			
CATHODIC TEST STATION	264+00.00	CATHODIC TEST STATION	682+00.00			
CATHODIC TEST STATION	272+00.00	CATHODIC TEST STATION	692+00.00			
CATHODIC TEST STATION	283+00.00	CATHODIC TEST STATION	700+90.00			
CASING TEST STATION	291+00.00	CATHODIC TEST STATION	712+00.00			
CASING TEST STATION	291+75.00	CATHODIC TEST STATION	724+00.00			
CATHODIC TEST STATION	301+90.00	CATHODIC TEST STATION	732+75.00			
CATHODIC TEST STATION	310+10.00	CASING TEST STATION	739+37.79			
CATHODIC TEST STATION	324+00.00	CASING TEST STATION	740+30.81			
CATHODIC TEST STATION	335+75.00	CATHODIC TEST STATION	752+00.00			
CATHODIC TEST STATION	340+70.00	CASING TEST STATION	753+67.08			
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CATHODIC TEST STATION	376+05.00	CATHODIC TEST STATION	772+65.00			
CATHODIC TEST STATION	385+25.00	CATHODIC TEST STATION	778+43.00			
CASING TEST STATION	390+60.00	CATHODIC TEST STATION	788+80.00			
CASING TEST STATION	391+10.00	CATHODIC TEST STATION	798+36.00			
CASING TEST STATION	396+05.17	CASING TEST STATION	789+54.00			
CASING TEST STATION	397+14.10	CASING TEST STATION	790+24.00			
CATHODIC TEST STATION	408+95.00	RECTIFIER	791+50.00			
CATHODIC TEST STATION	414+00.00	CATHODIC TEST STATION	807+90.00			



