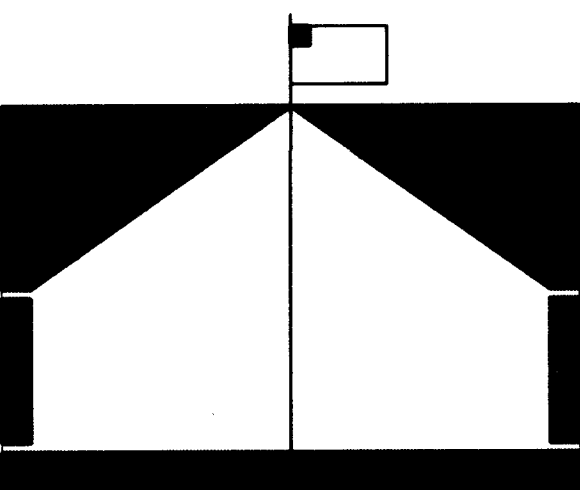


RECORD DRAWING
CONSTRUCTION PLANS

for
A.P.S. 1997 WATERLINE
EXTENSIONS



INDEX OF DRAWINGS

SHEET	CITY PROJECT NO.	DESCRIPTION
1	N/A	COVER SHEET, LEGEND AND INDEX OF DRAWINGS
2	N/A	A.P.S. 1997 WATERLINE EXTENSIONS LOCATION MAPS
3	N/A	TYPICAL TRAFFIC CONTROL AND SIGNING EXAMPLES
4	N/A	SIGNING AND CONSTRUCTION TRAFFIC CONTROL STANDARDS
1-3	554781	KIT CARSON ELEMENTARY SCHOOL (BID LOT 3)
1-3	552781	MARK TWAIN ELEMENTARY SCHOOL (BID LOT 4)
1-4	560781	MISSION ELEMENTARY SCHOOL (BID LOT 1)
1-3	549881	MONTEZUMA ELEMENTARY SCHOOL (BID LOT 2)

26-51497.12 10/19/97

REV.	SHEETS	CITY	ENGINEER	DATE	USER	DEPARTMENT	DATE	USER	DEPARTMENT	DATE
APPROVAL OF REVISIONS										

10-22-97
66-22-97

JEFF MORTENSEN & ASSOCIATES, INC.
6010-B MIDWAY PARK BLVD. NE
ALBUQUERQUE, NM 87109
ENGINEERS & SURVEYORS (505) 345-4250

APPROVED FOR CONSTRUCTION

C.E.

SHEET 1 OF 17

LEGEND

MATERIALS

CONCRETE	
RIP-RAP	

LINES

SUBDIVISION BOUNDARY	
PROPERTY LINE (PLAN)	
PROPERTY LINE (SECTION)	
CENTERLINE	
EASEMENT LINE	
MATCH LINE	
SECTION CUT LINE	

EARTHWORK

	EXISTING	NEW
CONTOUR LINE		
SPOT ELEVATION		
PROJECT / PHASE BOUNDARY		
FLOWLINE		
DIRECTION OF FLOW		

MISCELLANEOUS UTILITIES

GAS LINE		
UNDERGROUND TELEPHONE		
UNDERGROUND ELECTRICAL		
STORM DRAIN		
STORM DRAIN MANHOLE		
STORM DRAIN INLET		

SANITARY SEWER

SANITARY SEWER LINE		
SANITARY SEWER MANHOLE		
SAS SERVICE CONNECTIONS		
SAS CAP OR PLUG		
ENCASEMENT		

WATER

WATER LINE		
WATER SERVICE CONNECTIONS		
GATE VALVE		
FIRE HYDRANT		
BUTTERFLY VALVE		
REDUCER		
WATER PRESSURE ZONE BOUNDARY		

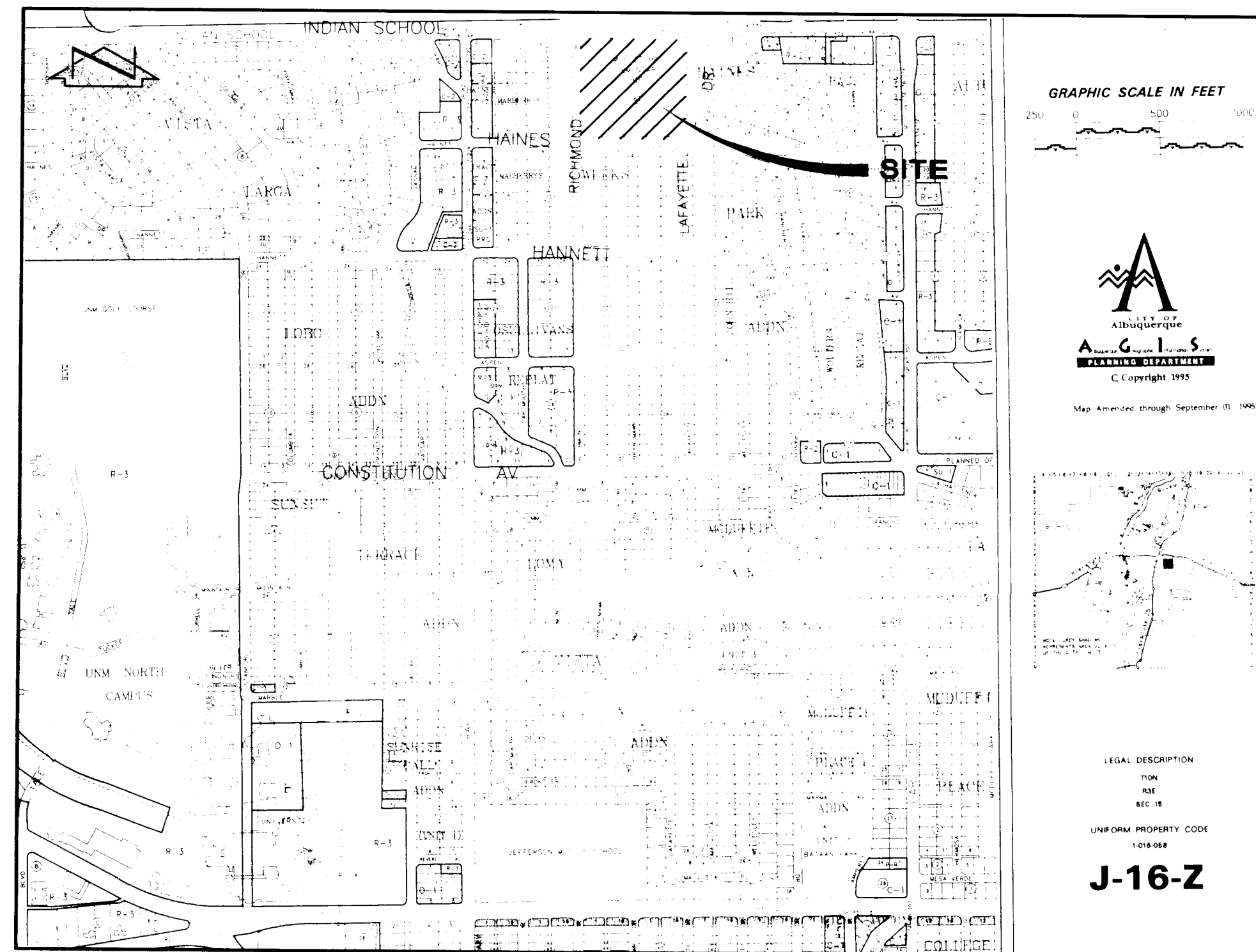
WATER FITTINGS

CAPS AND PLUGS		
ELBOW		
CROSS		
TEE		

MISCELLANEOUS

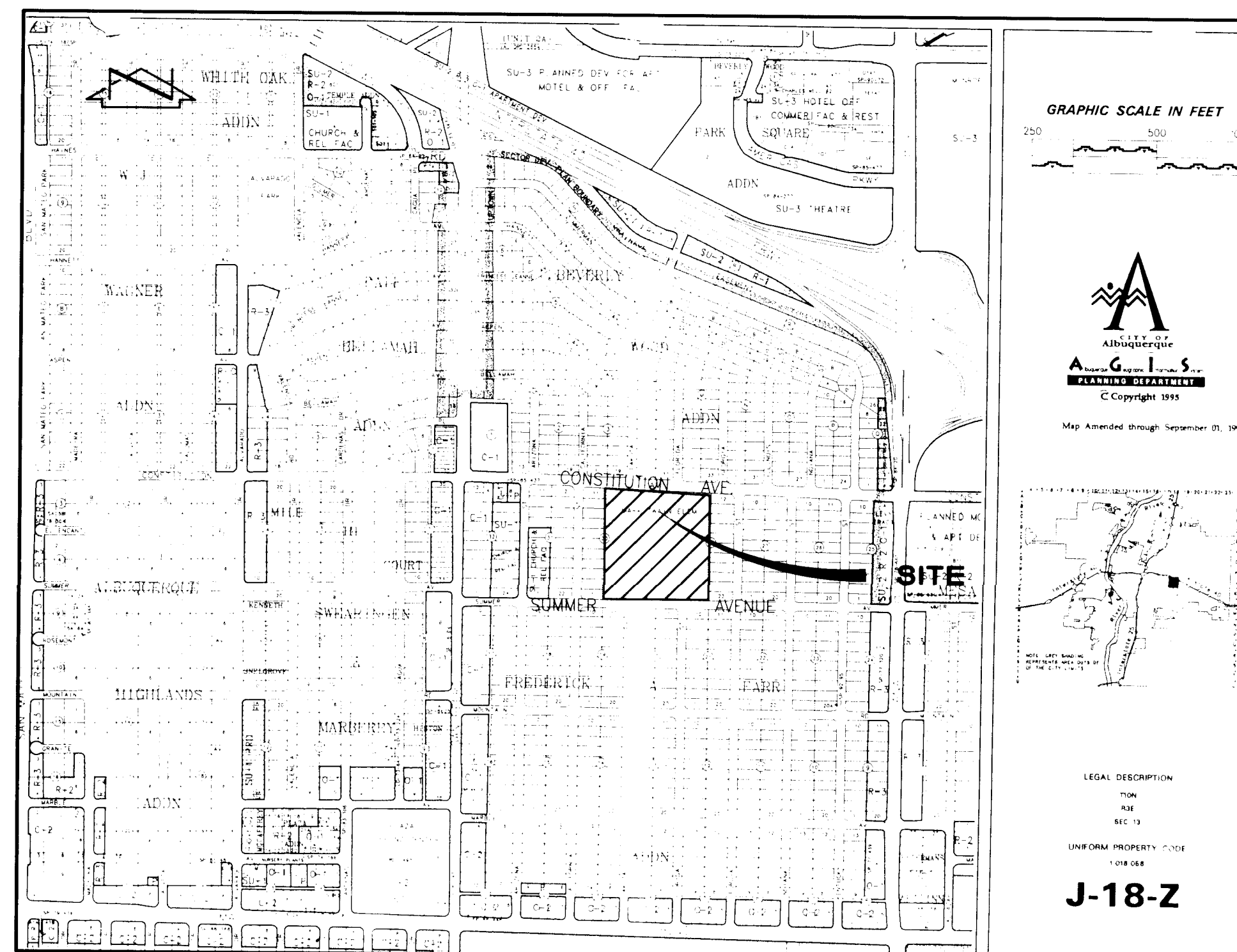
CHAINLINK FENCE		
FIELD FENCE		
COMMON YARD WALL		
RETAINING WALL		
POWER OR TELEPHONE POLE		

RECORD DRAWING



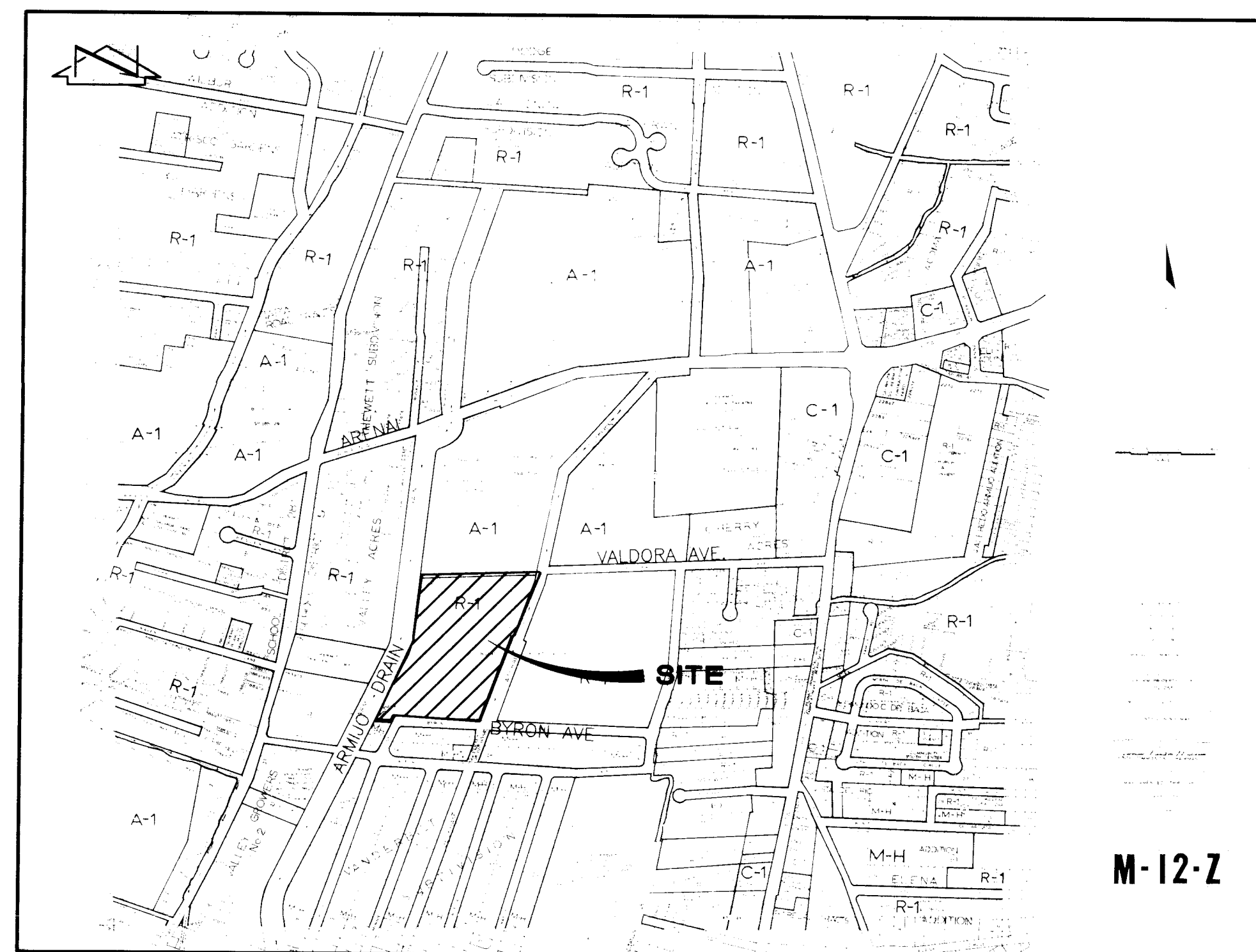
MONTEZUMA ELEMENTARY SCHOOL
C.O.A. PROJECT # 549881

