United States Department of Agriculture
Forest Service
Region 8 - Southern Region

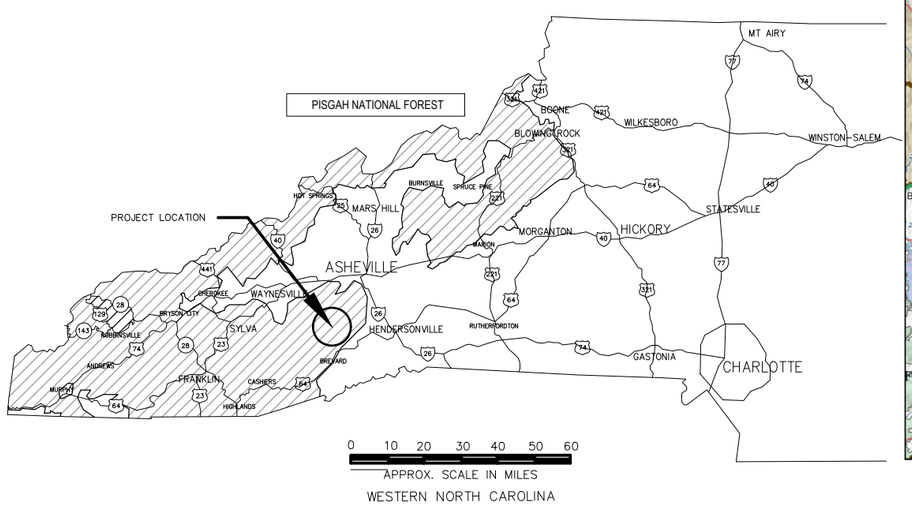
NORTH CAROLINA
BUNCOMBE, HAYWOOD, HENDERSON, & TRANSYLVANIA

PISGAH NATIONAL FOREST

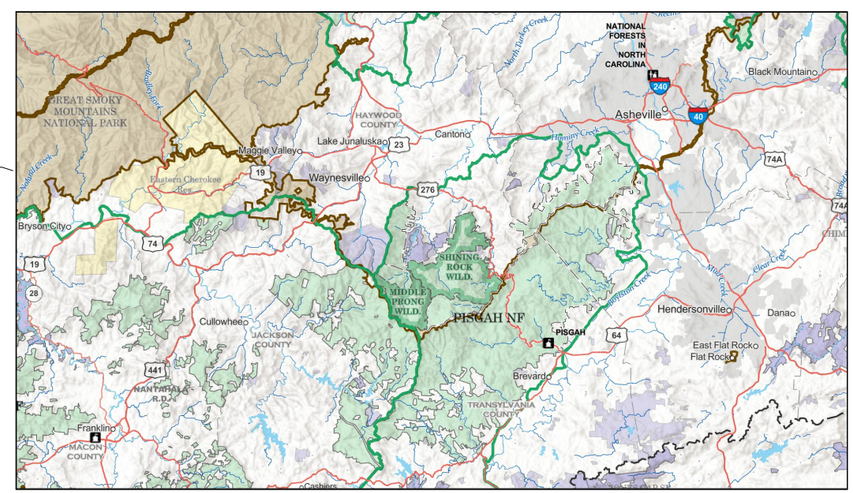
PISGAH RANGER DISTRICT - SOUTH

FY26 PISGAH SOUTH RANGER DISTRICT DITCH CULVERT REPLACEMENTS AND ROAD REHABILITATION

PISGAH SOUTH – FS No. 225, 229, 257, 258, 298, 454, 471, 475, 475B, 816, 1206, & 5046



FOREST LOCATION



VICINITY MAP
FOR
PISGAH NATIONAL FOREST

TRAVEL DIRECTIONS:

FROM THE PISGAH RANGER DISTRICT: TAKE PISGAH HIGHWAY (276)

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PREPARED BY:

PURVIS ELDRIDGE (Affiliate) Digitally signed by PURVIS ELDRIDGE (Affiliate) Date: 2026.07.10 08:59:28 -04'00'

CIVIL ENGINEER DATE

REVIEWED BY:

JULIO NAZARIO RUIZ Digitally signed by JULIO NAZARIO RUIZ Date: 2026.07.09 16:39:50 -04'00'

SUPERVISOR ENGINEER DATE

RECOMMENDED BY:

ENGINEERING STAFF OFFICER DATE

DISTRICT RANGER DATE

APPROVED BY:

FOREST SUPERVISOR DATE

7/9/26 13:23 PURVIS.ELDRIDGE C:\USERS\PURVIS.ELDRIDGE\BOX\PROJ\PSG\ACTIVE\700-ROAD\ENG\2026\2026 PISGAH SOUTH DITCH RELIEF CULVERT REPLACEMENT\2_DESIGN\2_DWGS\DWGS_COVERSHEET_PROJECTNAME.DWG;

GENERAL NOTES:

1. FOR THIS PROJECT STANDARD SPECIFICATIONS FOR CONSTRUCTION OF ROADS AND BRIDGES ON FEDERAL HIGHWAY PROJECTS AND FOREST SERVICE SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROJECT SPECIFICATIONS WILL BE USED, HEREINAFTER REFERRED TO AS FP-24 SPEC. ORDER OF PRECEDENCE: IN CASE OF CONFLICT, THE FOLLOWING ORDER APPLIES: (1) SPECIAL CONTRACT REQUIREMENTS, (2) PROJECT DRAWINGS, (3) SUPPLEMENTAL SPECIFICATIONS, (4) FP-24 STANDARD SPECIFICATIONS
2. STORAGE OF ALL EQUIPMENT ON SITE WILL BE AT THE CONTRACTOR'S RISK AND AT A LOCATION APPROVED BY THE CONTRACTING OFFICER.
3. CONSTRUCTION EQUIPMENT SHALL BE CONFINED TO THE ROADWAY, UNLESS OTHERWISE APPROVED BY THE CONTRACTING OFFICER.
4. ALL EXCAVATION IS CONSIDERED TO BE UNCLASSIFIED.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF DAMAGE TO NATIONAL FOREST ROADS DUE TO TRANSPORTATION OF CONTRACTOR'S EQUIPMENT AND OR MATERIALS.
6. CONTRACTOR SHALL SUBMIT AN EROSION & POLLUTION CONTROL PLAN TO THE CONTRACTING OFFICER FOR APPROVAL PRIOR TO ANY EARTH DISTURBING ACTIVITIES. IMPLEMENT EROSION AND SEDIMENT CONTROL (ESC) MEASURES PER SECTION 157. INSTALL SILT FENCE, FIBER ROLLS, OR OTHER APPROVED DEVICES PRIOR TO GROUNDBREAKING.
7. DURING CONSTRUCTION ACTIVITIES, CONTRACTOR SHALL BE RESPONSIBLE FOR DEWATERING WHEREVER ROAD CROSSES FLOWING WATER. CONTRACTOR SHALL DEWATER THROUGH DIVERSION OF WATER OR DAMMING. WHEN DEWATERING IS NECESSARY, DEWATER ACCORDING TO FP-24 AND CONTRACTOR SHALL FOLLOW BMP'S TO ENSURE QUALITY.
8. EACH CULVERT'S LOCATION, LENGTH AND SKEW SHALL BE FIELD VERIFIED BY THE CONTRACTOR AND APPROVED BY THE CONTRACTING OFFICER PRIOR TO ORDERING.
9. DISTURBANCE OF SLOPES SHALL BE LIMITED TO MOWING OR HAND-CLEARING EXCEPT WHEN WIDENING OR OTHER WORK IS SHOWN ON THE DESCRIPTION OF WORK.
10. WOODY MATERIAL CUT DURING CULVERT INSTALLATION SHALL BE WINDROWED ALONG ROAD'S FILL SLOPE
11. TO FACILITATE WINDROW CONSTRUCTION THE CONTRACTOR MAY, AT THEIR OPTION CLEAR 5 FEET BEYOND THE TOE OF FILLS IN DENSE AREAS.
12. EXISTING CULVERTS TO BE REMOVED ARE THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM NATIONAL FOREST LANDS AND DISPOSED OF PROPERLY IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS PER FP-24 SECTION 203.05(A)
13. ALL SLOPES ARE SHOWN AS VERTICAL-TO-HORIZONTAL DISTANCE (V:H)
14. FILL SLOPE= 1V:1.5H, CUT SLOPE=1V:1H, OR AS STAKED BY THE CONTRACTING OFFICERS REPRESENTATIVE (COR)/ENGINEERING REPRESENTATIVE (ER) OR AS SHOWN ON THE PLANS.
15. WOODY MATERIAL GREATER THAN 2" IN DIAMETER OR LONGER THAN 3' SHALL NOT BE INCORPORATED INTO CONSTRUCTED FILLS.
16. DEPTHS OF MATERIALS SHOWN ON THE PLANS ARE FINAL IN-PLACE COMPACTED DEPTHS.
17. ALL RIPRAP SHALL BE PLACED BY HAND OR MACHINE, NOT SIDE CAST OR END DUMPED.
18. ALL PERMANENT SIGNS SHALL BE SECURED WITH TAMPER-RESISTANT HARDWARE APPROVED BY THE CONTRACTING OFFICER.
19. PRIOR TO ANY EXCAVATION, CALL "NORTH CAROLINA ONE-CALL CENTER" AT 1-800-632-4949.
20. THE CONTRACTOR IS RESPONSIBLE FOR ALL TRAFFIC CONTROL INCLUDING TEMPORARY SIGNING AND PROTECTION OF THE PUBLIC. SIGNAGE BEYOND THOSE SHOWN ON THE DRAWINGS MAY BE REQUIRED. IF A FULL ROAD CLOSURE IS REQUIRED, ENSURE ALL NECESSARY PERMITS AND SIGNAGE ARE IN PLACE, FOLLOWING USFS GUIDELINES.
21. TRAFFIC CONTROL SIGNS SHALL CONFORM TO MUTCD SPECIFICATIONS LATEST EDITION.
22. ALL DRAINAGE STRUCTURES TO BE INSTALLED SHALL BE INSTALLED TO DRAIN. ON ROADS TO BE RECONDITIONED, ALL EXISTING DRAINAGE STRUCTURES SHALL BE RECONDITIONED FOR BEST POSSIBLE DRAINAGE.
23. STATIONS/MILEPOSTS IDENTIFIED FOR AGGREGATE PLACEMENT ARE FULL DEPTH, CONTRACTOR SHALL TAPER AGGREGATE 10' AHEAD AND BACK OF THE DEFINED STATION/MILEPOST, FOR A SMOOTH TRANSITION.
24. ALL STAKES AND FLAGGING IN THE FIELD THAT WERE USED FOR PROJECT IMPLEMENTATION SHALL BE GATHERED & REMOVED FROM FOREST LAND BY THE CONTRACTOR PRIOR TO FINAL ACCEPTANCE OF THE PROJECT. THIS WORK IS CONSIDERED PART OF MOBILIZATION AND NO SEPARATE PAYMENT WILL BE MADE.
25. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CLEAN WATER ACT SECTION 404 PERMIT AND ANY STATE-SPECIFIC WATER QUALITY CERTIFICATION (E.G., SECTION 401).
26. CONFINE CONSTRUCTION ACTIVITIES TO THE MINIMUM AREA NECESSARY. PROTECT EXISTING TREES AND RIPARIAN VEGETATION OUTSIDE THE CLEARING LIMITS.
27. ALL WORK MUST COMPLY WITH OSHA STANDARDS.

SEEDING NOTES:

1. SEEDING DATES SHALL BE FROM APRIL 1 TO SEPTEMBER 30.
2. SEED ALL DISTURBED AREAS, EXCEPT THE ROAD SURFACE. NO DISTURBED AREAS WILL BE LEFT WITHOUT SEEDING FOR MORE THAN 15 DAYS AND IN NO CASE MORE THAN 14 DAYS AFTER WORK HAS CEASED.
3. SEEDING MIXTURES SHALL BE AS FOLLOWS:

MARCH 1 - JUNE 15

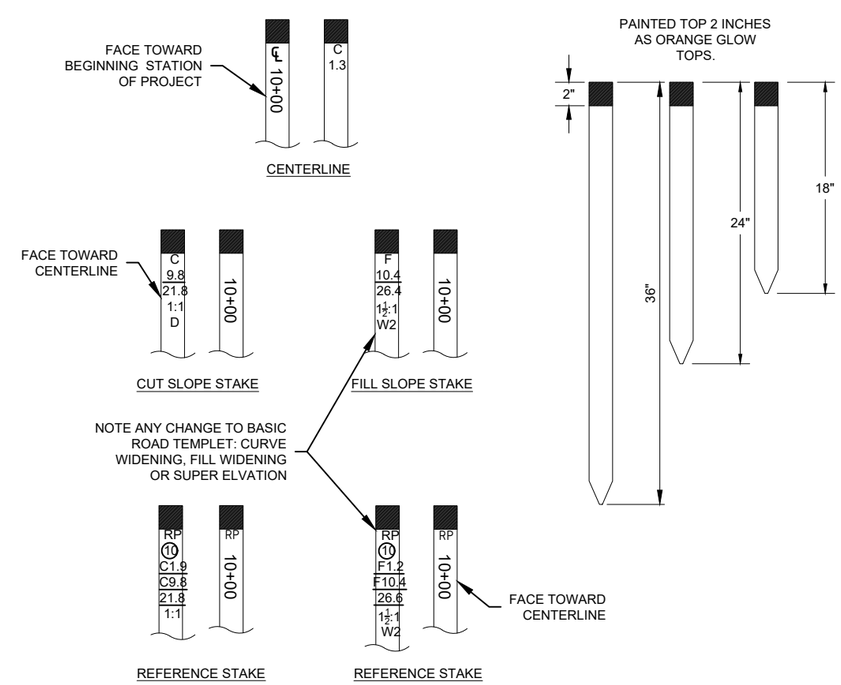
ANNUAL RYE	8 LBS PER ACRE
GRAIN OATS	40 LBS PER ACRE
VIRGINIA WILD RYE	10 LBS PER ACRE
CREEPING RED FESCUE	10 LBS PER ACRE
PARTRIDGE PEA	2 LBS PER ACRE

JUNE 15 - OCTOBER 31

FOXTAIL MILLET	16 LBS PER ACRE
ROUNDTOP MILLET	16 LBS PER ACRE
VIRGINIA WILD RYE	10 LBS PER ACRE
CREEPING RED FESCUE	10 LBS PER ACRE
PARTRIDGE PEA	2 LBS PER ACRE

4. FERTILIZER SHALL BE 17-17-17 APPLIED AT 500 LBS. PER ACRE
5. AGRICULTURAL LIME SHALL BE APPLIED AT 2,000 LBS. PER ACRE
6. CERTIFIED WEED-FREE STRAW MULCH SHALL BE APPLIED AT 80 BALES PER ACRE
7. DISTURBED OR NEWLY CONSTRUCTED SLOPES WITHIN 25' OF STREAM COURSE SHALL BE IMMEDIATELY PROTECTED BY SEEDING WITH MIXTURES MENTIONED ABOVE AND COVERING WITH STRAW, MULCH, AND SMALL LIMBS. THIS ADDITIONAL SEEDING SHALL BE DONE THE SAME DAY AS THE DISTURBANCE (WHETHER COMPLETED OR NOT)
8. WHEN WORK IS PERFORMED OUTSIDE THE SPECIFIED SEEDING SEASON AND EROSION CONTROL MEASURES NEEDED TO CONTROL SEDIMENTATION ARE IN EXCESS OF THOSE SHOWN IN THE SCHEDULE OF ITEMS, THE ADDIDTIONAL MEASURES SHALL BE PERFORMED AT THE EXPENSE OF THE CONTRACTOR THE EROSION CONTROL PLAN FILED BY THE CONTRACTOR SHALL INCLUDE THESE MEASURES TO BE TAKEN.

CONSTRUCTION STAKES-G1-9



USDA FOREST SERVICE

United States Department of Agriculture
Forest Service

(R08)
SOUTHERN REGION

STAMPS, LOGOS, AND SEALS

NO.	REVISION / ISSUE	DATE
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PROJECT NAME

PISGAH DITCH CULVERT REPLACEMENTS AND ROAD REHABILITATION

PISGAH NATIONAL FOREST

PISGAH RANGER DISTRICT

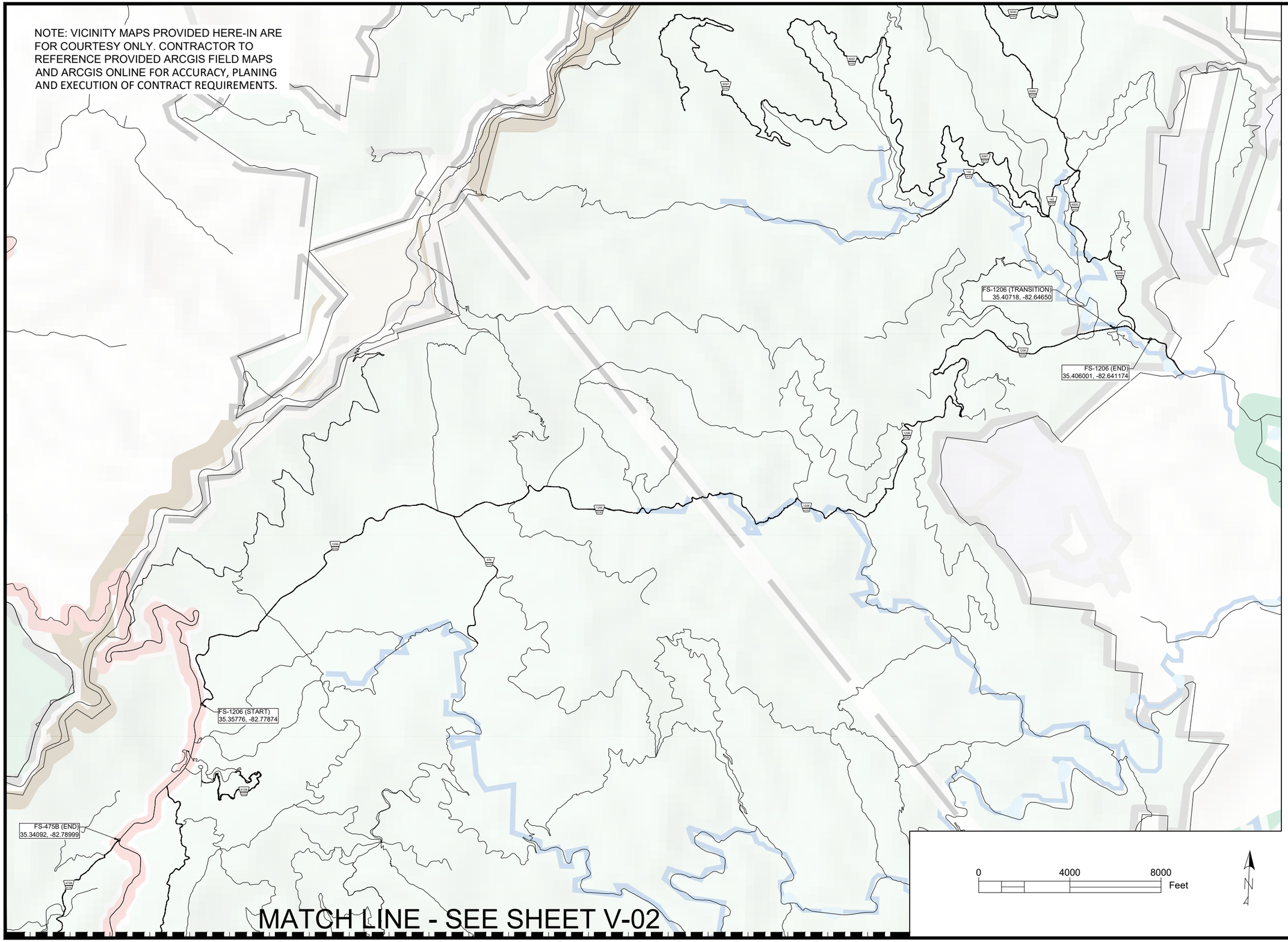
DRAWING TITLE

GENERAL NOTES

DATE 05/27/2026	ARCHIVE NO.
PREPARED BY P. ELDRIDGE	DRAWING SHEET NO. G-02
DRAWN P. ELDRIDGE	
CHECKED J. NAZARIO RUIZ	
PROJECT NO.	SHEET 2 OF 25

7/9/26 13:48 PURVIS.ELDRIDGE C:\USERS\PURVIS.ELDRIDGE\BOX\PROJ\PSG\ACTIVE\7700-ROADS\ENG\2026\2026 PISGAH SOUTH DITCH RELIEF CULVERT REPLACEMENT\2_DESIGN\2_DWGS\DWGS_QTYS\ANDGENNOTES_PROJECTNAME.DWG;

NOTE: VICINITY MAPS PROVIDED HERE-IN ARE FOR COURTESY ONLY. CONTRACTOR TO REFERENCE PROVIDED ARCGIS FIELD MAPS AND ARCGIS ONLINE FOR ACCURACY, PLANING AND EXECUTION OF CONTRACT REQUIREMENTS.