REV.	DESCRIPTION	DATE



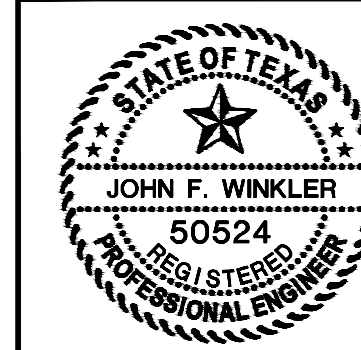
SSLGC

TWDB PROJECT - PHASE 2

CATHODIC PROTECTION SCHEDULE

4-13-2020  
DATE

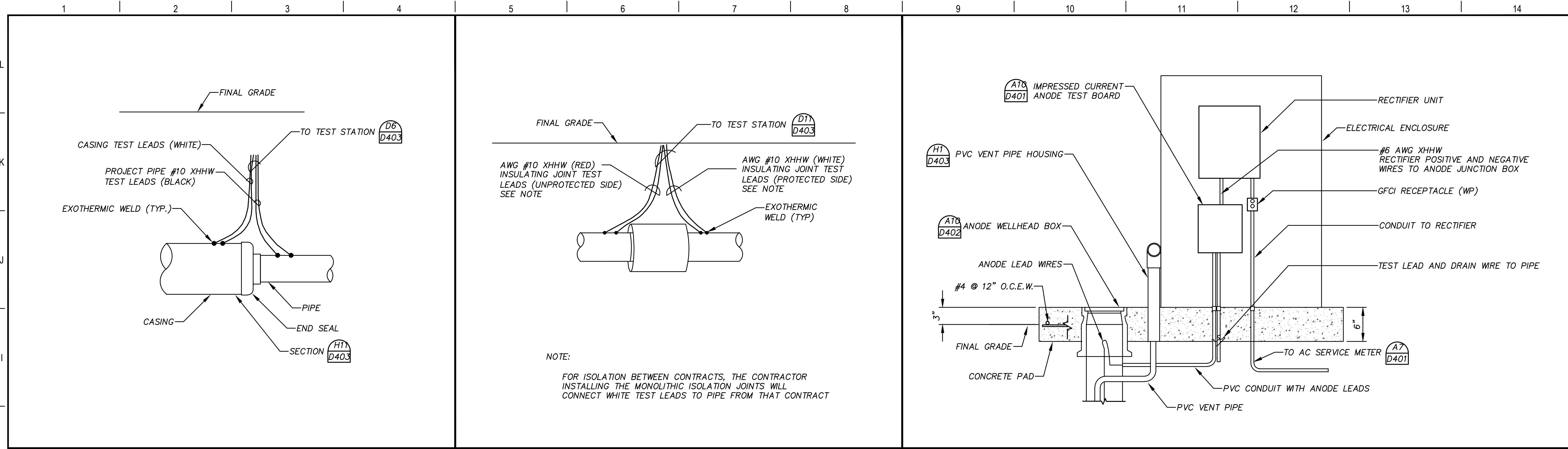
*John F. Winkler*  
JOHN F. WINKLER



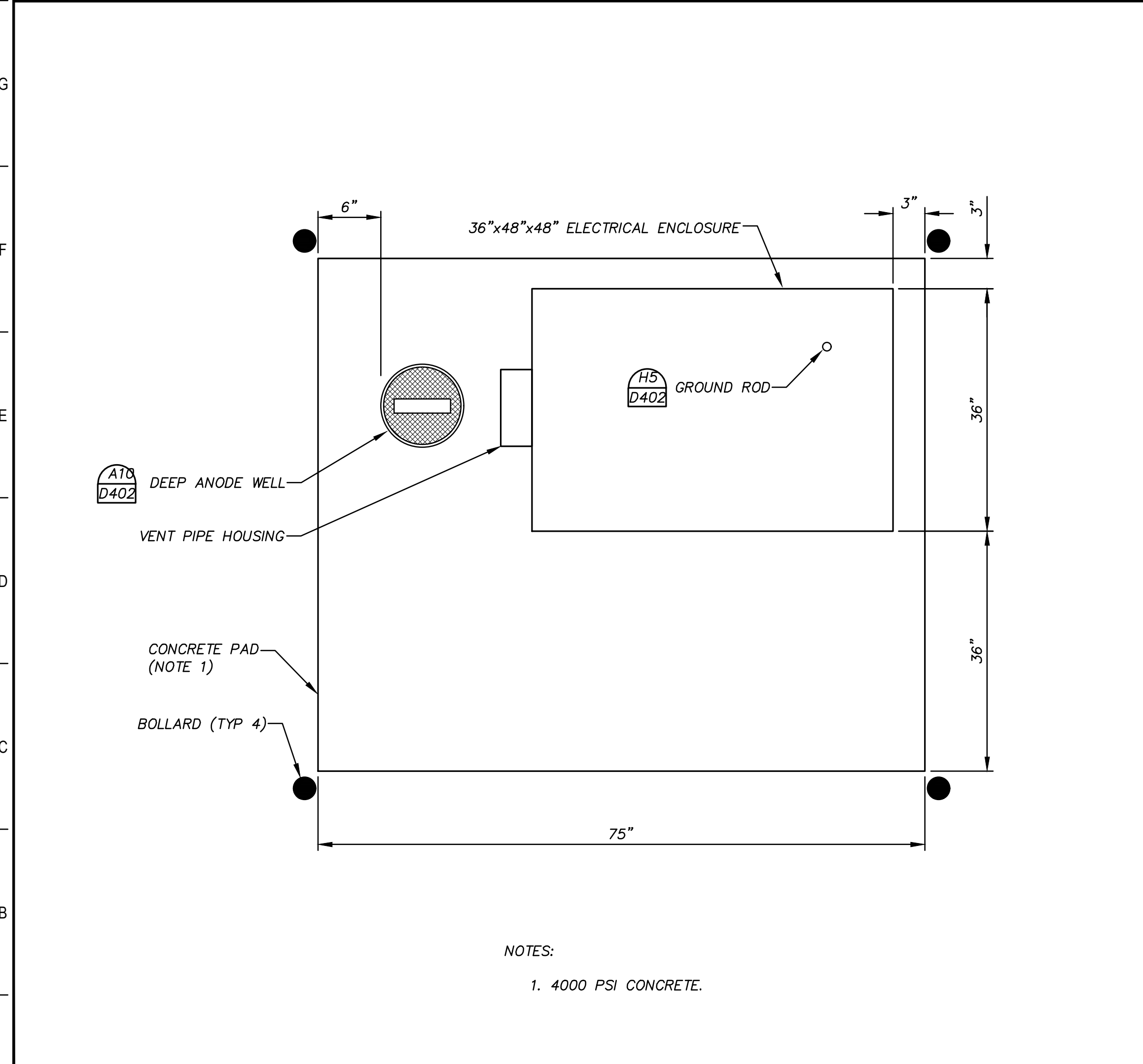