MAP J-16
SCALE: 1" = 750'±



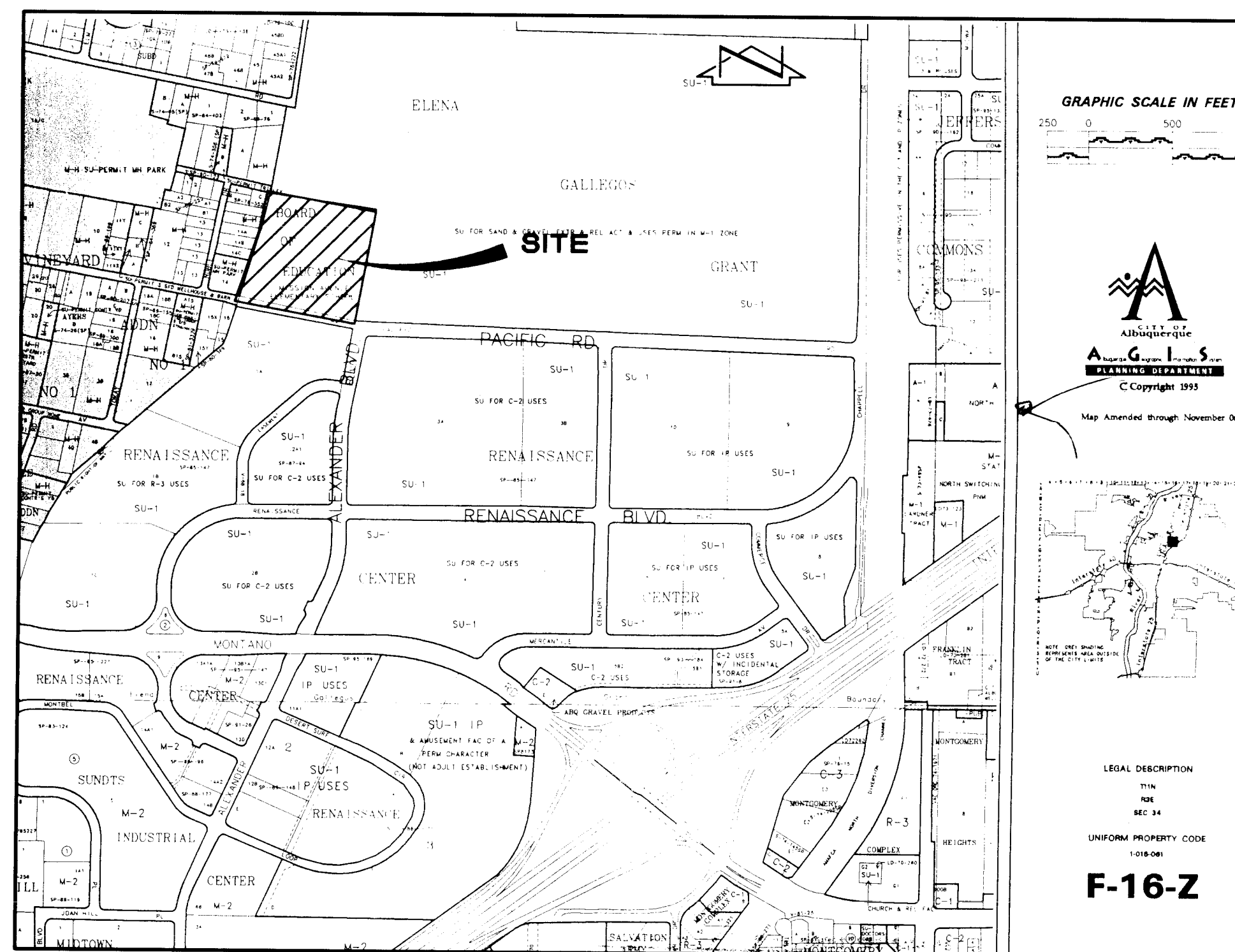
MARK TWAIN ELEMENTARY SCHOOL
C.O.A. PROJECT # 552781

MAP J-18
SCALE: 1" = 750'±



KIT CARSON ELEMENTARY SCHOOL
C.O.A. PROJECT # 554781

MAP M-12
SCALE: 1" = 750'±



MISSION ELEMENTARY SCHOOL
C.O.A. PROJECT # 560781

MAP F-16
SCALE: 1" = 750'±

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951829
951835
951839

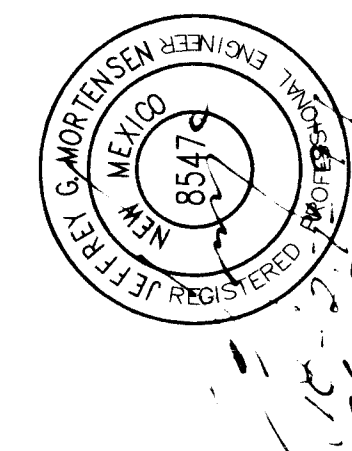
26-554781-02197

Jim

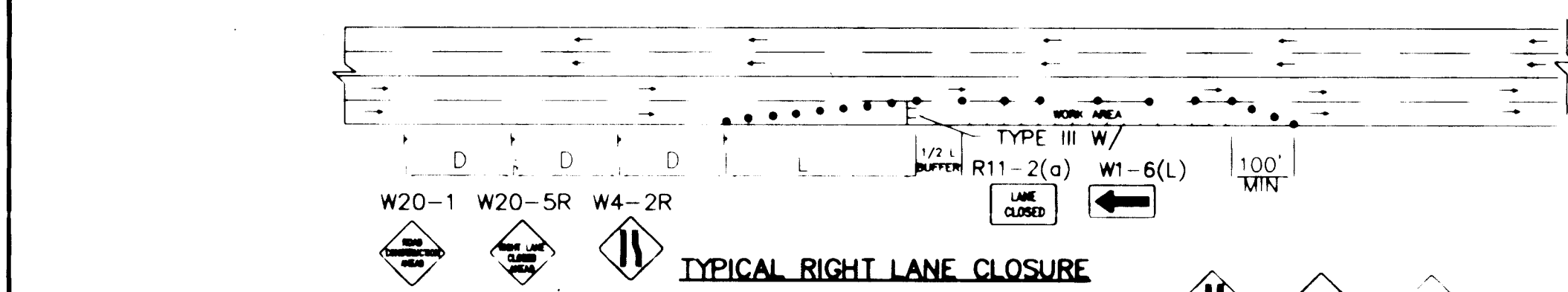
JEFF MORTENSEN & ASSOCIATES, INC.
600-B MIDWAY PARK BLVD. NE
ALBUQUERQUE, N.M. 87109
ENGINEERS & SURVEYORS (S05) 345-4200

CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP			
TITLE: A.P.S. 1997 WATERLINE EXTENSIONS LOCATION MAPS			
Design Review Committee	City Engineer Approval	Ms./Day/Yr. Ms./Day/Yr.	
City Project Nos. 554781, 552781-560781, 549881		Zone Map No. SEE ABOVE	Sheet 2 Of 17

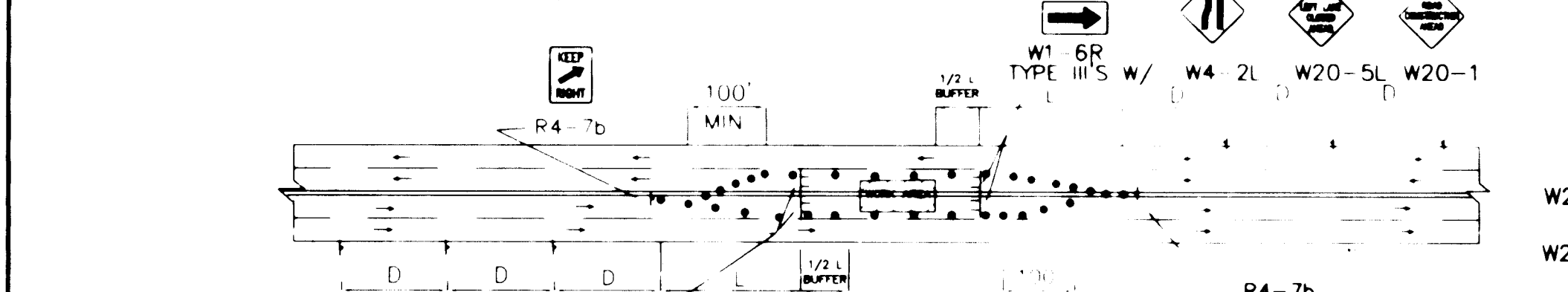
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NO.	FIELD NOTES	DATE	CONTRACTOR	DATE	DATE
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			INSPECTED BY: J.M.A.	DATE: 08/97	
			ACCEPTANCE BY: M.D.G.	DATE: 10/97	
			DESIGNED BY: M.D.G.	DATE: 10/97	
			DRAWN BY: M.D.G./J.M.A.	DATE: 10/97	
			RECORDED BY: MICRO-FILM	DATE:	



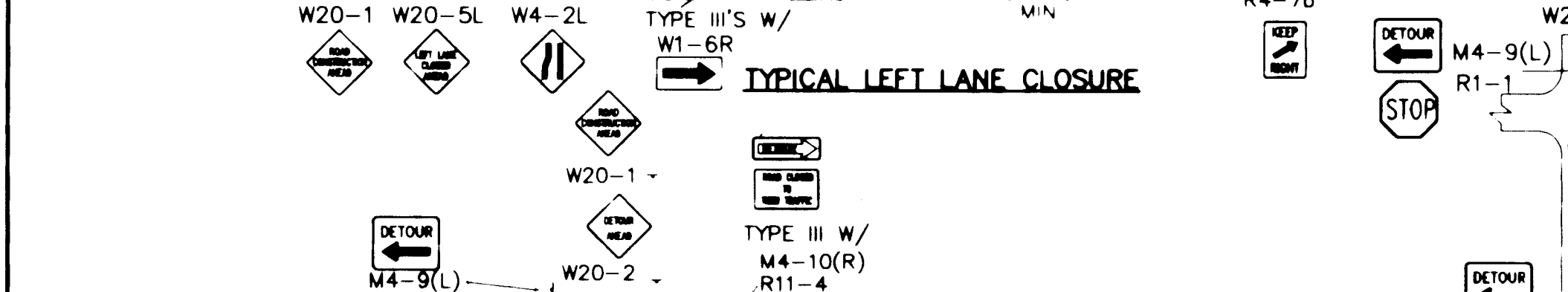
RECORD DRAWING



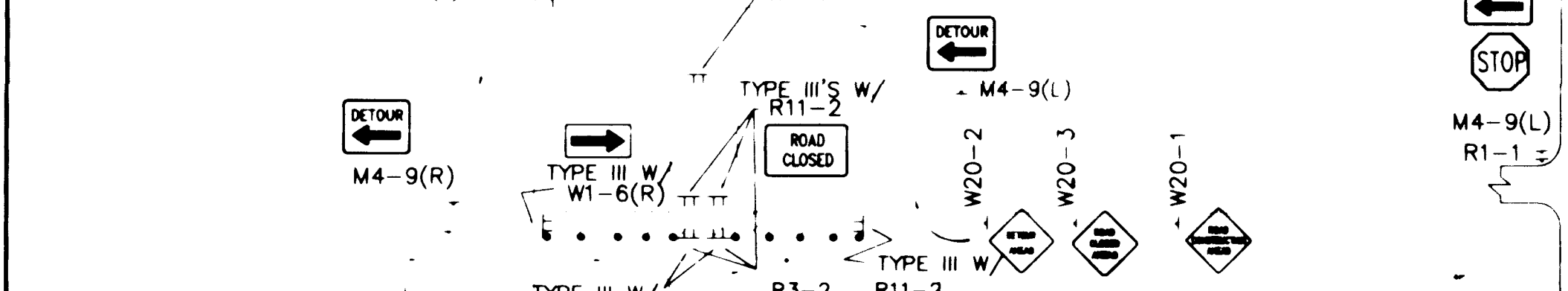
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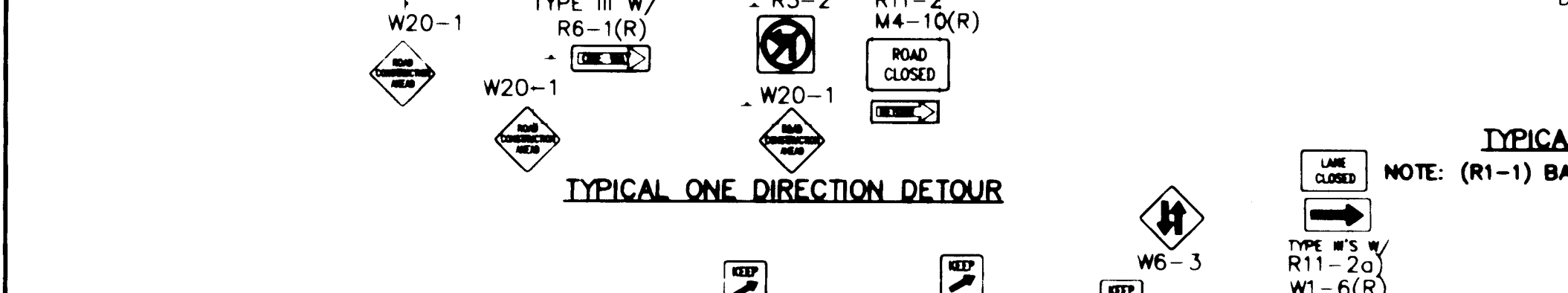
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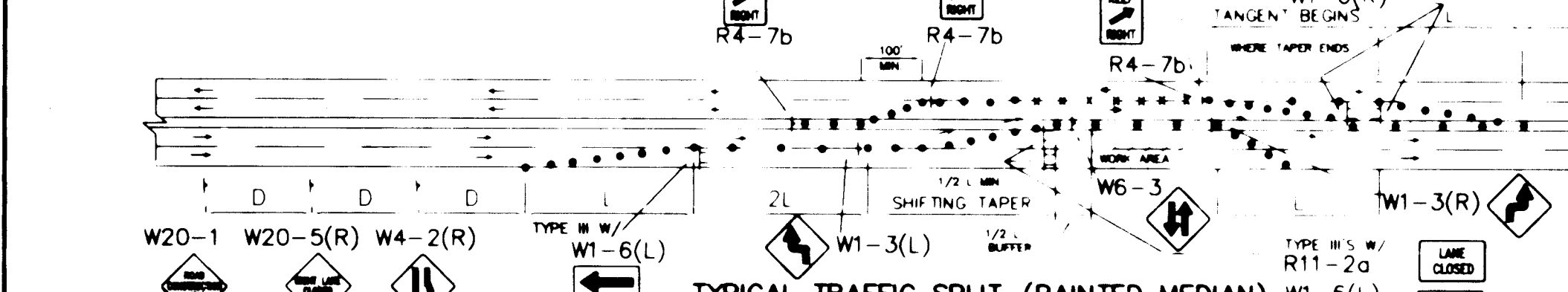
TYPICAL ONE DIRECTION DETOUR



