

BLACK ARROYO TRAIL EXTENSION
ELLISON TO HUNTER'S RUN PARK

CONSTRUCTION PLANS
ALBUQUERQUE, NEW MEXICO



INDEX OF SHEETS

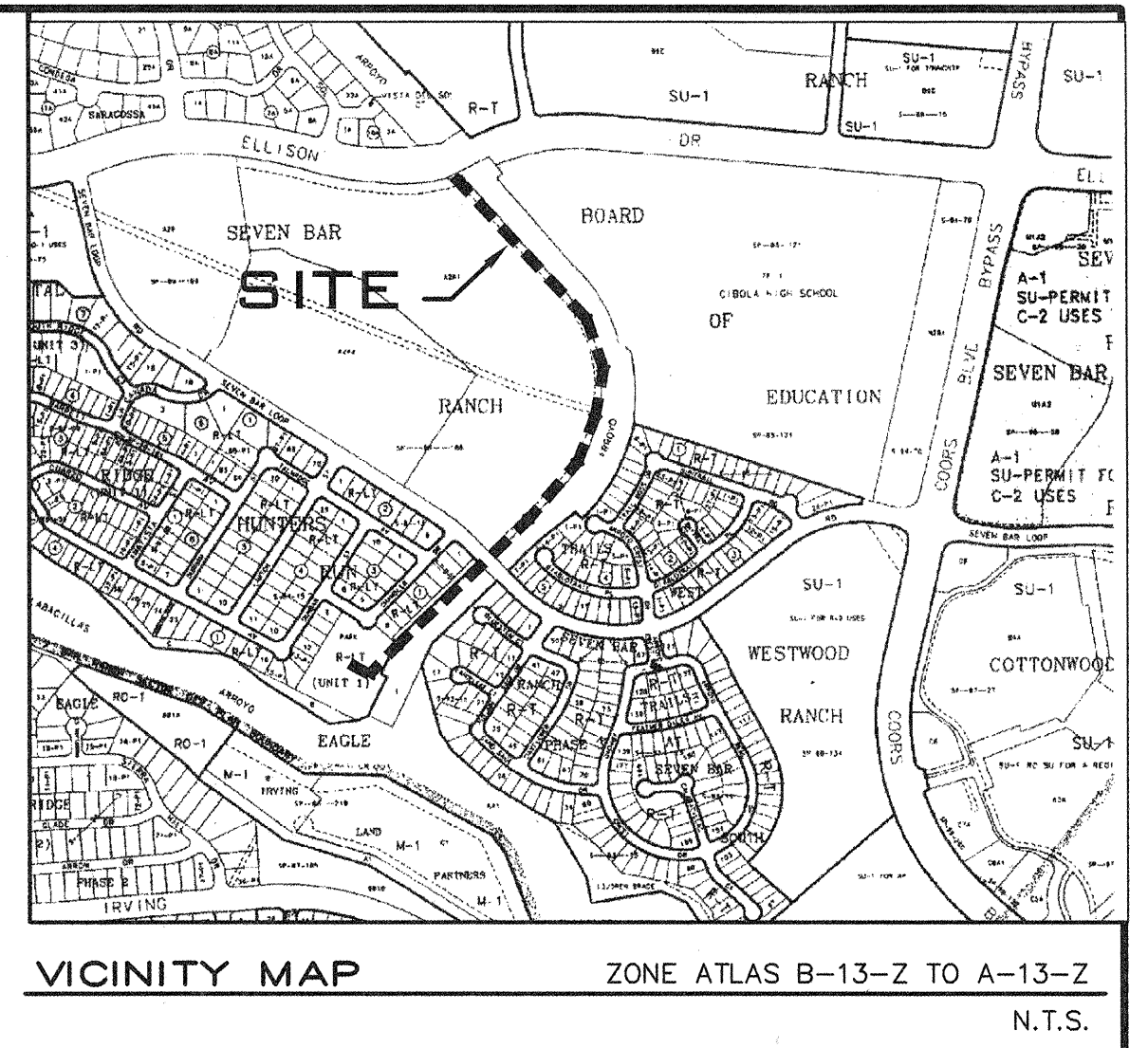
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FOR INFORMATION ONLY

I, Gary Werner, N.M.P.E., CERTIFY THAT
THE DRAWING OF THE "AS-BUILT" DIMENSIONS
WAS DONE UNDER MY SUPERVISION.
Gary Werner

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Environmental Sciences Albuquerque, New Mexico 87109
Water Resources E-mail: rti@nm.net
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REV.	SHEETS	CITY ENGINEER	DATE	USER DEPARTMENT	DATE	USER DEPARTMENT	DATE
ENGINEERS STAMP & SIGNATURE		APPROVALS	ENGINEER	DATE	APPROVED FOR CONSTRUCTION		
		DRC CHAIRMAN	<i>[Signature]</i>	5-14-02	<i>[Signature]</i> 5/14/02 CITY ENGINEER DATE		
		TRANSPORTATION	<i>[Signature]</i>	5/7/02			
		WATER/WASTEWATER	<i>[Signature]</i>	5/3/02			
		HYDROLOGY	<i>[Signature]</i>	5/9/02			
		CONSTR. MANAGEMENT	<i>[Signature]</i>	5/14/02			
CITY PROJECT NO.		644604		SHEET 1 OF 15			



GENERAL NOTES

GOVERNING SPECIFICATIONS

- 1) ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE (COA) STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986 EDITION (INCLUDING MOST RECENT UPDATES).

MONUMENTATION INFORMATION

- 2) INFORMATION PERTAINING TO THE MONUMENTATION FOR THIS PROJECT MAY BE OBTAINED FROM THE CITY OF ALBO. PUBLIC WORKS DEPT, SURVEY SECTION.
- 3) THE CONTRACTOR SHALL NOTIFY THE ENGINEER NOT LESS THAN SEVEN (7) DAYS PRIOR TO STARTING WORK IN ORDER THAT THE ENGINEER MAY TAKE NECESSARY MEASURES TO INSURE THE PRESERVATION OF SURVEY MONUMENTS. CONTRACTOR SHALL NOT DISTURB PERMANENT SURVEY MONUMENTS WITHOUT THE CONSENT OF THE ENGINEER AND SHALL NOTIFY THE ENGINEER AND BEAR THE EXPENSE OF REPLACING ANY THAT MAY BE DISTURBED WITHOUT PERMISSION. REPLACEMENT SHALL BE DONE ONLY BY THE CITY SURVEYOR. WHEN A CHANGE IS MADE IN THE FINISHED ELEVATIONS OF THE PAVEMENT OF ANY ROADWAY IN WHICH A PERMANENT SURVEY MONUMENT IS LOCATED, CONTRACTOR SHALL, AT HIS OWN EXPENSE, ADJUST THE MONUMENT OF ANY COVER TO THE NEW GRADE UNLESS OTHERWISE SPECIFIED, REFER TO SECTION 4.4 OF THE GENERAL CONDITIONS OF THE STANDARD SPECIFICATIONS

EARTHWORK

- 4) THE EARTHWORK QUANTITIES ARE BASED ON FINAL VOLUMES COMPACTED IN PLACE. ON-SITE EXCAVATION AND BACKFILL QUANTITY (BID ITEM 0204.01) IS BASED ON A SHRINKAGE FACTOR OF 15%.
- 5) ALL SIDESLOPE TO BE 3H:1V MAXIMUM, KEEPING SLOPES FLATTER WHEREVER POSSIBLE. SLOPES SHALL TRANSITION SMOOTHLY TO EXISTING GRADES AND ADJACENT STRUCTURES IN ALL CASES.
- 6) NO MATERIAL PITS HAVE BEEN IDENTIFIED FOR THIS PROJECT. THE CONTRACTOR MAY OBTAIN SUITABLE MATERIAL FROM ANY ACCEPTABLE SOURCE, PROVIDED THAT IT MEETS PROJECT SPECIFICATIONS. ALL MATERIAL PIT ACTIONS SHALL BE IN COMPLIANCE WITH SECTION 205 OF THE C.O.A. SPECIFICATIONS. NO ADDITIONAL PAYMENT SHALL BE MADE FOR HAULING OF SUCH MATERIAL.
- 6a.) THE DESIGN "R" VALUE FOR THIS PROJECT IS 45. MATERIAL WITH AN "R" VALUE OF LESS THAN 45 SHALL NOT BE PLACED IN, NOR ALLOWED TO REMAIN WITHIN, THE TOP TWO FEET OF FINISHED SUBGRADE.
- 7) THE CONTRACTOR SHALL WARP SLOPES WHERE NECESSARY TO STAY WITHIN THE RIGHT-OF-WAY OR CONSTRUCTION LIMITS, OR TO MEET EXISTING STRUCTURES.
- 8) ALL EXCAVATION SHALL BE GOVERNED BY FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
- 9) THE CONTRACTOR SHALL BE RESTRICTED TO THE USE OF A 35 TON NON-VIBRATING ROLLER MAXIMUM TO OBTAIN THE REQUIRED COMPACTION IN EMBANKMENT AND SUB GRADE IN URBAN OR OTHER AREAS WHERE THE USE OF HEAVIER EQUIPMENT COULD DAMAGE UNDERGROUND UTILITIES OR OTHER PERMANENT STRUCTURES.

WASTE DISPOSAL REQUIREMENTS

- 10) THE CONTRACTOR SHALL PROPERLY HANDLE AND DISPOSE OF ALL ASPHALT PAVEMENT MATERIAL REMOVED ON THE PROJECT BY: BREAKING DOWN TO MAXIMUM 4" SIZE AND PLACING WITHIN NEW ROADWAY PRISM AT LEAST 2 FEET BELOW FINISHED GRADE; RECYCLING; STOCK PILING; AND/OR, HAULING TO AN APPROVED LANDFILL; IN ACCORDANCE WITH THE REGULATIONS OF THE NEW MEXICO SOLID WASTE ACT.
- 11) ITEMS DESIGNATED FOR REMOVAL WITHOUT SALVAGE, UNSUITABLE CONSTRUCTION MATERIALS AND DEBRIS FROM CLEARING AND GRUBBING, ARE TO BE PLACED IN AN ENVIRONMENTALLY SUITABLE DISPOSAL SITE DECIDED UPON AND COORDINATED BY THE CONTRACTOR, WITH THE APPROPRIATE REGULATORY AGENCIES. THE CONTRACTOR SHALL NOTIFY THE PROJECT MANAGER IN WRITING OF THE DETAILS OF DISPOSAL OPERATIONS. BORROW MATERIAL, ROCK WASTE, VEGETATIVE DEBRIS, ETC., SHALL NOT BE PLACED IN WETLAND AREAS OR AREAS WHICH MAY IMPACT ENDANGERED SPECIES OR ARCHAEOLOGICAL RESOURCES. AN ARCHAEOLOGICAL SURVEY AND ENVIRONMENTAL CLEARANCE SHALL BE OBTAINED BY THE CONTRACTOR BEFORE DISPOSAL SITES ARE ACCEPTED.

HAZARDOUS SPILLS REQUIREMENTS

- 12) THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPORTING AND CLEANUP OF SPILLS ASSOCIATED WITH PROJECT CONSTRUCTION AND SHALL REPORT AND RESPOND TO SPILLS OF HAZARDOUS MATERIALS SUCH AS GASOLINE, DIESEL, MOTOR OILS, SOLVENTS, CHEMICALS, TOXIC AND CORROSIVE SUBSTANCES, ETC., WHICH MAY BE A THREAT TO PUBLIC HEALTH OR THE ENVIRONMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPORTING DISCOVERIES OF PAST SPILLS AND OF CURRENT SPILLS NOT ASSOCIATED WITH CONSTRUCTION. REPORTS SHALL BE MADE IMMEDIATELY TO THE NM ENVIRONMENT DEPARTMENT EMERGENCY RESPONSE AT 827-4308 OR 470-3657.

ENVIRONMENTAL COMPLIANCE

- 13) THE CONTRACTOR SHALL COMPLY WITH ALL REGULATIONS OF THE U.S. ENVIRONMENTAL PROTECTION AGENCY, INCLUDING THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEMS (NPDES) PROGRAM. FOR INFORMATION, CONTACT THE NPDES HOTLINE AT (703) 821-4823.
- 14) THE AIR POLLUTION CONTROL REGULATION OF THE ALBUQUERQUE - BERNALILLO COUNTY AIR QUALITY CONTROL BOARD LIMIT EMISSIONS OF PARTICULATE MATTER AND THE USE OF CUT BACK ASPHALT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CLARIFY THESE RESTRICTIONS WITH THE ENVIRONMENTAL HEALTH DEPARTMENT PRIOR TO SUBMITTAL OF BIDS TO AVOID CONFLICT WITH THE REGULATIONS. CALL THE ENVIRONMENTAL HEALTH DEPARTMENT AT 768-2600.

UTILITIES

- 15) CAUTION - ALL EXISTING UTILITIES SHOWN REFLECT THE BEST INFORMATION AVAILABLE AND ARE APPROXIMATE ONLY. EXACT DEPTH OF UTILITIES IS UNKNOWN. ADDITIONAL UTILITIES MAY ALSO EXIST WHICH ARE NOT SHOWN.
- 16) THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES WHEN WORKING NEAR THEIR SYSTEMS. UTILITY COMPANIES SHALL BE GIVEN 48 HOURS (WEEKENDS EXCLUDED) ADVANCE NOTICE FOR LINE LOCATION. CALL NEW MEXICO ONE CALL SYSTEM INC. AT 260-1990 REGARDING LOCATION OF UTILITY LINES.
- 17) IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT ALL EXISTING UTILITIES. ANY DAMAGE RESULTING FROM CONSTRUCTION ACTIVITIES WILL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- 18) ALL UTILITY VALVE BOXES, MANHOLES, AND/OR UTILITY POLES WHICH FALL WITHIN CONSTRUCTION ZONE SHALL BE ADJUSTED TO GRADE OR RELOCATED BY THE RESPECTIVE UTILITIES, UNLESS OTHERWISE NOTED ON PLANS. THE CONTRACTOR SHALL COORDINATE SUCH ACTIVITIES IN ORDER TO FACILITATE ADJUSTMENT OR RELOCATION IN A TIMELY MANNER.

GENERAL CONSTRUCTION

- 19) THE CONTRACTOR IS TO COORDINATE ALL WORK WITH THE PROJECT MANAGER.
- 20) IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO SECURE AND SUPPLY WATER FOR THE PROJECT. THE COST WILL BE INCIDENTAL TO COMPLETION OF THE PROJECT AND NO SEPARATE PAYMENT WILL BE MADE THEREFOR.
- 21) THE CONTRACTOR SHALL BE REQUIRED TO CONFINES HIS WORK WITHIN THE CONSTRUCTION LIMITS AND/OR RIGHT-OF-WAY LIMITS.
- 21a.) ALL EXISTING TREES, SHRUBS AND TURF ON AN EXISTING IRRIGATION SYSTEM SHALL BE PROTECTED AND WATERED DURING CONSTRUCTION; ANY VARIANCE SHALL BE CLEARED THROUGH THE PROJECT MANAGER. REMOVAL OF ANY OTHER EXISTING NON-IRRIGATED TREES OR SHRUBS NECESSARY TO COMPLETE THE PROJECT SHALL BE COORDINATED WITH AND APPROVED BY THE PROJECT MANAGER PRIOR TO ANY REMOVALS.
- 21b.) THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REMOVALS REQUIRED TO COMPLETE THE PROJECT. ADDITIONAL REMOVALS NOT SHOWN ON THE PLANS MAY BE DESIGNATED BY THE PROJECT MANAGER. ALL REMOVALS, UNLESS OTHERWISE INDICATED WILL BE INCIDENTAL TO BID ITEM 0201.01-SITE CLEARING AND GRUBBING.
- 21c.) ANY SALVAGEABLE MATERIALS REMOVED FROM THIS PROJECT SHALL BE HAULED AND STOCK PILED AT A LOCAL LOCATION DETERMINED BY PROJECT ENGINEER. HAUL OF SUCH MATERIALS SHALL BE INCIDENTAL TO BID ITEM 0201.01-SITE CLEARING AND GRUBBING.
- 22) THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE CAUSED BY HIM TO EXISTING WALLS, FENCES, SIDEWALKS, TRAIL SURFACES, IRRIGATION LINES, VALVE BOXES, MANHOLES, CURB AND GUTTER ETC. DURING CONSTRUCTION AND SHALL REPAIR OR REPLACE SAME AT HIS OWN EXPENSE. THE CONTRACTOR IS RESPONSIBLE FOR DOCUMENTATION OF ANY EXISTING DAMAGE PRIOR TO START OF CONSTRUCTION.
- 23) PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY EXISTING HORIZONTAL AND VERTICAL LOCATIONS OF ALL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OR SURVEYOR IMMEDIATELY SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
- 24) FIVE (5) WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT TO CONSTRUCTION COORDINATION DIVISION A DETAILED CONSTRUCTION SCHEDULE. TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL OBTAIN A BARRICADING PERMIT FROM THE CONSTRUCTION COORDINATION DIVISION. CONTRACTOR SHALL NOTIFY BARRICADE ENGINEER (768-2551) PRIOR TO OCCUPYING AN INTERSECTION. REFER TO SECTION 19 OF THE GENERAL CONDITIONS OF THE COA STANDARD SPECIFICATIONS.
- 25) THE CONTRACTOR SHALL BE THE RESPONSIBLE PARTY FOR THE IMPLEMENTATION AND MAINTENANCE OF ALL TRAFFIC CONTROL PROCEDURES AND MATERIALS. THE CONTRACTOR SHALL HAVE PERSONNEL AVAILABLE 24 HOURS PER DAY, SEVEN (7) DAYS PER WEEK TO INSPECT AND MAINTAIN TRAFFIC CONTROL DEVICES AS DIRECTED BY THE PROJECT ENGINEER.
- 26) THE CONTRACTOR WILL BE REQUIRED TO MAINTAIN A TRAFFIC CONTROL DIARY, WHICH SHALL BE AVAILABLE FOR REVIEW BY THE CITY AND/OR HIGHWAY DEPARTMENT PROJECT MANAGERS. COST OF THIS WORK IS TO BE INCLUDED IN THE UNIT BID PRICE FOR BID ITEM 0019.01 CONSTRUCTION TRAFFIC CONTROL.
- 27) ALL STREET STRIPING ALTERED OR DESTROYED SHALL BE REPLACED WITH REFLECTORIZED PAVEMENT MARKINGS BY CONTRACTOR TO LOCATION AS EXISTING OR AS INDICATED BY THIS PLAN SET.

