## 43RD STREET UTILITY EXTENSION ISSUED FOR CONSTRUCTION

E HANCOCK ST AT S 43RD ST E **MUSKOGEE, OKLAHOMA 74403** 

**APRIL 1, 2025** 

PORT MUSKOGEE

**5201 THREE FORKS ROAD** FORT GIBSON, OKLAHOMA 74402

# PREPARED FOR:

SITE LOCATION -	ogee Tpke F	385-44475S
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#### PROPERTY INFORMATION

#### **OWNER / APPLICANT**

CITY OF MUSKOGEE, 301 SOUTH CHEROKEE STREET MUSKOGEE, OKLAHOMA 74403

#### **FINANCIER**

PORT MUSKOGEE, 5201 THREE FORKS ROAD FORT GIBSON, OKLAHOMA 74401

ADDRESS: INTERSECTION AT E HANCOCK ST & S 43RD STREET E,

MUSKOGEE, OK 74403 ZONING: INDUSTRIAL

TO CONNECT INTO THE EXISTING WATER SYSTEM ALONG S 45<sup>th</sup> E, BOTH TO SUPPLY UTILITIES FOR FUTURE DEVELOPMENT IN THE AREA.

#### NOTES

THE REMOVAL, OR RELOCATION, OF ALL UTILITIES AND APPURTENANCE WILL BE AT THE RISK AND EXPENSE OF THE CONTRACTOR. THESE INCLUDE BUT ARE NOT LIMITED TO POWER, SEWER, WATER, TELEPHONE, LONG DISTANCE COMMUNICATION, AND CABLE TELEVISION.

ALL OKIE UTILITY MARKINGS IN THE RIGHT OF WAY ARE REQUIRED TO BE ERADICATED AT THE COMPLETION OF THE PROJECT

CONTRACTOR SHALL COORDINATE WITH PROPERTY OWNERS CONCERNING ON SITE ACCESS AND WORK HOURS.

OKR10 PERMIT REQUIRED AND TO BE COMPLETED BY CONTRACTOR.

CONTRACTOR SHALL FOLLOW ALL OAC AND ODOT STANDARDS AND SPECIFICATIONS.

Permit Number: WL000051240787-R

Date Received: April 04 2025

Permit Number: SL000051240788-R Date Received: April 04 2025

April 30 2025 Rocky W. Chen, P.E. **S**BURNS MSDONNELL 1317 EXECUTIVE BLVD, SUITE 300 CHESAPEAKE, VA 23320 757-548-2056 OK CA #421 JAN. 31, 2025 C. EVANCHO checked designed E. SNIEGOSKI S. GILLIAM PORT MUSKOGEE ISSUED FOR CONSTRUCTION MUSKOGEE, OKLAHOMA 43RD STREET UTILITY EXTENSION COVER project contract 160013

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STATE OF OKLAHOMA

#### **GENERAL**

- IN ACCORDANCE WITH THE OKLAHOMA UNDERGROUND FACILITIES DAMAGE PREVENTION ACT, NOTIFY OKLAHOMA ONE-CALL SYSTEM, INC. 48 HOURS PRIOR TO THE BEGINNING OF EXCAVATION. OKLAHOMA ONE-CALL SYSTEM, INC. "CALL OKIE" 1-800-522-6543 OR 811.
- CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY. CONSTRUCTION ACTIVITIES SHALL BE IN ACCORDANCE WITH OSHA STANDARDS AND LOCAL REQUIREMENTS.
- ACCESSIBLE ROUTES, PARKING SPACES, RAMPS, SIDEWALKS AND WALKWAYS SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE FEDERAL AMERICANS WITH 10. A METAL TRACER WIRE IS TO BE INSTALLED ON ALL NON-FERROUS SANITARY DISABILITIES ACT AND WITH STATE AND LOCAL LAWS AND REGULATIONS (WHICHEVER ARE MORE STRINGENT).
- AREAS DISTURBED DURING CONSTRUCTION AND NOT RESTORED WITH IMPERVIOUS SURFACES (BUILDINGS, PAVEMENTS, WALKS, ETC.) SHALL BE SEEDED AND STABILIZED.
- WORK WITHIN THE LOCAL RIGHT-OF-WAY SHALL CONFORM TO LOCAL MUNICIPAL STANDARDS. WORK WITHIN STATE RIGHT-OF-WAY SHALL CONFORM TO THE LATEST EDITION OF THE STATE HIGHWAY DEPARTMENTS STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.
- 6. UPON AWARD OF CONTRACT, CONTRACTOR SHALL MAKE NECESSARY CONSTRUCTION NOTIFICATIONS AND APPLY FOR AND OBTAIN NECESSARY PERMITS, PAY FEES, AND POST BONDS ASSOCIATED WITH THE WORK INDICATED ON THE DRAWINGS, IN THE SPECIFICATIONS, AND IN THE CONTRACT DOCUMENTS. DO NOT CLOSE OR OBSTRUCT ROADWAYS, SIDEWALKS, OR FIRE HYDRANTS, WITHOUT APPROPRIATE PERMITS.
- TRAFFIC SIGNAGE AND PAVEMENT MARKINGS SHALL CONFORM TO THE LATEST EDITION OF MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
- AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
- 9. IN THE EVENT THAT SUSPECTED CONTAMINATED SOIL, GROUNDWATER, AND OTHER MEDIA ARE ENCOUNTERED DURING EXCAVATION AND CONSTRUCTION ACTIVITIES BASED ON VISUAL, OLFACTORY, OR OTHER EVIDENCE, THE CONTRACTOR SHALL STOP WORK IN THE VICINITY OF THE SUSPECT MATERIAL TO AVOID FURTHER SPREADING OF THE MATERIAL, AND SHALL NOTIFY THE OWNER IMMEDIATELY SO THAT THE APPROPRIATE TESTING AND SUBSEQUENT ACTION CAN BE TAKEN.
- 10. CONTRACTOR SHALL PREVENT DUST, SEDIMENT, AND DEBRIS FROM EXITING THE SITE AND SHALL BE RESPONSIBLE FOR CLEANUP. REPAIRS AND CORRECTIVE ACTION IF SUCH OCCURS.
- DAMAGE RESULTING FROM CONSTRUCTION LOADS SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO OWNER
- 12. CONTRACTOR SHALL CONTROL STORMWATER RUNOFF DURING CONSTRUCTION TO PREVENT ADVERSE IMPACTS TO OFF SITE AREAS, AND SHALL BE RESPONSIBLE 17. FOR REPAIRS RESULTING DAMAGES, IF ANY, AT NO COST TO OWNER,

#### UTILITIES

- THE LOCATIONS, SIZES, AND TYPES OF EXISTING UTILITIES ARE SHOWN AS AN APPROXIMATE REPRESENTATION ONLY. THE OWNER OR IT'S REPRESENTATIVE(S) HAVE NOT INDEPENDENTLY VERIFIED THIS INFORMATION AS SHOWN ON THE PLANS. THE UTILITY INFORMATION SHOWN DOES NOT GUARANTEE THE ACTUAL EXISTENCE, SERVICEABILITY, OR OTHER DATA CONCERNING THE UTILITIES, NOR DOES IT GUARANTEE AGAINST THE POSSIBILITY THAT ADDITIONAL UTILITIES MAY BE PRESENT THAT ARE NOT SHOWN ON THE PLANS. PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY AND DETERMINE THE EXACT LOCATIONS, SIZES, AND ELEVATIONS OF THE POINTS OF CONNECTIONS TO EXISTING UTILITIES AND. SHALL CONFIRM THAT THERE ARE NO INTERFERENCES WITH EXISTING UTILITIES AND THE PROPOSED UTILITY ROUTES, INCLUDING ROUTES WITHIN THE PUBLIC RIGHTS OF WAY.
- WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, OR EXISTING CONDITIONS DIFFER FROM THOSE SHOWN SUCH THAT THE WORK CANNOT BE COMPLETED AS INTENDED, THE LOCATION, ELEVATION, AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED IN WRITING TO THE OWNER'S REPRESENTATIVE FOR THE RESOLUTION OF THE CONFLICT. CONTRACTOR'S FAILURE TO NOTIFY PRIOR TO PERFORMING ADDITIONAL WORK RELEASES OWNER FROM OBLIGATIONS FOR ADDITIONAL PAYMENTS WHICH OTHERWISE MAY BE WARRANTED TO RESOLVE THE CONFLICT.
- SET CATCH BASIN RIMS, AND INVERTS OF SEWERS, DRAINS, AND DITCHES IN ACCORDANCE WITH ELEVATIONS ON THE GRADING AND UTILITY PLANS.
- RIM ELEVATIONS FOR STORM DRAIN AND SEWER MANHOLES, WATER VALVE COVERS, GAS GATES, ELECTRIC AND TELEPHONE PULL BOXES, AND MANHOLES, AND OTHER SUCH ITEMS, ARE APPROXIMATE AND SHALL BE SET/RESET AS FOLLOWS:
  - A. PAVEMENTS AND CONCRETE SURFACES: FLUSH
  - B. ALL SURFACES ALONG ACCESSIBLE ROUTES: FLUSH C. LANDSCAPE, TOPSOIL AND SEED, AND OTHER EARTH SURFACE AREAS: ONE INCH ABOVE SURROUNDING AREA AND TAPER EARTH TO THE RIM ELEVATION.
- THE LOCATION, SIZE, DEPTH, AND SPECIFICATIONS FOR CONSTRUCTION OF PROPOSED PRIVATE UTILITY SERVICES SHALL BE INSTALLED ACCORDING TO THE REQUIREMENTS PROVIDED BY, AND APPROVED BY, THE RESPECTIVE UTILITY COMPANY (GAS, TELEPHONE, ELECTRIC, FIRE ALARM, ETC.).
- CONTRACTOR SHALL MAKE ARRANGEMENTS FOR AND SHALL BE RESPONSIBLE FOR PAYING FEES FOR POLE RELOCATION AND FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE, FIRE ALARM, AND ANY OTHER PRIVATE UTILITIES. WHETHER WORK IS PERFORMED BY CONTRACTOR OR BY THE UTILITIES COMPANY.
- UTILITY PIPE MATERIALS SHALL BE AS FOLLOWS, UNLESS OTHERWISE NOTED ON PLANS.
  - A. WATER PIPES SHALL BE PVC C900. B. SANITARY SEWER PIPES SHALL BE PVC DR26.

