

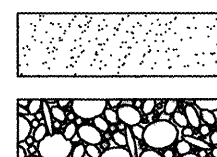
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MESA REPRO

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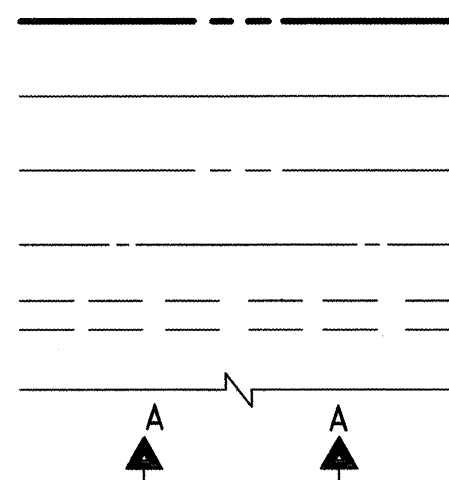
MATERIALS

CONCRETE
RIP-RAP



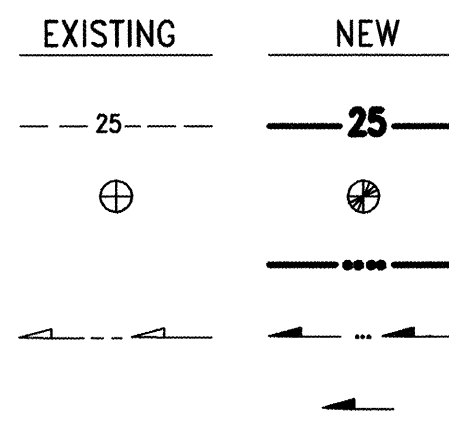
LINES

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



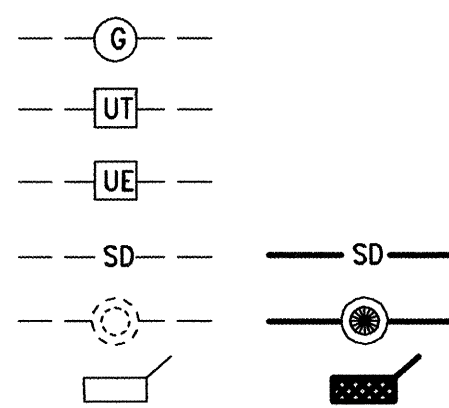
EARTHWORK

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



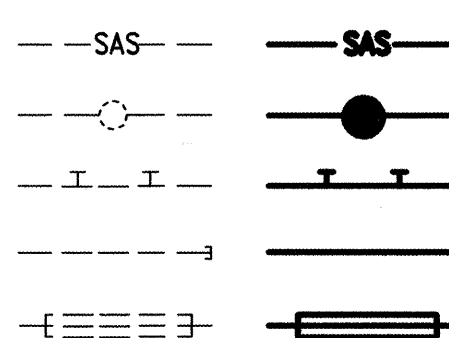
MISCELLANEOUS UTILITIES

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



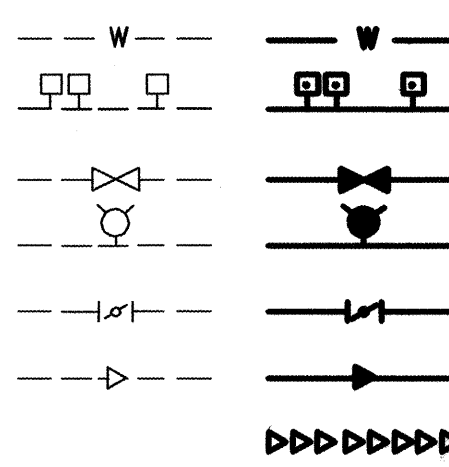
SANITARY SEWER

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



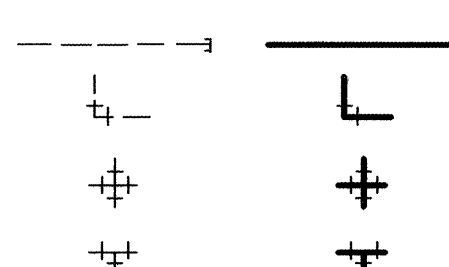
WATER

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



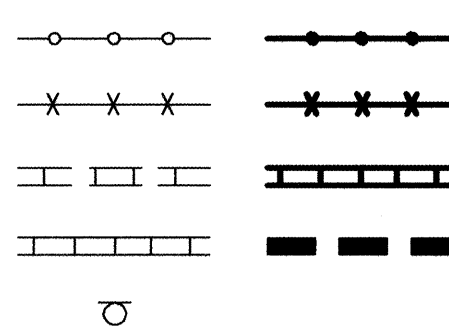
WATER FITTINGS

CAPS AND PLUGS
ELBOW
CROSS
TEE



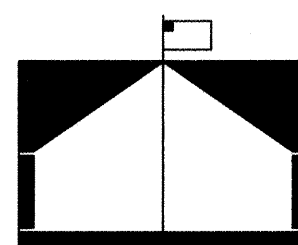
MISCELLANEOUS

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



RECORD DRAWING

CONSTRUCTION PLANS for HAWTHORNE ELEMENTARY SCHOOL WATERLINE EXTENSIONS ALBUQUERQUE, NEW MEXICO APRIL, 1999



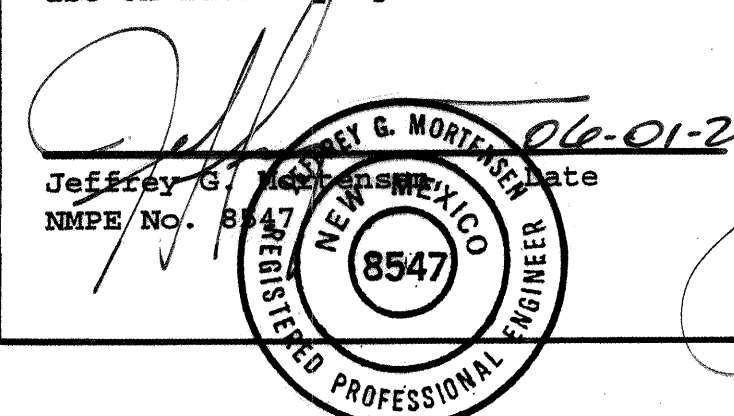
INDEX OF DRAWINGS

SHEET	DESCRIPTION
1	COVER SHEET, VICINITY MAP, GENERAL NOTES, LEGEND AND INDEX OF DRAWINGS
2	SITE PLAN
3	COPPER AVENUE WATERLINE EXTENSION PLAN AND PROFILE
4	DOMINGO ROAD WATERLINE EXTENSION PLAN AND PROFILE
5	SECTIONS AND DETAILS: WATER VALVE SHUT-OFF PLAN
5	SIGNING AND CONSTRUCTION TRAFFIC CONTROL STANDARDS
6	TYPICAL TRAFFIC CONTROL AND SIGNING EXAMPLES

