# ASHTABULA COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES

# LENOX NEW LYME WATERLINE EXTENSION

# JEFFERSON TOWNSHIP

### **OHIO 811 DESIGN SERIAL NUMBER & UTILITY LIST:**

XX - STATE ROUTE 534

OHIO UTILITY PROTECTION SERVICE: 106 WEST RYEN, ROOM 427 YOUNGSTOWN, 44051 (800) 362-2764

CLEVELAND ELECTRIC ILLUMINATING CO: 2210 SOUTH RIDGE ROAD ASHTABULA, OHIO 44004

THE EAST OHIO GAS COMPANY: 1010 WEST 30TH STREET ASHTABULA, OHIO 44004 (440) 992-5100 ALL-TEL: 360 HIGHLAND ROAD MACEDONIA, OHIO 44067 (800) 782-6206

SPRINT: PO BOX 3555 MANSFIELD, OHIO 44907 (800) 786-6272

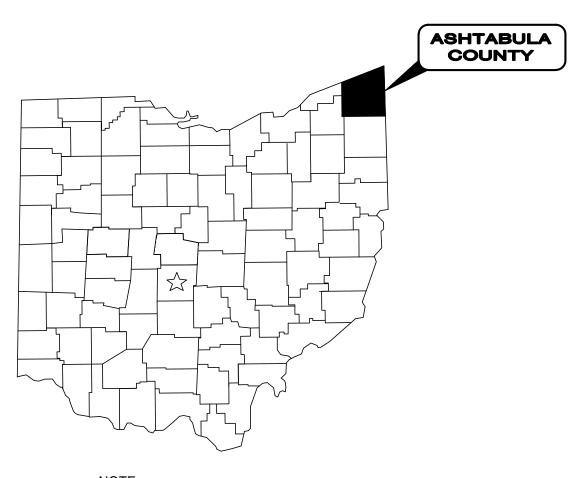


ENVIRONMENTAL
SERVICES:
36 W. WALNUT STREET
JEFFERSON, OHIO

(440) 576-3722 PHONE (440) 576-3781 FAX

TCI: 2904 STATE ROAD ASHTABULA, OHIO 44004 (440) 998-2148

- 1. UNDERGROUND BUILDING SERVICE UTILITY LINES ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING, MAINTAINING AND REPLACING AS NECESSARY TO ENSURE CONTINUAL SERVICE TO BUILDINGS.
- 2. THE CONTRACTOR IS RESPONSIBLE TO CALL OHIO UTILITIES PROTECTION SERVICE @ 1-800-362-2764, THREE WORKING DAYS PRIOR TO CONSTRUCTION.



OHIO
Utilities Protection
SERVICE
Call Before You Dig

1-800-362-2764

NOTE:

THE SURVEY SHOWN ON THESE PLANS WAS OBSERVED IN THE FIELD FOR CONSTRUCTION PURPOSES ONLY AND MAY NOT BE SUITABLE FOR PROPERTY LINE SURVEYS OR ANY OTHER PURPOSE.

## **AUGUST 2024**

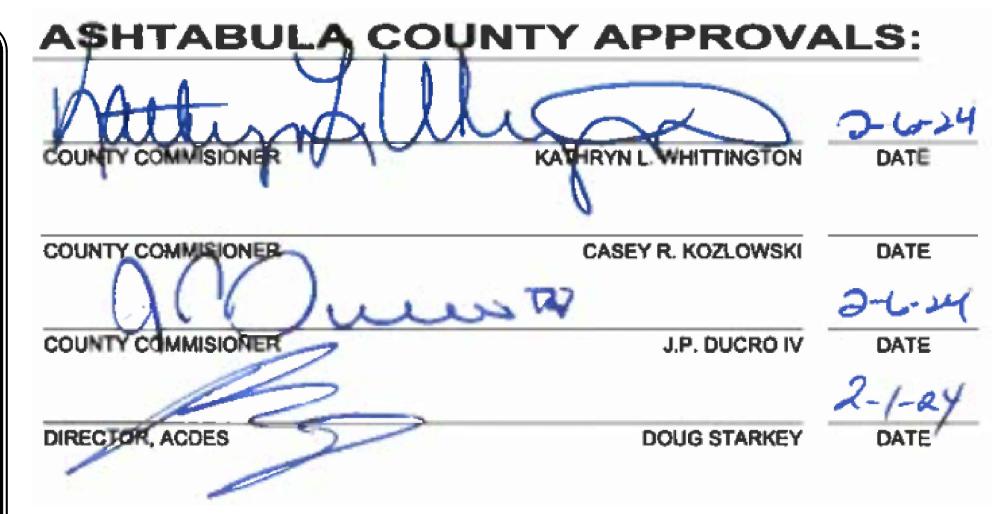


LOCATION MAP

NOT TO SCALE



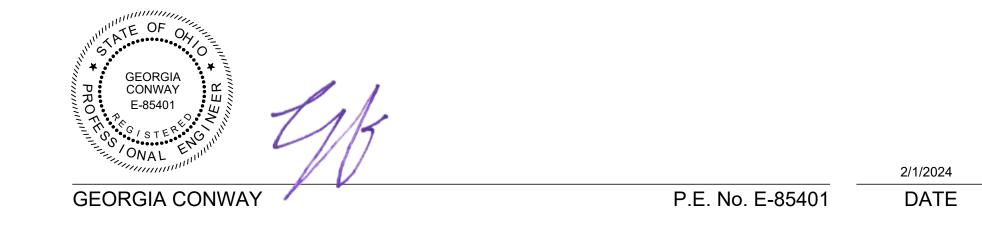
**ENGINEER'S PROJECT No. 232009** 



## **ENGINEER/ARCHITECT:**

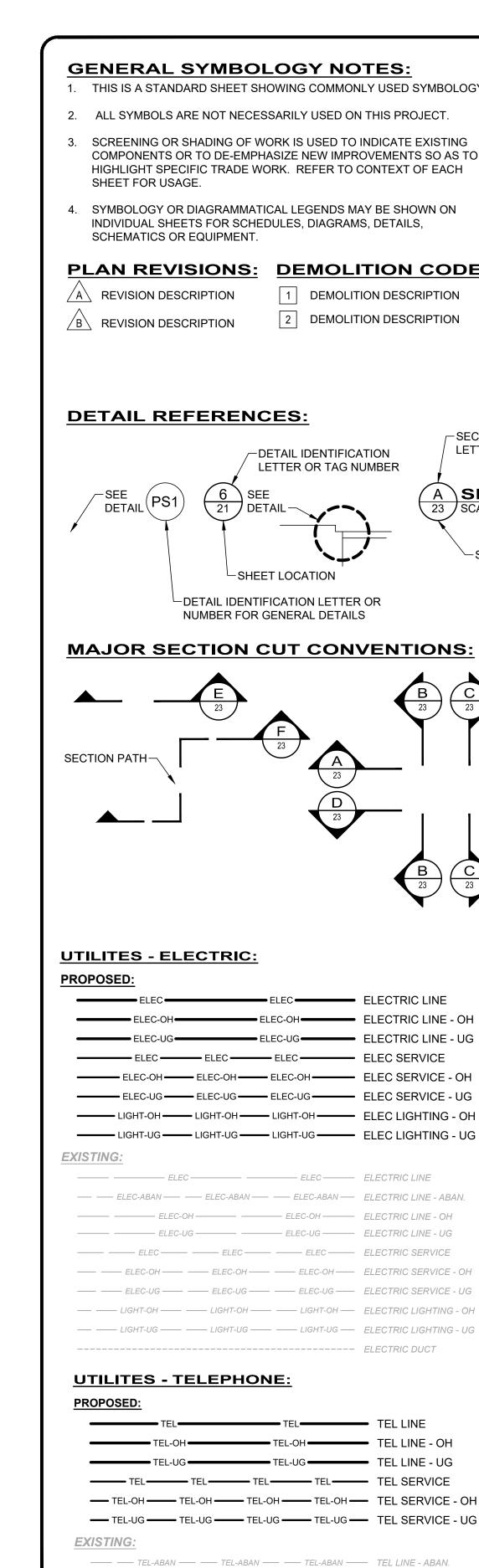
CT CONSULTANTS, INC. 8150 STERLING COURT MENTOR, OH 44060

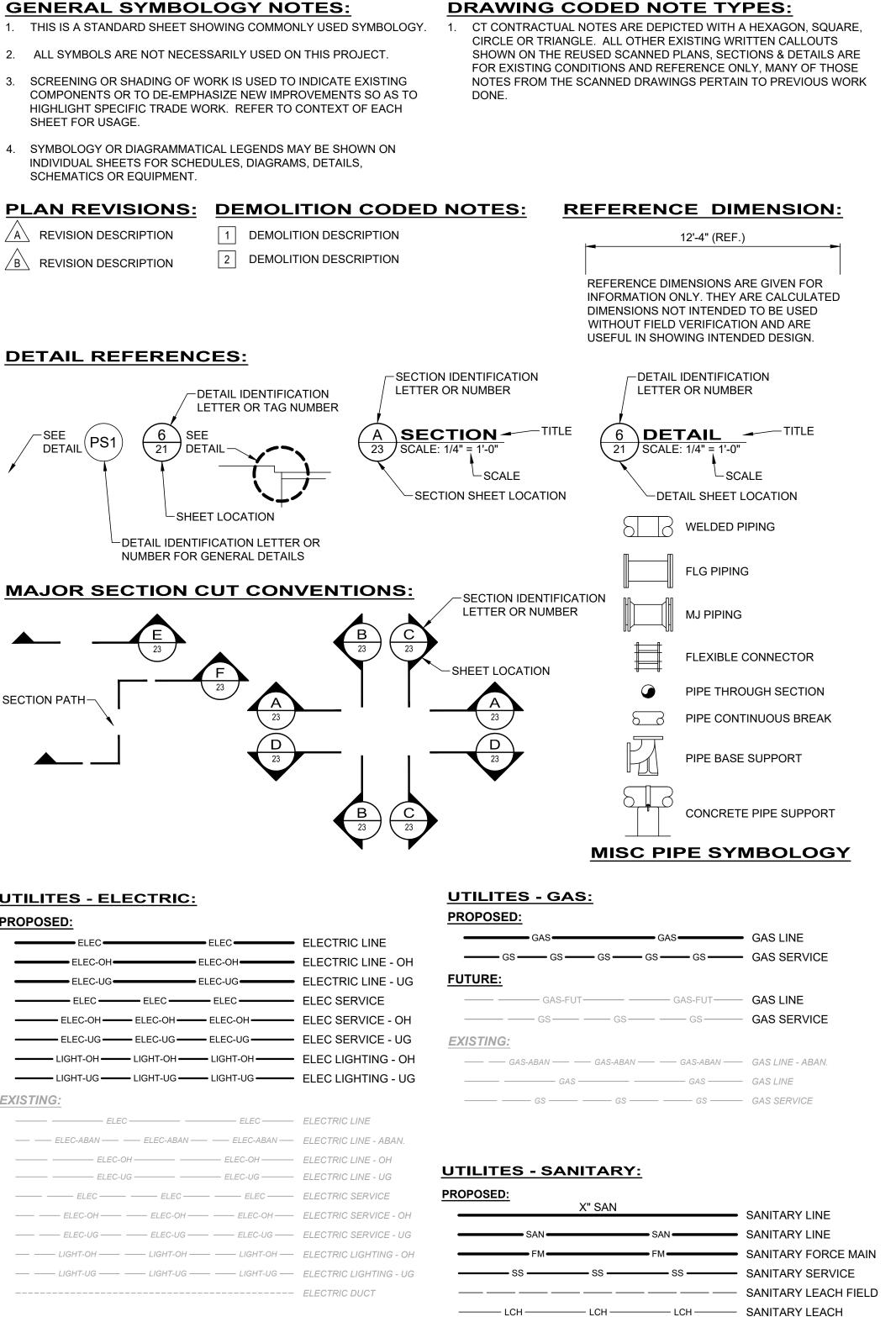
(440) 951-9000 PHONE (440) 951-7487 FAX



232009 DISCIPLINE CIVIL SHEET NAME

00G-01

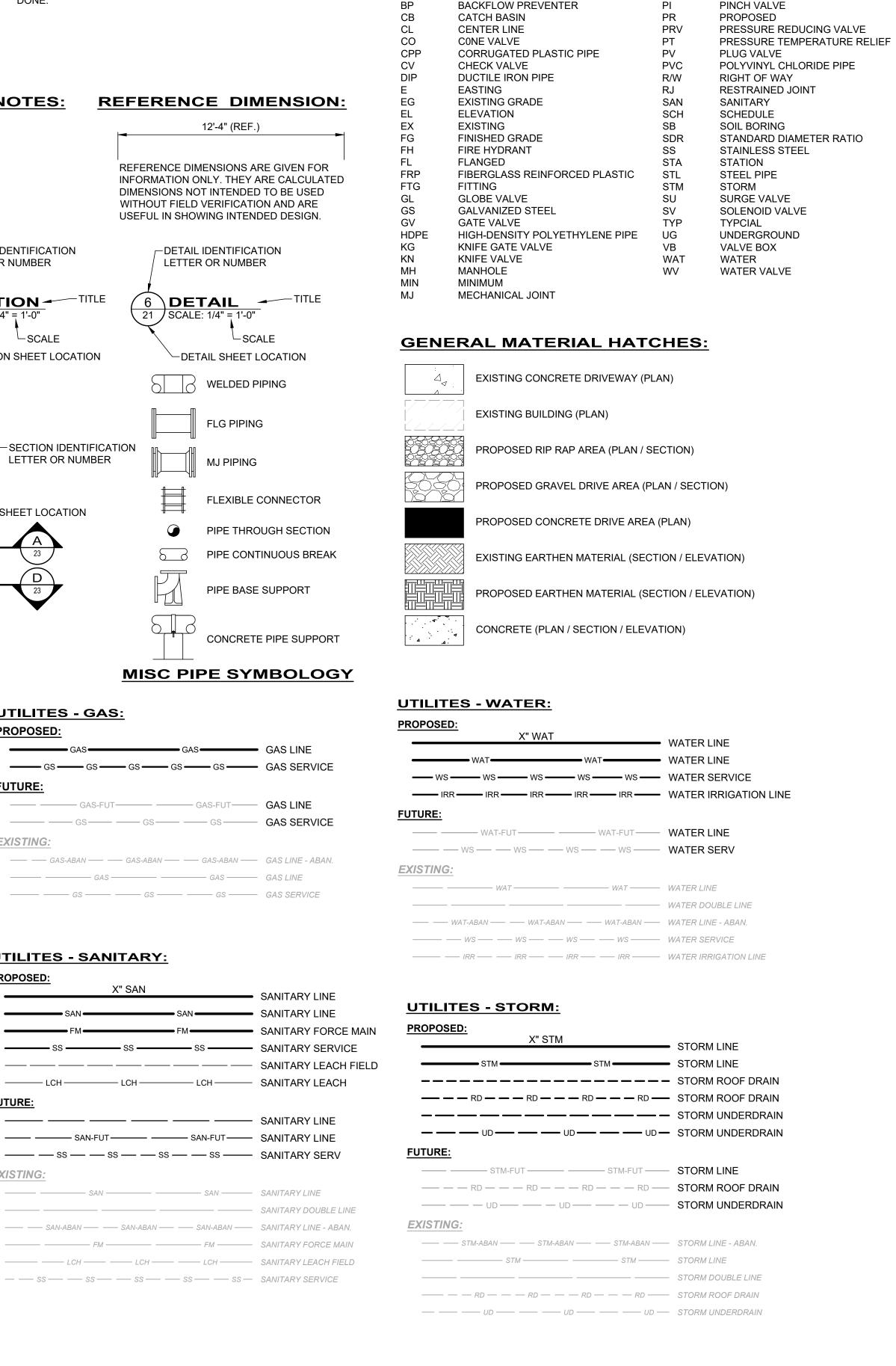




**FUTURE:** 

**EXISTING:** 

— SAN — SAN SANITARY LINE



**GENERAL ABBREVIATIONS:** 

MUD VALVE

**NORTHING** 

OVERHEAD

PLUG DRAIN VALVE

PRESSURE RELIEF

PRESSURE REGULATOR

AIR RELEASE VALVE

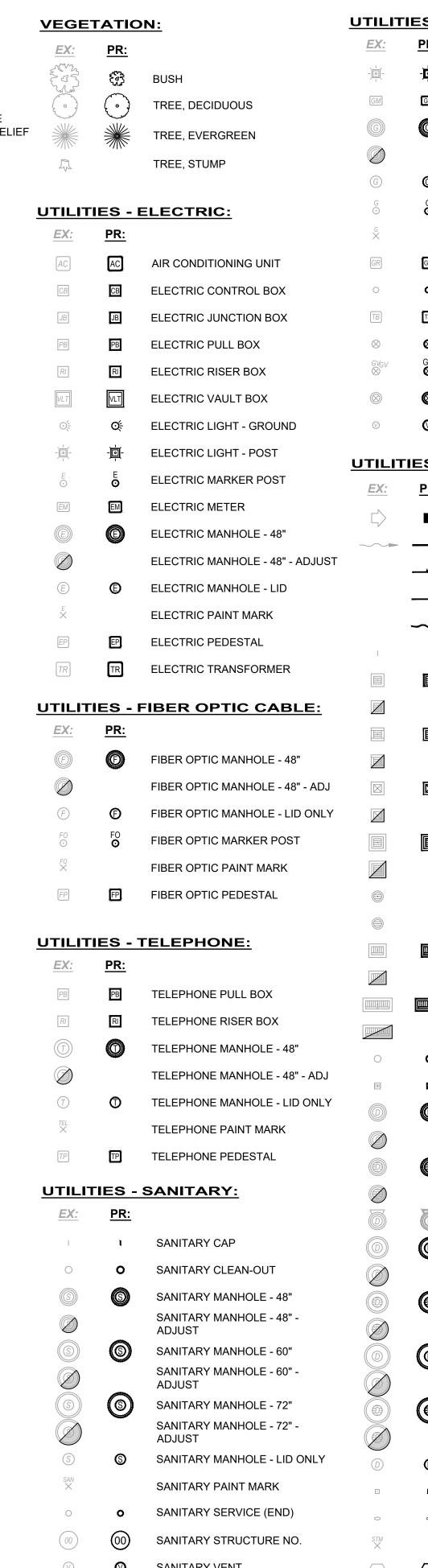
AIR & VACUUM VALVE

BACKPRESSURE VALVE

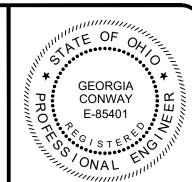
**BUTTERFLY VALVE** 

BALL VALVE

BENCH MARK







PROJECT NO. 232009 DISCIPLINE CIVIL SHEET NAME 00G-02

——— TEL ——— TEL ——— TEL ——— TELEPHONE LINE

—— TEL-OH —— TEL-OH —— TEL-OH —— TEL SERVICE - OH

----- TEL-UG ----- TEL-UG ----- TEL-UG ----- TEL SERVICE - UG

---- TELEPHONE DUCT

----- TEL ----- TEL ----- TEL SERVICE

#### **GENERAL:**

- 1. THE CONTRACTOR SHALL PERFORM ALL OF THE WORK AND FURNISH ALL OF THE LABOR AND MATERIALS NECESSARY FOR THE FINAL COMPLETION OF THIS CONTRACT IN THE MANNER AND UNDER THE CONDITIONS HEREIN SPECIFIED AND PROVIDED AND IN ACCORDANCE WITH THE CONTRACT DRAWINGS.
- 2. THE CONTRACTOR SHALL NOTIFY ASHTABULA COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES A MINIMUM OF FIVE (5) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION TO ARRANGE A PRE-CONSTRUCTION MEETING. NO WORK SHALL BEGIN UNTIL A PRE-CONSTRUCTION MEETING HAS BEEN
- 3. A PRE-CONSTRUCTION VIDEO TAPE OF THE PROJECT AREA WILL BE REQUIRED AND SUBMITTED TO THE ENGINEER BEFORE CONSTRUCTION BEGINS.
- 4. ACCESS TO ALL DRIVEWAYS WILL BE MAINTAINED AT ALL TIMES EXCEPT THE TIME WHEN UTILITY INSTALLATION AND PAVEMENT REPLACEMENT WILL NOT PERMIT
- 5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING A SITE FOR DISPOSAL OF ALL EXCAVATED MATERIAL THAT IS UNSUITABLE FOR USE AS BACKFILL AND ALL OTHER EXCESS EXCAVATED MATERIALS. THE CONTRACTOR SHALL PROVIDE THE COUNTY WITH THE LOCATION OF THE DISPOSAL SITE AND WRITTEN PERMISSION FOR USE OF THE SITE FROM THE PROPERTY OWNER.
- 6. ALL OVER-THE-ROAD VEHICLES USED ON THE PROJECT BY ALL CONTRACTORS AND SUBCONTRACTORS WILL BE CLEARLY MARKED SHOWING ITS COMPANY SYMBOL.
- 7. BEFORE THE COUNTY WILL APPROVE AND ACCEPT THE WORK AND RELEASE THE GUARANTY RETAINER, THE CONTRACTOR WILL FURNISH CONCORD TOWNSHIP A WRITTEN REPORT INDICATING THE RESOLUTION OF ANY AND ALL PROPERTY DAMAGE CLAIMS FILED WITH THE CONTRACTOR BY ANY PARTY DURING THE CONSTRUCTION PERIOD. THE INFORMATION TO BE SUPPLIED SHALL INCLUDE, BUT NOT BE LIMITED TO, NAME OF CLAIMANT. DATE FILED WITH CONTRACTOR, NAME OF INSURANCE COMPANY AND/OR ADJUSTOR HANDLING CLAIM, HOW CLAIM WAS RESOLVED AND IF CLAIM WAS NOT RESOLVED FOR THE THE FULL AMOUNT, A STATEMENT INDICATING THE REASON FOR SUCH ACTION.
- 8. MATERIALS FOR "AS-DIRECTED" ITEMS SHALL NOT BE ORDERED OR DELIVERED TO THE PROJECT SITE OR WORK PERFORMED UNTIL AUTHORIZED BY THE ENGINEER.
- 9. ALL SHOP DRAWINGS WILL BE SUBMITTED TO THE ENGINEER FOR CHECKING.
- 10. THE CONTRACTOR SHALL PERFORM WORK AS TO NOT DISTURB, DAMAGE OR DESTROY ANY MAILBOX, PAPERBOX, TELEPHONE OR POWER POLES, SIGNS, LANDSCAPING ITEMS, ETC.. ANY ITEM DAMAGED OR DESTROYED SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. ANY ITEM DISTURBED OR IN CONFLICT WITH THE WORK TO BE PERFORMED SHALL BE REMOVED AND RESET AT THE CONTRACTOR'S EXPENSE. PRIOR ENGINEER APPROVAL IS REQUIRED BEFORE ANY OF THE ABOVE ITEMS ARE PERFORMED.
- 11. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO APPLY, WHEN ORDERED BY THE OWNER, WATER OR CALCIUM CHLORIDE FOR THE ALLEVIATION OR PREVENTION OF DUST NUISANCE ORIGINATING FROM HIS CONSTRUCTION ACTIVITIES. SUFFICIENT QUANTITIES OF CALCIUM CHLORIDE SHALL BE STORED ON THE JOB SITE AT ALL TIMES TO BE USED FOR DUST CONTROL.
- 13. ALL SOIL AREAS DISTURBED SHALL BE TOPSOILED (4" THICK), SEEDED AND MULCHED
- 14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION LAYOUT.
- 15. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS BEFORE INSTALLING ANY PROPOSED CONDUIT. ANY ADJUSTMENTS NEEDED SHALL BE APPROVED BY THE ENGINEER.

#### **TEMPORARY PAVEMENT AND MAINTENANCE OF TRAFFIC:**

1. THE CONTRACTOR SHALL REMOVE ALL PAVEMENTS AND ROAD SURFACES WITHIN THE LINES OF EXCAVATION IN ACCORDANCE WITH THE PLANS AND DETAILS. AFTER THE PAVEMENT HAS BEEN REMOVED AND THE PIPE HAS BEEN LAID, ALL APPURTENANT WORK CONSTRUCTED AND BACKFILL COMPLETED, THE CONTRACTOR SHALL FURNISH, PLACE AND MAINTAIN WHEREVER THE PLACEMENT OF ROAD AND SURFACE HAS BEEN REMOVED OR DAMAGED. A TEMPORARY PAVEMENT IN THE PAVED PORTION OF STREETS AND DRIVEWAYS SO AS TO PROVIDE A SAFE AND PASSABLE ROADWAY UNTIL SUCH TIME AS THE FINAL PAVEMENT IS COMPLETED. ACCESS TO ALL DRIVES SHALL BE MAINTAINED AT ALL TIMES EXCEPT BRIEFLY DURING WORKING HOURS WHEN CONSTRUCTION ACTIVITIES PROHIBIT.