MATCH LINE - SEE SHEET V-02

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PISGAH NATIONAL FOREST

PISGAH RANGER DISTRICT

DRAWING TITLE

VICINITY MAP

DATE 05/27/2026	ARCHIVE NO.
PREPARED BY P. ELDRIDGE	DRAWING SHEET NO. V-01
DRAWN P. ELDRIDGE	
CHECKED J. NAZARIO RUIZ	
PROJECT NO.	SHEET 3 OF 25

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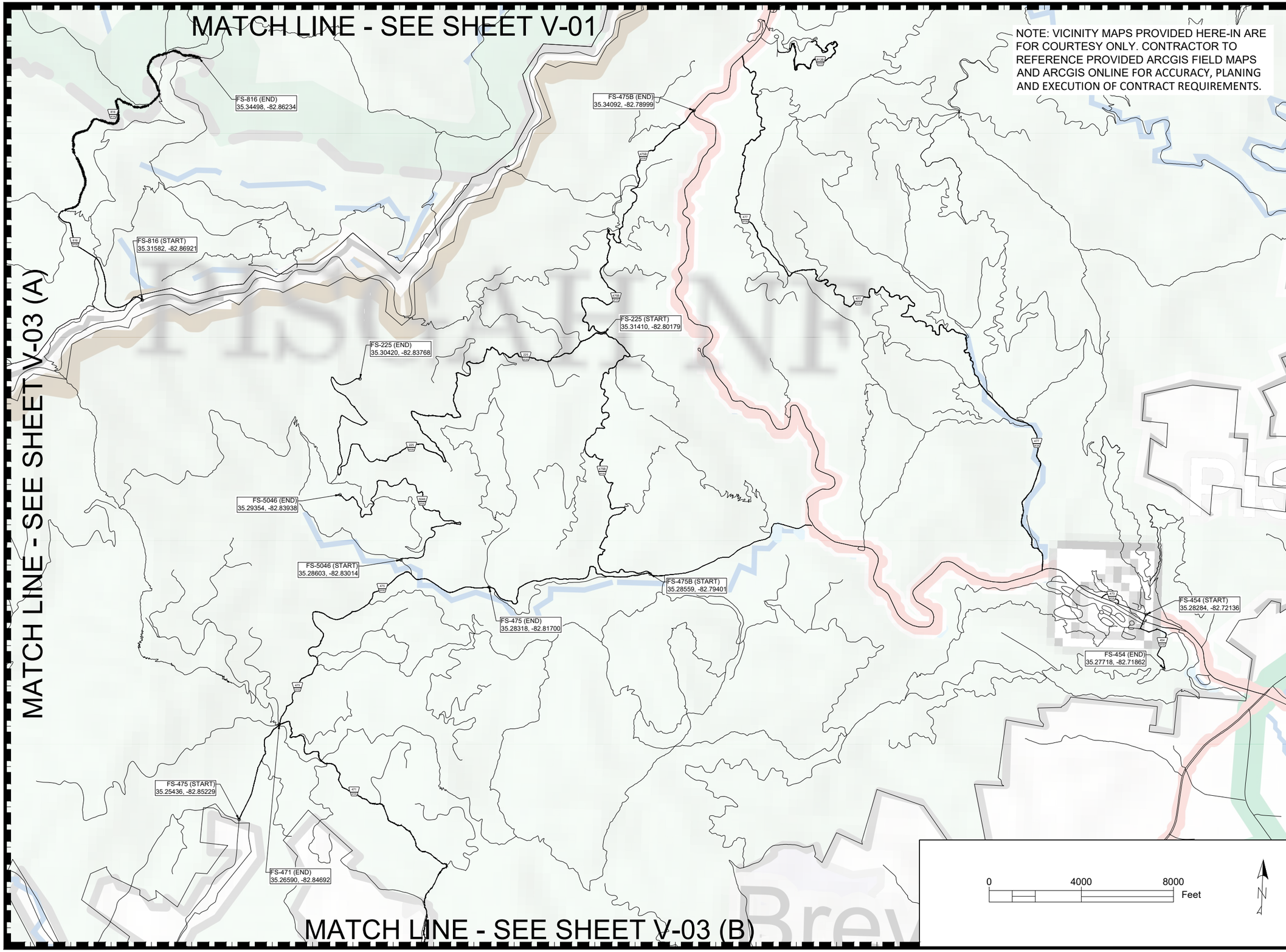

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PREPARED BY P. ELDRIDGE	DRAWING SHEET NO. V-02
DRAWN P. ELDRIDGE	
CHECKED J. NAZARIO RUIZ	
PROJECT NO.	SHEET 4 OF 25

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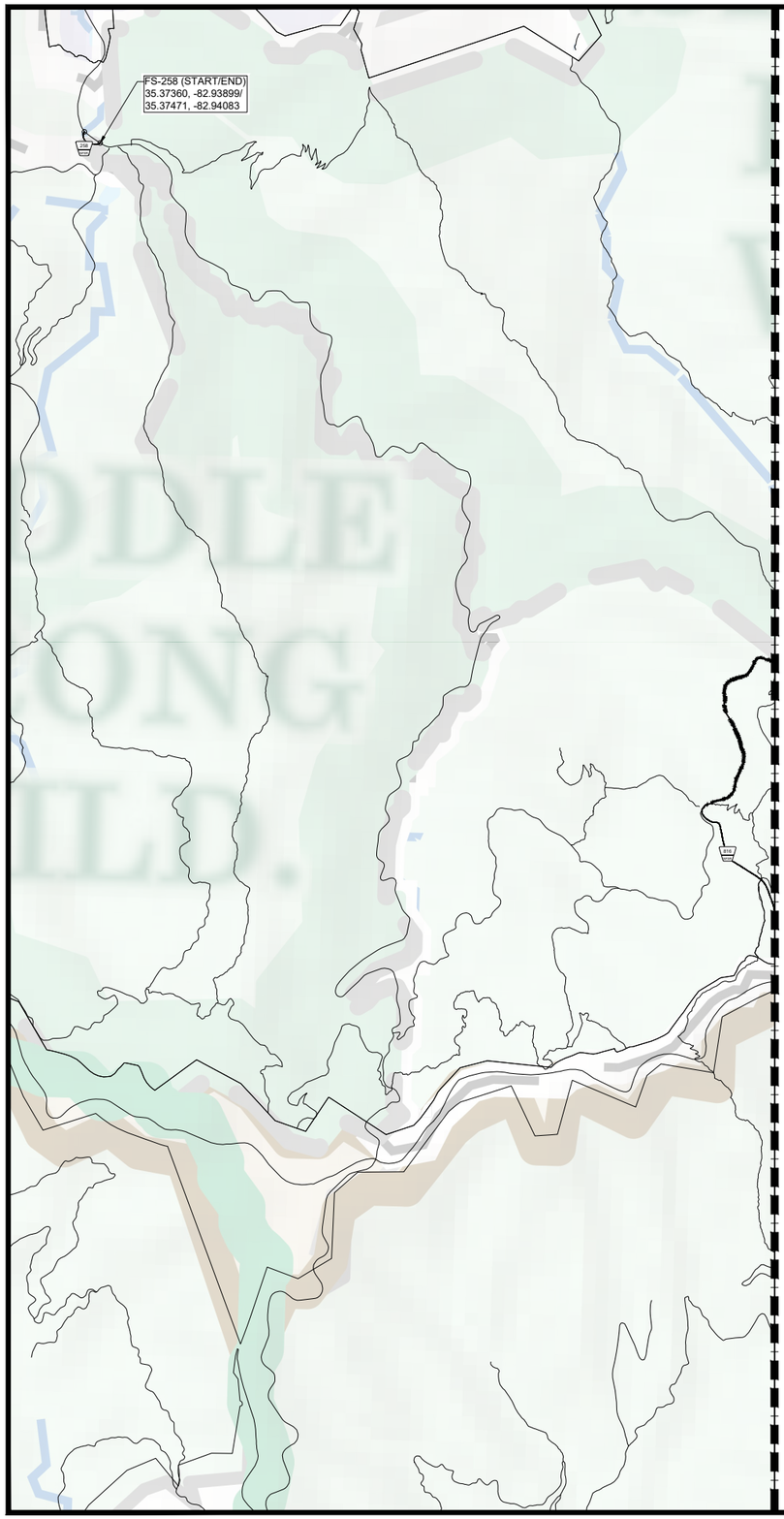

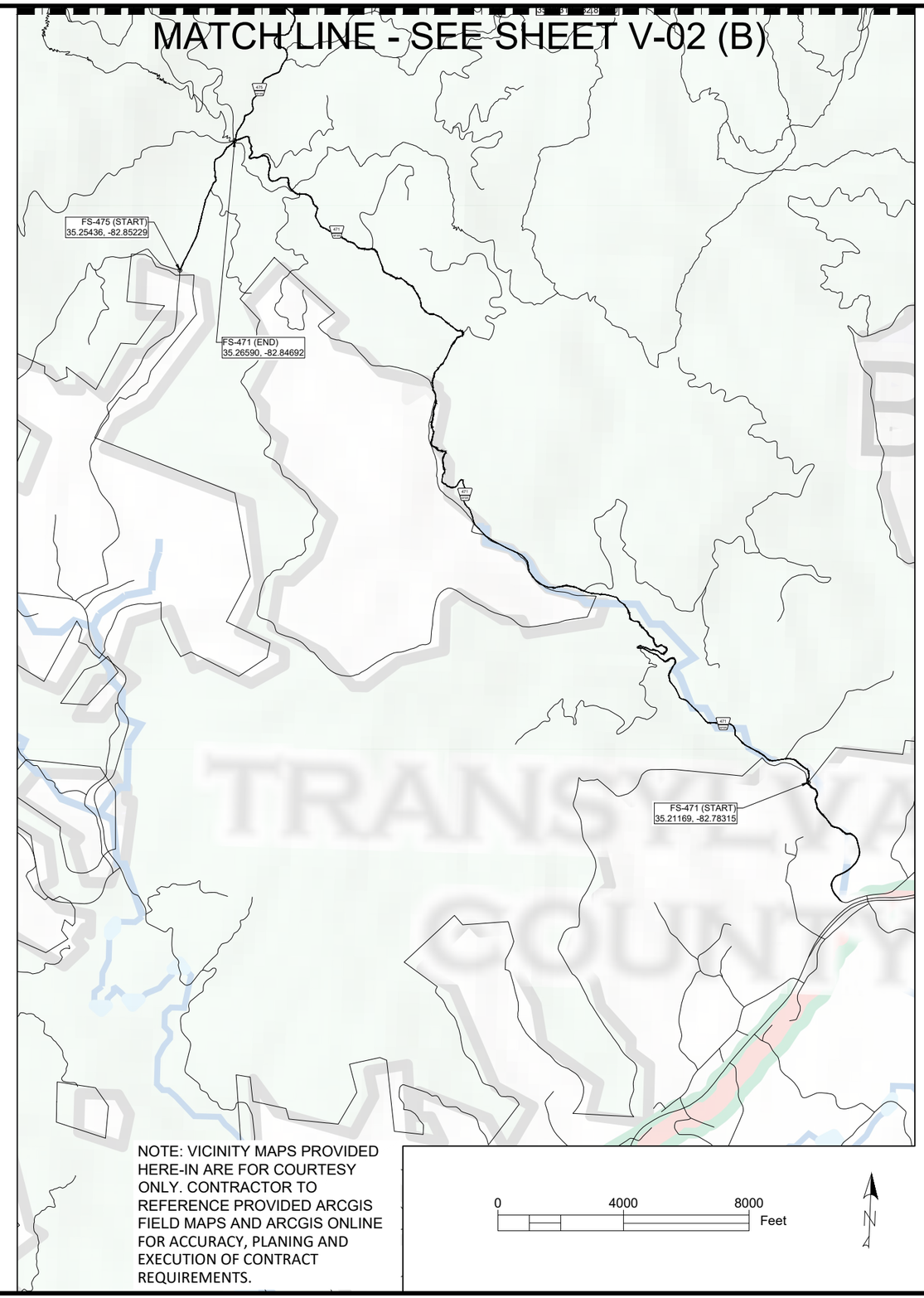

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PISGAH NATIONAL FOREST

PISGAH RANGER DISTRICT

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DATE 05/27/2026	ARCHIVE NO.
PREPARED BY P. ELDRIDGE	DRAWING SHEET NO. V-03
DRAWN P. ELDRIDGE	
CHECKED J. NAZARIO RUIZ	
PROJECT NO.	SHEET 5 OF 25

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SUMMARY OF QUANTITIES
PISGAH RANGER DISTRICT - SOUTH

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
15101	MOBILIZATION, INCLUDES PRE-WASH AND EQUIPMENT INSPECTION	1	LS
15702	SILT FENCE INSTALLATION, REMOVAL AND DISPOSAL OFF GOVERNMENT LAND	5350	LF
15707	WATTLES, 6" DIAMETER MIN.	2568	LF
20203	ROADSIDE BRUSHING AND MOWING, DISPOSAL METHOD F	41.66	MI
20403	ROADWAY EXCAVATION, AND EMBANKMENT , COMPACTION PLACEMENT METHOD 1	6591	CY
25102	PLACED RIPRAP, NCDOT CLASS B	1070	TON
30208	AGGREGATE SURFACE COURSE, NCDOT ABC, METHOD 2, COMPACTION B	6420	TON
30315	ROADWAY REHABILITATION (2 CYCLES PER ROAD), PLACEMENT METHOD 2	74.94	MI
40305	ASPHALT CONCRETE PATCHING (LOCALIZED REPAIR)	66	CY
60201a	REPLACE WITH 24" PIPE CULVERT, ALUMINIZED CORRUGATED STEEL, TYPE 2, 14-GAUGE, WITH STANDARD CATCH BASIN, DITCHLINE AND OUTLET CONTROLS, COMPACTION METHOD 2, DISPOSAL OFF GOVERNMENT LAND	7414	LF
60201b	HEADWALL CONSTRUCTION ASSOCIATED WITH SPECIFIC CULVERTS (REMOVE/REPLACE)	17	EA
60201c	DROP INLET CONSTRUCTION ASSOCIATED WITH SPECIFIC CULVERTS (REMOVE/REPLACE)	17	EA
62502	TURF ESTABLISHMENT	21.40	AC
63501	TEMPORARY TRAFFIC CONTROL	1	LS
90101	DRAINAGE CULVERT ASSET STATUS AND LOCATION DATA COLLECTION, GIS DIGITAL MAP	1	LS

1) TIMING RESTRICTIONS APPLY TO WORK IN STREAMS. SEE **<FILL IN>** FOR IN STREAM TIMING RESTRICTIONS

2) CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF ALL SURVEY STAKES AND MONUMENTS, QUALITY CONTROL, AND SAMPLING AND TESTING, NO SEPARATE PAYMENT WILL BE MADE

3) CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF ALL ASSETS, QUALITY CONTROL, AND SAMPLING AND TESTING, NO SEPARATE PAYMENT WILL BE MADE.

4) TRAFFIC CONTROL IS THE RESPONSIBILITY OF THE CONTRACTOR. SEE **<FILL IN>** FOR PROJECT SPECIFIC TRAFFIC CONTROL REQUIREMENTS.

5) CONSERVE ROCK FROM EXCAVATIONS AND PLACE AS RIPRAP ARMORING AT THE INLETS AND OUTLETS OF DRAINAGE FEATURES. UNLESS RIP RAP QUANTITIES ARE SPECIFIED THIS WORK IS CONSIDERED INDIRECT TO THE DRAINAGE FEATURE AND NOT MEASURED FOR PAYMENT.

6) SOIL EROSION AND POLLUTION CONTROL: INSTALLATION AND MAINTENANCE OF ALL EROSION AND POLLUTION CONTROL DEVICES SHALL BE INCIDENTAL TO SOIL EROSION & POLLUTION CONTROL BID ITEM UNLESS OTHERWISE IDENTIFIED IN THE BID SCHEDUL**E**

7) UNSUITABLE EXCAVATION: WASTE MATERIAL PRODUCED IN THE CONSTRUCTION OF THIS PROJECT SHALL BE HAULED TO THE DISPOSAL SITES SPECIFIED IN THE SCHEDULE. COR/ER SHALL CONFIRM LOCATIONS

8) AGGREGATE SURFACE COURSE: THIS ITEM INCLUDES ALL ABC STONE USED IN PROJECT, INCLUDING SURFACING, PIPE BEDDING, SHOULDERS, TURNOUTS, TURNAROUNDS, & CURVE WIDENING

9) CULVERT INSTALLATION: CLEARING AND SLOPE ROUNDING REQUIRED FOR CULVERT INSTALLATION IS INCIDENTAL TO CULVERT INSTALLATION. CONSTRUCTION OF OUTLET DITCHES IS INCIDENTAL TO CULVERT INSTALLATION AND NO SEPARATE PAYMENT WILL BE MADE. DEWATERING REQUIRED FOR CULVERT INSTALLATION SHALL BE INCIDENTAL TO PAY ITEM 15713 AND NO SEPARATE PAYMENT WILL BE MADE IN SIDEHILL SECTIONS, THE CONTRACTOR SHALL CONSTRUCT THE CULVERT CATCH BASIN AS SHOWN IN THE CATCH BASIN DETAILS AND RECONDITION 50' OF EXISTING DITCH LINE ON BOTH SIDES OF THE INSTALLATION. THIS WORK IS INCIDENTAL TO THIS ITEM

10) ROAD REHABILITATION: WORK INCLUDED IS INCIDENTAL TO REHABILITATION AND NO SEPARATE PAYMENT WILL BE MADE. THIS ITEM INCLUDES CLEANING AND REHABILITATION ALL LEADOFF DITCHES, CULVERT CATCH BASINS, CULVERT INLET AND OUTLET DITCHES, AND CLEARING ALL BRUSH BETWEEN THE ROAD SHOULDER AND THE CULVERT INLET. ALL WORK SHALL BE IN ACCORDANCE WITH THE TYPICAL SECTIONS AND DRAWINGS. ALL CULVERTS LISTED OR NOT LISTED IN THE DESCRIPTION OF WORK SHALL BE CLEANED INSIDE AT LEAST 5' FROM THE ENDS. ANY INLET OR OUTLET DEFORMATION WITHIN 2 FEET OF THE CULVERT ENDS SHALL BE RESTORED TO AS MUCH AS IS POSSIBLE. REHABILITATION OF ROAD OR DITCH LINES SHALL NOT UNDERCUT BACKSLOPE. WHERE UNDERCUTTING IS DONE THE BACKSLOPE (CUT-SLOPE) SHALL BE RESHAPED AND SEEDED.

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PROJECT NAME

PISGAH DITCH CULVERT REPLACEMENTS AND ROAD REHABILITATION

PISGAH NATIONAL FOREST

PISGAH RANGER DISTRICT

DRAWING TITLE

SUMMARY OF QUANTITIES

DATE 05/27/2026	ARCHIVE NO.
PREPARED BY P. ELDRIDGE	DRAWING SHEET NO. C-01
DRAWN P. ELDRIDGE	
CHECKED J. NAZARIO RUIZ	
PROJECT NO.	SHEET 6 OF 25

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Ditch Culvert Replacements and Road Rehabilitation Activity Summary

PISGAH RANGER DISTRICT - SOUTH

2026

Road Number	Name	GIS Miles	Linear Feet	Number of Culverts	Inlet Considerations		Surface Type	Objec Maint Level	Oper Maint Level	Funct Class	Lanes	Beginning Milepost Coordinates		Ending Milepost Coordinates	
					HEAD WALL (HW)	DROP INLET (DI)						Latitude	Longitude	Latitude	Longitude
225	COVE CREEK	5.786	544	18	0	0	AGG – CRUSHED AGGREGATE OR GRAVEL	3 – SUITABLE FOR PASSENGER CARS	3 – SUITABLE FOR PASSENGER CARS	L – LOCAL	1 – SINGLE LANE	35.3141	-82.80179	35.3042	-82.83768
258	SUNBURST REC AREA	0.184	76	2	0	0	AGG – CRUSHED AGGREGATE OR GRAVEL	3 – SUITABLE FOR PASSENGER CARS	3 – SUITABLE FOR PASSENGER CARS	L – LOCAL	2 – DOUBLE LANE	35.3736	-82.93899	35.37471	-82.9408
454	SCHENCK CCC	0.533	38	1	0	0	AC – ASPHALT	5 – HIGH DEGREE OF USER COMFORT	5 – HIGH DEGREE OF USER COMFORT	C – COLLECTOR	1 – SINGLE LANE	35.28284	−82.72136	35.27718	−82.7186
471	CATHEYS CREEK	6.963	1472	49	0	0	AGG – CRUSHED AGGREGATE OR GRAVEL	3 – SUITABLE FOR PASSENGER CARS	4 – MODERATE DEGREE OF USER COMFORT	C – COLLECTOR	1 – SINGLE LANE	35.21169	-82.78315	35.2659	-82.84692
475	DAVIDSON RIVER	3.750	779	20	0	11	AGG – CRUSHED AGGREGATE OR GRAVEL	5 – HIGH DEGREE OF USER COMFORT	5 – HIGH DEGREE OF USER COMFORT	A – ARTERIAL	2 – DOUBLE LANE	35.25436	-82.85229	35.28318	-82.817
475B	HEADWATER**	6.582	2030	59	1	1	AGG – CRUSHED AGGREGATE OR GRAVEL	3 – SUITABLE FOR PASSENGER CARS	3 – SUITABLE FOR PASSENGER CARS	C – COLLECTOR	1 – SINGLE LANE	35.2856	−82.7940	35.3409	−82.7900
816	BLACK BALSAM**	3.821	748	14	2	3	BST – BITUMINOUS SURFACE TREATMENT	5 – HIGH DEGREE OF USER COMFORT	3 – SUITABLE FOR PASSENGER CARS	L – LOCAL	2 – DOUBLE LANE	35.3158	−82.8692	35.3450	−82.8623
1206	YELLOW GAP	0.372	46	1	0	0	AC – ASPHALT	5 – HIGH DEGREE OF USER COMFORT	5 – HIGH DEGREE OF USER COMFORT	C – COLLECTOR	1 – SINGLE LANE	35.4072	−82.6465	35.4060	−82.6412
1206	YELLOW GAP	11.861	1491	45	14	1	AGG – CRUSHED AGGREGATE OR GRAVEL	4 – MODERATE DEGREE OF USER COMFORT	3 – SUITABLE FOR PASSENGER CARS	C – COLLECTOR	1 – SINGLE LANE	35.3578	−82.7787	35.4072	−82.6465
5046	LANNING RIDGE	2.504	190	5	0	0	AGG – CRUSHED AGGREGATE OR GRAVEL	2 – HIGH CLEARANCE VEHICLES	3 – SUITABLE FOR PASSENGER CARS	L – LOCAL	1 – SINGLE LANE	35.2860	−82.8301	35.2935	−82.8394
	TOTALS	41.662	7414	214	17	16									

** Refer to the attachment titled "Biological Assessment for Federally Listed Species and Critical Habitat for Pisgah National Forest" in full for guidance with attention to Appendix A for special considerations.

