

BOULDER COUNTY TRANSPORTATION DEPARTMENT

ENGINEERING DIVISION

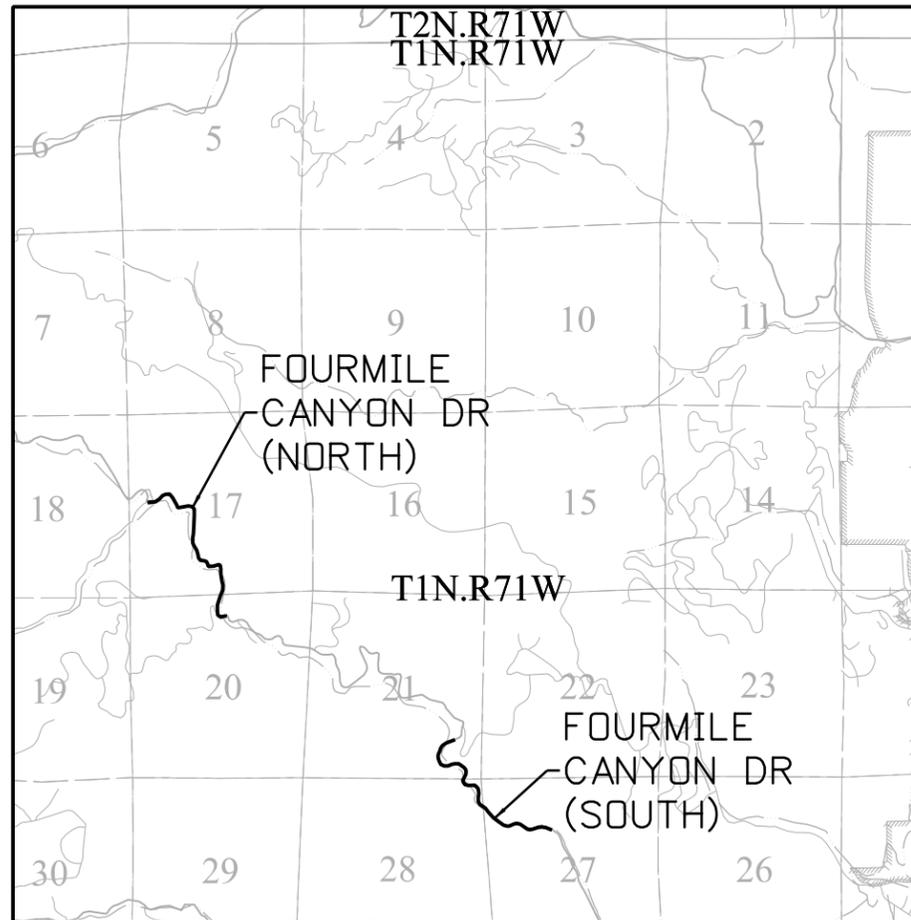
30% PLANS OF PROPOSED FOURMILE CANYON DRIVE CONSTRUCTION BOULDER CANYON DRIVE TO SALINA JUNCTION BOULDER COUNTY BOULDER COUNTY PROJECT NO. 4043.SEPT12C36

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TABULATION OF LENGTH & DESIGN DATA		
STATION	FEET	
	ROADWAY	STRUCTURE
BEGIN SOUTH SEGMENT FOURMILE CANYON DR STA 52+50.00 (HCL S FOURMILE) END SOUTH SEGMENT FOURMILE CANYON DR STA 88+80.00 (HCL S FOURMILE)	3,630.00	
BEGIN NORTH SEGMENT FOURMILE CANYON DR STA 217+25.00 (HCL N FOURMILE) END NORTH SEGMENT FOURMILE CANYON DR STA 256+54.69 (HCL N FOURMILE)	3,929.69	
TOTAL	7,559.69	
SUMMARY OF PROJECT LENGTH	FEET	MILES
ROADWAY (NET LENGTH)	7,559.69	1.43
MAJOR STRUCTURE (NET LENGTH)	0.00	0.00
PROJECT GROSS LENGTH	7,559.69	1.43

DESIGN DATA	HCL S FOURMILE	HCL N FOURMILE
ROADWAY CLASSIFICATION	LOCAL/COLLECTOR	LOCAL/COLLECTOR
EXISTING SURFACE TYPE	PAVED	PAVED
MINIMUM RADIUS OF CURVE	116.00'	80.00'
MAXIMUM GRADE	6.21%	7.25%
MINIMUM S.S.D HORIZONTAL	81'	81'
MINIMUM S.S.D. VERTICAL	196'	325'
DESIGN SPEED	25 MPH	25 MPH
CLEAR ZONE DISTANCE	7' TO 10'	7' TO 10'
MAXIMUM SUPERELEVATION (emax)	6%	6%



30% SET	 CALL UTILITY NOTIFICATION CENTER OF COLORADO CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES	REVISIONS: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;">NO.</th> <th style="width: 10%;">DATE</th> <th style="width: 85%;">REVISION DESCRIPTION:</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>	NO.	DATE	REVISION DESCRIPTION:										 BOULDER COUNTY TRANSPORTATION DEPARTMENT ENGINEERING DIVISION Michael Baker INTERNATIONAL	DESIGNED: EAV CAD: EAV CHECKED: SLS DATE: 05/13/15	PROJECT NO: 4043.SEPT12C36 SHEET NO: 1
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COLORADO
DEPARTMENT OF TRANSPORTATION
M&S STANDARDS PLANS LIST
 July 04, 2012
 Revised on April 30, 2015

ALL OF THE M&S STANDARD PLANS, AS SUPPLEMENTED AND REVISED, APPLY TO THIS PROJECT WHEN USED BY DESIGNATED PAY ITEM OR SUBSIDIARY ITEM.

GENERAL NOTES:

1. PROJECT BENCHMARK: ALL ELEVATIONS SHOWN ON THESE PLANS ARE REFERENCED TO THE PROJECT BENCHMARKS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SAFEGUARDING THE PROJECT BENCHMARKS AND OTHER SURVEY MONUMENTS. DAMAGED MONUMENTS SHALL BE REESTABLISHED AND REPLACED BY THE LICENSED LAND SURVEYOR AT THE EXPENSE OF THE PARTY RESPONSIBLE FOR THE DAMAGE.
2. GEOTECHNICAL INFORMATION FOR THIS PROJECT IS BASED UPON THE GEOTECHNICAL INVESTIGATION REPORT SALINA JUNCTION, FOURMILE CANYON DRIVE AND GOLD RUN, BY YEH AND ASSOCIATES, DATED OCTOBER 3, 2014. THE CONTRACTOR SHALL PERFORM WORK IN ACCORDANCE WITH THE GEOTECHNICAL RECOMMENDATIONS.
3. IN THE EVENT THE CONTRACTOR ALLOWS, AUTHORIZES, APPROVES OR CONSTRUCTS ITEMS THAT DIFFER FROM THE APPROVED PLANS, SPECIFICATIONS OR OTHER CONTRACT DOCUMENTS, WITHOUT WRITTEN APPROVAL BY THE ENGINEER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY LIABILITY ARISING FROM SUCH CHANGES.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING SAFEGUARDS, SAFETY DEVICES, PROTECTIVE EQUIPMENT, AND ANY OTHER NEEDED ACTION TO PROTECT THE LIFE, HEALTH AND SAFETY OF THE PUBLIC AND TO PROTECT PROPERTY IN CONNECTION WITH THE PERFORMANCE OF WORK COVERED BY THE CONTRACTOR.
5. THE CONTRACTOR SHALL CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO FOR LOCATION OF UNDERGROUND GAS, ELECTRIC AND COMMUNICATION UTILITIES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION (1-800-922-1987) OR 811 THE CONTRACTOR SHALL NOTIFY OTHER APPLICABLE UTILITY COMPANIES AS WELL TO OBTAIN FIELD LOCATES OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
6. LOCATIONS OF UNDERGROUND UTILITIES AS SHOWN ON THE PLANS WERE TAKEN FROM THE RECORDS OF THE CONTROLLING AGENCIES OR FROM AGENCY MARKINGS IN THE FIELD. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR COMPLETENESS OR ACCURACY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE EXISTENCE AND/OR LOCATION OF ALL UNDERGROUND UTILITIES AND PARTICIPATE IN THE RESOLUTION OF ANY CONFLICTS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE JOB SITE CONDITIONS THROUGHOUT THE DURATION OF CONSTRUCTION, INCLUDING SAFETY OF ALL PERSONS AND PROTECTION OF PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED ONLY TO WORKING HOURS. THE CONTRACTOR SHALL DEFEND INDEMNIFY AND HOLD THE OWNER, THE ENGINEER AND THE GOVERNING JURISDICTION HARMLESS FOR ANY AND ALL LIABILITY, IN CONNECTION WITH THE PERFORMANCE OF WORK, EXCEPT FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER, THE ENGINEER OR THE GOVERNING JURISDICTION.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING NEARBY PUBLIC OR PRIVATE STREETS OF MUD AND DEBRIS, DUE TO CONSTRUCTION ACTIVITIES, ON A DAILY BASIS OR AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF OTHER WORK.
9. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE COLORADO DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION DATED 2011; AND AS SUBSEQUENTLY REVISED; THE CDOT STANDARD PLANS M&S STANDARDS DATED JULY, 2012 AND REVISED; AND THE BOULDER COUNTY MULTI-MODAL TRANSPORTATION STANDARDS; AND THE BOULDER COUNTY STORM DRAINAGE CRITERIA MANUAL.
10. THE CONTRACTOR SHALL HAVE: ONE (1) SIGNED COPY OF THE PLANS ACCEPTED BY THE BOULDER COUNTY ENGINEER, ONE (1) COPY OF THE CONSTRUCTION SPECIFICATIONS FOR THE PROJECT, ONE (1) COPY OF THE COLORADO DEPARTMENT OF TRANSPORTATION STANDARD PLANS (M&S STANDARDS), AND ONE (1) COPY OF THE COLORADO DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AT THE JOB SITE AT ALL TIMES.
11. CONTRACTORS NEED TO USE THE DESIGN PLANS IN CONJUNCTION WITH THE DIGITAL TERRAIN MODEL (DTM). IN THE EVENT OF A CONFLICT, DESIGN PLANS SHALL ALWAYS TRUMP DATA FROM THE DTM.
12. CONTRACTOR TO CONTACT ENGINEER IN THE EVENT OF A DISCREPANCY BETWEEN CRITERIA PRIOR TO CONSTRUCTION.

GENERAL NOTES CONT'D:

13. FOR PRELIMINARY PLAN QUANTITIES OF MATERIALS, THE FOLLOWING RATES OF APPLICATION WERE USED:
HOT MIX ASPHALT.....@ 110 LBS./SQ.YD./INCH
AGGREGATE BASE COURSE CLASS 6.....@ 133 LBS./CU.FT.
TACK COAT DILUTED EMULSIFIED ASPHALT@ 0.10 GALS/SQ.YD. (DILUTED)
14. UNLESS OTHERWISE DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL CONTAIN ALL WORK WITHIN THE RIGHT OF WAY AND TEMPORARY EASEMENTS AS SHOWN ON THE PLANS AND CROSS SECTIONS (ROW SHOWN ON PLANS IS APPROXIMATE AND SHOULD BE VERIFIED IN THE FIELD). ANY DISTURBANCE BEYOND THESE LIMITS SHALL BE RESTORED TO ORIGINAL CONDITION BY THE CONTRACTOR AT CONTRACTOR'S OWN EXPENSE. CONSTRUCTION ACTIVITIES IN ADDITION TO NORMAL CONSTRUCTION SHALL INCLUDE THE PARKING OF VEHICLES OR EQUIPMENT, DISPOSAL OF LITTER, AND ANY OTHER ACTION WHICH WOULD ALTER EXISTING CONDITIONS.
15. THE DECISION TO BRACE, SHORE OR SHEET PILE FOR STRUCTURE EXCAVATION SHALL BE ENTIRELY THE CONTRACTOR'S RESPONSIBILITY. HOWEVER, IF THE ENGINEER IS OF THE OPINION THAT AT ANY POINT THE TRENCH WALLS ARE NOT PROPERLY SUPPORTED; THE ENGINEER MAY ORDER THE PLACEMENT OF ADDITIONAL SUPPORTS BY AND AT THE EXPENSE OF THE CONTRACTOR. COMPLIANCE WITH SUCH ORDER SHALL NOT RELIEVE OR RELEASE THE CONTRACTOR FROM RESPONSIBILITIES FOR THE SAFETY OF THE WORK. ALL WORK SHALL BE IN ACCORDANCE WITH ALL STATE AND FEDERAL OSHA REGULATIONS. THE CONTRACTOR SHALL TAKE NOTE THAT EXISTING UTILITIES NEAR THE PROPOSED EXCAVATION SHALL BE PROTECTED DURING CONSTRUCTION. TEMPORARY SHORING IS RECOMMENDED TO LIMIT TRENCH WIDTH AND POTENTIAL DAMAGE TO EXISTING UTILITIES.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCEPTANCE AND CONTROL OF ALL SURFACE AND SUBSURFACE DRAINAGE AND GROUNDWATER ENTERING THE PROJECT AREA. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING DEWATERING IF NEEDED AT NO ADDITIONAL COSTS TO THE PROJECT. DEWATERING METHODS SHALL BE APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL OBTAIN A CONSTRUCTION DEWATERING PERMIT FOR ALL CONSTRUCTION ACTIVITIES.
17. THE CONTRACTOR SHALL PROTECT EXISTING UTILITIES BY USING EVERY REASONABLE MEANS, INCLUDING FIELD LOCATION OF THE UTILITY. REPAIR OF DAMAGE TO THE EXISTING UTILITIES DURING CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL DOCUMENT THE CONDITION OF EXISTING UTILITIES (VISIBLE FACILITIES) WITH THE ENGINEER AND UTILITY REPRESENTATIVES PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES.
18. ALL EXISTING UTILITY FACILITIES TO REMAIN IN PLACE WITHIN THE CONSTRUCTION LIMITS SHALL BE PROTECTED BY THE CONTRACTOR.
19. THE SULFATE EXPOSURE CLASS FOR THIS PROJECT IS CLASS 0.
20. THE CONTRACTOR SHALL OBTAIN, AT HIS EXPENSE, ALL PERMITS REQUIRED TO PERFORM THE PROPOSED WORK PRIOR TO CONSTRUCTION.
21. STATIONING LATH WILL BE REMOVED AS DIRECTED AND AT NO ADDITIONAL COST TO THE PROJECT.
22. IT IS ESTIMATED THAT 1134 GALLONS OF EMULSIFIED ASPHALT WILL BE REQUIRED. THIS IS NOT PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF THE WORK.
23. IT IS ESTIMATED THAT 12 HOURS OF BLADING WILL BE REQUIRED FOR THIS PROJECT.
24. IT IS ANTICIPATED THAT PUBLIC INFORMATION SERVICES WILL BE REQUIRED FOR THIS PROJECT.
25. IT IS ANTICIPATED THAT CONSTRUCTION SURVEYING WILL BE REQUIRED FOR THIS PROJECT.
26. IT IS ANTICIPATED THAT MOBILIZATION WILL BE REQUIRED FOR THIS PROJECT.
27. IT IS ESTIMATED THAT 1 SANITARY FACILITY WILL BE REQUIRED FOR THIS PROJECT.
28. IT IS ESTIMATED THAT 10 HOURS OF PROOF ROLLING WILL BE REQUIRED AS DIRECTED BY THE ENGINEER.
29. IT IS ESTIMATED THAT 10 HOURS OF WILDLIFE BIOLOGIST WILL BE REQUIRED FOR THE PROJECT.
30. IT IS ESTIMATED THAT 20 HOURS OF REMOVAL OF NESTS WILL BE REQUIRED FOR THE PROJECT.

GENERAL NOTES CONT'D:

31. IT IS ESTIMATED THAT 6.00 ACRES OF CLEARING AND GRUBBING WILL BE REQUIRED FOR THIS PROJECT AND PAID FOR AS ONE LUMP SUM.
32. IT IS ESTIMATED THAT 16 HOURS OF HERBICIDE APPLICATION WILL BE REQUIRED FOR THIS PROJECT.
33. THE INTENT OF THIS CONTRACT IS TO RESTORE THE AREA AFFECTED BY THE 2013 FLOOD TO PRE- FLOOD CONDITIONS AND AS MODIFIED BY THESE PLANS
34. THE CONTRACTOR SHALL REMOVE DEBRIS AS NEEDED FOR CONSTRUCTION OF THE PROJECT. ALL WORK ASSOCIATED WITH THIS CONSTRUCTION ACTIVITY WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE CLEARING AND GRUBBING IN ITEM 201.
35. THE CONTRACTOR SHALL TAKE PRECAUTIONARY MEASURES TO PROTECT THE EXISTING VEGETATION INSIDE AND OUTSIDE THE PROJECT LIMITS. THE CONTRACTOR SHALL FENCE ALL VEGETATION TO BE UNDISTURBED PRIOR TO COMMENCING WORK. ANY COST INCURRED FOR DAMAGE OF SUCH MATERIAL DUE TO CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
36. THE CONTRACTOR MUST KEEP ALL EQUIPMENT OPERATION A MINIMUM OF 10 FEET FROM EXISTING OVERHEAD ELECTRIC LINES. IF THIS IS NOT FEASIBLE, OR CONDITIONS WARRANT ADDITIONAL PROTECTION OR POLE STABILIZATION, THE CONTRACTOR MUST CONTACT THE UTILITY OWNER TO ARRANGE PROTECTIVE COVERING AND POLE STABILIZATION. A MINIMUM OF 48 HOURS NOTICE IS REQUIRED.
37. IT IS ESTIMATED THAT 1 FIELD OFFICE WILL BE REQUIRED FOR THIS PROJECT
38. CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH CDOT AND BOULDER COUNTY AT LEAST 72 HOURS PRIOR TO START OF CONSTRUCTION. THOSE IN ATTENDANCE SHALL INCLUDE ENGINEER, CONTRACTOR AND ANY OTHER AFFECTED AGENCIES. CONSTRUCTION PLANS WILL BE DISTRIBUTED AT THE PRE-CONSTRUCTION MEETING.