#### PROTECTION AGAINST VANDALISM:

1. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE SUFFICIENT SITE SECURITY MEASURES AND / OR PERSONNEL TO PROTECT ALL NEW CONCRETE WORK FROM VANDALISM UNTIL THE CONCRETE IS SUFFICIENTLY CURED AT NO ADDITIONAL COST.

#### **RESTORATION:**

- 1. THE CONTRACTOR SHALL CLEAN UP ALL DEBRIS AND MATERIALS RESULTING FROM HIS OPERATION AND RESTORE ALL SURFACES, STRUCTURES, DITCHES AND PROPERTY TO ITS ORIGINAL CONDITION TO THE SATISFACTION OF THE ENGINEER. ANY DITCHES DISTURBED DURING CONSTRUCTION SHALL BE REGRADED BY THE END OF THE SAME WORKDAY.
- 2. ALL EXISTING STORM AND SANITARY SEWER FACILITIES, INCLUDING TILE, DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED, REPLACED OR RECONNECTED TO THE EXISTING OR PROPOSED SYSTEM AS DIRECTED BY THE ENGINEER AT NO COST TO THE OWNER.

#### SANITARY, STORM, AND WATER SERVICE CONNECTIONS:

- 1. THE FOLLOWING NOTES APPLY TO SANITARY, STORM, AND WATER CONNECTIONS
  - a. LOCATIONS OF EXISTING SERVICE CONNECTIONS ARE APPROXIMATE. THE CONTRACTOR SHALL FIELD LOCATE ALL EXISTING CONNECTIONS AT NO ADDITIONAL COST TO THE COUNTY. THE CONTRACTOR SHALL RECORD ACTUAL LOCATION INFORMATION ON HIS RECORD DRAWINGS AS CONSTRUCTION OCCURS.
  - b. THERE SHALL BE NO ADDITIONAL PAYMENT MADE FOR SAW CUTTING, EXCAVATION OR BACKFILL, INCLUDING MATERIALS AND LABOR FOR, PIPING, CAPS, BULKHEADS AND APPURTENANCES PLACED FOR LATERALS WHICH ARE DETERMINED TO BE INACTIVE AND THUS ARE TO BE ABANDONED.
  - c. NO INACTIVE LATERALS SHALL BE RECONNECTED TO THE SEWER.
- 2. THE CONTRACTOR SHALL BE REQUIRED TO BYPASS AND MAINTAIN THE FLOW FROM ALL HOUSE UTILITY CONNECTIONS DURING CONSTRUCTION.
- 3. THE CONTRACTOR SHALL SUPPLY ALL PIPE AND ADAPTERS TO CONNECT TO EXISTING PIPING. THE ADAPTERS MUST BE SUBMITTED TO AND APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION
- 4. EXISTING SEWER AND WATER SERVICE CONNECTIONS SHALL BE PROTECTED AND MAINTAINED IN SERVICE. ANY EXISTING WATERLINE, SANITARY SEWER, AND GAS LINE, IN OR OUTSIDE OF THE CONSTRUCTION LIMITS, DAMAGED DURING CONSTRUCTION OF THE PROPOSED PROJECT, WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

#### **ROADWAY EXCAVATION AND PAVEMENT:**

1. ALL PAVEMENT REMOVAL AND REPLACEMENT, NEW PAVEMENT AND ASSOCIATED ROADWAY WORK WILL BE IN ACCORDANCE WITH THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS, STANDARD CONSTRUCTION DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS. CURRENT ISSUE, WITH THE MODIFICATIONS AS SET FORTH IN THESE SPECIFICATIONS.

#### METER BOXES, VALVES BOXES, STRUCTURES ADJUSTED TO GRADE:

 ALL EXISTING MANHOLES, CATCH BASINS, MONUMENT BOXES, WATER METER BOXES, WATER VALVE BOXES, GAS VALVE BOXES OR OTHER EXISTING UTILITY APPURTENANCES WITHIN THE WORK LIMITS SHALL BE ADJUSTED TO THE PROPOSED GRADE AND FLUSH WITH THE NEW SURFACE. ANY METER OR VALVE BOX ENCOUNTERED WITHIN THE WORK SITE SHALL BE EXPOSED. CONTRACTOR TO SUPPLY 1" RISER FOR ALL VALVE BOXES ADJUSTED TO GRADE.

#### **EXCESS EXCAVATION:**

- 1. ALL EXCESS EXCAVATION SHALL BE DISPOSED OF IN A LOCATION TO BE SELECTED BY THE CONTRACTOR. THE CONTRACTOR MUST OBTAIN A PERMIT FROM THE COUNTY IF THE MATERIAL IS TO BE DISPOSED OF WITHIN THE COUNTY LIMITS.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER DISPOSAL OF ALL CONSTRUCTION

#### PRESERVATION OF PROPERTY CORNERS AND SURVEY MARKERS:

 THE CONTRACTOR WILL CAREFULLY PRESERVE BENCH MARKS, PROPERTY CORNERS, REFERENCE POINTS, AND STAKES AND IN CASE OF DISTURBANCE, HE SHALL ENGAGE A REGISTERED SURVEYOR TO REPLACE THEM AT HIS EXPENSE AND SHALL BE RESPONSIBLE FOR ANY MISTAKES THAT MAY BE CAUSED BY THEIR LOSS OR DISTURBANCE.

#### **SUBSURFACE CONDITIONS:**

1. IT IS THE OBLIGATION AND RESPONSIBILITY OF THE CONTRACTOR TO MAKE HIS OWN INVESTIGATION OF SUBSURFACE CONDITIONS PRIOR TO SUBMITTING HIS BID.

#### STATIONING AND LOCATIONS:

1. ALL LOCATIONS AND ITEMS CALLED OUT BY STATION ARE SUBJECT TO ADJUSTMENT IN THE FIELD AS APPROVED BY THE ENGINEER.

#### NOISE CONTROL:

1. CONSTRUCTION ACTIVITIES WILL BE LIMITED TO WEEKDAY DAYTIME HOURS UNLESS APPROVED 48 HOURS IN ADVANCE BY THE COUNTY.

#### LANDSCAPING BEDS, PLANTINGS AND TREE PROTECTION/ REMOVAL:

- 1. ANY LANDSCAPING BEDS, PLANTINGS AND TREES DISTURBED BY CONSTRUCTION ACTIVITIES BEYOND THE RIGHT-OF-WAY SHALL BE RESTORED TO ITS ORIGINAL CONDITION OR REPLACED AS DIRECTED BY THE
- 2. ALL TREES WITHIN THE RIGHT-OF-WAY THAT ARE IN CONFLICT WITH CONSTRUCTION ARE TO BE REMOVED BY THE CONTRACTOR AND ARE TO BE INCLUDED IN THE COST FOR CLEARING AND GRUBBING.

#### MAILBOXES, FENCES, NEWSPAPER BOXES OR STREET **SIGNS AND SUPPORTS:**

1. WHEN MAILBOXES, FENCES, NEWSPAPER BOXES OR STREET SIGNS AND SUPPORTS INTERFERE WITH CONSTRUCTION, THE CONTRACTOR SHALL REMOVE AND ERECT THEM IN A TEMPORARY LOCATION DURING THE CONSTRUCTION (EXCEPT FENCES). AFTER COMPLETION OF THE CONSTRUCTION AND BEFORE FINAL ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL ERECT THE MAILBOXES, FENCES, NEWSPAPER BOXES OR STREET SIGNS AND SUPPORTS ALL IN A PERMANENT LOCATION IN ACCORDANCE WITH THE PLANS UNLESS OTHERWISE DIRECTED BY THE ENGINEER. THE WORK SHALL BE INCLUDED IN THE UNIT PRICES BID FOR OTHER ITEMS.

#### **SALVAGED ITEMS:**

1. THE COUNTY SHALL RECEIVE ALL SALVAGED ITEMS SUCH AS MANHOLE CASTINGS, FIRE HYDRANTS, VALVE CAPS, ETC. THE COUNTY HAS THE RIGHT OF FIRST REFUSAL FOR ALL STEEL REMOVED FROM THE PROJECT.

#### **EXISTING UTILITIES:**

- 1. EACH CONTRACTOR SHALL VISIT THE SITE PERSONALLY TO ASCERTAIN THE NATURE OF THE WORK AND THOROUGHLY FAMILIARIZE HIMSELF WITH THE SITE PRIOR TO BID SUBMISSION.
- 2. THE DATA SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR. THE EXISTENCE OF FACILITIES ABOVE OR BELOW GROUND, WHICH MAY NOT BE SHOWN, MAY NOT BE A BASIS FOR A CLAIM FOR EXTRA WORK.
- 3. THE LOCATIONS OF THE UNDERGROUND UTILITIES ARE PLOTTED ACCORDING TO THE INFORMATION FURNISHED BY THE UTILITIES CONCERNED AND THE COUNTY DOES NOT GUARANTEE THE ACCURACY THEREOF. CONTRACTOR ALSO TO COORDINATE HIS WORK WITH THE THE COUNTY. THE ILLUMINATING CO.. DOMINION EAST OHIO GAS COMPANY AND CHARTER COMMUNICATIONS FOR GAS LINE AND/OR POLE RELOCATION.
- 4. WHERE EXISTING POWER OR TELEPHONE POLES ARE IN CLOSE PROXIMITY TO WORK, THE CONTRACTOR SHALL COORDINATE HIS WORK EFFORTS WITH THOSE OF THE UTILITY COMPANIES SUCH THAT THEIR EXISTING FACILITIES CAN BE MAINTAINED AND PROTECTED DURING THE TIME WORK IS GOING ON ADJACENT TO THE POLE. THE COST FOR ANY REQUIRED PROTECTION OR RELOCATION OF EXISTING POWER OR TELEPHONE POLES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND NOT THAT OF THE COUNTY.
- 5. DELAYS TO THE CONTRACTOR AS A RESULT OF TIMING OF POLE RELOCATION OR PROTECTION SHALL NOT BE CONSIDERED COMPENSABLE DELAYS, AS IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE HIS WORK IN CONFORMANCE TO THE UTILITY COMPANY'S SCHEDULE.
- 6. BEFORE ANY WORK IS STARTED THAT WILL INTERFERE WITH THE EXISTING UTILITIES. THE CONTRACTOR SHALL CALL THE "OHIO UTILITIES PROTECTION SERVICE" AT 1-800-362-2764, FORTY-EIGHT (48) HOURS IN ADVANCE OF THE WORK. NON-MEMBER UTILITIES MUST BE CONTACTED DIRECTLY. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS, AT NO ADDITIONAL EXPENSE TO THE COUNTY, TO AVOID DAMAGE TO EXISTING UNDERGROUND AND OVERHEAD UTILITY LINES DURING THE ENTIRE PROJECT. IN THE EVENT OF DAMAGE TO EXISTING PUBLIC AND/OR PRIVATE UTILITIES. THE AGENCY CONCERNED SHALL BE NOTIFIED IMMEDIATELY AND ALL REPAIR WORK SHALL BE EXECUTED IN ACCORDANCE WITH THE SPECIFICATIONS OF THE RESPECTIVE AGENCY AT NO ADDITIONAL EXPENSE TO THE COUNTY, INCLUDING ANY INSPECTION FEES OR MAINTENANCE CREWS. THE UTILITY OWNERSHIPS ARE LISTED BELOW.
- 7. WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY. THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.
- 8. IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.
- 9. IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

#### **ENDANGERED SPECIES**

1. THIS PROJECT IS WITHIN THE RANGE OF SEVERAL STATE AND FEDERALLY THREATENED AND ENDANGERED BAT SPECIES (INDIANA BAT, NORTHERN LONG-EARED BAT, LITTLE BROWN BAT, TRICOLORED BAT) AND MAY IMPACT SUMMER ROOSTING HABITAT FOR THESE SPECIES. THESE SPECIES DEPEND UPON TREES WITH PEELING BARK, CAVITIES, CREVICES, AND DEAD AND DYING TREES. PER U.S. FISH AND WILDLIFE SERVICE RECOMMENDATION, THE REMOVAL OF TREES GREATER THAN OR EQUAL TO 3-INCHES DIAMETER AT BREAST HEIGHT SHOULD ONLY OCCUR BETWEEN OCTOBER 1ST AND MARCH 31ST. IF THIS TIME FRAME CANNOT BE FOLLOWED, THE U.S. FISH AND WILDLIFE SERVICE (614-416-8993) AND OHIO DEPARTMENT OF NATURAL RESOURCES (CONTACT EILEEN WYZA, EILEEN.WYZA@DNR.OHIO.GOV) MUST BE CONTACTED PRIOR TO CUTTING FOR GUIDANCE ON NECESSARY STEPS TO DOCUMENT THE ABSENCE OR PRESENCE OF THESE

#### ARCHAEOLOGICAL AND HISTORICAL RESOURCES

1. CONTRACTORS AN SUBCONTRACTORS ARE REQUIRED UNDER OHIO REVISED CODE SECTION 149.53 TO NOTIFY THE OHIO HISTORICAL SOCIETY AND THE OHIO HISTORIC SITE PRESERVATION BOARD OF ARCHAEOLOGICAL DISCOVERIES LOCATED IN THE PROJECT AREA AND TO COOPERATE WITH THOSE ENTITIES IN ARCHAEOLOGICAL AND HISTORIC SURVEYS AND SALVAGE EFFORTS IF SUCH DISCOVERIES ARE UNCOVERED WITHIN THE PROJECT AREA. CONTACT: STATE HISTORIC PRESERVATION OFFICE: 614-298-2000

#### SPILL PREVENTION:

CONTRACTORS AND SUBCONTRACTORS SHOULD IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES FOR THE PREVENTION OF DISCHARGE OF HAZARDOUS MATERIALS TO SURFACE AND GROUND WATERS AND THE ENVIRONMENT. ALL SPILLS MUST BE REPORTED TO THE OHIO SPILL LINE (1-800-282-9378 OR1-614-224-0946) IN ACCORDANCE WITH OAC 3750.06.

#### LIMITS OF WORK:

1. THE CONTRACTORS CONSTRUCTION OPERATIONS ARE CONFINED TO THE AREA WITHIN THE ROAD RIGHT-OF-WAY OR EASEMENT AREA. THE CONTRACTOR SHALL USE THE APPROPRIATE CONSTRUCTION METHODS TO PREVENT DISTURBING ANY AREA OUTSIDE THE ROAD RIGHT-OF-WAY OR EASEMENT AREA.

#### **MATERIAL STORAGE:**

- 1. ALL EXCAVATED MATERIAL AND ALL MATERIAL USED IN CONSTRUCTION OF THE WORK SHALL BE STORED IN A MANNER THAT WILL NOT ENDANGER THE WORK AND THAT WILL LEAVE DRIVEWAYS, HYDRANTS UNDER PRESSURE, VALVE PIT COVERS, VALVE BOXES, CURB STOP BOXES OR OTHER UTILITY CONTROLS UNOBSTRUCTED AND ACCESSIBLE WHILE THE WORK IS BEING COMPLETED. GUTTERS SHALL BE KEPT CLEAR AND MAINTAINED AT ALL TIMES OR OTHER SATISFACTORY PROVISIONS SHALL BE MADE FOR STREET DRAINAGE, NATURAL DRAINAGE COURSES SHALL NOT BE OBSTRUCTED DURING THE PROCESS OF WORK. ALL MATERIALS SHALL BE KEPT TRIMMED UP AND MAINTAINED IN A NEAT MANNER.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DISPOSAL OF ALL TREES, STUMPS, BROKEN PAVEMENT AND ALL CONSTRUCTION DEBRIS OF WHATEVER NATURE OUTSIDE THE WORK LIMITS OF THE PROJECT. NO EXTRA PAYMENT WILL BE MADE BY THE OWNER FOR THE REMOVAL AND DISPOSAL OF DEBRIS.



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> PROJECT NO. 232009 DISCIPLINE CIVIL SHEET NAME

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## ENVIRONMENTAL PROTECTION - PROHIBITED CONSTRUCTION ACTIVITIES:

- 1. LOCATING STOCKPILE STORAGE AREAS IN ENVIRONMENTALLY SENSITIVE AREAS.
- 2. INDISCRIMINATE, ARBITRARY OR CAPRICIOUS OPERATION OF EQUIPMENT IN ANY STREAM CORRIDORS, WETLANDS, SURFACE WATERS OR OUTSIDE THE EASEMENT LIMITS.
- 3. PUMPING OF SEDIMENT-LADEN WATER FROM TRENCHES OR OTHER EXCAVATIONS DIRECTLY INTO ANY SURFACE WATERS, STREAM CORRIDORS, WETLANDS OR STORM SEWERS; ALL SUCH WATER WILL BE PROPERLY FILTERED OR SETTLED TO REMOVE SILT PRIOR TO RELEASE.
- 4. DISCHARGING POLLUTANTS SUCH AS CHEMICALS, FUELS, LUBRICANTS, BITUMINOUS MATERIALS, RAW SEWAGE AND OTHER HARMFUL WASTE INTO OR ALONGSIDE OF RIVERS, STREAMS, WETLANDS, SURFACE WATERS, IMPOUNDMENTS OR INTO NATURAL OR MAN-MADE CHANNELS LEADING THERETO.
- 5. PERMANENT OR UNSPECIFIED ALTERATION OF THE FLOW LINE OF ANY STREAM.
- 6. DAMAGING ANY VEGETATION OUTSIDE OF THE CONSTRUCTION AREA.
- 7. DISPOSAL OF TREES, BRUSH, AND OTHER DEBRIS IN ANY STREAM CORRIDORS, WETLANDS, SURFACE WATERS OR AT UNSPECIFIED LOCATIONS.
- 8. OPEN BURNING OF PROJECT DEBRIS WITHOUT A PERMIT.
- 9. STORING CONSTRUCTION EQUIPMENT AND VEHICLES AND/OR STOCKPILING CONSTRUCTION MATERIALS ON PROPERTY, PUBLIC OR PRIVATE, NOT PREVIOUSLY SPECIFIED ON THE PLANS BY THE ENGINEER FOR SUCH PURPOSES.
- 10. RUNNING WELL POINT OR PUMP DISCHARGE LINES THROUGH PRIVATE PROPERTY OR PUBLIC PROPERTY AND RIGHTS-OF-WAY WITHOUT THE WRITTEN PERMISSION OF THE OWNER AND THE CONSENT OF THE ENGINEER.
- 11. OPERATIONS ENTAILING THE USE OF VIBRATORY HAMMERS OR COMPACTORS OUTSIDE THE HOURS OF 8:00 A.M. AND 4:30 P.M. OR OUTSIDE THE HOURS ALLOWED FOR CONSTRUCTION BY LOCAL ORDINANCES OR REGULATIONS.
- 12. CLOSING OFF CLEAR ACCESS TO ANY PUBLIC ALLEY, STREET, ROAD, AVENUE OR BOULEVARD WITHOUT THE PRIOR CONSENT OF MUNICIPAL OFFICIALS, STATE OF OHIO, THE ENGINEER, AND CLOSING CLEAR ACCESS:
  - BY FIRE PROTECTION EQUIPMENT AND EMERGENCY VEHICLES.
  - BY THE PUBLIC TO ANY COMMERCIAL OR PROFESSIONAL PLACE OF BUSINESS, QUASI-PUBLIC OR PUBLIC ESTABLISHMENT, OR PLACE OF RESIDENCE.
  - BY VEHICLES TO DRIVEWAYS WITHOUT THE PROVISION OF ALTERNATIVE MEANS OF BUILDING INGRESS AND EGRESS.

#### **MAINTENANCE OF TRAFFIC:**

- 1. A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES BY USE OF THE EXISTING PAVEMENT, THE COMPLETED PAVEMENT AND ITEM 614 TEMPORARY PAVEMENT MARKINGS. ACCESS TO ALL DRIVEWAYS SHALL ALSO BE MAINTAINED AT ALL TIMES EXCEPTING THE TIME WHEN CONCRETE CURB OR DRIVE APRONS ARE CURING.
- 2. PRIOR TO THE PRE-CONSTRUCTION MEETING, THE CONTRACTOR SHALL SUBMIT TO THE COUNTY A PROPOSED PROJECT CONSTRUCTION SCHEDULE AND A DETAILED MAINTENANCE OF TRAFFIC PLAN. BOTH THE SCHEDULE AND MAINTENANCE OF TRAFFIC PLAN SHALL BE APPROVED BY THE COUNTY AND ODOT PRIOR TO THE START OF CONSTRUCTION.
- 3. MAINTAINING TRAFFIC SHALL BE IN ACCORDANCE WITH ODOT CONSTRUCTION & MATERIALS SPECIFICATIONS (CMS) ITEM 614 AND THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
- 4. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN SAFE AND SATISFACTORY LOCAL ACCESS, VEHICULAR AND PEDESTRIAN, TO ALL ABUTTING PROPERTIES WITHIN THE PROJECT. THE CONTRACTOR SHALL FURNISH, MAINTAIN, AND SUBSEQUENTLY REMOVE ALL NECESSARY SAFEGUARDS SUCH AS BARRICADES, BARRIERS, TEMPORARY PAVEMENT, LIGHTING, FLAGMEN, CONSTRUCTION SIGNING AND OTHER TRAFFIC CONTROLS SO AS TO AVOID DAMAGE AND/OR INJURY TO AND ENSURE THE SAFETY OF VEHICLES AND PERSONS USING THE ROADWAY DURING CONSTRUCTION BOTH WITHIN AND OUTSIDE OF THE PROJECT LIMITS.
- 5. THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN SIGNS AND SIGN SUPPORTS, AS DETAILED IN THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND ON THE ODOT STANDARD MAINTENANCE OF TRAFFIC DRAWINGS.