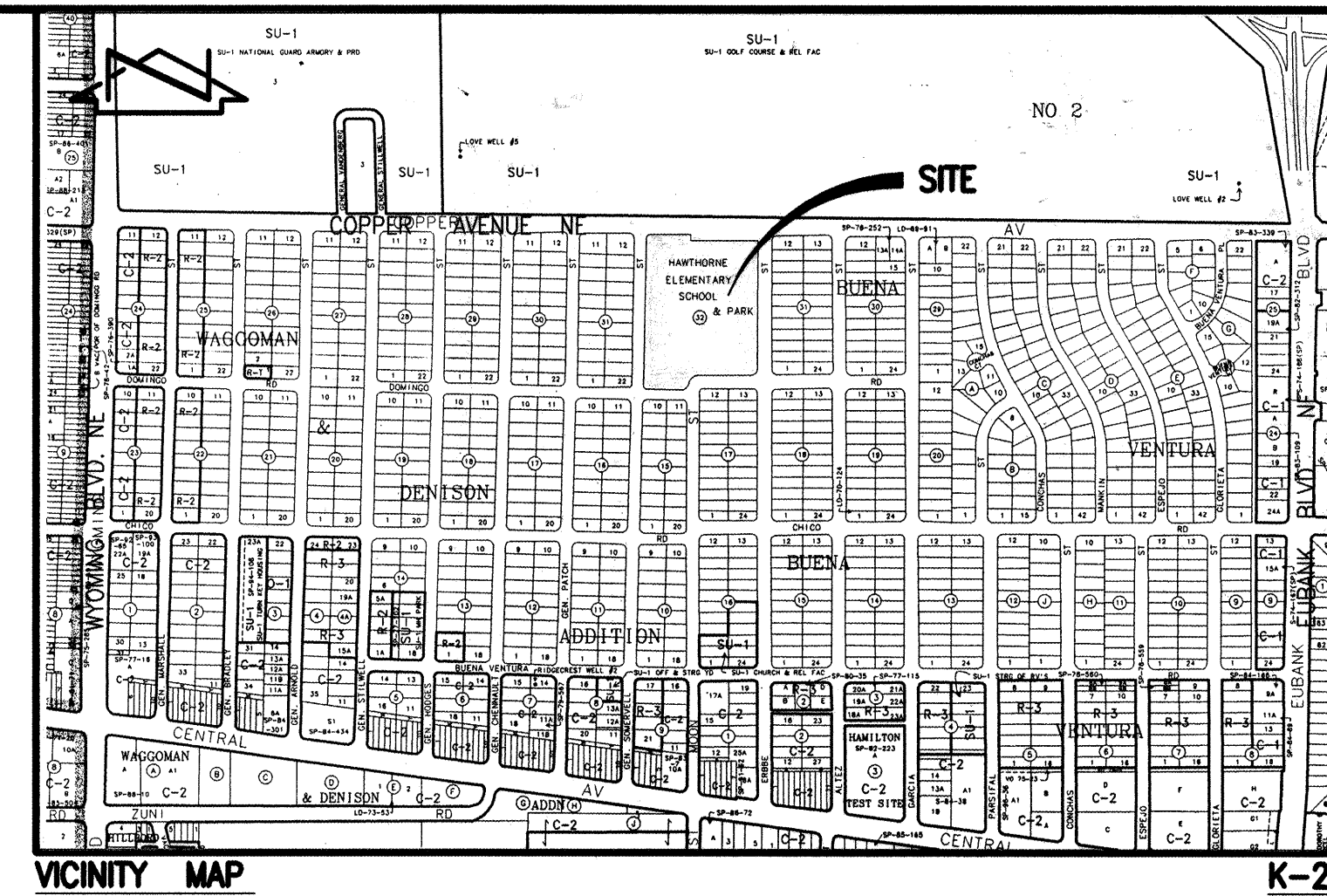
APPROVAL OF AS BUILT DRAWINGS
CHIEF CONSTRUCTION ENGINEER
Jeffrey G. Mortensen
DATE 7/3/00

RECORD DRAWING

I, Jeffrey G. Mortensen, Registered Professional Engineer in the State of New Mexico, do hereby certify that this "as-built" information was obtained by me or under my supervision and represents the "as-built" conditions of this project, and is true and correct to the best of my knowledge and belief. All vertical and horizontal dimensions should be field verified prior to use on future projects.

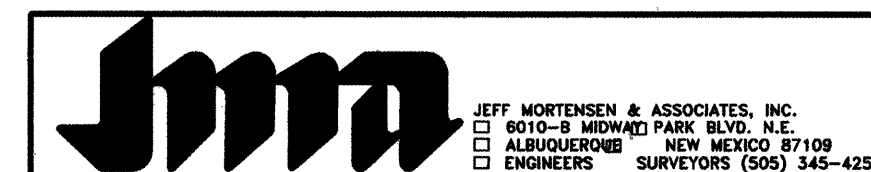


970404



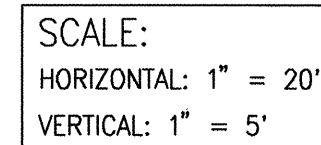
VICINITY MAP
SCALE: 1" = 750'

- ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED UNDER CONTRACT SHALL, EXCEPT AS OTHERWISE STATED OR PROVIDED FOR HEREON, BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS - PUBLIC WORKS CONSTRUCTION - 1986 - UPDATE NO. 6.
- TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM, 260-1990, (ALBUQUERQUE AREA) 1-800-321-ALERT (2537) (STATEWIDE) FOR LOCATION OF EXISTING PUBLIC UTILITIES, AND APS MAINTENANCE & OPERATIONS (765-5950) FOR LOCATION OF EXISTING PRIVATE UTILITIES.
- IF ANY UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES ARE SHOWN ON THESE DRAWINGS, THEY ARE SHOWN IN AN APPROXIMATE MANNER ONLY, AND SUCH LINES MAY EXIST WHERE NONE ARE SHOWN. IF ANY SUCH EXISTING LINES ARE SHOWN, THE LOCATION IS BASED UPON INFORMATION PROVIDED BY THE OWNER OF SAID UTILITY, AND THE INFORMATION MAY BE INCOMPLETE, OR MAY BE OBSOLETE, BY THE TIME CONSTRUCTION COMMENCES. THE ENGINEER HAS CONDUCTED ONLY PRELIMINARY INVESTIGATION OF THE LOCATION, DEPTH, SIZE, OR TYPE OF EXISTING UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES. THIS INVESTIGATION IS NOT CONCLUSIVE, AND MAY NOT BE COMPLETE, THEREFORE, MAKES NO REPRESENTATION PERTAINING THERETO, AND ASSUMES NO RESPONSIBILITY OR LIABILITY THEREFOR. THE CONTRACTOR SHALL INFORM ITSELF OF THE LOCATION OF ANY UTILITY LINE, PIPELINE, OR UNDERGROUND UTILITY LINE IN OR NEAR THE AREA OF THE WORK IN ADVANCE OF AND DURING EXCAVATION WORK. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE CAUSED BY ITS FAILURE TO LOCATE, IDENTIFY AND PRESERVE ANY AND ALL EXISTING UTILITIES, PIPELINES, AND UNDERGROUND UTILITY LINES, IN PLANNING AND CONDUCTING EXCAVATION, THE CONTRACTOR SHALL COMPLY WITH STATE STATUTES, MUNICIPAL AND LOCAL ORDINANCES, RULES AND REGULATIONS, IF ANY, PERTAINING TO THE LOCATION OF THESE LINES AND FACILITIES.
- SHOULD A CONFLICT EXIST BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS, THE CONTRACTOR SHALL PROMPTLY NOTIFY THE ENGINEER IN WRITING SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY FOR ALL PARTIES.
- THE CONTRACTOR SHALL MAINTAIN ACCESS TO ADJACENT PROPERTIES DURING CONSTRUCTION.
- ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING SAFETY AND HEALTH.
- ALL UTILITIES AND UTILITY SERVICE LINES SHALL BE INSTALLED PRIOR TO PAVING.
- BACKFILL COMPACTION SHALL BE ACCORDING TO SPECIFIED STREET USE.
- TACK COAT REQUIREMENTS SHALL BE DETERMINED DURING CONSTRUCTION BY THE PROJECT ENGINEER.
- SIDEWALKS AND WHEELCHAIR RAMPS WITHIN THE CURB RETURNS SHALL BE CONSTRUCTED WHEREVER A NEW CURB RETURN IS CONSTRUCTED.
- IF CURB IS DEPRESSIONED FOR A DRIVEPAD OR A HANDICAP RAMP, THE DRIVEPAD OR RAMP SHALL BE CONSTRUCTED PRIOR TO ACCEPTANCE OF THE CURB AND GUTTER.
- ALL STORM DRAINAGE FACILITIES SHALL BE COMPLETED PRIOR TO FINAL ACCEPTANCE.
- CONTRACTOR SHALL COORDINATE WITH THE WATER SYSTEM DIVISION FOR THE EXECUTION OF THE VALVE SHUT OFF PLAN, NOT LESS THAN FIVE (5) WORKING DAYS IN ADVANCE OF ANY WORK THAT MAY AFFECT THE EXISTING PUBLIC WATER UTILITIES. ONLY WATER SYSTEM DIVISION PERSONNEL SHALL OPERATE EXISTING VALVES. REFER TO SECTION 18 OF THE SPECIFICATION. THE WATER SYSTEM DIVISION PHONE NUMBER IS 857-8200.
- CONTRACTOR SHALL NOTIFY THE CITY SURVEYOR NOT LESS THAN SEVEN (7) DAYS PRIOR TO STARTING WORK IN ORDER THAT THE CITY SURVEYOR MAY TAKE NECESSARY MEASURES TO INSURE THE PRESERVATION OF SURVEY MONUMENTS. CONTRACTOR SHALL NOT DISTURB PERMANENT SURVEY MONUMENTS WITHOUT THE CONSENT OF THE CITY SURVEYOR AND SHALL NOTIFY THE CITY SURVEYOR AND BEAR THE EXPENSE OF REPLACING ANY THAT MAY BE DISTURBED WITHOUT PERMISSION. REPLACEMENT SHALL BE DONE ONLY BY THE CITY SURVEYOR. WHEN A CHANGE IS MADE IN THE FINISHED ELEVATION OF THE PAVEMENT OF ANY ROADWAY IN WHICH A PERMANENT SURVEY MONUMENT IS LOCATED, CONTRACTOR SHALL, AT HIS OWN EXPENSE, ADJUST THE MONUMENT COVER TO THE NEW GRADE UNLESS OTHERWISE SPECIFIED. REFER TO SECTION 4.4 OF THE SPECIFICATIONS.
- FIVE (5) WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION THE CONTRACTOR SHALL SUBMIT TO THE CONSTRUCTION CO-ORDINATION DIVISION A DETAILED CONSTRUCTION SCHEDULE. TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL OBTAIN A BARRICADING PERMIT FROM THE CONSTRUCTION CO-ORDINATION DIVISION. CONTRACTOR SHALL NOTIFY BARRICADE ENGINEER (768-2551) PRIOR TO OCCUPYING AN INTERSECTION. CONTRACTOR MUST REFER TO SECTION 19 OF THE STANDARD SPECIFICATION FOR TRAFFIC CONTROL.
- ALL STREET STRIPING ALTERED OR DESTROYED SHALL BE REPLACED WITH PLASTIC REFLECTORIZED STRIPING BY CONTRACTOR TO EXISTING LOCATION OR AS INDICATED BY THIS PLAN SET.
- CAUTION: THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL REMAIN THE RESPONSIBILITY OF THE CONTRACTOR.
- ANY WORK OCCURRING WITHIN AN ARTERIAL ROADWAY REQUIRES TWENTY-FOUR HOUR CONSTRUCTION.
- CONTRACTOR SHALL MAINTAIN A GRAFFITI-FREE WORK SITE. CONTRACTOR SHALL PROMPTLY REMOVE ANY AND ALL GRAFFITI FROM EQUIPMENT, WHETHER PERMANENT OR TEMPORARY.



REV.	1-7	DATE	05/00	ENGINEER	DATE	USER	DEPARTMENT	DATE	USER	DEPARTMENT	DATE
ENGINEERS STAMP & SIGNATURE	APPROVALS	ENGINEER	DATE	*****	APPROVED FOR CONSTRUCTION						
	DRC Chairman	<i>Jeffrey G. Mortensen</i>	4-19-99								
	Transportation	<i>R.W. Kane</i>	4-19-99								
	Water/Wastewater	<i>R.W. Kane</i>	4-19-99								
	Hydrology	<i>R.W. Kane</i>	4-19-99								
	C.I.P.	<i>R.W. Kane</i>	4-19-99								
	Const. Mngmt.	<i>Jeffrey G. Mortensen</i>	4-16-99								
	Const. Coord.	<i>Jeffrey G. Mortensen</i>	4-16-99								
	City Project No.	607581									
	SHEET	1	OF	7							