- 28) ALL SIGNS AND CODING WILL BE IN ACCORDANCE WITH THE LATEST EDITION OF MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS - "TRAFFIC CONTROL DEVICES FOR BICYCLE FACILITIES," PUBLISHED BY THE U.S. DEPARTMENT OF TRANSPORTATION. COORDINATE LOCATION FOR NEW SIGNS AND/OR POSTS WITH ENGINEER.
- 29) WHEN ABUTTING NEW PAVEMENT TO EXISTING INTERSECTING ASPHALT, SAW CUT EXISTING PAVEMENT TO A STRAIGHT LINE AND AT RIGHT ANGLES TO REMOVE ANY BROKEN OR CRACKED PAVEMENT. NO DIRECT PAYMENT WILL BE MADE FOR SAW CUTTING.
- 30) WHEN REMOVAL OF EXISTING CURB AND GUTTER OR SIDEWALK IS REQUIRED, REMOVE BACK TO NEAREST SUITABLE JOINT UNLESS OTHERWISE NOTED.
- 31) REMOVE AND REPLACE PAVEMENT 1' WIDE ADJACENT TO LIP OF GUTTER WHEN CONSTRUCTING CURB AND GUTTER ADJACENT TO EXISTING ASPHALT CONCRETE PAVEMENT. REFERENCE COA STANDARD DRAWING #2415.
- 32) THE FINAL SURFACE OF THE REPLACED PAVEMENT AND GUTTER SHALL CONFORM TO A GRADE LINE SET BY THE CONTRACTOR SUCH THAT THE PAVEMENT AND GUTTER WILL READILY DRAIN AND DOES NOT VARY SIGNIFICANTLY FROM ADJACENT EXISTING GRADES.
- 33) PROVIDE 4" WIDE YELLOW STRIPE ALONG CENTER LINE OF ASPHALT TRAIL; SOLID FROM STA. 10+07 TO STA. 15+88 AND STA. 39+43 TO 40+03, DASHED FOR REMAINDER OF TRAIL.
- 34) UPON COMPLETION OF CONSTRUCTION ALL AREAS WITHIN PROJECT LIMITS WHICH ARE DISTURBED OR ARE TO BE REVEGETATED SHALL BE SEEDED IN ACCORDANCE WITH SECTION 1012 - "NATIVE PLANT SEEDING" OF THE STANDARD SPECIFICATIONS, EXCEPT AS MODIFIED HEREIN.
- 35) THE CONTRACTOR SHALL MAINTAIN AN UP-TO-DATE SET OF AS-BUILT PLANS FOR THE PROJECT. THESE SHALL BE KEPT CURRENT WITHIN TWO WEEKS AT ALL TIMES AND SHALL BE SUBJECT TO REVIEW BY THE PROJECT ENGINEER THROUGHOUT THE PROJECT. THE FINAL AS-BUILT PLANS SHALL BE SUBMITTED TO THE PROJECT ENGINEER PRIOR TO FINAL PAYMENT.
- 36) QUANTITIES SHOWN HEREIN, FOR THE VARIOUS BID ITEMS, ARE FOR THE CONTRACTOR'S INFORMATION ONLY. PAYMENT SHALL BE BASED ON ACTUAL QUANTITIES AS CONSTRUCTED.
- 37) CONTRACTOR SHALL MAINTAIN A GRAFFITI-FREE WORK SITE. CONTRACTOR SHALL PROMPTLY REMOVE ANY AND ALL GRAFFITI FROM EQUIPMENT, WHETHER PERMANENT OR TEMPORARY.

CONSTRUCTION STAKING

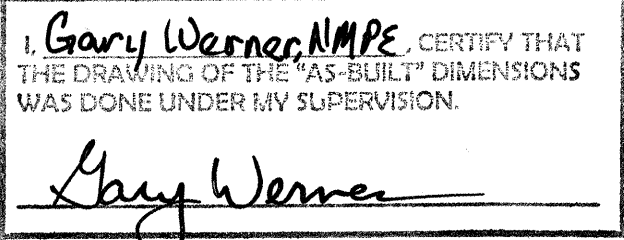
- 38) BID ITEM 004.01 CONSTRUCTION STAKING SHALL INCLUDE ALL SURVEYING AND CONTROL STAKING NECESSARY TO ESTABLISH PROJECT CENTERLINE, TOE OF SLOPE CATCH POINTS AND OTHER FEATURES AS REQUIRED FOR CONSTRUCTION OF THE PROJECT.

CONSTRUCTION SURVEYING

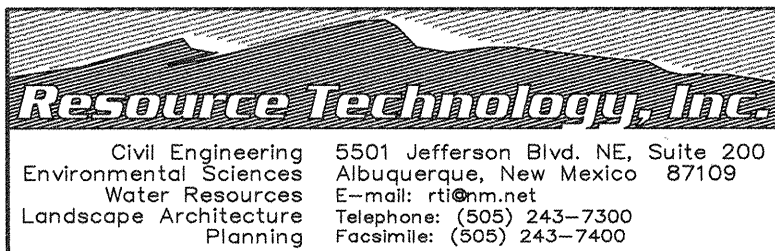
- 39) THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND RECORDING ALL EXISTING AND FINAL GRADES BY CROSS-SECTIONING OR OTHER MEANS, FOR THE PURPOSE OF DETERMINING EARTHWORK QUANTITIES. THESE RECORDS WILL BE SUBJECT TO REVIEW BY THE CITY AND/OR ENGINEER FOR VERIFICATION OF PAY QUANTITIES.

UTILITY CONTACTS

BUSINESS	NAME	PHONE NUMBER
PNM-ELECTRIC	DICK HAMRIC	241-3490
PNM-GAS	KELLY BOUSKA	241-7752
AT&T	DAVID CROWEL	842-2911
MCI WORLDCOM	DAVID FRAZIER	348-8624
COMCAST	STEVE ANDERSON	761-0560
NEW MEXICO UTILITIES	STEVE BATES	898-2861
TIME WARNER TELECOM	ROYAL HARRISON	938-7339
E. SPIRE	JOHN MARES	998-2274
McLEOD USA	RICK MUELLER	244-3161
QWEST	MARSHALL BEGAY	245-6584



FOR INFORMATION ONLY

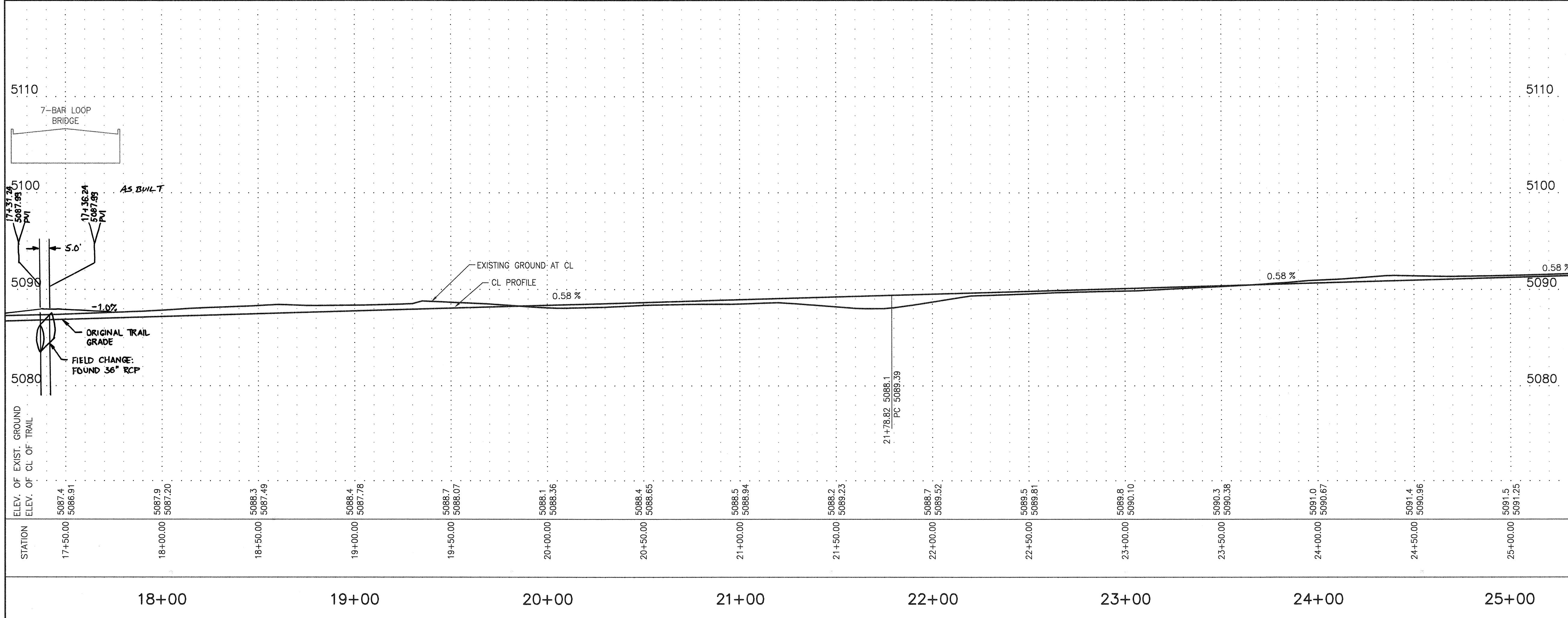
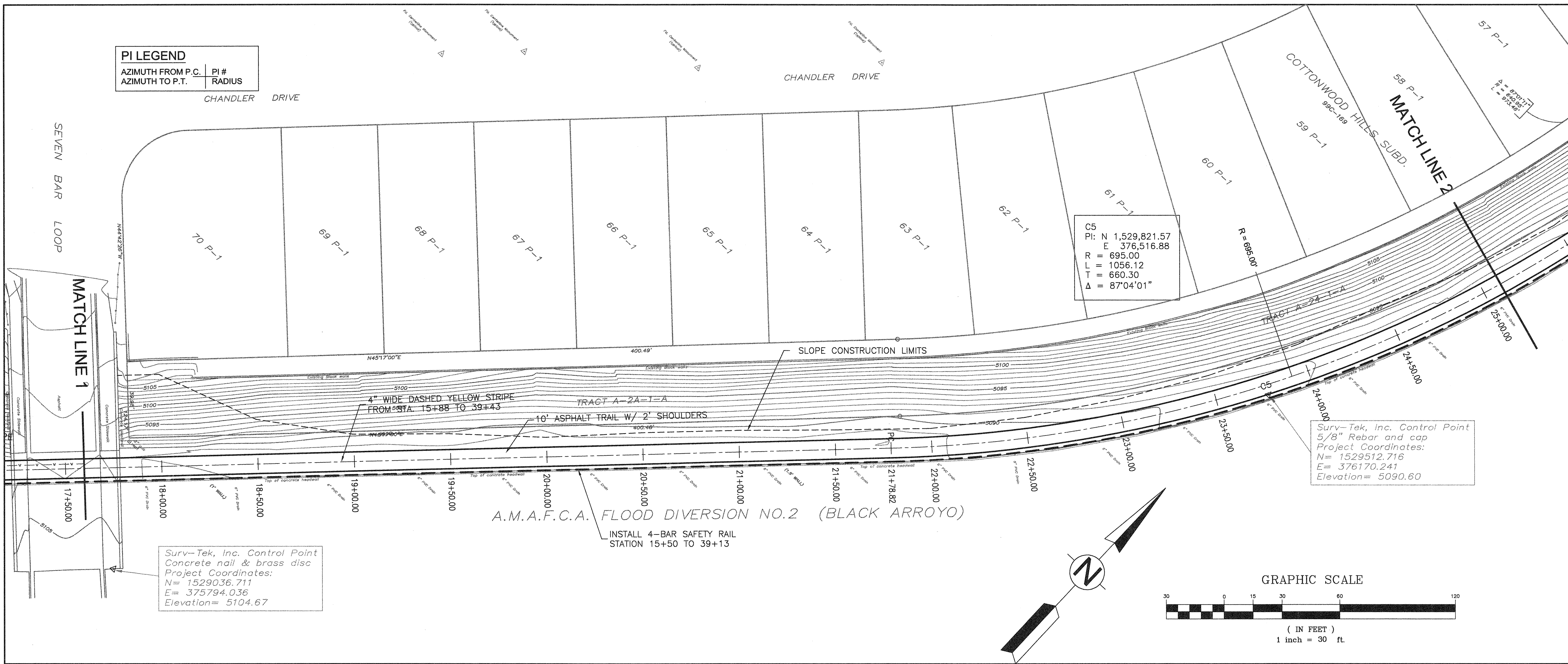


CITY OF ALBUQUERQUE
PARKS AND RECREATION DEPARTMENT
PLANNING AND DESIGN DIVISION

TITLE: COA TRAILS 2001
BLACK ARROYO TRAIL
GENERAL NOTES

Design Review Committee	City Engineer Approval	Mo./Day/Yr.	Mo./Day/Yr.
APPROVE	APPROVE		
DESIGN REVIEW COMMITTEE	CITY ENGINEER		

PROJECT NO. 644604 MAP NO. A-13 SHEET 2 OF 15



NOTES:

1. INSTALL 4-BAR SAFETY RAIL FROM STA. 17+60 OFFSET 7.0' RT. TO STA. 25+10 OFFSET 7.0' RT.-SEE SHEET 8, SECTION C. (SAFETY RAIL WILL BE CONTINUOUS FROM STA. 15+50 TO STA. 39+13).
2. PLACE 2" THICK GRAVEL MULCH, 3/4" SANTA ANA TAN, OVER CUT SLOPES STEEPER THAN 3H:1V - STA. 17+78 TO 25+10 LT. 950 S.Y. SEEDING OF THESE SLOPES WILL BE IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE SPECIFICATIONS FOR SEEDING WITH GRAVEL MULCH-SEE DETAIL SHEET 9.

AS BUILT INFORMATION			
CONTRACTOR	STATION NAME	BLACK 2	DATE
WORK BY	USGS BRASS TABLET STAMPED 'BLACK-2 1977'		
INSPECTED BY	SET FLUSH WITH THE GROUND.		
ACCEPTANCE BY	SW OF THE INTERSECTION OF GOLF COURSE ROAD AND MCMAHON BLVD.		
DATE			
MICRO-FILM INFORMATION			
DRAWINGS			
CORRECTED BY			
RECORDED BY			
DATE			
NO.			

ENGINEERS SEAL

22 AP 02

FOR INFORMATION ONLY

GARY WARNER, NMPE CERTIFY THAT THE DRAWING OF THE "AS-BUILT" DIMENSIONS WAS DONE UNDER MY SUPERVISION.

Gary Warner

Resource Technology, Inc.

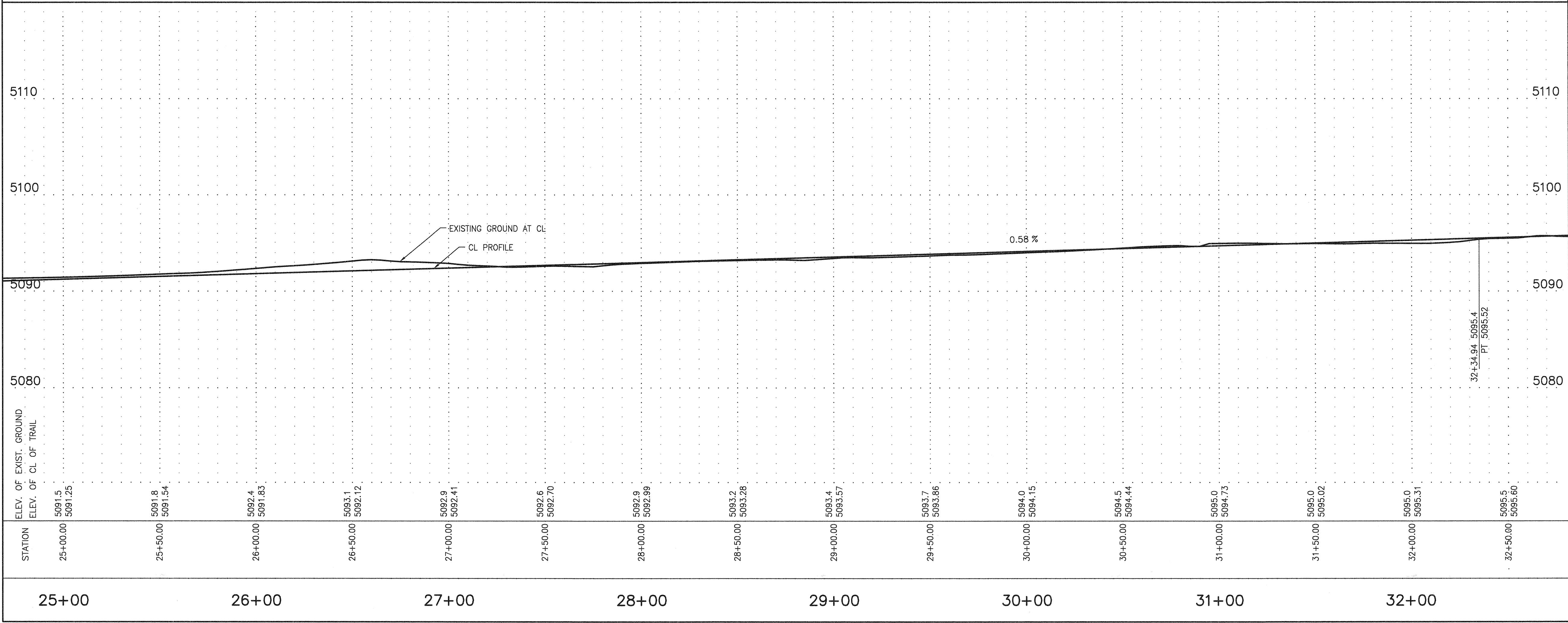
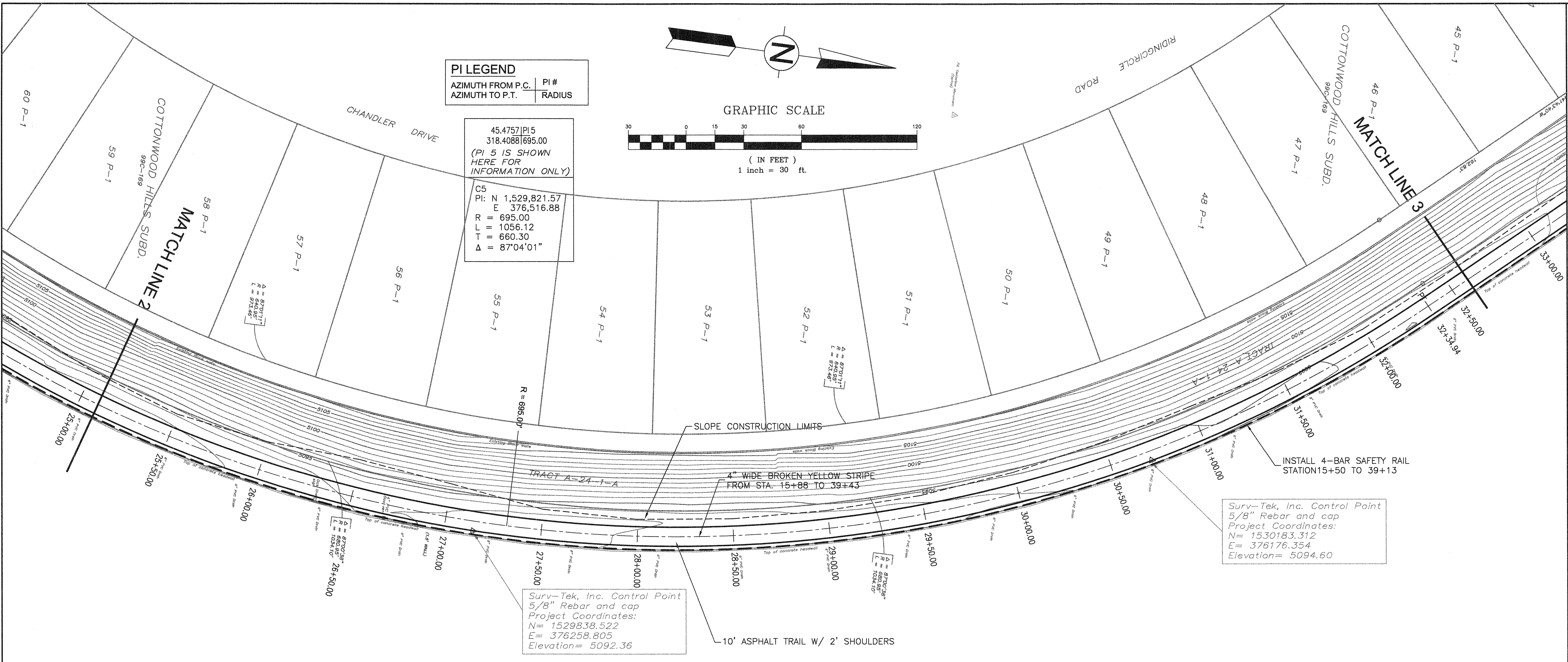
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CITY OF ALBUQUERQUE
PARKS AND RECREATION DEPARTMENT
PLANNING AND DESIGN DIVISION

