

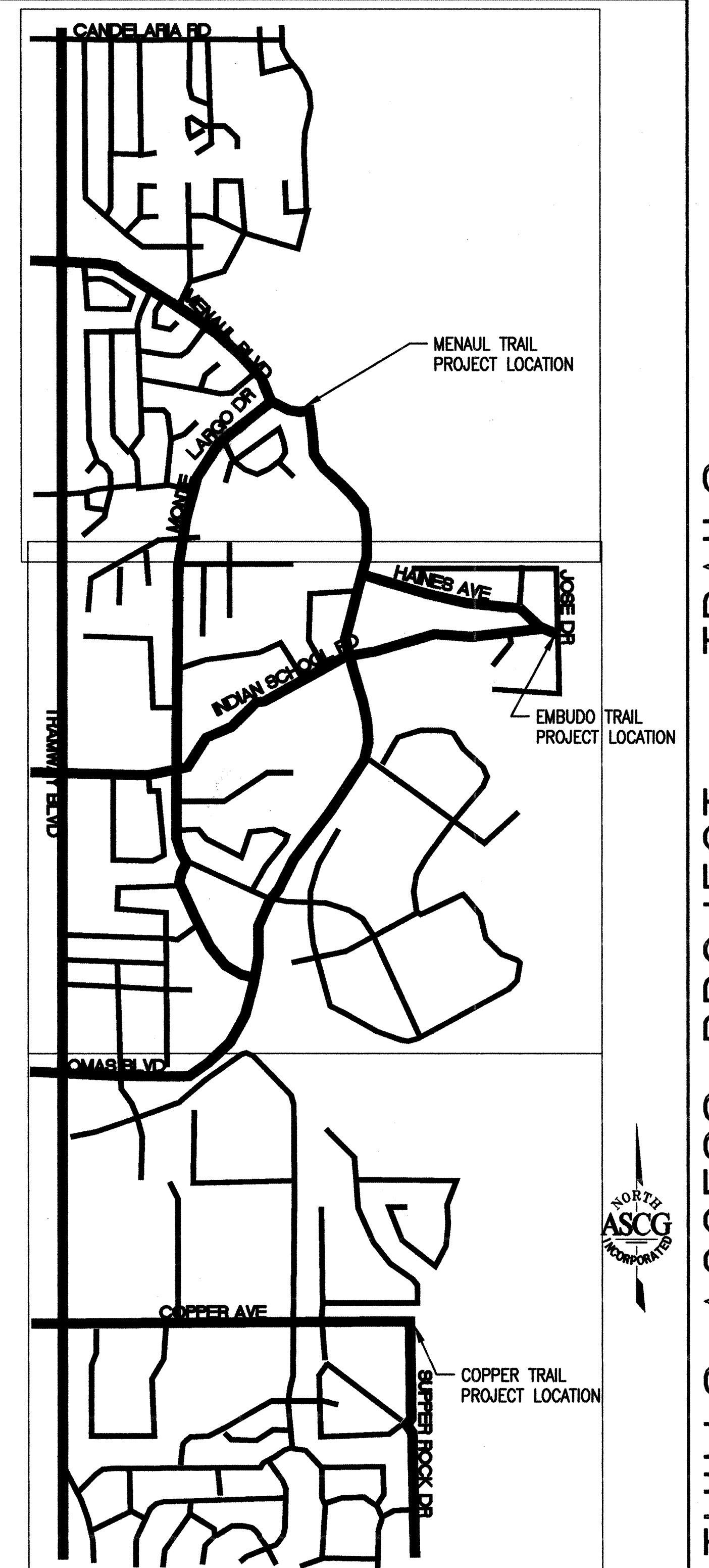


CITY OF ALBUQUERQUE  
OPEN SPACE  
CONSTRUCTION PLANS  
FOR  
FOOTHILLS ACCESS PROJECT  
TRAILS

DECEMBER 2001

INDEX OF DRAWINGS

- 1 COVER, VICINITY MAP, INDEX OF DRAWINGS
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- 7 TYPICAL TRAFFIC CONTROL & SIGNING EXAMPLES (REF MUTCD)



FOR INFORMATION ONLY

J:\COA\COA\_OPEN\ONCALL\COV\201582-TRAILS\DWG\Gen\201582COV.dwg 12-06-01 MDJ

REV.	SHEETS	CITY ENGINEER	DATE	USER DEPARTMENT	DATE	USER DEPARTMENT	DATE
ENGINEERS STAMP & SIGNATURE		APPROVALS		ENGINEER		DATE	
		DRC Chairman				12-20-01	
		Transportation				12-19-01	
		Water/Wastewater				12-20-01	
		Hydrology				12-19-01	
		Parks & Rec.				12-19-01	
Constr. Coord.						12-20-01	
City Project No.		6478.03		Sheet		1 of 7	

FOOTHILLS ACCESS PROJECT - TRAILS

(SEE PLANS FOR ITEMS WITHIN THIS PROJECT)

LEGEND

PROPOSED	EXISTING	DESCRIPTION	PROPOSED	EXISTING	DESCRIPTION
		SANITARY SEWER MANHOLE			STORM DRAIN MANHOLE
		WATER MANHOLE			TELEPHONE MANHOLE
		SANITARY SEWER LINE WITH SIZE AND TYPE			STORM DRAIN LINE WITH SIZE AND TYPE
		WATER LINE WITH SIZE AND TYPE			OVERHEAD ELECTRICAL LINE
		UNDERGROUND ELECTRICAL/TRAFFIC CONTROL			UNDERGROUND TELEPHONE
		GAS LINE WITH SIZE AND TYPE			CABLE TELEVISION LINE
		ENCASEMENT			CATCH BASIN
		GATE VALVE			BUTTERFLY VALVE
		FIRE HYDRANT			REDUCER
		SANITARY SEWER SERVICE CONNECTION			WATER SERVICE CONNECTION
		TEE			CROSS
		BEND			CAP AND PLUG
		WATER METER			DOUBLE WATER METER
		VALVE BOX			POWER POLE
		LIGHT POLE			TRAFFIC LIGHT
		TRAFFIC CONTROL BOX			PULL BOX
		TELEPHONE BOOTH			

ABBREVIATIONS

AB	ANCHOR BOLT	DWG	DRAWING	MH	MANHOLE	SD	STORM DRAIN
AC	ASPHALTIC CONCRETE	E	EAST	MIN	MINIMUM	SF	SQUARE FEET
AHD	AHEAD	EA	EACH	MISC	MISCELLANEOUS	SIM	SIMILAR
APPROX	APPROXIMATELY	EF	EACH FACE	MO	MASONRY OPENING	SM	SUCTION MANIFOLD
BK	BACK	EG	EXISTING GRADE	MOV	MOTOR OPERATED VALVE	SQ	SQUARE
BLDG	BUILDING	EJ	EXPANSION JOINT	N	NORTH	STA	STATION
BLK	BLOCK	EL	ELEVATION	NIC	NOT IN CONTRACT	STD DWG	STANDARD DRAWING
BM	BEAM/BENCH MARK	ELEC	ELECTRICAL	NO	NUMBER	SY	SQUARE YARDS
BOP	BOTTOM OF PIPE	EP	EDGE OF PAVEMENT	NTS	NOT TO SCALE	SYM	SYMMETRICAL
BOT	BOTTOM	EW	ELECTRIC WATER COOLER	OD	OUTSIDE DIAMETER	TA	TOP OF ASPHALT
BRG	BEARING	EXIST	EXISTING	OPP	OPPOSITE	TAN	TANGENT
CATV	CABLE TELEVISION	FD	FLOOR DRAIN	PC	POINT OF CURVE	TC	TOP OF CONCRETE
CB	STORM CATCH BASIN/INLET	F-F	FACE-TO-FACE	PE	PEDESTAL	TG	TOP OF GRAVEL
CCY	CONCRETE CYLINDER PIPE	FF	FINISH FLOOR	PI	POINT OF INTERSECTION	THC	TOP OF HEADER CURB
CFM	CUBIC FEET PER MINUTE	FG	FINISH GRADE	PL/B	PLATE	THK	THICK/THICKNESS
CFS	CUBIC FEET PER SECOND	FL	FLOW LINE ELEVATION/FLANGE	POL	POINT ON LINE	TOC	TOP OF CURB
CI	CAST IRON	FOC	FACE OF CURB	ROW	RIGHT OF WAY	T.O.P.	TOP OF PIPE
CJ	CONSTRUCTION JOINT	FPS	FEET PER SECOND	PRV	POINT REVERSE CURVE	TOS	TOP OF STEEL
CL or CL	CENTERLINE	FT	FOOT/FEET	PSF	PRESSURE REDUCING VALVE	TOW	TOP OF WALL
CL CONST	CENTERLINE OF CONSTRUCTION	GA	GAGE	PSI	POUNDS PER SQUARE FOOT	TP	TOP OF PAVEMENT
CLG	CEILING	GPM	GALLONS PER MINUTE	PT	POUNDS PER SQUARE INCH	TYP	TYPICAL
CLR	CEILING	HB	HOSE BIB	PT	POINT OF TANGENT	T&B	TOP AND BOTTOM
CMU	CONCRETE MASONRY UNIT	HC	HOLLOW CORE	PVC	POLY VINYL CHLORIDE	TW	TOP OF WALL
CO	CLEANOUT	HGL	HYDRAULIC GRADE LINE	Q	FLOW RATE	UE	UNDERGROUND ELECTRICAL
COA	CITY OF ALBUQUERQUE	HORIZ	HORIZONTAL	QTY	QUANTITY	V	VELOCITY
COL	COLUMN	HP	HIGH PRESSURE	R	RADIUS	VERT	VERTICAL
CONC	CONCRETE	IN	INCH	RCP	REINFORCED CONCRETE PIPE	VRT	VENT THROUGH ROOF
CONST	CONSTRUCTION	INV	INVERT	ROD	RESERVOIR OVERFLOW DRAIN	W	WEST
CP	CONTROL POINT	LB	POUND	RD	ROOF DRAIN	WC	WELL COLLECTOR
CY	CUBIC YARDS	LLH	LONG LEG HORIZONTAL	RT	RIGHT	WL	WATER LINE
DET	DETAIL	LLV	LONG LEG VERTICAL	S	SOUTH		
DI	DUCTILE IRON	LT	LIGHT/LEFT	SAS	SANITARY SEWER		
DIA	DIAMETER	MAX	MAXIMUM				
DM	DISCHARGE MANIFOLD	MFR	MANUFACTURER				
DN	DOWN						