#### **UTILITIES (CONTINUED)**

- PVC SDR 26 SHALL BE MADE OF PVC PLASTIC HAVING A MINIMUM CELL CLASSIFICATION OF 12454 AS DEFINED BY ASTM D1784. THE DESIGN AND MANUFACTURE OF PVC PIPE SHALL CONFORM TO ASTM D3034, ASTM F679, AND ASTM F789, AND ASTM F8949 FOR PROFILE WALL PIPES, ALL IN ACCORDANCE WITH OAC 252:656-5-3(A).
- ALL DRAINAGE AND SANITARY STRUCTURE INTERIOR DIAMETERS SHALL BE DETERMINED BY THE MANUFACTURER BASED ON THE PIPE CONFIGURATIONS SHOWN ON THESE PLANS, LOCAL MUNICIPAL, AND STATE STANDARDS
- SEWER PIPING IN ACCORDANCE WITH OAC 252:656-5-4(A).
- 11. LOW-PRESSURE AIR EXFILTRATION TESTING WILL BE REQUIRED FOR ALL SANITARY SEWER PIPING TO DETERMINE ANY LEAKS THAT ARE PRESENT IN THE SYSTEM (ASTM F1417 STANDARD TEST METHOD FOR INSTALLATION ACCEPTANCE FOR PLASTIC GRAVITY SEWER LINES USING LOW-PRESSURE AIR). AIR TEST LEAKAGE LIMIT MUST BE EQUIVALENT TO THE HYDROSTATIC TEST LIMIT OF TEN (10) GALLONS PER INCH OF PIPE DIAMETER PER MILE PER DAY AT TWO (2) FEET OF HEAD PRESSURE IN ACCORDANCE WITH OAC 252:656-7-1(B)(1)
- 12. DEFLECTION TESTS WILL BE REQUIRED FOR ALL SANITARY SEWER PIPING. CONTRACTOR SHALL PERFORM DEFLECTION TESTS ON ALL FLEXIBLE PIPE AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS. DEFLECTION MUST NOT EXCEED 5%. TESTS MUST BE RUN USING A RIGID BALL OR MANDREL WITH A DIAMETER EQUAL TO 95% OF THE INSIDE DIAMETER OF THE PIPE TAKING INTO ACCOUNT MANUFACTURING TOLERANCES. TESTS MUST BE PERFORMED WITHOUT MECHANICAL PULLING DEVICES. BASE INTERNAL DIAMETER (BASE ID) FOR PVC PIPES MUST BE CALCULATED FROM MEASUREMENTS TAKEN IN ACCORDANCE WITH ASTM D 2122, "STANDARD TEST METHOD FOR DETERMINING DIMENSIONS OF THERMOPLASTIC PIPE AND FITTINGS" AND ACCORDING TO PROCEDURES OUTLINE IN APPENDIX XI OF ASTM D 3034,"STANDARD SPECIFICATION FOR TYPE PSM POLY(VINYL CHLORIDE) (PVC) SEWER PIPE AND FITTINGS." DEFLECTION TESTS WILL BE IN ACCORDANCE WITH OAC 252:656-5-5(A).
- 13. PIPE BEDDING AND BACKFILL WILL BE REQUIRED FOR OPEN CUT PIPE INSTALLATION OF SANITARY SEWER PIPES. BEDDING AND BACKFILL WILL BE IN ACCORDANCE WITH OAC 252:656-5-3. ALSO REFER TO DETAIL ON PLANS.
- 14. VERIFY ALL SANITARY SEWER LINES ARE AT A MINIMUM OF TWO (2) FEET OF VERTICAL SEPARATION AND TEN (10) FEET OF HORIZONTAL SEPARATION BETWEEN SEWER LINE AND POTABLE WATERLINES, AND A MINIMUM OF FIVE (5) FEET OF HORIZONTAL SEPARATION BETWEEN ELECTRICAL AND PETROLEUM LINES IS MET, ALL IN ACCORDANCE WITH OAC 252:656-5-4(C)(1)(E).
- 15. VERIFY TOPS OF ALL SEWER PIPES ARE ARE AT LEAST THREE (3) FEET BELOW NATURAL BOTTOM OF STREAM BED OAC 252:656-5-4(E)
- 16. PRECAST REINFORCED CONCRETE MANHOLES THAT ARE TO BE USED FOR SANITARY SEWER, SHALL CONFORM TO ASTM C-478 AND THE INSTALLATION OF PRECAST REINFORCED CONCRETE MANHOLES SHALL CONFORM TO ASTM C1821, ALL IN ACCORDANCE WITH OAC 252:656-5-3(D).
- LEAKAGE TESTS WILL BE REQUIRED FOR ALL SANITARY SEWER MANHOLES IN ACCORDANCE WITH ASTM C1244 STANDARD TESTING TO ENSURE WATER TIGHTNESS OF CONCRETE SEWER MANHOLES BY USING A VACUUM TEST, ALL IN ACCORDANCE WITH OAC 252:656-5-4(G)(7).
- 18. INLET AND OUTLINE LINES ARE JOINED TO THE SANITARY SEWER MANHOLE WITH WATER TIGHT CONNECTIONS THAT ALLOW FOR DIFFERENTIAL SETTLEMENT OF THE PIPE AND THE MANHOLE TO TAKE PLACE IN ACCORDANCE WITH OAC 252:656-5-4(G)(4).
- 19. VERIFY ALL WATERLINES MEET THE MINIMUM SEPARATION DISTANCES, MEASURED EDGE TO EDGE. BETWEEN WATER LINES AND OTHER BURIED UTILITIES IN ACCORDANCE WITH OAC 252:626-19-2(H):
  - A. 10-FEET HORIZONTALLY FROM SEWER LINES. B. 2-FEET VERTICALLY FOR CROSSINGS FROM SEWER LINES WITH THE FULL LENGTH OF SEWER PIPE ARRANGED SO THAT ITS JOINTS WILL BE EQUIDISTANT FROM THE
  - C. 2-FEET VERTICALLY FOR CROSSINGS FROM ANY EXISTING OR PROPOSED STORM SEWERS, RAW WATER LINES, PETROLEUM PRODUCT LINES, NATURAL GAS LINES, AND OTHER BURIED UTILITIES.
  - D. 5-FEET HORIZONTALLY FROM EXISTING OR PROPOSED STORM SEWERS, RAW WATER LINES, PETROLEUM PRODUCT LINES, NATURAL GAS LINES, AND OTHER
  - BURIED UTILITY LINES. E. LOCATE CAST IRON WATER LINES AT LEAST 10-FEET FROM ANT GASOLINE STORAGE TANKS AND PVC WATER LINES AT LEAST 50-FEET HORIZONTALLY FROM ANY
  - GASOLINE STORAGE TANKS AND LINES. F. 15-FEET FROM ALL PARTS OF SEPTIC TANKS, ADSORPTION FIELDS, OR OTHER SEWAGE TREATMENT AND DISPOSAL SYSTEMS
  - G. WHEN IT IS IMPOSSIBLE TO OBTAIN SUCH HORIZONTAL OR VERTICAL SEPARATION BETWEEN THE WATER AND SEWER LINES, CONSTRUCT THE SEWER LINE OF WATER PIPE MATERIAL AND PRESSURE TEST IT TO ASSURE WATER TIGHTNESS.
- 20. A LEAKAGE TEST WILL BE REQUIRED FOR ALL INSTALLED WATERLINES IN ACCORDANCE WITH AWWA STANDARD SPECIFICATIONS. LEAKAGE MUST NOT EXCEED 10 GAL/INCH DIAMETER PER MILE OF PIPE PER 24 HOURS AT 150 PSI TESTING PRESSURE, ALL IN ACCORDANCE WITH OAC 252:626-19-2(E).
- 21. A METAL TRACER WIRE IS TO BE INSTALLED ON ALL NON-FERROUS WATER LINES IN ACCORDANCE WITH OAC 252:626-19-2(J).
- 22. CONTINUOUS, UNIFORM BEDDING IN THE TRENCH WILL BE REQUIRED FOR ALL BURIED WATER LINES. TAMP BACKFILL MATERIAL IN LAYERS AROUND THE PIPE AND TO A SUFFICIENT HEIGHT ABOVE THE PIPE TO ADEQUATELY SUPPORT AND PROTECT THE PIPE. REMOVE ALL STONES FOUND IN THE TRENCH TO A DEPTH OF AT LEAST 6 INCHES BELOW THE BOTTOM OF THE PIPE, ALL IN ACCORDANCE WITH OAC 252:626-19-2(B).
- 23. REACTION BLOCKING, TIE RODS, OR JOINTS DESIGNED TO PREVENT MOVEMENT AT ALL TEES, BENDS, PLUGS AND HYDRANTS TO PREVENT MOVEMENT OF THE PIPE WILL BE REQUIRED FOR ALL WATER LINES, IN ACCORDANCE WITH OAC 252:626-19-2(D).
- 24. DISINFECT ALL WATER LINES ACCORDING TO AWWA STANDARD SPECIFICATIONS. OBTAIN SAFE BACTERIOLOGICAL SAMPLES ON TWO CONSECUTIVE DAYS BEFORE PLACING THE WATERLINE INTO SERVICE, ALL IN ACCORDANCE WITH OAC 252:626-19-2(F).
- 25. ALL WATER LINE MATERIALS, INCLUDING PIPING, FITTINGS, VALVES, FIRE HYDRANTS, GASKETS, PACKING AND OTHER JOINT MATERIALS SHALL MEET THE LATEST SPECIFICATIONS ISSUED BY THE AWWA, ASTM, ANSI, NSF, OR THE FEDERAL GOVERNMENT, ALL IN ACCORDANCE WITH OAC 252:626-19-1(C).

### SITE PLAN

- DIMENSIONS ARE FROM THE FACE OF CURB, FACE OF BUILDING, FACE OF WALL. AND CENTER LINE OF PAVEMENT MARKINGS, UNLESS OTHERWISE NOTED
- ANY PROPERTY LINE MONUMENTATION DISTURBED DURING CONSTRUCTION SHALL BE SET OR RESET BY A PROFESSIONAL LICENSED SURVEYOR.
- PRIOR TO START OF CONSTRUCTION, CONTRACTOR SHALL VERIFY EXISTING PAVEMENT ELEVATIONS AT INTERFACE WITH PROPOSED PAVEMENTS, AND EXISTING GROUND ELEVATIONS ADJACENT TO DRAINAGE OUTLETS TO ASSURE PROPER TRANSITIONS BETWEEN EXISTING AND PROPOSED FACILITIES.
- SYMBOLS AND LEGENDS OF PROJECT FEATURES ARE GRAPHIC REPRESENTATIONS AND ARE NOT NECESSARILY SCALED TO THEIR ACTUAL DIMENSIONS OR LOCATIONS ON THE DRAWINGS. REFER TO THE DETAIL SHEET DIMENSIONS, MANUFACTURERS' LITERATURE, SHOP DRAWINGS AND FIELD MEASUREMENTS OF SUPPLIED PRODUCTS FOR LAYOUT OF THE PROJECT FEATURES.
- CONTRACTOR SHALL NOT RELY SOLELY ON ELECTRONIC VERSIONS OF PLANS SPECIFICATIONS, AND DATA FILES THAT ARE OBTAINED FROM THE DESIGNERS. BUT SHALL VERIFY LOCATION OF PROJECT FEATURES IN ACCORDANCE WITH THE PAPER COPIES OF THE PLANS AND SPECIFICATIONS THAT ARE SUPPLIED AS PART OF THE CONTRACT DOCUMENTS.
- GROUNDWATER REMOVAL/DE-WATERING OPERATIONS MAY BE REQUIRED FOR INSTALLATION OF PROPOSED UTILITIES.

#### DEMOLITION

- CONTRACTOR SHALL REMOVE AND DISPOSE OF EXISTING MANMADE SURFACE FEATURES WITHIN THE LIMIT OF WORK INCLUDING BUILDINGS. STRUCTURES. PAVEMENTS, SLABS, CURBING, FENCES, UTILITY POLES, SIGNS, ETC. UNLESS INDICATED OTHERWISE ON THE DRAWINGS.
- 2. EXISTING UTILITIES SHALL BE TERMINATED, UNLESS OTHERWISE NOTED, IN CONFORMANCE WITH LOCAL, STATE AND INDIVIDUAL UTILITY COMPANY STANDARDS SPECIFICATIONS, AND DETAILS. THE CONTRACTOR SHALL COORDINATE UTILITY SERVICE DISCONNECTS WITH THE UTILITY REPRESENTATIVES.
- CONTRACTOR SHALL DISPOSE OF DEMOLITION DEBRIS IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, ORDINANCES AND STATUTES.
- THIS DEMOLITION PLAN IS INTENDED TO AID THE CONTRACTOR DURING THE BIDDING AND CONSTRUCTION PROCESS AND IS NOT INTENDED TO DEPICT EACH AND EVERY ELEMENT OF DEMOLITION. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING THE DETAILED SCOPE OF DEMOLITION.