TITLE: COA TRAILS 2001
BLACK ARROYO TRAIL
PLAN AND PROFILE

DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL	Mo./Day/Yr.	Mo./Day/Yr.
APPROVED MAY 14 2002 DESIGN REVIEW COMMITTEE	APPROVED MAY 14 2002 CITY ENGINEER		

PROJECT NO. 644604 MAP NO. B-13 SHEET 4 OF 15



NOTES:

1. INSTALL 4-BAR SAFETY RAIL FROM STA. 25+10 OFFSET 7.0' RT. TO STA. 32+60 OFFSET 7.0' RT.-SEE SHEET 8, SECTION C. (SAFETY RAIL WILL BE CONTINUOUS FROM STA. 15+50 TO STA. 39+13).
2. PLACE 2" THICK GRAVEL MULCH, 3/4" SANTA ANA TAN, OVER CUT SLOPES STEEPER THAN 3H:1V - STA. 25+10 TO 32+60 LT. 650 S.Y. - SEEDING OF THESE SLOPES WILL BE IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE SPECIFICATIONS FOR SEEDING WITH GRAVEL MULCH-SEE DETAIL SHEET 9.

ENGINEERS SEAL

FOR INFORMATION ONLY

SCALE: 1"=30' HORIZ.
1"=6' VERT.

Resource Technology, Inc.

CITY OF ALBUQUERQUE
PARKS AND RECREATION DEPARTMENT
PLANNING AND DESIGN DIVISION

TITLE: COA TRAILS 2001
BLACK ARROYO TRAIL
PLAN AND PROFILE

DESIGN REVIEW COMMITTEE

APPROVED

CITY ENGINEER

PROJECT NO. 644604

MAP NO. B-13

SHEET 5 OF 15

AS BUILT INFORMATION

BENCH MARKS

SURVEY INFORMATION

FIELD NOTES

NO. BY DATE

CONTRACTOR

STATION NAME: BLACK 2

USGS BRASS TABLET STAMPED "BLACK-2 1977"

SET FLUSH WITH THE GROUND.

SW OF THE INTERSECTION OF GOLF COURSE ROAD AND McMAHON BLVD.

NO. DATE

REMARKS

REVISIONS

DESIGN

DESIGNED BY RMO

DRAWN BY RMO

CHECKED BY

DATE 4/3/02

DATE 4/3/02

DATE

NO.

RECORDED BY

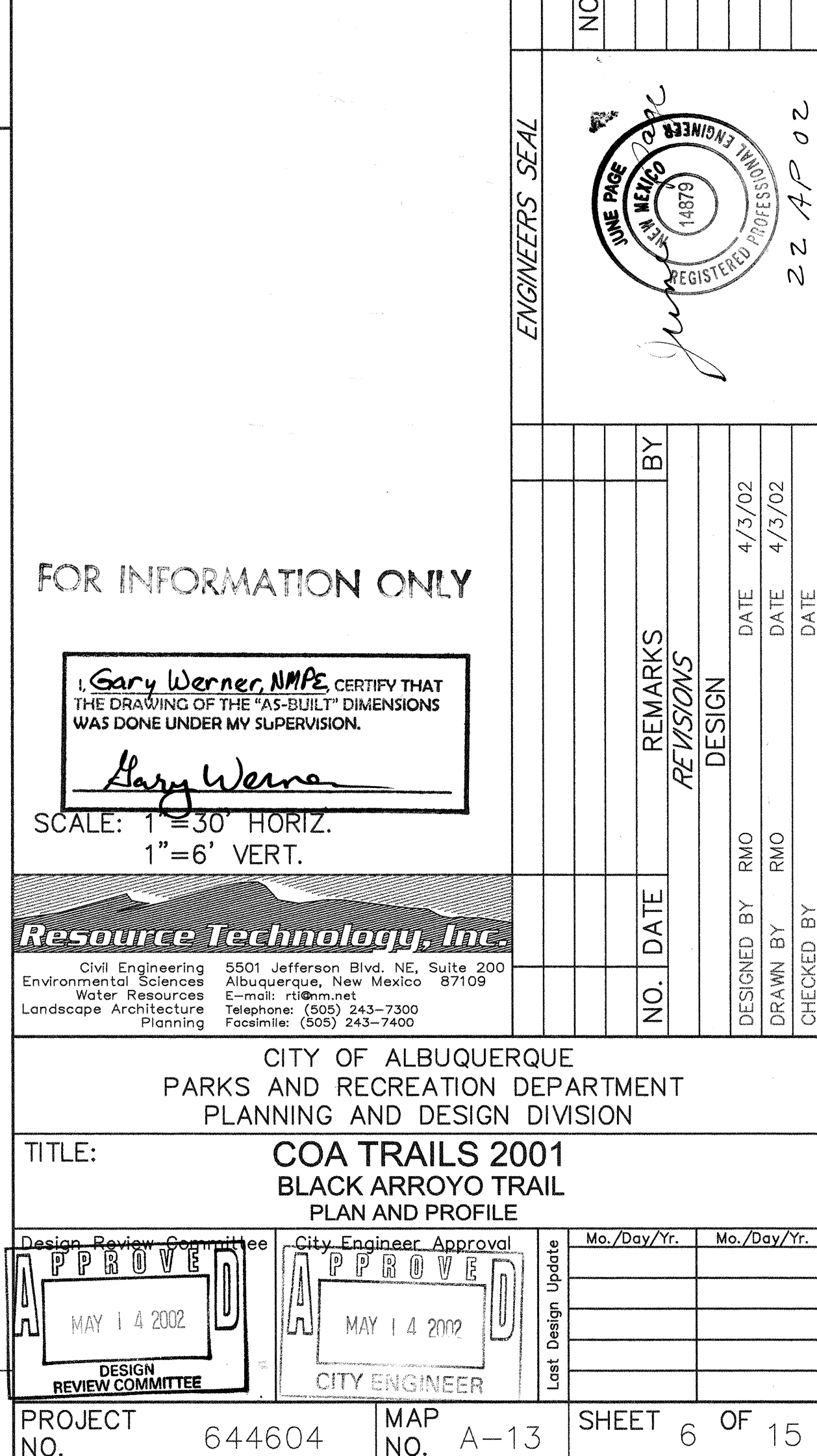
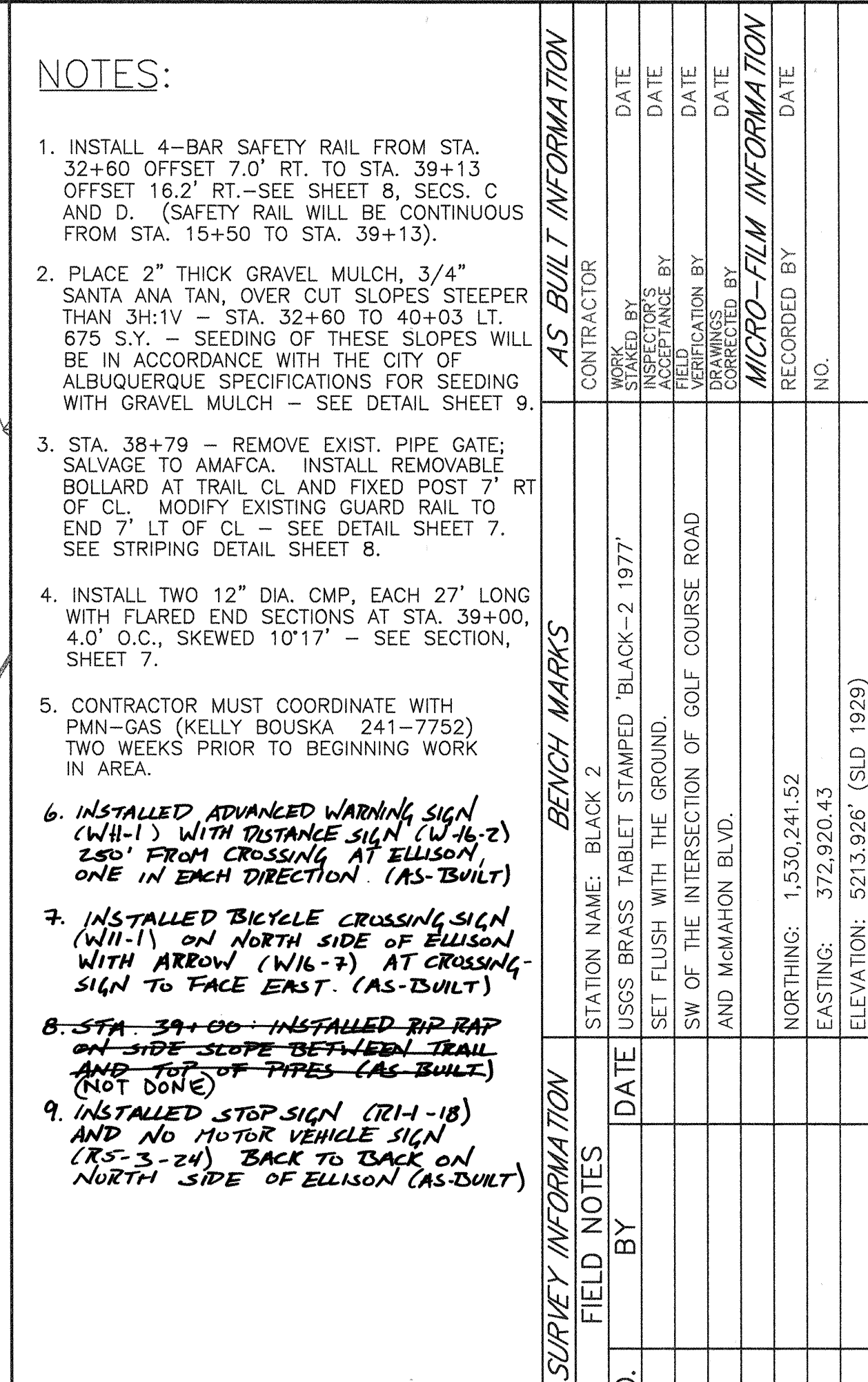
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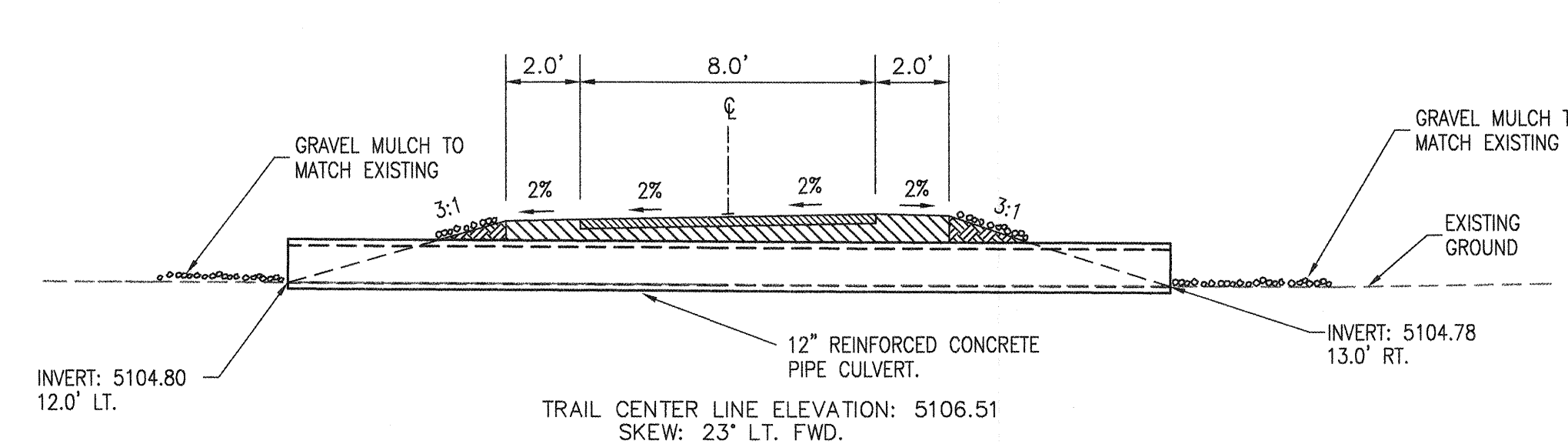
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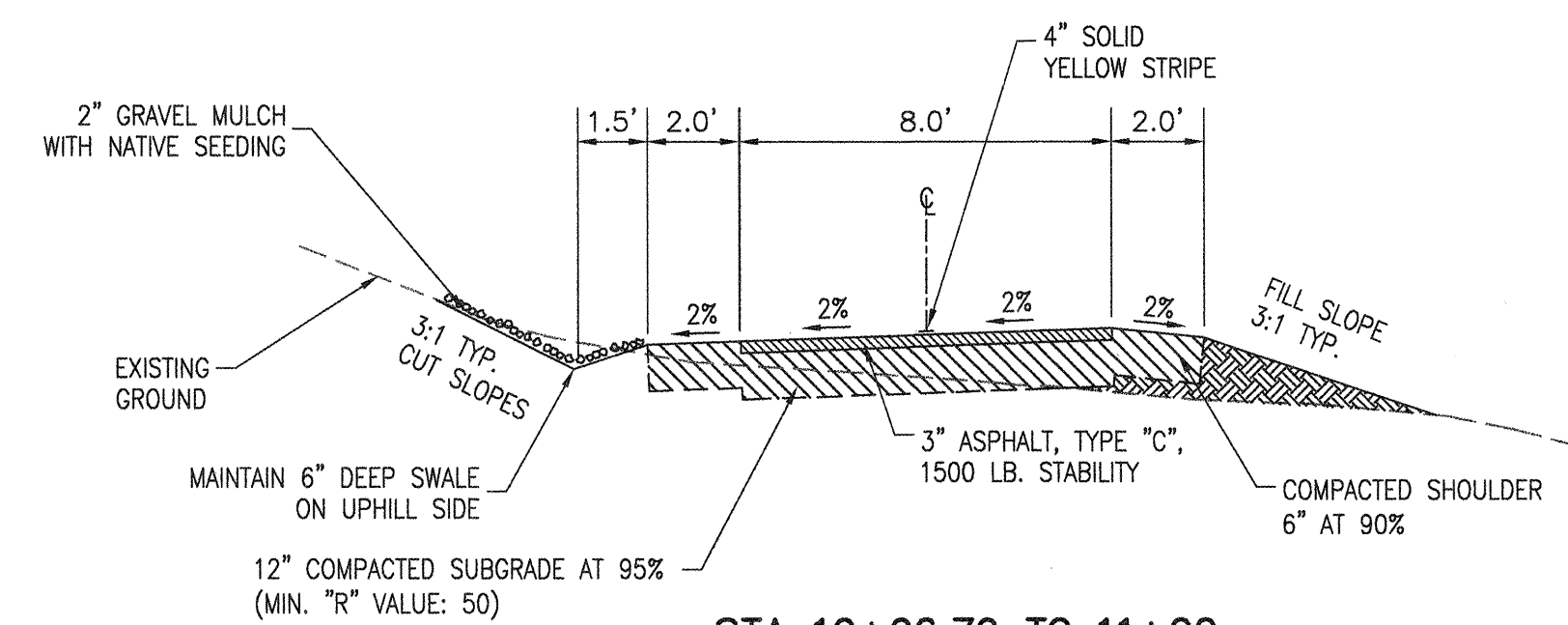
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22 APR 02