GENERAL NOTES

- ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED UNDER THIS CONTRACT SHALL, EXCEPT AS OTHERWISE STATED OR PROVIDED FOR HEREON, BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION - 1986 EDITION (REFERRED TO HEREINAFTER AS THE STANDARD SPECIFICATIONS AS UPDATED THROUGH UPDATE NO. 6.)
- FIVE (5) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTACT NEW MEXICO ONE-CALL SYSTEM, PH. 260-1990, FOR LOCATION OF EXISTING UTILITIES.
- PRIOR TO CONSTRUCTION, EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
- COORDINATE CONSTRUCTION ACTIVITIES WITH OTHER CONTRACTORS AND UTILITY COMPANIES WORKING IN THE SAME AREA.
- ALL PERMANENT R.O.W. AND CONSTRUCTION EASEMENTS ON PRIVATE PROPERTY WILL BE OBTAINED BY THE CITY OF ALBUQUERQUE PRIOR TO THE BEGINNING OF CONSTRUCTION. AS APPLICABLE.
- WHEN ABUTTING NEW PAVEMENT TO EXISTING, SAWCUT EXISTING PAVEMENT TO A STRAIGHT LINE, AS REQUIRED, TO REMOVE ANY BROKEN OR CRACKED PAVEMENT AND MATCH NEW TO EXISTING.
- EXERCISE DUE CARE TO AVOID DISTURBING EXISTING UNDERGROUND UTILITIES. COORDINATE WITH THE UTILITY COMPANIES IN ORDER TO PREVENT ANY SERVICE DISRUPTION.
- FIVE (5) WORKING DAYS PRIOR TO CONSTRUCTION, OBTAIN A BARRICADING PERMIT FROM THE CONSTRUCTION COORDINATION DIVISION. NOTIFY BARRICADE ENGINEER (768-2551) PRIOR TO OCCUPYING STREET.
- REPLACE ALL STREET STRIPING ALTERED OR DESTROYED WITH PLASTIC REFLECTORIZED PAVEMENT MARKINGS TO EXISTING LOCATION OR AS INDICATED BY THIS PLAN SET.
- NOTIFY THE ENGINEER NOT LESS THAN SEVEN (7) CALENDAR DAYS PRIOR TO STARTING WORK SO THAT THE ENGINEER MAY TAKE NECESSARY MEASUREMENTS TO INSURE PRESERVATION OF SURVEY MONUMENTS. DO NOT DISTURB PERMANENT SURVEY MONUMENTS WITHOUT THE CONSENT OF THE ENGINEER. NOTIFY THE ENGINEER AND BEAR THE EXPENSE OF REPLACING ANY SURVEY MONUMENTS THAT MAY BE DISTURBED WITHOUT PERMISSION. REPLACEMENT WILL 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, ADJUST, AT THE CONTRACTOR'S EXPENSE, THE MONUMENT COVER TO THE NEW GRADE UNLESS OTHERWISE SPECIFIED. REFER TO SECTION 4.4 OF THE GENERAL CONDITIONS OF THE STANDARD SPECIFICATIONS.
- PLACE EXCAVATED MATERIALS AS APPROVED BY THE ENGINEER.
- THE REMOVAL AND REPLACEMENT OF PRIVATE SIGNS AND OBSTRUCTIONS SHALL BE PERFORMED BY THE RESPECTIVE PROPERTY OWNERS UNLESS OTHERWISE NOTED. COORDINATION SHALL BE THE RESPONSIBILITY OF THE ENGINEER.
- WHERE TRENCHING EXPOSES EXISTING UTILITY LINES, THE CONTRACTOR IS RESPONSIBLE FOR SUPPORTING THE LINE DURING CONSTRUCTION AND ASSURE THAT IT IS BACKFILLED AND COMPACTED IN ACCORDANCE WITH COA STANDARD SPECIFICATIONS.
- AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING WORK WITHIN THE CITY RIGHT-OF-WAY. AN APPROVED COPY OF THESE PLANS MUST BE SUBMITTED AT THE TIME OF APPLICATION FOR THIS PERMIT. THE COST OF THE PERMIT IS INCIDENTAL TO THE WORK.
- BACKFILL AND COMPACT IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS AND SUPPLEMENTAL TECHNICAL SPECIFICATIONS.
- ANY AREA NOT PAVED OR LANDSCAPED WHICH IS DISTURBED DURING CONSTRUCTION SHALL BE SEEDED WITH NATIVE GRASS PER SPECIFICATIONS. THE COST OF SEEDING SHALL BE CONSIDERED INCIDENTAL TO THE WORK.
- ALL EXISTING REGULATORY SIGNS THAT NEED TO BE REMOVED, RELOCATED OR REINSTALLED WILL BE PERFORMED BY THE CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT CONSTRUCTION COORDINATOR. NOTIFY THE CITY CONSTRUCTION COORDINATOR THREE (3) WORKING DAYS IN ADVANCE OF ANY REQUIRED WORK.
- REPLACE ALL TRAFFIC SIGNS REMOVED IN KIND TO ORIGINAL LOCATIONS OR AS INDICATED BY THIS PLAN SET. THE CONTRACTOR SHALL NOTIFY THE CITY CONSTRUCTION COORDINATOR THREE (3) WORKING DAYS IN ADVANCE OF ANY REQUIRED WORK.
- COORDINATE WITH THE WATER UTILITY DIVISION (857-8200) FIVE (5) WORKING DAYS PRIOR TO ANY WORK NEEDING THE EXECUTION OF THE WATER VALVE SHUT-OFF AND TO OBTAIN A WATER SHUT-OFF PERMIT.
- CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING FACILITIES, PAVEMENTS, PAVEMENT MARKINGS, CURB AND GUTTER, DRIVEPADS, WHEELCHAIR RAMPS, SIDEWALK, GATES, FENCING, ANY OTHER IMPROVEMENTS DURING CONSTRUCTION EXCEPT FROM THOSE SECTIONS INDICATED FOR REMOVAL ON THE PLANS. REPAIR OR REPLACE DAMAGED IMPROVEMENTS PER COA STANDARDS AT CONTRACTOR'S EXPENSE. PROTECT CURB AND GUTTER FROM INCIDENTAL SPLASHING DURING THE TACK COAT APPLICATION AND CLEAN SAME AT CONTRACTOR'S EXPENSE SHOULD SPLASHING OCCUR.
- MAINTAIN A GRAFFITI-FREE WORK SITE. PROMPTLY REMOVE ANY AND ALL GRAFFITI FROM EQUIPMENT, WHETHER PERMANENT OR TEMPORARY.
- PERFORM ALL EXCAVATION, TRENCHING AND SHORING ACTIVITIES IN ACCORDANCE WITH OSHA 29CFR1926.650 SUBPART P.
- PRIOR TO THE REMOVAL OF ANY PAVEMENT, CURB AND GUTTER, AND OTHER IMPROVEMENTS, SURVEY TO ENSURE RESTORATION OF PROPER GRADES, CROWN AND ELEVATIONS. REMOVE AND REPLACE SHORT (LESS THAN 6") EXISTING SECTIONS OF PAVEMENT AND CURB AND GUTTER REMAINING AFTER PRIMARY REMOVALS ARE COMPLETED.
- MINOR ADJUSTMENTS TO HORIZONTAL AND VERTICAL LOCATIONS OF IMPROVEMENTS AND RELATED COMPONENTS IS CONSIDERED INCIDENTAL TO THE WORK.
- BOULDERS MAY BE ENCOUNTERED DURING CONSTRUCTION ACTIVITIES. REMOVAL AND DISPOSAL OF BOULDERS DURING EXCAVATION ACTIVITIES IS CONSIDERED INCIDENTAL TO THE WORK AND NO ADDITIONAL PAYMENT WILL BE MADE.

SEEDING SPECIFICATION

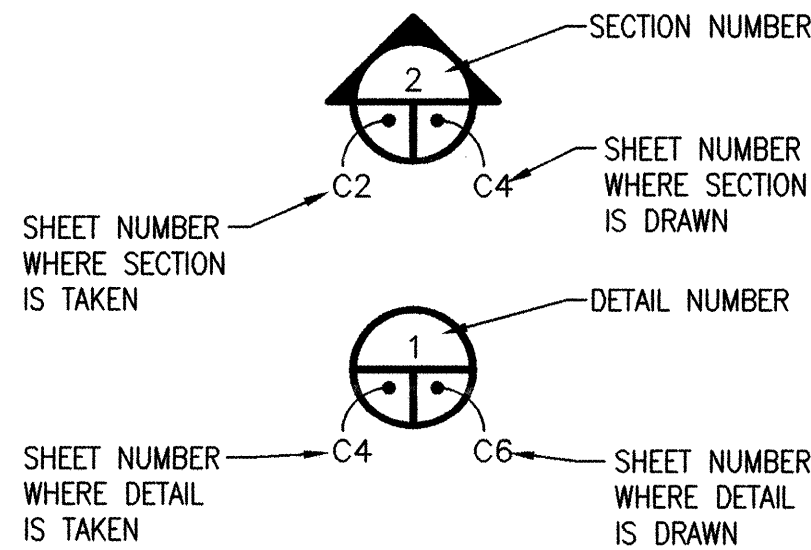
1	FOOTHILLS "ELENA" TRAIL MIX SUPPLIER/CONTACT 'CURTIS & CURTIS', CLOVIS N.M., PHONE # (505)762-4759 MIX FOR 1 ACRE:		
		P.L.S. #	BULK #
	SIDEOTS GRAMA NINER	2.00#	4.76#
	WHEATGRASS, WESTERN ARRIBA	2.00#	2.48#
	BLUE GRAMA HACHITA	1.00#	2.51#
	GALLETA, FLORETS VIVA	1.00#	1.21#
	INDIAN RICEGRASS PALOMA	1.00#	1.74#
	BLUESTEM, LITTLE PASTURA	1.00#	2.46#
	GAILLARDIA ARISTATA, UNTREATED	1.00#	1.62#
		9.00#	16.78#

P.L.S. = PURE LIVE SEED

SOIL STABILIZER SPECIFICATION

- "STOCKOSORB" AGRO SUPPLIER TERRA FIRMA INDUSTRIES, PHONE# (505) 994-0846

SYMBOLS



FOR INFORMATION ONLY

CITY OF ALBUQUERQUE  
PUBLIC WORKS DEPARTMENT  
UTILITY DESIGN SECTION

TITLE: **FOOTHILLS ACCESS PROJECT - TRAILS  
GENERAL NOTES, ABBREVIATIONS  
AND LEGEND**

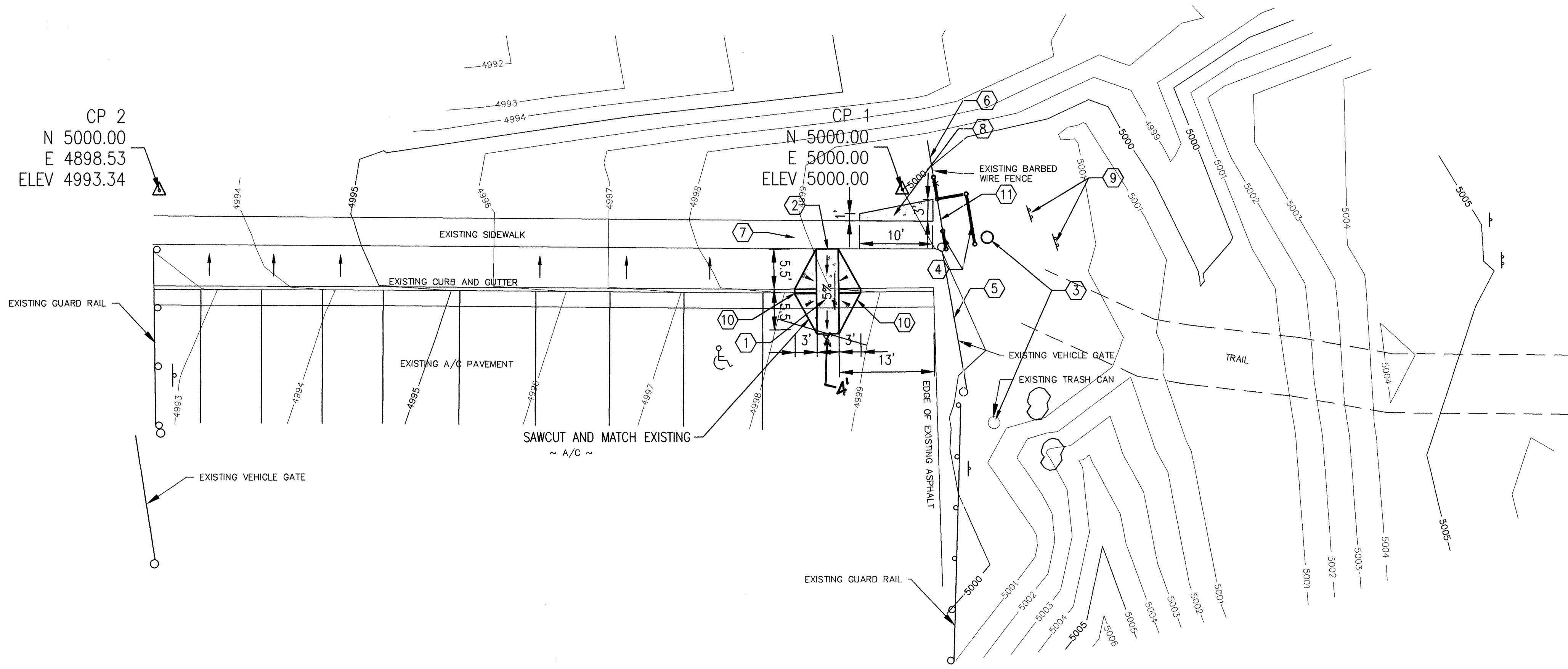
APPROVED: DEC 20 2001  
DESIGN REVIEW COMMITTEE

APPROVED: DEC 20 2001  
CITY ENGINEER

Mo./Day/Yr. No./Day/Yr.

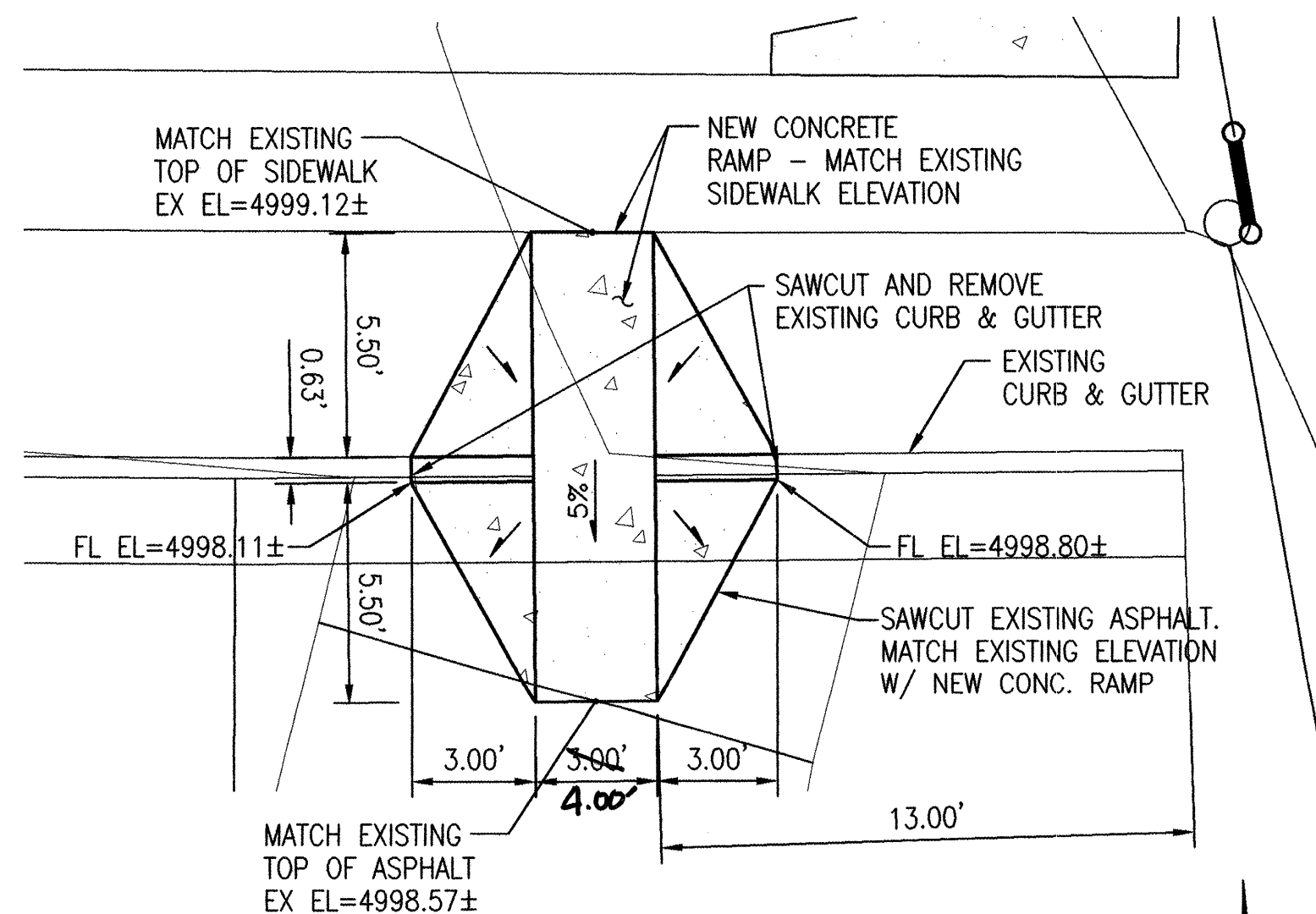
City Project No. 6478.03 Zone Map No. H23,J23,K23 Sheet 2 of 7





