CONSTRUCTION PLANS FOR

SMITH & ARNO STORM DRAIN

PUBLIC WORKS DEPARTMENT CITY OF ALBUQUERQUE

GENERAL NOTES

- 1. 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 for Public Works Construction 1986 Edition as amended with Update No. 5
- 2. Prior to construction, the Contractor shall excavate & verify the horizontal and vertical locations of all obstructions. Should a conflict exist, the Contractor shall notify the Engineer so that the conflict can be resolved with minimum delay.
- 3. Two (2) working days prior to any excavation, Contractor must contact Line Locating Service @ 260-1990 for location of existing utilities.
- 4. Contractor shall support all existing, underground utility lines which become exposed during construction. Payment for supporting work shall be incidental to storm drain line pay item costs.
- 5. All street centerlines shown on the plans are the centerlines of existing streets as determined by splitting the distance between existing curbs. Station 1+00 for

Arno and Smith is determined in the field by intersecting

- the street centerline at the street intersection located at the beginning of the street segment under construction. Station 1+00 on Kathryn is opposite the storm drain manhole at the beginning of the project.
- 6. Contractor shall conduct his operations in a manner which will minimize interference with local traffic. Contractor shall comply with all applicable laws, ordinances, rules, regulations, and orders of any public body having juris—diction for the safety of persons or property, and to protect them from damage, injury, or loss. Contractor shall erect and maintain, as required by the conditions and progress of the work, all necessary safeguards for safety continuously and not limited to normal working hours, throughout the duration of the project. Contractor shall adhere to Section 19 of the General Conditions of the City of Albuquerque Standard Specifications for Public Works Construction, 1986, as amended with Update No. 5.
- 7. The Contractor agrees that he shall assume the sole and complete responsibility for the job site conditions during the course of construction of this project, including safety of all persons and property; that this requirement shall apply continuously and not be limited to normal working hours; and that the Contractor shall defend, indemnify, and hold harmless the Owner & Engineer from any and all liability real or alleged, in connection with the performance of work on this project, excepting liability arising from the sole negligence of the Owner or Engineer.
- 8. TRAFFIC CONTROL: 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 construction, the Contractor shall obtain a barricading permit from the Construction Coordination Division. Contractor shall notify Barricade Engineer (768—2551) prior to occupying an intersection. See section 19 of the specifications. All street striping altered or destroyed shall be replaced by Contractor to location and in kind as existing and as an incidental cost of street paving.

- 9. The Contractor shall promptly clean up any material excavated within the public right—of—way so that the excavated material is not susceptible to being washed down the street or into any public drainage facility.
- 10. Contractor shall assist the Engineer/Inspector in the recording of data on all utility lines and accessories as required by the City of Albuquerque for the preparation of record drawings. Contractor shall not cover utility lines and accessories until all data has been recorded.
- 11. Existing curb and gutter, sidewalks and drivepads not to be removed under the contract which are damaged or displaced by the Contractor, shall be removed and replaced by the Contractor at his expense.
- 12. All work on this project shall be performed in accordance with applicable federal, state, and local laws, rules, and regulations concerning construction safety and health.
- 13. All fittings on waterlines shall have restrained joints.
- 14. The Contractor is responsible for protecting and maintaining all existing monumentation controls. In the event of in—advertent destruction or alteration, the Contractor must immediately notify the City Chief Surveyor.
- 15. PNM will provide at no cost to the City or the Contractor the required personnel for inspection or observation deemed necessary by PNM while the Contractor is exposing PNM's cables. However, the Contractor shall be charged the total cost associated with repairs to any damaged cables or for any cost associated with supporting or relocating the poles and cables during construction.
- 16. WARNING—EXISTING UTILITY LINE LOCATIONS are shown in an approximate manner only, and such lines may exist where none are shown. The location of any such existing lines is based upon information provided by the utility company, the Owner, or by others, and the information may be incomplete or may be obsolete by the time construction commences.

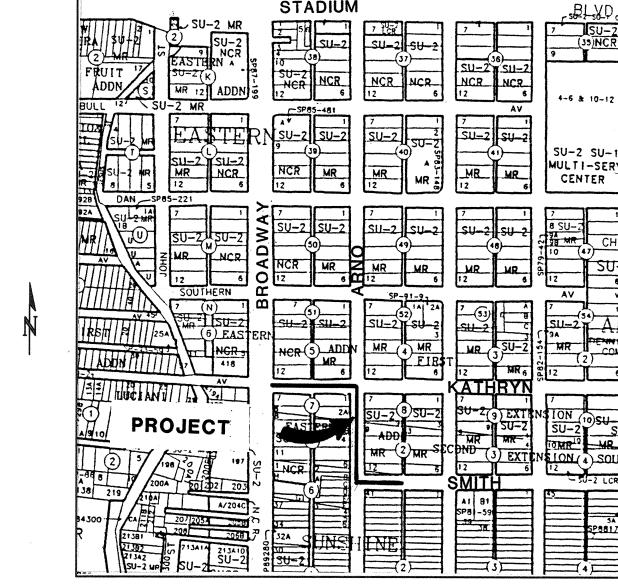
The Engineer has undertaken no field verification of the location, depth, size, or type of existing underground utility lines, makes no representation pertaining thereto, and assumes no responsibility or liability therefor. The Contractor shall inform itself of the location of any utility line in or 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. The Contractor shall comply with State statutes, municipal and local ordinances, rules and regulations pertaining to the location of these lines and facilities, in planning and conducting excavation, whether by calling or notifying the utilities, complying with "Blue Stakes" procedures, or otherwise.