BLOCK 17,
BUENA VENTURA
09-11-1941, C1-8

1. ALL STATIONING IS BASED ON STREET CENTERLINE UNLESS INDICATED OTHERWISE.
2. 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.
3. FOR ALL LINES 14" AND LARGER, WATER MAIN SHALL BE PVC DUCTILE IRON OR AS APPROVED BY THE CITY OF ALBUQUERQUE CITY ENGINEER. CONCRETE CYLINDER IS AN ACCEPTABLE PIPE MATERIAL IN LIEU OF DUCTILE IRON.
4. 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.
5. ELECTRONIC MARKER DISCS (EMD) SHALL BE INSTALLED IN ACCORDANCE WITH THE STANDARD SPECIFICATION.
6. 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.
7. 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.
8. JOINT RESTRAINT SHALL BE CONSIDERED INCIDENTAL TO WATERLINE CONSTRUCTION THEREFORE NO SEPARATE PAYMENT WILL BE MADE.
9. JOINT RESTRAINT SHALL BE PROVIDED ON ALL JOINTS OF FIRE HYDRANT LEGS FROM TEE TO FIRE HYDRANT INCLUDING THE TEE AND FIRE HYDRANT.
10. FOR THE PURPOSES OF THIS PROJECT, ALL RESTRAINED JOINTS AND JOINT RESTRAINT SHALL BE MECHANICALLY RESTRAINED. JOINT RESTRAINT LENGTHS SPECIFIED HEREON ARE THE LENGTHS TO BE RESTRAINED EACH SIDE OF THE FITTING.

ENGINEER'S SEAL

NEW MEXICO
8517
REGISTERED PROFESSIONAL ENGINEER
NORTHWESTERN

04-06-99

- (A) #5 REBAR W/CAP STAMPED
"NEW MEXICO PS 11184"
- (B) MAG NAIL W/WASHER STAMPED
"NEW MEXICO PS 11184"
IN ASPHALT
- (C) CHISELED "+" IN CONCRETE SIDEWALK
"NEW MEXICO PS 11184"

LINE	DIRECTION	DISTANCE
L1	S 00°47'00" E	28.36'
L2	S 00°47'00" E	66.39'
L3	N 89°14'55" W	204.26'
L4	N 89°42'39" E	186.10'
L5	N 89°14'58" E	319.91'

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

TITLE: HAWTHORNE ELEMENTARY SCHOOL WATERLINE EXTENSIONS
DOMINGO ROAD WATERLINE EXTENSION PLAN AND PROFILE

Zone Map No.

Sheet 4 Of 7

SCANNED BY
MESA · REPRO

RECORD DRAWING

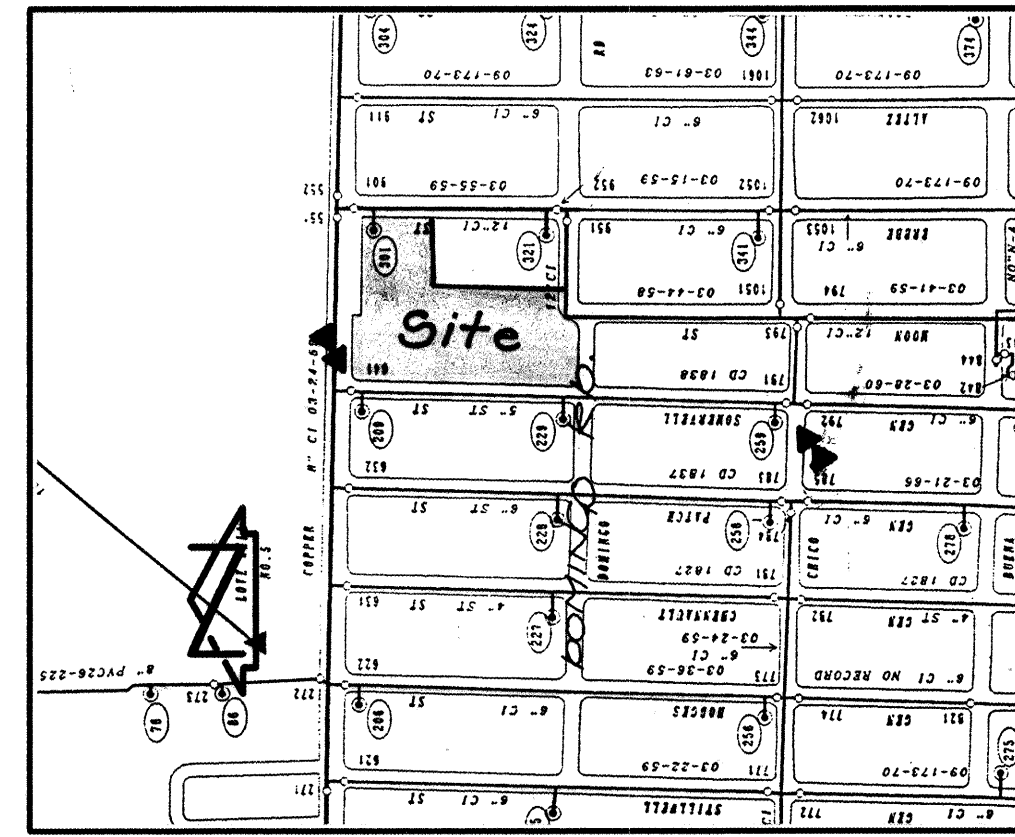
I, Jeffrey G. Mortensen, Registered Professional Engineer in the State of New Mexico, do hereby certify that this "as-built" information was obtained by me or under my supervision and represents the "as-built" conditions of this project, and is true and correct to the best of my knowledge and belief. All vertical and horizontal dimensions should be field verified prior to use on future projects.