1 **COPPER TRAIL PLAN**  
SCALE: 1"=10'

0 5' 10' 20' 30'  
1" = 10'



2 **COPPER TRAIL ENLARGED PLAN**  
SCALE: 1"=4'

## KEYED NOTES

- 1 CONSTRUCT CURB ACCESS RAMP. SEE COA STD DWG NO. 2440. FIELD ADJUST AS REQUIRED. SEE DETAIL THIS SHEET.
- 2 MATCH CURB ACCESS RAMP TO EXISTING SIDEWALK.
- 3 RELOCATE REFUSE CONTAINER TO NEW LOCATION SHOWN.
- 4 COMPACT TRAIL AREA FOR L-SHAPED ENTRY PORTAL, POSTS AND FENCE BY OTHERS. SEE SHEET 5, DETAILS 3 & 5.
- 5 PROTECT EXISTING PIPE GATE.
- 6 PROTECT EXISTING FENCE.
- 7 PROTECT EXISTING SIDEWALK.
- 8 CONSTRUCT SIDEWALK EXTENSION. SEE COA STD DWG NO. 2430.
- 9 PROTECT EXISTING SIGNS.
- 10 MATCH EXISTING CURB AND GUTTER.
- 11 REMOVE AND DISPOSE OF EXISTING FENCE POSTS AND WIRE FOR WIDTH OF ENTRY PORTAL. SEE SHEET 5, DETAIL 5 FOR DIMENSIONS.

## NOTES

- 1 PROVIDE TEMPORARY FENCING AS DIRECTED BY ENGINEER.

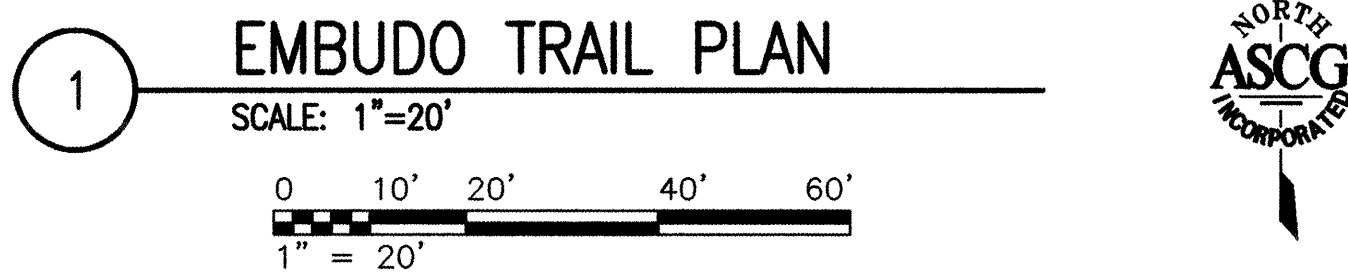
## SURVEY NOTES

- 1 COORDINATES ARE ASSUMED LOCAL COORDINATES.
- 2 ELEVATIONS ARE ASSUMED
- 3 CONTOUR INTERVAL IS 1.0 FEET.
- 4  $\Delta$  INDICATES CONTROL POINT, NO. 5 REBAR WITH RED PLASTIC CAP MARKED ASTS 13983 UNLESS OTHERWISE NOTED. SEE EACH SITE PLAN DETAIL FOR LOCATION.

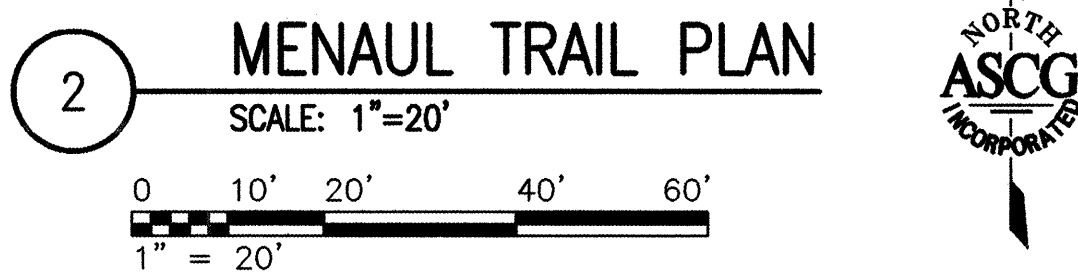
## FOR INFORMATION ONLY

CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT UTILITY DESIGN SECTION			
TITLE: <b>FOOTHILLS ACCESS PROJECT - TRAILS COPPER TRAIL PLAN</b>			
Design Review Committee <b>APPROVED</b> DEC 20 2001	City Engineer Approval <b>APPROVED</b> DEC 20 2001 CITY ENGINEER	Mo./Day/Yr. 	Mo./Day/Yr. 
City Project No. 6478.03	Zone Map No. K23	Sheet 3	Of 7

ENGINEERS SEAL		SURVEY INFORMATION		AS BUILT INFORMATION	
		FIELD NOTES		CONTRACTOR	
		NO.	DATE	WORKED BY	RECORDED BY
		REVISIONS		MICRO-FILM INFORMATION	
		NO.	DATE	DESIGNED BY	RECORDED BY
		DESIGNED BY	DATE	DESIGNED BY	DATE
		DRAWN BY	DATE	DRAWN BY	DATE
		CHECKED BY	DATE	CHECKED BY	DATE

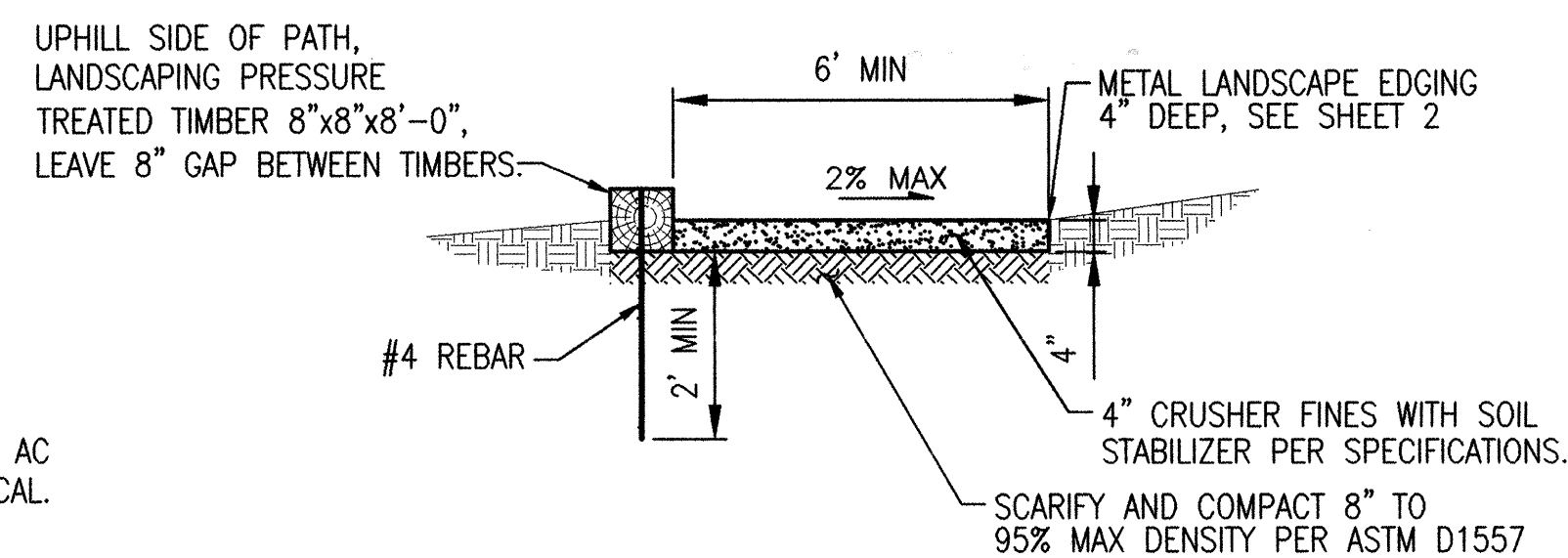


CL CURVE TABLE			RADIUS POINT	
CURVE	LENGTH	RADIUS	NORTHING	EASTING
C1	19.27'	16.00'	4461.90	5016.13
C2	34.62'	20.50'	4425.48	2012.91
C3	22.91'	26.50'	4397.87	5054.36



City Project No.	6478.03	Zone Map No.	H23, J23	Sheet	Of	4	7
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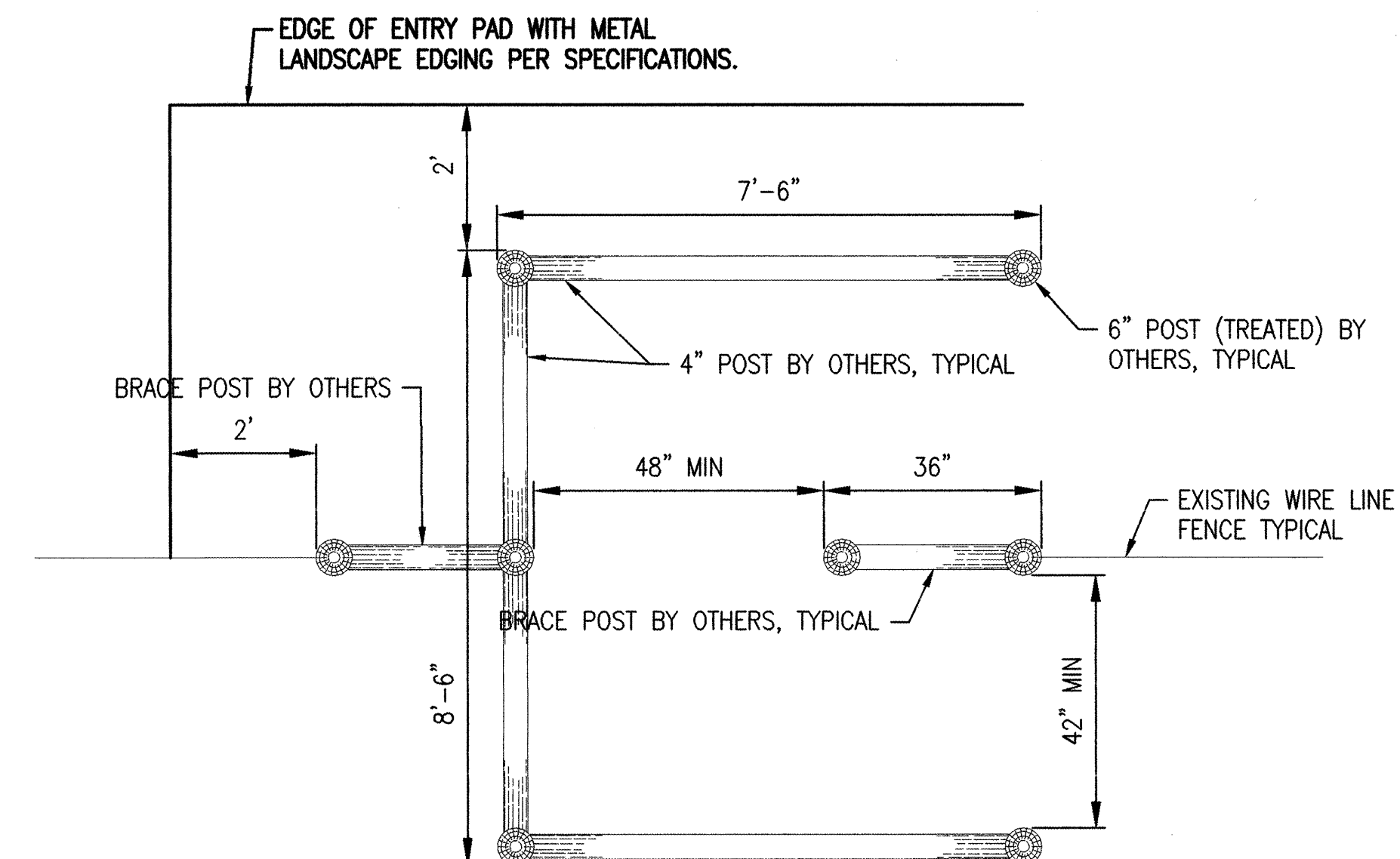




ON PATHS WITH 6% OR GREATER SLOPE PLACE  
6" DIAMETER PRESSURE TREATED POLES EVERY  
10' ON CENTER AT A 45 DEGREE ANGLE TO  
THE PATH TO DIVERT RUNOFF.

