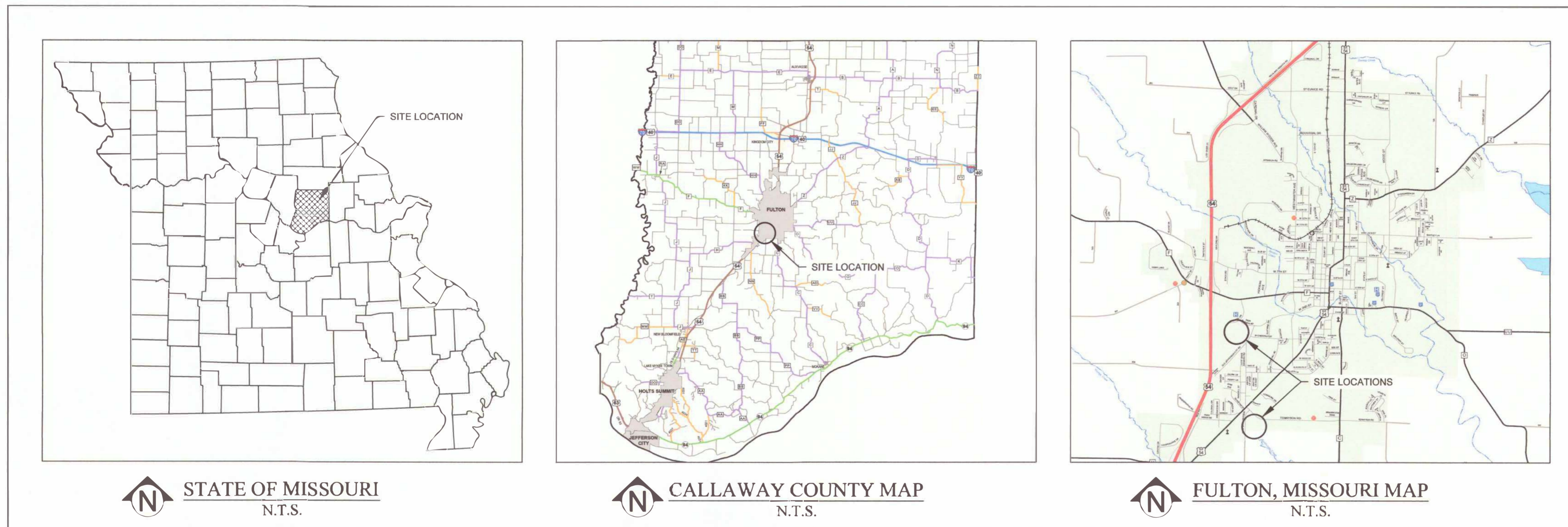


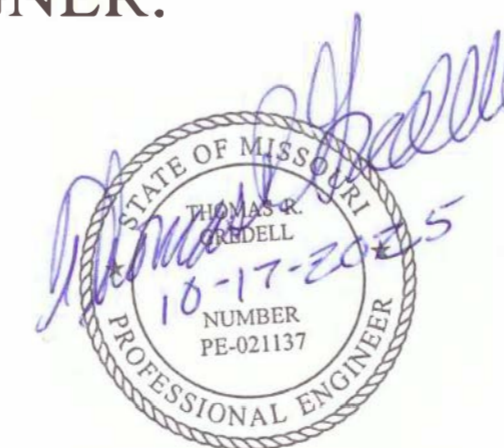
TENNYSON AML LAND RECLAMATION PROJECT CALLAWAY COUNTY, MISSOURI



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OWNER: STATE OF MISSOURI
MIKE KEHOE,
GOVERNOR
DEPARTMENT OF NATURAL RESOURCES
LAND RECLAMATION PROGRAM (LRP)

DESIGNER: THOMAS R. GREDELL, P.E.
GREDELL ENGINEERING
RESOURCES, INC.



PROJECT MANAGEMENT: OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT,
DESIGN AND CONSTRUCTION

PROJECT NUMBER: Y2401-01

GENERAL NOTES:

1. TOPOGRAPHIC CONTOURS BASED ON LIDAR DATA OBTAINED FROM MISSOURI SPATIAL DATA INFORMATION SERVICE (MSDIS) DATED 2010 AND PROVIDED BY MO DNR LAND RECLAMATION PROGRAM. ELEVATIONS SPOT-CHECKED BY CENTRAL MISSOURI PROFESSIONAL SERVICES, INC. ON MARCH 1, 2024, AND MAY 2, 2024.
2. SURVEY DATUM IS MISSOURI STATE PLANE, NAD 83, CENTRAL ZONE.
3. BATHYMETRIC INFORMATION COLLECTED BY GREDELL ENGINEERING RESOURCES, INC. ON APRIL 17, 2024.
4. GENERAL NOTES TO CONTRACTORS ARE PRESENTED ON SHEET 2. SHEET NOTES ARE PRESENTED ON DESIGN DRAWINGS.
5. CONTRACTOR STAGING AREA AND ACCESS ROUTES ARE AS DESIGNATED ON THE DRAWINGS. CHANGES IN LOCATION MUST BE PRE-APPROVED BY THE OWNER'S REPRESENTATIVE.
6. CONTRACTOR SHALL PROVIDE LABOR, EQUIPMENT, AND MATERIALS TO CONSTRUCT TEMPORARY CROSSINGS.
7. CONTRACTOR SHALL MAINTAIN DUST CONTROL ON ACCESS ROADS USED DURING CONSTRUCTION ACTIVITIES FOLLOWING CITY OF FULTON, MISSOURI REQUIREMENTS.
8. TEMPORARILY STOCKPILED SOIL MUST BE PROTECTED FROM WIND AND WATER EROSION, AND REDISTRIBUTED AS COVER MATERIAL.
9. CONTRACTOR IS RESPONSIBLE FOR LOCATING ON SITE UTILITIES AND ADJACENT UTILITIES THAT COULD BE AFFECTED BY CONTRACTOR'S OPERATIONS. THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS IS NECESSARY TO AVOID DAMAGE. THE APPROPRIATE UTILITY COMPANY SHALL BE NOTIFIED IMMEDIATELY SHOULD A BREAK OCCUR IN A LINE DURING CONSTRUCTION UNDER THIS CONTRACT. LINES BROKEN BY CONTRACTOR SHALL BE REPAIRED ACCORDING TO THE UTILITY COMPANY'S STANDARDS AT CONTRACTOR'S EXPENSE.
10. CONTRACTOR SHALL MAKE SUITABLE AND TIMELY REQUESTS TO UTILITY OWNERS, PIPELINE OWNERS, OR OTHER PARTIES AFFECTED TO MAKE NECESSARY ADJUSTMENTS OF PUBLIC OR PRIVATE UTILITIES, PIPELINES, OR OTHER APPURTENANCES WITHIN OR ADJACENT TO THE LIMITS OF CONSTRUCTION, AS SOON AS PRACTICAL OR POSSIBLE.
11. CONTRACTOR IS ENCOURAGED TO VISIT THE SITE AND INVESTIGATE PROJECT CONDITIONS TO EVALUATE MATTERS PERTINENT TO BIDDING AND PLANNING AND TO DETERMINE FEASIBLE AND APPROPRIATE MEANS AND METHODS TO COMPLETE THE INDICATED CONSTRUCTION.
12. CONTRACTOR SHALL PLACE AND MAINTAIN TRAFFIC WARNING SIGNS, BARRIERS, AND OTHER APPROPRIATE TRAFFIC CONTROL DEVICES TO PROTECT CONSTRUCTION PERSONNEL AND TO RESTRICT ACCESS TO THE CONSTRUCTION AREA.
13. CONTRACTOR IS RESPONSIBLE FOR JOB-SITE HOUSEKEEPING, TO INCLUDE DAILY COLLECTION AND DISPOSAL OF TRASH, CONSTRUCTION DEBRIS, CONTAINERS, PACKING MATERIALS, PALLETS, ETC., AND FOR WORKMANLIKE MANAGEMENT OF EQUIPMENT, TOOLS, AND RELATED MATERIALS.
14. CONTRACTOR SHALL NOT OBSTRUCT OR RESTRICT PUBLIC OR PRIVATE ROADWAYS WITHOUT APPROVAL OF THE LOCAL ROAD AUTHORITY OR PROPERTY OWNER'S PERMISSION.
15. DO NOT DISTURB OR RESTRICT PUBLIC OR PRIVATE UTILITIES WITHOUT PERMISSION AND PRIVATE PROPERTY OWNER'S NOTIFICATION. WHEN CONSTRUCTION ACTIVITIES REQUIRE TEMPORARILY SHUTTING OFF A PUBLIC OR PRIVATE UTILITY, NOTIFY THE UTILITY OWNER 72 HOURS IN ADVANCE OF THE SHUTDOWN. DO NOT PROCEED WITH SUCH WORK UNTIL APPROVED IN WRITING.
16. CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF PROPERTY CORNERS AND SECTION CORNERS. PROPERTY CORNERS OR SECTION CORNERS DISTURBED OR DAMAGED SHALL BE RESET BY A REGISTERED SURVEYOR LICENSED IN THE STATE AT CONTRACTOR'S EXPENSE.
17. CONSTRUCTION SHALL BE CARRIED TO LINES, GRADES, AND DIMENSIONS SHOWN ON DRAWINGS OR AS APPROVED BY OWNER'S REPRESENTATIVE.
18. STRUCTURE LOCATIONS AND BANK SHAPING EXTENTS SHALL BE FIELD STAKED BY CONTRACTOR PRIOR TO CONSTRUCTION.
19. THE ENGINEER DID NOT PERFORM PROPERTY OR RIGHT-OF-WAY SURVEYS FOR LOCATIONS SHOWN ON THIS PROJECT. RIGHT-OF-WAY OR PROPERTY LINES SHOWN ON THE PLANS ARE APPROXIMATE AND ARE SHOWN FOR GENERAL ORIENTATION ONLY.
20. CONTRACTOR SHALL NOT PERFORM WORK WITHIN A 20 FOOT RADIUS OF POWER POLES ON SITE WITHOUT PERMISSION FROM THE OWNER'S REPRESENTATIVE AND UTILITY OWNER. WORK SHALL NOT BE PERFORMED UNDER LINES EXCEPT IN AREAS INDICATED IN THE CONTRACT DOCUMENTS. HEAVY EQUIPMENT RESTRICTIONS WILL APPLY FOR WORK PERFORMED UNDER POWER LINES WITHIN AREAS INDICATED ON THE CONTRACT DOCUMENTS.
21. SHOULD THE DETAILED INSTRUCTIONS SHOWN ON THE PLANS CONFLICT WITH THE GENERAL NOTES, THE SPECIFICATIONS, OR WITH EACH OTHER, CONSTRUCTION IS TO BE PERFORMED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS OF THE PROJECT. WHERE THESE DRAWINGS CONFLICT WITH THE SPECIFICATIONS, THE SPECIFICATIONS SHALL GOVERN.
22. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW APPLICABLE SAFETY CODES AND REGULATIONS DURING THE PHASES OF CONSTRUCTION.
23. CONSTRUCTION SHALL COMPLY WITH APPLICABLE FEDERAL/STATE/LOCAL CODES. THE PROJECT SPECIFICATIONS, AND THESE GENERAL NOTES. PROJECT SPECIFICATIONS SHALL TAKE PRECEDENCE OVER GENERAL NOTES. STATE/LOCAL CODES SHALL TAKE PRECEDENCE OVER PROJECT SPECIFICATIONS AND GENERAL NOTES.
24. STRUCTURES ARE DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER CONSTRUCTION IS FULLY COMPLETED. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE PROCEDURES AND SEQUENCE, AND TO ENSURE THE SAFETY OF THE STRUCTURE AND ITS COMPONENT PARTS DURING CONSTRUCTION. THIS INCLUDES THE ADDITION OF WHATEVER SHORING, SHEETING, TEMPORARY BRACING, GUYS, OR TIE DOWNS WHICH MAY BE NECESSARY. SUCH MATERIAL SHALL REMAIN THE CONTRACTOR'S PROPERTY AFTER THE COMPLETION OF THE PROJECT.
25. CONTRACTOR SHALL REMOVE FROZEN SOIL, SOFT UNSTABLE MATERIAL, AND OTHER UNSUITABLE MATERIAL FROM AREAS TO SUPPORT CONTROLLED FILL OR STRUCTURE FOUNDATIONS.
26. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SCHEDULE EXCAVATION AND CONSTRUCTION ACTIVITIES TO MINIMIZE ADVERSE WEATHER IMPACTS TO SUBGRADE MATERIALS. SUBGRADE MATERIALS EXPOSED TO STORM EVENTS SHALL BE DEWATERED AND REMEDIATED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER'S REPRESENTATIVE.
27. UNSATISFACTORY SOILS AND MATERIALS SHALL BE DISPOSED AT A LOCATION DETERMINED BY THE OWNER'S REPRESENTATIVE. THE CONTRACTOR IS TO COORDINATE WITH THE OWNER'S REPRESENTATIVE FOR SITE ACCESS.
28. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN NECESSARY PERMITS ASSOCIATED WITH CONSTRUCTION, NOTIFY STATE AND LOCAL AGENCIES AND UTILITY COMPANIES HAVING JURISDICTION, AND TO COORDINATE INSPECTIONS REQUIRED.

DEMOLITION NOTES:

1. CONTRACTOR SHALL MAINTAIN THE REQUIRED DOCUMENTS FOR REVIEW, INCLUDING

BUT NOT LIMITED TO: SITE SAFETY PLAN, PERMITS, CONTRACT DOCUMENTS, DEMOLITION PLANS, SALVAGE VERIFICATION FORMS, SWPPP, AND OTHER REQUIRED DOCUMENTS.

2. CONTRACTOR IS CAUTIONED THAT THE LOCATIONS AND/OR ELEVATIONS OF EXISTING UTILITIES AS SHOWN ON THE PROJECT DRAWINGS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. CONTRACTOR SHALL CONTACT ONE CALL UTILITY INFORMATION SERVICE FOR UTILITY LOCATES. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITIES COMPANIES AT LEAST 72 HOURS BEFORE EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF UTILITIES. CONTRACTOR SHALL ALSO COORDINATE AND ALLOW ACCESS FOR UTILITY COMPANIES TO PERFORM DISCONNECTION OR RELOCATION ACTIVITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE DRAWINGS.
3. AREAS DISTURBED DURING DEMOLITION SHALL BE EVALUATED BY THE OWNER'S REPRESENTATIVE FOR SITE PREPARATION PRIOR TO PLACEMENT OF FILL. DISTURBED AREAS SHALL BE UNDERCUT PRIOR TO PLACEMENT OF FILL. CONTRACTOR SHALL NOTIFY OWNER'S REPRESENTATIVE AT LEAST 72 HOURS PRIOR TO PLACEMENT OF FILL.
4. EXCAVATIONS CREATED BY THE REMOVAL OF EXISTING UTILITY LINES THAT EXTEND BELOW DESIGN GRADES SHALL BE CUT WIDE ENOUGH TO USE HEAVY CONSTRUCTION EQUIPMENT TO COMPACT THE FILL. BASE OF THE EXCAVATIONS SHALL BE EVALUATED BY THE ENGINEER PRIOR TO PLACEMENT OF FILL. IF EXISTING UTILITIES ARE TO BE LEFT IN-PLACE, THE EXISTING TRENCH BACKFILL SHALL BE EVALUATED IN ACCORDANCE WITH THE RECOMMENDATIONS AND EVALUATION OF THE EXISTING FILL.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING FEDERAL, STATE, AND LOCAL PERMITS, INSPECTIONS, AND SHALL CONFORM TO GOVERNING CODES AND REGULATIONS REQUIRED TO PERFORM ABATEMENT DURING DEMOLITION, SHOULD HAZARDOUS MATERIALS BE ENCOUNTERED.
6. CONTRACTOR IS RESPONSIBLE FOR LEGALLY DISPOSING OF CONSTRUCTION MATERIAL AND ASSOCIATED COST OF INTERIM STORAGE FACILITIES.
7. FOR TREE AND STUMP REMOVAL, THE CONTRACTOR SHALL REMOVE ROOT SYSTEMS FROM THE SITE NOT DESIGNATED TO BE SAVED. MATERIALS DISTURBED DURING REMOVAL OF STUMPS SHALL BE UNDERCUT AND REPLACED WITH SUITABLE FILL MATERIAL. A ZONE OF DESICCATED SOILS MAY EXIST IN THE VICINITY OF THE TREES. THE DESICCATED SOILS HAVE A HIGHER SWELL POTENTIAL AND SHALL BE UNDERCUT AND REPLACED WITH A SUITABLE FILL MATERIAL.
8. NO CONSTRUCTION WASTE SHALL BE BURIED ON SITE. HAZARDOUS MATERIALS WILL BE DISPOSED OF IN A MANNER SPECIFIED BY LOCAL, STATE, AND FEDERAL REGULATIONS.

STORM DRAINAGE SYSTEMS:

1. PIPES SHALL BE CORRUGATED WITH SMOOTH INTERIOR HIGH DENSITY POLYETHYLENE (HDPE) PIPE (DAS-N12) (WATERTIGHT) PIPE OR APPROVED EQUAL. PIPE JOINTS SHALL BE BELL AND SPIGOT. THE END SECTION SHALL BE COMPATIBLE WITH THE PIPE.
2. THE CONCRETE BOX CULVERT CONNECTION AND EXTENSION SHALL BE COMPLETED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

STORMWATER POLLUTION PREVENTION PLAN:

1. CONTRACTOR'S OPERATIONS ARE TO BE PERFORMED IN A WORKMANLIKE MANNER AND IN A MANNER THAT WILL NOT CAUSE SEDIMENTATION INTO THE STREETS, DRAINAGES, OR ADJACENT PRIVATE PROPERTY.
2. CONTRACTOR IS RESPONSIBLE FOR CLEANUP AND REMEDIATION OF SPILLS OF HAZARDOUS SUBSTANCES, FUELS, AND LUBRICANTS, AND EXCAVATED MATERIAL THAT IS SPILLED OUTSIDE THE PROJECT CONSTRUCTION AREA.
3. CONTRACTOR SHALL INSPECT EROSION AND SEDIMENT CONTROL DEVICES AFTER EACH STORM EVENT AND REPAIR TO EFFECTIVE OPERATING CONDITION AS NECESSARY DURING THE COURSE OF CONSTRUCTION AS REQUIRED BY THE SWPPP.
4. REMOVE EROSION AND SEDIMENT CONTROL DEVICES UPON CONSTRUCTION COMPLETION UNLESS OTHERWISE DIRECTED. GRADE DISTURBED AREAS TO MATCH THE SURROUNDING TOPOGRAPHY WITHOUT PONDING. STABILIZE GRADED AREAS WITH SEED AND MULCH.
5. CONTRACTOR SHALL INSTALL AND MAINTAIN TEMPORARY EROSION CONTROL STRUCTURES TO BE USED ONSITE PRIOR TO BEGINNING CLEARING AND GRUBBING. THE PLAN MUST BE IN ACCORDANCE WITH INDUSTRY ACCEPTED BEST MANAGEMENT PRACTICES.

DEWATERING:

1. EXCAVATIONS SHALL BE KEPT FREE OF WATER DURING GRADING, FILL PLACEMENT, GEOSYNTHETIC INSTALLATION, AND INCIDENTAL CONSTRUCTION ACTIVITIES IN ORDER TO MAINTAIN SUBGRADE STABILITY NECESSARY TO SUPPORT IN-PROCESS AND FINISHED CONSTRUCTION.
2. DIVERT SURFACE WATER TO THE EXTENT PRACTICABLE WITHOUT DAMAGE TO ADJACENT PROPERTY.
3. EXCAVATIONS SHALL BE KEPT DRY UNTIL BACKFILL IS COMPLETED TO PREVENT DAMAGE FROM HYDROSTATIC PRESSURES, FLOWING WATER, OR STANDING WATER.
4. SURFACE WATER SHALL BE DIVERTED AND PREVENTED FROM ENTERING EXCAVATIONS AND TRENCHES TO THE GREATEST EXTENT PRACTICABLE WITHOUT DAMAGE TO ADJACENT PROPERTY.
5. THE PIT IS TO BE DEWATERED IN 1-FOOT INCREMENTS IN A 24-HOUR PERIOD TO EXPOSE PIT MUCK FOR DRYING (SEE SHEET C-104 FOR LOCATION). THE CONTRACTOR IS TO DEWATER THE PIT BELOW ELEVATION 775.0' ONLY WITH APPROVAL OF THE OWNER'S REPRESENTATIVE. THE PIT IS NOT TO BE DEWATERED BELOW ELEVATION 774.0. DEWATERING IS TO BE CONDUCTED IN ACCORDANCE WITH THE NPDES PERMIT.
6. PIT MUCK IS TO BE DRIED, MIXED WITH FILL MATERIALS, AND COMPACTED. SEE EARTHWORK SPECIFICATIONS FOR STABILIZATION REQUIREMENTS.

CONSTRUCTION QUALITY ASSURANCE:

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SCHEDULE EXCAVATION AND

CONSTRUCTION ACTIVITIES SO AS TO MINIMIZE ADVERSE WEATHER IMPACTS TO THE SUBGRADE MATERIALS. SUBGRADE MATERIALS EXPOSED TO STORM EVENTS SHALL BE DEWATERED AND REMEDIATED TO A STABLE CONDITION CONSISTENT WITH DESIGN REQUIREMENTS BY THE CONTRACTOR AT NO ADDITIONAL COST.

2. STOCKPIILING OF MATERIALS ON EXISTING ROADWAY SURFACES IS NOT PERMITTED. EXCESS MATERIALS ARE TO BE PLACED AS INDICATED ON THE DRAWINGS, AT THE CONTRACTOR'S DISCRETION, AND APPROVAL OF THE OWNER'S REPRESENTATIVE.
3. AREAS DISTURBED BY CONSTRUCTION SHALL BE SEEDED AND MULCHED EXCEPT AREAS WITH AN EXPOSED ROCK FILL SURFACE.
4. THE OWNER'S OBSERVATIONS DO NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR QUALITY CONSTRUCTION IN ACCORDANCE WITH THESE DRAWINGS AND SPECIFICATIONS.
5. SOIL AND ROCK FILL SURFACES SHALL BE FINE GRADED TO WITHIN +/- THREE TENTHS OF A FOOT (+/- 0.3 FT) FROM THE LINES AND GRADES INDICATED ON THE DRAWINGS AND SO AS TO PROVIDE POSITIVE DRAINAGE.
6. CONTROLLED FILL CONSISTING OF SOIL SHALL BE CONSTRUCTED IN UNIFORM HORIZONTAL LIFTS WITH A MAXIMUM LOOSE LIFT THICKNESS OF 12 INCHES AND COMPACTED PRIOR TO PLACEMENT OF THE NEXT LIFT. THE CONTROLLED FILL SHALL BE MECHANICALLY COMPACTED BY A MINIMUM OF FOUR (4) UNIFORM FULL COVERAGE PASSES BY A TRACKED LOADER OR EQUIVALENT MACHINE WITH A MINIMUM GROUND CONTACT PRESSURE OF 9 POUNDS PER SQUARE INCH. THE FINAL GRADED SLOPE SURFACE SHALL BE ROUGHENED PRIOR TO SEEDING AND MULCHING.

CONSTRUCTION CONTROL POINTS			
CP	NORTHING	EASTING	ELEVATION
CP3	1,095,857.16	1,793,053.15	812.25
CP4	1,096,136.14	1,792,778.58	825.35
CP5	1,095,951.70	1,792,133.35	847.60
CP9	1,090,355.27	1,794,220.07	802.15
CP2	1,090,272.48	1,794,070.14	798.23
CP6	1,090,527.43	1,793,883.36	805.84
CP7	1,091,063.98	1,793,279.09	792.27
CP8	1,090,663.74	1,793,099.61	787.00
CP1	1,090,388.13	1,793,431.25	787.41

NOTES

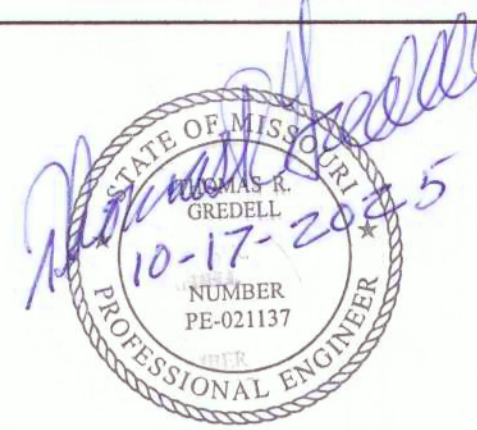
1. SURVEY DATUM IS MISSOURI STATE PLANE, NAD 83, CENTRAL ZONE.

NOTES TO THE CONTRACTOR:

UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS AND THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS AT PRESENT NOT KNOWN. VERIFICATION OF THE LOCATIONS OF UNDERGROUND UTILITIES, SHOWN OR NOT SHOWN, WILL BE THE RESPONSIBILITY OF THE CONSTRUCTION CONTRACTOR.

THE CONTRACTOR SHALL MAKE SUITABLE AND TIMELY REQUESTS TO ALL UTILITY OWNERS, PIPELINE OWNERS, OR OTHER PARTIES AFFECTED TO MAKE ALL NECESSARY ADJUSTMENTS OF PUBLIC OR PRIVATE UTILITIES, PIPE LINES, OR OTHER APPURTENANCES WITHIN, OR ADJACENT TO THE LIMITS OF CONSTRUCTION, AS SOON AS PRACTICAL OR POSSIBLE.

MISSOURI ONE CALL SYSTEM (811)



OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES
MANAGEMENT,
DESIGN AND CONSTRUCTION

GREDELL ENGINEERING
RESOURCES, INC.

TENNYSON AML LAND
RECLAMATION PROJECT
CALLAWAY COUNTY, MISSOURI

PROJECT # Y2401-01
SITE # N/A
ASSET # N/A

REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
ISSUE DATE: 10/17/2025

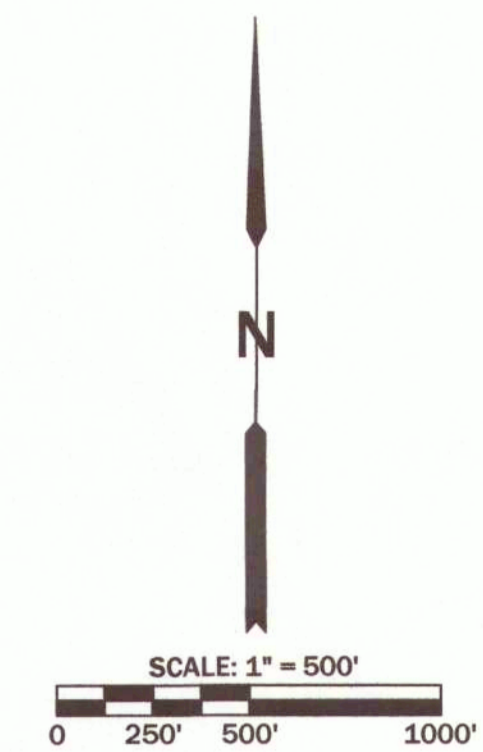
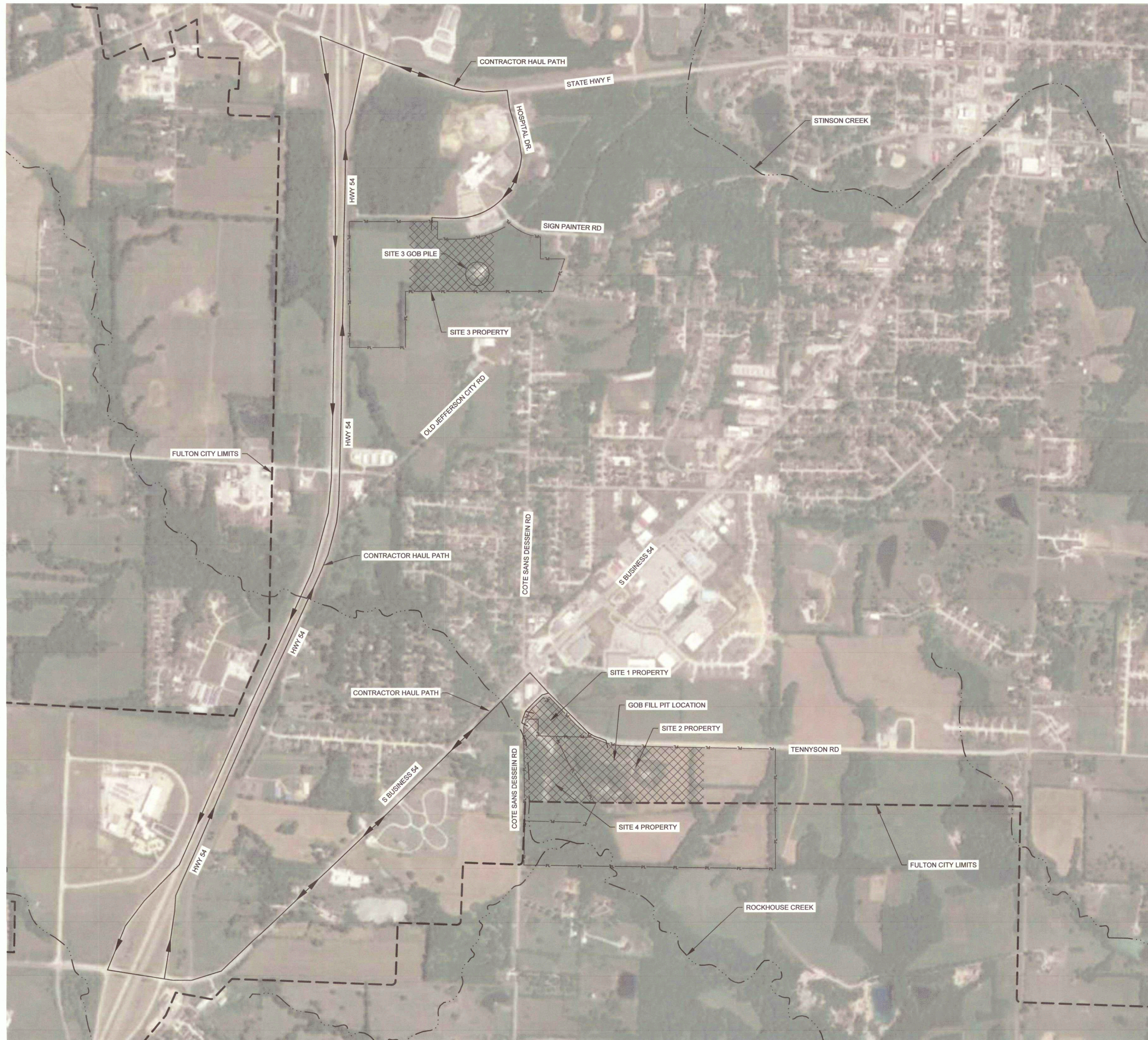
CAD DWG FILE: G-002
DRAWN BY: CM
CHECKED BY: MC
DESIGNED BY: TG

SHEET TITLE:
GENERAL NOTES

SHEET NUMBER:

G-002

2 OF 29 SHEETS
10/17/2025



LEGEND:

- PROPERTY LINE — PL — PL —
- FULTON CITY LIMITS - - - - -
- EXISTING WATERWAYS - · - · -
- CONTRACTOR HAUL PATH —>—>—>
- PROJECT AREA [Cross-hatched box]

SHEET NOTES:

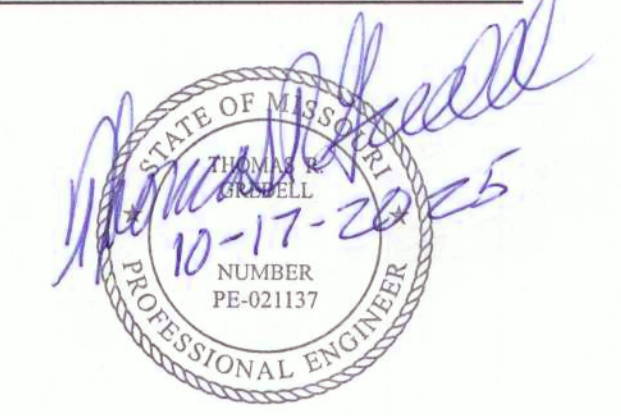
1. AERIAL IMAGERY OBTAINED FROM GOOGLE EARTH PRO DATED JUNE 29, 2022.
2. CONTRACTOR MUST HAUL MATERIAL ONLY ON THE DEDICATED HAUL ROUTES.
3. PROPERTY LINES AND CITY LIMITS ARE APPROXIMATELY BASED ON CALLAWAY COUNTY ASSESSOR'S GIS WEBSITE.

NOTES TO THE CONTRACTOR:
 UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS AND THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS AT PRESENT NOT KNOWN. VERIFICATION OF THE LOCATIONS OF UNDERGROUND UTILITIES, SHOWN OR NOT SHOWN, WILL BE THE RESPONSIBILITY OF THE CONSTRUCTION CONTRACTOR.

THE CONTRACTOR SHALL MAKE SUITABLE AND TIMELY REQUESTS TO ALL UTILITY OWNERS, PIPELINE OWNERS, OR OTHER PARTIES AFFECTED TO MAKE ALL NECESSARY ADJUSTMENTS OF PUBLIC OR PRIVATE UTILITIES, PIPE LINES, OR OTHER APPURTENANCES WITHIN, OR ADJACENT TO THE LIMITS OF CONSTRUCTION, AS SOON AS PRACTICAL OR POSSIBLE.

MISSOURI ONE CALL SYSTEM (811)

STATE OF MISSOURI
 MIKE KEHOE,
 GOVERNOR



GREDELL
 ENGINEERING RESOURCES
 CIVIL • GEOTECHNICAL • ENVIRONMENTAL • GEOLOGY • EARTH SCIENCES
 1505 East High Street
 Jefferson City, Missouri
 Telephone: (573) 659-9078
 Facsimile: (573) 659-9079
 MO CORP. ENGINEERING LICENSE NO. E-2001001669-D

OFFICE OF ADMINISTRATION
 DIVISION OF FACILITIES
 MANAGEMENT,
 DESIGN AND CONSTRUCTION

GREDELL ENGINEERING
 RESOURCES, INC.

TENNYSON AML LAND
 RECLAMATION PROJECT
 CALLAWAY COUNTY, MISSOURI

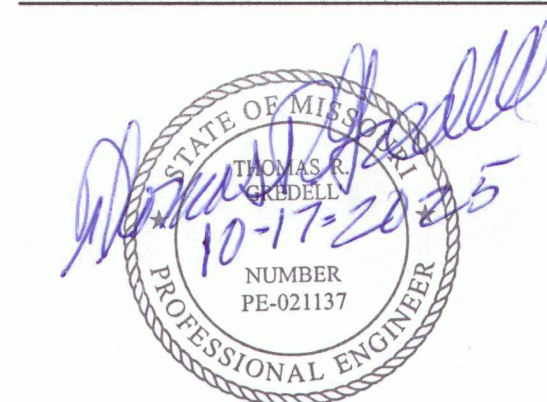
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 SITE # N/A
 ASSET # N/A

REVISION: _____
 DATE: _____
 REVISION: _____
 DATE: _____
 REVISION: _____
 DATE: _____
 ISSUE DATE: _____

CAD DWG FILE: G-100
 DRAWN BY: CM
 CHECKED BY: MC
 DESIGNED BY: TG

SHEET TITLE:
**REFERENCE
 DRAWING**

SHEET NUMBER:
G-100
 3 OF 29 SHEETS
 10/17/2025



OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES
MANAGEMENT,
DESIGN AND CONSTRUCTION

GREDELL ENGINEERING
RESOURCES, INC.

TENNYSON AML LAND
RECLAMATION PROJECT
CALLAWAY COUNTY, MISSOURI

PROJECT # Y2401-01
SITE # N/A
ASSET # N/A

REVISION: _____
DATE: _____
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DATE: _____
REVISION: _____
DATE: _____
ISSUE DATE: 10/17/2025

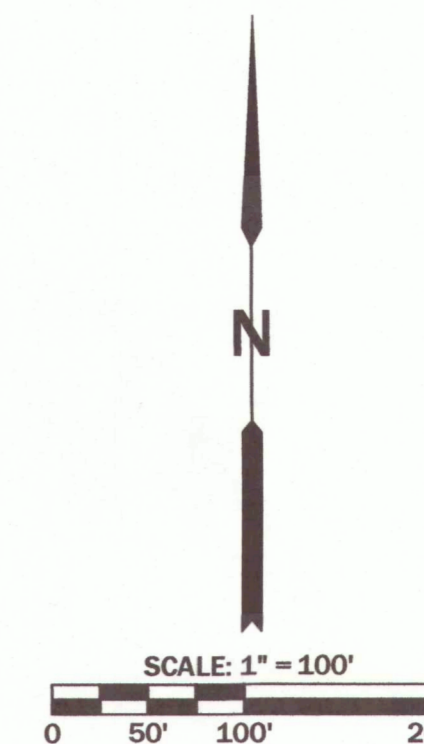
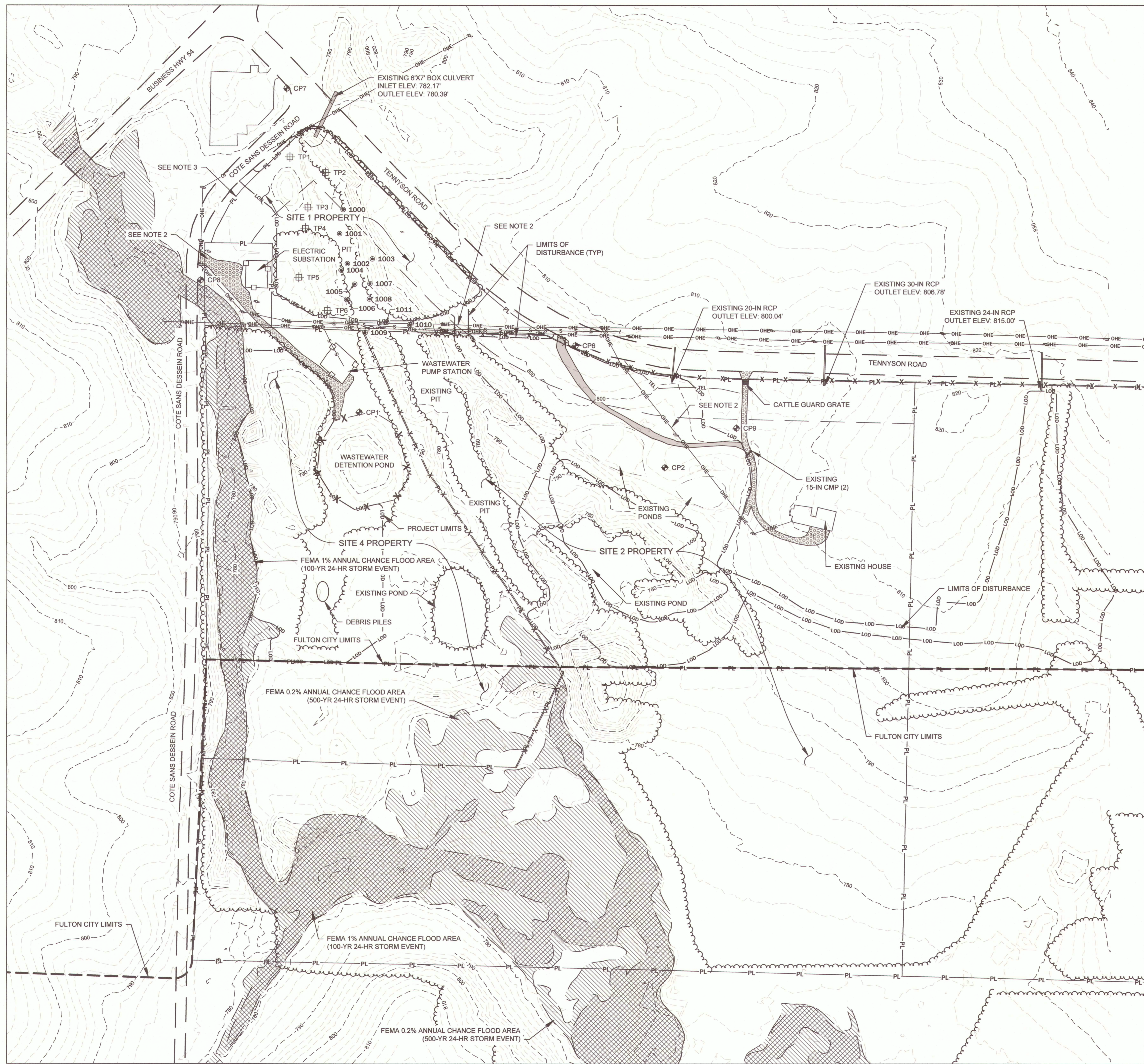
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DRAWN BY: CM
CHECKED BY: MC
DESIGNED BY: TG

SHEET TITLE:
SITES 1, 2, AND 4
TOPOGRAPHIC
SURVEY

SHEET NUMBER:

V-100

4 OF 29 SHEETS
10/17/2025



LEGEND:

MAJOR EXISTING 10' CONTOUR	-----
MINOR EXISTING 2' CONTOUR	-----
PROPERTY LINE	PL
OVERHEAD ELECTRIC LINES	OHE OHE
UNDERGROUND TELEPHONE LINE	TEL
SEWER MAIN LINE (APPROX.)	S S S S S
EDGE OF ROADWAY	LOD LOD LOD
LIMITS OF DISTURBANCE	LOD LOD LOD
EXISTING CHAIN-LINK FENCE	-----
EXISTING BARBED WIRE FENCE (APPROX.)	X X X X X
FULTON CITY LIMITS	-----
EXISTING WATER BODY	-----
EXISTING TREE-LINE (APPROX.)	-----
EXISTING STORM DRAINAGE STRUCTURE	-----
EXISTING GRAVEL ROADWAYS	-----
FEMA 1% ANNUAL CHANCE FLOOD AREA (100-YR 24-HR STORM EVENT)	-----
FEMA 0.2% ANNUAL CHANCE FLOOD AREA (500-YR 24-HR STORM EVENT)	-----
EXISTING POWER POLE	CP
TEST PIT	TP6
BATHYMETRIC LOCATIONS	1000
CONSTRUCTION CONTROL POINTS	CP1

SHEET NOTES:

- TOPOGRAPHIC CONTOURS BASED ON LIDAR DATA OBTAINED FROM MISSOURI SPATIAL DATA INFORMATION SERVICE (MSDIS) DATED 2010 AND PROVIDED BY MOBNR LAND RECLAMATION PROGRAM. ELEVATIONS SPOT-CHECKED BY CENTRAL MISSOURI PROFESSIONAL SERVICES, INC. ON MARCH 1, 2024, AND MAY 2, 2024.
- CAUTION!!!** LOW OVERHEAD POWER LINES AND POWER POLE GUY WIRES. DO NOT DISTURB EXISTING POWER POLES WITHIN 10FT.
- PROPERTY LINES ALONG PAVED ROADS ARE ASSUMED TO BE A RIGHT-OF-WAY LINE.
- BATHYMETRIC INFORMATION COLLECTED BY GREDELL ENGINEERING RESOURCES, INC. ON APRIL 17, 2024.
- TEST PIT INFORMATION COLLECTED BY GREDELL ENGINEERING RESOURCES, INC. ON JUNE 5, 2024.
- CONTRACTOR MUST STAY WITHIN LIMITS OF DISTURBANCE, UNLESS OTHERWISE APPROVED BY OWNER'S REPRESENTATIVE.