Jeffrey G. Mortensen
Jeffrey G. Mortensen, P.E.
NOTICE No. 8547

NEW MEXICO
5847
REGISTERED PROFESSIONAL ENGINEER

16-01-25

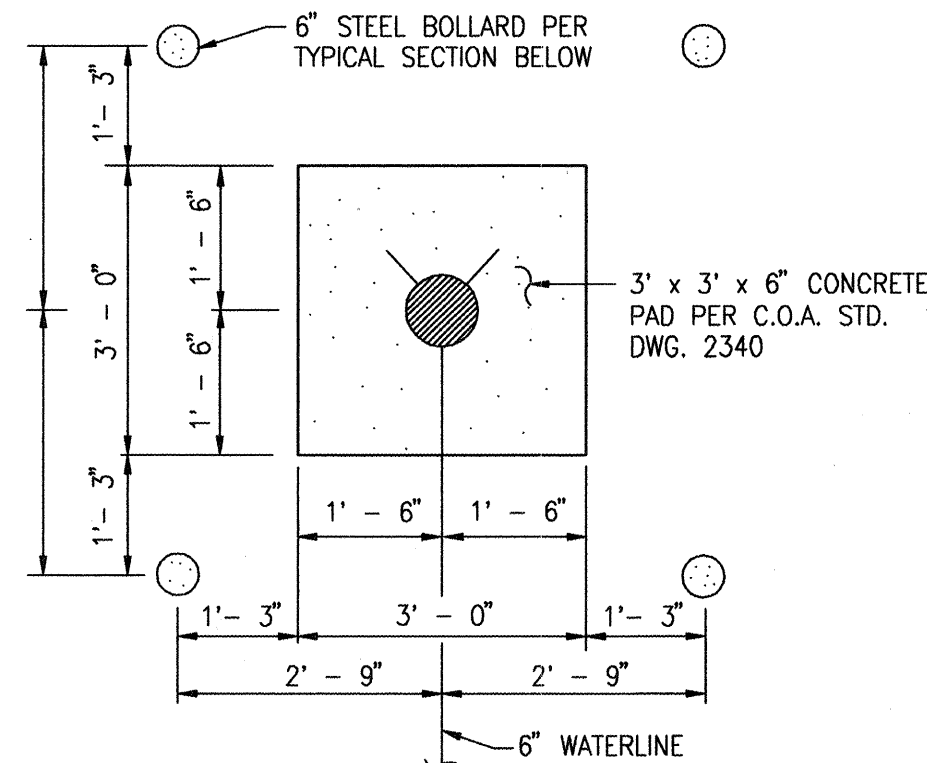
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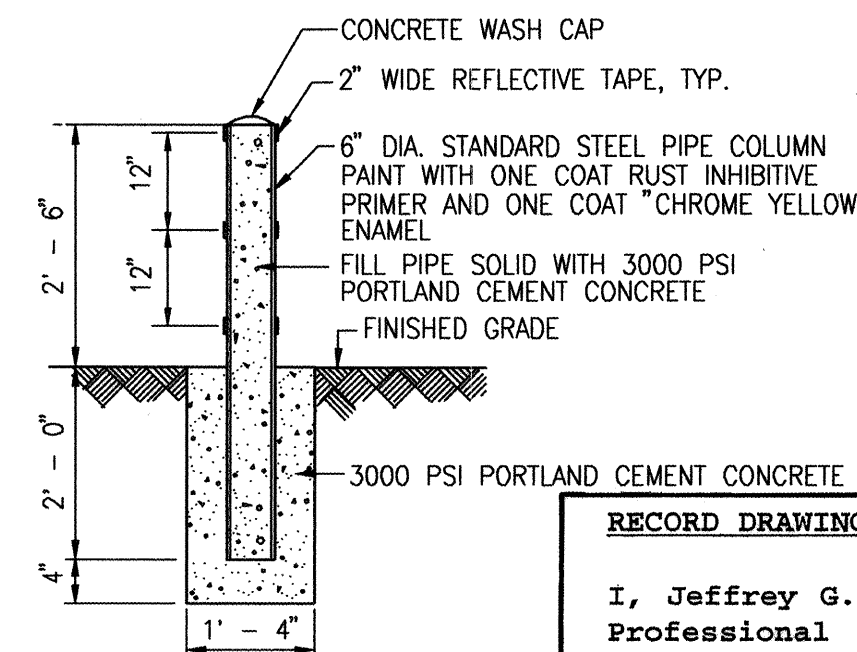
WATER VALVE SHUTOFF PLAN K-20
SCALE: 1" = 600'

WATER SHUTOFF PLAN NOTES:

1. AS A MINIMUM, THE FOLLOWING VALVES SHALL BE CLOSED TO FACILITATE THE FOLLOWING CONNECTION IN DOMINGO ROAD N.E. (641 & 791)
2. THE CONTRACTOR SHALL NOTIFY WATER SYSTEMS THREE (3) WORKING DAYS IN ADVANCE OF ANY WORK THAT MAY AFFECT EXISTING WATERLINE. ALL SHUTOFFS SHALL BE PERFORMED BY THE WATER SYSTEM DIVISION PERSONNEL (857-8200)
3. THE CONTRACTOR SHALL PROVIDE ALL RESTRAINTS AND THRUST BLOCKS NECESSARY TO EFFECT THE NECESSARY SHUTOFFS AND CONNECTIONS.
4. EXISTING WATER VALVE AND WATERLINE INFORMATION OBTAINED FROM THE CITY OF ALBUQUERQUE AUTOMATED WATER DISTRIBUTION SYSTEM SECTIONAL MAPS, PLATE K-20.



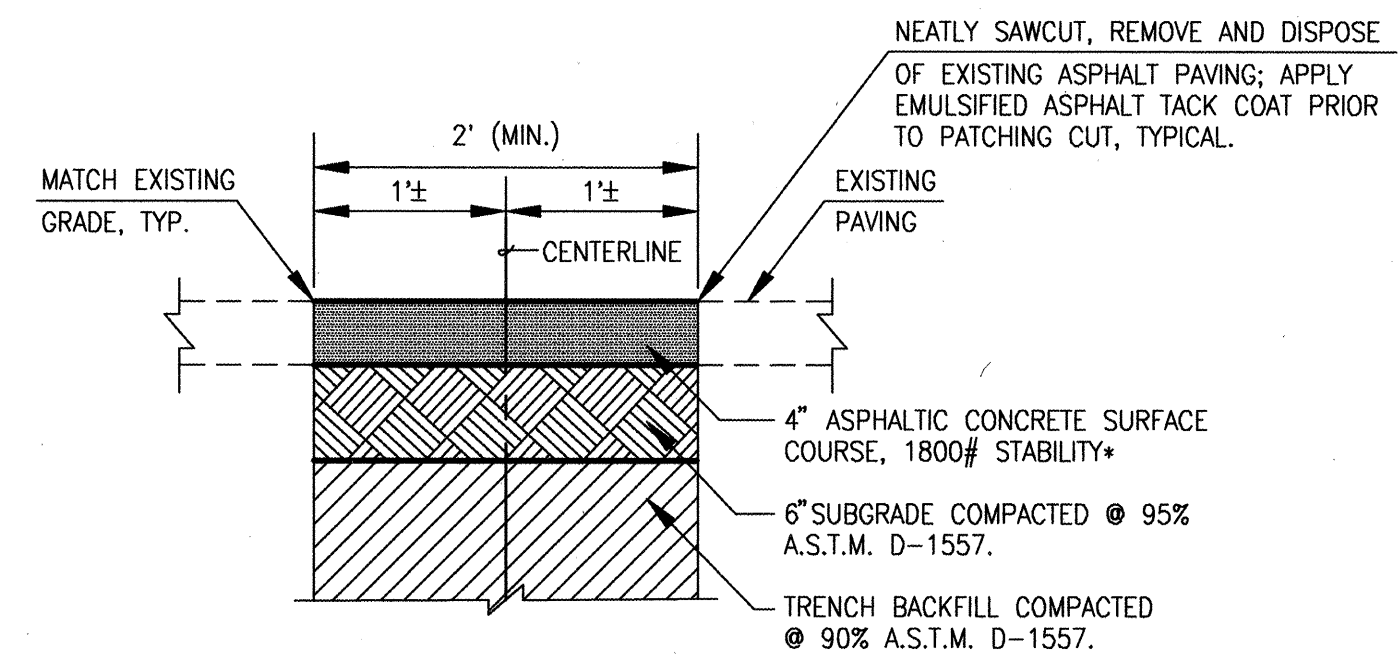
FIRE HYDRANT BOLLARD DETAIL
SCALE: 1" = 2' - 0"



