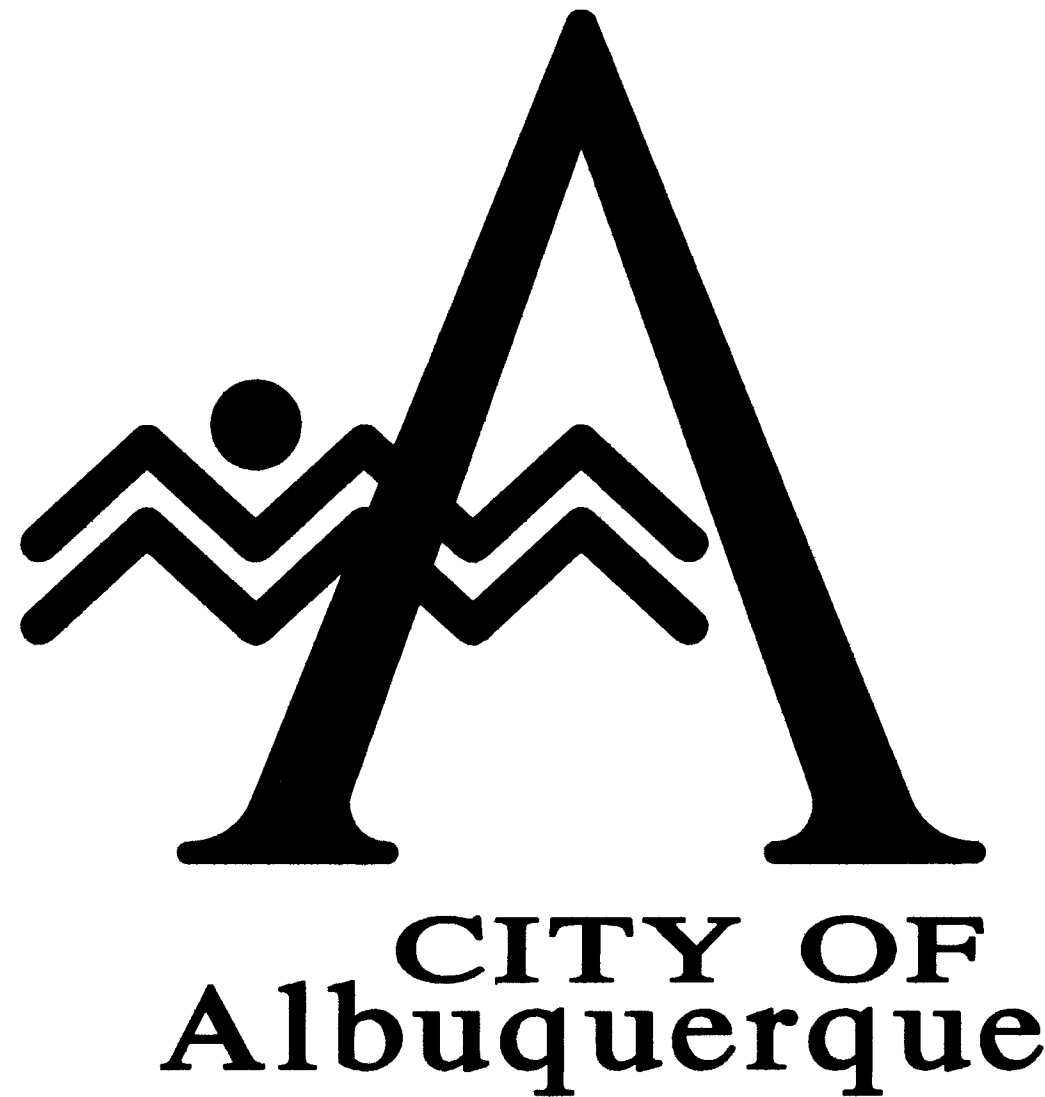
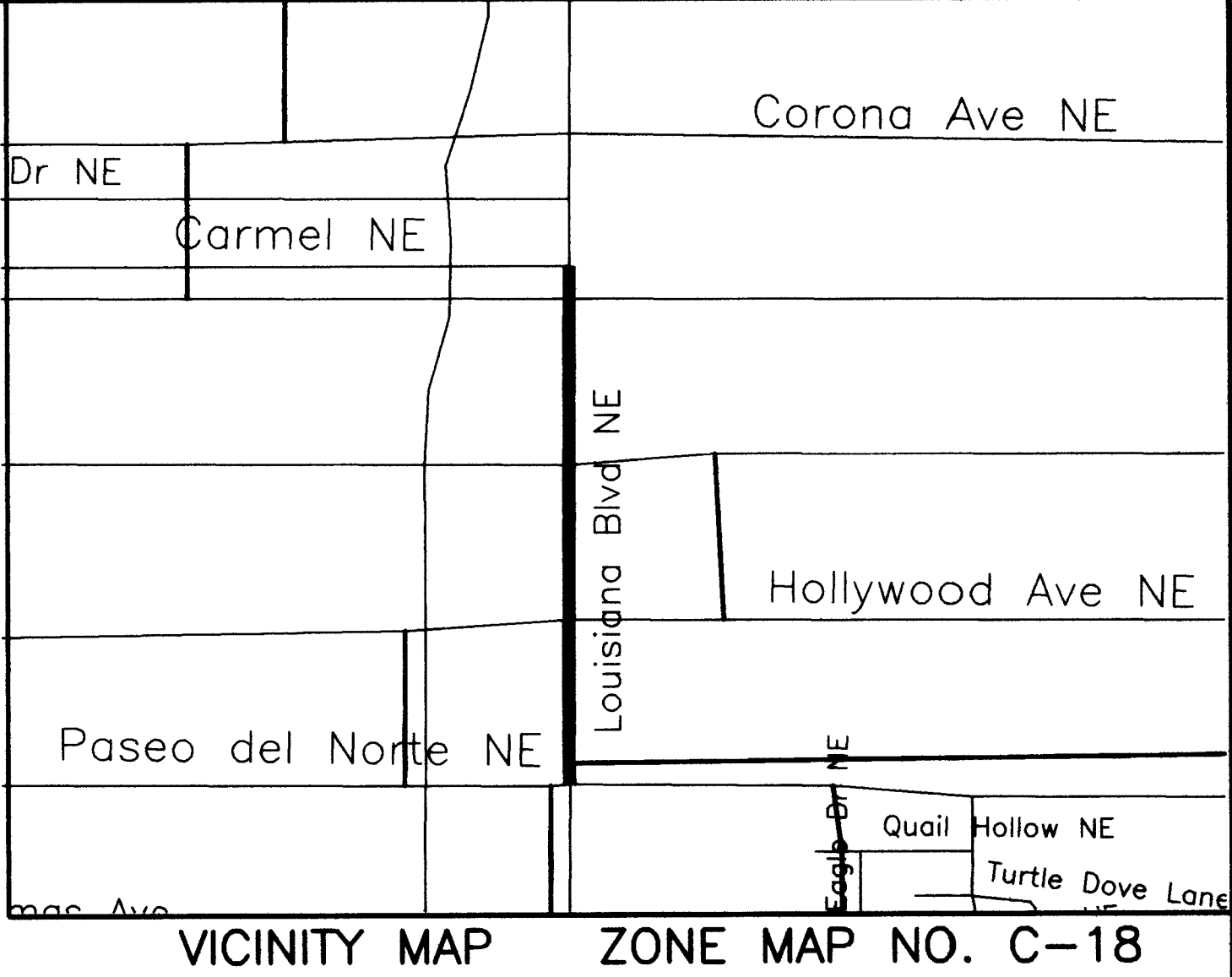


CONSTRUCTION PLANS FOR
LOUISIANA BOULEVARD WATERLINE
PASEO DEL NORTE TO CARMEL AVENUE
CITY OF ALBUQUERQUE PROJECT NUMBER 5103.99
NOVEMBER 1996



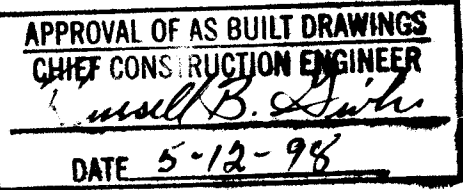
INDEX

SHEET NO.	SHEET TITLE
1	TITLE SHEET, VICINITY MAP
2	PAVEMENT SECTION AND GENERAL NOTES
3	SIGNING AND CONSTRUCTION TRAFFIC CONTROL STANDARDS
4	TYPICAL TRAFFIC CONTROL & SIGNING (REF. M.U.T.C.D.)
5-6	LOOP DETECTOR DETAILS
7-8	PLAN AND PROFILE - LOUISIANA BOULEVARD

PLANNED BY
BY LASON



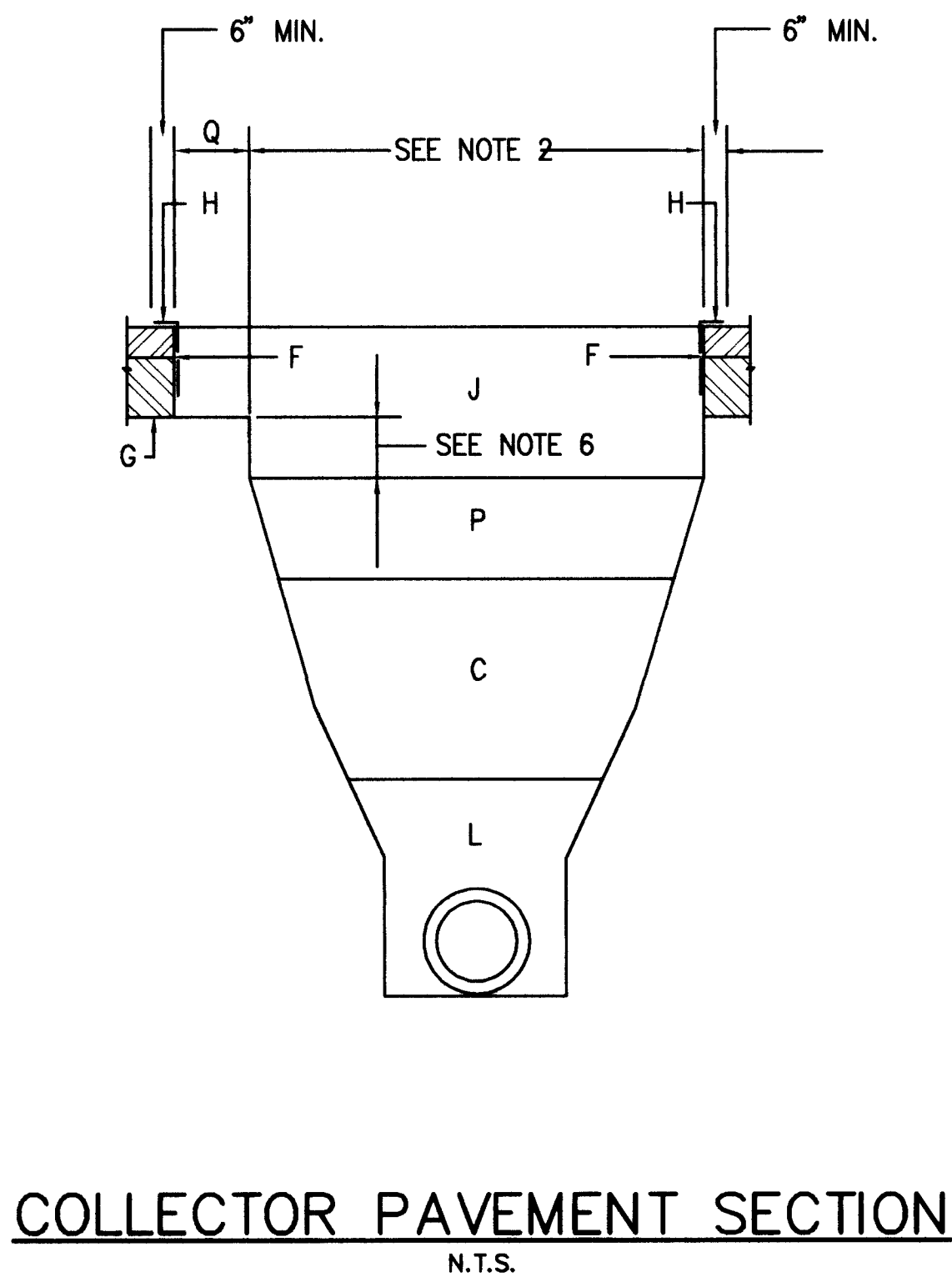
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RECORD DRAWING
Drawing revised to reflect the
best information available. Do
not use without field verification.