- 17. All street striping altered or destroyed shall be replaced by the Contractor to existing patterns. Any such striping shall be considered incidental to pavement construction and no separate payment shall be made therefor.
- 18. Graded access for residents across the construction zone shall be maintained during construction. On residential streets, one lane of traffic must be maintained at all times.

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SHEET TITLE 1 VICINITY MAP & GENERAL NOTES 2 KATHRYN AVENUE 3 ARNO STREET 4 SMITH AVENUE 5 DETAILS 6 & 7 TRAFFIC CONTROL PLANS

- 19. The Contractor shall be responsible for notifying utilities for any adjustment or relocation of existing utilities required by construction. The Contractor may be required to reschedule his activities to allow utility crews to perform their work. No additional costs will be allowed for delays or inconvenience caused by utility company crews.
- 20. Removal of existing gas lines and installation of temporary gas service on Kathryn and Arno is required in advance of construction. The Contractor shall remove all pavement necessary for removal of existing gas lines. Contractor shall also schedule his work to allow the Gas Company to reinstall permanent gas lines and services after completion of storm drain construction but prior to repaving.
- 21. The Contractor shall confine his work within the street right—of—way. Overnight parking of the Contractor's equipment shall not obstruct access roads or traffic lanes.
- 22. The removal and replacement of all signs, posts, fences, mail boxes and road markings shall be considered incidental to storm drain line construction.
- 23. All pipe bedding shall conform to Class C bedding as defined in Section 701 of the specifications.
- 24. There shall be a minimum clearance between utility lines of 0.5 feet. Where this is not possible, two layers of 1/2" expansion joint material shall be placed between utility lines. The cost of providing and placing expansion joint material shall be considered incidental to storm drain line construction and no separate payment shall be made therefor.
- 25. All storm drain line pipe shall be reinforced concrete pipe, Class III.
- 26. All work on Broadway Boulevard shall be completed within 10 working days of 12 hours each Monday through Saturday (7:00 am to 7:00 pm).
- 27. Existing pavement scheduled for removal varies between 8 and 10— inches. Pavement thicknesses measured at potholes are given in the Pothole Information tables shown on the plan and profile sheets.
- 28. Curb returns removed shall be replaced with curb returns with Handicap Ramps.
- 29. Full street closure on Kathryn, Arno and Smith shall be limited to a maximum of 150 LF at a time.



