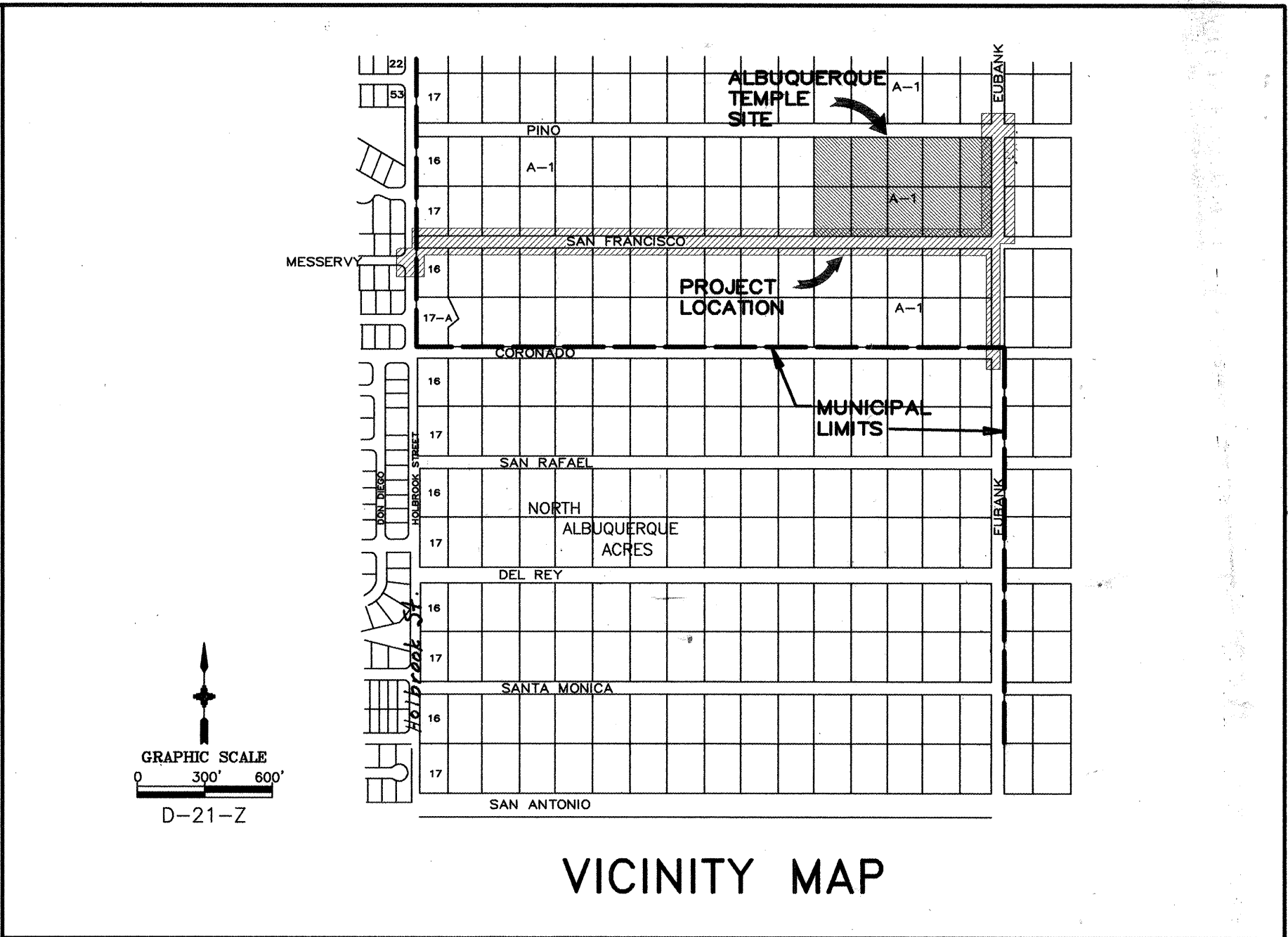


ALBUQUERQUE TEMPLE
OF THE
CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS

BERNALILLO COUNTY, NEW MEXICO

CITY WATER AND SEWER IMPROVEMENTS
SEPTEMBER, 1998

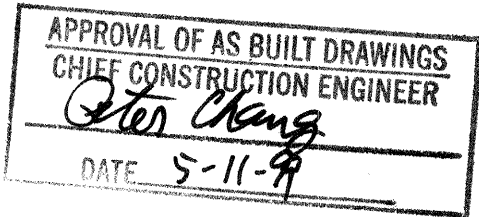


GENERAL NOTES

- ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED UNDER THIS CONTRACT SHALL, EXCEPT AS OTHERWISE STATED OR PROVIDED FROM HEREON, BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986 EDITION AS AMENDED THRU UPDATE NO. 6 (EXCEPT SECTIONS 1 THROUGH 18). COPIES OF THE CITY STANDARD SPECIFICATIONS MAY BE OBTAINED BY CALLING 924-3900. APPLICABLE COUNTY STANDARDS SHALL BE CONFORMED TO FOR WORK IN COUNTY RIGHT-OF-WAY (SAN FRANCISCO DRIVE, EUBANK BLVD).
- CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER NOT LESS THAN SEVEN (7) DAYS PRIOR TO STARTING WORK IN ORDER THAT THE ENGINEER MAY TAKE NECESSARY MEASURES TO INSURE THE PRESERVATION OF SURVEY MONUMENTS. CONTRACTOR SHALL NOT DISTURB PERMANENT SURVEY MONUMENTS WITHOUT THE CONSENT OF THE ENGINEER, AND SHALL BEAR THE EXPENSE OF REPLACING ANY THAT MAY BE DISTURBED WITHOUT PERMISSION. REPLACEMENT SHALL BE DONE ONLY BY THE CITY SURVEY SECTION. WHEN A CHANGE IS MADE IN 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 GENERAL CONDITIONS OF THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
- FIVE (5) WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT TO THE CITY CONSTRUCTION COORDINATION DIVISION A DETAILED CONSTRUCTION SCHEDULE. TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL OBTAIN A BARRICADING PERMIT FROM THE CITY CONSTRUCTION COORDINATION DIVISION. CONTRACTOR SHALL NOTIFY CITY BARRICADE ENGINEER (768-2551) AND BERNALILLO COUNTY PUBLIC WORKS DEPARTMENT (848-1523) PRIOR TO OCCUPYING AN INTERSECTION. SEE SECTION 19 OF THE SPECIFICATIONS. SEE SHEET 2 OF 8 FOR COUNTY TRAFFIC CONTROL REQUIREMENTS.
- TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE, (260-1990) FOR LOCATION OF EXISTING UTILITIES.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL OBSTRUCTIONS AND EXISTING PAVEMENT. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OR SURVEYOR SO THAT THE CONFLICT CAN BE RESOLVED WITH MINIMUM AMOUNT OF DELAY.
- THE CONTRACTOR SHALL CONTACT CITY WATER SYSTEMS DIVISION (857-8200) FIVE (5) WORKING DAYS PRIOR TO NEEDING SHUT-OFF OR TURN-ON OF VALVES. ONLY CITY WATER SYSTEMS PERSONNEL ARE AUTHORIZED TO OPERATE VALVES.
- IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT AND MAINTAIN IN SERVICE ALL EXISTING UTILITIES.
- THE CONTRACTOR SHALL ADEQUATELY SUPPORT AND PROTECT EXISTING UTILITIES AFFECTED BY THE CONTRACTOR'S EXCAVATION ACTIVITY. IN THE EVENT THAT EXISTING UTILITIES ARE DAMAGED BY THE CONTRACTOR'S OPERATIONS, THE CONTRACTOR SHALL ARRANGE FOR AND COORDINATE PROMPT REPAIR BY THE RESPECTIVE UTILITY AND SHALL BEAR THE COST OF REPAIRS.
- ALL UTILITIES AND UTILITY SERVICE LINES SHALL BE INSTALLED INSPECTED AND TESTED PRIOR TO PAVING.
- BACKFILL COMPACTION SHALL BE ACCORDING TO SPECIFIED STREET USE. MESSERVY AVE., HOLBROOK ST., SAN FRANCISCO DR.: RESIDENTIAL EUBANK BLVD.: ARTERIAL
- TACK COAT REQUIREMENTS SHALL BE DETERMINED BY THE COUNTY ENGINEER FOR EUBANK BLVD., AND BY THE CITY ENGINEER FOR MESSERVY AVE. AND HOLBROOK STREET.
- DISPOSAL OF ALL WASTE MATERIAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AS SPECIFIED IN SECTION 6.14 OF THE GENERAL CONDITIONS IN THE CITY STANDARD SPECIFICATIONS.
- CONTRACTOR SHALL MAINTAIN ACCESS TO ADJACENT PROPERTIES DURING CONSTRUCTION
- ALL STREET STRIPING ALTERED OR DESTROYED SHALL BE REPLACED BY CONTRACTOR WITH PLASTIC REFLECTORIZED PAVEMENT MARKINGS IN EXISTING STRIPING LOCATIONS UNLESS OTHERWISE INDICATED BY THIS PLAN SET.
- ANY WORK AFFECTING AN ARTERIAL ROADWAY (EUBANK BLVD.) REQUIRES 24 HOUR CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR, OR REMOVAL AND REPLACEMENT OF ANY PAVEMENT, PAVEMENT MARKINGS, CURB AND GUTTER, DRIVEPADS, SIDEWALK, WHEELCHAIR RAMP OR ANY OTHER EXISTING IMPROVEMENTS DAMAGED BY THE CONTRACTOR'S OPERATIONS.

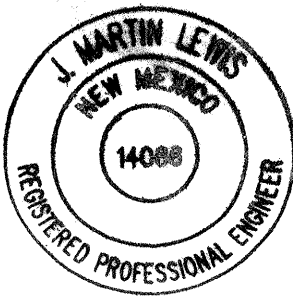
INDEX TO DRAWINGS

SHEET No.	DESCRIPTION	SHEET No.	DESCRIPTION
1	COVER SHEET	7	SIGNING & CONSTRUCTION TRAFFIC CONTROL STANDARDS
2	WATER AND SEWER NOTES AND DETAILS	8	TYPICAL TRAFFIC CONTROL & SIGNING EXAMPLES
3	CITY SEWER IMPROVEMENTS MESSERVY AVE. NE, HOLBROOK ST. NE & SAN FRANCISCO DR. NE		
4	CITY SEWER IMPROVEMENTS SAN FRANCISCO DR. NE		
5	CITY WATER & SEWER IMPROVEMENTS SAN FRANCISCO DR. NE		
6	CITY WATER IMPROVEMENTS EUBANK BLVD. NE		



RECORD DRAWINGS

I, J. Martin Lewis, hereby certify that these drawings have been revised to incorporate the as-constructed information provided by the Contractor, Albuquerque Underground, Inc.



J. Martin Lewis
N.M.P.E. No. 14068
4/21/99

UTILITY COMPANY CONTACTS

CITY OF ALBUQUERQUE
(Water & Sanitary Sewer)
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Debbie O'Callaghan
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PNM ELECTRIC
Norma Carrillo
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P.O. Box 1355, Sta. 952
Albuquerque, New Mexico 87103
(505) 761-7705

US WEST COMMUNICATIONS
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AT&T
Ishmael Pantoja
111 Third St., NW
Albuquerque, New Mexico 87103
(505) 842-2806

JONES INTERCABLE
Karen Shore
4611 Montbel Pl., NE
P.O. Box 27138
Albuquerque, NM 87125-7138
(505) 761-6220

WARNING

THE ENGINEER HAS UNDERTAKEN LIMITED 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 THEREFORE. 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.

WARNING

THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY, WHICH SHALL REMAIN ENTIRELY THE RESPONSIBILITY OF THE CONTRACTOR, BOTH DURING AND OUTSIDE OF CONSTRUCTION WORK HOURS.

WARNING

THIS DOCUMENT, AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, ARE INTENDED FOR USE ON THIS PROJECT AND IS NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF EASTERING & ASSOCIATES, INC. IN THE EVENT OF UNAUTHORIZED USE, THE USER ASSUMES ALL RESPONSIBILITY AND LIABILITY WHICH RESULTS.