2.7	Billie G. Lashley	4/30/97	K. Thaler	4/30/97
REV.	SHEETS	DATE	ENGINEER	DATE
ENGINEERS STAMP & SIGNATURE	APPROVALS	ENGINEER	DATE	*****
	DRC Chairman	Billie G. Lashley	2-12-97	APPROVED FOR CONSTRUCTION
	Transportation	Billie G. Lashley	2-27-96	
	Water/Wastewater	Billie G. Lashley	12-20-96	
	Hydrology	Billie G. Lashley	12-20-96	
	Parks	Billie G. Lashley	12-20-96	
Constr. Mngmt.	Billie G. Lashley	12-20-96		
CITY PROJECT No.	5103.99	Sheet	1	Of 8

Time: 12/28/14
Date: 12/16/1996 BY: ELP
Drawing File: K:\PROJECTS\30401\013\30401.D01



GENERAL NOTES:

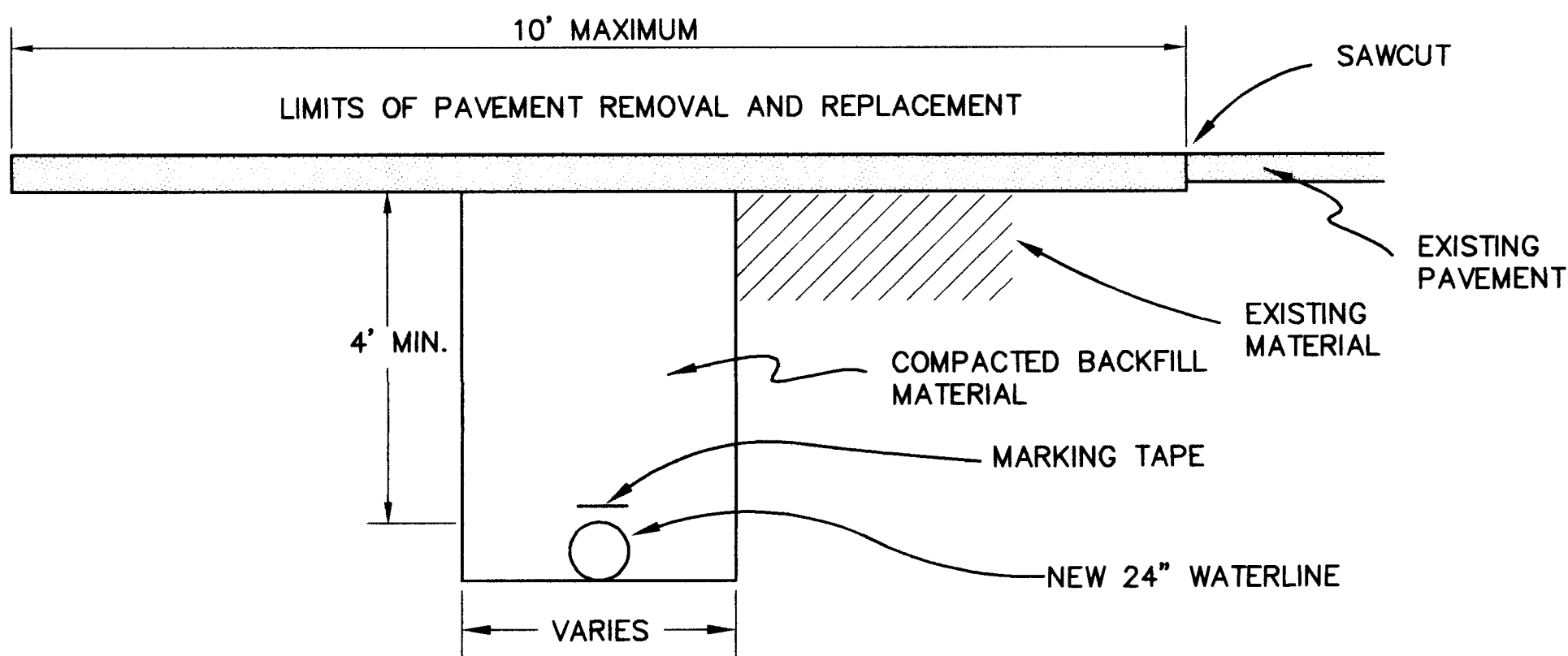
1. COMPACTION AS DETERMINED BY ASTM D 1557 MAX. DENSITY.
2. TRENCH CUT WIDTHS SHALL BE MIN. WIDTH REQ'D. FOR UTILITY INSTALLATION, ECONOMICAL BACKFILL COMPACTION AND COMPLIANCE WITH CURRENT AND APPLICABLE SAFETY REGULATIONS.
3. ALL PAVEMENT CUT EDGES WILL BE TRIMMED TO PRESENT AN EVEN LINE PRIOR TO REPLACEMENT OF PAVING MATERIALS. "STITCH" CUTTING OF PAVEMENT WILL NOT BE PERMITTED.
4. FOR RESIDENTIAL STREETS, ASPHALT CONC. SURFACE COURSE SHALL BE 1 1/2" 1500 LB. STAB. THE REMAINDER SHALL BE 1500 LB. STAB. ASPHALT CONC. BASE COURSE.
5. ADDITIONAL 2" THICKNESS OF ASPHALT CONC. REQ'D ON PAVEMENT CUTS LESS THAN 8' WIDE OR LESS THAN 100' LONG. FOR ASPHALT CONC. PAVEMENT CUTS 8' OR MORE IN WIDTH AND LONGER THAN 100' SHALL BE PLACED WITH LAYDOWN MACHINE TO A DEPTH EQUAL TO THAT OF ASPHALT CONC. REMOVED OR TO THE DEPTH SHOWN ON DWG. 2405, 2407 & 2408 FOR APPROPRIATE PAVEMENT SECTION, WHICH EVER IS GREATER.

CONSTRUCTION NOTES:

- A. 2" - 4" EXIST. ASPHALT SURFACE COURSE.
- B. 4" - 6" 1500 LB. STAB. ASPHALT CONC. TO BE 2" THICKER THAN EXIST. PAVEMENT, SEE NOTES 4 & 6.
- C. 12" COMPACTED SUBBASE MATERIAL, PLACED IN 2" - 6" LIFTS, 95% COMPACTION.
- D. 6" SUBBASE MATERIAL, 95% COMPACTION.
- E. 6" SUBGRADE MATERIAL, 95% COMPACTION.
- F. SAWCUT OR BLADECUT ASPHALT PAVEMENT. SAW-CUT ONLY ONE THIRD CONC. PAVEMENT DEPTH.
- G. EXIST. ASPHALT PAVEMENT.
- H. TACK COAT.
- J. 4" - 6" ASPHALT CONC. TO BE 2" THICKER THAN EXIST. PAVEMENT. SEE NOTES 5 & 6.
- K. 6" CONC. TREATED BASE (C.T.B.).
- L. SUBGRADE MATERIAL, 90% COMPACTION.
- M. EXIST. CONC. PAVEMENT.
- N. JOINTS TO BE TOOLED & SEALED IN ACCORDANCE WITH ENGINEER'S REQUIREMENTS.
- O. TO MATCH EXIST. THICKNESS, 6" MIN. 4000 P.S.I.
- P. 6" C.T.B., 4" A.T.B. OR 4" ASPHALT CONC. BASE COURSE 1500 LB. STAB.
- Q. 12" CUT-BACK, ONLY APPLICABLE TO FED. HWY. AND NMSHD FUNDED PROJECTS.

GENERAL NOTES:

1. THE CONTRACTOR SHALL PROVIDE INGRESS AND EGRESS TO LOCAL BUSINESSES AND RESIDENCES FOR THE DURATION OF THE PROJECT. THE CONTRACTOR SHALL ADVISE OF AND SCHEDULE ACCESS CLOSURES, AT LEAST 24 HOURS IN ADVANCE, WITH PROPERTY OWNERS AND THE CONSTRUCTION PROJECT MANAGER.
2. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT N.M. ONE-CALL SYSTEM, 260-1990, FOR LOCATION OF EXISTING UTILITIES.
3. WHEN ABUTTING NEW PAVEMENT TO EXISTING, CONTRACTOR SHALL SAW CUT, TO FULL PAVEMENT DEPTH, THE EXISTING PAVEMENT TO A NEAT VERTICAL STRAIGHT LINE AS REQUIRED TO REMOVE ANY BROKEN OR CRACKED PAVEMENT AND MATCH NEW TO EXISTING.
4. THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR ANY DAMAGE TO EXISTING PAVEMENTS, PAVEMENT MARKINGS, CURB AND GUTTER, DRIVEPADS, WHEELCHAIR RAMPS OR SIDEWALK DURING CONSTRUCTION, APART FROM THOSE SECTIONS INDICATED FOR REMOVAL ON THE PLANS, AND SHALL REPAIR OR REPLACE PER CITY OF ALBUQUERQUE STANDARDS AT HIS OWN EXPENSE.
5. ALL STRIPING AND PAVEMENT MARKINGS SHALL BE REPLACED WITH PLASTIC PAVEMENT MARKINGS.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING, AT HIS OWN EXPENSE, ALL PERMITS NECESSARY FOR CONSTRUCTION. THREE (3) WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION THE CONTRACTOR SHALL SUBMIT TO THE CONSTRUCTION COORDINATION DIVISION A DETAILED CONSTRUCTION SCHEDULE. TWO (2) WORKING DAYS PRIOR TO THE CONSTRUCTION THE CONTRACTOR SHALL OBTAIN A BARRICADING PERMIT FROM THE CONSTRUCTION COORDINATION DIVISION. THE CONTRACTOR SHALL NOTIFY BARRICADE ENGINEER (768-2551) PRIOR TO OCCUPYING AN INTERSECTION.
7. ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED UNDER THIS CONTRACT SHALL, EXCEPT AS OTHERWISE STATED OR PROVIDED FOR HEREIN, BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986 EDITION THROUGH UPDATE NO.6.
8. THE CONTRACTOR SHALL COORDINATE HIS CONSTRUCTION ACTIVITIES WITH ALL OTHER CONTRACTORS AND UTILITY COMPANIES WORKING IN THE SAME AREA. THE CONTRACTOR MAY BE REQUIRED TO RESCHEDULE THEIR ACTIVITIES TO ALLOW ADDITIONAL CREWS TO PERFORM THEIR REQUIRED WORK. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR DELAYS OR INCONVENIENCE CAUSED BY UTILITY COMPANY WORK CREWS.
9. THE LOCATION OF ALL EXISTING UTILITIES, AS SHOWN ON THE DRAWINGS, IS APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING FINAL UTILITY LOCATION DETERMINATION IN THE FIELD DURING CONSTRUCTION. THE CONTRACTOR SHALL FIELD VERIFY LOCATION OF ALL UTILITIES PRIOR TO BEGINNING CONSTRUCTION OF THE PROJECT.
10. THE CONTRACTOR SHALL NOTIFY CITY WATER SYSTEMS (857-8250) A MINIMUM OF FIVE (5) WORKING DAYS PRIOR TO SHUTOFF.
11. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO PROTECT HORIZONTAL AND VERTICAL CONTROL SURVEY MONUMENTS PRIOR TO INITIATING CONSTRUCTION. IF DURING THE COURSE OF CONSTRUCTION OPERATIONS, THE CONTRACTOR DISTURBS OR DESTROYS A MONUMENT, THE CONTRACTOR SHALL NOTIFY THE CITY SURVEYOR. THE MONUMENT SHALL ONLY BE REPLACED BY THE CITY SURVEY SECTION AT THE CONTRACTOR'S EXPENSE.
12. CONTACT CITY OF ALBUQUERQUE TRAFFIC OPERATIONS (857-8680) BEFORE DISTURBING TRAFFIC SIGNAL EQUIPMENT OR LOOP DETECTORS.



UTILITY OWNERS
TELEPHONE

A.T. & T.
ISHMAEL PANTOJA (505)842-2806
U.S. WEST COMMUNICATIONS
NORMA CARRILLO (505)245-8706

ELECTRICITY

P.N.M. ELECTRIC SERVICES
JIM VANN (505)848-3426

GAS

P.N.M. GAS SERVICES
DEBBIE O'CALLAGHAN (505)241-7705

CABLE TELEVISION

JONES INTERCABLE
KAREN SHORE (505)761-6220

WATER

CITY OF ALBUQUERQUE
(505)857-8200

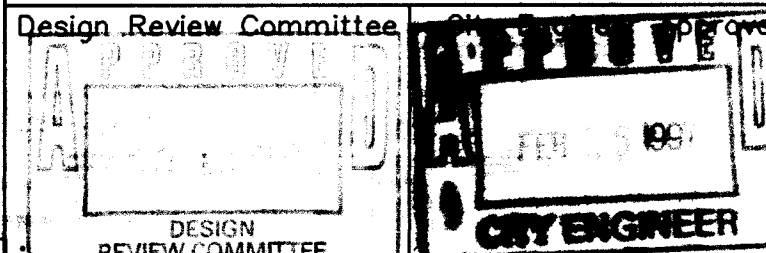
SEWER

CITY OF ALBUQUERQUE
(505)873-6200



CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP

TITLE: LOUISIANA BOULEVARD WATERLINE
PAVEMENT SECTION AND GENERAL NOTES



RECORD DRAWING
Drawing revised to reflect the
best information available. Do
not use without field verification.