PM	JFW
DESIGNED	JFW
DRAFTED	ARC
CHECKED	JFW
PROJECT NO.	1-03153

DRAWING NO.  
**D400**

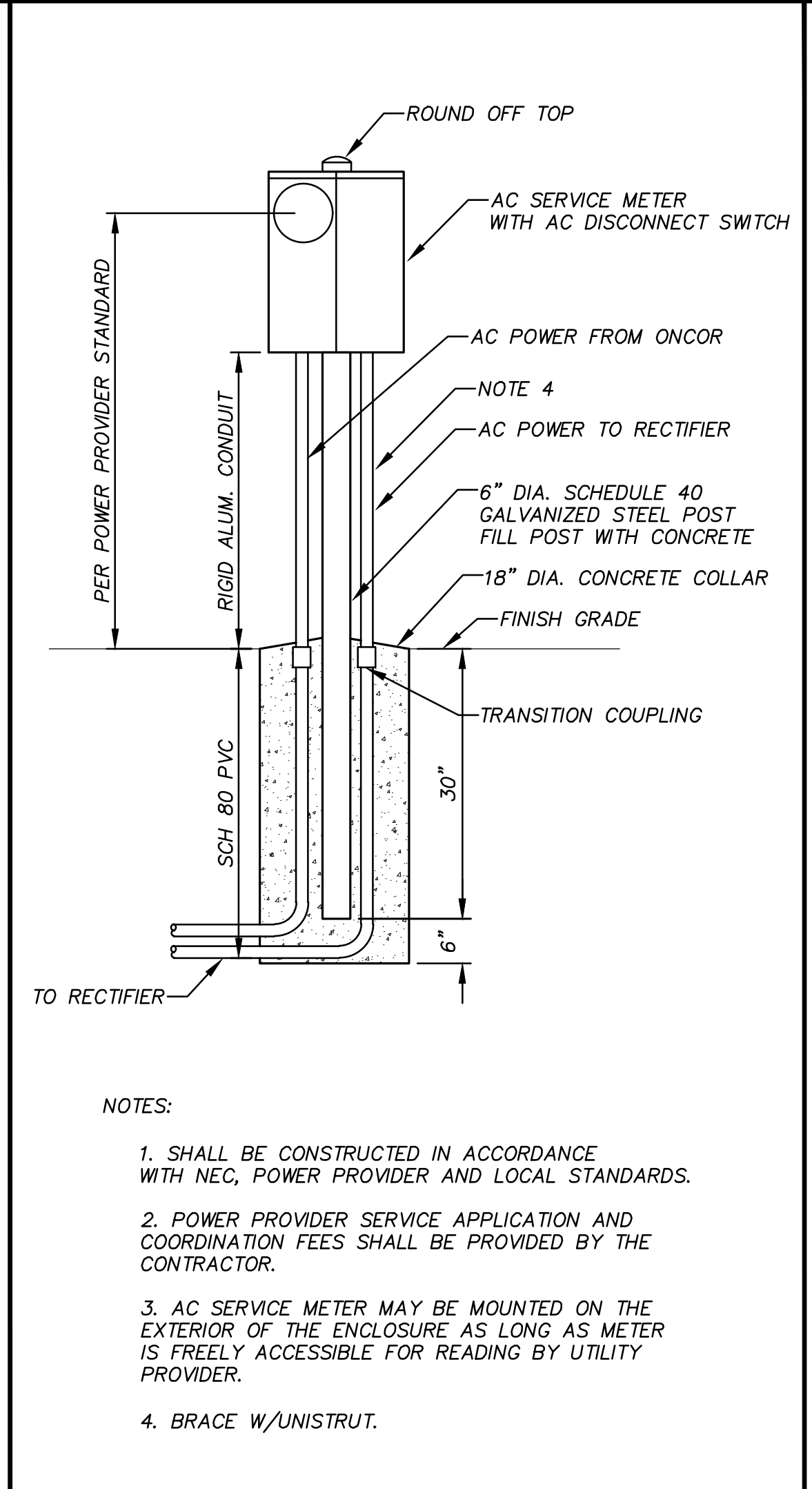
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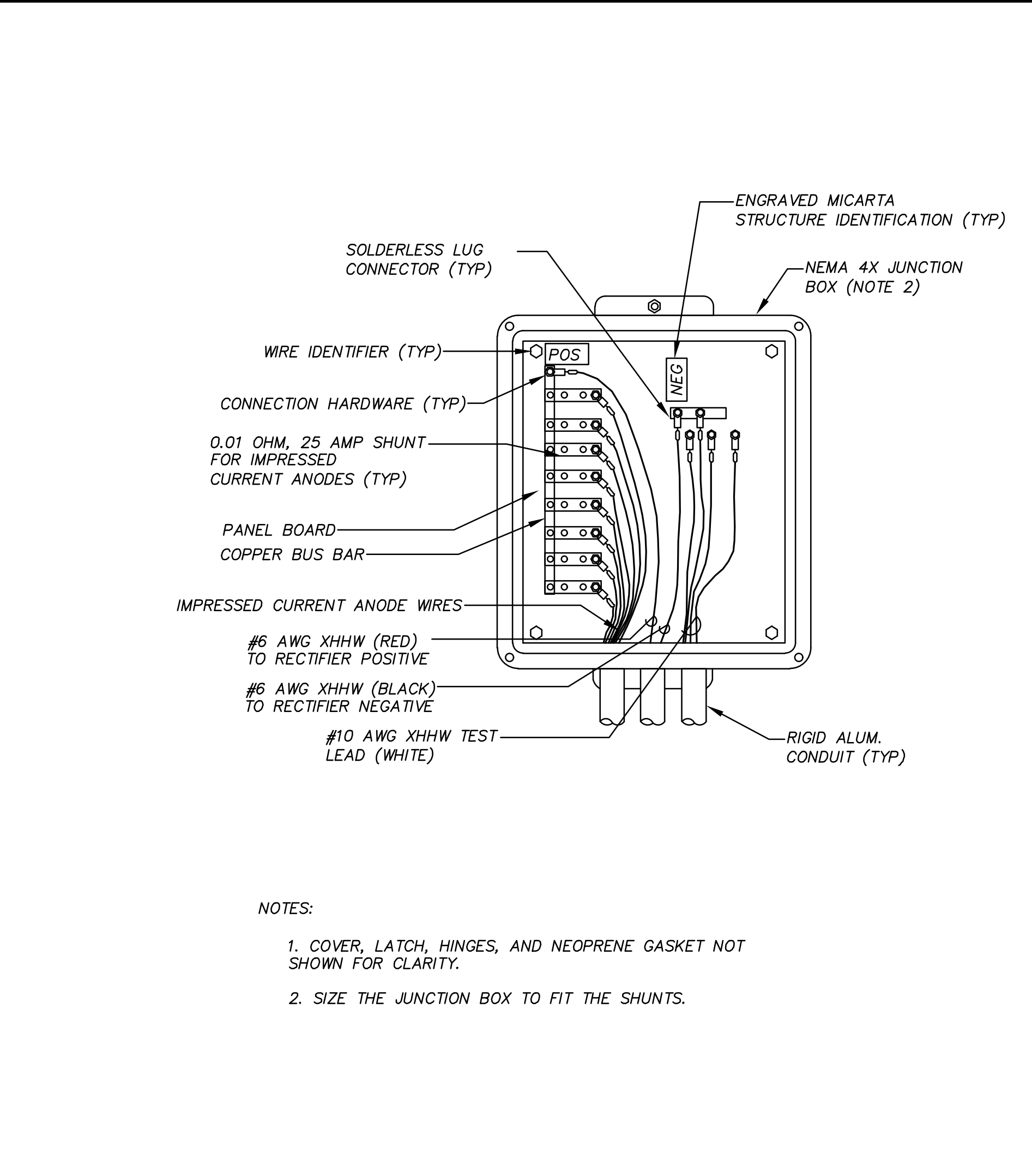
<b>H1</b>	<b>CASING TEST STATION</b>	<b>H5</b>	<b>INSULATING JOINT TEST STATION-MONOLITHIC ISOLATION JOINT (IJTS-MONOLITHIC ISOLATION JOINT)</b>	<b>H9</b>	<b>RECTIFIER INSTALLATION WITH ELEC. ENCLOSURE ELEVATION VIEW</b>
N.T.S.		N.T.S.		N.T.S.	