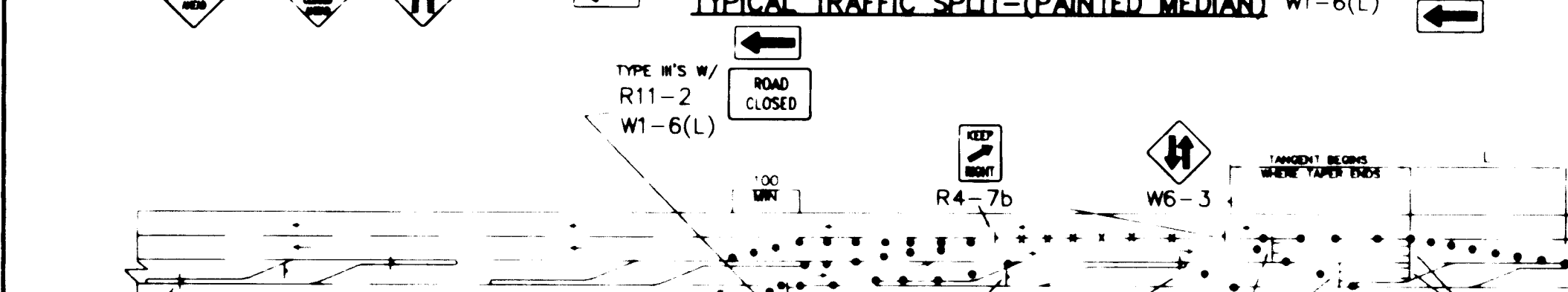
TYPICAL STREET CLOSURE



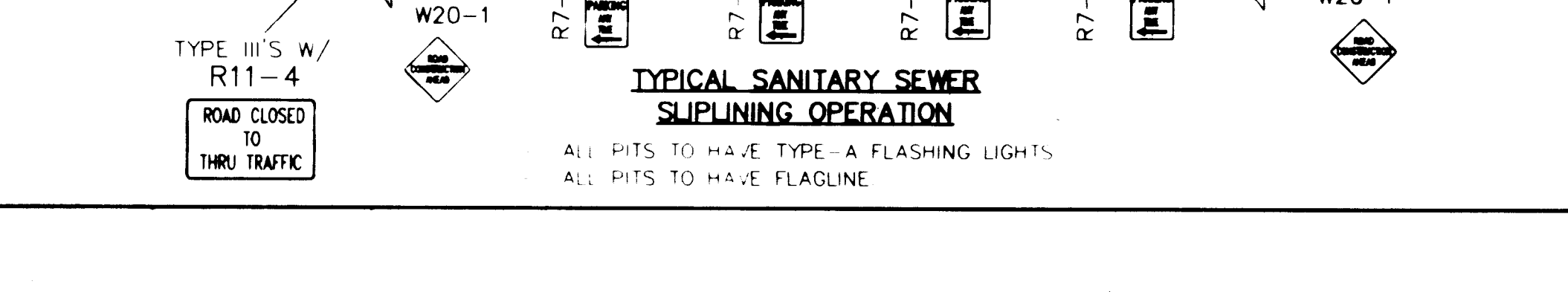
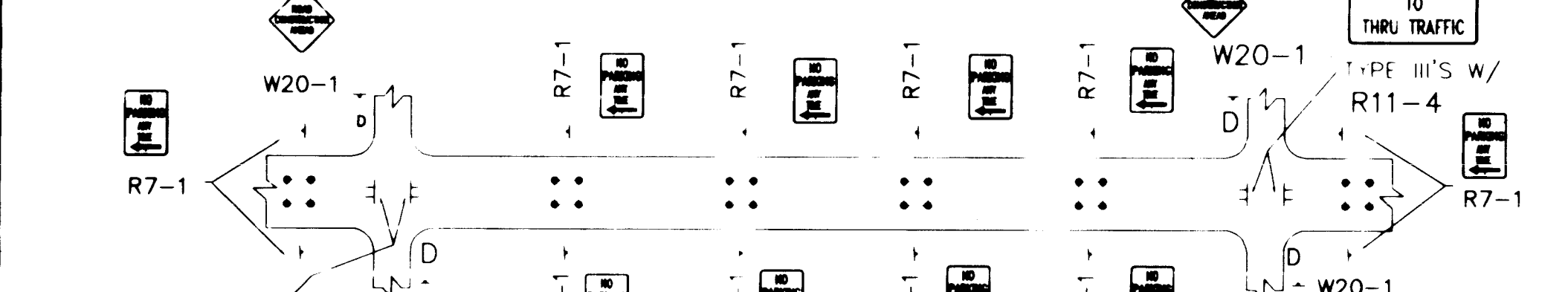
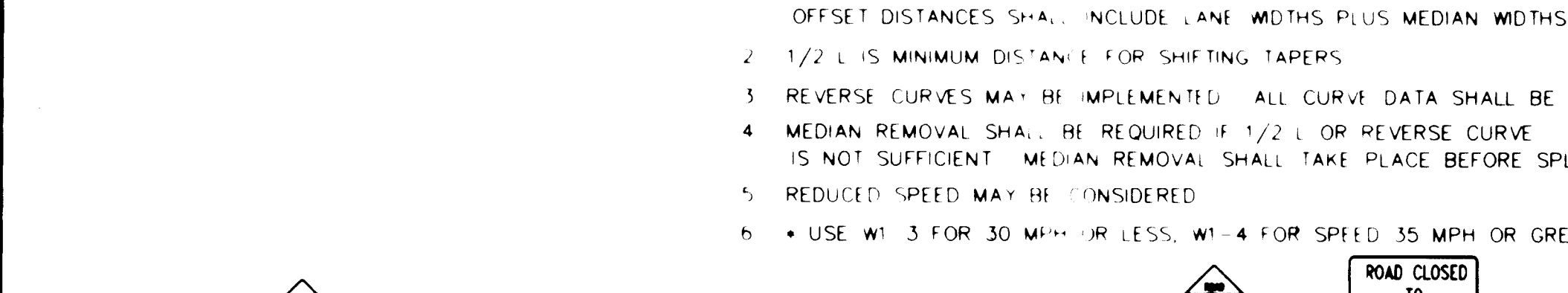
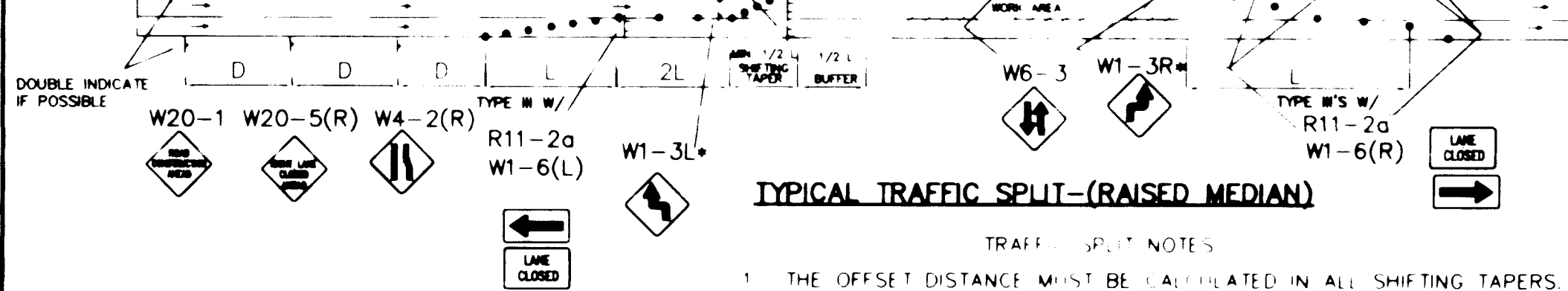
TYPICAL TRAFFIC SPLIT-(PAINTED MEDIAN)



TYPICAL TRAFFIC SPLIT-(RAISED MEDIAN)



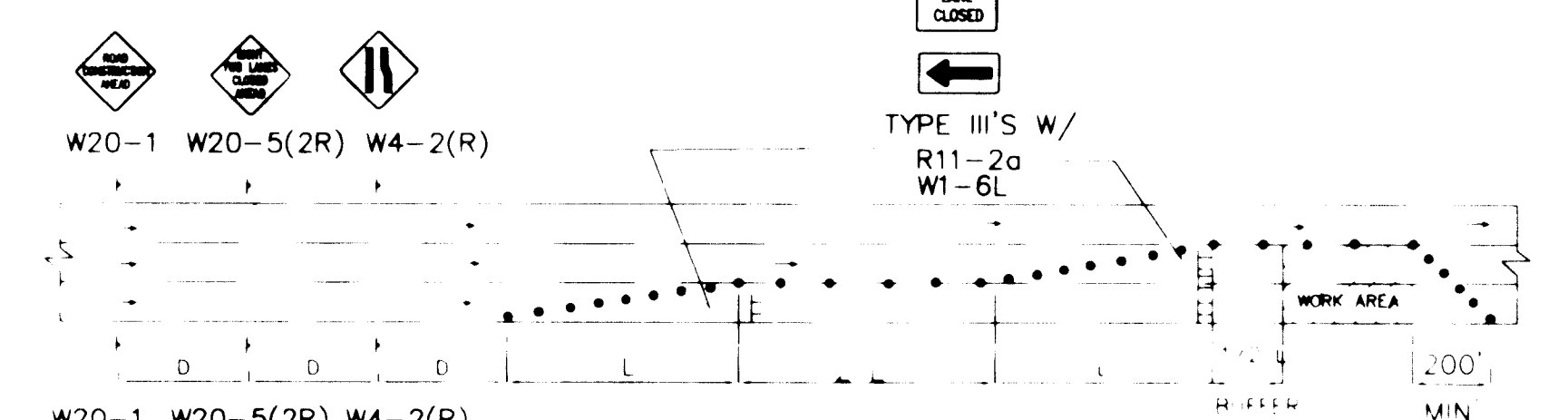
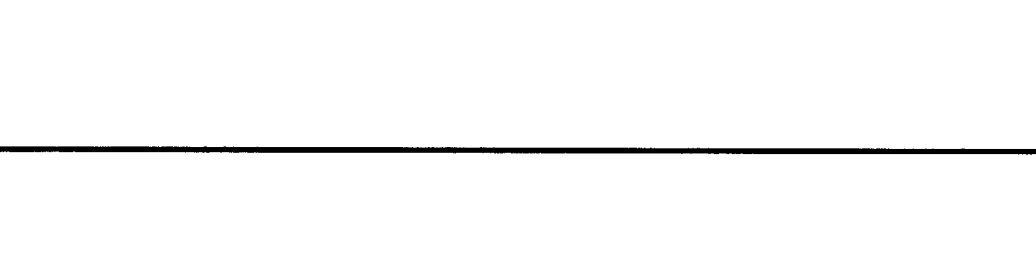
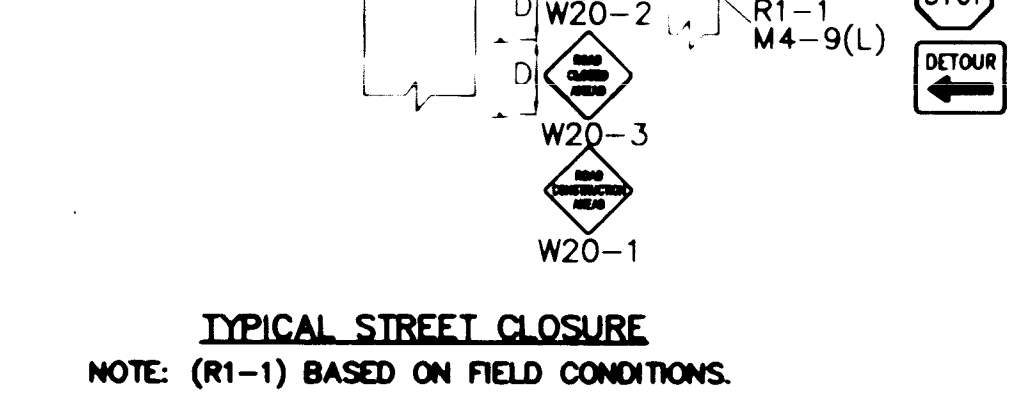
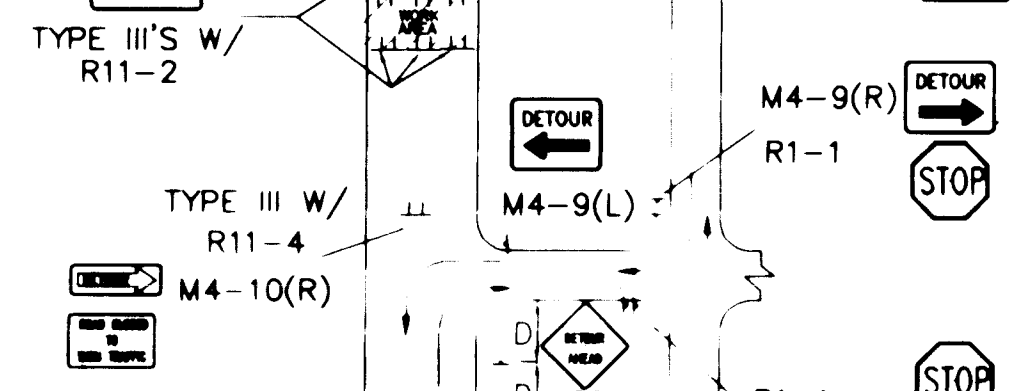
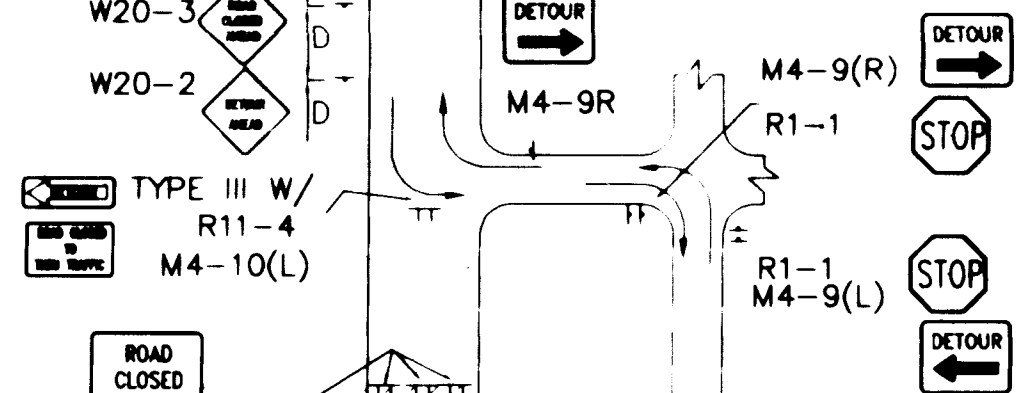
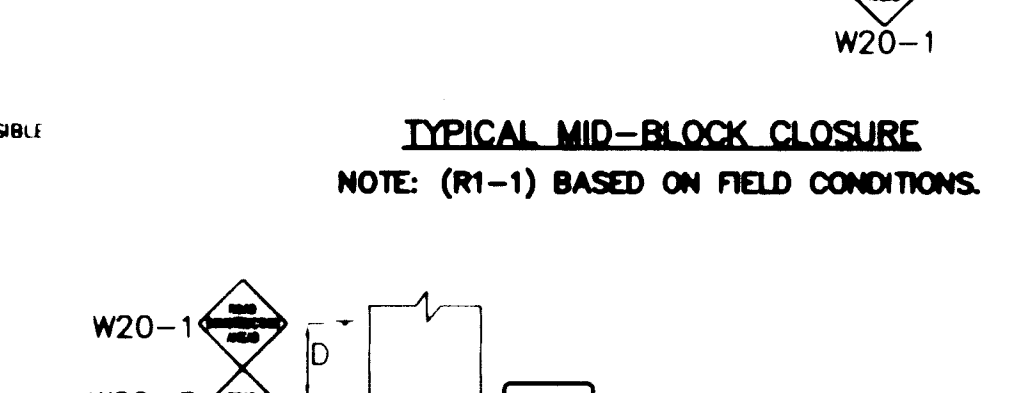
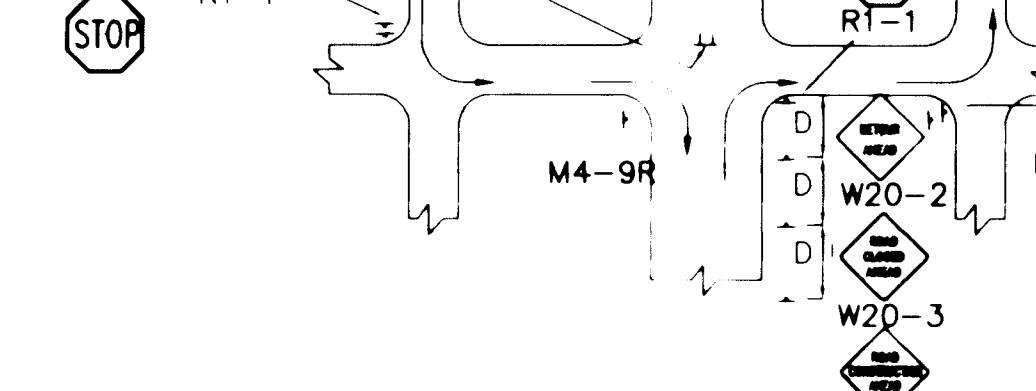
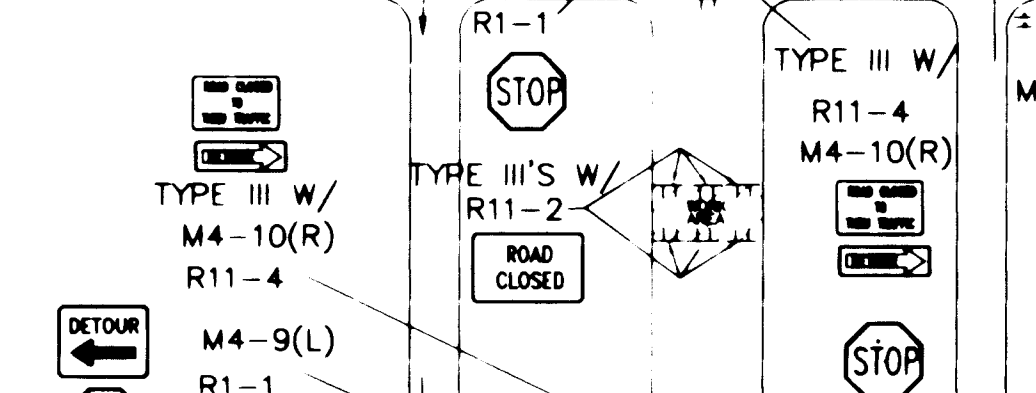
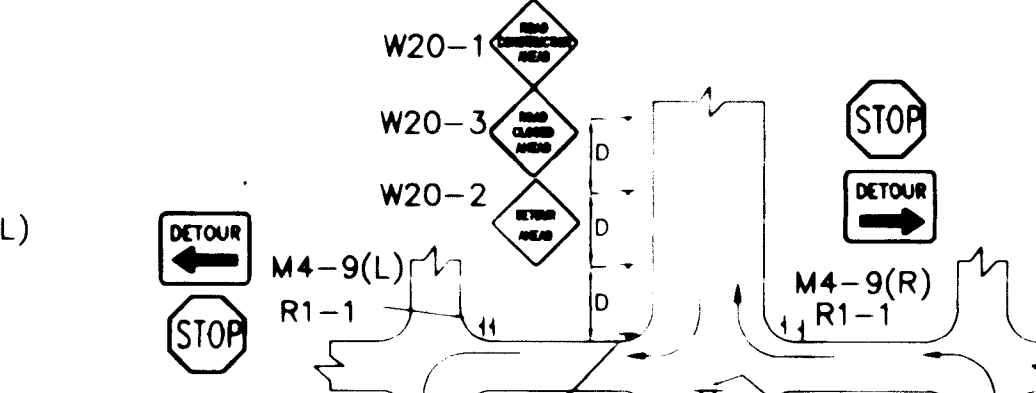
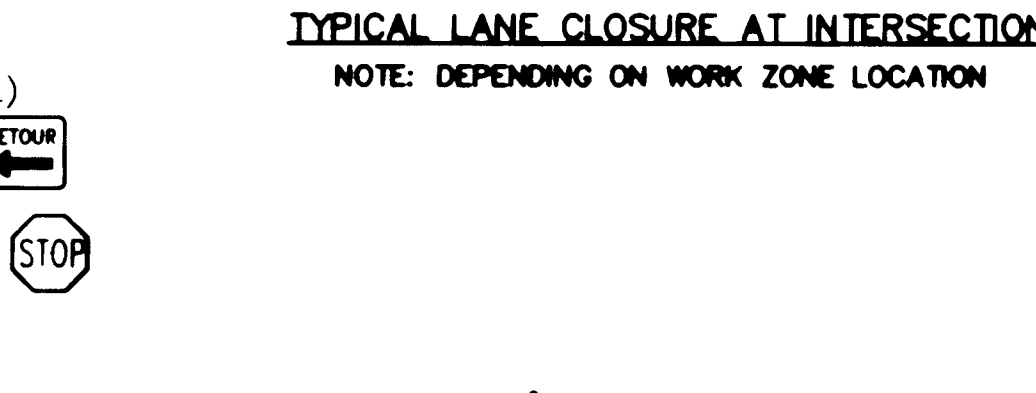
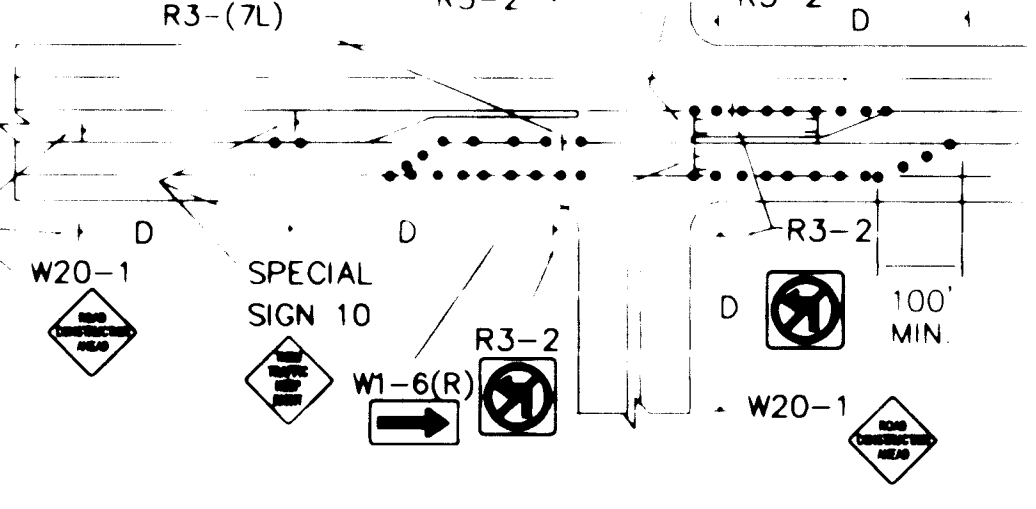
TYPICAL SANITARY SEWER LINING OPERATION