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1	----	----

PROJECT NAME

PISGAH DITCH CULVERT REPLACEMENTS AND ROAD REHABILITATION

PISGAH NATIONAL FOREST

PISGAH RANGER DISTRICT

DRAWING TITLE

SUMMARY OF ACTIVITIES

DATE 05/27/2026
ARCHIVE NO.
PREPARED BY P. ELDRIDGE
DRAWN P. ELDRIDGE
CHECKED J. NAZARIO RUIZ
PROJECT NO.
DRAWING SHEET NO. C-02
SHEET 7 OF 25

7/9/26 13:48 PURVIS.ELDRIDGE C:\USERS\PURVIS.ELDRIDGE\BOXPROJ\PSG\ACTIVE\1700-ROADSENG\2026\2026 PISGAH SOUTH DITCH RELIEF CULVERT REPLACEMENT\2_DESIGN\2_DWGS\DWGS_QTYSANDGENNOTES_PROJECTNAME.DWG;

NFSR-225 – CULVERT REPLACEMENT WORKLIST

LATITUDE	LONGITUDE	EXISTING FEATURE SIZE	REMARKS	CULVERT DIAMETER (INCHES)	CULVERT LENGTH (FEET)
35.30985	-82.82025	18"x26'	INLET CONSIDERATIONS: NO. SKEW: YES 30. GRADE: 8% MIN	24	32
35.30411	-82.82290	18"x24'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: 8% MIN RESHAPE CB CATCHBASIN TO DRAIN IN BOTH DIRECTIONS	24	26
35.31097	-82.80862	18"x24'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: 8% MIN	24	34
35.30336	-82.82569	18"x23'	INLET CONSIDERATIONSNO. SKEW: NO. GRADE: NO. GRADE: 8% MIN	24	26
35.31041	-82.80980	18"x24'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: 8% MIN.	24	32
35.30838	-82.82201	18"x30'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: TOE OF SLOPE.	24	30
35.31083	-82.81906	18"x30'	INLET CONSIDERATIONSNO. SKEW: YES. 15. GRADE: 8% MIN.	24	32
35.30460	-82.82314	18"x24'	INLET CONSIDERATIONSNO. SKEW: YES. 30. GRADE: 8% MIN.	24	30
35.31393	-82.80259	18"x20.5'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: 8% MIN.	24	26
35.30333	-82.82273	18"x30'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: TOE OF SLOPE.	24	30
35.30978	-82.82172	18"x28'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: 8% MIN	24	36
35.31111	-82.81667	18"x25'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: 8% MIN. RESHAPE DITCH	24	26
35.30369	-82.82426	18"x24'	INLET CONSIDERATIONSNO. SKEW: YES. 30.. GRADE: 8% MIN.	24	34
35.30334	-82.82493	18"x24'	INLET CONSIDERATIONSNO. SKEW: YES. 30. GRADE: 8% MIN.	24	26
35.31181	-82.80624	18"x25'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: 8% MIN.	24	34
35.30365	-82.82241	18"x28'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: TOE OF SLOPE.	24	30
35.31082	-82.81315	18"x24'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: 8% MIN. ROAD NARROWED TO 10 FEET WIDE, BEDROCK LIKELY TO BE ENCOUNTERED	24	30
35.31088	-82.80916	18"x30'	INLET CONSIDERATIONS: NO. SKEW: YES. 45. GRADE: 8% MIN. INSTALL SEDIMENT TRAP TALL SEDIMENT TRAP AT OUTLET.	24	30
			CULVERT LENGTH SUBTOTAL		544

NFSR-258 – CULVERT REPLACEMENT WORKLIST

LATITUDE	LONGITUDE	EXISTING FEATURE SIZE	REMARKS	CULVERT DIAMETER (INCHES)	CULVERT LENGTH (FEET)
35.37354	-82.93906	18"x34'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: 8% MIN. INSTALL DEEPER IN FLOW LINE OF LOWER DITCH.	24	36
35.37455	-82.94090	18"x31'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: 8% MIN. INSTALL DEEPER IN FLOW LINE OF LOWER DITCH	24	40
			CULVERT LENGTH SUBTOTAL		76

NFSR-454 – CULVERT REPLACEMENT WORKLIST

LATITUDE	LONGITUDE	EXISTING FEATURE SIZE	REMARKS	CULVERT DIAMETER (INCHES)	CULVERT LENGTH (FEET)
35.2806	–82.7210	18"x 37'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: 8% MIN.	24	38
			CULVERT LENGTH SUBTOTAL		38

NFSR-471 – CULVERT REPLACEMENT WORKLIST (1 OF 3)

LATITUDE	LONGITUDE	EXISTING FEATURE SIZE	REMARKS	CULVERT DIAMETER (INCHES)	CULVERT LENGTH (FEET)
35.21285	-82.78342	18"x22'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: 8% MIN.	24	26
35.21326	-82.78409	18"x28'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: 8% MIN. IMPROVE SEDIMENT TRAP AT OUTLET.	24	34
35.21364	-82.78475	18"x26'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: TOE OF SLOPE. .RE-SHAPE CATCH BASIN (CB) AT OUTLET.	24	28
35.21349	-82.78730	18"x 20'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: TOE OF SLOPE.	24	32
35.21505	-82.79042	18"x21'	INLET CONSIDERATIONS: NO. SKEW: YES. 40. GRADE: TOE OF SLOPE.	24	30
35.21618	-82.79121	18"x24'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: TOE OF SLOPE. FAILING AT OUTLET.	24	30
35.21660	-82.79336	18"x 22'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: TOE OF SLOPE.	24	26
35.21660	-82.79372	18" x 27'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: TOE OF SLOPE.	24	32
35.21787	-82.79573	18"x24'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: 8% MIN. DRAINS FROM BOTH DIRECTIONS.	24	24
35.22009	-82.79830	18"x28'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: TOE OF SLOPE. MISSED IN ORIGINAL INSPECTION. KEEP SAME LOCATION AND SKEW.	24	30
35.22250	-82.79906	18"x20'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: TOE OF SLOPE.	24	28
35.22189	-82.79913	18"x23'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: TOE OF SLOPE. LIKELY TO ENCOUNTER ROCK DURING EXCAVATION. STEEP FILL BANK MAY BE DIFFICULT FOR RIPRAP PLACEMENT.	24	32
35.22271	-82.79976	18"x30'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: TOE OF SLOPE	24	36
35.22279	-82.80026	18"x50'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: TOE OF SLOPE.	24	40
35.22292	-82.80142	18"x22'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: TOE OF SLOPE. MOVE CULVERT DOWNHILL 50 FEET. ALIGN TO CATCH FLOW FROM UPSTREAM CULVERT. FLOW DISCHARGES INTO CREEK.	24	40
35.22301	-82.80150	18"x23'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: TOE OF SLOPE. KEEP OUTLET POSITIONING. NOTE CULVERT DOWNSTREAM. MOVE INLET 10' UP THE ROAD.	24	26
35.22490	-82.80165	18"x21'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: TOE OF SLOPE.	24	30
35.22746	-82.80641	18"x22'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: TOE OF SLOPE. RE-SHAPE SEDIMET TRAP AT OUTLET.	24	24
35.22834	-82.81290	18"x24'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: TOE OF SLOPE	24	28
35.22864	-82.81324	18"x24'	INLET CONSIDERATIONS: NO. SKEW: YES. 15. GRADE: TOE OF SLOPE. DRAINS FORM BOTH DIRECTIONS. OUTLET NOT FOUND BUT NEAR CREEK, REQUIRES EROSION CONTROL.	24	26
35.22991	-82.81392	18"x21'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: TOE OF SLOPE.	24	32

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PROJECT NAME

PISGAH DITCH CULVERT REPLACEMENTS AND ROAD REHABILITATION

PISGAH NATIONAL FOREST

PISGAH RANGER DISTRICT

DRAWING TITLE

WORK LIST

DATE 05/27/2026	ARCHIVE NO.
PREPARED BY P. ELDRIDGE	DRAWING SHEET NO. C-03
DRAWN P. ELDRIDGE	
CHECKED J. NAZARIO RUIZ	
PROJECT NO.	SHEET 8 OF 25

7/9/26 13:48 PURVIS.ELDRIDGE C:\USERS\PURVIS.ELDRIDGE\BOX\PROJPS\GACTIVE\7700-ROADSEN\2026\2026 PISGAH SOUTH DITCH RELIEF CULVERT REPLACEMENT\2_DESIGN\2_DWGS\DWGS_QTYS\ADDENNOTES_PROJECTNAME.DWG;

NFSR-471 – CULVERT REPLACEMENT WORKLIST (2 OF 3)

LATITUDE	LONGITUDE	EXISTING FEATURE SIZE	REMARKS	CULVERT DIAMETER (INCHES)	CULVERT LENGTH (FEET)
35.23051	-82.81454	18"x25'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: TOE OF SLOPE. DITCH DRAINS FROM BOTH DIRECTIONS.	24	28
35.23134	-82.81681	18"x21'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: TOE OF SLOPE. FLOW DISCHARGES INTO CREEK.	24	26
35.23205	-82.81832	18"x24'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: TOE OF SLOPE.EROSION CONTROL REQUIRED AT OUTLET. SEEP ON BANK WITH ACTIVE FLOWING WATER. FLOWS DIRECTLY INTO CREEK	24	30
35.23264	-82.81909	18"x24'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: TOE OF SLOPE. DRAINS FROM BOTH SIDES. SEEP ON BANK.	24	30
35.23403	-82.82013	18"x21'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: TOE OF SLOPE. OUTLET NOT FOUND.	24	26
35.23460	-82.82058	18"x25'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: TOE OF SLOPE.	24	30
35.23495	-82.82095	18"x25'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: TOE OF SLOPE.	24	32
35.23628	-82.82103	18"x24'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: TOE OF SLOPE. SEEPS UP ROAD FROM CULVERT RUNNING INTO DITCH AND FLOWING INTO CULVERT.	24	30
35.24930	-82.82248	18"x22'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: TOE OF SLOPE.	24	32
35.24897	-82.82273	18"x28'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: TOE OF SLOPE. OUTLET NOT FOUND.	24	36
35.24864	-82.82299	18"x24'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: TOE OF SLOPE. DRAINING FROM BOTH DIRECTIONS. ADD RIP-RAP AND WATTLES AT OUTLET.	24	28
35.23655	-82.82304	18"x20'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: TOE OF SLOPE.	24	30
35.23788	-82.82320	18"x28'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: TOE OF SLOPE OUTLET NOT FOUND. CATCHING A DRY DRAINAGE	24	36
35.23755	-82.82325	18"x22'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: TOE OF SLOPE. RESHAPE DITCH AT INLET.	24	34
35.23967	-82.82415	18"x21'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: TOE OF SLOPE.	24	34
35.24660	-82.82432	18"x24'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: TOE OF SLOPE	24	30
35.24612	-82.82468	18"x20'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: TOE OF SLOPE DITCH DRAINS FROM BOTH DIRECTIONS. OUTLET NOT LOCATED.	24	24
35.25159	-82.82588	18"x22'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: TOE OF SLOPE	24	30
35.25416	-82.82809	18"x19'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: TOE OF SLOPE. REQUIRES EROSION CONTROL RIP-RAP AND WATTLE AT OUTLET PRIOR TO DISCHARGE INTO CREEK.	24	28

NFSR-471 – CULVERT REPLACEMENT WORKLIST (3 OF 3)

LATITUDE	LONGITUDE	EXISTING FEATURE SIZE	REMARKS	CULVERT DIAMETER (INCHES)	CULVERT LENGTH (FEET)
35.25462	-82.82964	18"x21'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: TOE OF SLOPE. EROSION CONTROL RIP-RAP AND WATTLE REQUIRED AT OUTLET TO CREEK.	24	28
35.25490	-82.83042	18"x24'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: TOE OF SLOPE. RESHAPE DITCH TO DRAIN FROM BOTH DIRECTIONS. ADD RIP-RAP AT OUTLET BEFORE RUNNING INTO CREEK.	24	24
35.25917	-82.83773	18"x22'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: TOE OF SLOPE.	24	28
35.26045	-82.83803	18"x23'	INLET CONSIDERATIONS: NO.SKEW: YES. 30. GRADE: TOE OF SLOPE. MOVE CULVERT 22 FEET UP ROAD. RESHAPE DITCH, ACCOUNT FOR FLAT SECTION OF ROAD.	24	32
35.26137	-82.83889	18"x24'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: TOE OF SLOPE. MOVE CULVERT UP ROAD 40 FEET.	24	32
35.26141	-82.83985	18"x26'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: 8% MIN.	24	28
35.26237	-82.84104	18"x22'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: TOE OF SLOPE.	24	30
35.26271	-82.84205	18"x22'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: TOE OF SLOPE.	24	30
35.26297	-82.84315	18"x22'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: TOE OF SLOPE.	24	32
			CULVERT LENGTH SUBTOTAL		1472

NFSR-475 – CULVERT REPLACEMENT WORKLIST (1 OF 2)

LATITUDE	LONGITUDE	EXISTING FEATURE SIZE	REMARKS	CULVERT DIAMETER (INCHES)	CULVERT LENGTH (FEET)
35.29196	-82.77067	18"x66'	INLET CONSIDERATIONS: YES. DI. SKEW: YES. 15. GRADE: 8% MIN. OUTLET DISCHARGES DIRECTLY INTO DAVIDSON RIVER.	24	66
35.28240	-82.82273	18"x26'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: 8% MIN. RESHAPE DITCH AT INLET AND DRAIN MARSHY AREA.	24	32
35.28283	-82.82405	18"x30'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: TOE OF SLOPE. OUTLET DISCHARGE TO CREEK.	24	40
35.28330	-82.82502	18"x30'	INLET CONSIDERATIONS: YES. DI. SKEW: YES. 30. GRADE: TOE OF SLOPE. RESHAPE DITCH AT INLET. OUTLET DISCHARGES INTO CREEK.	24	36
35.28394	-82.82651	18"x30'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: TOE OF SLOPE.OUTLET DISCARGES AT CREEK.	24	35

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PROJECT NAME

PISGAH DITCH CULVERT REPLACEMENTS AND ROAD REHABILITATION

PISGAH NATIONAL FOREST

PISGAH RANGER DISTRICT

DRAWING TITLE

WORK LIST

DATE 05/27/2026
ARCHIVE NO.
PREPARED BY P. ELDRIDGE
DRAWN P. ELDRIDGE
CHECKED J. NAZARIO RUIZ
PROJECT NO.
DRAWING SHEET NO. C-04
SHEET 9 OF 25

7/9/26 13:48 PURVIS.ELDRIDGE C:\USERS\PURVIS.ELDRIDGE\BOXPROJ\PSG\ACTIVE\700-ROADSENG\2026\2026 PISGAH SOUTH DITCH RELIEF CULVERT REPLACEMENT\2_DESIGN\2_DWGS\DWGS_QTYSANDGENNOTES_PROJECTNAME.DWG;

NFSR-475 – CULVERT REPLACEMENT WORKLIST (2 OF 2)

LATITUDE	LONGITUDE	EXISTING FEATURE SIZE	REMARKS	CULVERT DIAMETER (INCHES)	CULVERT LENGTH (FEET)
35.27967	-82.83686	18"x30'	INLET CONSIDERATIONS: NO. SKEW: YES. 45. GRADE: TOE OF SLOPE.	24	40
35.27680	-82.84103	18"x26'	INLET CONSIDERATIONS: YES. DI. SKEW: YES. 30. GRADE: TOE OF SLOPE.	24	38
35.27729	-82.84148	18"x30'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: TOE OF SLOPE. REQUIRES EROSION CONTROL AT OUTLET.	24	40
35.27244	-82.84225	18"x30'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: TOE OF SLOPE. RESHAPE DITCH AND CATCH BASIN AT OUTLET.	24	34
35.27847	-82.84272	18"x30'	INLET CONSIDERATIONS: YES. DI. SKEW: NO. GRADE: TOE OF SLOPE. RESHAPE DITCH AND CB AT INLET.	24	38
35.27190	-82.84284	18"x28'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: TOE OF SLOPE. MOVE CULVERT 33' UP ROAD FOR ADEQUATE COVER.	24	32
35.27022	-82.84426	18"x28'	INLET CONSIDERATIONS: YES. DI. SKEW: YES. 30. GRADE: TOE OF SLOPE. REQUIRES EROSION CONTROL.	24	40
35.26987	-82.84482	18"x26'	INLET CONSIDERATIONS: YES. DI. SKEW: YES. 15. GRADE: TOE OF SLOPE. REQUIRES EROSION CONTROL AT OURLET.	24	42
35.26894	-82.84520	18"x30'	INLET CONSIDERATIONS: YES. DI. SKEW: YES. 30. GRADE: TOE OF SLOPE. REQUIRES EROSION CONTROL.	24	44
35.26834	-82.84535	18"x28'	INLET CONSIDERATIONS: YES. DI. SKEW: YES 30. GRADE: TOE OF SLOPE. EROSION CONTROL REQUIRED AT INLET.	24	38
35.26803	-82.84597	18"x34'	INLET CONSIDERATIONS: YES. DI. SKEW: 30. GRADE: TOE OF SLOPE. REQUIRES SEDIMENT CONTROL.	24	40
35.26289	-82.84881	18"x30'	INLET CONSIDERATIONS: YES. DI. SKEW: YES. 30. GRADE: 8% MIN.	24	40
35.26336	-82.84898	18"x28'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: 8% MIN.	24	34
35.26386	-82.84903	18"x32'	INLET CONSIDERATIONS: YES. DI. SKEW: YES. 30. GRADE: 8% MIN.	24	32
35.26176	-82.84911	18"x34'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: 8% MIN.	24	38
			CULVERT LENGTH SUBTOTAL		779

NFSR-475B – CULVERT REPLACEMENT WORKLIST (1 OF 4)

LATITUDE	LONGITUDE	EXISTING FEATURE SIZE	REMARKS	CULVERT DIAMETER (INCHES)	CULVERT LENGTH (FEET)
35.30451	-82.80156	18"x24'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: 8% MIN	24	32
35.33409	-82.79796	18"x24'	INLET CONSIDERATIONS: YES. HW. SKEW: 30. GRADE: 8% MIN.	24	34
35.29476	-82.80051	18"x24'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: 8% MIN. OUTLET NOT FOUND. SCHEDULED TO BE REPLACED 2025.	24	28
35.30270	-82.80212	18"x26'	INLET CONSIDERATIONS: NO. SKEW: YES. 45. GRADE: 8% MIN	24	32
35.33855	-82.79281	18"x28'	INLET CONSIDERATIONS: NO. SKEW: YES. 45. GRADE: TOE OF SLOPE	24	34

NFSR-475B – CULVERT REPLACEMENT WORKLIST (2 OF 4)