REV.	SHEETS	CITY ENGINEER	DATE	USER DEPARTMENT	DATE	USER DEPARTMENT	DATE
ENGINEERS STAMP & SIGNATURE		APPROVALS	ENGINEER	DATE	*****		
		DRC CHAIR	Billy G. Johnson	10-23-98	APPROVED FOR CONSTRUCTION		
		TRANSPORTATION	R. W. Kane	10-06-98			
		WATER/WASTEWATER	R. W. Kane	10-06-98			
		HYDROLOGY	Don Calogre	10-06-98			
		CONSTR. MGMT.					
		COUNTY P.W.D.	12/1/98	10/12/98			
		Coast. Coord	N/A	10-13-98			
Easterling & Associates, Inc.		CITY PROJECT NO.		597681	SHEET OF		
2800 The American Rd., SE, Suite 100 Rm. 200, Albuquerque, NM 87124 (505) 898-8021 FAX (505) 898-8501 E-Mail: ed_engr@awps.com		COUNTY CASE NO.		CON 98 30	1 8		

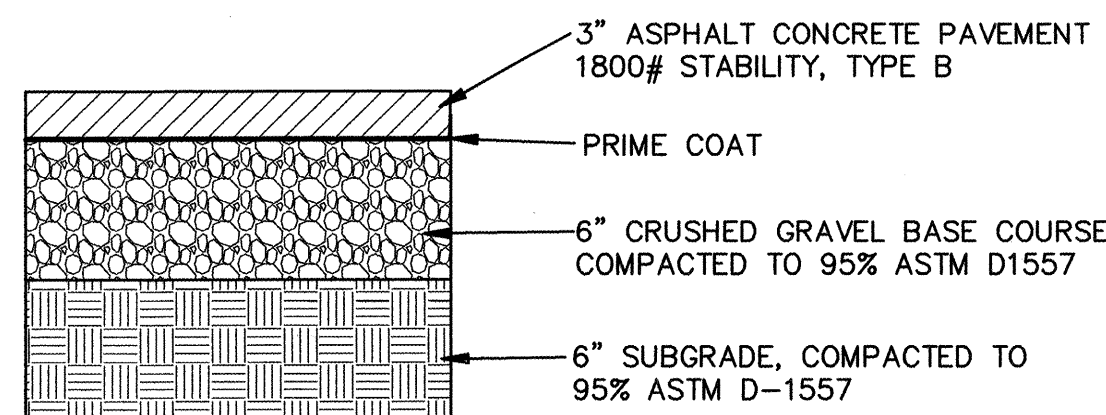
5. ALL WATERLINE STATIONING IS ALONG CENTERLINE OF STREET, OR ALONG EDGE OF R/W.
6. WATERLINE LENGTHS ARE SHOWN TO CENTERS OF FITTINGS UNLESS OTHERWISE INDICATED
7. RESTRAINED JOINTS ARE REQUIRED AT ALL WATERLINE BENDS, TEES AND CAPS. JOINT RESTRAINT LENGTHS (LR) BASED ON EBBA IRON CALCULATIONS WITH:
 - 3' DEPTH OF BURY
 - 150 PSI TEST PRESSURE
 - 1.5:1 SAFETY FACTOR
 - SM SOIL TYPE
 - TYPE 4 PIPE BEDDINGUSED 150 PSI FOR CALCULATIONS.
Lr = LENGTH TO BE RESTRAINED ON EACH SIDE OF FITTING.
8. INSTALL VALVE BOX TYPE B PER COA STD. DWG. 2336. MATCH TOP-OF-BOX ELEVATION TO FINAL ADJACENT GRADE (EITHER EXISTING OR PROPOSED, AS APPROPRIATE) UNLESS OTHERWISE NOTED ON PLANS.
9. INSTALL VALVE ANCHORAGE PER COA STD. DWG. 2333.
10. INSTALL 4 1/2" BURY FIRE HYDRANTS PER COA STD. DWG. 2340. IF SHOWN ON THE PLANS, FIRE HYDRANT INSTALLATIONS SHALL BE FULLY RESTRAINED.
11. FURNISH & INSTALL ELECTRONIC MARKER DISKS AT ALL TEES, BENDS AND CAPS.
12. WATER PIPE TRENCHING PER COA STD. DWG. 2315. WATER TRENCH BACKFILL COMPACTION SHALL BE TO 90% ASTM D-1557, EXCEPT THE UPPER 12" OF FINAL BACKFILL, WHICH SHALL BE COMPACTED TO 95% ASTM D-1557.
13. INSTALL DOMESTIC & IRRIGATION SERVICE LINES AND CAPS PER COA STD. DWGS AS FOLLOWS
3/4" - 1" SERVICE : STD. DWG. 2362
1 1/2" - 2" SERVICE : STD. DWG. 2363
METER BOXES & METERS WILL BE INSTALLED BY OTHERS. (NIC)
14. PAVEMENT CUTS FOR THE INSTALLATION OF NEW WATER & SEWER LINES SHALL BE PER COA STD. DWG. 2465. ASPHALT PAVEMENT REPLACEMENT IN MESSURVY AVE. AND HOLBROOK ST. (CITY) SHALL BE PER COA STD. DWG. 2465 FOR RESIDENTIAL STREETS. ASPHALT PAVEMENT REPLACEMENT IN EUBANK BLVD. (COUNTY) SHALL BE PER THE PAVEMENT REPLACEMENT DETAIL HEREON.
15. PUBLIC WATER MAINS SHALL BE AT LEAST 18" ABOVE PUBLIC SEWER MAINS AT CROSSING. IF 18" CLEARANCE CANNOT BE MAINTAINED, ENCASE SEWER LINE PER COA STD. DWG. 2140.
16. WHERE TOTAL VERTICAL PIPE DEFLECTIONS ARE INDICATED ON THE PLANS, DISTRIBUTE THE DEFLECTION EVENLY AMONG THE JOINTS WITHIN THE REACH. DO NOT EXCEED MANUFACTURERS' MAXIMUM ALLOWABLE JOINT DEFLECTIONS.
17. FOR PAYMENT PURPOSES, TRENCH DEPTH SHALL BE CALCULATED FROM FINISH GRADE AT THE ROADWAY TO THE PIPE INVERT, WHERE FINISH GRADE AND PIPE INVERT ARE AS SHOWN ON THESE PLANS. WHERE FINISH GRADE IS THE SAME AS EXISTING GROUND, TRENCH DEPTH SHALL BE CALCULATED FROM EXISTING GROUND TO THE PIPE INVERT, AS SHOWN ON THE PLANS.
18. RESTORE ALL AREAS DISTURBED BY TRENCHING TO EXISTING GRADE, AND TO EXISTING CONDITION OR BETTER. THIS WORK SHALL BE INCIDENTAL TO TRENCHING, BACKFILL & COMPACTION. IMPORT, PLACEMENT & COMPACTION OF ADDITIONAL BACKFILL MATERIAL (AS REQUIRED) TO BRING TRENCHES BACK TO EXISTING GRADE SHALL BE INCIDENTAL TO CONSTRUCTION.

1. THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN TO THE COUNTY TRAFFIC CONTROL MANAGER AT LEAST 48 HOURS PRIOR TO COMMENCEMENT OF WORK. TRAFFIC CONTROL PLANS SHALL BE PREPARED IN ACCORDANCE WITH MUTCD REQUIREMENTS AND BY CERTIFIED PERSONNEL AND MUST BE APPROVED PRIOR TO COMMENCEMENT OF WORK ON THE PROJECT. CALL 848-1500 FOR FURTHER INFORMATION.
2. SUBJECT TO THE APPROVED TRAFFIC CONTROL PLAN, AT LEAST ONE LANE SHALL BE OPEN TO TRAFFIC AT ALL TIMES. CONTRACTOR SHALL PROVIDE PROPER SIGNAGE AND FLAGMEN AND SHALL MAINTAIN THE TRAFFIC LANES IN SUCH A MANNER AS TO ASSURE PROPER SAFETY TO THE TRAVELING PUBLIC ON ALL AFFECTED ROADS. THE CONTRACTOR SHALL PROVIDE ACCESS TO ALL PRIVATE AND PUBLIC PROPERTY AT ALL TIMES, EXCEPT WHEN GRADING, PAVING, EXCAVATION AND BACKFILL OPERATIONS ARE BEING CONDUCTED IMMEDIATELY IN FRONT OF THE PROPERTY, IN WHICH CASE ACCESS WILL NOT BE DENIED FOR MORE THAN 4 HOURS WITHOUT APPROVAL BY THE COUNTY.
3. TRAFFIC LANES PROVIDED DURING CONSTRUCTION SHALL BE MAINTAINED, IN SUCH A CONDITION UNDER ALL WEATHER CONDITIONS, SO AS TO PERMIT THE REASONABLE PASSAGE OF PASSENGER VEHICLES, AND SHALL BE KEPT GRADED AND SMOOTH, AND WATERED SEVERAL TIMES DAILY TO CONTROL DUST.
4. A DAILY TRAFFIC CONTROL LOG SHALL BE MAINTAINED BY THE CONTRACTOR REFLECTING THE TYPES AND LOCATIONS OF ALL TRAFFIC CONTROL DEVICES, SIGNS, BARRICADES, ETC. BEING USED ON THE PROJECT IN COMPLIANCE WITH THE APPROVED TRAFFIC CONTROL PLAN. THIS LOG SHALL BE SUBMITTED TO THE BERNALILLO COUNTY TRAFFIC CONTROL MANAGER UPON COMPLETION OF THE PROJECT CONSTRUCTION OR WHEN SO REQUESTED BY THE PROJECT OR THE BERNALILLO COUNTY TRAFFIC CONTROL MANAGER.
5. ALL NEW STREET PAVING ADJUTING EXISTING AREAS SHALL MATCH THE ELEVATIONS OF THOSE AREAS.
6. CONTRACTOR SHALL PROVIDE TWO COPIES OF A WEEKLY CONSTRUCTION ACTIVITY SCHEDULE TO BERNALILLO COUNTY PUBLIC WORKS DEPARTMENT, ATTN: HOSS FOSTER AND TRAFFIC ENGINEERING MANAGER.
7. PROJECT IS SUBJECT TO THE REQUIREMENTS OF COUNTY ORDINANCE No's. 96-3, 95-12, AND NO. 83-28. THE CONTRACTOR IS RESPONSIBLE FOR ACQUIRING ALL PERMITS NECESSARY. CONTRACTOR SHALL CALL 848-1520 FOR MORE INFORMATION.
8. TWO-WAY TRAFFIC MUST BE MAINTAINED ON EUBANK BLVD. DURING THE HOURS OF 6:00 AM TO 9:00 AM AND 4:00 PM TO 7:00 PM, MONDAY THROUGH FRIDAY.
9. THE CONTRACTOR SHALL FILE A WEEKLY WRITTEN REPORT TO THE TRAFFIC CONTROL MANAGER DESCRIBING THE TRAFFIC CONTROL PLAN THAT WILL BE IN EFFECT FOR THE FOLLOWING WEEK.
10. TWO FLAGMEN MUST BE PRESENT AT ALL TIMES DURING LANE CLOSURES OR ONE-WAY TRAFFIC SITUATIONS.
11. SEE SHEET 8 FOR TRAFFIC CONTROL GENERAL NOTES FOR WORK IN CITY RIGHT-OF-WAY (MESSERVY AVE. & HOLBROOK ST.)