#### **EROSION CONTROL**

- PRIOR TO STARTING ANY OTHER WORK ON THE SITE, THE CONTRACTOR SHALL NOTIFY APPROPRIATE AGENCIES AND SHALL INSTALL EROSION CONTROL MEASURES AS SHOWN ON THE PLANS AND AS IDENTIFIED IN FEDERAL, STATE AND LOCAL APPROVAL DOCUMENTS PERTAINING TO THIS PROJECT
- CONTRACTOR SHALL INSPECT AND MAINTAIN EROSION CONTROL MEASURES, AND REMOVE SEDIMENT THEREFROM ON A WEEKLY BASIS AND WITHIN TWELVE HOURS AFTER EACH STORM EVENT AND DISPOSE OF SEDIMENTS IN AN UPLAND AREA SUCH THAT THEY DO NOT ENCUMBER OTHER DRAINAGE STRUCTURES AND PROTECTED AREAS.
- CONTRACTOR SHALL BE FULLY RESPONSIBLE TO CONTROL CONSTRUCTION SUCH THAT SEDIMENTATION SHALL NOT AFFECT REGULATORY PROTECTED AREAS. WHETHER SUCH SEDIMENTATION IS CAUSED BY WATER, WIND OR DIRECT DEPOSIT.
- CONTRACTOR SHALL PERFORM CONSTRUCTION SEQUENCING SUCH THAT EARTH MATERIALS ARE EXPOSED FOR A MINIMUM TIME BEFORE THEY ARE COVERED, SEEDED OR OTHERWISE STABILIZED TO PREVENT EROSION.
- UPON COMPLETION OF CONSTRUCTION AND ESTABLISHMENT OF, LEGALLY PERMANENT GROUND COVER, CONTRACTOR SHALL REMOVE AND DISPOSE OF EROSION CONTROL MEASURES AND CLEAN SEDIMENT AND DEBRIS FROM ENTIRE DRAINAGE AND SEWER SYSTEMS.
- MAINTENANCE AND REPAIR OF CONSTRUCTION EQUIPMENT SHALL BE CONFINED TO ONE AREA - LOCATED ON A LEVEL AREA. AS FAR FROM CREEKS AND WETLANDS AREAS AS POSSIBLE. STORAGE CONTAINERS AND WASTE DISPOSAL RECEPTACLES SHALL BE PROVIDED AT THIS AREA FOR OILS, FUELS, GREASE, SOLVENTS, ETC., THAT ARE USED ON THE SITE. THE MAINTENANCE AREA SHALL BE INSPECTED AND CLEANED DAILY. DISPOSAL RECEPTACLES SHALL BE EMPTIED WEEKLY, PROPERLY AND IN A LEGAL MANNER.
- 7. ANY FUEL STORAGE TANKS KEPT ON THE SITE SHALL BE PROVIDED WITH SECONDARY CONTAINMENT; THIS SHALL CONSIST OF A PAN UNDER THE TANK, LINED CONTAINMENT AREA WITH BERMS OR CONCRETE CONTAINMENT AREA. TO CONTAIN ANY LEAKAGE OR SPILLAGE WHICH MAY OCCUR FROM THE TANK DURING USE AND NON-USE TIMES.
- TRASH RECEPTACLES AND OTHER WASTE-HOLDING FACILITIES SHALL BE UTILIZED AT ONE OR TWO LOCATIONS ON THE PROJECT SITE TO CONTAIN WASTES AND PREVENT ITS MOVEMENT DOWN-GRADE OR OFFSITE. THESE FACILITIES SHALL BE EMPTIED AND WASTE DISPOSED OF ON A WEEKLY BASIS, OR MORE OFTEN AS NEEDED.
- 9. THE CONTRACTOR SHALL TAKE NECESSARY ACTION AS REQUIRED TO MINIMIZE THE TRACKING OF MUD/SOIL ONTO THE PAVED ROADWAY FROM THE CONSTRUCTION AREA. THE CONTRACTOR SHALL DAILY REMOVE MUD/SOIL FROM PAVEMENT. AS MAY BE REQUIRED.
- 10. WASHING OF CONSTRUCTION VEHICLES ON THE SITE WILL NOT BE ALLOWED. VEHICLES SHALL BE TRANSPORTED TO THE CONTRACTOR'S YARD AND WASHED AS NEEDED.

#### **EROSION CONTROL (CONTINUED)**

- 11. THE STORAGE OF ALL HAZARDOUS MATERIALS, FERTILIZERS, CHEMICALS, CEMENTS, SOLVENTS, PAINTS OR OTHER POTENTIAL WATER POLLUTANTS SHALL BE LOCATED IN AN ISOLATED. LEVEL AREA. FAR FROM CREEK/WETLAND AREAS. WHERE THEY WILL NOT CAUSE POLLUTION DUE TO RUNOFF FROM THEM DURING RAINFALL EVENTS AND SHALL BE STORED IN A HAZMAT APPROVED FACILITY. ALL MSDS SHEETS FOR EACH HAZARDOUS MATERIAL SHALL BE KEPT IN THE HAZMAT STORAGE FACILITY AND A COPY OF THE MSDS SHEET SHALL BE KEPT IN THE GENERAL CONTRACTOR'S OFFICE. TOXIC CHEMICALS AND MATERIALS, SUCH AS PESTICIDES, PAINTS AND ACIDS, SHALL BE STORED ACCORDING TO THE MANUFACTURER'S GUIDELINES. CARE SHALL BE TAKEN TO PREVENT ACCIDENTAL SPILLAGE DURING USE OF MATERIALS. CONTAINERS SHALL NOT BE WASHED IN OR NEAR FLOWING STREAMS OR STORMWATER HANDLING SYSTEMS (INLETS. DITCHES, PONDS, ETC.).
- 12. ADEQUATE SANITARY FACILITIES SHALL BE PROVIDED FOR WORKERS ON THE SITE IN ACCORDANCE WITH HEALTH DEPARTMENT REGULATIONS. THESE FACILITIES SHALL BE REGULARLY EMPTIED AND MAINTAINED AND PLACED AWAY FROM CREEKS/WETLANDS AS FAR AS POSSIBLE AND ANCHORED TO PREVENT OVERTURNING, AS NEEDED.
- 13. CONTRACTOR SHALL PERFORM DAILY WALK THROUGH OF THE PROJECT SITE TO PICK UP LOOSE DEBRIS, LITTER OR TRASH AND DISPOSE OF ALL ITEMS IN THE WASTE RECEPTACLES PROVIDED.

#### EXISTING CONDITIONS INFORMATION

- 1. BASE PLAN: THE EXISTING CONDITIONS INFORMATION USED FOR THIS PROJECT WAS OBTAINED BY BLEW & ASSOCIATES, P.A.
- 2. GEOTECHNICAL DATA FROM PRIOR REPORTS WITHIN PROJECT LIMITS ARE UTILIZED.
- 3. ALL UNDERGROUND UTILITIES WERE NOT FLAGGED BY "OKIE", ALL UNDERGROUND UTILITIES MAY NOT BE SHOWN. CALL "OKIE" (1-800-522-6543) BEFORE DIGGING.

#### CONCRETE

1. ALL CONCRETE SHALL BE AIR ENTRAINED (4,000 PSI) IN ACCORDANCE WITH MOST RECENT VERSION OF DEPARTMENT OF TRANSPORTATION ROADS AND BRIDGE SPECIFICATIONS UNLESS OTHERWISE SPECIFIED.

#### DRAINAGE

- 1. TEMPORARY DRAINAGE DURING CONSTRUCTION SHALL BE PROVIDED BY THE CONTRACTOR TO RELIEVE AREAS THAT MAY CAUSE DAMAGE TO ROADWAYS AS DIRECTED BY THE ENGINEER OR THE CITY OF MUSKOGEE.
- 2. ALL CONCRETE STORM PIPE JOINTS SHALL BE COMPLETELY WRAPPED WITH TWO-FOOT WIDE APPROVED FILTER FABRIC CENTERED ABOUT THE JOINT AND SECURED IN PLACE PRIOR TO BACKFILLING.

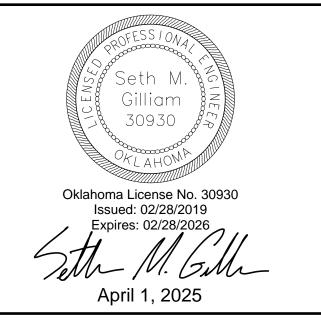
#### TRAFFIC CONTROL

THE CONTRACTOR SHALL SUBMIT A DETAILED TEMPORARY TRAFFIC CONTROL PLAN WITH THE PERMIT APPLICATION TO WORK IN THE RIGHT-OF-WAY. THE PLAN SHALL BE A DRAWING OR AERIAL PHOTO WITH SITE SPECIFIC DETAILS. THESE SHALL INCLUDE BUT ARE NOT LIMITED TO: TRAFFIC SIGNS, DIRECTIONAL SIGNS, DESTINATION SIGNAGE, CHANNELIZING DEVICES, WATER-FILLED BARRIERS, PORTABLE MESSAGE BOARDS WITH MESSAGES TO BE DISPLAYED AND TIMES AND DURATIONS OF DISPLAYED MESSAGED. ADDITIONALLY THE PLAN SHALL DISPLAY THE EXACT LOCATION OF ALL SIGNS AND/OR DEVICES INCLUDING SPACING FOR EACH SIGN AND/OR DEVICE, SPACING BEING APPROPRIATE FOR THE WORK ZONE LOCATION AND POSTED SPEED LIMITS. COPIES OR REPRODUCTIONS OF THE PLAN THAT ARE INCLUDED WITH THE PROJECT DRAWINGS AND SPECIFICATION WILL NOT BE ACCEPTED WITH THE PERMIT APPLICATION. CONSIDER THESE ITEMS WHEN BIDDING PROJECT CONSTRUCTION.

#### **OVERHEAD POWER SAFETY NOTES:**

- 1. SUBCONTRACTOR SHALL VERIFY HEIGHT AND LOCATION OF ALL EXISTING OVERHEAD POWER LINES PRIOR TO CONSTRUCTION.
- SUBCONTRACTOR SHALL WORK AT A SAFE DISTANCE FROM ALL POWER LINES THROUGHOUT THE DURATION OF CONSTRUCTION. PER OSHA 1926.1408 TABLE A, ALL EQUIPMENT SHALL MAINTAIN A MINIMUM CLEARANCE OF 10' FROM ALL POWER LINES WITH VOLTAGES UP TO 50KV. CRANES SHALL MAINTAIN A MINIMUM DISTANCE OF 20' FROM ALL POWER LINES.
- 3. SUBCONTRACTOR SHALL MARK LOCATION OF ALL OVERHEAD POWER LINES WITH ADEQUATE, CONTRACTOR-APPROVED SIGNAGE. THIS SHALL INCLUDE, BUT IS NOT LIMITED TO, GROUND SIGNAGE AND FLAGGING OF POWER LINES. CONTACT POWER COMPANY TO FLAG ALL POWER LINES AT CONSTRUCTION ENTRANCES AND EXITS
- 4. ALL DUMP TRUCK OPERATORS SHALL BE RESPONSIBLE FOR VERIFYING THAT THE DUMP BUCKETS HAVE BEEN COMPLETELY LOWERED BEFORE PUTTING THE TRUCK IN GEAR.
- 5. ALL WORK WITHIN 20 FEET OF OVERHEAD POWER LINES SHALL NOT BE COMPLETED WITHOUT UTILIZING A DEDICATED SPOTTER.





