

**INVITATION FOR BIDS
FOR
LETCHER COUNTY, KENTUCKY**

**EMERGENCY WATERSHED PROTECTION
STREAMBANK STABILIZATION**

GRAYS BRANCH

DSR-21-05-24-5078-001

PROPOSAL DUE ON 9/16/2026

NO LATER THAN 2:00 PM EST

LETCHER COUNTY, KENTUCKY
EWP STREAMBANK STABILIZATION
DSR-21-05-24-5078-001

I. PURPOSE:

Letcher County (hereafter referred to as “County”) is soliciting proposals from experienced contractors to provide Streambank Stabilization services near Grays Branch as part of the USDA Natural Resources Conservation Service’s (NRCS) Environmental Watershed Protection (EWP) Program, according to NRCS Standard Practices and Specifications and Construction Plans, attached or referenced in Appendices A and B.

The work consists of the excavation required by the drawings and specifications, as well as the disposal of the excavated materials.

The purpose of this work is to reduce risks to agricultural resources or civil infrastructure by removing obstructions that hinder channel flow or sediment transport in order to restore flow capacity and direction, prevent excessive bank erosion by eddies or redirection of flow, and reduce the undesirable formation of bars and/or minimize blockages by debris.

II. SCHEDULE

- A. PRE-PROPOSAL OPTIONAL SITE VISIT: **Thursday, September 10, 2026 at 10:00 AM EST**
- B. PROPOSAL SUBMISSION DEADLINE: **Wednesday, September 16, 2026 at 2:00 PM EST**
- C. PUBLIC PROPOSAL OPENING: **Wednesday, September 16, 2026 at 3:00 PM EST in the Judge Executive’s Office**
- D. MEETING FOR AWARD: **Monday, September 21, 2026 at 10:00 AM during the monthly Fiscal Court Meeting**
- E. WORK MUST BE COMPLETED NO LATER THAN: **60 days after contract issued**

III. POINT OF CONTACT:

Points of contact for this proposal: Please copy all contacts on emails.

Terry Adams, Judge: judgeadams@letchercounty.ky.gov

ER Assist Grant Manager: ky-letcher@erassist.com

IV. GENERAL TERMS & INFORMATION:

- A. Bids and all required documents must be submitted online to the DFS Procurement Portal (hereinafter “DFS Portal” or “Portal”) at dfs.bonfirehub.com no later than **September 16, 2026 at 2:00 PM**, local time (EST).
- B. Submittals received after the closing time will not be accepted. Multiple submittals from the same entity will not be accepted. Submission is electronic only through the DFS Portal. Hard copy proposals or offers by telephone, fax, or email will not be accepted.
- C. All bidders are encouraged to attend an **optional Pre-Bid Meeting and Site Visit scheduled for September 10, 2026 at 10:00 AM EST** at the Letcher County Fiscal Court, 156 Main St STE 107, Whitesburg, KY 41858. No synopsis or summary of the meeting will be provided.
- D. Addenda regarding this RFP will be posted to the DFS Portal at dfs.bonfirehub.com. Proposers are responsible for obtaining addenda and are advised to check the website frequently.
- E. Questions regarding this RFP are to be submitted to dfs.bonfirehub.com. For questions regarding portal registration or navigation, please email: procurement@erassist.com.
- F. Technical proposals should contain enough information for the County to make an evaluation; however, overly complex or excessive proposals will be a burden to the proposal scoring committee and should be avoided.
- G. All proposals must be properly certified by the entity bidding for the work and signed by an officer, director or owner that has authority to bind and commit the Contractor to perform said work and services.
- H. Work shall be bid by unit price and all prices shall be all-inclusive and shall include all work required to complete the scope of work according to the Standards, Specifications, and Construction Plans in Appendices A and B, including but not limited to vegetating disturbed areas, traffic control, mobilization and demobilization, contractor quality control, and pollution control measures.
- I. Prices offered in the Cost Proposal Form by contractor shall be all inclusive and in accordance with the NRCS Standards and Specifications attached in Appendix A and shall not be increased or changed for any reason other than changes requested or approved by Letcher County.
- J. The County of Letcher reserves the right to request additional information for any and all prices offered in the Cost Proposal Form, including but not limited to a comprehensive breakdown of prices offered.

- K. The following forms are provided in this RFP for reference. Proposers must review each form and enter their response as directed in the Portal's Required Information section. The confirmation or declaration statement for each form for which a response is required is provided in a gray box at the bottom of each form in this document. All responses must be true and accurate and shall be considered the equivalent of a legally-binding electronic signature.
1. Attachment 1: Proposal Certification and Cost Proposal Form
 2. Attachment 2: NON-COLLUSION DECLARATION
 3. Attachment 3: CERTIFICATION REGARDING LOBBYING
 4. Attachment 4: FORM 200.321 AFFIRMATIVE STEPS
 5. Attachment 5: CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY and VOLUNTARY EXCLUSION
 6. Attachment 6: CONFLICT/NON-CONFLICT OF INTEREST STATEMENT
 7. Attachment 7: DRUG-FREE WORKPLACE AFFIDAVIT
- L. Costs of preparation of a response to this request for proposals are solely those of the proposers. The County assumes no responsibility for any such costs incurred by the proposer. The proposer also agrees that the County bears no responsibility for any costs associated with any administrative or judicial proceedings resulting from the solicitation process.
- M. Proposals will be opened publicly prior to the award meeting on June 26, 2026 at 10:00 AM in the Judge Executive's Office.
- N. Award is set to occur at the monthly meeting of the Letcher County Fiscal Court, 156 Main St STE 107, Whitesburg, KY 41858 on **September 21, 2026 at 10:00 AM EST**.
- O. Successful proposers must provide insurance policies showing proof of liability coverage, auto coverage and workers compensation.
- P. Successful proposers, assigns, subcontractors must be compliant with all applicable Federal, State and Local laws.
- Q. The County has the right to cancel a solicitation at any time prior to approval of the award by the County.
- R. The County of Letcher reserves the right to accept or reject any and all proposals, in addition, the County reserves the right to accept multiple proposals and award work per location or per line item.

V. PROJECT SCOPE

- A. All work shall be performed as detailed or referenced in the attached NRCS National Conservation Practice Standards and Specifications and Job Sheets attached hereto in Appendices A and B. The work consists of (1) Slide Removal - The work consists of the

excavation required by the drawings and specifications, as well as the disposal of the excavated materials. , (2) pollution control - work consists of installing measures or performing work to control erosion and minimize the production of sediment and other pollutants to water and air from construction activities, (3) seeding and mulching - work consists of preparing the area for treatment; furnishing and placing seed, sprigs, mulch, fertilizer, inoculant, lime, and other soil amendments; and anchoring mulch in designated areas as specified.

- B. Access points for each site are at the coordinates provided (where the stream meets the road) any additional or special instructions regarding site access will be provided at the Pre-Proposal meetings.
- C. All assigned work shall be performed at the specified location(s) and within the site parameters as determined by NRCS and provided below and in Appendix B. This project contains the following site having a site ID that correlates to the project map in Appendix B consisting of a number and a letter.
 - 1. Site 1 : 37.189855, -82.670359
 - i. Excavate approximately 5602 CY of embankment slide.
 - ii. Seed and Mulch approximately 0.7 acres of embankment for erosion control.

Attachment 1: Certification and Cost Proposal Form

Proposing Certification: I have carefully examined the Request for Proposals and any other documents accompanying or made a part of this Request for Proposals.

I hereby propose to furnish the goods or services specified in the Request for Proposals at the rates quoted in my Proposal. I agree that my Proposal will remain in effect for a period of up to one hundred eighty (180) days.

I agree to abide by all conditions of this Proposal and understand that a background investigation may be conducted prior to award.

I certify that all information contained in this Proposal is truthful to the best of my knowledge and belief. I further certify that I am duly authorized to submit this Proposal on behalf of the Proposer as its act and deed and that the Proposer is ready, willing and able to perform if awarded the Contract.

I certify this Proposal is made without prior understanding, agreement, connection, discussion, or collusion with any other person, firm or corporation submitting a Proposal for the same product or service. I further certify that no officer, employee or agent of County or of any other Proposer has a financial interest in this Proposal. I further certify that the undersigned executed this Proposer's Certification with full knowledge and understanding of the matters therein contained and was duly authorized to do so.

DFS Portal Confirmation / Declaration:

By completing and submitting the Cost Proposal Form, you are certifying all of the above as well as the prices and data entered in the Cost Proposal Form in the DFS Portal. The following Cost Proposal Form is provided for reference only.

Attachment 1: Certification and Cost Proposal Form

SAMPLE COST PROPOSAL FORM

Emergency Watershed Protection Program - Letcher County

DSR-21-05-24-5078-001

The prices offered shall be "all-inclusive", and shall not be increased or changed for any reason other than changes requested or approved by the County and shall conform to the NRCS Standards & Specifications.

Breakdown of costs will be required upon request by the County or NRCS.

This is a Sample Cost Proposal Form ONLY. Actual bid prices shall be entered in the Portal. This form is not required but can be submitted. In the case of price discrepancies, the prices in the Portal will prevail.

ITEM #	Work/Material	Unit	Qty	Unit Rate	Proposed Cost (extended)
1	Seeding and Mulching	AC	0.7		
2	Mobilization and Demobilization	Lump Sum	1		
3	Excavation	CY	5,602		
Total Cost					

Attachment 2: NON-COLLUSION DECLARATION

The proposal is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The bid is genuine and not collusive or sham. The bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid. The bidder has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding. The bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder.

All statements contained in the bid are true. The bidder has not, directly or indirectly, submitted his or her bid price of any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid, and has not paid, and will not pay, any person or entity for such purpose.

Any person executing this declaration on behalf of a bidder that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this declaration on behalf of the bidder.

I declare under penalty of perjury under the applicable laws that the foregoing is true and correct.

DFS Portal Confirmation / Declaration:

*Do you confirm that you have read the Non-Collusion declaration and therefore declare under penalty of perjury under the applicable laws that the Non-Collusion Declaration is true and correct?
(Y/N)*

Attachment 3: CERTIFICATION REGARDING LOBBYING

The undersigned certifies that, to the best of their knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instruction.

3. The undersigned shall require that the language of this certification be included in the award document for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31 U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

DFS Portal Confirmation / Declaration:

Do you, the Contractor, confirm that you have read the Certification Regarding Lobbying form and certify or affirm the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. Chap. 38, Administrative Remedies for False Claims and Statements, apply to this certification and disclosure, if any. (True/False)

Attachment 4: FORM 200.321 AFFIRMATIVE STEPS**CONTRACTING WITH SMALL AND MINORITY BUSINESSES, WOMEN'S BUSINESS ENTERPRISES, AND LABOR SURPLUS AREA FIRMS §200.321**

The County is required to take all necessary affirmative steps to assure that minority business, women's business enterprises, and labor surplus area firms are used when possible. If contractor uses subcontractors, they are also required to take the following affirmative steps:

1. Placing qualified enterprises on solicitation lists.
2. Assuring that enterprises are solicited whenever they are potential sources.
3. Dividing total requirements when economically feasible into smaller tasks or quantities to permit maximum participation by enterprises.
4. Establishing delivery schedules, where the requirement permits, which encourage participation by enterprises.
5. Using the services and assistance, as appropriate, of such organizations as the Small Business Administration and the Minority Business Development Agency of the Department of Commerce.

DFS Portal Confirmation / Declaration:

Do you confirm that you have read the 200.321 Affirmative Steps Confirmation and agree to take the listed affirmative steps when using subcontractors. (Y/N)

**Attachment 5: CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY and
VOLUNTARY EXCLUSION**

Neither the entity or its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation by any federal department or agency.

DFS Portal Confirmation / Declaration:

Do you confirm that neither the entity nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation by any federal department or agency? (Y/N)

Attachment 6: CONFLICT/NON-CONFLICT OF INTEREST STATEMENT

To the best of our knowledge the bidder has no potential conflict of interest due to any other clients, contracts, or property interest for this project. [SELECT YES IF TRUE]

OR

The bidder, by attachment, submits information which may be a potential conflict of interest due to other clients, contracts, or property interest for this project. [SELECT NO IF TRUE & UPLOAD DOCUMENTATION]

Failure to answer appropriately may result in disqualification of your bid.

DFS Portal Confirmation / Declaration:

Do you confirm that to the best of your knowledge the undersigned proposer has no potential conflict of interest due to any other clients, contracts, or property interest for this project? (Y/N)

If answered no, documentation must be uploaded containing information regarding what may be a potential conflict of interest due to other clients, contracts, or property interest for this project.

Attachment 7: DRUG-FREE WORKPLACE AFFIDAVIT

The undersigned certifies that the responding firm has taken steps to :

1. Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.
2. Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations.
3. Give each employee engaged in providing the commodities or contractual services that are proposed, a copy of the drug- free workplace statement.
4. In the statement specified in drug-free workplace statement, notify the employees that as a condition of working on the commodities or contractual services that are under bid the employee will abide by the terms of the statement and will notify the employer of any conviction of or plea of guilty or nolo contendere to any violation of any controlled substance law of the United States or any state for a violation occurring in the workplace no later than five (5) days after such conviction.
5. Impose a sanction on or require the satisfactory participation in a drug abuse assistance or rehabilitation program if such is available in the employee's community by any employee who is so convicted.
6. Make a good faith effort to continue to maintain a drug-free workplace through implementation of this section.

I certify that this firm complies fully with the above requirements.