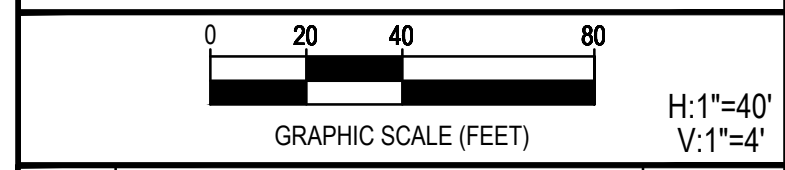
<b>A1</b>	<b>RECTIFIER INSTALLATION WITH ELECTRICAL ENCLOSURE PLAN VIEW</b>
N.T.S.	



<b>A7</b>	<b>AC SERVICE METER</b>
N.T.S.	

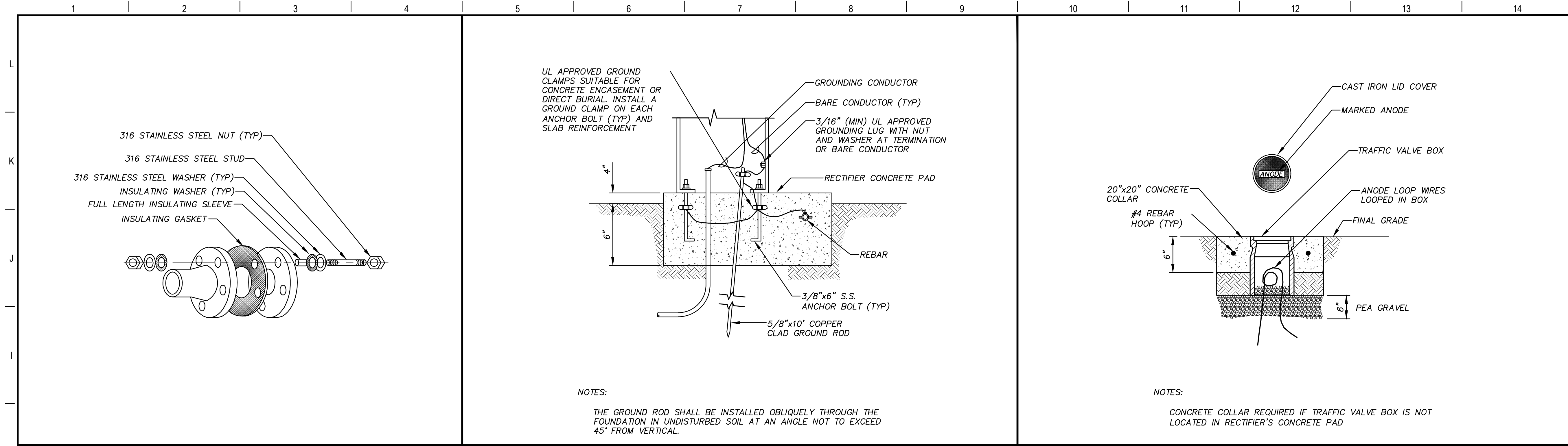


<b>A10</b>	<b>IMPRESSED CURRENT ANODE JUNCTION BOX</b>
N.T.S.	