City Project No. 5103.99 Zone Map No. C-18 Sheet 2 Of 8

AS BUILT INFORMATION				BENCH MARKS				SURVEY INFORMATION				ENGINEER'S SEAL				REVISIONS			
CONTRACTOR	Abuquerque Underground	DATE	1/98	WORK				NO.	BY	DATE						DESIGNED BY	ELP	DATE	NOV. 1996
INSPECTED BY	Abuquerque Underground	DATE	1/98	FIELD												DRAWN BY	ELP	DATE	NOV. 1996
VERIFIED BY	CITY of Albuquerque	DATE	3/98													CHECKED BY	JE	DATE	NOV. 1996
MICRO-FILM INFORMATION																			
RECORDED BY	GPW	DATE	3/98																
NO.		DATE																	

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 SEPARATE PHASES OF A CONSTRUCTION PROJECT SHALL BE GIVEN AN INDIVIDUAL PERMIT EACH. BLANKET PERMITS WILL NOT BE ISSUED.

3. 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 WITH 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 FOR EACH PHASE 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 IS 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. CONTRACTOR SHALL NOT BEGIN WORK BEFORE 7:00 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 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 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 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, ORANGE LETTERING ON WHITE BACKGROUND. 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. 24 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, UNLESS OTHERWISE SPECIFIED IN THE PLANS, 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 WORKS 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.

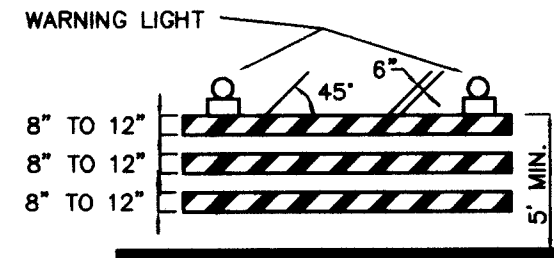
24. ALL TRAFFIC CONTROL DEVICES SHALL BE KEPT IN NEW-CLEAN CONDITION. WASHING OF EQUIPMENT IS INCIDENTAL TO ITS PLACEMENT AND MAINTENANCE.

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

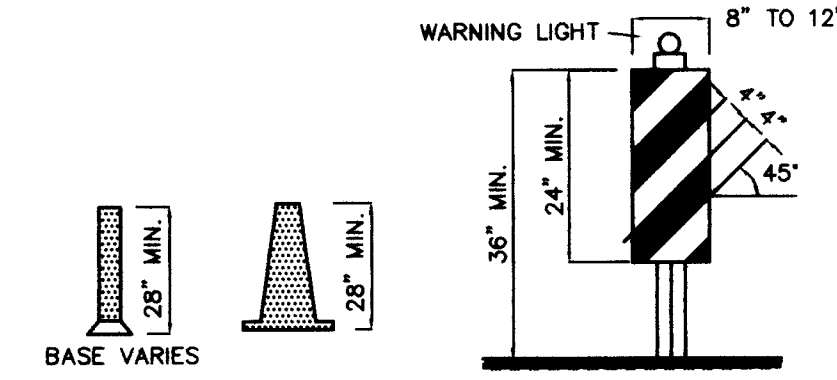
26. ADVANCE WARNING SIGNS SHALL BE 36"x36", UNLESS OTHERWISE SPECIFIED IN THE PLANS, WITH SUPER ENGINEERING GRADE SHEETING OR BETTER.

27. ITEM 0420.115 - REFLECTORIZED PAINTED MARKINGS IS INCLUDED FOR PAVEMENT STRIPING BETWEEN SURFACING LIFTS AND FOR USE ON TEMPORARY PAVEMENTS, AS DIRECTED BY THE PROJECT MANAGER.

28. IMPACT ATTENUATORS SHALL BE CONSIDERED AS INCLUDED IN THE CONTRACT PRICE FOR ITEM NUMBER 0019.01-CONSTRUCTION TRAFFIC CONTROL AND BARRICADING AND NO ADDITIONAL MEASUREMENT OR PAYMENT WILL BE MADE.



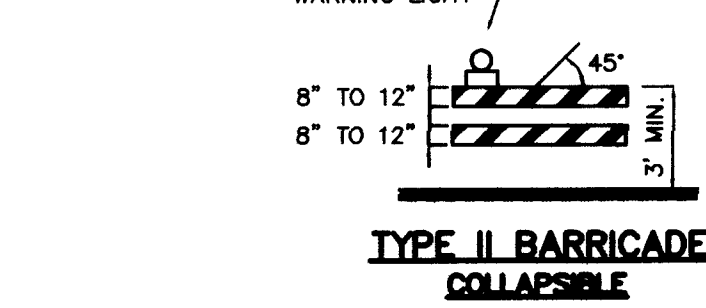
TYPE III BARRICADE



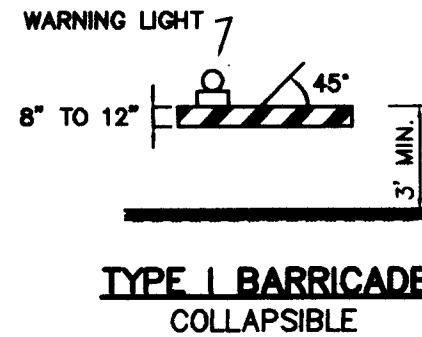
VERTICAL PANEL



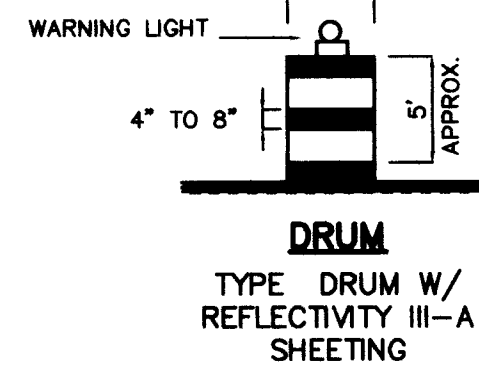
HIGH LEVEL WARNING DEVICE



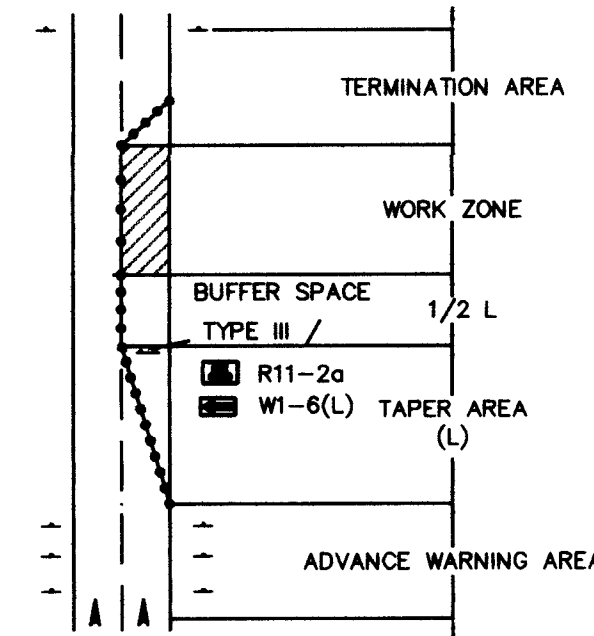
TYPE II BARRICADE COLLAPSIBLE



TYPE I BARRICADE COLLAPSIBLE



DRUM TYPE DRUM W/ REFLECTIVITY III-A SHEETING



TRAFFIC CONTROL ELEMENTS

LEGEND

- WORK AREA
- BARRICADE - TYPE I, TYPE II, OR TYPE "H" DRUM W/ REFLECTIVITY III-A SHEETING
- 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' 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 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