DFS Portal Confirmation / Declaration:

Do you confirm that you have read the Drug-Free Workplace Affidavit and certify that the responding company complies fully with the listed requirements? (Y/N)

- *Upload the contractor's Drug Free Workplace Policy*

APPENDIX A

NRCS Construction & Material Specifications

5078 Letcher - DSR 21 05 24 5078 001 – Gray's Br Road
EMERGENCY WATERSHED PROTECTION (EWP) STREAMBANK
STABLIZATION PROJECT
with the cooperation of the
LETCHER COUNTY FISCAL COURT, LETCHER COUNTY,
KENTUCKY
and the
NATURAL RESOURCES CONSERVATION SERVICE (NRCS)
CONSTRUCTION and MATERIAL SPECIFICATIONS



LIST OF APPLICABLE SPECIFICATIONS

Specifications

- NRCS National Construction Specification 3, Structure Removal
- NRCS National Construction Specification 5, Pollution Control
- NRCS National Construction Specification 6, Seeding, Sprigging, and Mulching
- NRCS National Construction Specification 8, Mobilization and Demobilization
- NRCS National Construction Specification 9, Traffic Control
- NRCS National Construction Specification 11, Removal of Water
- NRCS National Construction Specification 21, Excavation
- NRCS National Construction Specification 23, Earthfill
- NRCS National Construction Specification 94, Contractor Quality Control

MATERIAL SPECIFICATIONS

- None

CONSTRUCTION DRAWINGS

DSR 5078-001 Grays Br. New Design, sheets 1 through 5

Construction Specification 3 — Structure Removal

Title 210 – Engineering

Part 642 – Specifications for Construction Contracts

Subpart B – National Construction Specifications

June 2024

A. Scope

1. The work consists of the removal, salvage, and disposal of structures (including fences) from the designated areas.

B. Marking

1. Method 1. Each structure or structure part to be removed will be marked with stakes, flags, paint, or other suitable methods.
2. Method 2. The area boundaries from which structures must be removed will be marked using stakes, flags, paint, or other suitable methods. Structures to remain undisturbed or to be salvaged will be designated by special markings.

C. Removal

1. Method 1. Remove all structures designated for removal in the contract to the specified extent and depth.
2. Method 2. Within the areas so marked, remove all visible and buried structures identified to the specified extent and depth.

D. Salvage

1. Structures or structure parts that are designated to be salvaged must be carefully removed and neatly placed in the specified or approved storage location. Salvaged structures that are capable of being disassembled must be dismantled into individual members or sections. Such structures must be neatly and systematically matchmarked with paint before disassembly. Mark all connectors and other parts to indicate their proper location within the structure and fasten to the appropriate structural member or packed in suitable containers.
2. Material from fences designated to be salvaged must be placed outside the work area on the property that the fence was originally located. Fence wire must be rolled into uniform rolls of suitable size and neatly piled with other salvaged materials. Neatly stack posts and rails.

E. Disposal of Refuse Materials

1. Dispose of refuse materials resulting from structure removal in a manner and at locations specified in Section G of this specification or in an acceptable manner and at locations approved by the contracting officer. Disposal by burning must be in accordance with local rules and regulations.

F. Measurement and Payment

1. Method 1.
 - a. For items of work for which specific unit prices are established by the contract, payment for the removal of each structure unit, except fences, is made at the contract unit price. Fences removed or removed and salvaged are measured to the nearest linear foot. Payment for fence removal or removal and salvage is made at the contract unit prices for each type and size of fence.
 - b. Such payment will constitute full compensation for all labor, equipment, tools, applicable permits and associated fees for burning and disposal of refuse, and other items necessary and incidental to the completion of the work.
2. Method 2.
 - a. For items of work for which specific lump-sum prices are established by the contract, payment for structure removal is made at the contract lump-sum price.
 - b. Such payment will constitute full compensation for all labor, equipment, tools, applicable permits and associated fees for burning and disposal of refuse, and other items necessary and incidental to the completion of the work.
3. All Methods. The following provisions apply to all methods of measurement and payment. Compensation for any item of work described in the contract but not listed as a contract line-item number in the bid schedule is included in the payment for the item of work to which it is made subsidiary. Such items and items to which they are made subsidiary are identified in Section G of this specification.

G. Items of Work and Construction Details

G. Items of Work and Construction Details

Items of work to be performed in conformance with this specification and the construction details are:

a) Subsidiary Item, Structure Removal, Existing Culvert Pipe

- 1) This item shall consist of all the excavations and work in general to remove and salvage the existing 24" diameter Corrugated Metal Pipe culvert as delineated on the drawings.
- 2) In Section B, Marking, no method will apply. Removal will begin at the exposed end of the culvert pipe as delineated on the drawings and continue throughout the end section of the pipe, which is estimated to be a total pipe length of 40 feet.
- 3) In Section C, Removal, Method 2 will apply.
- 4) In Section D, Salvage, Method 1 will apply. Recovered sections will be neatly stacked within the work limits for later usage by the landowner.
- 5) In Section E, Disposal of Refuse Materials, any pipe that is damaged beyond further usage, at the discretion of the landowner, will be designated as waste and disposed of at the "County Wide Disposal Area" as delineated on the drawings.
- 6) In Section F, Measurement and Payment, no method shall apply. Full compensation for the completion of this item of work shall be included in the payment for:
 - a) Bid Item 3, Excavation

Construction Specification 5 — Pollution Control

Title 210 – Engineering

Part 642 – Specifications for Construction Contracts

Subpart B – National Construction Specifications

June 2024

A. Scope

1. The work consists of installing measures or performing work to control erosion and minimize the production of sediment and other pollutants to water and air from construction activities.
2. The following BioPreferred® product categories are applicable to this specification:
 - a. Mulch and compost materials
 - b. Erosion control materials
 - c. Fertilizers
 - d. Dust suppressants
 - e. Agricultural spray adjuvants

B. Material

1. Silt fence conform to the requirement of Materials Specification 592, Geotextile. All other material furnished meet the requirements of the material specifications listed in Section G of this specification.
2. Erosion and Sediment Control Measures and Works. The measures and works includes, but are not limited to, the following:
 - a. Staging of Earthwork Activities. Scheduling the excavation and moving of soil materials to minimize the size of areas disturbed and unprotected from erosion for the shortest reasonable time.
 - b. Seeding. Seeding to protect disturbed areas occur as soon as reasonably possible following completion of that earthwork activity.
 - c. Mulching. Mulching to provide temporary protection of the soil surface from erosion.
 - d. Diversions. Diversions to divert water from work areas and to collect water from work areas for treatment and safe disposition. These are temporary and must be removed and the area restored to its near-original condition when the diversions are no longer required or when permanent measures are installed.
 - e. Stream Crossings. Culverts or bridges where equipment must cross streams. These are temporary must and be removed and the area restored to its near-original condition when the crossings are no longer required or when permanent measures are installed.
 - f. Sediment Basins. Sediment basins for collecting, settling, and eliminating sediment from eroding areas that impact properties and streams below the

construction sites. These basins are temporary and must be removed and the area restored to its original condition when they are no longer required or when permanent measures are installed.

- g. Sediment Filters. Straw bale filters or geotextile sediment fences for trapping sediment from areas with limited runoff. Sediment filters must be properly anchored to prevent erosion under or around them. Silt fences must be installed and maintained in accordance with ASTM D6462. These filters are temporary and must be removed and the area restored to its original condition when they are no longer required or when permanent measures are installed.
- h. Waterways. Waterways for the safe disposal of runoff from fields, diversions, and other structures or measures. These works are temporary and must be removed and the area restored to its original condition when they are no longer required or when permanent measures are installed.
- i. Other. Additional protection measures as specified in Section G of this specification or required by the federal, state, or local government.

C. Chemical Pollution

- 1. The contractor must provide watertight tanks or barrels or construct a sump sealed with plastic sheets to collect and temporarily contain chemical pollutants, such as drained lubricating or transmission fluids, grease, soaps, concrete mixer wash water, or asphalt, produced as a by-product from the construction activities. Dispose of pollutants in accordance with appropriate state and federal regulations. At the completion of the construction work, remove tanks, barrels, and sumps and restore the area to its original condition as specified in Section H of this specification. Sump removal must be conducted without causing pollution.
- 2. Sanitary facilities, such as chemical toilets, and septic tanks must not be located next to live streams, wells, or springs. They must be located at a distance sufficient to prevent contamination of any water source. At the completion of construction activities, facilities must be disposed of without causing pollution as specified in Section H of this specification.

D. Air Pollution

- 1. The burning of brush or slash and the disposal of other materials must adhere to state and local regulations.
- 2. Fire prevention measures must be taken to prevent the start or spreading of wildfires that may result from project activities. Firebreaks or guards must be constructed and maintained at locations shown on the drawings.
- 3. All public access or haul roads used by the contractor during construction of the project must be sprinkled or otherwise treated to fully suppress dust. All dust control methods must ensure safe construction operations at all times. If chemical dust suppressants are applied, the material must be a commercially available product specifically designed for dust suppression, and the application must follow the manufacturer's requirements and recommendations. A copy of the product data sheet and manufacturer's recommended application procedures must be provided to the engineer 5 working days before the first application.

E. Maintenance, Removal, and Restoration

1. All pollution-control measures and temporary works must be adequately maintained in a functional condition for the duration of the construction period. Remove all temporary measures and restore the site to near-original condition.

F. Measurement and Payment

1. Method 1. For items of work for which specific unit prices are established in the contract, each item is measured to the nearest unit applicable. Payment for each item is made at the contract unit price for that item. For water or chemical suppressant items used for dust control for which items of work are established in Section H of this specification, measurement for payment will not include water or chemical suppressants that are used inappropriately or excessively. Such payment will constitute full compensation for the completion of the work.
2. Method 2. For items of work for which lump-sum prices are established in the contract, payment is made as the work proceeds and is supported by invoices presented by the contractor that reflect actual costs. If the total of all progress payments is less than the lump-sum contract price for this item, the balance remaining for this item will be included in the final contract payment. Payment of the lump-sum contract price will constitute full compensation for completion of the work.
3. Method 3. For items of work for which lump-sum prices are established in the contract, payment will be prorated and provided in equal amounts on each monthly progress payment estimate. The number of months used for prorating must be the number estimated to complete the work as outlined in the contractor's approved construction schedule. The final month's prorate amount will be provided with the final contract payment. Payment as described will constitute full compensation for completion of the work.
4. All Methods. The following provisions apply to all methods of measurement and payment. Compensation for any item of work described in the contract but not listed in the bid schedule is included in the payment for the item of work to which it is made subsidiary. Such items, and the items to which they are made subsidiary, are identified in Section H of this specification.

G. Items of Work and Construction Details

G. Items of Work and Construction Details

Items of work to be performed in conformance with this specification and the construction details are:

a) Subsidiary Item, Pollution Control

- 1) This item shall consist of all the work necessary to control erosion and sediment pollution, chemical pollution and air pollution.
- 2) This item also consists of removal of water including but not limited to general dewatering, pumping, diversion and temporary embankments to exclude water from all work sites.
- 3) The Contractor's scheduling shall be made in a manner that will reduce adverse environmental effects. Construction scheduling shall be revised when significant pollution can result due to his planned construction schedule.
- 4) The Contractor shall perform work in a manner that will reduce erosion and minimize sediments and other pollutants to the water and streams and create a minimum of air pollution consistent with standard construction operations.
- 5) To the maximum extent practicable, all in-stream work under this contract shall be performed during conditions of low flow.
- 6) Measures shall be taken to prevent and control spills of fuels, lubricants, or other materials used in construction from entering the stream, drainage way, or water body.
- 7) Should evidence of stream use or jurisdictional wetland impairment and/ or violations of water quality standards occur as a result of this activity either from a spill or other forms of water pollution the Kentucky Division of Water shall be notified immediately and physical, chemical, or biological examination of the water course shall be conducted and reported. In such case(s), additional facilities or alternative measures may be required.
- 8) In Section D, Air Pollution, as necessary to control dust, water or other dust suppressors shall be applied to prevent excessively dusty conditions along haul and access roads.
- 9) In Section F, Measurement and Payment, no method shall apply. Full compensation for the completion of this item of work shall be included in the payment for:
 - a) Bid Item 3, Excavation

Construction Specification 6 — Seeding, Sprigging, and Mulching

Title 210 - Engineering

Part 642 – Specifications for Construction Contracts

Subpart B – National Construction Specifications

June 2024

A. Scope

1. The work consists of preparing the area for treatment; furnishing and placing seed, sprigs, mulch, fertilizer, inoculant, lime, and other soil amendments; and anchoring mulch in designated areas as specified.
2. The following BioPreferred® product categories are applicable to this specification:
 - a. Mulch and compost materials
 - b. Erosion control materials
 - c. Fertilizers
 - d. Agricultural spray adjuvants

B. Material

1. Seed.
 - a. All seed must conform to the current rules and regulations of the state where it is being used and must be from the latest crop available. It must meet or exceed the standard for purity and germination listed in Section G.
 - b. Seed must be labeled in accordance with the state laws and the U.S. Department of Agriculture rules and regulations under the Federal Seed Act in effect on the date of invitations for bids. Bag tag figures are evidence of purity and germination. No seed will be accepted with a test date of more than 9 months before the delivery date to the site.
 - c. Seed that has become wet, moldy, or otherwise damaged in transit or storage will not be accepted. The percent of noxious weed seed allowable must be as defined in the current state laws relating to agricultural seeds. Each type of seed must be delivered in separate sealed containers and fully tagged unless an exception is granted in writing by the contracting officer.
2. Fertilizer. Unless otherwise specified, the fertilizer must be a commercial-grade fertilizer. It must meet the standard for grade and quality specified by state law. Where fertilizer is furnished from bulk storage, the contractor must furnish a supplier's certification of analysis and weight. When required by the contract, a representative sample of the fertilizer must be furnished to the contracting officer for chemical analysis.