LATITUDE	LONGITUDE	EXISTING FEATURE SIZE	REMARKS	CULVERT DIAMETER (INCHES)	CULVERT LENGTH (FEET)
35.29328	-82.79896	18"x24'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: 8% MIN.	24	32
35.31817	-82.80353	18"x22'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: 8% MIN.	24	36
35.31139	-82.79892	18"x30'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: 8% MIN.	24	36
35.32577	-82.80198	18"x26'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: 8% MIN.	24	40
35.28823	-82.80098	18"x20'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: 8% MIN.	24	32
35.33208	-82.79772	18"x32'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: 8% MIN. FLANGE. DIG DEEPER/RAISE ROAD. EROSION CONTROL REQUIRED AT INLET. REMOVE AND REPLACE WITH STRAIGHT CULVERT NOTE CULVERT IS IN LEFT DITCH UNDER INTERSECTION.	24	32
35.32471	-82.80176	18"x32'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: 8% MIN. REQUIRES EROSION CONTROL	24	34
35.33653	-82.79538	18"x26'	INLET CONSIDERATIONS: NO. SKEW: YES: 30. GRADE: 8% MIN. DIG DEEPER.	24	30
35.33293	-82.79787	18"x26'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: TOE OF SLOPE. OUTLET DISCHARGES NEAR STREAM, REQUIRES EROSION CONTROL.	24	36
35.30771	-82.80209	18"x26'	INLET CONSIDERATIONS: NO SKEW: YES. 30. SLOPE: 8% MIN.	24	36
35.33688	-82.79485	18"x28'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: 8% MIN.	24	38
35.32529	-82.80101	18"x24'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: 8% MIN.	24	32
35.30501	-82.80181	18"x24'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: 8% MIN.	24	38
35.29922	-82.80297	18"x22'	INLET CONSIDERATIONS: NO. SKEW: YES. 45. SLOPE: 8% MIN.	24	34
35.29207	-82.79986	18"x24'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: TOE OF SLOPE. SCHEDULED TO BE REPLACED 2025.	24	34
35.33027	-82.79788	18"x24'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: 8% MIN. SCHEDULED TO BE REPLACED.	24	32
35.32869	-82.79913	18"x24'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: 8% MIN	24	34
35.31760	-82.80198	18"x24'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: TOE OF SLOPE.	24	30
35.30567	-82.80131	18"x26'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: 8% MIN.	24	40
35.32741	-82.79980	18"X28'	INLET CONSIDERATIONS: NO. SKEW: 30. GRADE: 8% MIN.	24	34
35.31535	-82.80499	18"x28'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: 8% MIN. RESHAPE CATCH BASIN AT OUTLET.	24	32
35.29321	-82.79945	18"x20'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: 8% MIN.	24	28
35.32383	-82.80162	18"x30'	INLET CONSIDERATIONS: NO. SKEW: 45. GRADE: 8% MIN. MODERATE BULGING AND SEDIMENT AT INLET.	24	36
35.30148	-82.80349	18"x20'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: 8% MIN. REQUIRES EROSION CONTROL AT OUTLET, DISCHARGES TO CREEK.	24	36
35.31278	-82.79951	18"x24'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: 8% MIN.	24	30
35.31951	-82.80153	18"x28'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: TOE OF SLOPE.	24	40

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PROJECT NAME

PISGAH DITCH CULVERT REPLACEMENTS AND ROAD REHABILITATION

PISGAH NATIONAL FOREST

PISGAH RANGER DISTRICT

DRAWING TITLE

WORK LIST

DATE 05/27/2026	ARCHIVE NO.
PREPARED BY P. ELDRIDGE	DRAWING SHEET NO. C-05
DRAWN P. ELDRIDGE	
CHECKED J. NAZARIO RUIZ	
PROJECT NO.	SHEET 10 OF 25

7/9/26 13:48 PURVIS.ELDRIDGE C:\USERS\PURVIS.ELDRIDGE\BOXPROJ\PSG\ACTIVE\7700-ROADSENG\2026\2026 PISGAH SOUTH DITCH RELIEF CULVERT REPLACEMENT\2_DESIGN\2_DWGS\DWGS_QTYS\ADDENNOTES_PROJECTNAME.DWG;

NFSR-475B – CULVERT REPLACEMENT WORKLIST (3 OF 4)

LATITUDE	LONGITUDE	EXISTING FEATURE SIZE	REMARKS	CULVERT DIAMETER (INCHES)	CULVERT LENGTH (FEET)
35.33467	-82.79766	18"x26'	INLET CONSIDERATIONS: NO. SKEW: 30. GRADE: 8% MIN.	24	34
35.30735	-82.80187	18"x32'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: 8% MIN.	24	36
35.28552	-82.79553	18"x20'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: 8% MIN.	24	34
35.29847	-82.80185	18"x26'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: 8% MIN	24	34
35.31745	-82.80147	18"x24'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: TOE OF SLOPE. DRAINS FROM BOTH SIDES.	24	30
35.28560	-82.80054	18"x22'	INLET CONSIDERATIONS: NO. HW AT OUTLET. SKEW: YES. 30. SLOPE: 8% MIN. ROCK HW AT OUTLET.	24	36
35.28697	-82.80149	18"x22'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: 8% MIN. ROCK LIKELY PRESENT.	24	36
35.29433	-82.80032	18"x24'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: 8% MIN	24	32
35.32292	-82.80185	18"x24'	INLET CONSIDERATIONS: NO. SKEW: 30. GRADE: 8% MIN. MOVE CULVERT UP ROAD 55 FT	24	26
35.31214	-82.79870	18"x24'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: 8% MIN.	24	34
35.29685	-82.80105	18"x22'	INLET CONSIDERATIONS: NO SKEW: NO. SLOPE: 8% MIN.	24	36
35.30321	-82.80179	18"x26'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: 8% MIN	24	38
35.33245	-82.79757	18"x24'	INLET CONSIDERATIONS: YES. DI. SKEW: YES. 30. GRADE: TOE OF SLOPE. RESHAPE DITCH AT INLET. REQUIRES CB AT OUTLET. POSSIBLE BROKEN BAND IN THE MIDDLE OF PIPE.	24	36
35.33719	-82.79441	18"x28'	INLET CONSIDERATIONS: NO. SKEW: 30. GRADE: TOE OF SLOPE. MOVE INLET AND CB 10' UPHILL	24	32
35.31929	-82.80104	18"x24'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: TOE OF SLOPE	24	32
35.30176	-82.80322	18"x24'	INLET CONSIDERATIONS: NO. SKEW: YES. 15. GRADE: 8% MIN OUTLET REQUIRES EROSION CONTROL, DISCHARGES TO CREEK.	24	32
35.31363	-82.80124	18"x24'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: 8% MIN.	24	36
35.31515	-82.80435	18"x24'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: 8% MIN. RESHAPE CB.	24	36
35.32965	-82.79845	18"x22'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: 8% MIN.	24	36
35.30233	-82.80260	18"x26'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: 8% MIN	24	32
35.32621	-82.80173	18"x26'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: 8% MIN. OUTLET FLOWS TO DOWNSTREAM CULVERT. MOVE CULVERT 20 FEET UP ROAD. ALIGN NEW CB WITH FLOW TO DOWNSTREAM CULVERT.	24	36
35.30714	-82.80148	18"x24'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: 8% MIN	24	40
35.32063	-82.80246	18"x26'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: TOE OF SLOPE	24	40

NFSR-475B – CULVERT REPLACEMENT WORKLIST (4 OF 4)

LATITUDE	LONGITUDE	EXISTING FEATURE SIZE	REMARKS	CULVERT DIAMETER (INCHES)	CULVERT LENGTH (FEET)
35.33512	-82.79736	18"x24'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: TOE OF SLOPE	24	40
35.28565	-82.79613	18"x20'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: 8% MIN.	24	38
35.29048	-82.80046	18"x20'	INLET CONSIDERATIONS: NO SKEW: YES. 30. GRADE: 8% MIN.	24	38
35.29207	-82.79986	18"x24'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: TOE OF SLOPE. SCHEDULED TO BE REPLACED 2025.	24	34
35.33582	-82.79669	18"x22'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: TOE OF SLOPE	24	34
			CULVERT LENGTH SUBTOTAL		2030

NFSR-816 – CULVERT REPLACEMENT WORKLIST

LATITUDE	LONGITUDE	EXISTING FEATURE SIZE	REMARKS	CULVERT DIAMETER (INCHES)	CULVERT LENGTH (FEET)
35.31581	-82.86936	18"x100'	INLET CONSIDERATIONS: YES. HW. (ROCK) SKEW: YES. 15. GRADE: TOE OF SLOPE. MOVE INLET 20 FEET NORTH OF PARKWAY	24	110
35.31533	-82.87130	18"x36'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: TOE OF SLOPE. CONCRETE CATCH BASIN AT INLET.	24	56
35.31513	-82.87170	18"x36'	INLET CONSIDERATIONS: YES. DI. SKEW: YES. 30. GRADE: TOE OF SLOPE	24	40
35.31496	-82.87356	18"x36'	INLET CONSIDERATIONS: YES. DI. SKEW: YES. 30. GRADE: TOE OF SLOPE	24	60
35.31549	-82.87437	18"x36'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: TOE OF SLOPE. CONCRETE CATCH BASIN AND PAVED DITCH AT INLET.	24	46
35.31576	-82.87450	18"x36'	INLET CONSIDERATIONS: YES. DI. SKEW: YES. 30. GRADE: TOE OF SLOPE. GO TO FLOW LINE.	24	50
35.31602	-82.87460	18"x36'	INLET CONSIDERATIONS: NOB. SKEW: YES. 30. GRADE: TOE OF SLOPE. CONCRETE CATCH BASIN AND PAVED DITCH AT INLET.	24	50
35.31655	-82.87462	18"x45'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: TOE OF SLOPE. RESHAPE DITCH AT INLET. CONCRETE CATCH BASIN AND PAVED DITCH AT INLET. INLET FED BY 4" PIPE.	24	46
35.31716	-82.87463	18"x40'	INLET CONSIDERATIONS: YES. HW. CONCRETE. SKEW: YES. 30. GRADE: 8% MIN. INLET FED BY 4" PIPE. MODERATE RUST AT INLET.	24	50
35.32192	-82.87880	18"x30'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: TOE OF SLOPE.	24	40
35.32345	-82.87980	18"x40'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: TOE OF SLOPE. ASPHALT. MOVE INLET FROM ROAD. INLET AT FAILING ASPHALT ROAD	24	40
35.32485	-82.88102	18"x35'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: 8% MIN.	24	40
35.32596	-82.88162	18"x70'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: 8% MIN. OUTLET NOT FOUND.	24	80
35.32542	-82.88177	18"x35'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: 8% MIN.	24	40
			CULVERT LENGTH SUBTOTAL		748

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PROJECT NAME

PISGAH DITCH CULVERT REPLACEMENTS AND ROAD REHABILITATION

PISGAH NATIONAL FOREST

PISGAH RANGER DISTRICT

DRAWING TITLE

WORK LIST

DATE 05/27/2026	ARCHIVE NO.
PREPARED BY P. ELDRIDGE	DRAWING SHEET NO. C-06
DRAWN P. ELDRIDGE	
CHECKED J. NAZARIO RUIZ	
PROJECT NO.	SHEET 11 OF 25

7/9/26 13:48 PURVIS.ELDRIDGE C:\USERS\PURVIS.ELDRIDGE\BOX\PROJ\PSG\ACTIVE\770-ROAD\ENG\2026\2026 PISGAH SOUTH DITCH RELIEF CULVERT REPLACEMENT\2_DESIGN\2_DWG\SIDWGS_QTYS\ANDGENNOTES_PROJECTNAME.DWG;

NFSR–1206 – CULVERT REPLACEMENT WORKLIST (1 OF 2)

LATITUDE	LONGITUDE	EXISTING FEATURE SIZE	REMARKS	CULVERT DIAMETER (INCHES)	CULVERT LENGTH (FEET)
35.40677	-82.64349	18"x46'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: TOE OF SLOPE.	24	46
35.40533	-82.66700	18"x28'	INLET CONSIDERATIONS: YES. HW. SKEW: NO. GRADE: 8% MIN . DIG DEEPER	24	36
35.40254	-82.66818	18"x24'	INLET CONSIDERATIONS: YES. DI. SKEW: NO. GRADE: 8% MIN REMOVE DI. 2' COVER AT INLET	24	36
35.40135	-82.66897	18"x26'	INLET CONSIDERATION YES. HW. SKEW: NO. GRADE: 8% MIN 1' EXIST COVER	24	32
35.40261	-82.66899	18"x28'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: 8% MIN	24	36
35.39734	-82.66903	18"x28'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: 8% MIN. OPERATIONAL.	24	34
35.39707	-82.66932	18"x30'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: 8% MIN INLET CRUSHED	24	34
35.39857	-82.66958	18"x28'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: 8% MIN.	24	36
35.39936	-82.66968	18"x28'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: 8% MIN. OUTLET NOT OBSRVED	24	38
35.40203	-82.66997	18"x22'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: 8% MIN. 8" COVER AT INLET	24	30
35.39796	-82.67003	18"x26'	INLET CONSIDERATIONS: YES. HW. SKEW: NO. GRADE: 8% MIN CURRENTLY 6" COVER. RAISE ROAD OR LOWER PIPE	24	32
35.39662	-82.67093	18"x30'	INLET CONSIDERATIONS: YES. HW. SKEW: NO. GRADE: 8% MIN.	24	30
35.39746	-82.67094	18"x24'	INLET CONSIDERATIONS: YES. HW. SKEW: NO. GRADE: TOE OF SLOPE CURRENTLY 1' COVER	24	36
35.39570	-82.67197	18"x24'	INLET CONSIDERATIONS: YES. HW. SKEW: NO. GRADE: 8%. RAISE ROAD OR LOWER PIPE	24	30
35.39559	-82.67247	18"x26'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: 8% MIN.	24	36
35.39519	-82.67310	18"x24'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: TOE OF SLOPE	24	30
35.39457	-82.67532	18"x28'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: TOE OF SLOPE CURRENTLY OVER 1.5' COVER	24	36
35.39087	-82.67675	18"x22'	INLET CONSIDERATIONS: YES. HW. SKEW: NO. GRADE: 8% MIN. CURRENTLY 1' COVER AT INLET	24	32
35.38367	-82.68337	18"x26'	INLET CONSIDERATIONS: YES. HW. SKEW: NO. GRADE: TOE OF SLOPE. OUTLET CURRENTLY 1' COVER	24	30
35.38397	-82.68376	18"x28'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: TOE OF SLOPE. .	24	32
35.38350	-82.68720	18"x23'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: TOE OF SLOPE. MAKE DEEPER OR ADD COVER	24	30
35.38321	-82.68758	18"x26'	INLET CONSIDERATIONS: YES. HW. SKEW: NO. GRADE: TOE OF SLOPE. CURRENTLY 1' COVER	24	30
35.38391	-82.68956	18"x20'	INLET CONSIDERATIONS: YES. HW. SKEW: NO. GRADE: 8% MIN. DRY LAID ROCK HW AT OUTLET	24	34
35.38471	-82.69271	18"x24'	INLET CONSIDERATIONS: YES. HW. SKEW: YES. 45. GRADE: TOE OF SLOPE. 8% MIN. CURRENTLY 1' COVER AT INLET HW. RAISE ROAD OR DIG DEEPER. MOVE CULVERT 10 FT EAST TO CATCH DRAIN	24	35
35.38333	-82.69469	18"x24'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: TOE OF SLOPE. 1' COVER AT INLET. RESHAPE DITCH.	24	28
35.38294	-82.69520	18"x24'	INLET CONSIDERATIONS: YES. HW SKEW: NO. GRADE: TOE OF SLOPE 1' COVER AT INLET, GREATER THAN 8% SLOPE., SLIDE BLOCKING DITCH, OUTLET EROSION	24	30
35.38215	-82.69767	18"x24'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: 8% MIN. CURRENTLY 1' COVER.	24	30

NFSR–1206 – CULVERT REPLACEMENT WORKLIST (2 OF 2)

LATITUDE	LONGITUDE	EXISTING FEATURE SIZE	REMARKS	CULVERT DIAMETER (INCHES)	CULVERT LENGTH (FEET)
35.38216	-82.69826	18"x28'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: 8% MIN. LOCATED IN SLIP	24	40
35.38421	-82.70031	18"x30'	INLET CONSIDERATIONS: NO. SKEW: YES 30. GRADE: 8% MIN	24	40
35.38532	-82.70096	18"x26'	INLET CONSIDERATIONS: YES. HW. SKEW: YES 45. GRADE: TOE OF SLOPE, CURRENTLY 1' COVER	24	40
35.38488	-82.70561	18"x24'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: 8% MIN LOW SPOT DRAIN	24	26
35.38495	-82.70623	18"x23'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: TOE OF SLOPE	24	40
35.38357	-82.71210	18"x24'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: 8% MIN. LOW DRAIN SPOT,	24	30
35.38329	-82.71314	18"x26'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: 8% MIN	24	32
35.38280	-82.71397	18"x28'	INLET CONSIDERATIONS: YES. HW SKEW: NO. GRADE: 8% MIN CURRENTLY 1' COVER, RAISE ROAD OR DIG DEEPER.	24	32
35.38513	-82.72602	18"x23'	INLET CONSIDERATIONS: NO. SKEW: NO. SLOPE: 8% MIN	24	30
35.38551	-82.72731	18"x25'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: TOE OF SLOPE	24	30
35.38493	-82.73031	18"x22'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: 8% MIN. RESHAPE CATCH BASIN	24	32
35.38347	-82.73392	18"x24'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: 8% MIN.	24	32
35.38323	-82.73507	18"x24'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: 8% MIN.	24	34
35.37857	-82.75730	18"x28'	INLET CONSIDERATIONS: NO. SKEW: YES. 30. GRADE: TOE OF SLOPE	24	34
35.37489	-82.76136	18"X26'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: 8% MIN RESHAPE DITCH LINE. EXTEND SEDIMENT TRAP TO GRADE	24	30
35.37261	-82.76472	18"x22'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: 8% MIN INSTALL CULVERT DEEPER AND LENGTHEN SEDIMENT TRAP	24	30
35.36604	-82.77416	18"x24'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: 8% MIN LOW SPOT DRAIN,	24	30
35.36501	-82.77798	18"x28'	INLET CONSIDERATIONS: NO. SKEW: YES. 45. GRADE: 8% MIN MOVE INLET AND BASIN INTO CUT SLOPE	24	40
35.35986	-82.77840	18"x25'	INLET CONSIDERATIONS: NO. SKEW: YES. 45. SLOPE: 8% MIN INSTALL NEW 75' DOWNROAD RESHAPE DITCH LINE	24	36
			CULVERT LENGTH SUBTOTAL		1537

NFSR–5046 – CULVERT REPLACEMENT WORKLIST

LATITUDE	LONGITUDE	EXISTING FEATURE SIZE	REMARKS	CULVERT DIAMETER (INCHES)	CULVERT LENGTH (FEET)
35.29058	-82.82320	18"x40'	INLET CONSIDERATIONS: NO. SKEW: YES. 15. GRADE: TOE OF SLOPE.	24	40
35.29059	-82.82365	18"x40'	INLET CONSIDERATIONS: NO. SKEW: YES. 45. GRADE: TOE OF SLOPE.	24	40
35.28891	-82.82572	18"x40'	INLET CONSIDERATIONS: NO. SKEW: YES. 45. GRADE: 8% MIN. MAJOR	24	40
35.29217	-82.82663	18"x20'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: 8% MIN.	24	30
35.29542	-82.83056	18"x20'	INLET CONSIDERATIONS: NO. SKEW: NO. GRADE: 8% MIN.	24	40
			CULVERT LENGTH SUBTOTAL		190

USDA FOREST SERVICE

United States Department of Agriculture
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SOUTHERN REGION

STAMPS, LOGOS, AND SEALS

NO.	REVISION / ISSUE	DATE
4	----	----
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PROJECT NAME

PISGAH DITCH CULVERT REPLACEMENTS AND ROAD REHABILITATION

PISGAH NATIONAL FOREST

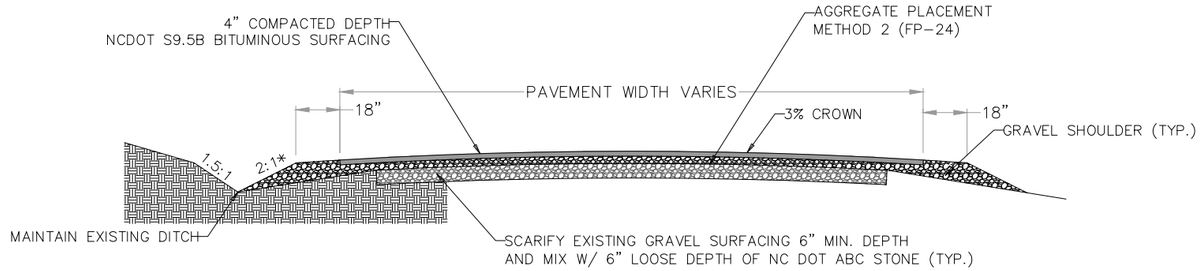
PISGAH RANGER DISTRICT

DRAWING TITLE

WORK LIST

DATE 05/27/2026	ARCHIVE NO.
PREPARED BY P. ELDRIDGE	DRAWING SHEET NO. C-07
DRAWN P. ELDRIDGE	
CHECKED J. NAZARIO RUIZ	
PROJECT NO.	SHEET 12 OF 25

7/9/26 13:48 PURVIS.ELDRIDGE C:\USERS\PURVIS.ELDRIDGE\BOX\PROJ\PSGA\ACTIVE\7704-ROADSENG\2026\20% PISGAH SOUTH DITCH RELIEF CULVERT REPLACEMENT\2_DESIGN\2_DWGS\DWGS_QTYSANDGENNOTES_PROJECTNAME.DWG;

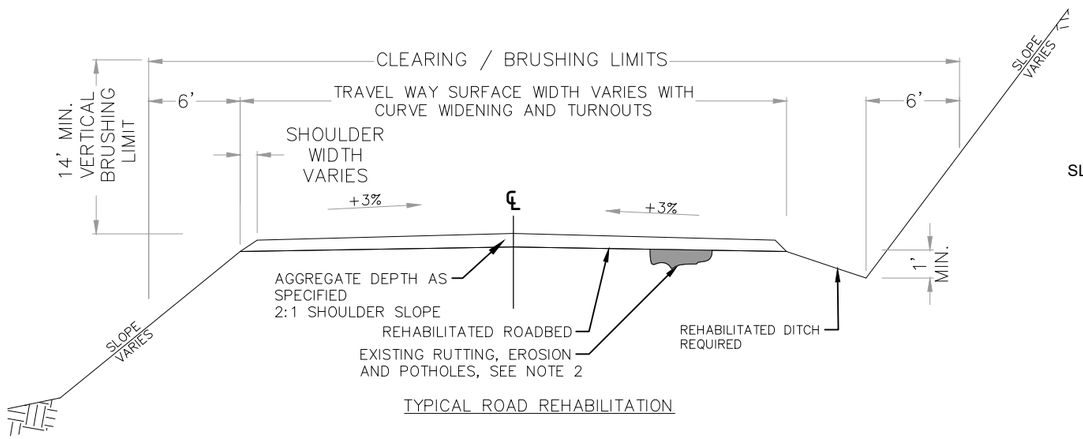


ASPHALT SECTIONS

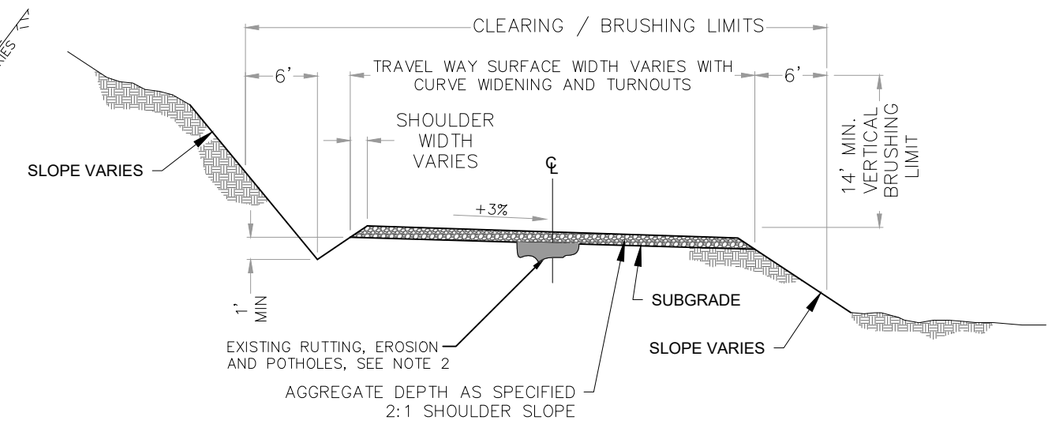
TYPICAL ROAD CROSS SECTION

WITH DITCH (MIRROR FOR DITCH BOTH SIDES)

*NOTE: DITCH INSLOPE MAY BE REDUCED TO 18" @ 1.5:1 TO MINIMIZE CUT BANK DISTURBANCE WHERE DIRECTED BY COR.