## **BURNS**MSDONNELL

1317 EXECUTIVE BLVD, SUITE 300 CHESAPEAKE, VA 23320 757-548-2056 OK CA #421

date detailed JAN. 31, 2025 C. EVANCHO checked designed E. SNIEGOSKI S. GILLIAM



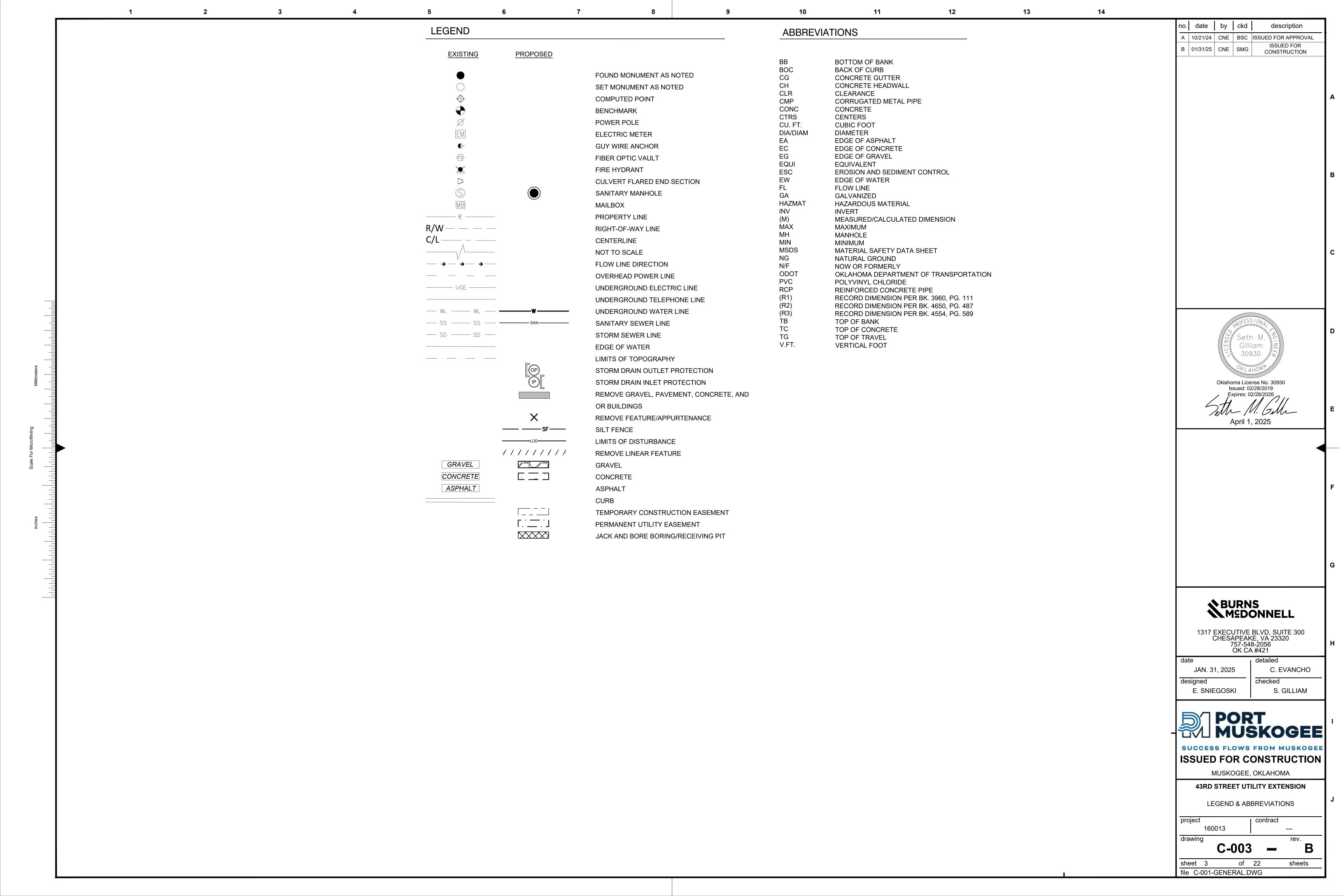
MUSKOGEE, OKLAHOMA 43RD STREET UTILITY EXTENSION

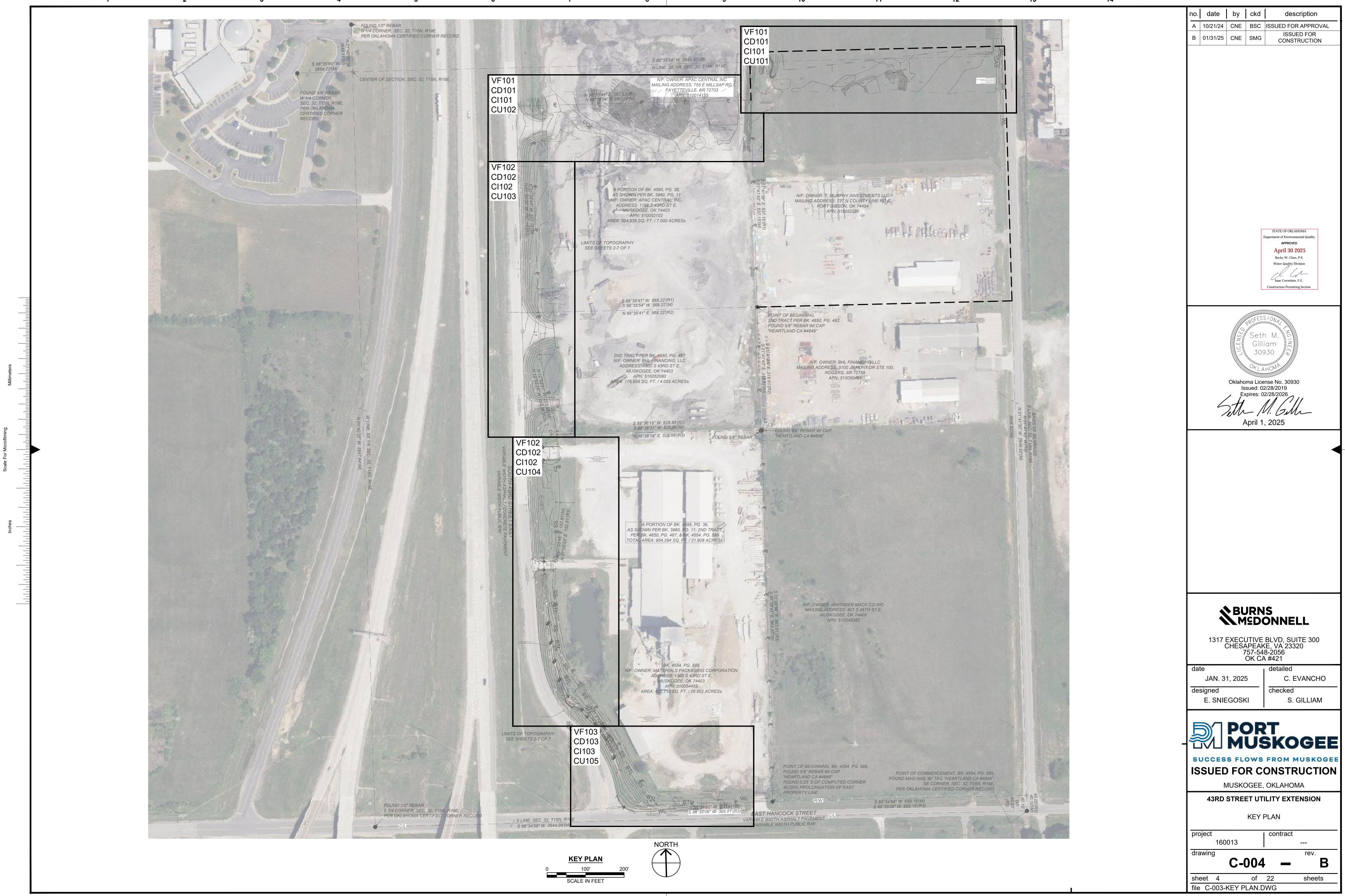
GENERAL NOTES project contract 160013

sheets

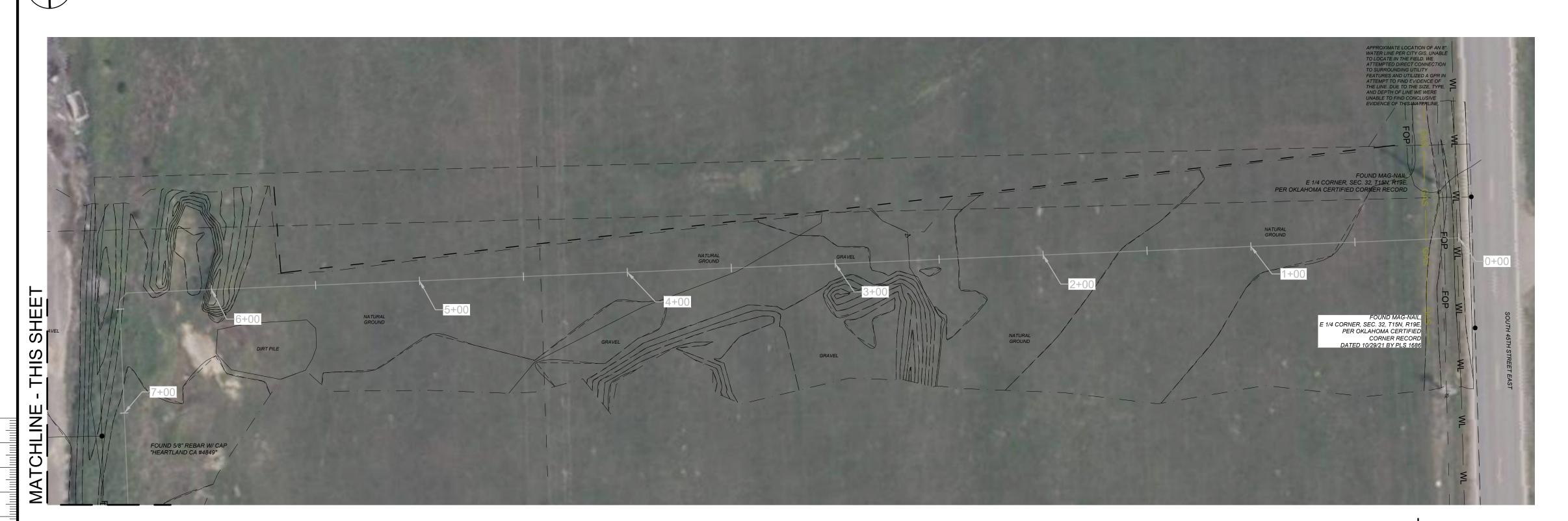
of 22

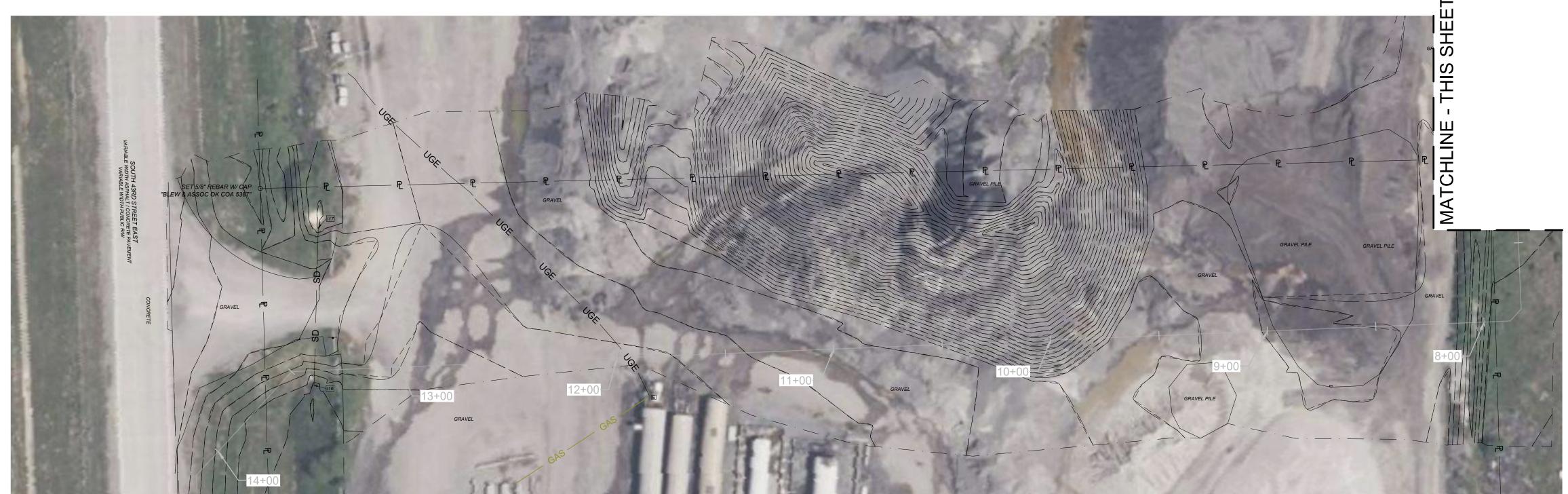
file C-001-GENERAL.DWG





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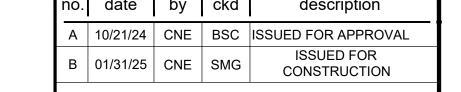




MATCHLINE - SEE SHEET VF102

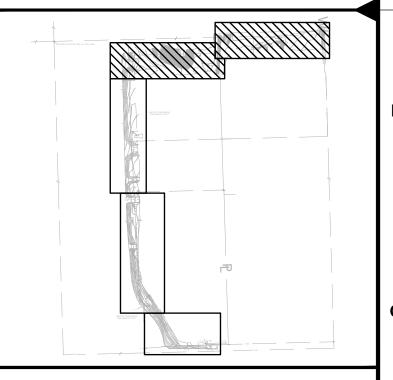
#### **GENERAL NOTES**

1. SANITARY SEWER ALIGNMENT AND WATER ALIGNMENT SHOWN FOR REFERENCE ONLY.





#### **KEY PLAN**



## **SBURNS**MSDONNELL

1317 EXECUTIVE BLVD, SUITE 300 CHESAPEAKE, VA 23320 757-548-2056 OK CA #421

date
JAN. 31, 2025
07 (14. 01, 2020
designed

C. EVANCHO
checked
S. GILLIAM



ISSUED FOR CONSTRUCTION
MUSKOGEE, OKLAHOMA

43RD STREET UTILITY EXTENSION

**EXISTING CONDITIONS** 

project contract

rev.

sheet 5 of 22 sheets
file VF101-EXISTING CONDITIONS.DWG

30' 60' SCALE IN FEET 
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 4
 5
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 13





#### **GENERAL NOTES**

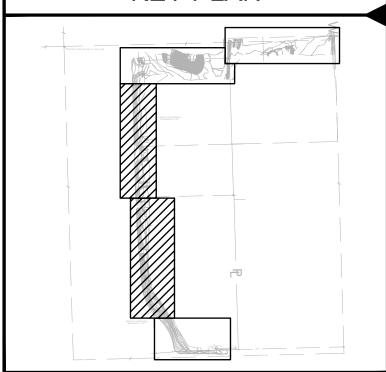
1. SANITARY SEWER ALIGNMENT AND WATER ALIGNMENT SHOWN FOR REFERENCE ONLY.