CONSTRUCTION CONTROL POINT TABLE

CP	NORTHING	EASTING	ELEVATION
CP1	1,090,388.133	1,793,431.250	787.41
CP2	1,090,272.483	1,794,070.139	798.23
CP6	1,090,527.432	1,793,883.358	805.84
CP7	1,091,063.983	1,793,279.088	792.27
CP8	1,090,663.745	1,793,099.611	787.00
CP9	1,090,355.267	1,794,220.072	802.15

CONTROL POINT NOTE:

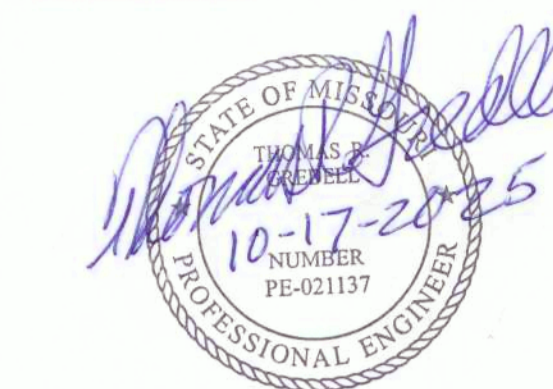
1.) SURVEY DATUM IS MISSOURI STATE PLANE, NAD 83, CENTRAL ZONE.

NOTES TO THE CONTRACTOR:

UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS AND THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS AT PRESENT NOT KNOWN. VERIFICATION OF THE LOCATIONS OF UNDERGROUND UTILITIES, SHOWN OR NOT SHOWN, WILL BE THE RESPONSIBILITY OF THE CONSTRUCTION CONTRACTOR.

THE CONTRACTOR SHALL MAKE SUITABLE AND TIMELY REQUESTS TO ALL UTILITY OWNERS, PIPELINE OWNERS, OR OTHER PARTIES AFFECTED TO MAKE ALL NECESSARY ADJUSTMENTS OF PUBLIC OR PRIVATE UTILITIES, PIPE LINES, OR OTHER APPURTENANCES WITHIN, OR ADJACENT TO THE LIMITS OF CONSTRUCTION, AS SOON AS PRACTICAL OR POSSIBLE.

MISSOURI ONE CALL SYSTEM (811)



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MANAGEMENT,
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GREDELL ENGINEERING
RESOURCES, INC.

TENNYSON AML LAND
RECLAMATION PROJECT
CALLAWAY COUNTY, MISSOURI

PROJECT # Y2401-01
SITE # N/A
ASSET # N/A

REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
ISSUE DATE: 10/17/2025

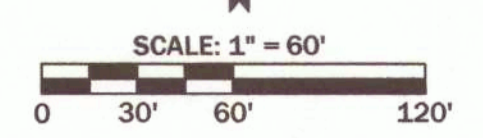
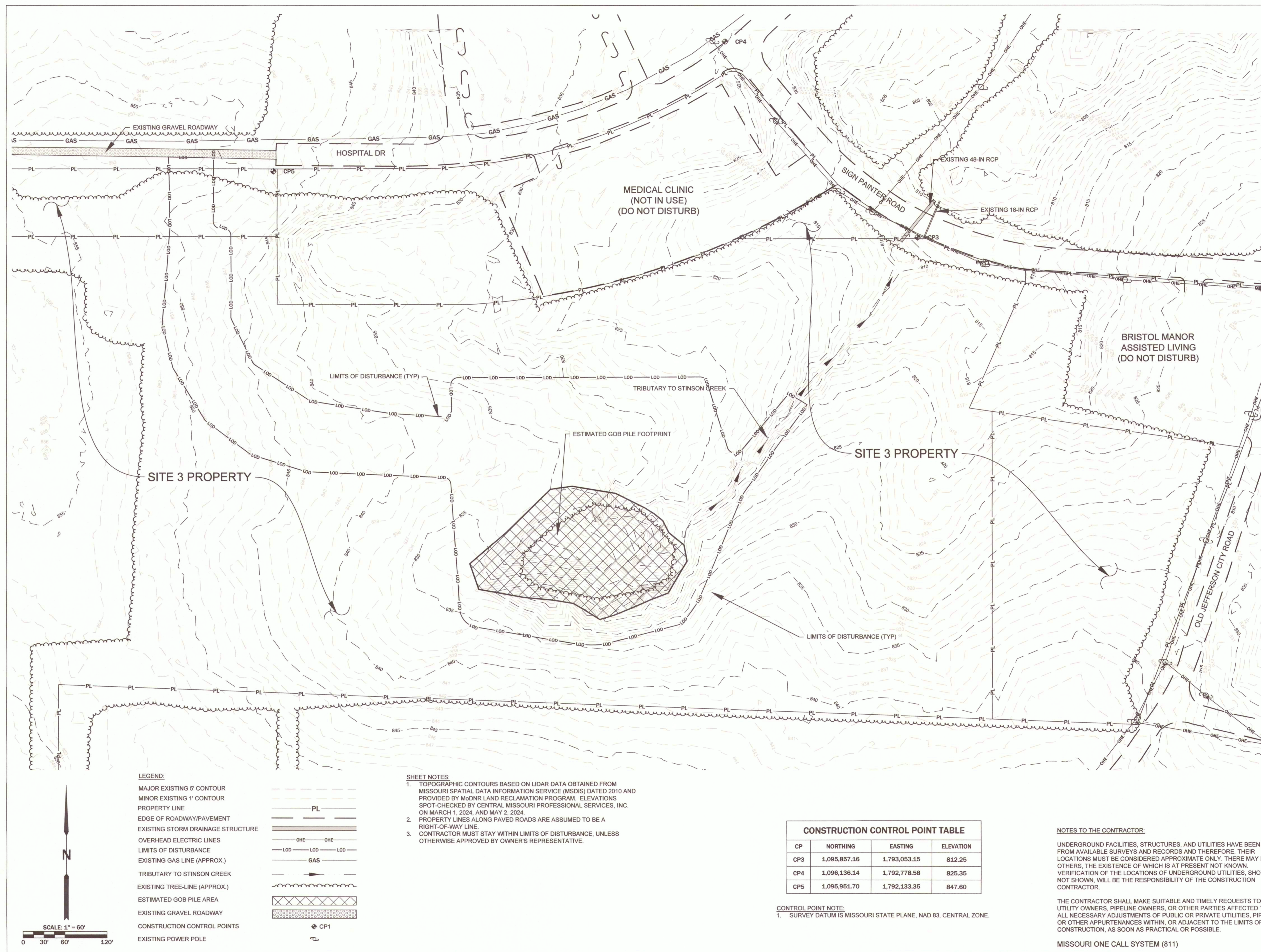
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DRAWN BY: CM
CHECKED BY: MC
DESIGNED BY: TG

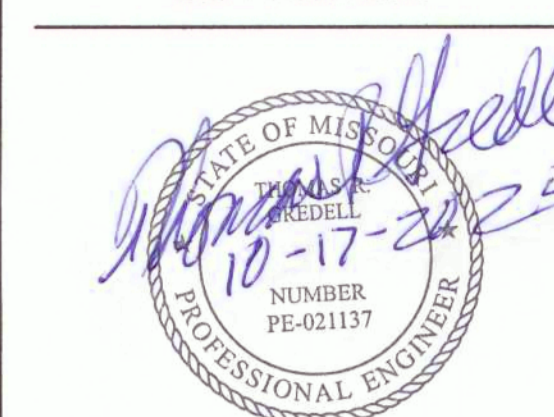
SHEET TITLE:
**SITE 3
TOPOGRAPHIC
SURVEY**

SHEET NUMBER:

V-101

5 OF 29 SHEETS
10/17/2025





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TENNYSON AML LAND
RECLAMATION PROJECT
CALLAWAY COUNTY, MISSOURI

PROJECT # Y2401-01
SITE # N/A
ASSET # N/A

REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
ISSUE DATE: 10/17/2025

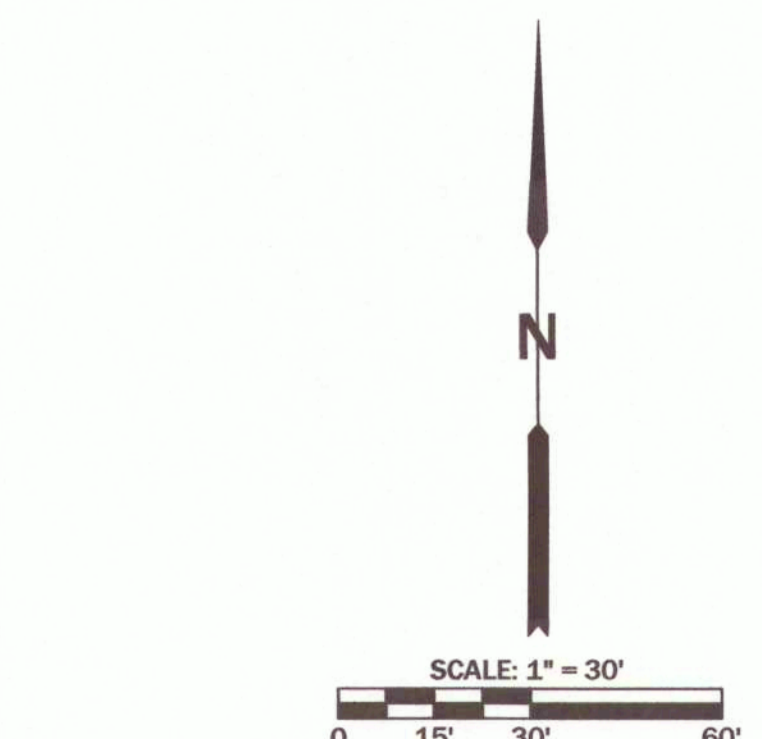
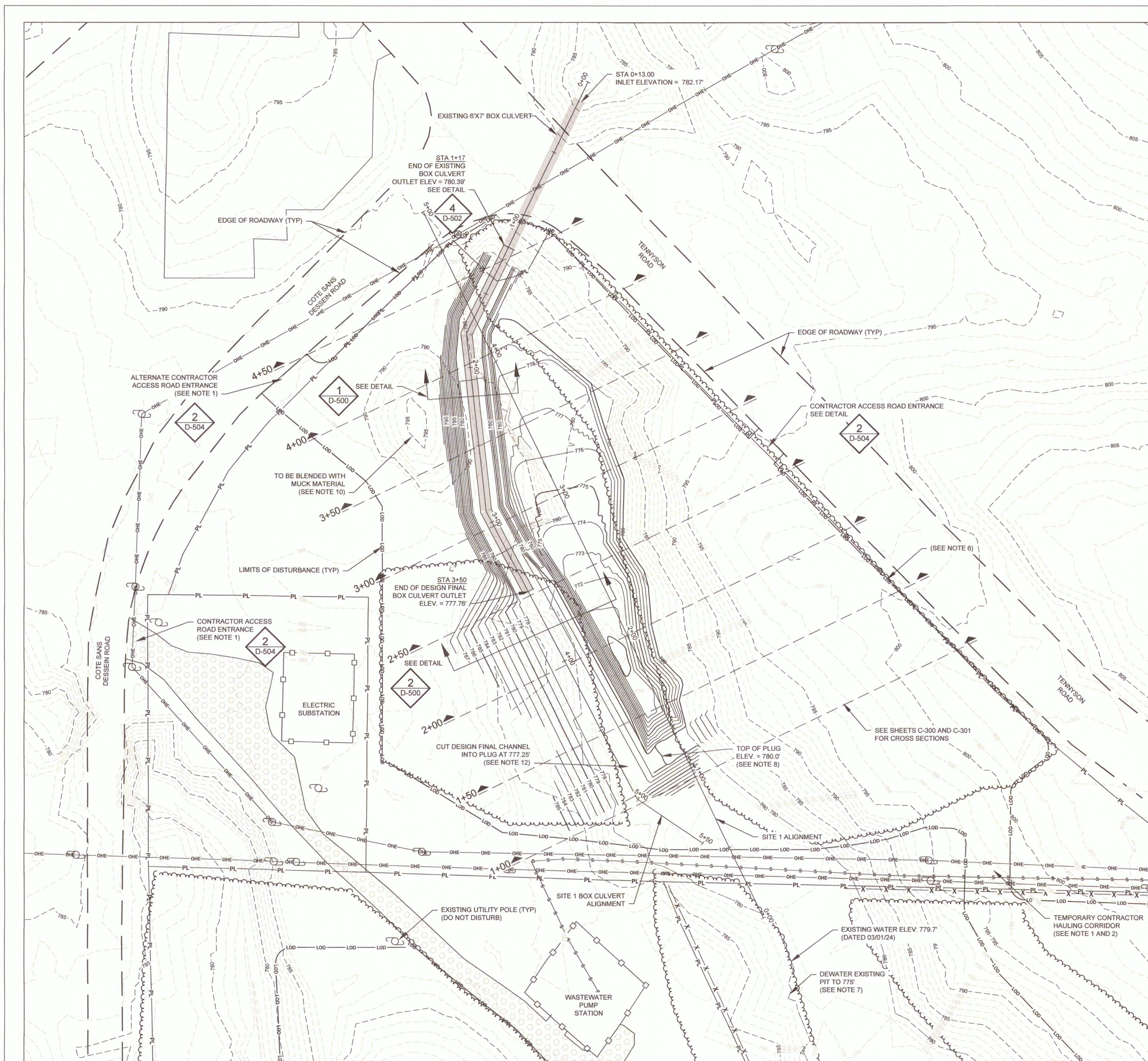
CAD DWG FILE: C-100
DRAWN BY: CM
CHECKED BY: MC
DESIGNED BY: TG

SHEET TITLE:
**SITE 1
EXCAVATION PLAN**

SHEET NUMBER:

C-100

6 OF 29 SHEETS
10/17/2025



LEGEND:

MAJOR EXISTING 5' CONTOUR	-----
MINOR EXISTING 1' CONTOUR	-----
MAJOR DESIGN FINAL 5' CONTOUR	-----
MINOR DESIGN FINAL 1' CONTOUR	-----
PROPERTY LINE	PL
OVERHEAD ELECTRIC LINES	OHE OHE
SEWER MAIN LINE (APPROX.)	S S S S S
EDGE OF ROADWAY	-----
EXISTING GRAVEL ROADWAY	-----
LIMITS OF DISTURBANCE	LOD LOD LOD
EDGE OF WATER BOUNDARY	-----
EXISTING CHAIN-LINK FENCE	X X X X X
EXISTING BARBED WIRE FENCE	X X X X X
EXISTING TREE-LINE (APPROX)	-----
EXISTING 6'X7' BOX CULVERT	-----
DESIGN FINAL EXTENDED 6'X7' BOX CULVERT	-----
EXISTING UTILITY POLE	CP
CONSTRUCTION CONTROL POINTS	CP1

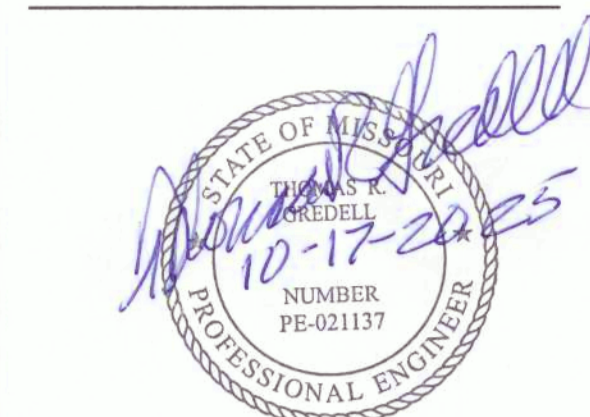
- SHEET NOTES:**
- CAUTION!!! LOW OVERHEAD POWER LINES AND POWER POLE GUY WIRES. CLEARANCE HEIGHT OF 15.5 FT UNDER THE EXISTING POWER LINES.
 - TEMPORARY CONTRACTOR HAULING CORRIDOR HAS A MAXIMUM CLEARANCE HEIGHT OF 15.5 FT UNDER THE EXISTING POWER LINES.
 - PROPERTY LINES ALONG PAVED ROADS ARE ASSUMED TO BE A RIGHT-OF-WAY LINE.
 - CONTRACTOR MUST STAY WITHIN LIMITS OF DISTURBANCE, UNLESS OTHERWISE APPROVED BY OWNER'S REPRESENTATIVE.
 - CONTRACTOR SHALL BURN TREES AND STUMPS AS DESCRIBED IN THE SPECIFICATIONS.
 - CONTRACTOR TO REMOVE ALL EXISTING TREES ON THIS PROPERTY. TREE CLEARING MUST BE COMPLETED WITHIN THE SET WINDOW DEFINED IN THE SPECIFICATIONS.
 - CONTRACTOR MUST LOWER EXISTING WATER LEVEL TO 775' AS SHOWN ON SHEET C-104.
 - CONTRACTOR MUST CONSTRUCT A PLUG AT STATION 1+25 TO AID IN DEWATERING THE EXISTING PIT.
 - MUCK MATERIAL IS TO BE DRIED IN THE PIT, MIXED WITH SUITABLE FILL MATERIAL AND COMPACTED IN IDENTIFIED AREA.
 - CONTRACTOR MAY USE THE EXISTING STOCKPILE OF MATERIAL AS SUITABLE MATERIAL TO MIX WITH MUCK.
 - CONTRACTOR MUST DIVERT WATER FROM EXISTING BOX CULVERT TO RECENTLY DEWATERED PIT DURING CONSTRUCTION OF THE BOX CULVERT.
 - EXCAVATE DESIGN FINAL CHANNEL INTO THE CONSTRUCTED PLUG AFTER DEWATERING IS COMPLETED.

NOTES TO THE CONTRACTOR:

UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS AND THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS AT PRESENT NOT KNOWN. VERIFICATION OF THE LOCATIONS OF UNDERGROUND UTILITIES, SHOWN OR NOT SHOWN, WILL BE THE RESPONSIBILITY OF THE CONSTRUCTION CONTRACTOR.

THE CONTRACTOR SHALL MAKE SUITABLE AND TIMELY REQUESTS TO ALL UTILITY OWNERS, PIPELINE OWNERS, OR OTHER PARTIES AFFECTED TO MAKE ALL NECESSARY ADJUSTMENTS OF PUBLIC OR PRIVATE UTILITIES, PIPE LINES, OR OTHER APPURTENANCES WITHIN, OR ADJACENT TO THE LIMITS OF CONSTRUCTION, AS SOON AS PRACTICAL OR POSSIBLE.

MISSOURI ONE CALL SYSTEM (811)



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GREDELL ENGINEERING
RESOURCES, INC.

TENNYSON AML LAND
RECLAMATION PROJECT
CALLAWAY COUNTY, MISSOURI

PROJECT # Y2401-01
SITE # N/A
ASSET # N/A

REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
ISSUE DATE: 10/17/2025

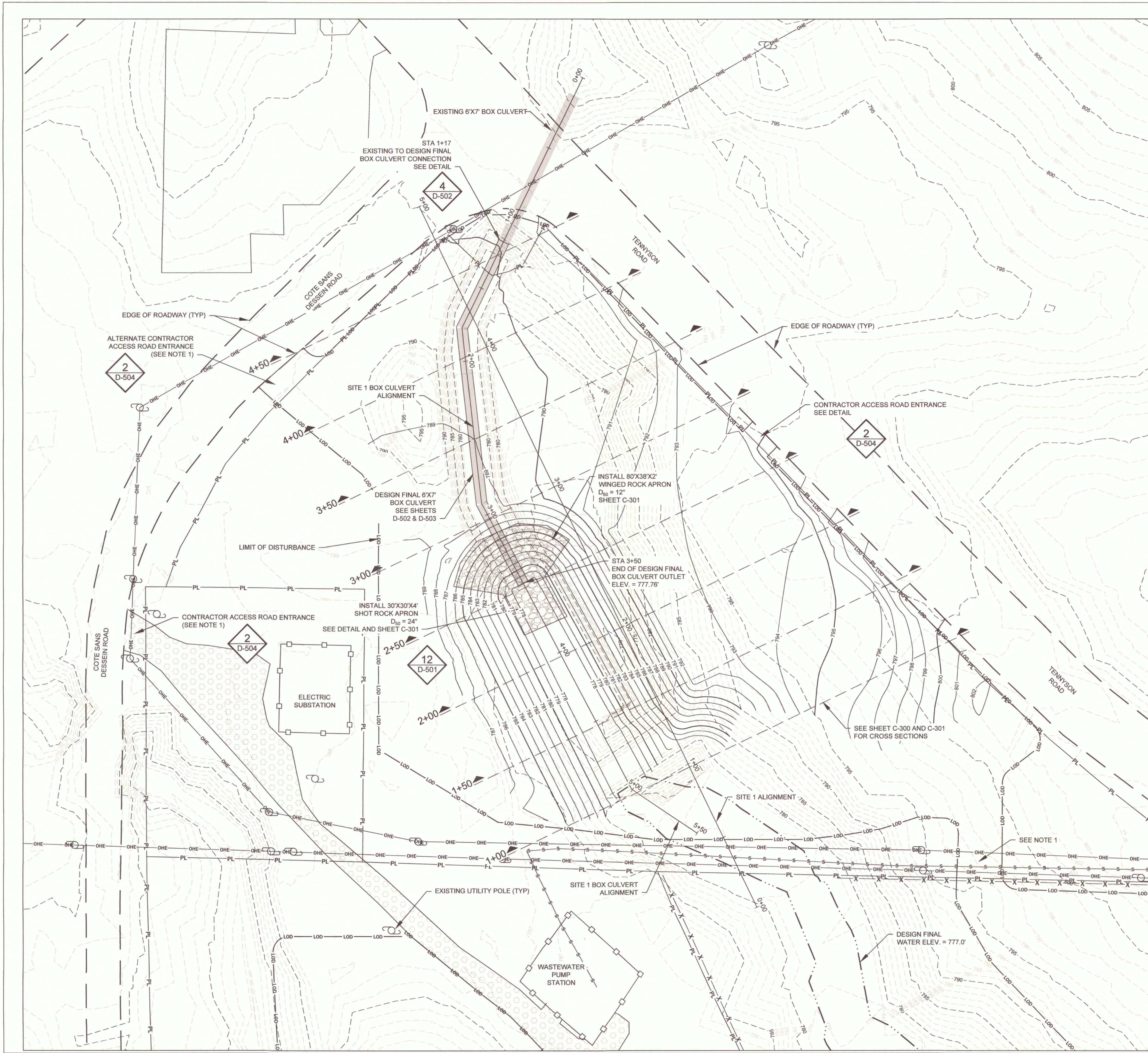
CAD DWG FILE: C-101
DRAWN BY: CM
CHECKED BY: MC
DESIGNED BY: TG

SHEET TITLE:
**SITE 1
FINAL GRADING
PLAN**

SHEET NUMBER:

C-101

7 OF 29 SHEETS
10/17/2025



LEGEND:

MAJOR EXISTING 5' CONTOUR	-----
MINOR EXISTING 1' CONTOUR	-----
MAJOR DESIGN FINAL 5' CONTOUR	-----
MINOR DESIGN FINAL 1' CONTOUR	-----
PROPERTY LINE	PL PL
OVERHEAD ELECTRIC LINES	OHE OHE
SEWER MAIN LINE (APPROX.)	S S S S S S
EDGE OF ROADWAY	-----
ROCK STRUCTURE	[Pattern]
LIMITS OF DISTURBANCE	LOD LOD LOD
DESIGN FINAL WATER ELEVATION	-----
EXISTING CHAIN-LINK FENCE	[Symbol]
EXISTING BARBED WIRE FENCE	X X X X
EXISTING 6'X7' BOX CULVERT	[Pattern]
DESIGN FINAL EXTENDED 6'X7' BOX CULVERT	[Pattern]
EXISTING GRAVEL ROADWAY	[Pattern]
EXISTING UTILITY POLE	[Symbol]
CONSTRUCTION CONTROL POINTS	CP1

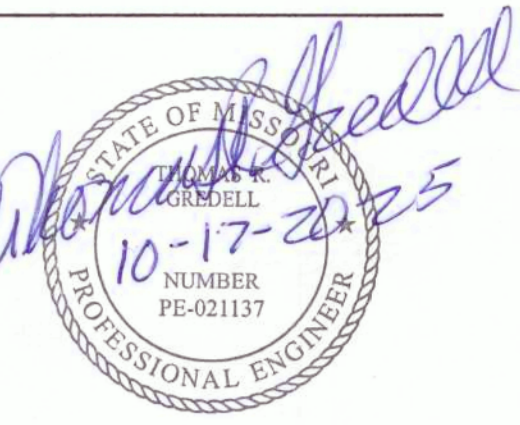
- SHEET NOTES:**
- CAUTION!!!** LOW OVERHEAD POWER LINES AND POWER POLE GUY WIRES.
 - PROPERTY LINES ALONG PAVED ROADS ARE ASSUMED TO BE A RIGHT-OF-WAY LINE.
 - CONTRACTOR MUST STAY WITHIN LIMITS OF DISTURBANCE, UNLESS OTHERWISE APPROVED BY OWNER'S REPRESENTATIVE.
 - BLEND EDGE OF GRADING LIMITS TO MATCH EXISTING GRADE.
 - CONTRACTOR ACCESS ROAD ENTRANCE MUST BE REMOVED.
 - CONTRACTOR MUST SEED ALL DISTURBED AREAS WITH THE SEED MIXES DESCRIBED IN THE SPECIFICATIONS.

NOTES TO THE CONTRACTOR:

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CALLAWAY COUNTY, MISSOURI

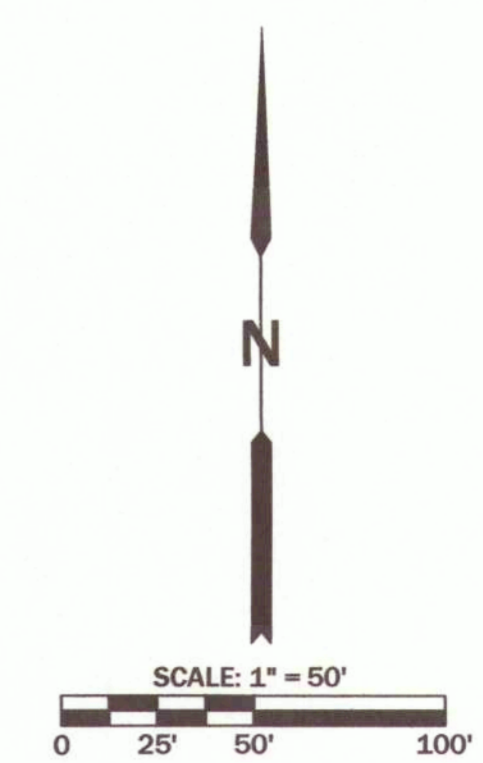
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SITE # N/A
ASSET # N/A

REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
ISSUE DATE: 10/17/2025

CAD DWG FILE: C-102
DRAWN BY: CM
CHECKED BY: MC
DESIGNED BY: TG

SHEET TITLE:
**SITE 4
EXCAVATION PLAN**

SHEET NUMBER:
C-102
8 OF 29 SHEETS
10/17/2025



LEGEND:

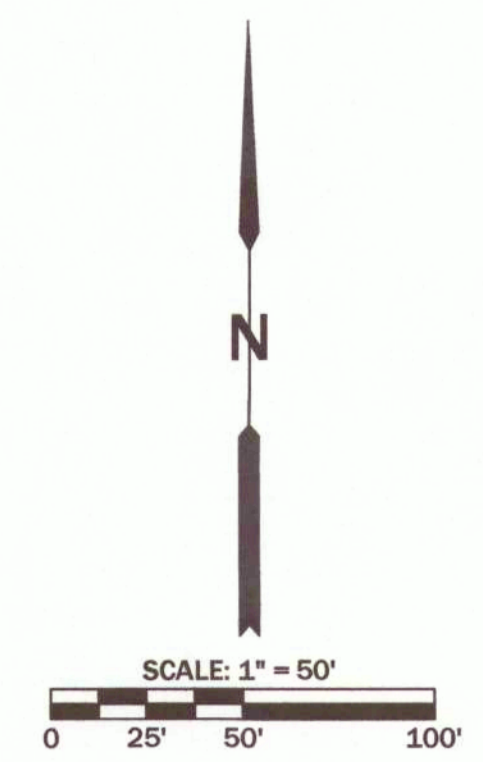
MAJOR EXISTING 5' CONTOUR	-----
MINOR EXISTING 1' CONTOUR	-----
MAJOR DESIGN FINAL 5' CONTOUR	-----
MINOR DESIGN FINAL 1' CONTOUR	-----
PROPERTY LINE	PL PL
OVERHEAD ELECTRIC LINES	OHE OHE
UNDERGROUND TELEPHONE LINE	TEL TEL
SEWER MAIN LINE (APPROX.)	S S S S
EDGE OF ROADWAY	-----
LIMITS OF DISTURBANCE	LOD LOD LOD
EXISTING CHAIN-LINK FENCE (APPROX.)	-X-X-X-X-
EXISTING BARBED WIRE FENCE (APPROX.)	-X-X-X-X-
FULTON CITY LIMITS	-----
EXISTING TREE-LINE (APPROX.)	-----
EXISTING SOIL PILE BOUNDARY (APPROX.)	-----
FEMA 1% ANNUAL CHANCE FLOOD AREA BOUNDARY	-----
UNPAVED ACCESS ROAD	-----
EXISTING GRAVEL ROADWAY	-----
EXISTING POWER POLE	CP
CONSTRUCTION CONTROL POINTS	CP1

- SHEET NOTES:**
- CAUTION!!!** LOW OVERHEAD POWER LINES AND POWER POLE GUY WIRES.
 - PROPERTY LINES ALONG PAVED ROADS ARE ASSUMED TO BE RIGHT-OF-WAY LINE.
 - CONTRACTOR MUST STAY WITHIN LIMITS OF DISTURBANCE UNLESS OTHERWISE APPROVED BY OWNER'S REPRESENTATIVE.
 - CONTRACTOR MUST REMOVE ALL TREES WITHIN LIMITS OF DISTURBANCE. TREE CLEARING MUST BE COMPLETED WITHIN THE SET TIME FRAME AS DEFINED IN THE SPECIFICATIONS.
 - CONTRACTOR SHALL BURN ALL TREES AND STUMPS AS DEFINED IN THE SPECIFICATIONS.
 - CONTRACTOR MUST STAY OUTSIDE OF 100 YEAR FLOODPLAIN AREA NO LOWER THAN BASE ELEVATION 784' FROM STATION 0+00 TO 4+00 AND NO LOWER THAN BASE ELEVATION 782' FROM STATION 4+00 TO 6+50.

NOTES TO THE CONTRACTOR:

UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS AND THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS AT PRESENT NOT KNOWN. VERIFICATION OF THE LOCATIONS OF UNDERGROUND UTILITIES, SHOWN OR NOT SHOWN, WILL BE THE RESPONSIBILITY OF THE CONSTRUCTION CONTRACTOR.

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LEGEND:

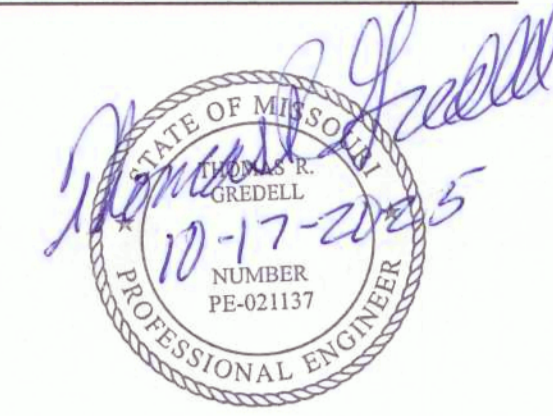
MAJOR EXISTING 5' CONTOUR	---
MINOR EXISTING 1' CONTOUR	----
MAJOR DESIGN FINAL 5' CONTOUR	---
MINOR DESIGN FINAL 1' CONTOUR	----
PROPERTY LINE	PL
OVERHEAD ELECTRIC LINES	OHE OHE
UNDERGROUND TELEPHONE LINE	TEL
SEWER MAIN LINE (APPROX.)	S S S S S
EDGE OF ROADWAY	LOD LOD LOD
LIMITS OF DISTURBANCE	---
EXISTING CHAIN-LINK FENCE	□ □ □
DESIGN FINAL BARBED WIRE FENCE	■ ■ ■
EXISTING BARBED WIRE FENCE (APPROX.)	X X X
FULTON CITY LIMITS	---
FEMA 1% ANNUAL CHANCE FLOOD AREA BOUNDARY	▨
UNPAVED ACCESS ROAD	▨
EXISTING GRAVEL ROADWAY	▨
EXISTING POWER POLE	CP
CONSTRUCTION CONTROL POINTS	CP1

- SHEET NOTES:**
1. PROPERTY LINES ALONG PAVED ROADS ARE ASSUMED TO BE A RIGHT-OF-WAY LINE.
 2. CAUTION!!! LOW OVERHEAD POWER LINES AND POWER POLE GUY WIRES.
 3. CONTRACTOR MUST STAY WITHIN LIMITS OF DISTURBANCE, UNLESS OTHERWISE APPROVED BY OWNER'S REPRESENTATIVE.
 4. CONTRACTOR MUST BURY ALL CLEAN DIRT IN THE EXCAVATION PIT ON SITE.
 5. CONTRACTOR MUST REMOVE ALL HAZARDOUS WASTE AND/OR NON-CLEAN FILL MATERIAL AND TAKE TO AN APPROVED LANDFILL.
 6. BLEND EDGE OF GRADING LIMITS TO MATCH EXISTING GRADE.
 7. CONTRACTOR MUST STAY OUTSIDE OF 100 YEAR FLOODPLAIN AREA NO LOWER THAN BASE ELEVATION 784' FROM STATION 0+00 TO 4+00 AND NO LOWER THAN BASE ELEVATION 782' FROM STATION 4+00 TO 6+50.
 8. CONTRACTOR MUST SEED ALL DISTURBED AREAS WITH THE SEED MIXES DESCRIBED IN THE SPECIFICATIONS.

NOTES TO THE CONTRACTOR:

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TENNYSON AML LAND
RECLAMATION PROJECT
CALLAWAY COUNTY, MISSOURI

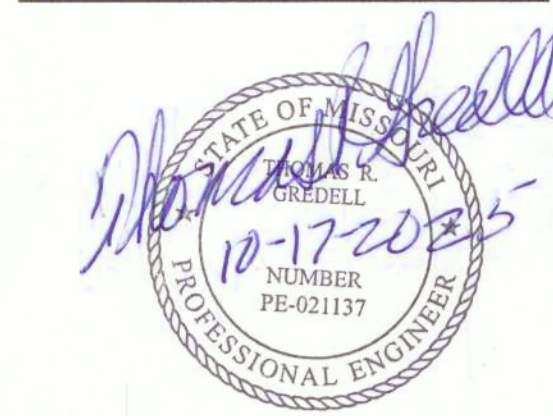
PROJECT # Y2401-01
SITE # N/A
ASSET # N/A

REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
ISSUE DATE: 10/17/2025

CAD DWG FILE: C-103
DRAWN BY: CM
CHECKED BY: MC
DESIGNED BY: TG

SHEET TITLE:
**SITE 4
FINAL GRADING
PLAN**

SHEET NUMBER:
C-103
9 OF 29 SHEETS
10/17/2025



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TENNYSON AML LAND
RECLAMATION PROJECT
CALLAWAY COUNTY, MISSOURI

PROJECT # Y2401-01
SITE # N/A
ASSET # N/A

REVISION:
DATE: _____
REVISION:
DATE: _____
REVISION:
DATE: _____
ISSUE DATE: 10/17/2025

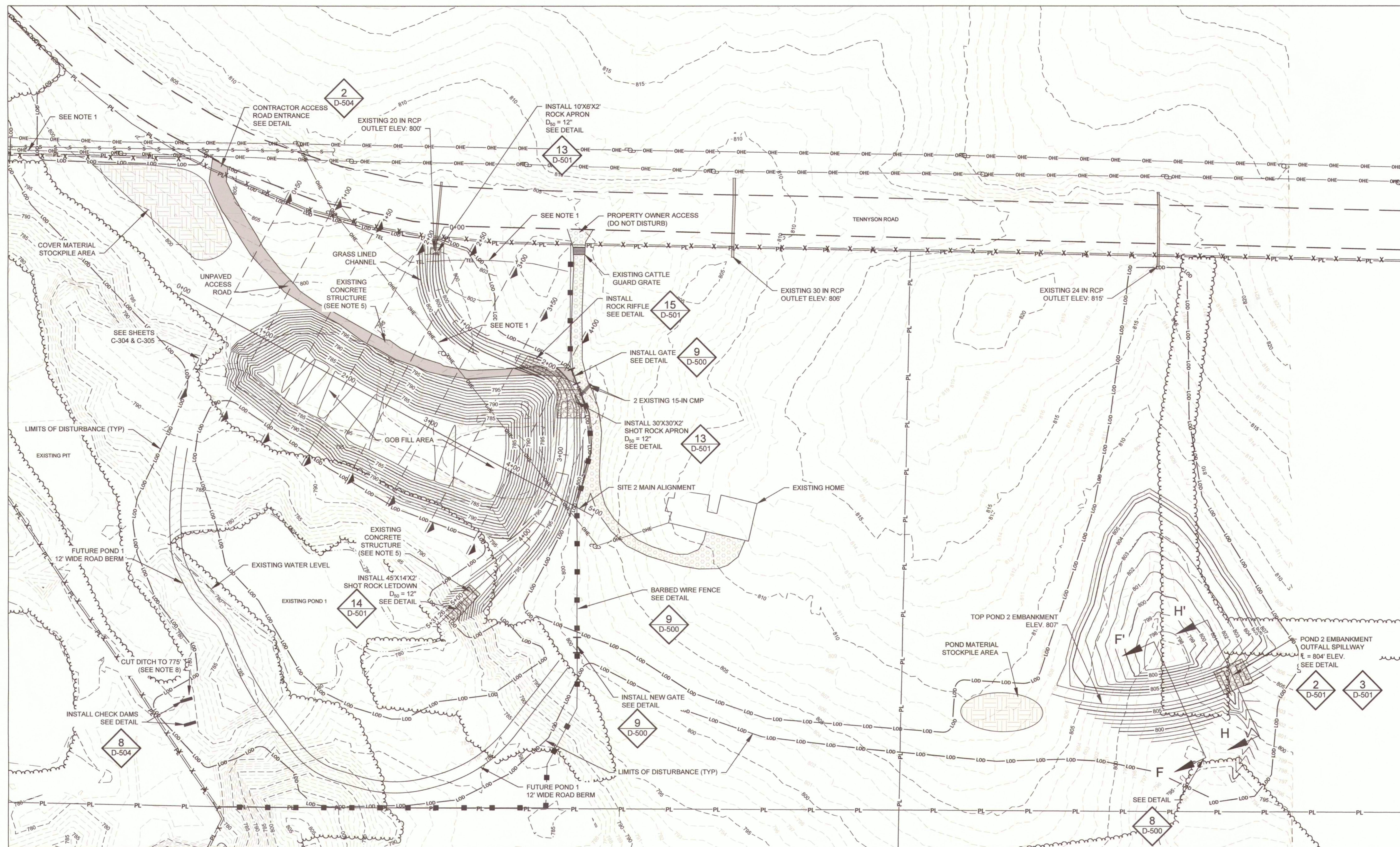
CAD DWG FILE: C-104
DRAWN BY: CM
CHECKED BY: MC
DESIGNED BY: TG

SHEET TITLE:
**SITE 2
EXCAVATION PLAN**

SHEET NUMBER:

C-104

10 OF 29 SHEETS
10/17/2025



LEGEND:

MAJOR EXISTING 5' CONTOUR	-----	DESIGN FINAL BARBED WIRE FENCE	—■—■—■—■—
MINOR EXISTING 1' CONTOUR	-----	EXISTING BARBED WIRE FENCE	-X-X-X-X-
MAJOR DESIGN FINAL 5' CONTOUR	-----	ROCK STRUCTURES	▨▨▨▨▨▨▨▨
MINOR DESIGN FINAL 1' CONTOUR	-----	MATERIAL STOCKPILE AREA	▨▨▨▨▨▨▨▨
PROPERTY LINE	PL PL	UNPAVED ACCESS ROAD	▨▨▨▨▨▨▨▨
OVERHEAD ELECTRIC LINES	OHE OHE	EXISTING GRAVEL ROADWAY	▨▨▨▨▨▨▨▨
SEWER MAIN LINE (APPROX.)	S S S S S S	EXISTING UTILITY POLE	○
EDGE OF ROADWAY	-----	CONSTRUCTION CONTROL POINTS	◆ CP1
PROPOSED UNPAVED ROAD	-----		
LIMITS OF DISTURBANCE	LOD LOD		
EXISTING WATERLINE	-----		

NOTE:

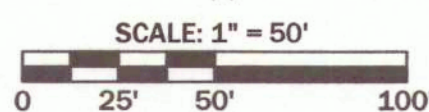
- CAUTION!!!** LOW OVERHEAD POWER LINES, UNDERGROUND UTILITIES, AND POWER POLE GUY WIRES. CONTRACTOR MUST NOT GRADE WITHIN 10' OF UTILITY POLES.
- PROPERTY LINES ALONG PAVED ROADS ARE ASSUMED TO BE A RIGHT-OF-WAY LINE.
- CONTRACTOR MUST STAY WITHIN LIMITS OF DISTURBANCE, UNLESS OTHERWISE APPROVED BY OWNER'S REPRESENTATIVE.
- TREE CLEARING MUST BE COMPLETED WITHIN THE SET WINDOW DEFINED IN THE SPECIFICATIONS.
- EXISTING CONCRETE STRUCTURES NEED TO BE REMOVED, CRUSHED, RECYCLED OR PROPERLY DISPOSED OF AT THE BOTTOM OF SITE 1 FILL. CONTRACTOR MUST INSTALL BARBED WIRE CONSTRUCTION FENCING WITH ACCESS GATES AS NOTED ON THE CONSTRUCTION PLANS.
- CONTRACTOR TO START THE EXCAVATION OF THE EAST POND BEFORE ANY OTHER EXCAVATION.
- THE PIT IS TO BE DEWATERED IN 1-FOOT INCREMENTS IN A 24-HOUR PERIOD TO EXPOSE PIT MUCK. SEE SHEET C-100. THE CONTRACTOR IS TO DEWATER THE PIT BELOW ELEVATION 775' ONLY WITH APPROVAL OF THE OWNER IS REPRESENTATIVE. (SEE G-002 #5)

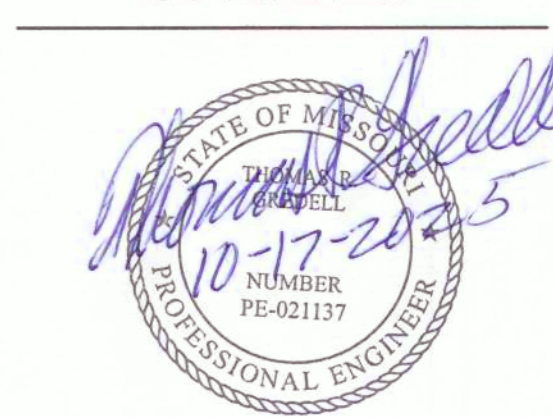
NOTES TO THE CONTRACTOR:

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MISSOURI ONE CALL SYSTEM (811)





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OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES
MANAGEMENT,
DESIGN AND CONSTRUCTION

GREDELL ENGINEERING
RESOURCES, INC.