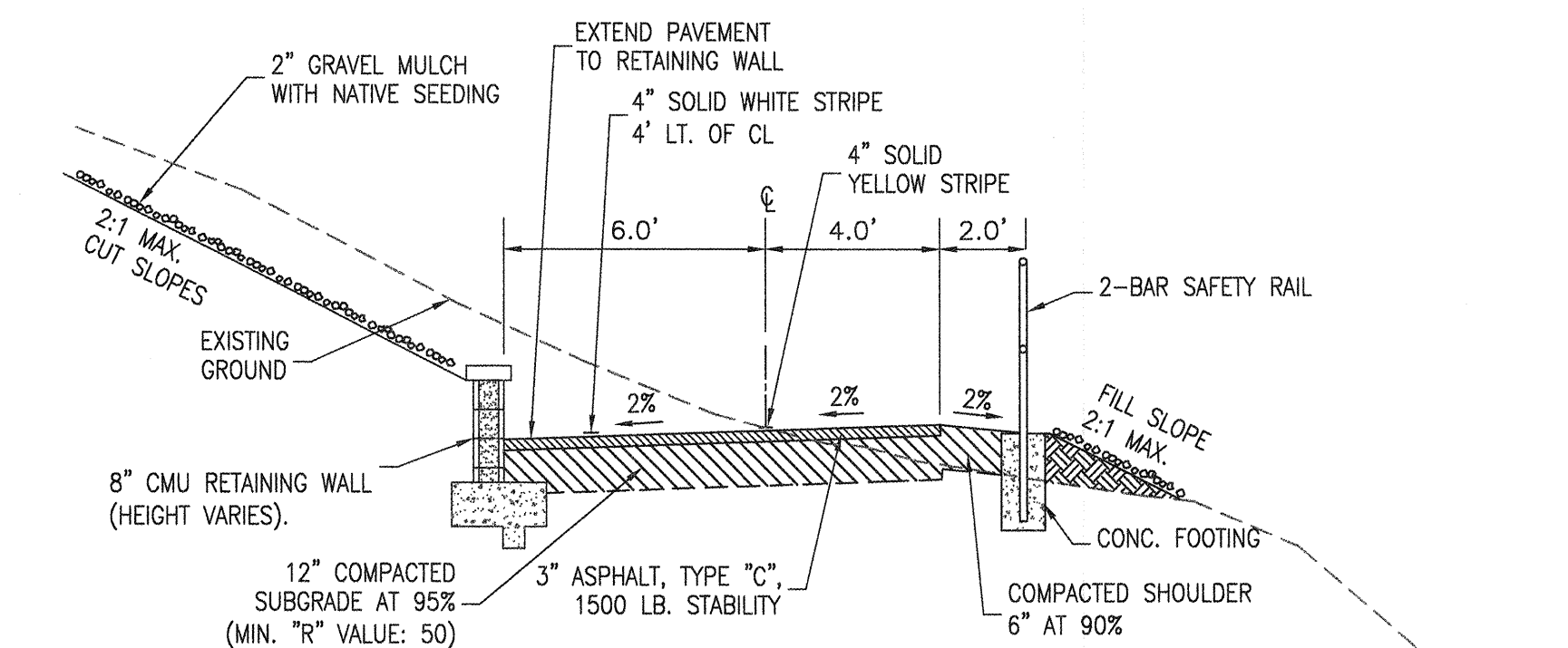




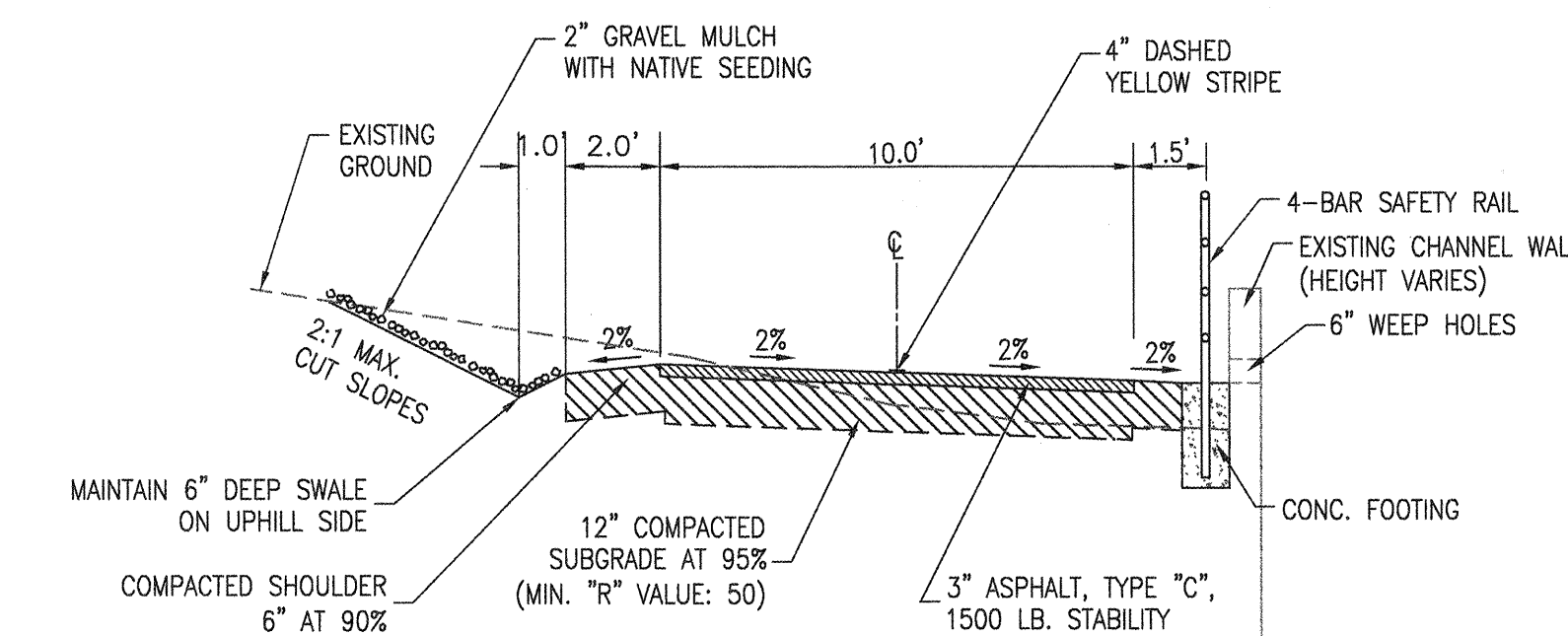
PIPE CULVERT SECTION—STA. 10+75
NOT TO SCALE



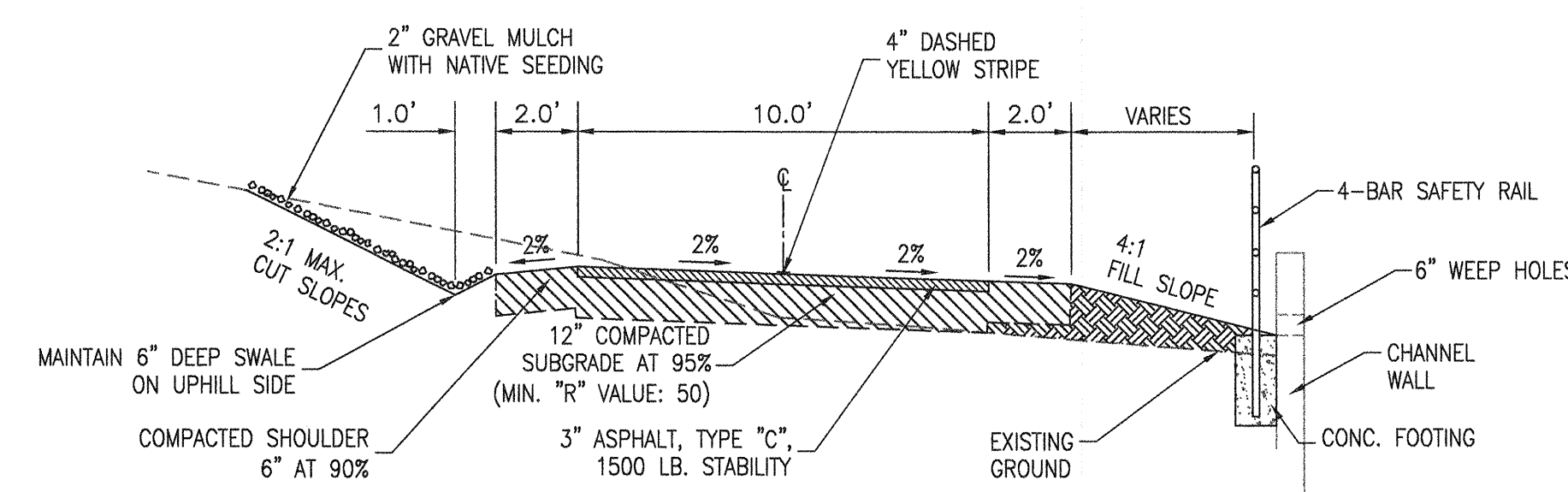
STA 10+06.79 TO 11+00
TYPICAL SECTION A — LEFT CROSS SLOPE
NOT TO SCALE



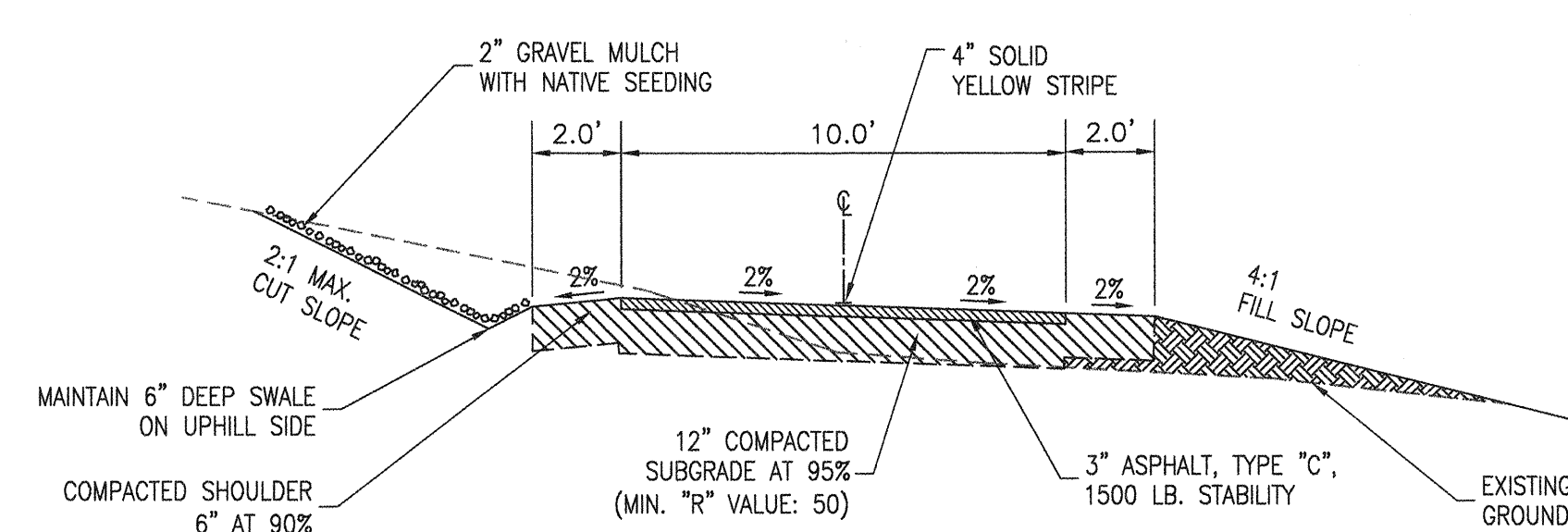
STA 11+92 TO 14+92
TYPICAL SECTION B — LEFT CROSS SLOPE
NOT TO SCALE



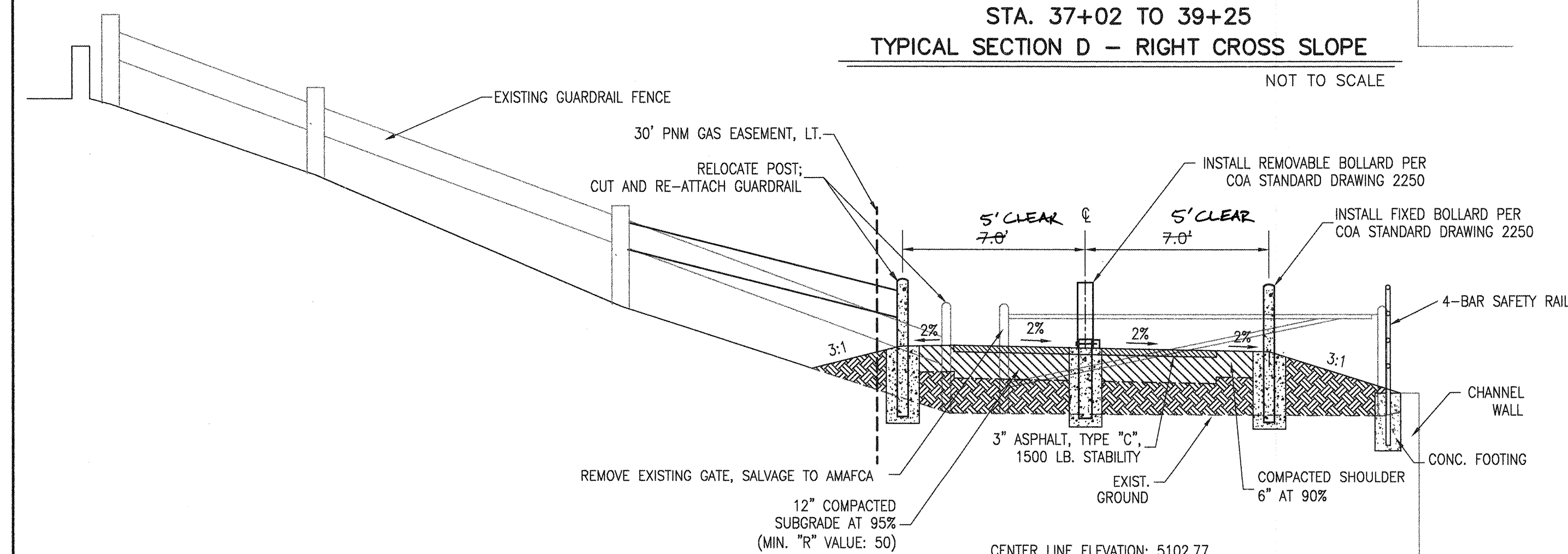
STA 15+88 TO 36+39
TYPICAL SECTION C — RIGHT CROSS SLOPE
NOT TO SCALE



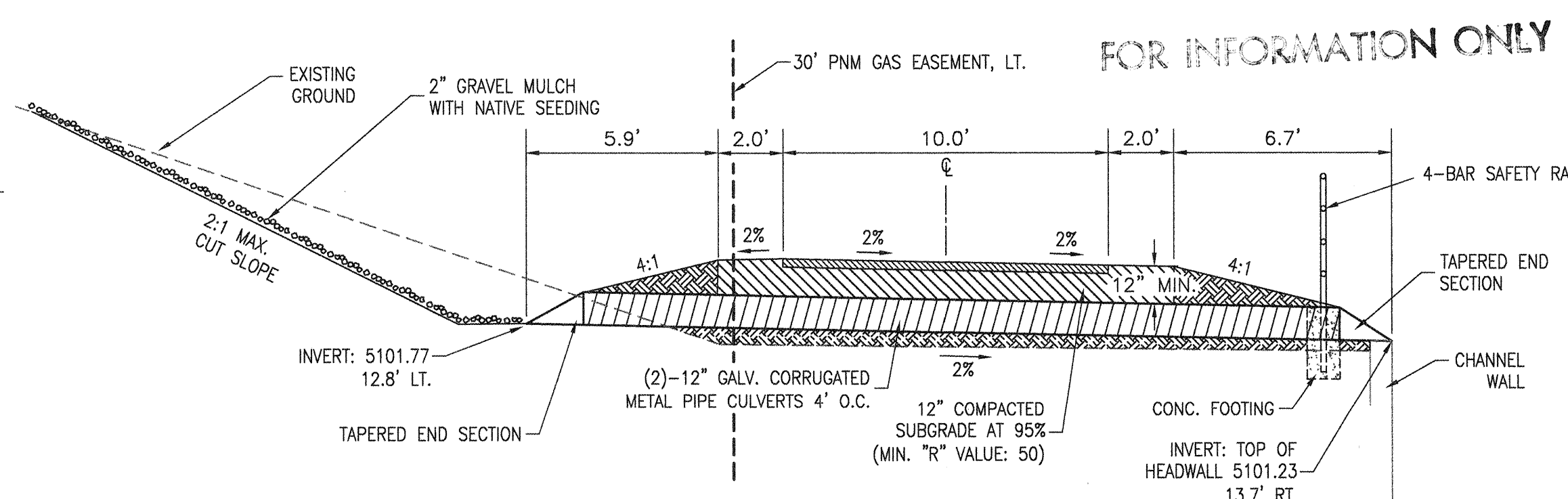
STA. 37+02 TO 39+25
TYPICAL SECTION D — RIGHT CROSS SLOPE
NOT TO SCALE



STA. 39+25 TO 40+03.12
TYPICAL SECTION E — RIGHT CROSS SLOPE
NOT TO SCALE



BOLLARDS SECTION — STA. 38+80
NOT TO SCALE



PIPE CULVERT SECTION—STA. 39+00
NOT TO SCALE

NOTES:

1. STA.11+00 TO 11+92 — MAKE UNIFORM TRANSITION FROM X-SEC. A TO X-SEC. B.
2. STA.14+92 TO 15+88 — MAKE UNIFORM TRANSITION FROM X-SEC. B TO X-SEC. C.
3. STA. 36+39 TO 37+02 — MAKE UNIFORM TRANSITION FROM X-SEC. C TO X-SEC. D.
4. EARTH EXCAVATION

A. GENERAL: EARTH EXCAVATION SHALL CONSIST OF THE EXCAVATION AND REMOVAL OF SUITABLE SOILS FOR USE AS EMBANKMENT AS WELL AS THE SATISFACTORY DISPOSAL OF ALL VEGETATION, DEBRIS, AND DELETERIOUS MATERIAL ENCOUNTERED WITHIN THE AREA TO BE GRADED AND/OR IN A BORROW AREA.

B. SURFACE MAINTENANCE: EXCAVATED AREAS SHALL BE CONTINUOUSLY MAINTAINED SO THAT THE SURFACE SHALL BE SMOOTH AND HAVE SUFFICIENT SLOPE TO ALLOW WATER TO DRAIN FROM THE SURFACE.