TYPICAL BOLLARD SECTION
SCALE: 1" = 2' - 0"

WATERLINE CONSTRUCTION NOTES:

1. ALL STATIONING IS BASED ON STREET CENTERLINE UNLESS INDICATED OTHERWISE.
2. 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.
3. FOR ALL LINES 14" AND LARGER, WATER MAIN SHALL BE PVC DUCTILE IRON OR AS APPROVED BY THE CITY OF ALBUQUERQUE CITY ENGINEER. CONCRETE CYLINDER IS AN ACCEPTABLE PIPE MATERIAL IN LIEU OF DUCTILE IRON.
4. 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.
5. ELECTRONIC MARKER DISCS (EMD) SHALL BE INSTALLED IN ACCORDANCE WITH THE STANDARD SPECIFICATION.
6. 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.
7. 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.
8. JOINT RESTRAINT SHALL BE CONSIDERED INCIDENTAL TO WATERLINE CONSTRUCTION THEREFORE NO SEPARATE PAYMENT WILL BE MADE.
9. JOINT RESTRAINT SHALL BE PROVIDED ON ALL JOINTS OF FIRE HYDRANT LEGS FROM TEE TO FIRE HYDRANT INCLUDING THE TEE AND FIRE HYDRANT.
10. FOR THE PURPOSES OF THIS PROJECT, ALL RESTRAINED JOINTS AND JOINT RESTRAINT SHALL BE MECHANICALLY RESTRAINED. JOINT RESTRAINT LENGTHS SPECIFIED HEREON ARE THE LENGTHS TO BE RESTRAINED EACH SIDE OF THE FITTING.
11. 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.
12. 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.
13. 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.
14. ALL FIRE HYDRANTS SHALL BE SECURELY WRAPPED IN BLACK PLASTIC UNTIL SUCH TIME AS THE NEW WATERLINE IS PUT INTO SERVICE BY WATER SYSTEM DIVISION PERSONNEL.



*SUBSTITUTE 3" THICKNESS IN NON-TRAFFIC AREAS.
TYPICAL PRIVATE PAVING UTILITY CUT AND PAVEMENT REPLACEMENT SECTION
SCALE: 1"=1'

RECORD DRAWING

I, Jeffrey G. Mortensen, Registered Professional Engineer in the State of New Mexico, do hereby certify that this "as-built" information was obtained by me or under my supervision and represents the "as-built" conditions of this project, and is true and correct to the best of my knowledge and belief. All vertical and horizontal dimensions should be field verified prior to use on future projects.

Jeffrey G. Mortensen
Professional Engineer
No. 8547
State of New Mexico
06-01-2000

JMA

JEFF MORTENSEN & ASSOCIATES, INC.
8010-B MIDWAY PARK BLVD. N.E.
ALBUQUERQUE, N.M. 87109
ENGINEERS SURVEYORS (505) 345-4250

970404

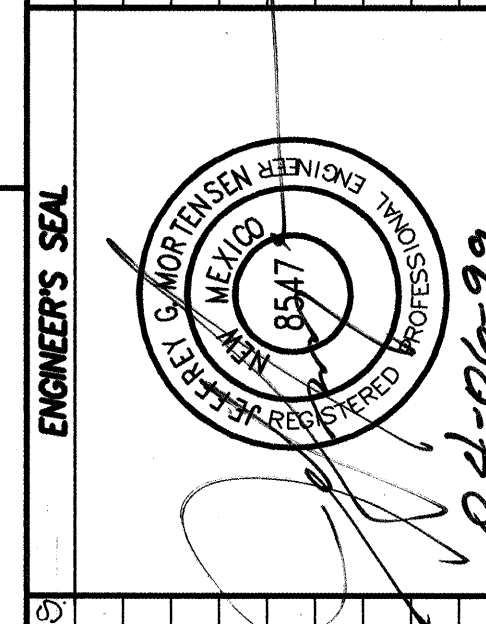
CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP

TITLE: HAWTHORNE ELEMENTARY SCHOOL WATERLINE EXTENSIONS
WATER VALVE SHUT OFF PLAN
SECTIONS AND DETAILS

Design Review Committee	City Engineer Approval	Last Design Update	Ms./Day/Yr.
By: J.G.M. 4/19/99	By: J.Y.R.	By: J.C.M.	By: J.C.M.

City Project No. 607581 Zone Map No. K-20 Sheet 5 of 7

AS-BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL	
CONTRACTOR	BY: J.M.A.	PROJECT BENCHMARK	DATE	NO.	BY	DATE	DATE
BY: J.M.A.	DATE: 04/00	A SQUARE "C" CHECKED ON THE NEW CURB RETURN	7-1997	96107	JMA	03-1999	03-1999
MEASURED BY: M.B.S.	DATE: 04/00	OF THE INTERSECTION OF GENERAL SOMERVELL ST. N.E.					
FIELD VERIFICATION BY: M.B.S./J.M.A.	DATE: 04/00	AND CORTER AVENUE N.E.					
CORRECTED BY: J.M.A.	DATE: 03/00	ELEVATION = 5465.08 FEET (M.S.L.D.)					
RECORDED BY: J.M.A.	DATE: 03/00						



REMARKS	DATE
Revisions	
DESIGN	
By: J.C.M.	03-1999
Drawn By: J.Y.R.	03-1999
Checked By: J.C.M.	03-1999

03/00	AS-BUILT & CHECKED BY: JMA
-------	----------------------------

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. 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, IF 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, 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 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:
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.

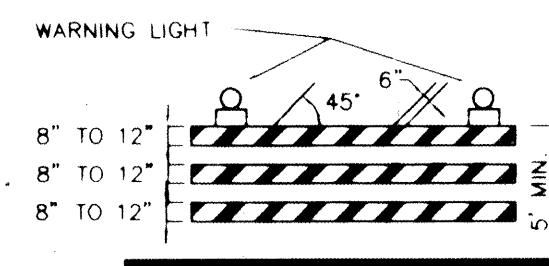
23. FAILURE TO COMPLY WITH ANY OF THE ABOVE MENTIONED, WILL BE ADEQUATE CAUSE TO CEASE ALL WORK ON ANY CONSTRUCTION PROJECT. WORK WILL NOT RESUME UNTIL ALL REQUIREMENTS ARE ADDRESSED AND APPROVED BY CONSTRUCTION COORDINATION.