PAVEMENT CONSTRUCTION NOTES:

1. DILUTED EMULSIFIED ASPHALT FOR THE TACK COAT SHALL CONSIST OF 1 PART WATER AND 1 PART EMULSIFIED ASPHALT. RATES OF APPLICATION SHALL BE DETERMINED BY THE ENGINEER AT THE TIME OF APPLICATION. TACK COAT SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE WORK.
2. WATER SHALL BE USED AS A DUST PALLIATIVE WHERE REQUIRED. LOCATIONS SHALL BE AS DIRECTED BY THE ENGINEER. THIS WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF CONSTRUCTION.
3. ANY LAYER OF HOT MIX ASPHALT THAT IS TO HAVE A SUCCEEDING LAYER PLACED THEREON SHALL BE COMPLETED FULL WIDTH BEFORE SUCCEEDING LAYER IS PLACED.
4. ASPHALT JOINTS SHALL FALL ON LANE LINES, SHOULDERS LINES OR MEDIAN LINES, EXCEPT WHERE STATED IN THE PLANS.
5. PRIOR TO PLACING HOT MIX ASPHALT, THE PAVED SURFACE SHALL BE SWEEPED AND CLEANED. THIS WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF THE HOT MIX ASPHALT PAVEMENT ITEM.
6. THE CONTRACTOR MAY USE AN EXPOSED LONGITUDINAL JOINT FOR A MAXIMUM OF 1 DAY. THE JOINT SHALL CONSIST OF A VERTICAL FACE 1 INCH DEEP, AND AT THE BOTTOM OF THE VERTICAL FACE, A 3:1 SLOPE TO EXISTING PAVEMENT (OR SUBGRADE). THE MAXIMUM DEPTH OF THE 3:1 SLOPE SHALL BE 2 INCHES. AT THE END OF THE FOLLOWING DAY, PLACEMENT OF THE HMA ON THE ADJACENT LANE IS REQUIRED.
7. THE FOLLOWING SHALL BE FURNISHED WITH EACH BITUMINOUS PAVER:
A. A SKI TYPE DEVICE AT LEAST 30 FEET IN LENGTH
B. SHORT SKI OR SHOE
C. 1500 FEET OF CONTROL LINE AND STAKES

30% SET	 CALL UTILITY NOTIFICATION CENTER OF COLORADO CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES	REVISIONS: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;">NO.</th> <th style="width: 5%;">DATE</th> <th style="width: 90%;">REVISION DESCRIPTION:</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>	NO.	DATE	REVISION DESCRIPTION:										 BOULDER COUNTY TRANSPORTATION DEPARTMENT ENGINEERING DIVISION 	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">DESIGNED:</td> <td style="width: 10%;">CAD:</td> <td style="width: 10%;">CHECKED:</td> <td style="width: 10%;">DATE:</td> </tr> <tr> <td style="text-align: center;">JLW</td> <td style="text-align: center;">JLW</td> <td style="text-align: center;">SLS</td> <td style="text-align: center;">05/13/15</td> </tr> </table>	DESIGNED:	CAD:	CHECKED:	DATE:	JLW	JLW	SLS	05/13/15	FOURMILE CANYON DR GENERAL NOTES (1 OF 2) PROJECT NO: 4043.SEPT12C36 SHEET NO: 3
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JLW	JLW	SLS	05/13/15																						

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EARTHWORK/GRADING:

- DEPTH OF MOISTURE-DENSITY CONTROL FOR THIS PROJECT SHALL BE AS FOLLOWS:
BASES OF CUTS AND FILLS - 1 FOOT
FULL DEPTH OF ALL EMBANKMENTS ON THIS PROJECT.
- EXCAVATION REQUIRED FOR COMPACTION OF BASES OF CUTS AND FILLS WILL BE CONSIDERED AS SUBSIDIARY TO THAT OPERATION AND WILL NOT BE PAID FOR SEPARATELY.
- GRADING WILL BE INSPECTED BY AN OWNER'S REPRESENTATIVE DURING ALL EXCAVATIONS TO EVALUATE CHANGING CONDITIONS.
- TYPE OF COMPACTION FOR THIS PROJECT WILL BE AASHTO T-180. WATER FOR COMPACTION WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE WORK.

DRAINAGE NOTES:

- REFERENCE POINTS FOR INSTALLATION OF DRAINAGE FEATURES ARE DETAILED ON THE DRAINAGE DETAILS SHEET.
- THE DEFINITION OF PIPE LENGTHS CALLED OUT IN THE DRAINAGE PLANS ARE DETAILED ON THE DRAINAGE DETAILS SHEET.
- PIPE MATERIAL WILL BE REINFORCED CONCRETE PIPE (RCP) UNLESS OTHERWISE NOTED ON THE PLANS. STRENGTH CLASS OF ALL RCP SHALL BE IN ACCORDANCE WITH CDDT M-603-2 AND SECTION 706.02 OF THE STANDARD SPECIFICATIONS.
- THE CONTRACTOR IS REQUIRED TO KEEP EXISTING CULVERTS FUNCTIONAL AND MAINTAIN PROPER STORMWATER CONVEYANCE UNTIL PROPOSED DRAINAGE FACILITIES ARE CONSTRUCTED AND FUNCTIONING PROPERLY. REMOVAL OR ABANDONMENT OF THE EXISTING STORM DRAIN SYSTEMS SHALL BE AT THE DISCRETION OF THE CONTRACTOR IN ACCORDANCE WITH CONSTRUCTION PHASING.
- SIGNED AND SEALED SHOP DRAWINGS FOR ALL NON CDOT STANDARD DRAINAGE STRUCTURES ARE REQUIRED.
- INFORMATION SHOWN REPRESENTS THE FINAL STORM DRAIN SYSTEM AND CULVERTS. PHASING OF INSTALLATION AND INSTALLATION METHODS TO ACCOMMODATE CONSTRUCTION SCHEDULES IS AT THE DISCRETION OF THE CONTRACTOR.
- UNLESS OTHERWISE NOTED, EXISTING DRAINAGE FACILITIES SHALL REMAIN AND BE PROTECTED IN PLACE.
- THE DECISION TO BRACE, SHORE, OR SHEET PIPE EXCAVATIONS SHALL BE ENTIRELY THE CONTRACTOR'S RESPONSIBILITY. ALL WORK SHALL BE IN ACCORDANCE WITH ALL STATE AND FEDERAL O.S.H.A. REGULATIONS. THE CONTRACTOR SHALL PROTECT EXISTING UTILITIES AND STRUCTURES NEAR THE PROPOSED EXCAVATION DURING CONSTRUCTION.
- ALL CONCRETE DRAINAGE PIPE SHALL CONFORM TO CLASS 0 RCP (SPO) AS DEFINED BY TABLE 624-1 OF THE STANDARD SPECIFICATIONS. THIS WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE 603 PIPE PAY ITEMS.

SIGNING AND PAVEMENT MARKING NOTES

- ALL SIGNING AND PAVEMENT MARKINGS SHALL BE INSTALLED AS INDICATED IN THE ROADWAY SITE PLANS, THE LATEST MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND CDOT STANDARDS AND SPECIFICATIONS.
- POST LENGTHS ARE PROVIDED FOR ESTIMATING PURPOSES ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING EXACT POST LENGTHS NECESSARY TO MEET SPECIFIED PANEL HEIGHTS.
- THE LOCATION OF SIGNS IS APPROXIMATE. THE FINAL LOCATION OF THE SIGNS IS TO BE APPROVED BY THE ENGINEER.
- ANY DAMAGE DONE TO THE EXISTING UTILITIES DURING THE PLACEMENT OF THE SIGNS IS THE RESPONSIBILITY OF THE CONTRACTOR.

ENVIRONMENTAL NOTES:

- IF AN ACTIVE NEST CONTAINING EGGS OR YOUNG BIRDS IS FOUND, ALL WORK THAT COULD RESULT IN ABANDONMENT OR DESTRUCTION OF THE NEST WILL BE AVOIDED UNTIL THE YOUNG HAVE FLEDGED OR THE NEST IS UNOCCUPIED AS DETERMINED BY A QUALIFIED BIOLOGIST. TREE TRIMMING AND/OR REMOVAL ACTIVITIES SHALL BE COMPLETED BEFORE BIRDS BEGIN TO NEST OR AFTER THE YOUNG HAVE FLEDGED. IN COLORADO, MOST NESTING AND REARING ACTIVITIES OCCUR BETWEEN APRIL 1 AND AUGUST 31, HOWEVER, SINCE SOME BIRDS NEST AS EARLY AS FEBRUARY, A NESTING BIRD SURVEY SHALL BE CONDUCTED BY A BIOLOGIST BEFORE ANY TREE TRIMMING OR REMOVAL ACTIVITIES BEGIN. THE CONTRACTOR SHALL FOLLOW THE PROVISIONS OF THE MIGRATORY BIRD TREATY ACT (MBTA) THROUGHOUT THE DURATION OF CONSTRUCTION. IF CONSTRUCTION RELATED ACTIVITIES OCCUR BETWEEN FEBRUARY 15 AND AUGUST 31 THEN A PRE-CONSTRUCTION SURVEY FOR NESTING BIRDS MUST BE COMPLETED BY A QUALIFIED BIOLOGIST. NO CONSTRUCTION ACTIVITIES WILL OCCUR WITHIN 50 FEET OF AN ACTIVE NEST UNTIL THE NEST BECOMES INACTIVE OR THE YOUNG HAVE FLEDGED. A PRE-CONSTRUCTION SURVEY FOR NESTING RAPTORS MUST BE COMPLETED WITHIN A HALF MILE BUFFER OF THE PROJECT LIMITS. IF ANY NESTING RAPTORS OCCUR WITHIN THE BUFFER AREA, THEN CPW "RECOMMENDED BUFFER ZONES AND SEASONAL RESTRICTIONS FOR COLORADO RAPTORS" GUIDELINES SHOULD BE FOLLOWED. CPW MAY REDUCE THE BUFFER REQUIREMENTS BASED ON CONDITIONS OF THE STUDY AREA AND TYPE OF WORK BEING DONE, BUT MUST BE CONSULTED FOR APPROVAL PRIOR TO CONSTRUCTION WITHIN THE RECOMMENDED BUFFER ZONE OF AN ACTIVE NEST.
- REMOVAL OF EXISTING TREES AND VEGETATION DURING CONSTRUCTION WILL BE LIMITED. ACCESS ROUTES, STAGING AREAS, ETC. WILL BE LOCATED WITHIN PREVIOUSLY DISTURBED AREAS TO THE EXTENT POSSIBLE. DISTURBED AREAS WILL BE RESTORED USING NATIVE PLANT MATERIALS.
- FOLLOW REGIONAL STORMWATER GUIDELINES AND DESIGN BEST MANAGEMENT PRACTICES (BMPs) TO CONTROL CONTAMINATION, EROSION, AND SEDIMENTATION DURING AND AFTER CONSTRUCTION.
- AVOID SPREADING NOXIOUS WEEDS BY MINIMIZING SOIL DISTURBANCE TO THE MAXIMUM EXTENT POSSIBLE, CLEANING CONSTRUCTION EQUIPMENT, AND RE-SEEDING OF ALL DISTURBED SOIL WITH A CERTIFIED WEED-FREE SEED MIX. USE NATIVE, WEED-FREE SEEDS, PLANTS, AND MULCH TO RE-VEGETATE ALL AREAS OF DISTURBANCE.
- THE CONTRACTOR WILL TAKE APPROPRIATE MEASURES TO PREVENT, MINIMIZE, AND CONTROL THE SPILL OF HAZARDOUS MATERIALS IN THE CONSTRUCTION AREA. THE USE OF CONSTRUCTION EQUIPMENT WITHIN SENSITIVE AREAS WILL BE MINIMIZED OR ELIMINATED. ALL CONSTRUCTION MATERIALS USED FOR THIS PROJECT WILL BE REMOVED AS SOON AS THE WORK SCHEDULE PERMITS. ANY UNANTICIPATED HAZARDOUS MATERIALS AND/OR PETROLEUM CONTAMINATION ENCOUNTERED DURING CONSTRUCTION WILL BE HANDLED ACCORDING TO APPLICABLE FEDERAL AND STATE REGULATIONS FOR HANDLING EMERGENCY DISCOVERY OF HAZARDOUS MATERIALS.
- ONCE CONSTRUCTION BEGINS, IF ANY SUBSURFACE ARCHAEOLOGICAL MATERIALS ARE ENCOUNTERED (E.G., ARTIFACTS SUCH AS (BUT NOT LIMITED TO) HISTORIC TRASH SUCH AS BOTTLES, DISHWARE, HOUSEHOLD OR MINING ITEMS, ETC; PREHISTORIC STONE TOOLS SUCH AS PROJECTILE POINTS OR OTHER FLAKED STONE ITEMS; OR HISTORIC OR PREHISTORIC FEATURES, SUCH AS FOUNDATIONS, STONE WALL REMAINS, MINE ADITS OR PROSPECT PITS, HEARTHES, ETC.), WORK SHOULD BE IMMEDIATELY HALTED IN THE VICINITY OF THE FIND, AND A QUALIFIED PROFESSIONAL ARCHAEOLOGIST SHOULD BE PROMPTLY NOTIFIED TO EXAMINE THE ARTIFACTS SECURED AND WORK SHOULD NOT RESUME UNTIL THE DISCOVERY CAN BE EVALUATED AND/OR REMOVED BY A QUALIFIED ARCHAEOLOGIST. IF BONES OF POTENTIAL HUMAN ORIGIN ARE ENCOUNTERED DURING CONSTRUCTION, GROUND-DISTURBING WORK MUST BE STOPPED IN THE VICINITY OF THE DISCOVERY, AND THE BOULDER COUNTY SHERIFF AND CORONER, AND THE COLORADO STATE ARCHAEOLOGIST SHOULD BE PROMPTLY NOTIFIED. WORK CANNOT RESUME NEAR HUMAN REMAINS UNTIL CLEARANCE IS GRANTED.
- ONCE CONSTRUCTION BEGINS, IF ANY SUBSURFACE PALEONTOLOGICAL MATERIALS ARE ENCOUNTERED (E.G., VERTEBRATE, INVERTEBRATE, OR PLANT FOSSILS), WORK SHOULD BE HALTED IMMEDIATELY IN THE VICINITY OF THE FIND, AND A QUALIFIED PROFESSIONAL PALEONTOLOGIST SHOULD BE PROMPTLY NOTIFIED TO EXAMINE THE ARTIFACTS OR FEATURE. THE SITE OF THE FIND SHOULD BE SECURED AND WORK SHOULD NOT RESUME UNTIL THE DISCOVERY CAN BE EVALUATED AND/OR REMOVED BY A QUALIFIED PALEONTOLOGIST. IF WARRANTED, ADDITIONAL PALEONTOLOGIST TESTING OR DATA RECOVERY MAY BE NECESSARY BEFORE WORK CAN BE RESUMED IN THE VICINITY OF THE FIND.
- LOCATE ACCESS ROUTES, STAGING AREAS, AND WORK AREAS WITHIN PREVIOUSLY DISTURBED OR MODIFIED AREAS WHEN FEASIBLE.

ENVIRONMENTAL NOTES CONT'D:

- TEMPORARY LIGHTING WILL BE USED WITH DIRECTIONAL SHIELDING TO FOCUS THE LIGHTING ONTO THE DRIVING SURFACE OR PROJECT CONSTRUCTION AREA. ALL PERMANENT LIGHTING MUST BE DARK-SKY COMPLIANT. LIGHTING WILL BE LIMITED TO THE EXTENT NECESSARY TO MEET SAFETY REQUIREMENTS.
- TREE TRIMMING AND/OR REMOVAL ACTIVITIES INCLUDING CLEARING & GRUBBING SHALL BE COMPLETED BEFORE BIRDS BEGIN TO NEST OR AFTER THE YOUNG HAVE FLEDGED. IN COLORADO, MOST NESTING AND REARING ACTIVITIES OCCUR BETWEEN APRIL 1 AND AUGUST 31. HOWEVER, SINCE SOME BIRDS NEST AS EARLY AS FEBRUARY, A NESTING BIRD SURVEY SHALL BE CONDUCTED BY A BIOLOGIST BEFORE ANY TREE TRIMMING OR REMOVAL ACTIVITIES BEGIN.

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							JLW	JLW	SLS	05/13/15	

TO ESTABLISH GEOMETRIC CONTROL FOR THE CONSTRUCTION OF THIS PROJECT, THE DEPARTMENT HAS PROVIDED THE FOLLOWING INFORMATION:

- Format *
- Horizontal Control Plans
 - Vertical Control Plans
 - Roadway Alignment Plans
 - Original Terrain Data
 - Other: _____

* Specify the information format, i.e., plan sheet, computer disk, computer printout, or other. The information marked is either contained on the plans or is available from the Engineer.