5. EMBANKMENT

A. GENERAL: THE EMBANKMENT SHALL CONSIST OF A CONTROLLED FILL CONSTRUCTED IN THE AREAS INDICATED ON THE GRADING PLANS.

B. EMBANKMENT MATERIALS: EMBANKMENT FILL MATERIAL SHALL CONSIST OF SOILS THAT CONFORM TO THE FOLLOWING PHYSICAL CHARACTERISTICS:

SIEVE SIZE (SQUARE OPENINGS)	% PASSING BY WEIGHT
1 INCH	100
NO. 4	40-100
NO. 200	10-60

THE PLASTICITY INDEX OF THE MATERIALS AS DETERMINED IN ACCORDANCE WITH ASTM D-423 AND D-424, SHALL NOT BE MORE THAN 15.

THE FILL MATERIAL SHALL BE FREE FROM ROOTS, GRASS, OTHER VEGETABLE MATTER, CLAY LUMPS, OR OTHER DELETERIOUS MATERIALS. NESTING OF LARGE COBBLES SHOULD BE AVOIDED.

SITE SOILS FROM THE CUTS MAY BE USED FOR FILL, PROVIDED THEY MEET THE REQUIREMENTS IN PARAGRAPH B OF EMBANKMENT. IT IS ANTICIPATED THAT SOME BLENDING OF SOILS WILL BE REQUIRED TO MEET SPECIFICATIONS.

C. CONSTRUCTION. COMPACTION: THE FILL SHALL BE SPREAD IN HORIZONTAL LAYERS NOT EXCEEDING 8 INCHES. MOISTURE ADDED AS NECESSARY, AND COMPACTED. THE MOISTURE CONTENT AT THE TIME OF COMPACTION SHALL BE WITHIN 2 PERCENT OF OPTIMUM. COMPACTION SHALL BE WITH A VIBRATORY ROLLER TO OBTAIN A DENSITY OF NOT LESS THAN 95 PERCENT OF MAXIMUM DENSITY BENEATH TRAIL AND SHOULDER AREAS.

OPTIMUM MOISTURE AND MAXIMUM DENSITY FOR EACH SOIL USED SHALL BE DETERMINED IN ACCORDANCE WITH ASTM D-1557.

6. INSTALL 2" SANTA ANA TAN GRAVEL MULCH OVER NATIVE SEEDING ON ALL 2:1 SLOPES. STEEPER THAN 3:1.

7. CONTRACTOR MUST COORDINATE WITH PMN-GAS (KELLY BOUSKA 241-7752) TWO WEEKS PRIOR TO BEGINNING WORK IN AREA.

FOR INFORMATION ONLY

Garth Werner, NMPE, CERTIFY THAT THE DRAWING OF THE "AS-BUILT" DIMENSIONS WAS DONE UNDER MY SUPERVISION.

Garth Werner
SCALE: 1"=4' HORIZONTAL

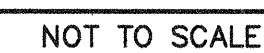
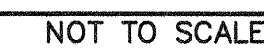
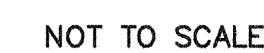
Resource Technology, Inc.

Civil Engineering 5501 Jefferson Blvd., Suite 200
Environmental Sciences Albuquerque, New Mexico 87109
Water Resources E-mail: rti@rti.net
Landscape Architecture Telephone: (505) 243-7300
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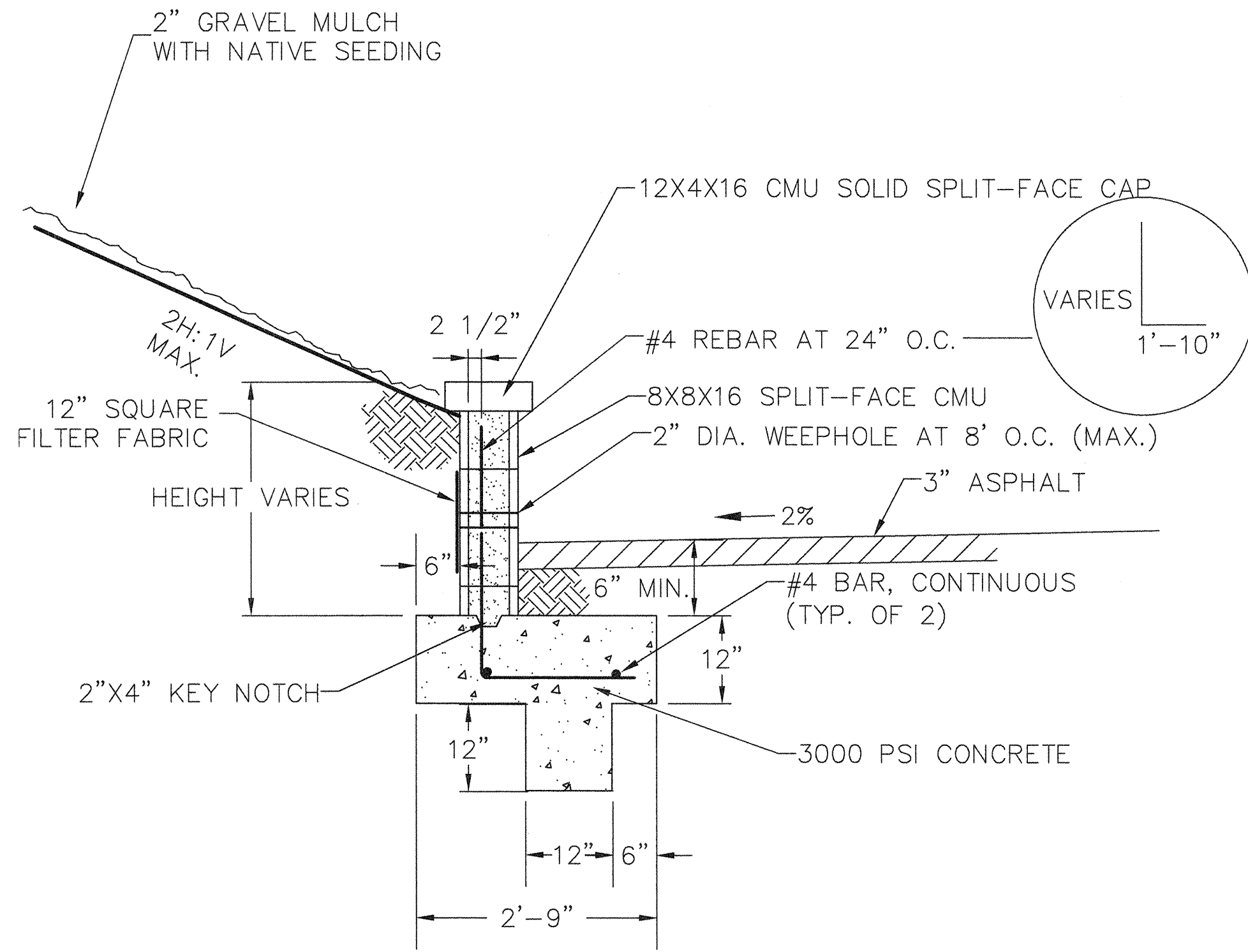
CITY OF ALBUQUERQUE
PARKS AND RECREATION DEPARTMENT
PLANNING AND DESIGN DIVISION

TITLE: COA TRAILS 2001
BLACK ARROYO TRAIL
TYPICAL SECTIONS

DESIGN	REVIEW	COMMITTEE	CITY ENGINEER	Mo./Day/Yr.	Mo./Day/Yr.
MAY 14 2002	MAY 14 2002				



PROJECT NO.	644604	MAP NO.	B-13	SHEET 8 OF 15
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CMU RETAINING WALL N.T.S.

TEMPORARY EROSION CONTROL MEASURES

DUST ABATEMENT: ALL EXPOSED SOIL AREAS SHALL BE KEPT DUST-FREE AT ALL TIMES DURING CONSTRUCTION. DUST ABATEMENT MEASURES MAY INCLUDE APPLICATION OF WATER OR TEMPORARY SOIL STABILANT. IF WATERING EQUIPMENT IS USED FOR DUST ABATEMENT, THIS OPERATION SHALL BE GIVEN PRIORITY OVER ANY OTHER USE OF THIS EQUIPMENT. PITS, HAUL ROADS AND OTHER AREAS OCCUPIED BY THE CONTRACTOR IN CONNECTION WITH THE WORK SHALL BE MAINTAINED FOR THE DURATION OF THE PROJECT.

IF WORK OPERATIONS ARE SUSPENDED OR EXPOSED AREAS WILL NOT BE WORKED FOR MORE THAN SEVEN (7) DAYS, THE CONTRACTOR SHALL APPLY TEMPORARY SOIL STABILANT AS APPROVED BY THE PROJECT MANAGER. APPLICATION SHALL BE ACCORDING TO MANUFACTURER'S INSTRUCTIONS, UNLESS SUCH APPLICATION IS NOT PRODUCING ACCEPTABLE RESULTS, IN THIS CASE, RATE OF APPLICATION SHOULD BE INCREASED UNTIL ACCEPTABLE RESULTS ARE OBTAINED.

DUST ABATEMENT ACTIVITIES AS DESCRIBED ABOVE ARE INCIDENTAL TO THE PROJECT, AND NO DIRECT PAYMENT SHALL BE MADE.

TOP OF WALL				TOP OF FOOTING			
STATION		ELEVATION TOP OF STEP		STATION		ELEVATION TOP OF STEP	
BEGIN WALL	11+92	5102.00		BEGIN WALL	11+92	5099.33	
	12+00	5102.00			12+10	5099.33	
	12+26	5101.33			12+22	5098.67	
	12+50	5100.67			12+36	5098.00	
	12+64	5100.00			12+50	5097.33	
	12+78	5099.33			12+64	5096.67	
	12+92	5098.67			12+76	5096.00	
	13+06	5098.00			12+90	5095.33	
	13+16	5097.33			13+04	5094.67	
	13+24	5096.67			13+18	5094.00	
	13+34	5096.00			13+30	5093.33	
	13+44	5095.33			13+44	5092.67	
	13+56	5094.67			13+58	5092.00	
	13+66	5094.00			13+70	5091.33	
	13+78	5093.33			13+84	5090.67	
	13+90	5092.67			13+98	5090.00	
	14+00	5092.00			14+12	5089.33	
	14+14	5091.33			14+28	5088.67	
	14+28	5090.67			14+44	5088.00	
	14+42	5090.00			14+64	5087.33	
	14+58	5089.33		END WALL	14+92	5086.67	
END WALL	14+92	5088.67					
		5088.00					

PERMANENT EROSION CONTROL MEASURES

ALL SOIL AREAS EXPOSED DURING CONSTRUCTION SHALL BE TREATED WITH NATIVE SEEDING, IN ACCORDANCE WITH SECTION 1012 OF THE COA STANDARD SPECIFICATIONS, AS MODIFIED IN THE PROJECT SUPPLEMENTAL TECHNICAL SPECIFICATIONS. THE NATIVE SEED MIX FOR THIS PROJECT SHALL BE AS FOLLOWS:

COMMON NAME	SCIENTIFIC NAME	LBS. PLS/AC
GRASSES		
Sideoats Grama	Bouteloua curtipendula	2
Blue Grama	Bouteloua gracilis "Hachita"	3
Galleta	Hilaria jamesii "Viva"	3
Indian Ricegrass	Oryzopsis hymenoides	2
WILDFLOWERS		
Purple Aster	Aster bigelovii	0.5
Desert Marigold	Baileya multiradiata	0.5
Dakota Verbena	Verbena bipinnatifida	1
	TOTAL:	12

ALL SLOPES STEEPER THAN 3H:1V SHALL RECEIVE 2" LAYER OF 3/4" SANTA ANA TAN (OR EQUIVALENT) GRAVEL MULCH IN ADDITION TO NATIVE SEEDING IN ACCORDANCE WITH SECTION 1012.6.2.3 OF THE COA STANDARD SPECIFICATIONS: "SEEDING WITH GRAVEL MULCH."

NOTES:

- COVER ALL SLOPES STEEPER THAN 3H:1V WITH 2" GRAVEL MULCH (SANTA ANA TAN).
- SPLIT-FACE CMU BLOCKS TO BE TAN OR BUFF COLOR (SIMILAR TO NATIVE SOIL IN PROJECT AREA). CONTRACTOR TO PROVIDE COLOR SAMPLES FOR FINAL SELECTION PRIOR TO INSTALLATION. MORTAR SHALL BE COLORED TO MATCH. PROVIDE VERTICAL CONTROL JOINTS AT 32' INTERVALS AND EXPANSION JOINTS AT 96' INTERVALS.

AS BUILT INFORMATION		SURVEY INFORMATION		ENGINEERS SEAL		REVISIONS		CITY OF ALBUQUERQUE	
CONTRACTOR	DATE	BY	DATE	NO.	BY	NO.	DATE	DESIGNED BY	Mo./Day/Yr.
WORK	DATE	BY	DATE					RWO	
STAKED	DATE							RWO	
ACCEPTED	DATE							CHECKED BY	
FIELD	DATE								
LOCATION	DATE								
BY	DATE								
DRAS	DATE								
CORRECTED	DATE								
NO.									