TENNYSON AML LAND
RECLAMATION PROJECT
CALLAWAY COUNTY, MISSOURI

PROJECT # Y2401-01
SITE # N/A
ASSET # N/A

REVISION:
DATE: _____
REVISION:
DATE: _____
REVISION:
DATE: _____
ISSUE DATE: 10/17/2025

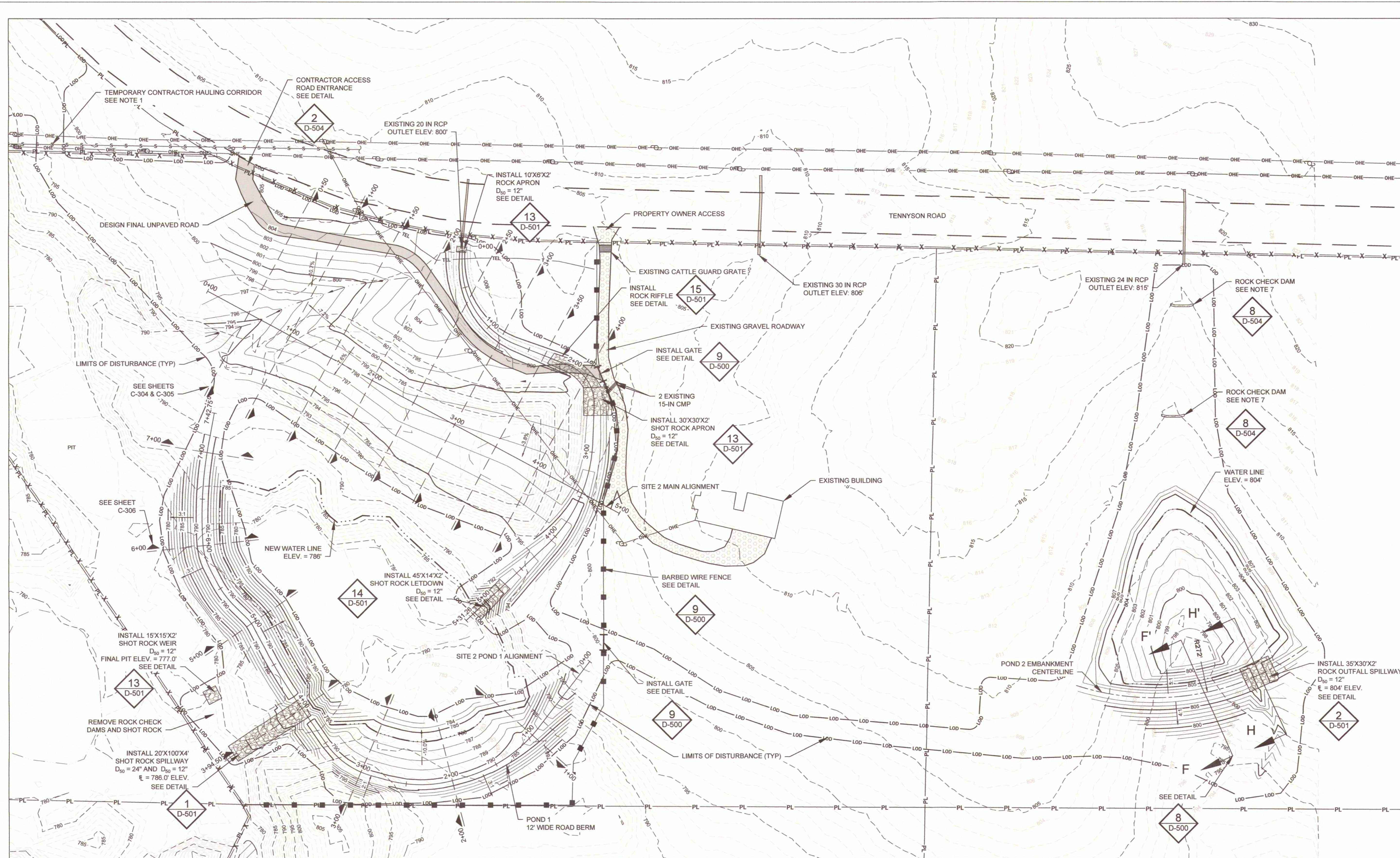
CAD DWG FILE: C-105
DRAWN BY: CM
CHECKED BY: MC
DESIGNED BY: TG

SHEET TITLE:
**SITE 2
FINAL GRADING
PLAN**

SHEET NUMBER:

C-105

11 OF 29 SHEETS
10/17/2025



LEGEND:

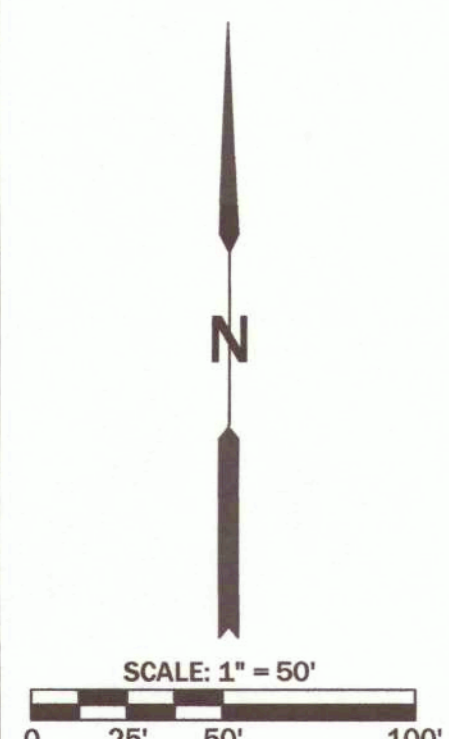
MAJOR EXISTING 5' CONTOUR	---	DESIGN FINAL BARBED WIRE FENCE	—■—■—■—
MINOR EXISTING 1' CONTOUR	----	EXISTING BARBED WIRE FENCE	-X-X-X-X-
MAJOR DESIGN FINAL 5' CONTOUR	-----	ROCK STRUCTURE	▒▒▒▒▒▒▒▒▒▒
MINOR DESIGN FINAL 1' CONTOUR	-----	UNPAVED ACCESS ROAD	▒▒▒▒▒▒▒▒▒▒
PROPERTY LINE	PL	EXISTING GRAVEL ROADWAY	▒▒▒▒▒▒▒▒▒▒
OVERHEAD ELECTRIC LINES	OHE	EXISTING UTILITY POLE	⊙
SEWER MAIN LINE (APPROX.)	S-S-S-S-S-S	CONSTRUCTION CONTROL POINTS	◆ CP1
EDGE OF ROADWAY	---		
UNPAVED ROAD	---		
LIMITS OF DISTURBANCE	L00		
EDGE OF WATER BOUNDARY	---		
DESIGN FINAL EDGE OF WATER BOUNDARY	---		

NOTE:
1. **CAUTION!!!** LOW OVERHEAD POWER LINES, UNDERGROUND UTILITIES, AND POWER POLE GUY WIRES. CONTRACTOR MUST NOT GRADE WITHIN 10' OF UTILITY POLES.
2. PROPERTY LINES ALONG PAVED ROADS ARE ASSUMED TO BE A RIGHT-OF-WAY LINE.
3. CONTRACTOR MUST STAY WITHIN LIMITS OF DISTURBANCE, UNLESS OTHERWISE APPROVED BY OWNER'S REPRESENTATIVE.
4. BLEND EDGE OF GRADING LIMITS TO MATCH EXISTING GRADE.
5. CONTRACTOR MUST SEED ALL DISTURBED AREAS WITH SEED MIXES AS DESCRIBED IN SPECIFICATIONS.
6. CONTRACTOR TO REPAIR OR REPLACE FENCE AT CONTRACTOR ACCESS ROADS.
7. CLEAR TREES AS NEEDED TO CONSTRUCT ROCK CHECK DAMS.

NOTES TO THE CONTRACTOR:
UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS AND THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS AT PRESENT NOT KNOWN. VERIFICATION OF THE LOCATIONS OF UNDERGROUND UTILITIES, SHOWN OR NOT SHOWN, WILL BE THE RESPONSIBILITY OF THE CONSTRUCTION CONTRACTOR.

THE CONTRACTOR SHALL MAKE SUITABLE AND TIMELY REQUESTS TO ALL UTILITY OWNERS, PIPELINE OWNERS, OR OTHER PARTIES AFFECTED TO MAKE ALL NECESSARY ADJUSTMENTS OF PUBLIC OR PRIVATE UTILITIES, PIPE LINES, OR OTHER APPURTENANCES WITHIN, OR ADJACENT TO THE LIMITS OF CONSTRUCTION, AS SOON AS PRACTICAL OR POSSIBLE.

MISSOURI ONE CALL SYSTEM (811)





GREDELL
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1505 East High Street
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MO CORP. ENGINEERING LICENSE NO. E-2001001669-D

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RECLAMATION PROJECT
CALLAWAY COUNTY, MISSOURI

PROJECT # Y2401-01
SITE # N/A
ASSET # N/A

REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
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DATE: _____
ISSUE DATE: 10/17/2025

CAD DWG FILE: C-106

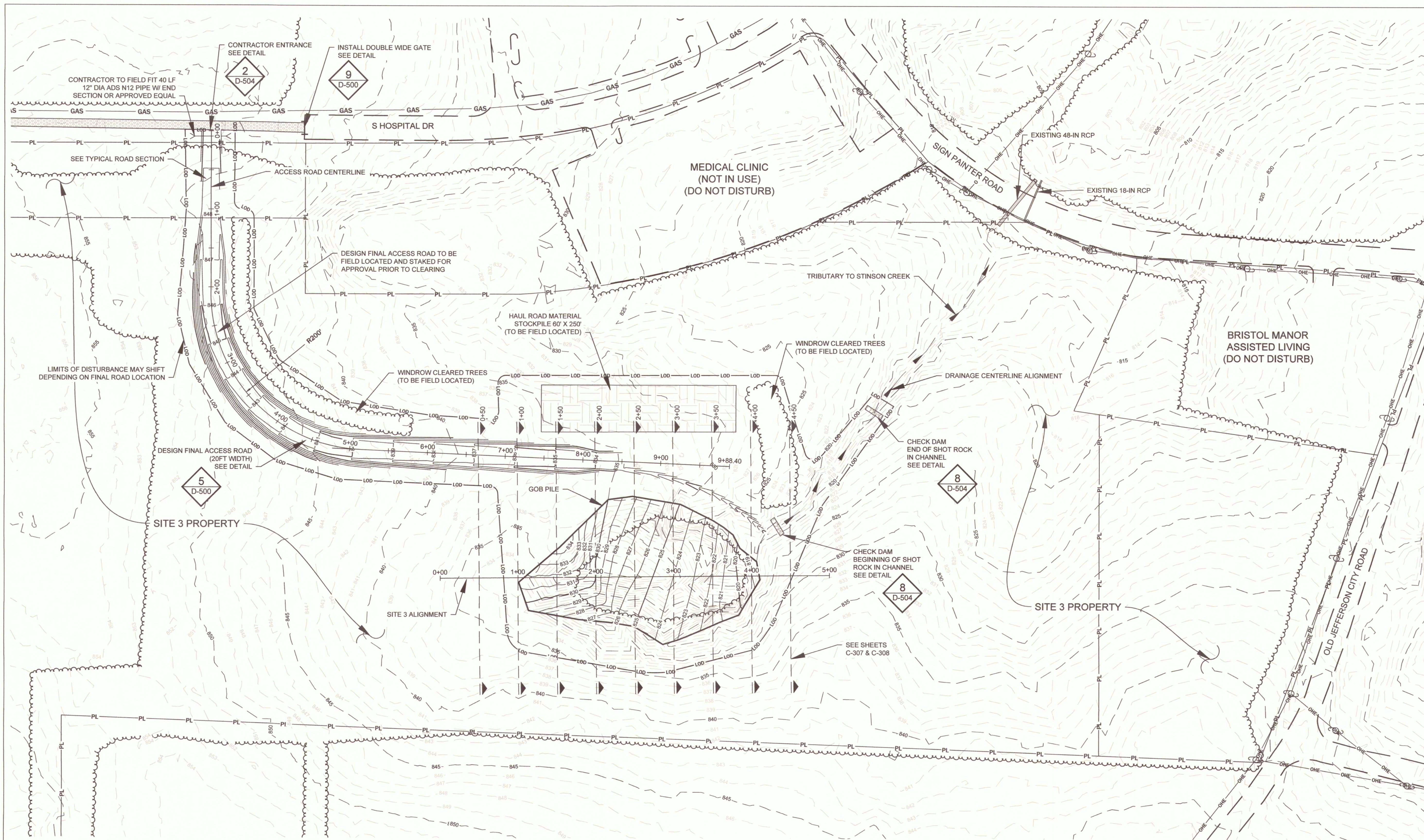
DRAWN BY: CM
CHECKED BY: MC
DESIGNED BY: TG

SHEET TITLE:
**SITE 3
GOB PILE
EXCAVATION PLAN**

SHEET NUMBER:

C-106

12 OF 29 SHEETS
10/17/2025



LEGEND:		
MAJOR EXISTING 5' CONTOUR	---	EXISTING POWER POLE
MINOR EXISTING 1' CONTOUR	- - -	CONSTRUCTION CONTROL POINTS
MAJOR DESIGN FINAL 5' CONTOUR	---	CP1
MINOR DESIGN FINAL 1' CONTOUR	- - -	
PROPERTY LINE	PL	
EDGE OF ROADWAY/PAVEMENT	---	
EXISTING STORM DRAINAGE STRUCTURE	---	
OVERHEAD ELECTRIC LINES	OHE OHE	
EXISTING GAS LINES	GAS	
LIMITS OF DISTURBANCE	L00 L00 L00	
TRIBUTARY TO STINSON CREEK	---	
HAUL ROAD MATERIAL STOCKPILE	---	
EXISTING GRAVEL ROADWAY	---	
WINDROWED TREES	---	

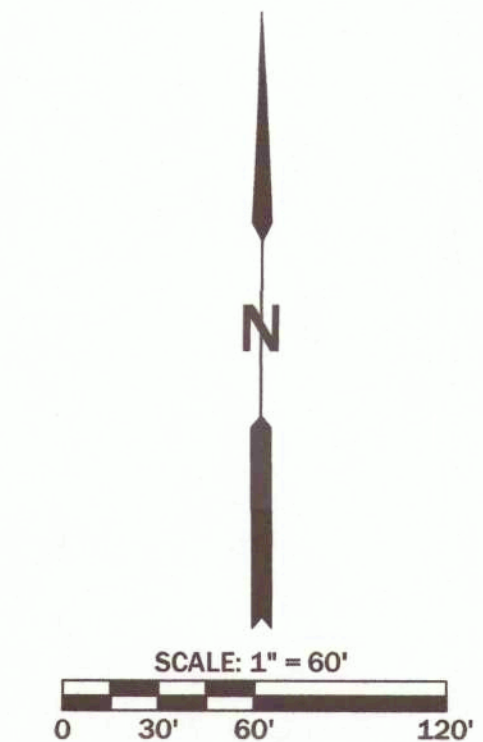
- NOTES**
- CONTRACTOR MUST STAY WITHIN LIMITS OF DISTURBANCE, UNLESS OTHERWISE APPROVED BY OWNER'S REPRESENTATIVE.
 - ACCESS ROAD TO REMAIN IN PLACE AND RESURFACED PER DETAILS.
 - BLEND EDGE OF GRADING LIMITS TO MATCH EXISTING GRADE.
 - CONTRACTOR MUST STOCKPILE TREES AND STUMPS IN THE DESIGNATED AREAS, DEFINED BY THE PLANS.

NOTES TO THE CONTRACTOR:

UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS AND THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS AT PRESENT NOT KNOWN. VERIFICATION OF THE LOCATIONS OF UNDERGROUND UTILITIES, SHOWN OR NOT SHOWN, WILL BE THE RESPONSIBILITY OF THE CONSTRUCTION CONTRACTOR.

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MISSOURI ONE CALL SYSTEM (811)





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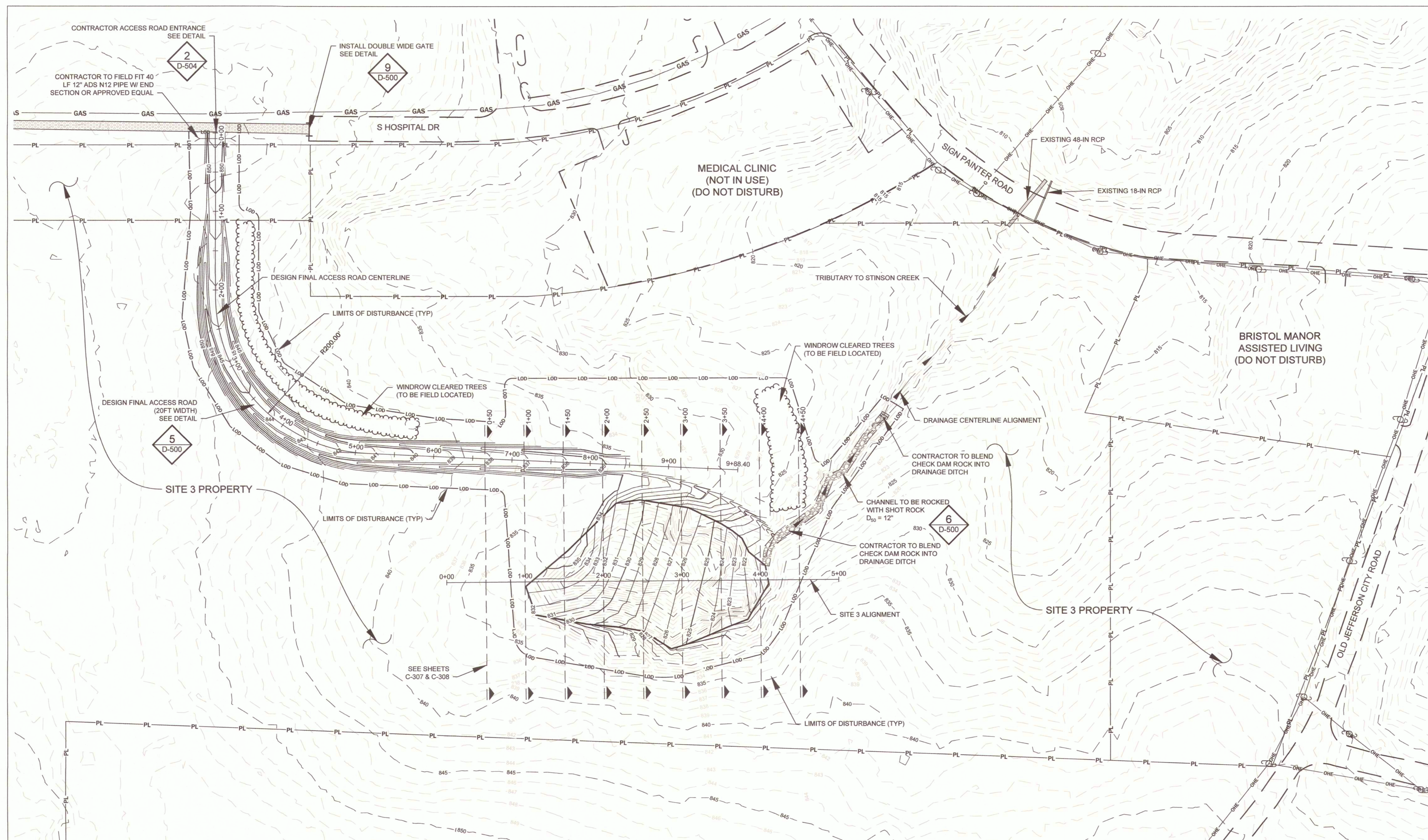
CAD DWG FILE: C-107
DRAWN BY: CM
CHECKED BY: MC
DESIGNED BY: TG

SHEET TITLE:
**SITE 3
GOB PILE FINAL
GRADING PLAN**

SHEET NUMBER:

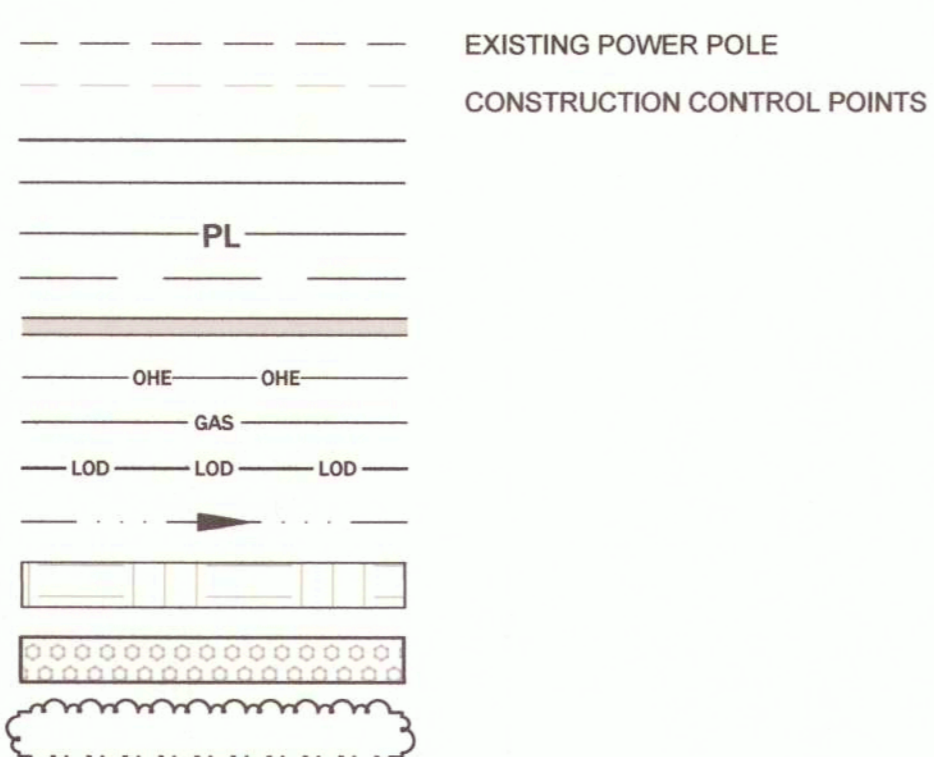
C-107

13 OF 29 SHEETS
10/17/2025



LEGEND:

- MAJOR EXISTING 5' CONTOUR
- MINOR EXISTING 1' CONTOUR
- MAJOR DESIGN FINAL 5' CONTOUR
- MINOR DESIGN FINAL 1' CONTOUR
- PROPERTY LINE
- EDGE OF ROADWAY/PAVEMENT
- EXISTING STORM DRAINAGE STRUCTURE
- OVERHEAD ELECTRIC LINES
- EXISTING GAS LINES
- LIMITS OF DISTURBANCE
- TRIBUTARY TO STINSON CREEK
- HAUL ROAD MATERIAL STOCKPILE
- EXISTING GRAVEL ROADWAY
- WINDROWED TREES



NOTES

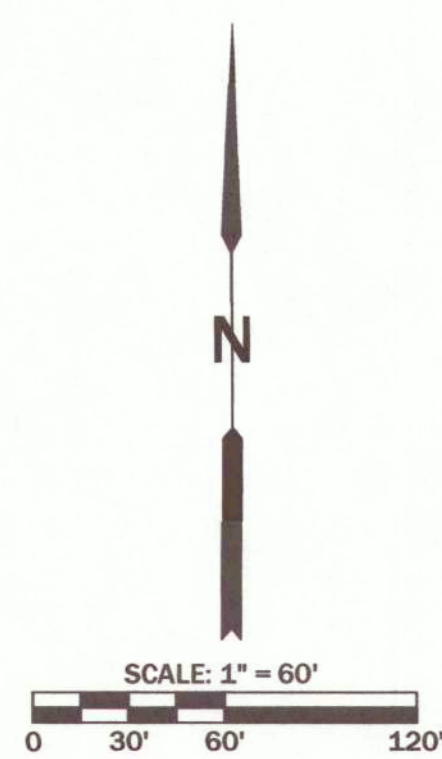
1. CONTRACTOR MUST STAY WITHIN LIMITS OF DISTURBANCE, UNLESS OTHERWISE APPROVED BY OWNER'S REPRESENTATIVE.
2. ACCESS ROAD TO REMAIN IN PLACE AND RESURFACED PER DETAIL SHEET D-500.
3. BLEND EDGE OF GRADING LIMITS TO MATCH EXISTING GRADE.
4. CONTRACTOR MUST SEED ALL DISTURBED AREAS WITH SEED MIXES DETAILED IN THE SPECIFICATIONS.

NOTES TO THE CONTRACTOR:

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MISSOURI ONE CALL SYSTEM (811)





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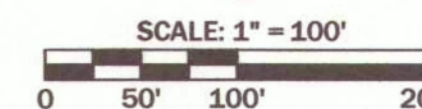
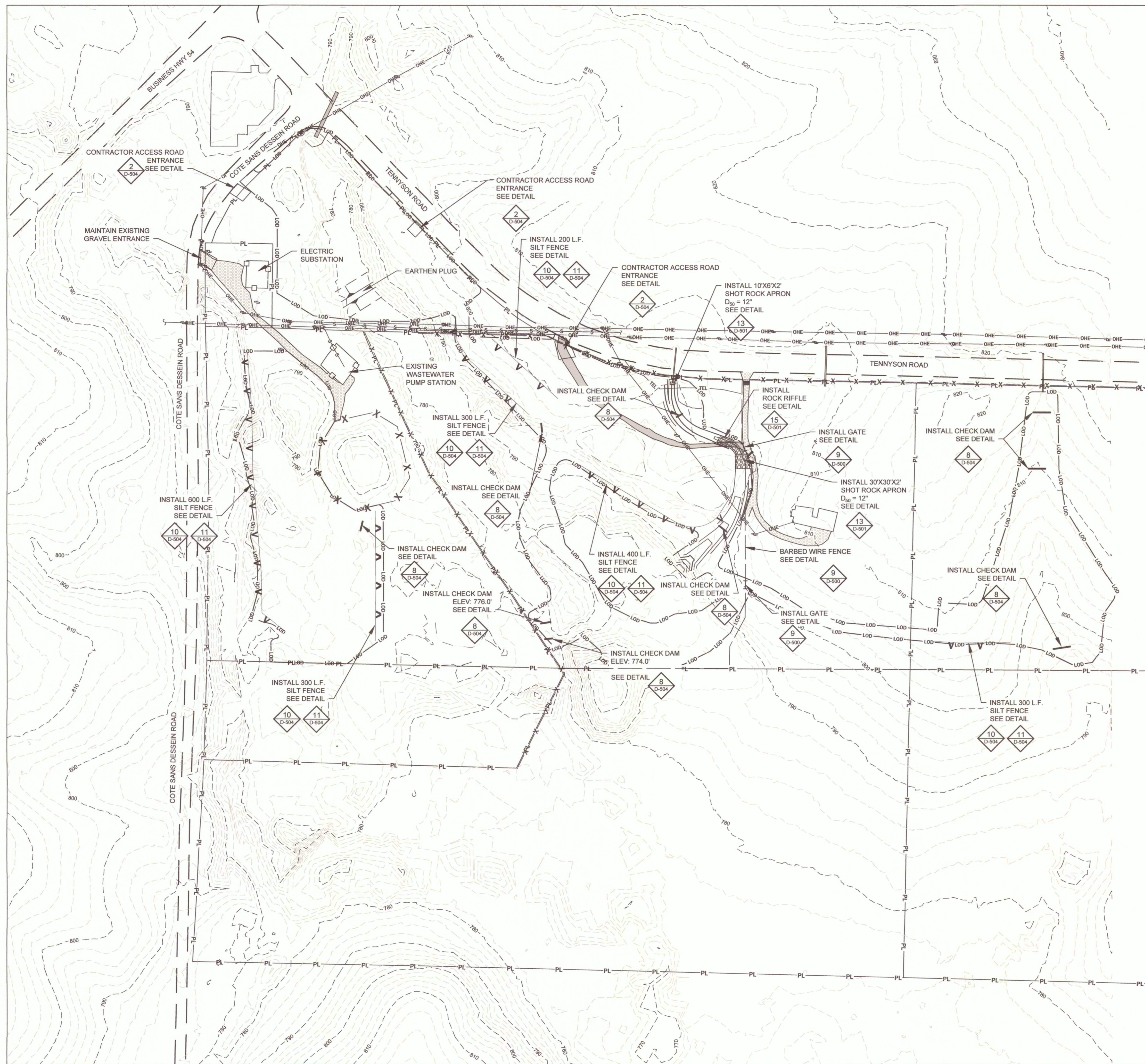
CAD DWG FILE: C-108
DRAWN BY: CM
CHECKED BY: MC
DESIGNED BY: TG

SHEET TITLE:
**SITE 1, 2, AND 4
EROSION CONTROL
PLAN**

SHEET NUMBER:

C-108

14 OF 29 SHEETS
10/17/2025



LEGEND:

MAJOR EXISTING 10' CONTOUR	---
MINOR EXISTING 2' CONTOUR	---
PROPERTY LINE	PL
OVERHEAD ELECTRIC LINES	OHE OHE
LIMITS OF DISTURBANCE	LOD LOD LOD
UNDERGROUND TELEPHONE LINE	TEL
SEWER MAIN LINE (APPROX.)	S S S S
EDGE OF ROADWAY	---
EXISTING CHAIN-LINK FENCE	X X X X
EXISTING BARBED WIRE FENCE (APPROX.)	X X X X
DESIGN FINAL BARBED WIRE CONSTRUCTION FENCE	---
SILT FENCE	▲ ▲ ▲ ▲
ROCK STRUCTURES	■ ■ ■ ■
UNPAVED ACCESS ROAD	■ ■ ■ ■
EXISTING GRAVEL ROADWAY	■ ■ ■ ■
STORM DRAINAGE STRUCTURE	■ ■ ■ ■
EXISTING POWER POLE	⊕
CONSTRUCTION CONTROL POINTS	◆ CP1

SHEET NOTES:

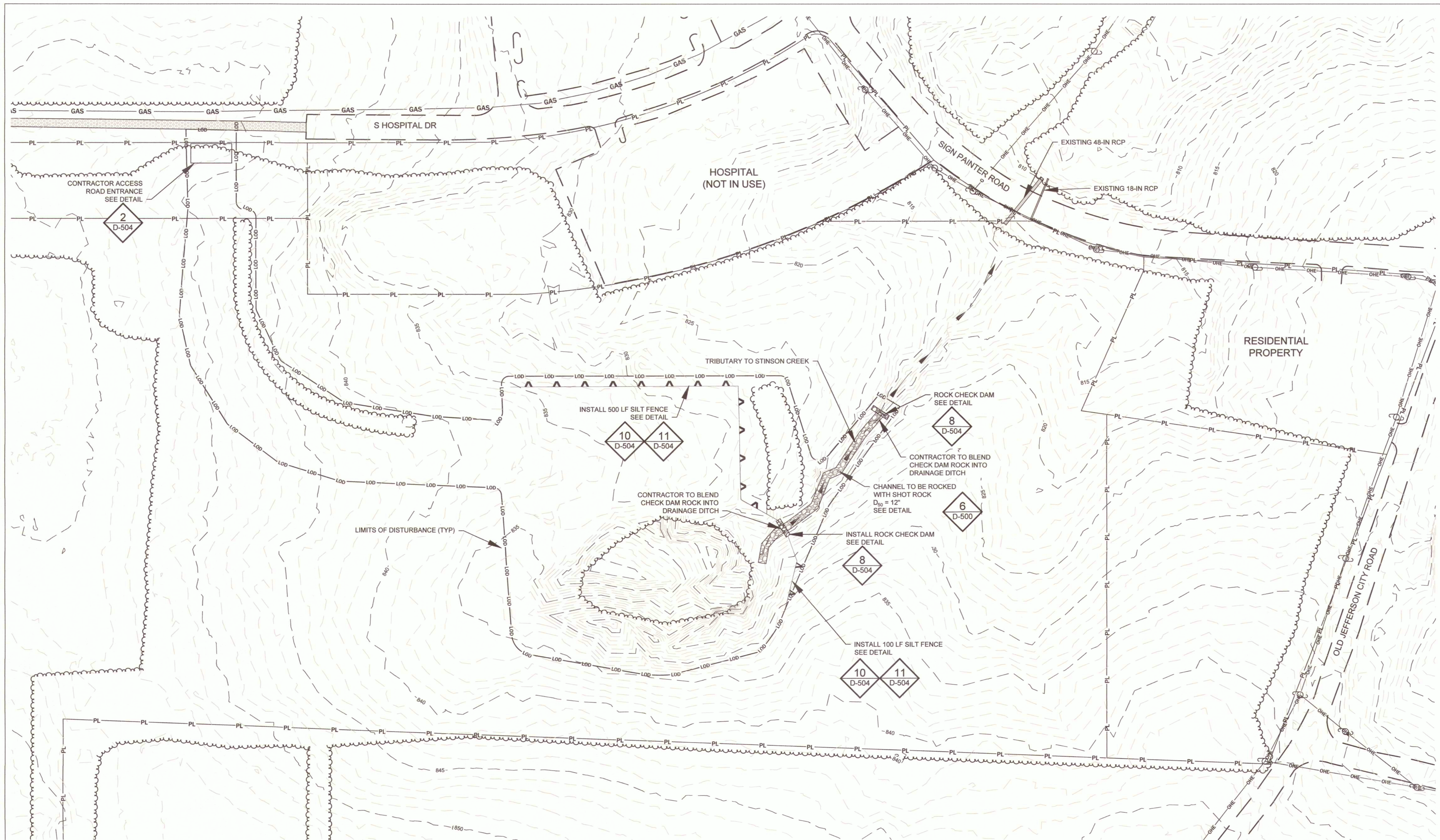
1. SITE DRAINAGE IS TOWARDS THE EXISTING PIT AND PONDS.
2. ADDITIONAL EROSION CONTROL IS AT THE CONTRACTOR'S DISCRETION.
3. EARTHEN PLUGS PROVIDE EROSION CONTROL.
4. CONTRACTOR IS TO PROTECT EXISTING CURB AT CONTRACTOR ACCESS ROAD LOCATIONS.

NOTES TO THE CONTRACTOR:

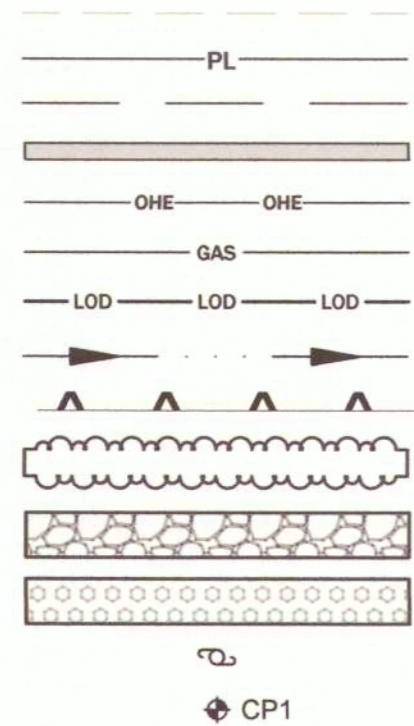
UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS AND THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS AT PRESENT NOT KNOWN. VERIFICATION OF THE LOCATIONS OF UNDERGROUND UTILITIES, SHOWN OR NOT SHOWN, WILL BE THE RESPONSIBILITY OF THE CONSTRUCTION CONTRACTOR.

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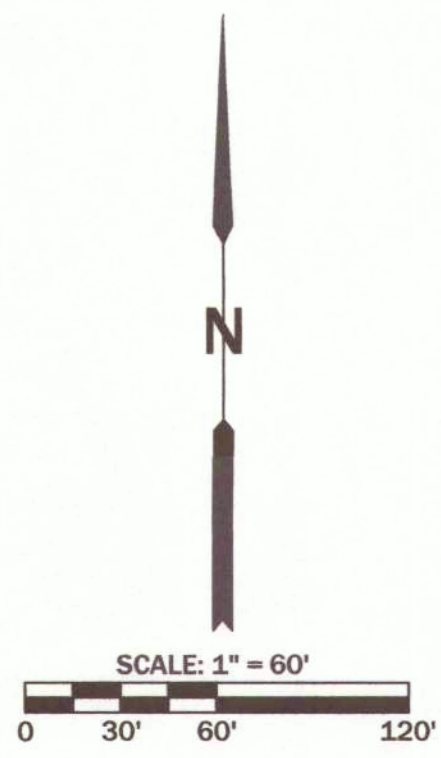
MISSOURI ONE CALL SYSTEM (811)



- LEGEND:**
- MAJOR EXISTING 5' CONTOUR
 - MINOR EXISTING 1' CONTOUR
 - PROPERTY LINE
 - EDGE OF ROADWAY/PAVEMENT
 - EXISTING STORM DRAINAGE STRUCTURE
 - OVERHEAD ELECTRIC LINES
 - EXISTING GAS LINES (APPROX)
 - LIMITS OF DISTURBANCE
 - TRIBUTARY TO STINSON CREEK
 - SILT FENCE
 - TREE WINDROW AREA
 - ROCK STRUCTURES
 - EXISTING GRAVEL ROADWAY
 - EXISTING POWER POLE
 - CONSTRUCTION CONTROL POINTS



- SHEET NOTES:**
1. SITE DRAINAGE IS TOWARDS THE TRIBUTARY TO STINSON CREEK.
 2. ADDITIONAL EROSION CONTROL IS AT THE CONTRACTOR'S DISCRETION.