TYPE OF PROJECT

- Landscaping
- Signalization
- Safety Improvement
- Asphalt Overlay
- Concrete Overlay
- Minor Widening
- Major Reconstruction
- New Roadway Construction
- Bridge Replacement
- Bridge Widening
- New Bridge
- Other: Flood Recovery and Restoration

SURVEY WORK TO BE PERFORMED BY OTHERS: _____

WORK PERFORMED BY THE CONTRACTOR'S SURVEYOR UNDER SECTION 625:

- Establish and Maintain Project Centerline or Engineer Approved Offset Line(s)
- Verification and Maintenance of Horizontal and Vertical Control
- Verify or Determine existing grades and alignments
- Verify or Determine existing topography
- GPS/RTS (Global Positioning System/Robotic Total Station) Construction Machine Control
- Clearing and Grubbing Limits (Section 201)
- Removal Limits (Section 202)
- Reset Items (Section 210)
- Excavation and Embankment (Section 203)

- Excavation
 - Unclassified
 - Stripping
 - Muck
 - Rock
 - Borrow
 - Other: _____
 - Potholing

- Embankment
- Site Grading
- Erosion Control (Perm)
- Other: _____
- As Staked Earthwork Quantities (See General Notes)

- Landscaping
 - Top Soil (Section 207)
 - Seeding (Section 212)
 - Mulching (Section 213)
 - Planting (Section 214)
 - Herbicide (Section 217)
 - Other: Seeding Boundaries

- Erosion Control (Section 208)
 - Seeding (Temp)
 - Silt Fence
 - Erosion Bales
 - Erosion Logs
 - Riprap (Temp)
 - Other: _____

- Roadway Bases
 - Untreated Subgrade
 - Treated Subgrade
 - Aggregate Base Course (Section 304)
 - Reconditioning
 - PMBB - Plant Mix Bituminous Base
 - Other: _____

	Slope Staking (Y/N)	Grid (Y/N)	Grade (Y/N)	Special Interval
Excavation	Y	N	Y	-
	-	-	-	-
	-	-	-	-
	-	-	-	-
	-	-	-	-

	Slope Staking (Y/N)	Grid (Y/N)	Grade (Y/N)	Special Interval
Embankment	Y	N	Y	-
	-	-	-	-
	-	-	-	-
	-	-	-	-
	-	-	-	-

	Grid (Y/N)	Grade (Y/N)	Special Interval	Special Offset
Roadway Bases	-	-	-	-
	N	Y	-	-
	-	-	-	-
	-	-	-	-
	-	-	-	-

- Pavements
 - HMA - Hot Mix Asphalt (Section 403)
 - Concrete (Section 412)
 - Heating & Scarifying Treatment
 - Prime Coat, Tack Coat & Rejuvenating Agent (Section 407)
 - Seal Coat or Chip Seal (Section 409)
 - Other: _____

	Grid (Y/N)	Special Interval	Special Offset
Pavements	N	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-

- Roadway Elements
 - Curb and Gutter (Section 609)
 - Drop inlets - alignment and grades (Section 604)
 - Retaining Walls
 - Guard Rail (Section 606)
 - Sidewalk (Section 608)
 - Overlay Stationing
 - Other: Fire Department Pullouts

	Tangent Interval	Curve Interval	Special Offset
Curb & Gutter	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-

- Riprap (Perm) (Section 506)
- Slope and Ditch Paving (Section 507)

- Minor Structures
 - Structure Excavation limits (Section 206)
 - Culverts (Section 603)
 - Culverts w/ Headwalls and Wingwalls (Section 601)
 - Concrete Box Culverts w/ Headwalls and Wingwalls
 - Pipes (Section 603)
 - Sanitary Sewer
 - Storm Sewer
 - Water
 - Irrigation
 - Miscellaneous
 - Manholes (Section 604)
 - Inlets (Section 604)
 - Permanent Water Quality BMP (Section 208)
 - Other: _____

- Major Structures - Overhead Signs (Section 614), Concrete Box Culverts, Bridges - and all other structures assigned a structure number
 - Structure Excavation limits (Section 206)
 - Concrete Box Culverts (Section 603) w/ Headwalls and Wingwalls (Section 601)
 - Piling locations and cut off elevations (Section 502)
 - Caisson locations and elevations (Section 503)
 - Footing locations, alignment, and elevations
 - Abutment/Pier locations, alignment, and elevations
 - Wingwall skew angles/offsets
 - Structural concrete form locations
 - Substructure As-constructed survey required for Bridges (Subsection 601.12) and Overhead signs (S-614-50)
 - Bridge expansion joint(s) alignment and grade (longitudinal and transverse)
 - Deck grades at Girder 10th or "n" th point locations and elevations
 - Slope and Ditch Paving (Section 507)
 - Other: Retaining Walls, Moment Slab

- Fencing (Section 607)
 - Temporary
 - Permanent
 - Sound Barrier
 - Other: _____

- Delineators (Section 612)
 - Temporary
 - Permanent

- Lighting (Section 613) and Traffic Control Devices (Permanent) (Section 614)
 - Signal pole locations and elevations
 - Light pole locations and elevations
 - Sign locations
 - Field verify sign post locations, elevations, and lengths before fabrication.
 - Other: _____

- Pavement Marking (Section 627)
 - Striping (Temp)
 - Striping (Perm)
 - Symbols
 - Other: _____
- Temporary Lighting and Construction Traffic Control Devices (Section 630)
 - Signal pole locations and elevations (Temp)
 - Light pole locations and elevations (Temp)
 - Sign Locations (Temp)
 - Other: _____
- All Easements (Temp Staking by P.L.S. Only)
- Right of Way (Temp Staking by P.L.S. Only)

WORK PERFORMED BY THE CONTRACTOR'S SURVEYOR UNDER SECTION 629:

- Monumentation (Section 629)
 - Control
 - Right of Way
 - Land corners, Aliquot corners
 - Easements
 - Reference the specified existing monuments: ** _____
 - Replace the specified existing monuments: ** _____
 - Locate monuments. It is estimated _____ hours are required.

NOTE: All 629 items shall include adequate research, calculations, and evaluations of evidence for monuments to be set.

** A Tabulation of Survey Monuments may be provided on the plans.

GENERAL NOTES:

- Unless indicated otherwise on this Survey Tabulation Sheet, all survey work and staking intervals shall be done in accordance with the latest edition of the CDDT Survey Manual.
- Adequate information for establishing lines, grades, and locations for all work items have been specified on the plans. Any additional information required to stake the item or element shall be generated by the Contractor's surveyor.
- The Contractor's surveyor shall provide an estimate of the man-hours necessary to complete the work items indicated on this sheet. A copy of this sheet, with the estimated man-hours written on the blank line to the left of the specified items, shall be submitted with the Survey Schedule to the Engineer 3 days prior to the Presurvey Conference - Construction Survey.
- Stakes and Monuments which are damaged or destroyed by the progress of construction shall be replaced by the Contractor at no additional cost to the Department.
- The Contractor shall furnish an As Staked (or GPS/RTS Construction Machine Control) Earthwork Quantity report to the Engineer prior to completion of twenty percent (20%) of the planned earthwork in any phase as per the CDDT Survey Manual. A printed copy of the As Staked (or GPS/RTS Construction Machine Control) Earthwork data report and a computer disk with that information on it, in the specified format shall be submitted to the Engineer. The Contractor shall field verify original ground cross sections at a maximum 500 feet intervals.
- Prior to beginning work on any subsequent operation, such as placing base course or paving, the Contractor shall certify in writing to the Engineer that the final grade is within specified tolerance.
- The Contractor's surveyor shall perform all field surveying and calculations necessary to tie plan grades into field grades.
- The Contractor shall coordinate construction staking on the project with any utility work.
- Fieldbooks shall contain daily records of points set and or measurements observed. The information recorded shall contain: date, crew members' names, point no., description, staking information, and sketches. If the survey information is collected electronically, information recorded shall be provided to the Project Engineer in a hard copy format that is intuitive, clear and related to the supplemental information recorded in the field books. All linear surveys, such as slope stakes and blue tops, shall have the station and offset information related to the measured information. Non-linear surveys such as structures staking shall have sketches relating electronic information, such as point numbers, to the sketch.
- The Contractor's surveyor shall submit the following fieldbooks to the Engineer:
 - Horizontal Control (Primary & Secondary)
 - Vertical Control (i.e. Benchmarks)
 - Property Pin Ties
 - Horizontal Alignment
 - Grading
 - Slope Staking
 - Minor Structures
 - Major Structures
 - One fieldbook for each work category shown on this sheet
 - Other Fieldbook(s): _____

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NO.	DATE	REVISION DESCRIPTION:															

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SUMMARY OF EARTHWORK QUANTITIES	
EMBANKMENT MATERIAL (COMPLETE IN PLACE)	
ROADWAY - REGULAR EMBANKMENT	9,766
REPLACEMENT OF MUCK	150
TOTAL	9,916
STRUCTURE EXCAVATION	
CULVERTS HEADWALL & WINGWALL	464
TOTAL	464
STRUCTURE EXCAVATION (SPECIAL)	
ROCK EXCAVATION	31,759
BRIDGES	0
WALLS	2,582
TOTAL	34,341
MUCK EXCAVATION	
AS DIRECTED BY THE ENGINEER	150
TOTAL	150
FOR INFORMATION ONLY	
UNCLASSIFIED EXCAVATION	
ROADWAY	1,339
TOTAL	1,339
COMPACTION (AASHTO T180)	
TOTAL EMBANKMENT (NET)	9,916
TOTAL	9,916
EARTHWORK QUANTITIES BALANCE	
UNCLASSIFIED EXCAVATION	
TOTAL UNCLASSIFIED EXCAVATION	1,339
TOTAL FROM CONTRACTORS SOURCE	10,064
EMBANKMENT (NET)	
TOTAL	9,916
EMBANKMENT (NET) TIMES COMPACTION FACTOR (1.15)	
TOTAL	11,403

TABULATION OF REMOVALS, RESETS AND ADJUSTMENTS										
ALIGNMENT	STATION TO STATION	REMOVAL OF ASPHALT MAT	REMOVAL OF GUARDRAIL	REMOVAL OF TREES	REMOVE AND RESET TRAFFIC SIGNS	REMOVE AND RESET MAIL BOXES	REMOVE AND RESET FENCE	REMOVAL OF PIPE	REMOVAL OF BRIDGE	REMARKS
		SY	LF	EA	EA	EA	LF	LF	EA	
S FOURMILE	52+50.00 TO 88+80.00	88,030	415	0	4	8	372	146	0	
N FOURMILE	217+25.00 TO 256+54.69	97,025	1,012	19	7	0	0	120	1	
TOTALS		185,055	1,427	19	11	8	372	266	1	

TABULATION OF SURFACING QUANTITIES					
ALIGNMENT	STATION TO STATION	HOT MIX ASPHALT (GRADING SX) (75) (PG 58-28)	AGGREGATE BASE COURSE (CLASS 6)	NOTES	
		TON	CY		
S FOURMILE	52+50.00 TO 88+80.00	1854	1249	INCLUDES REQUIRED DRIVE ENTRANCES	
N FOURMILE	217+25.00 TO 256+54.69	2039	1373		
TOTALS		3893	2622		

TABULATION OF GUARDRAIL							
ALIGNMENT	STATION TO STATION		SIDE	GUARDRAIL TYPE 3 (6-3)	END ANCHORAGE TYPE 3K	END ANCHORAGE TYPE 3D	
				LF	EACH	EACH	
S FOURMILE	80+30.00	TO 82+42.50	LT	212.5	2	0	
S FOURMILE	84+50.00	TO 86+87.50	LT	237.5	2	0	
N FOURMILE	221+82.50	TO 223+95.00	LT	212.5	2	0	
N FOURMILE	229+13.00	TO 230+77.55	LT	164.5	1	1	
N FOURMILE	231+47.79	TO 233+63.00	LT	215.2	1	1	
N FOURMILE	255+38.50	TO 256+38.50	LT	100.0	2	0	
TOTALS				1142.3	10	2	

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								RGK	EAV	JPZ	05/13/15			

PAVEMENT SIGNING AND MARKING LEGEND

	NEW	EXISTING
SINGLE POST MOUNTED SIGN		
EDGE LINE, WHITE, 4"		
CENTER LINES, YELLOW, 4"		

TABULATION OF PAVEMENT MARKINGS										
ALIGNMENT	STATION		MARKING TYPE	PAVEMENT MARKINGS						DESCRIPTION
				DBL YELLOW SOLID 4 IN			WHITE SOLID 4 IN			
				LF	SF	GAL	LF	SF	GAL	
S FOURMILE	52+50.00	88+80.00	CENTER	3630	2420	24.2				
S FOURMILE	52+50.00	88+80.00	EDGE				10890	3630	36.3	
N FOURMILE	217+25.00	256+54.69	CENTER	3930	2620	26.2				
N FOURMILE	217+25.00	256+54.69	EDGE				11790	3930	39.3	
			TOTAL (GAL)			51			76	ROUNDED UP TO NEXT FULL GALLON

TABULATION OF SIGNS

SIGN NO.	ALIGNMENT	STATION	DIRECTION	SIGN CODE	SIGN PANEL SIZE			BACKGROUND COLOR	LEGEND	SIGN PANEL			STEEL SIGN SUPPORT (2-INCH ROUND) (POST AND SOCKET)	REMARKS
					W"	x	H"			CLASS I	CLASS II	CLASS III		

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30% SET	CALL UTILITY NOTIFICATION CENTER OF COLORADO CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES	REVISIONS:	NO.	DATE	REVISION DESCRIPTION:	BOULDER COUNTY TRANSPORTATION DEPARTMENT ENGINEERING DIVISION Michael Baker INTERNATIONAL	DESIGNED:	CAD:	CHECKED:	DATE:	FOURMILE CANYON DR ROADWAY TABULATIONS (2 OF 2) PROJECT NO: 4043.SEPT12C36 SHEET NO: 7
							RGK	EAV		05/13/15	

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TABULATION OF DRAINAGE STRUCTURES								
ID	LOCATION	STATION-OFFSET	STRUCTURE EXCAVATION	STRUCTURAL BACKFILL (CLASS 1)	SHORING (AREA 1)	CONCRETE CLASS B	REINFORCING STEEL	DESCRIPTION
			CY	CY	LS	CY	LB	
P-N-101	N FOURMILE		179	61				CBC QUANTITIES IN DRAINAGE TAB 1
P-N-101 HEADWALL C-D	N FOURMILE	250+25.19				3.6	1110	
P-N-101 WINGWALL C	N FOURMILE	250+32.89, 25.94' LT	38	17		8.9	280	
P-N-101 WINGWALL D	N FOURMILE	250+17.54, 25.57' LT	38	17		8.9	280	
P-N-104 HEADWALL A-B	N FOURMILE	237+78.41, 96.97' RT	109	11		10	596	
P-N-104 WINGWALL A	N FOURMILE	237+95.67, 98.39' RT	61	25		16.4	402	
P-N-104 WINGWALL B	N FOURMILE	237+80.01, 106.27' RT	39	16		10.3	278	
TOTAL			464	147	1	58.1	2946	

30% SET

CALL UTILITY NOTIFICATION CENTER OF COLORADO
 CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES

REVISIONS:	NO.	DATE	REVISION DESCRIPTION:

BOULDER COUNTY TRANSPORTATION DEPARTMENT
ENGINEERING DIVISION
 **Michael Baker**
 INTERNATIONAL

DESIGNED:	CAD:	CHECKED:	DATE:
JRS	EMR	JPZ	05/13/15

FOURMILE CANYON DR
DRAINAGE TABULATIONS
(2 OF 2)
 PROJECT NO: 4043.SEPT12C36 SHEET NO: 9

CONTROL DIAGRAM - TASK ORDER 3

A PARCEL OF LAND IN SECTIONS 17, 18 20, 21, 28 & 27,
TOWNSHIP 1 NORTH, RANGE 71 WEST AND OF THE 6TH P.M.,
COUNTY OF BOULDER, STATE OF COLORADO.

- SHEET 1 OF 1 -

DEA CP-301



DEA CP-302



DEA CP-303
"BOULDER 267"



DEA CP-304



DEA CP-305



GROUND COORDINATE TABLE:

PT #	NORTHING	EASTING	ELEV.	DESCRIPTION
301	260918.86	37998.29	6498.1	#5 REBAR W/ 1-1/4" ORANGE PLASTIC CAP
302	257914.18	40324.93	6370.5	#5 REBAR W/ 1-1/4" ORANGE PLASTIC CAP
303	256805.77	43418.89	6233.4	2" BRASS CAP IN 4" CONCRETE POST "BOULDER 267"
304	254795.59	45583.99	6018.9	#5 REBAR W/ 1-1/4" ORANGE PLASTIC CAP
305	249657.54	50020.78	5760.7	#5 REBAR W/ 1-1/4" ORANGE PLASTIC CAP

NOTES:

- The basis of coordinates for this map is the North America Datum of 1983-2011 (NAD 83 (2011)) U.S. Survey Feet, based locally upon the David Evans and Associates, Inc. Control Point DEA CP 302 for ground coordinate scale factor determination.
- The basis of elevations for this map is the North American Vertical Datum of 1988 (NAVD 88), based locally upon the CP 302. Elevations computed from a NGS OPUS Solution Report using a four (4) hour occupation data set at DEA CP 302.
- To modify ground control to Colorado State Plane North Zone; add 1,000,000 feet to North coordinate, add 3,000,000 feet to East coordinate and multiply by 1/csf (combined scale factor = 1/1.000328515 = 0.999671593).
- Fieldwork for control was completed November 2013.
- Set 18" long #5 rebar with 1-1/4" outside diameter orange plastic cap marked "DEA INC" at all control points unless otherwise noted, see Ground Coordinate Table above.

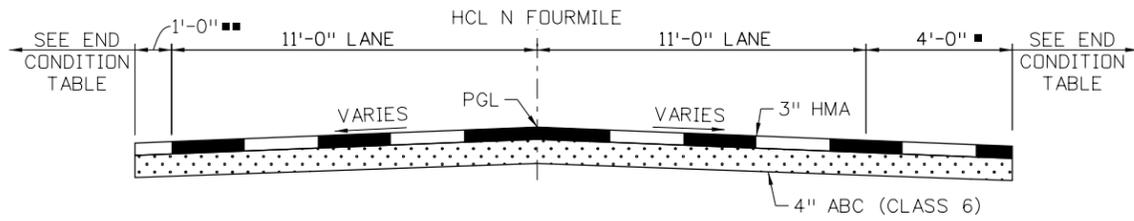
NOTICE:

According to Colorado law you MUST commence any legal action based upon any defect in this survey within three years after you first discovered such defect. In NO event may any action based upon any defect in this survey be commenced more than ten years from the date of the certification shown hereon.