A 10/21/24 CNE BSC ISSUED FOR APPROVAL

B 01/31/25 CNE SMG ISSUED FOR CONSTRUCTION



#### **KEY PLAN**



## **SBURNS**MSDONNELL

1317 EXECUTIVE BLVD, SUITE 300 CHESAPEAKE, VA 23320 757-548-2056 OK CA #421

date
JAN. 31, 2025
designed

C. EVANCHO
checked
S. GILLIAM



ISSUED FOR CONSTRUCTION

SUCCESS FLOWS FROM MUSKOGEE

MUSKOGEE, OKLAHOMA

43RD STREET UTILITY EXTENSION

EXISTING CONDITIONS

project contract
160013 --drawing rev.

file VF101-EXISTING CONDITIONS.DWG

VF102 — B
sheet 6 of 22 sheets

0 30' 60'

1 2 3 4 5 6 7 8 9 10 11 12 13 14

ORTH

MATCHLINE - SEE SHEET VF102



**GENERAL NOTES** 

SANITARY SEWER ALIGNMENT AND WATER
 ALIGNMENT SHOWN FOR REFERENCE ONLY.

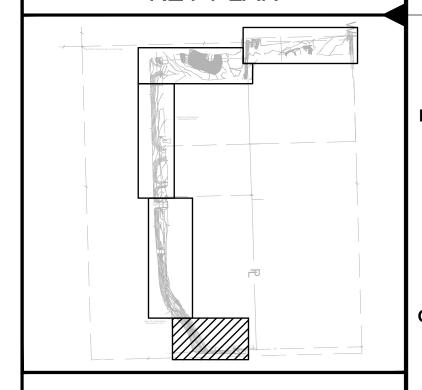
no. date by ckd description

A 10/21/24 CNE BSC ISSUED FOR APPROVAL

B 01/31/25 CNE SMG CONSTRUCTION



**KEY PLAN** 



## **SBURNS**MEDONNELL

1317 EXECUTIVE BLVD, SUITE 300 CHESAPEAKE, VA 23320 757-548-2056 OK CA #421

date
JAN. 31, 2025
designed

C. EVANCHO

checked
S. GILLIAM

detailed



ISSUED FOR CONSTRUCTION
MUSKOGEE, OKLAHOMA

43RD STREET UTILITY EXTENSION

**EXISTING CONDITIONS** 

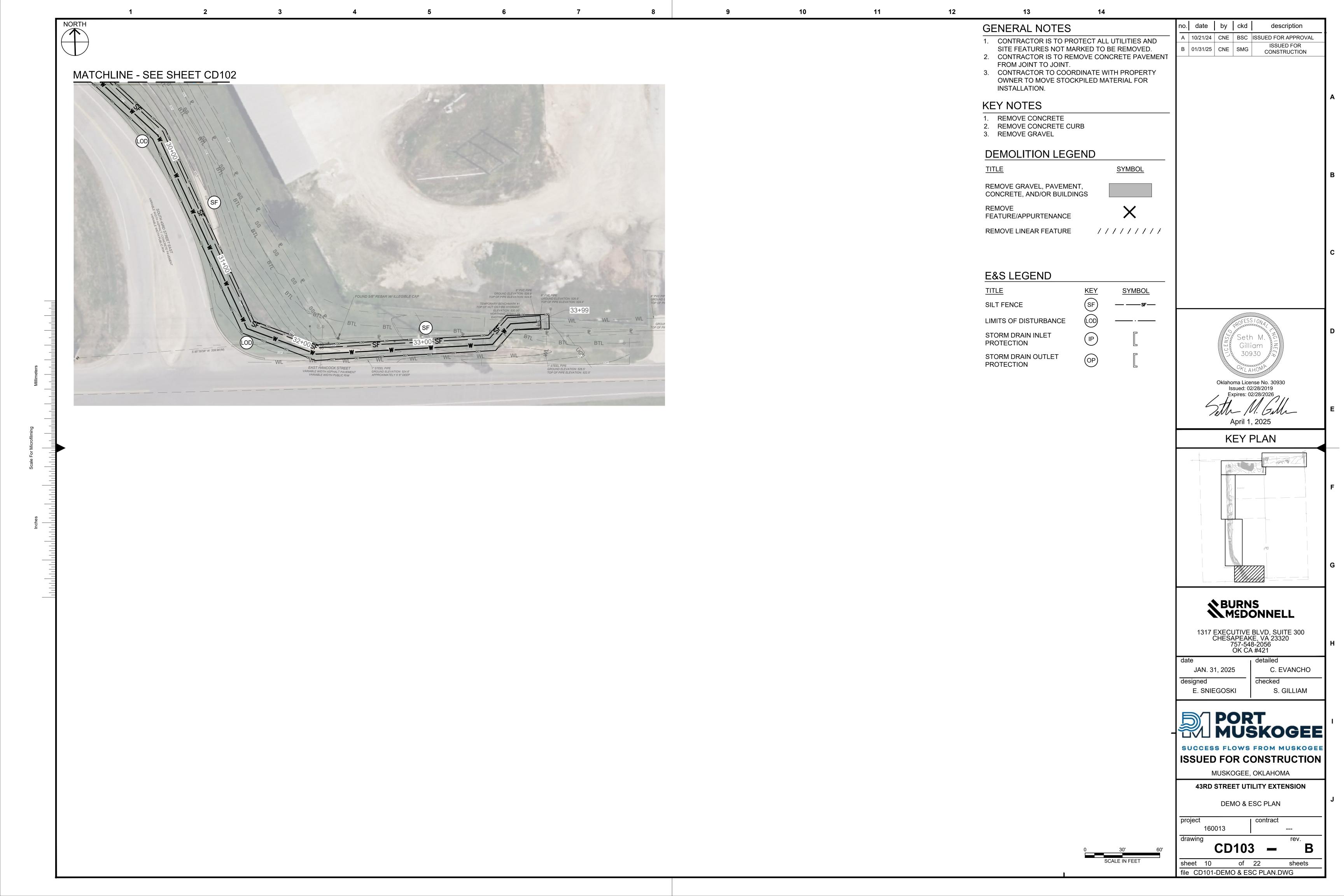
project contract

VF103 — rev. B

sheet 7 of 22 sheets
file VF101-EXISTING CONDITIONS.DWG

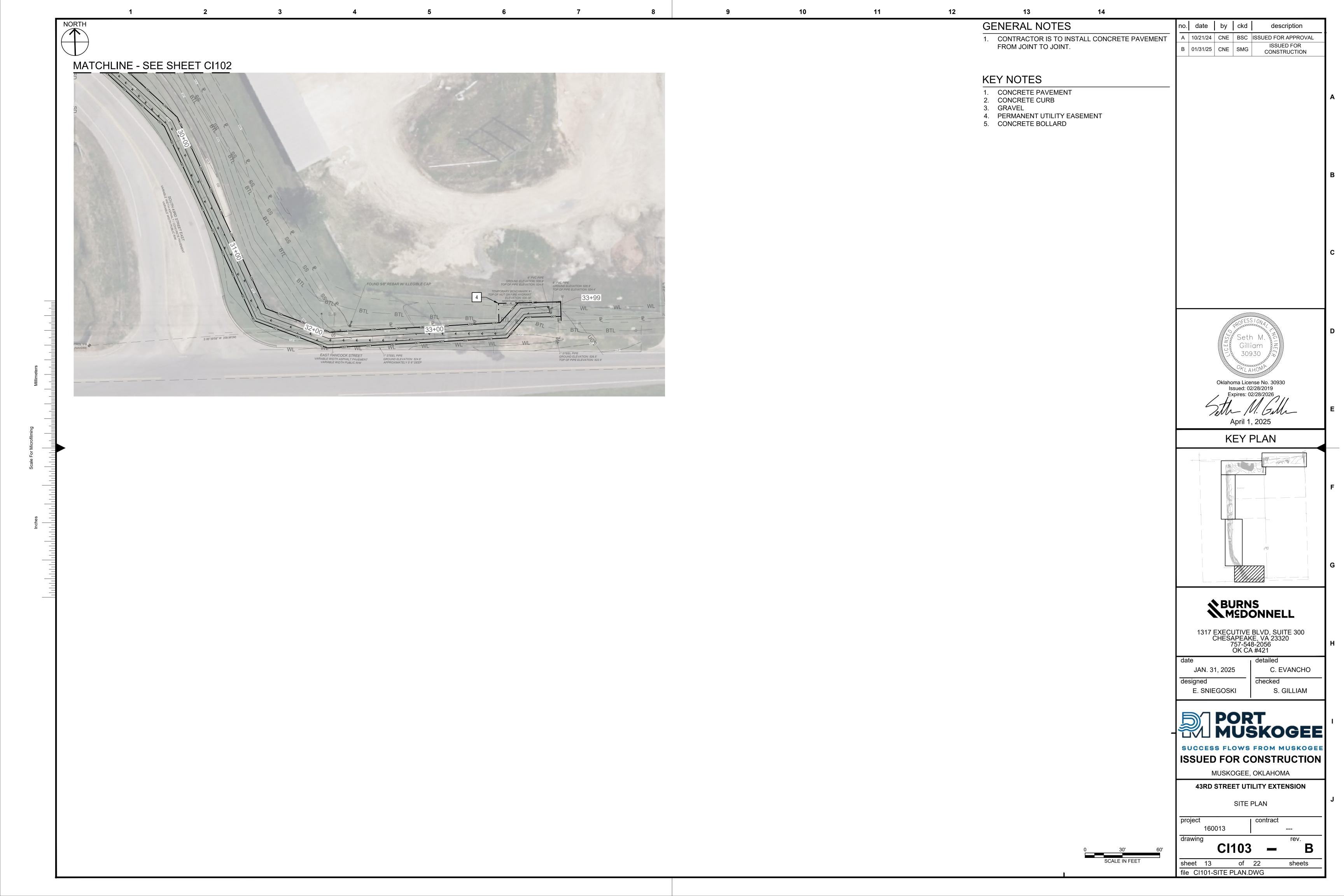


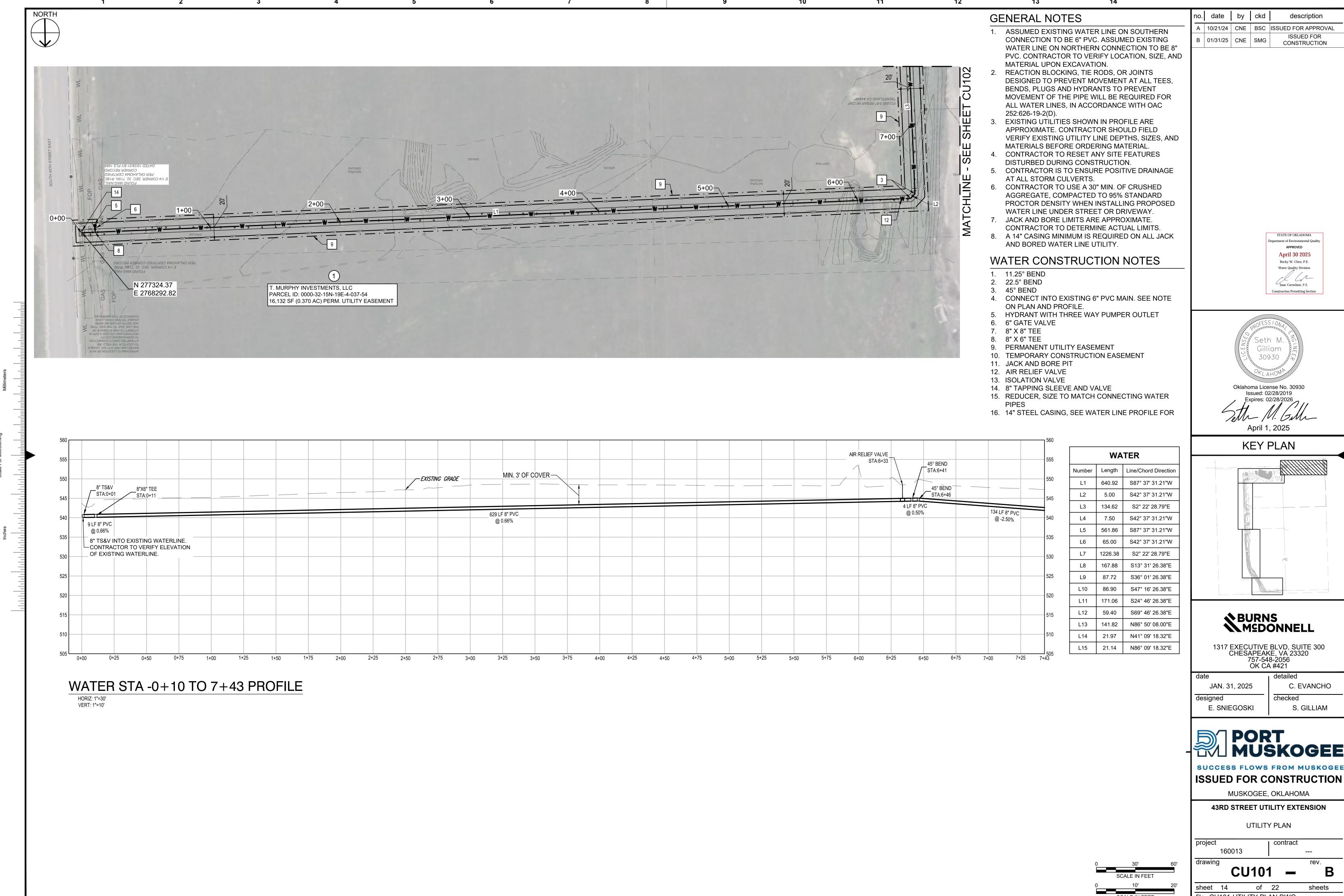






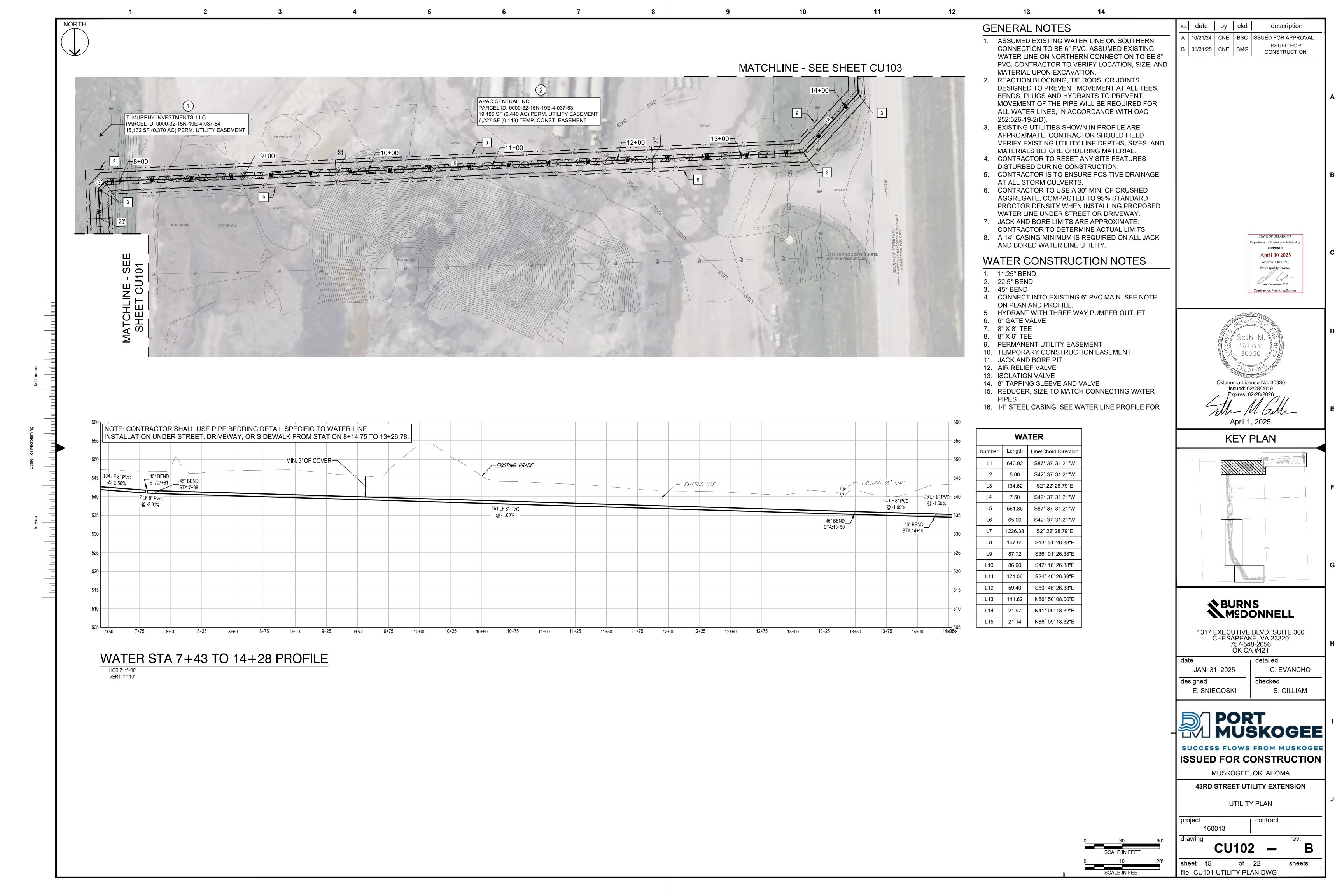