1"=750'±

APPROVAL OF AS BUILT DRAWINGS

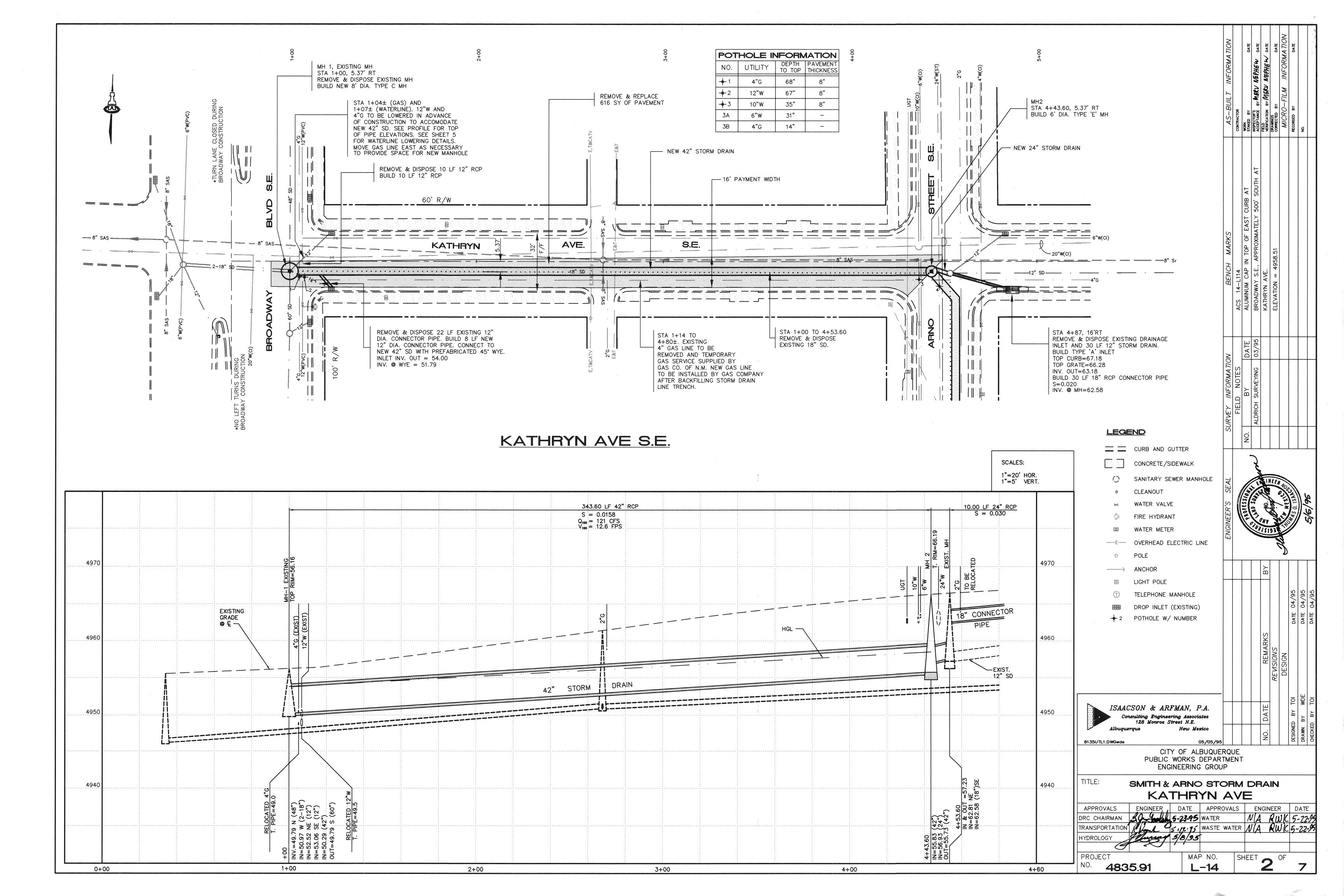
CHIEF CONSTRUCTION ENGINEER

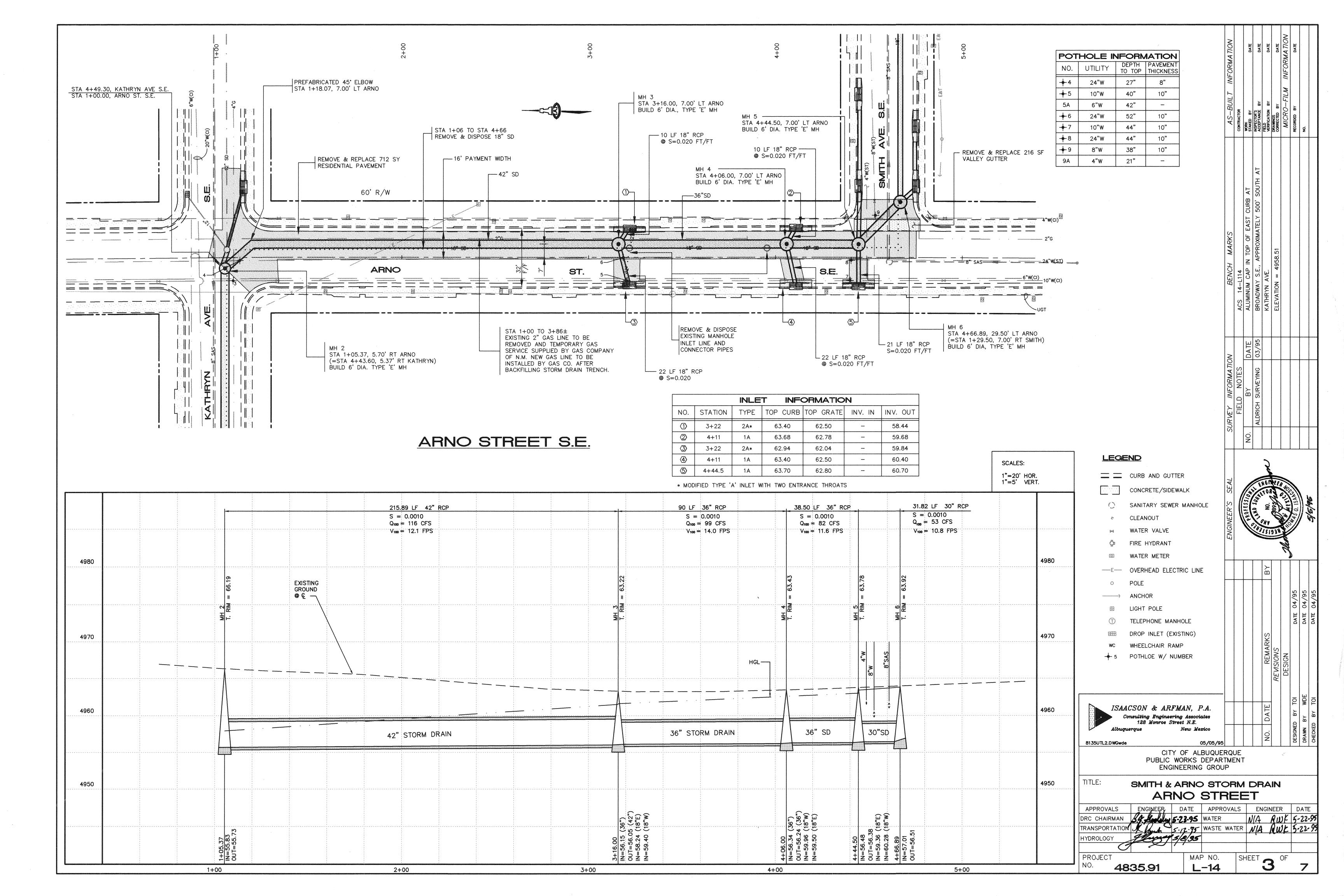
VICINITY MAP

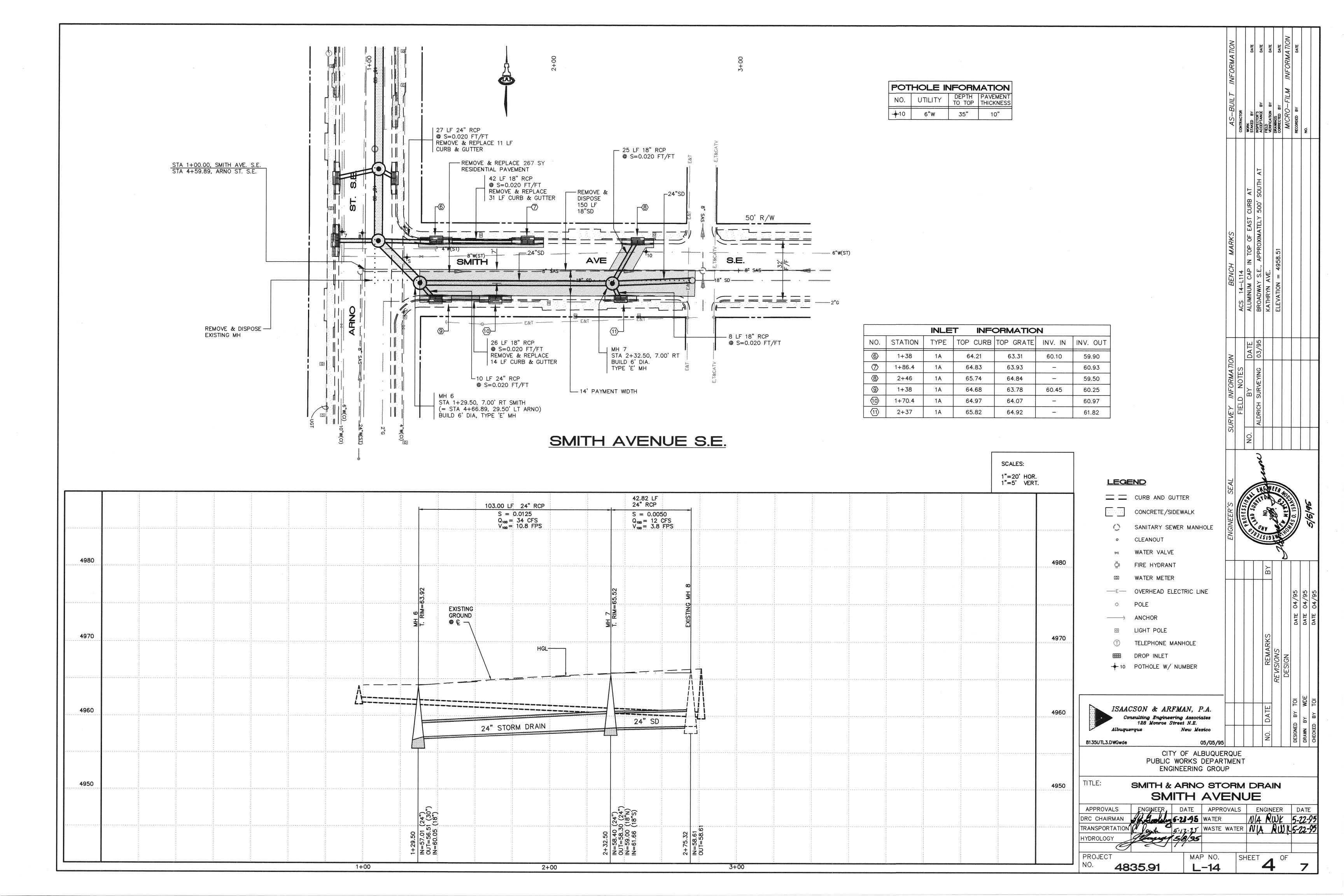