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30% SET	 CALL UTILITY NOTIFICATION CENTER OF COLORADO CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES	REVISIONS:	NO.	DATE	REVISION DESCRIPTION:	BOULDER COUNTY TRANSPORTATION DEPARTMENT ENGINEERING DIVISION 	DESIGNED:	CAD:	CHECKED:	DATE:	FOURMILE CANYON DR SURVEY CONTROL PROJECT NO: 4043.SEPT12C36 SHEET NO: 10
							DEA	DEA	SLS	05/13/15	



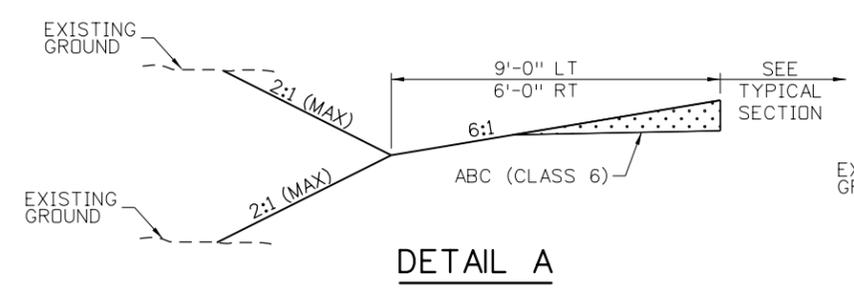
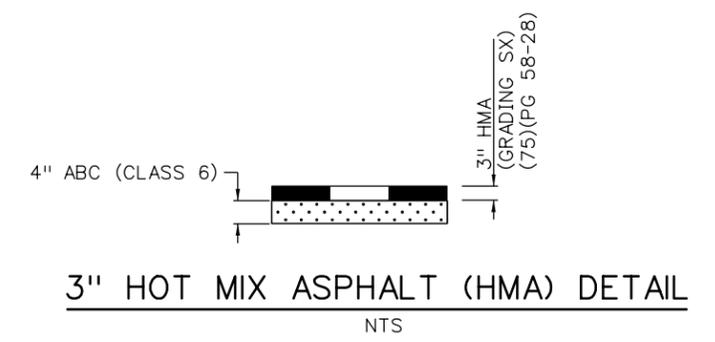
TYPICAL SECTION - FOURMILE CANYON DR

NTS
STA 52+50.00 TO STA 88+80.00

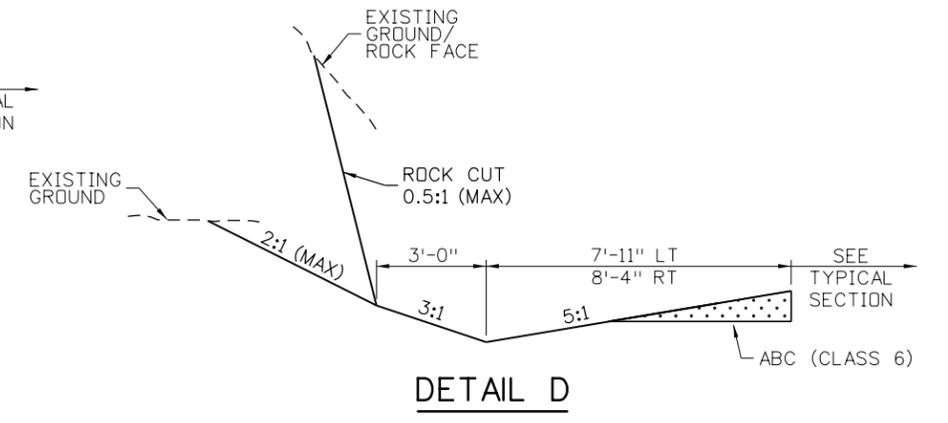
- STA 52+50.00 TO STA 52+80.00 1'-0 3/4" TO 4'-0"
 - STA 56+50.00 TO STA 56+70.00 4'-0" TO 19'-0"
 - STA 56+70.00 TO STA 58+70.00 19'-0"
 - STA 58+70.00 TO STA 58+90.00 19'-0" TO 4'-0"
 - STA 88+60.00 TO STA 88+80.00 4'-0" TO 1'-7 1/2"
-
- STA 52+50.00 TO STA 52+80.00 0'-11 1/2" TO 1'-0"
 - STA 88+60.00 TO STA 88+80.00 1'-0" TO 0'-10 3/4"

HCL	STATION		OFFSET	SIDE TREATMENT
	FROM	TO		
S FOURMILE	52+50.00	88+80.00	RT	DETAIL D
S FOURMILE	52+50.00	54+70.77	LT	DETAIL E
S FOURMILE	55+06.34	55+85.59	LT	DETAIL E
S FOURMILE	56+27.46	58+60.11	LT	DETAIL E
S FOURMILE	59+02.07	59+50.00	LT	DETAIL E
S FOURMILE	59+50.00	60+30.00	LT	DETAIL A
S FOURMILE	60+30.00	62+30.54	LT	DETAIL E
S FOURMILE	62+71.79	63+50.00	LT	DETAIL E
S FOURMILE	63+50.00	64+35.00	LT	DETAIL A
S FOURMILE	64+35.00	66+45.00	LT	DETAIL E
S FOURMILE	66+45.00	66+90.00	LT	DETAIL D
S FOURMILE	66+90.00	66+92.76	LT	DETAIL E
S FOURMILE	67+35.39	69+05.00	LT	DETAIL A
S FOURMILE	69+05.00	69+85.00	LT	DETAIL E
S FOURMILE	69+85.00	72+05.00	LT	DETAIL A
S FOURMILE	72+05.00	76+10.00	LT	DETAIL E
S FOURMILE	76+10.00	77+20.00	LT	DETAIL A
S FOURMILE	77+20.00	79+05.00	LT	DETAIL E
S FOURMILE	79+05.00	80+17.50	LT	DETAIL A
S FOURMILE	80+17.50	80+30.00	LT	DETAIL C
S FOURMILE	80+30.00	82+20.00	LT	DETAIL B
S FOURMILE	82+20.00	82+55.00	LT	DETAIL C
S FOURMILE	82+55.00	83+60.00	LT	DETAIL A
S FOURMILE	83+60.00	84+37.50	LT	DETAIL E
S FOURMILE	84+37.50	84+50.00	LT	DETAIL C
S FOURMILE	84+50.00	86+70.00	LT	DETAIL B
S FOURMILE	86+70.00	87+00.00	LT	DETAIL C
S FOURMILE	87+00.00	88+80.00	LT	DETAIL E

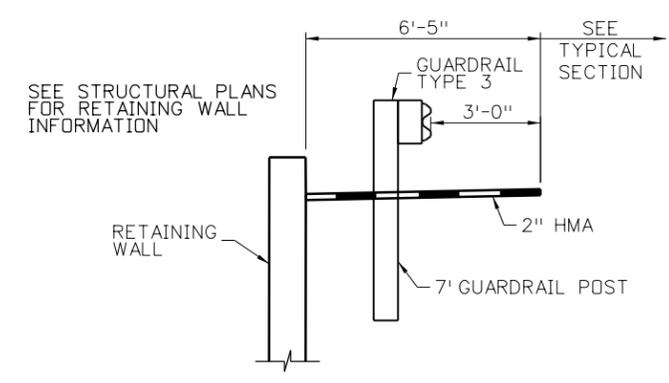
- NOTES:**
- ROADWAY SUPERELEVATION VARIES, SEE PROFILE SHEETS.
 - END CONDITION DETAILS SHOWN FOR LEFT SIDE. TO BE MIRRORED FOR RIGHT SIDE CONSTRUCTION.



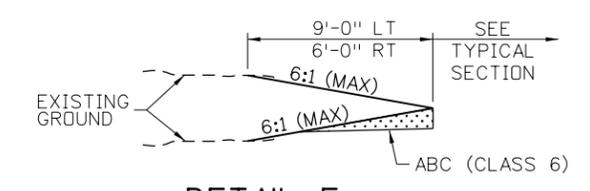
DETAIL A



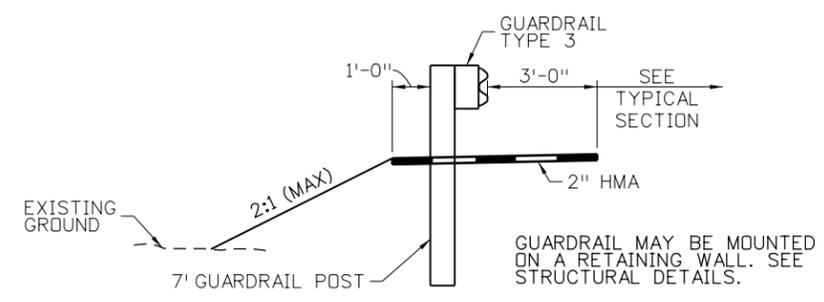
DETAIL D



DETAIL B



DETAIL E

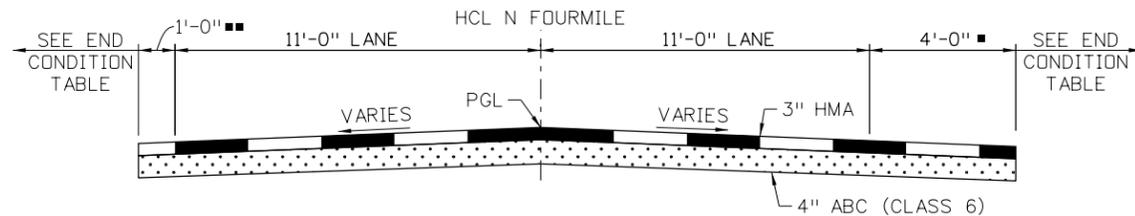


DETAIL C

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HCL	STATION		OFFSET	SIDE TREATMENT
	FROM	TO		
N FOURMILE	217+25.00	226+85.00	RT	DETAIL D
N FOURMILE	226+85.00	227+15.00	RT	DETAIL A
N FOURMILE	227+15.00	232+90.00	RT	DETAIL D
N FOURMILE	232+90.00	233+80.00	RT	DETAIL A
N FOURMILE	233+80.00	234+00.00	RT	DETAIL D
N FOURMILE	234+00.00	234+96.78	RT	DETAIL A
N FOURMILE	234+96.78	235+45.23	RT	DETAIL A
N FOURMILE	235+45.23	236+74.07	RT	DETAIL A
N FOURMILE	236+74.07	237+12.46	RT	DETAIL A
N FOURMILE	237+12.46	237+45.00	RT	DETAIL E
N FOURMILE	237+45.00	247+80.00	RT	DETAIL D
N FOURMILE	247+80.00	248+20.00	RT	DETAIL A
N FOURMILE	248+20.00	249+50.85	RT	DETAIL D
N FOURMILE	249+50.85	250+29.10	RT	DETAIL C
N FOURMILE	250+29.10	256+54.69	RT	DETAIL D
N FOURMILE	217+25.00	221+45.00	LT	DETAIL A
N FOURMILE	221+45.00	221+90.00	LT	DETAIL C
N FOURMILE	221+90.00	223+80.00	LT	DETAIL B
N FOURMILE	223+80.00	223+95.00	LT	DETAIL C
N FOURMILE	223+95.00	224+30.00	LT	DETAIL F
N FOURMILE	224+30.00	225+25.00	LT	DETAIL D
N FOURMILE	225+25.00	225+50.00	LT	DETAIL F
N FOURMILE	225+50.00	229+25.00	LT	DETAIL A
N FOURMILE	229+25.00	232+10.00	LT	DETAIL B
N FOURMILE	232+10.00	232+75.00	LT	DETAIL F
N FOURMILE	232+75.00	233+35.00	LT	DETAIL B
N FOURMILE	233+35.00	233+50.00	LT	DETAIL A
N FOURMILE	233+50.00	235+81.20	LT	DETAIL F
N FOURMILE	235+81.20	236+16.95	LT	DETAIL F
N FOURMILE	236+16.95	239+75.00	LT	DETAIL F
N FOURMILE	239+75.00	241+00.00	LT	DETAIL A
N FOURMILE	241+00.00	241+50.00	LT	DETAIL F
N FOURMILE	241+50.00	242+70.00	LT	DETAIL A
N FOURMILE	242+70.00	243+90.00	LT	DETAIL F
N FOURMILE	243+90.00	244+75.00	LT	DETAIL A
N FOURMILE	244+75.00	246+40.00	LT	DETAIL F
N FOURMILE	246+40.00	255+45.00	LT	DETAIL A
N FOURMILE	255+45.00	256+40.00	LT	DETAIL B
N FOURMILE	256+40.00	256+54.69	LT	DETAIL A



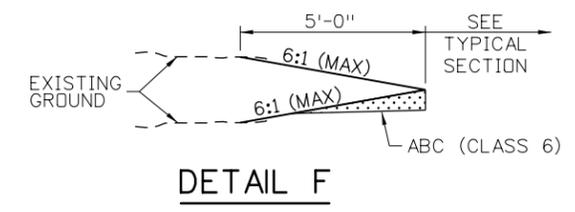
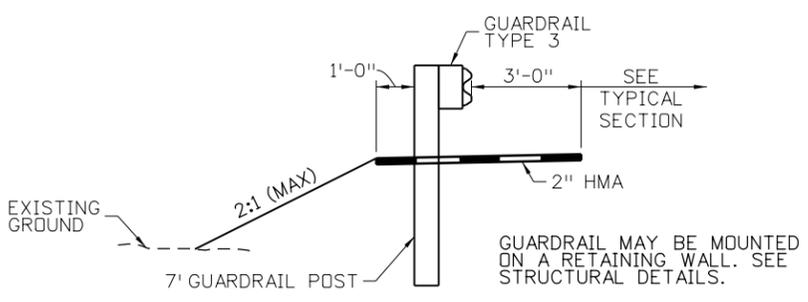
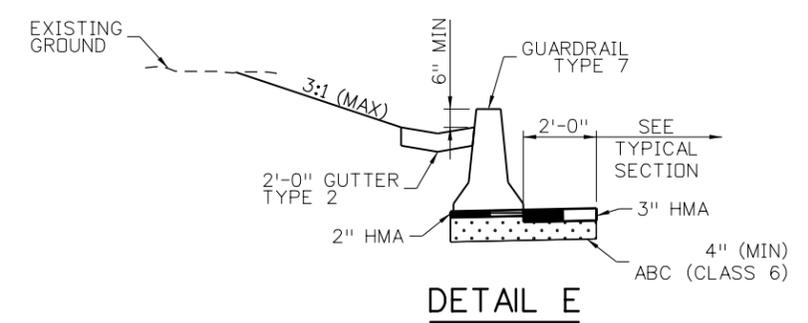
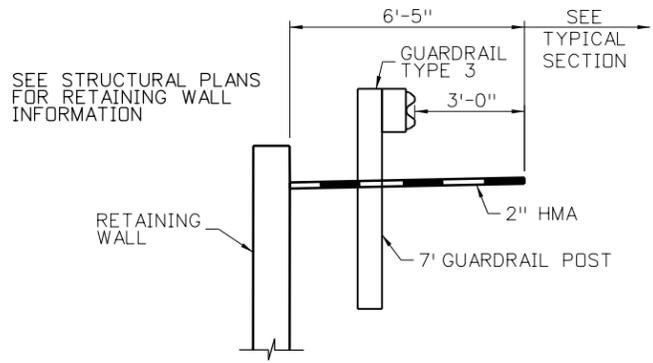
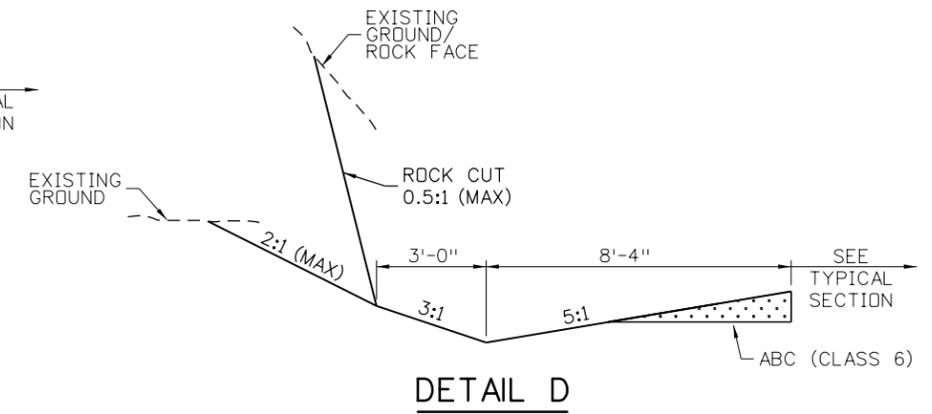
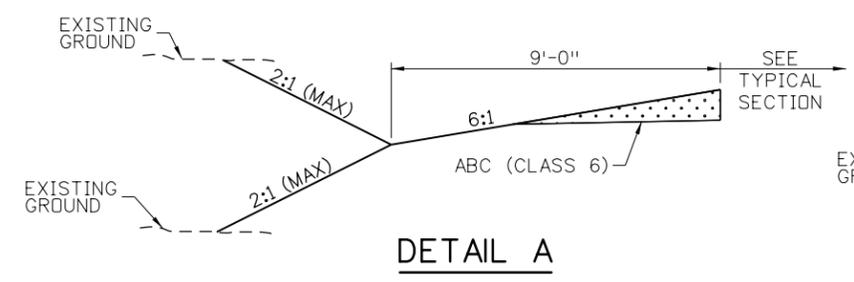
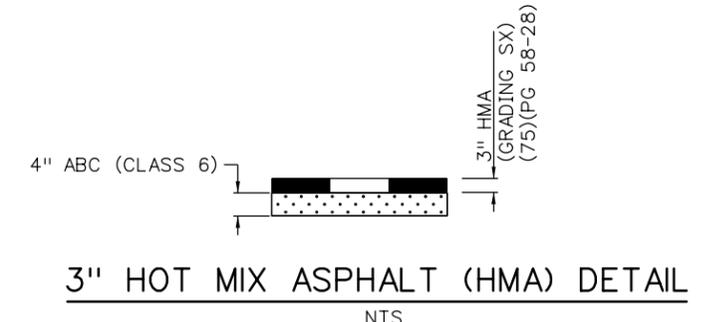
TYPICAL SECTION - FOURMILE CANYON DR

NTS
STA 217+25.00 TO STA 256+54.69

- STA 217+25.00 TO STA 217+43.00 2'-0 1/2" TO 4'-0"
- STA 221+50.00 TO STA 221+70.00 4'-0" TO 19'-0"
- STA 221+70.00 TO STA 223+60.00 19'-0"
- STA 223+60.00 TO STA 223+80.00 19'-0" TO 4'-0"