3. Inoculants. The inoculant for treating legume seeds must be a pure culture of nitrogen-fixing bacteria prepared specifically for the species and must not be used later than the date indicated on the container or as otherwise specified. A mixing medium, as recommended by the manufacturer, must be used to bond the inoculant to the seed. Two times the amount of the inoculant recommended by the manufacturer must be used (unless seed is applied using a hydraulic seeder; then four times the amount must be used). Seed must be sown within 24 hours of treatment and must not remain in the hydraulic seeder longer than 4 hours.
4. Lime and Other Soil Amendments. Lime must consist of standard ground agriculture limestone or approved equivalent. Standard ground agriculture limestone is defined as ground limestone meeting current requirements of the state's Department of Agriculture. Other soil amendments must meet quality criteria and application requirements specified in Section G.
5. Mulch Tackifiers. Asphalt emulsion tackifiers must conform to the requirements of ASTM D977, Specification for Emulsified Asphalt. The emulsified asphalt may be rapid setting, medium setting, or slow setting. Non-asphaltic tackifiers required because of environmental considerations must be as specified in Section G.
6. Straw Mulch Material. Straw mulch must consist of wheat, barley, oat or rye straw, hay, grass cut from native grasses, or other plants as specified in Section G. The mulch material must be air-dried reasonably light in color and must not be musty, moldy, caked, or otherwise of low quality. The use of mulch that contains noxious weeds is not permitted. The contractor must provide a method satisfactory to the contracting officer for determining weight of mulch furnished.
7. Other Mulch Materials. Mulching materials, such as wood cellulose fiber mulch, mulch tackifiers, synthetic fiber mulch, netting, and mesh may be required for specialized locations and conditions. These materials, when specified, must be accompanied by the manufacturer's recommendations for methods of application.

C. Seeding Mixtures, Sod, Sprigs, and Dates of Planting

1. The application rate per acre for seed mixtures, sprigs, or sod and the date of seeding or planting must be as shown on the plans or as specified in Section G.

D. Seedbed Preparation and Treatment

1. Dress areas to be treated to a smooth, firm surface. On sites where equipment can operate on slopes safely, adequately loosen and smooth the seedbed (4 to 6 inches deep). Depending on soil and moisture conditions, disking, cultipacking, or both, may be necessary to properly prepare a seedbed. Where equipment cannot operate safely, prepare the seedbed by methods like scarifying, providing a roughened soil surface by hand so that broadcast seed will remain in place.
2. If seeding is to be accomplished immediately following construction operations, seedbed preparation may not be required except on a compacted, polished, or freshly cut soil surface.

3. Rocks larger than 6 inches in diameter, trash, weeds, and other debris that will interfere with seeding or maintenance operations must be removed or disposed of as specified in Section G.
4. Discontinue seedbed preparation when soil moisture conditions are not suitable for the preparation of a satisfactory seedbed as determined by the responsible engineer.

E. Seeding, Sprigging, Fertilizing, Mulching, and Stabilizing

1. Perform all seeding or sprigging operations in such a manner that the seed or sprigs are applied in the specified quantities uniformly in the designated areas. The method and rate of seed application must be as specified in Section G. Unless otherwise specified, seeding or sprigging must be accomplished within 2 days after final grading is completed and approved.
2. Apply fertilizer, lime, and other soil amendments as specified in Section G. When specified, the fertilizer and soil amendments must be thoroughly incorporated into the soil immediately following surface application.
3. The rate, amount, and kind of mulching or mesh must be as specified in Section G. Apply mulches uniformly to the designated areas. They must be applied to areas seeded not later than 2 working days after seeding has been performed. Stabilize straw mulch material within 24 hours of application using a mulch crimper or equivalent anchoring tool or by a suitable tackifier. When the mulch crimper or equivalent anchoring tool is used, it must have straight blades and be the type manufactured expressly for and capable of firmly punching the mulch into the soil. Where the equipment can be safely operated, it must be operated on the contour. Use hand methods where equipment cannot safely operate to perform the work required.
4. Apply the tackifier uniformly over the mulch material at the specified rate or inject it into the mulch material as it is being applied. Stabilizing materials like mesh or netting must be applied smoothly but loosely on the designated areas. The edges of these materials must be buried or securely anchored using spikes or staples as specified in Section G.
5. The contractor must maintain the mesh or netting areas until all work under the contract has been completed and accepted. Maintenance must consist of the repair of areas damaged by water erosion, wind, fire, or other causes. Such areas must be repaired to reestablish the intended condition and to the design lines and grades required by the contract. The areas must be re-fertilized, reseeded, and re-mulched before the new application of the mesh or netting.

F. Measurement and Payment

1. Method 1. For items of work for which specific unit prices are established in the contract, each area treated is measured as specified in Section G and area is calculated to the nearest 0.1 acre. Payment for treatment is made at the contract unit price for the designated treatment, which will constitute full compensation for completion of the work.

- a. When specified as an item of work, mesh or netting is measured to the nearest square yard of surface area covered and accepted. Payment is made at the contract unit price and will constitute full compensation for completion of the work.
2. Method 2. For items of work for which specific lump-sum prices are established in the contract, the quantity of work will not be measured for payment. Payment for this item is made at the contract lump-sum price for the item and will constitute full compensation for the completion of the work.
3. Method 3. For items of work for which lump-sum prices are established in the contract, payment is made as the work proceeds. Progress payments will be determined as specified in Section G. Payment of the lump-sum contract price will constitute full compensation for completion of the work.
4. All Methods. The following provisions apply to all methods of measurement and payment. Compensation for any item of work described in the contract but not listed in the bid schedule is included in the payment for the item of work to which it is made subsidiary. Such items and the items to which they are made subsidiary are identified in Section G.

G. Items of Work and Construction Details

G. Items of Work and Construction Details

Items of work to be performed in conformance with this specification and the construction details are:

a) Bid Item 1, Seeding and Mulching

- 1) This item shall consist of the application of seed and fertilizer on all areas disturbed by construction. All necessary grading and filling of rills and gullies shall be incidental to seedbed preparation.
- 2) In Section B, Materials, no agricultural lime is required.
- 3) In Section B, Materials, no fertilizer is required.
- 4) In Section B, Materials. Small grain straw may be used for mulch applied at a rate of two tons per acre. Hydro seeding mulch may be used, follow manufactures recommended application rates.
- 5) In Section C, Seeding Mixtures, Sod, Sprigs, and Date of Planting, the designated areas will be seeded in accordance with the following:

<u>Species</u>	<u>Minimum % Purity</u>	<u>Minimum % Germination</u>	<u>* Seeding Rates - lbs/acre [Pure Live Seed (PLS)]</u>	
			<u>03/01 to 10/31</u>	<u>11/01 to 02/28</u>
Tall Fescue (KY-31) <u>(<i>festuca arundinacea</i>)</u>	96	80	50	75
Annual Ryegrass <u>(<i>lolium multiflorum</i>)</u>	90	70	10	0
Winter Wheat <u>(<i>triticum aestivum</i>)</u>	90	80	0	90

* Seeding Rates (lbs/acre) = PLS x 10000 / % Purity x % Germination

- 6) In Section D, Seedbed Preparation and Treatment, the areas to be seeded and mulched will be scarified either by machine or by providing a roughened soil surface by hand raking.
- 7) In Section F, Measurement and Payment, Method 1 will apply.

Construction Specification 8 — Mobilization and Demobilization

Title 210 – Engineering

Part 642 – Specifications for Construction Contracts

Subpart B – National Construction Specifications

June 2024

A. Scope

1. The work consists of the mobilization and demobilization of the contractor's forces and equipment necessary for performing the work required under the contract. It does not include mobilization and demobilization for specific items of work for which payment is provided elsewhere in the contract. Mobilization will not be considered as work in fulfilling the contract requirements for commencement of work.

B. Equipment and Material

1. Mobilization includes all activities and associated costs for transportation of contractor's personnel, equipment, and operating supplies to the site; establishment of offices, buildings, and other necessary general facilities for the contractor's operations at the site; premiums paid for performance and payment bonds including coinsurance and reinsurance agreements as applicable; and other items specified in Section D of this specification.
2. Demobilization includes all activities and costs for transportation of personnel, equipment, and supplies not required or included in the contract from the site, including the disassembly, removal, and site cleanup of offices, buildings, and other facilities assembled on the site specifically for this contract.
3. This work includes mobilization and demobilization required by the contract at the time of award. If additional mobilization and demobilization activities and costs are required during the performance of the contract as a result of changed, deleted, or added items of work for which the contractor is entitled to an adjustment in contract price, compensation for such costs will be included in the price adjustment for the item or items of work changed or added.

C. Payment

1. Payment will be made as the work proceeds after presentation of paid invoices or documentation of direct costs by the contractor showing specific mobilization and demobilization costs and supporting evidence of the charges of suppliers, subcontractors, and others. When the total of such payments is less than the lump-sum contract price, the balance remaining will be included in the final contract payment. Payment of the lump sum contract price for mobilization and demobilization will constitute full compensation for completion of the work.

2. Payment will not be made under this item for the purchase costs of materials having a residual value, the purchase costs of materials to be incorporated in the project, or the purchase costs of operating supplies.

D. Items of Work and Construction Details

D. Items of Work and Construction Details

Items of work to be performed in conformance with this specification and the construction details are:

a) Bid Item 2, Mobilization and Demobilization

- 1) This item shall consist of the Mobilization and Demobilization of the Contractor's forces and equipment necessary for performing the work required under the contract.

Construction Specification 9 — Traffic Control

Title 210 – Engineering

Part 642 – Specifications

Subpart B – National Construction Specifications

June 2024

A. Scope

1. The work consists of establishing traffic control and maintaining safe, convenient use of public roads and right of way.

B. Traffic and Access

1. The contractor's operations must cause no unnecessary inconvenience to the public. Maintain the public right of way at all times unless interruption is authorized by proper local authority. Contractor's authorized closing or detour plans must be provided to the engineer for approval.
2. Provide and maintain safe and adequate access to all public protection devices and to all critical utility-control locations. Facility access must be continuous and unobstructed unless otherwise approved.

C. Storage of Equipment and Material in Public Streets

1. Construction materials and equipment must not be stored or parked on public streets, roads, or highways. During any material or equipment loading or unloading activities that may temporarily interfere with traffic, an acceptable detour must be provided for the duration of the activity. Any associated expense for this activity is the responsibility of the contractor.
2. Excavated material, including suitable material that is intended for adjacent trench backfill or other earth backfill as specified in Section E of this specification, must not be stored on public streets, roads, or highways that remain in service for the public. Any waiver of this requirement must be obtained from the proper local authority and approved by the engineer. All excess and unsuitable material must be removed from the site as soon as possible. Remove any spillage from roadways before they are used by the public.

D. Street Closures, Detours, and Barricades

1. The contractor must comply with the requirements of all applicable, responsible units of government for closure of any street, road, or highway. The contractor must provide the required barriers, guards, lights, signs, temporary bridges, and flaggers and inform the public of any detours and construction hazards by the most suitable means available, such as local newspapers or radio stations. The contractor is also responsible for compliance with additional public safety requirements that may arise during construction. The contractor must furnish,

install, and, upon completion of the work, promptly remove all signs, warning devices, and other materials used in the performance of this work.

2. Unless otherwise specified, the contractor must notify, in writing, the fire chief, police chief, county sheriff, state patrol, schools that operate school buses, or any other government official as appropriate no less than 7 days before closing, partly closing, or reopening any street, road, or highway.
3. Unless otherwise specified, the contractor must furnish to the engineer a written plan showing the proposed method of signing, barricading for traffic control, and safety for street detours and closures.
4. All temporary detours will be maintained to ensure use of public rights of way is provided in a safe manner. This may include dust control, grading, and graveling as required in Section G of this specification.

E. General and Specific References

1. All signs, signals, barricades, use of flaggers, and other traffic control and public safety devices must conform to the general requirements set forth in the Manual of Uniform Traffic Control Devices (MUTCD) and the latest edition of Standard Highway Signs and Standard Alphabets for Highway Signs and OSHA Construction Industry Standards (29 CFR Part 1926), Subpart G, Signs, Signals, and Barricades, unless otherwise specified in Section G of this specification.

F. Measurement and Payment

1. For items of work for which specific lump-sum prices are established in the contract, payment for the work is made at the contract lump-sum price. Progress payments will be made based upon the percentage of estimated total time that traffic control will be required unless otherwise specified in Section G of this specification. Payment will constitute full compensation for all flaggers, labor, materials, equipment, and other items necessary and incidental to completion of the work.
2. Compensation for any item of work described in the contract but not listed in the bid schedule will be included in the payment for the item of work to which it is made subsidiary. Such items and items to which they are made subsidiary are identified in Section G of this specification.

G. Items of Work and Construction Details

G. Items of Work and Construction Details

Items of work to be performed in conformance with this specification and the construction details are:

a) Subsidiary Item, Traffic Control

- 1) This item shall consist of all traffic control measures as needed to install the works of improvements as planned.
- 2) In Section F, Measurement and Payment, no method will apply. Full compensation for the completion of this item will be included in the payment for:
 - a) Bid Item 3, Excavation

Construction Specification 11 — Removal of Water

Tile 210 – Engineering

Part 642 – Specifications for Construction Contracts

Subpart B – National Construction Specifications

June 2024

A. Scope

1. The work consists of the removal of surface water and ground water as necessary to perform the construction required by the contract in accordance with the specifications. It must include: (1) constructing, installing, building, and maintaining all necessary temporary water containment facilities, channels, and diversions; (2) furnishing, installing, and operating all necessary pumps, piping, and other facilities and equipment; and (3) removing all such temporary works and equipment after their intended function is no longer required.

B. Diverting Surface Water

1. The contractor must install, maintain, and operate all cofferdams, channels, flumes, sumps, and all other temporary diversion and protective works needed to divert streamflow and other surface water through or around the construction site. Control of surface water must be continuous during the period that damage to construction work could occur. Unless otherwise specified or approved, the diversion outlet must be into the same drainageway that the water would have reached before being diverted.
2. The contractor must furnish the contracting officer, in writing, a proposed plan for diverting surface water before beginning any construction activities for which a diversion is required, unless waived in Section H of this specification. Acceptance of this plan or the waiving of the plan requirement will not relieve the contractor of the responsibilities related to this activity during the process of completing the work as specified.