TYPICAL ROAD REHABILITATION



TYPICAL OUTSLOPED ROAD CROSS SECTION

DRAWINGS
NOT TO
SCALE

NOTES:

REHABILITATING ROADS AS SHOWN AND IN ACCORDANCE WITH FP-24 SECTION 303

- INCLUDES: CURVE WIDENING AND TURNOUTS
- DITCH: INCLUDES CLEANING CULVERT INLETS AND OUTLETS
- CULVERT: REHABILITATE ALL CULVERT CATCH BASINS IN ACCORDANCE WITH DRAWINGS, LEAD IN DITCH TO EXTEND 50', REMOVE ALL SPOIL PILES
- SEDIMENT BASINS: SHALL BE RESHAPED IN ACCORDANCE WITH DRAWINGS, INCLUDES REMOVAL OF ALL EXISTING SPOIL PILES
- SURFACE: WHERE RUTTING, EROSION AND POTHOLES EXIST, SCARIFY TO DEPTH OF RUT/EROSION/POTHOLE, BLADE, SHAPE AND COMPACT EXISTING AGGREGATE
- WASTE: REMOVAL & DISPOSAL OF SLIDE, DITCH, CATCH BASIN MATERIAL, & SPOIL MATERIAL IS CONSIDERED WASTE AND SHALL BE HAULED TO DESIGNATED DISPOSAL SITE, SEE VICINITY MAP FOR DISPOSAL SITE LOCATIONS
- CLEARING: OPERATIONS MAY PRODUCE DEBRIS, REMOVE FROM ROAD SURFACE, SHOULDER & DITCH. MAY BE CHIPPED & OR PLACED ON FILL SLOPE, NOT TO EXCEED 6-INCHES IN DEBRIS DEPTH
- CURVE WIDENING: SHALL BE APPLIED TO CURVES WHERE OFF-TRACKING IS 2-FEET OR LESS. LENGTH AND WIDTH OF OFF-TACKING SHALL BE NOTED AND ADDITIONAL AGGREGATE APPLIED WHEN APPROVED BY THE CONTRACTING OFFICER. EXTRA WIDTH WILL BE 2-FEET AND 150-FOOT TRANSITION AT EACH END AT ALL APPROVED LOCATIONS
- THROUGH CUT SECTIONS: WHERE ROAD WIDTH IS LIMITED RECONDITION DITCH ONLY ON ONE SIDE AND SLOPE SURFACE -3% FROM SHOULDER TO DITCH
- FALLEN TREES: CUT OFF AT TOP OF CUT SLOPE (MAXIMUM) OR 10' FROM SHOULDER OF ROAD (MINIMUM). IF ATTACHED TO THE ROOT WAD, ENTIRE TREE AND ROOT WAD SHALL BE REMOVED FOR SAFETY
- DEBRIS: CUT SLOPES; CLEAR LIMBS, LOOSE ROCK, MINOR SLUMPS - SLIDES , AND ALL BOX DRAINAGE STRUCTURES

United States Department of Agriculture
Forest Service

(R08)
SOUTHERN REGION

STAMPS, LOGOS, AND SEALS

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1	----	----

PROJECT NAME

PISGAH DITCH CULVERT REPLACEMENTS AND ROAD REHABILITATION

PISGAH NATIONAL FOREST

PISGAH RANGER DISTRICT

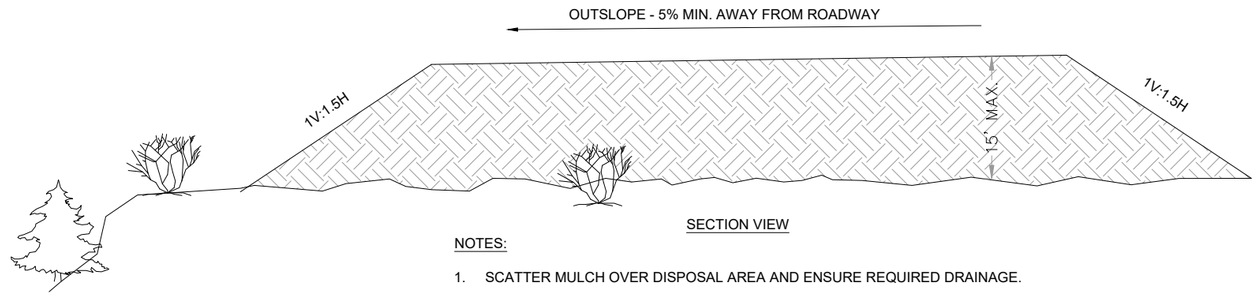
DRAWING TITLE

TYPICAL SECTIONS

DATE 05/27/2026	ARCHIVE NO.
PREPARED BY P. ELDRIDGE	DRAWING SHEET NO. D-01
DRAWN P. ELDRIDGE	
CHECKED J. NAZARIO RUIZ	
PROJECT NO.	SHEET 13 OF 25

7/8/26 13:48 PURVIS.ELDRIDGE C:\USERS\PURVIS.ELDRIDGE\BOX\PROJ\PSGACTIVE\7700-ROADSENG\2026\2026 PISGAH SOUTH DITCH RELIEF CULVERT REPLACEMENT\2_DESIGN\2_DWGS\DWGS_DETAILS_PROJECTNAME.DWG;

DISPOSAL AREA TYPICAL



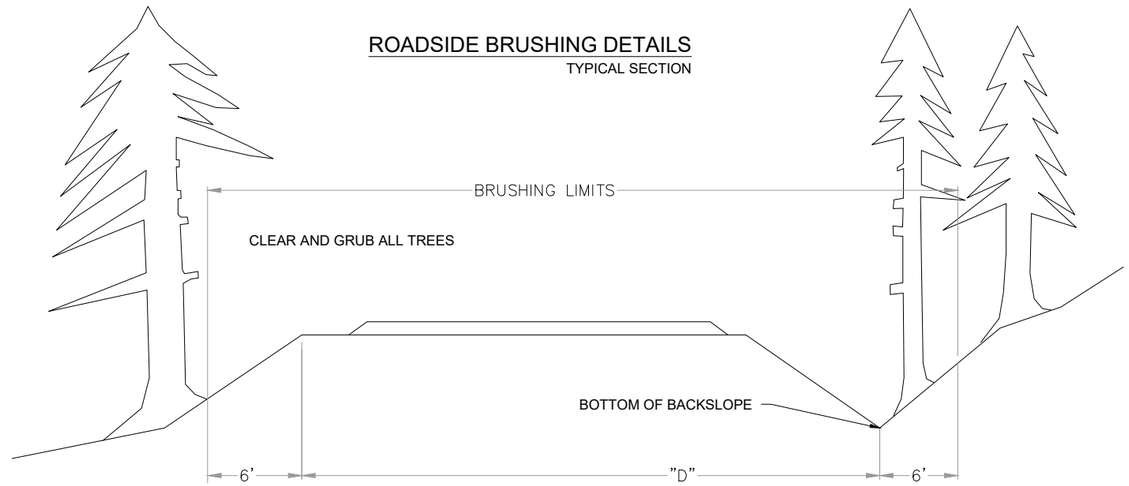
SECTION VIEW

NOTES:

1. SCATTER MULCH OVER DISPOSAL AREA AND ENSURE REQUIRED DRAINAGE.
2. DISPOSAL AREA LIMITS TO BE FLAGGED BY THE CO.
3. MAINTAIN MINIMUM 5' DISTANCE FROM DOWNHILL SLOPES ON ALL SIDES
4. DISPOSAL MATERIAL MAY ALSO BE PLACED AGAINST CUT BANKS AS APPROVED BY CO.
5. SHAPE AND MACHINE COMPACT DISPOSAL AREA.
6. ALL SIDE SLOPES SHALL BE 1V : 1½H.

ROADSIDE BRUSHING DETAILS

TYPICAL SECTION



NOTES:

1. LEAVE TREES OVER 8 INCHES IN DIAMETER AS MEASURED AT 4½' ABOVE THE GROUND THAT ARE BEYOND THE BOTTOM OF DITCH AND BEYOND HINGE POINT ON THE FILL SLOPE SIDE. LIMB TO 14 FEET ABOVE THE ROAD SURFACE.
2. REMOVE TREES AND GRUB STUMPS WITHIN "D". HAUL TO DESIGNATED DISPOSAL AREAS OR AS NOTED ON THE WORK DESCRIPTIONS.
3. CUT ALL VEGETATION TO A MAXIMUM HEIGHT OF 6 INCHES ABOVE THE GROUND SURFACE.
4. ROADS MECHANICALLY BRUSHED MAY REQUIRE MANUAL SCATTERING OF CUT MATERIAL BEYOND THE BRUSHING LIMITS.
5. ALL 230 BRUSHING/CLEARING AND GRUBBING SPECIFICATIONS SHALL BE SCATTERED OUTSIDE CLEARING LIMITS ON FOREST SERVICE LANDS UNLESS OTHERWISE DESIGNATED.

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2	----	----
1	----	----

PROJECT NAME

PISGAH DITCH CULVERT REPLACEMENTS AND ROAD REHABILITATION

PISGAH NATIONAL FOREST

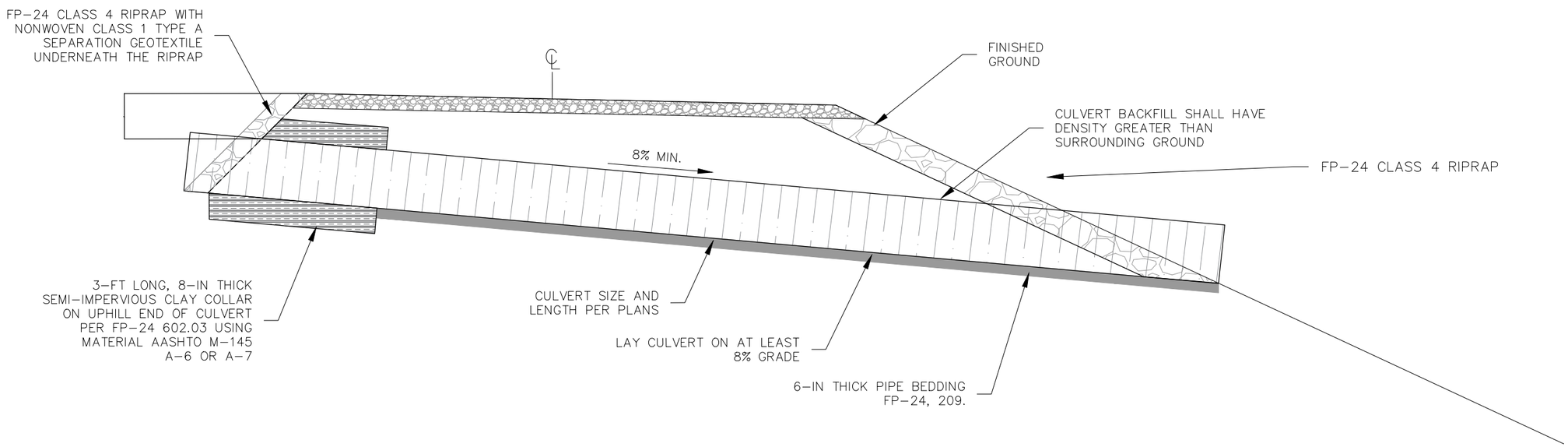
PISGAH RANGER DISTRICT

DRAWING TITLE

BRUSHING AND DISPOSAL DETAIL

DATE 05/27/2026	ARCHIVE NO.
PREPARED BY P. ELDRIDGE	DRAWING SHEET NO. D-02
DRAWN P. ELDRIDGE	
CHECKED J. NAZARIO RUIZ	
PROJECT NO.	SHEET 14 OF 25

7/9/26 13:48 PURVIS.ELDRIDGE C:\USERS\PURVIS.ELDRIDGE\BOX\PROJ\PSG\ACTIVE\7700-ROAD\ENG\2026\2026 PISGAH SOUTH DITCH RELIEF CULVERT REPLACEMENT\2_DESIGN\2_DWG\SDWGS_DETAILS_PROJECTNAME.DWG;



CLAY PLUG CULVERT DETAIL

United States Department of Agriculture
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3	----	----
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1	----	----

PROJECT NAME

PISGAH DITCH CULVERT REPLACEMENTS AND ROAD REHABILITATION

PISGAH NATIONAL FOREST

PISGAH RANGER DISTRICT

DRAWING TITLE

CLAY PLUG CULVERT DETAIL

DATE 05/27/2026
ARCHIVE NO.
PREPARED BY P. ELDRIDGE
DRAWN P. ELDRIDGE
CHECKED J. NAZARIO RUIZ
PROJECT NO.
DRAWING SHEET NO. D-03
SHEET 15 OF 25

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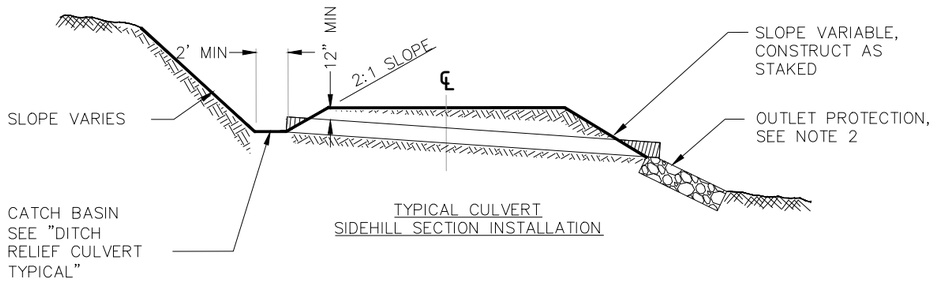
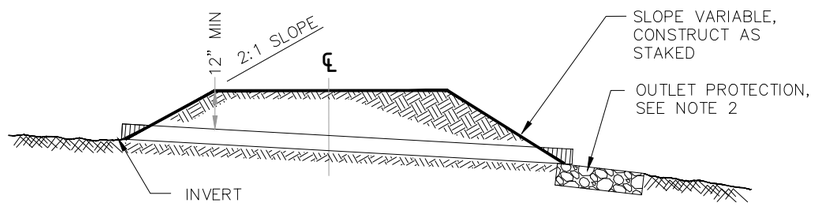
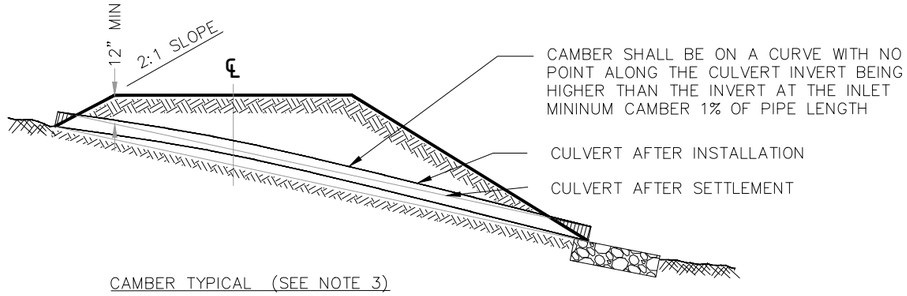


TYPICAL CULVERT
SIDEHILL SECTION INSTALLATION

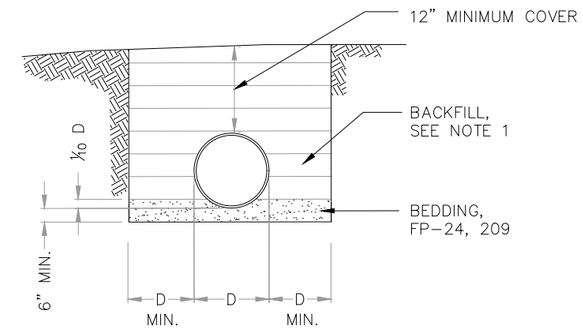


TYPICAL CULVERT
FILL SECTION INSTALLATION

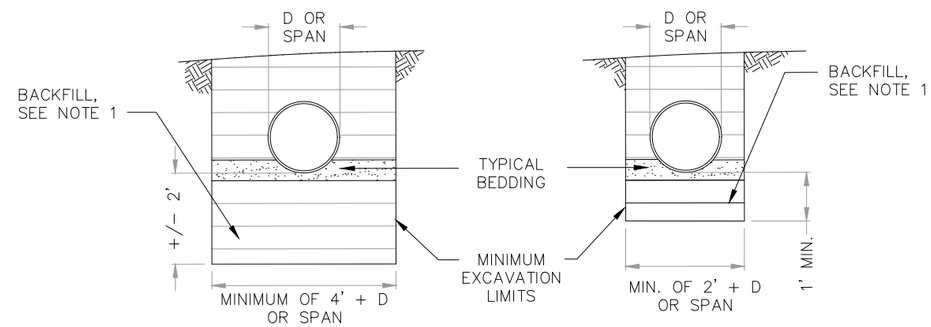


CAMBER TYPICAL (SEE NOTE 3)

DRAWINGS
NOT TO SCALE



TYPICAL CMP ROUND CULVERT SECTION



UNSUITABLE FOUNDATION

ROCK FOUNDATION

NOTES:

NOTES:

1. BACK FILL ALL CULVERTS WITH SUITABLE MATERIAL APPROVED BY THE CONTRACTING OFFICER. PLACE IN 6-INCH LAYERS, USING COMPACTION METHOD B, IN ACCORDANCE WITH FP-24, 209 STRUCTURE EXCAVATION AND BACKFILL. WHEN SUITABLE MATERIAL CANNOT BE OBTAINED ON SITE ABC STONE SHALL BE USED AS BACKFILL WHEN APPROVED BY THE CONTRACTING OFFICER.
2. REFER TO THE DESCRIPTION OF WORK AND/OR CULVERT SCHEDULE FOR INLET/OUTLET PROTECTION LOCATIONS. REFER TO CULVERT INLET/OUTLET PROTECTION SHEET FOR CONSTRUCTION INFORMATION.
3. CAMBER ALL CULVERTS AS SHOWN IN CAMBER TYPICAL WITH MAXIMUM CAMBER UNDER CENTER OF FILL.
4. PROVIDE FOR A 50' TRANSITION GRADE INTO INLET OF CULVERT.
5. ALL EXCAVATION AND TRENCHING OPERATIONS SHALL CONFORM TO OSHA REQUIREMENTS.
6. DO NOT OPERATED ANY HEAVY EQUIPMENT OVER ANY CULVERT UNTIL IT HAS BEEN PROPERLY BACK FILLED WITH A MINIMUM OF 1-FOOT COVER.
7. CULVERTS SHALL BE INSTALLED AS STAKED, WITH A MINIMUM OF 8% SLOPE WHERE POSSIBLE.
8. MINIMUM LENGTHS OF PIPE FOR ANY INSTALLATION SHALL NOT BE LESS THAN 10' SECTIONS. CULVERT INSTALLATIONS OF 40 L.F. OR LESS SHALL CONSIST OF ONE PIECE OF CULVERT UNLESS APPROVED BY THE CONTRACTING OFFICER.
9. STAKED CULVERT LENGTHS SHALL BE FIELD MEASURED, CONFIRMED, AND APPROVED BY THE THE CO PRIOR TO ORDERING OF CULVERTS.
10. FIELD CUTTING OF CULVERT IS NOT PERMITTED UNLESS APPROVED BY THE CONTRACTING OFFICER. WHERE SPELTER COATING HAS BEEN BRUISED OR BROKEN IN THE SHOP, DURING SHIPPING, OR BY FIELD CUTTING REPAIRS SHALL BE IN ACCORDANCE E WITH AASHTO M36.
11. PLACE FILL AROUND CULVERTS IN LAYERS NOT TO EXCEED 6-INCHES LOOSE DEPTH. WHERE BEDDING MATERIAL IS REQUIRED USE ABC STONE.