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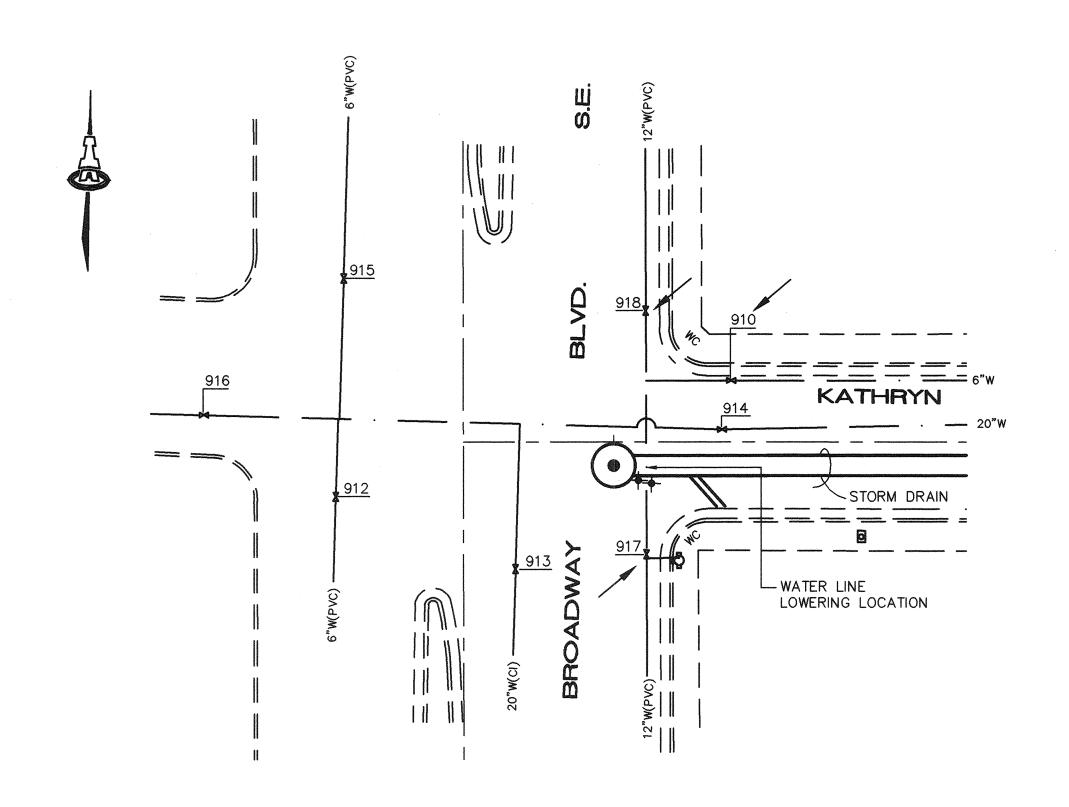
REV. SHEETS CITY ENGINEER USER DEPARTMENT USER DEPARTMENT APPROVED FOR CONSTRUCTION ISAACSON & ARFMAN, P.A. Consulting Engineering Associates 128 Monroe Street N.E. Albuquerque New Mexico 81305CVR.DWGanw 5/5/95 SHEET PROJECT NO. 4835.91 5/5/95

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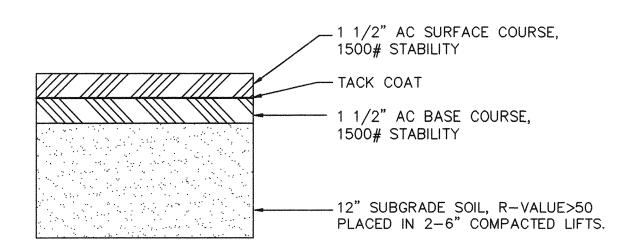