C. Dewatering the Construction Site

1. Foundations, cutoff trenches, and all other parts of the construction site must be dewatered and kept free of standing water and muddy conditions as necessary for the proper execution of the work. The contractor must furnish, install, operate, and maintain all drains, sumps, pumps, casings, well points, and all other equipment required to properly dewater the site as specified. Dewatering systems that cause a loss of soil fines from the foundation areas will not be permitted.
2. The contractor must furnish the contracting officer, in writing, a proposed plan for dewatering before commencing with any construction activity for which dewatering may be required unless waived in Section H of this specification.

Acceptance of this plan or the waiving of the plan requirement will not relieve the contractor of the responsibilities for completing the specified work.

D. Dewatering Borrow Areas

1. The contractor must maintain all borrow areas free of surface water or otherwise provide for timely and effective removal of surface and subsurface water that accumulates within the borrow area unless waived in Section H of this specification. Process borrow material as necessary to achieve proper and uniform moisture content at the time of placement.
2. If pumping to dewater borrow areas is included as a bid item of work in the bid schedule, equip each pump discharge pipe with a water meter. The meter must be such that the measured quantity of water is accurate within 3 percent of the true quantity. The contractor must provide necessary support to perform accuracy tests of the water meter when requested by the contracting officer.

E. Erosion and Pollution Control

1. Removal of water from the construction site, including the borrow areas, must be accomplished so that erosion and the transporting of sediment and other pollutants are minimized. Dewatering activities must be accomplished in a manner that the water table water quality is not altered. Pollution control activities must not conflict with the requirements of Construction Specification 5, Pollution Control, if it is a part of this contract.

F. Removal of Temporary Works

1. When temporary works are no longer needed, the contractor must remove and return the area to a condition similar to that which existed before construction. Areas where temporary works were located must be graded for sightly appearance and proper functioning and access to the installed works of improvement and may not obstruct natural surface waterflows. The contractor must exercise extreme care during the removal stages to minimize the loss of soil sediment and debris that was trapped during construction.
2. Pipes, casings, and any other material used to dewater the site must be removed from temporary wells. Fill the wells to ground level with clean gravel or other suitable material approved by the contracting officer. The contractor must exercise extreme care to prevent pollution of the ground water by these actions.

G. Measurement and Payment

1. Method 1.
 - a. Items of work listed in the bid schedule for removal of water, diverting surface water, and dewatering construction sites and borrow areas are paid for at the contract lump-sum prices. Such payment will constitute full compensation for all labor, equipment, tools, and all other items necessary and incidental to the completion of the work.
2. Method 2.

- a. Items of work listed in the bid schedule for removal of water, diverting surface water, dewatering construction sites, and dewatering borrow areas are paid for at the contract lump-sum prices. Such payment will constitute full compensation for furnishing, installing, operating, and maintaining the necessary trenches, drains, sumps, pumps, piping, and for all labor, equipment, tools, and all other items necessary and incidental to the completion of the work. The exception is that additional payment for pumping to dewater borrow areas and the removal of water will be made as described in the following paragraph.
 - b. If pumping to dewater borrow areas is a contract bid item, payment is made at the contract unit price, which must be the price per 1,000 gallons shown in the bid schedule. Such payment will constitute full compensation for pumping only. Compensation for equipment, preparation, and other costs associated with pumping is included in the lump-sum payment for removal of water or the lump-sum payment for dewatering the borrow areas. Payment is made only for pumping that is necessary to dewater borrow areas that cannot be effectively drained by gravity or that must have the water table lowered to be usable as a suitable borrow source. Pumping for other purposes will not be included for payment under this item.
3. All Methods. The following provisions apply to all methods of measurement and payment. Compensation for any item of work described in the contract but not listed in the bid schedule is included in the payment for the contract line item to which it is made subsidiary. Such items and the items to which they are made subsidiary are identified in Section H of this specification.

H. Items of Work and Construction Details

H. Items of Work and Construction Details

Items of work to be performed in conformance with this specification and the construction details are:

a) Subsidiary Item, Removal of Water

- 1) This item consists of removal of water including but not limited to general dewatering, pumping, diversion and temporary embankments to exclude water from all work sites in order to perform the necessary work as shown on the drawings or as located during construction. This item shall also include the furnishing, placement and removal of the 36" diameter Temporary Culvert Pipe as delineated on the drawings.
- 2) In Section B, Diverting Surface Water, all stream/roadway ditch flow will be diverted through the construction site by the placement of Temporary Culvert Pipe as delineated on the drawings.
- 3) In Section C, Dewatering the Construction Site, a written plan is not required.
- 4) In Section G, Measurement and Payment, no method will apply. Full compensation for the completion of this item will be included in the payment for:
 - a) Bid Item 3, Excavation

Construction Specification 21 — Excavation

Title 210 – Engineering

Part 642 – Specifications for Construction Contracts

Subpart B – National Construction Specifications

June 2024

A. Scope

1. The work consists of the excavation required by the drawings and specifications, as well as the disposal of the excavated materials.

B. Classification

1. Excavation is classified as common excavation, rock excavation, or unclassified excavation in accordance with the following definitions.
2. Common excavation is defined as the excavation of all materials that (1) can be excavated, transported, and unloaded using heavy ripping equipment and wheel tractor-scrapers with pusher tractors or (2) can be excavated and dumped into place or loaded onto hauling equipment by excavators having a rated capacity of 1 cubic yard or larger and equipped with attachments (shovel, bucket, backhoe, dragline, or clam shell) appropriate to the material type, character, and nature of the materials.
3. Rock excavation is defined as the excavation of all hard, compacted, or cemented materials that require blasting or the use of ripping and excavating equipment larger than defined for common excavation. The excavation and removal of isolated boulders or rock fragments larger than 1 cubic yard encountered in materials otherwise conforming to the definition of common excavation must be classified as rock excavation. The presence of isolated boulders or rock fragments larger than 1 cubic yard is not in itself sufficient cause to change the classification of the surrounding material.
 - a. For the purpose of these classifications, the following definitions apply:
 - (1) Heavy ripping equipment is a rear-mounted, heavy-duty, single-tooth, ripping attachment mounted on a track-type tractor having a power rating of at least 250-flywheel horsepower, unless otherwise specified in Section J.
 - (2) A wheel tractor-scraper is a self-loading (not elevating) and unloading scraper having a struck-bowl capacity of at least 12 cubic yards.
 - (3) A pusher tractor is a track-type tractor having a power rating of at least 250-flywheel horsepower equipped with appropriate attachments.

4. Unclassified excavation is defined as the excavation of all materials encountered, including rock materials, regardless of their nature or the manner in which they are removed.

C. Blasting

1. The transportation, handling, storage, and use of dynamite and other explosives must be directed and supervised by someone of proven experience and ability who is authorized and qualified to conduct blasting operations.
2. Blasting must be done in a manner that prevents damage to the work or unnecessary fracturing of the underlying rock materials. It must conform to any special requirements in Section J of this specification. When specified in Section J, the contractor must furnish the engineer, in writing, a blasting plan before blasting operations begin.

D. Use of Excavated Material

1. Method 1. To the extent they are needed, all suitable material from the specified excavations must be used in the construction of required permanent earthfill or rockfill. The suitability of material for specific purposes is determined by the engineer. The contractor must not waste or otherwise dispose of suitable excavated material.
2. Method 2. Suitable material from the specified excavations may be used in the construction of required earthfill or rockfill. The suitability of material for specific purposes is determined by the engineer.

E. Disposal of Waste Materials

1. Method 1. All surplus or unsuitable excavated materials are designated as waste and must be disposed of at the locations shown on the drawings.
2. Method 2. All surplus or unsuitable excavated materials are designated as waste and disposed of by the contractor at chosen sites away from the site of the work. The disposal must be in an environmentally acceptable manner that does not violate local rules and regulations.

F. Excavation Limits

3. Excavations must comply with the Occupational Safety and Health Administration Construction Industry Standards Subpart P, Excavations, Trenching, and Shoring (29 CFR pt. 1926). All excavations must be completed and maintained in a safe and stable condition throughout the total construction phase. Structure and trench excavations must be completed to the specified elevations and to the length and width required to safely install, adjust, and remove any forms, bracing, or supports necessary for the installation of the work. Excavations outside the lines and limits shown on the drawings or specified herein are required to meet safety requirements and must be the responsibility of the contractor in constructing and maintaining a safe, stable excavation.

G. Borrow Excavation

1. When the quantities of suitable material obtained from specified excavations are insufficient to construct the specified earthfills and earth backfills, obtain additional material from the designated borrow areas. The extent and depth of borrow pits within the limits of the designated borrow areas are as specified in Section J or as approved by the engineer.
2. Borrow pits must be excavated and finally dressed to blend with the existing topography. They are sloped to prevent ponding and to provide drainage.

H. Over Excavation

1. Correct excavation in rock beyond the specified lines and grades by filling the resulting voids with Portland Cement concrete. Materials and mix proportions must be approved by the engineer. Concrete that will be exposed to the atmosphere when construction is completed must meet the requirements of concrete selected for use under Construction Specification 31, Concrete for Major Structures, or 32, Structure Concrete, as appropriate.
2. Concrete that will be permanently covered must contain not less than five bags of cement per cubic yard. The concrete must be placed and cured as specified by the engineer.
3. Correct excavation in earth beyond the specified lines and grades by filling the resulting voids with approved compacted earthfill. The exception to this is that if the earth will become the subgrade for riprap, rockfill, sand or gravel bedding, or drainfill, the voids may be filled with material conforming to the specifications for the riprap, rockfill, bedding, or drainfill. Before correcting an over excavation condition, the contractor must review the planned corrective action with the engineer and obtain approval of the corrective measures.

I. Measurement and Payment

1. Unit Price Methods. For items of work for which specific unit prices are established in the contract, the volume of each type and class of excavation within the specified pay limits is measured and computed to the nearest cubic yard by the method of average cross-sectional end areas or by methods outlined in Section J of this specification. Regardless of quantities excavated, the measurement for payment is made to the specified pay limits except when excavation outside the specified lines and grades directed by the engineer to remove unsuitable material is included. Excavation required because unsuitable conditions result from the contractor's improper construction operations, as determined by the engineer, is not included for measurement and payment.
2. Method 1. The pay limits are as designated on the drawings.
3. Method 2. The pay limits are defined as follows:
 - a. The upper limit is the original ground surface as it existed before the start of construction operations, unless excavation is performed within areas designated for previous excavation or earthfill; then the upper limit is the modified ground surface resulting from the specified previous excavation or earthfill.

- b. The lower and lateral limits are the neat lines and grades shown on the drawings.
- 4. Method 3. The pay limits are defined as follows:
 - a. The upper limit is the original ground surface as it existed before the start of construction operations, unless excavation is performed within areas designated for previous excavation or earthfill; then the upper limit is the modified ground surface resulting from the specified previous excavation or earthfill.
 - b. The lower and lateral limits is the true surface of the completed excavation as directed by the engineer.
- 5. Method 4. The pay limits are defined as follows:
 - a. The upper limit is the original ground surface as it existed before the start of construction operations, unless excavation is performed within areas designated for previous excavation or earthfill; then the upper limit is the modified ground surface resulting from the specified previous excavation or earthfill.
 - b. The lower limit is at the bottom surface of the proposed structure.
 - c. The lateral limits are 18 inches outside of the outside surface of the proposed structure or are the vertical planes 18 inches outside of and parallel to the footings, whichever gives the larger pay quantity, except as provided in paragraph d below.
 - d. For trapezoidal channel linings or similar structures that are to be supported by the sides of the excavation without intervening forms, the lateral limits are at the underside of the proposed lining or structure.
 - e. For the purposes of the definitions in paragraphs b, c, and d above, any specified bedding or drainfill directly beneath or beside the structure will be considered to be a part of the structure.
- 6. All Methods. The following provisions apply to all methods of measurement and payment.
 - a. Payment for each type and class of excavation is made at the contract unit price for that type and class of excavation. Such payment will constitute full compensation for all labor, materials, equipment, and other items necessary and incidental to the performance of the work with the exception that extra payment for backfilling over excavation will be made in accordance with the following provisions.
 - b. Payment for backfilling over excavation, as specified in Section H of this specification, is made only if the excavation outside specified lines and grades is directed by the engineer to remove unsuitable material and the unsuitable condition is not a result of the contractor's improper construction operations as determined by the engineer.
 - c. Compensation for any item of work described in the contract but not listed in the bid schedule is included in the payment for the item of work to which it is made subsidiary. Such items and the items to which they are made subsidiary are identified in Section J of this specification.

J. Items of Work and Construction Details

J. Items of Work and Construction Details

Items of work to be performed in conformance with this specification and the construction details are:

a) Bid Item 3, Excavation

- 1) This item consists of the excavation necessary to complete earth removal to the lines and grades and install the works of improvements as detailed on the drawings and as staked by NRCS during construction.
- 2) In Section B, Classification, excavation to be performed is classified as unclassified excavation.
- 3) In Section C, Blasting, blasting is not required.
- 4) In Section D, Use of Excavated Materials, Method 1 will apply.
- 5) In Section E, Disposal of Waste Materials, Method 1 will apply. All excavated materials, and incidental items such as downed trees and other man-made materials, removed to achieve the lines and grades as detailed on the drawings will be designated as waste and disposed of at the "County Wide Disposal Area" as delineated on the drawings.
- 6) In Section I, Measurement and Payment, no method will apply. Measurements for payment will be made as follows:

The struck capacity to the nearest cubic yard of each haul truck will be determined by measuring the bed length, width and depth, at the inside of the truck bed. Based upon this measurement for each haul truck and the number of loads hauled by that truck, the quantity of excavated materials removed will be computed to the nearest cubic yard. Payment will then be made at the contract unit price.