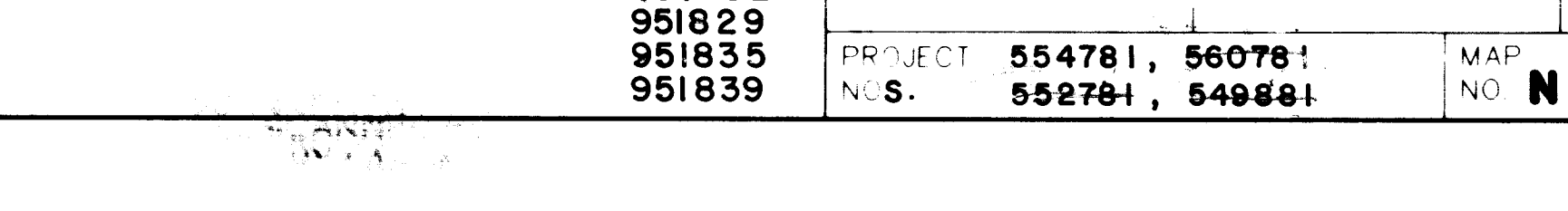
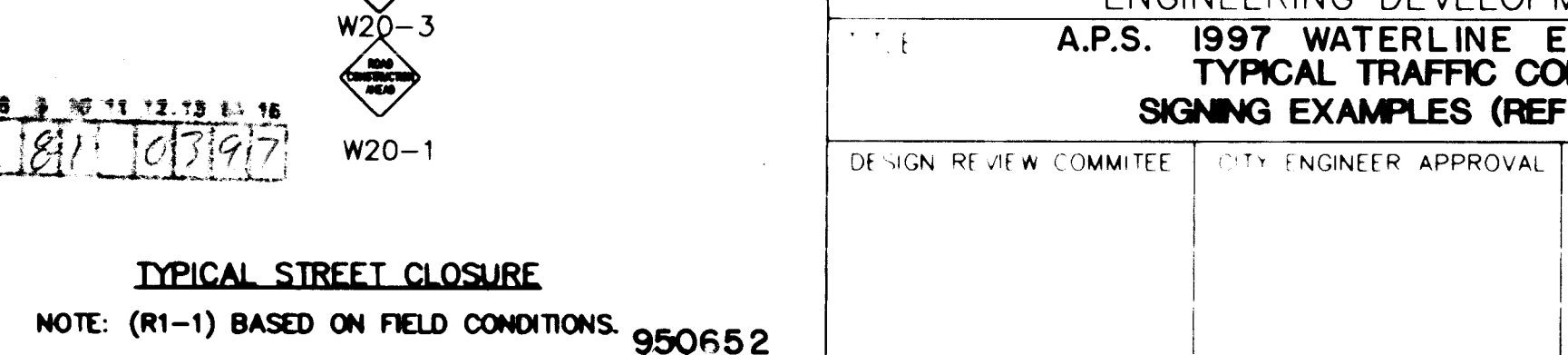
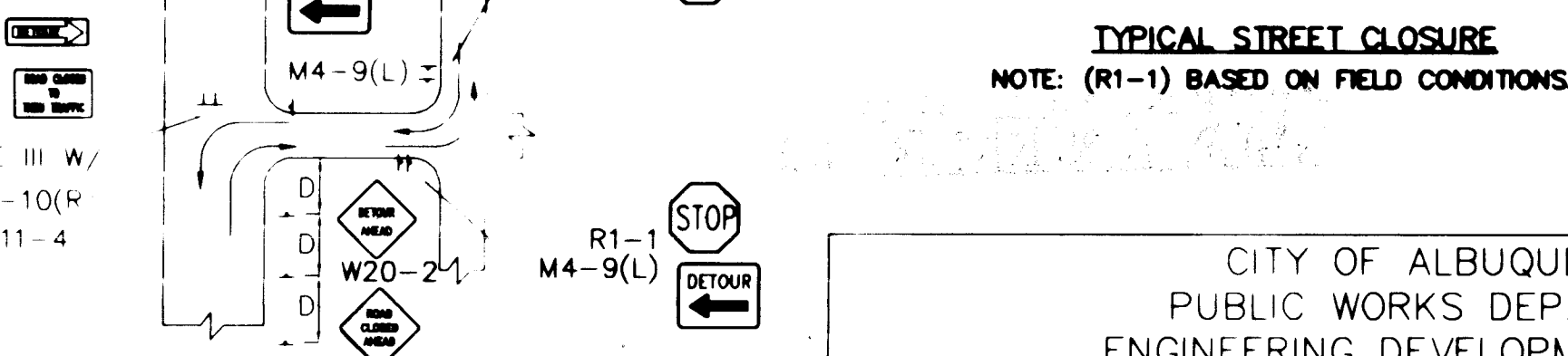
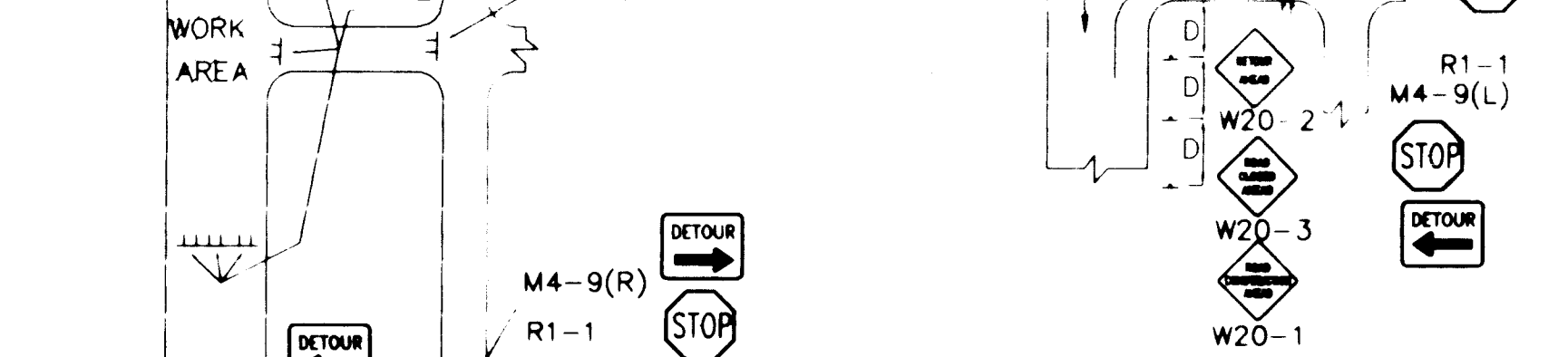
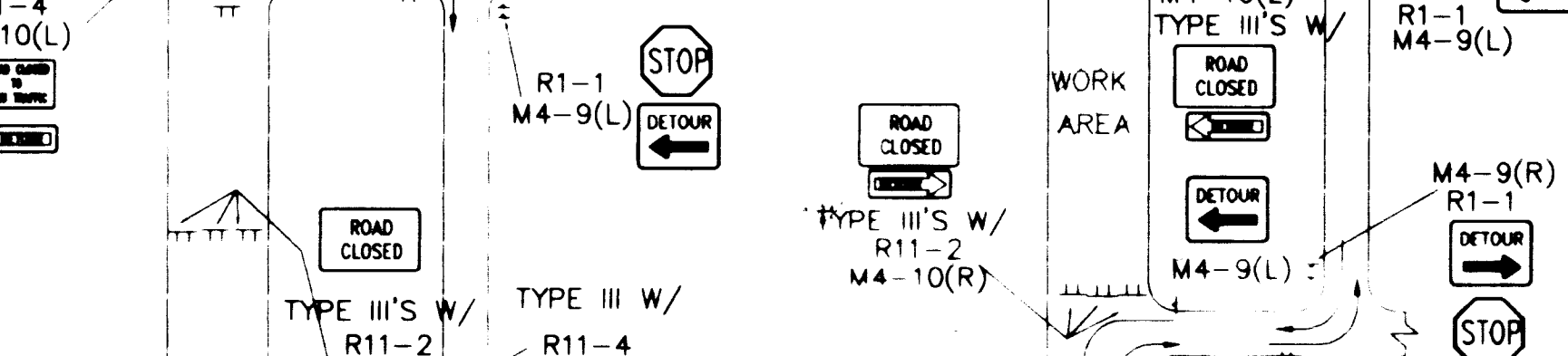
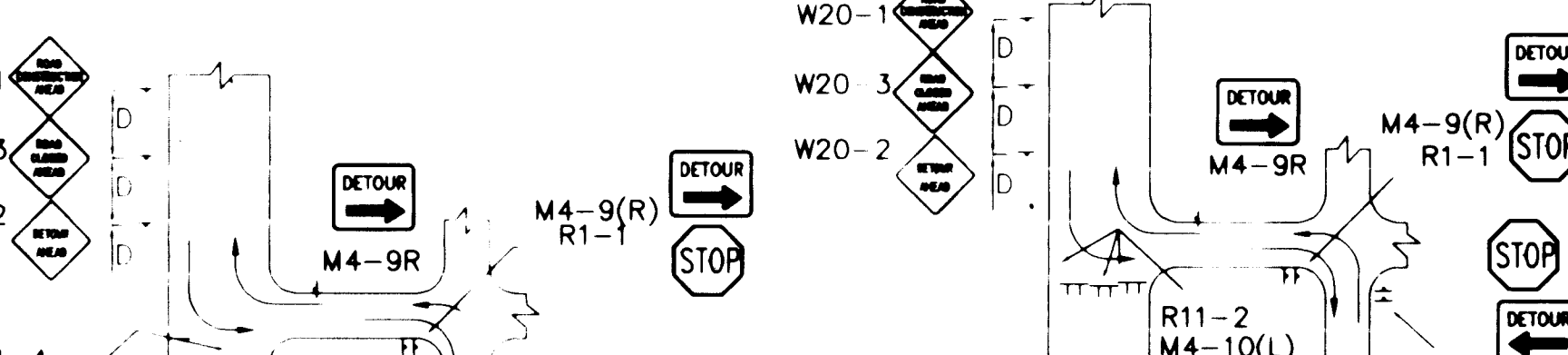
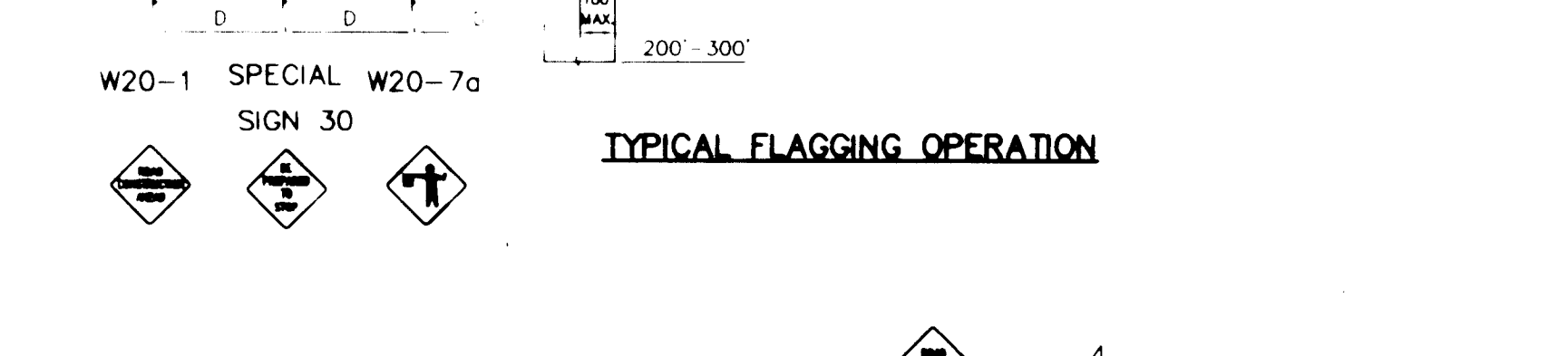
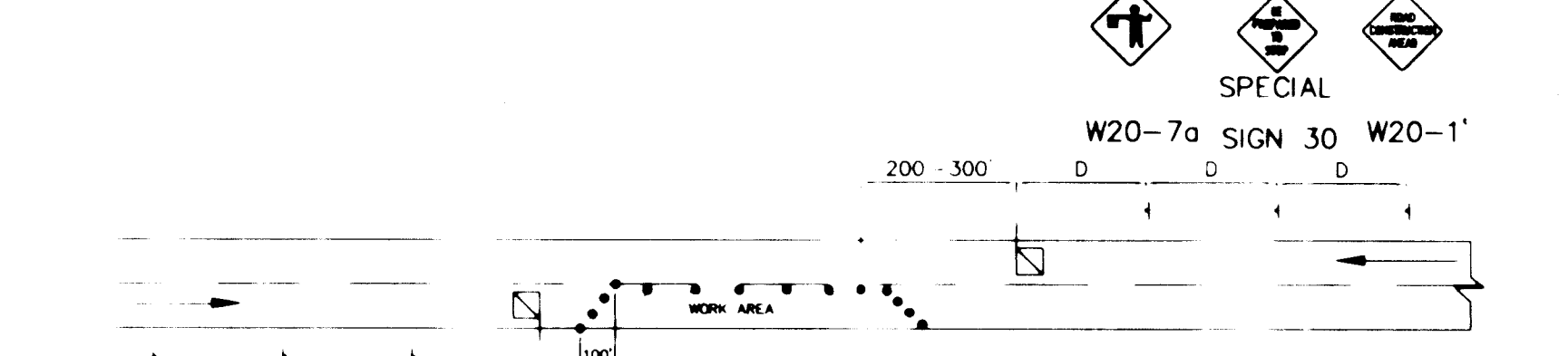
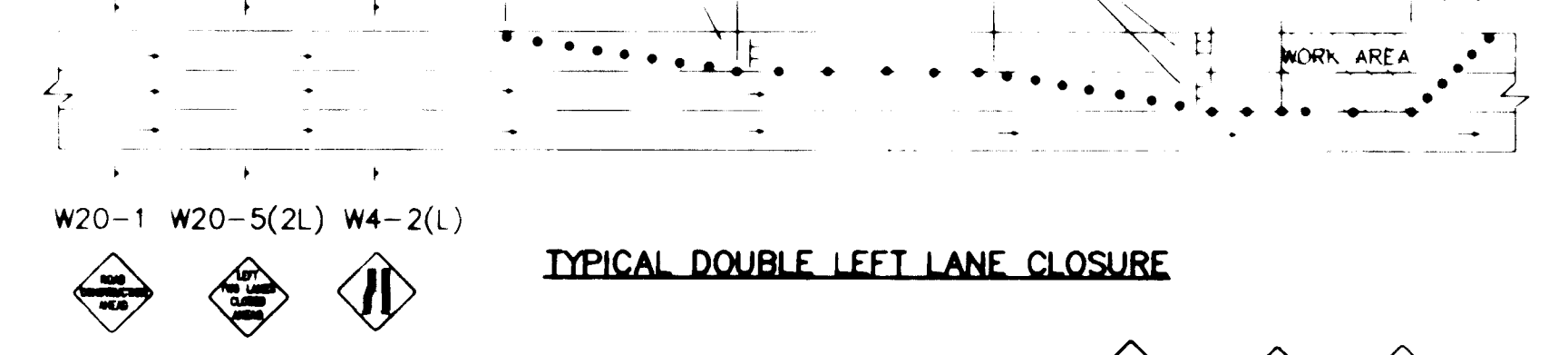
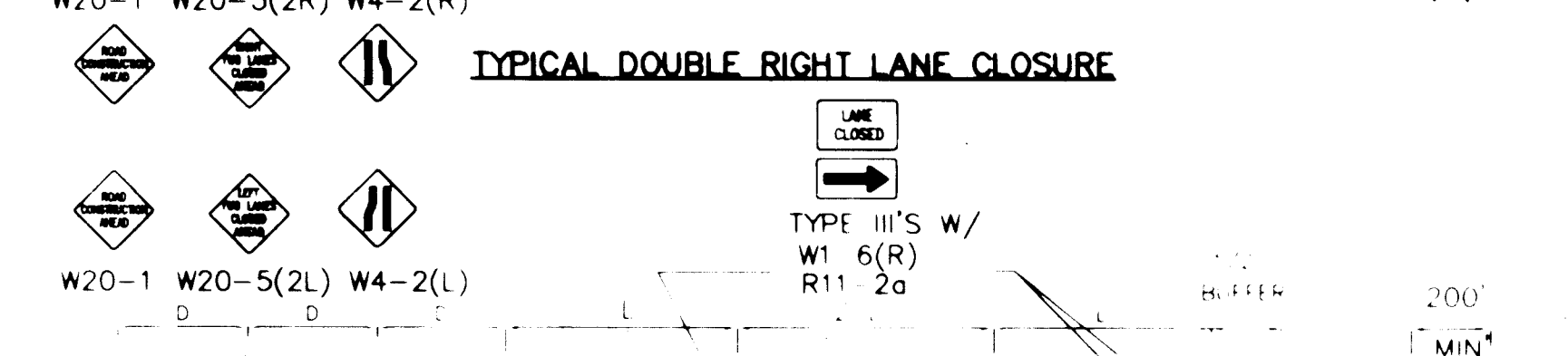
NOTE: MAY REQUIRE LEFT LANE CLOSURE DEPENDING ON FIELD CONDITIONS