FOR INFORMATION ONLY

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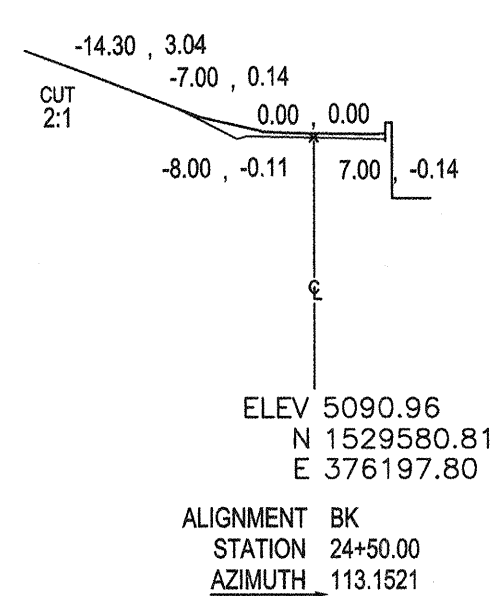
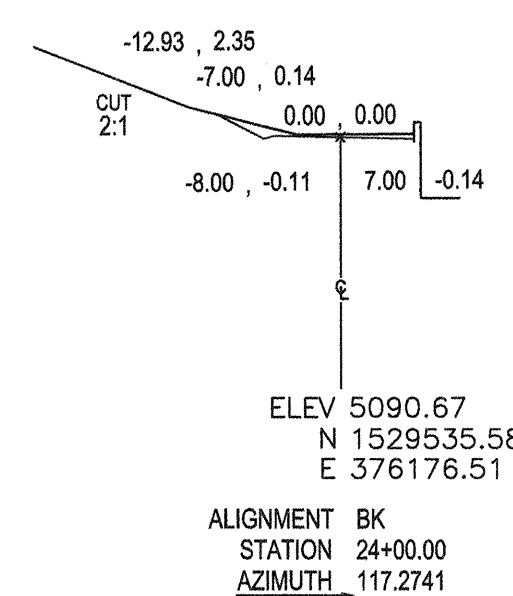
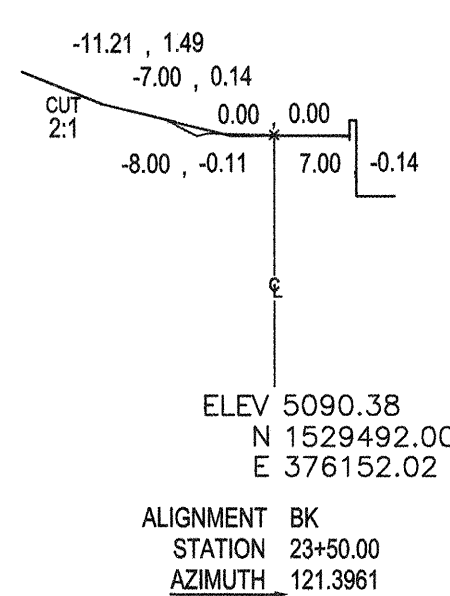
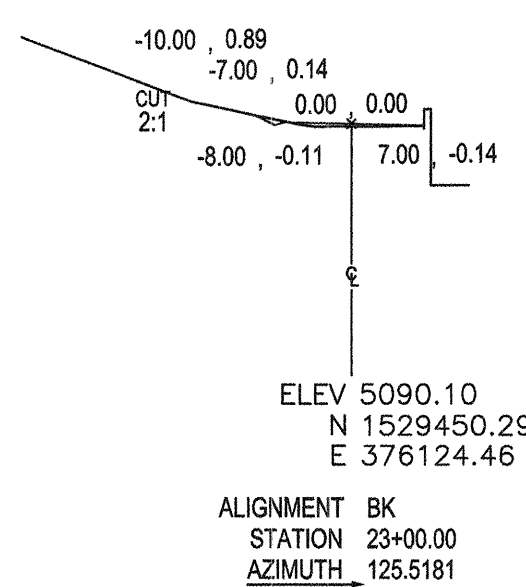
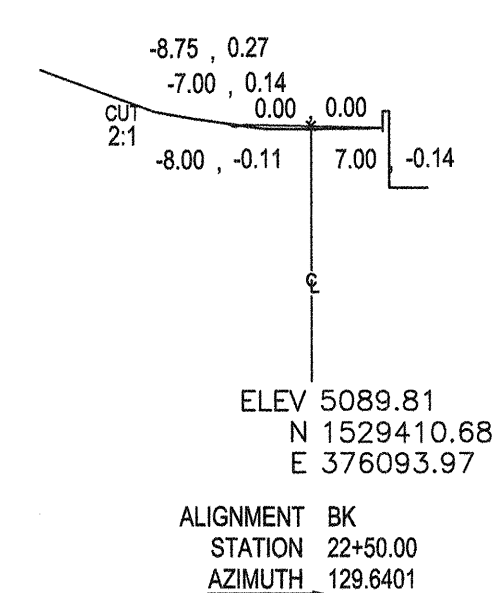
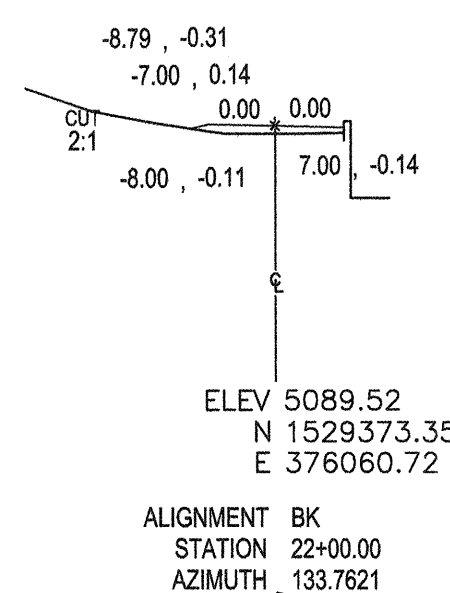
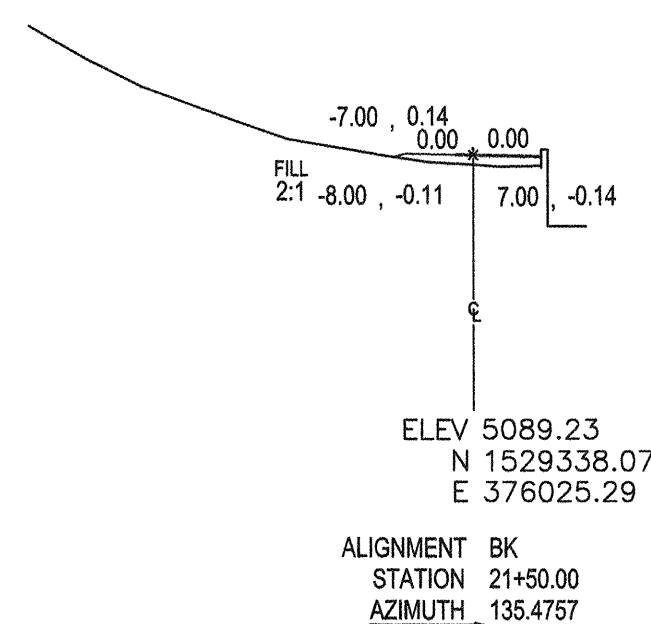
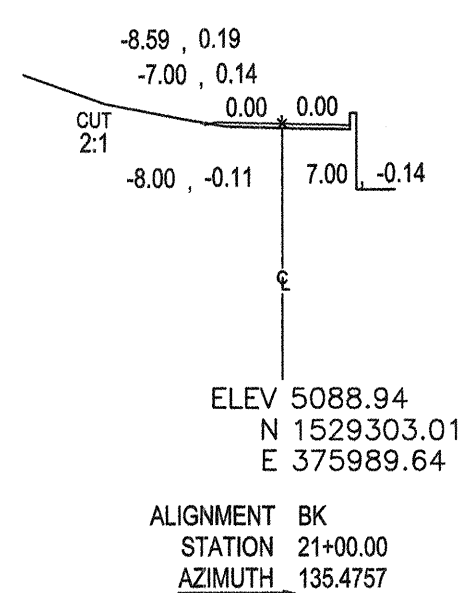
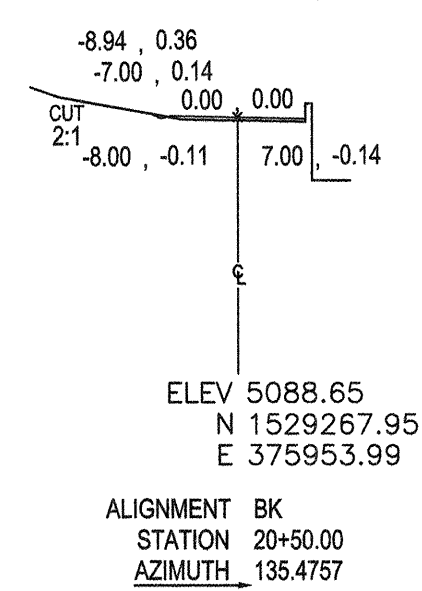
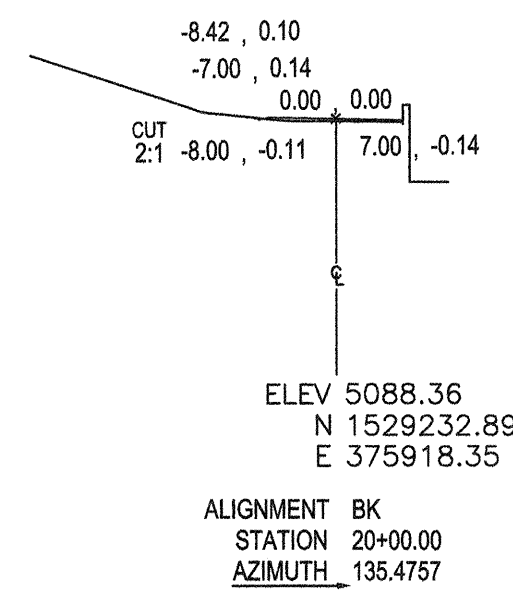
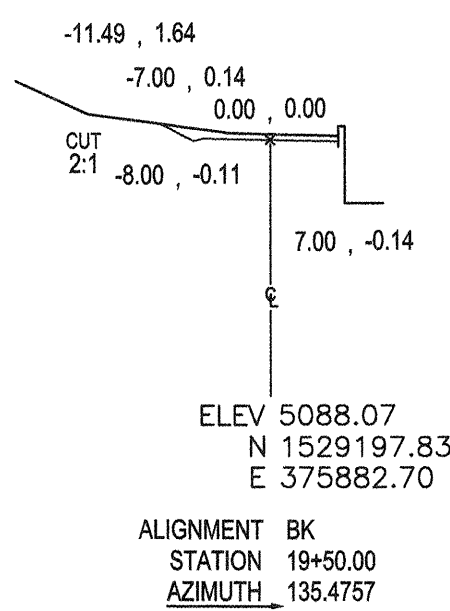
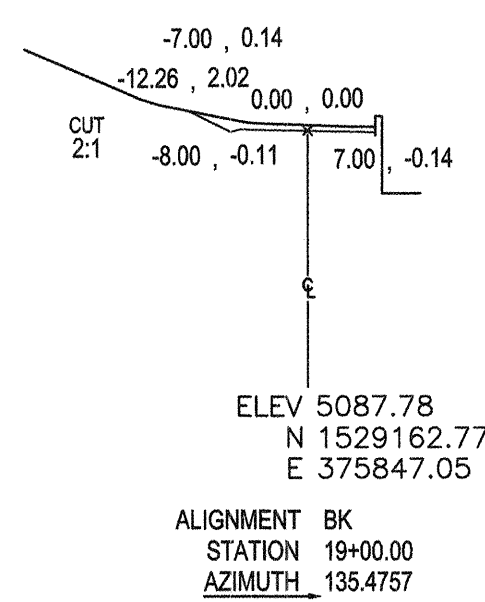
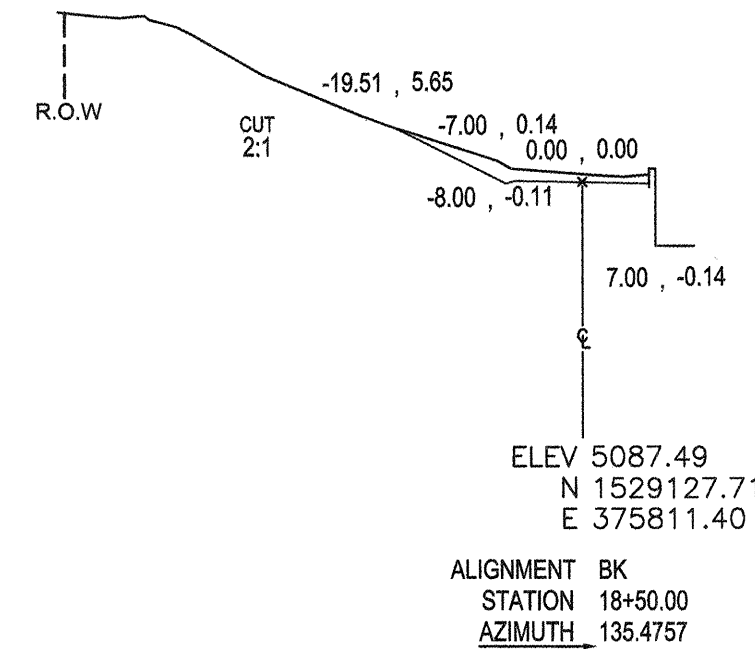
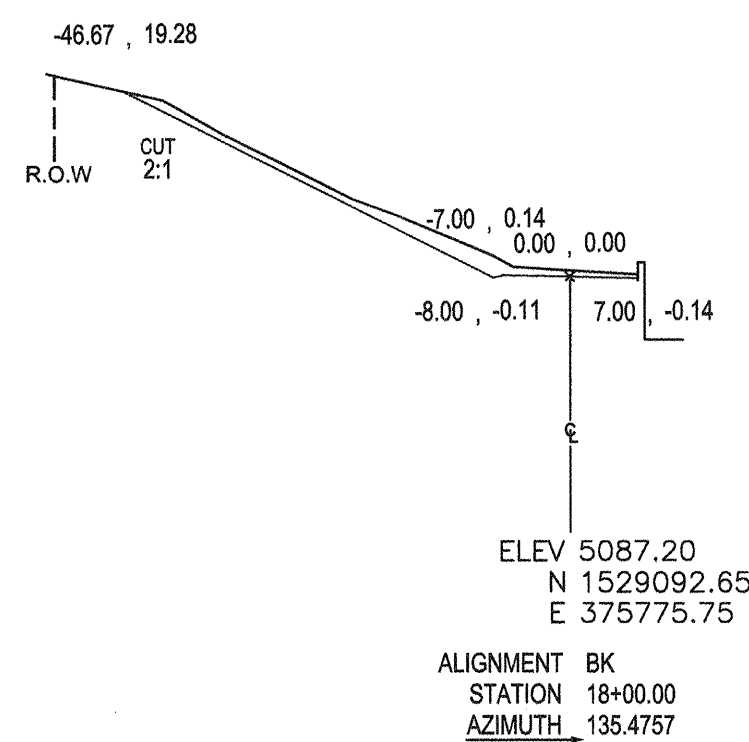
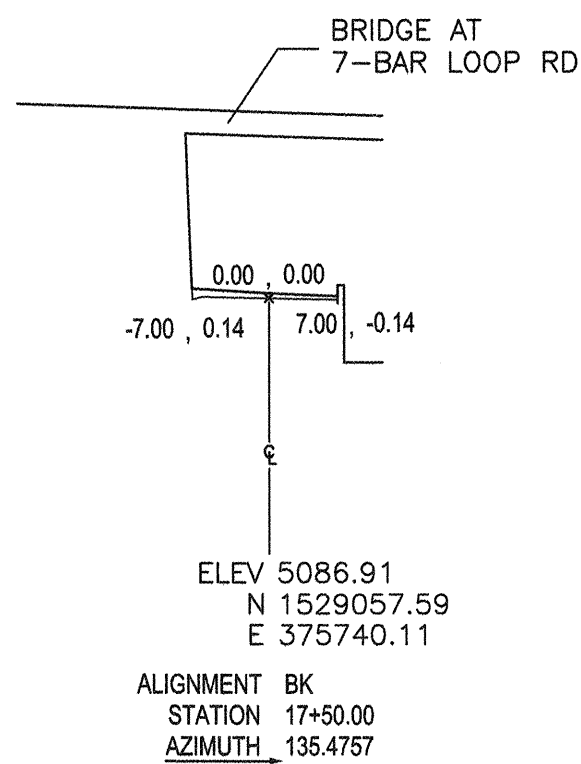
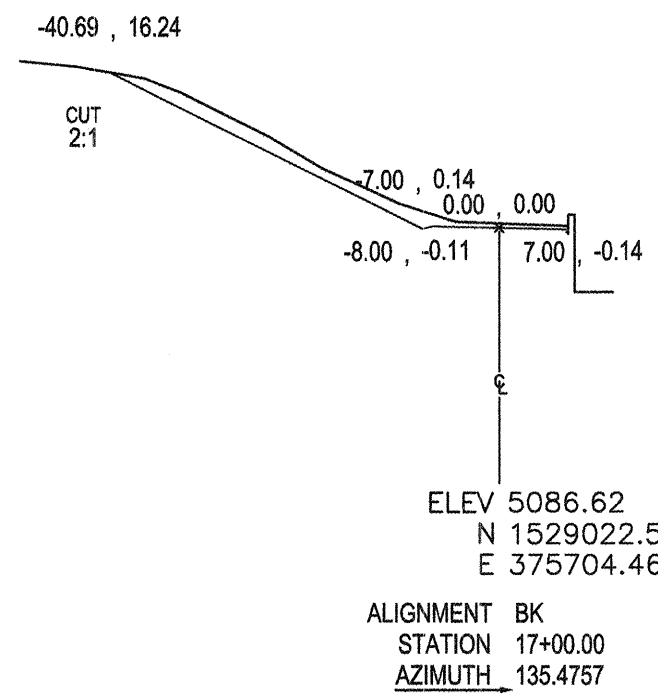
CITY OF ALBUQUERQUE
PARKS AND RECREATION DEPARTMENT
EARTHWORK SECTIONS

TITLE: COA TRAILS 2001
BLACK ARROYO TRAIL
DETAILS

APPROVED MAY 14 2002 DESIGN REVIEW COMMITTEE

APPROVED MAY 14 2002 CITY ENGINEER

PROJECT NO. 644604 MAP NO. B-13 SHEET 9 OF 15



VERTICAL SCALE FACTOR = 1X

FOR INFORMATION ONLY

I, Gary Werner, NMPE, CERTIFY THAT THE DRAWING OF THE "AS-BUILT" DIMENSIONS WAS DONE UNDER MY SUPERVISION.
Gary Werner

SCALE: 1"=20'

Resource Technology, Inc.
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Planning
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CITY OF ALBUQUERQUE
PARKS AND RECREATION DEPARTMENT
EARTHWORK SECTIONS