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PROJECT NAME

PISGAH DITCH CULVERT REPLACEMENTS AND ROAD REHABILITATION

PISGAH NATIONAL FOREST

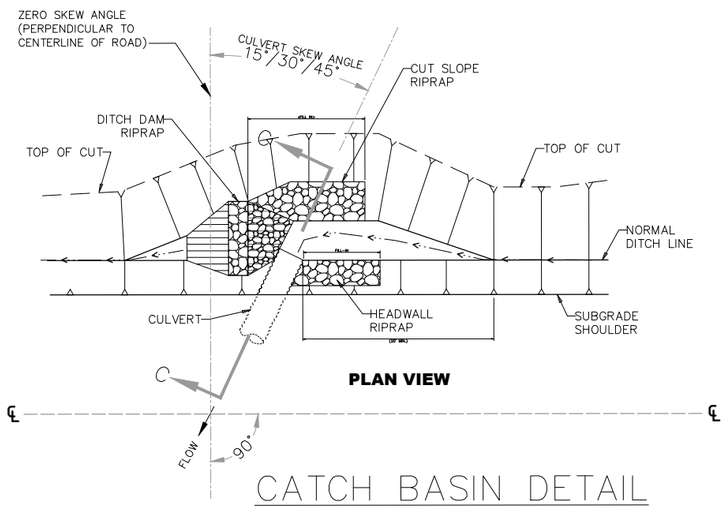
PISGAH RANGER DISTRICT

DRAWING TITLE

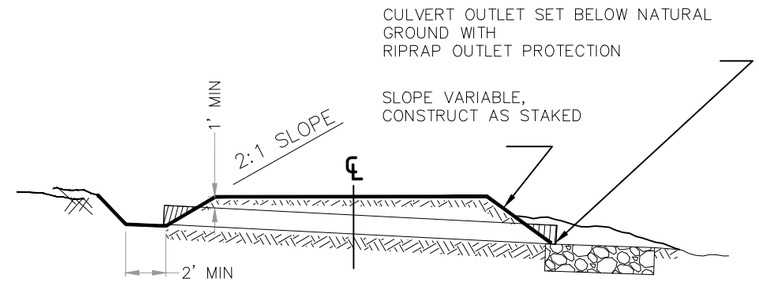
CMP CULVERT DETAIL

DATE 05/27/2026	ARCHIVE NO.
PREPARED BY P. ELDRIDGE	DRAWING SHEET NO. D-04
DRAWN P. ELDRIDGE	
CHECKED J. NAZARIO RUIZ	
PROJECT NO.	SHEET 16 OF 25

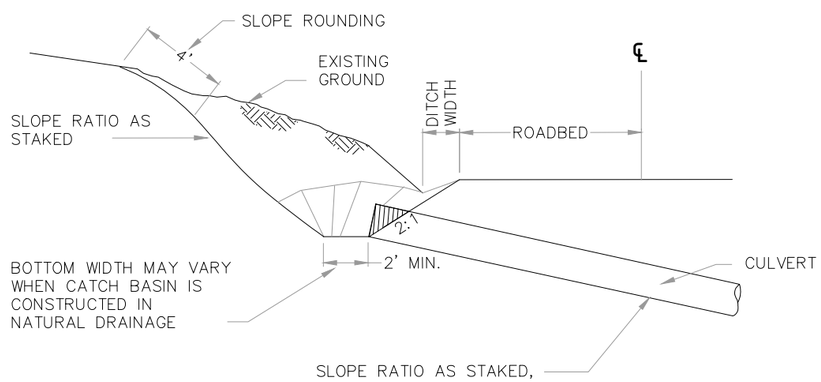
7/9/26 13:48 PURVIS.ELDRIDGE C:\USERS\PURVIS.ELDRIDGE\BOX\PROJ\PSG\ACTIVE\770\-ROADSENG\2026\2026 PISGAH SOUTH DITCH RELIEF CULVERT REPLACEMENT\2_DESIGN\2_DWG\SDWGS_DETAILS_PROJECTNAME.DWG;



CATCH BASIN DETAIL

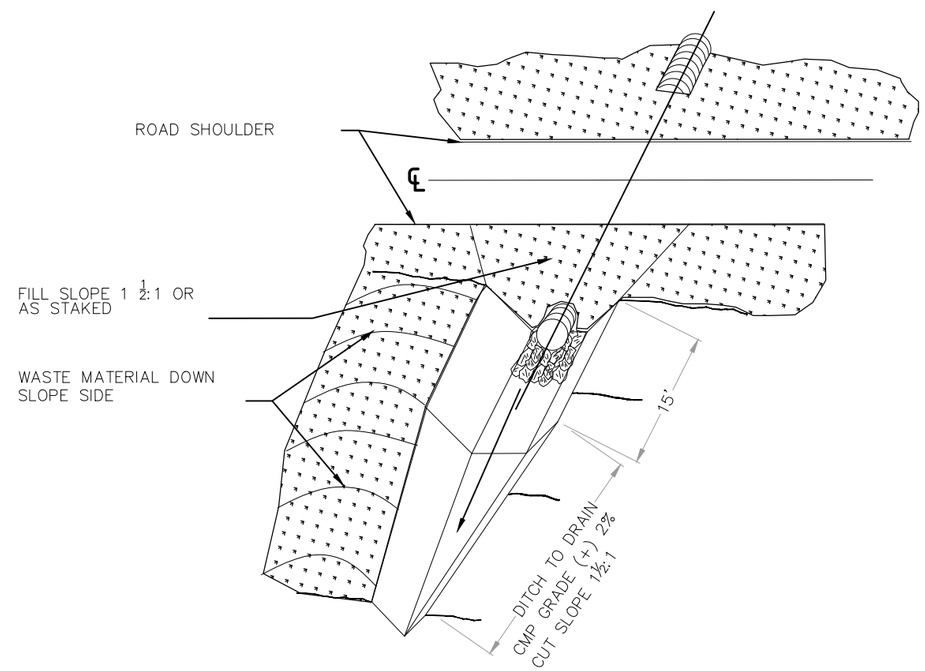


TYPICAL INSTALLATION WITH OUTLET DITCH
CROSS SECTION VIEW



SECTION C–C
DITCH RELIEF CULVERT

DRAWINGS
NOT TO
SCALE



OUTLET "V" DITCH
PICTORIAL VIEW

NOTE:

- CULVERT SHALL BE CLEANED FULL LENGTH
- RECONDITION CATCH BASIN TO 4' WIDE FROM INVERT OF CULVERT
- MATCH EXISTING CATCH BASIN BACK–SLOPE RATIO
- CATCH BASIN TAPER SHALL EXTEND 50–FEET FROM INVERT
- DITCH BLOCK HEIGHT 6" BELOW SUBGRADE
- ADJUST SHOULDER TO PROVIDE MINIMUM 1.5:1 SLOPE FROM SHOULDER TO CULVERT INVERT
- CLEARING DISPOSAL METHOD E, WIND ROWING SLASH ON FILL SLOPE
- EXCAVATED MATERIAL TO BE HAULED TO DESIGNATED DISPOSAL AREA

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2	----	----
1	----	----

PROJECT NAME

PISGAH DITCH CULVERT REPLACEMENTS AND ROAD REHABILITATION

PISGAH NATIONAL FOREST

PISGAH RANGER DISTRICT

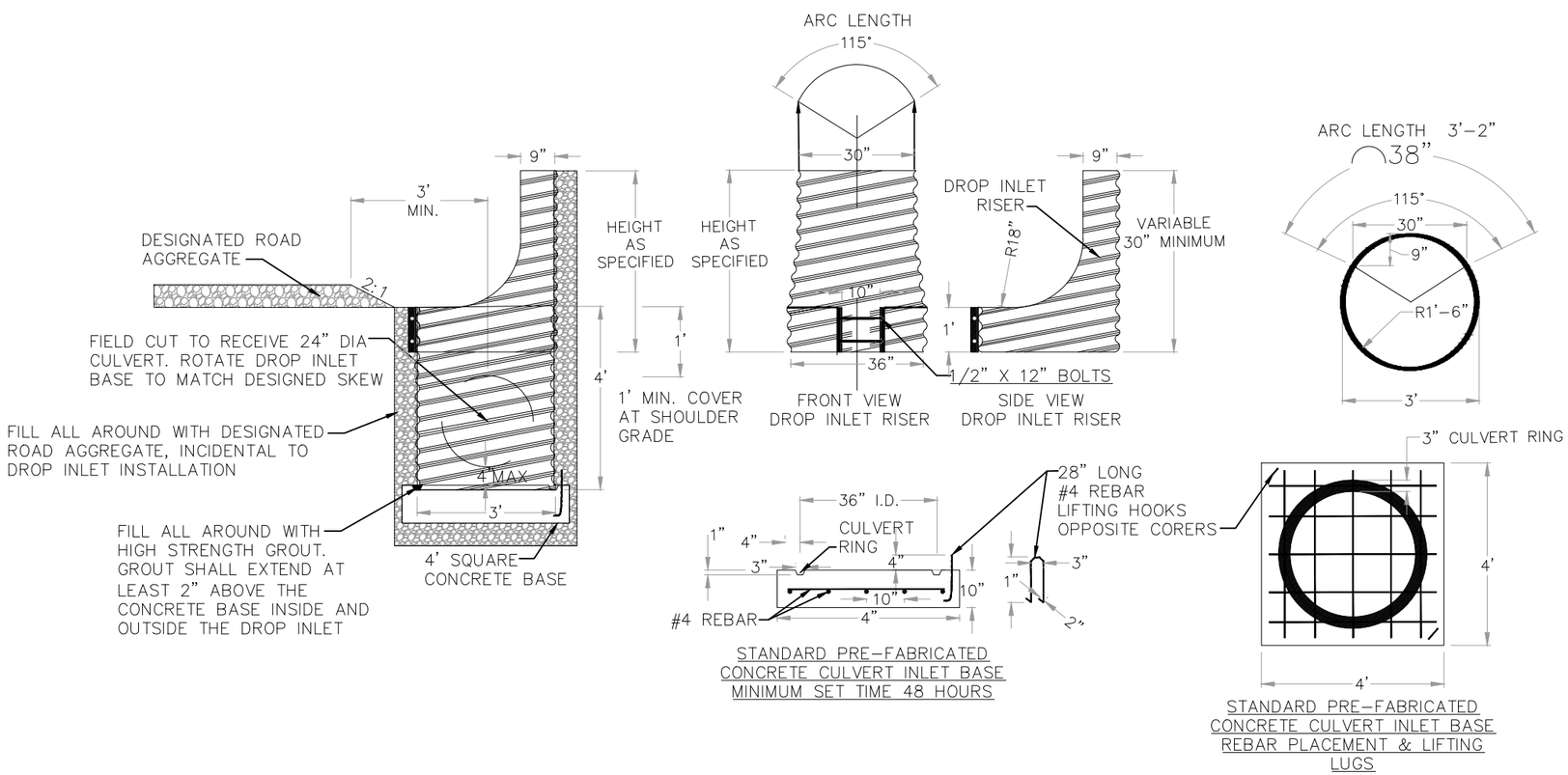
DRAWING TITLE

CMP DITCHING DETAIL

DATE 05/27/2026	ARCHIVE NO.
PREPARED BY P. ELDRIDGE	DRAWING SHEET NO. D-05
DRAWN P. ELDRIDGE	
CHECKED J. NAZARIO RUIZ	
PROJECT NO.	SHEET 17 OF 25

7/9/26 13:48 PURVIS.ELDRIDGE C:\USERS\PURVIS.ELDRIDGE\BOX\PROJPSG\ACTIVE\7700-ROADSENG\2026\2026 PISGAH SOUTH DITCH RELIEF CULVERT REPLACEMENT\2_DESIGN\2_DWG\SDWGS_DETAILS_PROJECTNAME.DWG;

NOTES:
1. MINIMUM CULVERT COVER AT SHOULDER 1-FOOT
2. FIELD CUT DROP INLET PIPE ON SITE FOR CULVERT INSTALLATION & SKEW ANGLE
3. CONTINUOUS WELD INSIDE & OUTSIDE CONNECTION
4. TREAT ALL FIELD WELDS WITH TWO COATS, PRODUCT OR EQUAL: ZRC GALVALITE 20012 COLD GALVANIZING COMPOUND, MATCHES HOT-DIP GALVANIZED PERFORMANCE, CONTAINS 95-PERCENT METALLIC ZINC
5. INSTALL CULVERT ON DESIGNATED SKEW ANGLE, 0° DEGREE BUT NOT GREATER THAN 45°
6. FILL GAP BETWEEN THE DROP INLET AND 4' SQUARE PRE-CONCRETE BASE WITH "QUIKRETE" COMMERCIAL GRADE NON-SHRINK PRECISION GROUT OR EQUAL
7. BACK FILL AROUND DROP INLET WITH ROAD AGGREGATE, INCIDENTAL TO DROP INLET INSTALLATION
8. SEE: "TABULATION OF DRAINAGE QUANTITIES" FOR REQUIRED SKEW ANGLE, CULVERT LENGTH, HEIGHT OF CULVERT BACK RISER WALL



DRAWINGS NOT TO SCALE

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SOUTHERN REGION

STAMPS, LOGOS, AND SEALS

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PROJECT NAME

PISGAH DITCH CULVERT REPLACEMENTS AND ROAD REHABILITATION

PISGAH NATIONAL FOREST

PISGAH RANGER DISTRICT

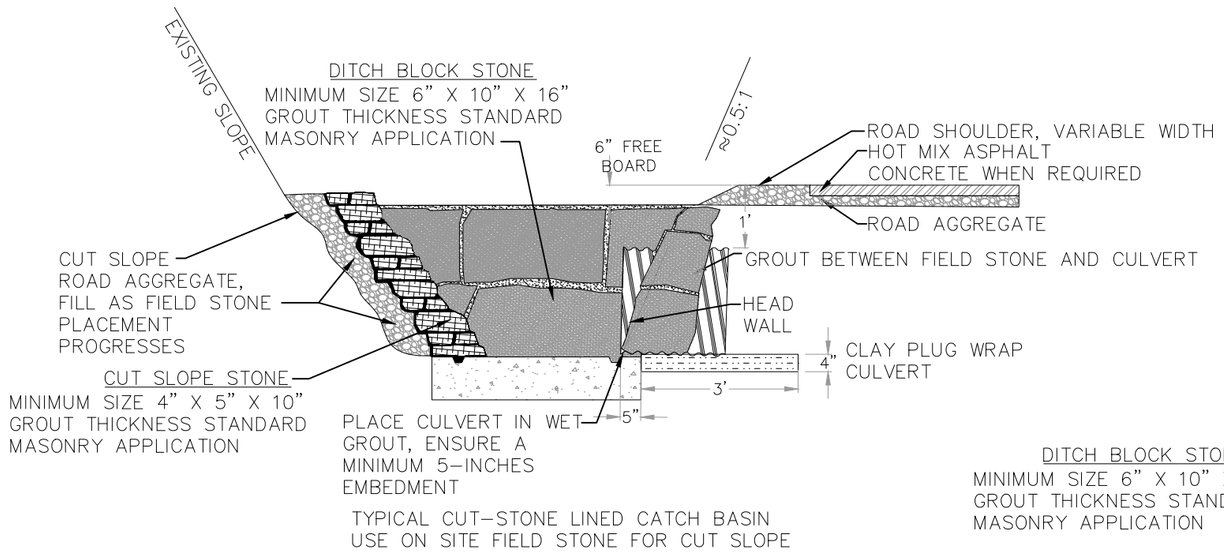
DRAWING TITLE

DROP INLET DETAIL

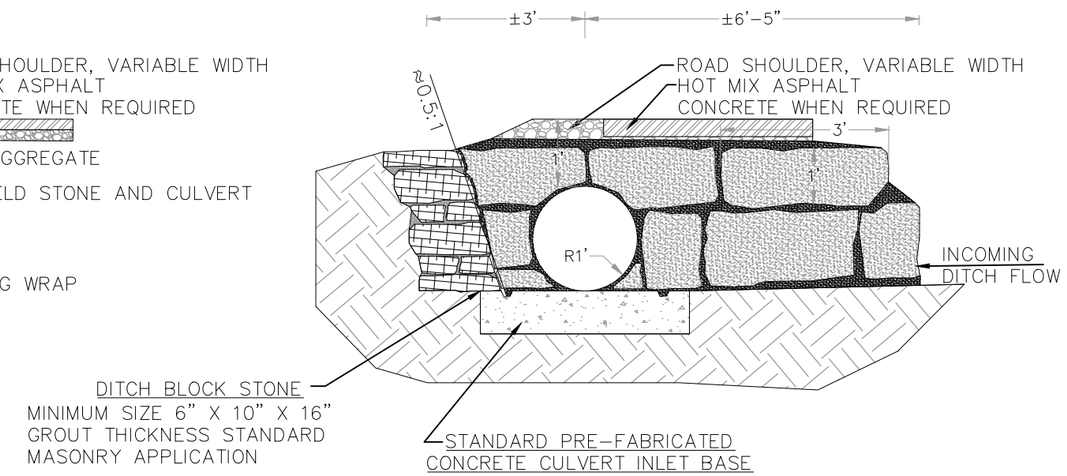
DATE 05/27/2026
ARCHIVE NO.
PREPARED BY P. ELDRIDGE
DRAWN P. ELDRIDGE
CHECKED J. NAZARIO RUIZ
PROJECT NO.
DRAWING SHEET NO. **D-06**
SHEET 18 OF 25

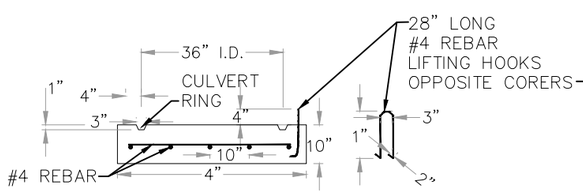
7/9/26 13:48 PURVIS.ELDRIDGE C:\USERS\PURVIS.ELDRIDGE\BOX\PROJPSG\ACTIVE\7700-ROADSENG\2026\2026 PISGAH SOUTH DITCH RELIEF CULVERT REPLACEMENT\2_DESIGN\2_DWG\SDWGS_DETAILS_PROJECTNAME.DWG;

NOTES:
1. MINIMUM CULVERT COVER AT SHOULDER 1-FOOT
2. FOR ALL STONE PLACEMENT USE "QUIKERTE" COMMERCIAL GRADE NON-SHRINK PRECISION GROUT OR EQUAL
3. BACK FILL AROUND CUT SLOPE FIELD STONE WITH PROJECT DESIGNATED ROAD AGGREGATE, INCIDENTAL TO DROP INLET INSTALLATION
4. BACK WALL STONE DIMENSIONS, MINIMUM 4" X 5" X 10"
5. DITCH BLOCK STONE DIMENSIONS, MINIMUM 6" X 10" X 16"
6. HEAD WALL STONE DIMENSIONS, MINIMUM 6" X 10" X 16", COMPLETELY FILL ALL VOIDS AROUND CULVERT WITH GROUT
7. SEE: "TABULATION OF DRAINAGE QUANTITIES" FOR REQUIRED CULVERT DIAMETER, & LENGTH

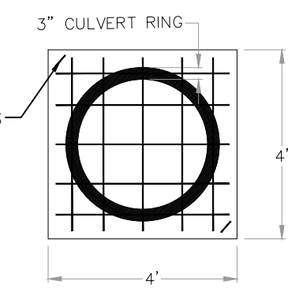


TYPICAL CUT-STONE LINED CATCH BASIN
USE ON SITE FIELD STONE FOR CUT SLOPE





STANDARD PRE-FABRICATED
CONCRETE CULVERT INLET BASE
MINIMUM SET TIME 48 HOURS



STANDARD PRE-FABRICATED
CONCRETE CULVERT INLET BASE
REBAR PLACEMENT & LIFTING LUGS

DRAWINGS
NOT TO
SCALE

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SOUTHERN REGION

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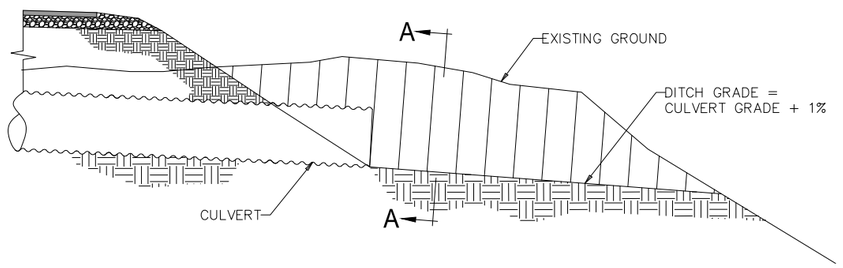
3	----	----
2	----	----
1	----	----