TYPICAL LANE CLOSURE AT INTERSECTION

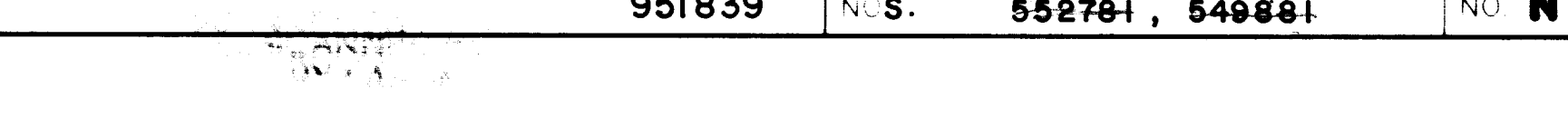
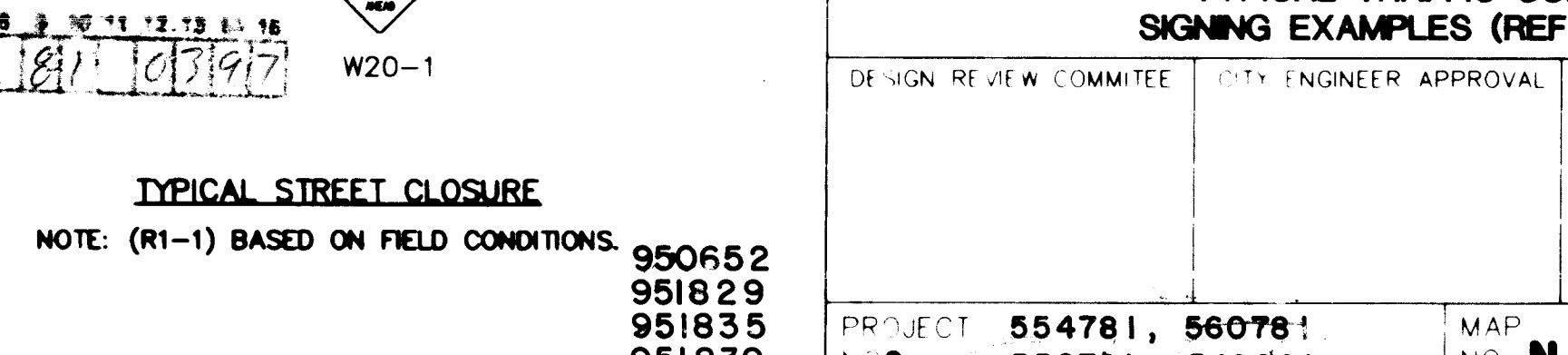
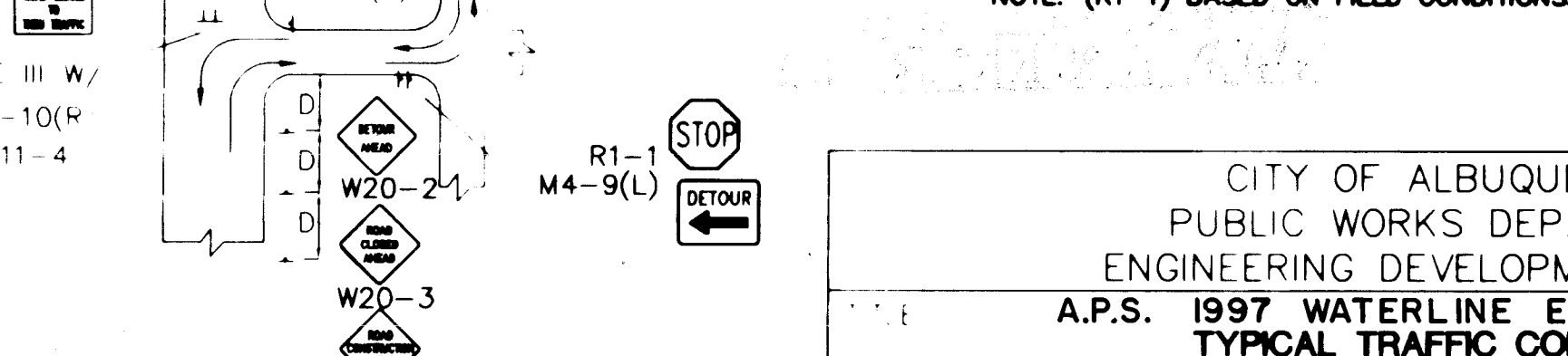
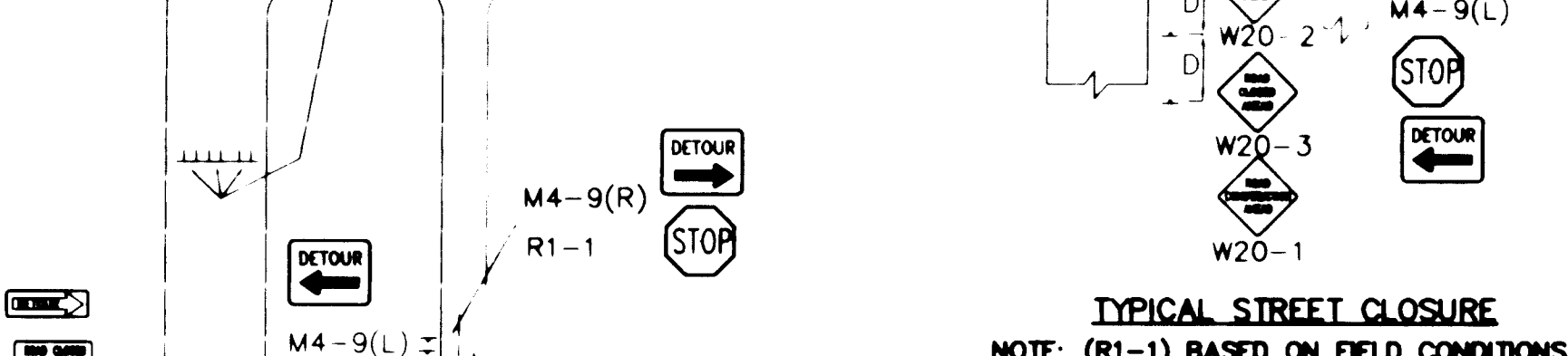
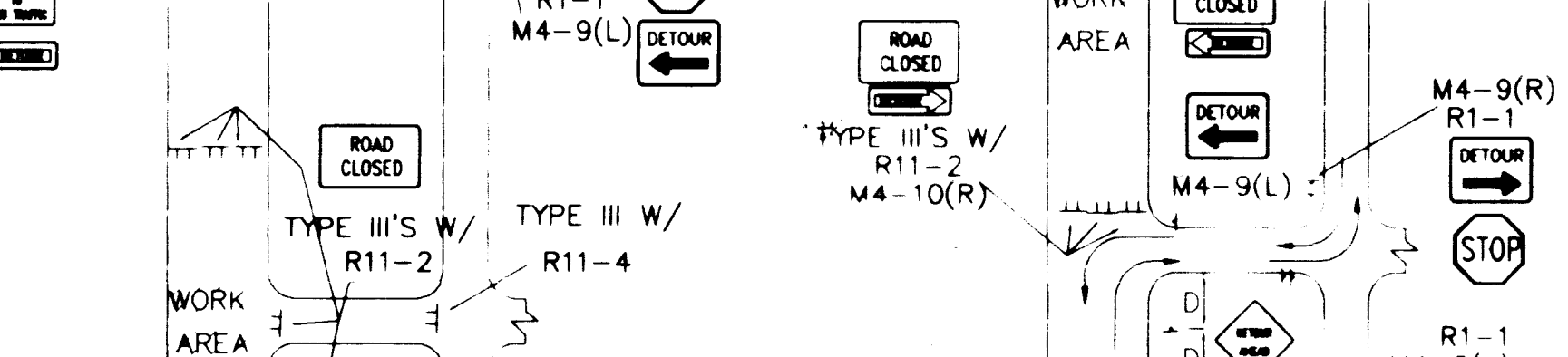
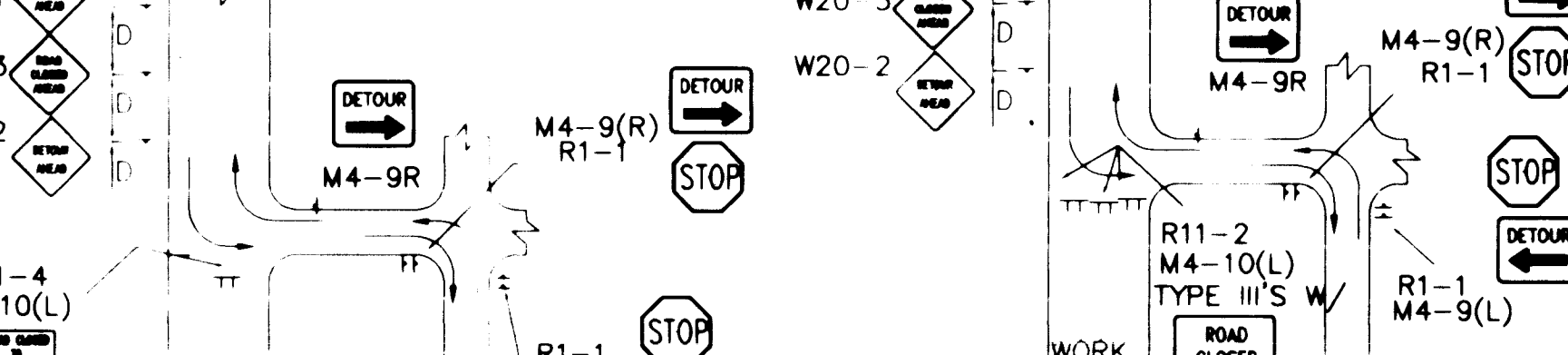
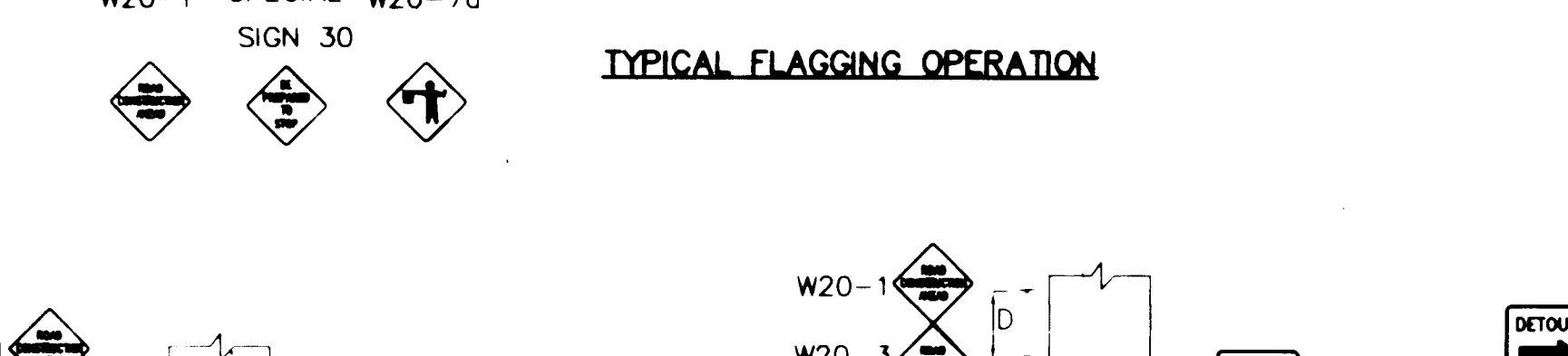
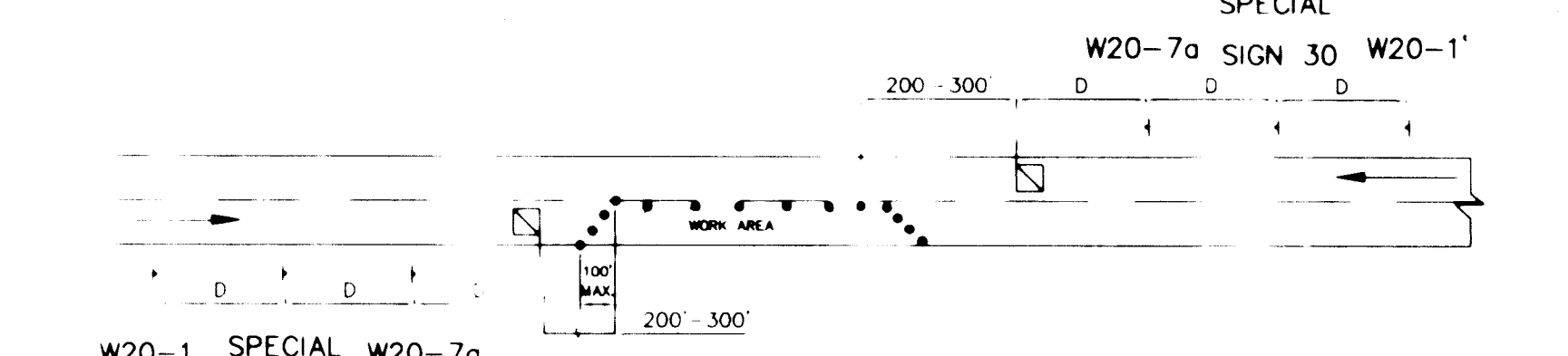
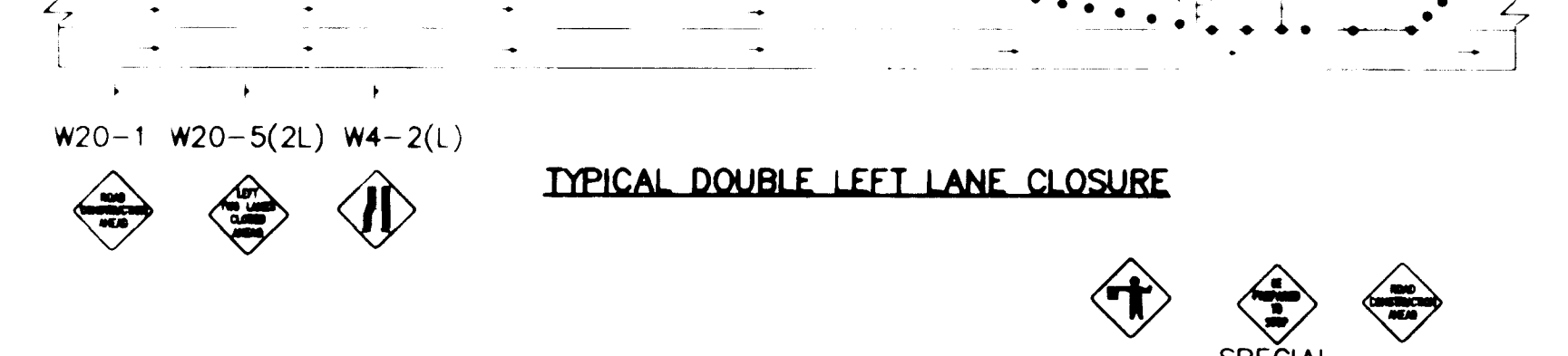
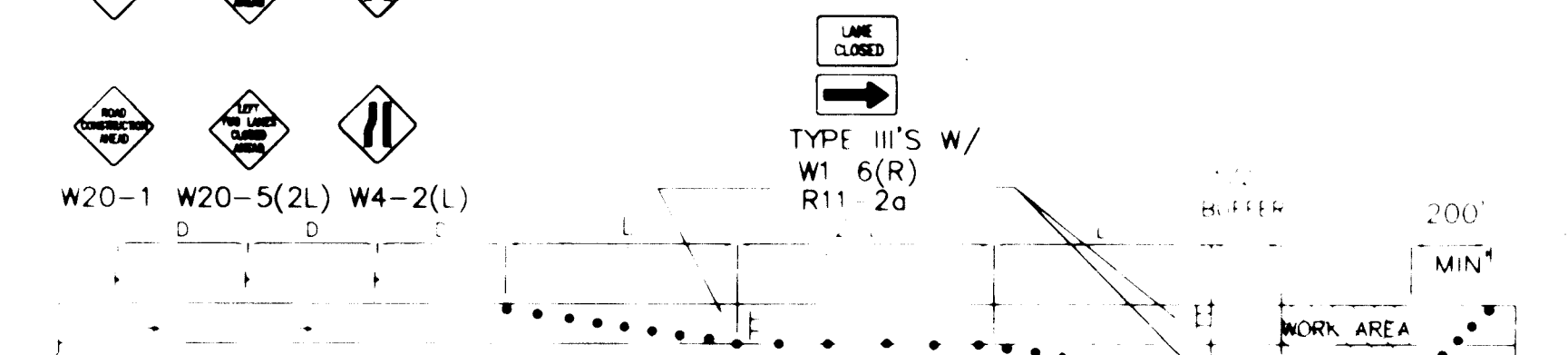
NOTE: DEPENDING ON WORK ZONE LOCATION