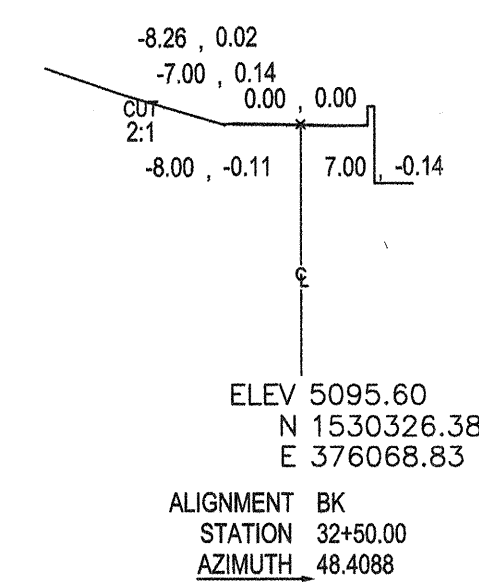
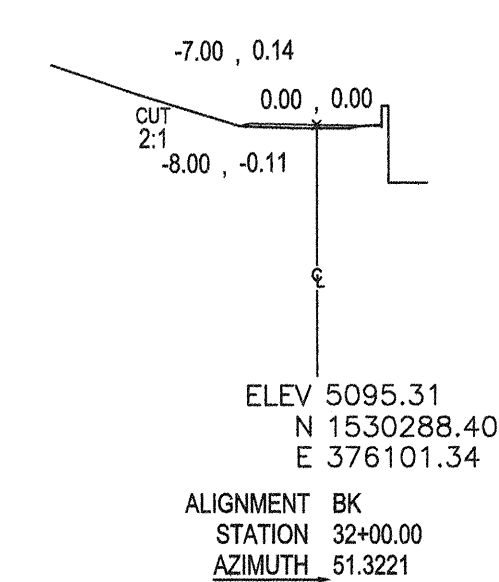
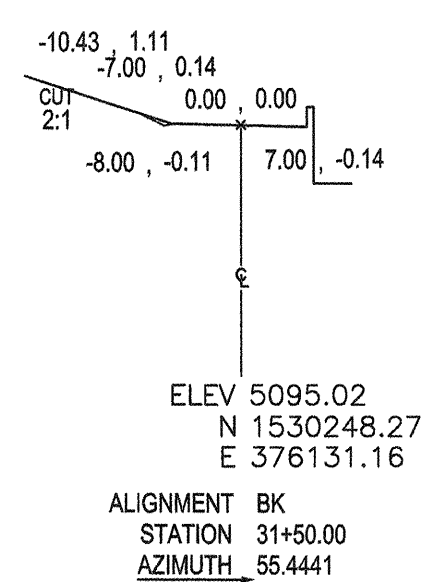
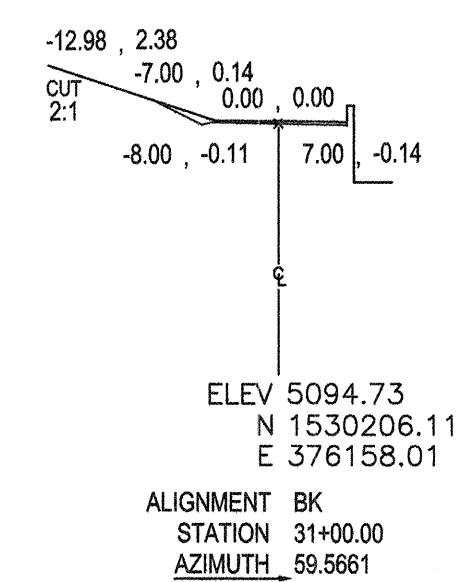
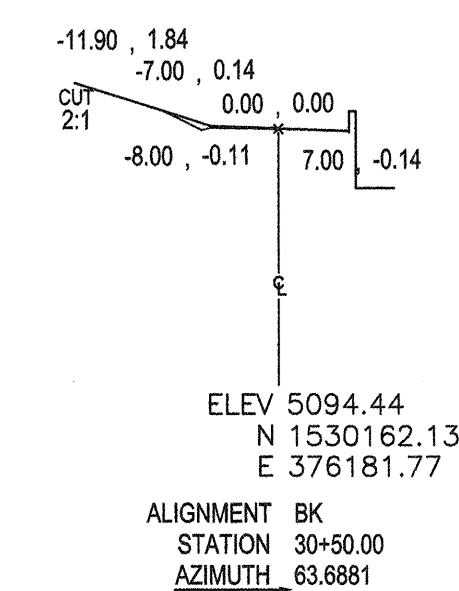
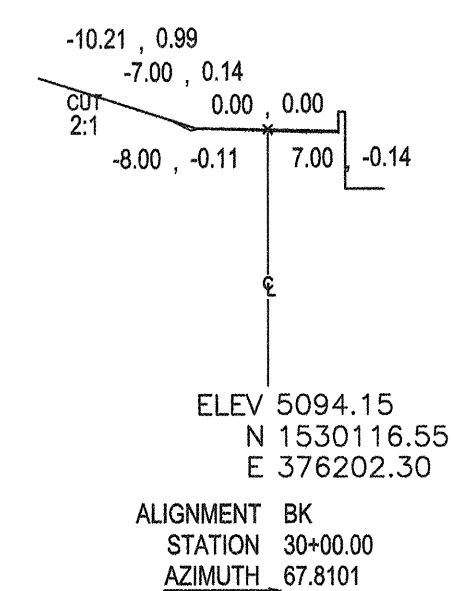
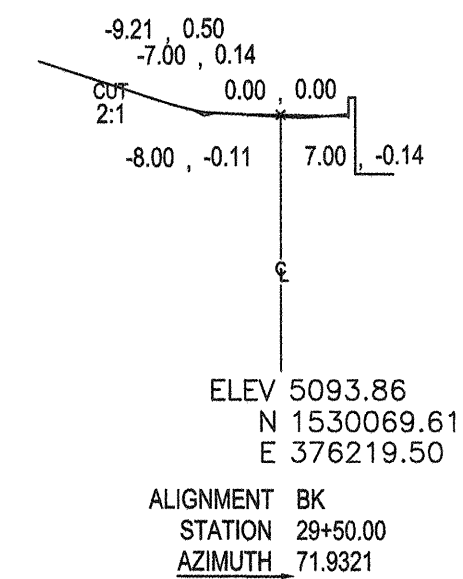
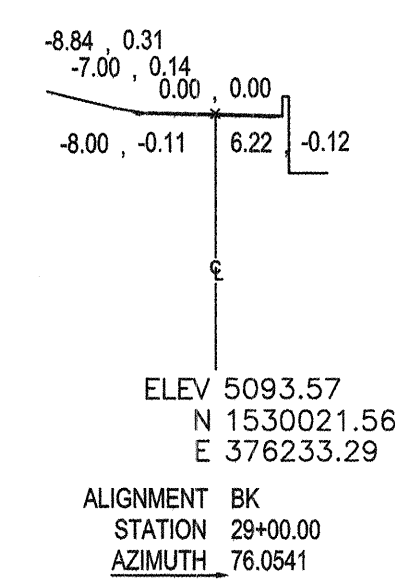
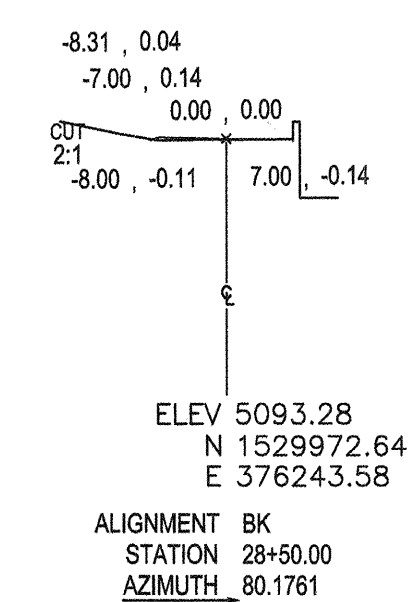
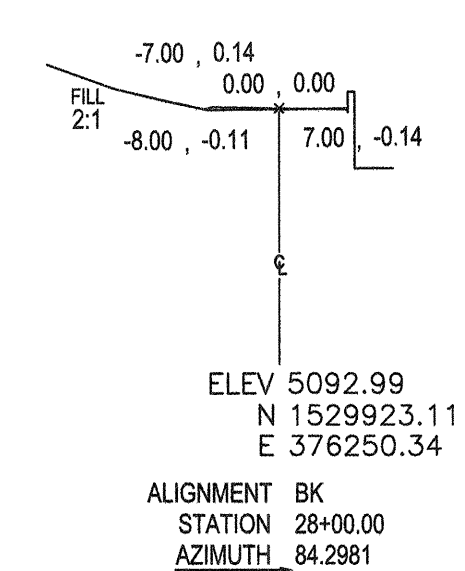
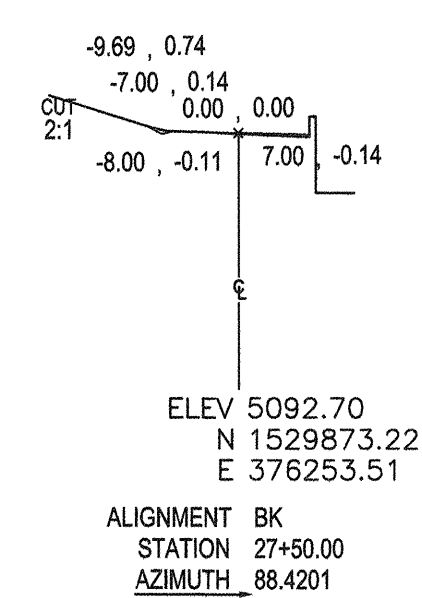
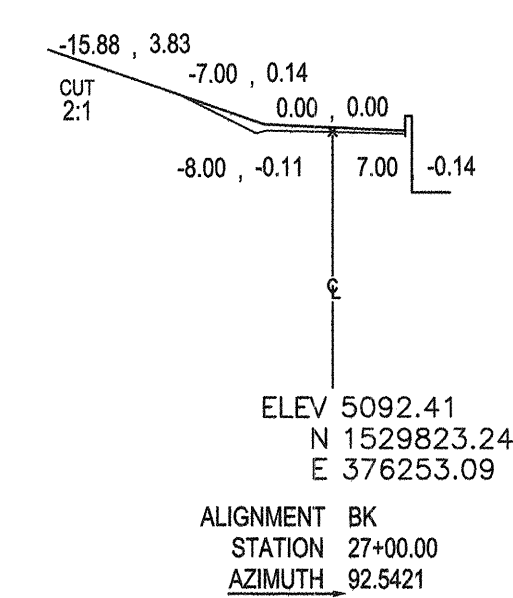
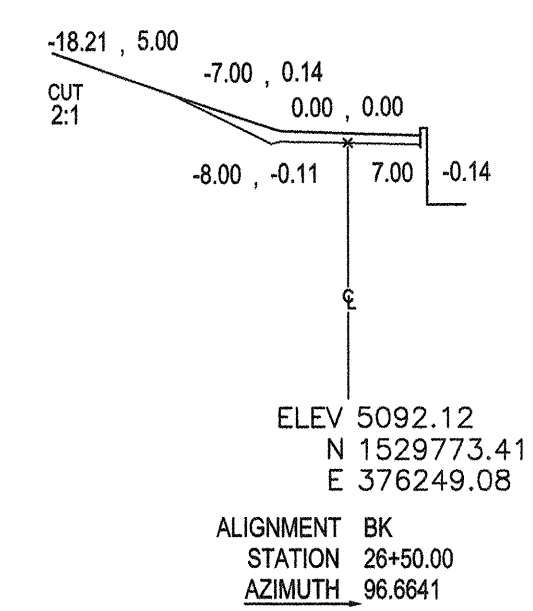
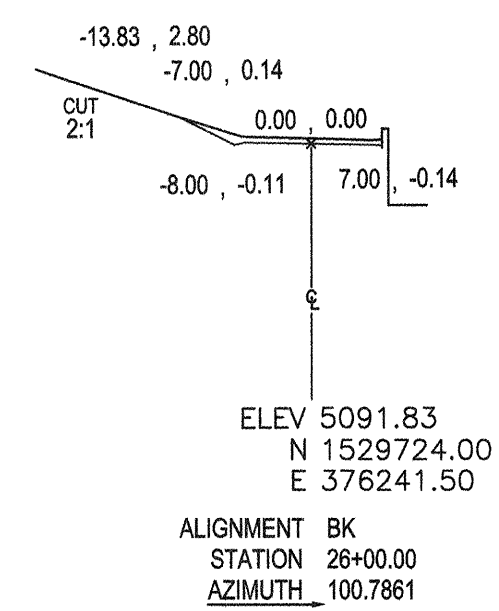
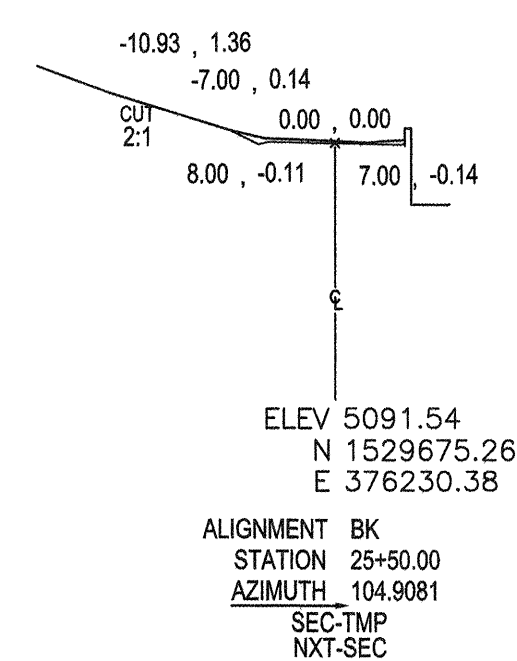
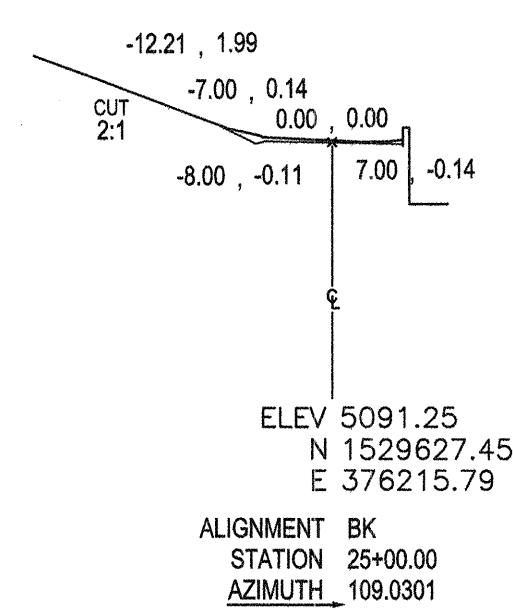
TITLE: COA TRAILS 2001
BLACK ARROYO TRAIL
EARTHWORK SECTIONS

Design Review Committee
APPROVED
MAY 14 2002
DESIGN REVIEW COMMITTEE
City Engineer Approval
APPROVED
MAY 14 2002
CITY ENGINEER

PROJECT NO. 644604
MAP NO. B-13
SHEET 11 OF 15

AS-BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL	
CONTRACTOR	STATION NAME: 13-D21	LINE 1 OF STATION DESCRIPTION GOES HERE	DATE	NO.	BY	TIME	PAGE
WORK STARTED BY	LINE 2 OF STATION DESCRIPTION GOES HERE	DATE					
ACCEPTANCE BY	LINE 3 OF STATION DESCRIPTION GOES HERE	DATE					
FIELD LOCATION BY	LINE 4 OF STATION DESCRIPTION GOES HERE	DATE					
DRAWINGS CORRECTED BY	LINE 5 OF STATION DESCRIPTION GOES HERE	DATE					
MICRO-FILM INFORMATION		NORTHING: 1514,010.29	DATE				
		EASTING: 418,042.94	DATE				
		ELEVATION: 5717.09'	DATE				

22 AP 02



VERTICAL SCALE FACTOR = 1X

FOR INFORMATION ONLY

I, Gary Werner, NMPE, CERTIFY THAT
THE DRAWING OF THE "AS-BUILT" DIMENSION
WAS DONE UNDER MY SUPERVISION.

Gary Werner

SCALE: 1"=20'

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Environmental Sciences	Albuquerque, New Mexico 87109
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CITY OF ALBUQUERQUE
PARKS AND RECREATION DEPARTMENT
EARTHWORK SECTIONS

TITLE:	COA TRAILS 2001 BLACK ARROYO TRAIL EARTHWORK SECTIONS
--------	---

DESIGN REVIEW COMMITTEE		CITY ENGINEER - Approval		Mo./Day/Yr.	Mo./Day/Yr.
APPROVED	MAY 14 2002	APPROVED	MAY 14 2002		
	DESIGN REVIEW COMMITTEE		CITY ENGINEER		

PROJECT NO.	644604
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MAP
NO. B-13

SHEET 12 OF 15

CONTRACTOR		AS BUILT INFORMATION	
WORKED BY	DATE	INSPECTOR'S ACCEPTANCE BY	DATE
VERIFICATION BY	DATE	WORKINGS CORRECTED BY	DATE
MICRO-FILM INFORMATION		MICRO-FILM INFORMATION	
RECORDED BY	DATE	RECORDED BY	DATE
NO.		NO.	

[illegible]

A circular professional engineer seal for the State of Mexico. The outer ring contains the text "INGENIERO PROFESIONAL" at the top and "ESTADO DE MEXICO" at the bottom. Inside the ring, the name "JUNE PAGE" is written in a cursive script. Below the name, the license number "14879" is printed. At the bottom of the seal, the word "REGISTERED" is printed. The seal is stamped over a document with the text "ENGINEERS SEAL" visible on the left margin.

DESIGNED BY		DATE		REMARKS	BY
DRAWN BY		DATE			
<i>REVISIONS</i>					
DESIGN					

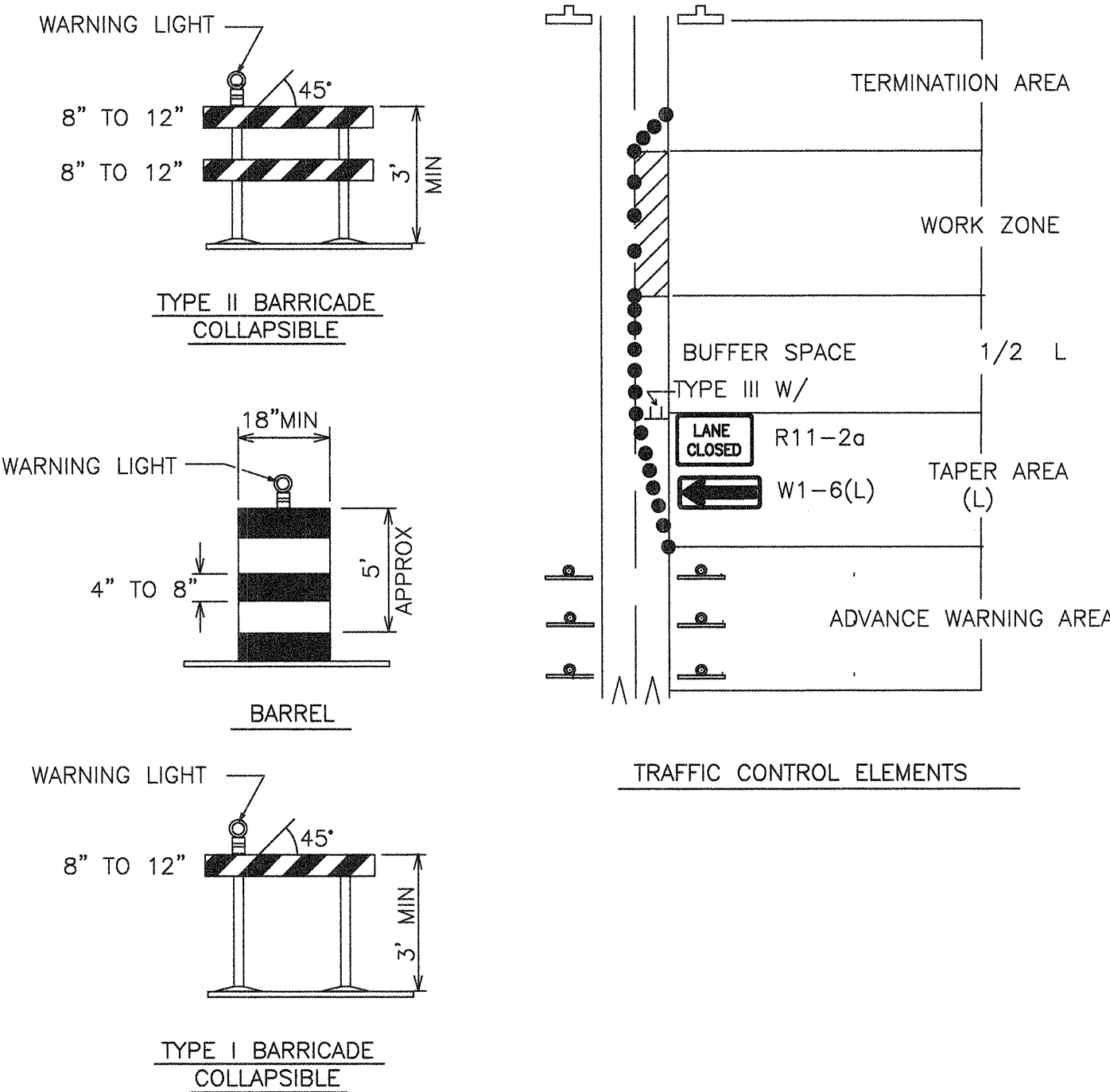
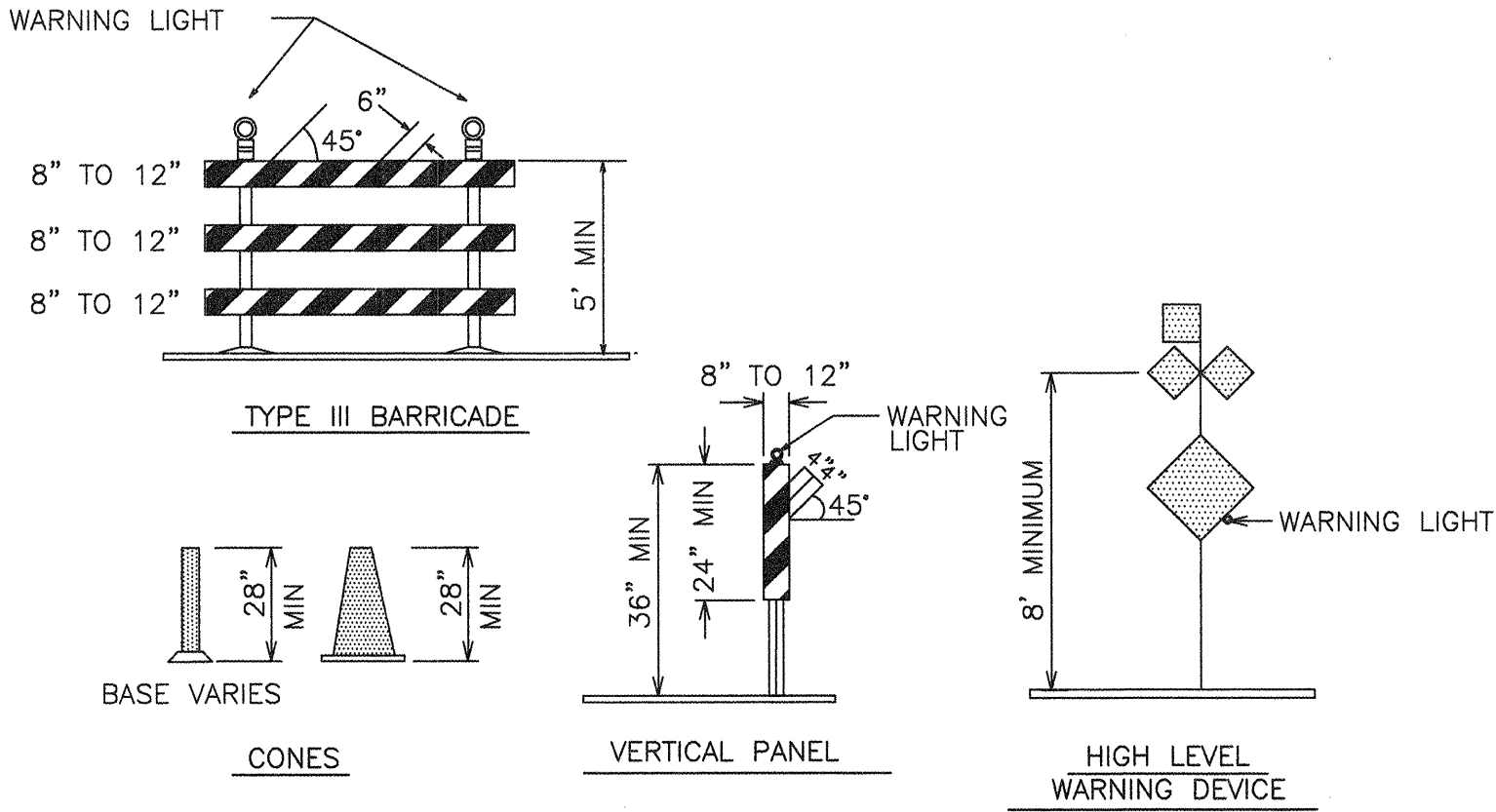
CONSTRUCTION TRAFFIC CONTROL GENERAL NOTES