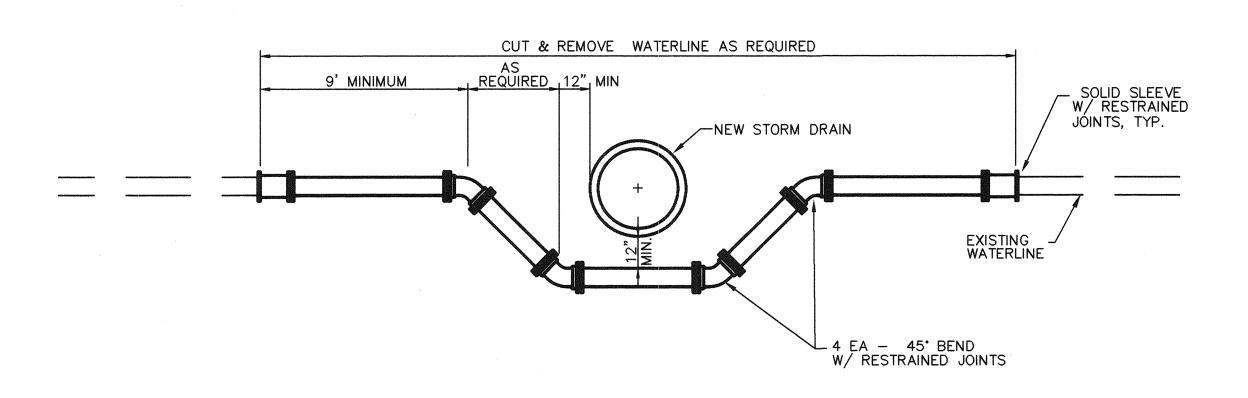
WATER SHUT-OFF PLAN
SCALE: 1"=20"

WATER SHUT-OFF NOTES:

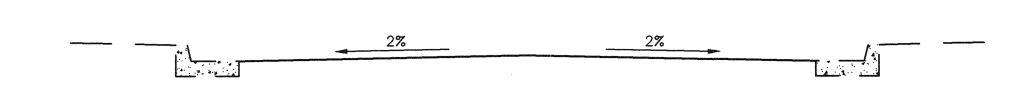
- CONTRACTOR SHALL BE RESPONSIBLE FOR TIMING AND COORDINATION OF THE WATER SHUT-OFF REQUIREMENTS IN CONJUNCTION WITH COMPLETION OF THIS PROJECT.
- AT LEAST FIVE (5) WORKING DAYS PRIOR TO CONSTRUCTION, CONTRACTOR SHALL CONTACT PWD/WATER SYSTEMS DIVISION (857-8200) TO INITIATE IMPLEMENTATION OF THIS WATER SHUTOFF PLAN.
- TO COMPLETE THE NON-PRESSURE CONNECTION SHOWN, THE EXISTING VALVES LISTED ABOVE AND MARKED WITH AN ARROW () ON THE MAP MUST BE CLOSED BY PWD/ WATER SYSTEMS PERSONNEL.



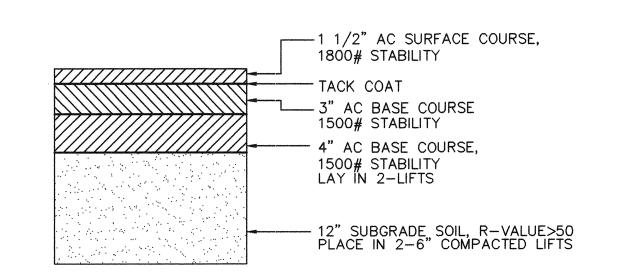
RESIDENTIAL STREET SECTION
NO SCALE



TYPICAL WATERLINE LOWERING NO SCALE



REQUIRED CROWN FOR PAVEMENT REPLACEMENT NO SCALE



ARTERIAL STREET SECTION
NO SCALE

ISAACSON & ARFMAN, P.A.

Consulting Engineering Associates
128 Monroe Street N.E.
Albuquerque

New Mexico

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

TITLE:

SMITH & ARNO STORM DRAIN
DETAILS

APPROVALS

APPROVALS

ENGINEER

DATE

APPROVALS

ENGINEER

DATE

DRC CHAIRMAN

TRANSPORTATION
HYDROLOGY

PROJECT

NO. 4835.91

MAP NO. SHEET

OF

7

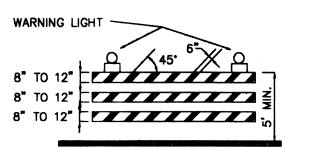
CONSTRUCTION TRAFFIC CONTROL GENERAL NOTES

- 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 MUTCO. 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. CONTRACTOR SHALL NOT BEGIN WORK BEFORE 8:30 A.M. OR END WORK AFTER 4:00 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, 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. 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.