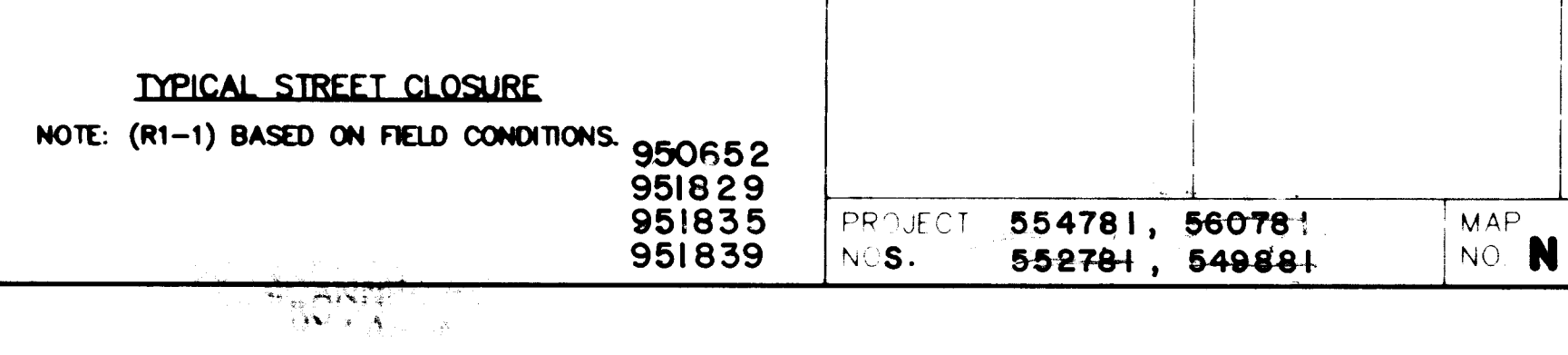
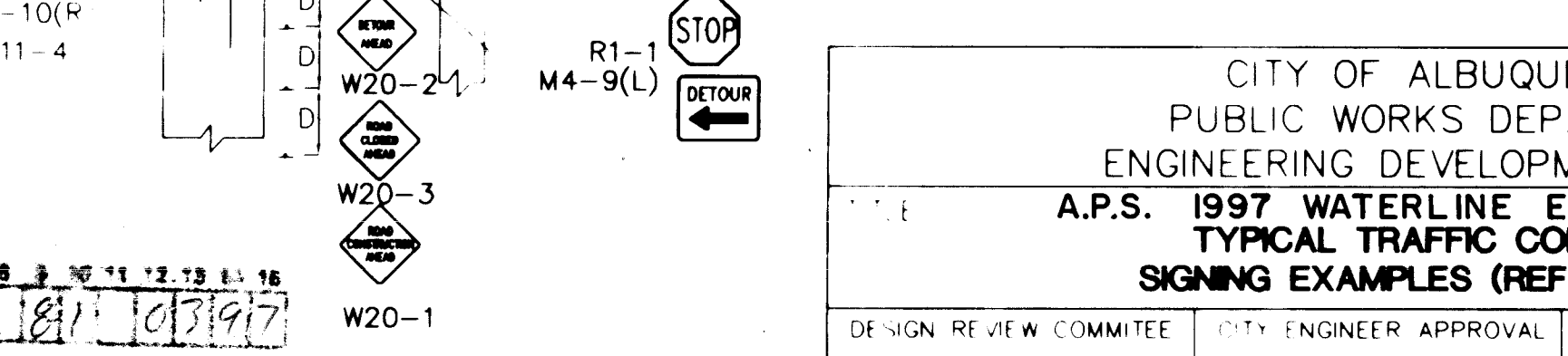
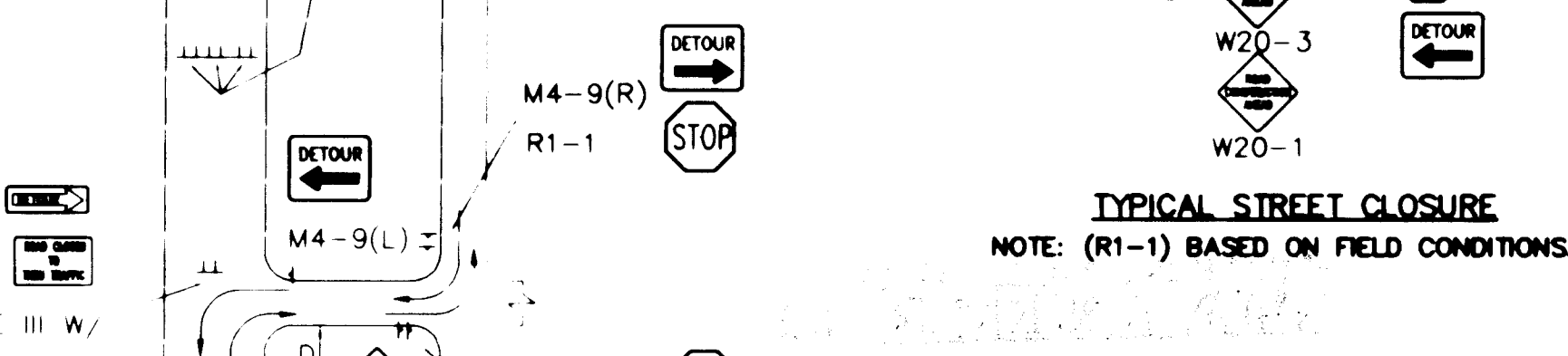
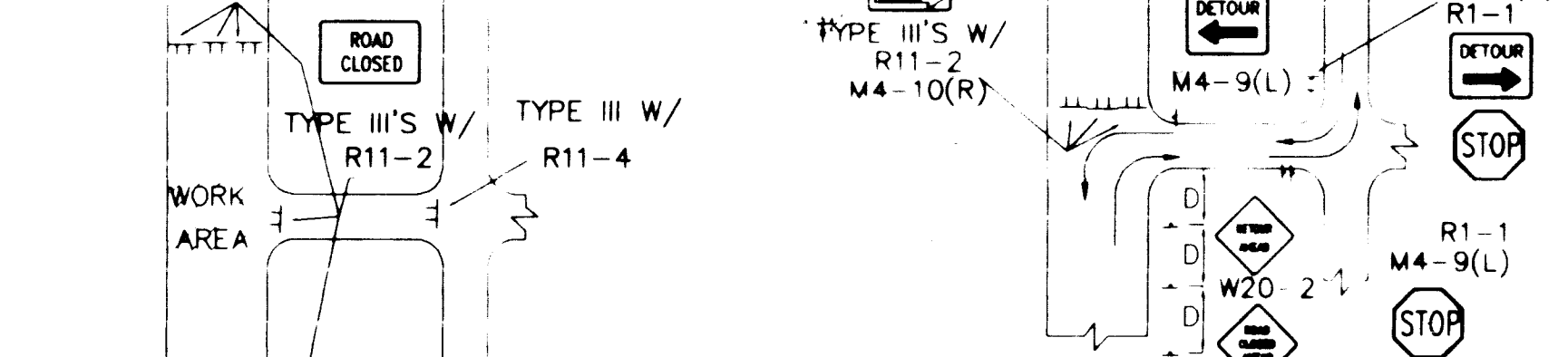
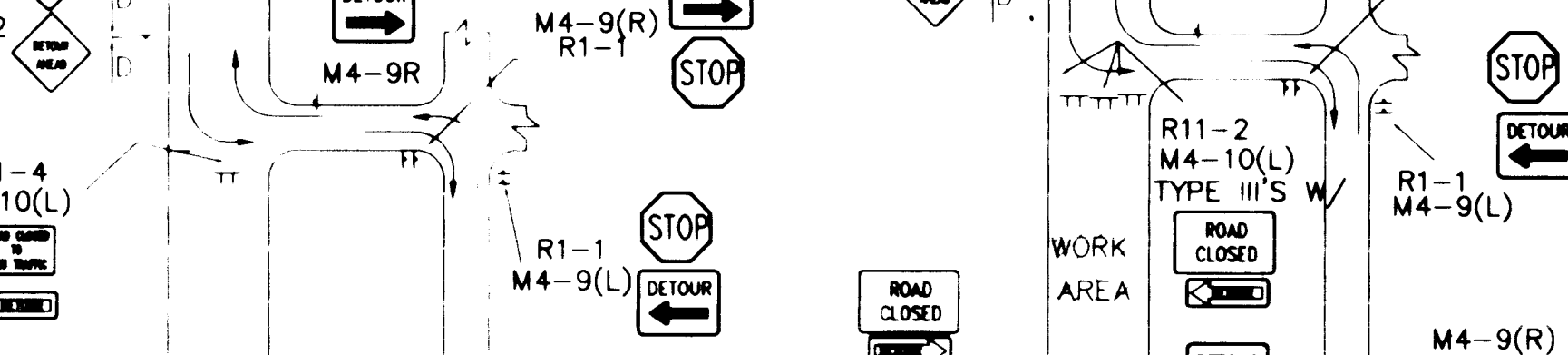
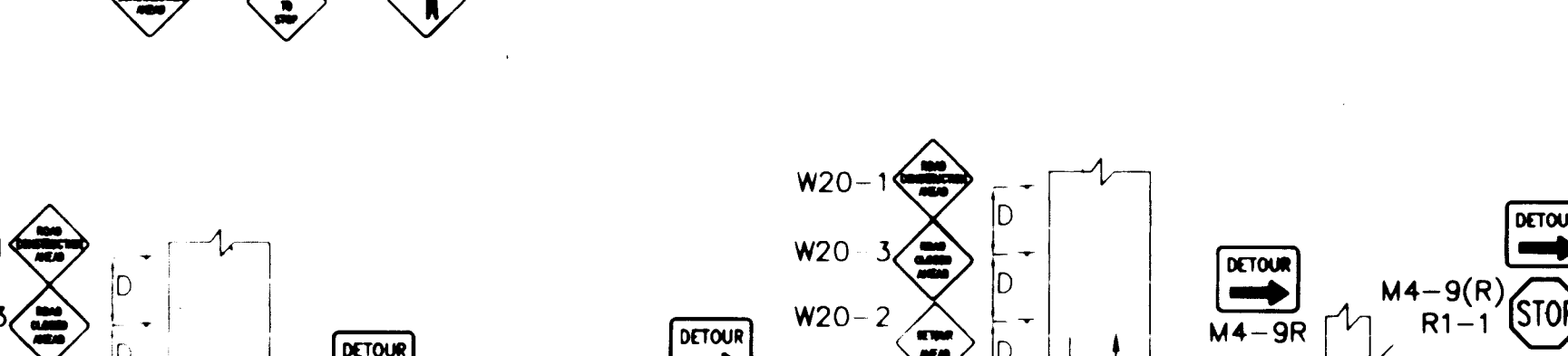
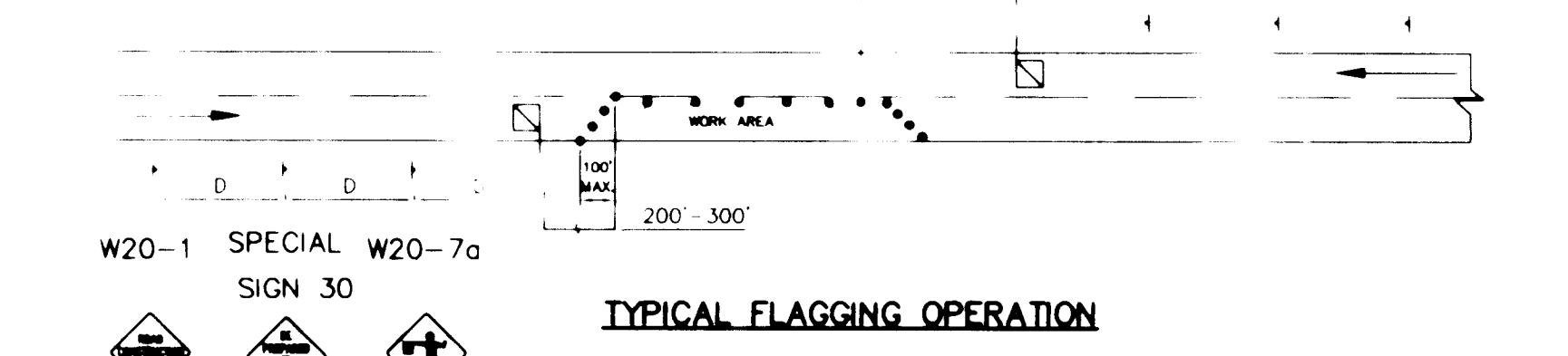
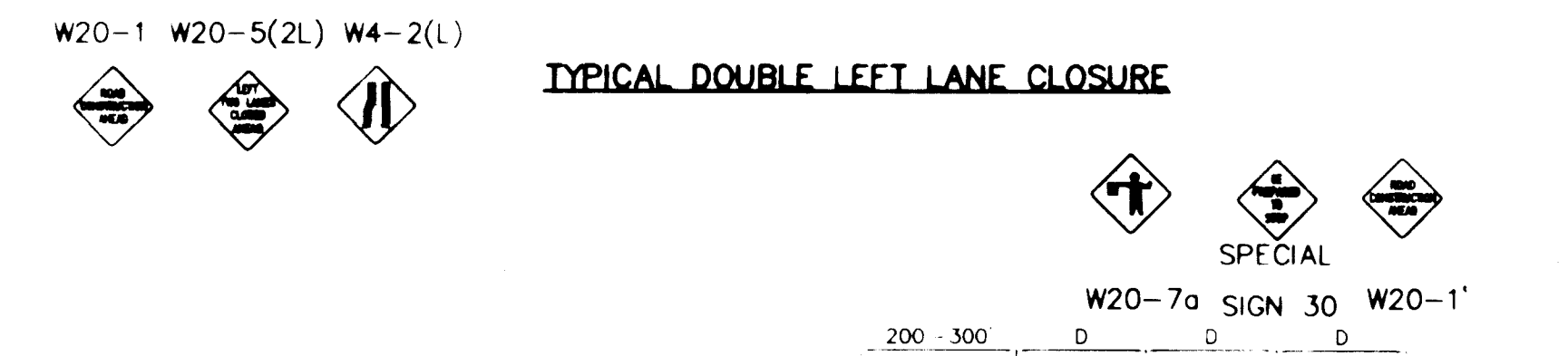
TYPICAL DOUBLE RIGHT LANE CLOSURE