Such payment will constitute full payment for the completion of related subsidiary items:

- a) Construction Specification 3, Structure Removal
- b) Construction Specification 5, Pollution Control
- c) Construction Specification 9, Traffic Control
- d) Construction Specification 11, Removal of Water
- e) Construction Specification 23, Earthfill
- f) Construction Specification 94, Contractor Quality Control

Construction Specification 23 — Earthfill

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Subpart B – National Construction Specifications

June 2024

A. Scope

1. The work consists of the construction of earth embankments, other earthfills, and earth backfills required by the drawings and specifications.
2. Earthfill is composed of natural earth materials that can be placed and compacted by construction equipment operated conventionally.
3. Earth backfill is composed of natural earth material placed and compacted in confined spaces or adjacent to structures (including pipes) by hand tamping, manually directed power tampers or vibrating plates, or their equivalent.

B. Material

1. All fill material must be obtained from required excavations and designated borrow areas. The selection, blending, routing, and disposition of material in the various fills must be subject to approval by the engineer.
2. Fill materials must contain no frozen soil, sod, brush, roots, or other perishable material. Rock particles larger than the maximum size specified for each type of fill must be removed prior to compaction of the fill.
3. The types of material used in the various fills must be as listed and described in the specifications and drawings.

C. Foundation preparation

1. Foundations for earthfill must be stripped to remove vegetation and other unsuitable material or must be excavated as specified.
2. Except as otherwise specified, earth foundation surfaces must be graded to remove surface irregularities and must be scarified parallel to the axis of the fill or otherwise acceptably scored and loosened to a minimum depth of 2 inches. The moisture content of the loosened material must be controlled as specified for the earthfill and the surface material of the foundation must be compacted and bonded with the first layer of earthfill as specified for subsequent layers of earthfill.
3. Earth abutment surfaces must be free of loose, uncompacted earth in excess of 2 inches in depth normal to the slope and must be at such a moisture content that the earthfill can be compacted against them to produce a good bond between the fill and the abutments.
4. Rock foundation and abutment surfaces must be cleared of all loose material by hand or other effective means and must be free of standing water when fill is

placed upon them. Occasional rock outcrops in earth foundations for earthfill, except in dams and other structures designed to restrain the movement of water, must not require special treatment if they do not interfere with compaction of the foundation and initial layers of the fill or the bond between the foundation and the fill.

5. Foundation and abutment surfaces must be no steeper than one horizontal to one vertical unless otherwise specified. Test pits or other cavities must be filled with compacted earthfill conforming to the specifications for the earthfill to be placed upon the foundation.

D. Placement

1. Earthfill must not be placed until the required excavation and foundation preparation have been completed and the foundation has been inspected and approved by the engineer. Earthfill must not be placed upon a frozen surface nor have snow, ice, or frozen material incorporated in the earthfill matrix.
2. Earthfill must be placed in approximately horizontal layers. The thickness of each layer before compaction must not exceed the maximum thickness specified in section J or shown on the drawings. Materials placed by dumping in piles or windrows must be spread uniformly without exceeding the specified thickness before being compacted.
3. Hand-compacted earth backfill must be placed in layers whose thickness before compaction does not exceed the maximum thickness specified for layers of earth backfill compacted by manually directed power tampers.
4. Place earth backfill in a manner that prevents damage to the structures and allows the structures to assume the loads from the earth backfill gradually and uniformly. The height of the earth backfill adjacent to a structure must be increased at approximately the same rate on all sides of the structure.
5. Meet the following additional requirements for earthfill and earth backfill in dams, levees, and other structures designed to restrain the movement of water.
 - a. The distribution of materials throughout each zone must be essentially uniform and the earthfill free from lenses, pockets, streaks, or layers of material differing substantially in texture, moisture content, or gradation from the surrounding material. Zone earthfills must be constructed concurrently unless otherwise specified.
 - b. Scarified the surface of each layer parallel to the axis of the fill to at minimum a depth of 2 inches before the next layer is placed.
 - c. The top surface of embankments must be maintained approximately level during construction with two exceptions: a crown or cross-slope of about 2 percent must be maintained to ensure effective drainage, or as otherwise specified for drainfill or sectional zones.
 - d. Construct dam embankments in continuous layers from abutment to abutment except where openings to facilitate construction or to allow the passage of streamflow during construction are specifically authorized in the contract.

- e. Embankments built at different levels as described under paragraphs c or d above must be constructed so that the slope of the bonding surfaces between embankments in place and embankments to be placed is not steeper than 3 feet horizontal to 1 foot vertical. The bonding surface of the embankment in place must be stripped of all material not meeting the requirements of this specification and must be scarified, moistened, and recompactd when the new earthfill is placed against it. This ensures a good bond with the new earthfill and obtains the specified moisture content and density at the contact of the in-place and new earthfills.

E. Control of moisture content

1. During placement and compaction of earthfill and earth backfill, the moisture content of the material being placed must be maintained within the specified range.
2. The application of water to the earthfill material must be accomplished at the borrow areas insofar as practicable. Water may be applied by sprinkling the material after placement on the earthfill, if necessary. Obtain a uniform moisture distribution by disking.
3. Material that is too wet when deposited on the earthfill must either be removed or dried to the specified moisture content prior to compaction.
4. If the top surface of the preceding layer of compacted earthfill or a foundation or abutment surface in the contact zone with the earthfill becomes too dry to permit suitable bond, it must either be removed or scarified and moistened by sprinkling to an acceptable moisture content before placement of the next layer of earthfill.

F. Compaction

1. Earthfill. Earthfill must be compacted according to the following requirements for the class of compaction specified:
 - a. Class A compaction. Compact each layer of earthfill as necessary to provide the density of the earthfill matrix not less than the minimum density specified in Section J or identified on the drawings. The earthfill matrix is defined as the portion of the earthfill material finer than the maximum particle size allowed in the reference compaction test method specified (ASTM D698 or ASTM D1557).
 - b. Class B compaction. Compact each layer of earthfill to a mass density not less than the minimum density specified.
 - c. Class C compaction. Compact each layer of earthfill by the specified number of passes of the type and weight of roller or other equipment specified or by an equivalent approved method. Each pass must consist of at least one passage of the roller wheel or drum over the entire surface of the layer.
2. Earth backfill. Compact earth backfill adjacent to structures to a density equivalent to that of the surrounding in-place earth material or adjacent required earthfill or earth backfill. Compaction must be accomplished by hand tamping or manually directed power tampers, plate vibrators, walk-behind, miniature, or self-

propelled rollers. Unless otherwise specified, heavy equipment, including backhoe-mounted power tampers or vibrating compactors, and manually directed vibrating rollers must not be operated within 3 feet of any structure. Towed or self-propelled vibrating rollers must not be operated within 5 feet of any structure. Compaction by means of drop weights operating from a crane or hoist is not permitted.

3. Heavy Equipment. The passage of heavy equipment will not be allowed:
 - a. Over cast-in-place conduits within 14 days after placement of the concrete
 - b. Over cradled or bedded precast conduits within 7 days after placement of the concrete cradle or bedding
 - c. Over any type of conduit until the backfill has been placed above the top surface of the structure to a height equal to one-half the clear span width of the structure or pipe or 3 feet, whichever is greater, except as may be specified in Section J.
4. Compacting adjacent to structures. Compacting of earth backfill adjacent to structures must not be started until the concrete has attained the strength specified in Section J for this purpose. The strength is determined by compression testing of test cylinders cast by the contractor's quality control personnel for this purpose and cured at the worksite in the manner specified in ASTM C31 for determining when a structure may be put into service.
5. Placement Interval Against Concrete. When the required strength of the concrete is not specified as described above, compaction of earth backfill adjacent to structures must not be started until the following time intervals shown in figure 23-1 have elapsed after placement of the concrete.

Figure 23-1 Time interval before placing backfill

Structure	Time interval (days)
Vertical or near-vertical walls with earth loading on one side only	14
Walls backfilled on both sides simultaneously	7
Conduits and spillway risers, cast-in-place (with inside forms in place)	7
Conduits and spillway risers, cast-in-place (inside forms removed)	14
Conduits, pre-cast, cradled	2
Conduits, pre-cast, bedded	1
Cantilever outlet bents (backfilled both sides simultaneously)	3

G. Reworking or removal and replacement of defective earthfill

1. Earthfill placed at densities lower than the specified minimum density or at moisture contents outside the specified acceptable range of moisture content, or otherwise not conforming to the requirements of the specifications must be reworked to meet the requirements or removed and replaced by acceptable earthfill. The replacement earthfill and the foundation, abutment, and earthfill surfaces upon which it is placed must conform to all requirements of this

specification for foundation preparation, approval, placement, moisture control, and compaction.

H. Testing

1. During the course of the work, the contractor must perform quality control tests, as applicable, to identify earthfill and earth backfill materials; determine the reference maximum density and optimum moisture content; and document that the moisture content of material at the time of compaction and the density of earthfill and earth backfill in place conform to the requirements of this specification.
2. Determining Reference Maximum Density and Optimum Moisture Content. For Class A compaction, the reference maximum density and optimum moisture content must be determined in accordance with the compaction test and method specified on the drawings or in section J.
3. Documenting Specification Conformance. In-place densities of earthfill and earth backfill requiring Class A compaction must be measured in accordance with ASTM D1556, D2167, D2937, D6938, or D8167. Moisture contents of earthfill and earth backfill at the time of compaction must be measured in accordance with ASTM D2216, D4643, or D6938. Values of moisture content determined by ASTM D2216 are considered the true value of the soil moisture. Values of moisture content determined by ASTM D4643 or D6938 must be verified by comparison to values obtained by ASTM D2216. Values of in-place density and moisture content determined by these tests must be compared to the minimum density and moisture content range specified on the drawings or in Section J.
4. Correction for Oversize Particles. If the materials to be used for earthfill or earth backfill contain more than 5 percent by dry weight of oversize rock particles (particles larger than those allowed in the specified compaction test and method), corrections for oversize particles must be made using the appropriate procedures explained in ASTM D4718.

I. Measurement and payment

1. Unit Price Methods. For items of work for which specific unit prices are established in the contract, the volume of each type and compaction class of earthfill and earth backfill within the specified zone boundaries and pay limits is measured and computed to the nearest cubic yard by the method of average cross-sectional end areas. Unless otherwise specified in Section J, no deduction in volume is made for embedded items such as, but not limited to, conduits, inlet structures, outlet structures, embankment drains, sand diaphragm and outlet, and their appurtenances.
2. Pay Limits. The pay limits must be as defined below, with the further provision that earthfill required to fill voids resulting from over excavation of the foundation, outside the specified lines and grades, will be included in the measurement for payment only under the following conditions:

- a. Where such over excavation to remove unsuitable material is directed by the engineer
 - b. Where the unsuitable condition is not a result of the contractor's improper construction operations as determined by the engineer.
3. Beyond Specified Lines and Grades. Earthfill beyond the specified lines and grades to backfill excavation required for compliance with OSHA requirements will be considered subsidiary to the earthfill bid items.
4. Method 1. The pay limits must be as designated on the drawings.
5. Method 2. The pay limits must be the measured surface of the foundation when approved for placement of the earthfill and the specified neat lines of the earthfill surface.
6. Method 3. The pay limits must be the measured surface of the foundation when approved for placement of the earthfill and the measured surface of the completed earthfill.
7. Method 4. The pay limits must be the specified pay limits for excavation and the specified neat lines of the earthfill surface.
8. Method 5. The pay limits must be the specified pay limits for excavation and the measured surface of the completed earthfill.
9. Method 6. Payment for each type and compaction class of earthfill and earth backfill is made at the contract unit price for that type and compaction class of earthfill. Such payment will constitute full compensation for all labor, material, equipment, and other items necessary and incidental to the performance of the work.
10. Method 7. Payment for each type and compaction class of earthfill and earth backfill is made at the contract unit price for that type and compaction class of earthfill. Such payment will constitute full compensation for all labor, material, equipment, and other items necessary and incidental to the performance of the work except furnishing, transporting, and applying water to the foundation and earthfill material. Water applied to the foundation and earthfill material is measured and payment made as specified in Construction Specification 10.
11. All methods. The following provisions apply to all methods of measurement and payment. Compensation for any item of work described in the contract but not listed in the bid schedule is included in the payment for the item of work to which it is made subsidiary. Such items and the items to which they are made subsidiary are identified in Section J of this specification.

J. Items of work and construction details

J. Items of Work and Construction Details

Items of work to be performed in conformance with this specification and the construction details are:

a) Subsidiary Item, Earthfill

- 1) This item consists of the earthfill necessary to install the works of improvements, both temporary and permanent, as detailed on the drawings and as staked by NRCS during construction.
- 2) In Section D, Placement, the thickness of each layer of earthfill before compaction will be 9 inches.
- 3) In Section F, Compaction, earthfill will be placed in accordance with the requirements of Class C compaction. Compact each successive lift by “tamping” with the placement machine bucket or tracking over the entire lift area with the placement machine.
- 4) In Section H, Testing, no method is required.
- 5) In Section I, Measurement and Payment, no method will apply. Full compensation for the completion of this item will be included in the payment for:
 - a) Bid Item 3, Excavation

Construction Specification 94 — Contractor Quality Control

Title 210 – Engineering

Part 642 – Specifications for Construction Contracts

Subpart B – National Construction Specifications

June 2024

A. Scope

1. The work consists of developing, implementing, and maintaining a quality control system to ensure that the specified quality is achieved for all materials and work performed.

B. Equipment and Materials

1. Equipment and material used for quality control must be of the quality and condition required to meet the test specifications cited in the contract. Testing equipment must be properly adjusted and calibrated at the start of operations with the calibration maintained at the frequency specified. Records of equipment calibration tests must be available to the engineer at all times. Equipment must be operated and maintained by qualified operators as prescribed in the manufacturer's operating instructions, the references specified, and as specified in Section J of this specification. All equipment and materials used in performing quality control testing must be as prescribed by the test standards referenced in the contract or in Section J.
2. Handle and operate all equipment and materials in a safe and proper manner and comply with all applicable regulations pertaining to their use, operation, handling, storage, and transportation.