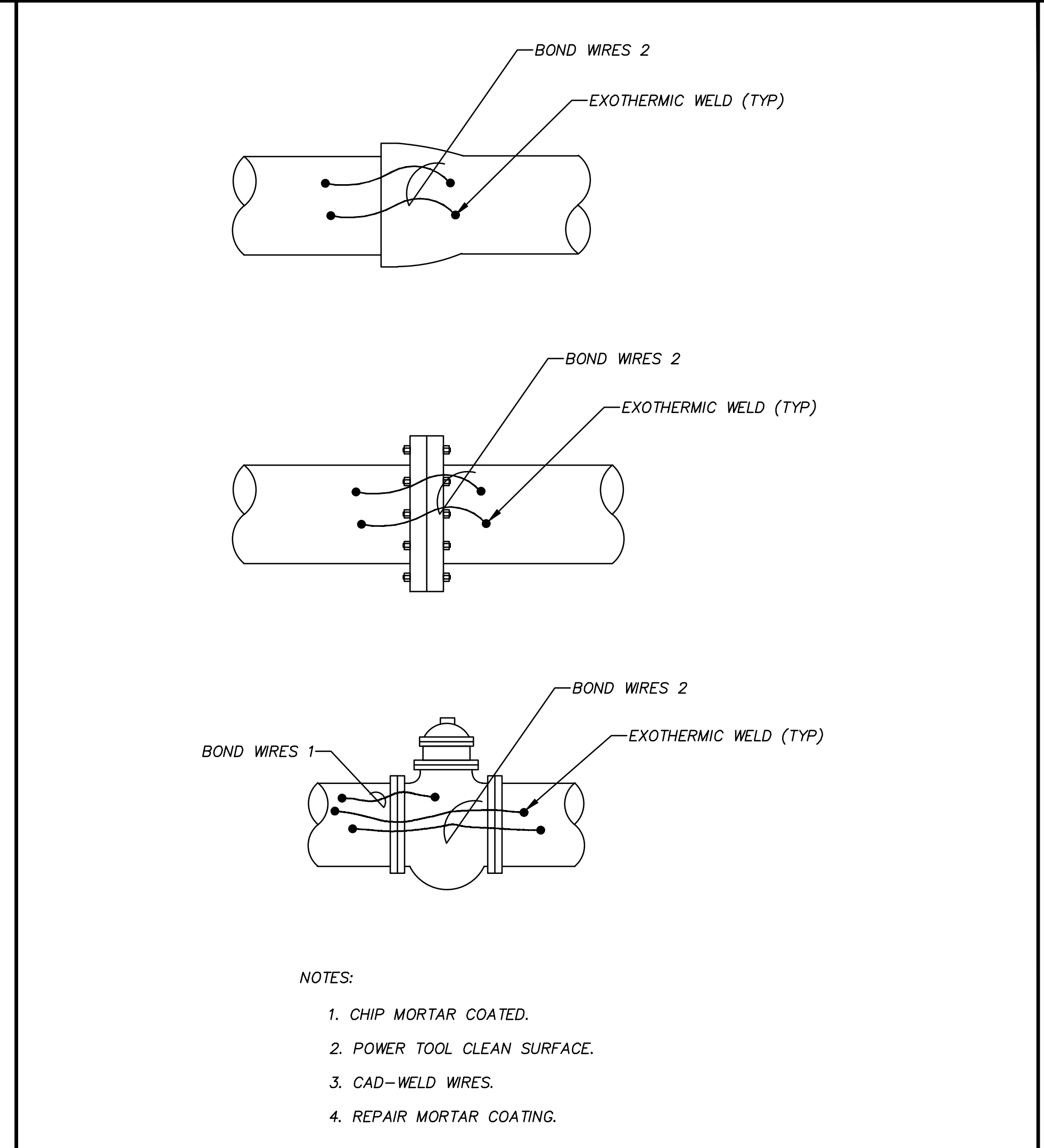