## TYPICAL TRAIL SECTION

SCALE:  $1/2"=1'-0"$



### C-SHAPED ENTRY PORTAL PLAN

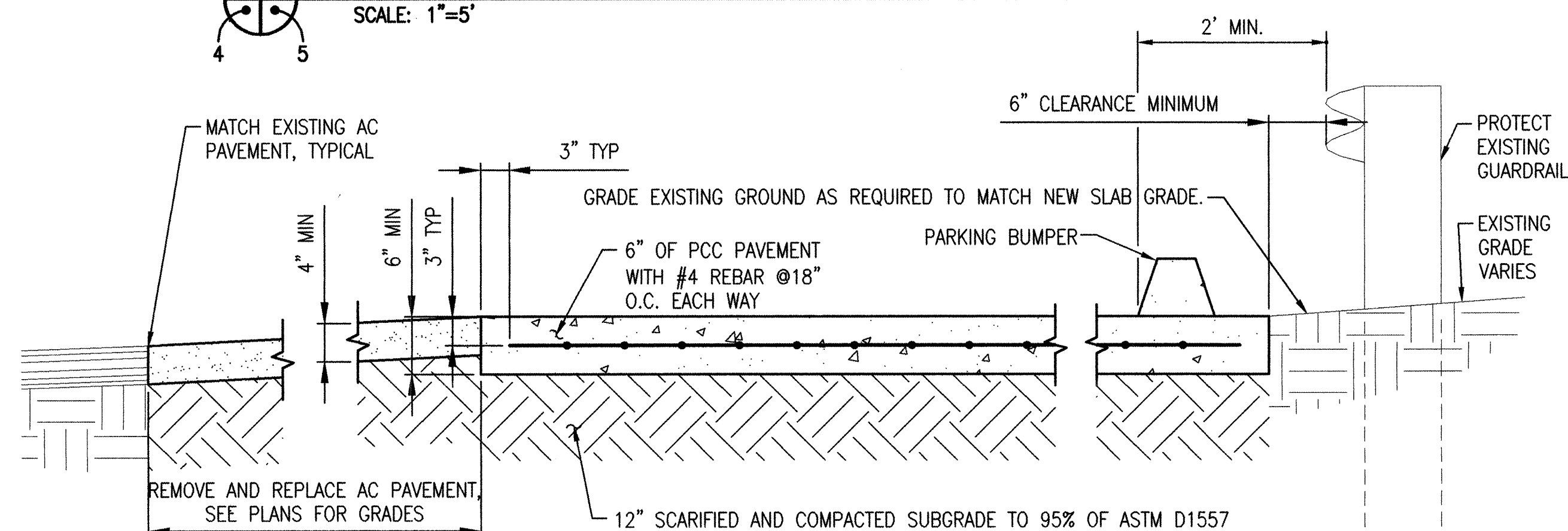
SCALE: 1/2"=1'-0"

- ## KEYED NOTES

- 1 FOR TYPICAL PCC PAVING SECTION SEE THIS SHEET, DETAIL 2.  
FOR TYPICAL A/C PAVING SECTION, SEE THIS SHEET, DETAIL 9.
- 2 TYPE 1 SAWED JOINT PER COA STD DWG 2450 FOR PCC PAVING.
- 3 HANDICAP PARKING AND ACCESS AISLES MUST MEET CURRENT ADA  
REQUIREMENTS. WITH MAXIMUM CROSS SLOPE OF 2%.

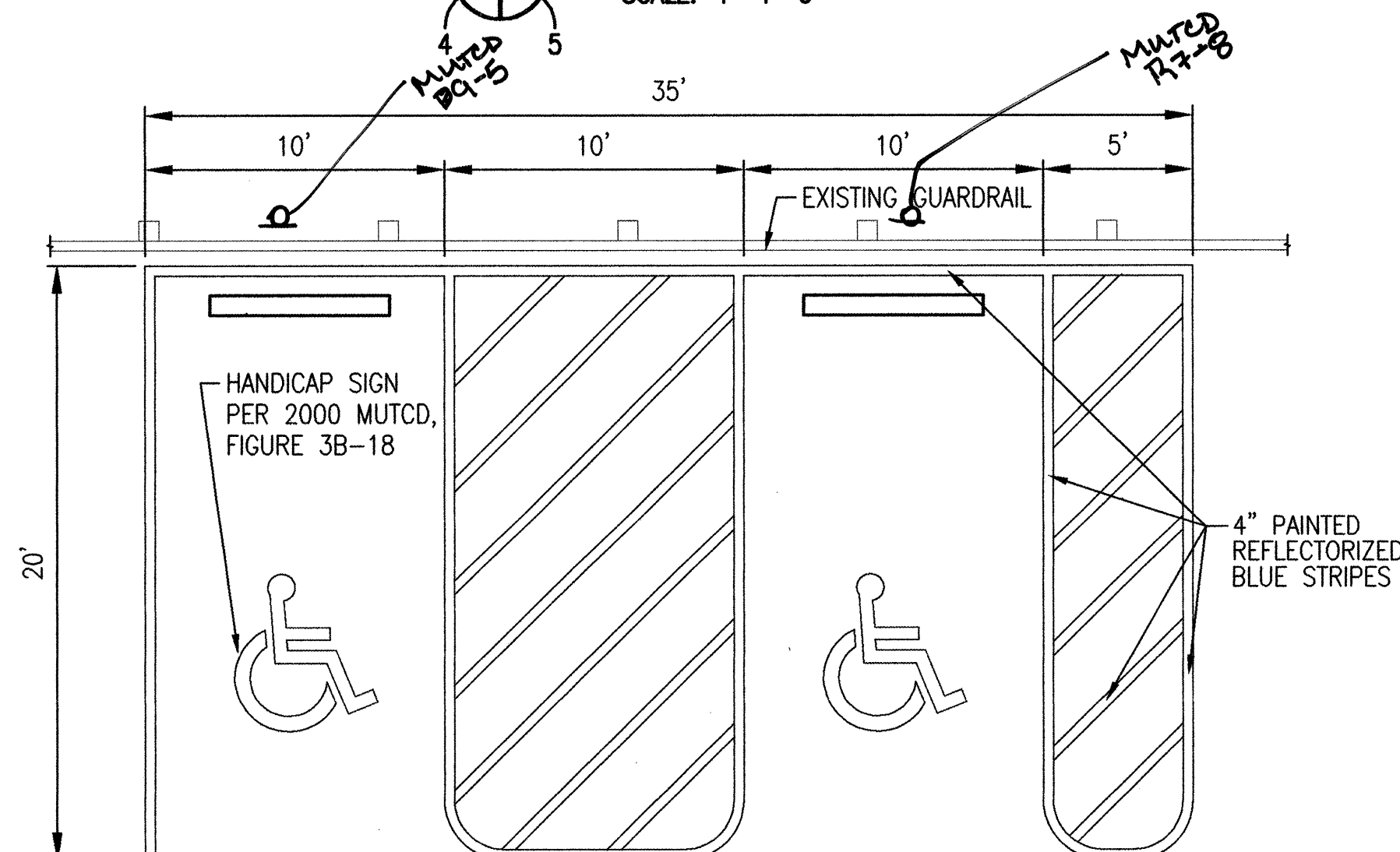
## HANDICAP PARKING & ACCESS AISLES

SCALE: 1"=5'



### CONCRETE PAVEMENT SECTION

SCALE: 1"=1'-0"

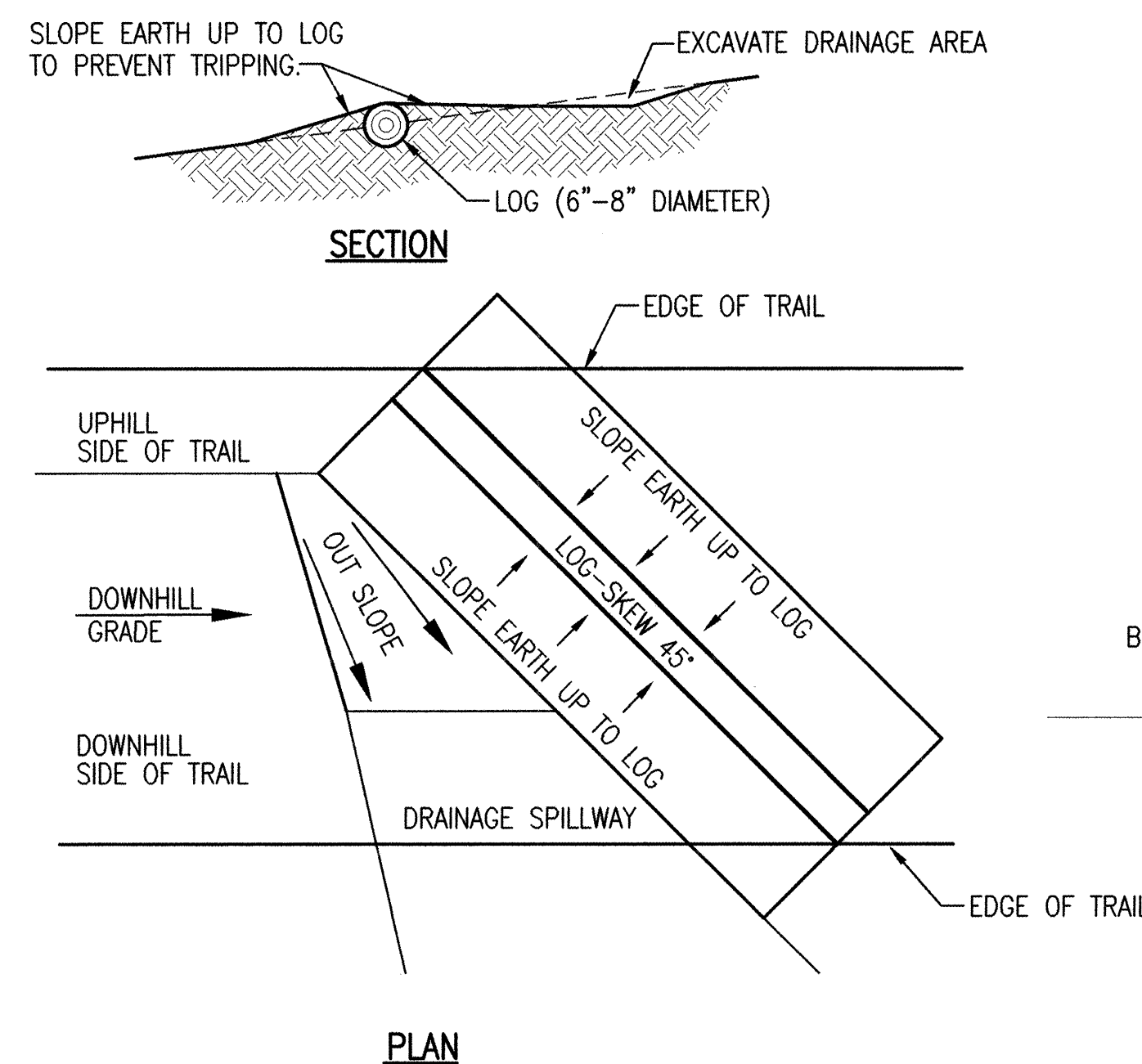


## HANDICAP STENCIL DETAIL

SCALE: 1"=5'