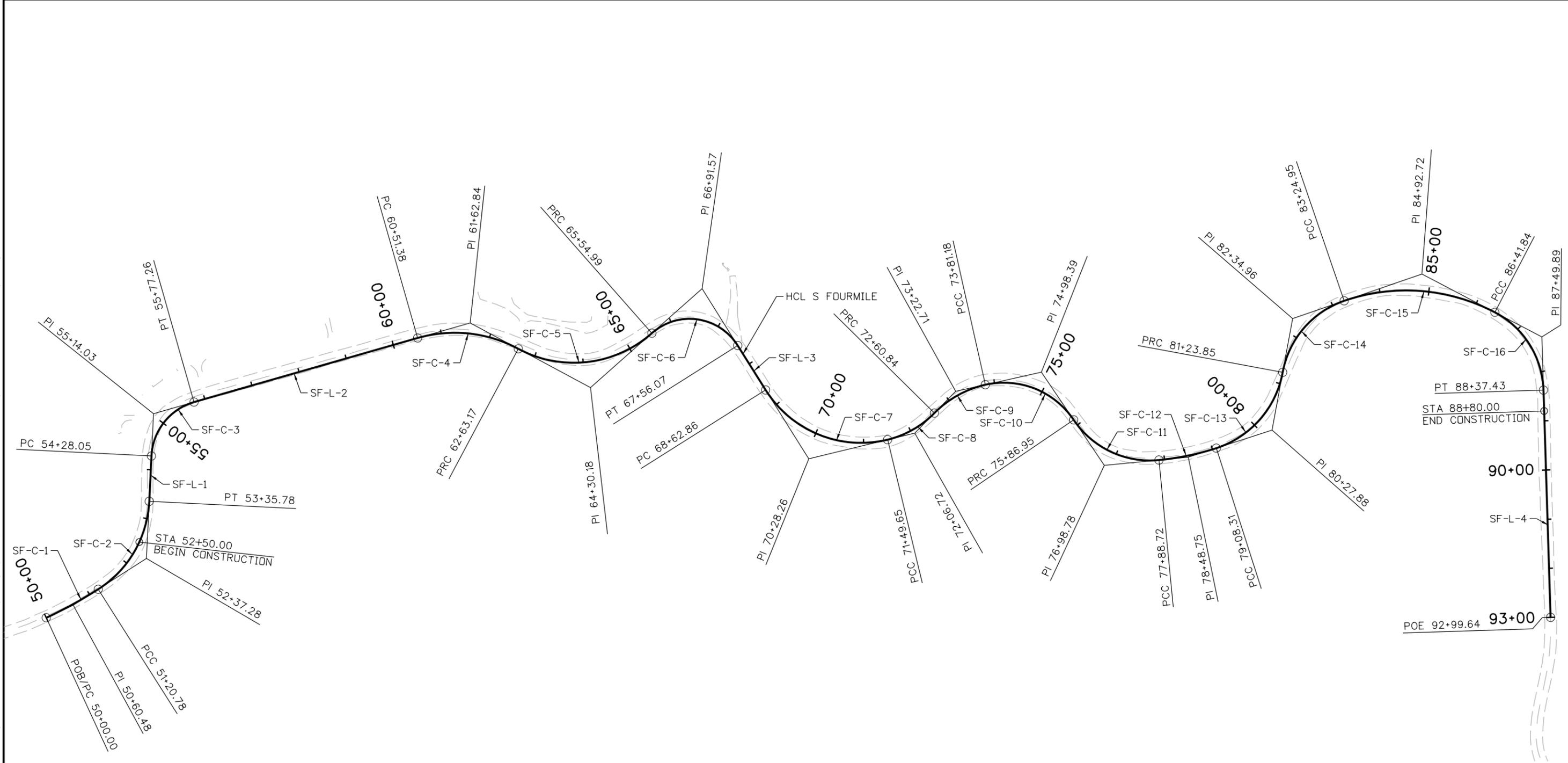
- STA 217+25.00 TO STA 217+43.00 0"-4 3/4" TO 1'-0"
- STA 239+00.00 TO STA 239+20.00 1'-0" TO 16'-0"
- STA 239+20.00 TO STA 240+10.00 16'-0"
- STA 240+10.00 TO STA 240+30.00 16'-0" TO 1'-0"

- NOTES:**
- ROADWAY SUPERELEVATION VARIES, SEE PROFILE SHEETS.
 - END CONDITION DETAILS SHOWN FOR LEFT SIDE. TO BE MIRRORED FOR RIGHT SIDE CONSTRUCTION.



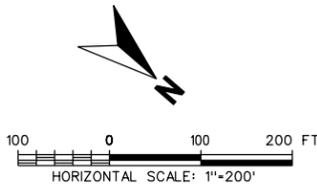
30% SET	<p>CALL UTILITY NOTIFICATION CENTER OF COLORADO CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES</p>	REVISIONS:	NO.	DATE	REVISION DESCRIPTION:	<p>BOULDER COUNTY TRANSPORTATION DEPARTMENT ENGINEERING DIVISION</p> <p>Michael Baker INTERNATIONAL</p>	DESIGNED: RGK	CAD: EAV	CHECKED:	DATE: 05/13/15	<p>FOURMILE CANYON DR (NORTH) TYPICAL SECTIONS ROADWAY</p>
		PROJECT NO: 4043.SEPT12C36	SHEET NO: 13								

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NOTES:

- SEE SHEET GEOMETRIC LAYOUT (2 OF 2) FOR ALIGNMENT/CURVE DATA.



30% SET

CALL UTILITY NOTIFICATION CENTER OF COLORADO
 CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES



REVISIONS:	NO.	DATE	REVISION DESCRIPTION:



BOULDER COUNTY TRANSPORTATION DEPARTMENT
ENGINEERING DIVISION
Michael Baker INTERNATIONAL

DESIGNED:	CAD:	CHECKED:	DATE:
MEM	EAV	SLS	05/13/15

FOURMILE CANYON DR (SOUTH)
GEOMETRIC LAYOUT
(1 OF 2)
 PROJECT NO: 4043.SEPT12C36 SHEET NO: 13

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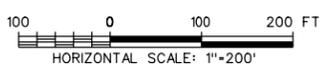
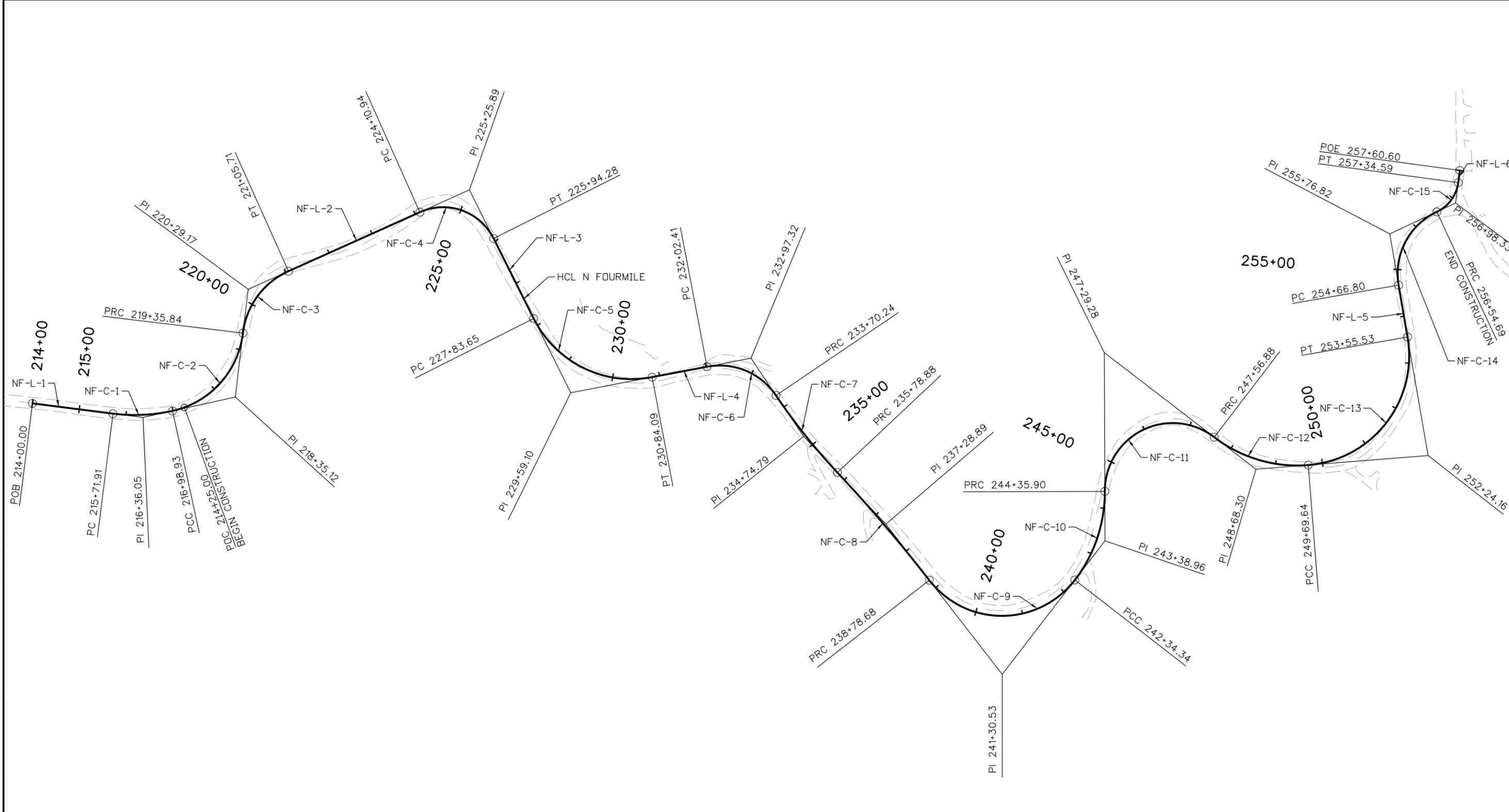
HORIZONTAL ALIGNMENT DATA (HCL S FOURMILE) (SOUTH SECTION OF FOURMILE CANYON DR)											
LINE NUMBER	CURVE NUMBER	POINT TYPE	STATION	NORTHING	EASTING	BEARING	DISTANCE (FEET)	RADIUS (FEET)	LENGTH (FEET)	CURVE DELTA	CURVE DIRECTION
		PDB/PC	50+00.00	252522.52	47602.93						
	SF-C-1	PI	50+60.48	252547.44	47547.82			910.00	120.78	7° 36'17"	LEFT
		PCC	51+20.78	252564.85	47489.90						
	SF-C-2	PI	52+37.28	252598.38	47378.33			225.00	215.00	54° 44'55"	LEFT
		PT	53+35.78	252526.62	47286.56						
SF-L-1						S 51° 58'45" W	92.27				
		PC	54+28.05	252469.78	47213.86						
	SF-C-3	PI	55+14.03	252416.82	47146.13			120.00	149.21	71° 14'37"	RIGHT
		PT	55+77.26	252463.93	47074.20						
SF-L-2						N 56° 46'38" W	474.11				
		PC	60+51.37	252723.70	46677.59						
	SF-C-4	PI	61+62.84	252784.77	46584.34			275.00	211.80	44° 07'38"	RIGHT
		PRC	62+63.17	252893.52	46559.93						
	SF-C-5	PI	64+30.18	253056.48	46523.36			240.00	291.82	69° 40'01"	LEFT
		PRC	65+54.99	253078.81	46357.84						
	SF-C-6	PI	66+91.57	253097.07	46222.49			116.00	201.08	99° 19'02"	RIGHT
		PT	67+56.07	253227.68	46262.42						
SF-L-3						N 17° 00'00" E	106.80				
		PC	68+62.86	253329.82	46293.65						
	SF-C-7	PI	70+28.27	253487.99	46342.00			230.00	286.79	71° 26'30"	LEFT
		PCC	71+49.65	253584.17	46207.45						
	SF-C-8	PI	72+06.72	253617.36	46161.01			200.00	111.19	31° 51'10"	LEFT
		PRC	72+60.84	253621.05	46104.07						
	SF-C-9	PI	73+22.71	253625.05	46042.32			210.00	120.34	32° 50'04"	RIGHT
		PCC	73+81.18	253661.89	45992.61						
	SF-C-10	PI	74+98.39	253731.67	45898.44			172.00	205.77	68° 32'41"	RIGHT
		PRC	75+86.95	253844.84	45928.94						
	SF-C-11	PI	76+98.78	253952.82	45958.05			188.00	201.77	61° 29'35"	LEFT
		PCC	77+88.72	254029.93	45877.05						
	SF-C-12	PI	78+48.75	254071.32	45833.58			560.00	119.59	12° 14'09"	LEFT
		PCC	79+08.31	254102.55	45782.32						
	SF-C-13	PI	80+27.88	254164.77	45680.21			200.00	215.54	61° 44'48"	LEFT
		PRC	81+23.85	254104.28	45577.07						
	SF-C-14	PI	82+34.95	254048.07	45481.23			190.00	201.07	60° 38'00"	RIGHT
		PCC	83+24.92	254104.03	45385.25						
	SF-C-15	PI	84+92.72	254188.55	45240.29			390.00	316.92	46° 33'37"	RIGHT
		PCC	86+41.84	254351.91	45201.98						
	SF-C-16	PI	87+49.89	254457.11	45177.31			185.00	195.59	60° 34'28"	RIGHT
		PT	88+37.43	254530.28	45256.82						
SF-L-4						N 47° 22'39" E	462.21				
		PDE	92+99.64	254843.27	45596.93						

NOTES:

- SEE SHEET GEOMETRIC LAYOUT (1 OF 2) FOR ALIGNMENT GRAPHICS.

30% SET	 CALL UTILITY NOTIFICATION CENTER OF COLORADO CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES	REVISIONS:	NO.	DATE	REVISION DESCRIPTION:	 BOULDER COUNTY TRANSPORTATION DEPARTMENT ENGINEERING DIVISION 	DESIGNED:	CAD:	CHECKED:	DATE:	FOURMILE CANYON DR (SOUTH) GEOMETRIC LAYOUT (2 OF 2) PROJECT NO: 4043.SEPT12C36 SHEET NO: 14
							MEM	EAV	SLS	05/13/15	

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NOTES:
 1. SEE SHEET GEOMETRIC LAYOUT (2 OF 2) FOR ALIGNMENT/CURVE DATA.

30% SET

CALL UTILITY NOTIFICATION CENTER OF COLORADO
 CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES



REVISIONS:	NO.	DATE	REVISION DESCRIPTION:



BOULDER COUNTY TRANSPORTATION DEPARTMENT
ENGINEERING DIVISION
Michael Baker INTERNATIONAL

DESIGNED:	CAD:	CHECKED:	DATE:
RGK	EAV	SLS	05/13/15

FOURMILE CANYON DR (NORTH)
GEOMETRIC LAYOUT
(1 OF 2)
 PROJECT NO: 4043.SEPT12C36 SHEET NO: 15

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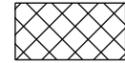
HORIZONTAL ALIGNMENT DATA (HCL N FOURMILE) (NORTH SECTION OF FOURMILE CANYON DR)											
LINE NUMBER	CURVE NUMBER	POINT TYPE	STATION	NORTHING	EASTING	BEARING	DISTANCE (FEET)	RADIUS (FEET)	LENGTH (FEET)	CURVE DELTA	CURVE DIRECTION
		POB	214+00.00	259638.99	38971.79						
NF-L-1						N 33° 04' 07" W	171.91				
		PC	215+71.91	259783.06	38877.99						
	NF-C-1	PI	216+36.05	259836.81	38842.99			370.00	127.02	19° 40' 09"	LEFT
		PCC	216+98.93	259875.64	38791.94						
	NF-C-2	PI	218+35.12	259958.10	38683.56			192.00	236.90	70° 41' 44"	LEFT
		PRC	219+35.84	259883.06	38569.91						
	NF-C-3	PI	220+29.17	259831.64	38492.02			165.00	169.87	58° 59' 18"	RIGHT
		PT	221+05.71	259871.90	38407.82						
NF-L-2						N 64° 26' 42" W	305.23				
		PC	224+10.94	260003.57	38132.45						
	NF-C-4	PI	225+25.89	260053.16	38028.75			120.00	183.34	87° 32' 17"	RIGHT
		PT	225+94.28	260158.90	38073.83						
NF-L-3						N 23° 05' 35" E	189.38				
		PC	227+83.65	260333.10	38148.11						
	NF-C-5	PI	229+59.10	260494.49	38216.93			232.00	300.43	74° 11' 46"	LEFT
		PT	230+84.09	260604.66	38080.38						
NF-L-4						N 51° 06' 11" W	118.33				
		PC	232+02.41	260678.95	37988.29						
	NF-C-6	PI	232+97.32	260738.55	37914.42			144.00	167.83	66° 46' 44"	RIGHT
		PRC	233+70.24	260829.93	37940.07						
	NF-C-7	PI	234+74.79	260930.59	37968.31			1305.00	208.64	9° 09' 37"	LEFT
		PRC	235+78.88	261034.45	37980.18						
	NF-C-8	PI	237+28.89	261183.49	37997.20			3200.00	299.80	5° 22' 05"	RIGHT
		PRC	238+78.68	261330.29	38028.09						
	NF-C-9	PI	241+30.53	261576.74	38079.95			195.00	355.66	104° 30' 04"	LEFT
		PCC	242+34.34	261565.24	37828.36						
	NF-C-10	PI	243+38.96	261560.47	37723.86			305.00	201.56	37° 51' 49"	LEFT
		PRC	244+35.90	261492.55	37644.29						
	NF-C-11	PI	247+29.28	261302.09	37421.13			144.00	320.98	127° 42' 51"	RIGHT
		PRC	247+56.88	261595.13	37406.97						
	NF-C-12	PI	248+68.30	261706.42	37401.59			290.00	212.76	42° 02' 11"	LEFT
		PCC	249+69.64	261785.49	37323.07						
	NF-C-13	PI	252+24.16	261966.08	37143.72			232.00	385.89	95° 18' 02"	LEFT
		PT	253+55.53	261770.81	36980.47						
NF-L-5						S 39° 53' 46" W	111.27				
		PC	254+66.80	261685.44	36909.10						
	NF-C-14	PI	255+76.82	261601.03	36838.54			144.00	187.89	74° 45' 28"	RIGHT
		PRC	256+54.69	261646.92	36738.56						
	NF-C-15	PI	256+98.33	261665.13	36698.89			80.00	79.90	57° 13' 35"	LEFT
		PT	257+34.59	261641.63	36662.12						
NF-L-6						S 57° 25' 39" W	26.01				
		PDE	257+60.60	261627.63	36640.20						