C. Quality Control System

1. Method 1. The contractor must develop, implement, and maintain a system of quality control to provide the specified material testing and verification of material quality before use. The system activities must include procedures to verify adequacy of completed work, initiate corrective action to be taken, and document the final results. The identification of the quality control personnel and their duties and authorities must be submitted to the contracting officer in writing within 15 calendar days after notice of award.
2. Method 2. The contractor must develop, implement, and maintain a system adequate to achieve the specified quality of all work performed, material incorporated, and equipment furnished before use. The system established must be documented in a written plan developed by the contractor and approved by the contracting officer. Include in the system activities the material testing and inspection needed to verify the adequacy of completed work and procedures to be followed when corrective action is required. Daily records to substantiate the

conduct of the system must be maintained by the contractor. The quality control plan must cover all aspects of quality control and must address, at a minimum, all specified testing and inspection requirements. Provide the plan consistent with the planned performance in the contractor's approved construction schedule. Identify in the plan the contractor's onsite quality control manager and provide an organizational listing of all quality control personnel and their specific duties. The written plan must be submitted to the contracting officer within 15 calendar days after notice of award. The contractor must not proceed with any construction activity that requires inspection until the written plan is approved by the contracting officer.

3. All Methods. The quality control system must include, but not be limited to, a rigorous examination of construction material, processes, and operation, including testing of material and examination of manufacturer's certifications as required, to verify that work meets contract requirements and is performed competently.

D. Quality Control Personnel

1. Method 1. Quality control activities must be accomplished by competent personnel. A competent person is one who is experienced and capable of identifying, evaluating, and documenting that materials and processes being used will result in work that complies with the contract. This person also has authority to take prompt action to remove, replace, or correct such work or products not in compliance. Off-site testing laboratories must be certified or inspected by a nationally recognized entity. The contractor must submit to the contracting officer for approval laboratory certification or inspection information. The contractor must submit to the contracting officer for approval the names, qualifications, authorities, certifications, and availability of the competent personnel who will perform the quality control activities.
2. Method 2. Quality control activities must be accomplished by competent personnel who are separate and apart from line supervision and report directly to management. A competent person is experienced and capable of identifying, evaluating, and documenting that material and processes being used will result in work that complies with the contract. This person has authorization to take prompt action to remove, replace, or correct such work or products not in compliance. Off-site testing laboratories must be certified or inspected by a nationally recognized entity. The contractor must submit to the contracting officer for approval laboratory certification or inspection information. The contractor must submit to the contracting officer for approval the names, qualifications, authorities, certifications, and availability of the competent personnel who will perform the quality control activities.

E. Post-award Conference

1. The contractor must meet with the contracting officer before any work begins and discuss the contractor's quality control system. The contracting officer and the contractor must develop a mutual understanding regarding the quality control system including procedures for correcting quality control issues.

F. Records

1. The contractor's quality control records must document both acceptable and deficient features of the work and corrective actions taken. All records must be on forms approved by the contracting officer, be legible, and be dated and signed by the competent person creating the record.
2. Unless otherwise specified in Section J of this specification, records must include:
 - a. Documentation of shop drawings including date submitted to and date approved by the contracting officer, results of examinations, need for changes or modifications (if any), manufacturer's recommendations and certifications (if any), and signature of the authorized examiner.
 - b. Documentation of material delivered including quantity, storage location, and results of quality control examinations and tests.
 - c. Type, number, date, time, and name of individual performing quality control activities.
 - d. The material or item inspected and tested, the location and extent of such material or item, and a description of conditions observed and test results obtained during the quality control activity.
 - e. The determination that the material or item met the contract provisions and documentation that the engineer was notified.
 - f. For deficient work, the nature of the defects, specifications not met, corrective action taken, and results of quality control activities on the corrected material or item.

G. Reporting Results

1. The results of contractor's quality control inspections and tests must be communicated to the engineer immediately upon completion of the inspection or test. Unless otherwise specified in Section J, the original plus one copy of all records, inspections, tests performed, and material testing reports must be submitted to the engineer within 1 working day of completion. The original plus one copy of documentation of material delivered must be submitted to the engineer before the material is used.

H. Access

1. The contracting officer and the engineer must be given free access to all testing equipment, facilities, sites, and related records for the duration of the contract.

I. Payment

1. Method 1.
 - a. For items of work for which lump sum prices are established in the contract, payment is made as the work proceeds after presentation by the contractor of invoices showing related costs and evidence of charges by suppliers, subcontractors, and others for furnishing supplies and work performed. If the total of such payments is less than the lump sum contract price for this item, the remaining balance is included in the final contract payment. Payment of

the lump sum contract price constitutes full compensation for completion of the work.

- b. Payment is not made under this item for the purchase cost of material and equipment having a residual value.

2. Method 2.

- a. For items of work for which lump sum prices are established in the contract, payment is prorated and paid in equal amounts on each monthly estimate. The number of months used for prorating must be the number estimated to complete the work. The final month's prorate amount is made with the final payment. Payment as described above constitutes full compensation for completion of the work.
- b. Payment is not made under this item for the purchase cost of material and equipment having a residual value.

- 3. All Methods. Compensation for any item of work described in the contract but not listed in the bid schedule is included in the payment for the item of work to which it is made subsidiary. Such items and the items to which they are made subsidiary are identified in section J.

J. Items of Work and Construction Details

J. Items of Work and Construction Details

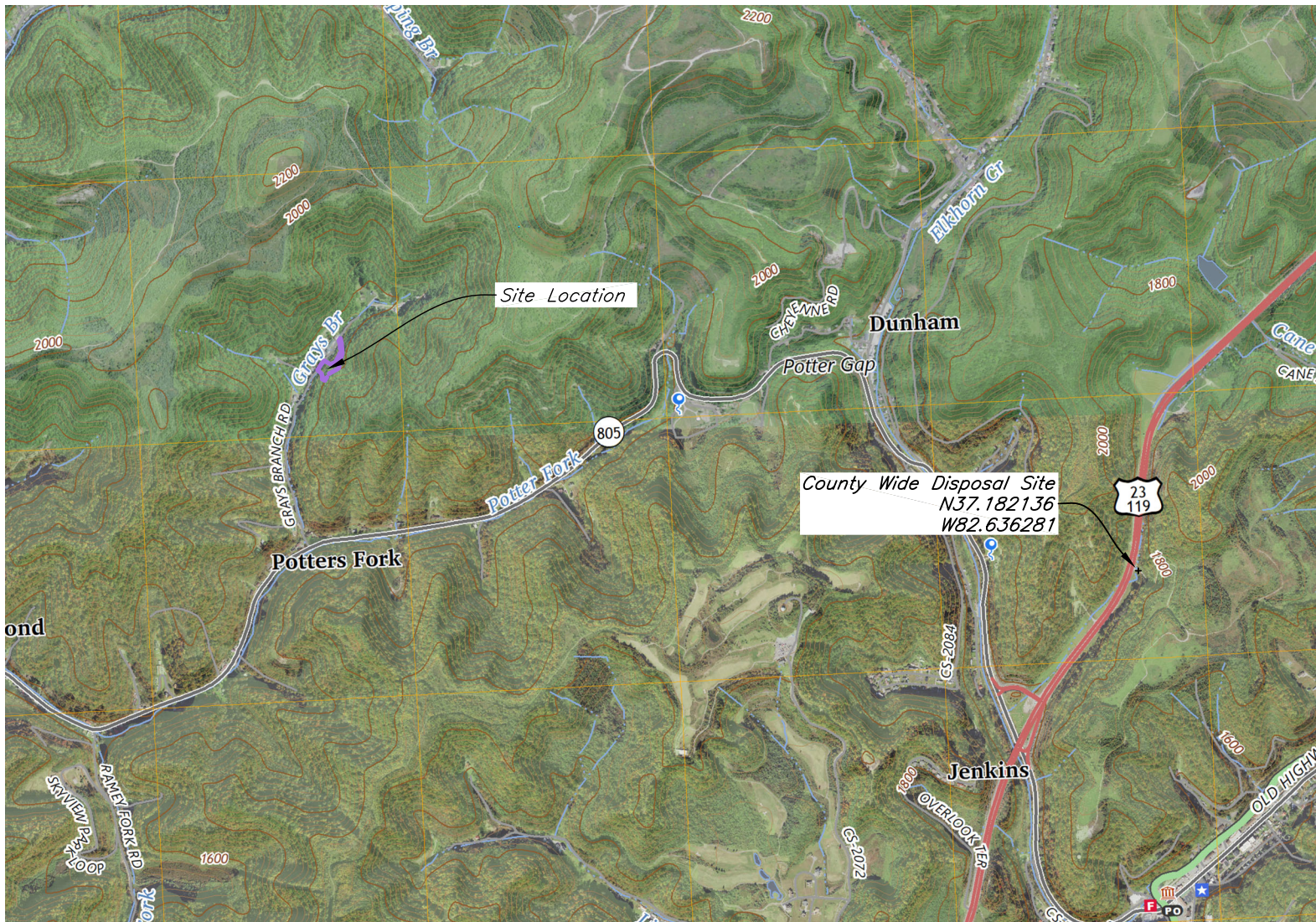
Items of work to be performed in conformance with this specification and the construction details are:

a) Subsidiary Item, Contractor Quality Control

- 1) This item shall include all labor, equipment, materials and other items necessary and incidental to developing, implementing, and maintaining a quality control system to ensure that the specified quality is achieved for all materials and work performed under this contract.
- 2) This item will also include all surveying and calculations required to keep installed work level, plumb and proper with proper foundation as shown on the drawings.
- 3) In Section C, Quality Control System, Method 1 will apply
- 4) In Section D, Quality Control Personnel, Method 1 will apply.
- 5) In Section F, Records, weather, nonworking days, work installed, and any other pertinent information will be recorded in a job diary by the contractors designated Quality Control Representative.
- 6) In Section I, Measurement and Payment, no method will apply. Full compensation for the completion of this item will be included in the payment for:
 - a) Bid Item 3, Excavation

APPENDIX B

Drawing Sets



Vicinity Map

scale: 1" = 2,000'

USGS 7 1/2' Quadrangle – Jenkins West, KY, VA



Plan Map

scale: 1" = 300'

Temporary Bench Marks					
Point #	Latitude	Longitude	Elevation	Description	Comments
184	N37.190245	W82.670002	1583.02	BM	corner of concrete slab landing at house
185	N37.189855	W82.670359	1590.21	BM	Mag Nail in stump at base of highwall



5078 Storm Event – Letcher County
Gray's Br. Rd. Emergency Watershed Protection (EWP)
Streambank Stabilization
with the cooperation of the
Letcher County Fiscal Court; Whitesburg, Kentucky
and the
Natural Resources Conservation Service
DRAWING INDEX

SHEET	DESCRIPTION
1	Cover Sheet – Vicinity & Site Maps
2	Existing Site and Plan Map – BL Profile
3&4	BL Cross Sections
5	Notes – Estimated Quantities – Temporary Culvert Details

DESIGN DATA: JOB CLASS V

DESIGN APPROVED BY: _____ DATE _____

AS BUILT DRAWINGS (IN RED)

_____(BY)

_____(DATE)

THIS PROJECT IS COMPLETE TO NRCS REQUIREMENTS
TO THE BEST OF MY PROFESSIONAL KNOWLEDGE.

_____(BY)

_____(DATE)

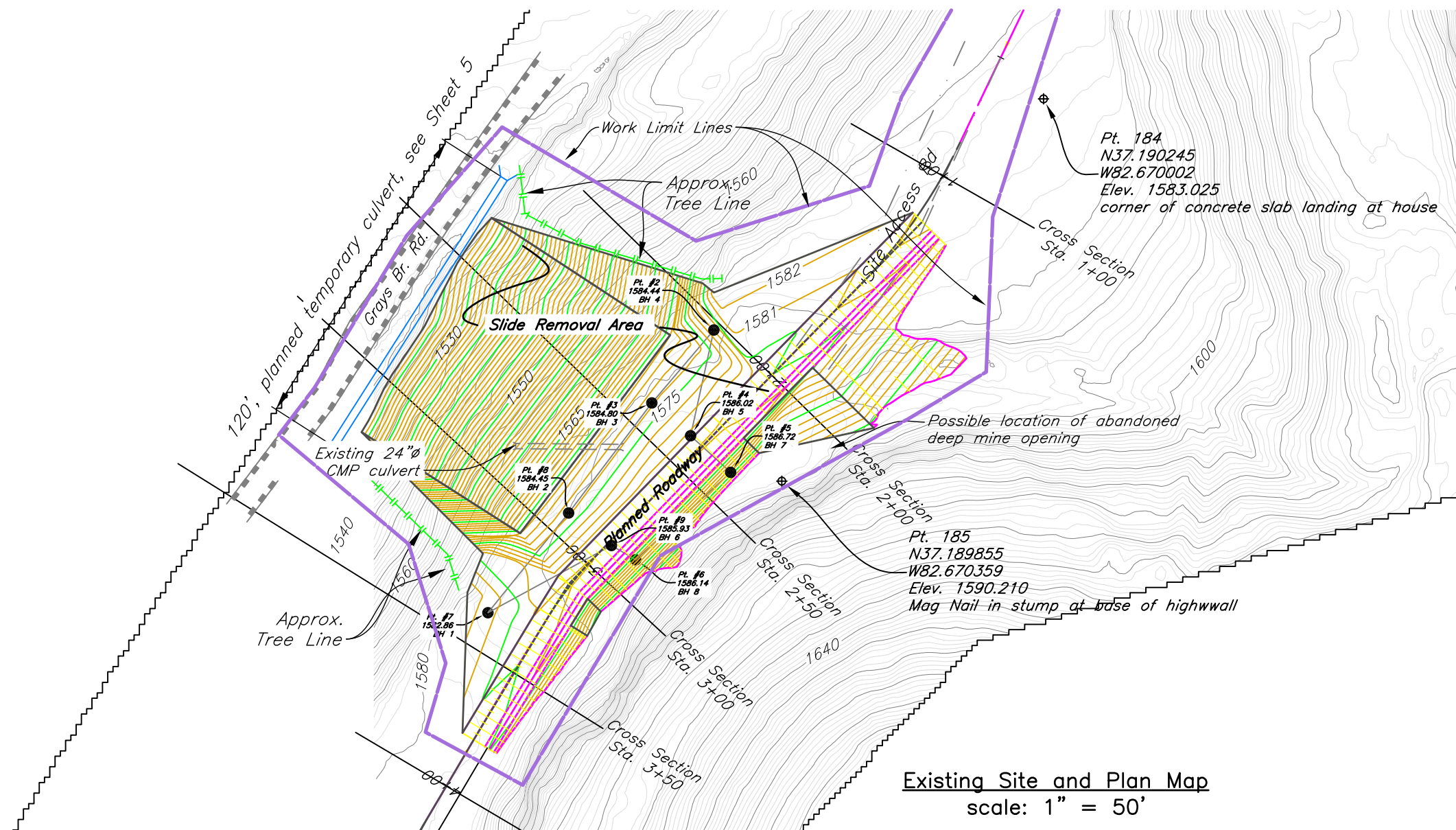
Date	Designed	Drawn	Checked	Approved
9/2025	K. Reed	K. Reed	s. Schneider	s. Schneider

DSR 21-05-24-5078-001
Gray's Branch Design Alternative 2
COVER SHEET
Letcher County, Kentucky



File No.
Grays Br New
Design.dwg
Drawing No.
9/23/25 11:42 AM
Sheet 1 of 5

Note: All utilities are the responsibility of the landowner and contractor. Call 811 or visit Kentucky811.org at least 2 full working days before excavation work begins. Some utilities are not part of the Kentucky 811 system. This does not relieve the landowner of the responsibility for them.