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

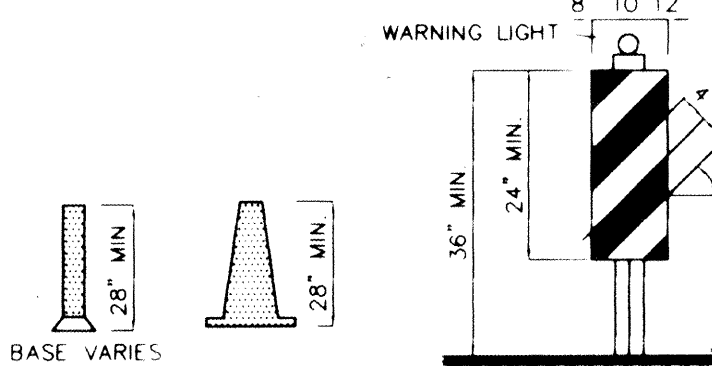
25. TRAFFIC CONTROL STANDARDS APPLY ONLY WHERE THE CONSTRUCTION TRAFFIC CONTROL PLANS ARE NOT SPECIFIC.

26. ADVANCE WARNING SIGNS SHALL BE 36"x36" 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 MUTCD. 3

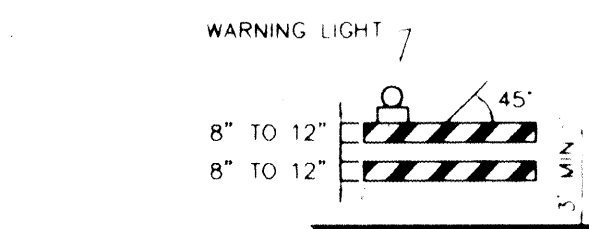
27. CONTRACTOR SHALL MAINTAIN A GRAFFITI-FREE WORKSITE. ALL GRAFFITI SHALL BE PROMPTLY REMOVED FROM ALL EQUIPMENT, BOTH PERMANENT AND TEMPORARY. 4



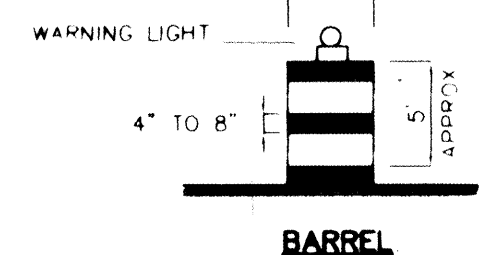
TYPE III BARRICADE



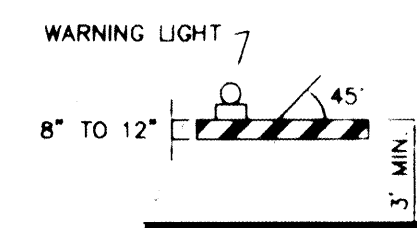
TYPE II BARRICADE



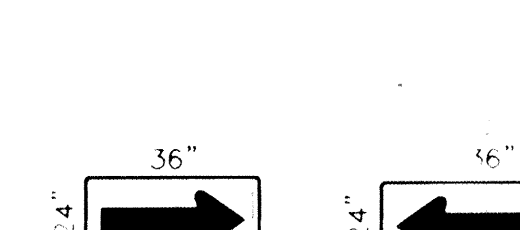
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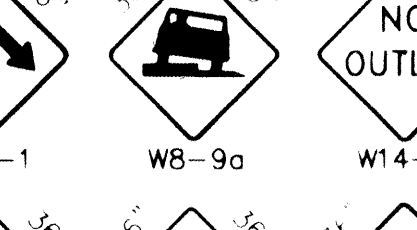
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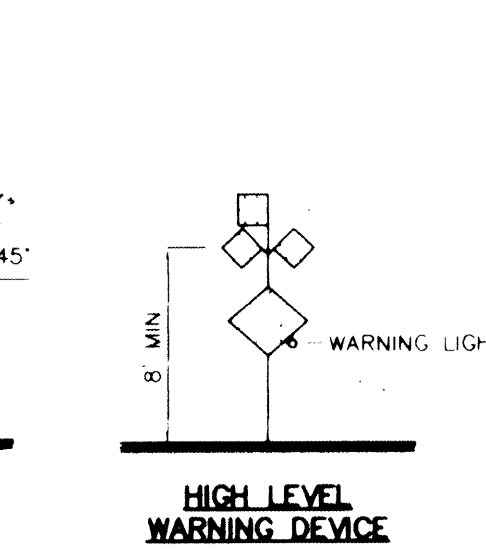
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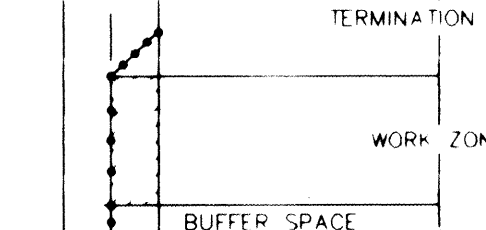
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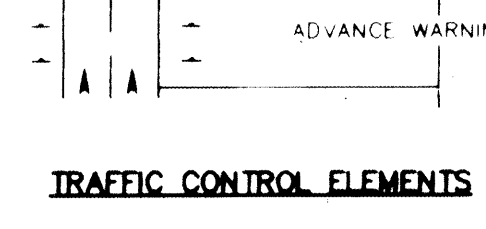
TYPE I BARRICADE



TYPE II BARRICADE



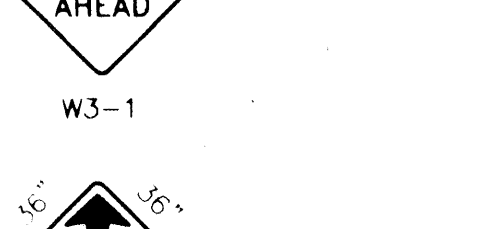
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TYPE II BARRICADE



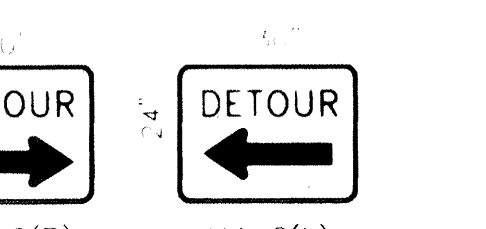
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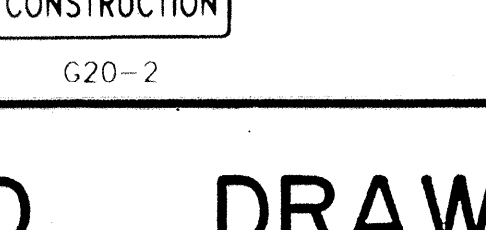
TYPE II BARRICADE