STATE OF MISSOURI
MIKE KEHOE,
GOVERNOR



GREDELL
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CALLAWAY COUNTY, MISSOURI

PROJECT # Y2401-01
SITE # N/A
ASSET # N/A

REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
ISSUE DATE: 10/17/2025

CAD DWG FILE: C-109
DRAWN BY: CM
CHECKED BY: MC
DESIGNED BY: TG

SHEET TITLE:
**SITE 3
EROSION CONTROL
PLAN**

SHEET NUMBER:

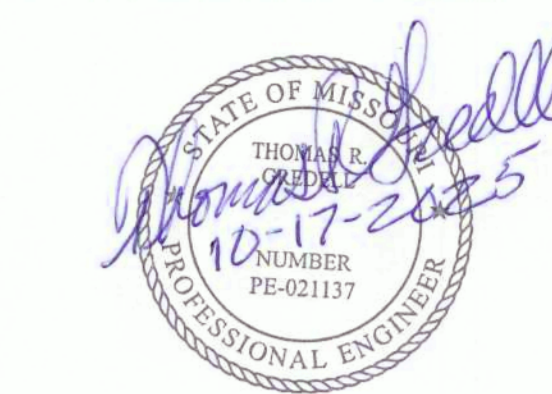
C-109

15 OF 29 SHEETS
10/17/2025

NOTES TO THE CONTRACTOR:
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MISSOURI ONE CALL SYSTEM (811)



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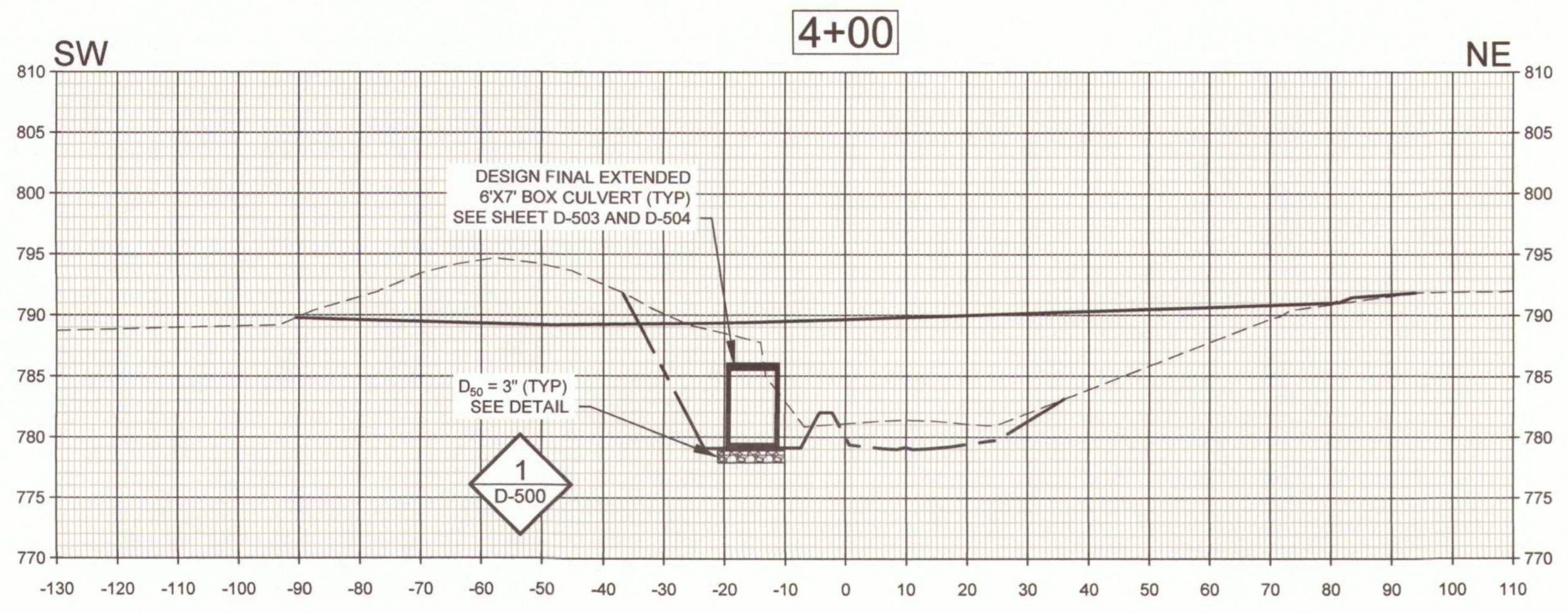
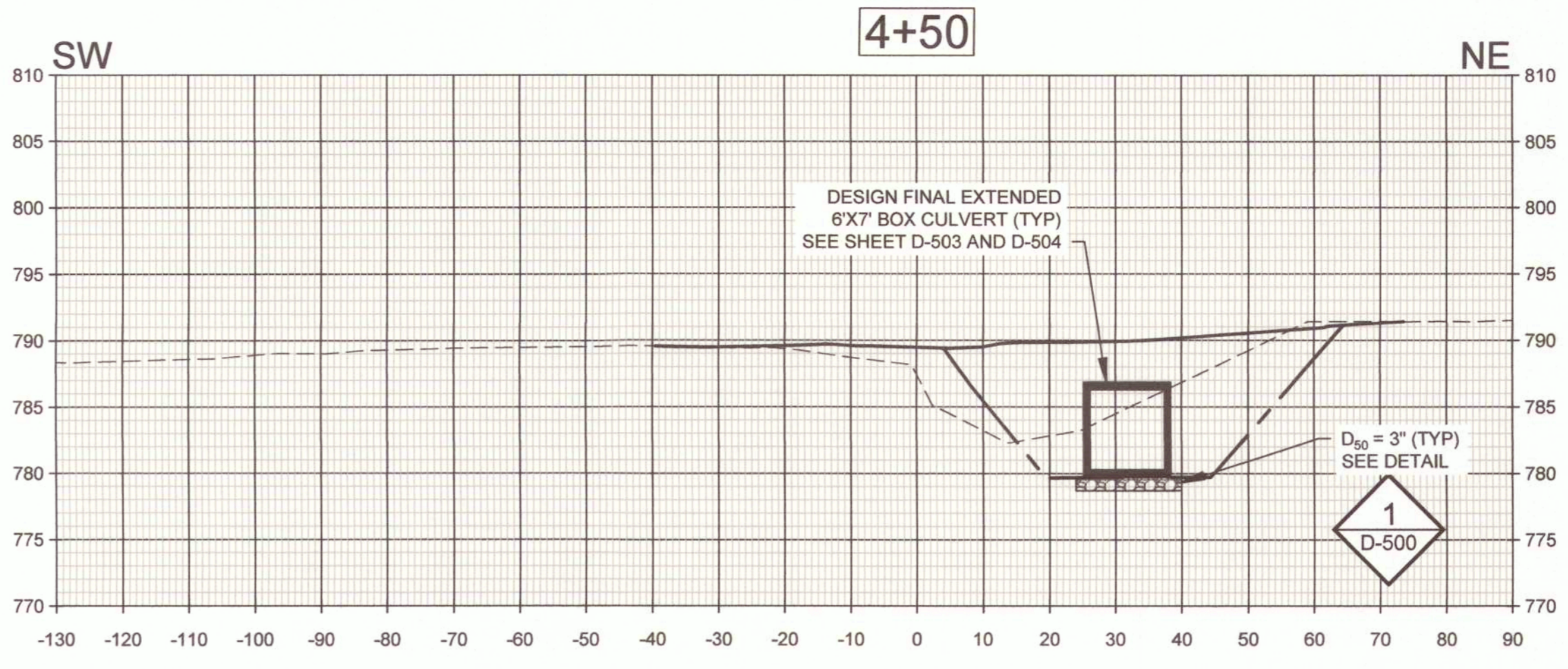
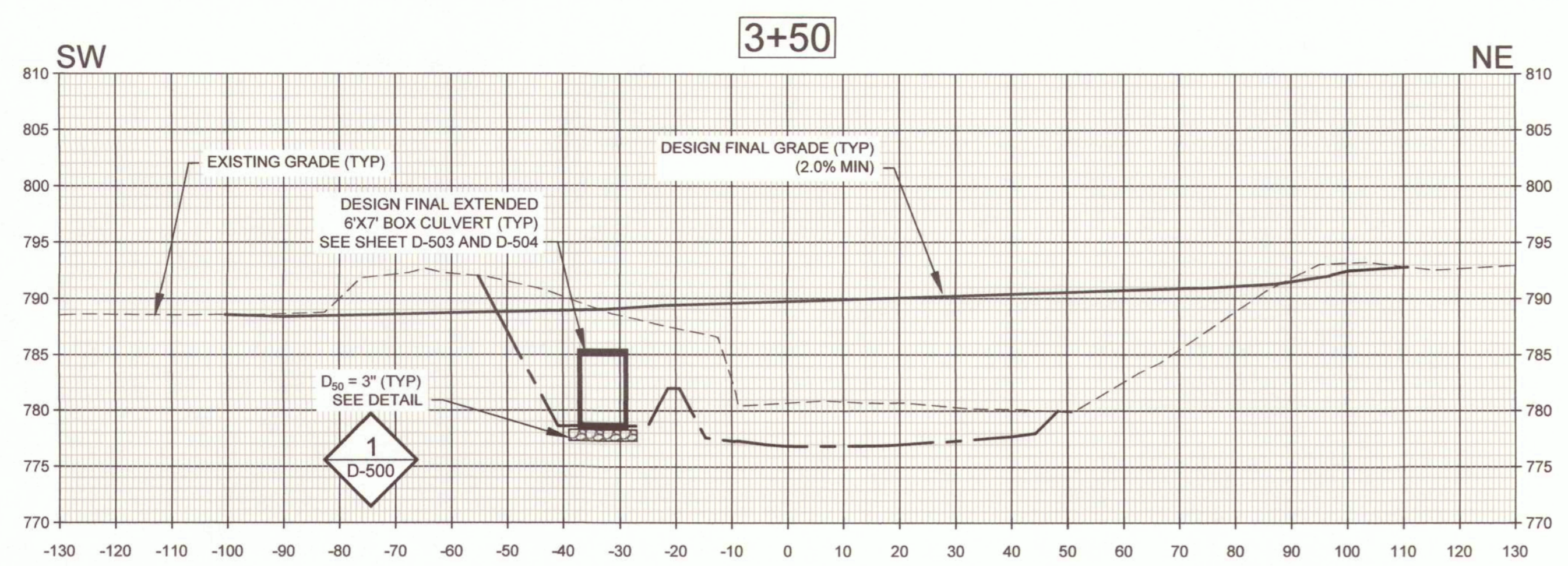
CAD DWG FILE: C-301
DRAWN BY: CM
CHECKED BY: MC
DESIGNED BY: TG

SHEET TITLE:
**SITE 1
CROSS SECTIONS**

SHEET NUMBER:

C-301

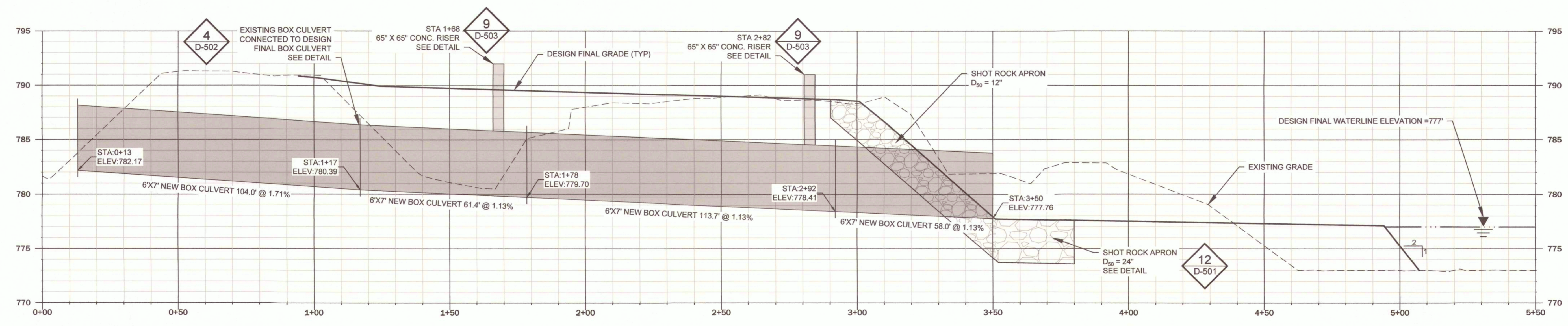
17 OF 29 SHEETS
10/17/2025



HORIZONTAL SCALE:
1" = 20'
VERTICAL SCALE:
1" = 10'

LEGEND:
EXISTING GRADE
BOTTOM OF EXCAVATION
DESIGN FINAL GRADE
WATERLINE
ROCK STRUCTURE

NOTE:
1. TEST PIT INFORMATION COLLECTED BY GREDELL ENGINEERING RESOURCES, INC. ON JUNE 5, 2024.



BOX CULVERT PROFILE

HORIZONTAL SCALE:
1" = 20'
VERTICAL SCALE:
1" = 5'



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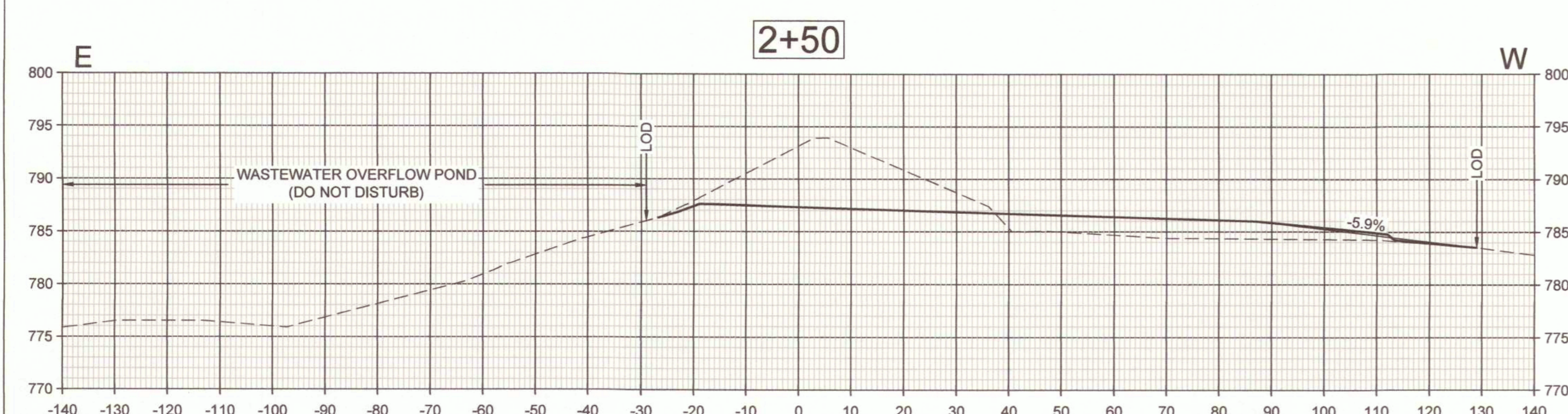
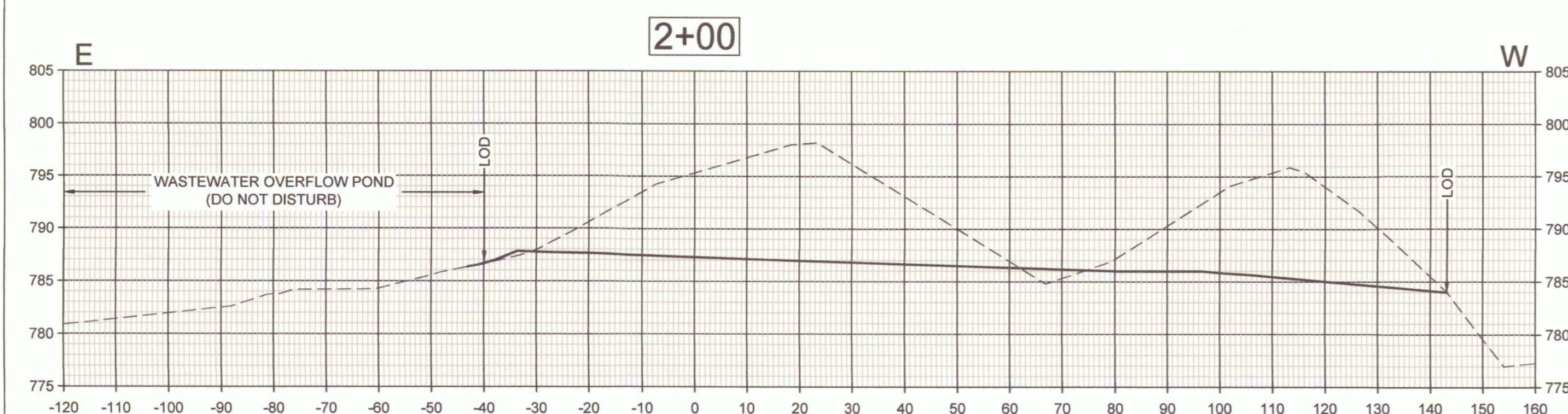
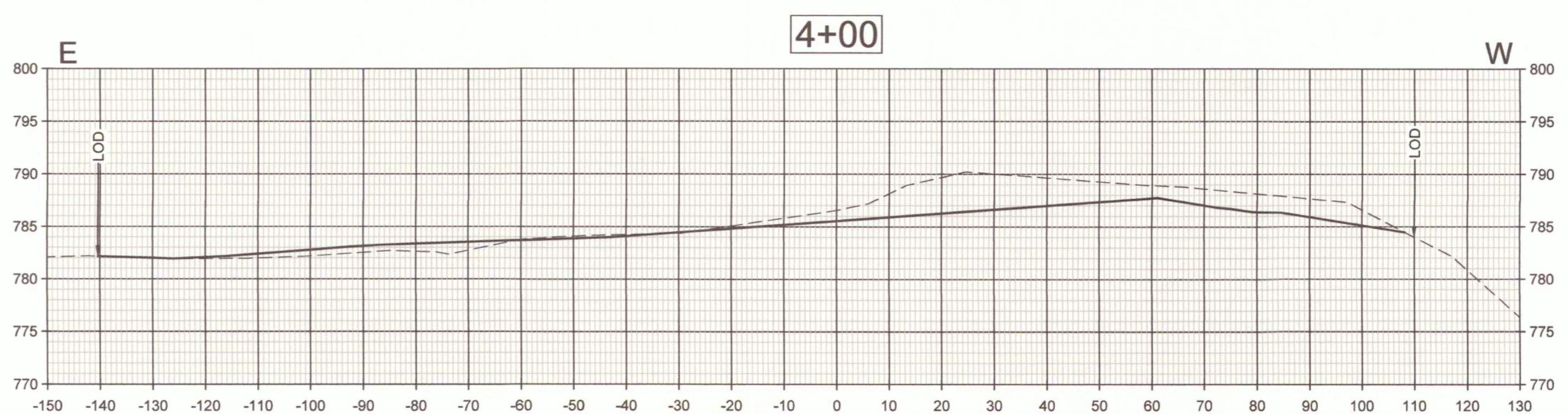
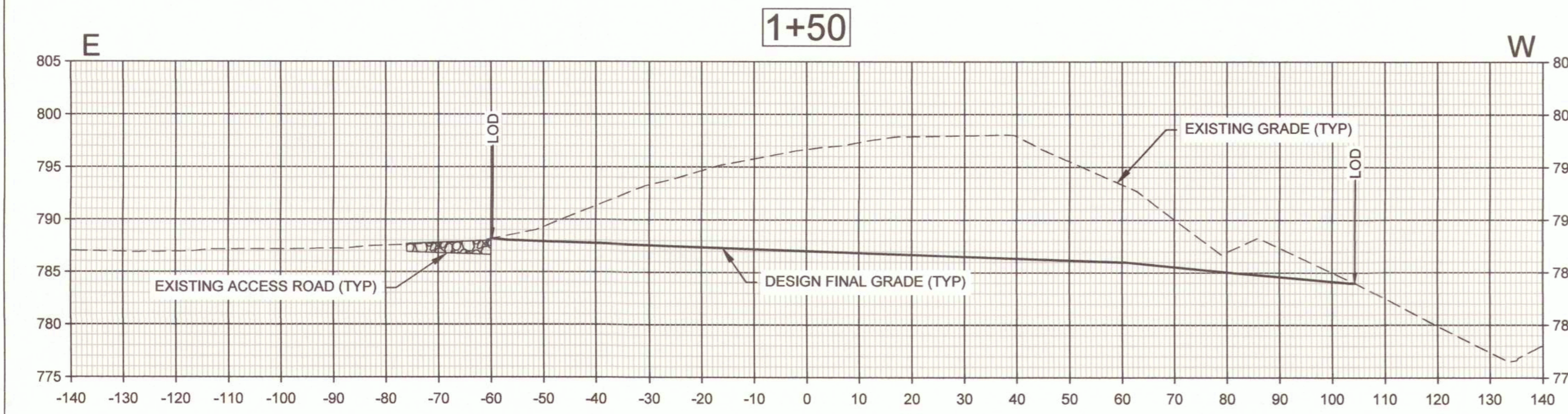
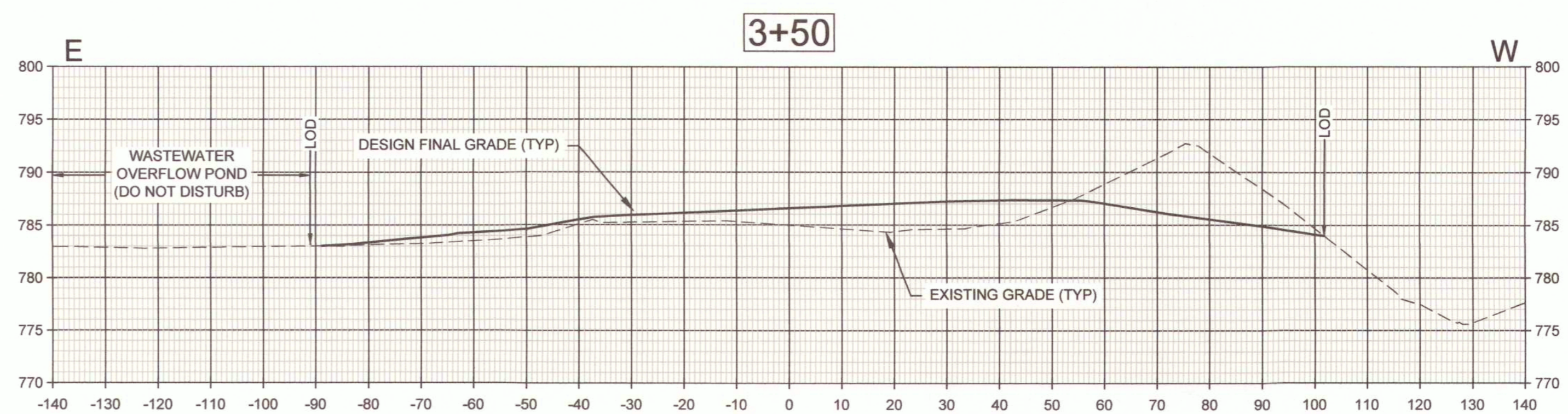
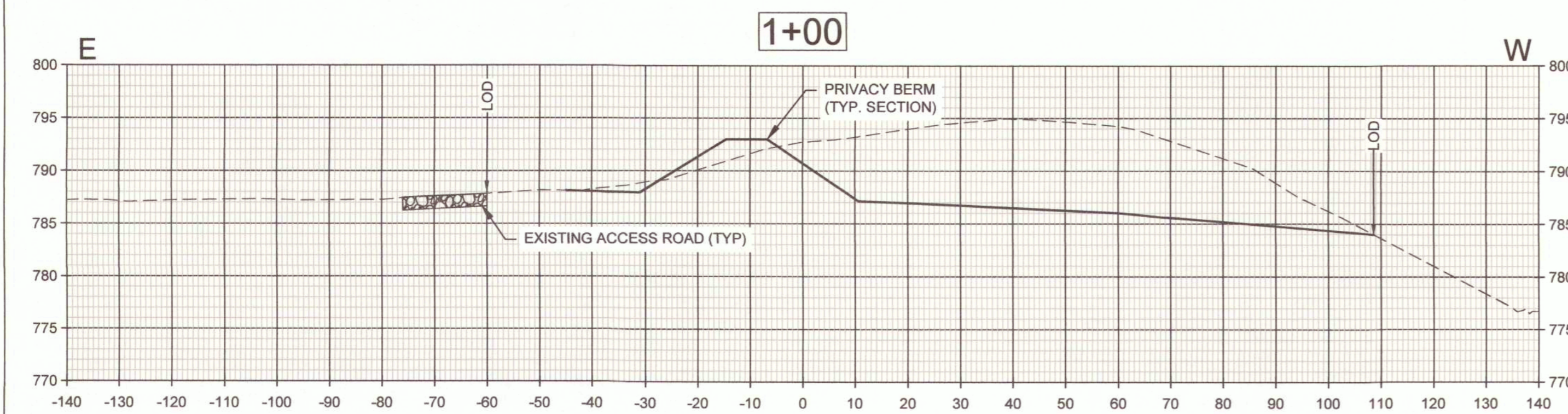
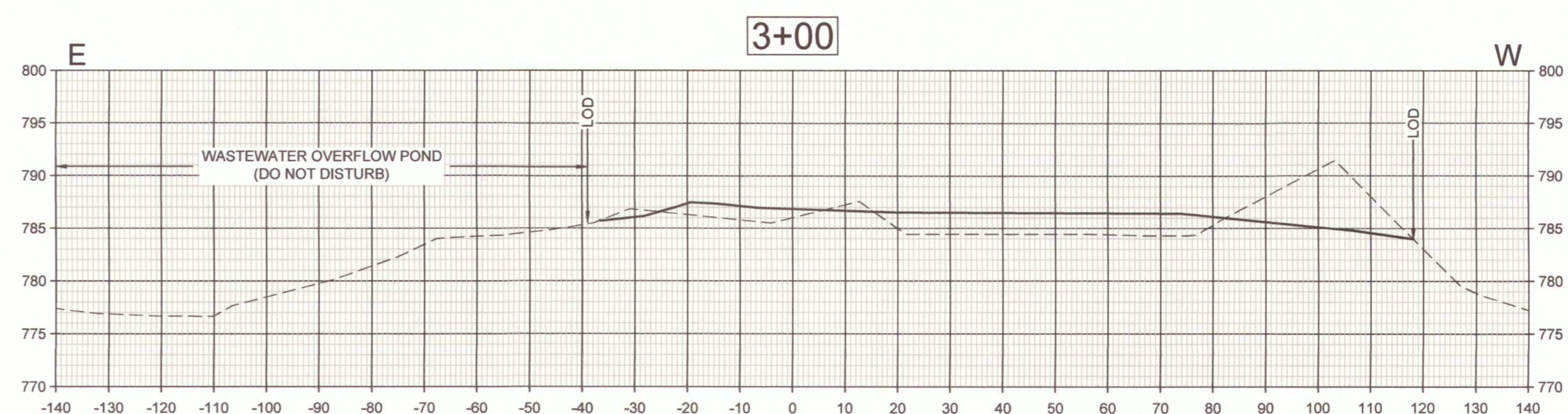
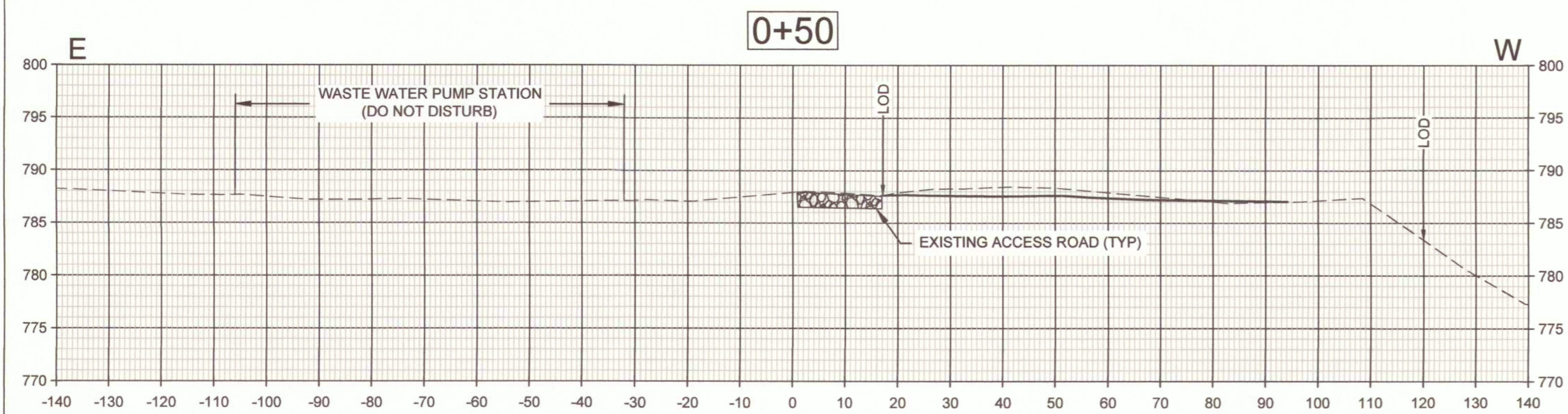
CAD DWG FILE: C-302
DRAWN BY: BM
CHECKED BY: MC
DESIGNED BY: TG

SHEET TITLE:
**SITE 4
CROSS SECTIONS**

SHEET NUMBER:

C-302

18 OF 29 SHEETS
10/17/2025



VERTICAL SCALE:
1" = 10'

HORIZONTAL SCALE:
1" = 20'

LEGEND:
EXISTING GRADE
DESIGN FINAL GRADE
ROCK STRUCTURE

NOTE:
1. LOD = LIMITS OF DISTURBANCE



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ASSET # N/A

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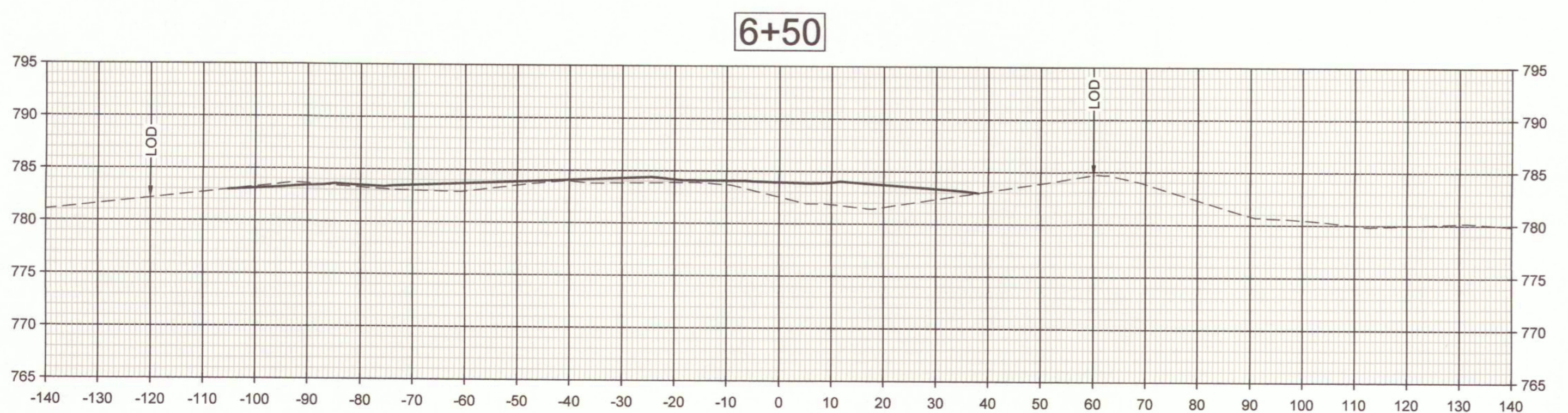
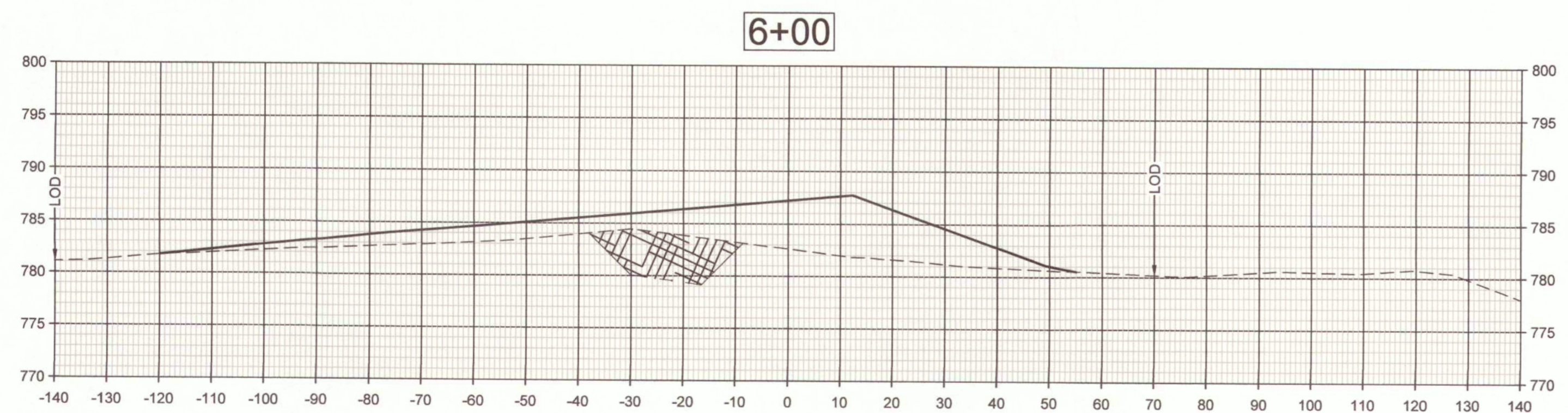
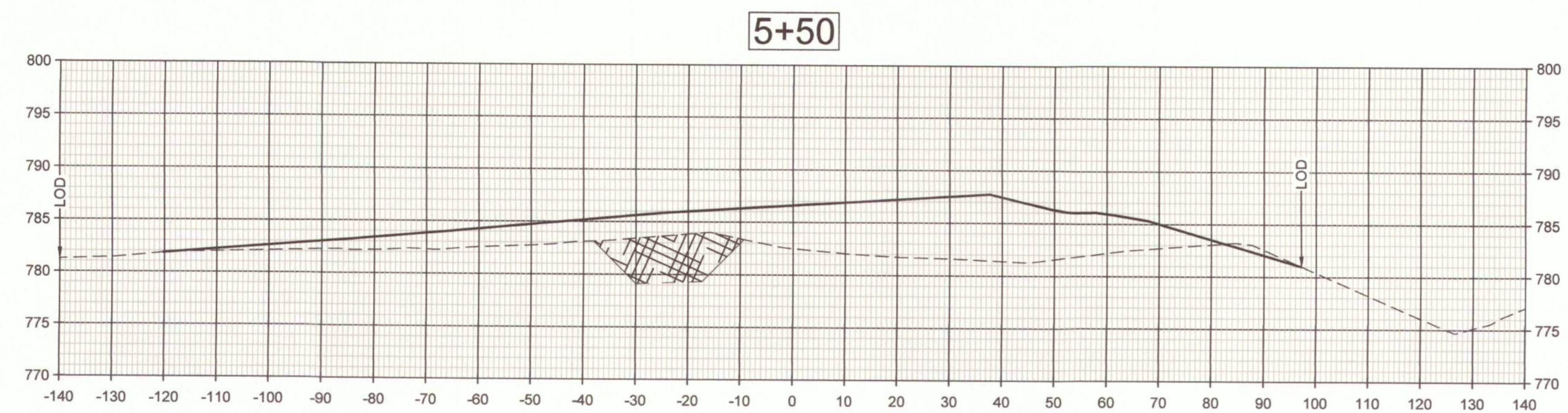
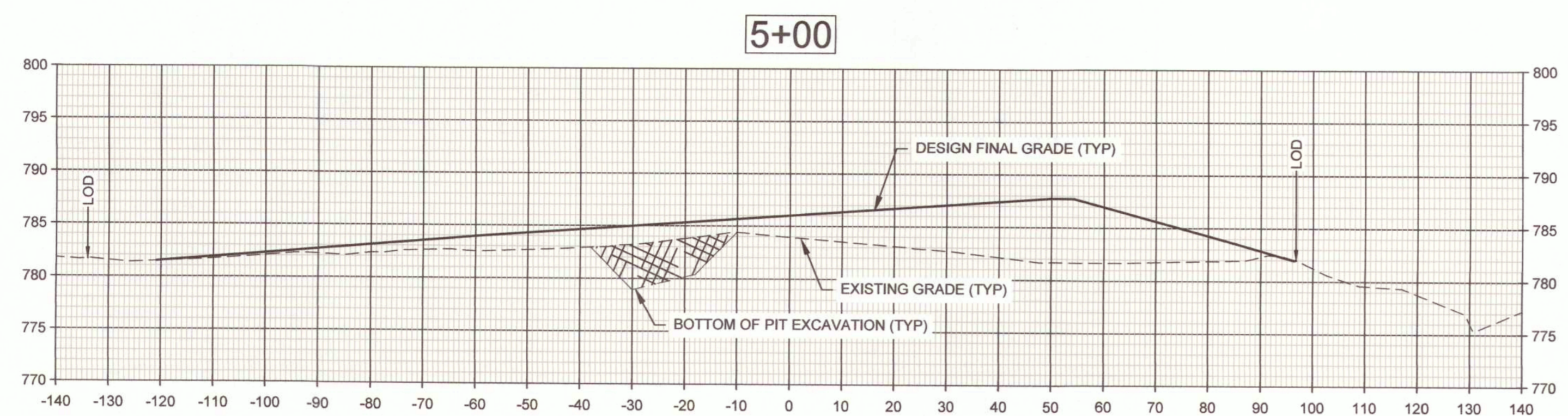
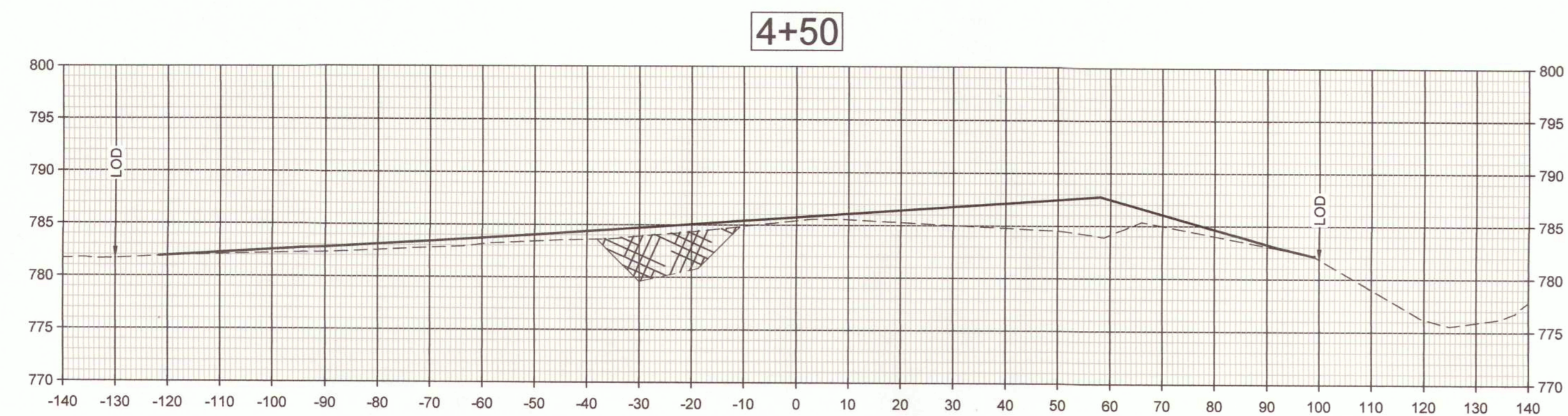
CAD DWG FILE: C-303
DRAWN BY: CM
CHECKED BY: MC
DESIGNED BY: TG

SHEET TITLE:
**SITE 4
CROSS SECTIONS**

SHEET NUMBER:

C-303

19 OF 29 SHEETS
10/17/2025



VERTICAL SCALE:
1" = 10'
HORIZONTAL SCALE:
1" = 20'

LEGEND:

- EXISTING GRADE -----
- BOTTOM OF EXCAVATION -----
- DESIGN FINAL GRADE —————
- PIT EXCAVATION ▨

NOTE:

1. LOD = LIMITS OF DISTURBANCE



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TENNYSON AML LAND
RECLAMATION PROJECT
CALLAWAY COUNTY, MISSOURI

PROJECT # Y2401-01
SITE # N/A
ASSET # N/A

REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
ISSUE DATE: 10/17/2025

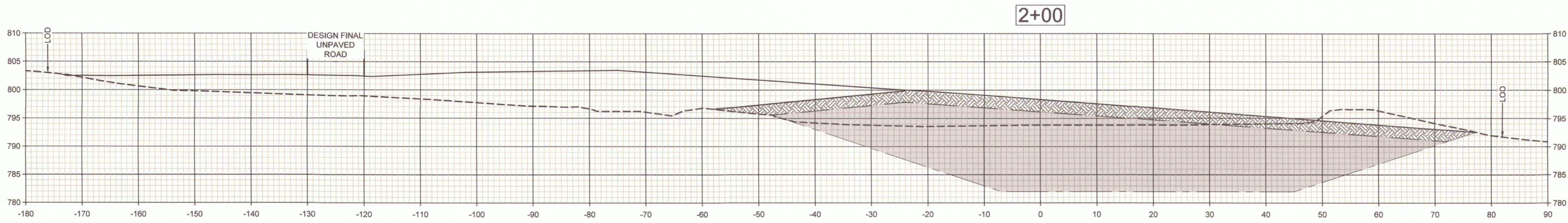
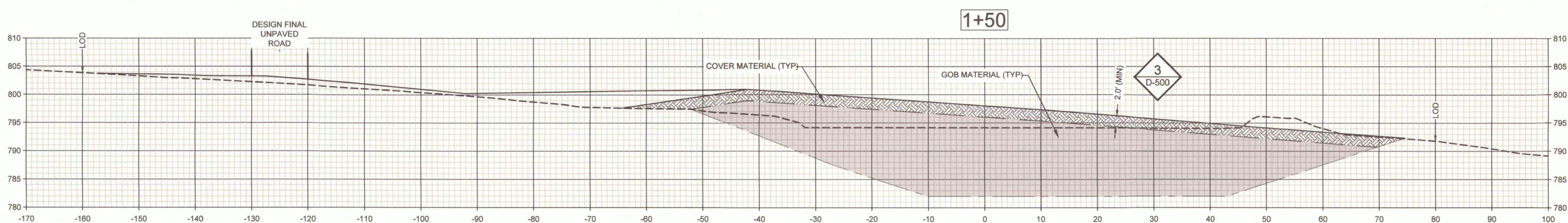
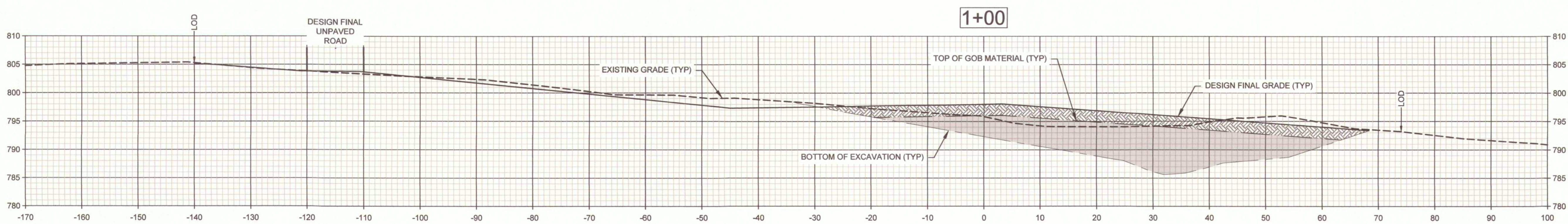
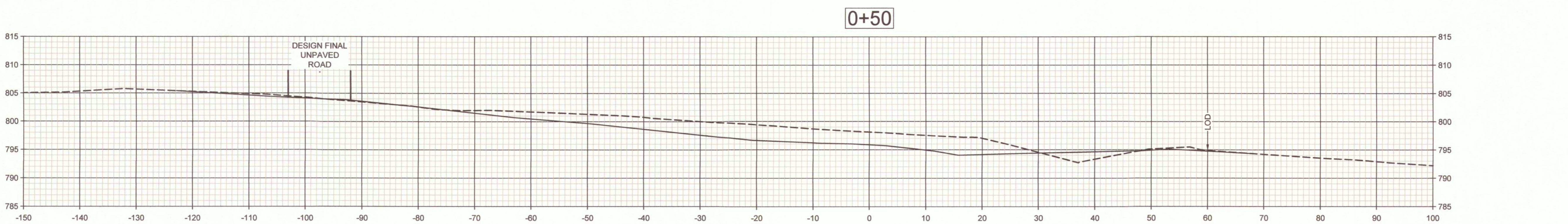
CAD DWG FILE: C-304
DRAWN BY: CM
CHECKED BY: MC
DESIGNED BY: TG

SHEET TITLE:
**SITE 2
MAIN ALIGNMENT
CROSS SECTIONS**

SHEET NUMBER:

C-304

20 OF 29 SHEETS
10/17/2025



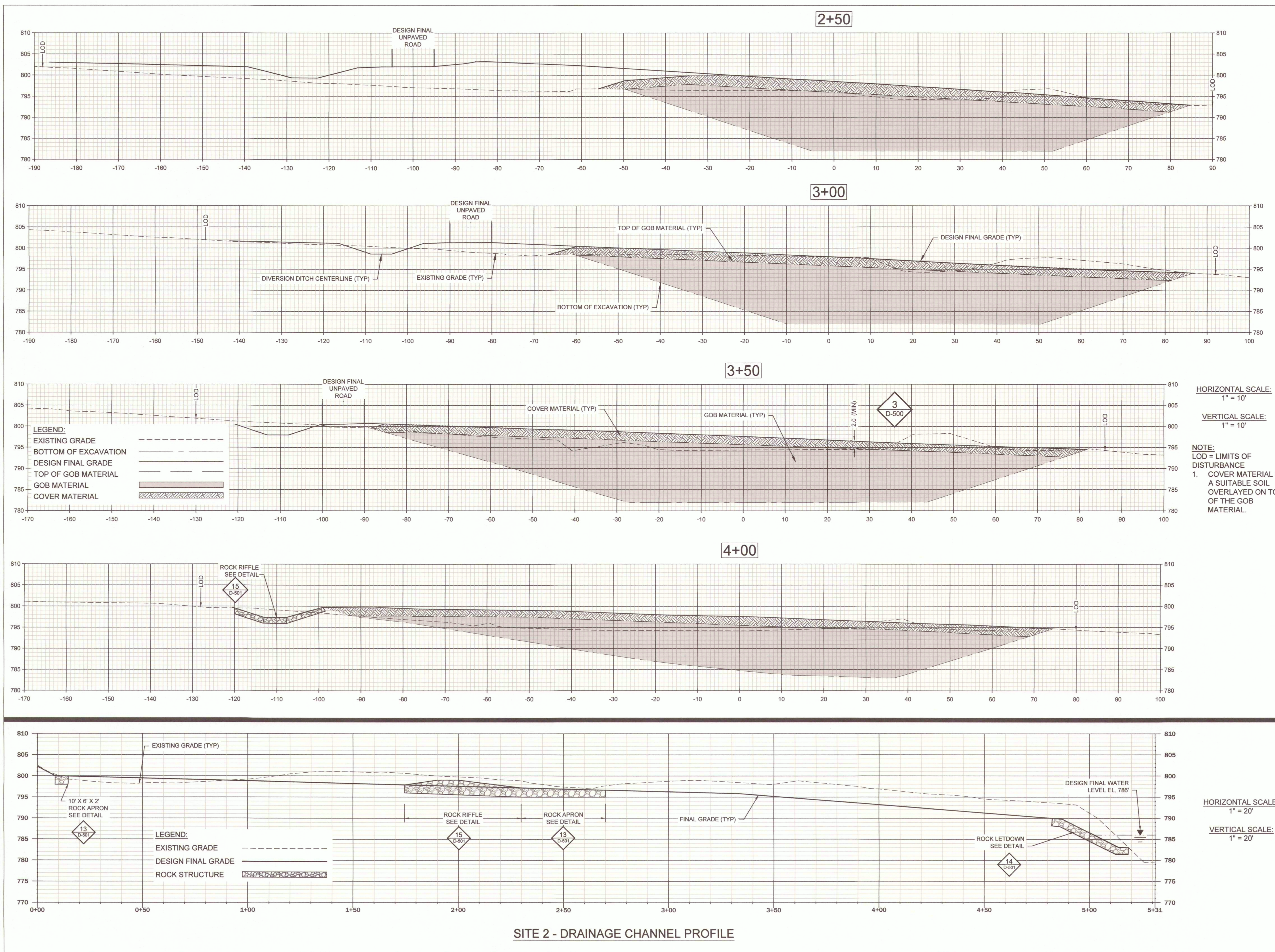
LEGEND:

EXISTING GRADE	-----
BOTTOM OF EXCAVATION	-----
DESIGN FINAL GRADE	-----
TOP OF GOB MATERIAL	-----
GOB MATERIAL	▨
COVER MATERIAL	▨

HORIZONTAL SCALE:
1" = 10'

VERTICAL SCALE:
1" = 10'

NOTE:
LOD = LIMITS OF DISTURBANCE
1. COVER MATERIAL IS A SUITABLE SOIL OVERLAYED ON TOP OF THE GOB MATERIAL.





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PROJECT # Y2401-01
SITE # N/A
ASSET # N/A

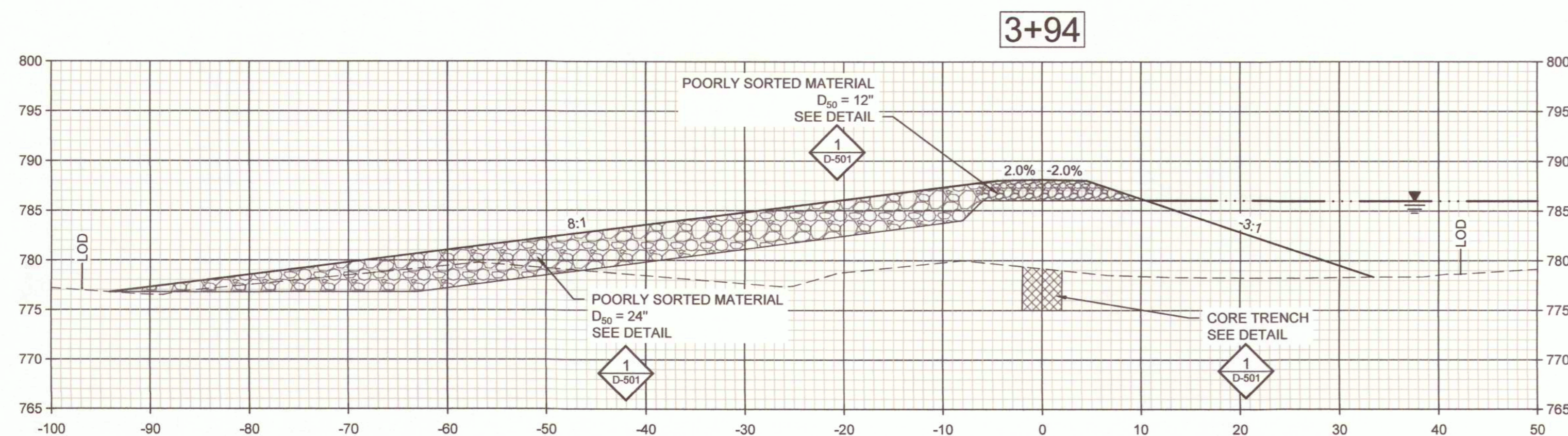
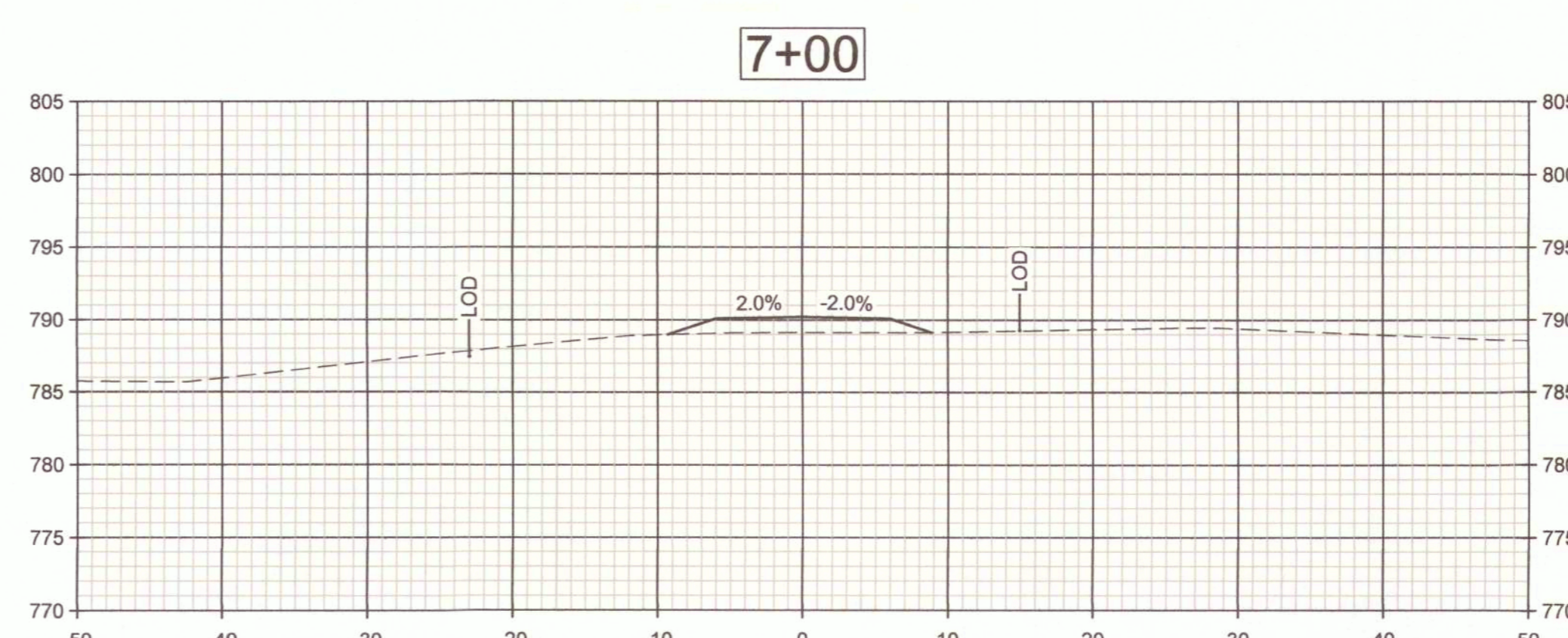
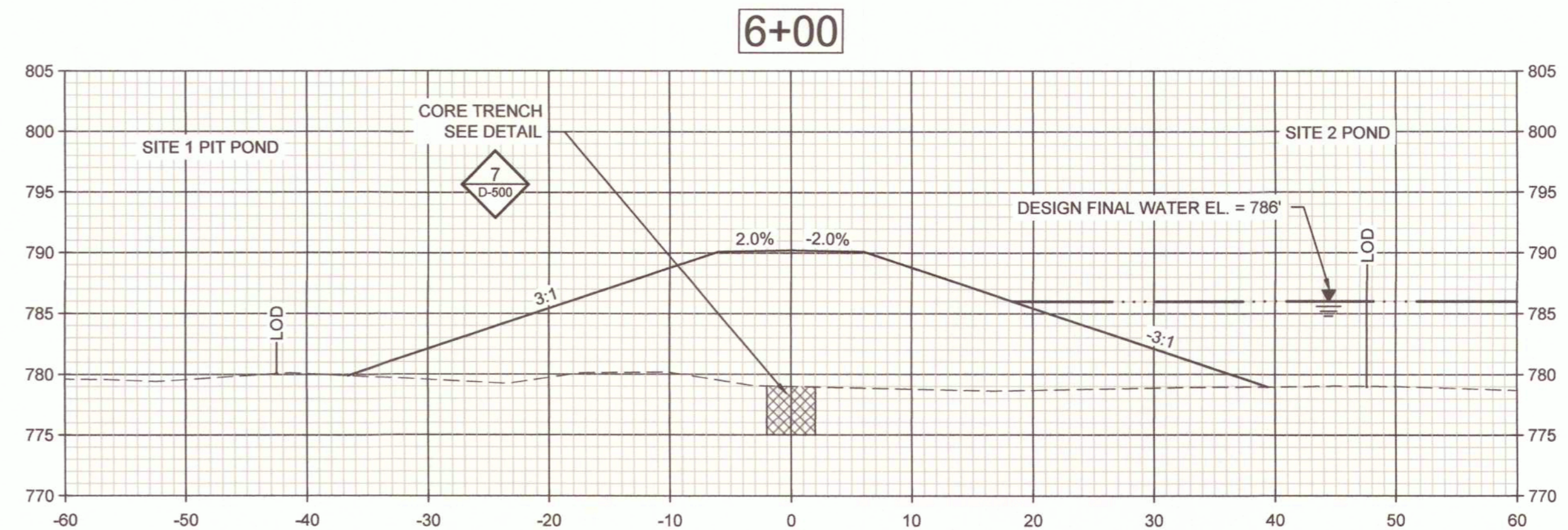
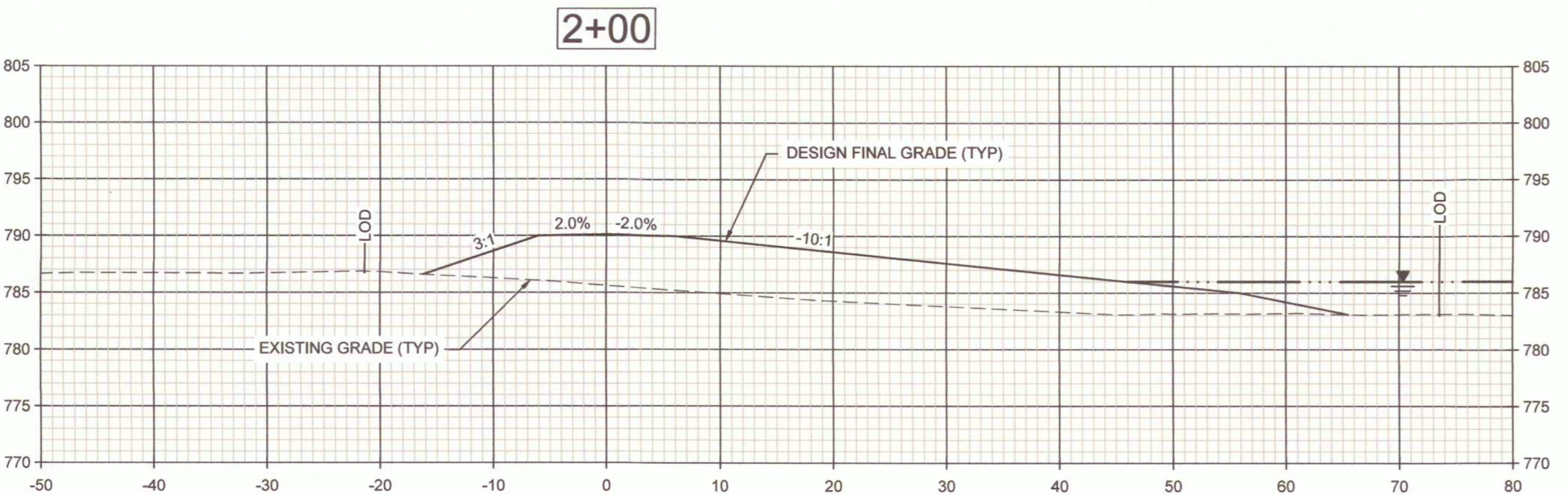
REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
ISSUE DATE: 10/17/2025

CAD DWG FILE: C-306
DRAWN BY: CM
CHECKED BY: MC
DESIGNED BY: TG

SHEET TITLE:
**SITE 2
POND 1 ALIGNMENT
CROSS SECTIONS**

SHEET NUMBER:

C-306

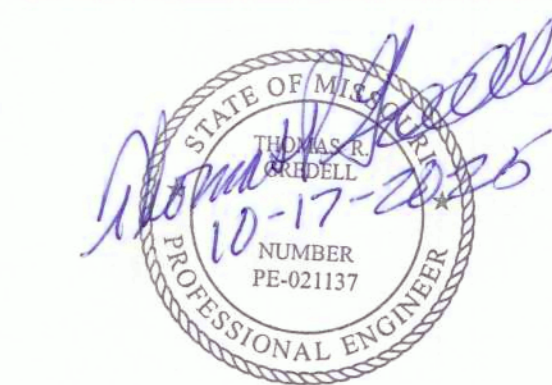


HORIZONTAL SCALE:
1" = 10'

VERTICAL SCALE:
1" = 10'

LEGEND:
EXISTING GRADE
BOTTOM OF EXCAVATION
DESIGN FINAL GRADE
WATERLINE
ROCK STRUCTURE

NOTE:
LOD = LIMITS OF DISTURBANCE



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CALLAWAY COUNTY, MISSOURI

PROJECT # Y2401-01
SITE # N/A
ASSET # N/A

REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
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ISSUE DATE: 10/17/2025

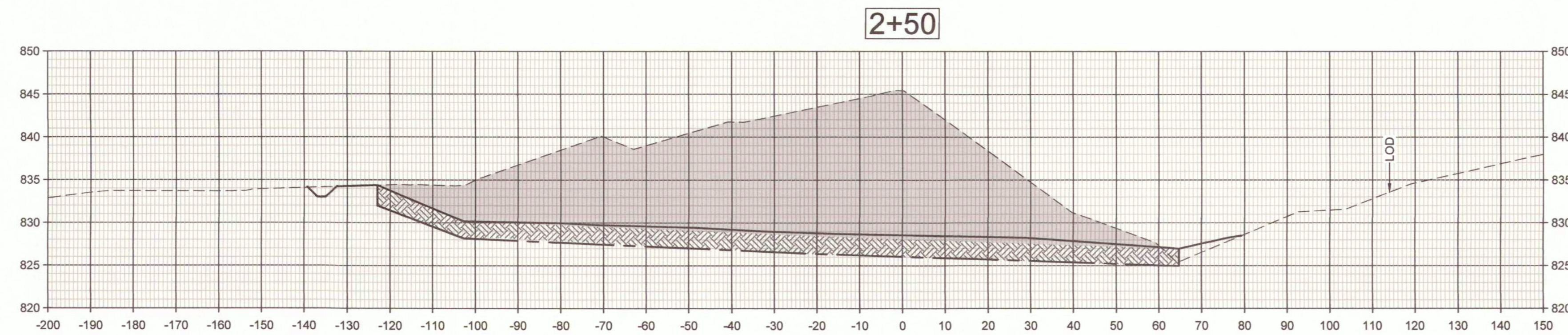
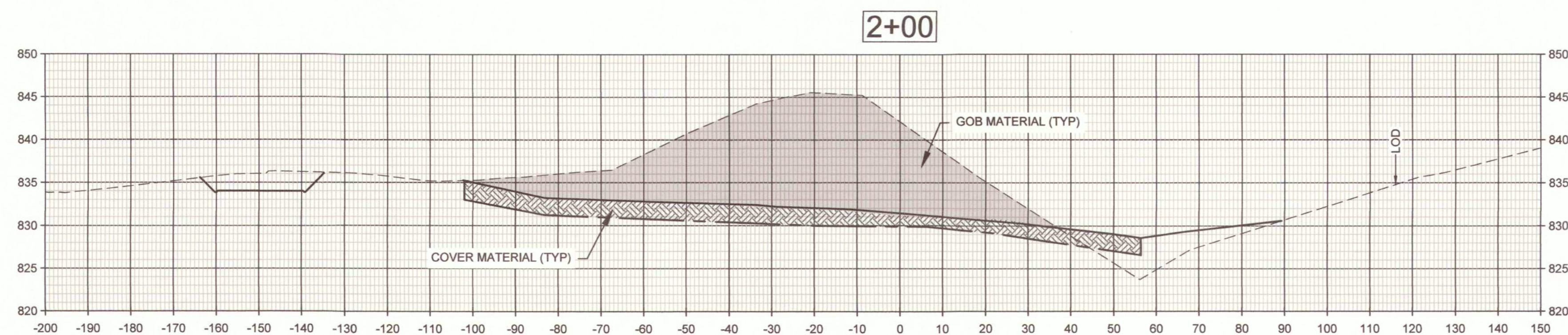
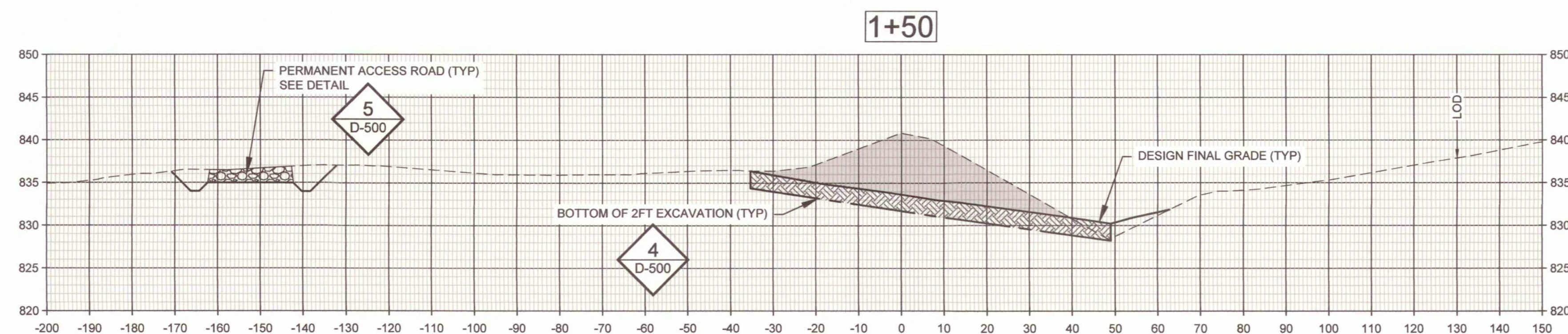
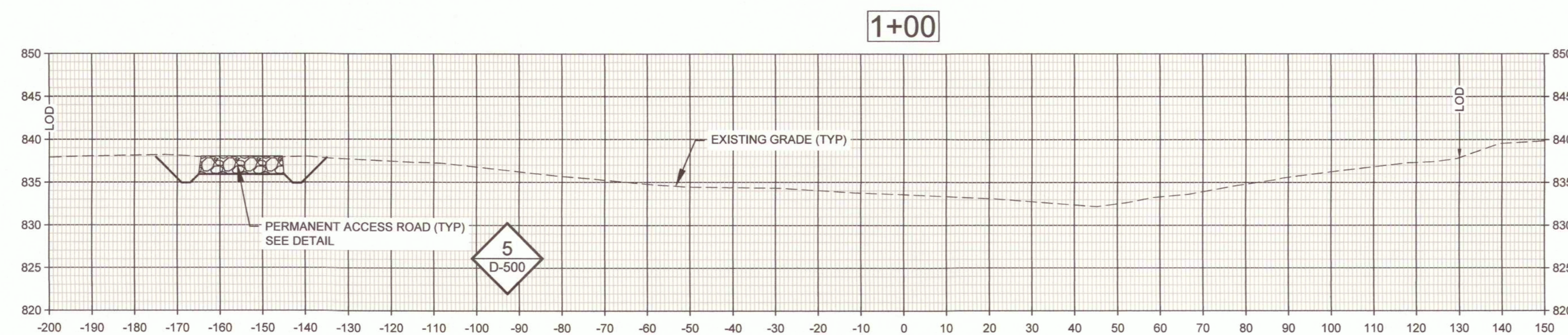
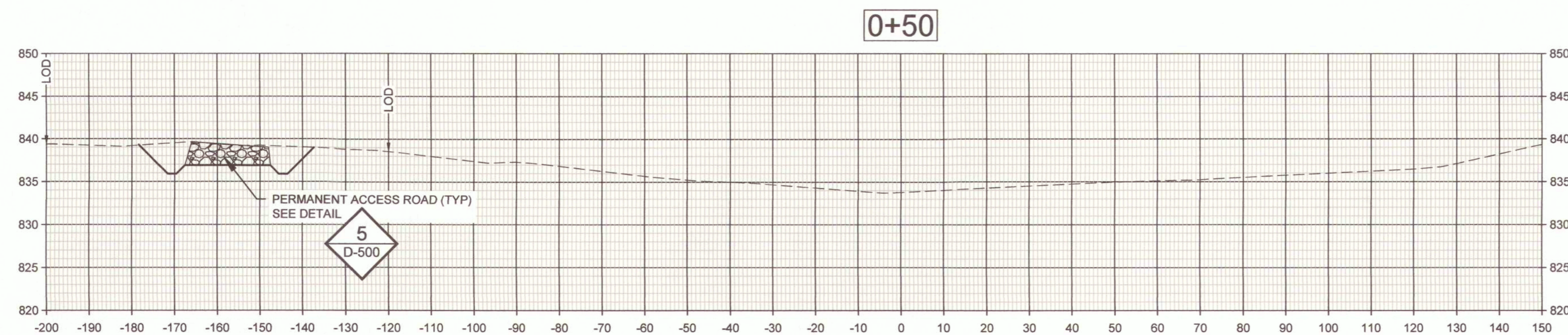
CAD DWG FILE: C-307
DRAWN BY: CM
CHECKED BY: MC
DESIGNED BY: TG

SHEET TITLE:
**SITE 3
CROSS SECTIONS**

SHEET NUMBER:

C-307

23 OF 29 SHEETS
10/17/2025



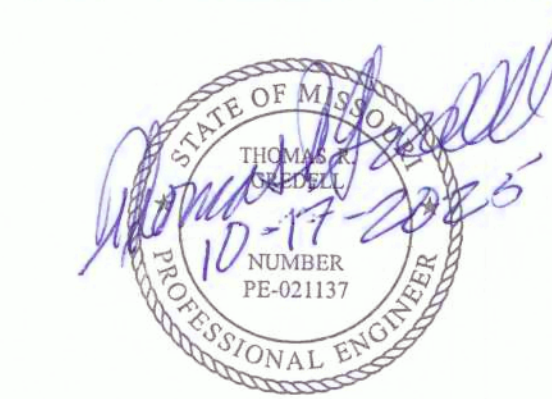
HORIZONTAL SCALE:
1" = 20'

VERTICAL SCALE:
1" = 10'

LEGEND:

- EXISTING GRADE
- BOTTOM OF 2FT EXCAVATION
- DESIGN FINAL GRADE
- WATERLINE
- ROCK STRUCTURE
- GOB MATERIAL (REMOVE)
- COVER MATERIAL

NOTE:
LOD = LIMITS OF DISTURBANCE



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CALLAWAY COUNTY, MISSOURI

PROJECT # Y2401-01
SITE # N/A
ASSET # N/A

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DATE: _____
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ISSUE DATE: 10/17/2025

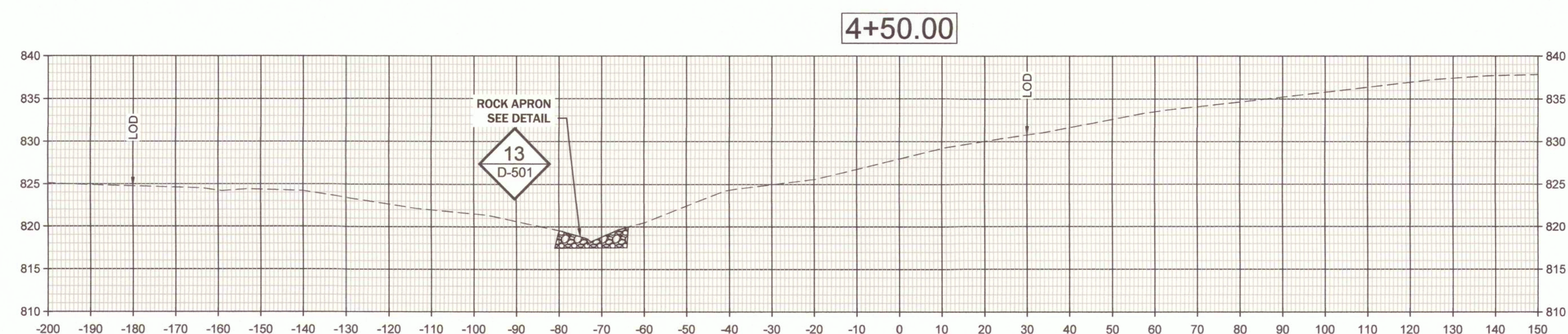
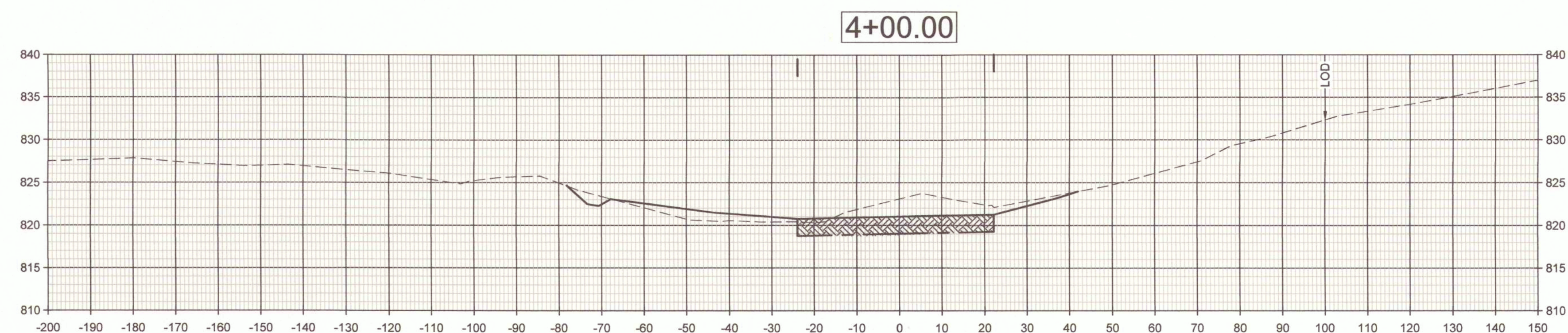
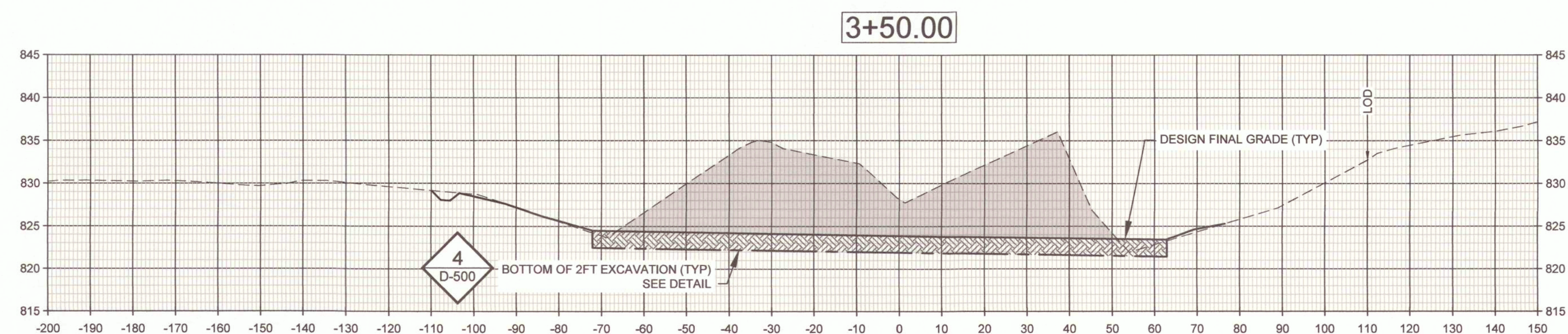
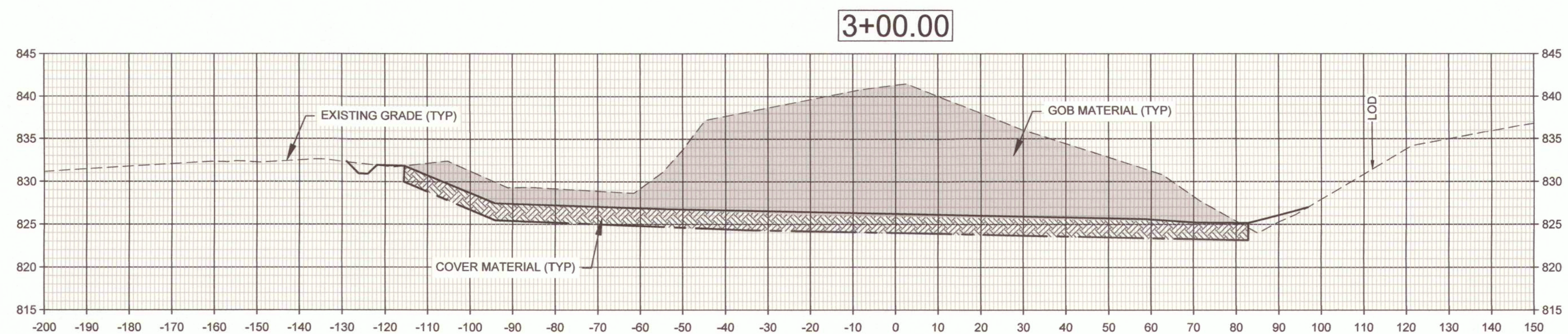
CAD DWG FILE: C-308
DRAWN BY: CM
CHECKED BY: MC
DESIGNED BY: TG

SHEET TITLE:
**SITE 3
CROSS SECTIONS**

SHEET NUMBER:

C-308

24 OF 29 SHEETS
10/17/2025



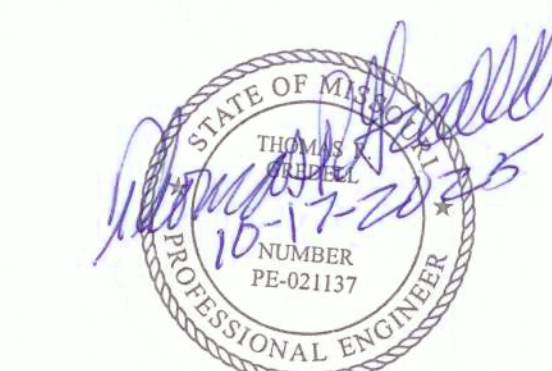
HORIZONTAL SCALE:
1" = 20'

VERTICAL SCALE:
1" = 10'

LEGEND:

- EXISTING GRADE
- BOTTOM OF 2FT EXCAVATION
- DESIGN FINAL GRADE
- WATERLINE
- ROCK STRUCTURE
- GOB MATERIAL (REMOVE)
- COVER MATERIAL

NOTE:
LOD = LIMITS OF DISTURBANCE



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ASSET # N/A

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ISSUE DATE: 10/17/2025

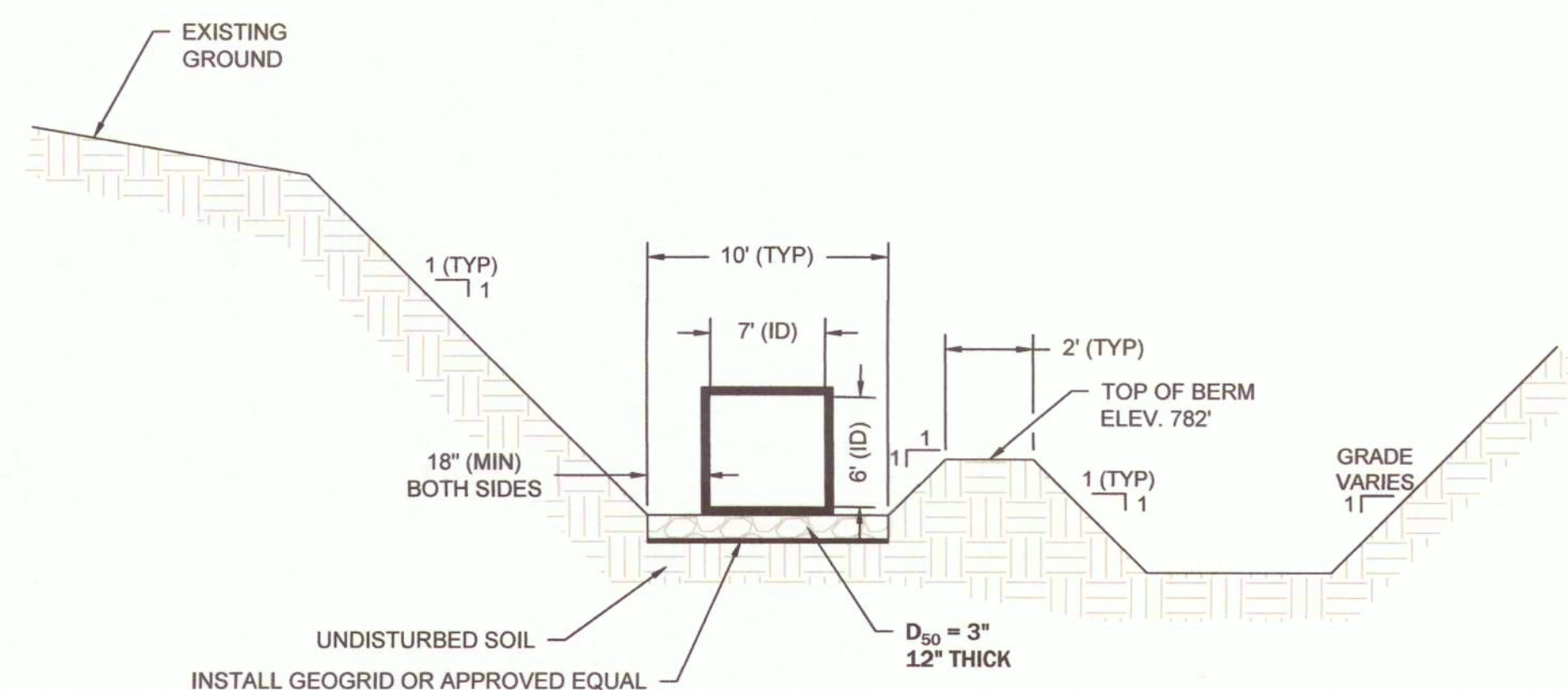
CAD DWG FILE: D-500
DRAWN BY: CM
CHECKED BY: MC
DESIGNED BY: TG

SHEET TITLE:
DETAILS

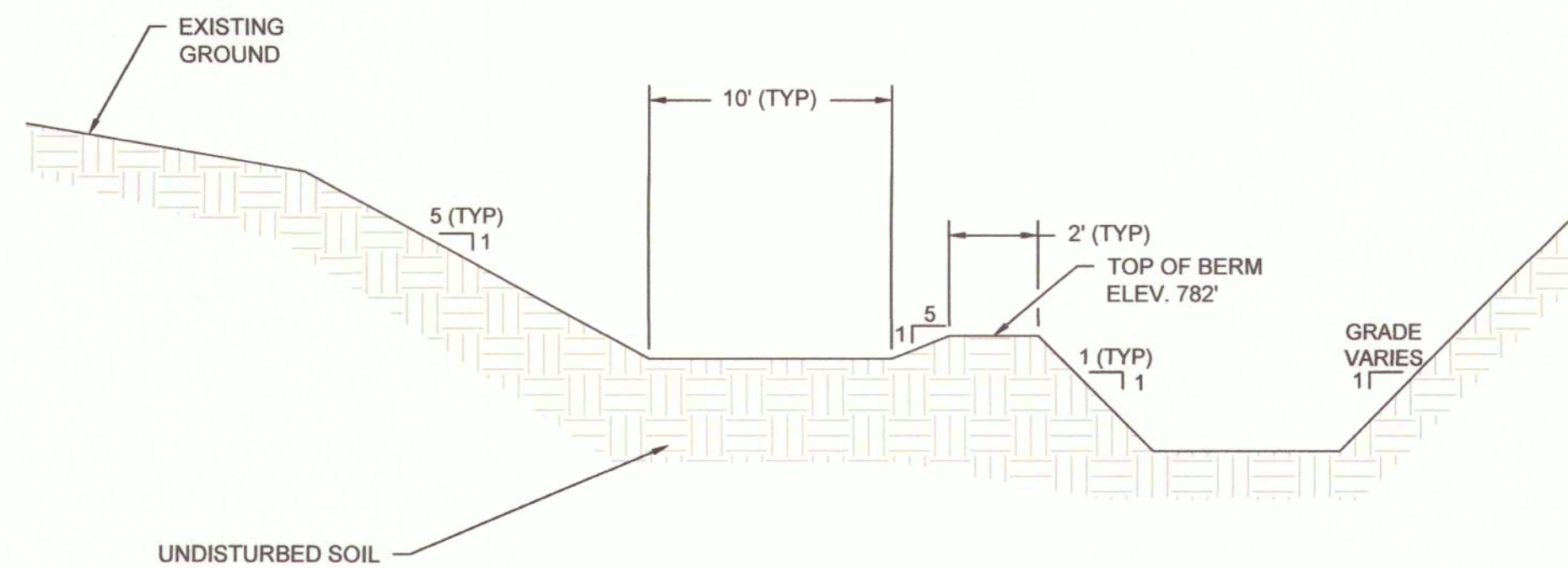
SHEET NUMBER:

D-500

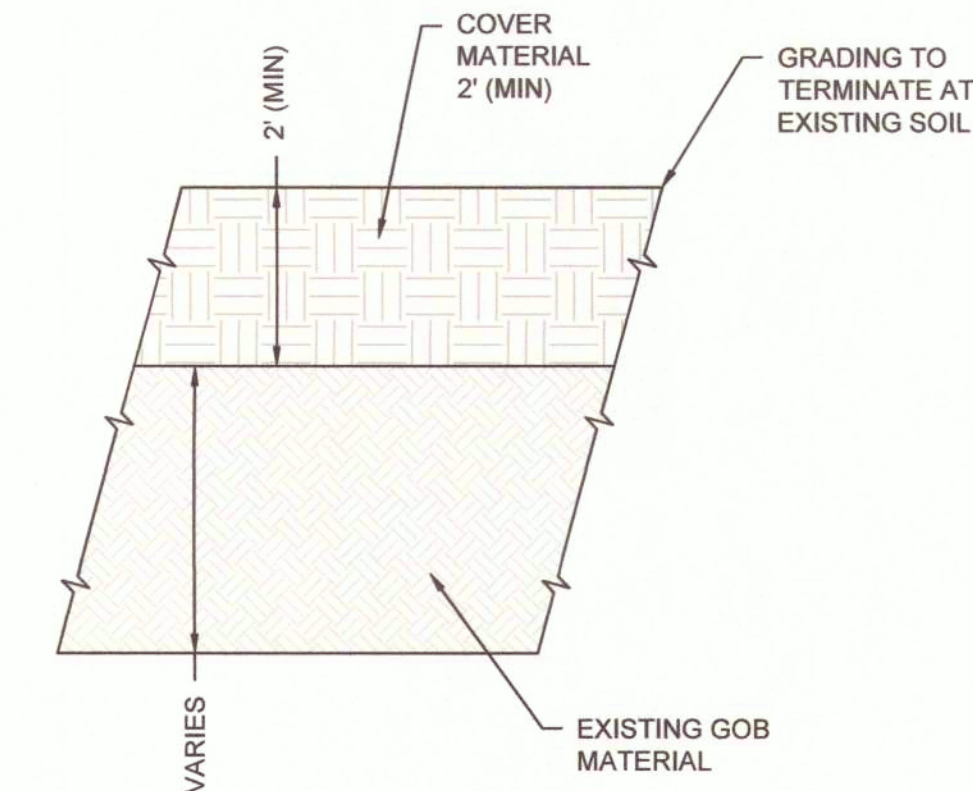
25 OF 29 SHEETS
10/17/2025



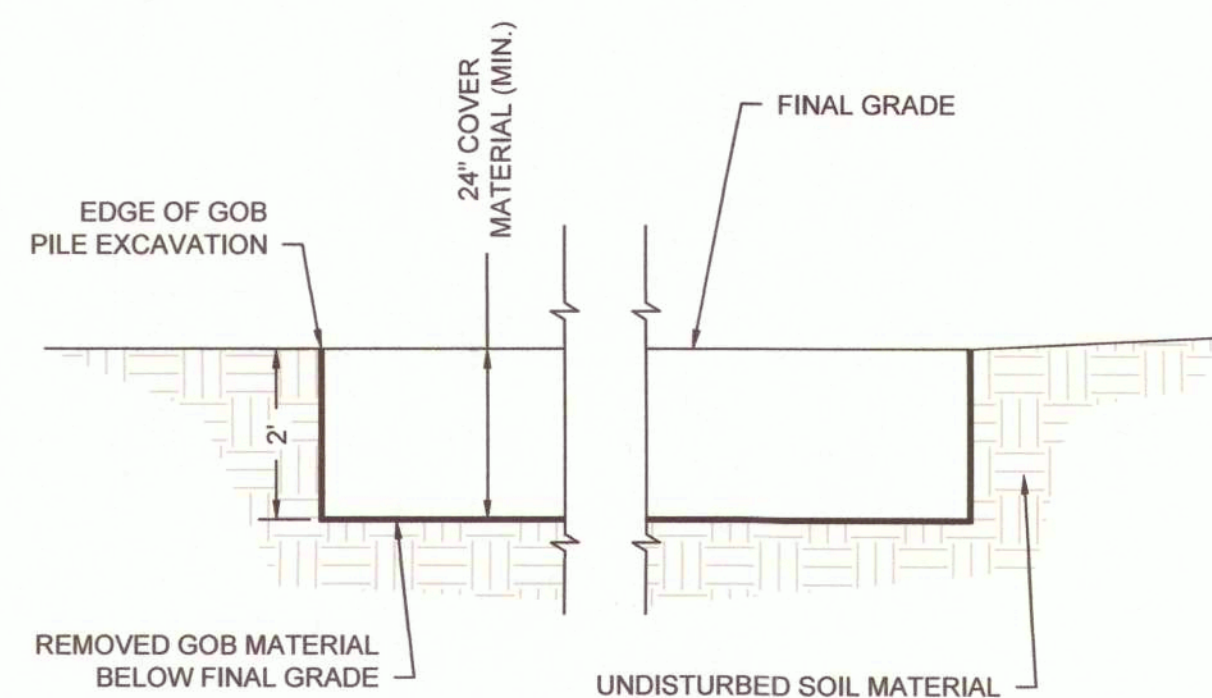
1
D-500
**TYPICAL EXCAVATION GRADING
WITH BOX CULVERT - SITE 1**
N.T.S.



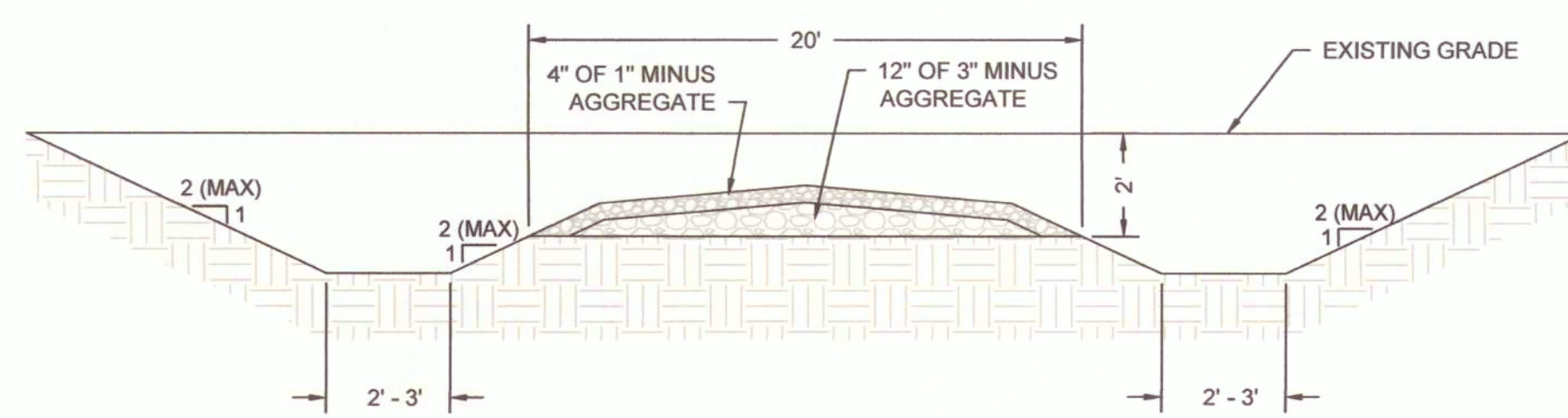
2
D-500
**TYPICAL EXCAVATION WITH
DISCHARGE CHANNEL - SITE 1**
N.T.S.



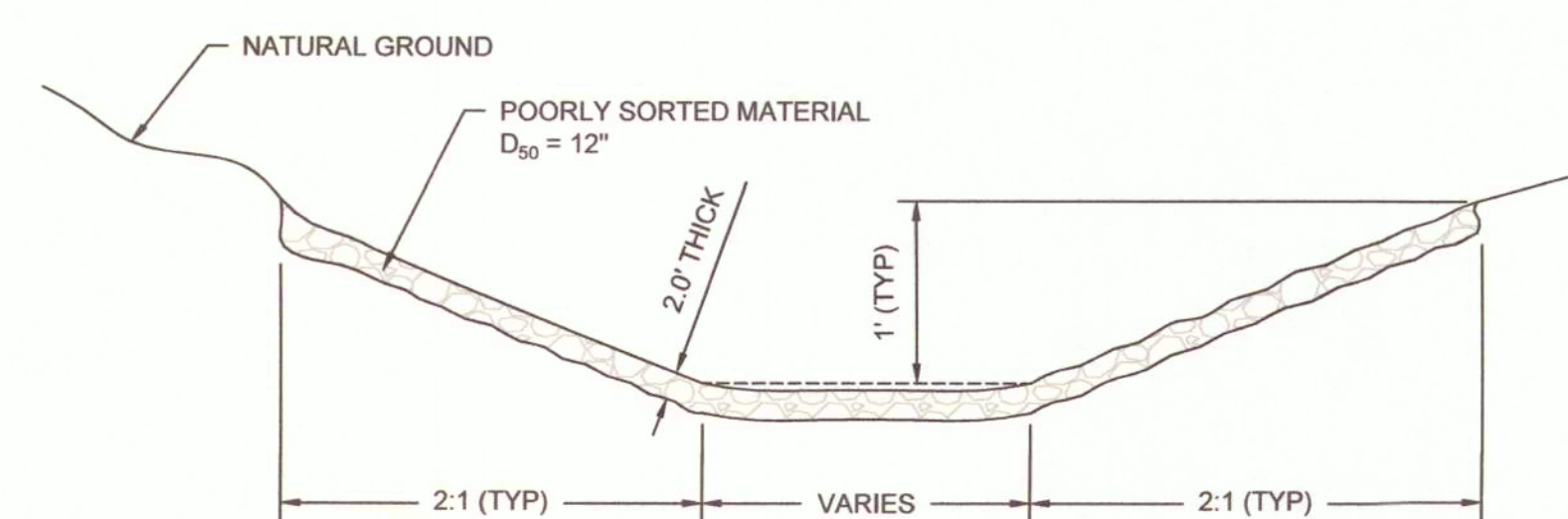
3
D-500
TYPICAL FINAL SOIL COVER
N.T.S.



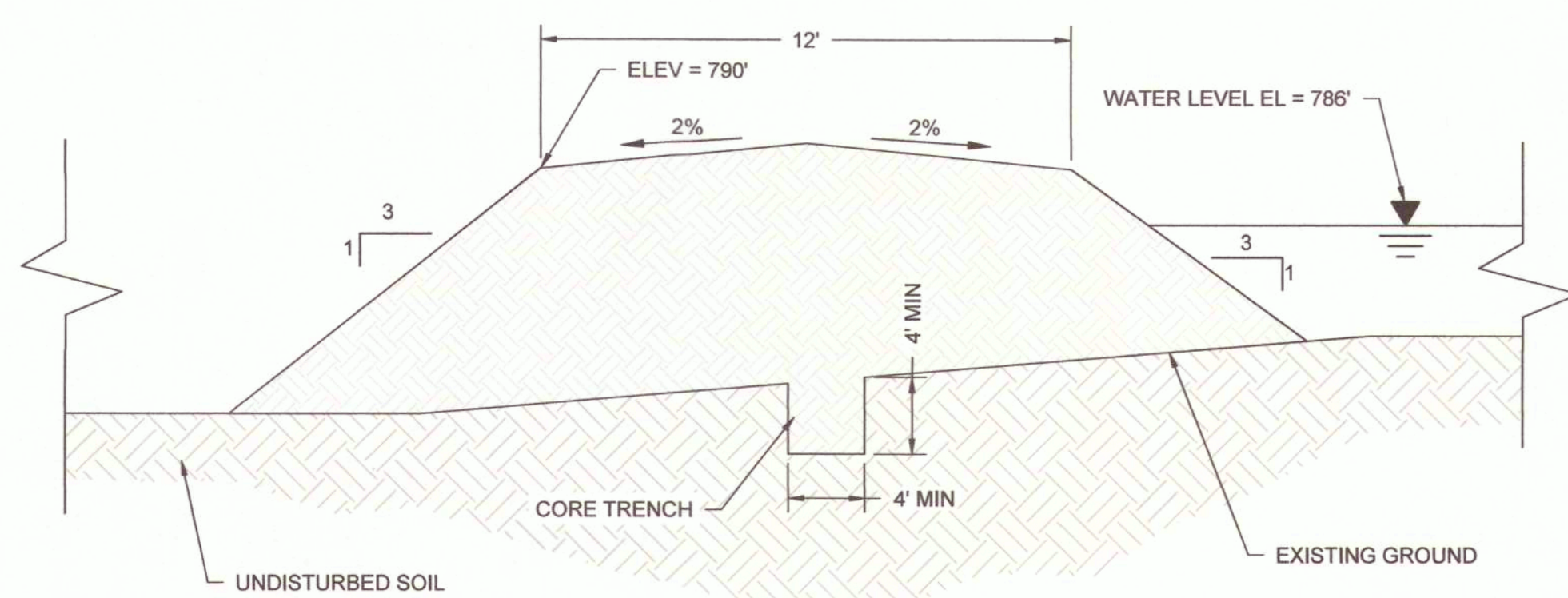
4
D-500
TYPICAL GOB EXCAVATION - SITE 3
N.T.S.



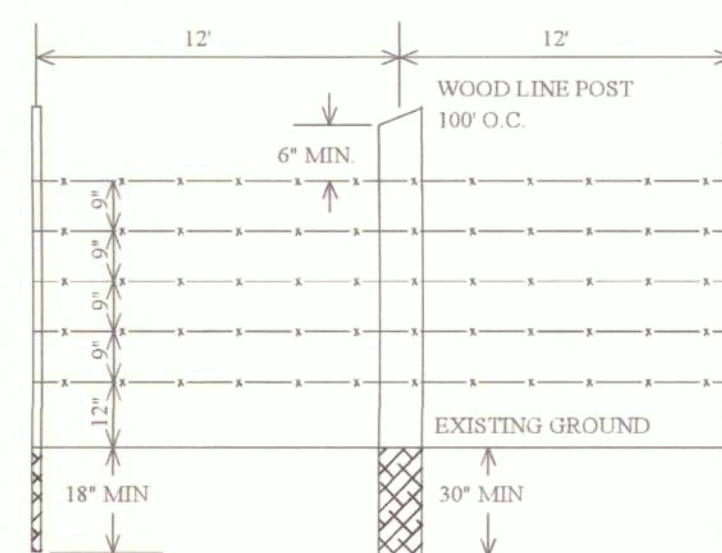
5
D-500
**PERMANENT ACCESS ROAD
CROSS SECTION - SITE 3**
N.T.S.



6
D-500
FLAT BOTTOM ROCK DITCH LINER - SITE 3
N.T.S.



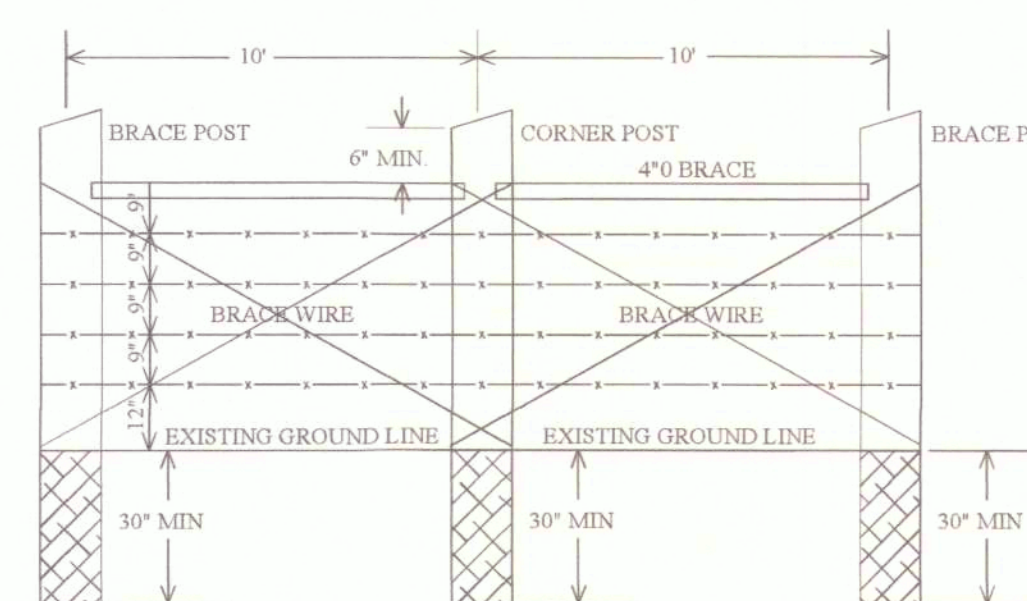
7
D-500
**TYPICAL POND 1 EMBANKMENT
CROSS SECTION 6+00 - SITE 2**
N.T.S.



FENCE DETAIL
NOT TO SCALE

NOTES

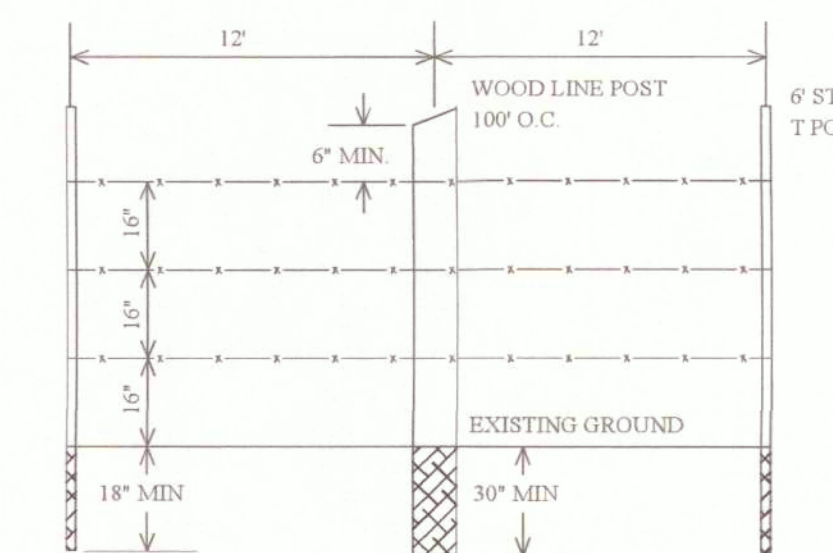
- WOOD LINE POSTS SHALL BE A MINIMUM OF 4\"/>



CORNER & ANGLE POINT POST
NOT TO SCALE

NOTES

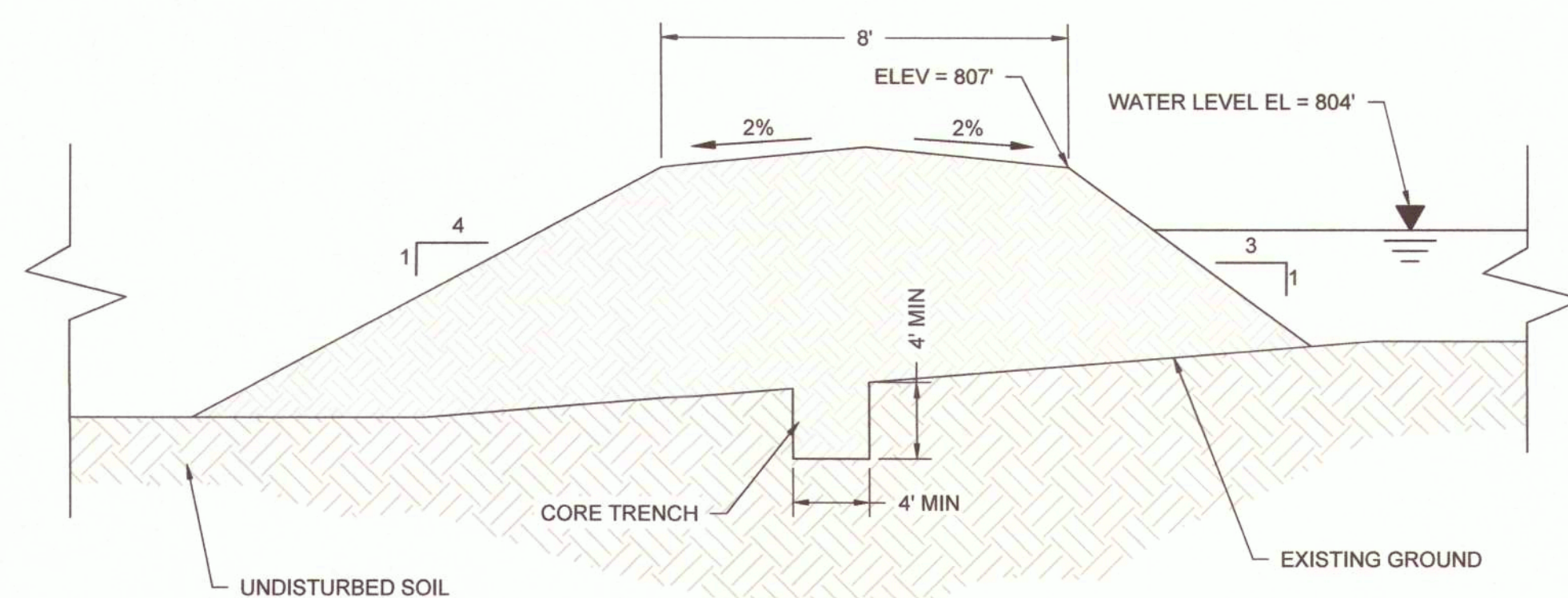
- BRACE AND CORNER POSTS SHALL BE A MINIMUM OF 8\"/>



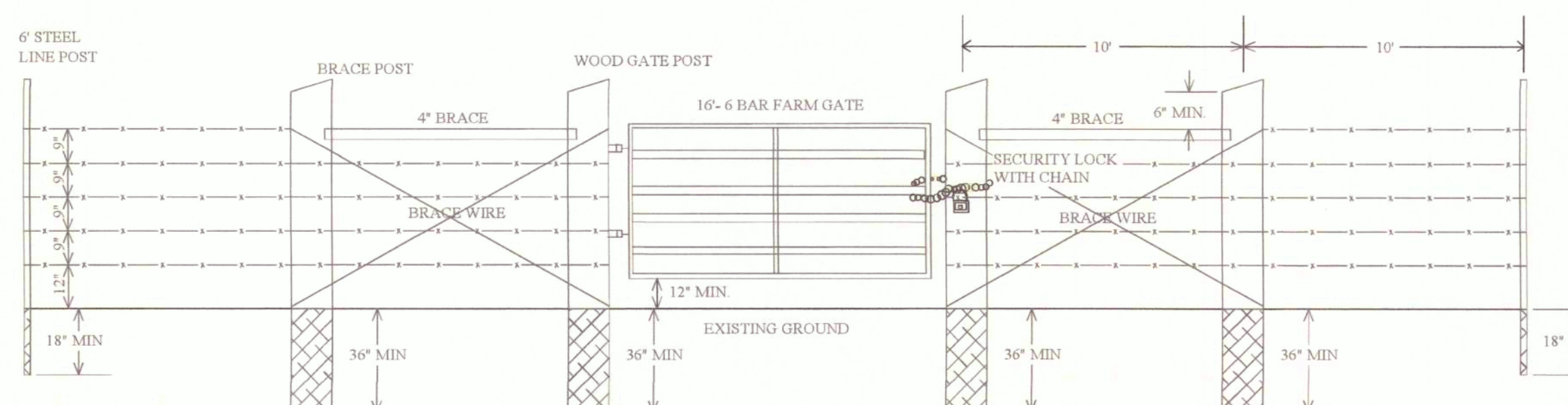
INTERIOR FENCE DETAIL
NOT TO SCALE

NOTES

- WOOD LINE POSTS SHALL BE A MINIMUM OF 4\"/>

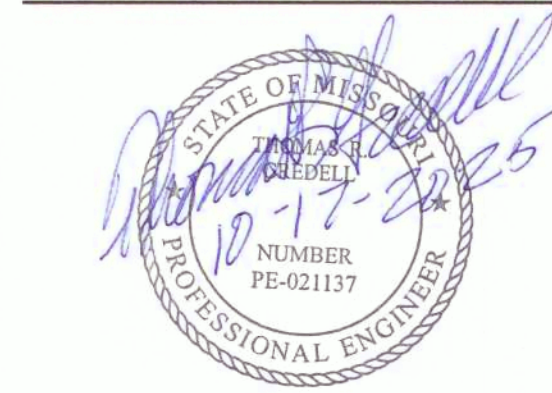


8
D-500
**TYPICAL POND 2 EMBANKMENT
CROSS SECTION F-F' - SITE 2**
N.T.S.



TYPE 1 GATE
Not to Scale

9
D-500
BARBED WIRE CONSTRUCTION FENCING
N.T.S.



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RECLAMATION PROJECT
CALLAWAY COUNTY, MISSOURI

PROJECT # Y2401-01
SITE # N/A
ASSET # N/A

REVISION:
DATE: _____
REVISION:
DATE: _____
REVISION:
DATE: _____
ISSUE DATE: 10/17/2025

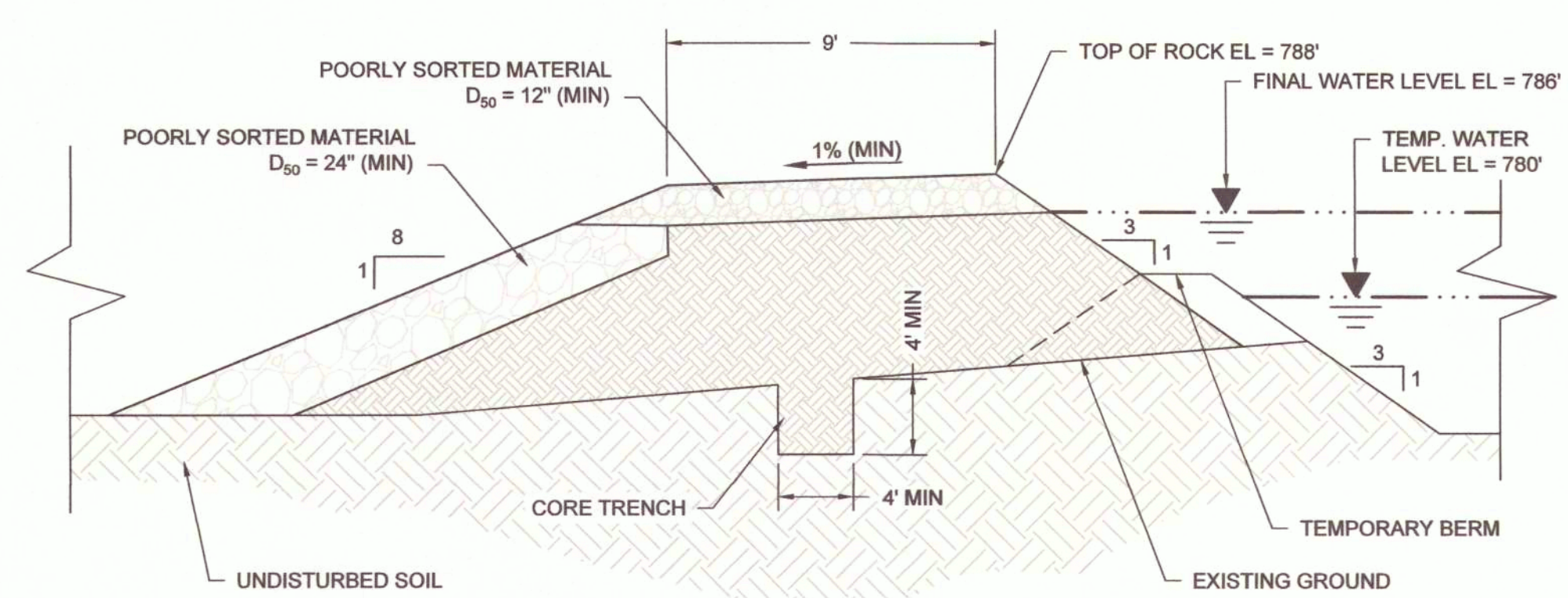
CAD DWG FILE: D-501
DRAWN BY: CM
CHECKED BY: MC
DESIGNED BY: TG

SHEET TITLE:
DETAILS

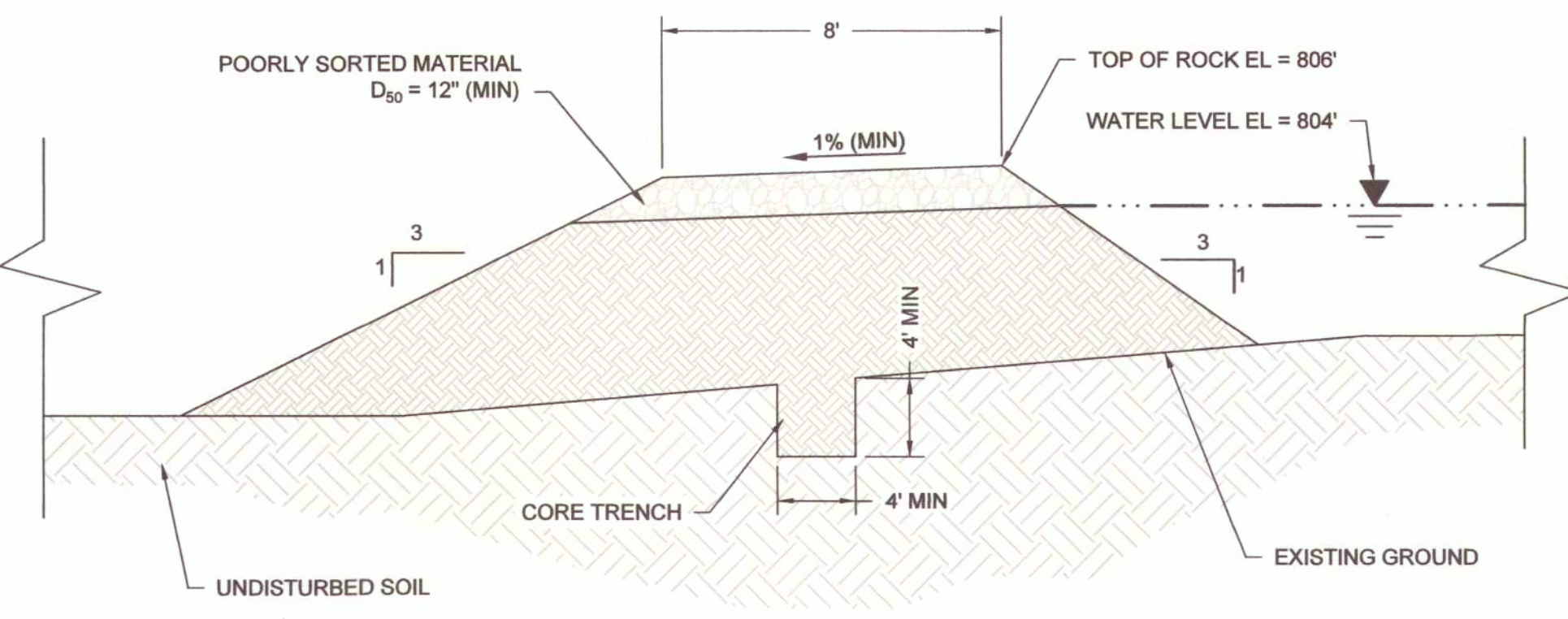
SHEET NUMBER:

D-501

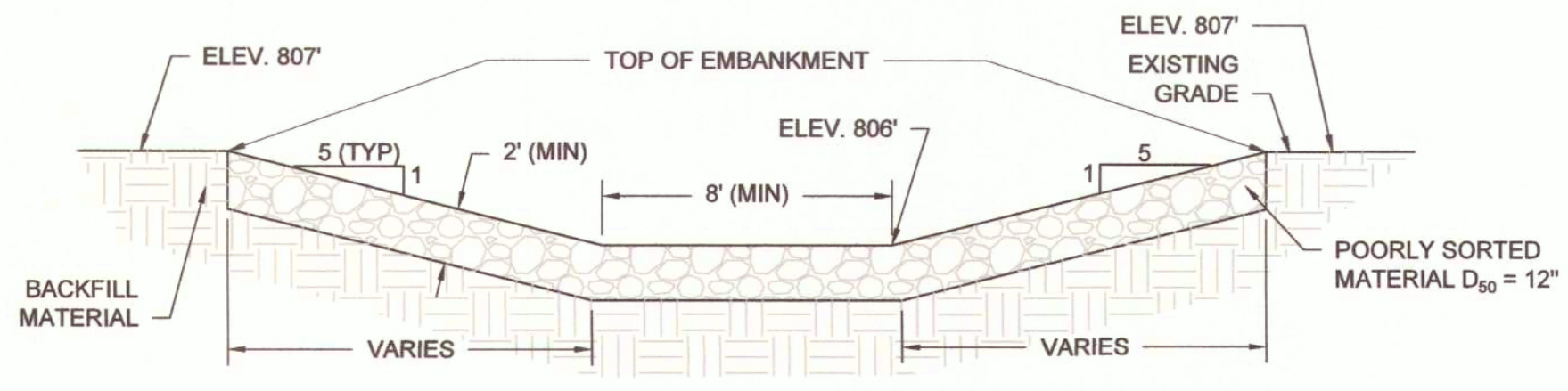
26 OF 29 SHEETS
10/17/2025



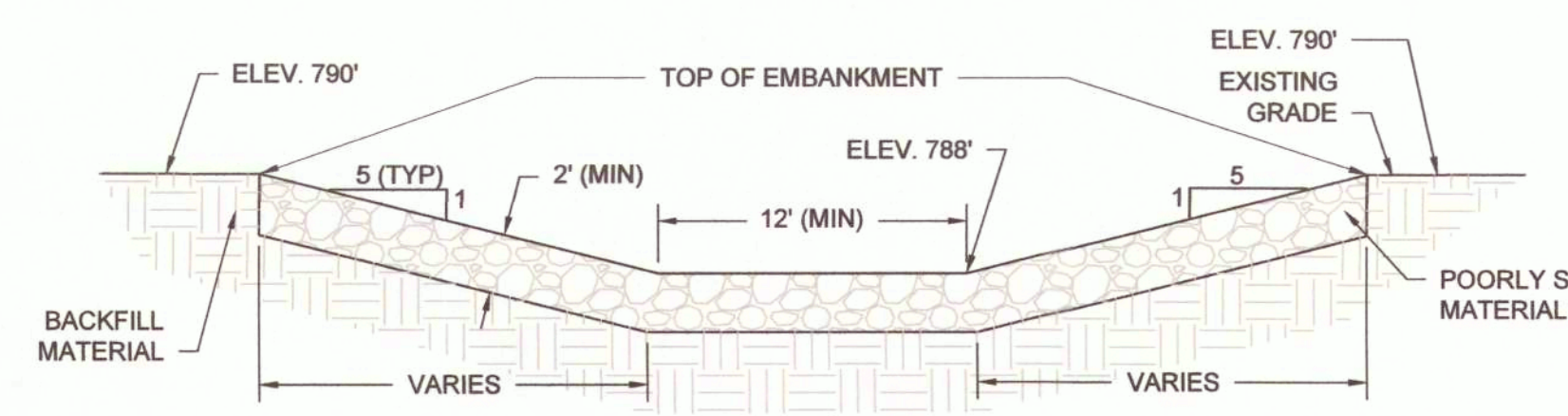
1
D-501
POND 1 EMBANKMENT OUTFALL SPILLWAY
CROSS SECTION 3+94.50 - SITE 2
N.T.S.



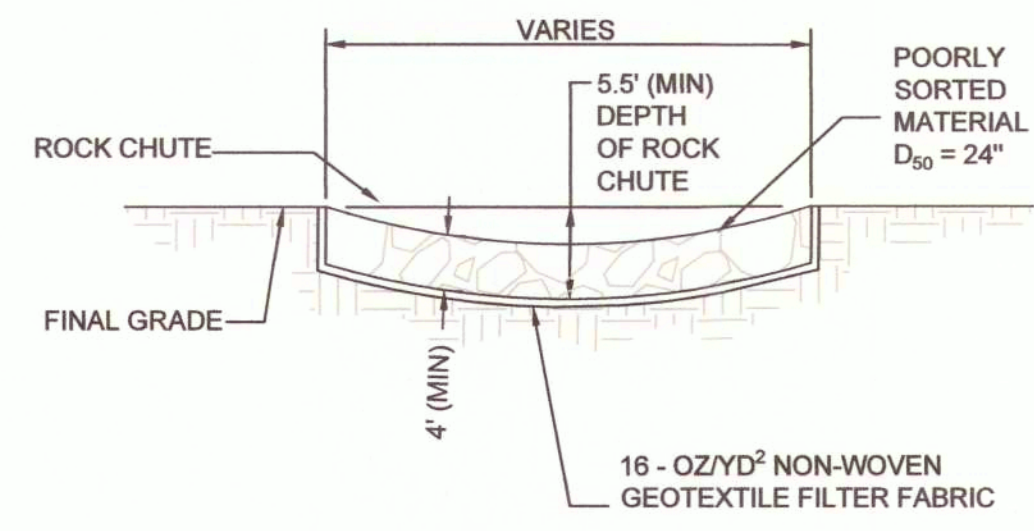
2
D-501
POND 2 EMBANKMENT OUTFALL SPILLWAY
CROSS SECTION H-H' - SITE 2
N.T.S.



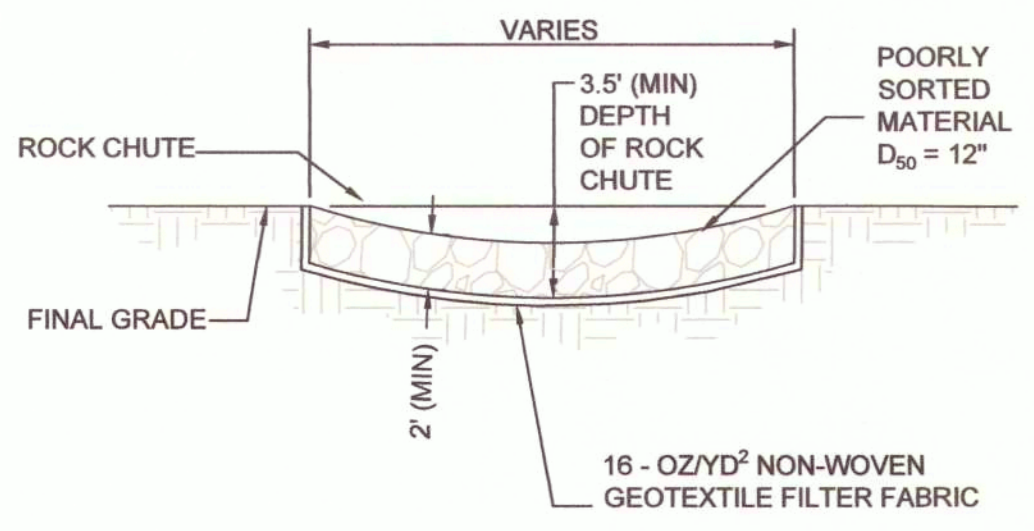
3
D-501
POND 2 EMBANKMENT OUTFALL
SPILLWAY CROSS SECTION - SITE 2
N.T.S.