- NOTES:
1. Excavate to remove the earth material, failed trees and slide mass down-slope of the old strip mine bench and along the strip mine bench to the lines and grades as detailed in the Profile View below and the Cross Sections as detailed on sheets 3 and 4.
 2. The exact alignment, grade and length of the existing 24"Ø Corrugated Metal Culvert Pipe as depicted hereon is unknown, but is believed to be generally located as detailed. This culvert pipe will be unearthed, salvaged, and placed within the Work Limits for the landowner. Any pipe or sections of pipe damaged beyond further usage will be designated as waste and disposed of at the designated Spoil Disposal Area.
 3. See Temporary Culvert Details on Sheet 5.

Date	9/2025
Designed	K. Reed
Drawn	K. Reed
Checked	S. Schneider
Approved	S. Schneider

DSR 21-05-24-5078-001

Gray's Branch Design Alternative 2

PLAN VIEW

Letcher County, Kentucky

United States
Department of
Agriculture

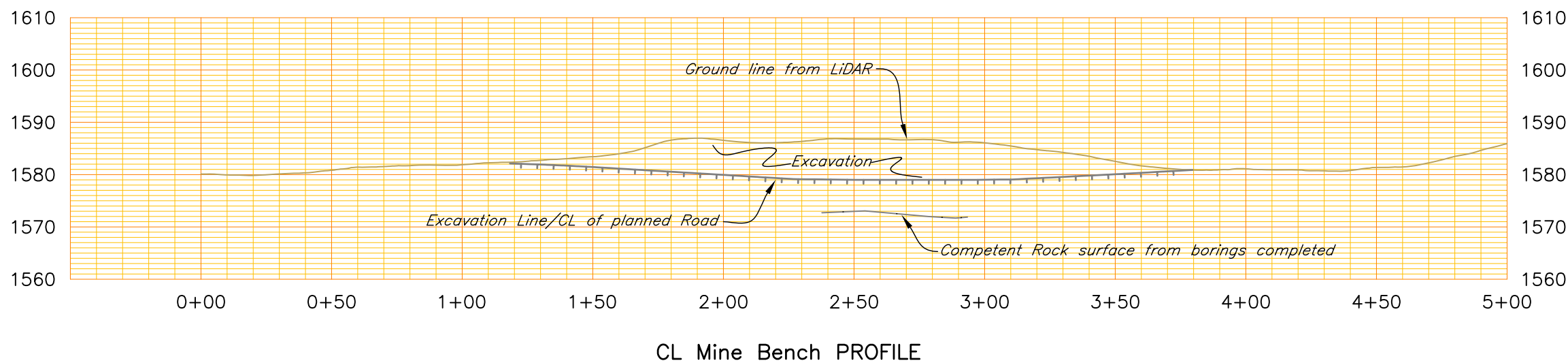
USDA

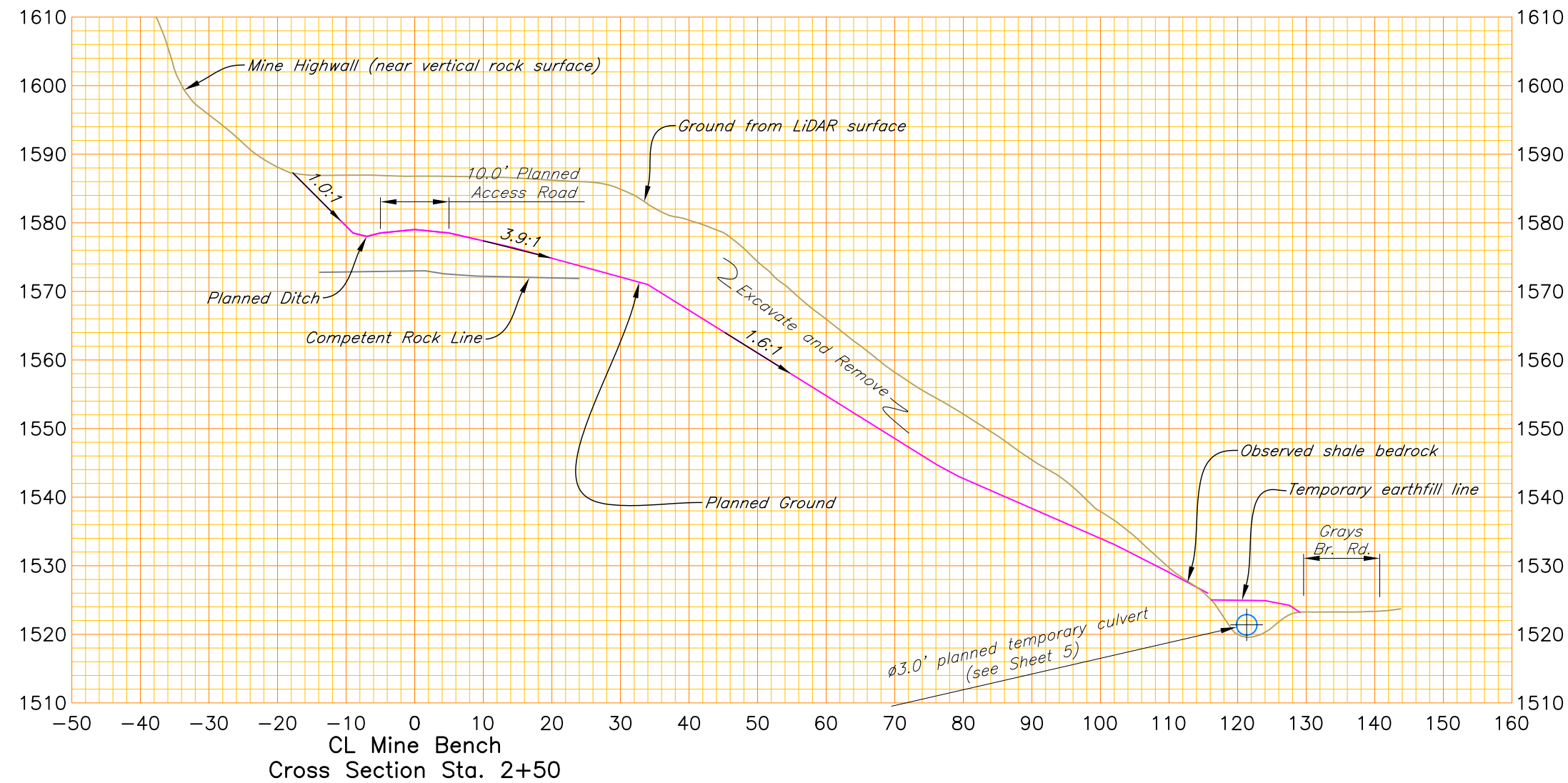
Natural Resources
Conservation Service

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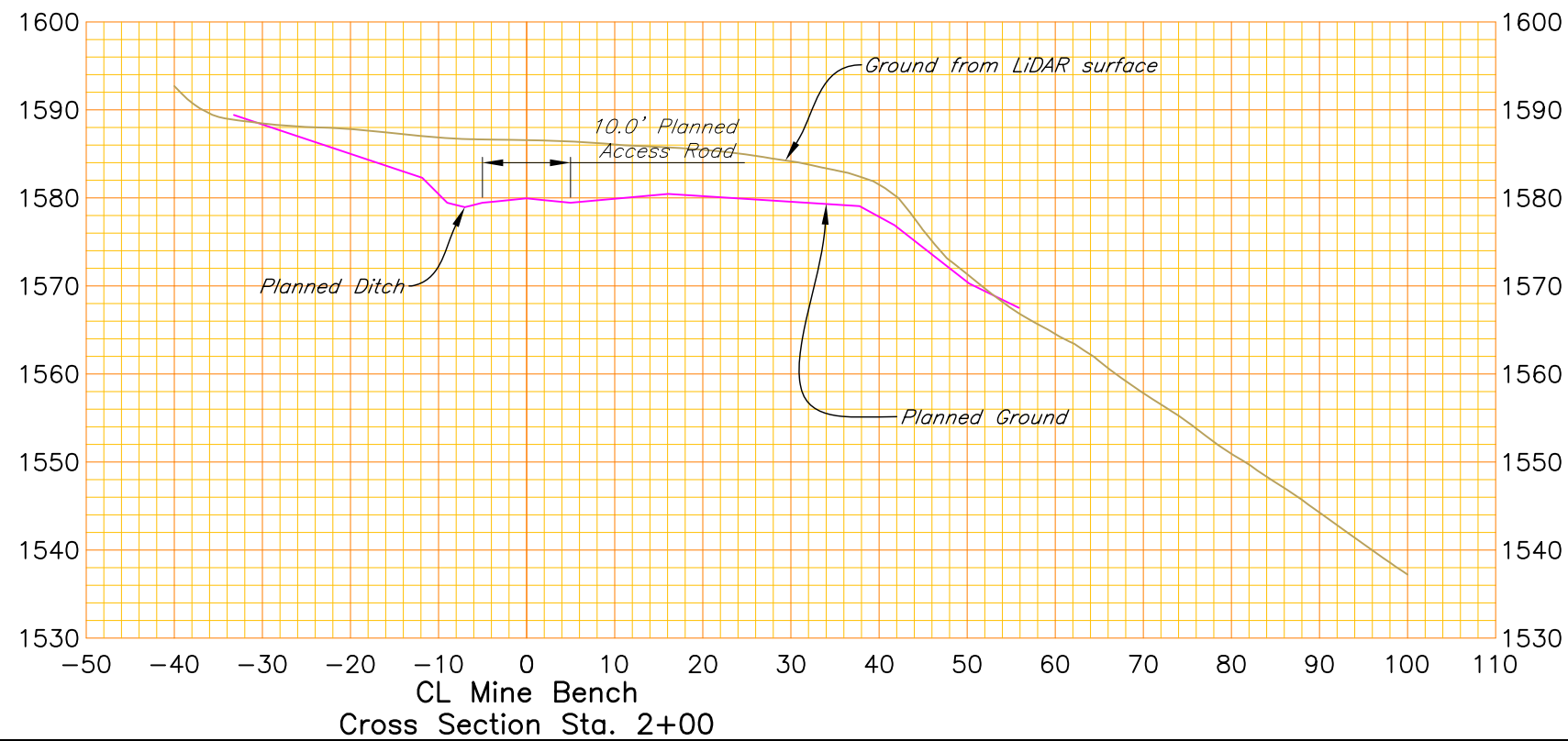
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Sheet 2 of 5





Note:
See Planned Access Road Details on
sheet 5.