PROJECT NAME
PISGAH DITCH CULVERT REPLACEMENTS AND ROAD REHABILITATION
PISGAH NATIONAL FOREST
PISGAH RANGER DISTRICT

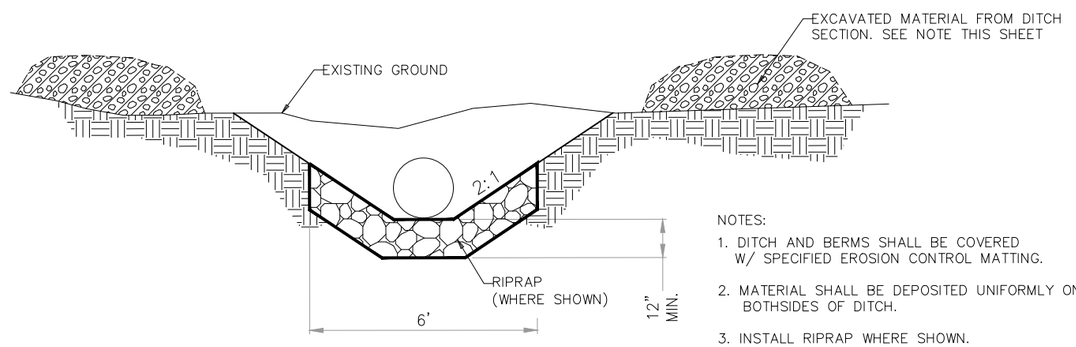
DRAWING TITLE
HEADWALL DETAILS

DATE 05/27/2026
ARCHIVE NO.
PREPARED BY P. ELDRIDGE
DRAWN P. ELDRIDGE
CHECKED J. NAZARIO RUIZ
PROJECT NO.
DRAWING SHEET NO. **D-07**
SHEET 19 OF 25

7/9/26 13:48 PURVIS.ELDRIDGE C:\USERS\PURVIS.ELDRIDGE\BOX\PROJ\PSG\ACTIVE\T700-ROADSENG\2026\2026 PISGAH SOUTH DITCH RELIEF CULVERT REPLACEMENT\2_DESIGN\2_DWGS\DWGS_BLANK_PROJECTNAME.DWG;



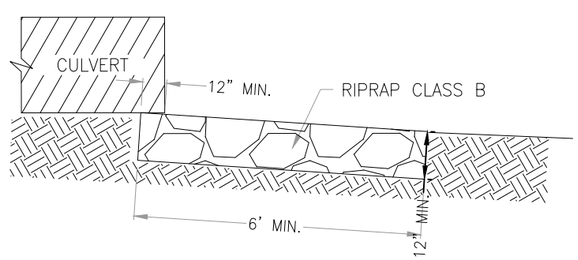
SECTION ALONG CENTERLINE CULVERT/OULET DITCH



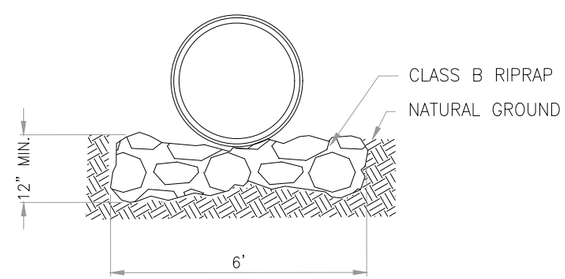
SECTION A–A OUTLET DITCH

NOTES:

1. DITCH AND BERMS SHALL BE COVERED W/ SPECIFIED EROSION CONTROL MATTING.
2. MATERIAL SHALL BE DEPOSITED UNIFORMLY ON BOTHSIDES OF DITCH.
3. INSTALL RIPRAP WHERE SHOWN.
4. SEDIMENT TRAPS AS REQUIRED IN WORK LIST SHALL HAVE MINIMUM RETENTION DEPTH OF 2', WIDTH OF 4' AND 10' IN LENGTH AS CONDITIONS ALLOW.



PROFILE VIEW



END VIEW

CULVERT OUTLET PROTECTION (TYPICAL)

DRAWINGS
NOT TO
SCALE

USDA FOREST SERVICE

United States Department of Agriculture
Forest Service

(R08)
SOUTHERN REGION

STAMPS, LOGOS, AND SEALS

NO.	REVISION / ISSUE	DATE
4	----	----
3	----	----
2	----	----
1	----	----

PROJECT NAME

PISGAH DITCH CULVERT REPLACEMENTS AND ROAD REHABILITATION

PISGAH NATIONAL FOREST

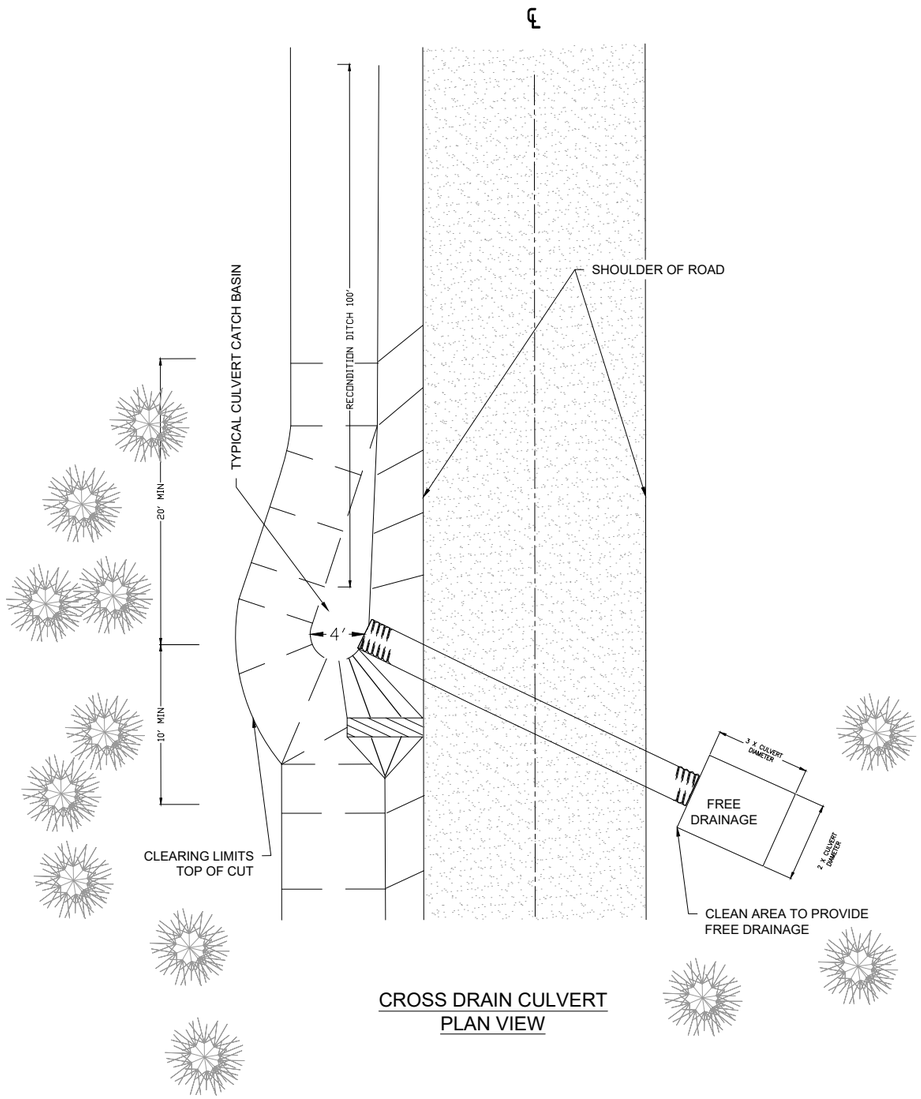
PISGAH RANGER DISTRICT

DRAWING TITLE

CMP ARMOR DETAIL

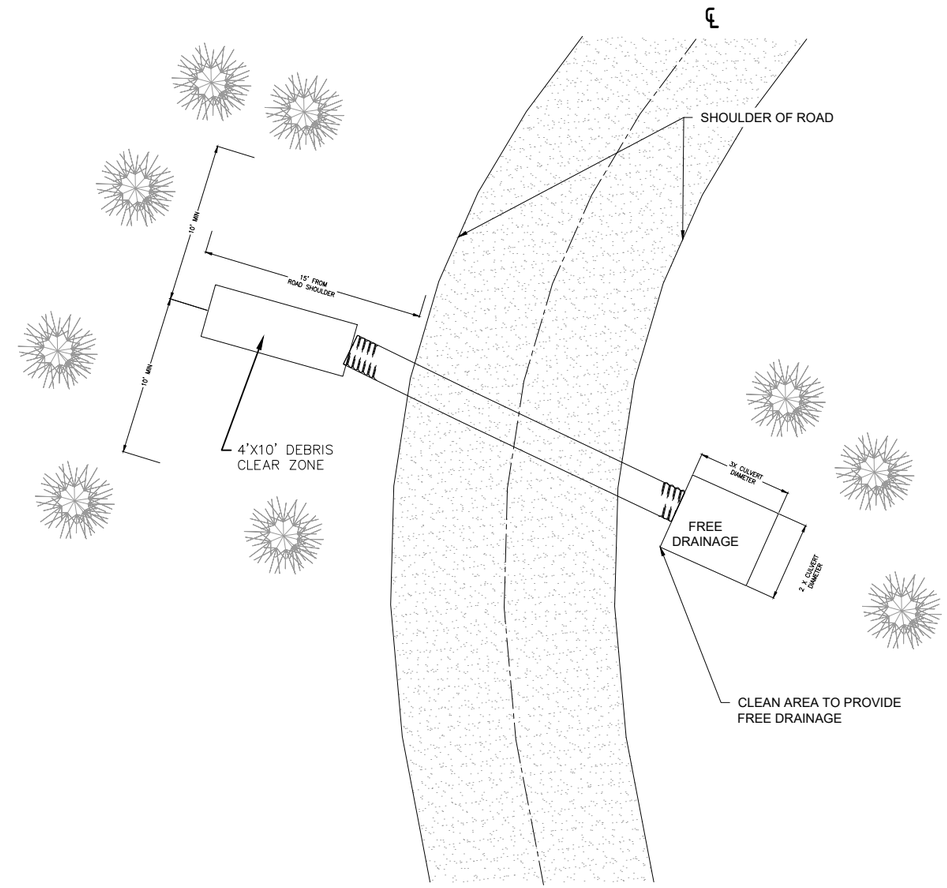
DATE 05/27/2026	ARCHIVE NO.
PREPARED BY P. ELDRIDGE	DRAWING SHEET NO. D-08
DRAWN P. ELDRIDGE	
CHECKED J. NAZARIO RUIZ	
PROJECT NO.	SHEET 20 OF 25

7/9/26 13:48 PURVIS.ELDRIDGE C:\USERS\PURVIS.ELDRIDGE\BOX\PROJ\PSG\ACTIVE\7700-ROAD\ENG\2026\2026 PISGAH SOUTH DITCH RELIEF CULVERT REPLACEMENT\2_DESIGN\2_DWGS\DWGS_DETAILS_PROJECTNAME.DWG;



CROSS DRAIN CULVERT
PLAN VIEW

CLEARING:
1. NO GRUBBING OR ROOT DISTURBANCE
2. REMOVE VEGETATION BY CUTTING OR MOWING
3. REHABILITATE CULVERT CATCH BASIN A MINIMUM OF 4' FROM CULVERT INLET



DRAINAGE CULVERT
PLAN VIEW

CLEARING:
1. NO GRUBBING OR ROOT DISTURBANCE
2. REMOVE VEGETATION BY CUTTING OR MOWING
3. REHABILITATE INLET CHANNEL, REMOVE ALL DEBRIS AND OBSTRUCTION A MINIMUM OF 4' WIDE AND 10 FEET LONG

United States Department of Agriculture
Forest Service

(R08)
SOUTHERN REGION

STAMPS, LOGOS, AND SEALS

NO.	REVISION / ISSUE	DATE
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3	----	----
2	----	----
1	----	----

PROJECT NAME

PISGAH DITCH CULVERT REPLACEMENTS AND ROAD REHABILITATION

PISGAH NATIONAL FOREST

PISGAH RANGER DISTRICT

DRAWING TITLE

CMP ALIGNMENT DETAIL

DATE 05/27/2026	ARCHIVE NO.
PREPARED BY P. ELDRIDGE	DRAWING SHEET NO. D-09
DRAWN P. ELDRIDGE	
CHECKED J. NAZARIO RUIZ	
PROJECT NO.	SHEET 21 OF 25

7/9/26 13:48 PURVIS.ELDRIDGE C:\USERS\PURVIS.ELDRIDGE\BOX\PROJ\PSG\ACTIVE\7700\ROADSEN\G2026\2026 PISGAH SOUTH DITCH RELIEF CULVERT REPLACEMENT\2_DESIGN\2_DWGS\DWGS_DETAILS_PROJECTNAME.DWG;

COUPLING BANDS FOR METAL PIPE CULVERT					
CORRUGATION SIZE	PIPE DIAMETER	PIPE-ARCH SPAN X RISE	MINIMUM BAND WIDTH - W		
			ANNULAR CORRUGATED BANDS	HELICALLY CORRUGATED BANDS	SEMI-CORRUGATED BANDS
INCHES					
1½ x 1/4	UNDER DRAIN	-	12	12	12
2⅔ x 1/2	12 - 36	17x13 - 42x29	12	12	12
	42 - 72	49x33 - 83x57	12	12	12
	78 - 84	-	12	12	12
3 x 1	36 - 72	42x29 - 81x59	12	14	12
	78 - 144	87x63 - 142x91	12	14	12
5 x 1	48 - 72	57x38 - 81x59	20	22	12
	78 - 144	87x63 - 142x91	20	22	12

NOTES:

FABRICATE ANNULAR, HELICAL AND SEMI-CORRUGATED TYPE COUPLING BANDS FROM THE SAME METAL AS THE CONNECTING PIPE. PROVIDE COUPLING BANDS NOT MORE THAN 2 NOMINAL SHEET THICKNESS THINNER THAN THE THICKNESS OF THE PIPE TO BE CONNECTED, AND NO THINNER THAN 0.052 INCH (18 GAGE) FOR STEEL OR 0.048 INCH (18 GAGE) FOR ALUMINUM. FASTEN COUPLING BANDS WITH THE FOLLOWING SIZE OF BOLT:

- 3/8-INCH FOR PIPE DIAMETER - 18" (21"X15" PIPE ARCH) OR LESS
- 1/2-INCH FOR PIPE DIAMETER - 21" (24"X18" PIPE ARCH) OR MORE

FOR HELICALLY CORRUGATED PIPE WITH RE-ROLLED ENDS, THE NOMINAL CORRUGATION SIZE REFERS TO THE DIMENSION OF THE END CORRUGATION IN THE PIPE.

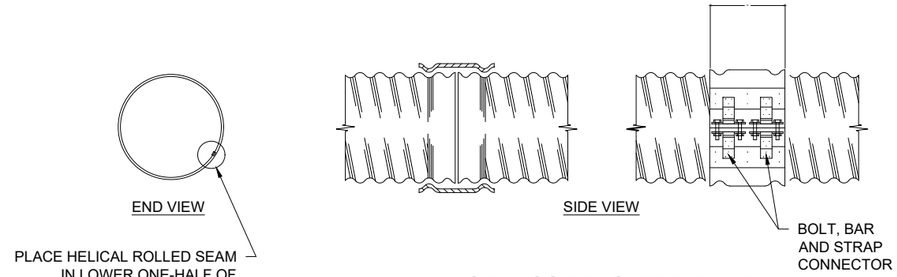
USE ANNULAR CORRUGATED BANDS WITH PIPES HAVING ANNULAR CORRUGATIONS OR WITH HELICAL PIPE HAVING RE-ROLLED ENDS TO FORM ANNULAR CORRUGATIONS.

USE HELICAL CORRUGATED BAND WITH PIPES HAVING HELICALLY CORRUGATED ENDS. HELICAL CULVERT INSTALLATIONS SHALL HAVE THE ROLLED SEAM AT THE INLET PLACED IN THE LOWER ONE-HALF OF THE PIPE DIAMETER.

SMOOTH SLEEVE-TYPE COUPLERS AND FLAT BANDS MAY BE USED FOR PIPE DIAMETERS OF 12 INCHES OR LESS. USE A MATCHING METAL HAVING A NOMINAL THICKNESS OF NOT LESS THAT 0.040 INCH (20 GAGE) FOR STEEL, OR 0.036 INCH (20 GAGE) FOR ALUMINUM, OR A PLASTIC WITH AN EQUIVALENT STRENGTH TO METAL.

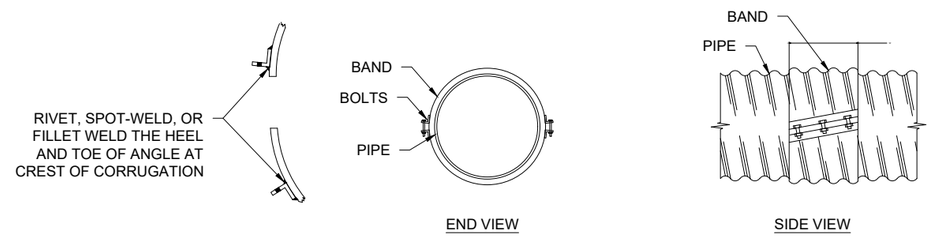
MINIMUM LENGTHS OF PIPE FOR ANY INSTALLATION SHALL NOT BE LESS THAN 10' SECTIONS. CULVERT INSTALLATIONS OF 40 L.F. OR LESS SHALL CONSIST OF ONE PIECE OF CULVERT UNLESS APPROVED BY THE CONTRACTING OFFICER.

EQUIVALENT CULVERT THICKNESS		
GAUGE NUMBER	THICKNESS - INCHES	
	STEEL	ALUMINUM
16	0.064	0.060
14	0.079	0.075
12	0.109	0.105
10	0.138	0.135
6	0.168	0.165



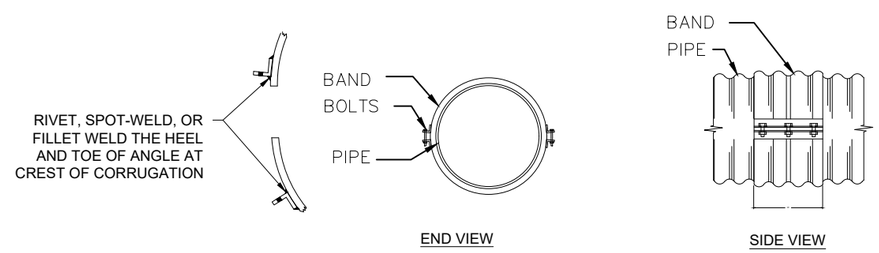
SEMI-CORRUGATED BAND

NOTE:
CONTINUOUS CORRUGATION AROUND THE BAND SHALL MESH WITH SECOND ANNULAR CORRUGATION FROM END OF PIPE END.



NOTE:
A BAND WITH 2 ANGLE CONNECTIONS IS OPTIONAL UP TO 42" DIA., REQUIRED FOR DIA. GREATER THAN 42".

HELICAL BAND



NOTE:
A BAND WITH 2 ANGLE CONNECTIONS IS OPTIONAL UP TO 42" DIA., REQUIRED FOR DIA. GREATER THAN 42".