TYPE I BARRICADE



TYPE II BARRICADE



TYPE I BARRICADE

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' LANE	11' LANE	12' LANE		ALONG TAPER	AFTER TAPER
20	70	75	80	5	20	20
25	105	115	125	6	25	25
30	150	165	180	7	30	30
35	205	225	245	8	35	35
40	270	295	320	9	40	40
45	450	495	540	13	45	45
50	500	550	600	13	50	50
55	550	605	660	13	55	55

RECOMMENDED SIGN SPACING(D) FOR ADVANCE WARNING SIGN SERIES

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

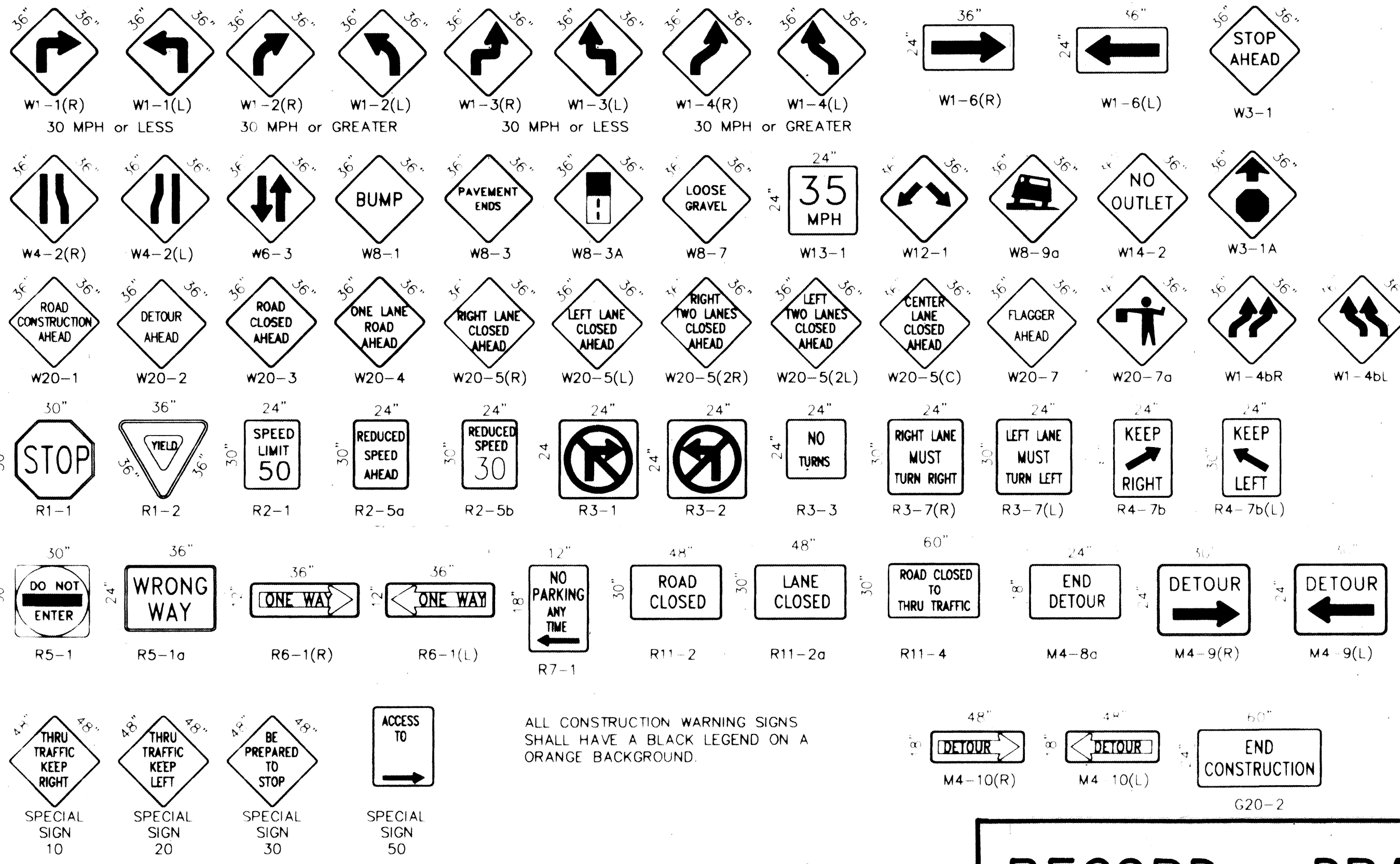
TAPER CRITERIA

TYPE OF TAPER	TAPER LENGTH
UPSTREAM TAPER	L MINIMUM
MERGING TAPER	1/2 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
41 MPH OR GREATER
45 MPH OR GREATER
TAPER LENGTH
W = WIDTH OF OFFSET IN FEET
POSTED SPEED OR OFF-PEAK 85 PERCENTILE SPEED IN MPH

SIGN FACE DETAILS

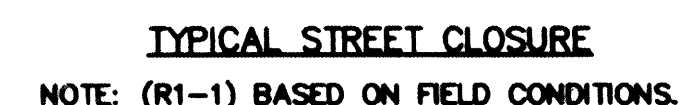
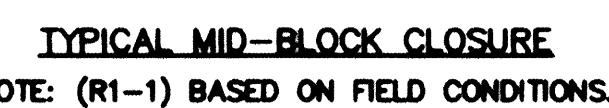
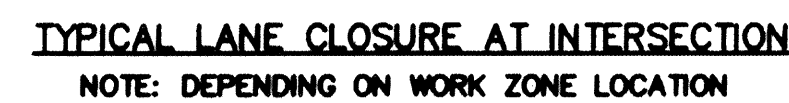



RECORD DRAWING



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

ALL ADVANCE WARNING SIGNS SHALL BE A MINIMUM OF 36" THIRTY SIX INCHES BY 36" THIRTY SIX INCHES IN SIZE AND SHALL HAVE ONE WARNING LIGHT.



CITY OF ALBUQUERQUE										DES.	DRAW.
PUBLIC WORKS DEPARTMENT										NO.	NO.
ENGINEERING DEVELOPMENT GROUP										NO.	NO.
TITLE: HAWTHORNE ELEMENTARY SCHOOL WATERLINE EXTENSIONS											
TYPICAL TRAFFIC CONTROL & SIGNING EXAMPLES (REF. M.U.T.C.D.)											
DESIGN REVIEW COMMITTEE				CITY ENGINEER APPROVAL				MO./DAY/YR		MO./DAY/YR	
COA Standard				LAST UPDATE							
PROJECT NO. 607581				MAP NO. K-20				SHEET 7		OF 7	

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