#### WATER MAIN SPECIFICATIONS & NOTES:

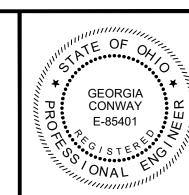
- 1. WATER MAINS (4" THROUGH 24") SHALL BE PVC AWWA C909.
- 2. ALL FITTINGS, BENDS, TEES, PLUGS, ETC. SHALL BE TIED TO THE WATER MAIN WITH EITHER M.J. TYPE CONNECTIONS, TIE RODS OR MEGA-LUGS. TIE RODS SHALL BE 3/4" DIAMETER STAINLESS STEEL. FOR 8" DIAMETER PIPE USE FOUR RODS.
- 3. TAPPING SLEEVES SHALL HAVE A STAINLESS STEEL BODY WITH A DUCTILE IRON FLANGED OUTLET WHICH COMPLIES WITH ANSI B16.1, CLASS 125 AND WITH MSS SP-60. THE GASKET SHALL COMPLETELY SURROUND THE INSIDE OF THE STAINLESS STEEL BODY. THE SLEEVE SHALL COME EQUIPPED WITH A 3/4" NPT BRASS TEST PLUG. MAXIMUM WORKING PRESSURE FOR 4" 12" SIZES (250 psig) AND FOR 14" 24" SIZES (200 psig).
- 4. WATER MAINS SHALL BE PRESSURE TESTED IN ACCORDANCE WITH AWWA C600. ALL TEST RESULTS MUST BE APPROVED BY THE COUNTY BEFORE INSTALLATION OF WATER SERVICES. COST SHALL BE SUBSIDIARY TO THE INSTALLATION OF WATER MAIN. TEST PRESSURE SHALL BE 250 PSI.
- 5. WATER MAINS SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA C651. COST SHALL BE SUBSIDIARY TO THE INSTALLATION OF WATER MAIN.
- 6. THE PROPOSED WATER SYSTEM SHALL MAINTAIN A MINIMUM STATIC PRESSURE OF 35psi DELIVERED TO THE CURB STOP DURING NORMAL OPERATING CONDITIONS.
- 7. BOOSTER PUMPS ARE NOT PERMITTED ON SERVICE CONNECTIONS.
- 8. THE CONTRACTOR SHALL MAINTAIN A MINIMUM 10 FOOT HORIZONTAL SEPARATION AND 18 INCH VERTICAL SEPARATION BETWEEN THE PROPOSED WATER MAIN AND EXISTING STORM SEWERS AS MEASURED FROM OUTSIDE EDGE TO OUTSIDE EDGE UNLESS NOTED ON THE PLAN AND PROFILE SHEETS.
- 9. THE CONTRACTOR SHALL NOT OPERATE OR TURN ANY EXISTING WATER VALVE, UNLESS OTHERWISE SPECIFIED. IF VALVES NEED TO BE OPENED OR CLOSED HE SHALL NOTIFY THE COUNTY.
- 10. ALL ROUGH GRADING TO WITHIN SIX (6) INCHES OF FINISH GRADE SHALL BE COMPLETED OVER THE PROPOSED WATER MAIN PRIOR TO IT'S INSTALLATION.
- 11. THE LOCATION OF EXISTING WATER UTILITIES AS SHOWN ON THESE PLANS WERE DETERMINED FROM AVAILABLE DATA AT THE TIME OF FIELD SURVEYING IN ACCORDANCE WITH SECTION 153.63 OF THE OHIO REVISED CODE.
- 12. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS, PAYING ALL FEES, AND FOLLOWING ALL REQUIREMENTS ASSOCIATED WITH THE PERMITS. THE COUNTY ASSUMES NO LIABILITY FOR NOT FOLLOWING THE ABOVE.
- 13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE OHIO UTILITY PROTECTION SERVICE (OUPS) AS REQUIRED BY LAW.
- 14. NO WATERLINE TIE-INS SHALL BE DONE ON FRIDAYS OR THE DAY BEFORE A COUNTY HOLIDAY.
- 15. DEFLECT WATER MAIN AS REQUIRED TO MAINTAIN ALIGNMENT AS SHOWN ON PLANS. MAXIMUM DEFLECTION IS 3 DEGREES PER JOINT.
- 16. TEMPORARY BLOW-OFF AND FLUSHING ASSEMBLY:
  - A. PIPE SHALL BE TYPE K COPPER WITH COMPRESSION FITTINGS.
  - B. CORPORATION STOPS SHALL BE GROUND KEY DESIGN, CAST FROM A BRASS ALLOY AND CONFORM TO AWWA C800. INLET END SHALL HAVE AWWA TAPER THREADS. OUTLET END SHALL HAVE COPPER COMPRESSION QUARTER BEND CONNECTION. ALL TAPS SHALL BE MADE ON TOP OF THE WATER MAIN. CORPORATION STOPS AND QUARTER BENDS SHALL BE BLOCKED.
  - C. CURB VALVES (STOPS) SHALL BE ONE PIECE DESIGN, CAST FROM A BRASS ALLOY, CONFORM TO AWWA C800, HAVE A MAXIMUM WORKING PRESSURE OF 175 PSIG AND HAVE A QUARTER TURN CHECK. BOTH ENDS SHALL HAVE COPPER COMPRESSION FITTINGS.
  - D. LOCATIONS SHALL BE AS SHOWN ON THE DRAWINGS, AT A MINIMUM. CONTRACTOR SHALL INSTALL ADDITIONAL ASSEMBLIES AS NEEDED TO EXHAUST AIR AND TO COMPLY WITH REGULATIONS REGARDING PRESSURE TESTING, BACTERIA SAMPLING AND FLUSHING.
  - E. AT COMPLETION OF TESTING, CLOSE CORPORATION STOP, REMOVE COPPER PIPING AND INSERT PLUG ON CORPORATION STOP.
  - F. NO SEPARATE PAYMENT SHALL BE MADE FOR TEMPORARY BLOW-OFFS AND FLUSHING ASSEMBLIES.

#### **EXCAVATION, BACKFILL, AND COMPACTION:**

- 1. ALL UTILITY LINES (i.e. STORM SEWERS, STORM LATERALS, SANITARY LATERALS, WATER MAINS, WATER SERVICE CONNECTIONS, GAS MAINS, GAS SERVICE CONNECTIONS, UNDERGROUND OBT CONDUITS, CABLE T.V. LINES) CROSSING THE PROPOSED IMPROVEMENTS, WHETHER SHOWN OR NOT SHOWN ON THE PLANS, SHALL BE PROTECTED AND SUPPORTED WITH HARDWOOD PLANKS OR REMOVED AND REPLACED, RECONNECTED AND SUPPORTED ACROSS THE ENTIRE WIDTH OF THE TRENCH. NO ADDITIONAL COMPENSATION WILL BE PAID FOR THE ABOVE WORK. IF ANY OF THESE LINES ARE DAMAGED DURING CONSTRUCTION, THEY SHALL BE REPLACED.
- 2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ENGINEER FORTY-EIGHT (48) HOURS IN ADVANCE OF BEGINNING WORK WHICH REQUIRES COMPACTION TESTING AND/OR PRE-POUR INSPECTION PRIOR TO PLACEMENT OF PAVEMENT. WORK WILL NOT BEGIN UNTIL TESTING AND/OR INSPECTION HAS BEEN COMPLETED AND APPROVED BY THE ENGINEER.

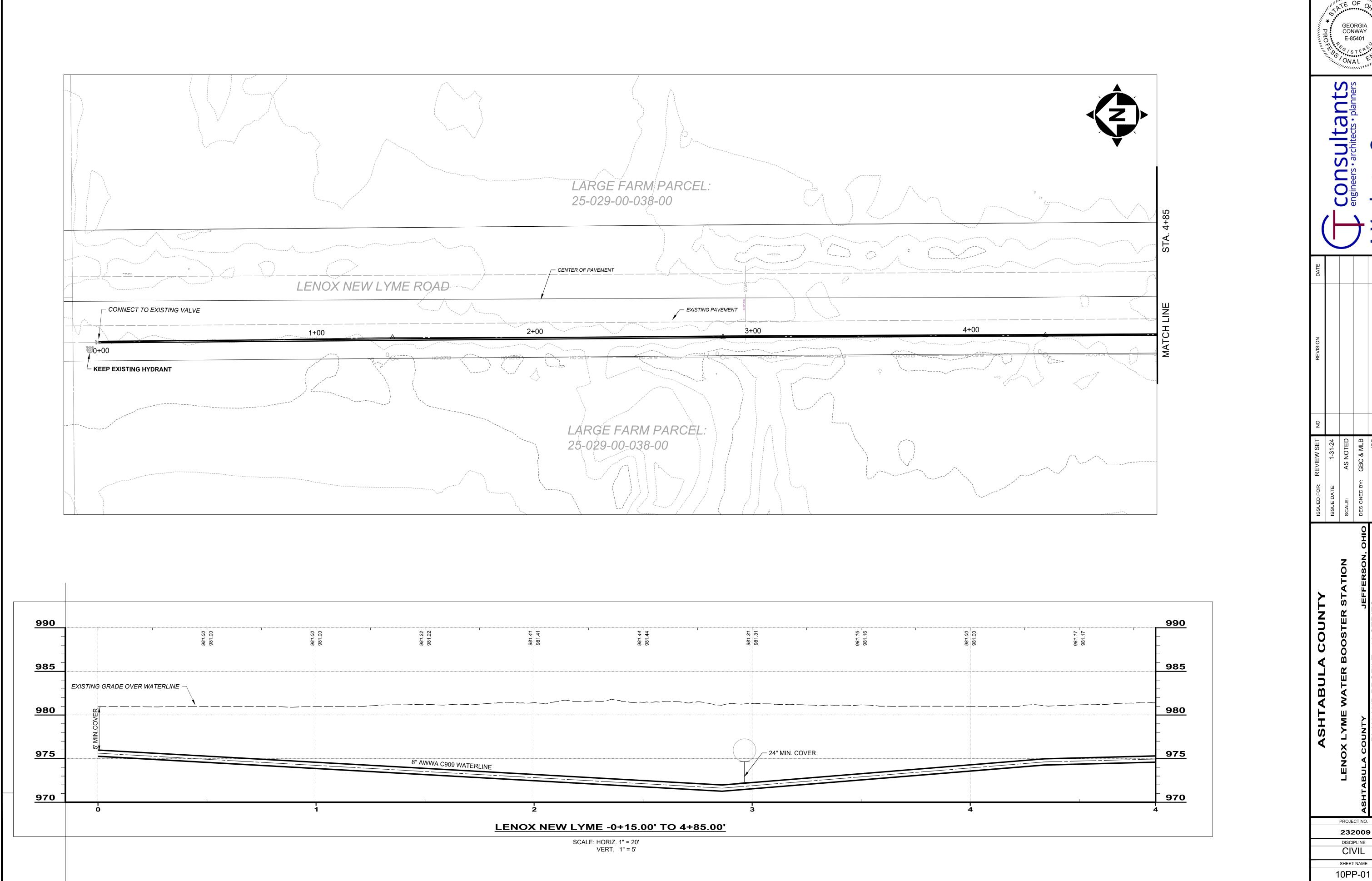
#### **WATER BOOSTER STATION:**

- 1. THE CONTRACTOR SHALL OBTAIN THE FOLLOWING BOOSTER STATION DETAILS FROM THE BOOSTER STATION MANUFACTURER AND INSTALL IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS:
  - A. BASE FRAME ANCHOR DETAIL.
  - B. SKID PLAN.
  - C. ANCHOR/FOUNDATION DETAIL
  - D. WALL DETAIL.
- E. GROUT DETAIL.
- F. GRADE BEAM DETAIL





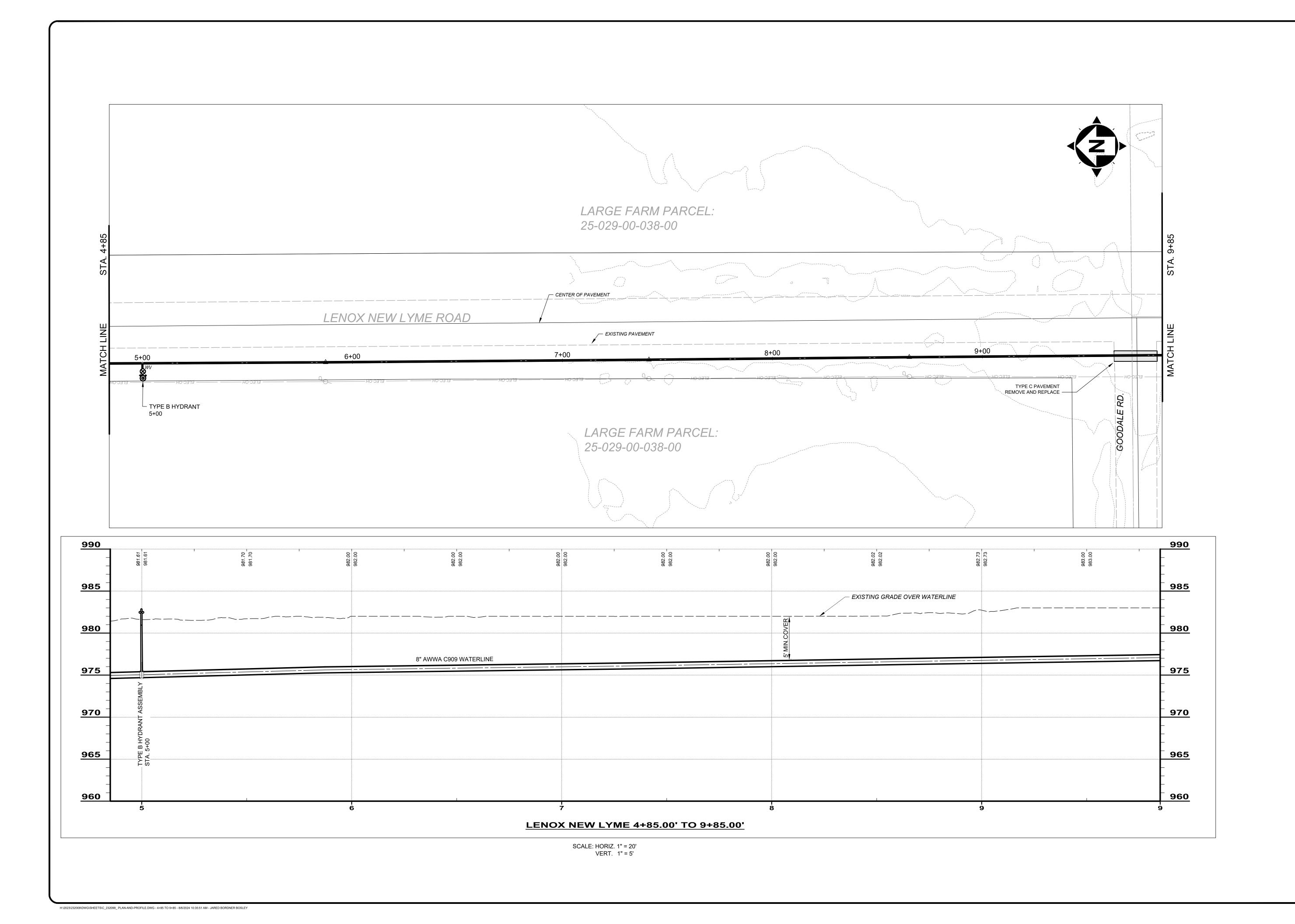
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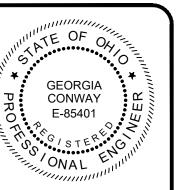


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SCALE: AS NOTED JEFFERSON, OHIO	LENOX LYME WATER BOOSTER STATION BULA COUNTY JEFFERSO
DRAWN BY: JBB	PLAN AND PROFILE - 10 SERIES
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CONSUITANTS engineers architects planners

A Verdantas Company

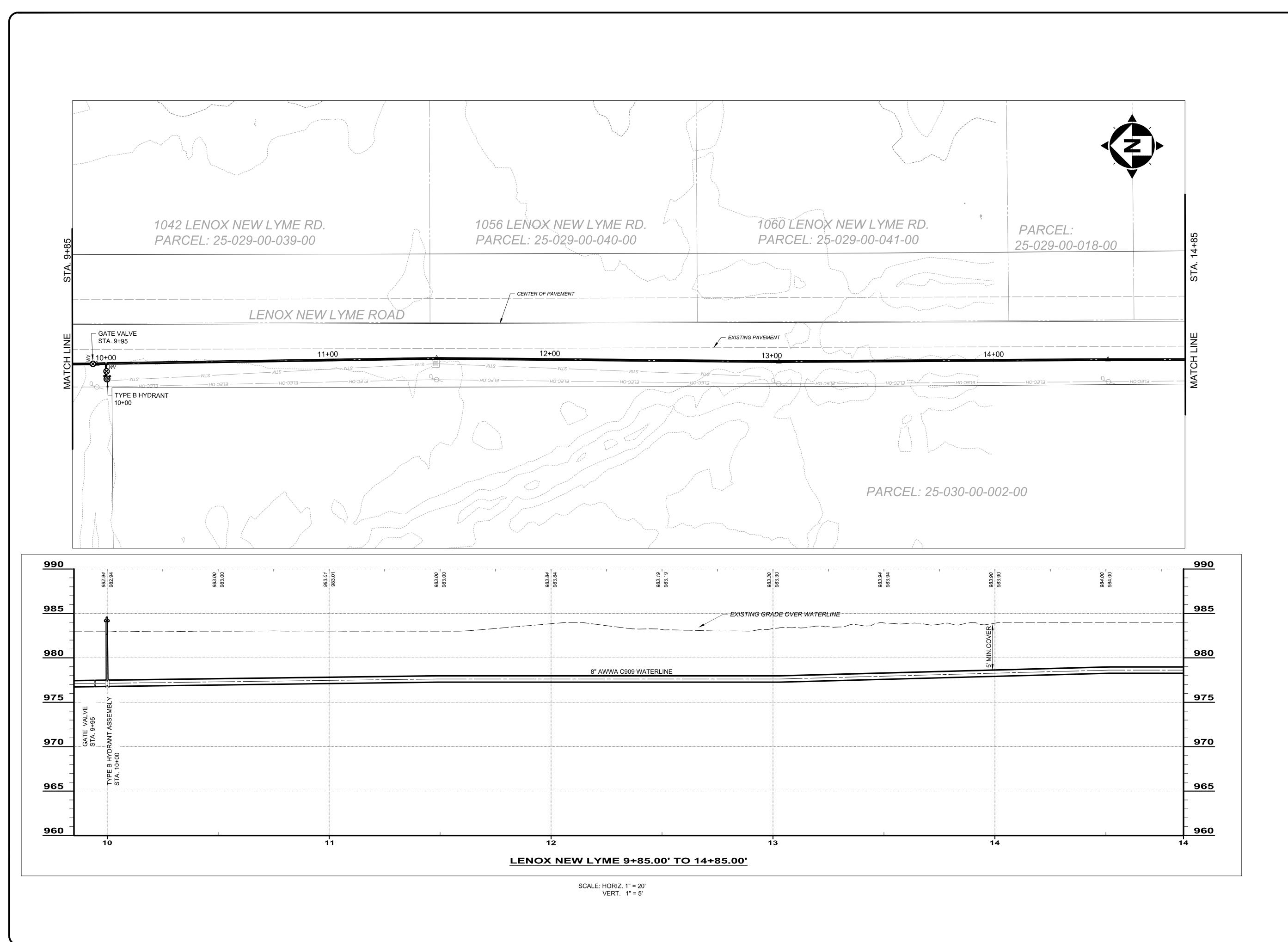
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	ISSUE DATE:	1-31-24		
ENOX LYME WATER BOOSTER STATION	SCALE:	AS NOTED		
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PLAN AND PROFILE - 10 SERIES	DRAWN BY:	JBB		
PLAN-AND-PROFILE - 4+85 to 9+85	CHECKED BY:	GBC		

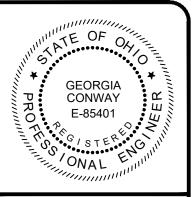
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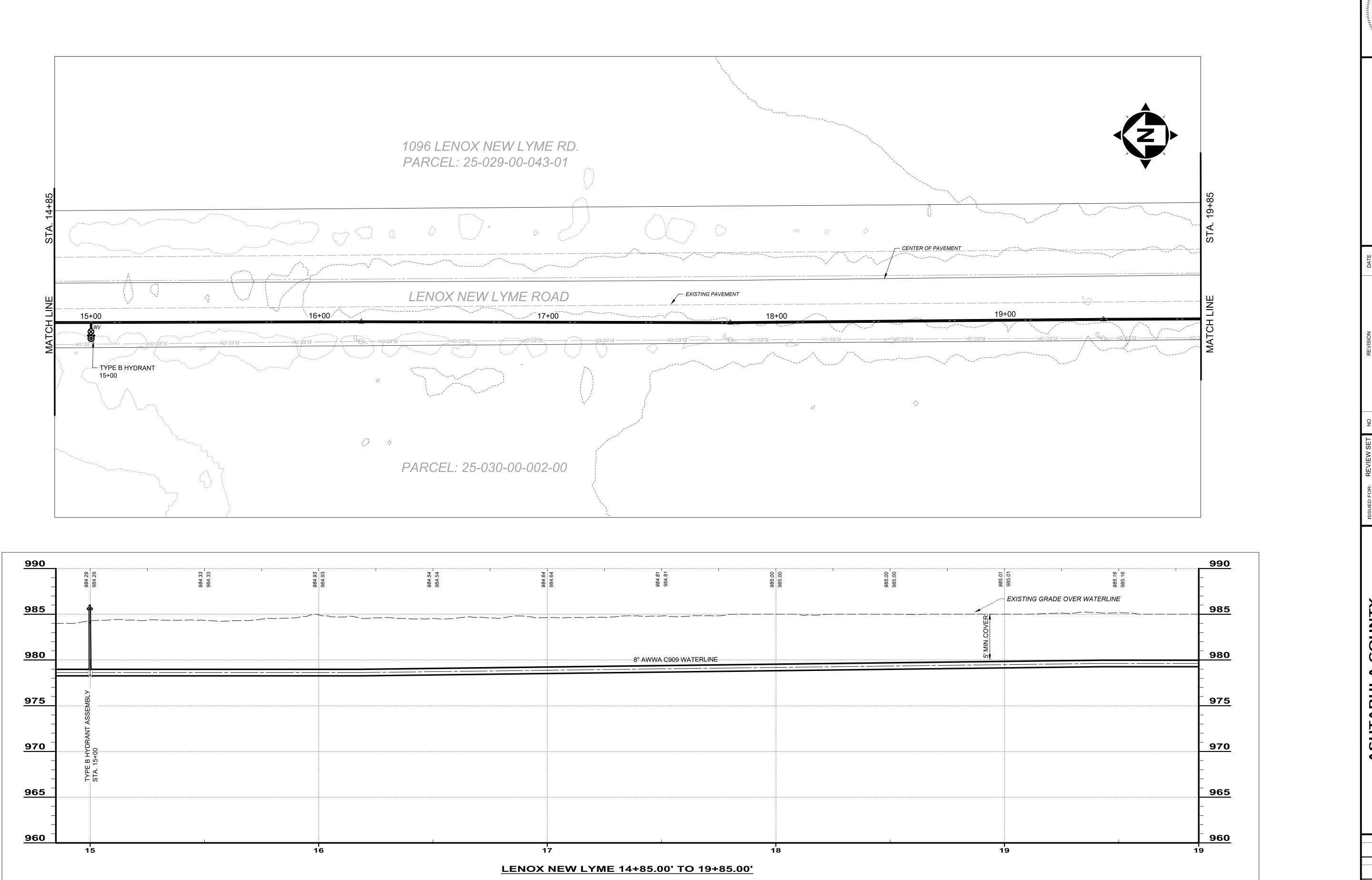
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1-31-24	AS NOTED	GBC & MLB	JBB	GBC
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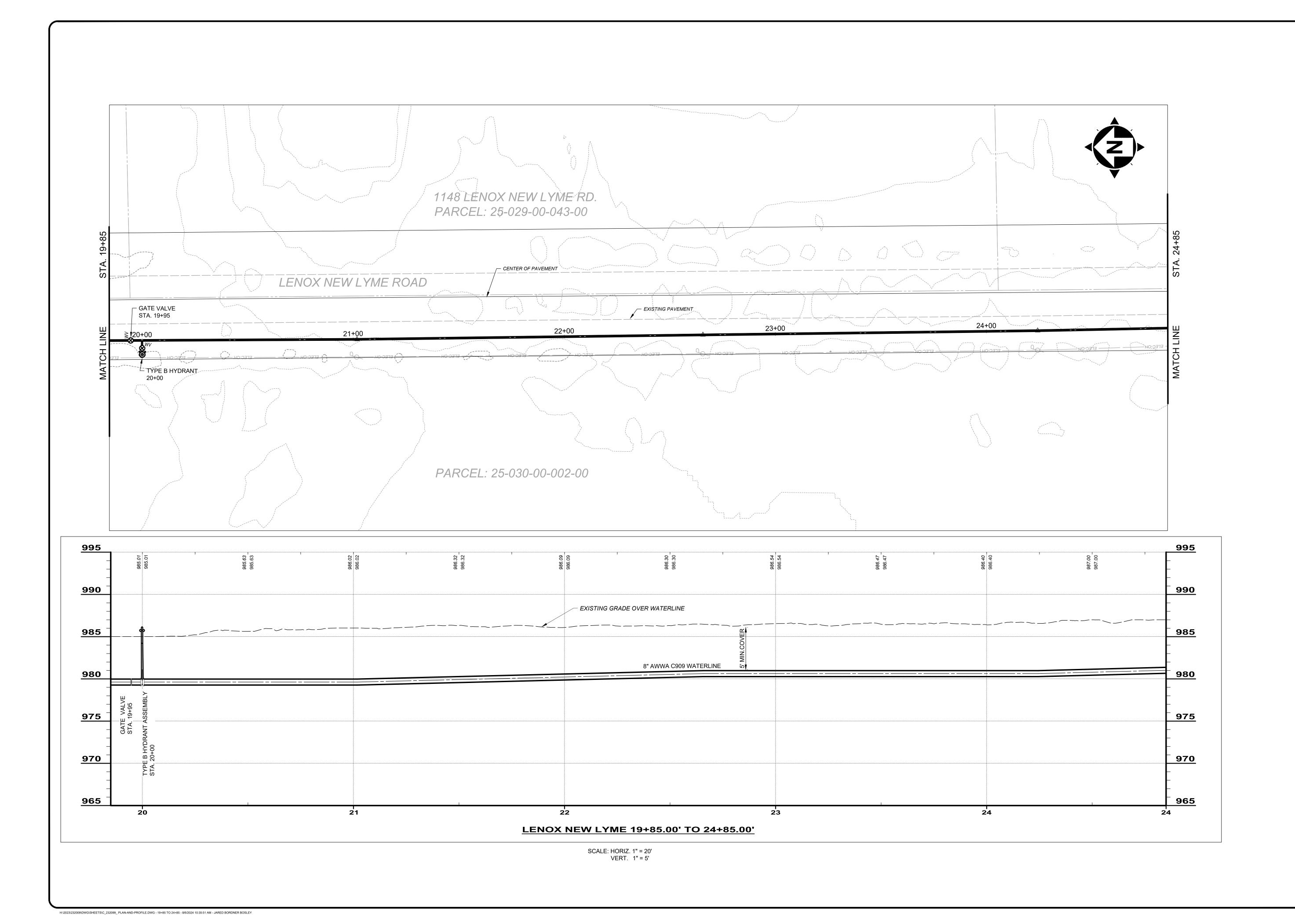
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SCALE: HORIZ. 1" = 20' VERT. 1" = 5'