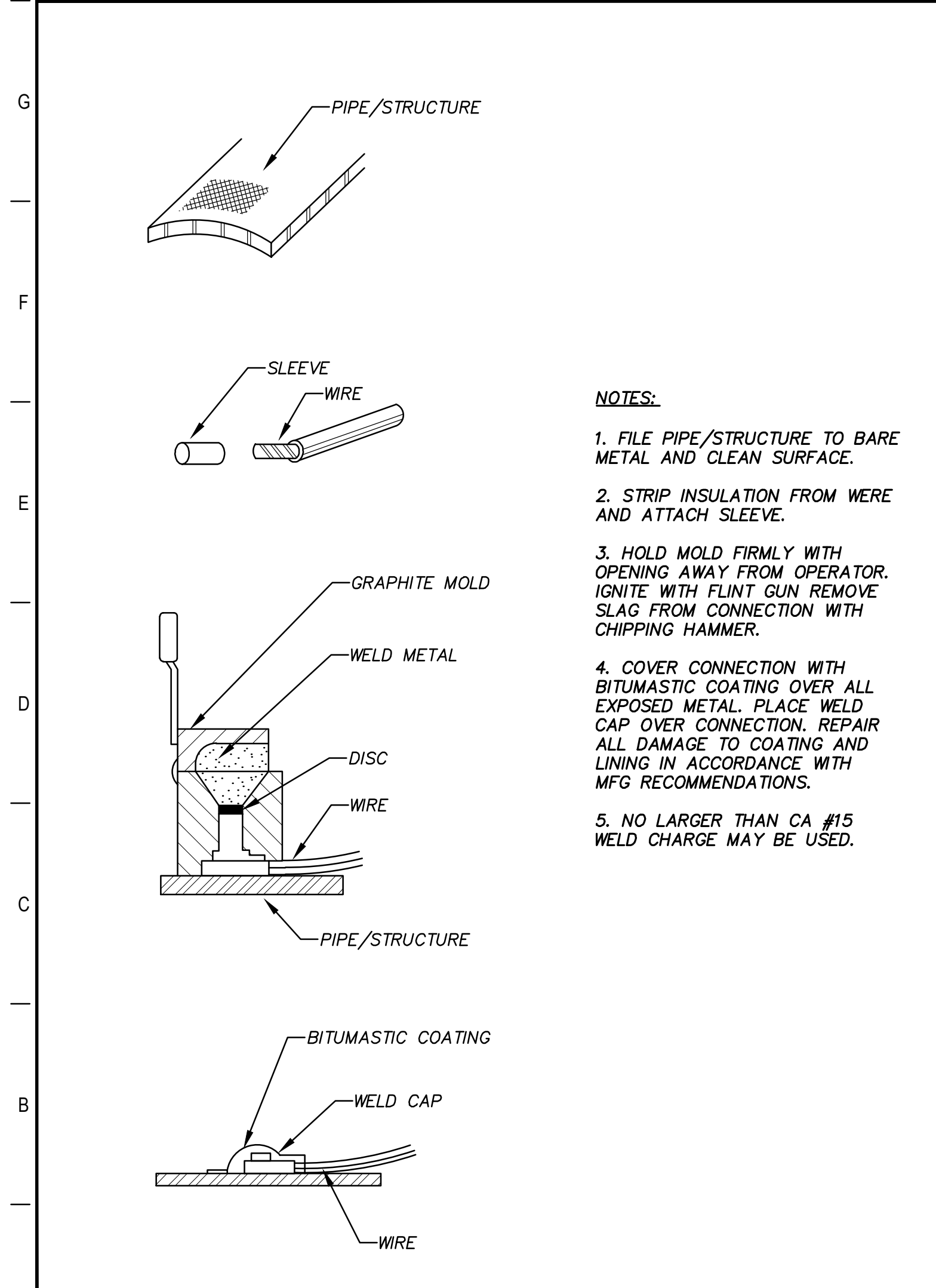