Date	Designed	Drawn	Checked	Approved
9/2025	K. Reed	K. Reed	S. Schneider	S. Schneider

DSR 21-05-24-5078-001
Gray's Branch Design Alternative 2
CROSS SECTIONS 1

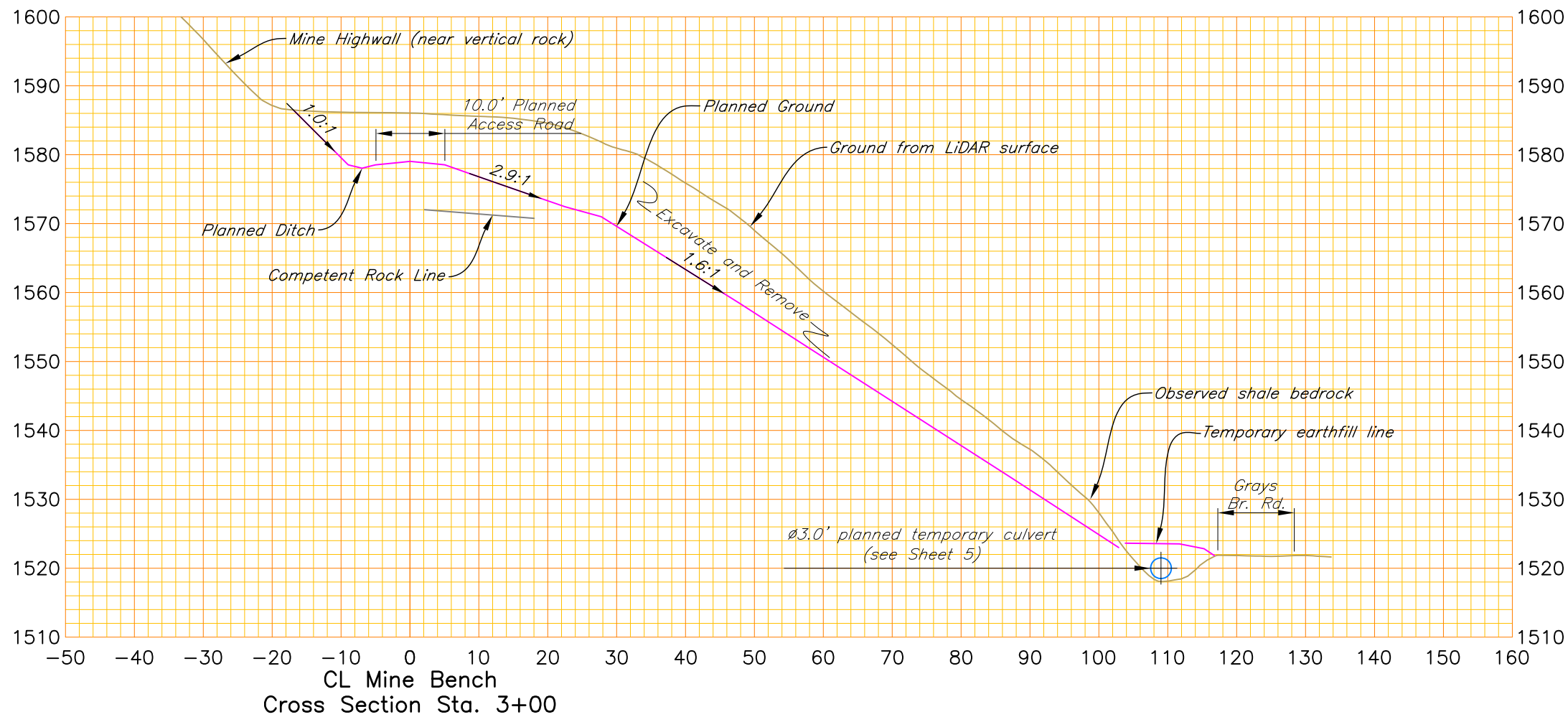
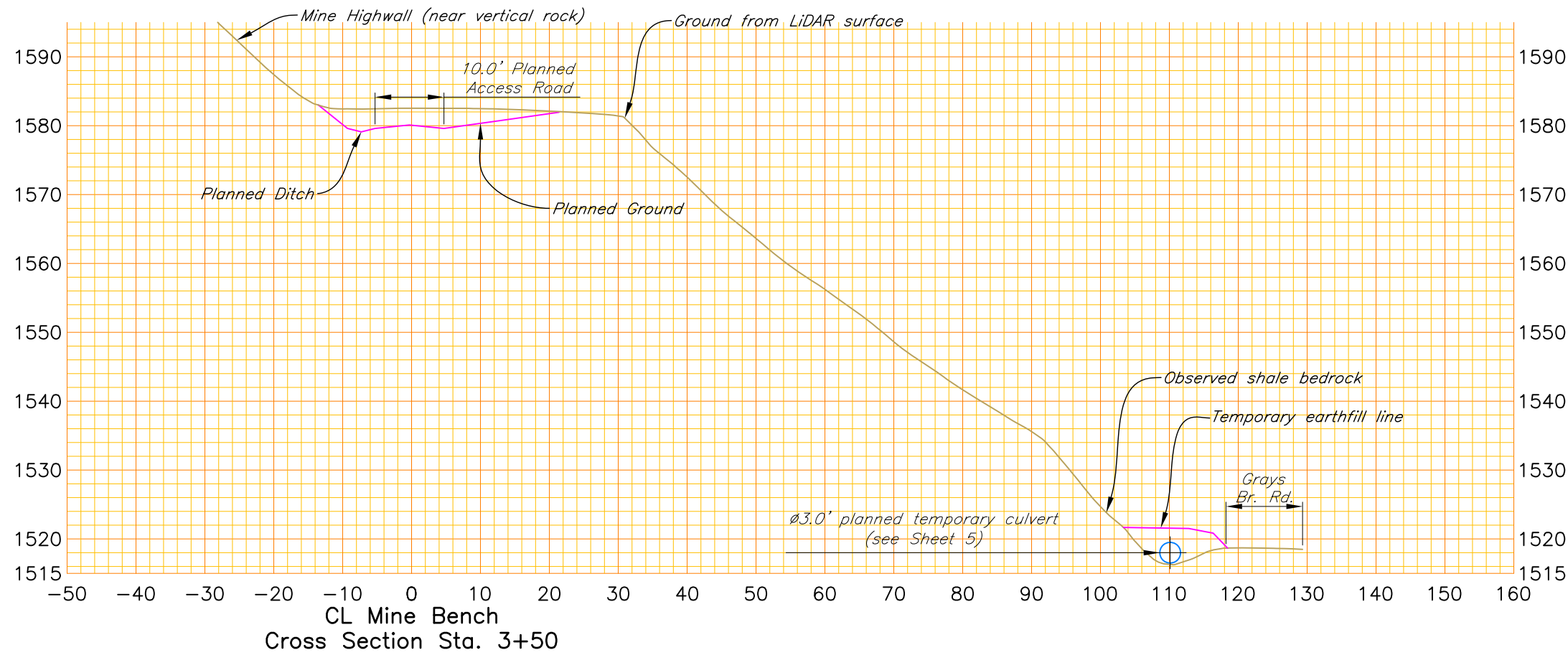


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Sheet 3 of 5

Letcher County, Kentucky

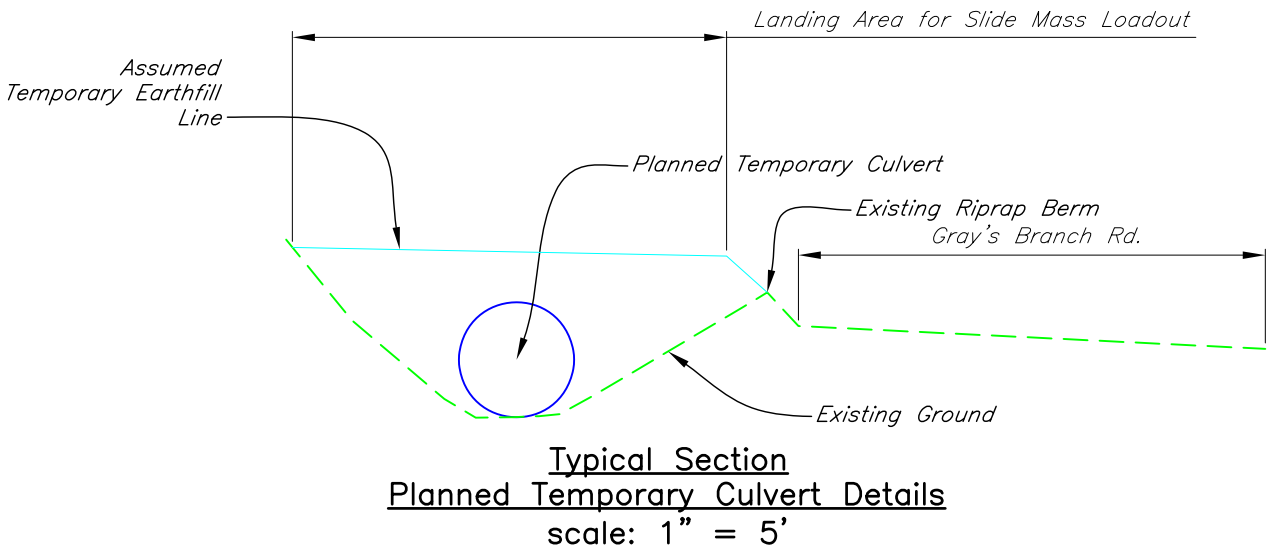
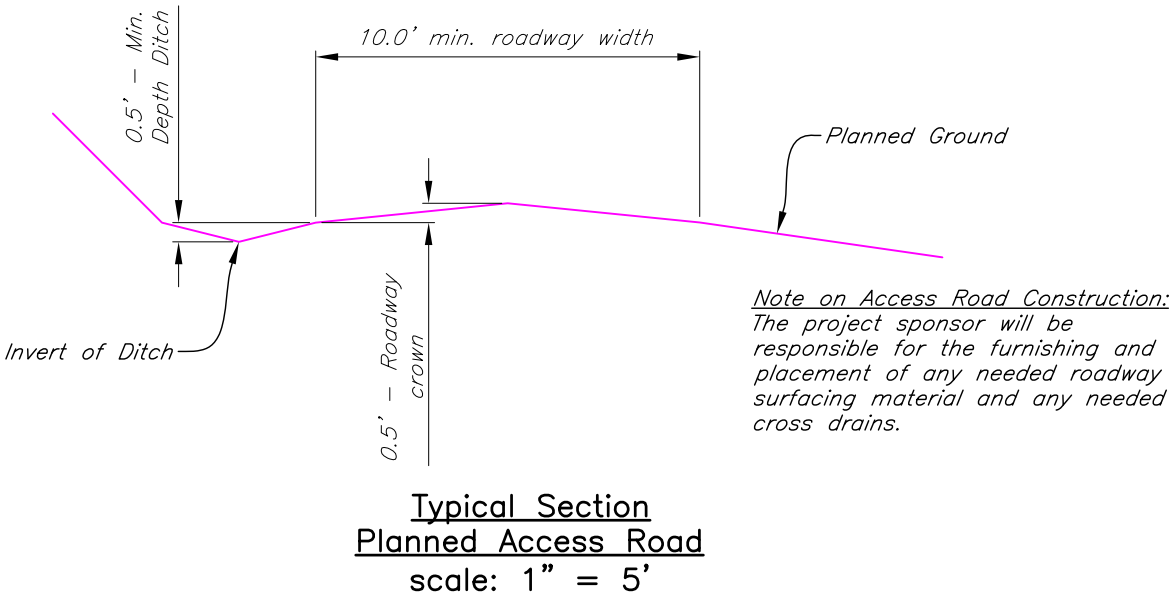


Note:
See Planned Access Road Details on
sheet 5.

 United States Department of Agriculture Natural Resources Conservation Service	File No. Grays Br New Design.dwg	DSR 21-05-24-5078-001 Gray's Br. Design Alternative 2 CROSS SECTIONS 2 Letcher County, Kentucky	Designed K. Reed	Date 9/2025
	Drawing No. .		Drawn K. Reed	9/2025
	9/23/25 1:50 PM Sheet 4 of 5		Checked S. Schneider	9/2025
			Approved S. Schneider	9/2025

- Notes:
1. Any access roads (whether on public or private property) damaged during construction will be restored to pre-construction conditions or better.
 2. Any fences or other improvements removed and/or damaged during construction shall be restored to a condition equal to or better than their pre-existing condition.
 3. Soil compacted as a result of construction operations shall be loosened to a depth of 6" below surface and re-graded to blend with existing ground and to a slope promoting positive drainage.
 4. Any work performed in or adjacent to the stream will be completed without having the construction equipment within flowing water. Any woody debris or sediment removed from within the channel flow area will be removed by the "one step" removal process.
 5. All materials obtained from the specified slide mass/debris removal operations shall be wasted off site in accordance with all local, state and federal regulations and as approved by the NRCS representative assigned to the site.
 6. Any man made debris removed from the site(s), such as tires, building materials, abandoned pipe and etc., shall be disposed of at an approved landfill. The contractor will be responsible for any landfill tipping fees.
 7. The contractor shall maintain the cleanliness of impacted roadways during construction in a manner that dust is suppressed and mud does not accumulate.
 8. All work shall be completed in a professional and conscientious manner toward protecting all waters of the US, in providing a safe working environment for employees, in providing an acceptable environment for residences within the area (e. g., noise pollution, air pollution, etc.) and maintaining traffic control in accordance with applicable Kentucky Department of Highways publications concerning traffic control in work zones and safety in general.

List of Estimated Quantities		
Item	Quantity	Unit
Excavation	5602	cy
Seeding & Mulching	0.7	acre
Temporary Culvert – 36"Ø (subsidiary item)	120	lf



- Notes on Temporary Culvert Installation
1. A Temporary Culvert will be installed at the base of the slide area and along both the vertical and horizontal alignment of the existing stream/roadway ditch to the plan extents as detailed on Sheet 2.
 2. The purpose of the Temporary Culvert will be to facilitate slide mass removal by creating a "landing" for loading out the slide mass and associated debris and to prevent the base stream flow from becoming contaminated with earth materials resulting from the slide removal efforts.
 3. The estimated length of the temporary culvert is 120 linear feet (estimated – additional length may be required) and the minimum diameter will be 36"Ø. The culvert pipe will have a structural quality and joint to joint connectivity to provide gravity stream flow through the construction site and to support the construction equipment being used.
 4. The Temporary Culvert and associated earthfill will be removed from the stream/roadway ditch during weekends and at any times that Flash Flooding is being forecasted for the area by the National Weather Service.
 5. Upon completion of construction, the Temporary Culvert pipe will be salvaged and/or otherwise removed from the site by the contractor.
 6. Temporary earthfill associated with the culvert pipe will be excavated to the pre-existing ground lines and hauled to the disposal site upon completion of the project.

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Conservation Service

File No.
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Design.dwg

Drawing No.
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DSR 21-05-24-5078-001
Gray's Br. Design Alternative 2
NOTES-QUANTITIES-DETAILS

Letcher County, Kentucky

Designed K. Reed
Drawn K. Reed
Checked S. Schneider
Approved S. Schneider

Date
9/2025
9/2025
9/2025
9/2025