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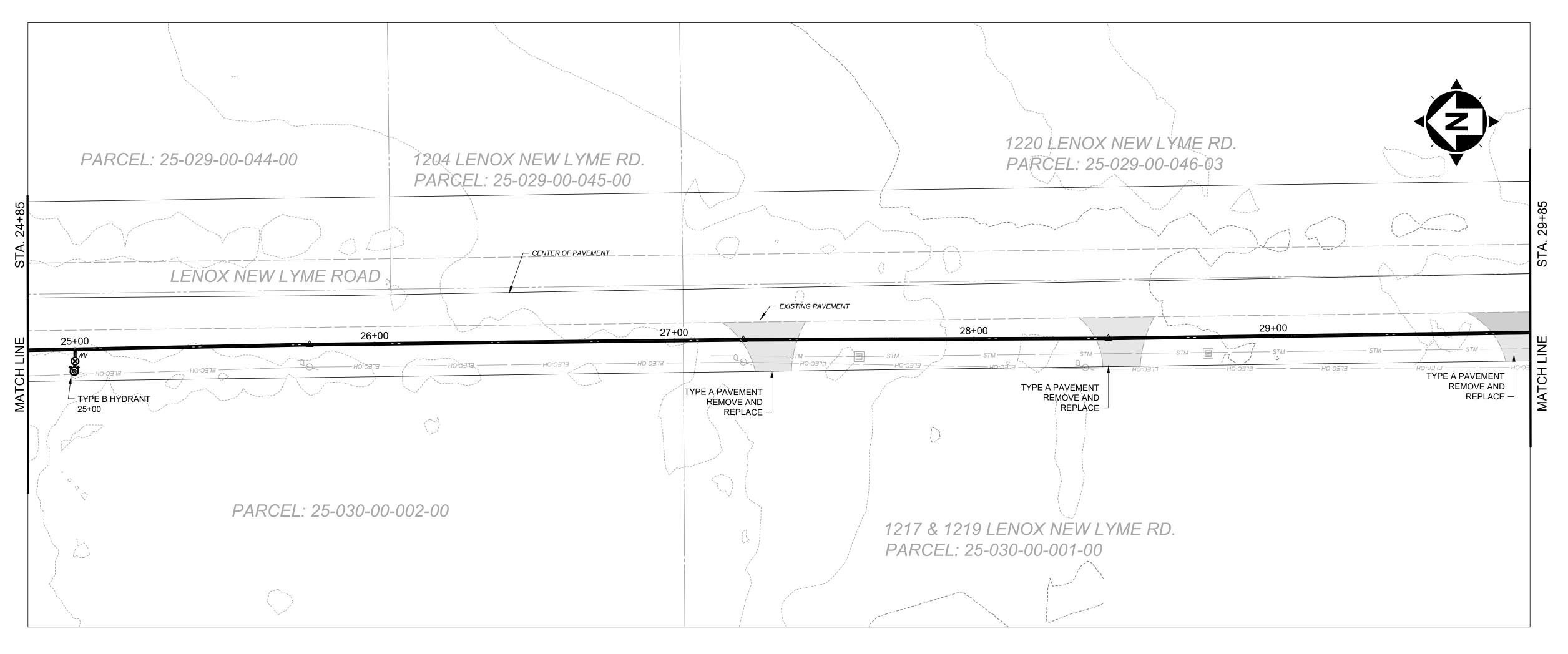


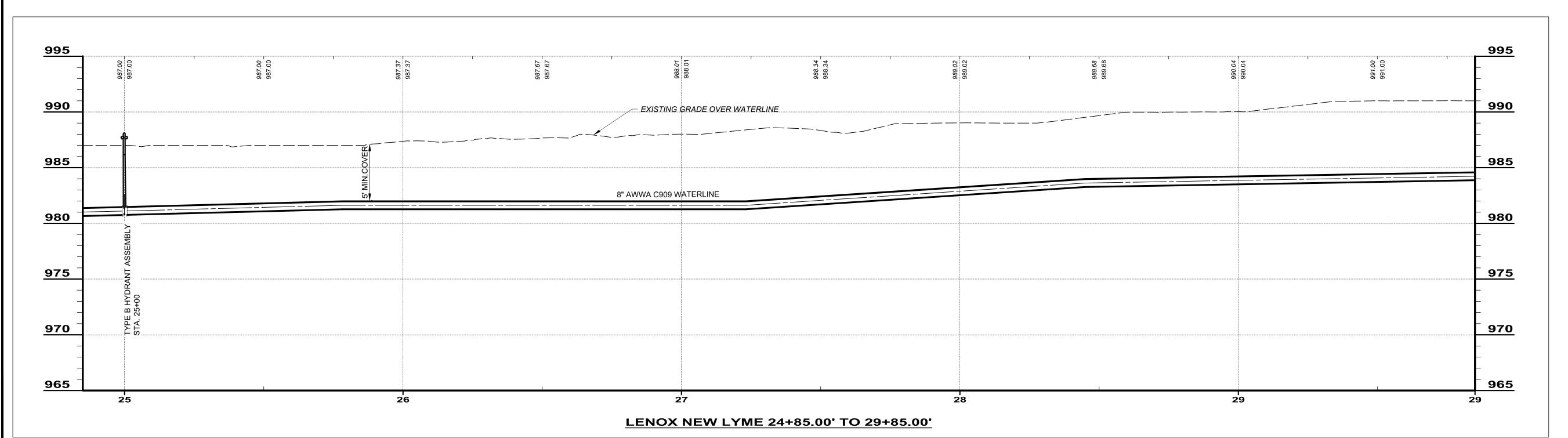
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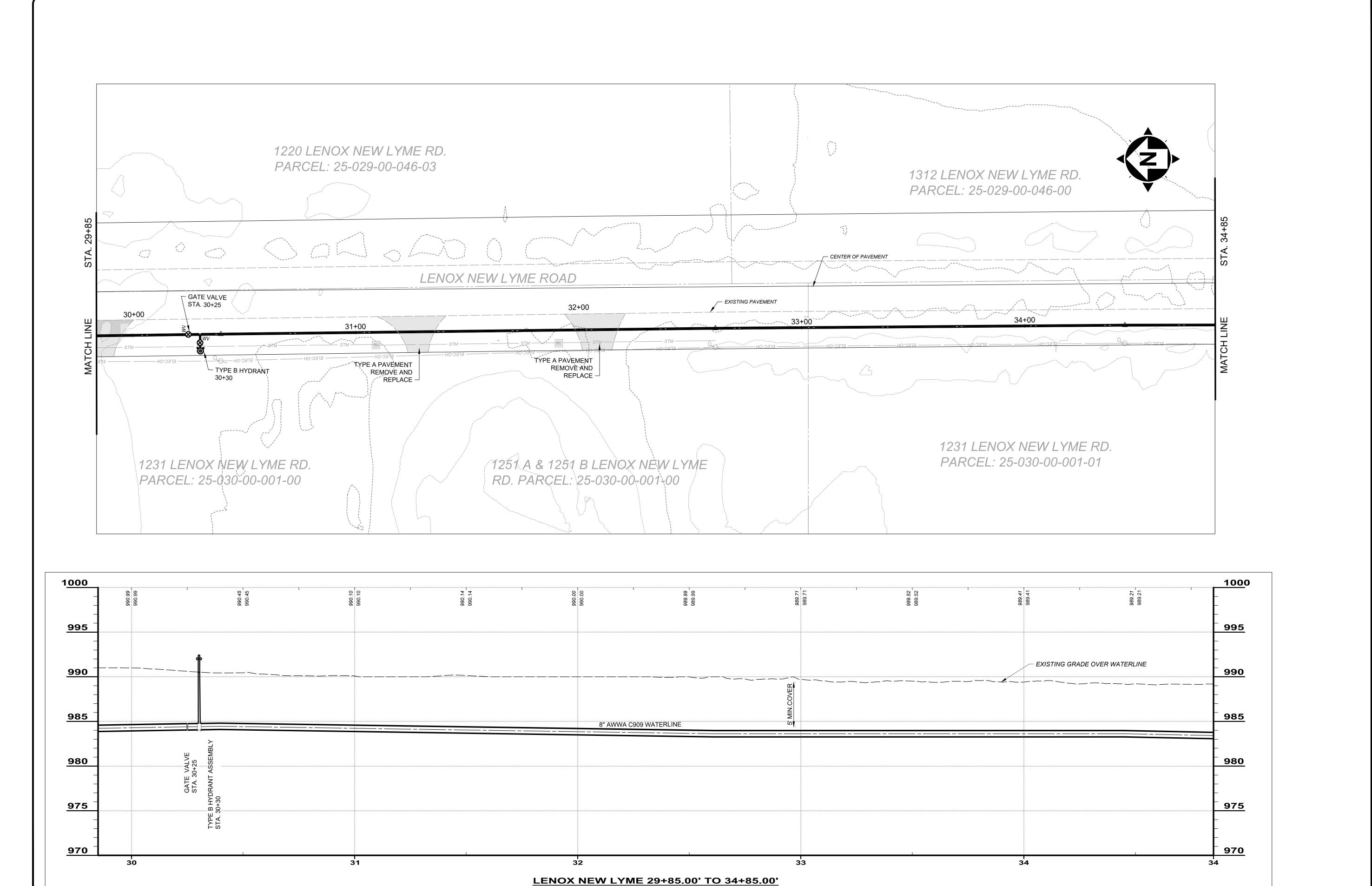
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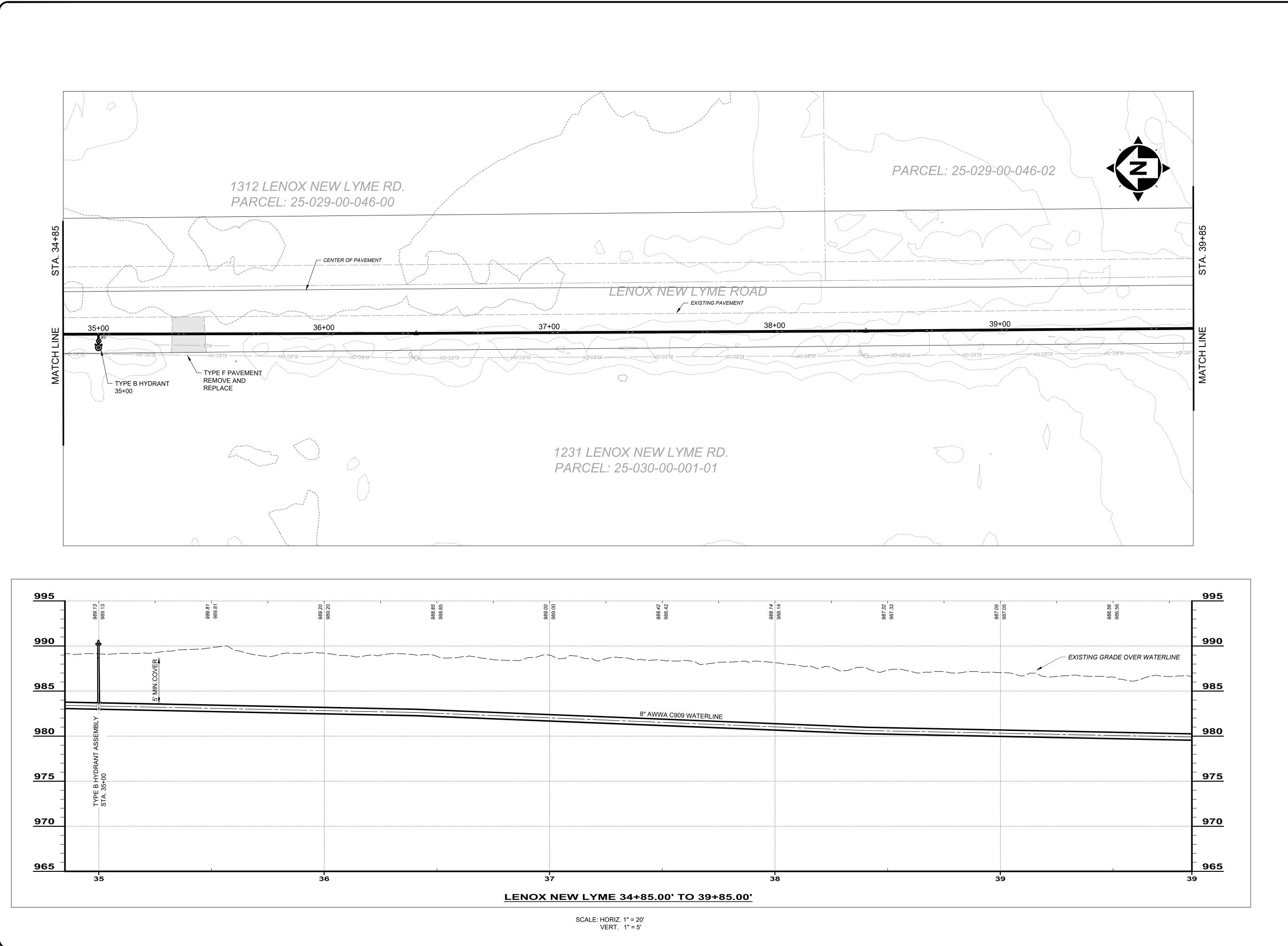


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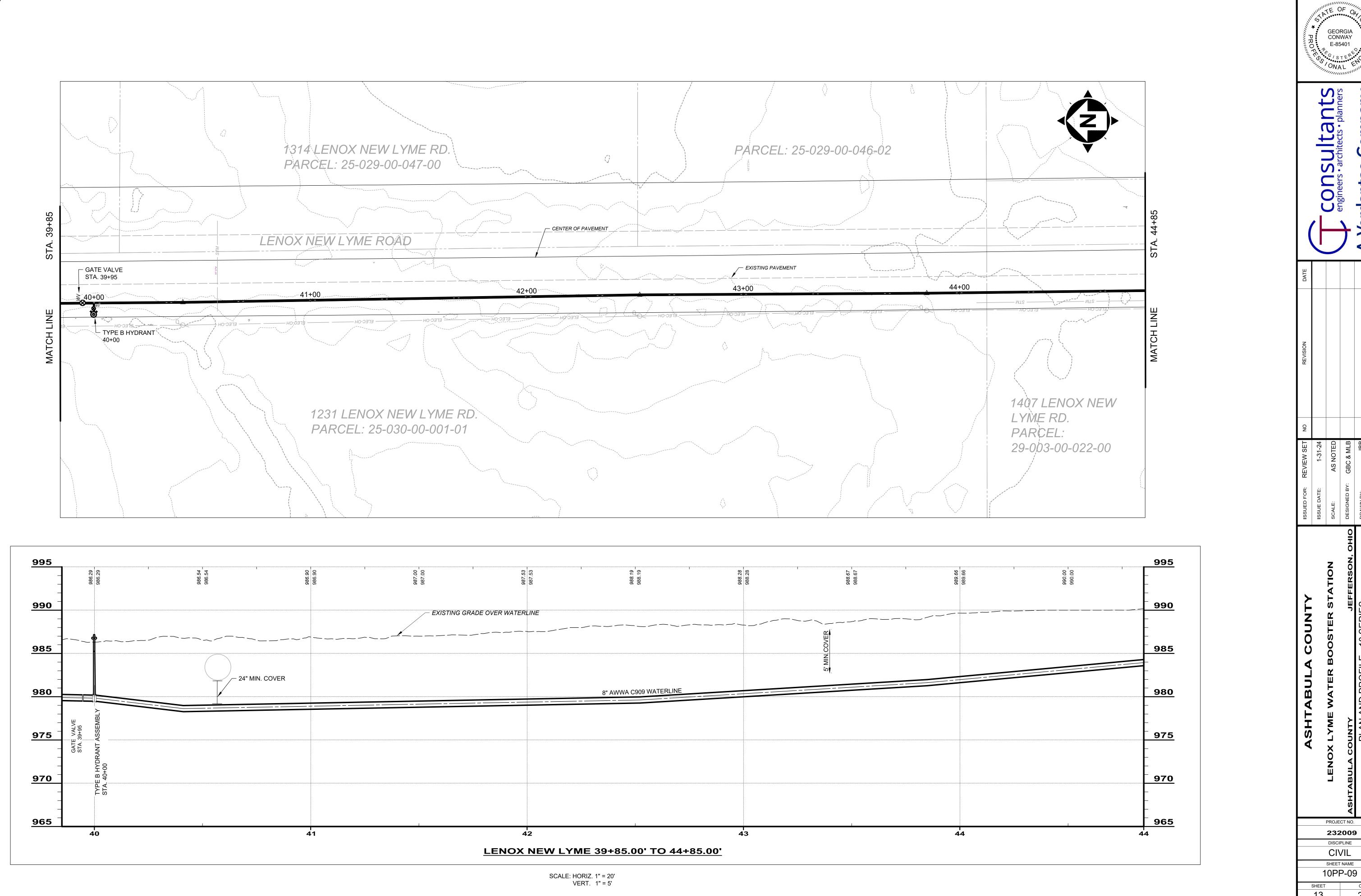
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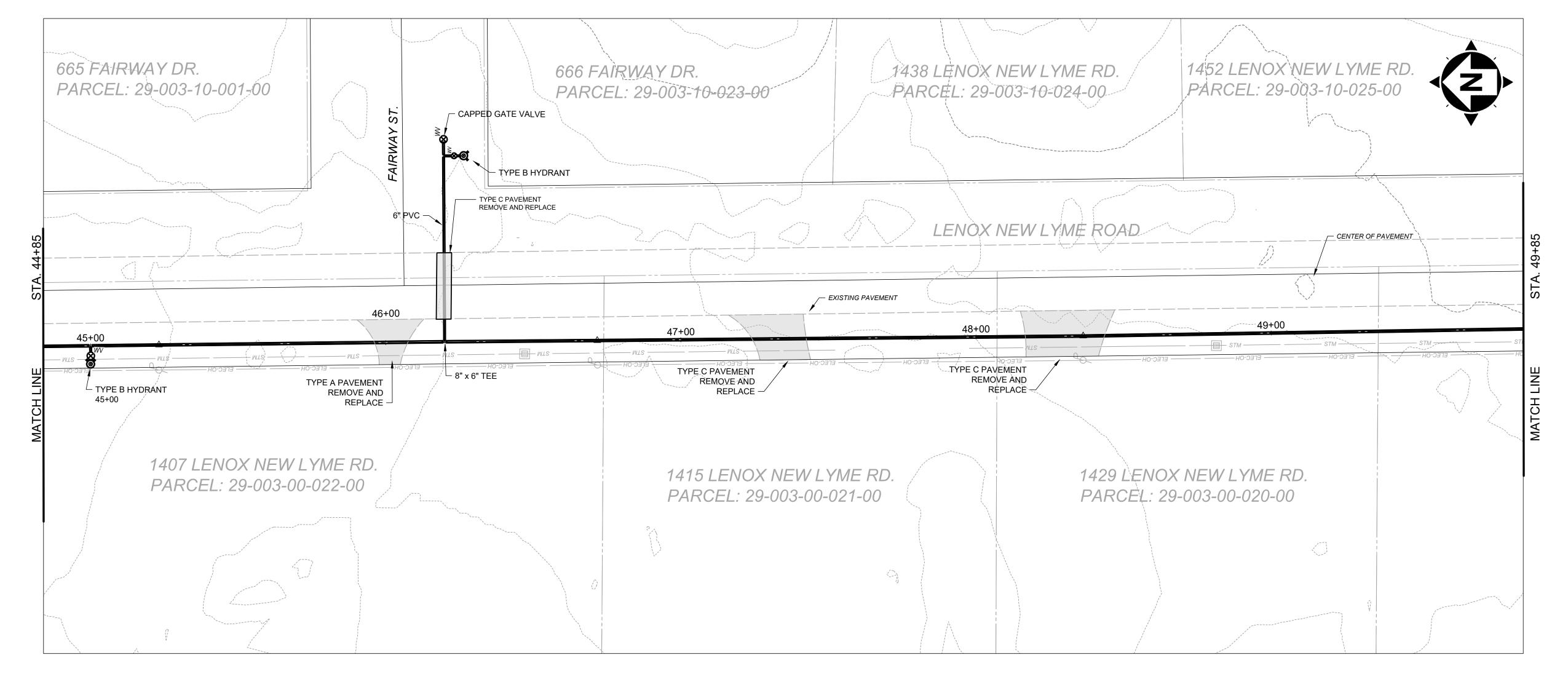
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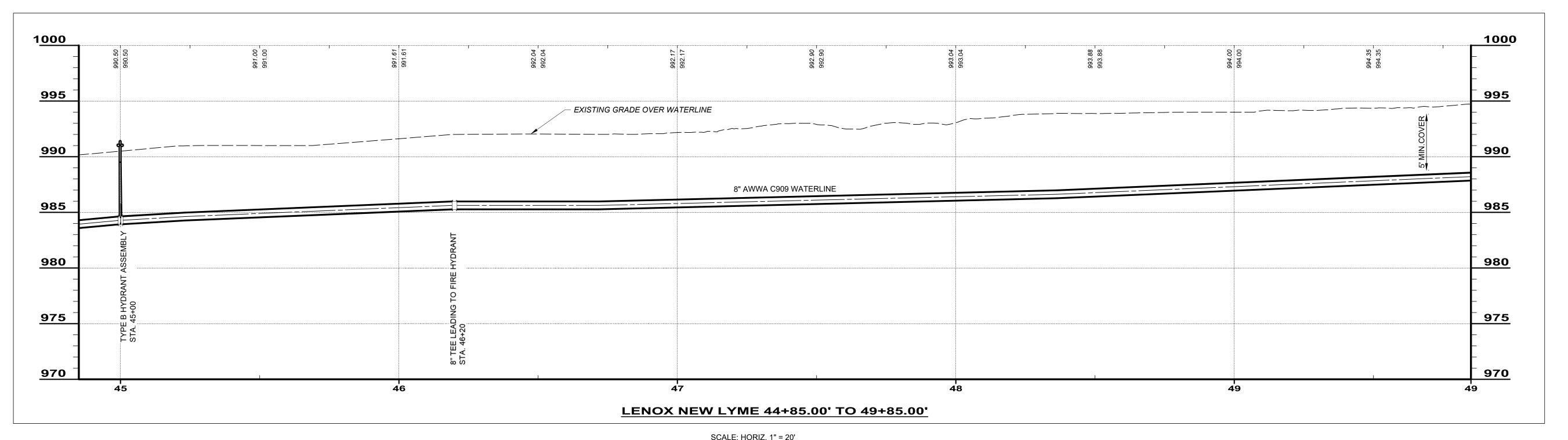