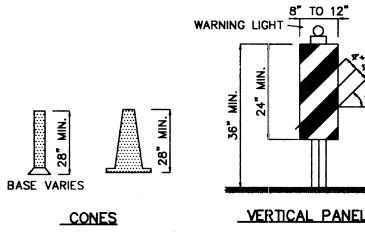
- 21. EXCAVATIONS SHALL BE PLATED, TEMPORARILY PATCHED OR RESURFACED PRIOR TO OPENING OF TRAFFIC. A MINIMUM OF 11 FEET SHALL BE PROVIDED FOR TRAFFIC IN ANY GIVEN DIRECTION. CONTRACTOR IS RESPONSIBLE FOR ANY WORK INVOLVED IN SATISFYING THESE REQUIREMENTS.
- 22. CONTRACTOR SHALL AT ALL TIMES COMPLY WITH 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. SECTION 19 OF THE CITY OF ALBUQUERQUE'S STANDARD SPECIFICATIONS FOR PUBLIC WORK CONSTRUCTION. AS WELL AS OTHER SECTIONS.
- 23. FAILURE TO COMPLY WITH ANY OF THE ABOVE MENTIONED, WILL BE ADEQUATE CAUSE TO CEASE ALL WORK ON ANY CONSTRUCTION PROJECT. WORK WILL NOT RESUME UNTIL ALL REQUIREMENTS ARE ADDRESSED AND APPROVED BY CONSTRUCTION COORDINATION.
- 24. ALL TRAFFIC CONTROL DEVICES SHALL BE KEPT IN NEW-CLEAN CONDITION. WASHING OF EQUIPMENT IS INCIDENTAL TO IT'S PLACEMENT AND MAINTENANCE.
- 25. TRAFFIC CONTROL STANDARDS APPLY ONLY WHERE THE CONSTRUCTION TRAFFIC CONTROL PLANS ARE NOT SPECIFIC.

PROJECT CONSTRUCTION TRAFFIC CONTROL GENERAL NOTES

1. 36'x34" Advance worning sign: man be used if they have supertryneering Grade sheeting or better PRfal



TYPE III BARRICADE



WARNING LIGHT

WARNING LIGHT .

8" TO 12"

8" TO 12"

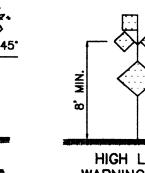
TYPE II BARRICAI

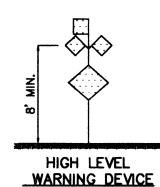
BARREL

8" TO 12"

TYPE I BARRICADE

COLLAPSIBLE





LEGEND

DAT

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

MINIMUM MAXIMUM DEVICE

35 35

50 50

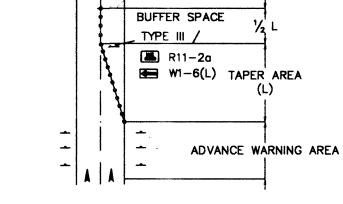
55 55

40

45

- 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.

			1		7	TAPER	REQUI	REMENT	ΓS
		TERMINAT	ION AREA	SPEED LIMIT	TA	PER LENG (FEET)	TH	MINIMUM NUMBER	MAX SPA
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m .		WORK	ZONE	20	70	75	80	5	2
ADE.				25	105	115	125	6	2
.lbc.ba	I	RHEFER SPACE	}		456	T		1	



NUMBER SPACING IN FEET OF 12' DEVICES ALONG AFTER LANE FOR TAPER TAPER TAPER 20 20 5 25 25 6 180 7 30 30 30 | 150 | 165 205 225 245 8 270 295 320 9 450 540 495 13 500 550 600 13 550 605 660 13

TRAFFIC CONTROL ELEMENTS

MILES PER HOUR	BETWEEN SIGNS	FROM LAST SIGN TO TAPER
0-20	10 X SPEED LIMIT	10 X SPEED LIMI
25-30	10 X SPEED LIMIT	10 X SPEED LIMI
30-35	10 X SPEED LIMIT	10 X SPEED LIMI

RECOMMENDED SIGN SPACING FOR

ADVANCE WARNING SIGN SERIES

MINIMUM DISTANCE IN FEET

100 FEET PER LANE

40-45 10 X SPEED LIMIT 10 X SPEED LIMIT 10 X SPEED LIMIT 10 X SPEED LIMIT

TAPER CRITERIA

UPSTREAM TAPER: MERGING TAPER SHIFTING TAPER SHOULDER TAPER TWO—WAY TRAFFIC TAPER L MINIMUM 1/2 L MINIMUM 100 FEET MAXIMUI	TIPE OF TAPER	IAPER LENGIH
SHIFTING TAPER 1/2 L MINIMUM SHOULDER TAPER 1/2 L MINIMUM	UPSTREAM TAPER:	
	SHIFTING TAPER SHOULDER TAPER	1/2 L MINIMUM 1/2 L MINIMUM