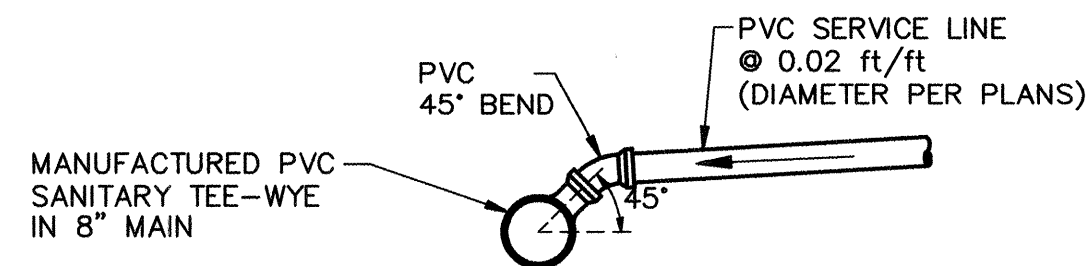


1. CONTRACTOR SHALL IDENTIFY AND NOTIFY ALL AFFECTED WATER USERS TWO WEEKS PRIOR TO PROPOSED WATER SHUTOFF TO COORDINATE SHUTOFF. CONTRACTOR SHALL NOTIFY ALL AFFECTED WATER USERS AGAIN, TWO DAYS PRIOR TO ACTUAL SHUTOFF.
2. CONTRACTOR SHALL CONSTRUCT, TEST, DISINFECT AND FLUSH NEW WATERLINE PRIOR TO CONNECTION TO EXISTING WATER SYSTEM.
3. CONTRACTOR SHALL COORDINATE WITH THE CITY WATER SYSTEM DIVISION (857-8200) 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 AND USERS. ONLY WATER SYSTEM DIVISION PERSONNEL SHALL OPERATE EXISTING VALVES.
4. CITY WATER SYSTEM DIVISION PERSONNEL SHALL SHUT OFF VALVES SHOWN ABOVE FOR NEW WATERLINE CONNECTION IN EUBANK BLVD.

1. ALL SEWERLINE STATIONING IS ALONG CENTERLINE OF STREET.
2. SEWERLINE LENGTHS ARE TO MANHOLE BARREL CENTERS OR CENTERS OF FITTINGS UNLESS OTHERWISE INDICATED.
3. FURNISH & INSTALL ELECTRONIC MARKER DISKS AT ENDS OF SERVICE STUBS PER COA STD. DWG. 2145.
4. ADJUST MANHOLE COVERS TO FINAL ADJACENT GRADE.
5. INSTALL SEWER SERVICES PER DETAIL THIS SHEET.
6. SEWER TRENCH BACKFILL COMPACTION SHALL BE TO 90% ASTM D-1557, EXCEPT THE UPPER 12" OF FINAL BACKFILL, WHICH SHALL BE COMPACTED TO 95% ASTM D-1557.
7. FOR PAYMENT PURPOSES, TRENCH DEPTH SHALL BE CALCULATED FROM FINISH GRADE AT THE ROADWAY Q TO THE PIPE INVERT, WHERE FINISH GRADE AND PIPE INVERT ARE AS SHOWN ON THESE PLANS. WHERE FINISH GRADE IS THE SAME AS EXISTING GROUND, TRENCH DEPTH SHALL BE CALCULATED FROM EXISTING GROUND TO THE PIPE INVERT, AS SHOWN ON THE PLANS.
8. RESTORE ALL AREAS DISTURBED BY TRENCHING TO EXISTING GRADE, AND TO EXISTING CONDITION OR BETTER. THIS WORK SHALL BE INCIDENTAL TO TRENCHING, BACKFILL & COMPACTION, IMPORT, PLACEMENT & COMPACTION OF ADDITIONAL BACKFILL MATERIAL (AS REQUIRED) TO BRING TRENCHES BACK TO EXISTING GRADE. SHALL BE INCIDENTAL TO CONSTRUCTION.



NOTE: PAVEMENT REPLACEMENT FINISH GRADES SHALL MATCH EXISTING PAVEMENT GRADES.



NTS

SIZE, PIPE, FITTING	SOIL/BEDDING TRENCH TYPE	T.PRESSURE/S.F.ACTOR & DEPTH OF BURY (D.O.B.)	RESTRAINED LENGTH(S) (EACH SIDE OF FITTING)
12" DIP 45° H. BEND	SM/NATIVE TRENCH TYPE 4	150 PSI TEST/1.5 S.F. 3' D.O.B.	$L_r = 12'$
16" DIP 45° H. BEND	SM/NATIVE TRENCH TYPE 4	150 PSI TEST/1.5 S.F. 3' D.O.B.	$L_r = 16'$ MIN.
DIP TEE 16" RUN x 4", 8" & 10" BRANCH	SM/NATIVE TRENCH TYPE 4	150 PSI TEST/1.5 S.F. 3' D.O.B.	$L_{br} =$ RESTRAIN BRANCH @ FTG. ONLY
VALVE/D. END 10"	SM/NATIVE TRENCH TYPE 4	150 PSI TEST/1.5 S.F. 3' D.O.B.	$L_r = 55'$
VALVE/D. END 12"	SM/NATIVE TRENCH TYPE 4	150 PSI TEST/1.5 S.F. 3' D.O.B.	$L_r = 65'$
VALVE/D. END 16"	SM/NATIVE TRENCH TYPE 4	150 PSI TEST/1.5 S.F. 3' D.O.B.	$L_r = 83'$

1. JOINT RESTRAINTS SHALL BE CONSIDERED INCIDENTAL TO ALL WATERLINES, AND NO ADDITIONAL PAYMENT SHALL BE MADE.
2. RESTRAIN HYDRANT LEGS FROM MAIN TO HYDRANT
 L_r = LENGTH TO BE RESTRAINED ON EACH SIDE OF FITTING
 L_{br} = LENGTH OF RESTRAINT ON BRANCH SIDE OF FITTING

[illegible]

RECORD DRAWING

I, J. Martin Lewis, hereby certify that that this drawing has been revised to incorporate the as-constructed information provided by the Contractor, Albuquerque Underground, Inc.

(P.W.)

J. Martin Lewis
J. Martin Lewis
N.M.P.E. No. 14068

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N.M.P.E. No. 14068

Easterling & Associates, Inc.