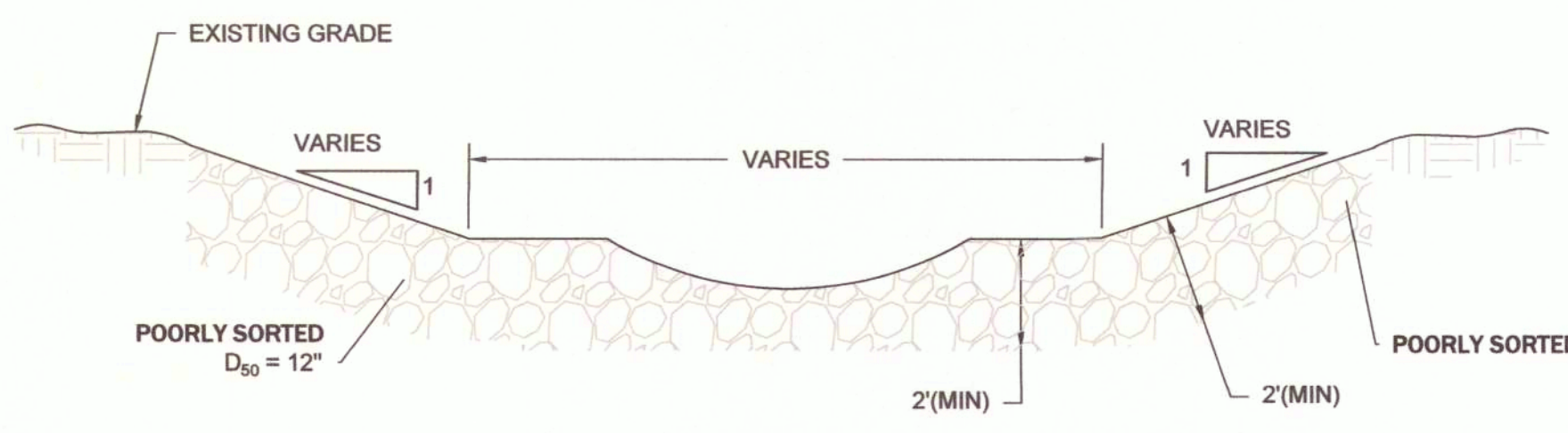
4
D-501
POND 1 EMBANKMENT OUTFALL
SPILLWAY CROSS SECTION - SITE 2
N.T.S.



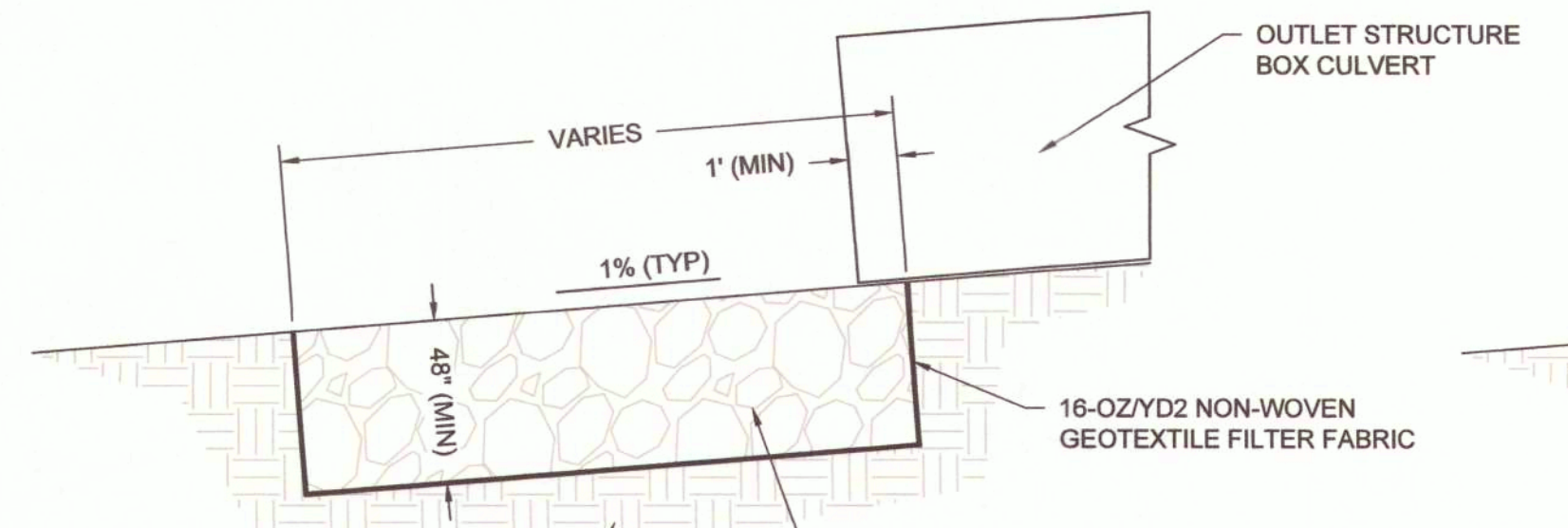
5
D-501
TYPICAL ROCK LETDOWN/APRON
CROSS SECTION C-C'
N.T.S.



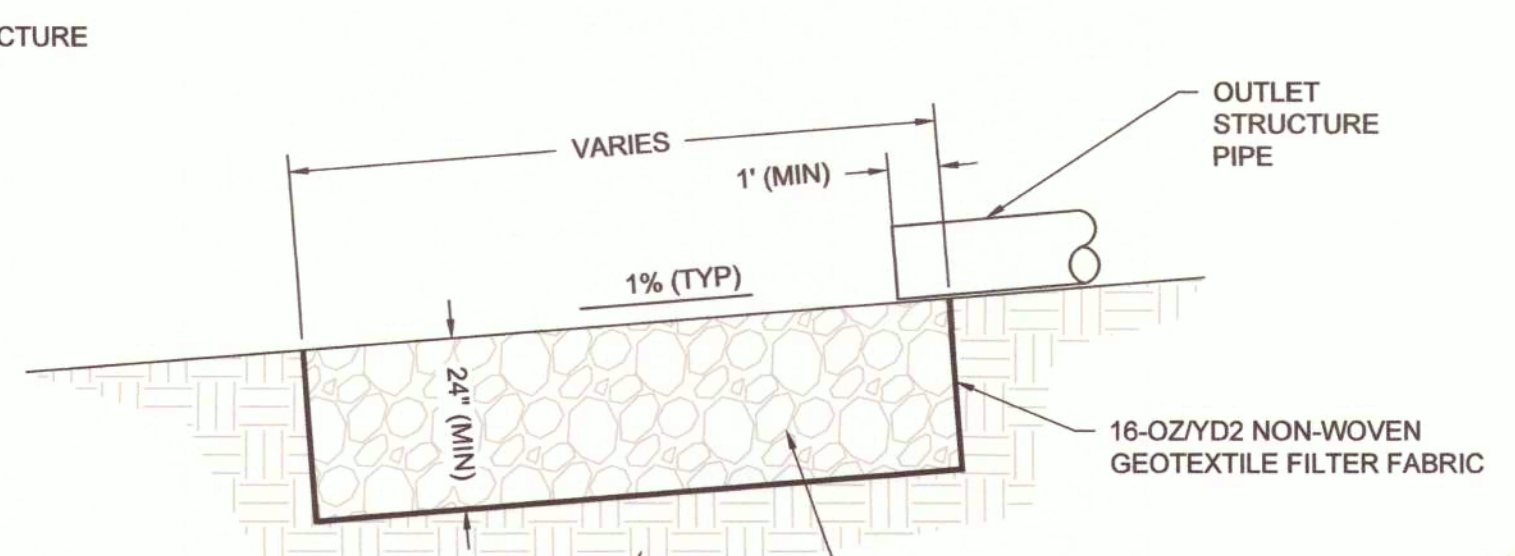
6
D-501
TYPICAL ROCK LETDOWN/APRON
CROSS SECTION E-E'
N.T.S.



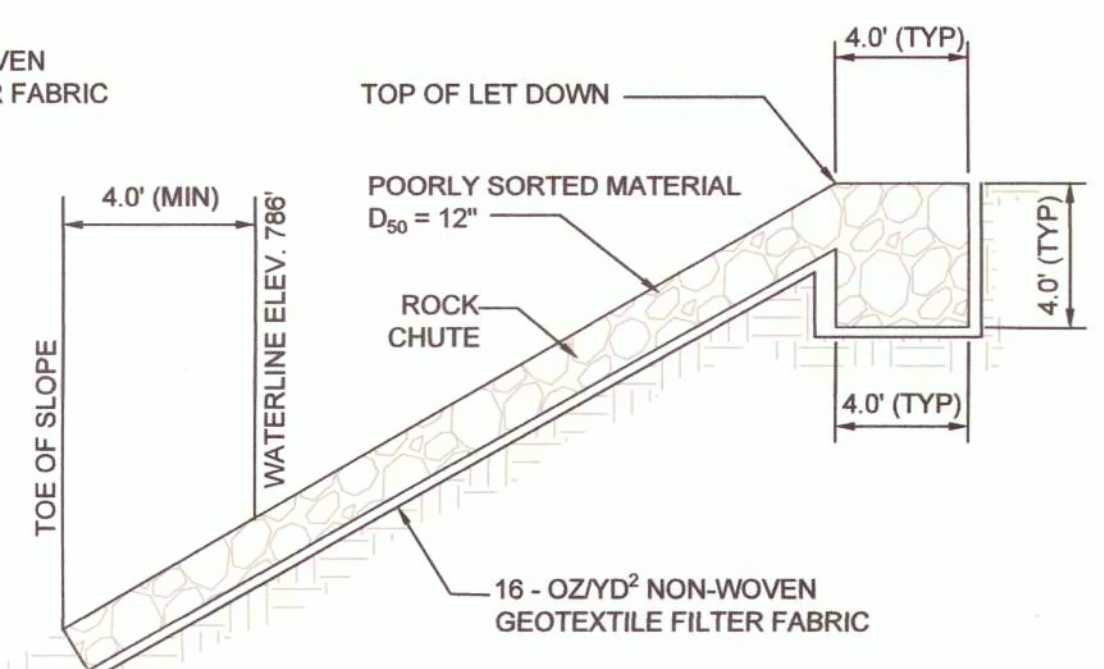
7
D-501
TYPICAL ROCK RIFFLE
CROSS-SECTION A-A'
N.T.S.



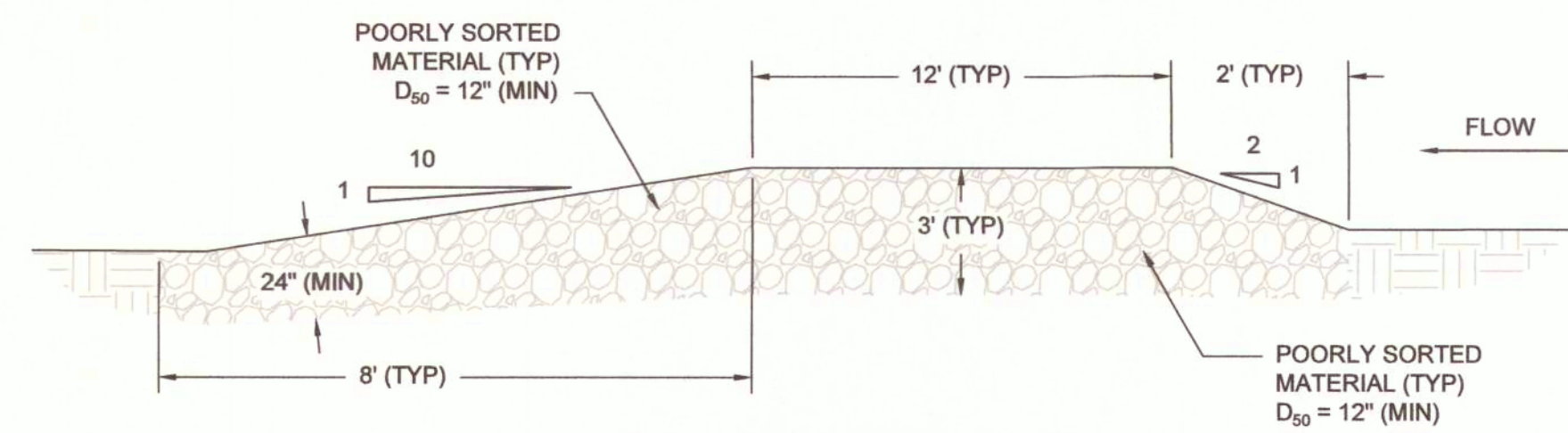
8
D-501
CROSS SECTION D-D'
N.T.S.



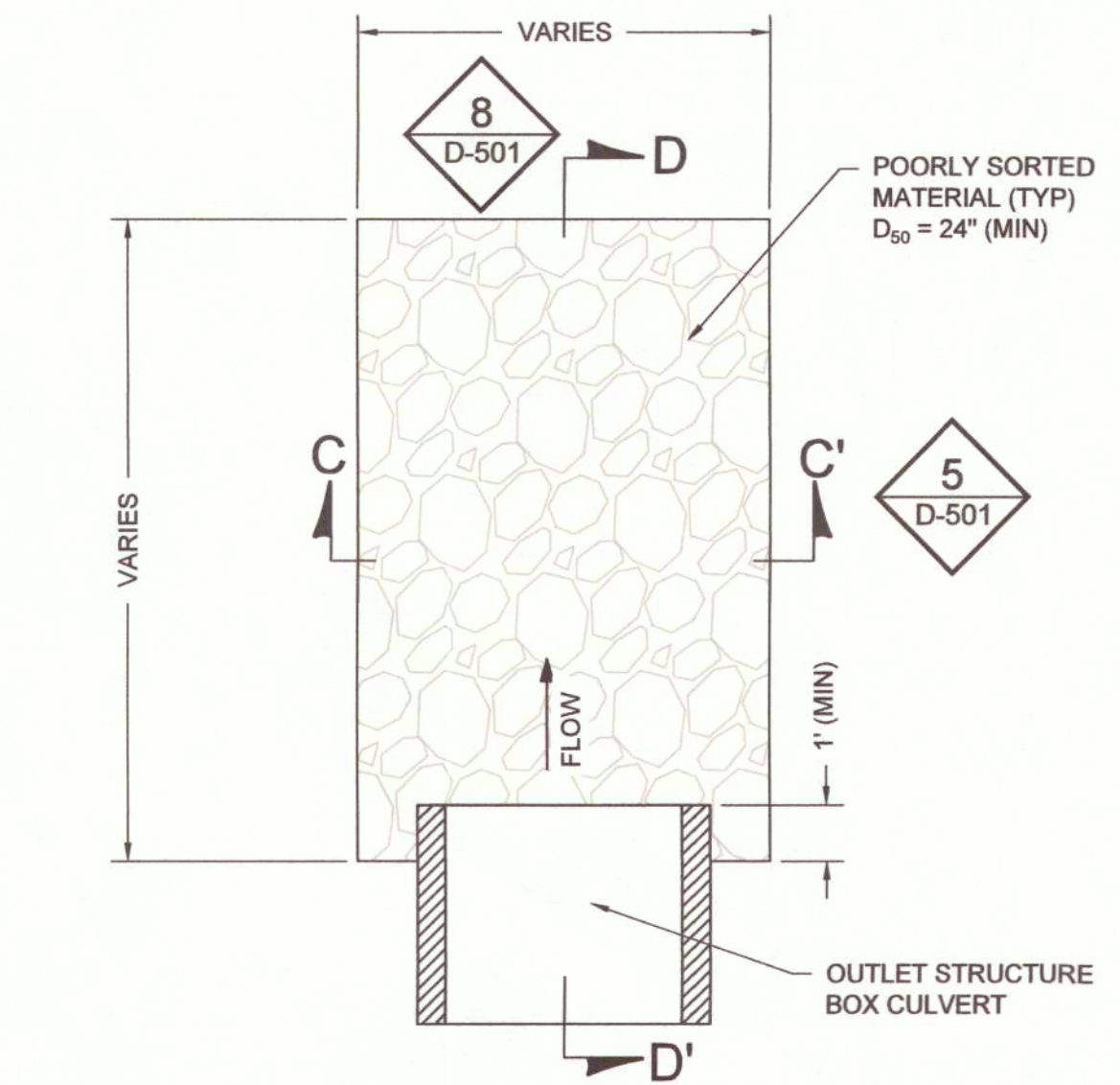
9
D-501
CROSS SECTION F-F'
N.T.S.



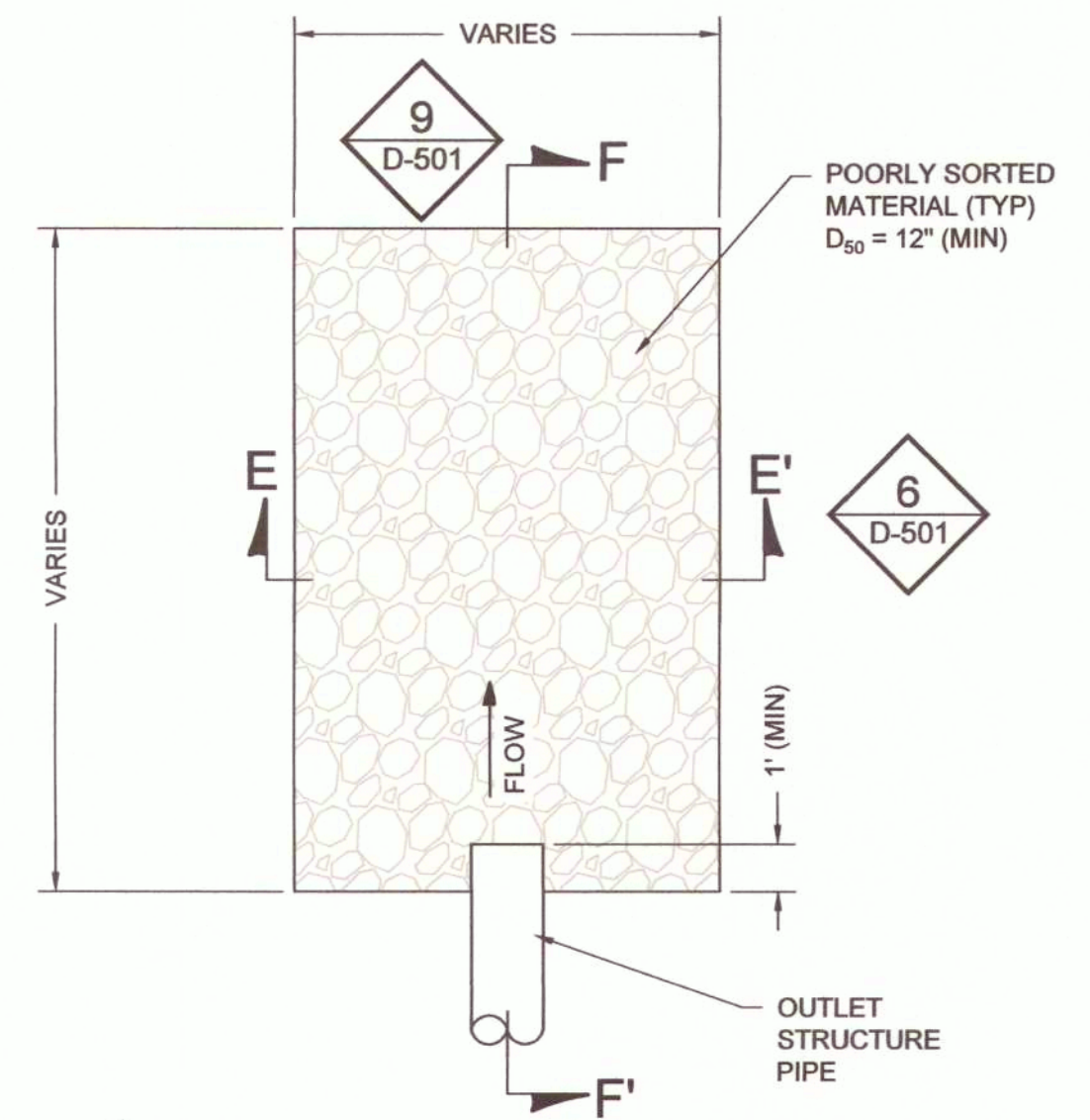
10
D-501
LET DOWN
CROSS SECTION G-G'
N.T.S.



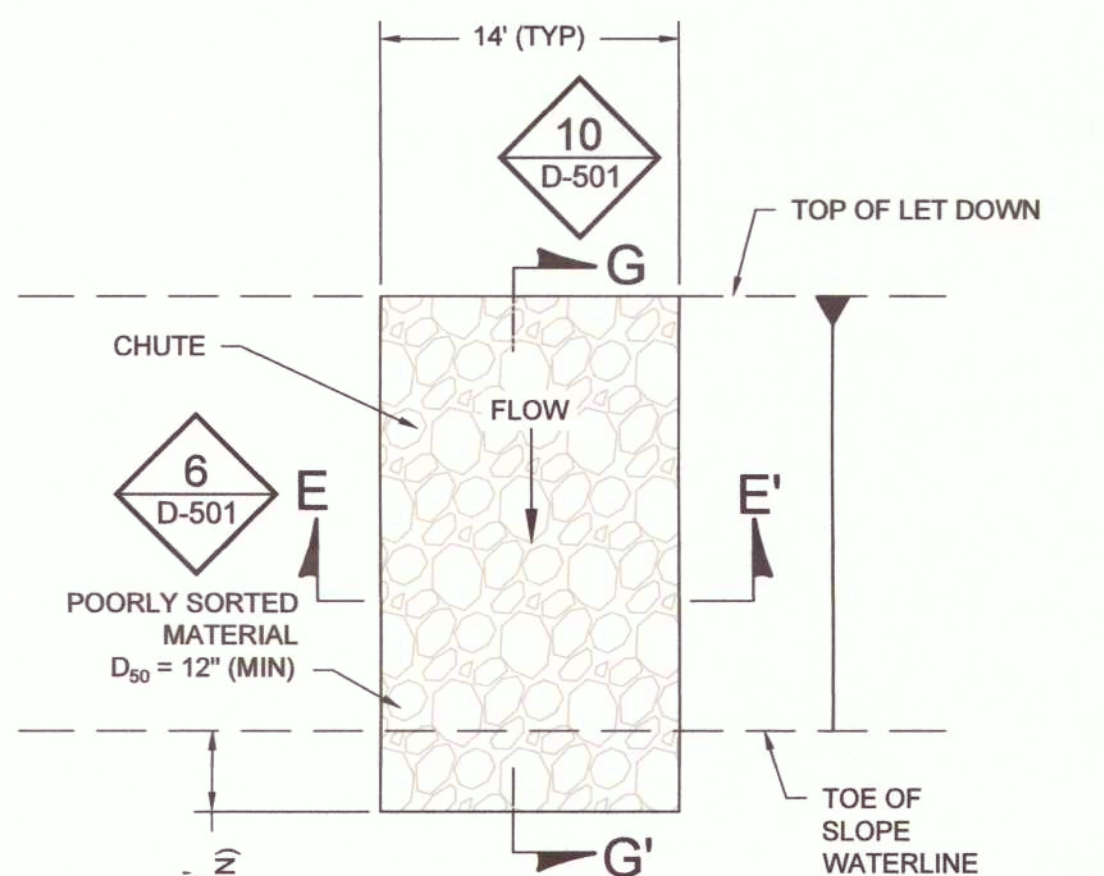
11
D-501
TYPICAL ROCK RIFFLE
CROSS-SECTION B-B'
N.T.S.



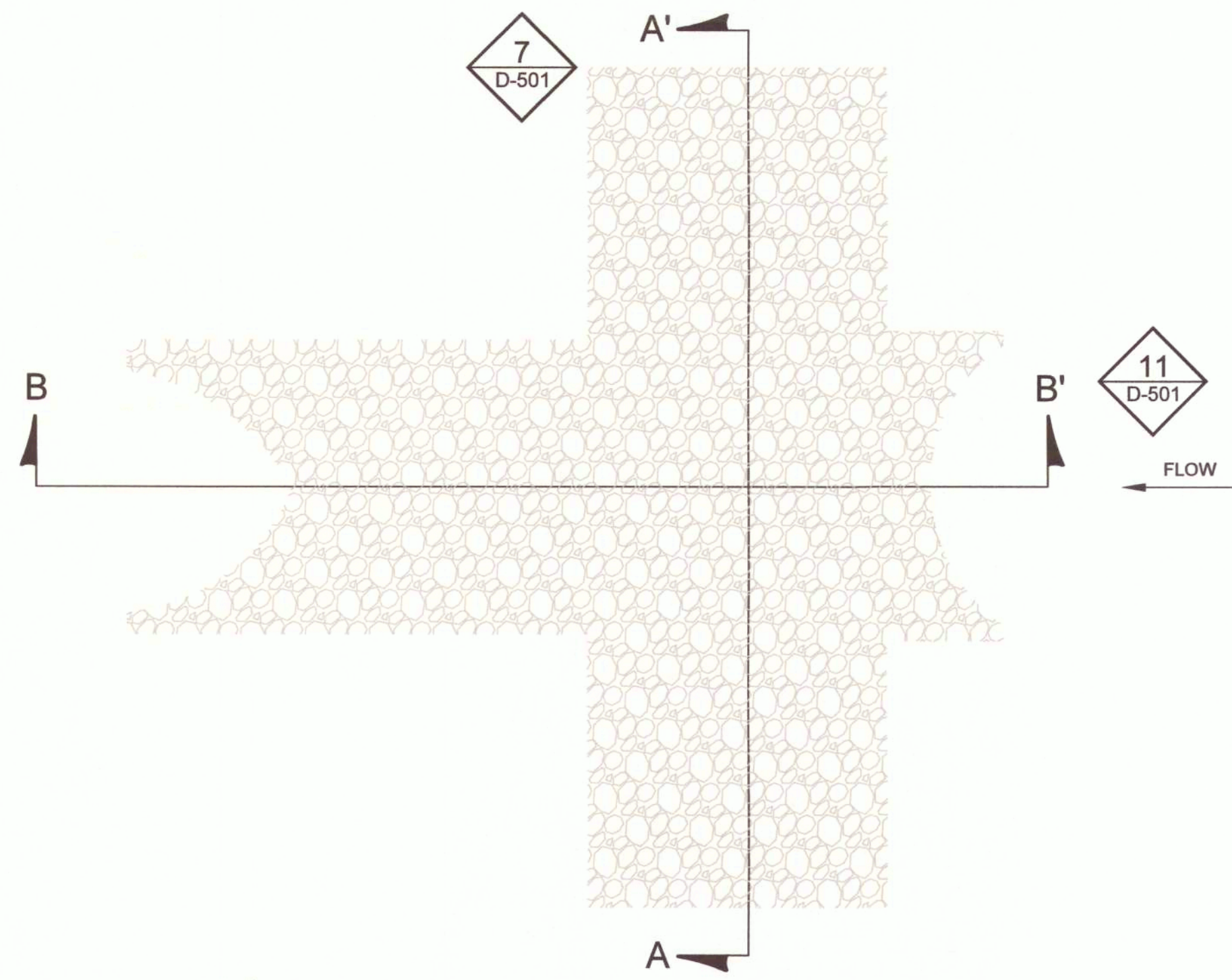
12
D-501
BOX CULVERT
ROCK APRON - SITE 1
N.T.S.



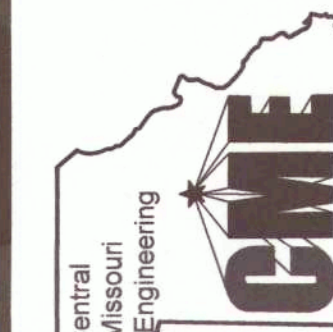
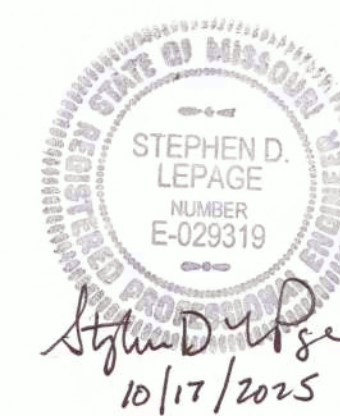
13
D-501
ROCK APRON - SITE 2
N.T.S.



14
D-501
LET DOWN PLAN VIEW - SITE 2
N.T.S.



15
D-501
ROCK RIFFLE PLAN VIEW - SITE 2
N.T.S.



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OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES
MANAGEMENT,
DESIGN AND CONSTRUCTION

GREDELL ENGINEERING
RESOURCES, INC.

TENNYSON AML LAND
RECLAMATION PROJECT
CALLAWAY COUNTY, MISSOURI

PROJECT # Y2401-01
SITE # N/A
ASSET # N/A

REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
ISSUE DATE: 10/17/2025

CAD DWG FILE: D-502
DRAWN BY: CM
CHECKED BY: TG
DESIGNED BY: SL

SHEET TITLE:
**BOX CULVERT
DETAILS**

SHEET NUMBER:

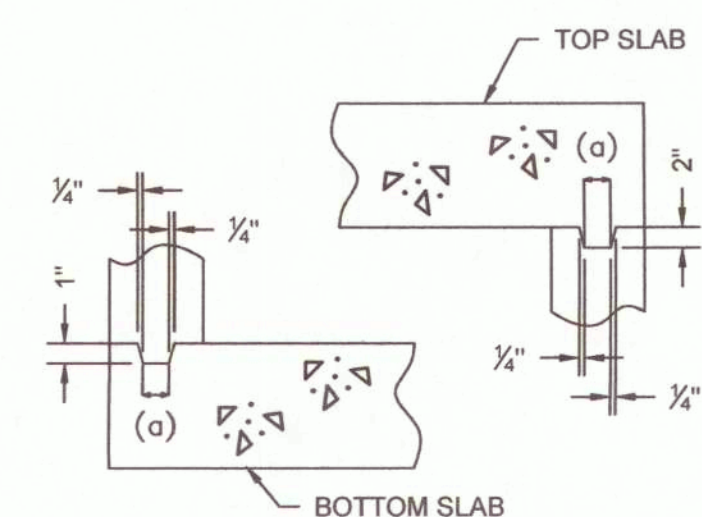
D-502

27 OF 29 SHEETS
10/17/2025

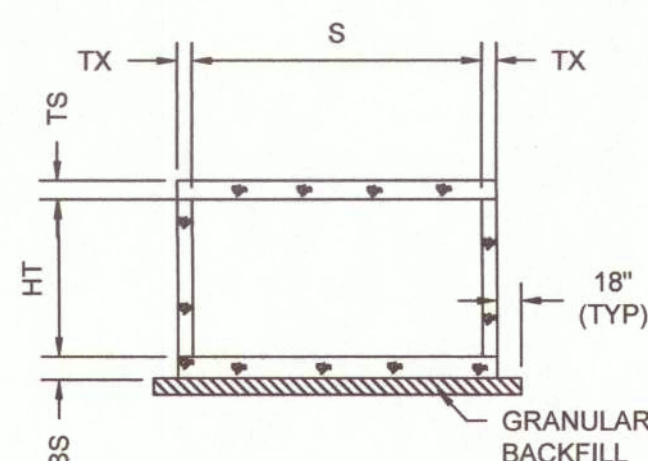
GENERAL BOX CULVERT DIMENSIONS AND BAR SIZES																		
DESIGN FILL	MEMBER THICKNESS	TOP SLAB BARS						BOTTOM SLAB BARS						WALL BARS				
		A1 BARS		J3 BARS		A2 BARS		J4 BARS		B2 BARS								
		TS	BS	TX	SIZE	SPA.	SIZE	SPA.	C1	K2	SIZE	SPA.	SIZE	SPA.	C4	K3	SIZE	SPA.
2' - 4'	11	9	8	5	7.5	4	6	57.0	37.4	5.0	7.5	5	6	43.3	77	5	12	12

- GENERAL SHEET NOTES:**
- DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED.
 - DESIGN FILL IS MEASURED FROM THE TOP OF SLAB TO THE TOP OF EARTH FILL.
 - BOX CULVERTS MEET STRENGTH AND SERVICEABILITY REQUIREMENTS FOR THE DESIGN VEHICULAR LIVE LOAD HL-93 MINUS THE LANE LOAD.
 - CONCRETE TO HAVE 28-DAY COMPRESSIVE STRENGTH $F_c = 4,000$ psi.
 - REINFORCING STEEL TO HAVE TENSILE STRENGTH $F_y = 60,000$ psi.
 - SEE SHEET D-503 FOR CULVERT CONSTRUCTION DETAILS.

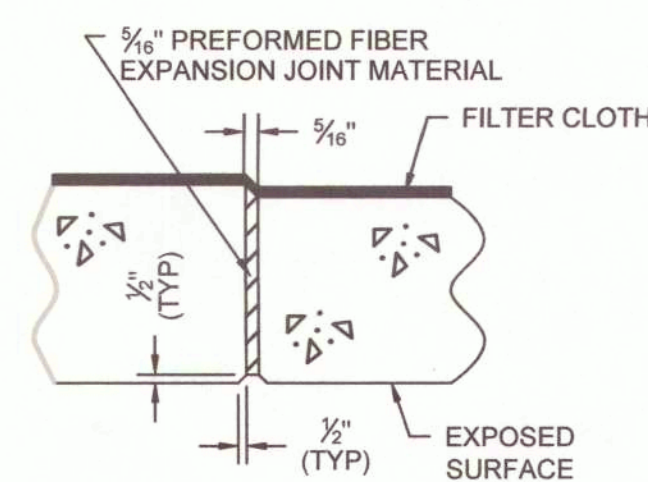
BILL OF REINFORCING STEEL																										
TOP SLAB BARS																										
A1 BARS		J3 BARS		F BARS W/A1 BARS		F BARS W/J3 BARS		F2 BARS		F3 BARS W/A1 BARS		F4 BARS W/J3 BARS		F3 BARS W/F BARS		F4 BARS W/F BARS										
QTY	SIZE	SPA	QTY	SIZE	SPA	QTY	SIZE	SPA	QTY	SIZE	SPA	QTY	SIZE	SPA	QTY	SIZE	SPA	QTY	SIZE	SPA						
374	5	7.5	934	4	6	55	4	14	20	4	43	32	4	6	14	4	14	4	4	43	7	4	14	7	4	14
BOTTOM SLAB BARS																										
A2 BARS		J4 BARS		F BARS W/A2 BARS		F BARS W/J4 BARS		F3 BARS W/A2 BARS		F4 BARS W/J4 BARS		F3 BARS W/F BARS		F4 BARS W/F BARS												
QTY	SIZE	SPA	QTY	SIZE	SPA	QTY	SIZE	SPA	QTY	SIZE	SPA	QTY	SIZE	SPA	QTY	SIZE	SPA	QTY	SIZE	SPA						
374	5	7.5	934	5	6	55	4	14	20	4	43	7	4	14	4	4	43	7	4	14	7	4	14	7	4	14
WALL BARS																										
B2 BARS		F BARS W/B2 BARS		F BARS W/J3 BARS		F3 BARS W/F BARS		F4 BARS W/F BARS																		
QTY	SIZE	SPA	QTY	SIZE	SPA	QTY	SIZE	SPA	QTY	SIZE	SPA															
468	5	12	48	4	14	24	4	14	18	4	14															



1 KEYED CONSTRUCTION JOINT
(a) APPROXIMATELY ONE-THIRD OF WALL THICKNESS



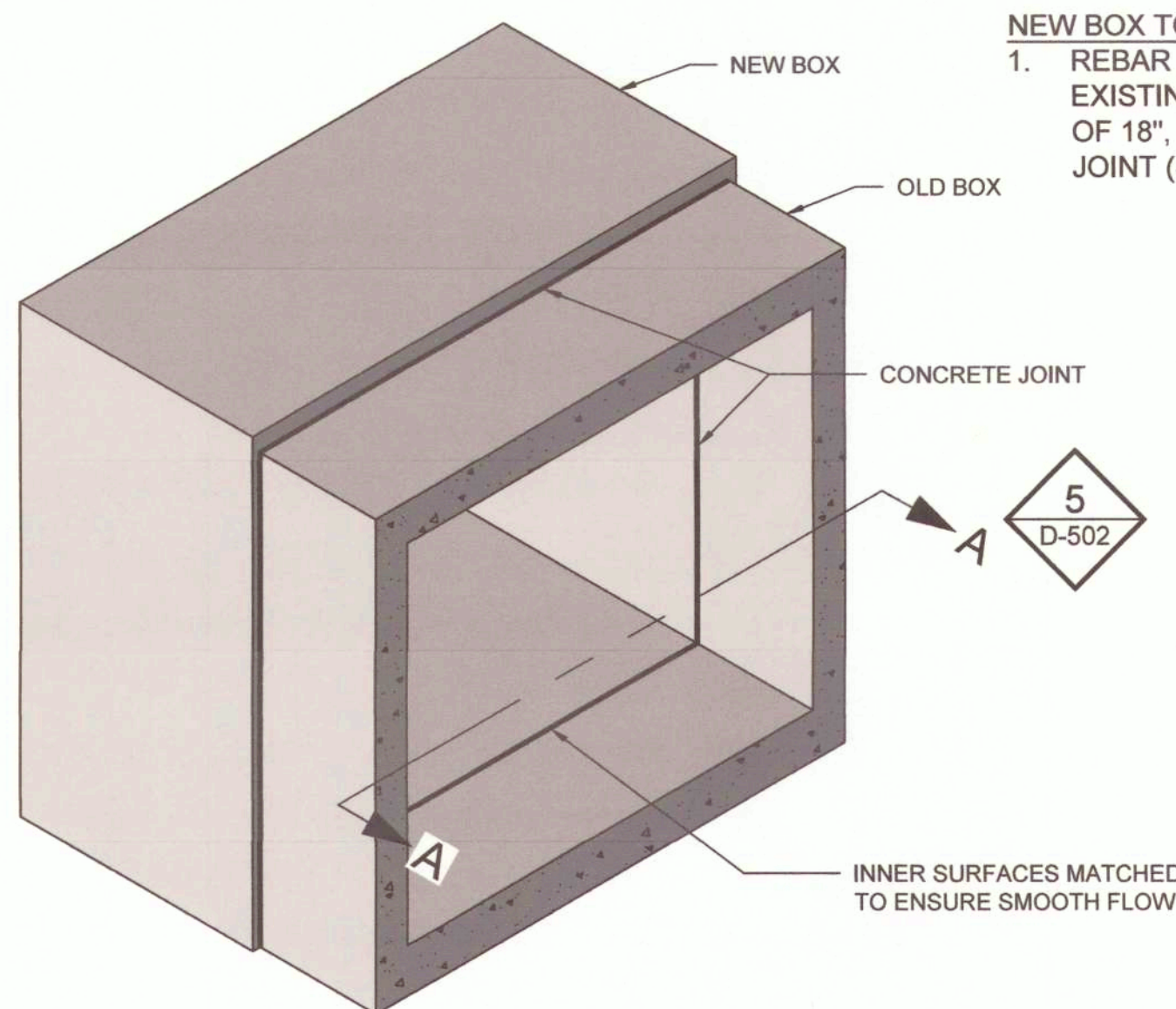
2 GRANULAR BACKFILL LIMITS AND MEMBER DIMENSIONS



3 TRANSVERSE JOINT THRU BARREL

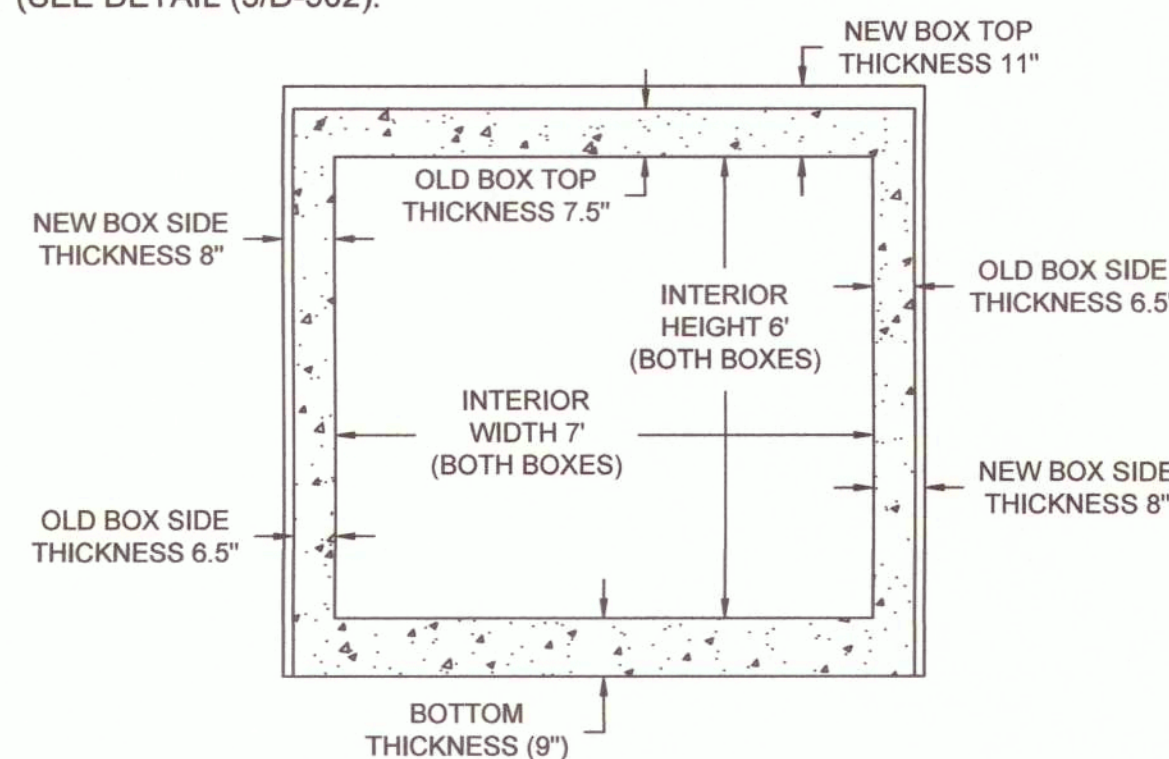
PREFORMED FIBER EXPANSION JOINT MATERIAL IN ACCORDANCE WITH SEC 1057 SHALL BE SECURELY STITCHED TO ONE FACE OF THE CONCRETE WITH 10 GAGE COPPER WIRE OR 12 GAGE SOFT DRAWN GALVANIZED STEEL WIRE.