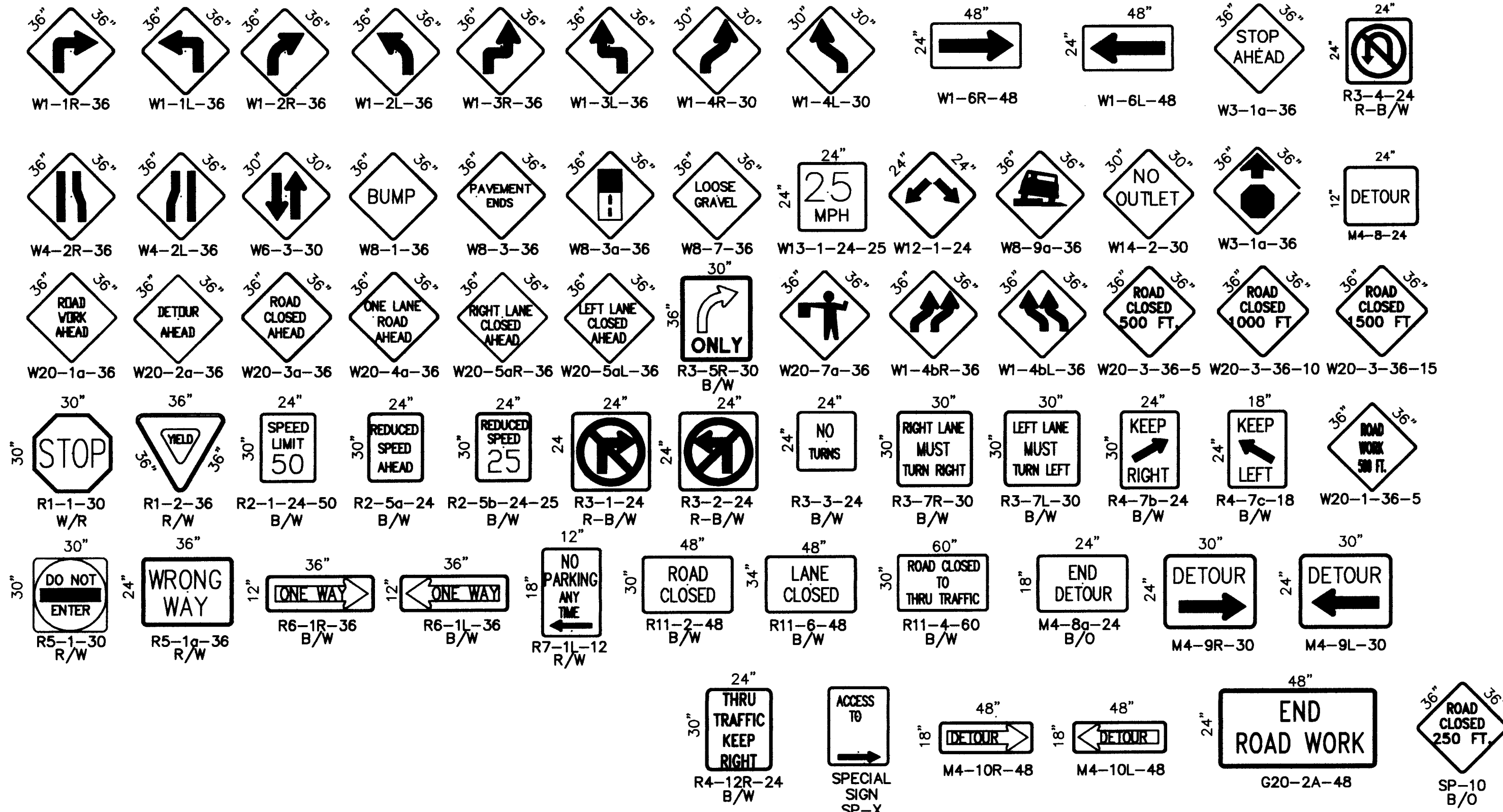
TAPER CRITERIA

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

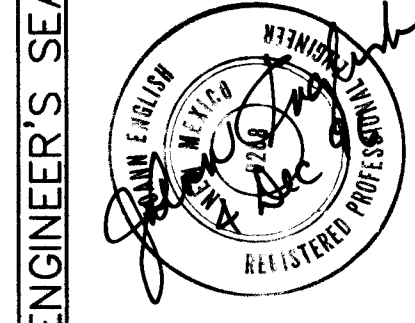
TAPER LENGTH COMPUTATION

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

SIGN FACE DETAILS



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

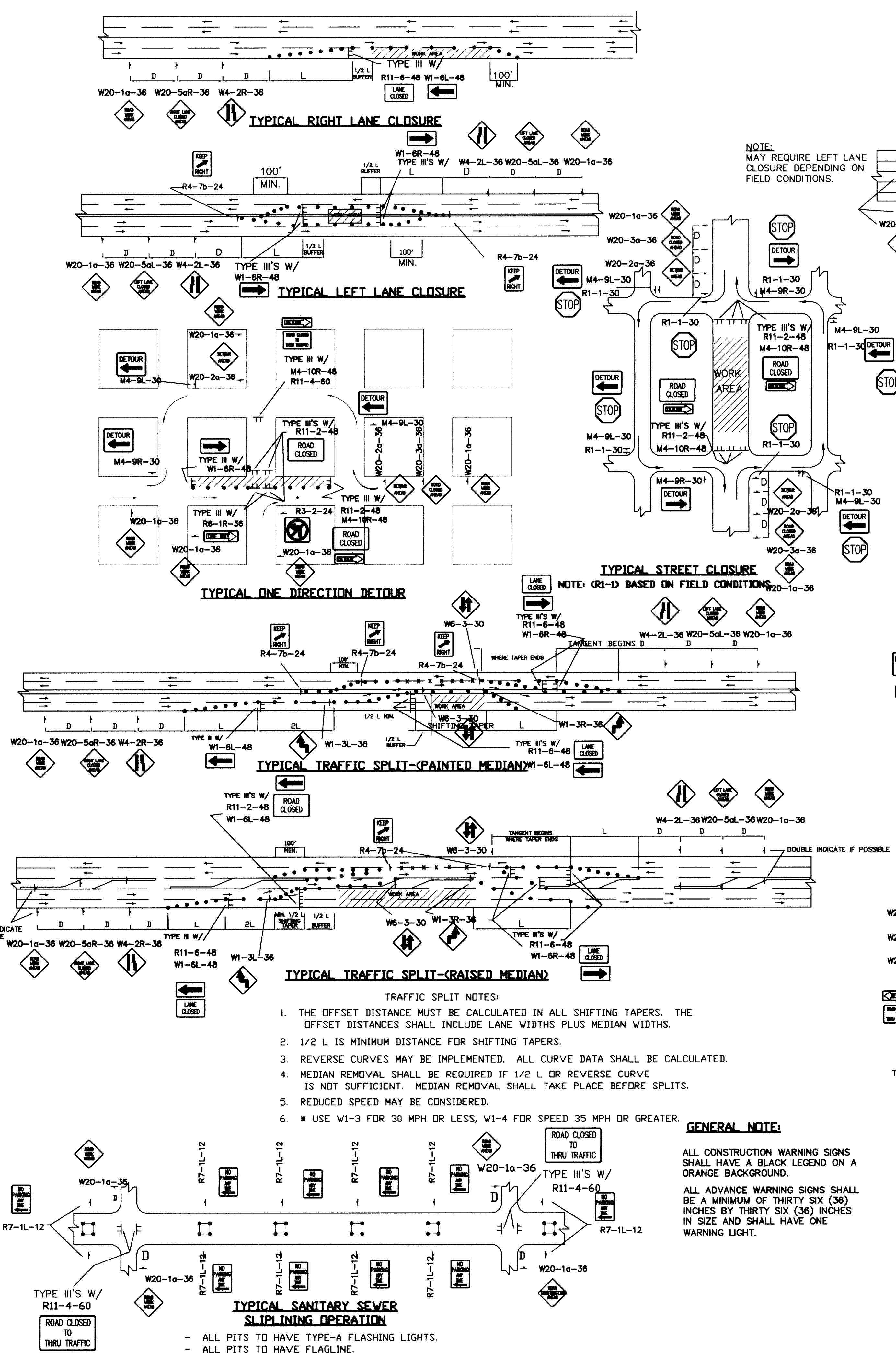


CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP

TITLE: LOUISIANA BOULEVARD
SIGNING AND CONSTRUCTION TRAFFIC CONTROL STANDARDS

Design Review Committee	City Engineer Approval	Mo./Day/Yr.	Mo./Day/Yr.
Feb 12, 1997	Feb 23, 1997		
DESIGN REVIEW COMMITTEE	CITY ENGINEER		
City Project No.	Zone Map No.	Sheet	Of
5103.99	C-18	3	8