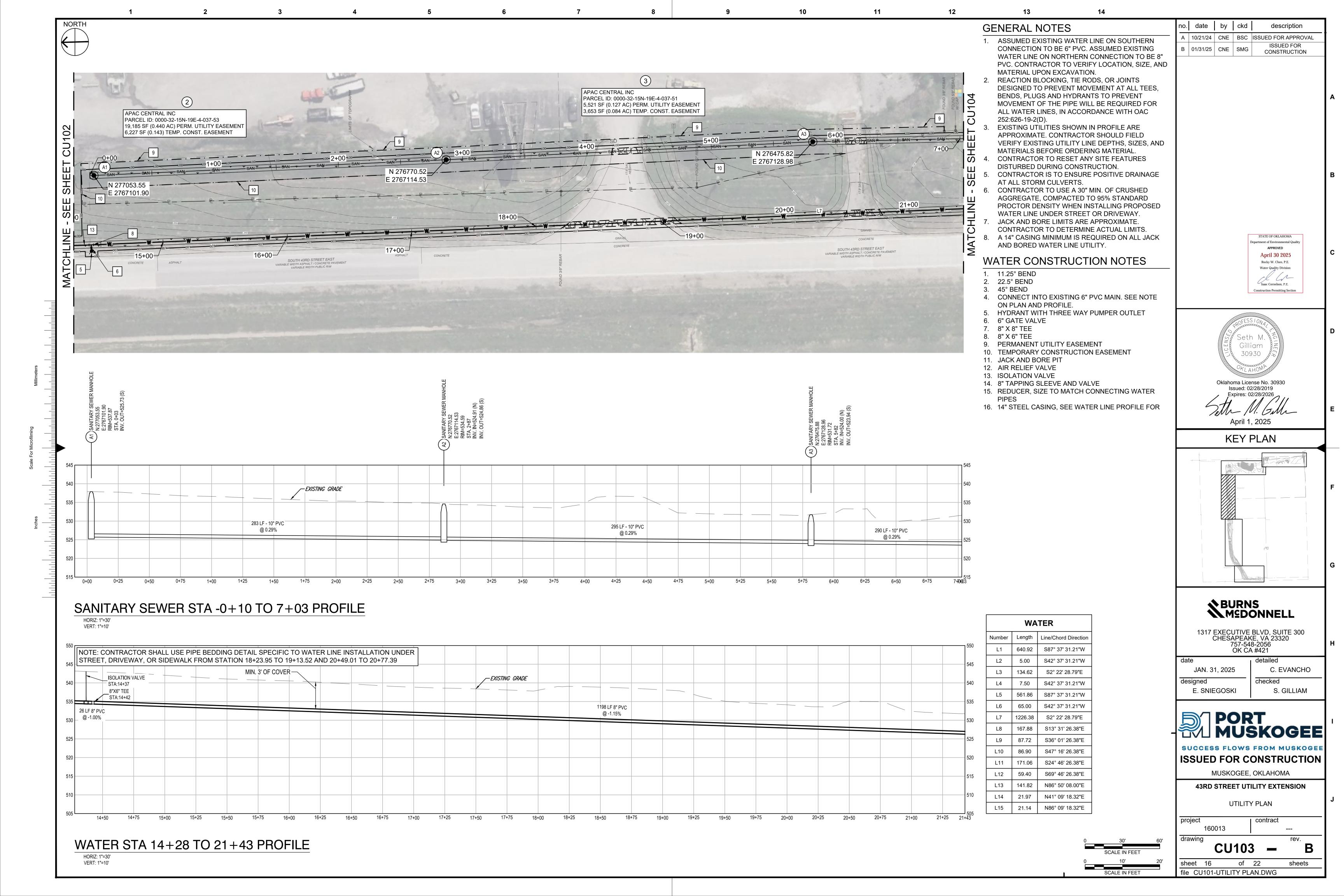


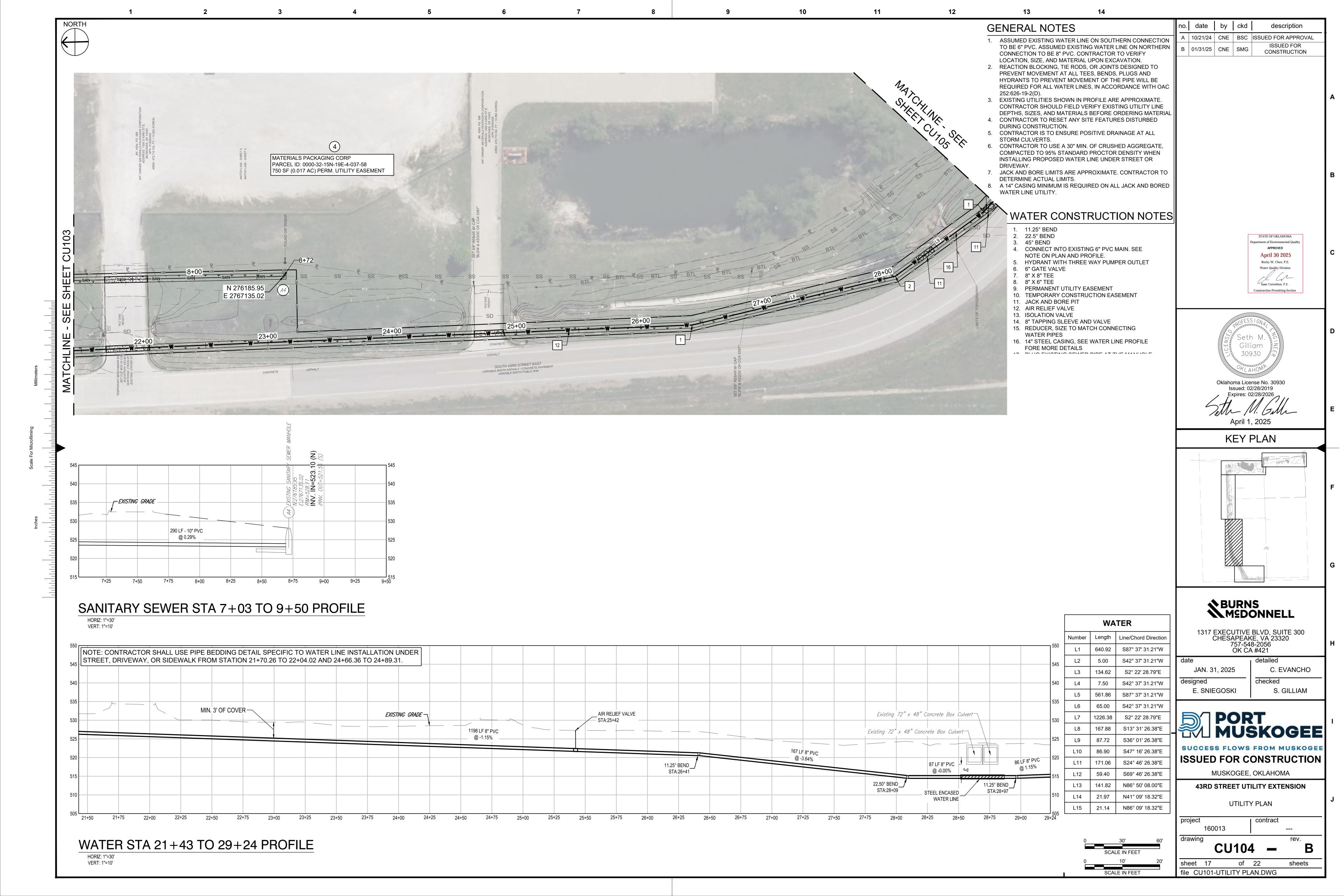


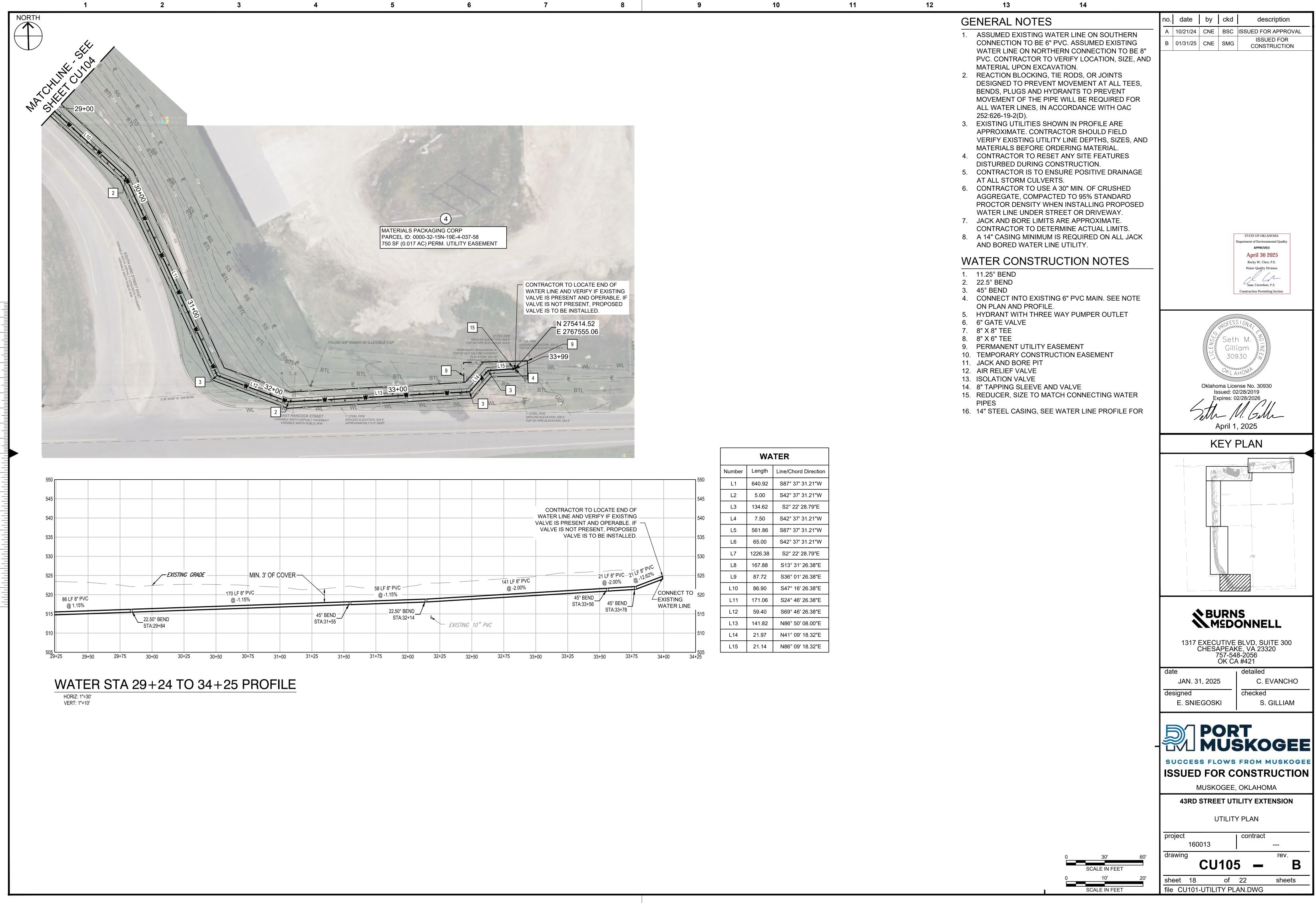
MUSKOGEE

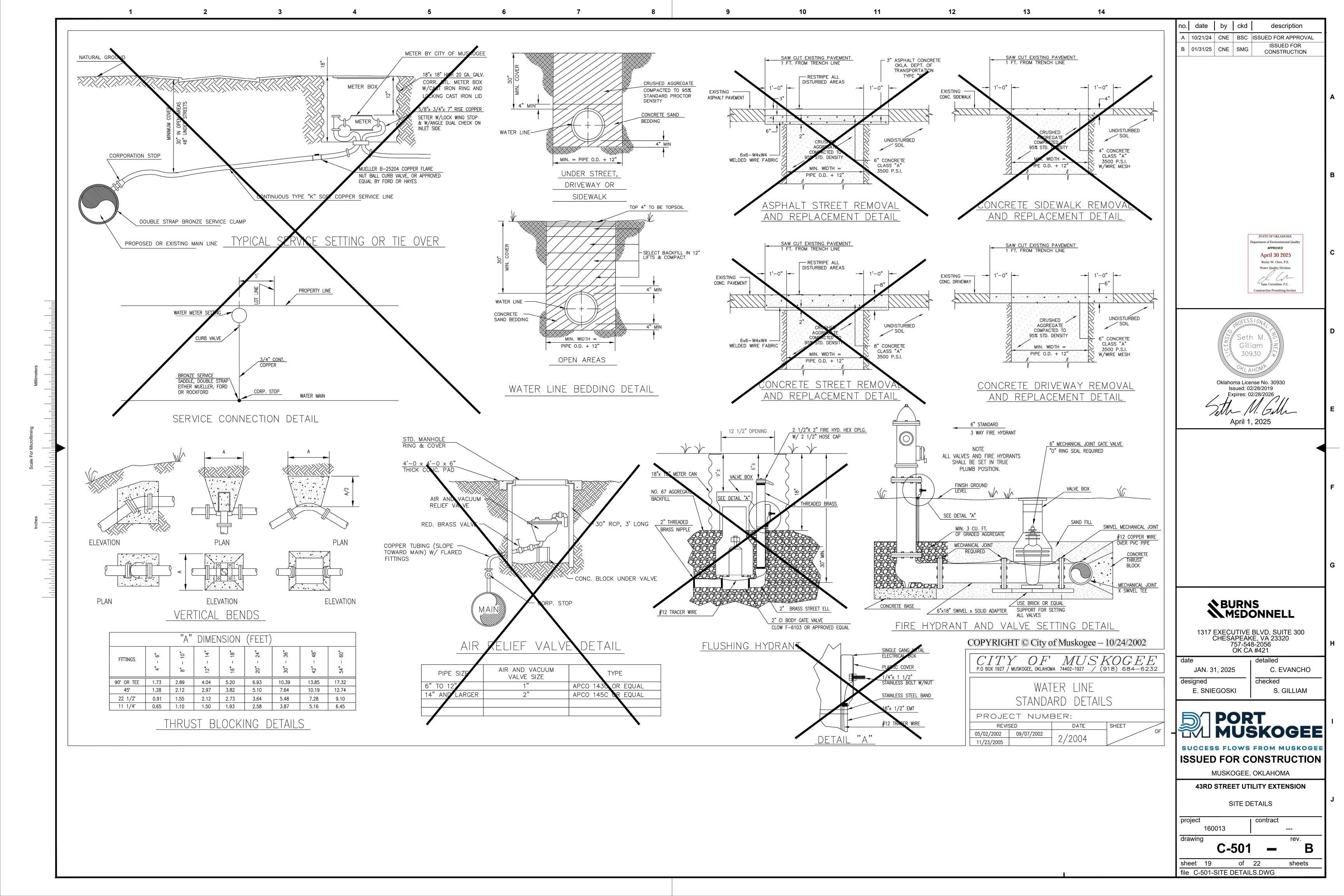
file CU101-UTILITY PLAN.DWG

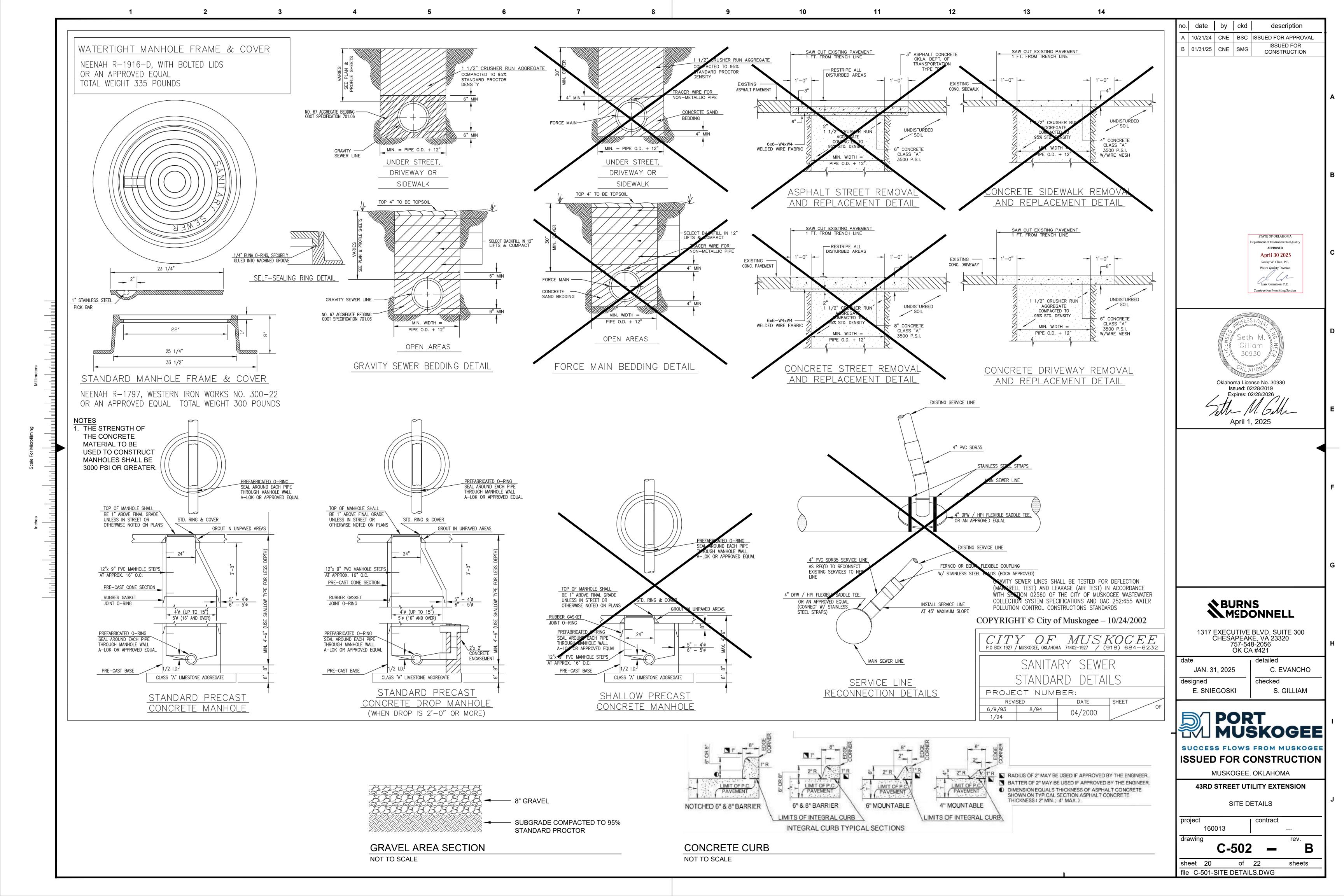


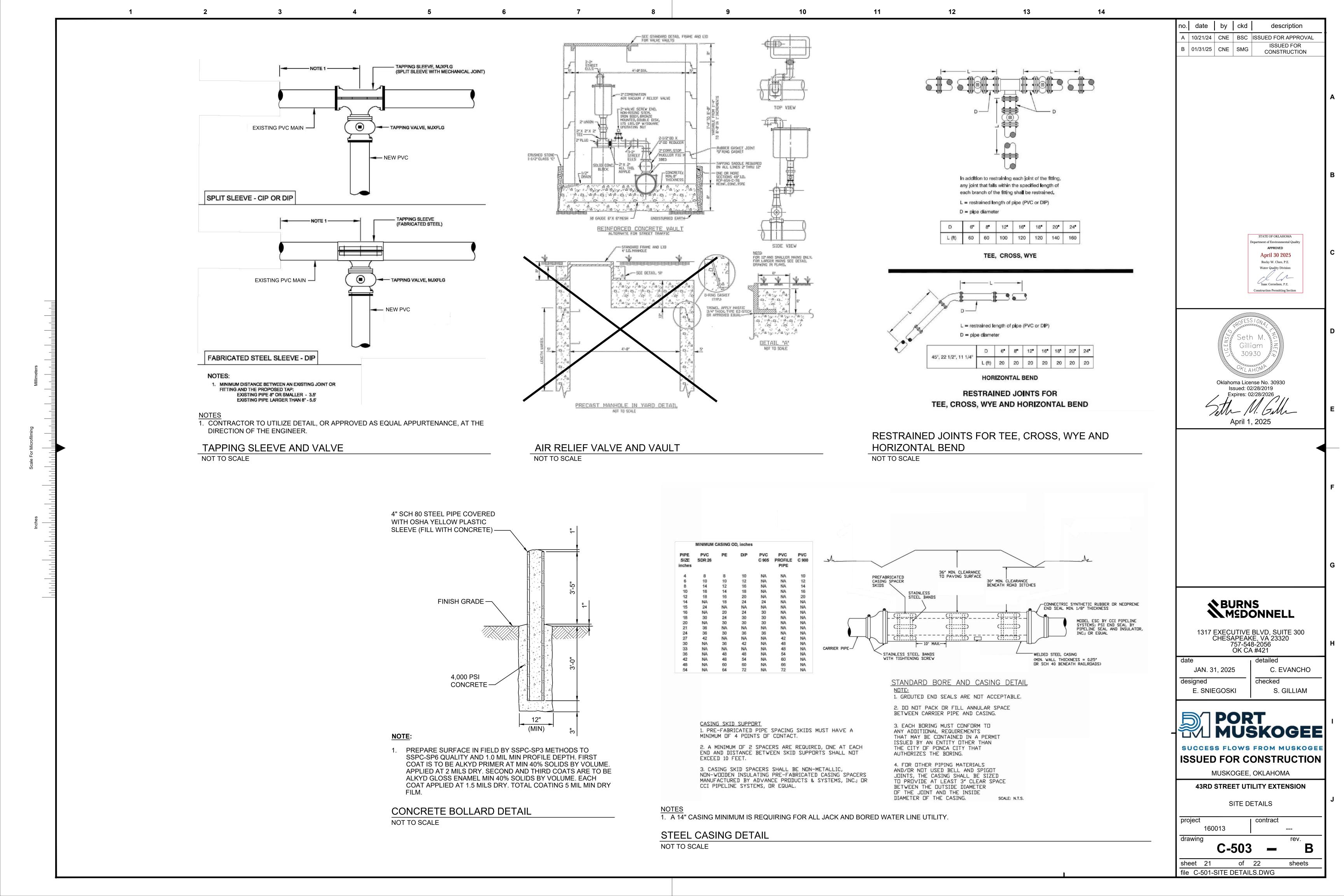












MATERIAL FOR ROADSIDE DEVELOPMENT AND EROSION CONTROL

%, minimum

Weed

2.0

0.5

90

90

Purity Germination

98

97

65 — 0,5

98

The Resident Engineer will accept seed lots if the seed report correlates with the seed

Remove the seed and tags from the original tagged and sealed bag when approved by the Resident Engineer. After approval, mix, sack, and batch the seed as required by the Contract. Tag the seed with identification and mass. Mix or sack into batches under the Resident Engineer's supervision. Ensure the seeds do not contain Johnson grass seed.

> **Table 735:1** Seed Specifications

> > PLS

Index a,

minimum

tags of the same lot number.

Bermuda grass:

Unhulled

Unhulled

Seed Type

Common (Cynodon dactylon)

Big (Andropogon gerardi) b Caucasian (Andropogon

Sand (Andropogon halli) c

Yellow (Andropogon

Buffalo grass (Buchloe

arabica or rigidula)

Large hop (Trifolium

Clover:

cryptandrus)

arundinacea)

Fescue, tall (Festuca

ischaemum)

Plains (Bothrichloa ischaemum)

Brome, smooth (Bromus inermis)

Bur-clover (Medicago hispida,