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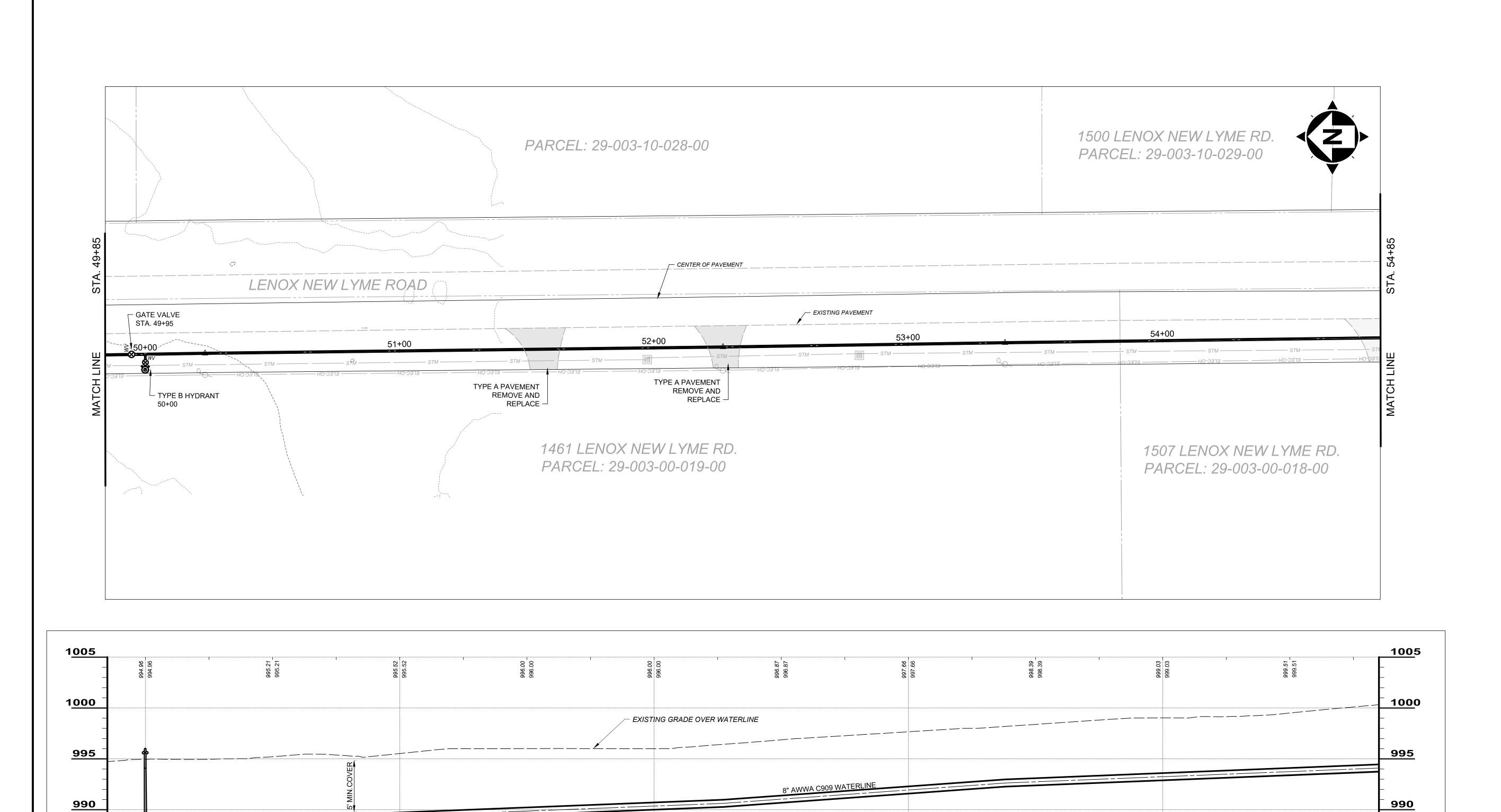
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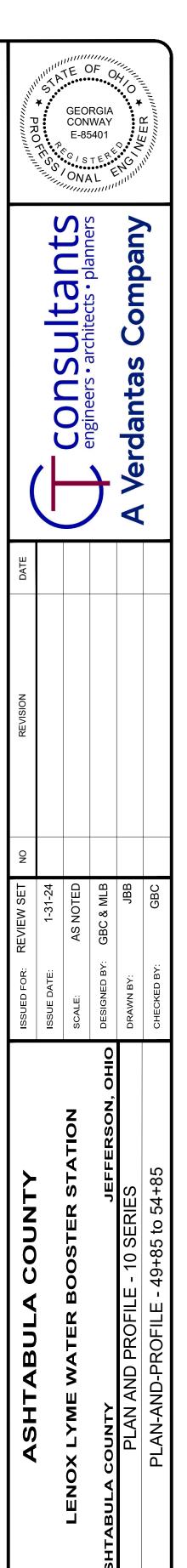
CONSUITANTS engineers • architects • planners

A Verdantas Company

	ISSUE DATE:	1-31-24	_	MOVED FAIRWAY TEE/6" PIPE & HYDRANT TO
LYME WATER BOOSTER STATION	SCALE:	AS NOTED		
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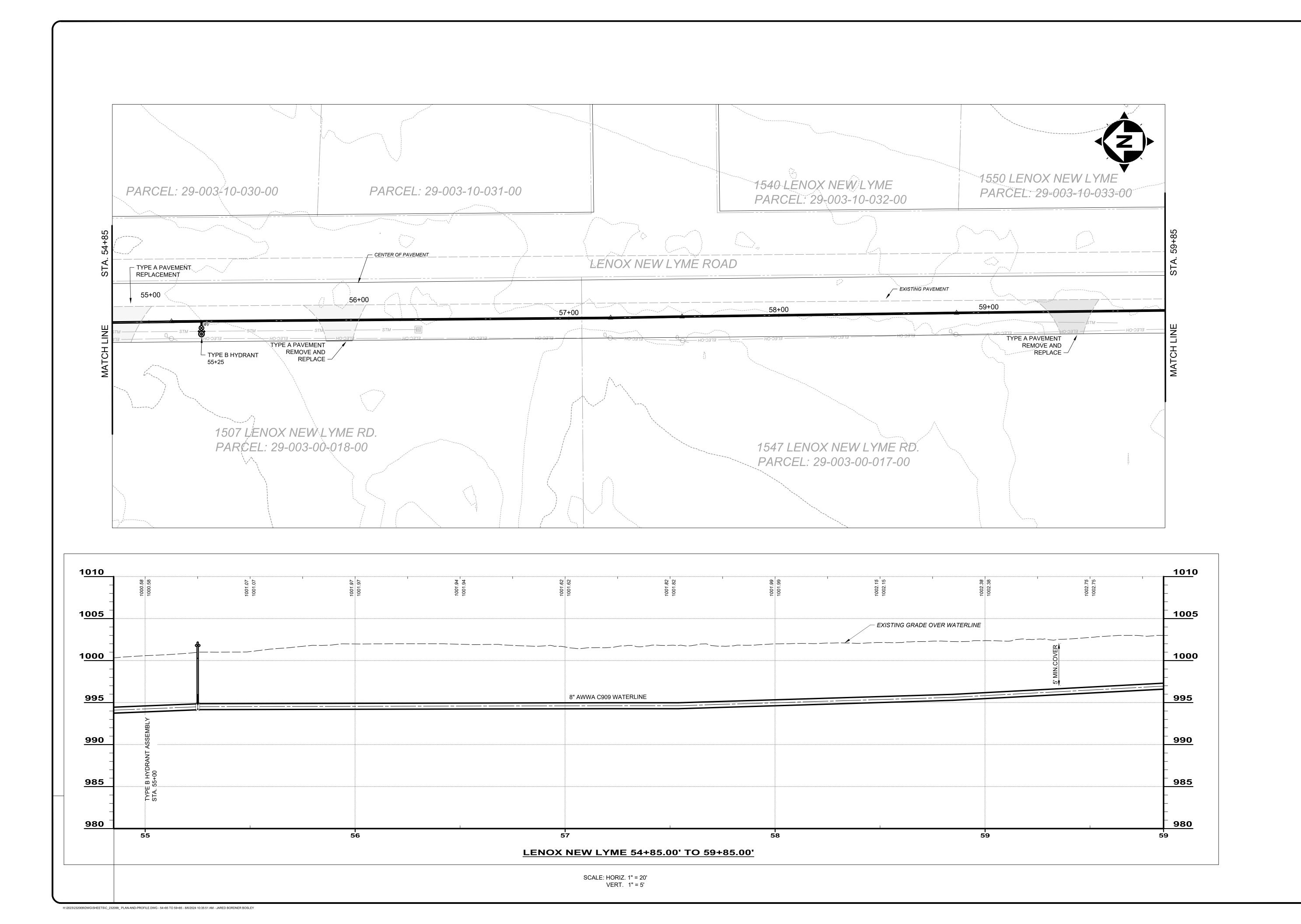
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LENOX NEW LYME 49+85.00' TO 54+85.00' SCALE: HORIZ. 1" = 20' VERT. 1" = 5'

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CONSUITANTS
engineers • architects • planners

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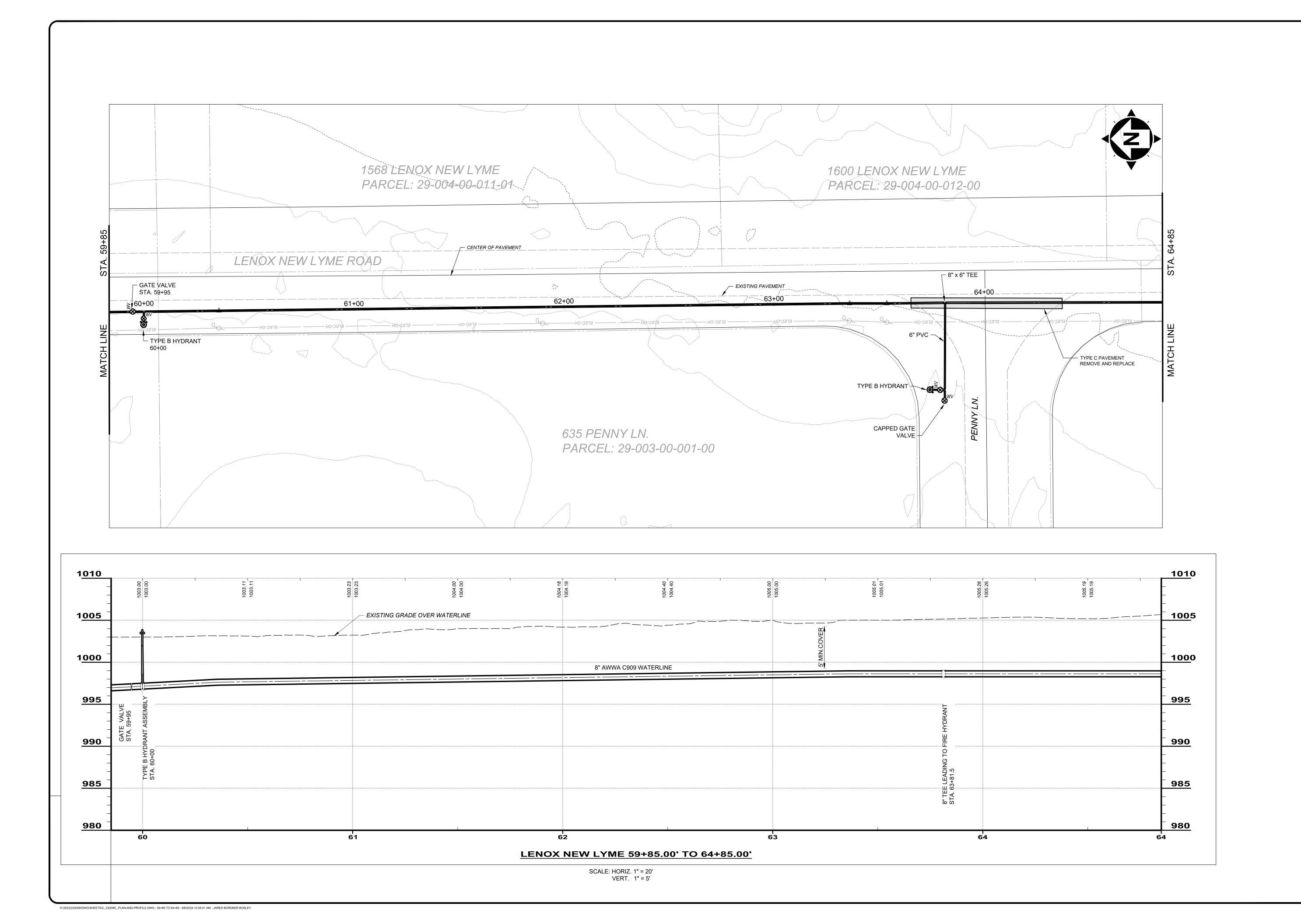
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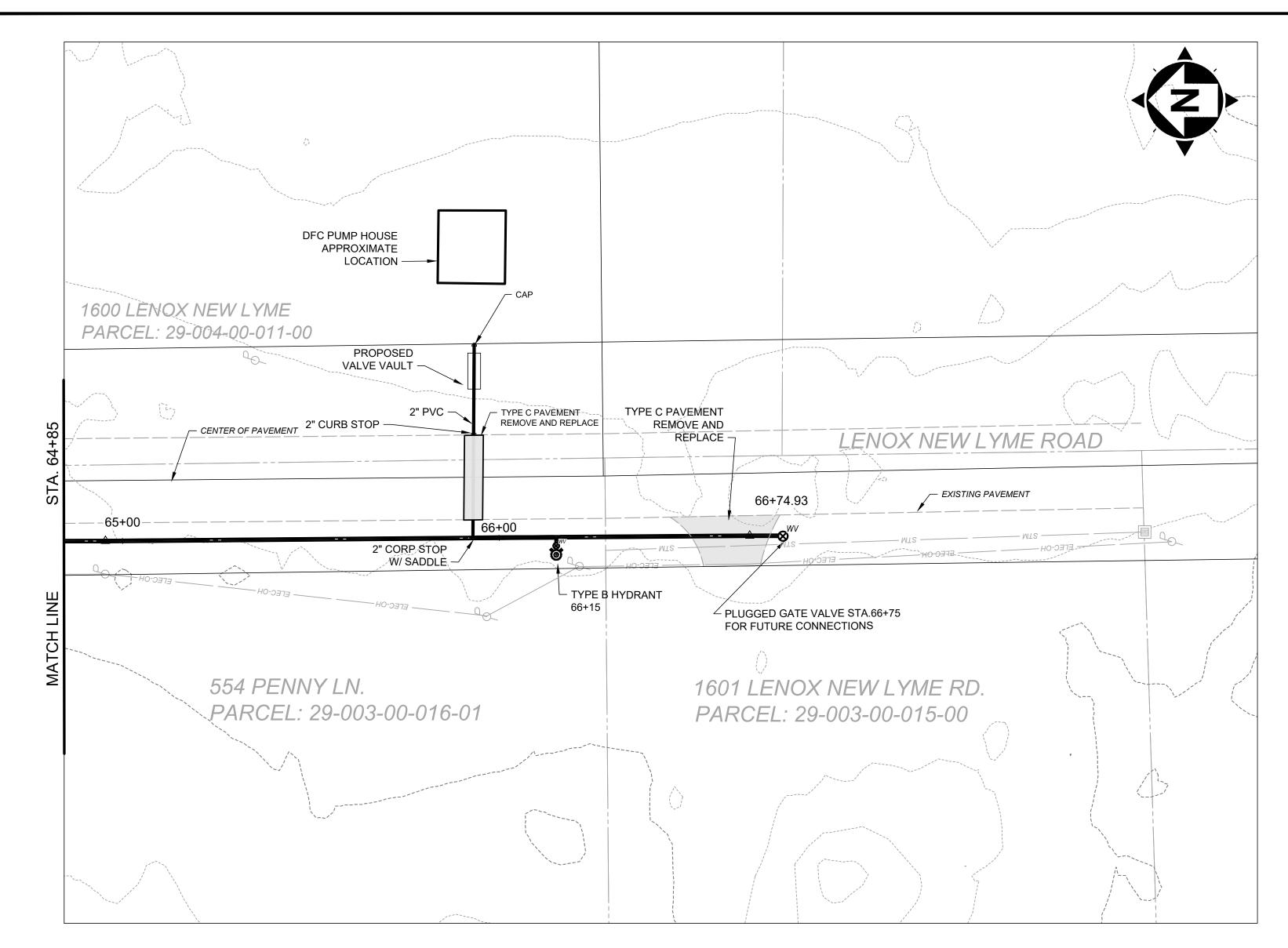


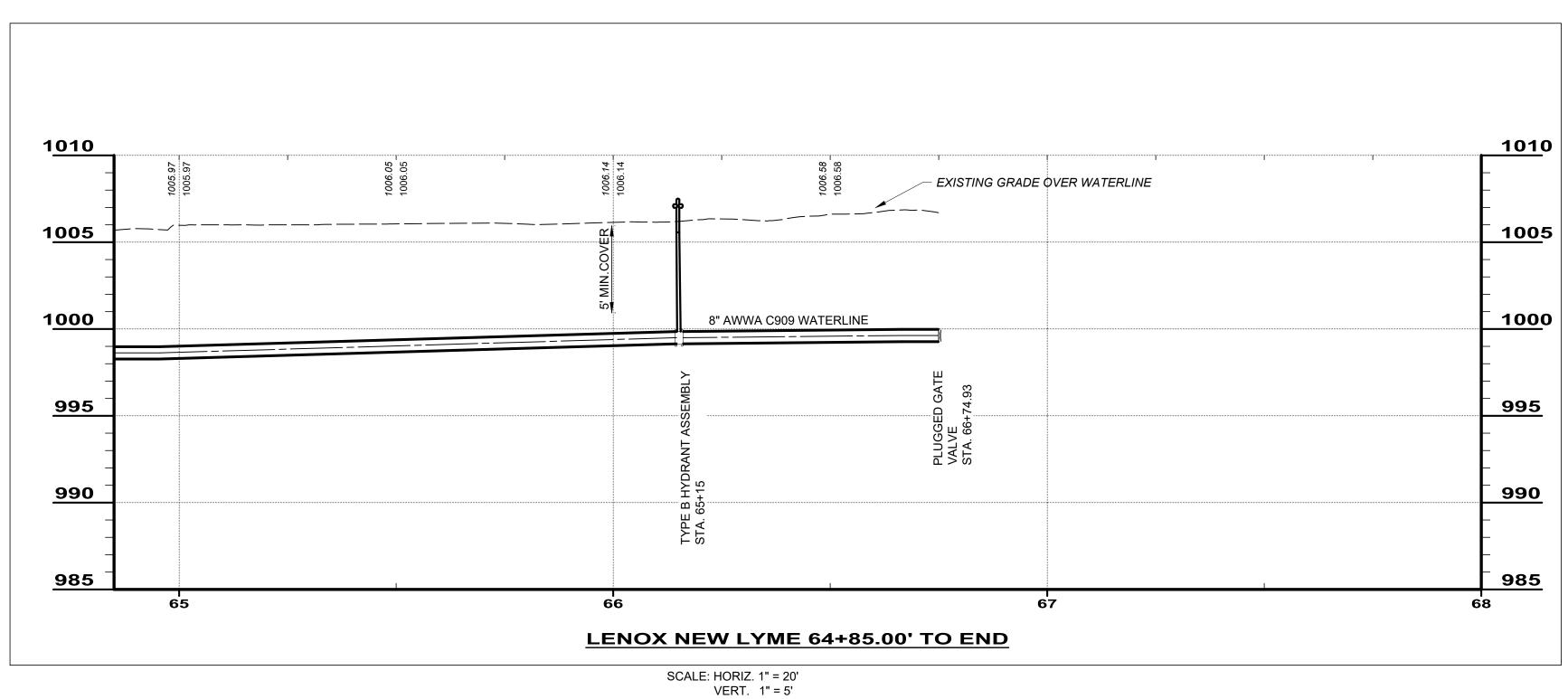




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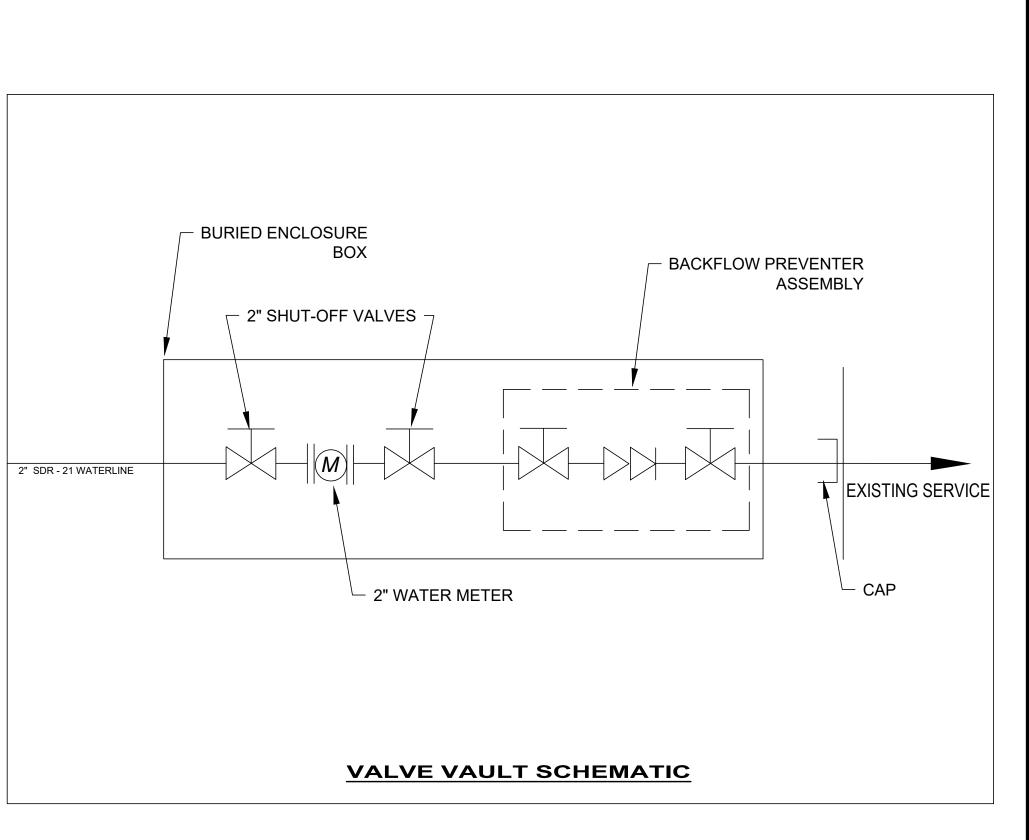
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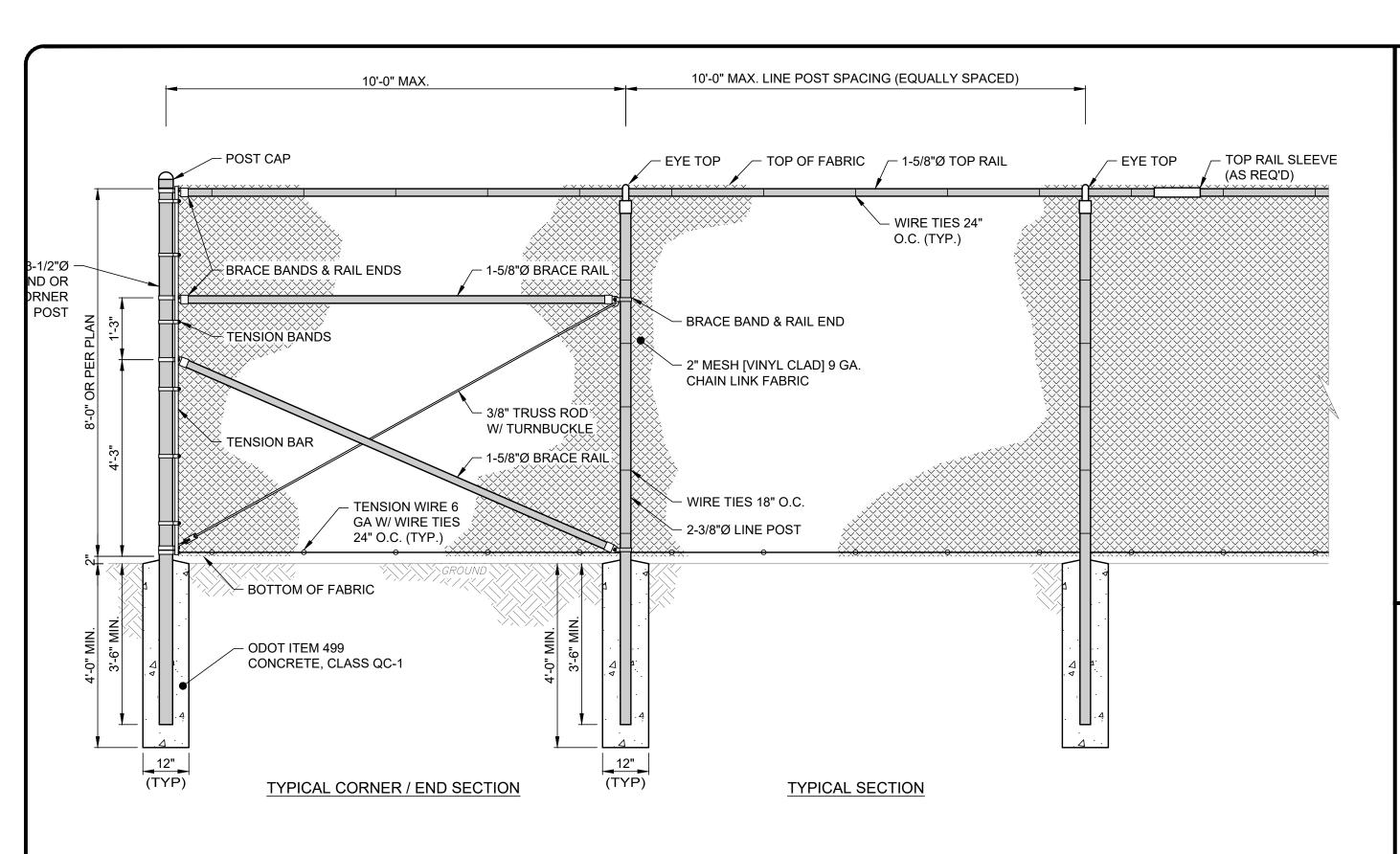
#### NOTES:

- 1. CONTRACTOR SHALL INSTALL A WATER METER AND BACKFLOW PREVENTER ASSEMBLY ON THE PROPOSED 2-INCH DFC SERVICE LINE, HOUSED WITHIN A BURIED ENCLOSURE.
- a. SHUT-OFF VALVES SHALL BE INSTALLED ON BOTH SIDES OF THE METERS.
   b. THE BACKFLOW ASSEMBLY SHALL BE A COMPLETE BACKFLOW ASSEMBLY, CONSISTING OF TWO INDEPENDENTLY OPERATING CHECK VALVES LOCATED BETWEEN TWO SHUT-OFF VALVE, IN ACCORDANCE WITH AWWA C510.
- 2. LOCATION OF SERVICE LINE IS APPROXIMATE AND SHALL BE COORDINATED WITH THE COUNTY





ISSUED FOR: REVIEW SET NO	ISSUE DATE: 3-15-24	SCALE: AS NOTED	DESIGNED BY: GBC & MLB	DRAWN BY: JBB	снескер ву: GBC
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#### 8' CHAIN LINK FENCE DETAIL

#### SCALE: NONE

FREE OF BURRS AND SHARP PROJECTIONS

ASTM A-123. RE-GALVANIZE AREAS WHERE

ALL HARDWARE, CONNECTORS, BOLTS, NUTS,

WASHERS, ETC. SHALL BE HOT-DIPPED ZINC

COATED GALVANIZED STEEL PER ASTM A653.