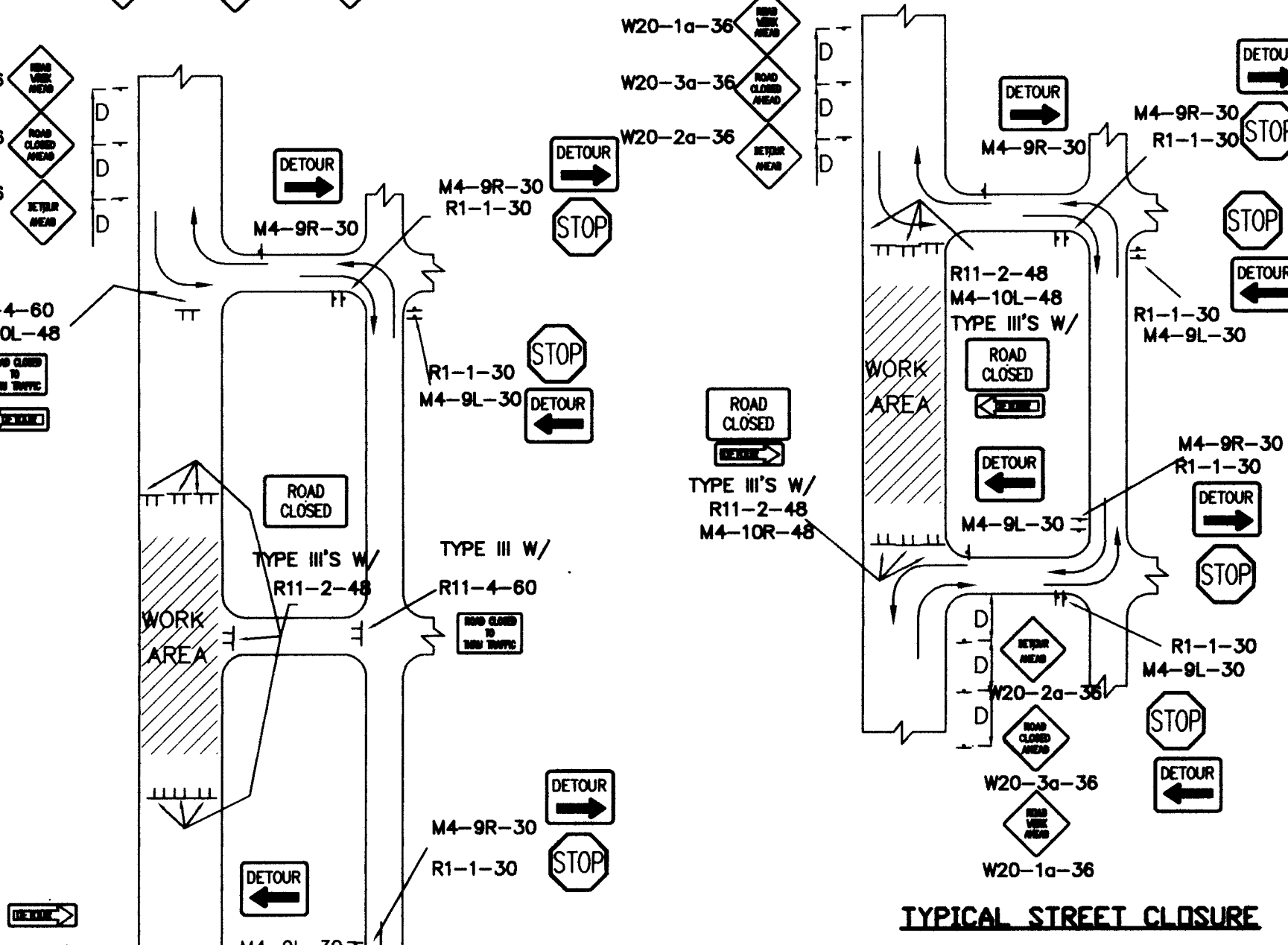
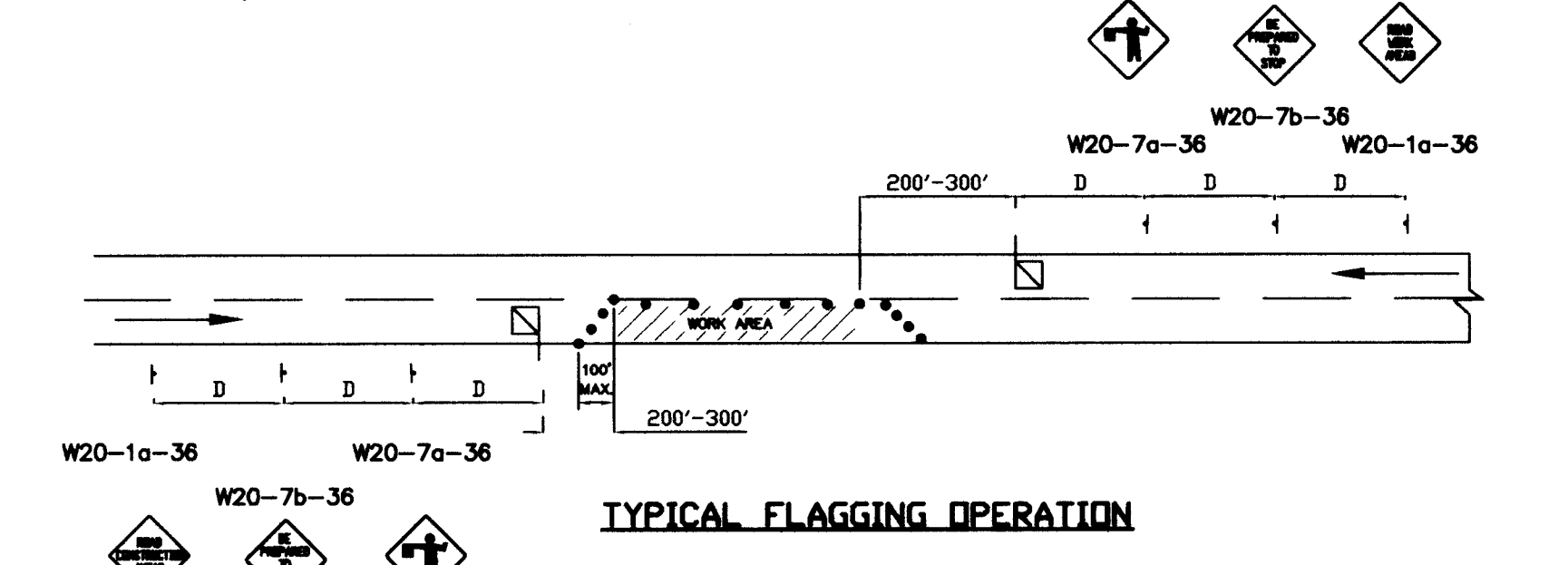
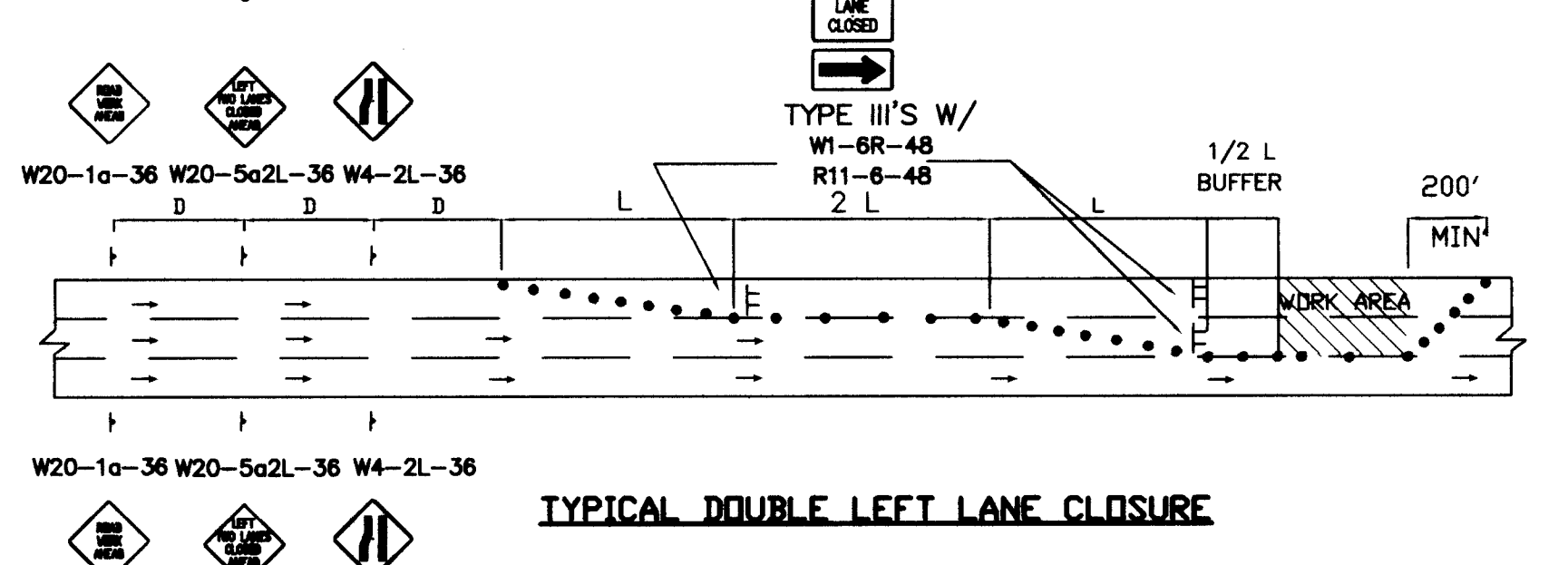
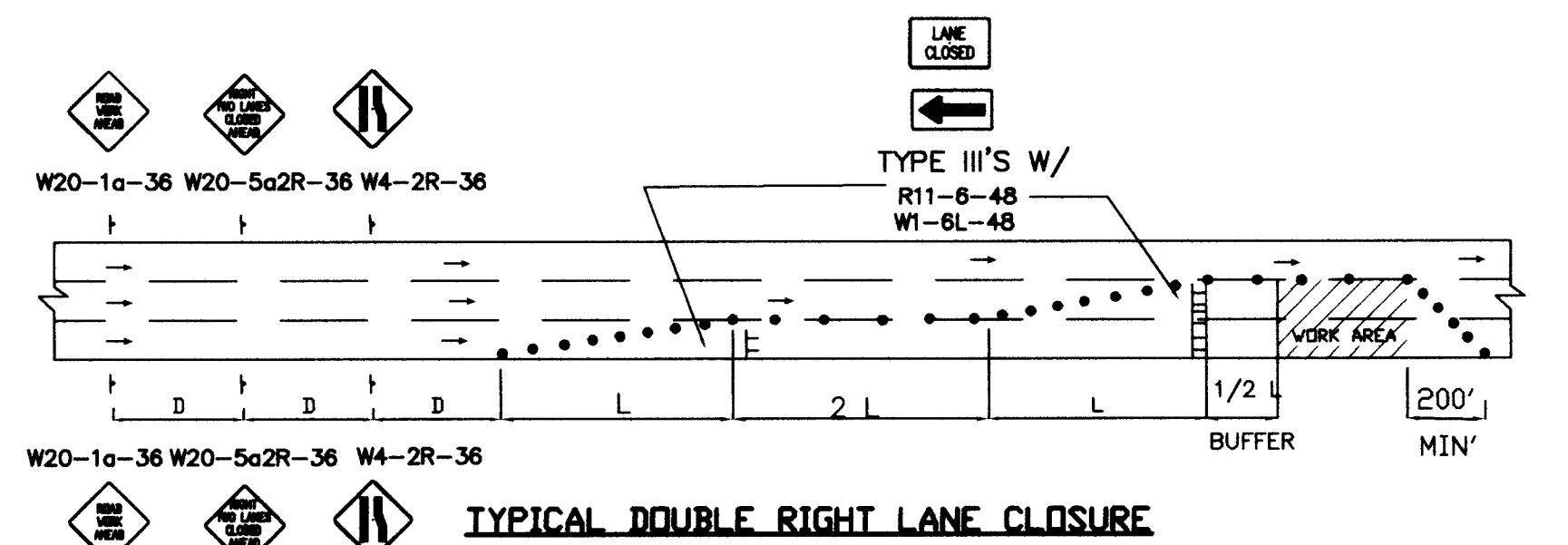
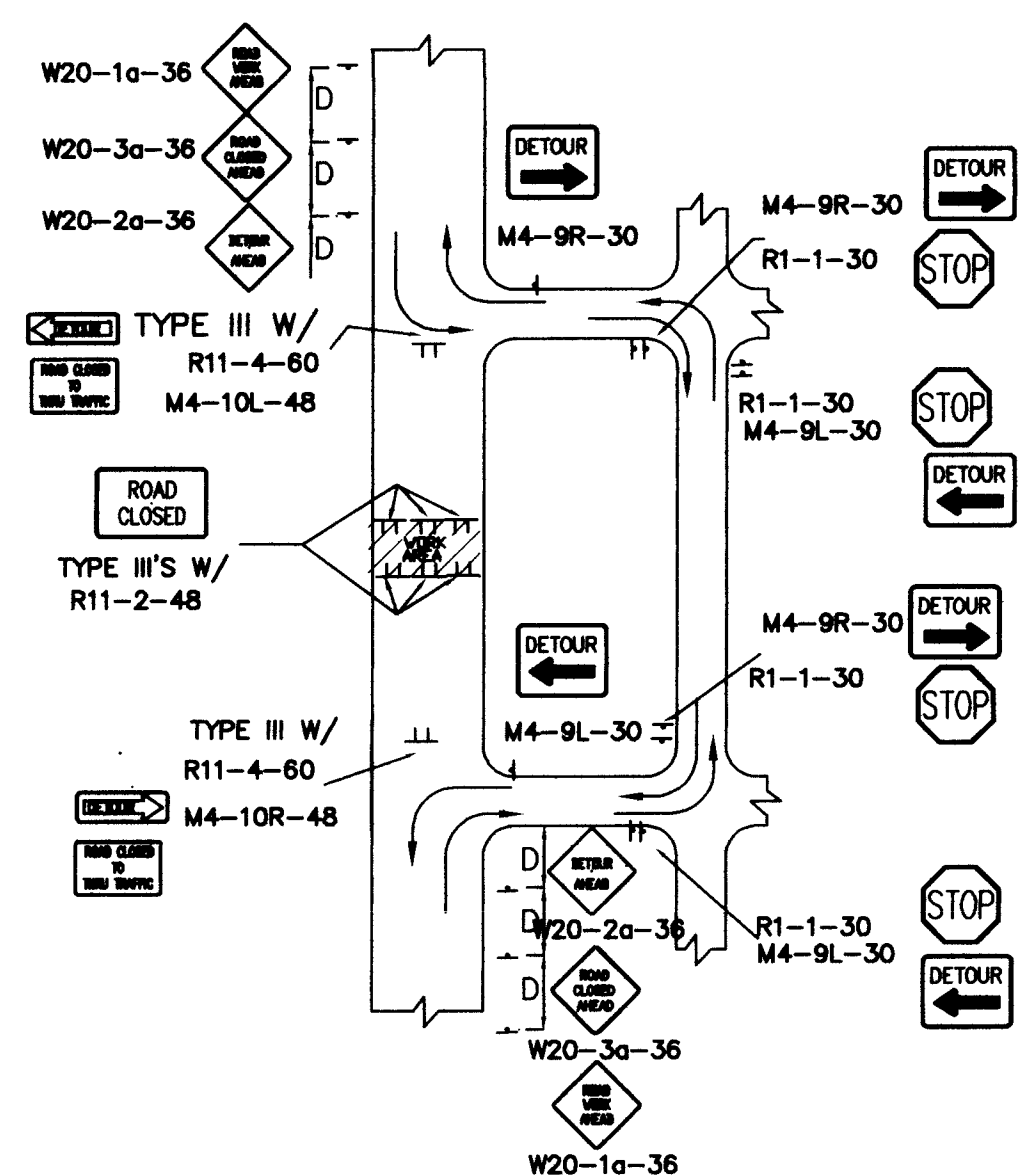
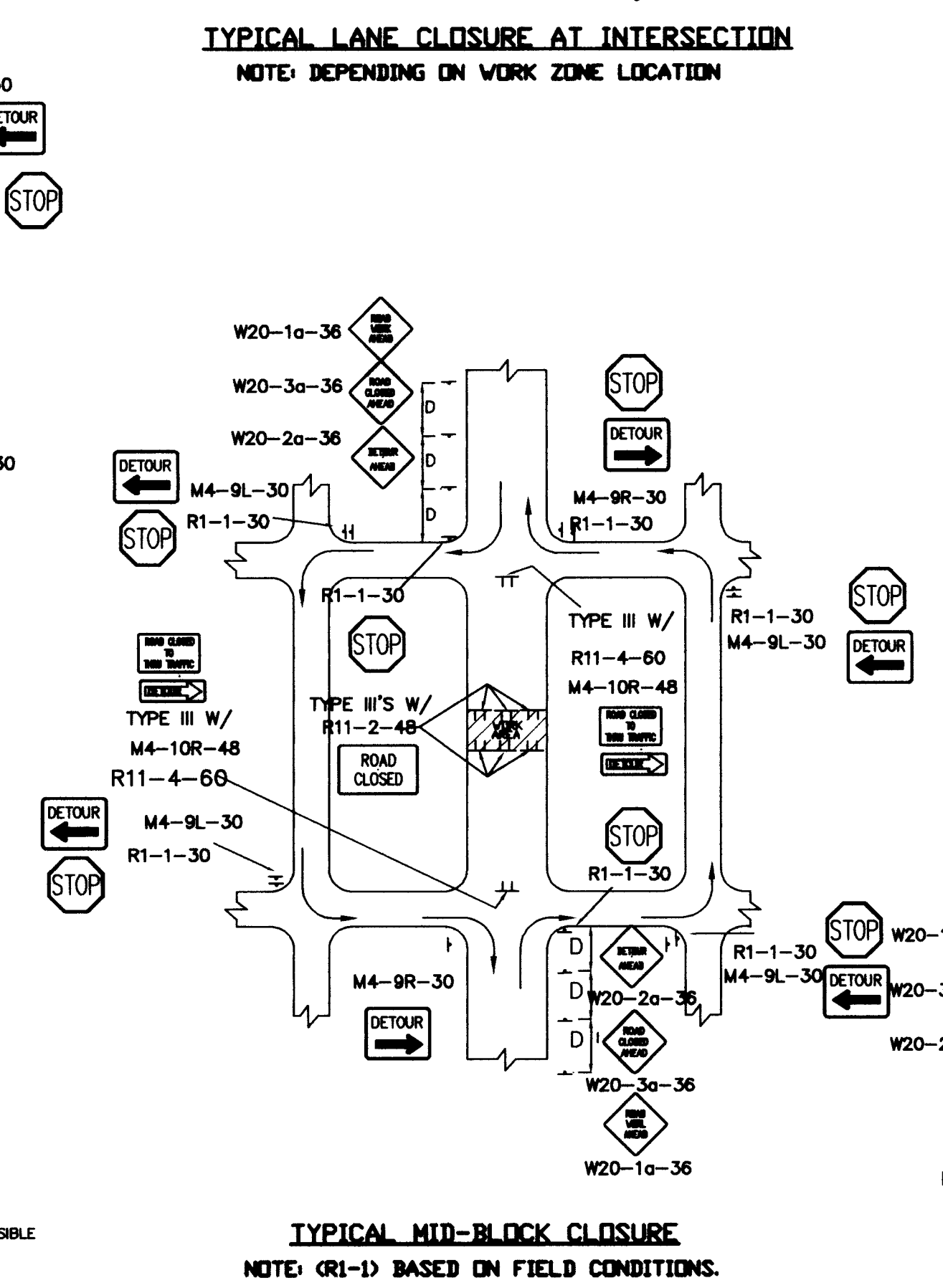
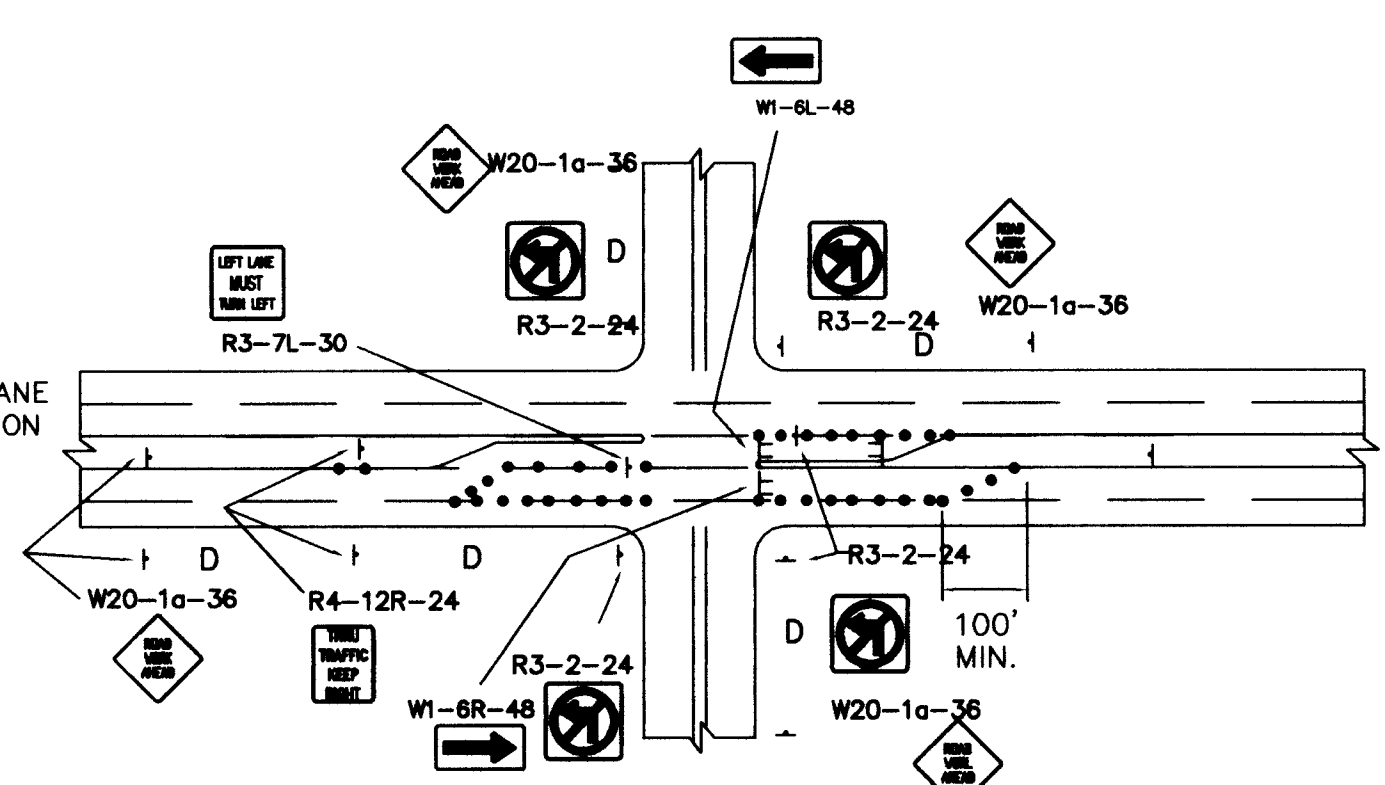
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- TRAFFIC SPLIT NOTES:**
1. THE OFFSET DISTANCE MUST BE CALCULATED IN ALL SHIFTING TAPERS. THE OFFSET DISTANCES SHALL INCLUDE LANE WIDTHS PLUS MEDIAN WIDTHS.
 2. 1/2 L IS MINIMUM DISTANCE FOR SHIFTING TAPERS.
 3. REVERSE CURVES MAY BE IMPLEMENTED. 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.