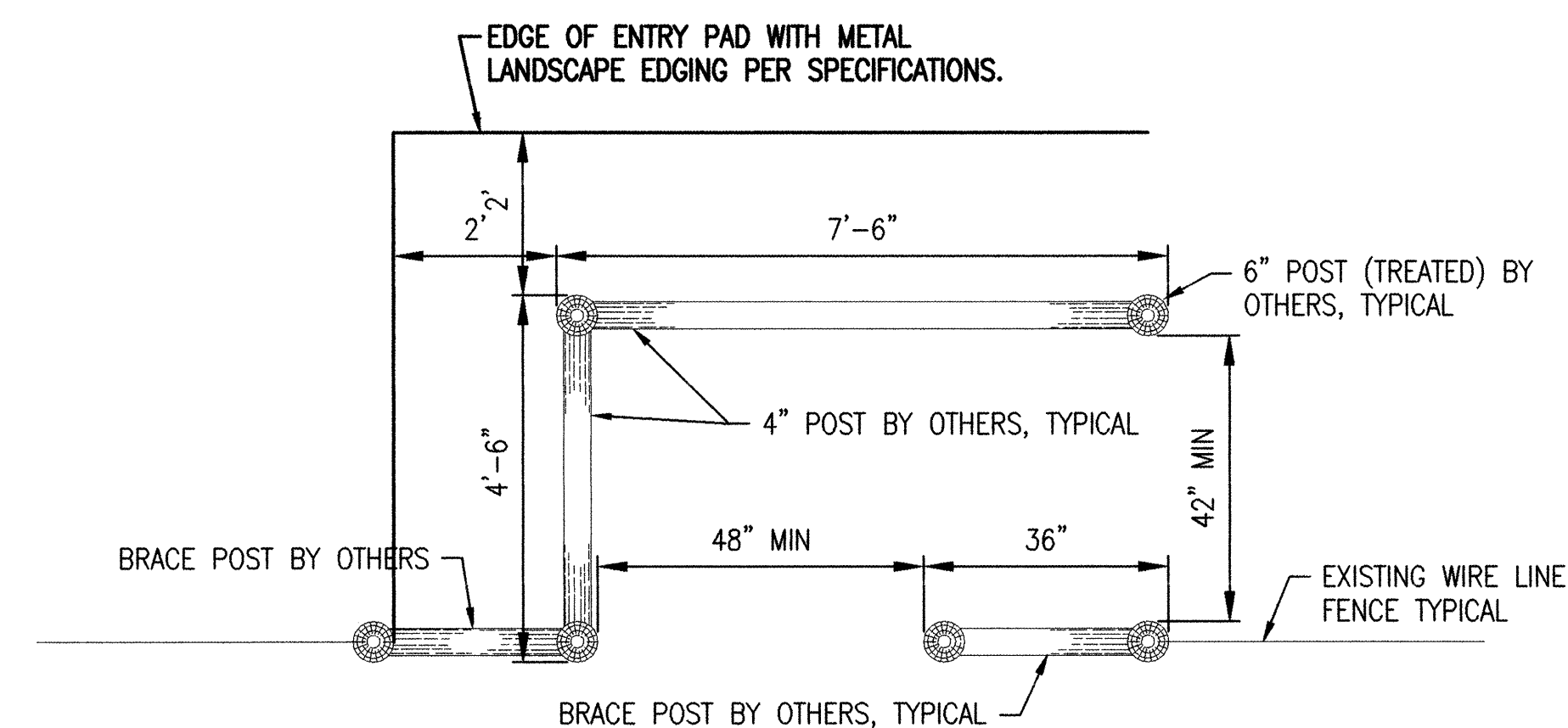
## NOTES

1 PAVEMENT ORIENTATION VARIES. SEE PLANS FOR APPLICABLE ORIENTATION.



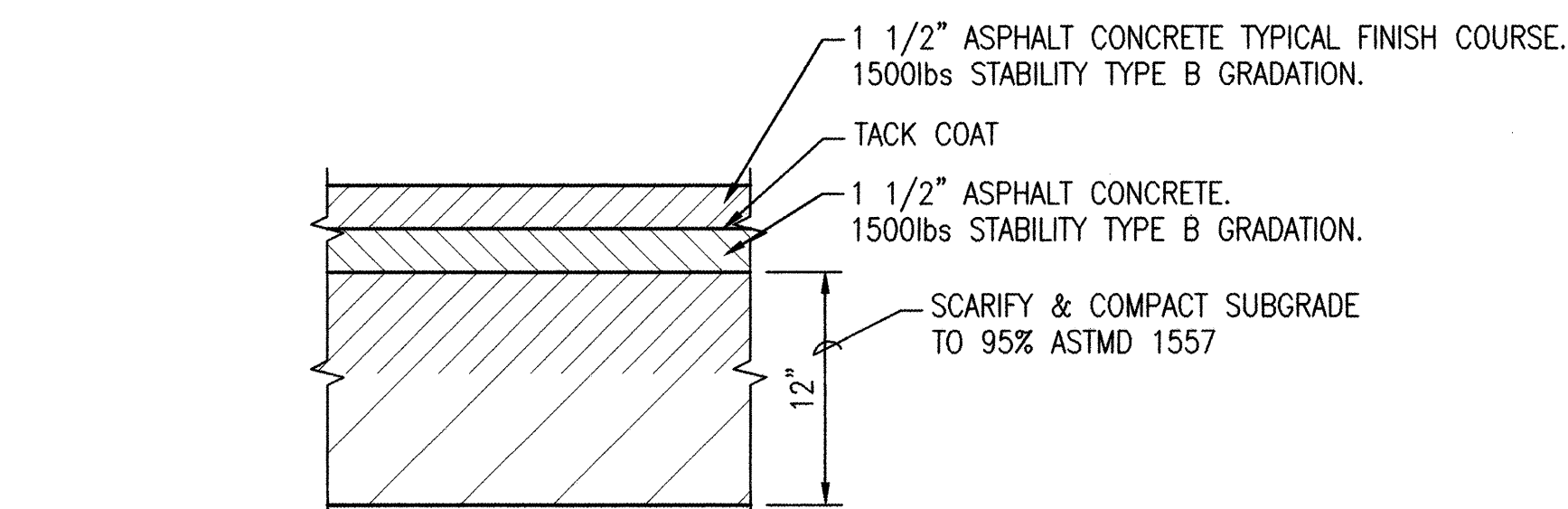
## WATER BAR DESIGN

SCALE: 1"=4'



### L-SHAPED ENTRY PORTAL PLAN

SCALE: 1/2"=1'-0"



## ASPHALTIC CONCRETE PAVING SECTION

SCALE: NONE FOR INFORMATION ONLY



R7-8



ccessible

← 1 SPACE ONLY

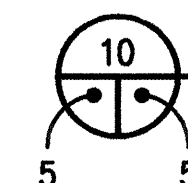
—— STEEL SQUARE POST TYPICAL

## HANDICAP PARKING SIGNS

SCALE: NONE

NOTES

A ALL SIGNS TO BE PLACED AS NOTED ON PLANS AND IN ACCORDANCE WITH THE MILLENIUM EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, (MUTCD).




## TRAIL DIFFICULTY

### SIGN DETAIL

SCALE: NONE

NOTE:  
COORDINATE INFORMATION ON SIGN LEGENDS  
WITH OPEN SPACE AND ENGINEER.

ENGINEERS SEAL			SURVEY INFORMATION		BENCH MARKS		AS BUILT INFORMATION	
			FIELD NOTES		CONTRACTOR WORK STACKED BY INSPECTOR'S FIELD VERIFICATION BY DATE CORRECTED BY		MICRO-FILM INFORMATION RECORDED BY DATE NO.	
			NO.	DATE				
NO. DATE REMARKS DATE REVISIONS								
DESIGN								
DESIGNED BY JB, KMJ			DATE 11/01					
DRAWN BY KHK			DATE 11/01					
DATE 11/01			DATE 11/01					

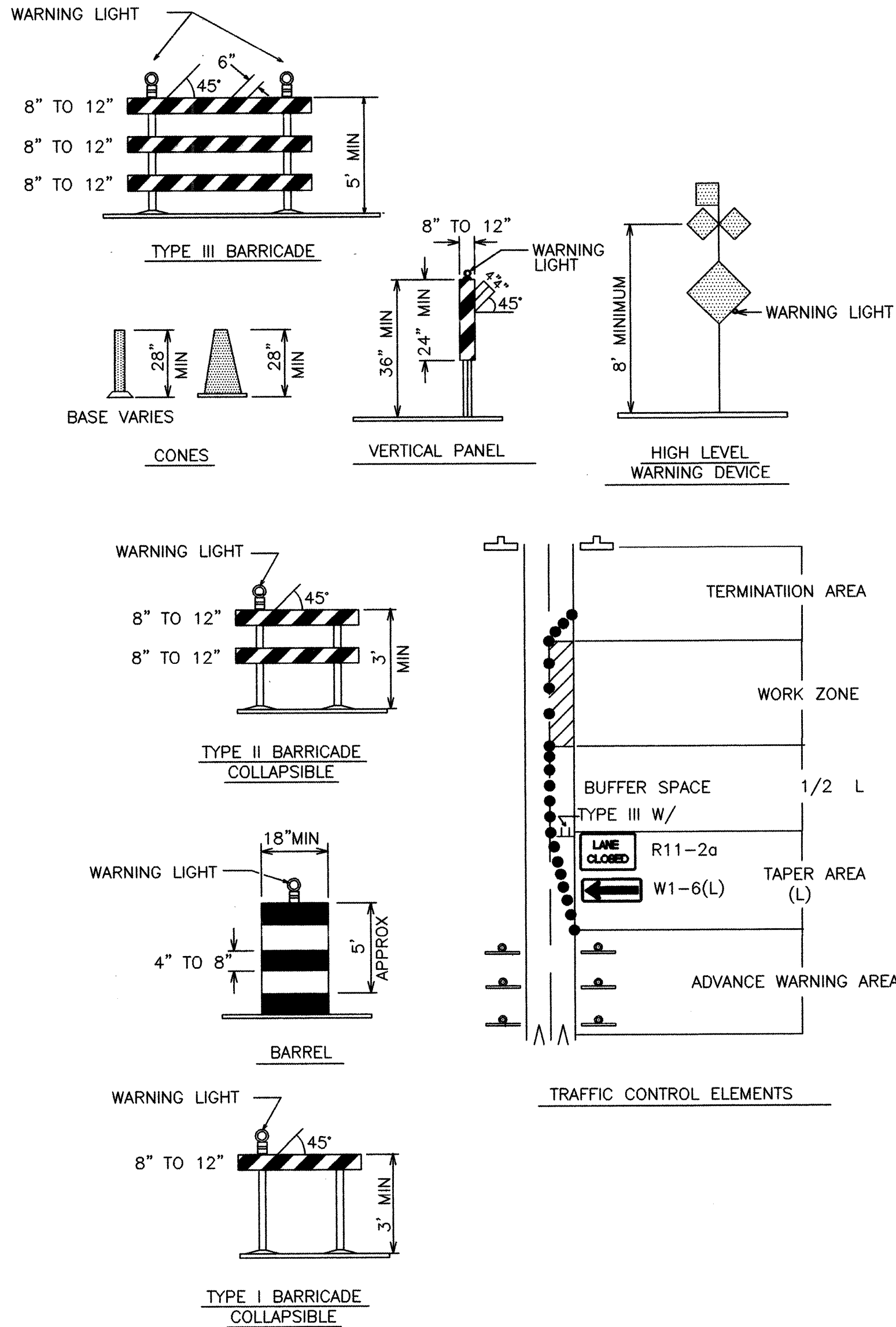
J:\QA\COA_OPEN\ONCALL\CIVIL\TRAILS\TRAILS\DWG\civil\201582DET2.dwg 12-05-01 MDJ																	
CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT UTILITY DESIGN SECTION																	
TITLE: <b>FOOTHILLS ACCESS PROJECT – TRAILS</b>																	
<b>DETAILS</b>																	
Design Review Committee 	City Engineer Approval 	Last Design Update	<table border="1"> <thead> <tr> <th>Mo./Day/Yr.</th> <th>Mo./Day/Yr.</th> </tr> </thead> <tbody> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </tbody> </table>	Mo./Day/Yr.	Mo./Day/Yr.												
Mo./Day/Yr.	Mo./Day/Yr.																
City Project No. <b>6478.03</b>		Zone Map No. <b>H23,J23,K23</b>	Sheet <b>5</b> of <b>7</b>														



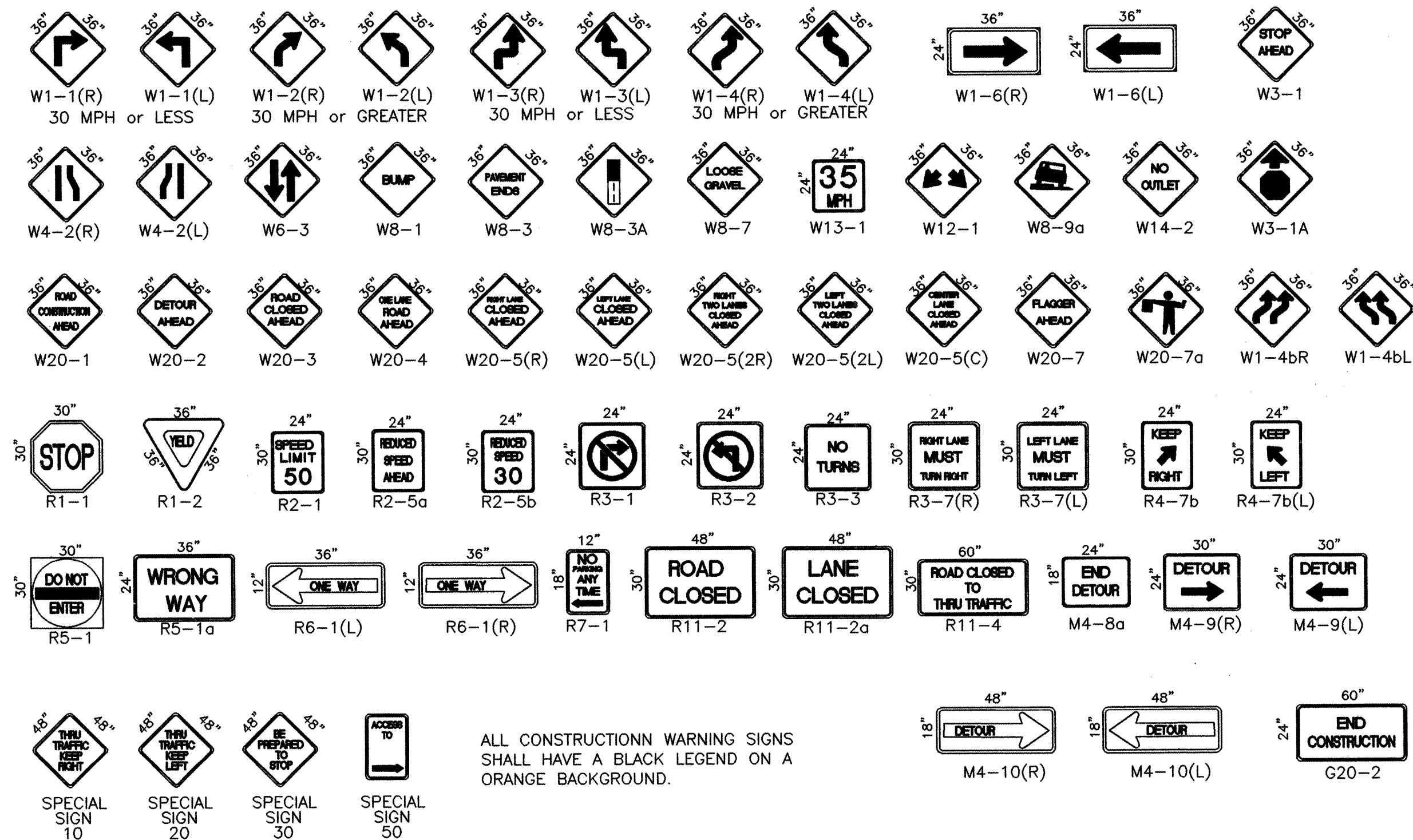
CONSTRUCTION TRAFFIC CONTROL GENERAL NOTES

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 LIMIT (MPH)	MINIMUM DISTANCE BETWEEN SIGNS	MINIMUM DISTANCE 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