1. CONTRACTOR MUST OBTAIN FROM CONSTRUCTION COORDINATION AN EXCAVATION/BARRICADING PERMIT BEFORE ENGAGING IN ANY CONSTRUCTION, MAINTENANCE OR REPAIR WORK IN ANY OF THE CITY OF ALBUQUERQUE'S RIGHTS-OF-WAY. EMERGENCY WORK THAT WOULD PRESERVE LIFE OR PROPERTY IS EXCLUDED WITH THE UNDERSTANDING, THAT A PERMIT SHALL BE OBTAINED WITHIN 24 TO 48 HOURS.
2. CONTRACTOR SHALL AT THE TIME OF PERMIT REQUEST, SUBMIT FOR APPROVAL BY CONSTRUCTION COORDINATION, A TRAFFIC CONTROL PLAN DETAILING ALL EXISTING TOPOGRAPHY SUCH AS LANE WIDTHS, DRIVEWAYS, AND BUSINESS/RESIDENTIAL ACCESSES. THE TRAFFIC CONTROL PLAN SHALL INCLUDE ALL PHASES OF WORK AND SCHEDULES INVOLVED IN THE CONSTRUCTION PROJECT. ANY SEPERATE PHASES OF A CONSTRUCTION PROJECT SHALL BE GIVEN AN INDIVIDUAL PERMIT EACH. BLANKET PERMITS WILL NOT BE ISSUED.
3. THESE TYPICAL TRAFFIC CONTROL PLANS DO NOT REFLECT THE EXISTING TOPOGRAPHY SUCH AS DRIVEWAYS, LANE WIDTHS, AND BUSINESS/RESIDENTIAL ACCESSES. EVERY LOCATION THAT REQUIRES CONSTRUCTION TRAFFIC CONTROL SHALL HAVE A DETAILED TRAFFIC CONTROL PLAN SHOWING ALL EXISTING TOPOGRAPHY.
4. CONSTRUCTION SHALL NOT BEGIN UNLESS A TRAFFIC CONTROL PLAN HAS BEEN APPROVED AND VERIFIED BY CONSTRUCTION COORDINATION.
5. CONSTRUCTION COORDINATION SHALL BE NOTIFIED 48 HOURS PRIOR TO ANY TRAFFIC CONTROL CHANGES NEEDED BY CONTRACTOR, THAT WERE NOT PREVIOUSLY APPROVED. THESE TRAFFIC CONTROL CHANGES SHALL BE REQUESTED IN WRITING ACCOMPANIED WITH A TRAFFIC CONTROL PLAN REFLECTING SUCH CHANGES.
6. ALL CONSTRUCTION TRAFFIC CONTROL DEVICES SHALL COMPLY TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INSTALL, SERVICE AND MAINTAIN ALL TRAFFIC CONTROL DEVICES. TRAFFIC CONTROL DEVICES SHALL NOT BE REMOVED OR ALTERED IN ANY WAY WITHOUT THE APPROVAL OF CONSTRUCTION COORDINATION, PER SECTION 6A-4 OF THE MUTCD, LATEST EDITION.
7. THE CONSTRUCTION TRAFFIC CONTROL INITIAL SET-UP SHALL BE BY AN AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION (ATSSA) CERTIFIED WORKSITE TRAFFIC SUPERVISOR. THE MAINTENANCE AND SERVICING SHALL ALSO BE DONE BY AN ATSSA CERTIFIED WORKSITE TRAFFIC SUPERVISOR OR EQUIVALENT.
8. CONTRACTOR IS RESPONSIBLE TO MAINTAIN AND SERVICE ALL TRAFFIC CONTROL DEVICES 24 HOURS A DAY, 7 DAYS A WEEK THROUGHOUT LENGTH OF PROJECT. CONTRACTOR IS RESPONSIBLE THAT ALL TRAFFIC CONTROL DEVICES COMPLY WITH THE MUTCD, LATEST EDITION.
9. ALL ADVANCE WARNING SIGNS SHALL BE DOUBLE INDICATED WHENEVER THERE ARE MULTI-LANE TRAFFIC IN ANY ONE GIVEN DIRECTION AND THERE IS SUFFICIENT MEDIAN SPACE.
10. ALL BARRICADES IN ALL TAPERS AND TANGENTS SHALL BE PLACED APART, A DISTANCE MEASURED IN FEET, EQUAL TO THAT OF THE POSTED SPEED LIMIT. NO EXCEPTIONS UNLESS APPROVED BY CONSTRUCTION COORDINATION PER MUTCD SECTION 6A-4.
11. ALL WORK IN ARTERIAL ROADWAYS SHALL BE ON A CONTINUOUS 24 HOUR PER DAY BASIS UNTIL COMPLETED.
12. CONTRACTOR IS RESPONSIBLE TO PROVIDE CONSTRUCTION COORDINATION, A WEEKLY LOG OF DAILY INSPECTIONS OF BARRICADE AND MAINTENANCE SCHEDULES ON PROJECTS THAT ARE OVER ONE WEEK DURATION.
13. EQUIPMENT OR MATERIALS SHALL NOT BE STORED WITHIN 15 FEET OF A TRAVELED TRAFFIC LANE DURING NON-WORKING HOURS WITHOUT THE APPROVAL OF CONSTRUCTION COORDINATION.
14. CONTRACTOR SHALL PROVIDE AND MAINTAIN A SAFE AND ADEQUATE MEANS OF CHANNELIZING PEDESTRIAN TRAFFIC AROUND AND THROUGH THE CONSTRUCTION AREA.
15. CONTRACTOR IS RESPONSIBLE FOR OBLITERATION OF ANY CONFLICTING STRIPING AND RESPONSIBLE FOR ALL TEMPORARY STRIPING.
16. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL FACILITIES, BUSINESSES AND/OR RESIDENTS AT ALL TIMES.
17. CONTRACTOR SHALL PROVIDE ACCESS SIGNS FOR BUSINESSES LOCATED WITHIN THE CONSTRUCTION AREA UNDER THE SUPERVISION OF CONSTRUCTION COORDINATION. EACH ACCESS SIGN SHALL HAVE 5 INCH, WHITE OPAQUE LETTERING ON BLUE REFLECTORIZED BACKGROUND. ACCESS SIGNS SHALL BE CONSIDERED INCIDENTAL TO THE BID AND NOT PART OF THE CONTRACT UNLESS OTHERWISE STATED. NO MORE THAN 3 BUSINESSES SHALL BE LISTED ON A ACCESS SIGN. SHOPPING CENTERS AND MALLS SHALL BE LISTED AS SUCH.
18. ALL ADVANCE WARNING SIGNS SHALL MEET THE MINIMUM REFLECTIVE INTENSITY REQUIREMENTS SET FORTH BY THE CITY OF ALBUQUERQUE. CONSTRUCTION COORDINATION SHALL DETERMINE ALL REQUIREMENTS AND APPROVE OR DISAPPROVE ANY ADVANCE WARNING SIGN PER SECTION 6A-4 OF THE MUTCD, LATEST EDITION.
19. 48 HOURS PRIOR TO OCCUPYING OR CLOSING OF A RIGHT-OF-WAY, CONTRACTOR SHALL NOTIFY: POLICE, FIRE DEPARTMENT, SCHOOLS, HOSPITALS, TRANSIT AUTHORITY, BUSINESSES AND/OR RESIDENTS THAT WILL BE AFFECTED BY THE CONSTRUCTION.
20. ANY FIELD ADJUSTMENTS SHALL BE APPROVED BY CONSTRUCTION COORDINATION.

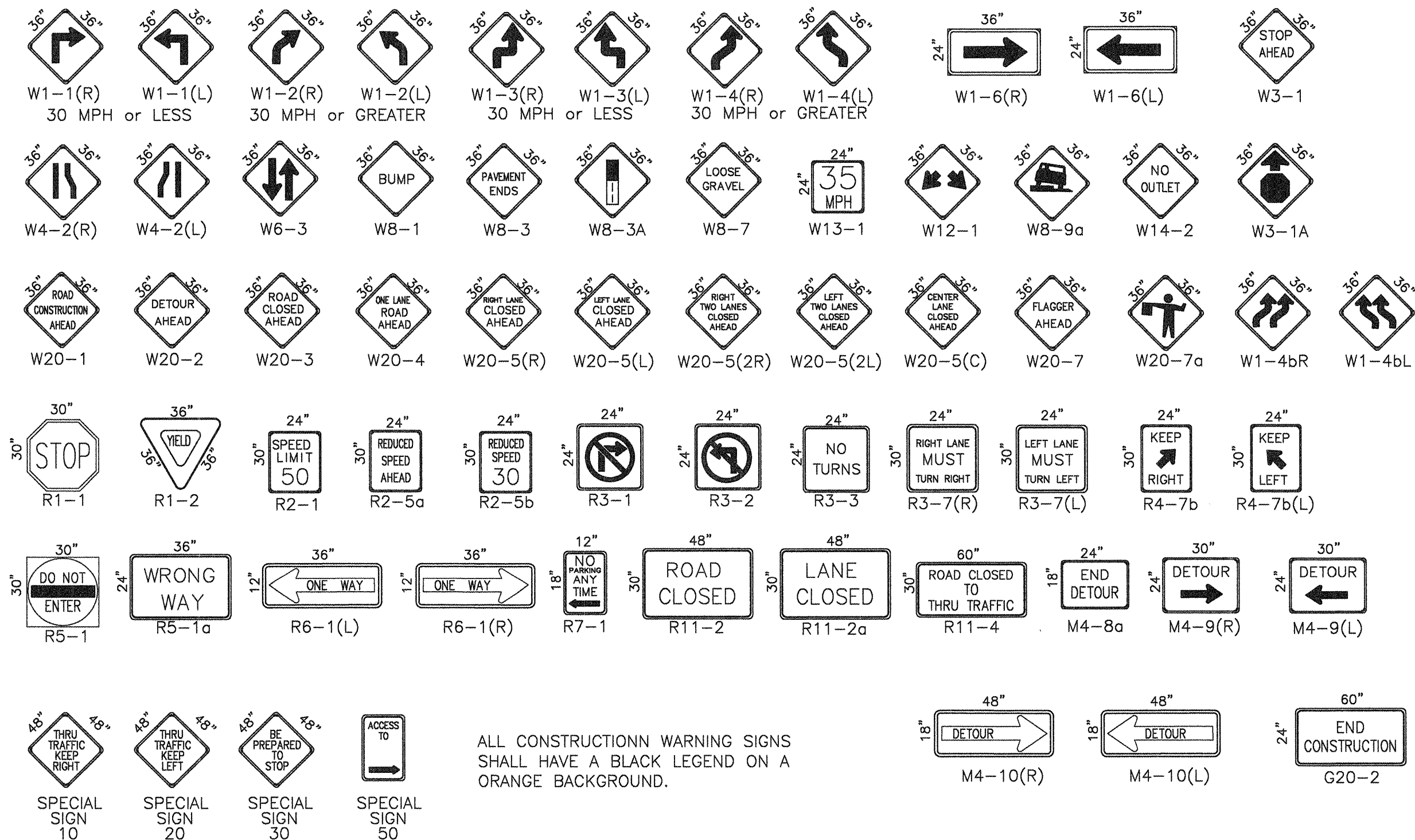
21. EXCAVATIONS SHALL BE PLATED, TEMPORARILY PATCHED OR RESURFACED PRIOR TO OPENING OF TRAFFIC. A MINIMUM OF 11 FEET SHALL BE PROVIDED FOR TRAFFIC IN ANY GIVEN DIRECTION. CONTRACTOR IS RESPONSIBLE FOR ANY WORK INVOLVED IN SATISFYING THESE REQUIREMENTS.
22. CONTRACTOR SHALL AT ALL TIMES COMPLY WITH THE FOLLOWING:
1. STANDARDS AND REQUIREMENTS SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
 2. THE CITY OF ALBUQUERQUE TRAFFIC CODE, LATEST EDITION.
 3. SECTION 19 OF THE CITY OF ALBUQUERQUE'S STANDARD SPECIFICATIONS FOR PUBLIC WORK CONSTRUCTION, AS WELL AS OTHER SECTIONS.

23. FAILURE TO COMPLY WITH ANY OF THE ABOVE MENTIONED, WILL BE ADEQUATE CAUSE TO CEASE ALL WORK ON ANY CONSTRUCTION PROJECT. WORK WILL NOT RESUME UNTIL ALL REQUIREMENTS ARE ADDRESSED AND APPROVED BY CONSTRUCTION COORDINATION.
24. ALL TRAFFIC CONTROL DEVICES SHALL BE KEPT IN NEW-CLEAN CONDITION, WASHING OF EQUIPMENT IS INCIDENTAL TO IT'S PLACEMENT AND MAINTENANCE.
25. TRAFFIC CONTROL STANDARDS APPLY ONLY WHERE THE CONSTRUCTION TRAFFIC CONTROL PLANS ARE NOT SPECIFIC.

26. ADVANCE WARNING SIGNS SHALL BE 36"x36" MIN. WITH SUPER ENGINEERING GRADE SHEETING OR BETTER. MOUNTING HEIGHT AT TOP OF SIGN SHALL BE THE SAME AS FOR A 48" SIGN AS INDICATED IN THE M.U.T.C.D.
27. CONTRACTOR SHALL MAINTAIN A GRAFFITI-FREE WORKSITE. ALL GRAFFITI SHALL BE PROMPTLY REMOVED FROM ALL EQUIPMENT, BOTH PERMANENT AND TEMPORARY.



SIGN FACE DETAILS



ALL CONSTRUCTION WARNING SIGNS SHALL HAVE A BLACK LEGEND ON A ORANGE BACKGROUND.

LEGEND

- WORK AREA
- BARRICADE - TYPE I, TYPE II, OR BARREL
- BARRICADE - TYPE III
- VERTICAL PANEL
- WARNING SIGN
- DISTANCE BETWEEN SIGNS - A DISTANCE MEASURED IN FEET EQUAL TO A VALUE OF TEN TIMES THE SPEED LIMIT OF THE STREET
- FLAGMAN POSITION
- SPACING BETWEEN BARRICADES - A DISTANCE MEASURED IN FEET EQUAL TO THE STREET LIMIT OF THE STREET
- TAPER LENGTH - SEE CHART BELOW
- THE TANGENT LENGTH IS EQUAL TO THE TAPER LENGTH FOR A GIVEN STREET.

TAPER REQUIREMENT

SPEED LIMIT (MPH)	TAPER LENGTH(L) (FEET)			MINIMUM NUMBER OF DEVICES FOR TAPER	MAXIMUM DEVICE SPACING IN FEET	
	10' LANE	11' LANE	12' LANE		ALONG TAPER	AFTER TAPER
20	70	75	80	5	20	20
25	105	115	125	6	25	25
30	150	165	180	7	30	30
35	205	225	245	8	35	35
40	270	295	320	9	40	40
45	450	495	540	13	45	45
50	500	550	600	13	50	50
55	550	605	660	13	55	55

RECOMMENDED SIGN SPACING(D) FOR ADVANCE WARNING SIGN SERIES

SPEED MILES PER HOUR	MINIMUM DISTANCE IN FEET BETWEEN SIGNS	FROM LAST SIGN TO TAPER
0-20	10 X SPEED LIMIT	10 X SPEED LIMIT
25-30	10 X SPEED LIMIT	10 X SPEED LIMIT
30-35	10 X SPEED LIMIT	10 X SPEED LIMIT
40-45	10 X SPEED LIMIT	10 X SPEED LIMIT
50-60	10 X SPEED LIMIT	10 X SPEED LIMIT

TAPER CRITERIA

TYPE OF TAPER	TAPER LENGTH
UPSTREAM TAPER:	
MERGING TAPER	L MINIMUM
SHIFTING TAPER	1/2 L MINIMUM
SHOULDER TAPER	1/2 L MINIMUM
TWO-WAY TRAFFIC TAPER	100 FEET MAXIMUM
DOWNSTREAM TAPERS	100 FEET PER LANE

TAPER LENGTH COMPUTATION

SPEED LIMIT	
40 MPH OR LESS	$L = \frac{WS^2}{60}$
40 MPH OR GREATER	$L = W \times S$

L = TAPER LENGTH
W = WIDTH OF OFFSET IN FEET
S = POSTED SPEED OR OFF-PEAK 85-PERCENTILE SPEED IN MPH

FOR INFORMATION ONLY

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP

TITLE: TRAFFIC CONTROL
SIGNING AND CONSTRUCTION TRAFFIC CONTROL STANDARDS

DESIGN REVIEW COMMITTEE CITY ENGINEER APPROVAL

MO./DAY/YR. MO./DAY/YR.

CITY PROJECT NO. 644604 ZONE MAP NO. B-13 SHEET 14 OF 15