GENERAL NOTE:
ALL CONSTRUCTION WARNING SIGNS SHALL HAVE A BLACK LEGEND ON A ORANGE BACKGROUND.
ALL ADVANCE WARNING SIGNS SHALL BE A MINIMUM OF THIRTY SIX (36) INCHES BY THIRTY SIX (36) INCHES IN SIZE AND SHALL HAVE ONE WARNING LIGHT.

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



Gannett Fleming West, Inc.
ENGINEERS AND PLANNERS

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP

TITLE: LOUISIANA BOULEVARD
TYPICAL TRAFFIC CONTROL & SIGNING EXAMPLES (REF. M.U.T.C.D.)

DESIGN REVIEW COMMITTEE City Engineer Approval
City Project No. 5103.99 Zone Map No. C-18 Sheet 4 Of 8

AS BUILT INFORMATION	
CONTRACTOR	DATE

BENCH MARKS	
NO.	DATE

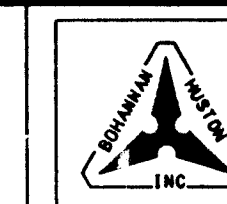
SURVEY INFORMATION	
NO.	DATE

ENGINEER'S SEAL	
NO.	DATE

REVISIONS	
NO.	DATE

DESIGN	
NO.	DATE

CHECKED BY	
NO.	DATE



STRIKE OFF ANY SEALANT LEFT
ON SURFACE OF PAVEMENT

1/8" TO 1/4"

SEALANT

ENCAPSULATE WIRE
WITH SEALANT

1/4"

1/4"

1/4"

1/4"

1/4"

1/4"

1/4"

1/4"

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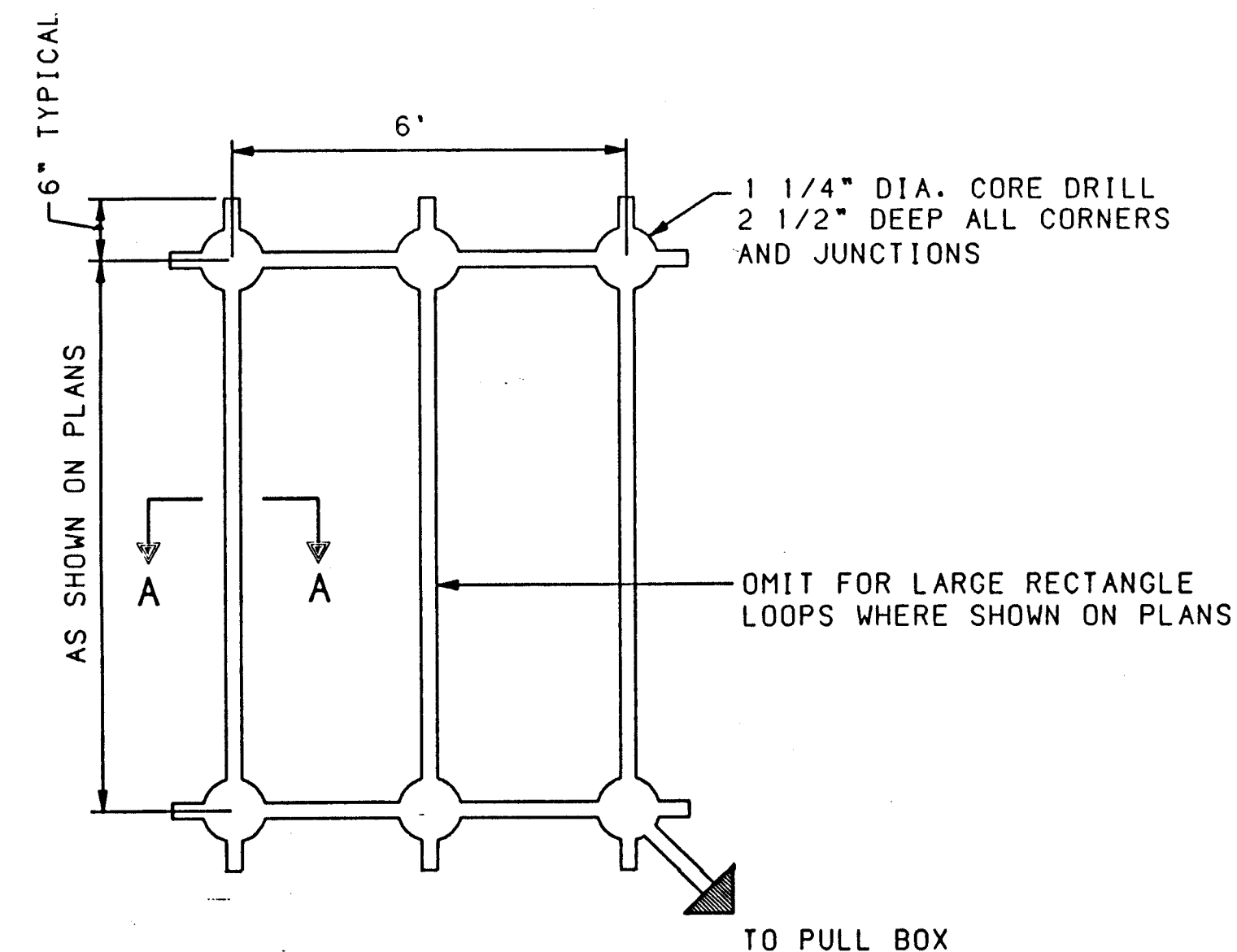
1/4"

1/4"

1/4"

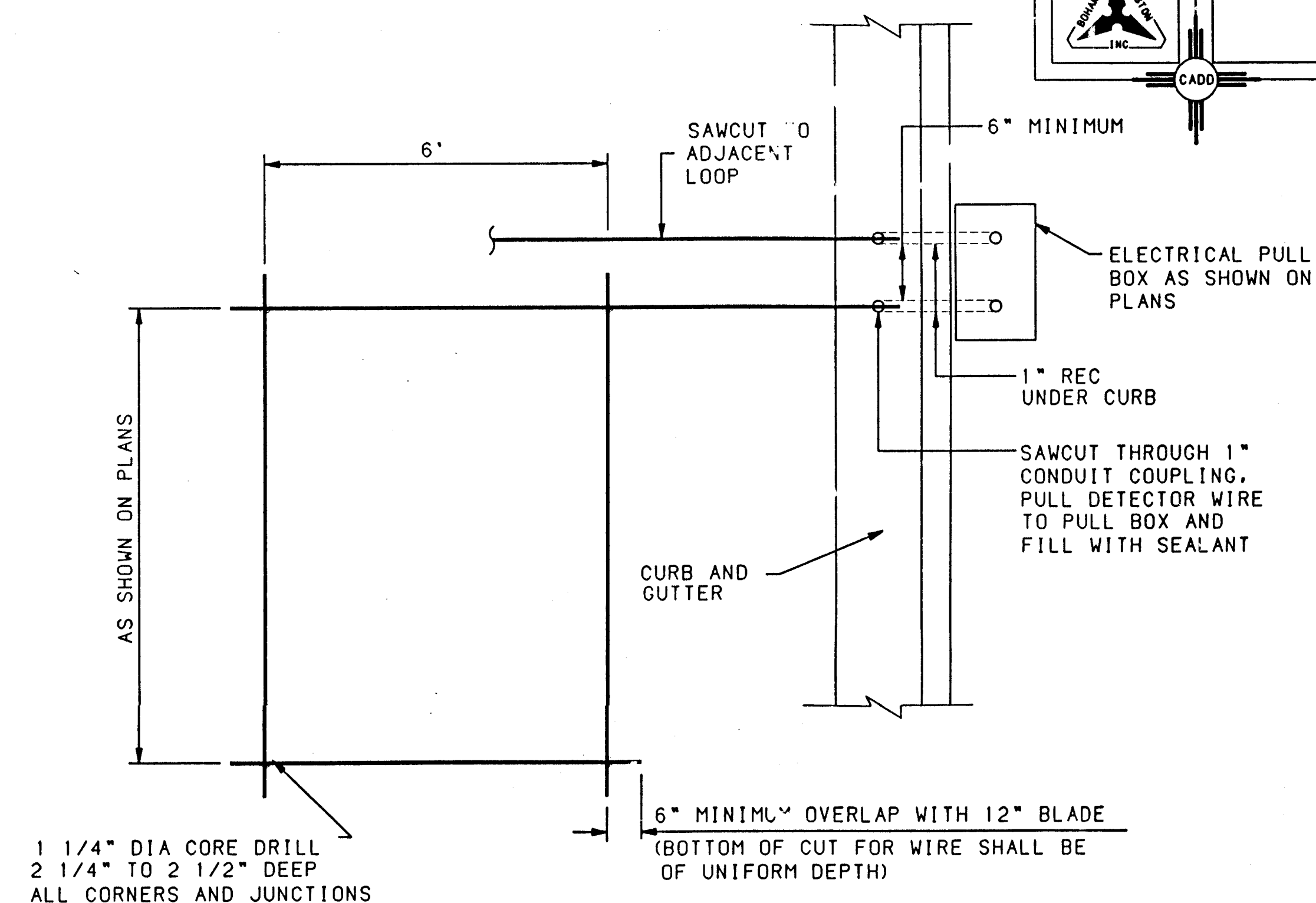
1/4"