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CITY OF ALBUQUERQUE  
PUBLIC WORKS DEPARTMENT  
ENGINEERING DEVELOPMENT GROUP

TITLE: TRAFFIC CONTROL  
SIGNING AND CONSTRUCTION TRAFFIC CONTROL STANDARDS

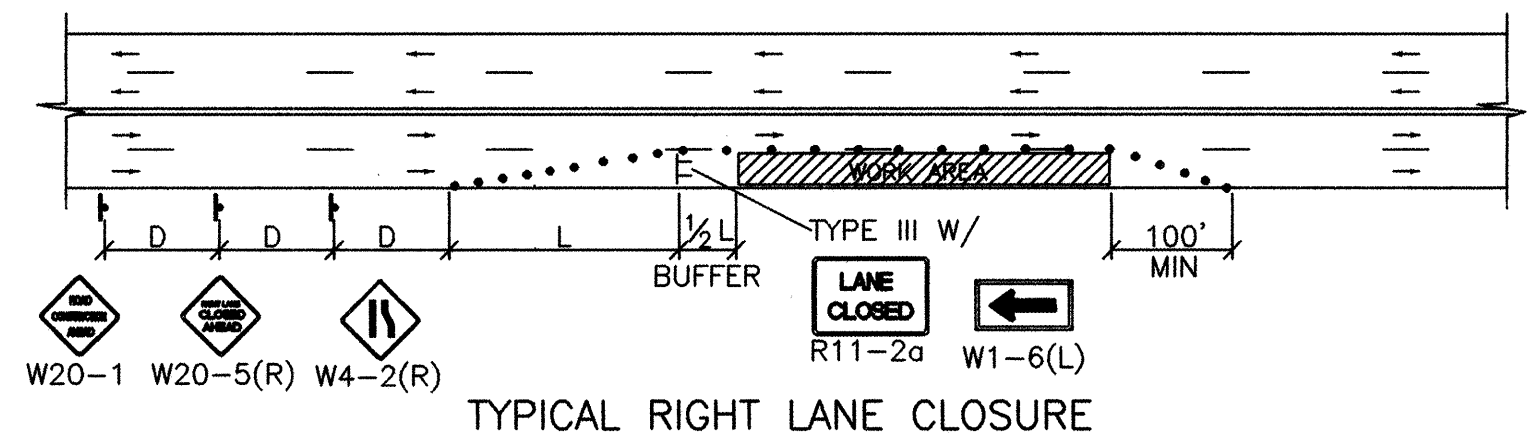
DESIGN REVIEW COMMITTEE: CITY ENGINEER APPROVAL

CITY PROJECT NO. 6478.03

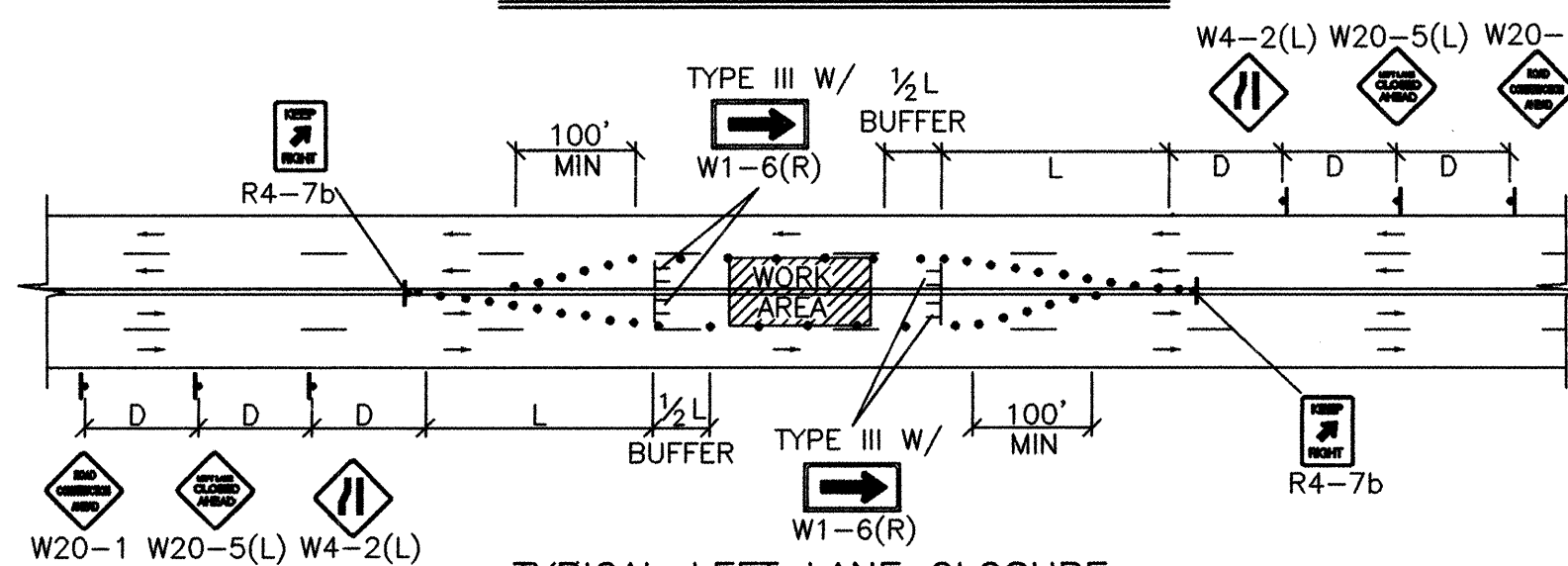
ZONE MAP NO.