FILTER CLOTH 3 FEET IN WIDTH AND DOUBLE THICKNESS SHALL BE CENTERED ON TRANSVERSE JOINTS IN TOP SLAB AND SIDEWALLS WITH EDGES SEALED WITH MASTIC OR TWO SIDED TAPE. FILTER CLOTH SHALL BE A SEPARATION GEOTEXTILE IN ACCORDANCE WITH SEC 1011. COST OF FURNISHING AND INSTALLING FILTER CLOTH WILL BE CONSIDERED COMPLETELY COVERED BY THE CONTRACT UNIT PRICE FOR OTHER ITEMS.

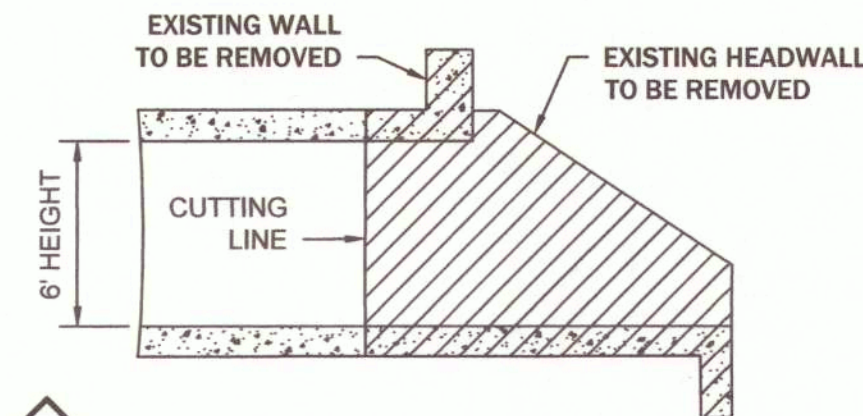


4 NEW CONCRETE BOX AND OLD CONCRETE BOX JOINT DETAIL
N.T.S.

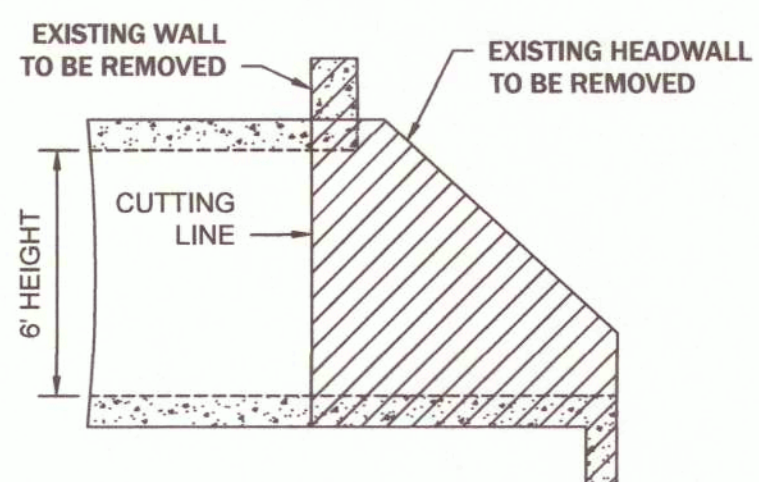
- NEW BOX TO OLD BOX CONNECTION NOTES**
- REBAR MUST BE DOWELED INTO THE EXISTING BOX STRUCTURE AT A MINIMUM OF 18" IN ADDITION TO THE TRANSVERSE JOINT (SEE DETAIL 3/D-502).



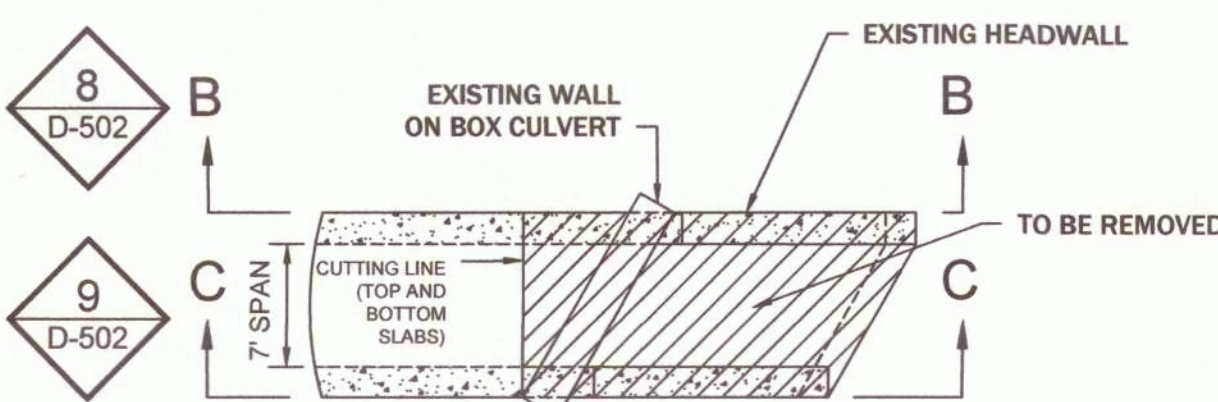
5 SECTION A-A



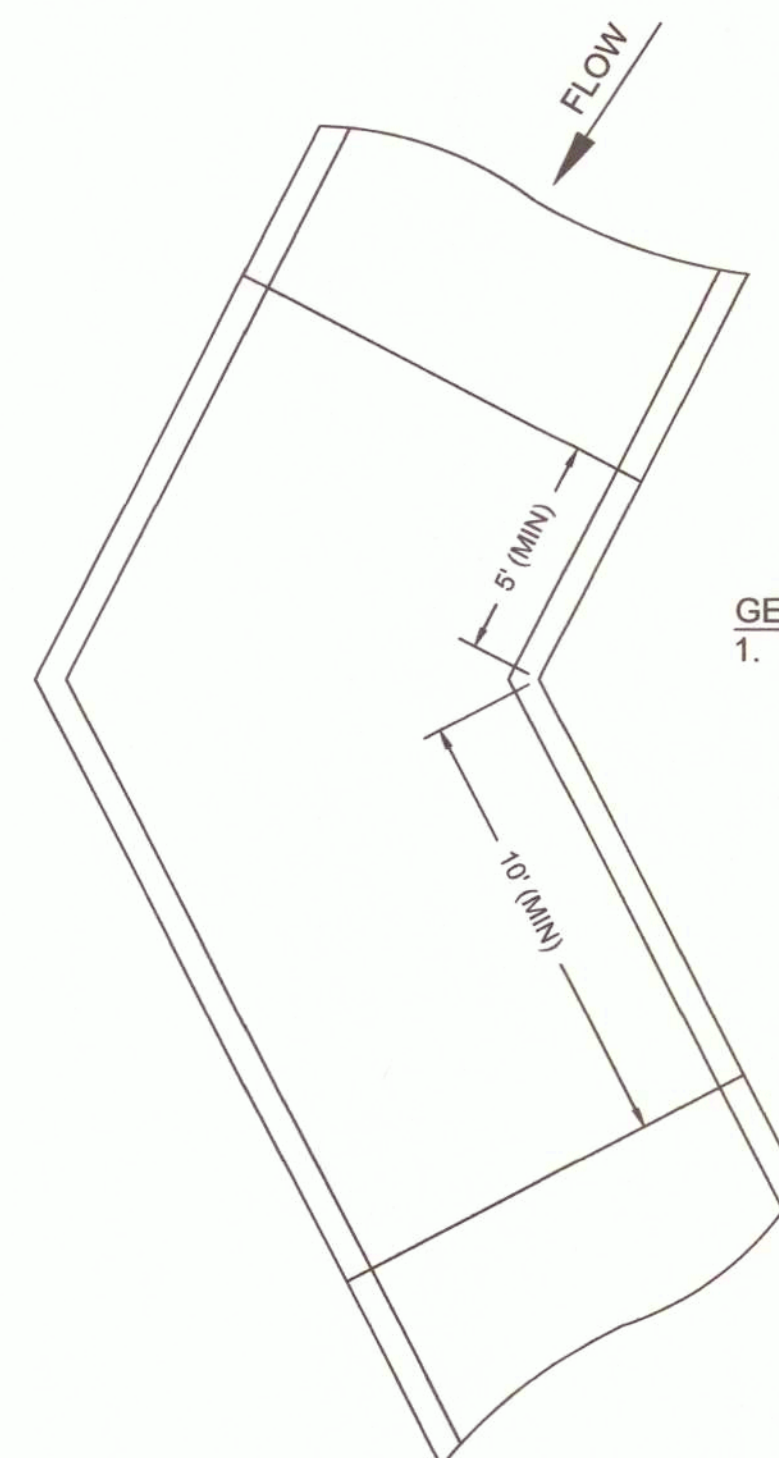
8 SIDE ELEVATION SECTION B-B



9 SIDE ELEVATION SECTION C-C

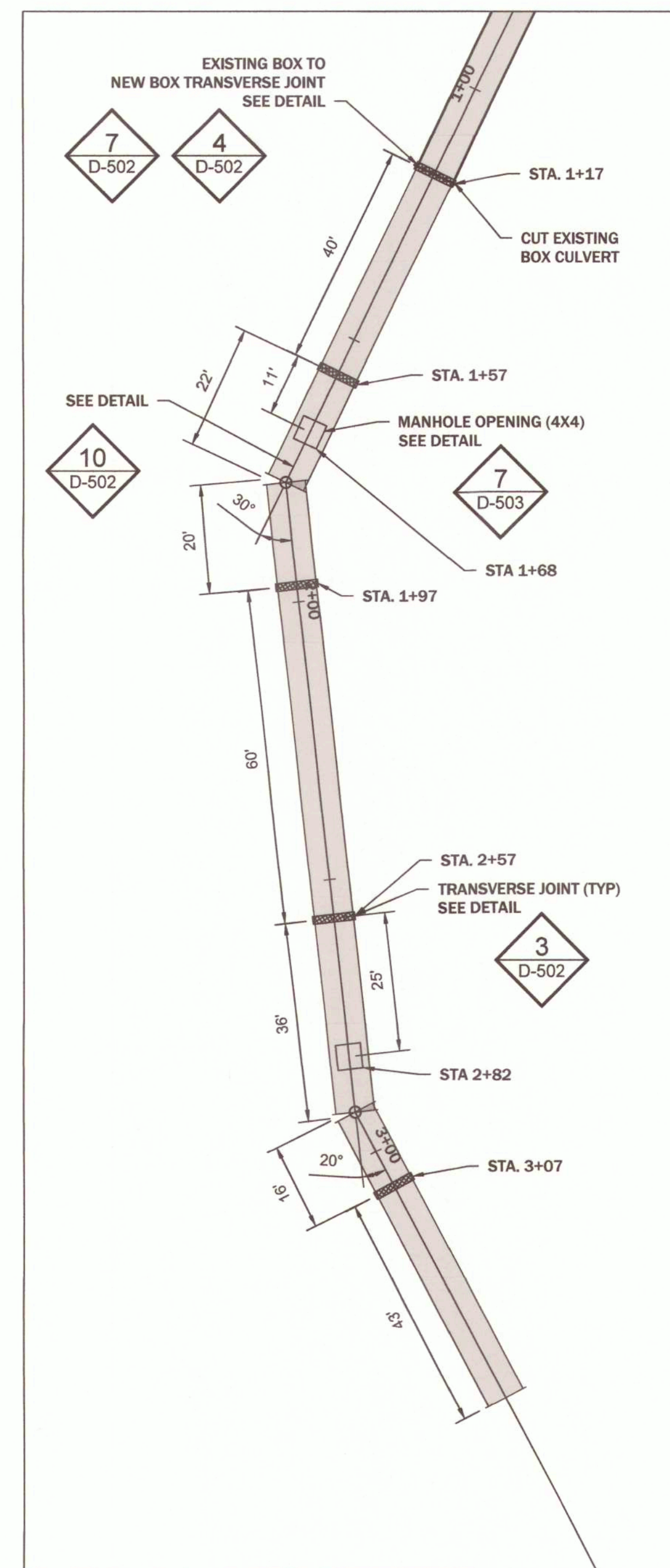


7 EXISTING BOX PLAN VIEW
NO SKEW OR SKEW LESS THAN 20°

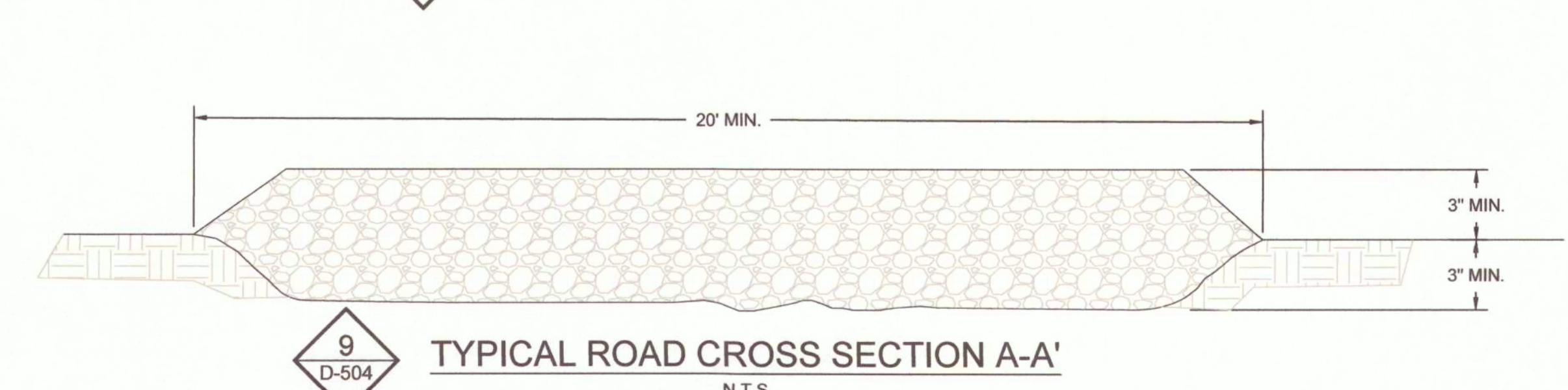
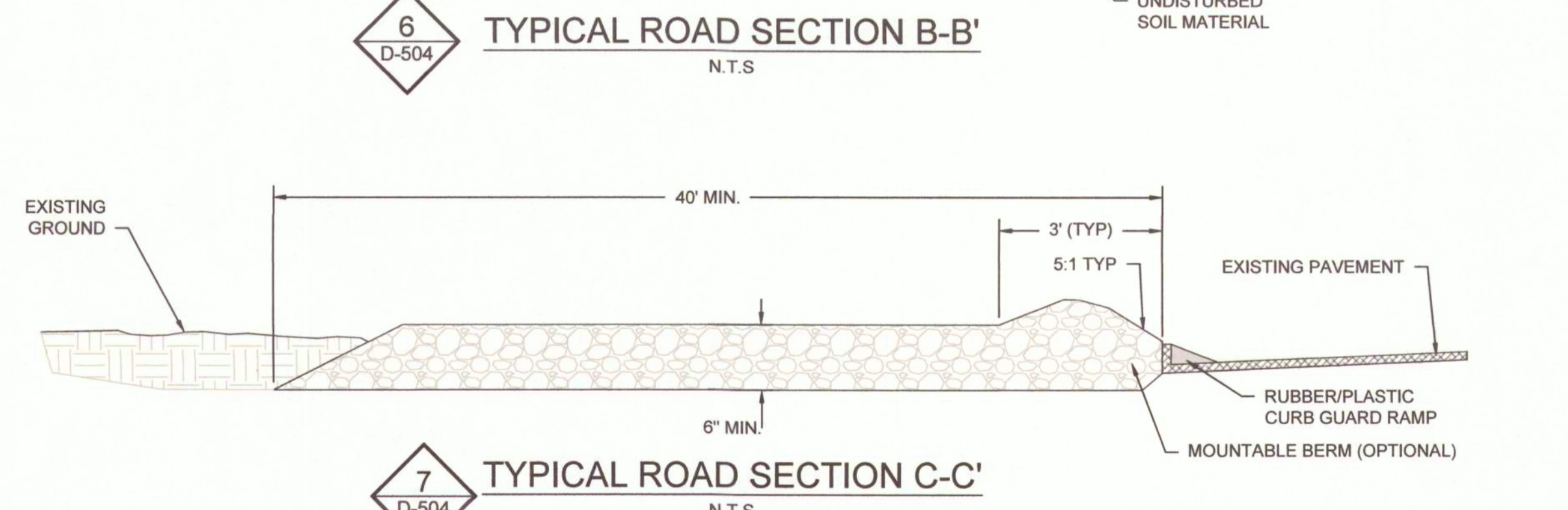
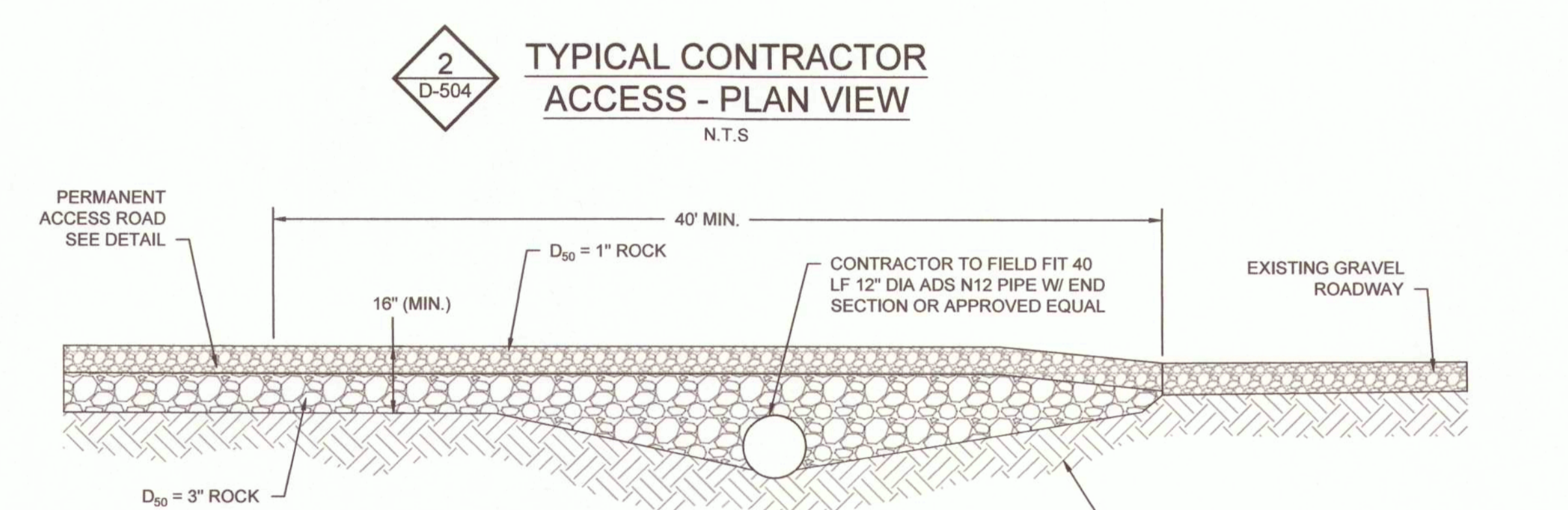
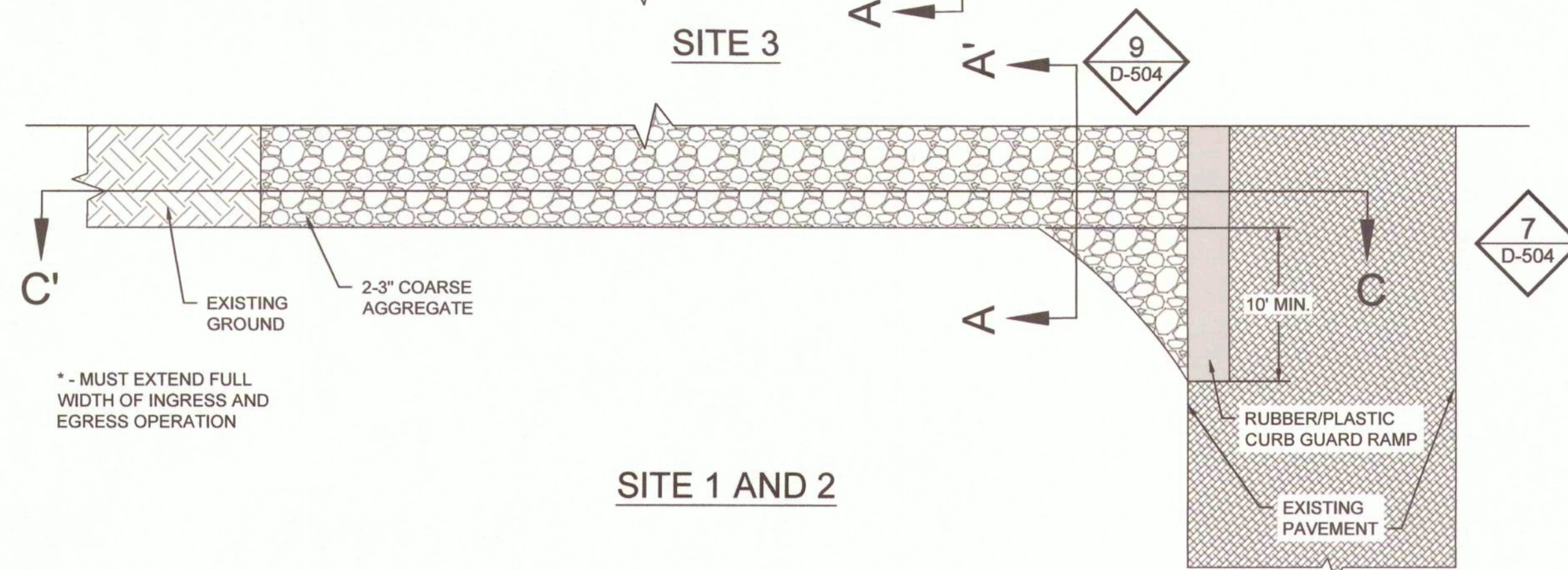
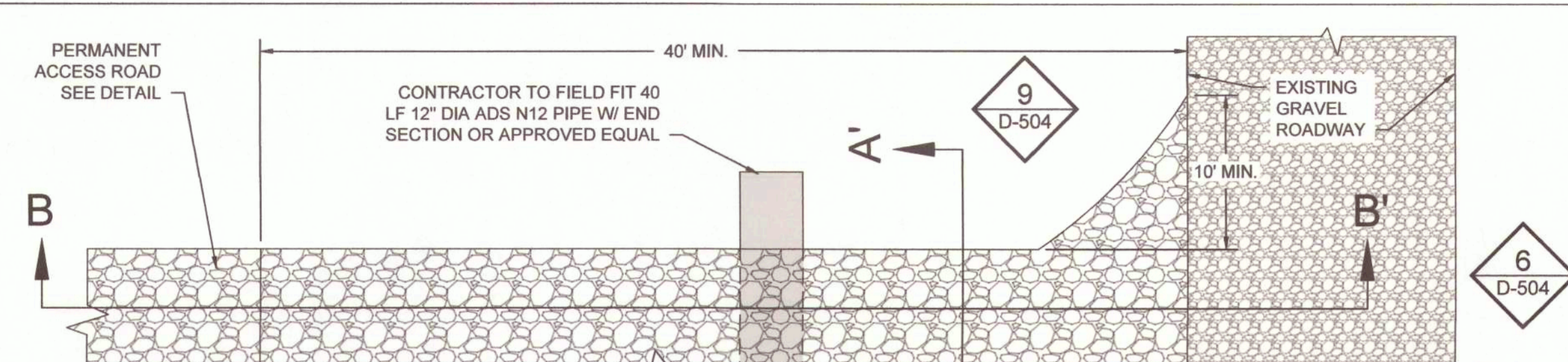
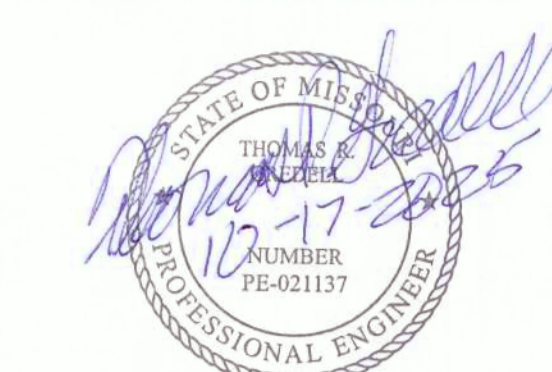


10 TRANSVERSE JOINTS NEAR DEFLECTIONS
N.T.S.

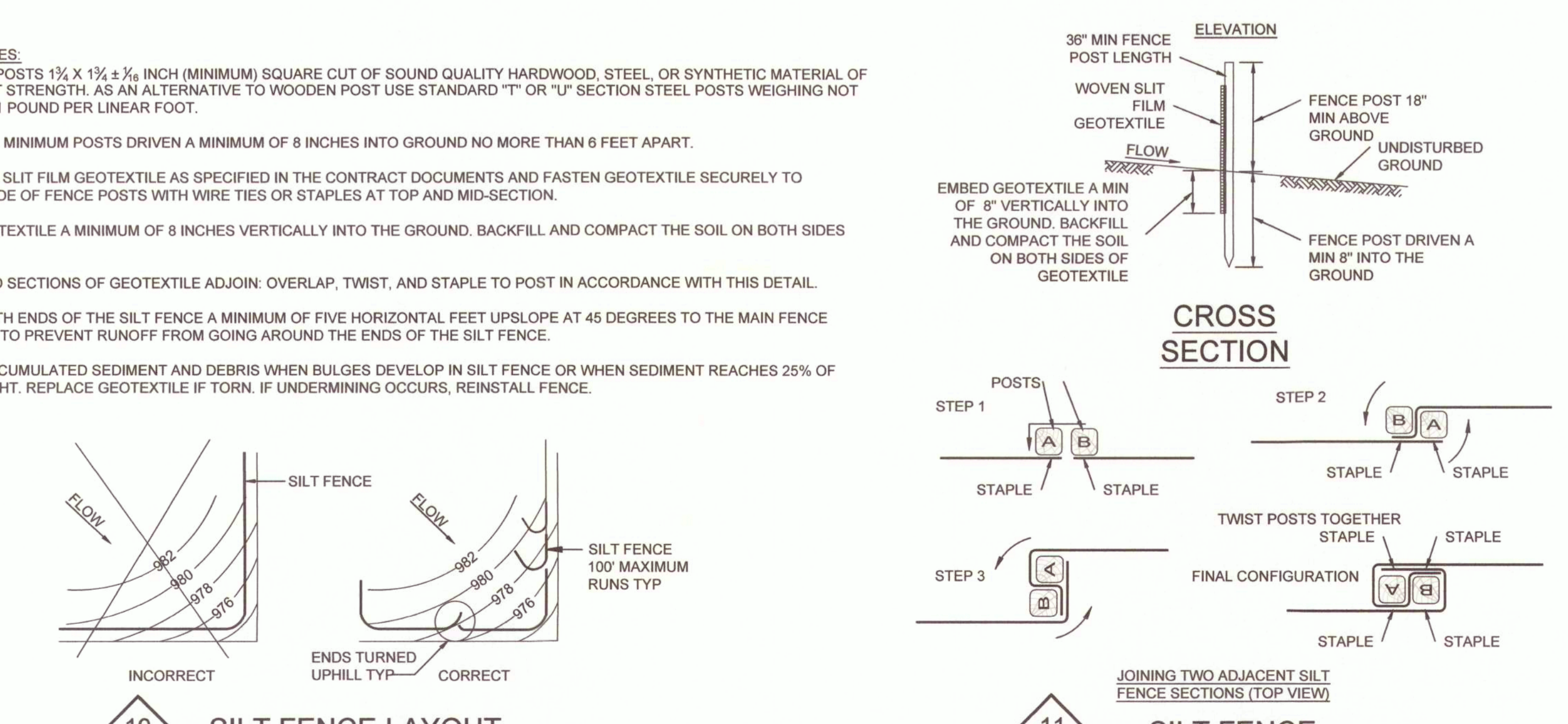
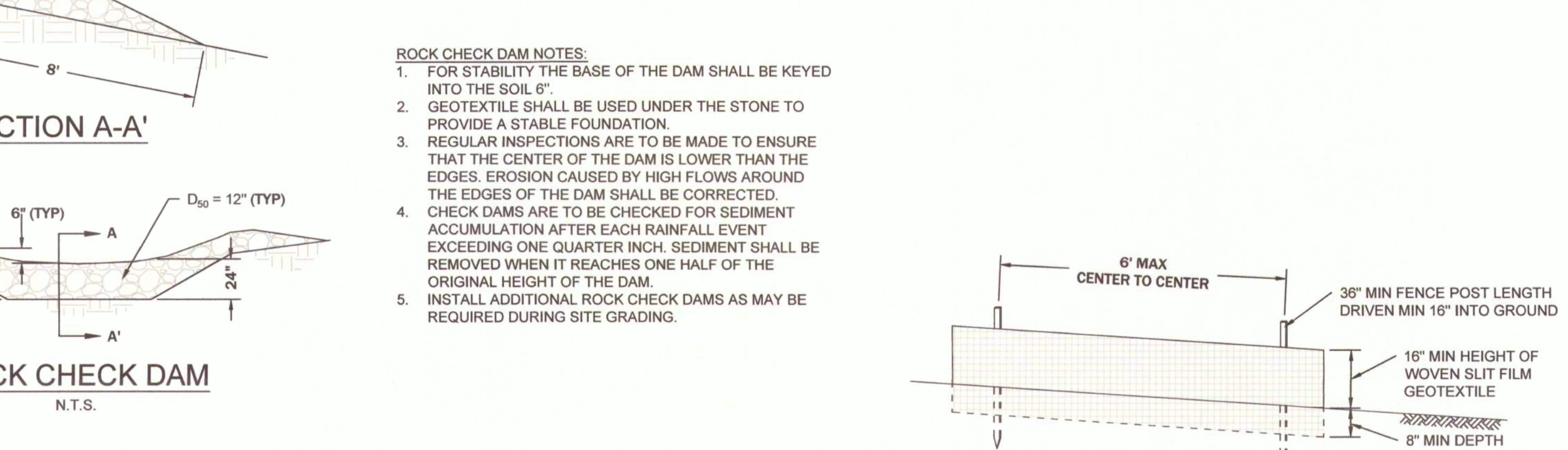
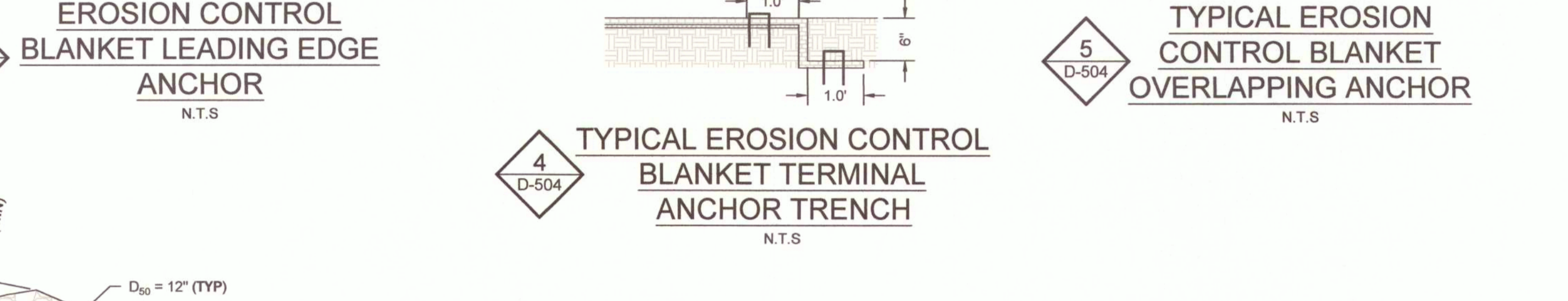
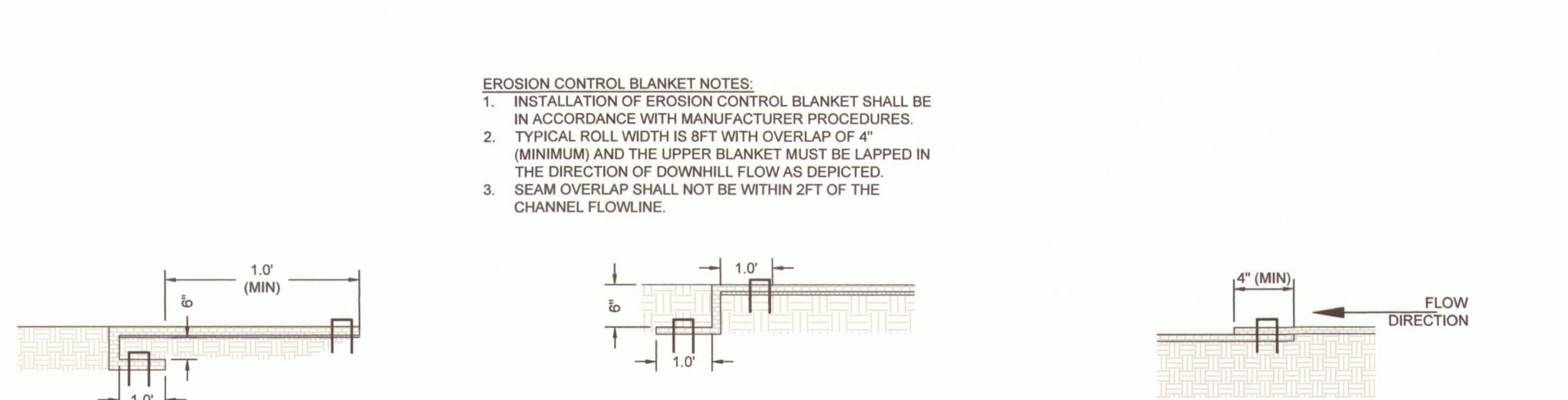
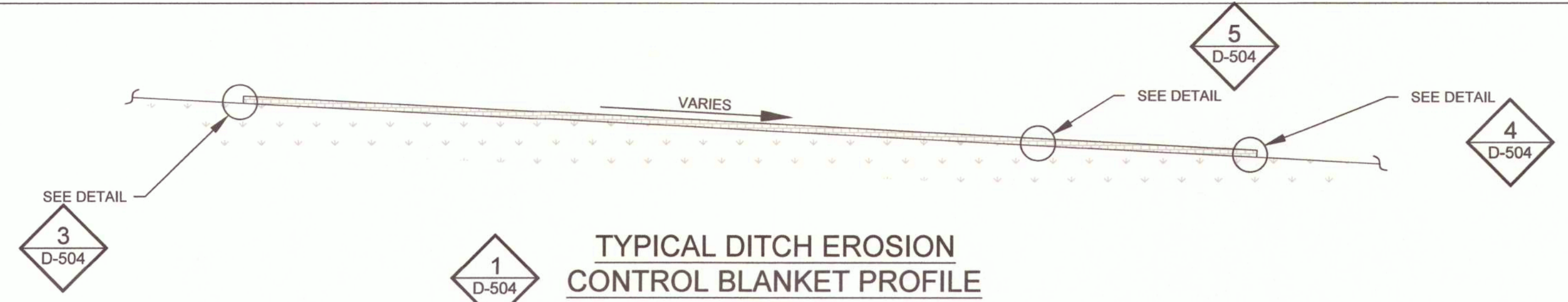
- GENERAL NOTE:**
- SECTIONS WITH A DEFLECTION SHOULD NOT HAVE A TRANSVERSE JOINT LOCATED WITHIN THAT PORTION THAT IS 5 FT UPSTREAM OR 10 FT DOWNSTREAM FROM A POINT OF DEFLECTION (BEND).



6 SITE 1 - MANHOLE AND TRANSVERSE JOINT LOCATIONS
N.T.S.



- NOTES FOR CONSTRUCTION ENTRANCE:**
1. REMOVE VEGETATION AND OTHER UNSUITABLE MATERIAL FROM THE FOUNDATION AREA, GRADE, AND CROWN FOR POSITIVE DRAINAGE.
 2. IF SLOPE TOWARDS THE PUBLIC ROAD EXCEEDS 2%, CONSTRUCT A 6 TO 8 INCH HIGH RIDGE WITH 3H:1V SIDE SLOPES ACROSS THE FOUNDATION APPROXIMATELY 15 FEET FROM THE EDGE OF THE PUBLIC ROAD TO DIVERT RUNOFF.
 3. INSTALL PIPE UNDER THE ENTRANCE IF NEEDED TO MAINTAIN DRAINAGE DITCHES ALONG PUBLIC ROADS.
 4. PLACE STONE TO DIMENSIONS AND GRADE AS SHOWN ON PLANS. LEAVE SURFACE SLOPED FOR DRAINAGE.
 5. RESHAPE ENTRANCE AS NEEDED TO MAINTAIN FUNCTION AND INTEGRITY OF INSTALLATION. TOP DRESS WITH CLEAN AGGREGATE AS NEEDED.



- EROSION CONTROL BLANKET NOTES:**
1. INSTALLATION OF EROSION CONTROL BLANKET SHALL BE IN ACCORDANCE WITH MANUFACTURER PROCEDURES.
 2. TYPICAL ROLL WIDTH IS 8 FT WITH OVERLAP OF 4" (MINIMUM) AND THE UPPER BLANKET MUST BE LAPPED IN THE DIRECTION OF DOWNHILL FLOW AS DEPICTED.
 3. SEAM OVERLAP SHALL NOT BE WITHIN 2 FT OF THE CHANNEL FLOWLINE.

- ROCK CHECK DAM NOTES:**
1. FOR STABILITY THE BASE OF THE DAM SHALL BE KEED INTO THE SOIL 6".
 2. GEOTEXTILE SHALL BE USED UNDER THE STONE TO PROVIDE A STABLE FOUNDATION.
 3. REGULAR INSPECTIONS ARE TO BE MADE TO ENSURE THAT THE CENTER OF THE DAM IS LOWER THAN THE EDGES. EROSION CAUSED BY HIGH FLOWS AROUND THE EDGES OF THE DAM SHALL BE CORRECTED.
 4. CHECK DAMS ARE TO BE CHECKED FOR SEDIMENT ACCUMULATION AFTER EACH RAINFALL EVENT EXCEEDING ONE QUARTER INCH. SEDIMENT SHALL BE REMOVED WHEN IT REACHES ONE HALF OF THE ORIGINAL HEIGHT OF THE DAM.
 5. INSTALL ADDITIONAL ROCK CHECK DAMS AS MAY BE REQUIRED DURING SITE GRADING.

- SILT FENCE NOTES:**
1. USE WOOD POSTS 1 1/4 X 1 1/4 INCH (MINIMUM) SQUARE CUT OF SOUND QUALITY HARDWOOD, STEEL, OR SYNTHETIC MATERIAL OF EQUIVALENT STRENGTH. AS AN ALTERNATIVE TO WOODEN POST USE STANDARD "I" OR "U" SECTION STEEL POSTS WEIGHING NOT LESS THAN 1 POUND PER LINEAR FOOT.
 2. USE 3/8 INCH MINIMUM POSTS DRIVEN A MINIMUM OF 8 INCHES INTO GROUND NO MORE THAN 6 FEET APART.
 3. USE WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN THE CONTRACT DOCUMENTS AND FASTEN GEOTEXTILE SECURELY TO UPSLOPE SIDE OF FENCE POSTS WITH WIRE TIES OR STAPLES AT TOP AND MID-SECTION.
 4. EMBED GEOTEXTILE A MINIMUM OF 8 INCHES VERTICALLY INTO THE GROUND. BACKFILL AND COMPACT THE SOIL ON BOTH SIDES OF FABRIC.
 5. WHERE TWO SECTIONS OF GEOTEXTILE ADJOIN: OVERLAP, TWIST, AND STAPLE TO POST IN ACCORDANCE WITH THIS DETAIL.
 6. EXTEND BOTH ENDS OF THE SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SILT FENCE.
 7. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN SILT FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL FENCE.