HASP (COORDINATE WITH OWNER THE TYPE).

MANUFACTURER'S SPECIFICATIONS FOR ACTUAL

DIMENSIONS, CONFIGURATION, PARTS LIST, ETC.

A-53.

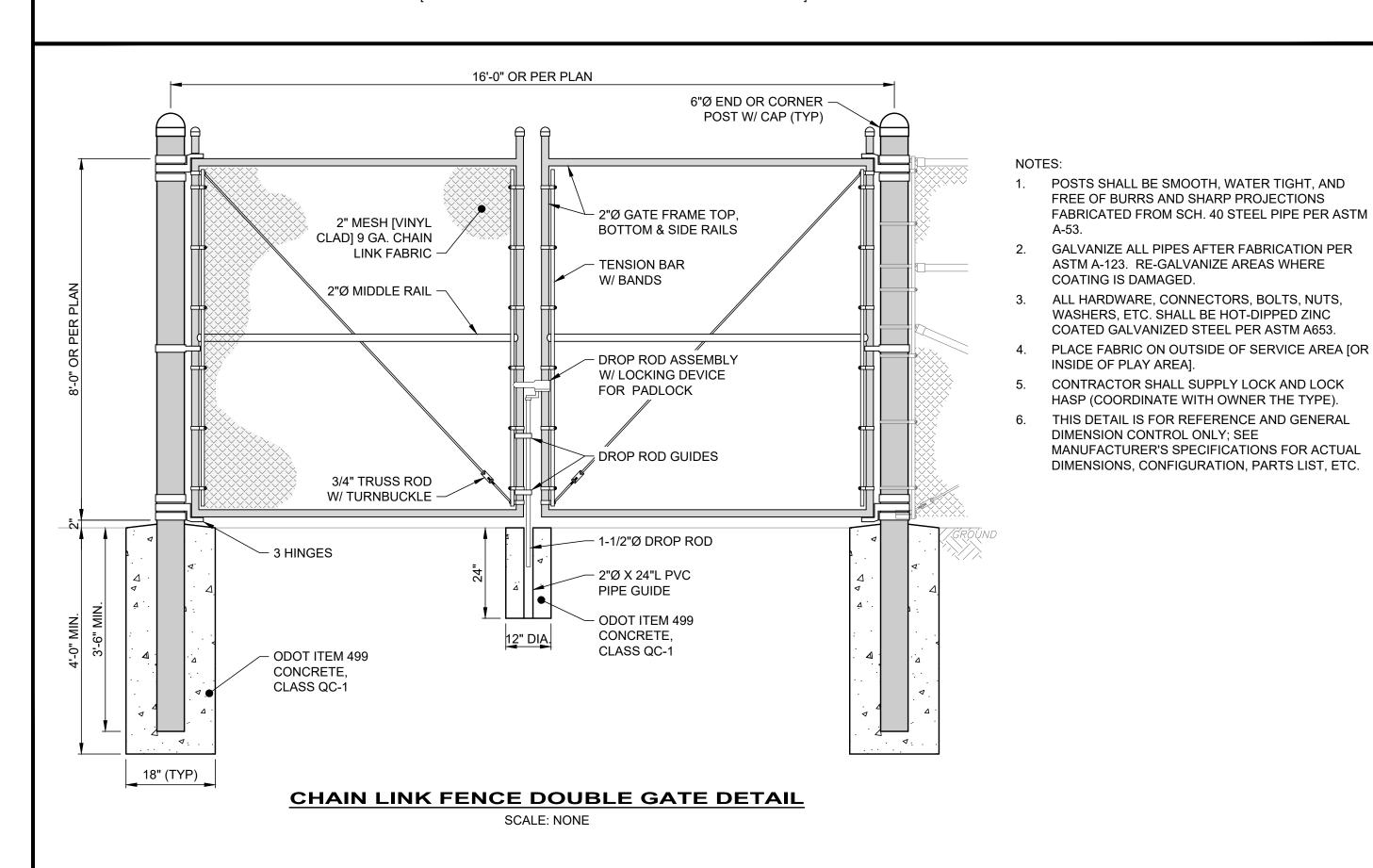
COATING IS DAMAGED.

INSIDE OF PLAY AREA].

DIMENSION CONTROL ONLY; SEE

#### NOTES:

- 1. POSTS SHALL BE SMOOTH, WATER TIGHT, AND FREE OF BURRS AND SHARP PROJECTIONS FABRICATED FROM SCH. 40 STEEL PIPE PER ASTM A-53.
- GALVANIZE ALL PIPES AFTER FABRICATION PER ASTM A-123. RE-GALVANIZE AREAS WHERE COATING IS DAMAGED.
- 3. ALL HARDWARE, CONNECTORS, BOLTS, NUTS, WASHERS, ETC. SHALL BE HOT-DIPPED ZINC COATED GALVANIZED STEEL PER ASTM A653.
- 4. PLACE FABRIC ON OUTSIDE OF SERVICE AREA [OR INSIDE OF PLAY AREA].
- 5. ALL POSTS, FABRIC, HARDWARE, CONNECTORS, ETC. SHALL BE PAINTED [BLACK] FOLLOWING THE AMERICAN GALVANIZERS ASSOCIATION (AGA) SPECIFICATIONS. [FINAL COLOR SHALL BE CHOSEN BY OWNER OR ARCHITECT.]



#### FIELD CONDITIONS **BLOCKS OR JOINT** TAR PAPER DEFLECTION TO BE -4 000 PSI DETERMINED IN FIELD FOR CONCRETE EACH CROSSING EXISTING CRADLE TO BE FULL WIDTH OF PIPE TRENCH PROPOSED PRESSURE PIPE CONCRETE CRADLE CONDITIONS "X" DIMENSION REQUIREMENTS 1. 6" FOR WATERLINE CROSSING (ALSO FOR GAS &

NO LINE VALVE BETWEEN BENDS

VARIES - ADJUST FOR

1. IF SANITARY OR STORM SEWER PIPE JOINT IS WITHIN PROPOSED IMPROVEMENT TRENCH LIMIT

USE OF BENDS & THRUST

2. IF CROSSING A WATERLINE AT ANY POINT

3. IF CROSSING SPACE IS LESS THAN MIN. SPACE OF CRADLE BELOW PIPE BOTTOM PLUS "X" DIMENSION THEN OMIT SAND FILL AND USE CONCRETE

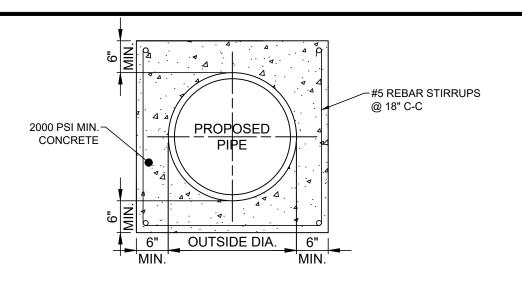
O.B.T. LINES W/ NO CRADLE NEEDED)

**→** / 2-LAYERS 15#

- 2. 18" FOR SANITARY OR STORM SEWER PIPE
- 3. IF CROSSING SPACE IS MORE THAN MIN. SPACE OF CRADLE BELOW PIPE BOTTOM PLUS AFOREMENTIONED "X" DIMENSION THEN EXTEND "X" DIMENSION TO MAKE UP DIFFERENCE

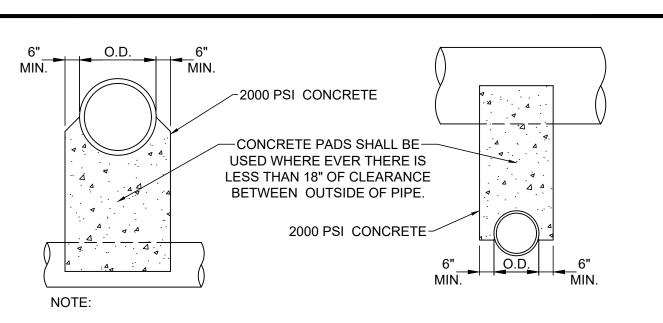
#### PIPE LOWERING DETAIL

NOT TO SCALE



#### TYPICAL PIPE ENCASEMENT

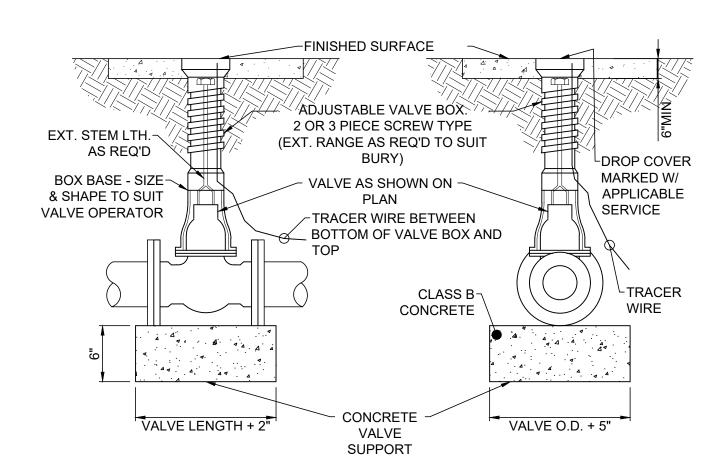
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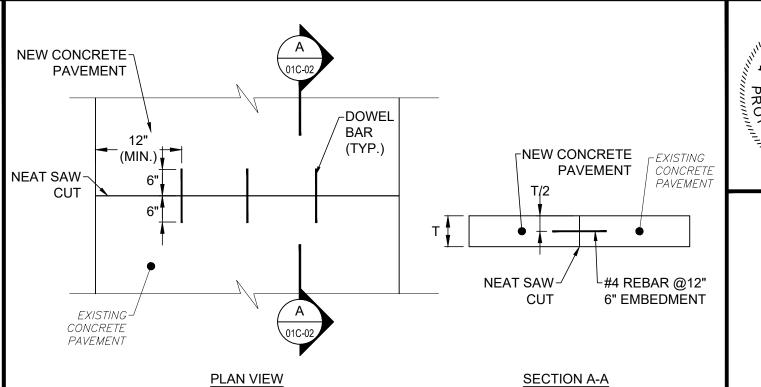
UNLESS OTHERWISE DIRECTED BY THE ENGINEER, WHERE TWO PIPES (SEWER & WATER) CROSS EACH OTHER, A CONCRETE PAD AND CRADLE SEPARATOR SHALL BE PLACED BETWEEN THEM AS INDICATED ABOVE. WHERE PERMISSION IS GRANTED TO OMIT THE CONCRETE PADS, GRANULAR BACKFILL SHALL BE TAMPED IN 6" LAYERS AROUND BOTH PIPES. SUCH TAMPED BACKFILL SHALL BE CONTINUOUS FROM THE CRADLE OF THE LOWER PIPE TO THE TOP OF THE UPPER PIPE AND AT THE BOTTOM SHALL EXTEND IN BOTH DIRECTIONS, FOR THE FULL WIDTH OF THE TRENCH.

#### PIPE CROSSING DETAIL

NOT TO SCALE

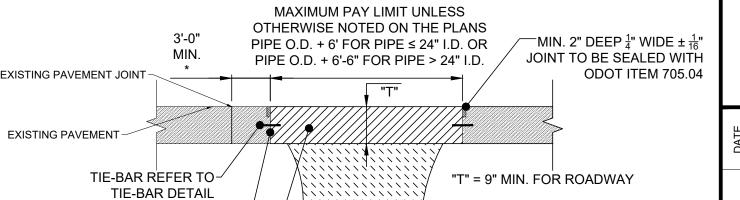


**TYPICAL VALVE AND VALVE BOX SETTING** NOT TO SCALE



#### TIE BAR DETAIL

NOT TO SCALE



SEE TRENCH AND BEDDING DETAILS NOTES: EXISTING SUBBASE MATERIAL (IF ANY) SHALL BE

NEAT SAW CUT FULL DEPTH-

REPLACED, AS DIRECTED BY ENGINEER. REPLACEMENT SHALL BE REINFORCED AS PER

OF PAVEMENT

ODOT ITEM 452<sup>-/</sup>

- O.D.O.T. ITEM 709.10 OR 709.12 IF EXISTING PAVEMENT IS REINFORCED.
- 5/8"Ø HOOKBOLT @ 30" O.C. MAY BE REQUIRED AS DIRECTED BY THE ENGINEER.

" WHERE WIDTH IS LESS THAN 3'-0" OR EXISTING PAVEMENT IS DETERIORATED, THE CONTRACTOR SHALL REPLACE ADDITIONAL PAVEMENT AS DIRECTED BY THE ENGINEER. PAYMENT FOR ADDITIONAL PAVEMENT REPLACEMENT AS DIRECTED BY THE ENGINEER SHALL BE AT THE SAME UNIT PRICE BID.

PARKING AREAS

"T" = 6" MIN. FOR DRIVEWAYS OR

IN NO CASE SHALL "T" BE LESS THAN

THE EXISTING PAVEMENT THICKNESS

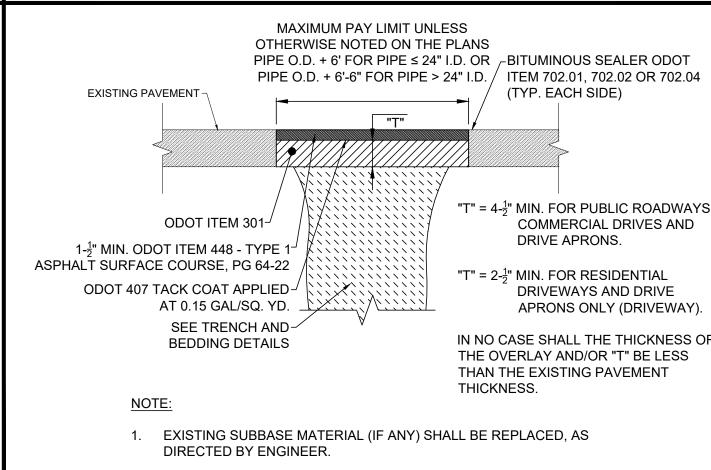
#### TYPE A PAVEMENT REPLACEMENT

NOT TO SCALE MAXIMUM PAY LIMIT UNLESS OTHERWISE NOTED ON THE PLANS PIPE O.D. + 6' FOR PIPE ≤ 24" I.D. OR PIPE O.D. + 6'-6" FOR PIPE > 24" I.D. EXISTING DRIVE OR ROADWAY 6" MINIMUM STONE REPLACEMENT (IN ) NO CASE SHALL THICKNESS BE LESS THAN THE EXISTING DRIVE OR -SEE TRENCH AND ROADWAY THICKNESS). BEDDING DETAILS

1. REPLACEMENT MATERIAL SHALL BE THE SAME TYPE AND SIZE AS EXISTING.

#### TYPE F PAVEMENT REPLACEMENT

NOT TO SCALE



TYPE C PAVEMENT REPLACEMENT NOT TO SCALE

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PROJECT NO.

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**GEORGIA** 

CONWAY

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#### **CONTRACTOR'S RESPONSIBILITIES:**

- CONTRACTORS MUST USE ENVIRONMENTAL DUE DILIGENCE TO ENSURE THAT THE FILL MATERIAL ASSOCIATED WITH THIS PROJECT QUALIFIES AS CLEAN FILL. DEFINITIONS OF CLEAN FILL AND ENVIRONMENTAL DUE DILIGENCE ARE PROVIDED BELOW.
- CLEAN FILL: UNCONTAMINATED, NON-WATER SOLUBLE, NON-DECOMPOSIBLE, INERT, SOLID MATERIAL. THE TERM INCLUDES SOIL ROCK, STONE, DREDGED MATERIAL, USED ASPHALT, AND BRICK, BLOCK OR CONCRETE FROM CONSTRUCTION AND DEMOLITION ACTIVITIES THAT IS SEPARATE FROM OTHER WASTE AND IS RECOGNIZABLE AS SUCH. THE TERM DOES NOT INCLUDE MATERIALS PLACED IN OR ON THE WATERS OF THE WATERS OF THE COMMONWEALTH UNLESS OTHERWISE AUTHORIZED. (THE TERM "USED ASPHALT" DOES NOT INCLUDE MILLED ASPHALT THAT HAS BEEN PROCESSED FOR RE-USE) REFER TO STANDARD DETAILS AND PROJECT MANUAL FOR SPECIFIC PROJECT REQUIREMENTS.
- ENVIRONMENTAL DUE DILIGENCE: INVESTIGATIVE TECHNIQUES, INCLUDING, BUT NOT LIMITED TO, VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTIC TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS. ANALYTICAL TESTING IS NOT A REQUIRED PART OF DUE DILIGENCE UNLESS VISUAL INSPECTION AND/OR REVIEW OF THE PAST LAND USE OF THE PROPERTY INDICATES THAT THE FILL MAY HAVE BEEN SUBJECTED TO A SPILL OR RELEASE OF REGULATED SUBSTANCE. IF THE FILL MAY HAVE BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE, IT MUST BE TESTED TO DETERMINE IF IT QUALIFIES AS CLEAN FILL
- FILL MATERIAL THAT DOES NOT QUALIFY AS CLEAN FILL IS REGULATED FILL. REGULATED FILL IS WASTE AND MUST BE MANAGED IN ACCORDANCE WITH THE DEPARTMENT'S MUNICIPAL OR RESIDUAL WASTE REGULATIONS BASED ON 25 PA CODE CHAPTERS 287 RESIDUAL WASTE MANAGEMENT OR 271 MUNICIPAL WASTE MANAGEMENT, WHICHEVER IS APPLICABLE.

#### SITE RESTORATION:

- ALL DISTURBED PROPERTY SHALL BE RESTORED TO ITS PRE-CONSTRUCTION CONDITION, AS NEAR AS POSSIBLE WITHIN 20
- 2. ONCE AN AREA IS GRADED TO ITS FINAL GRADE IT MUST BE STABILIZED WITH THE PERMANENT SEED MIX SPECIFICATION ACCORDING TO ITS SLOPE.

#### **INSPECTION AND MAINTENANCE:**

- ALL EROSION AND SEDIMENTATION CONTROL FACILITIES SHALL BE INSPECTED WEEKLY AND AFTER EACH
- 2. FABRIC FENCES: REPAIR DAMAGE TO FENCES. BACKFILL UNDERCUTTING. OVERTOPPED AREAS SHALL BE REPLACED WITH AN OUTLET ROCK FILTER. IF SEDIMENT REACHES ONE HALF THE FENCE HEIGHT, IT SHALL BE REMOVED AND PLACED IN THE TOPSOIL AND FILL STOCKPILE AREA. REPLACEMENT FENCE AND STAKES SHALL BE KEPT ON SITE.
- CONSTRUCTION ENTRANCE: WHEN UTILIZED, INSPECTED DAILY. EXCESS SEDIMENT SHALL BE REMOVED AND STORED IN THE TOPSOIL AND FILL STOCKPILE AREA AND USED AS FILL OR ROAD SUBBASE. A STOCKPILE OF REPLACEMENT ROCK SHALL BE KEPT ON SITE.

#### **GENERAL NOTES:**

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION, MAINTENANCE AND SUBSEQUENT REMOVAL OF SEDIMENTATION AND EROSION CONTROL MEASURES AS SHOWN ON THE PLANS AS OUTLINED HEREIN. AND IN ACCORDANCE WITH THE REQUIREMENTS OF THE COUNTY SOIL CONSERVATION DISTRICT AND THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION.
- ALL EROSION CONTROL MEASURES SHOWN ON THE EROSION AND SEDIMENTATION CONTROL PLAN ARE TO BE INSTALLED PRIOR TO BEGINNING ANY OTHER EARTH DISTURBING ACTIVITY.
- EROSION AND SEDIMENT BMPs (BEST MANAGEMENT PRACTICES) MUST BE CONSTRUCTED, STABILIZED, AND FUNCTIONAL BEFORE SITE DISTRIBUTION BEGINS WITHIN THE TRIBUTARY AREAS OF THOSE BMPs.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING INSPECTIONS OF ALL EROSION CONTROL DEVICES ON A WEEKLY BASIS AND AFTER ALL STORMS THAT PRODUCE MORE THAN 1/2" TOTAL RAINFALL. ANY NEEDED REPAIRS SHALL BE PERFORMED IMMEDIATELY.
- THE CONTRACTOR SHALL DOCUMENT ALL INSPECTIONS AND REPAIRS THAT ARE DONE TO MAINTAIN EFFICIENCY. COPIES OF EROSION CONTROL INSPECTION REPORTS SHALL BE SUBMITTED TO THE COUNTY SOIL CONSERVATION DISTRICT. CONTRACTOR SHALL USE DEP FORM 3150-FM-BWEW0083, VISUAL SITE INSPECTION REPORT.
- AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPs MUST BE REMOVED. AREAS DISTURBED DURING REMOVAL OF THE BMPs MUST BE STABILIZED IMMEDIATELY.
- UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPs MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT BMPs AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING, AND RENETTING MUST BE PERFORMED IMMEDIATELY. IF EROSION AND SEDIMENT CONTROL BMPs FAIL TO PERFORM AS EXPECTED. REPLACEMENT BMPs. OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.