SHEET 6 OF 7

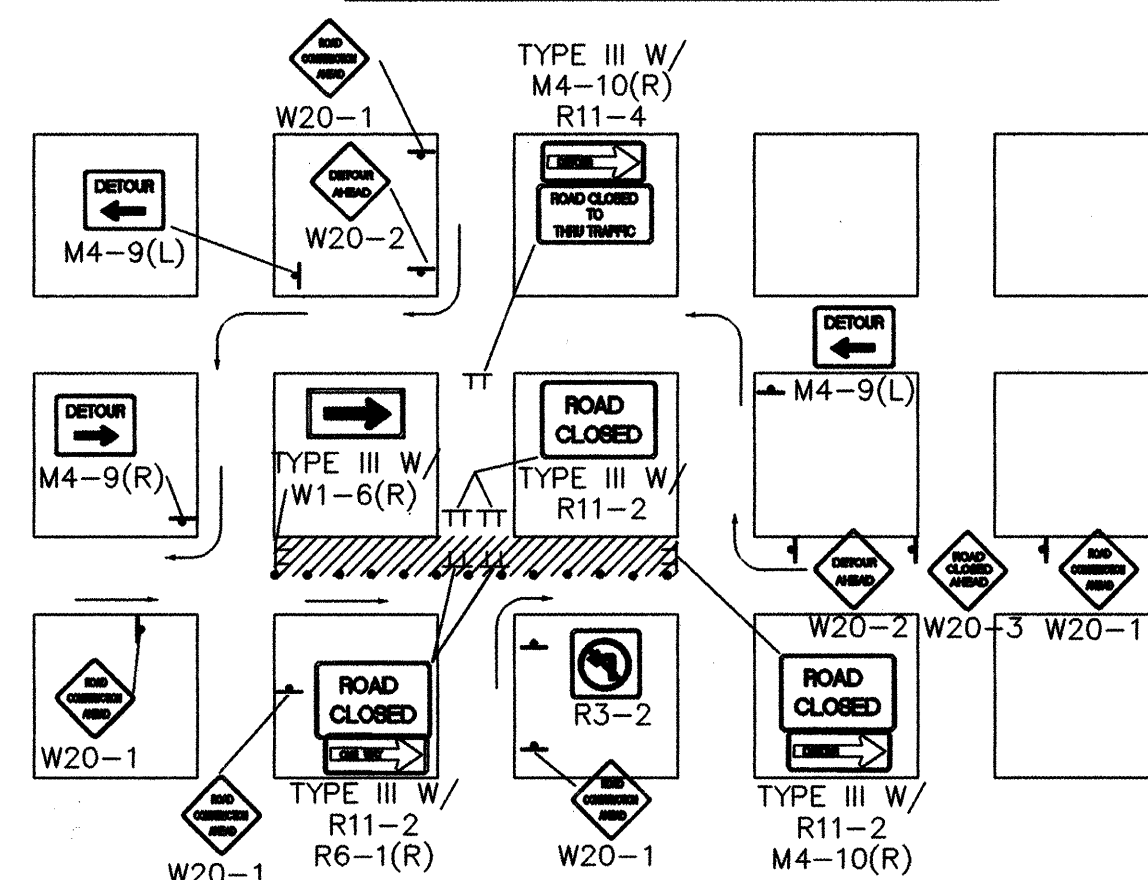




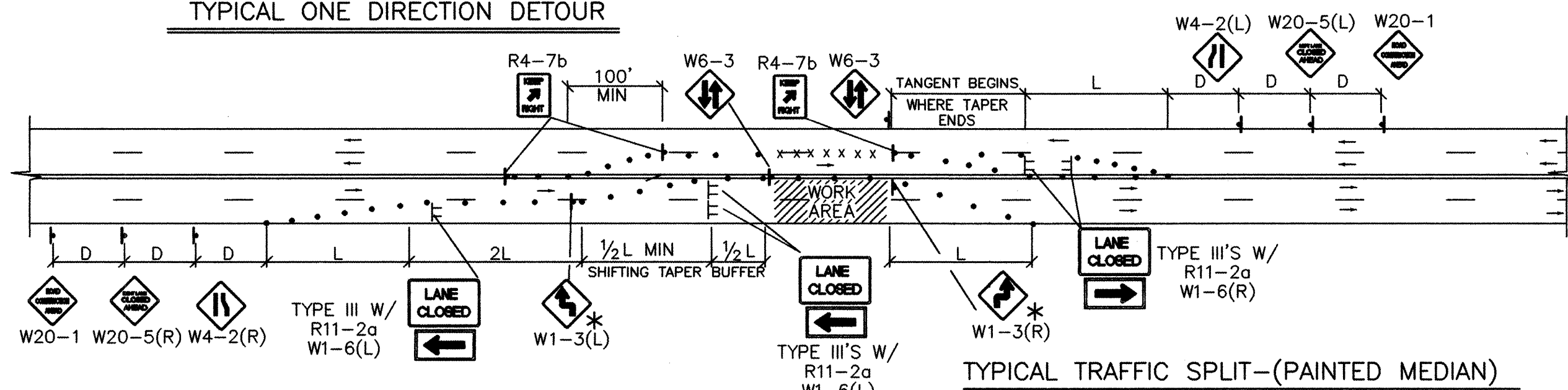
TYPICAL RIGHT LANE CLOSURE



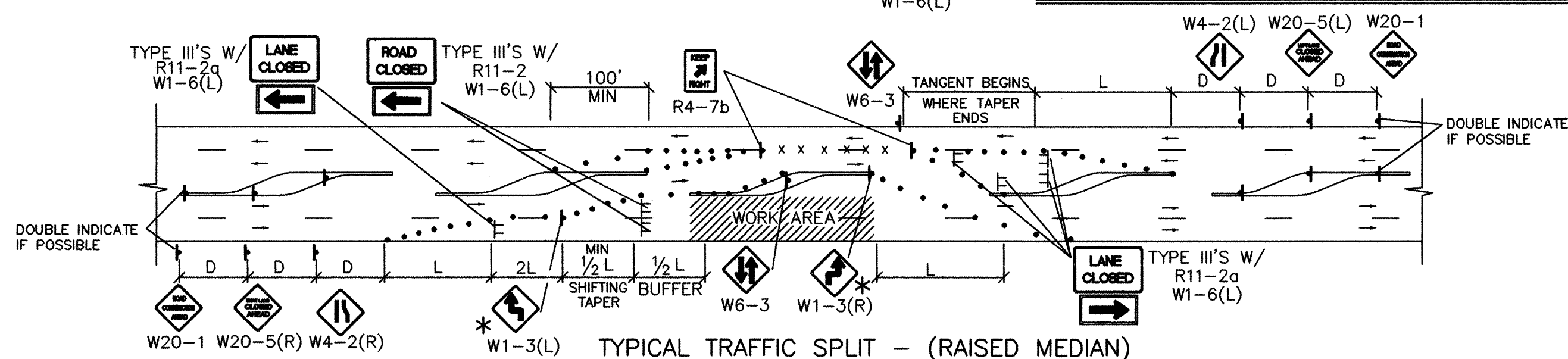
TYPICAL LEFT LANE CLOSURE



TYPICAL ONE DIRECTION DETOUR

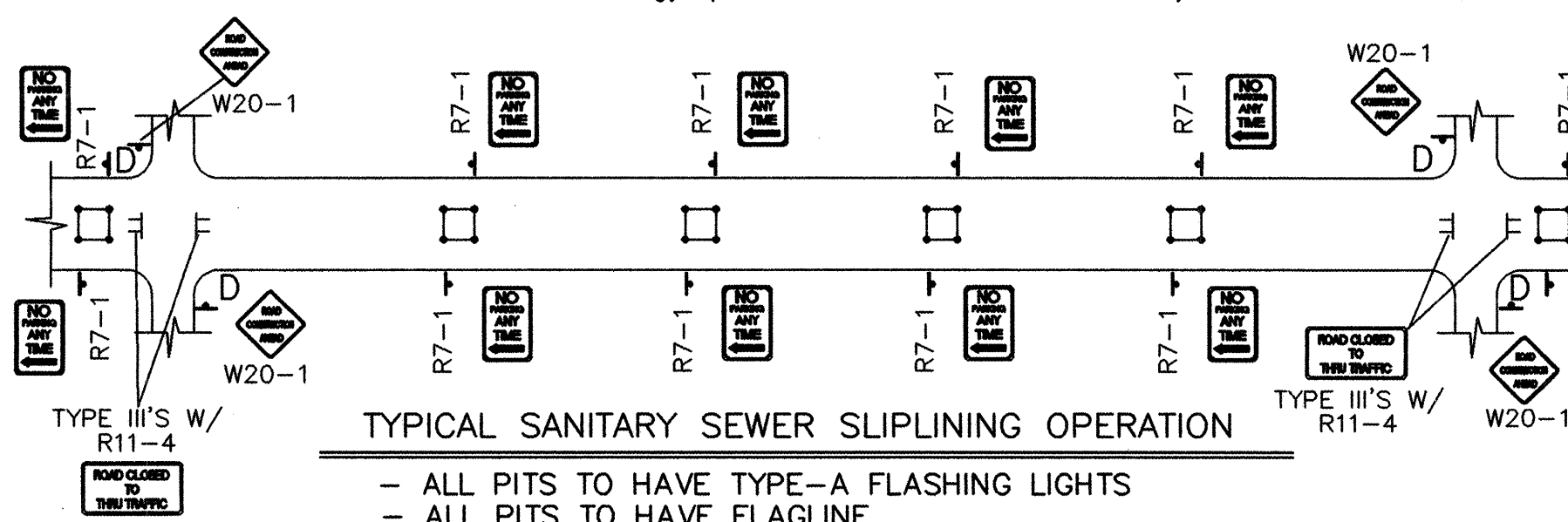


TYPICAL TRAFFIC SPLIT - (PAINTED MEDIAN)



TYPICAL TRAFFIC SPLIT - (RAISED MEDIAN)

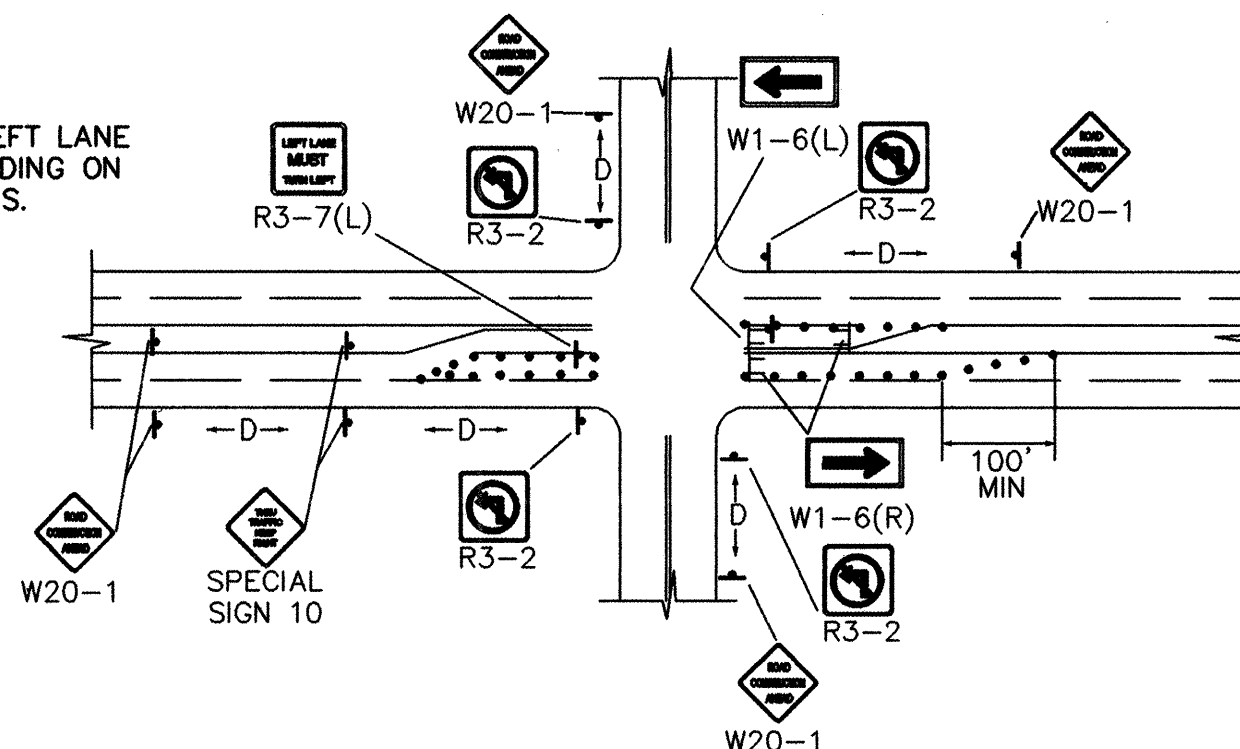
- TRAFFIC SPLIT NOTES:
1. THE OFFSET DISTANCE MUST BE CALCULATED IN ALL SHIFTING TAPERS. THE OFFSET DISTANCES SHALL INCLUDE LANE WIDTHS PLUS MEDIAN WIDTHS.
  2. 1/2 L IS THE MINIMUM DISTANCE FOR SHIFTING TAPERS.
  3. REVERSE CURVES MAY BE IMPLEMENTED. ALL CURVE DATA SHALL BE CALCULATED.
  4. MEDIAN REMOVAL SHALL BE REQUIRED IF 1/2 L OR REVERSE CURVE IS NOT SUFFICIENT. MEDIAN REMOVAL SHALL TAKE PLACE BEFORE SPLITS.
  5. REDUCED SPEED MAY BE CONSIDERED.
  6. \* USE W1-3 FOR 30 MPH OR LESS, W1-4 FOR SPEED 35 MPH OR GREATER.



TYPICAL SANITARY SEWER SLIPLINING OPERATION

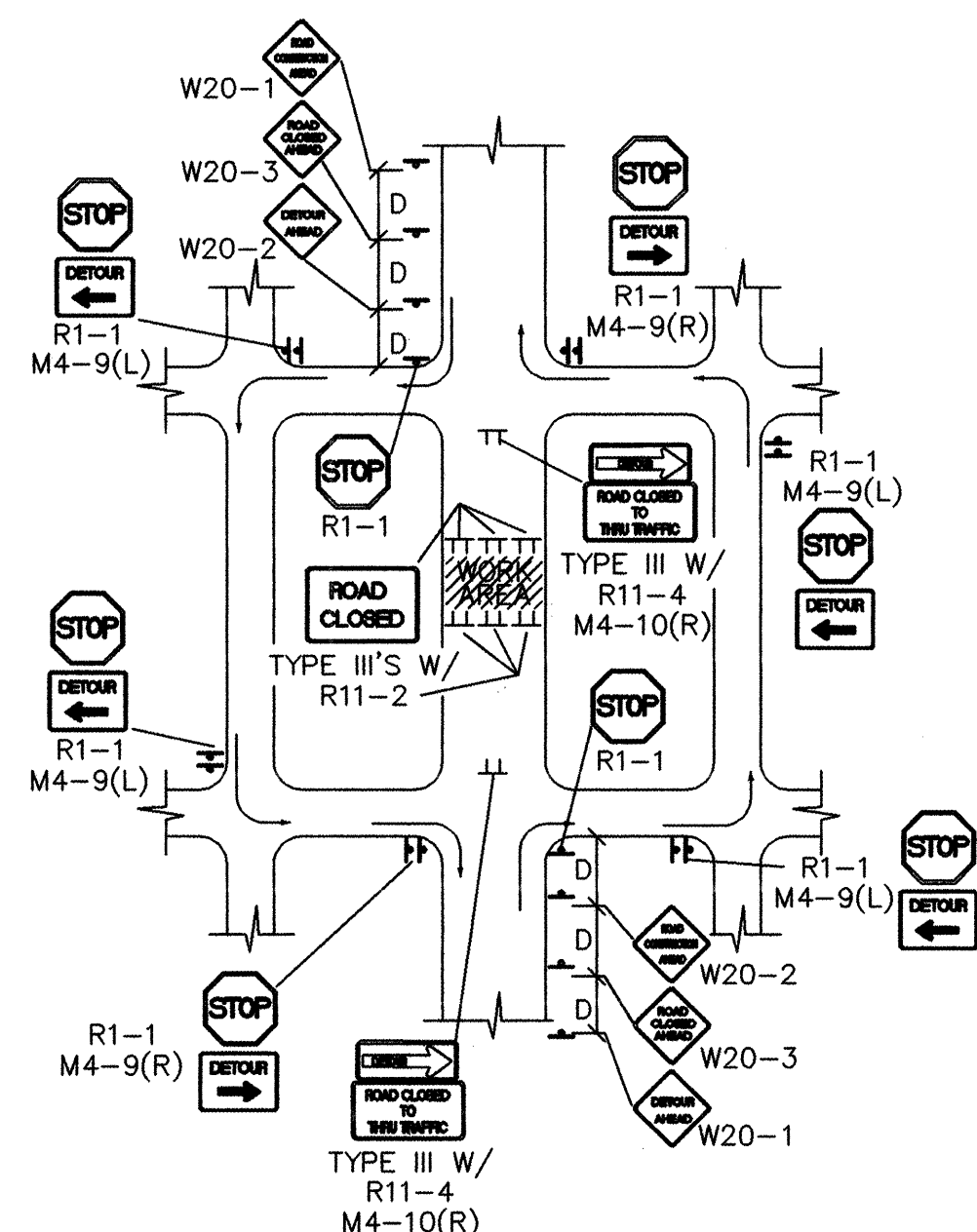
- ALL PITS TO HAVE TYPE-A FLASHING LIGHTS
- ALL PITS TO HAVE FLAGLINE

NOTE:  
MAY REQUIRE LEFT LANE  
CLOSURE DEPENDING ON  
FIELD CONDITIONS.



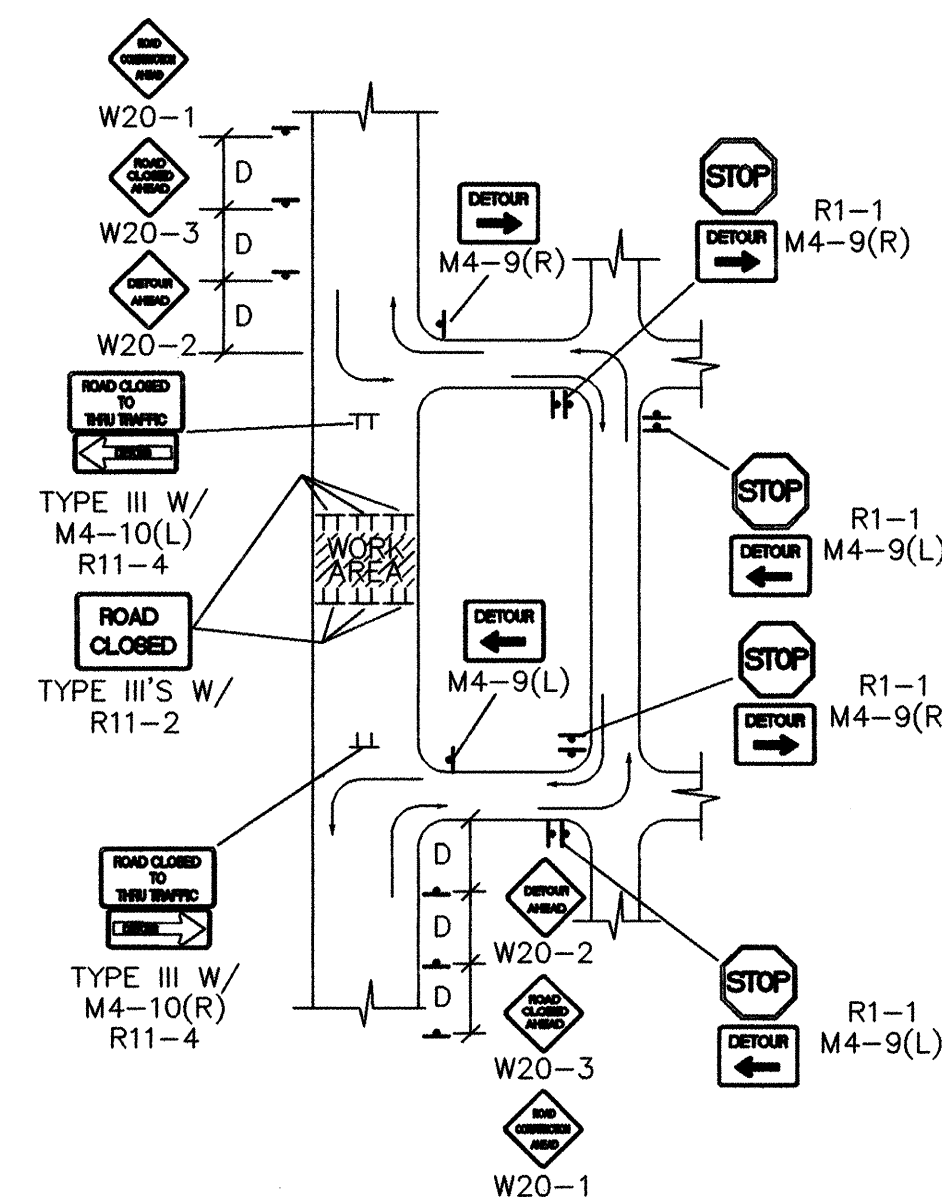
TYPICAL LANE CLOSURE AT INTERSECTION

NOTE: DEPENDING ON WORK ZONE LOCATION.