NOTES:

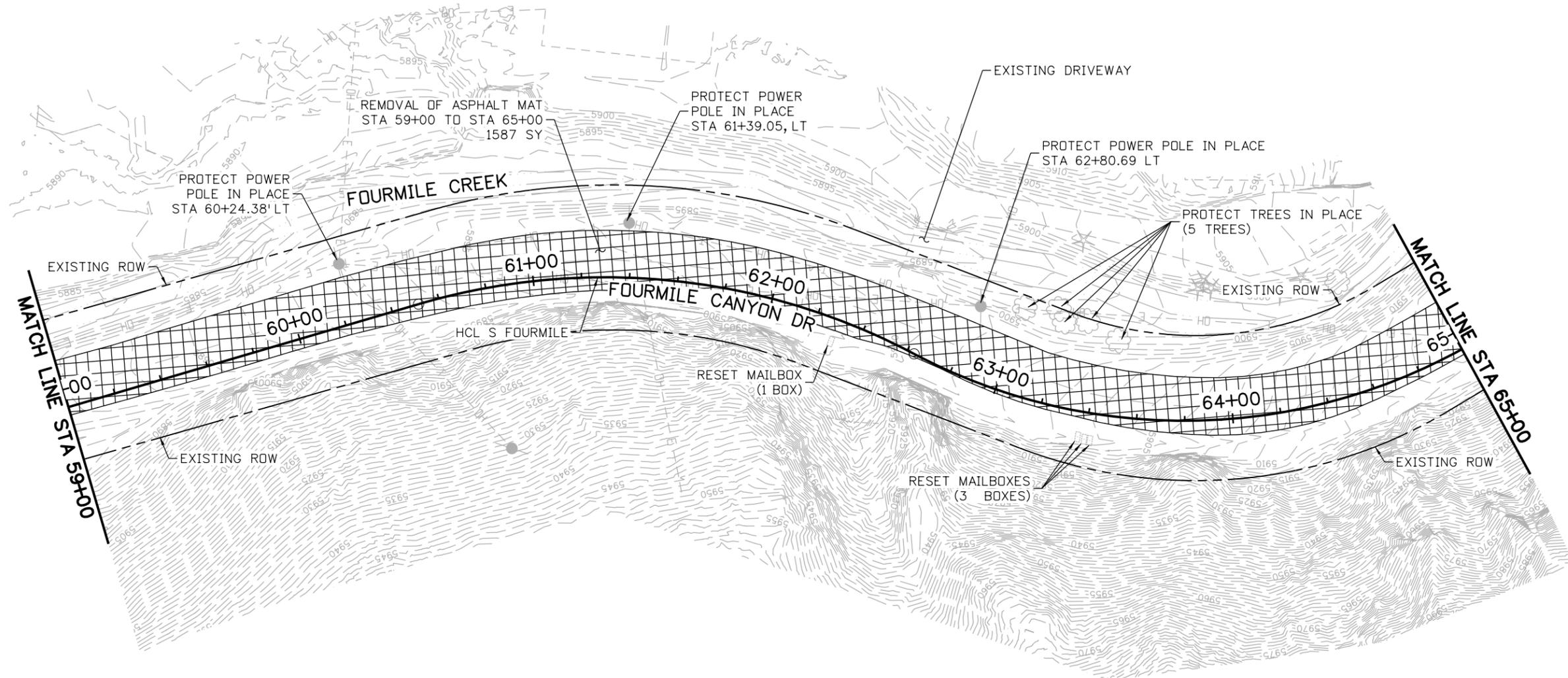
- SEE SHEET GEOMETRIC LAYOUT (1 OF 2) FOR ALIGNMENT GRAPHICS.

30% SET	 CALL UTILITY NOTIFICATION CENTER OF COLORADO CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES	REVISIONS:	NO.	DATE	REVISION DESCRIPTION:	 BOULDER COUNTY TRANSPORTATION DEPARTMENT ENGINEERING DIVISION 	DESIGNED:	CAD:	CHECKED:	DATE:	FOURMILE CANYON DR (NORTH) GEOMETRIC LAYOUT (2 OF 2)
							RGK	EAV	SLS	05/13/15	

LEGEND



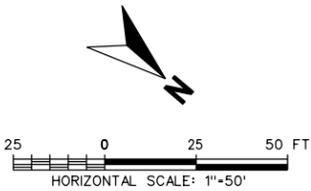
REMOVAL OF ASPHALT MAT



NOTES:

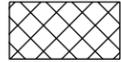
1. CONTRACTOR TO KEEP ALL DRIVE ENTRANCES & BRIDGES PROTECTED, MAINTAINED & OPEN DURING CONSTRUCTION.
2. REMOVAL OF DRAINAGE FEATURES ARE INCLUDED IN THE ROADWAY REMOVAL SHEETS. REMOVAL OF PIPES SHALL INCLUDE ALL RELATED END SECTIONS, HEADWALLS AND APPURTENANCES.

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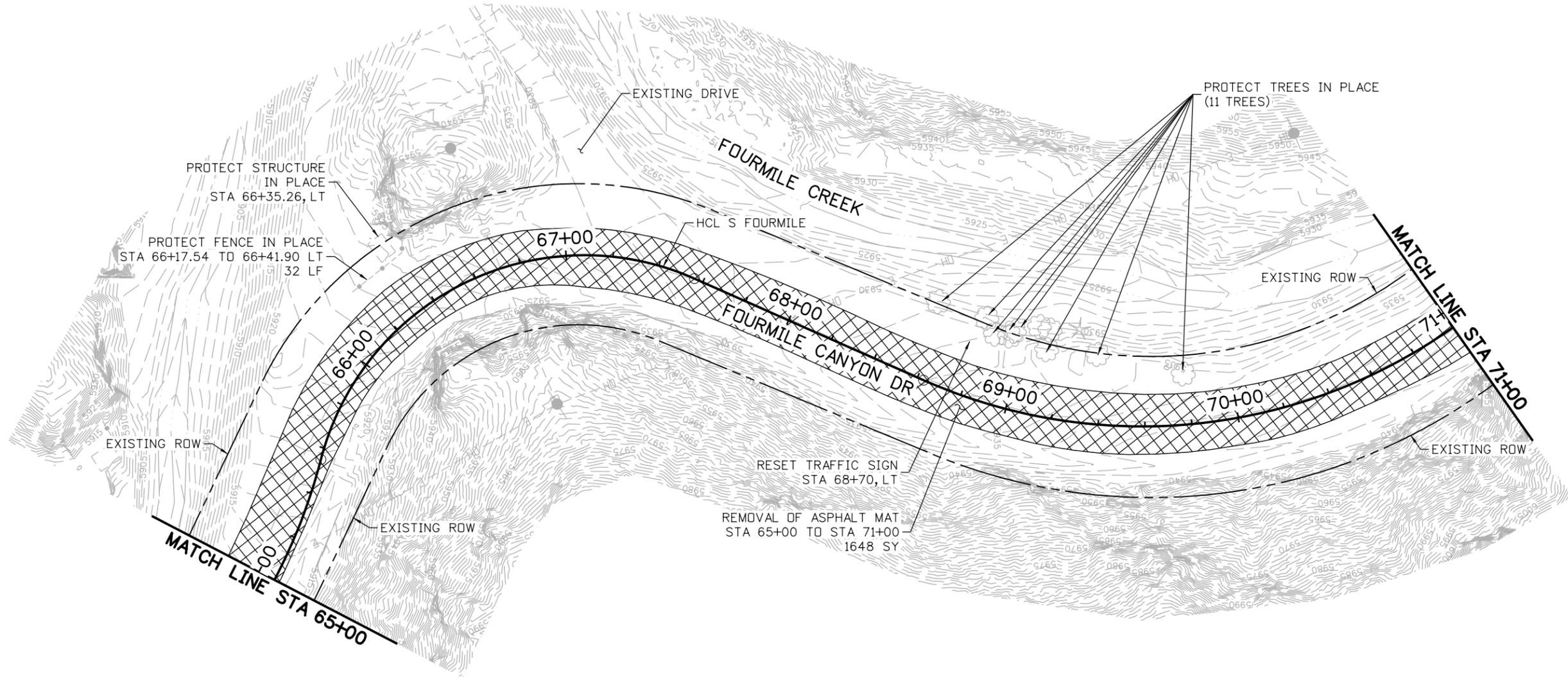


30% SET	<p style="font-size: 8px; margin: 0;">CALL UTILITY NOTIFICATION CENTER OF COLORADO CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES</p>	REVISIONS:	NO.	DATE	REVISION DESCRIPTION:	<p style="font-size: 8px; margin: 0;">BOULDER COUNTY TRANSPORTATION DEPARTMENT ENGINEERING DIVISION</p> <p style="font-size: 8px; margin: 0;">Michael Baker INTERNATIONAL</p>	DESIGNED:	CAD:	CHECKED:	DATE:	<p style="font-size: 8px; margin: 0;">FOURMILE CANYON DR (SOUTH) ROADWAY REMOVALS (2 OF 6)</p> <p style="font-size: 8px; margin: 0;">PROJECT NO: 4043.SEPT12C36 SHEET NO: 18</p>
		MEM	EAV	SLS	05/13/15						

LEGEND



REMOVAL OF ASPHALT MAT



NOTES:

1. CONTRACTOR TO KEEP ALL DRIVE ENTRANCES & BRIDGES PROTECTED, MAINTAINED & OPEN DURING CONSTRUCTION.
2. REMOVAL OF DRAINAGE FEATURES ARE INCLUDED IN THE ROADWAY REMOVAL SHEETS. REMOVAL OF PIPES SHALL INCLUDE ALL RELATED END SECTIONS, HEADWALLS AND APPURTENANCES.



30% SET



CALL UTILITY NOTIFICATION CENTER OF COLORADO
CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES

REVISIONS:	NO.	DATE	REVISION DESCRIPTION:



BOULDER COUNTY TRANSPORTATION DEPARTMENT
ENGINEERING DIVISION

Michael Baker INTERNATIONAL

DESIGNED:	CAD:	CHECKED:	DATE:
MEM	EAV	SLS	05/13/15

FOURMILE CANYON DR (SOUTH)
ROADWAY REMOVALS
(3 OF 6)

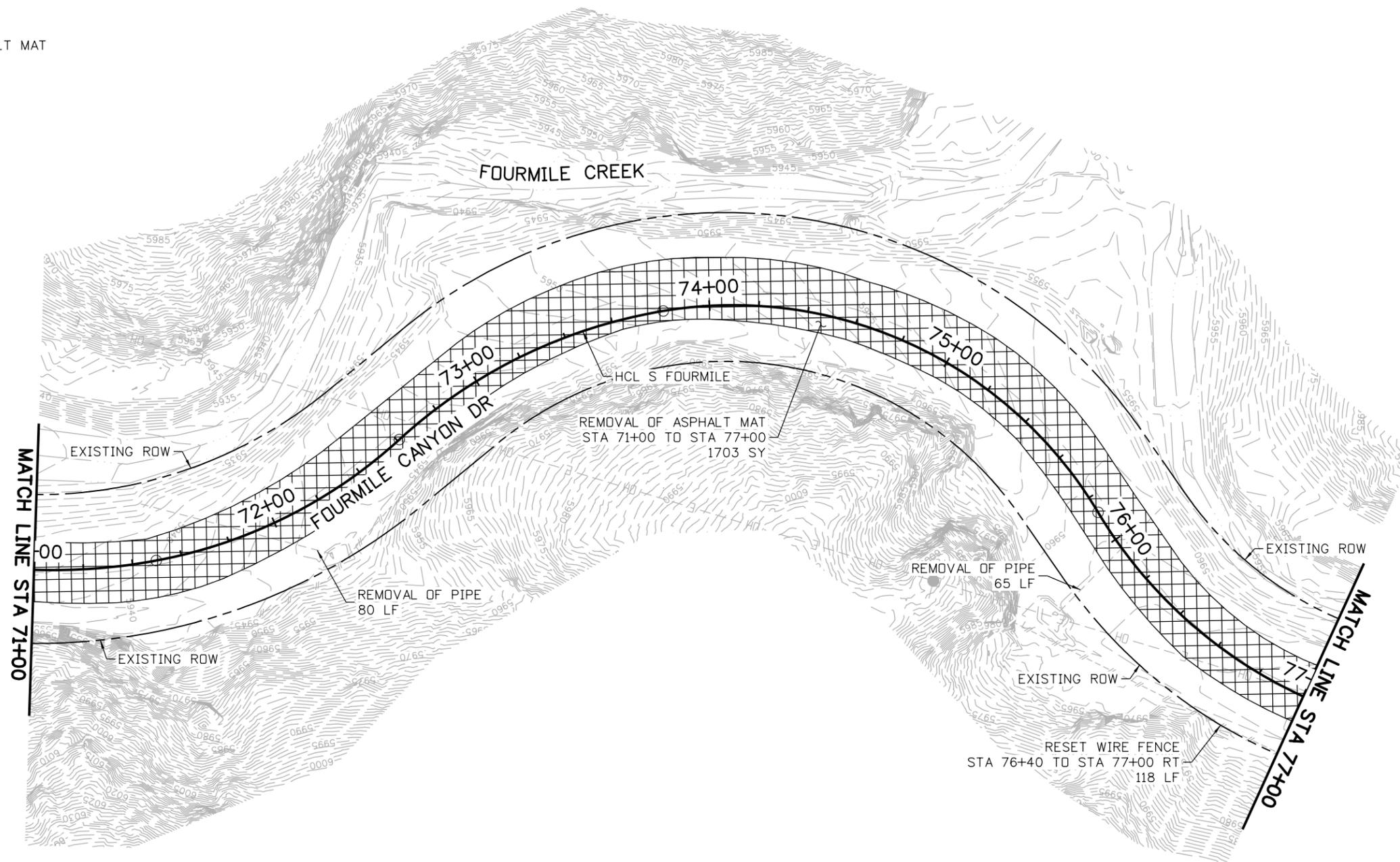
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LEGEND



REMOVAL OF ASPHALT MAT



NOTES:

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30% SET



CALL UTILITY NOTIFICATION CENTER OF COLORADO
CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES

REVISIONS:	NO.	DATE	REVISION DESCRIPTION:



BOULDER COUNTY TRANSPORTATION DEPARTMENT
ENGINEERING DIVISION
Michael Baker INTERNATIONAL

DESIGNED: MEM	CAD: EAV	CHECKED: SLS	DATE: 05/13/15
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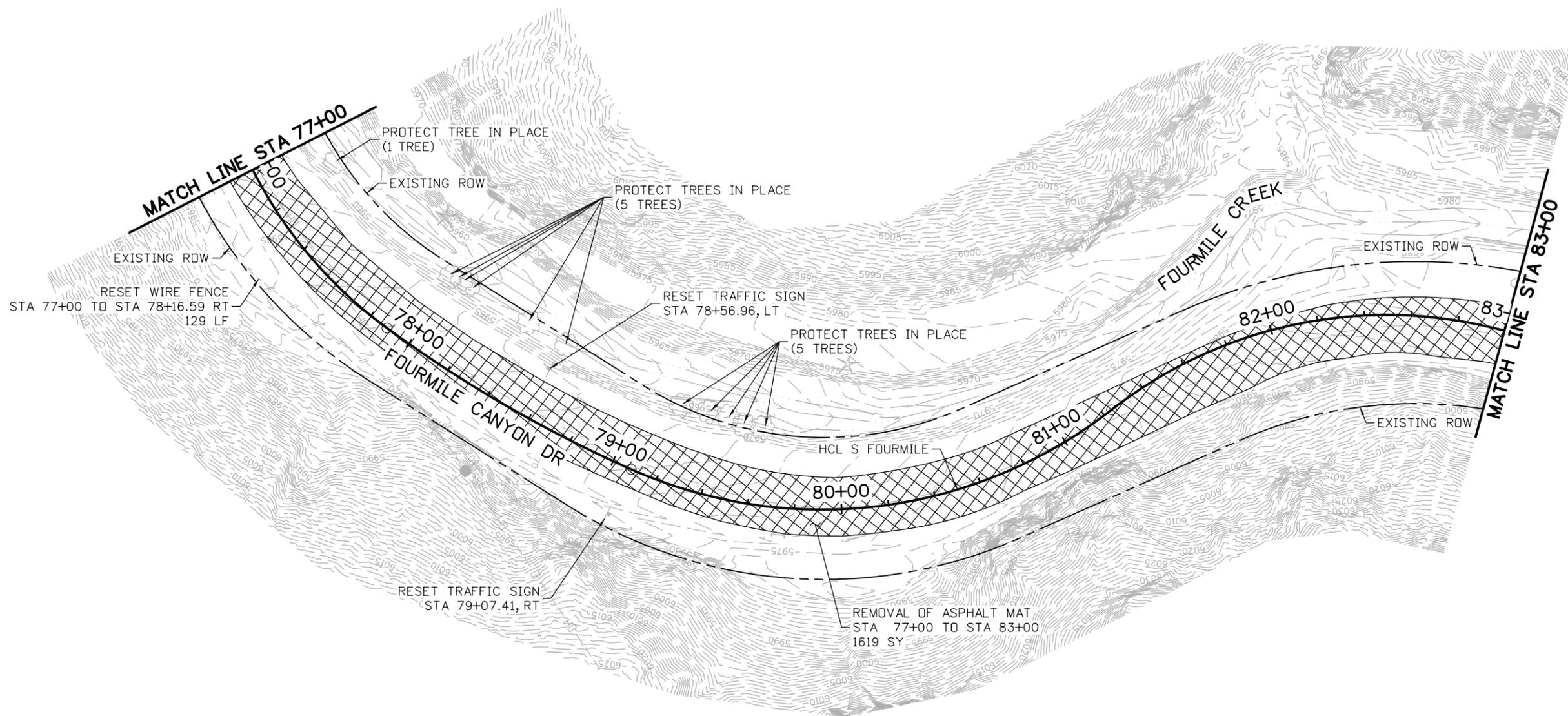
FOURMILE CANYON DR (SOUTH)
ROADWAY REMOVALS
(4 OF 6)

PROJECT NO: 4043.SEPT12C36 SHEET NO: 20

LEGEND

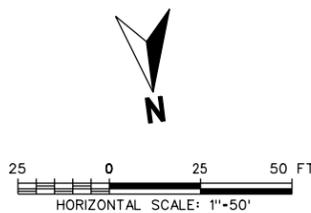


REMOVAL OF ASPHALT MAT



NOTES:

1. CONTRACTOR TO KEEP ALL DRIVE ENTRANCES & BRIDGES PROTECTED, MAINTAINED & OPEN DURING CONSTRUCTION.
2. REMOVAL OF DRAINAGE FEATURES ARE INCLUDED IN THE ROADWAY REMOVAL SHEETS. REMOVAL OF PIPES SHALL INCLUDE ALL RELATED END SECTIONS, HEADWALLS AND APPURTENANCES.