SECTION A-A

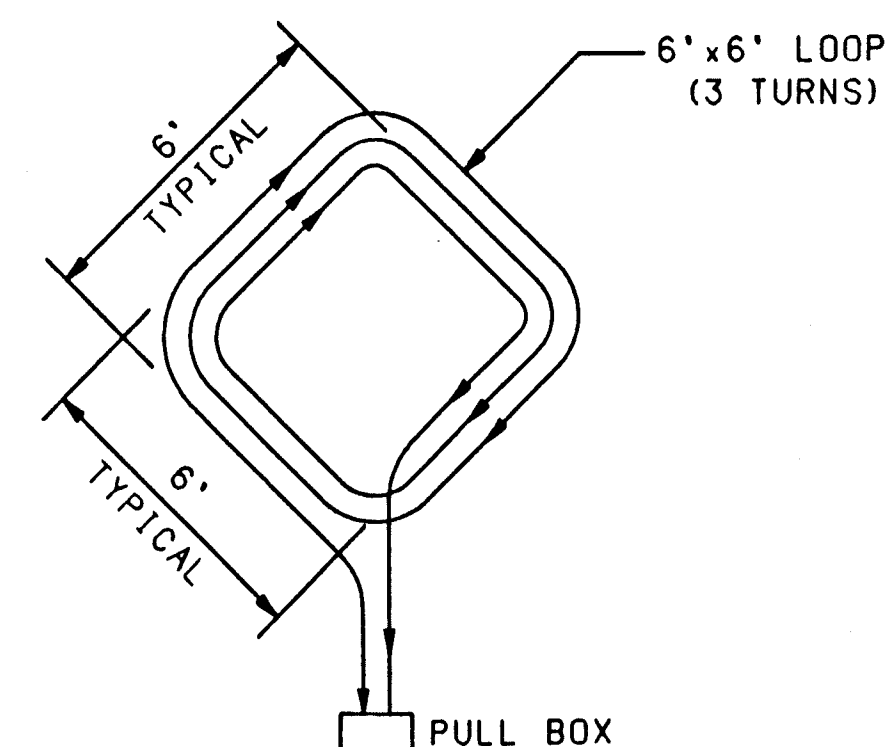


PLAN VIEW

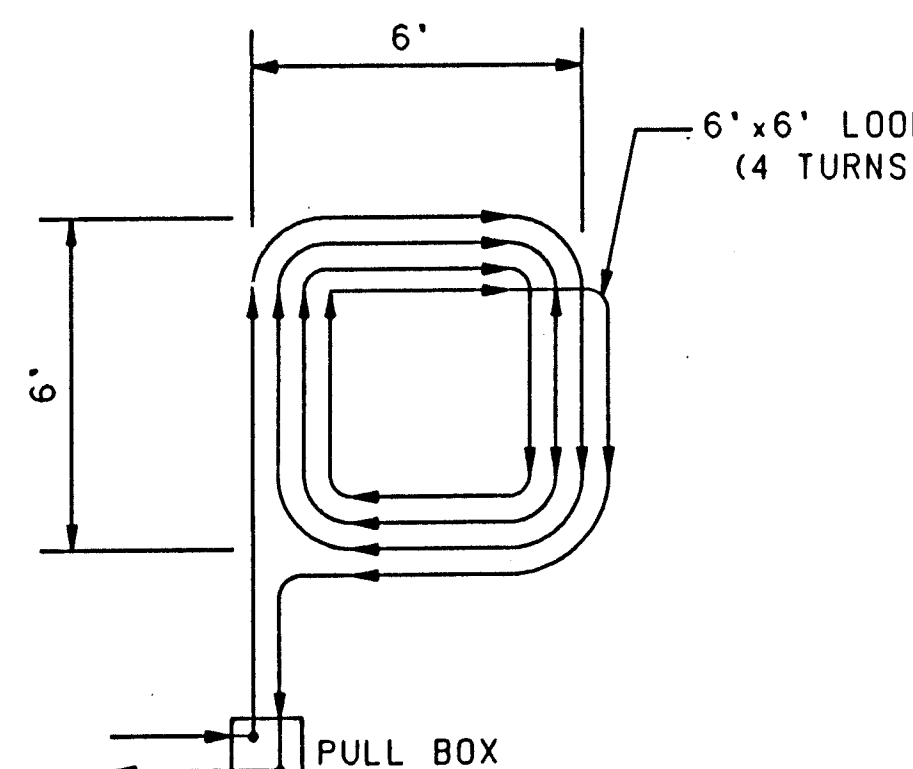
TYPICAL ROADWAY LOOP SAWCUT DETAIL



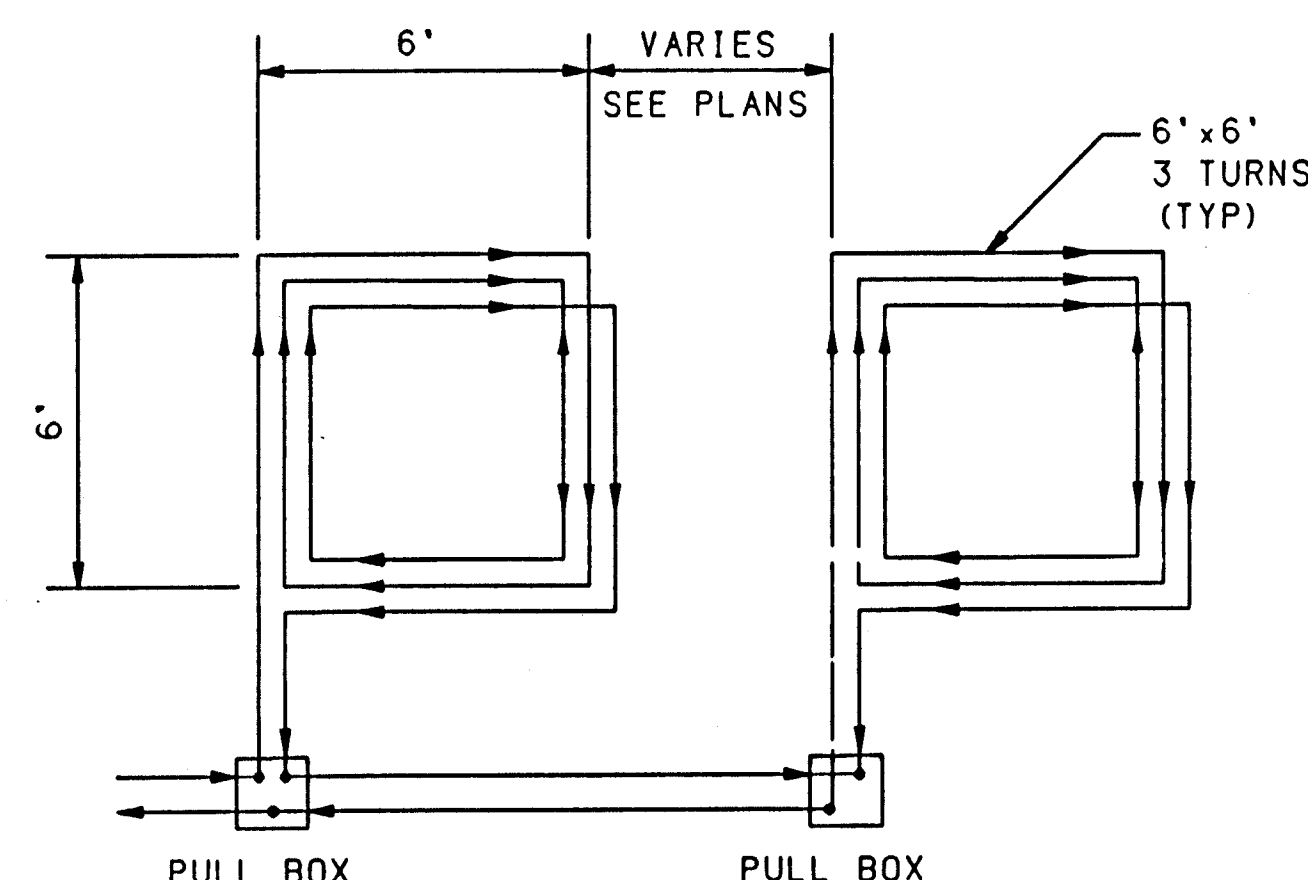
PLAN VIEW



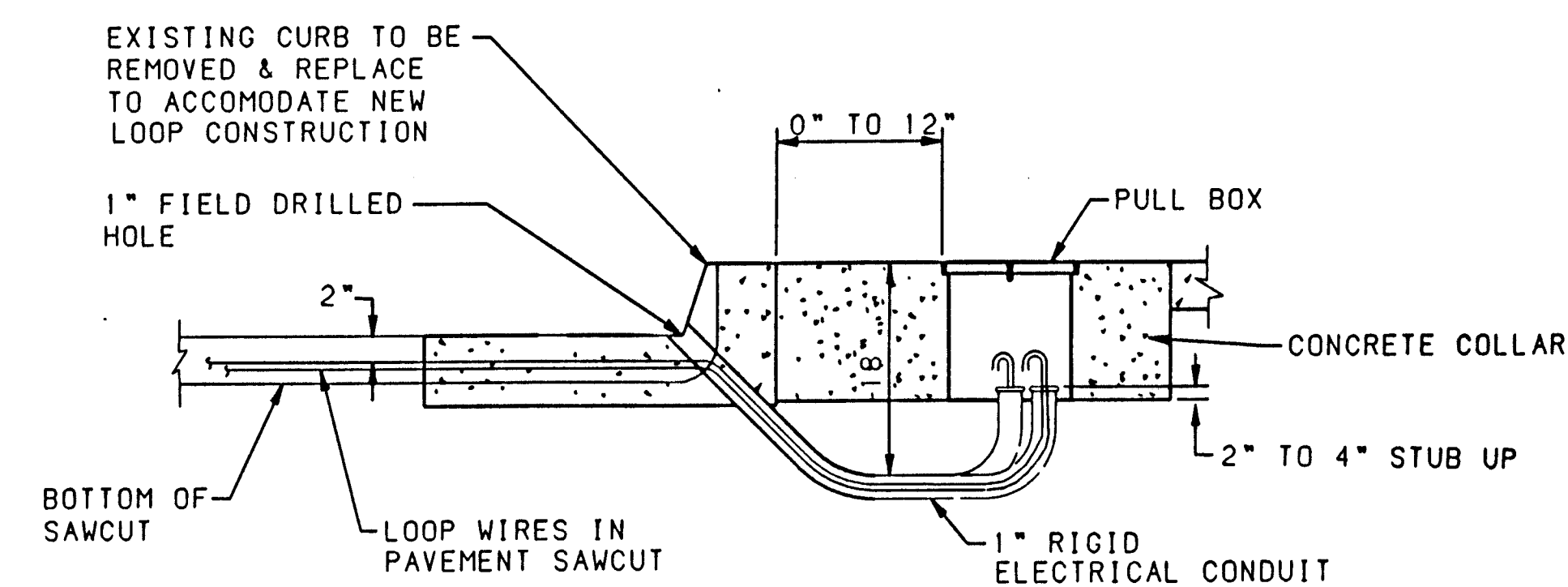
EXTEND CALL LOOP WIRING DETAIL



SYSTEM LOOP WIRING DETAIL

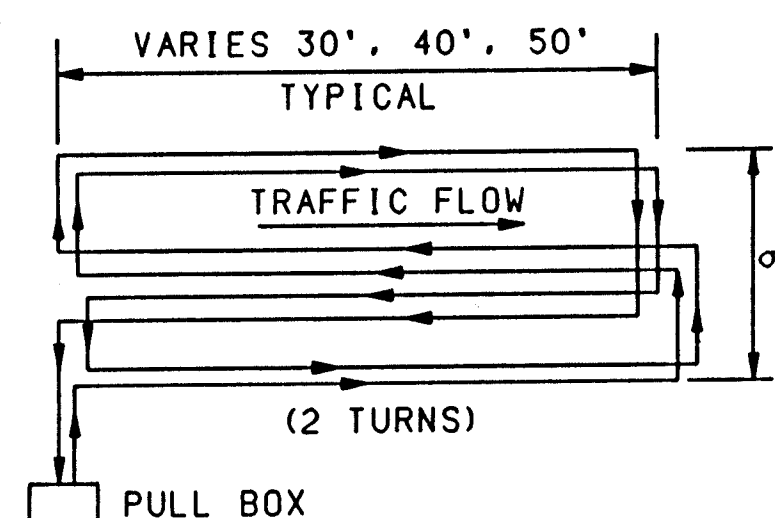


SERIES LOOP WIRING DETAIL

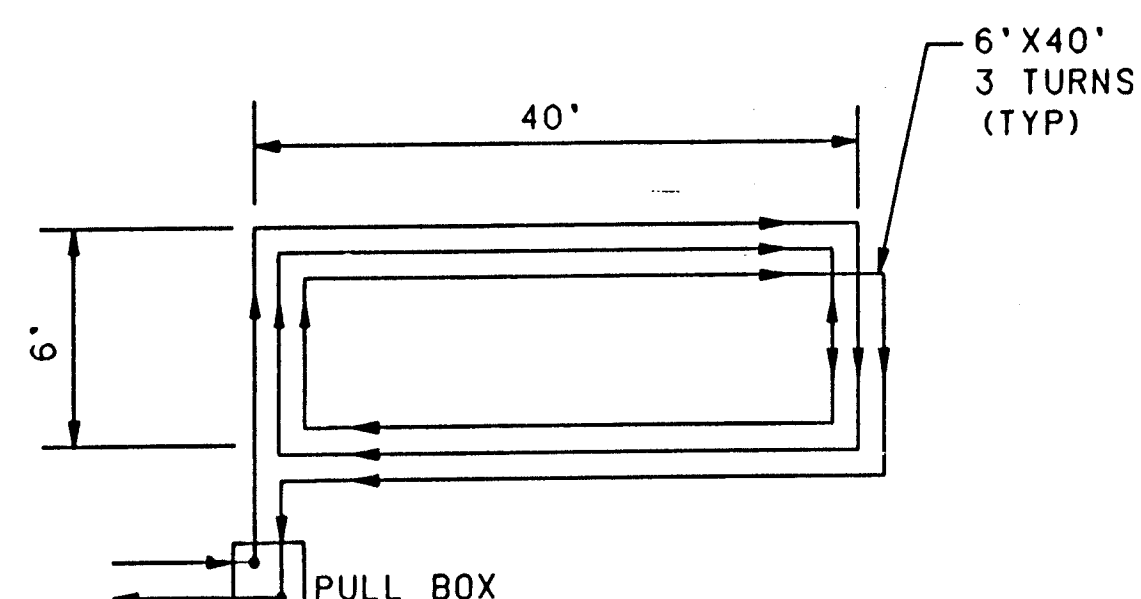


SECTION

LOOP WIRE TERMINATION DETAILS



QUADRUPOLE LOOP WIRING DETAIL



LARGE RECTANGULAR LOOP WIRING DETAIL

TYPICAL LOOP WIRE PLACEMENT DETAILS

NOTES

1. WIRES MUST BE WOUND IN THE DIRECTION SHOWN.
2. QUADRUPOLE LOOPS SHALL HAVE 2 TURNS.
3. EXTEND CALL LOOPS SHALL HAVE 3 TURNS.
4. SYSTEM DETECTOR LOOPS SHALL HAVE 4 TURNS.
5. LARGE RECTANGLE LOOPS SHALL HAVE 3 TURNS.

LOOP DETECTOR NOTES

1. ALL LOOP DETECTOR WIRE SHALL BE NO. 14 AWG STRANDED COPPER WIRE WITH CROSSLINKED POLYETHYLENE INSULATION (INDUSTRY TYPE XHHW) CONFORMING TO THE REQUIREMENTS OF I.M.S.A. SPECIFICATIONS NO 51-3 1984. BACKER ROD SHALL NOT BE USED IN THE INSTALLATION OF LOOP (EXCEPT PIECES LESS THAN 12" WHICH MAY BE PLACED OVER THE WIRE AT THE SAW CUT CORNERS TO HOLD THE WIRE. A 1/4" LAYER OF SEALANT SHALL BE PLACED IN THE SAWCUT BEFORE PLACEMENT OF THE WIRE AND THEN THE WIRE SHALL BE ENCAPSULATED WITH SEALANT. HOT-MELT RUBBERIZED ASPHALT LOOP DETECTOR SEALANT MANUFACTURED BY CRAFCO SHALL BE AN ACCEPTABLE SEALANT ALTERNATE.
2. ALL LOOP LEAD IN CABLES SHALL BE TAGGED AT CABINET TO IDENTIFY EACH CABLE BY LOOP AND AND PHASE NUMBER.
3. GROUND LOOP LEAD IN CABLE SHIELDING IN CONTROL CABINET.
4. SEPARATE 1" RIGID ELECTRICAL CONDUITS ARE REQUIRED FOR EACH PAIR OF DETECTOR WIRES.