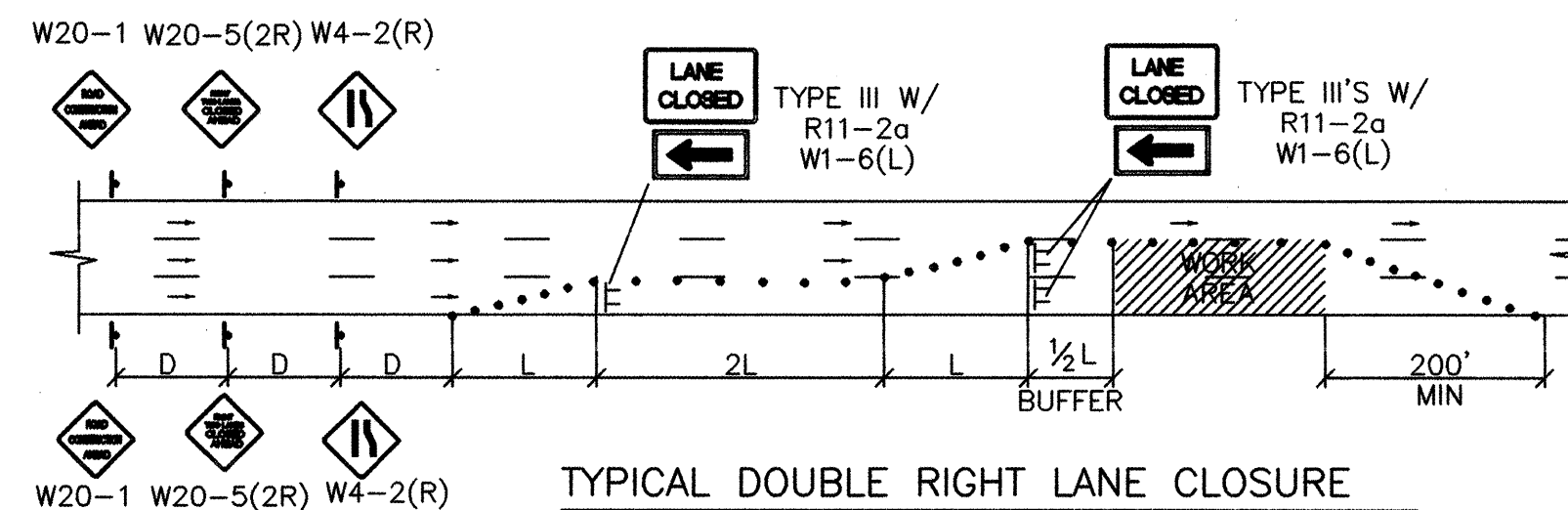
TYPICAL MID-BLOCK CLOSURE

NOTE: (R1-1) BASED ON FIELD CONDITIONS.

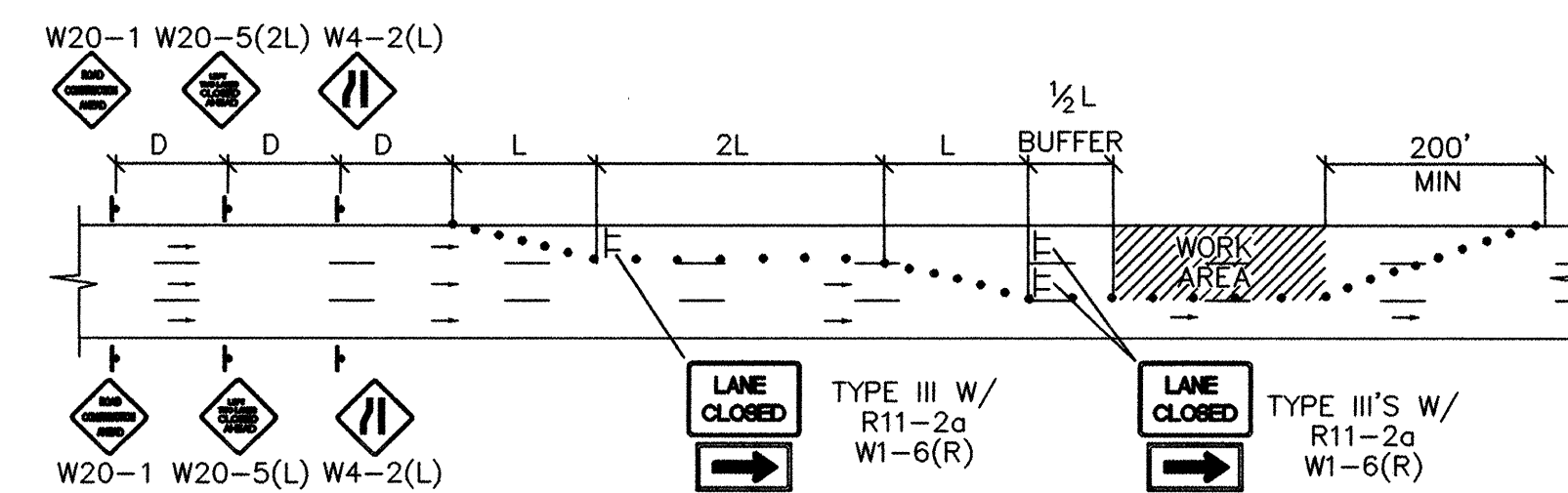


TYPICAL STREET CLOSURE

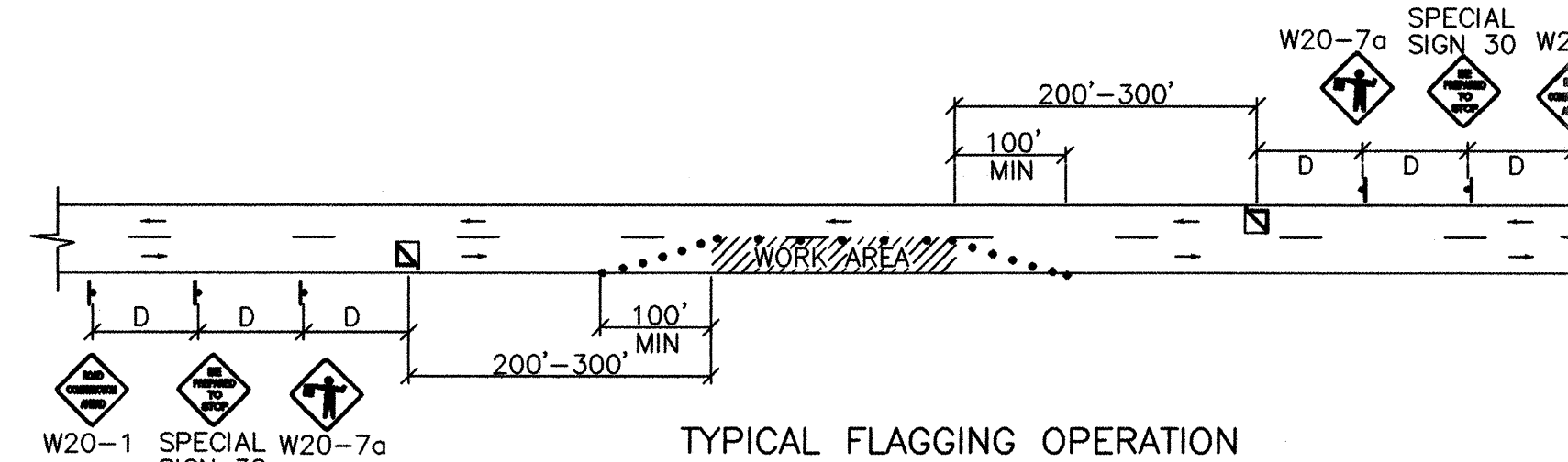
NOTE: (R1-1) BASED ON FIELD CONDITIONS.



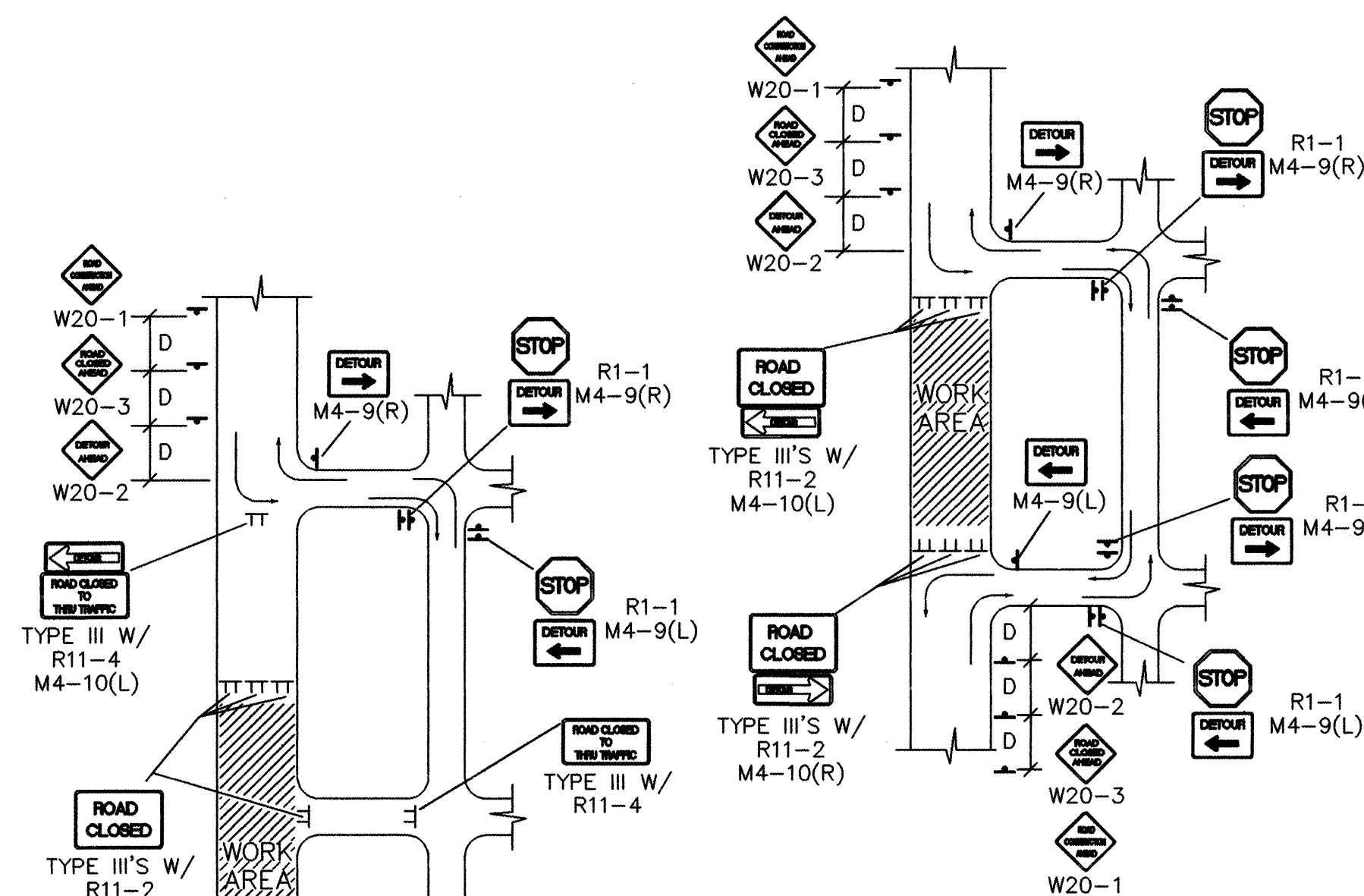
TYPICAL DOUBLE RIGHT LANE CLOSURE



TYPICAL DOUBLE LEFT LANE CLOSURE



TYPICAL FLAGGING OPERATION



TYPICAL STREET CLOSURE

NOTE: (R1-1) BASED ON FIELD CONDITIONS.

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CITY OF ALBUQUERQUE  
PUBLIC WORKS DEPARTMENT  
ENGINEERING DEVELOPMENT GROUP

TITLE: TYPICAL TRAFFIC CONTROL  
& SIGNING EXAMPLES (REF MUTCD)

DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL	MO./DAY/YR.	MO./DAY/YR.
COA STD	COA STD		
CITY PROJECT NO.	ZONE MAP NO.	SHEET	OF
6478.03		7	7

ENGINEER'S SEAL		SURVEY INFORMATION		BENCH MARKS		AS-BUILT INFORMATION	
		FIELD NOTES				CONTRACTOR	
		NO.	BY DATE			WORK SHOWN BY	DATE
						INSPECTOR'S	DATE
						ACCEPTANCE BY	DATE
						FIELD VERIFICATION BY	DATE
						DRAWINGS	DATE
						CORRECTED BY	DATE
						MICRO-FILM	INFORMATION
						RECORDED BY	DATE
						NO.	

COA STD

DATE																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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