REV.	DESCRIPTION	DATE
 <b>Walker Partners</b> engineers • surveyors <small>T.B.P.E. Registration No. 8053</small>		
<b>SSLGC</b>		
TWDB PROJECT - PHASE 2		
CATHODIC PROTECTION DETAILS		
4-13-2020		DATE
	JOHN F. WINKLER	
	DESIGNED	JFW
	DRAFTED	ARC
	CHECKED	JFW
	PROJECT NO.	1-03153
	DRAWING NO.	<b>D401</b>

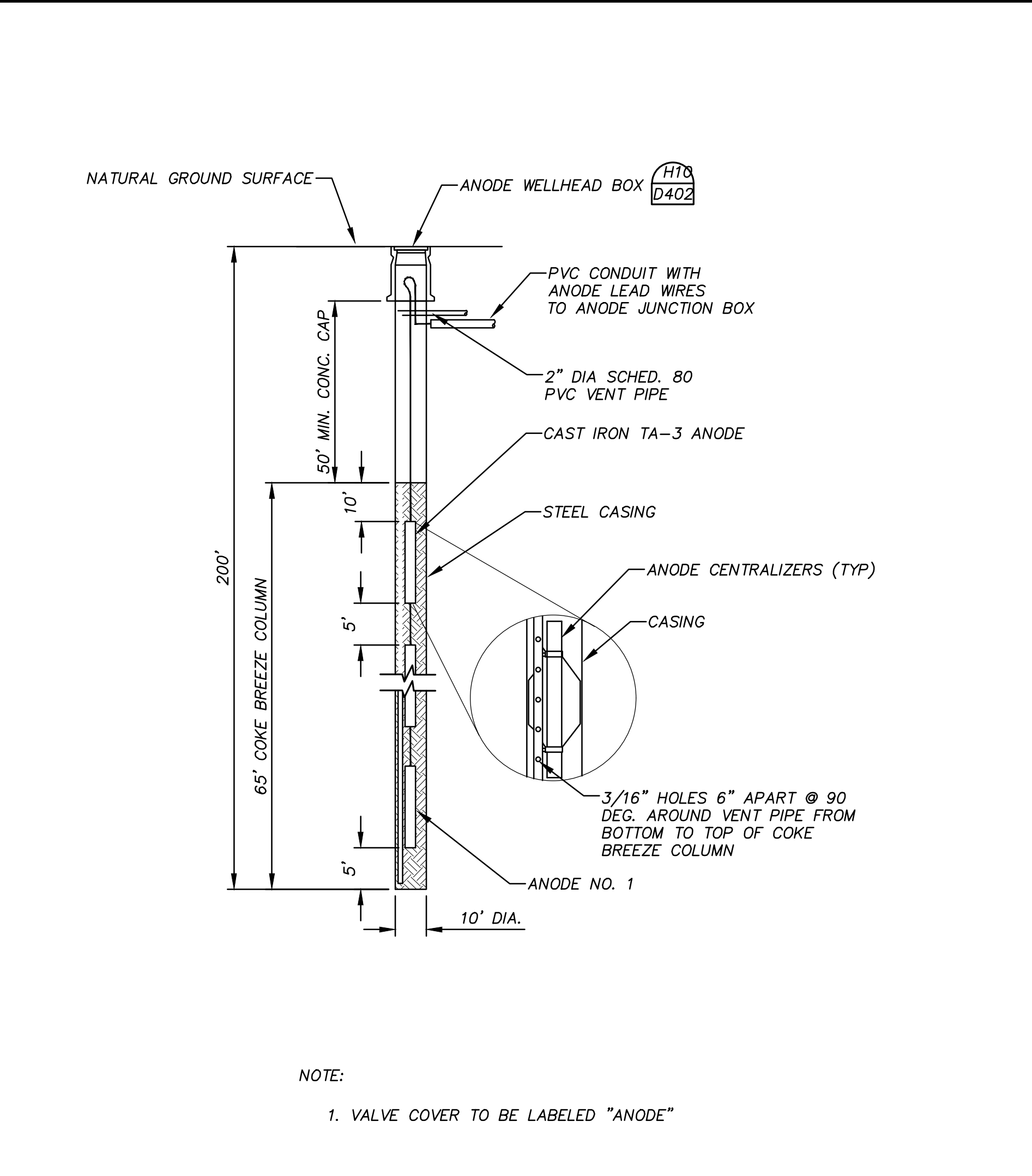
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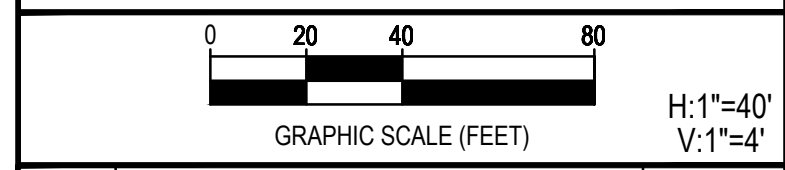
<b>H1</b>	DIELECTRIC INSULATING FLANGE KIT	<b>H5</b>	GROUND ROD	<b>H10</b>	ANODE WELLHEAD BOX
N.T.S.		N.T.S.		N.T.S.	



<b>A1</b>	EXOTHERMIC WELD	<b>A5</b>	JOINT BONDS
N.T.S.		N.T.S.	



<b>A10</b>	DEEP ANODE WELL
N.T.S.	



REV.	DESCRIPTION	DATE



**SSLGC**

TWDB PROJECT - PHASE 2

CATHODIC PROTECTION  
DETAILS

4-13-2020  
DATE

*John F. Winkler*  
JOHN F. WINKLER

	PM	JFW
	DESIGNED	JFW
	DRAFTED	ARC
	CHECKED	JFW
	PROJECT NO.	1-03153
DRAWING NO.		<b>D402</b>