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2600 American Rd. SE Suite 100
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(505) 898-8021 FAX (505) 898-8501

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP

ALBUQUERQUE TEMPLE
CITY WATER AND SEWER IMPROVEMENTS
WATER & SEWER NOTES AND DETAILS

DESIGN REVIEW COMMITTEE APPROVE OCT 23 1998 DESIGN REVIEW COMMITTEE		CITY ENGINEER APPROVAL 		LAST DESIGN UPDATE 	Mo./DAY/YR. 		Mo./DAY/YR. 	
CITY PROJECT No.		COUNTY CASE No.			ZONE MAP NO.		SHEET	
597681		CON 98 30			D-21		2 OF 8	

SCANNED BY
MESA REPRO

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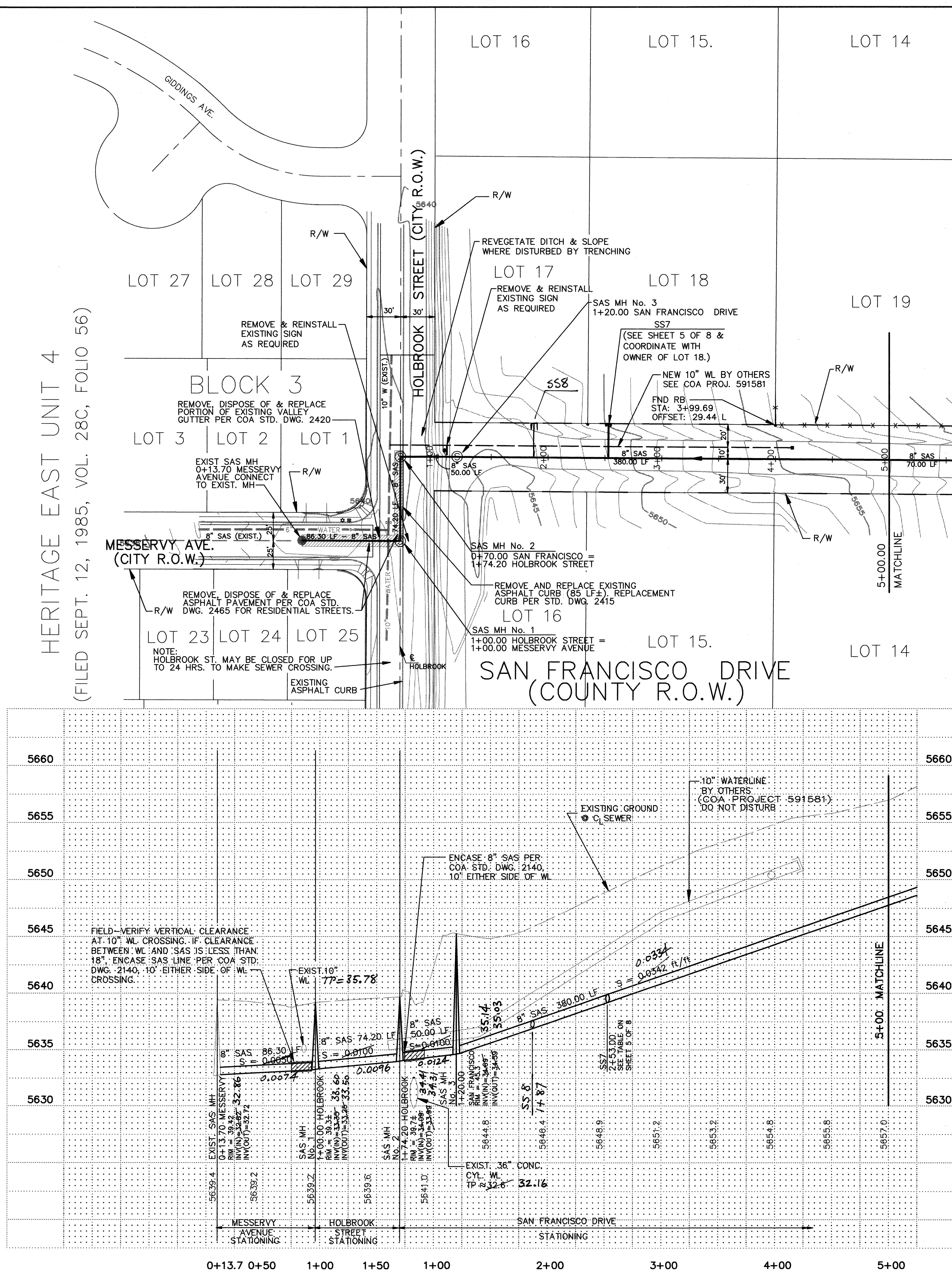
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TIME: 09-21-98 11:48:06

EASTERLING &
ASSOCIATES

DWG: FRSCOPP.DWG
TIME: 08-05-98 08:02:20

SCANNED BY
MESA REPRO

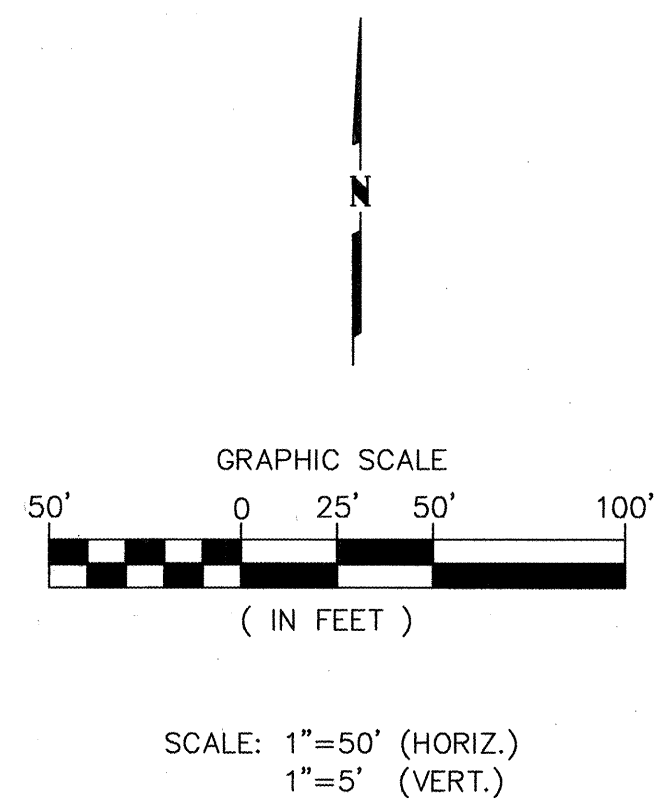
HERITAGE EAST UNIT 4
(FILED SEPT. 12, 1985, VOL. 28C, FOLIO 56)



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J. Martin Lewis
N.M.P.E. No. 14068
4/21/99

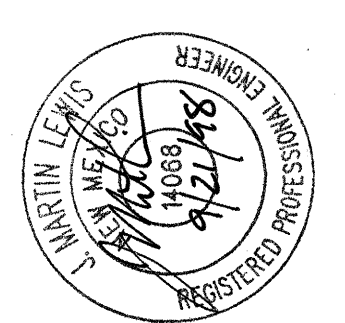
NOTE:
SEE SHEET 2 FOR WATER & SEWER
CONSTRUCTION NOTES.