#### RECYCLING/DISPOSAL OF WASTE REQUIREMENTS:

- ALL CONSTRUCTION/DEMOLITION WASTE MUST BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED IN ACCORDANCE WITH THE DEPARTMENTS SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET. SEQ., 287.1 ET. SEQ., THIS INCLUDES SOLID WASTE RESULTING FROM THE CONSTRUCTION OR DEMOLITION OF BUILDINGS OR OTHER STRUCTURES, INCLUDING BUT NOT LIMITED TO: WOOD, PLASTER, METALS, ASPHALTIC SUBSTANCES, BRICKS, BLOCK AND UNSEGREGATED CONCRETE. THIS DOES NOT INCLUDE: UNCONTAMINATED SOIL, ROCK, STONE, GRAVEL, BRICK, BLOCK, CONCRETE, USED ASPHALT, WASTE FROM LAND CLEARING, GRUBBING AND EXCAVATION, INCLUDING TREES, BRUSH, STUMPS AND VEGETATIVE MATERIAL IF THEY ARE SEPARATE FROM OTHER WASTE AND ARE USED AS CLEAN FILL.
- CONSTRUCTION WASTES (INCLUDING BUT NOT LIMITED TO EXCESS SOIL, BUILDING MATERIALS, CONCRETE WASH WATER, SANITARY WASTES, ETC.) ARE TO BE DISPOSED OF OR RECYCLED AT APPROPRIATE, PERMITTED FACILITIES.
- THE CONTRACTOR MUST USE ENVIRONMENTAL DUE DILIGENCE TO ENSURE THAT THE FILL MATERIAL ASSOCIATED WITH THIS PROJECT (IF ANY) QUALIFIES AS CLEAN FILL MATERIAL. THE CONTRACTOR IS RESPONSIBLE FOR SECURING ANY REQUIRED PERMITS.
- 4. ANTICIPATED CONSTRUCTION WASTE
- A. FILL MATERIAL FROM EXCAVATION LANDFILL
- B. CONSTRUCTION DEMOLITION FROM BUILDINGS, TANKS, ETC. LANDFILL OR RECYCLE IF FEASIBLE
- C. CONCRETE WASHOUT USE WASHOUT FACILITY
- DISPOSAL OF WASTE MATERIALS MUST COMPLY WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS

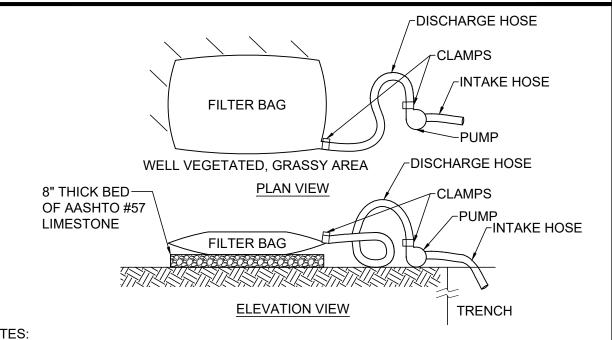
#### -COMPOST FILTER-STAKE ON 5' FLOW LINEAL SPACING PLAN VIEW - AS CHECK DAM PLAN VIEW -AS EDGE RESTRAINT 2" X 2" WOODEN UNDISTURBED STAKE COMPOST FILTER 7 UNDISTURBED SOCK AREA **WORK AREA** BLOWN/PLACED-2" X 2" WOODEN-12" (MIN.) FILTER MEDIA COMPOST FILTER STAKE PLACED 10' O.C. UNDISTURBED SOCK PLAN VIEW - AS SILT BARRIEF SECTION - COMPOST FILTER SOCH

#### NOTES:

- THIS PROJECT REQUIRES THE USE OF 8" DIA. COMPOST FILTER SOCK.
- COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE SOCK SHALL BE EXTENDED AT LEAST 8' UP SLOPE AT 45° TO THE MAIN SOCK ALIGNMENT. MAXIMUM SLOPE LENGTH ABOVE ANY SOCK SHALL NOT EXCEED THAT SHOWN IN THE OHIO RAINWATER AND LAND DEVELOPMENT MANUAL.
- TRAFFIC SHALL NOT BE PERMITTED TO CROSS FILTER SOCK.
- ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE SOCK AND DISPOSED IN THE MANNER DESCRIBED IN THE OHIO RAINWATER AND LAND DEVELOPMENT MANUAL.
- SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.
- SOCK FABRIC AND COMPOST SHALL MEET THE STANDARDS OF THE LATEST VERSION OF THE OHIO RAINWATER AND LAND DEVELOPMENT MANUAL
- BIODEGRADABLE FILTER SOCK SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS
- UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.
- SACKS MAY BE LEFT IN PLACE OR REMOVED. IN THE FORMER CASE, THE SOCK MATERIAL SHALL BE CUT OPEN AND THEN MULCH SPREAD AS A SOIL SUPPLEMENT.

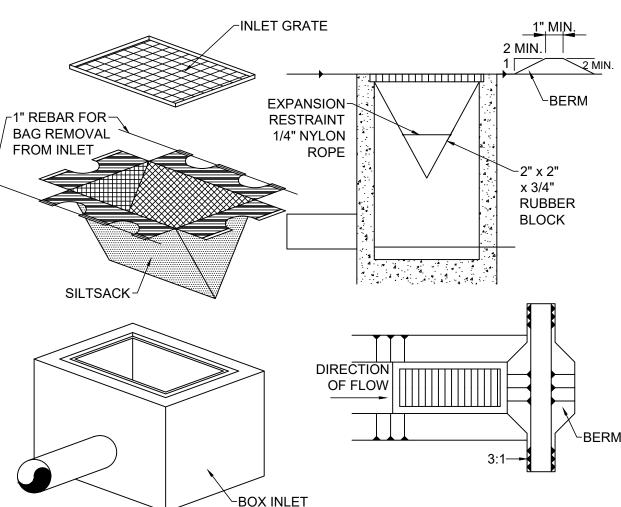
#### COMPOST FILTER SOCK

NOT TO SCALE



- USE FILTER BAGS MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "J" TYPE SEAMS, CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS.
- 2. A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES MUST BE PROVIDED. REPLACE FILTER BAGS WHEN THEY BECOME 1/2 FULL. KEEP SPARE BAGS AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED.
- PLACE BAGS IN WELL-VEGETATED (GRASSY) AREAS, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, PROVIDE A GEOTEXTILE FLOW PATH. DO NOT PLACE BAGS ON SLOPES GREATER THAN 5%.
- . INSERT PUMP DISCHARGE HOSE INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED.
- 5. THE PUMPING RATE SHOULD BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHOULD BE FLOATING AND SCREENED.
- INSPECT FILTER BAGS DAILY. IF ANY PROBLEM IS DETECTED, CEASE PUMPING IMMEDIATELY AND DO NOT RESUME UNTIL THE PROBLEM IS CORRECTED.

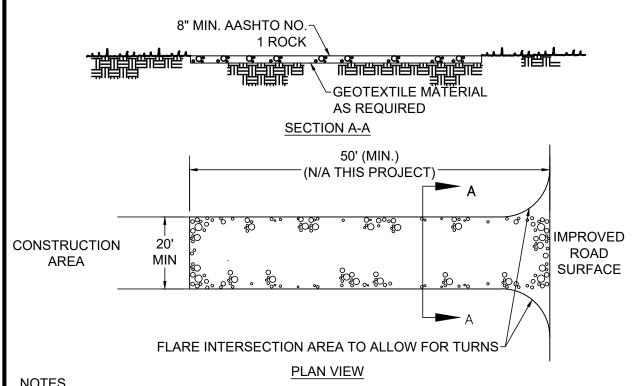
#### PUMPED WATER FILTER BAG DETAIL



- MAXIMUM DRAINAGE AREA =1/2 ACRE
- 2. INLET PROTECTION IS NOT REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR
- BERMS REQUIRED FOR ALL INSTALLATIONS.
- 3.1. EARTHEN BERM IN ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS STONED
- ROAD SUBBASE BERM ON ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS
- EARTHEN BERM IN CHANNEL SHALL BE MAINTAINED UNTIL PERMANENT STABILIZATION IS COMPLETED OR TO REMAIN PERMANENTLY.

#### SILT SACK DETAIL

NOT TO SCALE



- ROCK CONSTRUCTION ENTRANCES SHALL BE PLACED AT ALL POINTS OF CONSTRUCTION INGRESS AND EGRESS AND CONSTRUCTED TO THE MINIMUM WIDTH, LENGTH AND THICKNESS DIMENSIONS SHOWN.
- ROCK SHALL BE AASHTO NO.1 AS SPECIFIED IN SECTION 703.2 OF THE PENNDOT PUBLICATION 408.
- FOR INSTALLATION ON CLAYEY OR POORLY DRAINED SOILS, A GEOTEXTILE FABRIC UNDERLAYMENT, OF A TYPE RECOMMENDED FOR SUCH APPLICATIONS BY THE 14. MANUFACTURER, SHALL BE USED.
- MAINTENANCE: THE ROCK CONSTRUCTION ENTRANCE SHALL BE REDRESSED WHEN VOIDS BECOME CHOKED WITH SEDIMENT. THE STRUCTURES THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY CLEANING OR ADDING ROCK, A STOCKPILE OF ROCK MATERIAL SHALL BE MAINTAINED ON THE SITE FOR THIS PURPOSE. AT THE END OF EACH CONSTRUCTION DAY, ALL SEDIMENT DEPOSITED ON DRIVEWAYS AND PUBLIC ROADWAYS. SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE. WASHING OF THE DRIVEWAYS OR ROADWAYS WITH WATER IS NOT PERMITTED.

#### **ROCK CONSTRUCTION ENTRANCE**

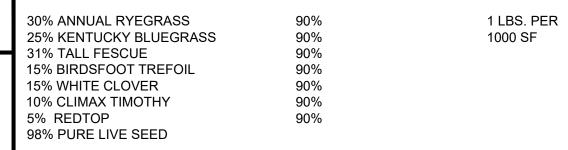
#### **PERMANENT SEED MIX:**

PERMANENT SEED MIXTURE FOR SLOPES 3:1 AND LESS 50% KENTUCKY BLUEGRASS 85% 1 LBS, PER 20% PERENNIAL RYEGRASS 90% 1250 SF 30% CREEPING RED FESCUE 88%

**GERMINATION RATE** 

APPLICATION RATE

#### PERMANENT SEED MIXTURE FOR SLOPES GREATER THAN 3:1



#### APPLICATION RATE: 100 LB/ACRE

98% PURE LIVE SEED

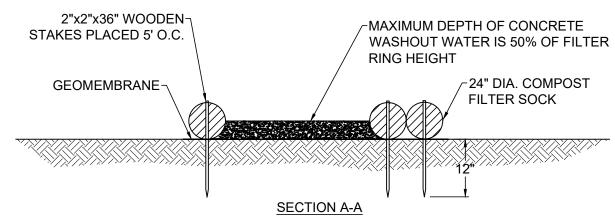
FERTILIZER 10-20-20, APPLICATION RATE: 680 LB/ACRE LIMING RATE: 2.0 TON/ACRE MULCH: STRAW - MULCHING RATE: 3.0 TON/ACRE PROTECT SEED WITH: NAG 575 OR APPROVED SUBSTITUTE SEEDING SEASONS: MARCH 15 - JUNE 1 & AUG 1 - OCT 15

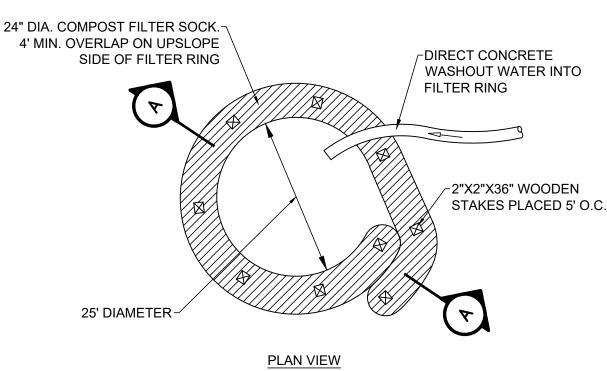
#### BIODEGRADABLE EROSION CONTROL MATTING/BLANKET

A TEMPORARY DEGRADABLE ROLLED EROSION CONTROL PRODUCT COMPOSED OF PROCESSED NATURAL FIBERS MECHANICALLY BOUND TOGETHER TO FORM A CONTINUOUS MATRIX. AREAS WITH SLOPES GREATER THAN 3:1 SHALL BE PROTECTED WITH NORTH AMERICAN GREEN S75BN EROSION CONTROL BLANKET (ECB) OR APPROVED SUBSTITUTE

#### **TEMPORARY SEED MIX:**

SPECIES: ANNUAL RYE % PURE LIVE SEED: 98% APPLICATION RATE: 50 LB/ACRE FERTILIZER: 10-20-20 FERTILIZER APPLICATION RATE: 680 LB/ACRE LIMING RATE: 2.0 TON/ACRE MULCH: STRAW MULCHING RATE: 3.0 TON/ACRE



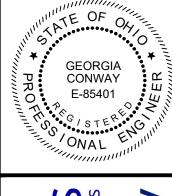


- PROVIDE PROPER SIGNAGE FOR CONCRETE DELIVERY VEHICLE DRIVERS SO THAT THEY ARE AWARE OF THE PRESENCE OF WASHOUT FACILITIES.
- WASHOUT FACILITIES SHOULD NOT BE PLACED WITHIN 50' OF STORM DRAINS, OPEN DITCHES, OR SURFACE WATERS, UNDER NO CIRCUMSTANCES SHOULD WASH WATER BI ALLOWED TO ENTER ANY SURFACE WATERS.
- WHEREVER POSSIBLE, CONCRETE WASHOUTS SHOULD BE LOCATED ON SLOPES NOT EXCEEDING A 2% GRADE.
- A SUITABLE IMPERVIOUS GEOMEMBRANE SHOULD BE PLACED AT THE LOCATION OF THI WASHOUT. COMPOST SOCKS SHOULD BE STAKED IN THE MANNER RECOMMENDED BY THE MANUFACTURER AROUND PERIMETER OF THE GEOMEMBRANE SO AS TO FORM. RING WITHIN THE ENDS OF THE SOCK LOCATED AT THE UPSLOPE CORNER. CARE MUST BE TAKEN TO ENSURE CONTINUOUS CONTACT OF THE SOCK WITH THE GEOMEMBRANE AT ALL LOCATIONS. WHERE NECESSARY, 18" SOCKS MAY BE STACKED ONTO 24" SOCKS AND STAKED SO AS TO FORM A TRIANGULAR CROSS SECTION.

#### TYPICAL COMPOST SOCK WASHOUT **INSTALLATION DETAIL**

NOT TO SCALE



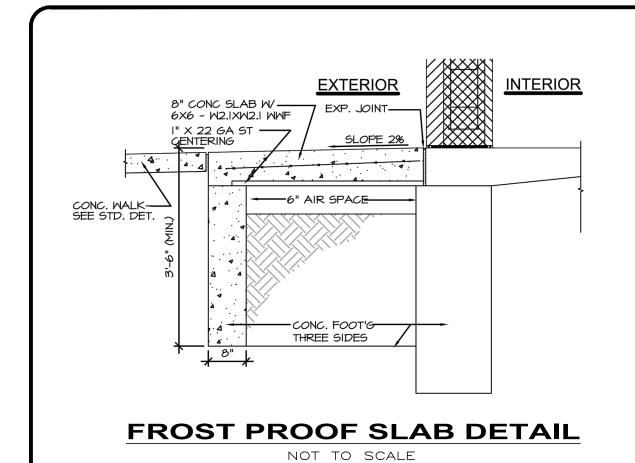


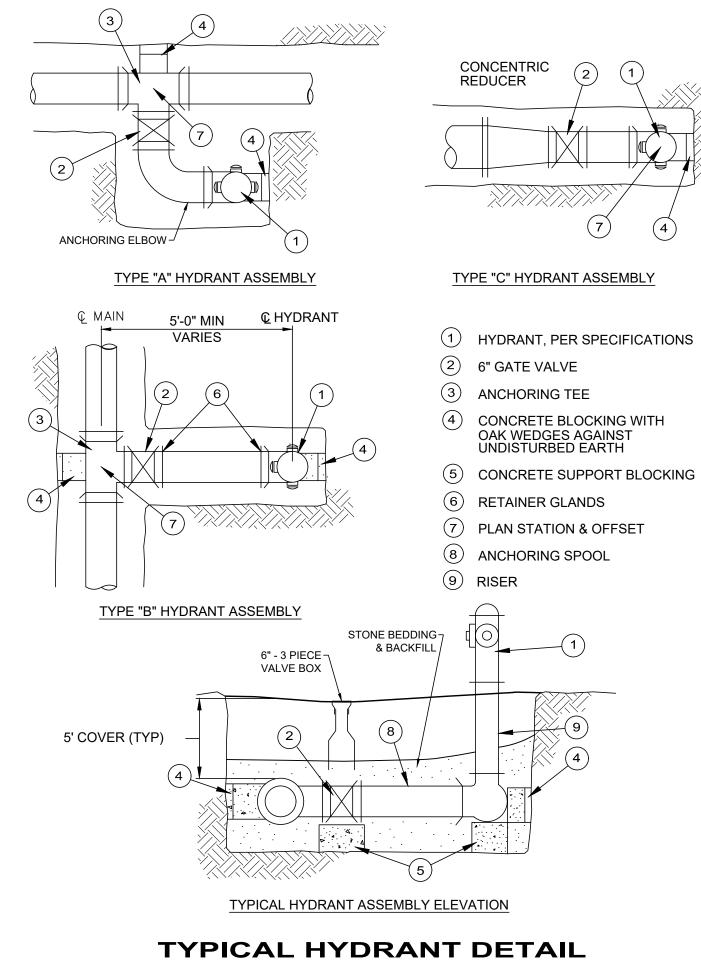
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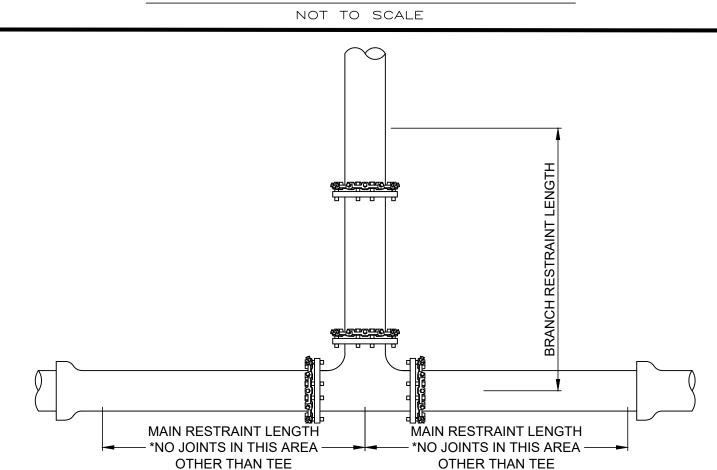
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PROJECT NO.

SHEET 24



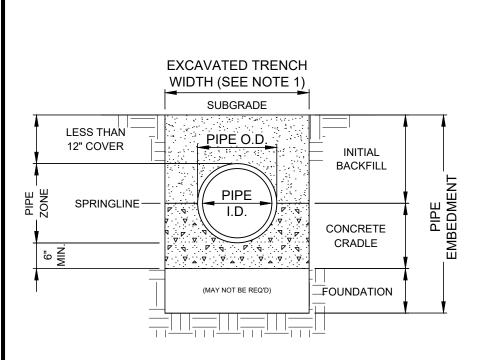




#### TYPICAL HORIZONTAL TEE RESTRAINT NOT TO SCALE

THRUST RESTRAIN TABLE FOR STANDARD FITTINGS								
FITTING	SIZE	MINIMUM MAIN RESTRAINT LENGTH	MINIMUM MAIN RESTRAINT LENGTH*					
HORIZONTAL FITTINGS								
DEAD END 8"		60'						
TEE**	8" X 2"		1'					
TFF**	8" X 6"		1,					

\*ALL JOINTS WITHIN THE CALCAULTED LENGTH MUST \*\*A MINIMUM ATTACHED LENGTH OF PIPE OF 20FT TO EXTEND IN EACH DIRECTION ALING THE RUN OF THE TEE WAS ASSUMED TO CALCUALTE THE RESTRAINED LENGTH ALONG THE BRANCH. THE LENGTH OF PIPE ALONG THE RUN MUST BE PF SOLID PIPE WITHOUT JOINTS, FITTINGS, ETC.



-EDGE OF PAVEMENT OR

ZONE OF INFLUENCE

-EDGE OF PAVEMENT OR

ZONE OF

INFLUENCE

STRUCTURE

PARALLEL

ZONE OF INFLUENCE

**TRANSVERSE** 

ZONE OF INFLUENCE

STRUCTURE

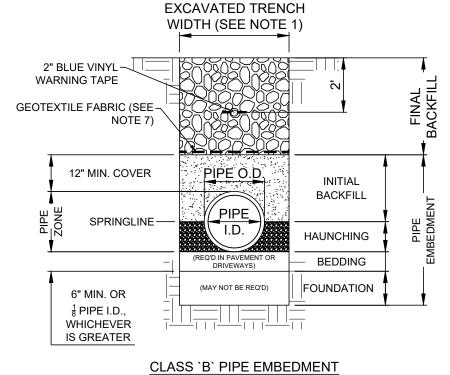
SPECIAL BACKFILL

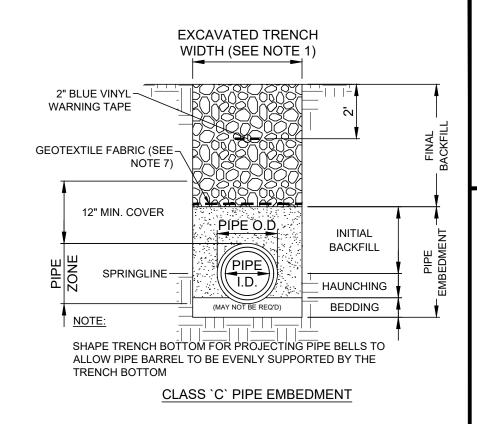
MATERIAL

BACKFILL

MATERIAL

CONDUIT





CLASS 'A' PIPE EMBEDMENT

#### NOTES:

MAXIMUM EXCAVATED TRENCH WIDTH: THE MAXIMUM EXCAVATED TRENCH WIDTH FROM THE BOTTOM OF THE TRENCH TO 12" OVER THE TOP OF THE PIPE (WITHIN PIPE EMBEDMENT) SHALL BE O.D. + 24" FOR ALL PIPES UP TO AND INCLUDING 24" I.D. + 30" FOR PIPE FROM 24" I.D. TO 54" I.D. AND O.D. + 48" FOR PIPES SIZES 60" I.E. AND OVER.

2. FOUNDATION: WHERE AN UNSTABLE TRENCH BOTTOM CONDITION IS ENCOUNTERED, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH MATERIAL AS DIRECTED BY THE ENGINEER.

#### 3. PIPE EMBEDMENT:

CLASS A: CLASS A PIPE EMBEDMENT SHALL BE USED FOR ALL PIPING UNDER PAVEMENT OR STRUCTURES WITH LESS THAN 12 INCHES OF PIPE COVER TO THE SUBGRADE. THE CONCRETE CRADLE SHALL BE IN ACCORDANCE WITH ODOT ITEM 499, CLASS "C". THE INITIAL BACKFILL SHALL BE AASHTO NO. 57 OR NO. 67 GRANULAR PIPE EMBEDMENT.

CLASS B: CLASS B PIPE EMBEDMENT SHALL BE USED FOR ALL PIPING UNLESS OTHERWISE NOTED ON THE PLANS OR AUTHORIZED BY THE ENGINEER. THE BEDDING AND HAUNCHING SHALL BE AASHTO NO. 57 OR NO. 67 GRANULAR PIPE EMBEDMENT. IN ALL AREAS UNDER PAVEMENT, STRUCTURES OR WITHIN THE ZONE OF INFLUENCE, THE INITIAL BACKFILL SHALL BE AASHTO NO. 57 OR NO. 67 GRANULAR PIPE EMBEDMENT. IN ALL AREAS OUTSIDE OF PAVEMENT STRUCTURES OR THE ZONE OF INFLUENCE, THE INITIAL BACKFILL SHALL BE SUITABLE ON-SITE MATERIAL APPROVED BY THE ENGINEER FOR ONLY REINFORCED CONCRETE PIPE AND DUCTILE IRON PIPE. THE INITIAL BACKFILL FOR ALL OTHER PIPES SHALL BE AASHTO NO. 57 OR NO. 67 GRANULAR PIPE EMBEDMENT.

CLASS C: CLASS C PIPE EMBEDMENT SHALL ONLY BE USED FOR DUCTILE IRON WATER MAIN, DUCTILE IRON FORCE MAINS OR AS AUTHORIZED BY THE ENGINEER. TH PIPE EMBEDMENT SHALL BE AASHTO NO. 57 OR NO. 67 GRANULAR PIPE EMBEDMENT IN ALL AREAS UNDER PAVEMENT, STRUCTURES OR WITHIN THE 🛭 🖰 ZONE OF INFLUENCE. THE PIPE EMBEDMENT SHALL BE SUITABLE ON-SITE MATERIAL APPROVED BY THE ENGINEER IN ALL AREAS OUTSIDE OF PAVEMENT, STRUCTURES OR THE ZONE OF INFLUENCE. WHERE ROCK OR SHALE IS ENCOUNTERED, A MINIMUM 6-INCHES OF AASHTO NO. 57 OR NO. 67 GRANULAR PIPE BEDDING OR SAND BEDDING SHALL BE PLACED AS DIRECTED BY THE ENGINEER.