TAPER LENGTH COMPUTATION

SPEED LIMIT			
40 MPH OR LESS	L	=	WS ²

DOWNSTREAM TAPERS

45 MPH OR GREATER

L =	TAPER	LEN	GTH			
W =	WIDTH	OF	OFFS	ET IN	FEE.	Γ
S =	POSTE) SF	PEED	OR C	FF-P	EAK
	85-PE	RCE	NTILE	SPE	ED IN	MPH

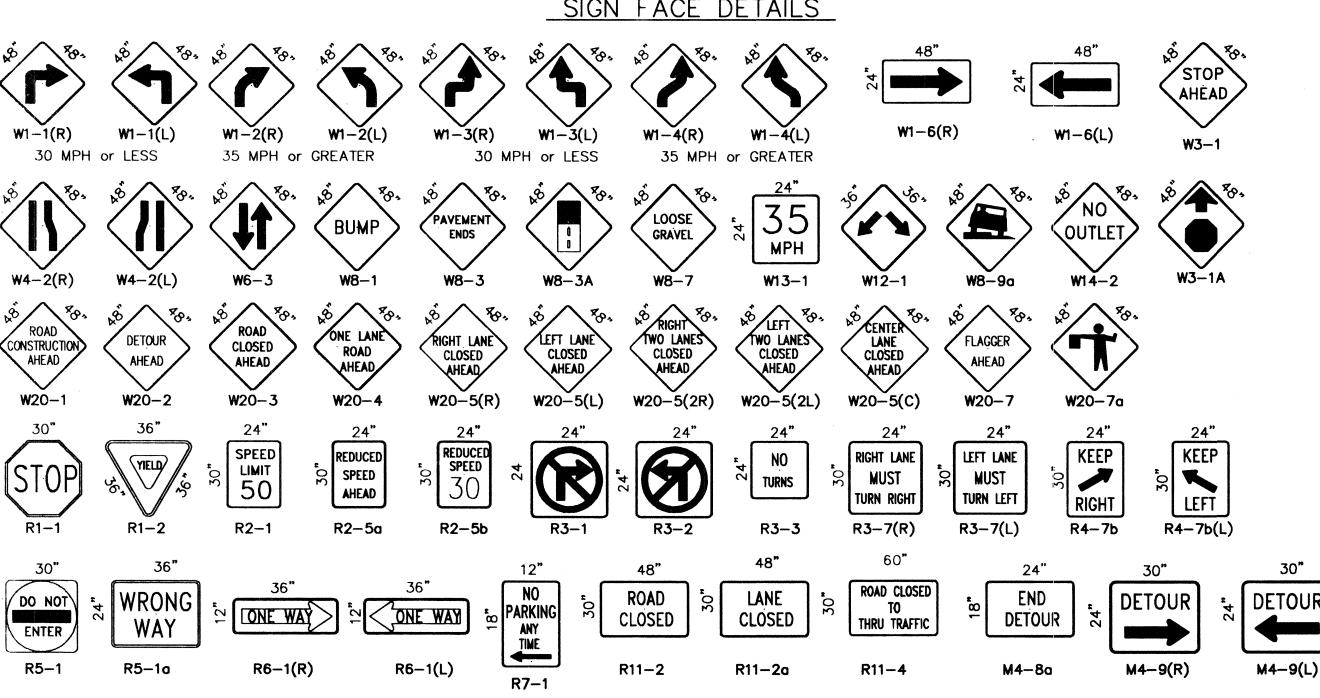
$L = \frac{WS^2}{60}$ $L = W \times S$				REM	REVISIO	DESIGN	RICARDO ROYBAL P.	CADD,- A.F.V.	
N FEET OFF-PEAK EED IN MPH				DATE			ED BY	I BY	70 01
				NO.			DESIGNED	DRAWN	יו ובער
CITY OF ALBUQUE PUBLIC WORKS DEPA ENGINEERING GR	NR'	TM	Т		·				

	CITY OF ALBUQUERQUE
	PUBLIC WORKS DEPARTMENT
	ENGINEERING GROUP
ITLE:	

SIGNING AND CONSTRUCTION TRAFFIC CONTROL STANDARDS

	PROJECT NO.	4835.91		MA NO	-	SI	HEET	6	7
•						1			
	HYDROLOGY								٠,
	TRANSPORTATION '		5.13	2.95	WASTE WA	TER	NIA	RWK	5-22-95
	DRC CHAIRMAN	B.9.4.	52	195	WATER		NA	AWK	5-22-95
	APPROVALS	ENGINEER	DAT	E	APPROVALS	3	ENGINE	EER	DATE

SIGN FACE DETAILS



ACCESS THRU TRAFFIC KEEP BE PREPARED TO TO TRAFFIC KEEP SLOW **SPECIAL** SPECIAL **SPECIAL** SPECIAL SPECIAL SIGN 20

SIGN

SIGN

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.

CDETOUR

CONSTRUCTION

G20-2