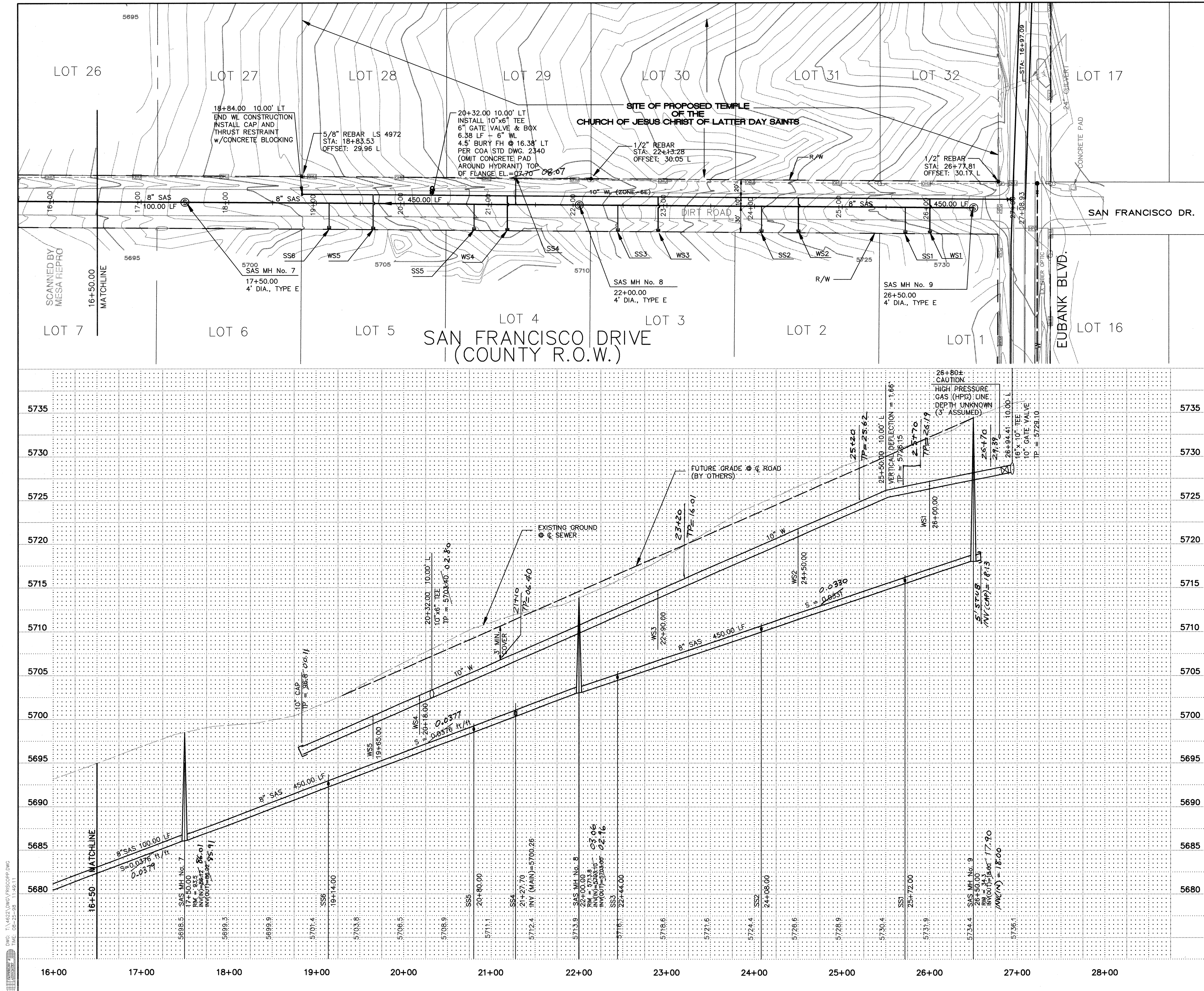


Easterling & Associates, Inc.
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(505) 898-8021 FAX (505) 898-8501

CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP	
ALBUQUERQUE TEMPLE CITY SEWER IMPROVEMENTS	
MESSERVY AVE. NE, HOLBROOK ST. NE & SAN FRANCISCO DR. NE	
DESIGN REVIEW COMMITTEE OCT 23 1998 DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL Mo./DAY/YR. Mo./DAY/YR.
CITY PROJECT No. 597681	COUNTY CASE No. CON 98 30
ZONE MAP No. D-21	SHEET 3 OF 8

SURVEY INFORMATION		BENCH MARKS		AS BUILT INFORMATION	
NO.	DATE	PROJECT	BENCHMARK	CONTRACTOR	DATE
		ALBUQUERQUE CONTROL SYSTEM "7D21"		ALB. UNDERGROUND	2/99
		LOCAL COORDINATE SYSTEM		INSPECTOR'S	DATE
		X=18136.57		FIELD	4/99
		Y=16358.55		VERIFICATION BY	DATE
		Z=5742.75		CITY	4/99
				CORRECTED BY	DATE
				EASTERLING	4/99
				MICRO-FILM INFORMATION	
				RECORDED BY	DATE
				NO.	