Crimson (Trifolium incarnatum)

Small hop (Trifolium dubium) c

Drop seed, sand (Sporobolus

Blue (Bouteloua gracilis) b

Indian grass (Sorghastrum

Roundhead (Lespedeza

Common (Lespedeza striata) Korean (Lespedeza stipulacea) <sup>d</sup>

Sericea (Lespedeza cuneata) d

Side-oats (Bouteloua

curtipendula) b

nutans) b

Guymon variety (Cynodon dactylon):

Little (Andropogon scoparius) b 15

MATERIAL FOR ROADSIDE DEVELOPMENT AND EROSION CONTROL

	PLS	ications %, minimum		
Seed Type	Index a, minimum	Purity	Germination	Weed Seeds
Weeping (Eragrostis curvula)	80		<b>1</b>	0.3
Millet, German foxtail (Setaria italica)	Cr. Fin	98	80	0.5
Native grasses (Mostly little bluestem) b	15			W <del>. ( )</del> 3
Oats (Avena sativa)		95	80	0.5
Rye (Secale cereale)		90	70	0.3
Ryegrass:				
Annual (Lolium multiflorum)	85			0.2
Perennial (Lolium perenne)	85	<del>- 16</del>	· · · · · · · · · · · · · · · · · · ·	0.2
Sudan grass (Sorghum vulgare sudanense)		98	80	0.5
Switch grass (Panicum virgatum)	60	8	-	2.0
Wheat (Triticum aestivum)	a——	96	80	0.1
Wheat grass, western (Agropyron smithii) b	56			1.0

735.03

The seed must come from Oklahoma, Texas, Kansas, or New Mexico. Provide seed that is pre-chilled and treated with potassium nitrate in accordance with the

Hays Treatment Technique Treat the seed with a nitrogen fixing inoculant, manufactured by commercial laboratories for the legume. Store and handle the inoculant in accordance with the manufacturer's