ANNULAR BAND

NOTE: DESIGNER CONSIDER USING GASKETS ON CULVERTS GREAT THAN 36" IN DIAMETER

DRAWINGS NOT TO SCALE

United States Department of Agriculture
Forest Service

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SOUTHERN REGION

STAMPS, LOGOS, AND SEALS

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3	----	----
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1	----	----

PROJECT NAME

PISGAH DITCH CULVERT REPLACEMENTS AND ROAD REHABILITATION

PISGAH NATIONAL FOREST

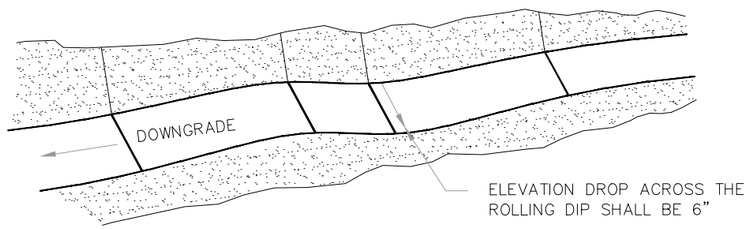
PISGAH RANGER DISTRICT

DRAWING TITLE

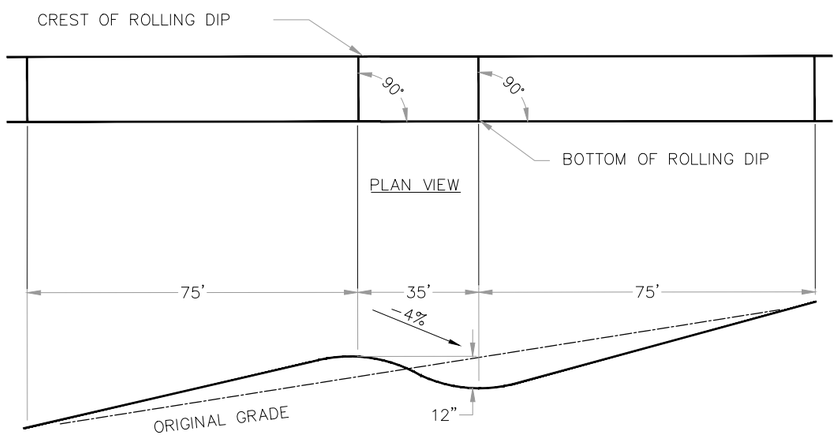
CMP BAND DETAIL

DATE 05/27/2026	ARCHIVE NO.
PREPARED BY P. ELDRIDGE	DRAWING SHEET NO. D-10
DRAWN P. ELDRIDGE	
CHECKED J. NAZARIO RUIZ	
PROJECT NO.	SHEET 22 OF 25

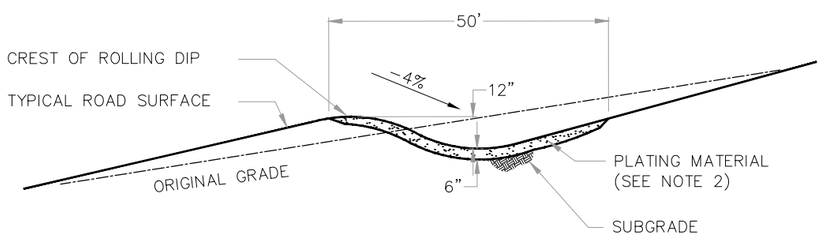
7/9/26 13:48 PURVIS.ELDRIDGE C:\USERS\PURVIS.ELDRIDGE\BOXPROJ\PSG\ACTIVE\7700-ROADSENG\2026\2026 PISGAH SOUTH DITCH RELIEF CULVERT REPLACEMENT\2_DESIGN\2_DWGS\DWGS_DETAILS_PROJECTNAME.DWG;



ROLLING DIP PERSPECTIVE VIEW

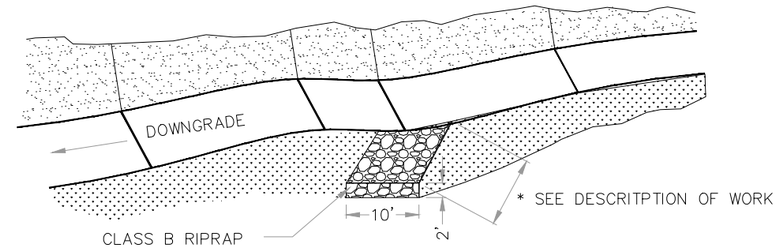


ROLLING DIP PROFILE

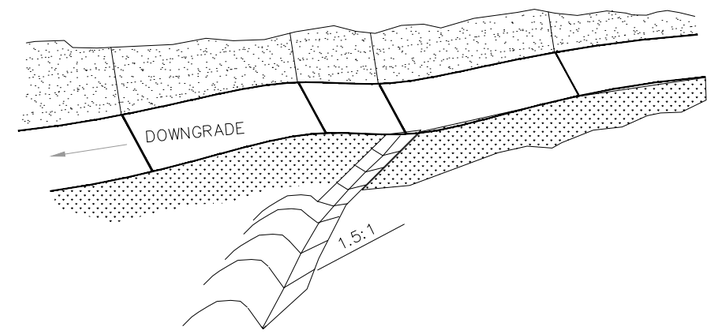


ROLLING DIP WITH PLATING

DRAWINGS
NOT TO SCALE



ROLLING DIP WITH SLOPE PROTECTION



ROLLING DIP
WITH OUTLET-DITCH

RAILROAD BALLAST STONE								
SIZE	Percent mass passing sieve							
AASHTO M-43	4"	3 1/2"	3"	2 1/2"	2"	1 1/2"	1"	3/4"
1	100	90 to 100	- - -	25 to 60	- - -	0 to 15	- - -	0 to 5
2	- - -	- - -	100	90 to 100	35 to 70	0 to 15	- - -	0 to 5

NOTES:

1. WHEN ROLLING DIPS ARE CONSTRUCTED IN DITCH SECTIONS THE DITCH SHALL DRAIN ACROSS THE ROLLING DIP. RESUME DITCH CONSTRUCTION 25 FEET DOWNGRADE FROM THE CREST OF THE ROLLING DIP.

2. ROLLING DIP PLATING:
   A. SIZE 1 RAILROAD BALLAST AS BASE COURSE FOR SURFACE COURSE OF 4" ABC STONE FOR ROADS OPEN TO THE PUBLIC AS DIRECTED BY THE CONTRACTING OFFICER.
   B. SIZE 2 RAILROAD BALLAST ONLY FOR ROADS CLOSED TO THE PUBLIC AS DIRECTED BY THE CONTRACTING OFFICER.

3. OUTLET DRAIN DITCHES SHALL HAVE CUT SLOPES EQUAL TO OR FLATTER THAN 1.5:1. EXCAVATION FROM OUTLET DITCHING SHALL BE MOUNDED ALONG THE DOWNHILL SIDE OF THE DITCH.

4. REFER TO DESCRIPTION OF WORK FOR ROLLING DIP OUTLET REQUIREMENTS.

DRAWINGS
NOT TO SCALE

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Forest Service

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PROJECT NAME

PISGAH DITCH CULVERT REPLACEMENTS AND ROAD REHABILITATION

PISGAH NATIONAL FOREST

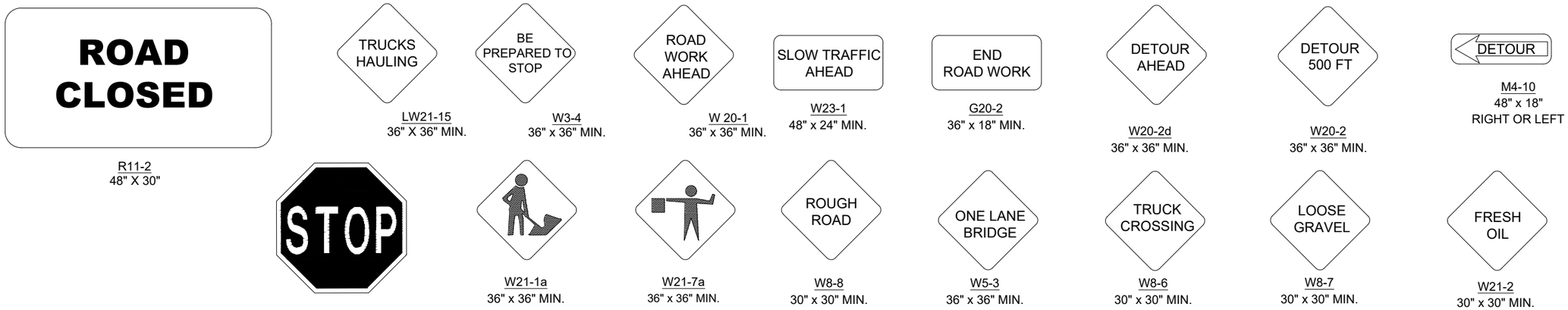
PISGAH RANGER DISTRICT

DRAWING TITLE

ROLLING DIP DETAIL

DATE 05/27/2026
ARCHIVE NO.
PREPARED BY P. ELDRIDGE
DRAWN P. ELDRIDGE
CHECKED J. NAZARIO RUIZ
PROJECT NO.
DRAWING SHEET NO. **D-11**
SHEET 23 OF 25

7/9/26 13:48 PURVIS.ELDRIDGE C:\USERS\PURVIS.ELDRIDGE\BOX\PROJ\PSG\ACTIVE\770\-ROADSENG\2026\2026 PISGAH SOUTH DITCH RELIEF CULVERT REPLACEMENT\2_DESIGN\2_DWGS\DWGS_DETAILS_PROJECTNAME.DWG;

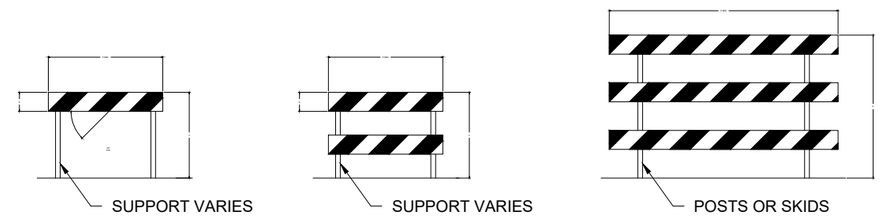


NOTES:

1. ALL TRAFFIC CONTROL DEVICES SHALL BE CONSTRUCTED, LOCATED, INSTALLED, AND MAINTAINED ACCORDING TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" (MUTCD) LATEST EDITION.
2. SIGNS SHALL BE MADE FROM SUITABLE MATERIALS WHICH ARE IN ACCORDANCE WITH ALL STATE AND FEDERAL SPECIFICATIONS.
3. ALL WARNING SIGNS SHALL BE BLACK ON ORANGE.
4. REFER TO FP-24 PARAGRAPH 635.14 FOR RETROREFLECTIVE SHEETING, USE ASTM D 4956 TYPE I, "ENGINEERING GRADE". FOR POSTED SPEEDS GREATER THAN 35 MPH USE TYPE VII "SUPER-HIGH-INTENSITY, PRISMATIC SHEETING".
5. SIGN SUBSTRATE MAY BE WOOD, METAL, POLYPLATE, FABRIC OR MATERIAL APPROVED BY THE CONTRACTING OFFICER.
6. SIGNS SHALL BE LOCATED WHERE THEY WILL BE CONSPICUOUSLY VISIBLE DAY AND NIGHT ALONG THE RIGHT HAND SIDE OF APPROACHING TRAFFIC.
7. WHEN A SIGN IS REQUIRED FOR AN EXTENDED PERIOD, IT SHALL BE FASTENED TO 4 X 4 POSTS WITH 2-3/8" CARRIAGE BOLTS. PORTABLE SUPPORTS ARE PERMITTED FOR SHORT PERIODS PROVIDED THE CONSTRUCTION IS SUCH THAT WIND OR OTHER AGENTS CANNOT READILY UPSET THE SIGN.
8. SIGNS WARNING OF CONSTRUCTION SHALL BE PLACED ON ALL MAJOR INTERSECTIONS ACCESSING THE WORK AREA.
9. SELECTION AND PLACEMENT OF ALL SIGNS SHALL BE SUBJECT TO APPROVAL OF THE CONTRACTING OFFICER. SIGNS OTHER THAN THOSE PICTURED MAY BE USED PROVIDED THEY ARE IN CONFORMANCE WITH MUTCD STANDARDS AND APPROVED IN WRITING BY THE CONTRACTING OFFICER.
10. IF REQUIRED BY THE CONTRACTING OFFICER, LIGHTING DEVICES SUCH AS FLASHERS, TORCHES, LANTERNS AND ELECTRIC LIGHTS SHALL BE PLACED AND MAINTAINED FROM SUNSET TO SUNRISE AT ALL POINTS OF HAZARD AND AT ALL SIGNS INDICATING CAUTION.
11. ADDITIONAL SIGNS MAY BE REQUIRED AS DIRECTED BY THE CONTRACTING OFFICER.
12. ALL SIGNS ARE TEMPORARY. SIGNAGE SHALL BE REMOVED WITHIN TWO WEEKS OF FINAL ACCEPTANCE.
13. TYPE III BARRICADES SHALL BE PLACED ON EITHER SIDE OF UNCOMPLETED CONSTRUCTION SITES WHEN NO CONSTRUCTION ACTIVITIES ARE IN PROGRESS AS APPROVED BY THE CONTRACTING OFFICER.

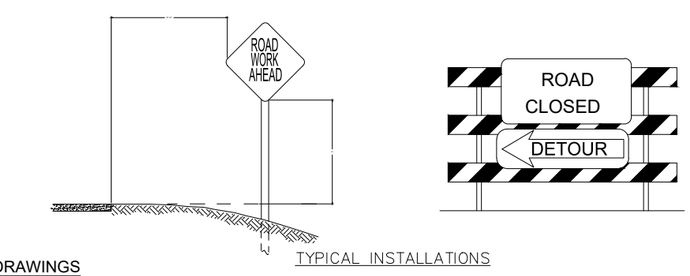
CONSTRUCTION SIGN SCHEDULE

SIGN	STATION	LOCATION	TEXT



NOTE: STRIPES ARE 6" WIDE, ALTERNATING ORANGE AND WHITE

TYPE I BARRICADE TYPE II BARRICADE TYPE III BARRICADE



TYPICAL INSTALLATIONS

DRAWINGS
NOT TO SCALE

USDA FOREST SERVICE

United States Department of Agriculture
Forest Service

(R08)
SOUTHERN REGION

STAMPS, LOGOS, AND SEALS

NO.	REVISION / ISSUE	DATE
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1	----	----

PROJECT NAME

PISGAH DITCH CULVERT REPLACEMENTS AND ROAD REHABILITATION

PISGAH NATIONAL FOREST

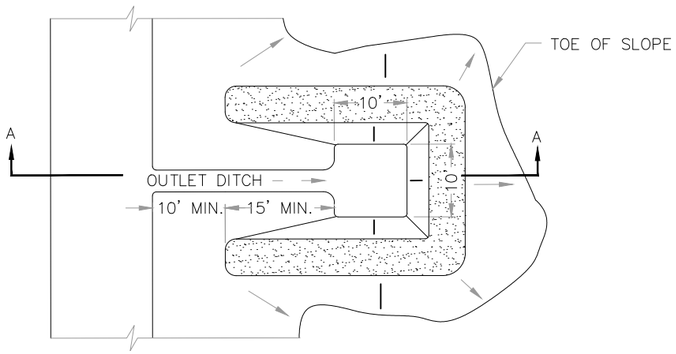
PISGAH RANGER DISTRICT

DRAWING TITLE

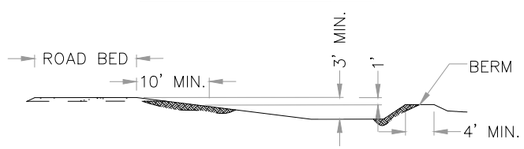
TRAFFIC CONTROL DETAIL

DATE 05/27/2026
ARCHIVE NO.
PREPARED BY P. ELDRIDGE
DRAWN P. ELDRIDGE
CHECKED J. NAZARIO RUIZ
PROJECT NO.
DRAWING SHEET NO. **D-12**
SHEET 24 OF 25

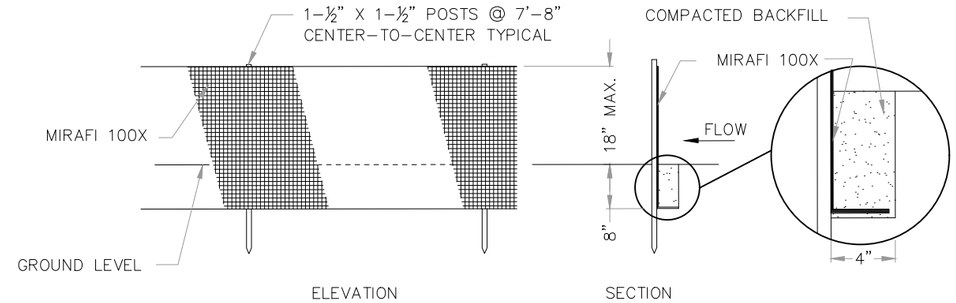
7/9/26 13:48 PURVIS.ELDRIDGE C:\USERS\PURVIS.ELDRIDGE\BOX\PROJPSG\ACTIVE\7700-ROAD\ENG\2026\2026 PISGAH SOUTH DITCH RELIEF CULVERT REPLACEMENT\2_DESIGN\2_DWG\SDWGS_DETAILS_PROJECTNAME.DWG;



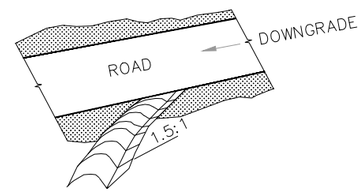
SEDIMENT BASIN PLAN VIEW



SEDIMENT BASIN SECTION A–A

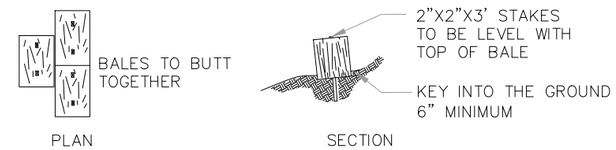


SILT FENCE DETAILS



NOTE:
1. SEE DESCRIPTION OF WORK FOR WING DITCH LENGTH & STATION OF WIND DITCH

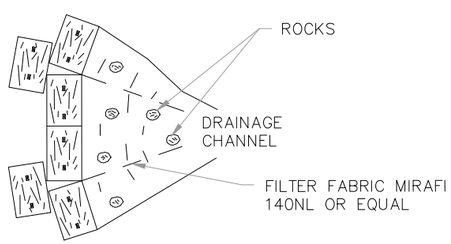
WING DITCH TYPICAL



TEMPORARY STRAW SILT CHECKS

NOTES: SILT CHECKS ARE TO BE USED AT LOCATIONS SHOWN ON PLANS OR APPROVED BY COR/ER

NOTE: USE A MINIMUM OF 4 BALES FOR EACH TRAP AND PEGGED AND/OR STAKED IN PLACE.



TEMPORARY STRAW SEDIMENT TRAP
PLAN VIEW

NOTES:

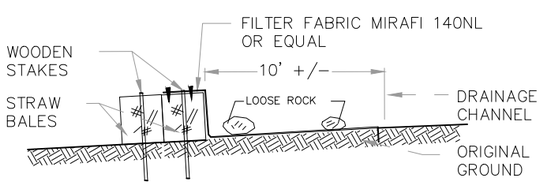
1. SEDIMENT BASIN.
   A. ALL SEDIMENT BASIN CUT AND FILL SLOPES SHALL BE 1V:2H OR FLATTER.
   B. ALL DISTURBED AREAS SHALL BE SEEDED ACCORDING TO APPLICABLE SPECIFICATIONS.
   C. CLEARING LIMITS SHALL BE APPROVED BY THE COR/ER PRIOR TO CONSTRUCTION.
   D. MATERIAL FROM EXCAVATION SHALL BE USED TO CONSTRUCT BERM AS SHOWN OR SHALL BE INCORPORATED INTO THE ROAD BED AS APPROVED BY CONTRACTING OFFICER.

2. SILT FENCE.
   A. THE SKIRT TO BE ANCHORED IN A TRENCH 8" DEEP AND 4" WIDE WITH BACKFILL COMPACTED.
   B. SILT FENCE SHALL BE PREFABRICATED WITH 1–½" SQUARE HARDWOOD POSTS, MIRAFI SILT FENCE OR EQUAL.
   C. INSTALL AS NEEDED FOR EROSION CONTROL OR AS DIRECTED BY THE CONTRACTING OFFICER.

3. TEMPORARY SEDIMENT TRAP.
   A. TO BE INSTALLED AT END OF DIVERSION DITCH.
   B. FILTER FABRIC SHALL BE KEYED INTO GROUND AT A DEPTH OF 8" AND COMPACTED BY HAND TAMPING.
   C. SEDIMENT TRAPS SHALL BE PLACED PRIOR TO EXCAVATION AND REMOVED AS DIRECTED BY CONTRACTING OFFICER
   D. USE A MINIMUM OF 4 BALES FOR EACH TRAP.
   E. LOOSE ROCKS SHALL BE APPROPRIATE SIZE TO RETAIN FABRIC IN PLACE.

5. CONTRACTOR SHALL SUBMIT AN EROSION & POLLUTION CONTROL PLAN TO THE CONTRACTING OFFICER FOR APPROVAL PRIOR TO ANY EARTH DISTURBING ACTIVITIES.

6. SEDIMENT CONTROL MEASURES TO BE USED AT LOCATIONS REQUIRED BY THE EROSION CONTROL PLAN, AS SHOWN ON THESE PLANS, AND/OR AS DIRECTED BY THE CONTRACTING OFFICER.



TEMPORARY SEDIMENT TRAP
SECTION VIEW

DRAWINGS
NOT TO SCALE

USDA FOREST SERVICE

United States Department of Agriculture
Forest Service

(R08)
SOUTHERN REGION

STAMPS, LOGOS, AND SEALS

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1	----	----

PROJECT NAME

PISGAH DITCH CULVERT REPLACEMENTS AND ROAD REHABILITATION

PISGAH NATIONAL FOREST

PISGAH RANGER DISTRICT

DRAWING TITLE

EROSION CONTROL DETAIL

DATE 05/27/2026	ARCHIVE NO.
PREPARED BY P. ELDRIDGE	DRAWING SHEET NO. D-13
DRAWN P. ELDRIDGE	
CHECKED J. NAZARIO RUIZ	
PROJECT NO.	SHEET 25 OF 25

7/9/26 13:48 PURVIS.ELDRIDGE C:\USERS\PURVIS.ELDRIDGE\BOX\PROJPSG\ACTIVE\7700-ROAD\ENG\2026\2026 PISGAH SOUTH DITCH RELIEF CULVERT REPLACEMENT\2_DESIGN\2_DWGS\DWGS_DETAILS_PROJECTNAME.DWG;