4. FINAL BACKFILL: IN ALL AREAS PARALLEL TO THE ROAD AT A MINIMUM OF 3-FEET FROM EDGE OF PAVEMENT, FINAL BACKFILL SHALL BE SUITABLE ON-SITE MATERIAL APPROVED BY THE ENGINEER. ALL AREAS UNDER PAVEMENT OR STRUCTURE SHALL BE SPECIAL BACKFILL MATERIAL

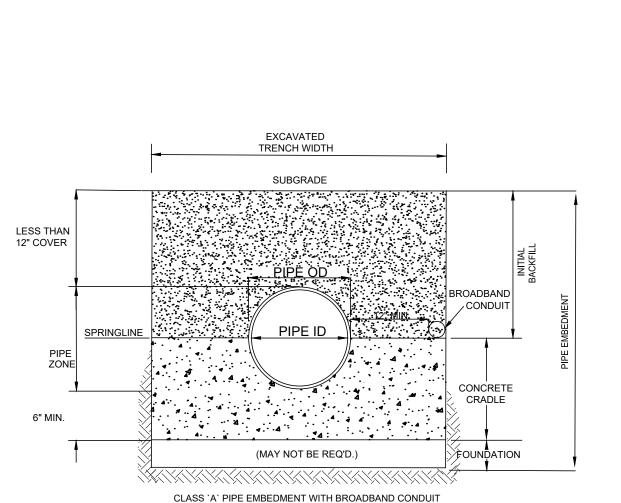
5. SPECIFICATIONS: ALL TRENCHING, PIPE EMBEDMENT AND BACKFILL MATERIALS SHALL BE IN ACCORDANCE WITH SPECIFICATION 02300CT - EARTHWORK.

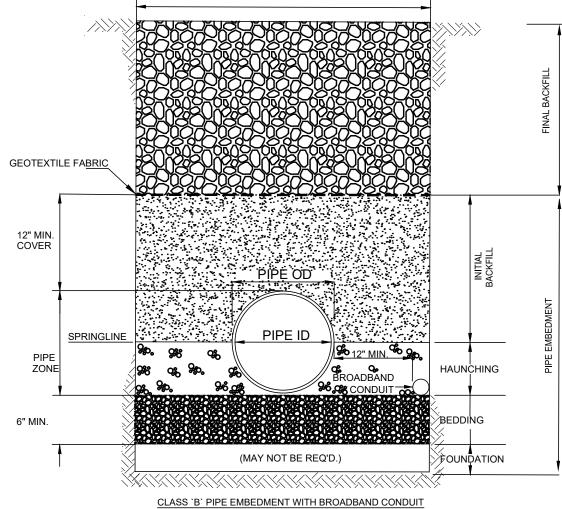
6. GEOTEXTILE FABRIC: INSTALL A GEOTEXTILE FABRIC IN ACCORDANCE WITH ODOT 712.09, TYPE A, AFTER ALL INITIAL BACKFILL CONSISTING OF AASHTO NO. 57 OR NO 67 GRANULAR PIPE EMBEDMENT.

7. TRACER WIRE: IF REQUIRED IN THE SPECIFICATIONS, INSTALL DETECTABLE WARNING TAPE ABOVE UTILITIES, 24" BELOW FINISHED GRADE, EXCEPT 6 INCHES BELOW SUBGRADE UNDER PAVEMENT AND SLABS.

## TRENCHING, EMBEDMENT, AND BACKFILL DETAIL

NOT TO SCALE





#### **CONDUIT SPECIFICATIONS:**

- MATERIAL: STANDARD SMOOTHWALL HDPE.
- 2. MANUFACTURER: DURALINE OR APPROVED EQUIVALENT.
- 3. DIAMETER: 2"
- 4. INSTALLATION: THE CONDUIT SHALL BE OFFSET FROM THE WATERLINE AS SHOWN ON THE DETAILS, ON OPPOSITE SIDE OF THE ROAD, TO REDUCE THE RISK ON CONDUIT BEING DAMAGED BY A WATER MAIN BREAK. A PULL TAPE SHALL BE INSTALLED I THE CONDUIT TO FACILITATE FUTURE CABLE INSTALLATION. AFTER CONDUIT HAS BEEN INSTALLED, THE CONTRACTOR SHALL ENSURE THE PULL TAPE CAN MOVE FREELY INDICATING NO OBSTRUCTIONS IN THE CONDUIT.
- SPECIFICATION 310000.

#### HANDHOLE / PULL CHAMBER SPECIFICATIONS:

- 1. HANDHOLES ARE UNDERGROUND ENCLOSURES FOR PULLING OF CABLES, INSPECTIONS, AND
- 2. CONDUIT SHALL ENTER VAULTS FROM THE SIDEWALL THROUGH OPENINGS CREATED PER MANUFACTURER INSTRUCTIONS.
- 3. CONDUIT SHALL PROTRUDE BEYOND EXTERIOR WALL OF THE VAULT BETWEEN 1 AND 3
- MAKE AND MANUFACTURER: HUBBEL 24" X 36" X 24" POLYMER CONCRETE BOX OR APPROVED
- 5. IDENTIFICATION: INCLUDE BURIED WARNING TAPE ABOVE THE CONDUIT IN ACCORDANCE WITH 5. PULL CHAMBERS SHALL BE PLACED AT ROAD INTERSECTIONS AND INTERVALS NO EXCEEDING

#### **BROADBAND CONDUIT DETAIL**

NOT TO SCALE

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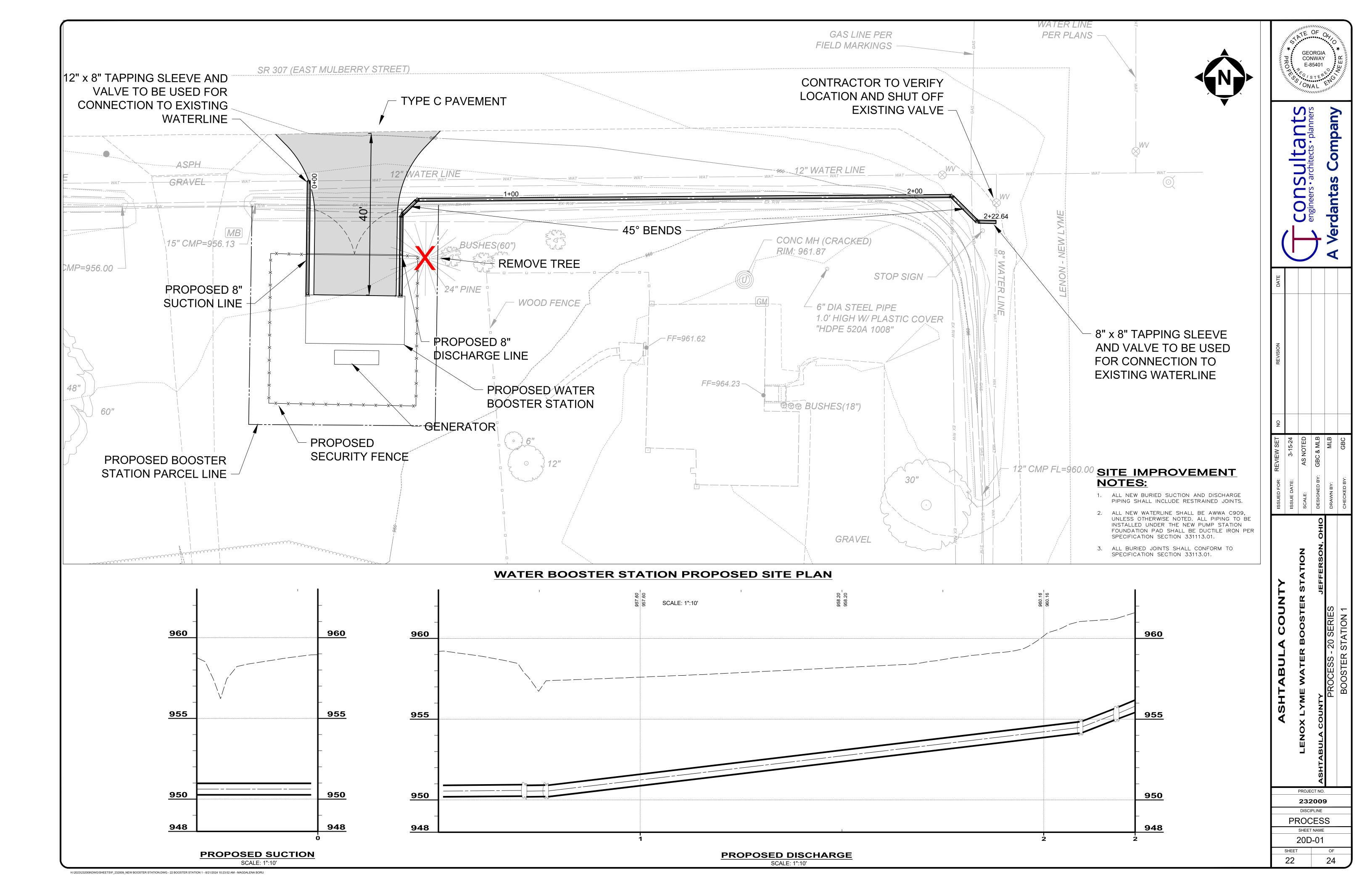
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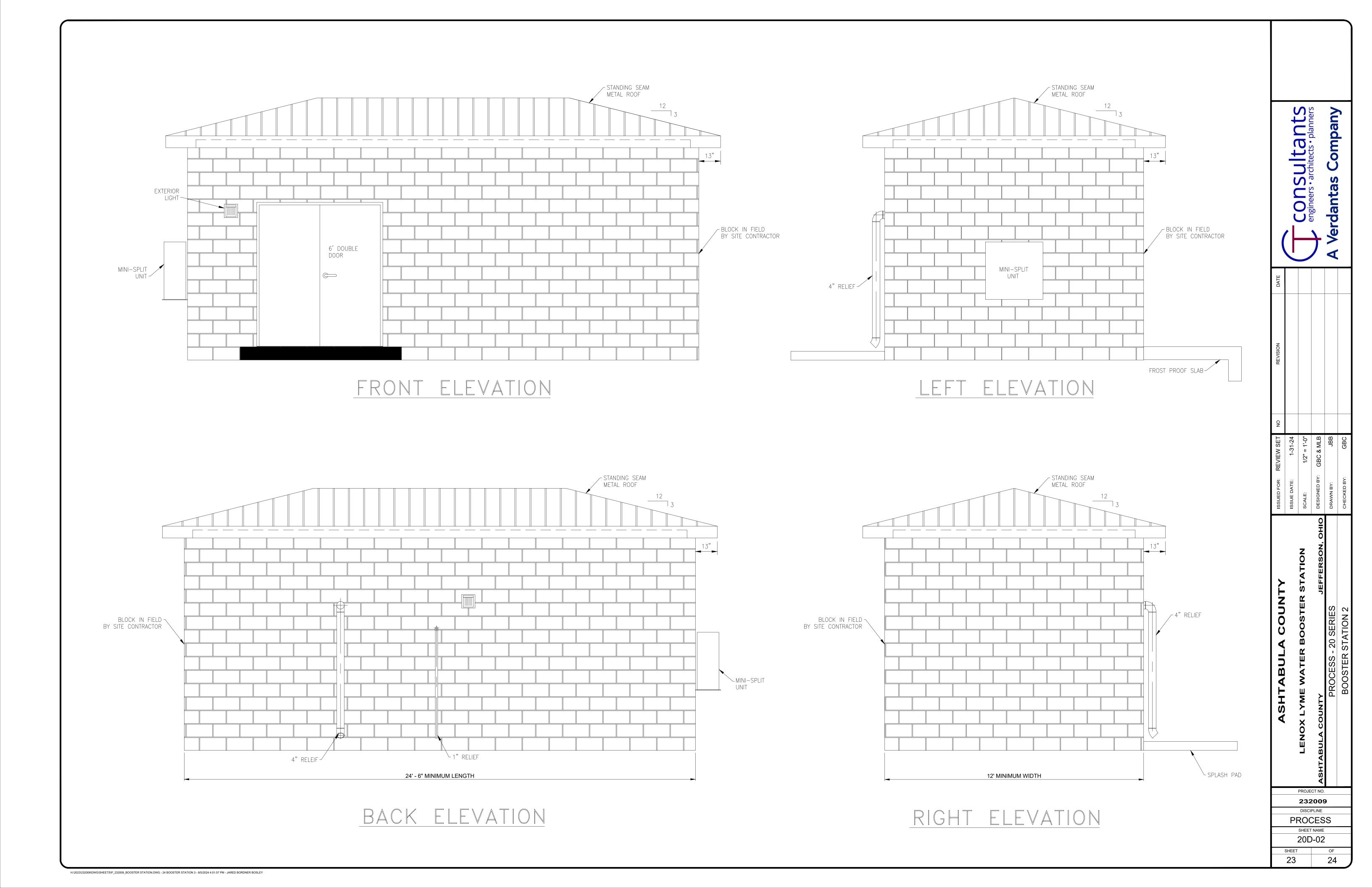
**GEORGIA** 

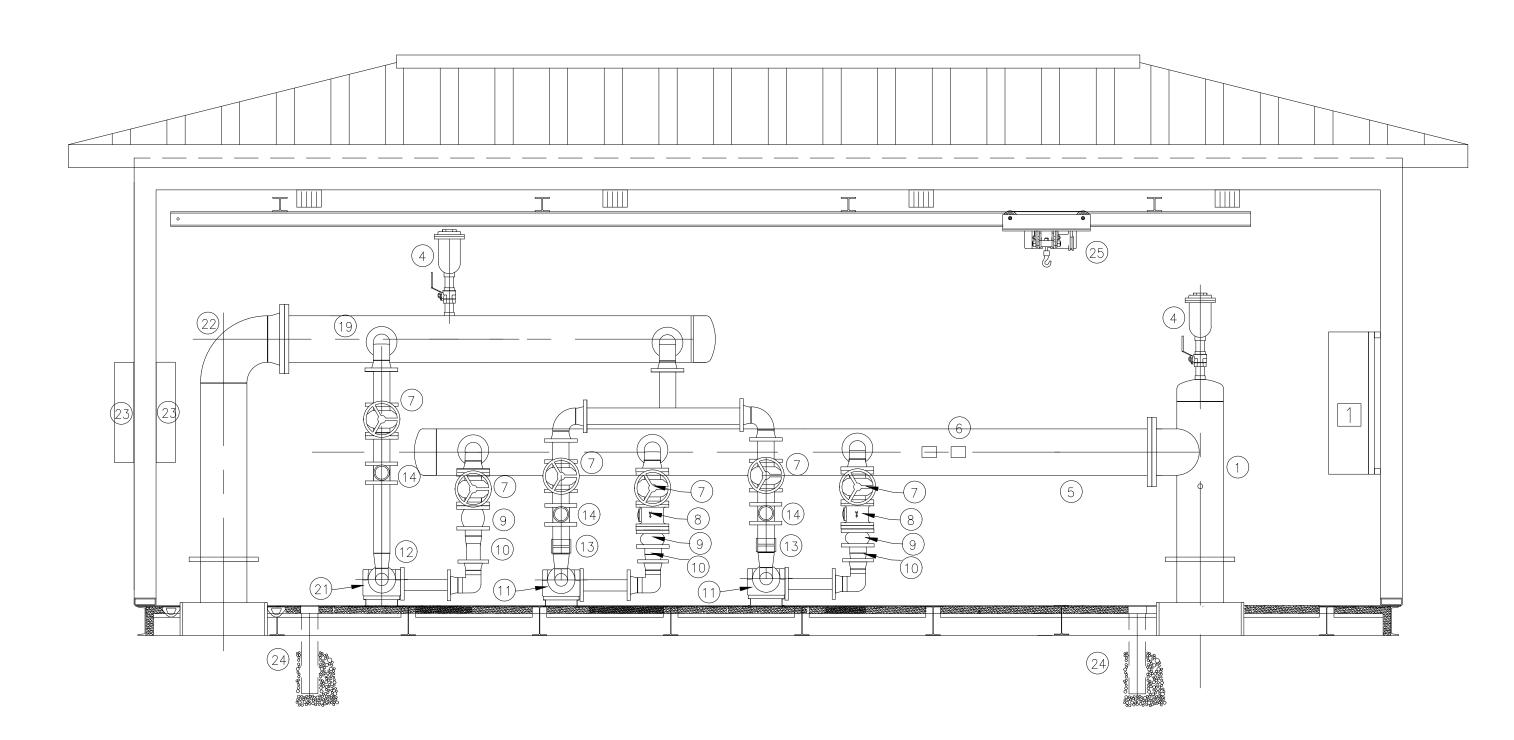
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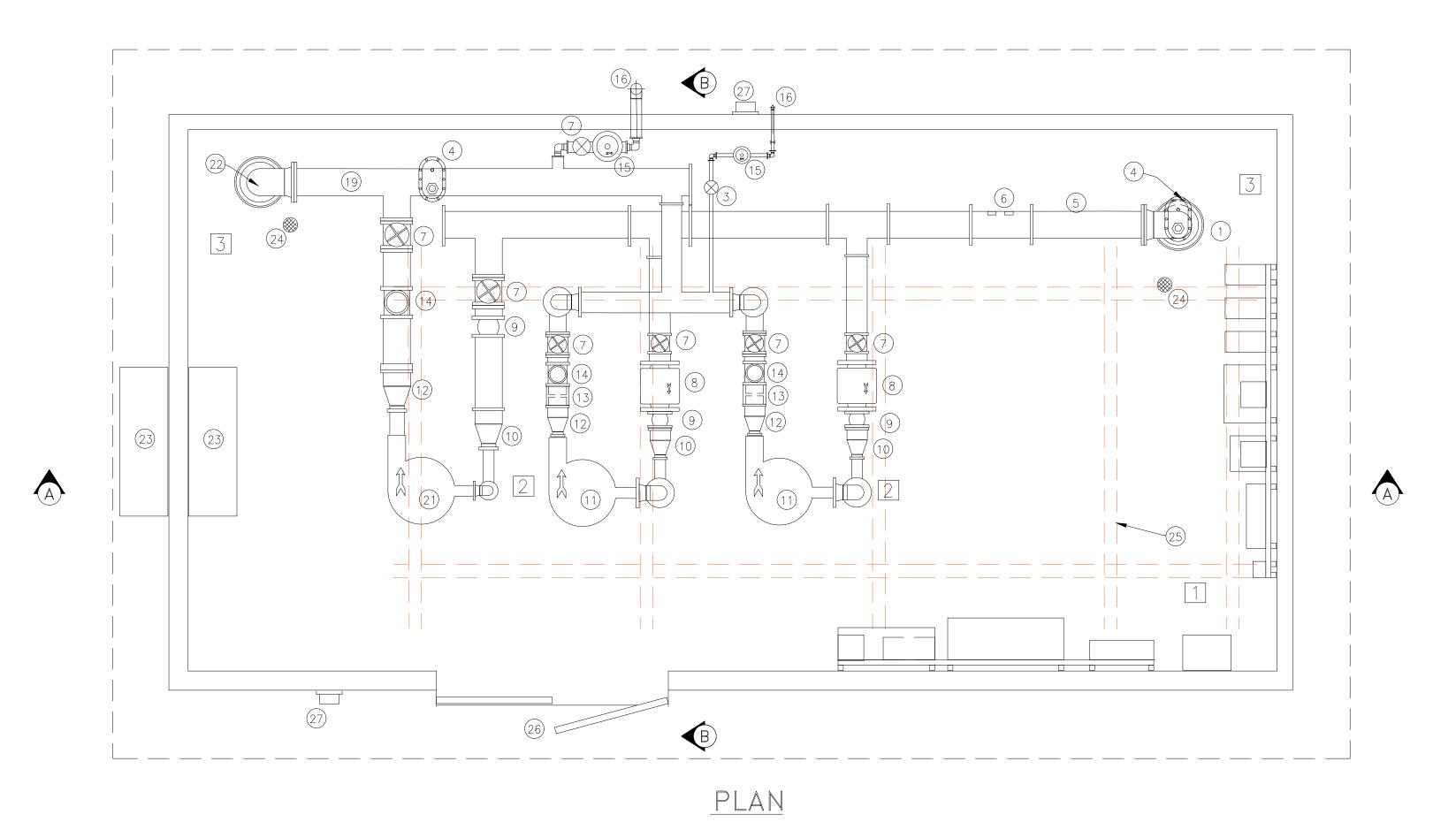
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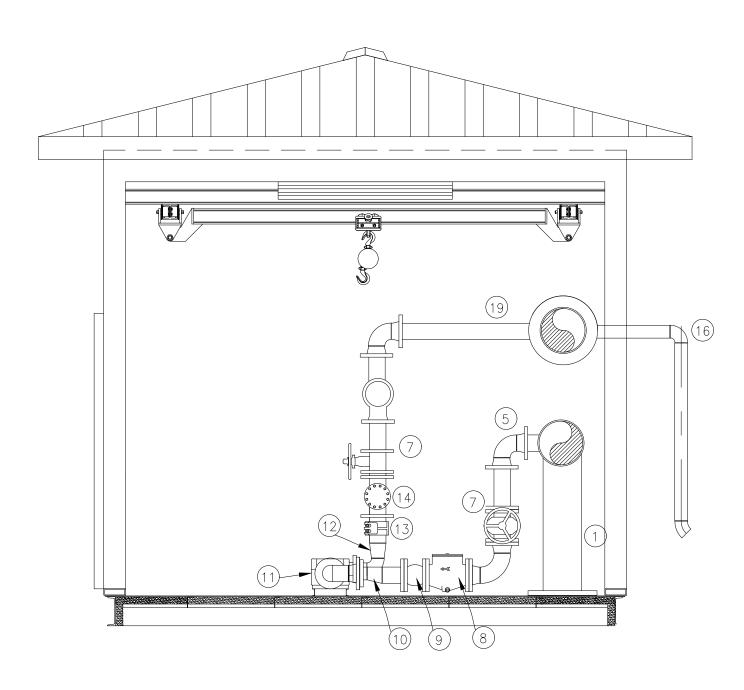




## SECTION A-A



\*ALL PIPING DISPLAYED IS NOT DRAWN TO SCALE. ALL PIPE SIZES AND INTERIOR CONFIGURATION SHALL BE DESIGNED BY THE BOOSTER STATION MANUFACTURER.



## SECTION B-B

LE	GEND
1)	MAIN SUCTION
2)	HOSE BIBB
3)	BALL VALVE
4)	AIR RELEASE VALVE
5)	SUCTION HEADER
6)	CLAMP-ON FLOW METER
7)	GATE VALVE
8)	STRAINER
9)	ELASTOMER PIPE CONNECTOR
10)	ECCENTRIC REDUCER
11)	DOMESTIC PUMP
12)	CONCENTRIC REDUCER
13)	SELF RESTRAINED COUPLING
14)	SWING FLEX CHECK VALVE
15)	RELIEF VALVE
16)	RELIEF TO ATMOSPHERE
17)	HIGH CAPACITY PUMP
18)	FLANGED COUPLING ADAPTER
	DISCHARGE HEADER
	VICTAULIC COUPLING
	RELIEF TO ATMOSPHERE
	MAIN DISCHARGE
	MINI-SPLIT UNIT
	4" FLOOR DRAIN
	1-TON CRANE RAIL W/CHAIN HOIST
	6 FOOT DOUBLE DOOR
271	EXTERIOR LIGHT

- ELECTRICAL POWER, SERVICE AND CONTROL PANELS SHALL BE WALL MOUNTED ON SUPPORT CHANNEL AND TO MEET NEC 110-26 REQUIREMENTS EACH PANEL SHALL HAVE A COMPLETELY UNOBSTRUCTED 42" ACCESS AREA IN FRONT OF THE PANEL; SUCH AREA TO EXTEND FLOOR TO CEILING.
- PIPING MUST BE ARRANGED SUCH THAT A MINIMUM 36" WIDE UNOBSTRUCTED WALKUP SERVICE SPACE ON THREE SIDES OF EACH PUMP IS PROVIDED WITHOUT CLIMBING OR STEPPING OVER ANY DEVICE OR PIPING.
- OPENING LOCATIONS ARE TYPICAL. CONTRACTOR IS TO CONFIRM ACTUAL SIZE AND LOCATION WITH BOOSTER STATION MANUFACTURER.

CONSUITAI engineers architects p							
REVISION							
REVIEW SET NO	1-31-24	NTS	& MLB	JBB	GBC		
			Y: GBC		ij		
ISSUED FOR:	ISSUE DATE:	SCALE:	DESIGNED BY: GBC & MLB	DRAWN BY:	CHECKED BY:		
ASHTABULA COUNTY		LENOX LYME WATER BOOSTER STATION	SHTABULA COUNTY JEFFERSON, OHIO	PROCESS - 20 SERIES	BOOSTER STATION 3		

232009

PROCESS

SHEET NAME 20D-03