NO.	DESCRIPTION	DATE	BY
3			
2			
1			

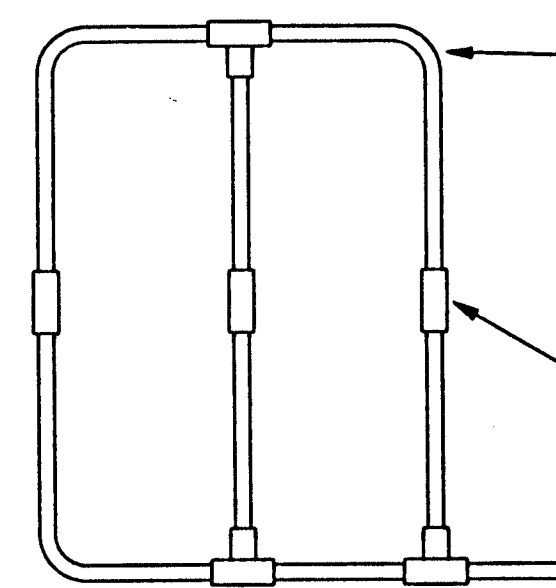
REVISIONS (OR CHANGE NOTICES)

NEW MEXICO STATE
HIGHWAY AND TRANSPORTATION
DEPARTMENT

TRAFFIC SIGNAL

LOOP DETECTOR DETAILS

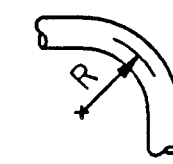
2-94



QUADRUPOLE CONFIGURATION

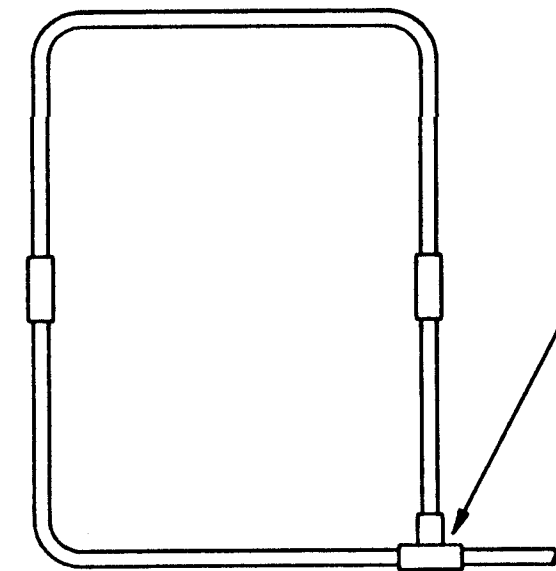
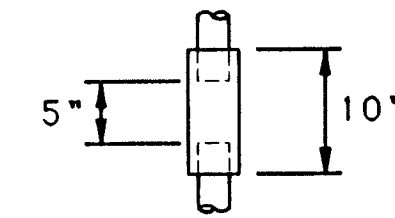
TYPICAL 90 DEGREE

3/8" POLYPROPYLENE COPOLYMER PP SDR-9 IN-LINE MOLDED CONDUIT IS USED. TYPICAL RADIUS IS 3" (STANDARD UL). TO PROVIDE MAXIMUM STRENGTH, HOT MOLDED 90 DEGREE BENDS ARE ALL INTEGRAL TO THE LOOP CONDUIT.



EXPANSION-CONTRACTION JOINT

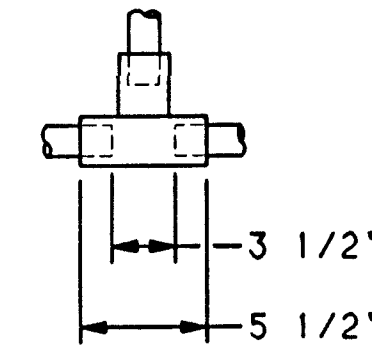
JOINTS ARE LOCATED FOR CONVENIENCE IN SHIPPING AND INSTALLATION. THERE IS A NOMINAL 5" SPACE IN 3/8" POLYPROPYLENE. THE SLEEVE THAT SLIDES OVER THE SPACE IN THE 3/8" PP IS A 10" LENGTH OF 3/4" PP SCHEDULE 80. EXPANSION-CONTRACTION JOINTS ARE USED AT ALL SPECIFIED "FOLD" POINTS. TYPICAL PLACEMENT IS EVERY 8' OR AS NEEDED (NOT TO EXCEED 20 FEET) ON HOME RUNS OR LONG LOOPS.



RECTANGLE CONFIGURATION

FLEXIBLE TEE CONSTRUCTION

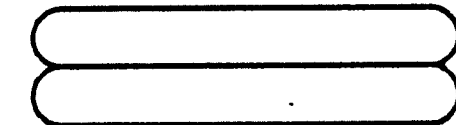
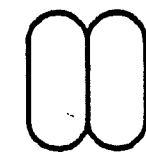
FLEXIBLE 1/2" SCHEDULE 80 PVC SECTIONS ARE USED TO CONNECT THE PULL TEES TO THE BODY OF THE LOOP ASSEMBLY AND TO THE HOME-RUN OR INTERCONNECT. THE LENGTH OF THE FLEXIBLE SECTION IS CUT AS REQUIRED TO MAXIMIZE THE PHYSICAL STRENGTH OF THE LOOP.



(QUADRUPOLE)

(LONG QUADRUPOLE)

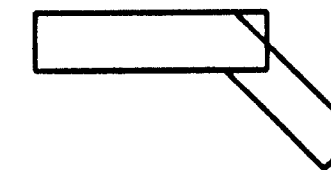
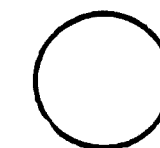
(STANDARD SQUARE)



(RECTANGULAR)

(ROUND)

(MODIFIED RECTANGULAR)



PREFORMED DETECTOR LOOP DETAIL

ACCEPTABLE PREFORMED DETECTOR LOOPS ARE

- 1) NEVER FAIL LOOP BY ARCAN TRAFFIC SYSTEMS, INC
- 2) HIGH-TEMP PREFORMED LOOPS BY DETECTOR SYSTEMS, INC

3			
2			
1			
NO.	DESCRIPTION	DATE	BY

REVISIONS (OR CHANGE NOTICES)

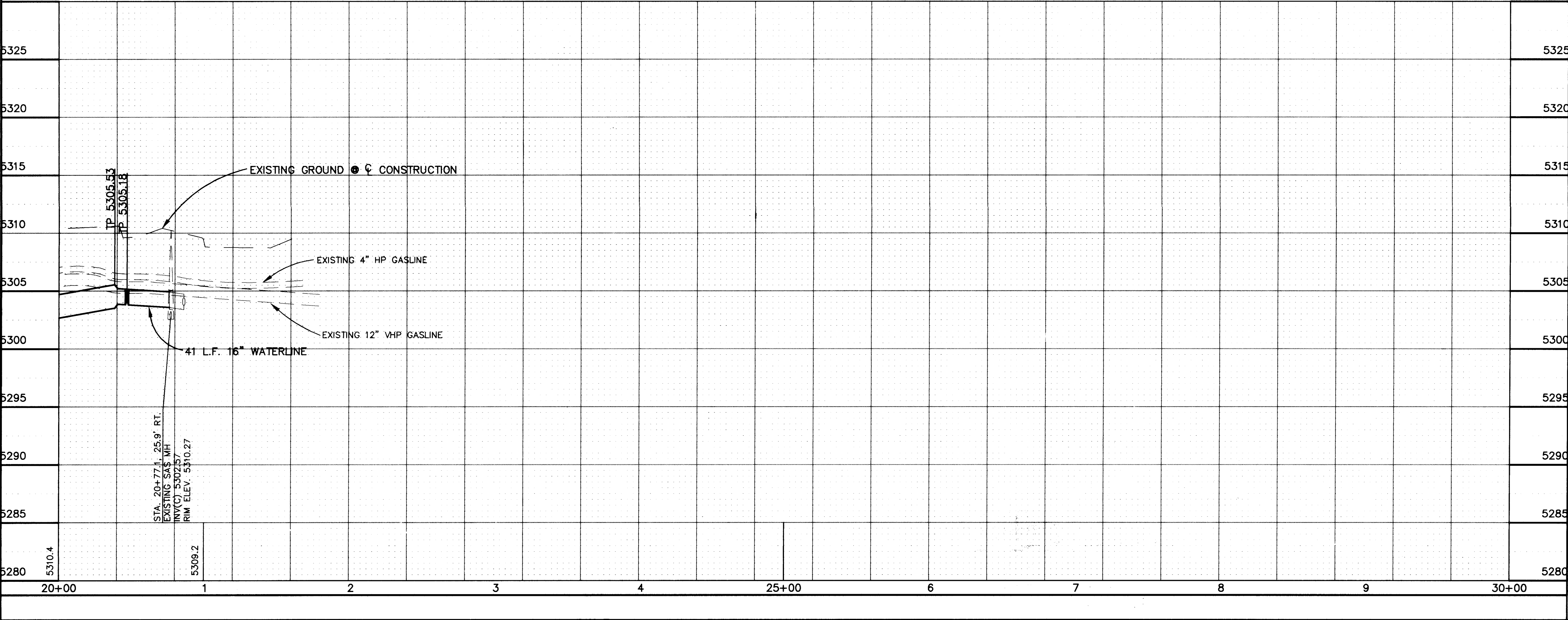
NEW MEXICO STATE
HIGHWAY AND TRANSPORTATION
DEPARTMENT

TRAFFIC SIGNAL

PREFORMED LOOP
DETECTOR DETAILS

2-94

Time: 8:30:50
Date: 11/26/1996 BY: ELP
Drawing File: K:\PROJECTS\30401\013\RCR2001



MATCH LINE STA. 20+00
SEE SHEET Z

STA. 20+43.9, 19' RT.
INSTALL 24x16\"/>

STA. 20+46.9, 19' RT.
INSTALL 16\"/>

STA. 20+76.1, 18' RT.
REMOVE 16\"/>

EXISTING VALVES HAVE
NO DESIGNATION
CLOSE FOR WATERLINE
CONNECTION.

EOP
N: 1520497.2249
E: 405029.2424
APPROX. 528'
CROSS TO TEE

EXISTING VALVE HAS
NO DESIGNATION
CLOSE FOR WATERLINE
CONNECTION.

EXISTING VALVES HAVE
NO DESIGNATION
CLOSE FOR WATERLINE
CONNECTION.

SCALES:
1" = 40' HOR
1" = 5' VER

LEGEND

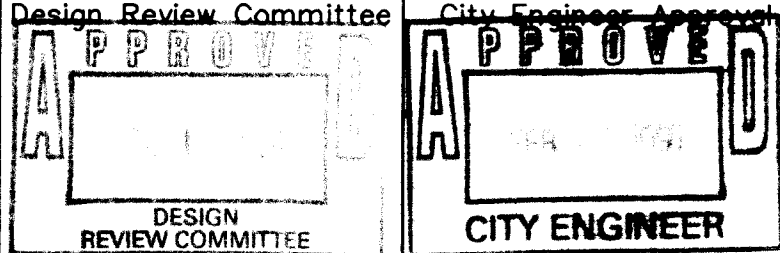
- ANC POLE
- UNDERGROUND ELECTRIC
- GAS METER
- POWER POLE GUY DOWN
- LIGHT POLE
- POWER POLE
- SAS MANHOLE
- SIGNAL POLE
- SIGNAL PULL BOX
- TELEPHONE RISER
- WATER VALVE

LENGTH OF RESTRAINED PIPE (FEET).

- 16x24" REDUCER 93'
- 16" VALVE 119'

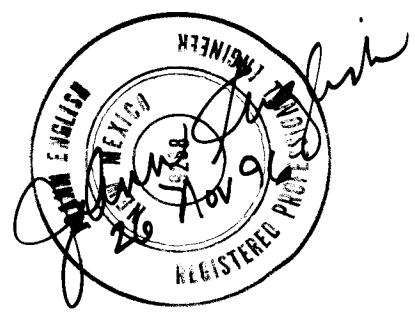


CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP
TITLE:
LOUISIANA BLVD. WATERLINE
STA. 20+00 TO 20+76



City Project No. 5103.99 Zone Map No. C-18 Sheet 8 Of 8

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REVISIONS		DESIGN	
NO.	DATE	BY	DATE
4/98	AS-BUILT	REVISION	NOV. 1996
			NOV. 1996
			NOV. 1996