TYPICAL DOUBLE LEFT LANE CLOSURE

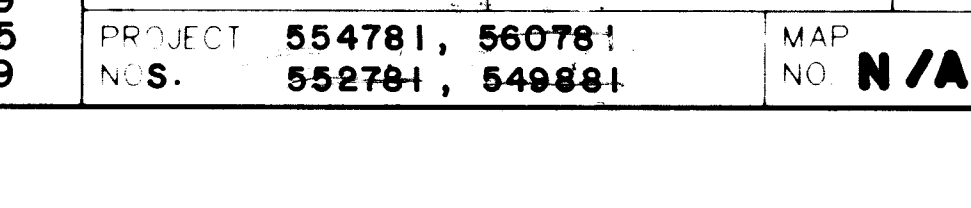
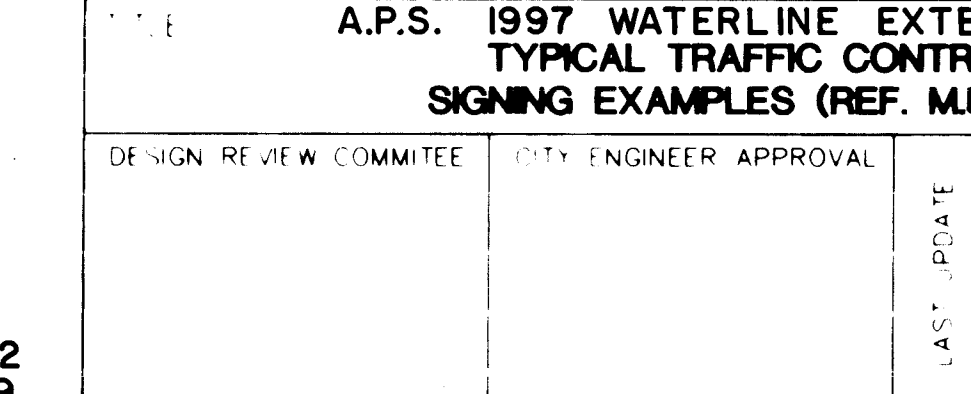
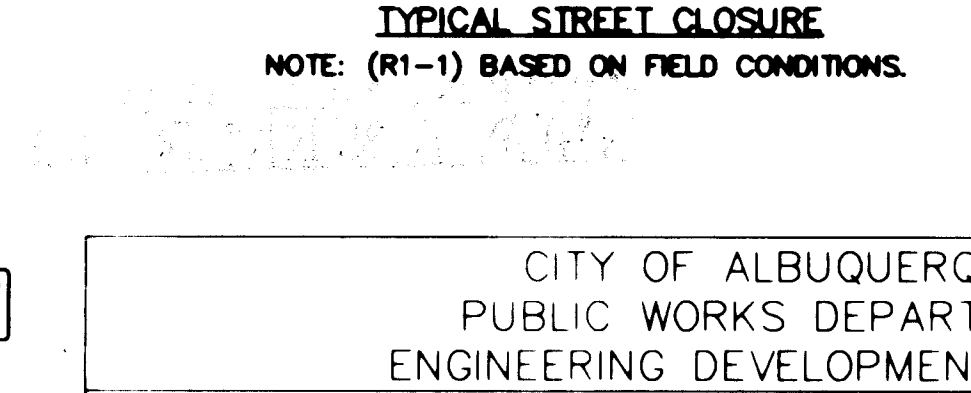
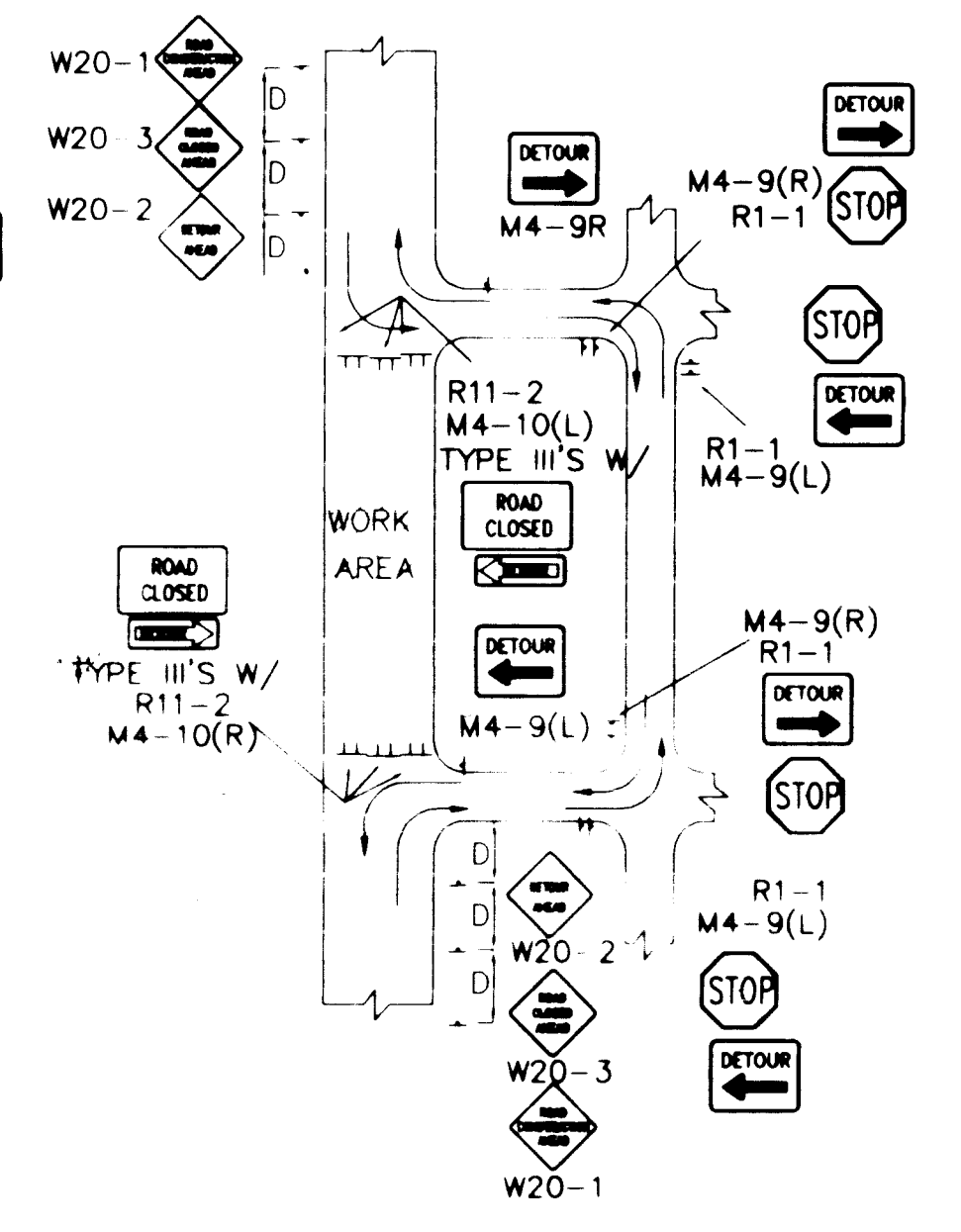


TYPICAL FLAGGING OPERATION



TYPICAL STREET CLOSURE

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



GENERAL NOTE:

ALL CONSTRUCTION WARNING SIGNS SHALL HAVE A BLACK LEGEND ON A ORANGE BACKGROUND.
ALL ADVANCE WARNING SIGNS SHALL BE A MINIMUM OF FORTY EIGHT (48) INCHES BY FORTY EIGHT (48) INCHES IN SIZE AND SHALL HAVE ONE WARNING LIGHT.

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 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.

AS BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL	
CONTRACTOR	DATE	NO.	BY	NO.	BY	NO.	BY
WABCO	1/1/87	N/A	N/A	N/A	N/A	N/A	N/A
STANDARD	DATE	REVISIONS		DESIGN		DATE	
MASS	1/1/87	NO.		DATE		DATE	
FIELD	DATE	DESIGNED BY		DRAWN BY		CHECKED BY	
MASS	1/1/87	C.O.A. STANDARDS		DATE		DATE	
CORRECTED BY	DATE	REMARKS		REVISIONS		DATE	
MASS	1/1/87	NO.		DATE		DATE	
MICRO-FILM INFORMATION	DATE	NO.		DATE		DATE	
MASS	1/1/87	NO.		DATE		DATE	
RECORDED BY	DATE	NO.		DATE		DATE	
MASS	1/1/87	NO.		DATE		DATE	

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP
A.P.S. 1997 WATERLINE EXTENSIONS
TYPICAL TRAFFIC CONTROL &
SIGNING EXAMPLES (REF. MUT.C.D.)

DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL	DATE	DATE
PROJECT NO.	554781, 560781	MAP NO.	N/A
DESIGNED BY	552781, 549881	SHEET	3 OF 17

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 DRIVEWAYS, SIDEWALKS, LANES, AND BUSINESS/RESIDENTIAL ADDRESSES. THE PLAN SHALL ALSO INDICATE ALL PHASES OF WORK AND SCHEDULES. THE CONSTRUCTION PROJECT AND SEPARATE PHASES OF THE CONSTRUCTION PROJECT SHALL BE GIVEN AN INDIVIDUAL PERMIT EACH. BARRICADING 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 ADDRESSES. EVERY LOCATION THAT REQUIRES CONSTRUCTION TRAFFIC CONTROL SHALL HAVE A DETAILED TRAFFIC CONTROL PLAN SHOWING ALL EXISTING TOPOGRAPHY.

4. CONSTRUCTION SHALL NOT BEGIN UNTIL A TRAFFIC CONTROL PLAN HAS BEEN APPROVED AND VERIFIED BY CONSTRUCTION COORDINATION.

5. CONSTRUCTION COORDINATION SHALL BE NOTIFIED 48 HOURS BEFORE 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 WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INSTALL, SERVE, 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 SERVICE SHALL ALSO BE DONE BY AN ATSSA CERTIFIED WORKSITE TRAFFIC SUPERVISOR OR EQUIVALENT.

8. CONTRACTOR IS RESPONSIBLE TO MAINTAIN AND PROVIDE ALL TRAFFIC CONTROL DEVICES 24 HOURS A DAY, 7 DAYS A WEEK THROUGHOUT THE 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 MULTIPLE LANE TRAFFIC IN ANY ONE GIVEN DIRECTION AND THERE IS SUFFICIENT MEDIAN SPACE.

10. ALL BARRICADES IN ALL TAPERS AND TANGENTS SHALL BE SPACED APART, A DISTANCE MEASURED IN FEET, EQUAL TO THAT OF THE POSTED SPEED LIMIT. (SEE EXCEPTIONS UNLESS APPROVED BY CONSTRUCTION COORDINATION PER MUTCD SECTION 6A.4.)

11. CONTRACTOR SHALL NOT BEGIN WORK BEFORE 6 A.M. OR END WORK AFTER 7:00 P.M. WITHOUT THE APPROVAL OF CONSTRUCTION COORDINATION.

12. CONTRACTOR IS RESPONSIBLE TO PROVIDE CONSTRUCTION COORDINATION, A WEEKLY LOG OF DAILY INSPECTIONS OF BARRICADES AND MAINTENANCE SCHEDULES ON PROJECTS THAT ARE OVER ONE WEEK DURATION.

13. EQUIPMENT OR MATERIALS SHALL NOT BE STORED WITHIN 10 FEET OF A TRAVELLED 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 RELOCATION OF ANY EXISTING STRIPING AND RESPONSIBLE FOR ALL TEMPORARY STRIPING.

16. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL FACILITIES, BUS LINES, AND/OR RESIDENTS AT ALL TIMES.

17. CONTRACTOR SHALL PROVIDE ACCESS SIGNS FOR BUSINESS LOCATED WITHIN THE CONSTRUCTION AREA UNDER THE SUPERVISION OF CONSTRUCTION COORDINATION. EACH ACCESS SIGN SHALL HAVE 5 INCH WHITE RAISED LETTERING ON BLUE REFLECTORIZED BACKGROUND. ACCESS SIGNS SHALL BE CONSIDERED INCIDENTAL TO THE BID AND NOT PART OF THE CONTRACT. UNDER NO CIRCUMSTANCES SHALL NO MORE THAN 3 BUSINESSES BE LOCATED IN A BUSINESS DISTRICT, SHOPPING CENTER, AND MALLS SHALL BE TREATED AS SUCH.

18. ALL ADVANCE WARNING SIGNS SHALL MEET THE MINIMUM REQUIREMENTS 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. 24 HOURS PRIOR TO OCCUPANCY 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.

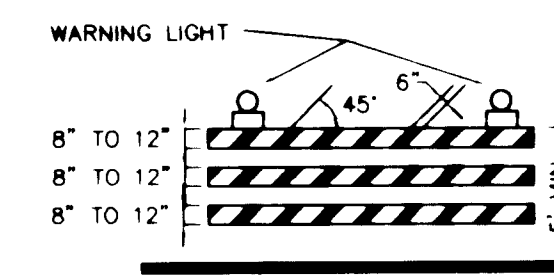
22. CONTRACTOR SHALL AT ALL TIMES COMPLY WITH THE FOLLOWING STANDARDS AND REQUIREMENTS SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION:
2. THE CITY OF ALBUQUERQUE TRAFFIC CODE, LATEST EDITION
3. SECTION 19 OF THE CITY OF ALBUQUERQUE'S STANDARD SPECIFICATIONS FOR PUBLIC WORK 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.

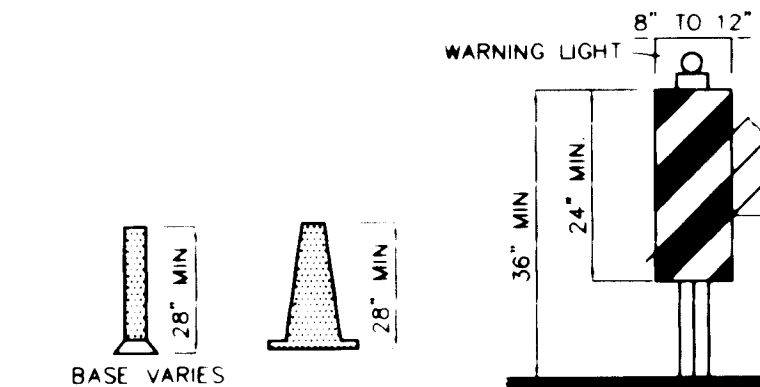
24. ALL TRAFFIC CONTROL DEVICES SHALL BE KEPT IN NEW-CLEAN CONDITION. WASHING OF EQUIPMENT IS INCIDENTAL TO ITS PLACEMENT AND MAINTENANCE.