30% SET

CALL UTILITY NOTIFICATION CENTER OF COLORADO
811
 CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES

NO.	DATE	REVISION DESCRIPTION:

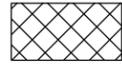
BOULDER COUNTY TRANSPORTATION DEPARTMENT
ENGINEERING DIVISION
Michael Baker INTERNATIONAL

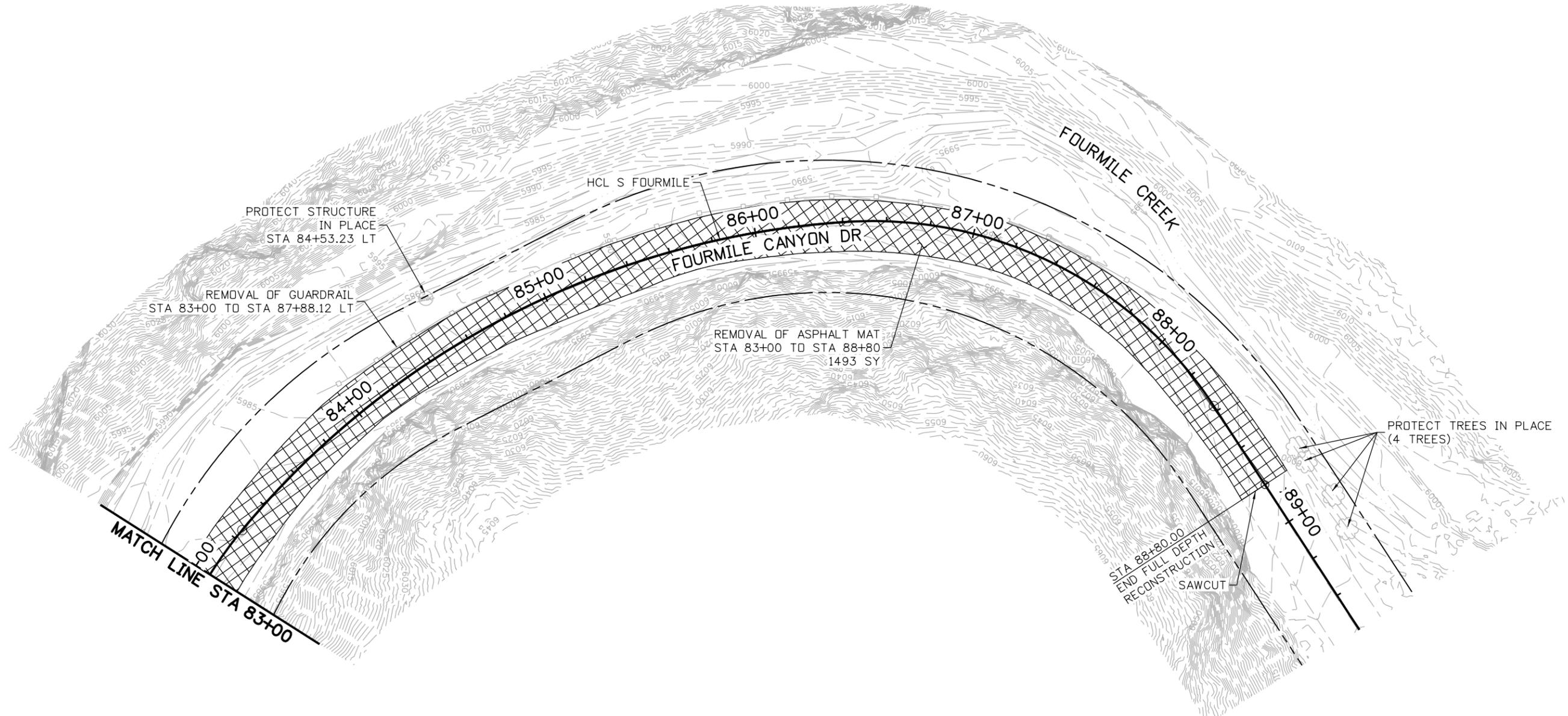
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FOURMILE CANYON DR (SOUTH) ROADWAY REMOVALS (5 OF 6)
 PROJECT NO: 4043.SEPT12C36 SHEET NO: 21

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LEGEND

 REMOVAL OF ASPHALT MAT



NOTES:

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30% SET



CALL UTILITY NOTIFICATION CENTER OF COLORADO
CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES

REVISIONS:	NO.	DATE	REVISION DESCRIPTION:



BOULDER COUNTY TRANSPORTATION DEPARTMENT
ENGINEERING DIVISION
Michael Baker INTERNATIONAL

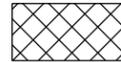
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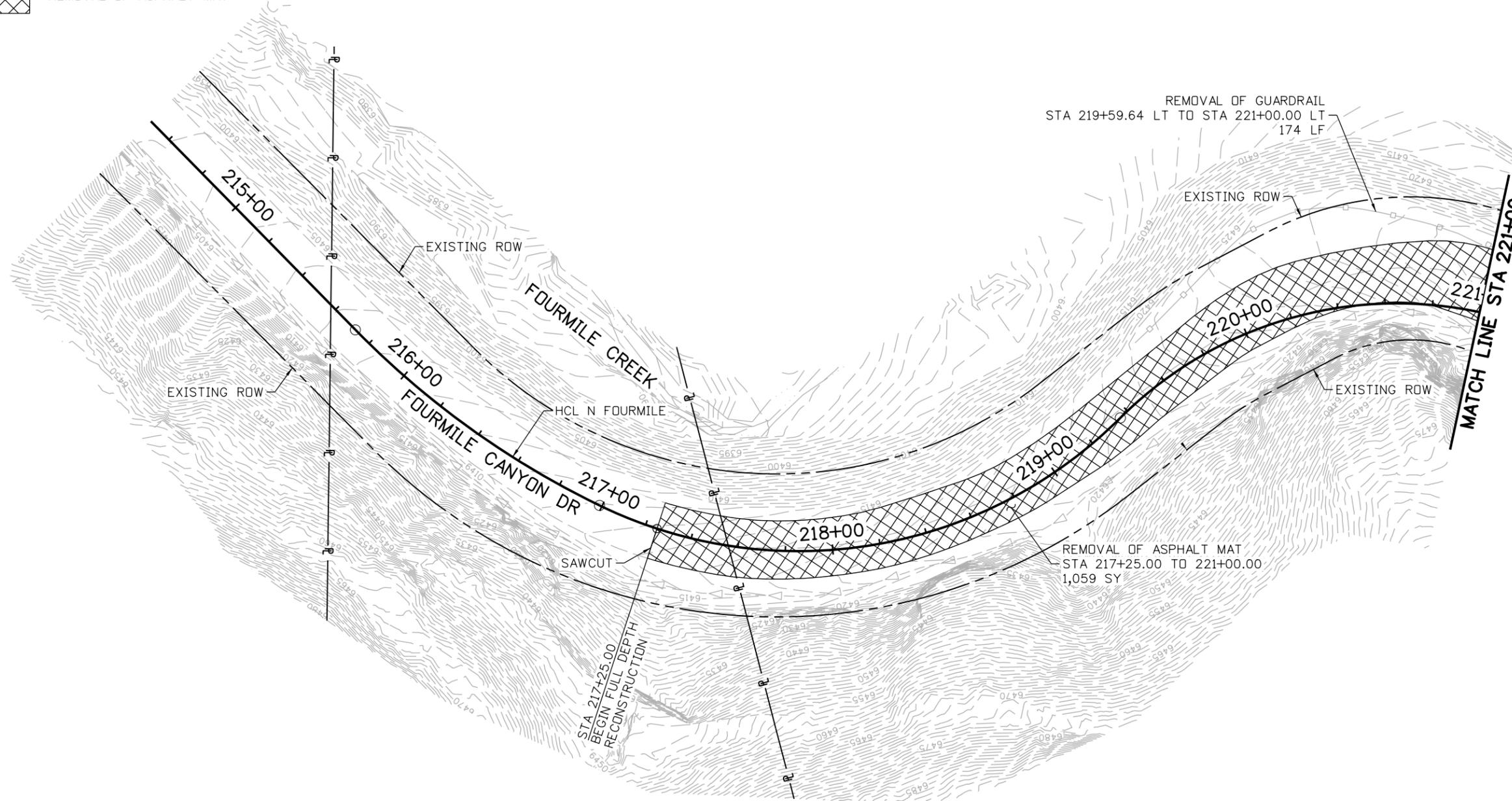
FOURMILE CANYON DR (SOUTH)
ROADWAY REMOVALS
(6 OF 6)

PROJECT NO: 4043.SEPT12C36 SHEET NO: 22

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LEGEND

 REMOVAL OF ASPHALT MAT



NOTES:

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30% SET

CALL UTILITY NOTIFICATION CENTER OF COLORADO
811
 CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES

REVISIONS:	NO.	DATE	REVISION DESCRIPTION:

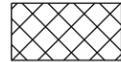
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ENGINEERING DIVISION

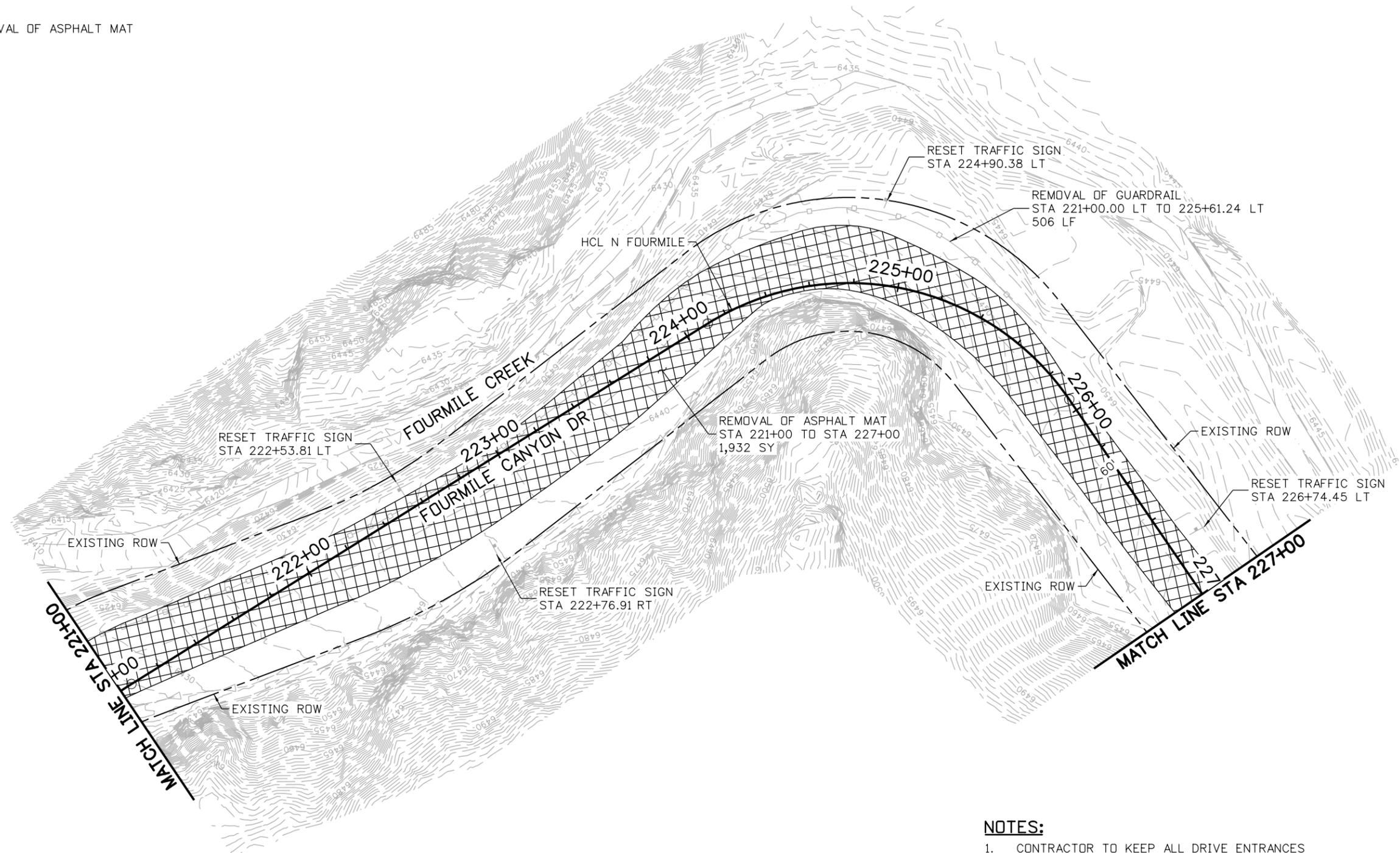
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FOURMILE CANYON DR (NORTH) ROADWAY REMOVALS (1 OF 7)
 PROJECT NO: 4043.SEPT12C36 SHEET NO: 23

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LEGEND

 REMOVAL OF ASPHALT MAT



NOTES:

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30% SET

CALL UTILITY NOTIFICATION CENTER OF COLORADO
 CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES



REVISIONS:	NO.	DATE	REVISION DESCRIPTION:



BOULDER COUNTY TRANSPORTATION DEPARTMENT
ENGINEERING DIVISION
Michael Baker INTERNATIONAL

DESIGNED:	CAD:	CHECKED:	DATE:
RGK	EAV	SLS	05/13/15

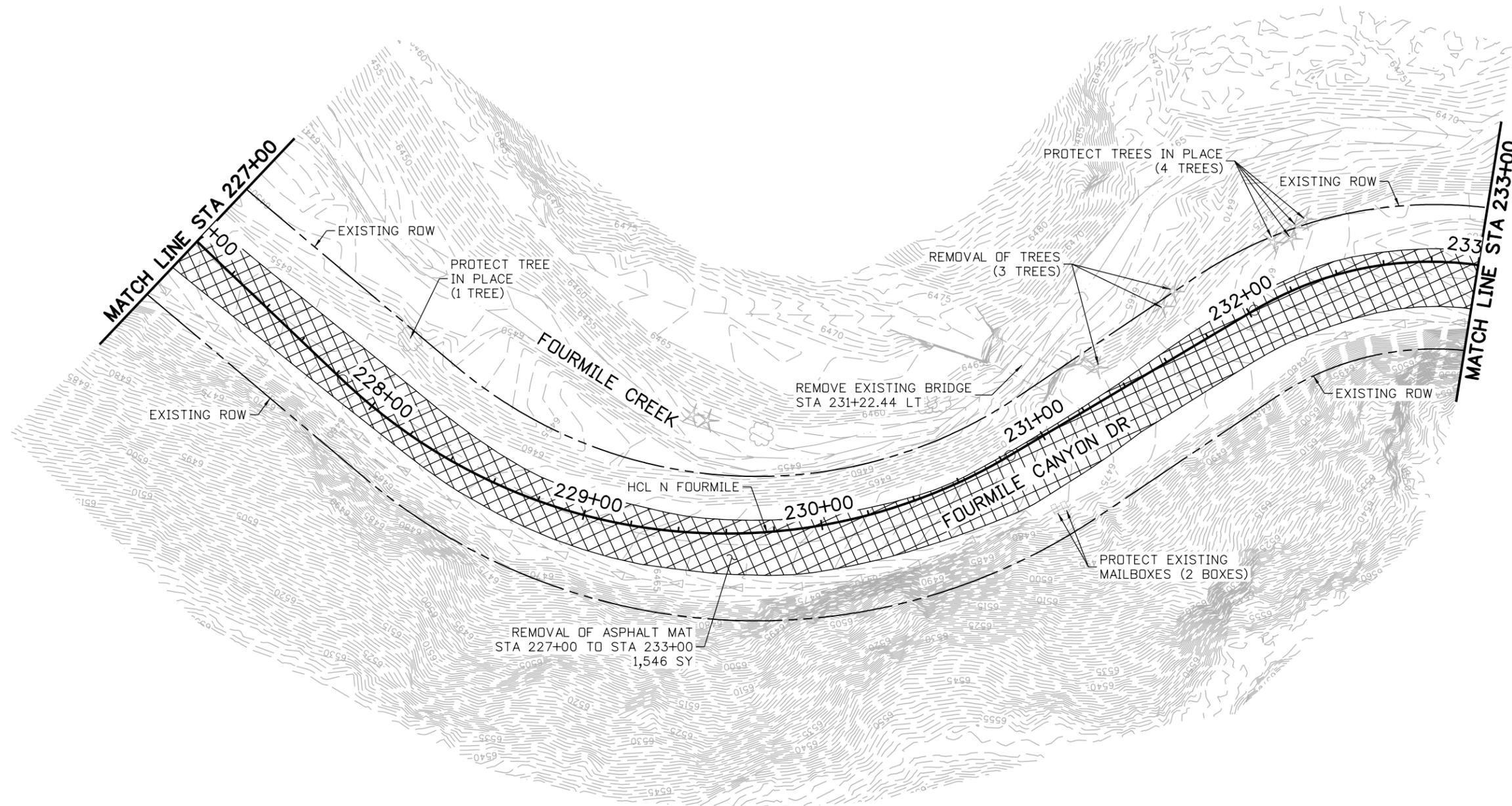
FOURMILE CANYON DR (NORTH)
ROADWAY REMOVALS
(2 OF 7)
 PROJECT NO: 4043.SEPT12C36 SHEET NO: 24