Calculate the PLS Index from information on the seed tag, in accordance with the

following equation:  $PLS_p = \frac{P \times (G + FS)}{100}$ 

where

 $PLS_n = PLS$  Index of seed provided,

P = Percent purity,

G = Percent germination, and

FS = Percent firm seed.

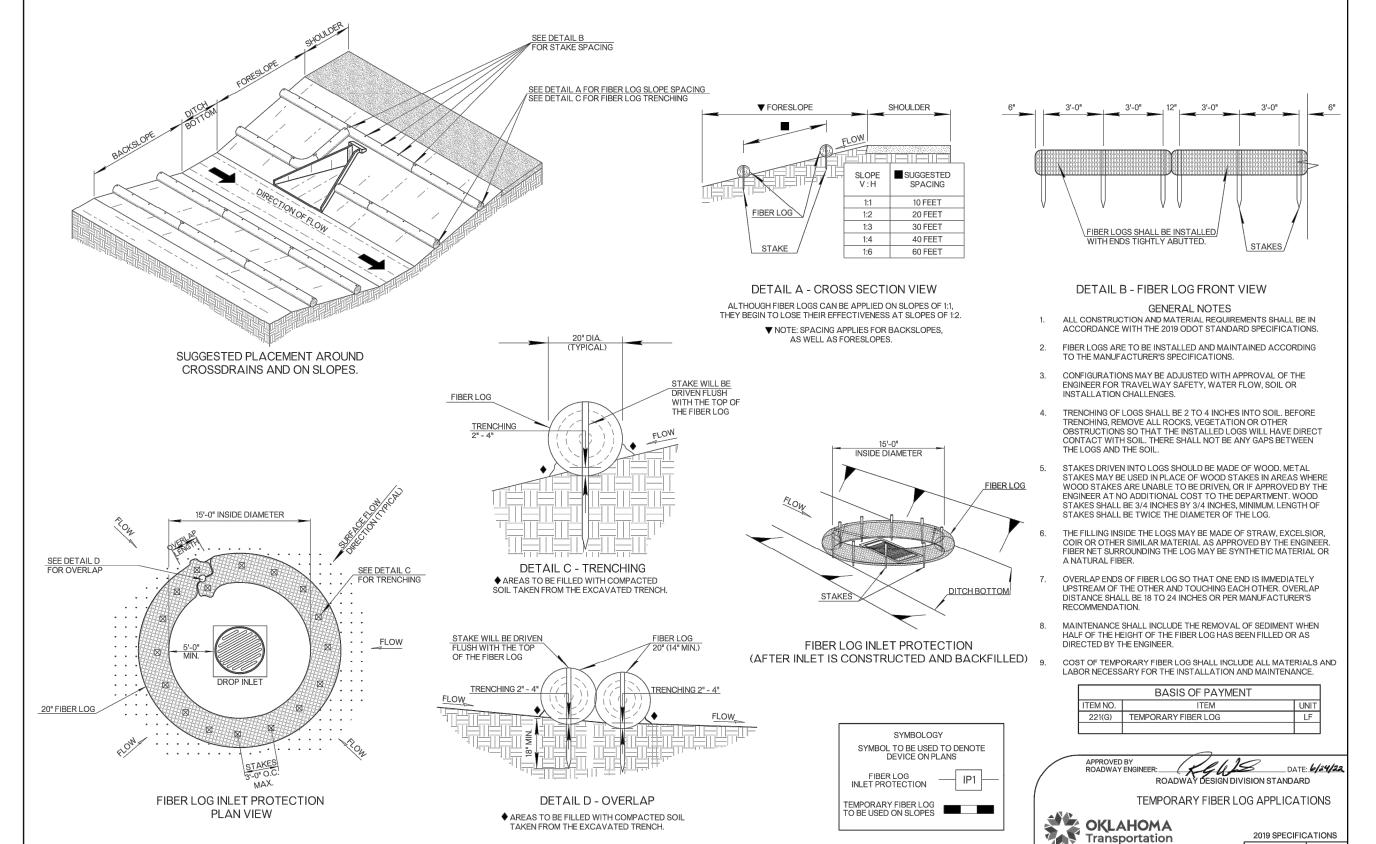
The Department defines the weight [mass] of seed in pounds [kilograms] of bulk seed. If the PLS Index of a seed lot exceeds the minimum PLS Index, specified in Table 735:1, "Seed Specifications," by at least 25 percent, adjust the amount of bulk seed for planting using the following equation:

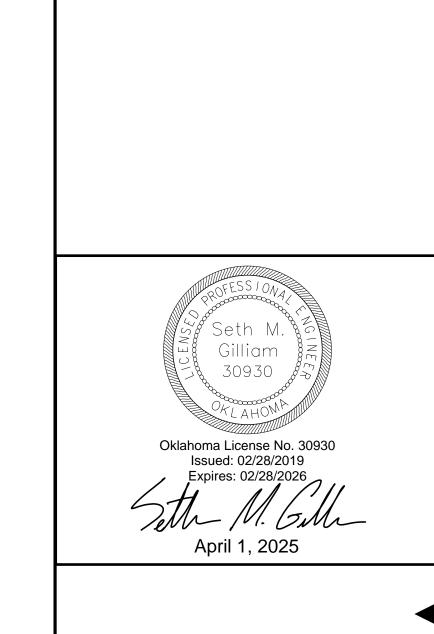
 $BS_{p} = \frac{PLS_{p} \times BS_{p}}{PLS_{p}}$ 

#### PERMANENT SEEDING

Sand (Eragrostis trichodes) b

NOT TO SCALE





date

3 | 01/31/25 | CNE | SMG

by ckd

A | 10/21/24 | CNE | BSC |ISSUED FOR APPROVAL

description

CONSTRUCTION

date
JAN. 31, 2025
designed
E ONIEGOUA

C. EVANCHO checked S. GILLIAM



ISSUED FOR CONSTRUCTION MUSKOGEE, OKLAHOMA

**43RD STREET UTILITY EXTENSION** 

ESC DETAILS

contract
rev.

**CE501** sheet 22 of 22 sheets file CE501-ESC DETAILS.DWG

**SBURNS**MSDONNELL

1317 EXECUTIVE BLVD, SUITE 300

CHESAPEAKE, VA 23320 757-548-2056 OK CA #421		
ite	detailed	
JAN. 31. 2025	C. EVANC	

date	۱ (
JAN. 31, 2025	
designed	7
E. SNIEGOSKI	