25. TRAFFIC CONTROL STANDARDS APPLY ONLY WHERE THE CONSTRUCTION TRAFFIC CONTROL PLANS ARE NOT SPECIFIC.

26. ADVANCE WARNING SIGNS SHALL BE 36"x36" WITH SUPER ENGINEERING GRADE SHEETING OR BETTER.

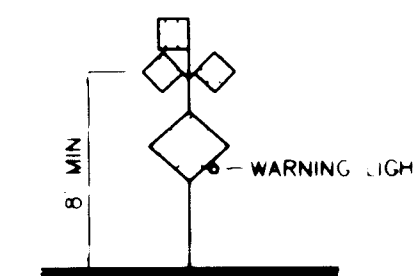


TYPE III BARRICADE

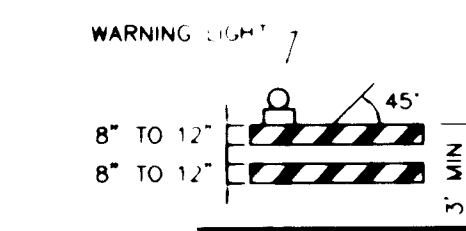


CONES

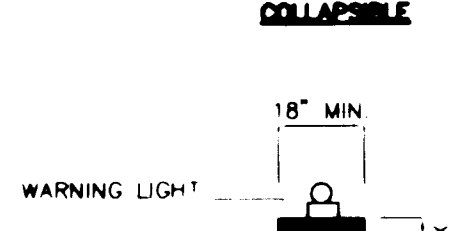
VERTICAL PANEL



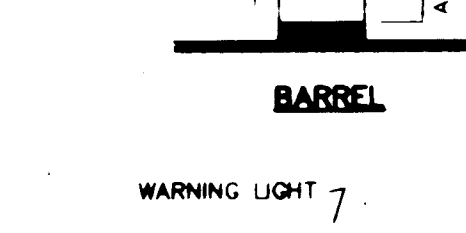
HIGH LEVEL WARNING DEVICE



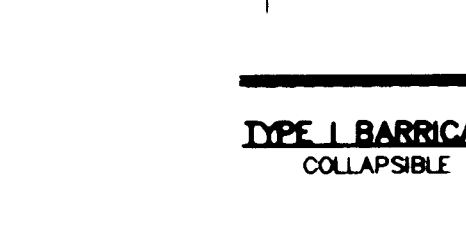
TYPE I BARRICADE



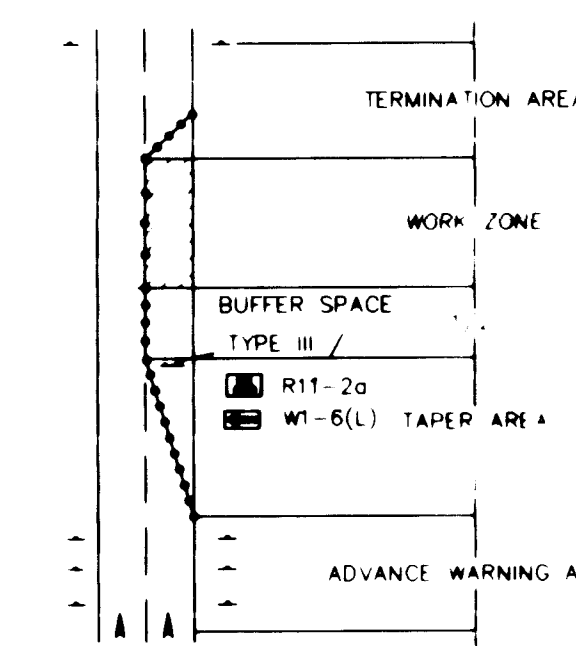
TYPE II BARRICADE



TYPE III BARRICADE



TYPE I BARRICADE



TRAFFIC CONTROL ELEMENTS

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 SPEED LIMIT OF THE STREET

TAPER LENGTH - SEE CHART BELOW

THE TANGENT LENGTH IS EQUAL TO THE TAPER LENGTH FOR A GIVEN STREET

TAPER REQUIREMENTS

SPEED LIMIT (MPH)	TAPER LENGTH (L) (FEET)			MINIMUM NUMBER OF DEVICES FOR TAPER	MAXIMUM DEVICE SPACING IN FEET	
	10' ANE	11' LANE	12' LANE		ALONG TAPER	AFTER TAPER
20	75	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 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	L =
40 MPH OR LESS	$L = \frac{WS^2}{60}$
45 MPH OR GREATER	$L = W \times S$

L = TAPER LENGTH

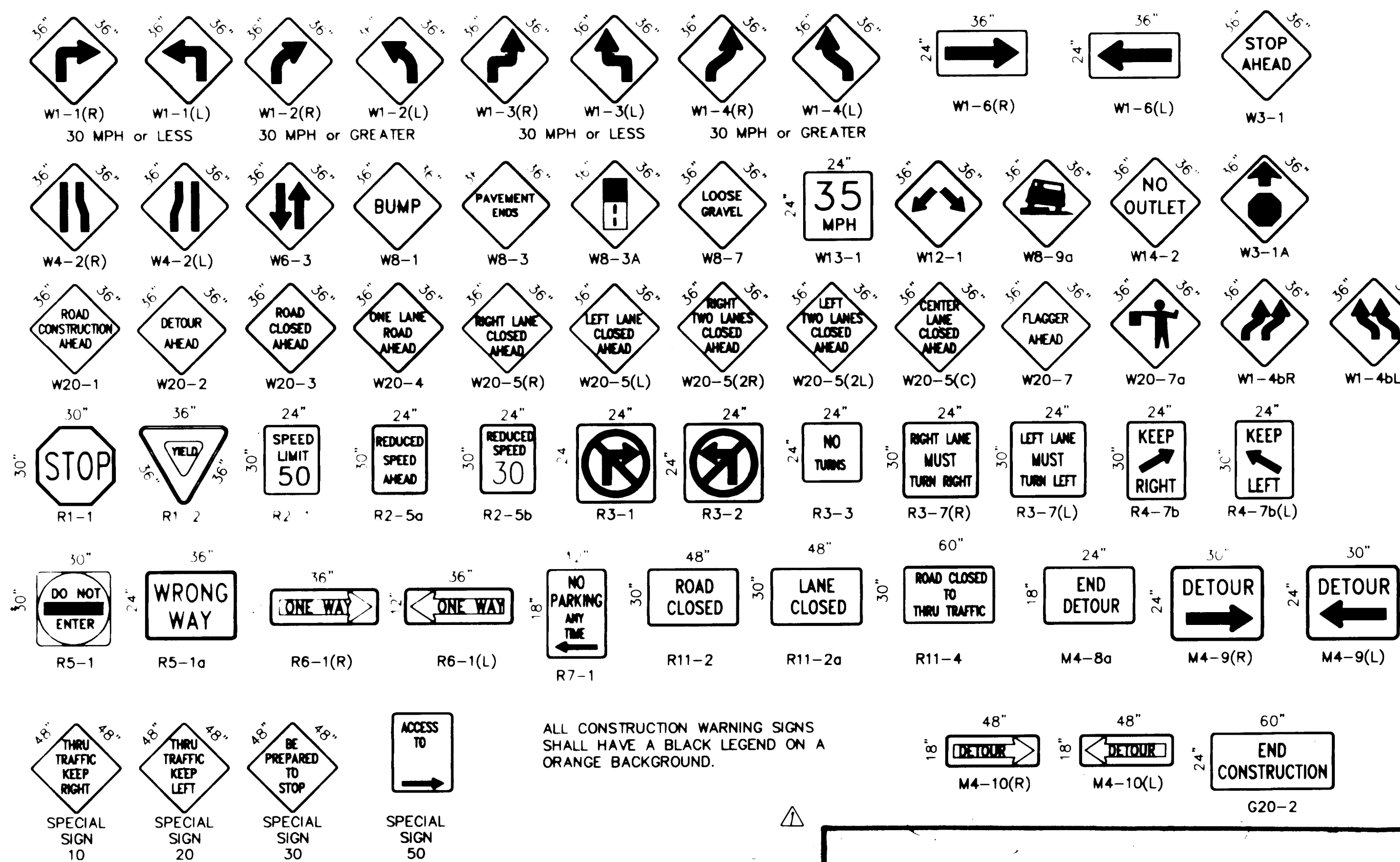
W = WIDTH OF OFFSET IN FEET

S = POSTED SPEED OR OFF-PEAK

85-PERCENTILE SPEED IN MPH

20-55-77-121-104-97

SIGN FACE DETAILS

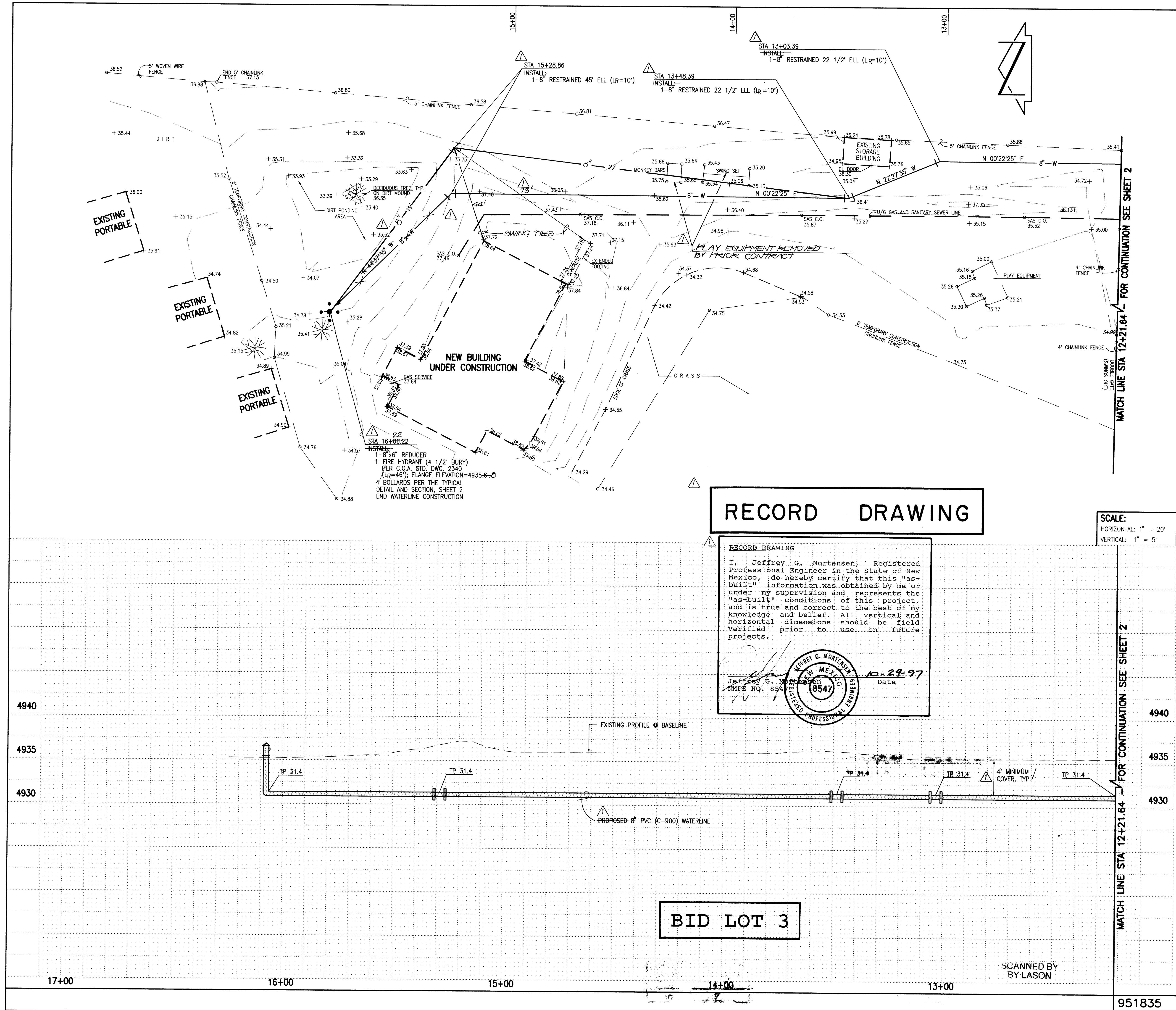


ALL CONSTRUCTION WARNING SIGNS SHALL HAVE A BLACK LEGEND ON A ORANGE BACKGROUND.

RECORD DRAWING

950652
951829
951835
951839

CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP	
TITLE: A.P.S. 1997 WATERLINE EXTENSIONS SIGNING AND CONSTRUCTION TRAFFIC CONTROL STANDARDS	
DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL
LAST UPDATE	NO. DAY/YR
PROJECT NOS. 554781, 560781 552781, 549881	MAP NO. N/A
SHEET 4 OF 17	DATE



WATER VALVE SHUT-OFF PLAN REQUIREMENTS:

- AS A MINIMUM, THE FOLLOWING VALVES SHALL BE CLOSED TO FACILITATE THE FOLLOWING CONNECTIONS:

BYRON AVENUE S.W.
771, 781, 1061
- THE CONTRACTOR SHALL NOTIFY WATER SYSTEMS FIVE (5) WORKING DAYS IN ADVANCE OF ANY WORK THAT MIGHT AFFECT EXISTING WATERLINES; ALL SHUTOFFS SHALL BE PERFORMED BY THE WATER SYSTEM DIVISION PERSONNEL (857-8200).
- THE CONTRACTOR SHALL PROVIDE ALL RESTRAINTS AND THRUST BLOCKS NECESSARY TO EFFECT THE NECESSARY SHUTOFFS AND CONNECTIONS.
- EXISTING WATER VALVE AND WATERLINE INFORMATION OBTAINED BY THE CITY OF ALBUQUERQUE AUTOMATED WATER DISTRIBUTION SYSTEMS SECTIONAL MAPS, PLATE M-12.
- AT THE TIME OF WATER SHUT-OFF APPLICATION, THE CONTRACTOR SHALL REQUEST THAT THE WATER SYSTEM DIVISION NOTIFY AFFECTED PROPERTY OWNERS AT LEAST 24 HOURS IN ADVANCE OF THE RESPECTIVE SHUTOFFS.

WATERLINE CONSTRUCTION NOTES:

- ALL STATIONING IS BASED ON WATERLINE CENTERLINE UNLESS INDICATED OTHERWISE.
- FOR ALL LINES 12" AND SMALLER, WATER MAIN SHALL BE PVC C-900 PIPE OR AS APPROVED BY THE CITY OF ALBUQUERQUE CITY ENGINEER. DUCTILE IRON IS AN ACCEPTABLE PIPE MATERIAL IN LIEU OF PVC.
- FOR ALL LINES 14" AND LARGER, WATER MAIN SHALL BE DUCTILE IRON OR AS APPROVED BY THE CITY OF ALBUQUERQUE CITY ENGINEER. CONCRETE CYLINDER IS AN ACCEPTABLE PIPE MATERIAL IN LIEU OF DUCTILE IRON.
- WATERLINE SHALL HAVE A MINIMUM COVER OF 4'0" (FINISHED GRADE TO TOP OF PIPE). EXTRA DEPTH TRENCHING, IF REQUIRED, SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION, THEREFORE, NO SEPARATE PAYMENT WILL BE MADE.
- ELECTRONIC MARKER DISCS (EMD) SHALL BE INSTALLED IN ACCORDANCE WITH THE STANDARD SPECIFICATION.
- IN ACCORDANCE WITH SECTION 801 OF THE "STANDARD SPECIFICATIONS", METALIZED DETECTABLE WARNING TAPE SHALL BE INSTALLED 18" ABOVE ALL PVC PIPE INSTALLED ON THIS PROJECT.
- VALVE STEM AND FIRE HYDRANT EXTENSIONS SHALL BE PROVIDED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. THE COST OF EACH EXTENSION SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION THEREFORE NO SEPARATE PAYMENT WILL BE MADE.
- JOINT RESTRAINT SHALL BE CONSIDERED INCIDENTAL TO WATERLINE CONSTRUCTION THEREFORE NO SEPARATE PAYMENT WILL BE MADE.
- JOINT RESTRAINT SHALL BE PROVIDED ON ALL JOINTS OF FIRE HYDRANT LEGS FROM TEE TO FIRE HYDRANT INCLUDING THE TEE AND FIRE HYDRANT, UNLESS OTHERWISE NOTED.
- FOR THE PURPOSES OF THIS PROJECT, ALL RESTRAINED JOINTS AND JOINT RESTRAINT SHALL BE MECHANICALLY RESTRAINED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR SELECTING APPROPRIATE MEANS AND METHODS TO EXCAVATE AND TRENCH AND INSTALL PIPE SO AS TO NOT EXCEED RIGHT-OF-WAY OR EASEMENT LIMITS, AND SO AS NOT TO INTERFERE WITH OTHER UTILITIES. THIS SHALL BE CONSIDERED INCIDENTAL TO TRENCHING, THEREFORE, NO SEPARATE PAYMENT WILL BE MADE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING, SUPPORTING AND REPLACING, IF DAMAGED, ALL OTHER UTILITIES ENCOUNTERED DURING CONSTRUCTION. THIS SHALL BE CONSIDERED INCIDENTAL TO TRENCHING, THEREFORE, NO SEPARATE PAYMENT WILL BE MADE.
- WHERE WATER AND SANITARY SEWER LINES CROSS, THE SANITARY SEWER LINE SHALL BE INSTALLED AS PRESSURE PIPE BETWEEN MANHOLES IF 18 INCHES OF VERTICAL SEPARATION DOES NOT EXIST.

AS BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL	
CONTRACTOR	DATE	PROJECT BENCHMARK	DATE	NO.	BY	NO.	BY
Readers Plumbing & Heating	08/97	AN A.C.S. 1 3/4" ALUMINUM DISK STAMPED "A.C.S.E.M. 4-MYB" EXPOSED TO TOP OF CONCRETE WATER METER PAD IN FRONT OF ADDRESS #1931 TAPPA BLVD. S.W.	11/14				
INSPECTOR'S ACCEPTANCE BY	DATE	ELEVATION					
M.D.S.	10/97	4936.27 FEET (N.S.I.D.)					
VERIFICATION BY	DATE						
M.D.S./J.M.A.	10/97						
RECORDED BY	DATE						

10-04-96

10-04-96

10-04-96

NO.	DATE	REMARKS
		Revisions
		DESIGN

Designed By: G.R.B. Date: 10-96

Drawn By: S.C.H. Date: 10-96

Checked By: J.C.M. Date: 10-96

City Project No. 554781

Zone Map No. M-12

Sheet 3 of 3

951835

951835

951835