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LEGEND



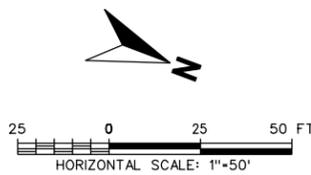
REMOVAL OF ASPHALT MAT



NOTES:

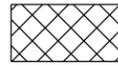
1. CONTRACTOR TO KEEP ALL DRIVE ENTRANCES & BRIDGES PROTECTED, MAINTAINED & OPEN DURING CONSTRUCTION.
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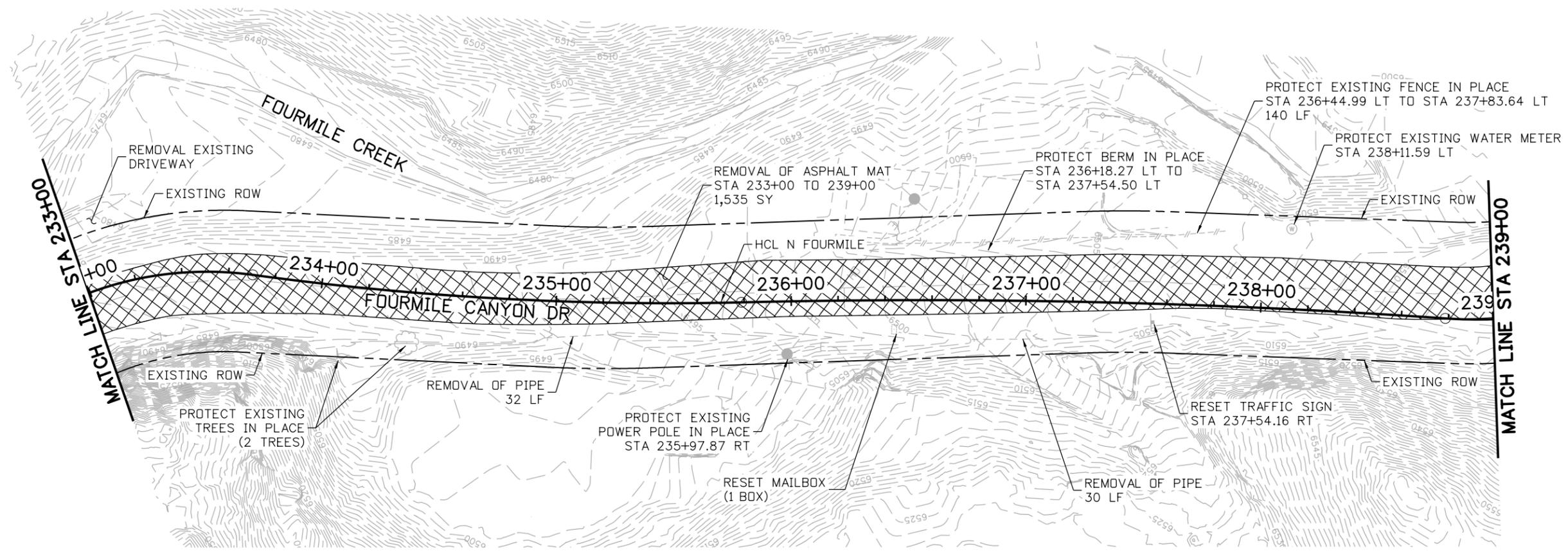


30% SET	<p style="font-size: 8px; margin: 0;">CALL UTILITY NOTIFICATION CENTER OF COLORADO CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES</p>	NO.	DATE	REVISION DESCRIPTION:	<p style="font-size: 8px; margin: 0;">BOULDER COUNTY TRANSPORTATION DEPARTMENT ENGINEERING DIVISION</p> <p style="font-size: 8px; margin: 0;">Michael Baker INTERNATIONAL</p>	DESIGNED:	CAD:	CHECKED:	DATE:	<p style="font-size: 8px; margin: 0;">FOURMILE CANYON DR (NORTH) ROADWAY REMOVALS (3 OF 7)</p> <p style="font-size: 8px; margin: 0;">PROJECT NO: 4043.SEPT12C36 SHEET NO: 25</p>
						RGK	EAV	SLS	05/13/15	

LEGEND

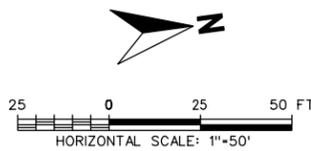


REMOVAL OF ASPHALT MAT



NOTES:

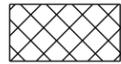
1. CONTRACTOR TO KEEP ALL DRIVE ENTRANCES & BRIDGES PROTECTED, MAINTAINED & OPEN DURING CONSTRUCTION.
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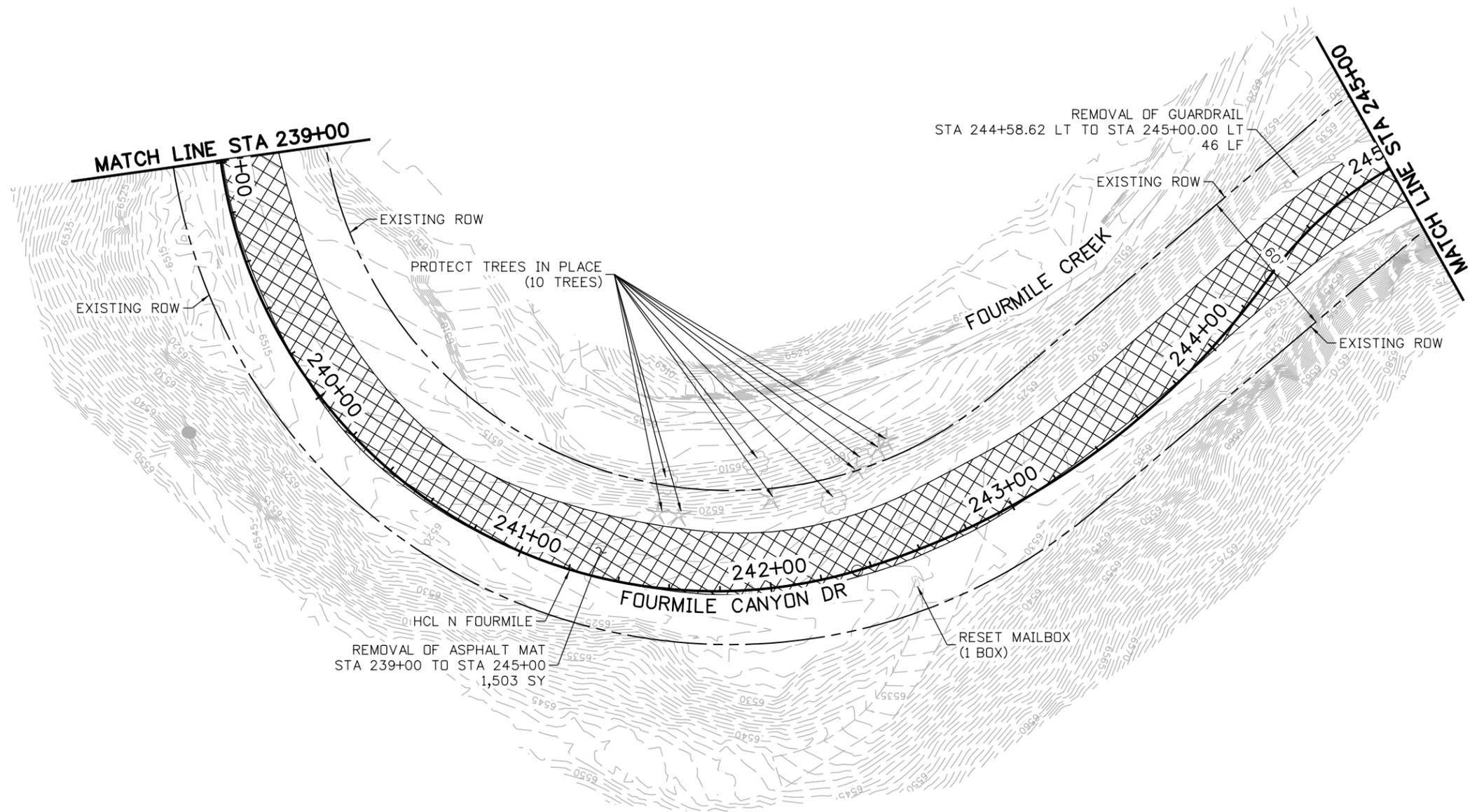
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						<small>RGK</small>	<small>EAV</small>	<small>SLS</small>	<small>05/13/15</small>	

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LEGEND



REMOVAL OF ASPHALT MAT

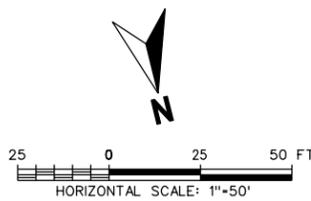


REMOVAL OF ASPHALT MAT
STA 239+00 TO STA 245+00
1,503 SY

REMOVAL OF GUARDRAIL
STA 244+58.62 LT TO STA 245+00.00 LT
46 LF

NOTES:

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30% SET

CALL UTILITY NOTIFICATION CENTER OF COLORADO
CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES

REVISIONS:	NO.	DATE	REVISION DESCRIPTION:

BOULDER COUNTY TRANSPORTATION DEPARTMENT
ENGINEERING DIVISION

DESIGNED: **RGK** CAD: **EAV** CHECKED: **SLS** DATE: **05/13/15**

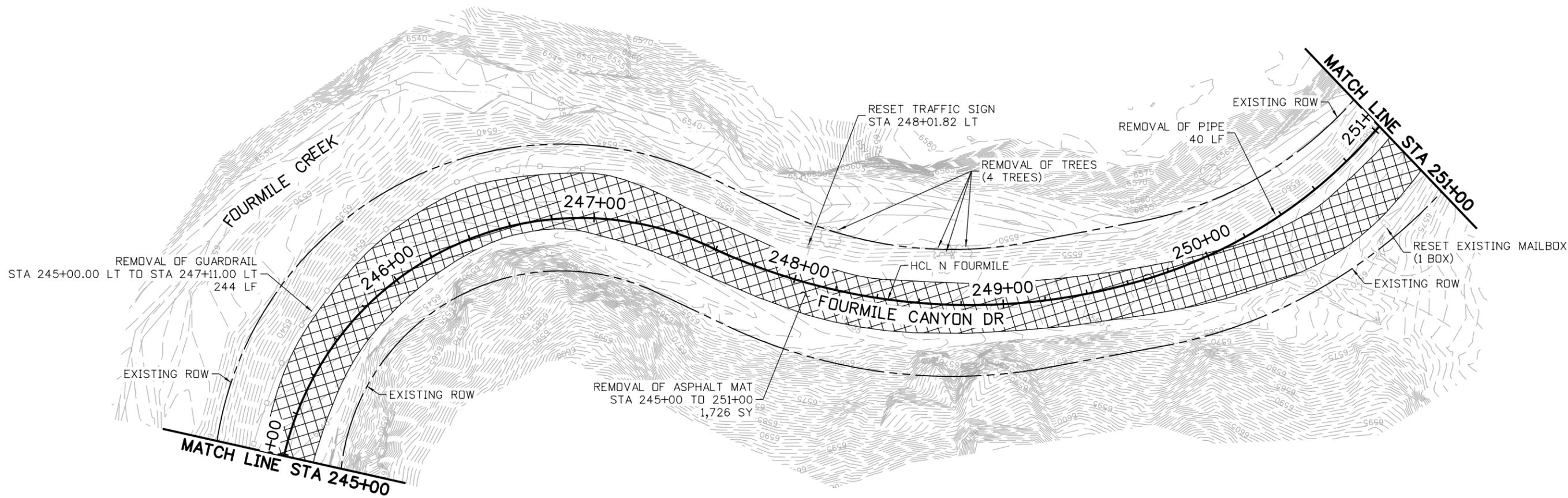
FOURMILE CANYON DR (NORTH)
ROADWAY REMOVALS
(5 OF 7)

PROJECT NO: 4043.SEPT12C36 SHEET NO: 27

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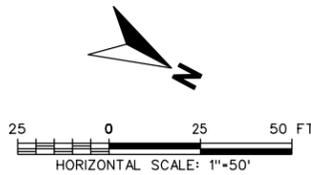
LEGEND

 REMOVAL OF ASPHALT MAT



NOTES:

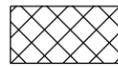
1. CONTRACTOR TO KEEP ALL DRIVE ENTRANCES & BRIDGES PROTECTED, MAINTAINED & OPEN DURING CONSTRUCTION.
2. REMOVAL OF DRAINAGE FEATURES ARE INCLUDED IN THE ROADWAY REMOVAL SHEETS. REMOVAL OF PIPES SHALL INCLUDE ALL RELATED END SECTIONS, HEADWALLS AND APPURTENANCES.



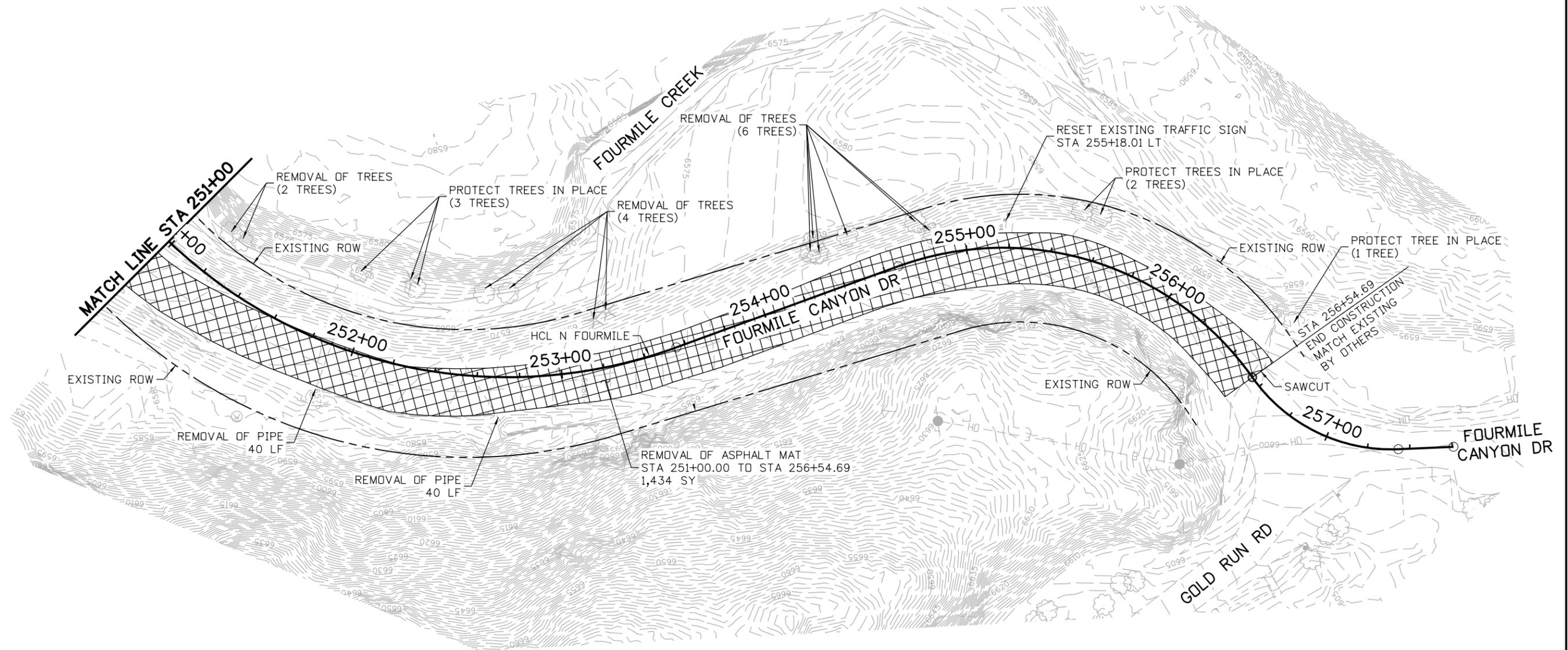
30% SET	 <p>CALL UTILITY NOTIFICATION CENTER OF COLORADO CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES</p>	NO.	DATE	REVISION DESCRIPTION:	 <p>BOULDER COUNTY TRANSPORTATION DEPARTMENT ENGINEERING DIVISION</p> <p>Michael Baker INTERNATIONAL</p>	DESIGNED:	CAD:	CHECKED:	DATE:	<p>FOURMILE CANYON DR (NORTH) ROADWAY REMOVALS (6 OF 7)</p> <p>PROJECT NO: 4043.SEPT12C36 SHEET NO: 28</p>
						<p>RGK</p> <p>EAV</p> <p>SLS</p> <p>05/13/15</p>				

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LEGEND



REMOVAL OF ASPHALT MAT



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30% SET

CALL UTILITY NOTIFICATION CENTER OF COLORADO
 CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES

REVISIONS:	NO.	DATE	REVISION DESCRIPTION:

BOULDER COUNTY TRANSPORTATION DEPARTMENT
 **ENGINEERING DIVISION**
 **Michael Baker INTERNATIONAL**

FOURMILE CANYON DR (NORTH) ROADWAY REMOVALS (7 OF 7)
 PROJECT NO: 4043.SEPT12C36 SHEET NO: 29

DESIGNED:	CAD:	CHECKED:	DATE:
RGK	EAV	SLS	05/13/15

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