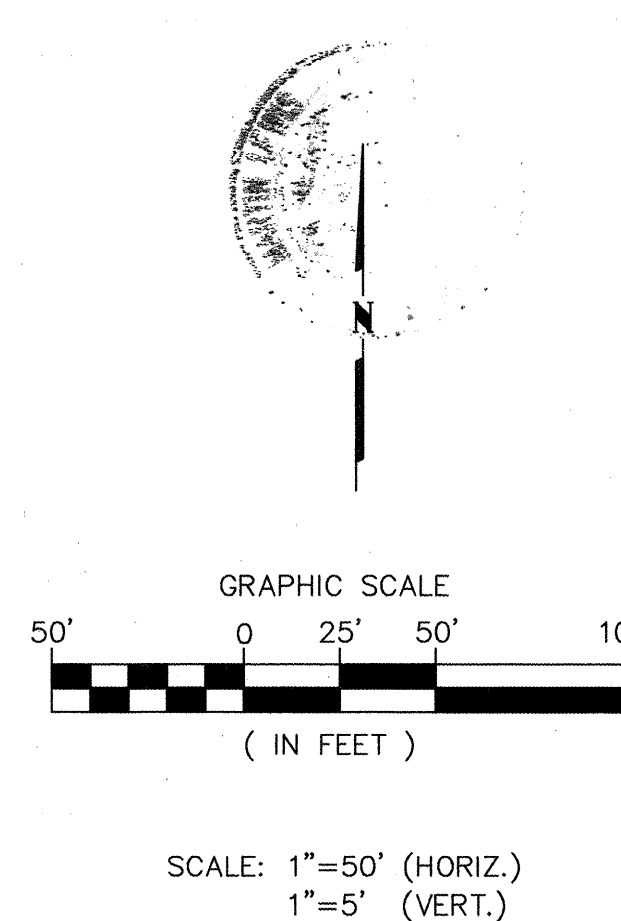




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4/2/99
J. Martin Lewis
N.M.P.E. No. 14068

NOTE:
SEE SHEET 2 FOR WATER & SEWER
CONSTRUCTION NOTES.

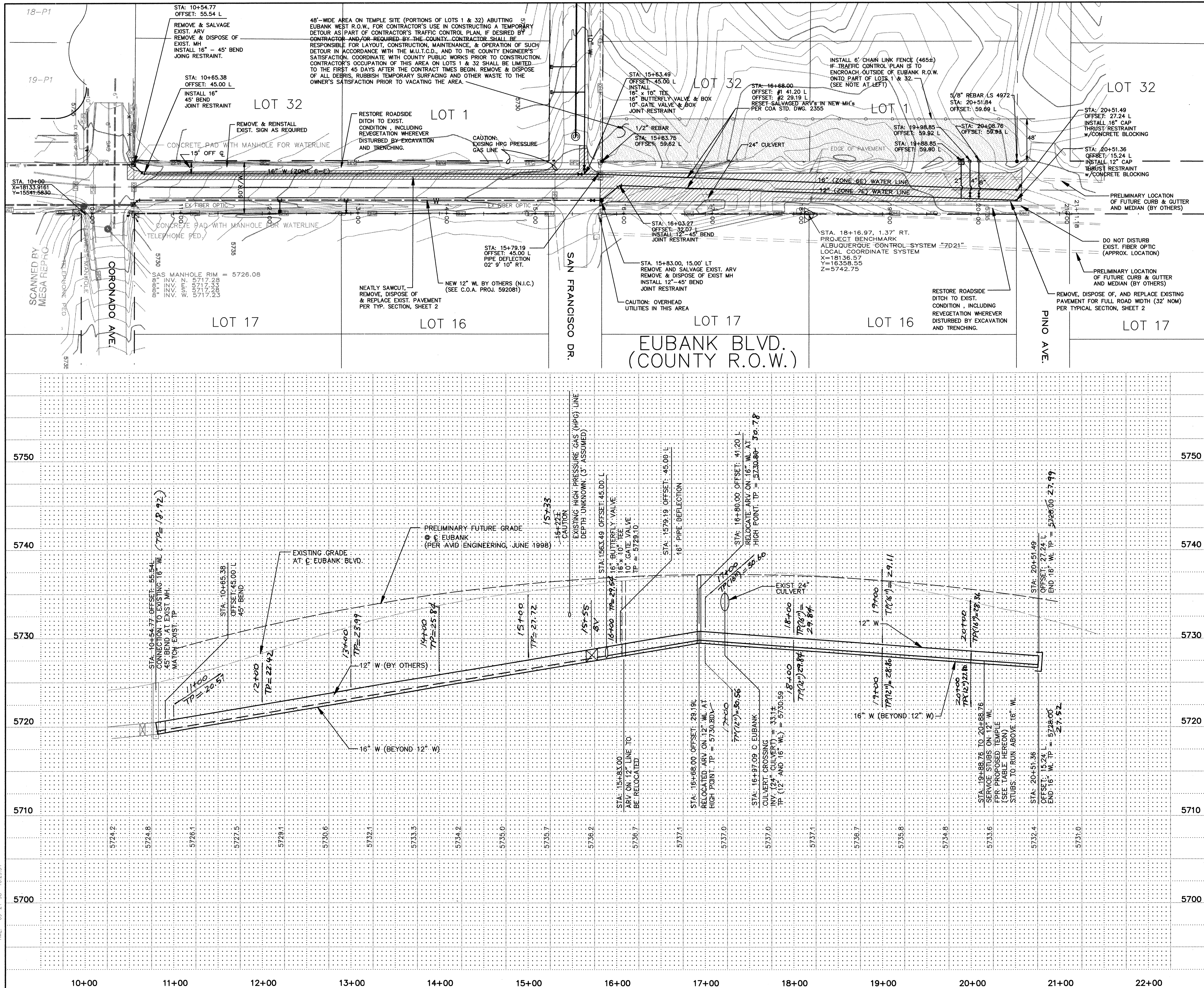


SEWER SERVICE KEY (SSX)			
SERVICE NUMBER	STATION	DIAMETER	INV. @ CAP
SS1	25+72.00 RT	4"	17-01.17.02
SS2	24+08.00 RT	4"	11-58.13.62
SS3	22+44.00 RT	4"	06-16.6.02
SS4	21+27.80 LT	6"	01-32.2.45
SS5	20+80.00 RT	4"	00-13.0.08
SS6	19+14.00 RT	4"	93-98.73.68
SS7	2+53.00 LT	4"	42-00.42.04
SS8	1+87 LT	4"	41.80

WATER SERVICE KEY (WSX)		
SERVICE NUMBER	STATION	DIAMETER
WS1	26+50.00 RT	1"
WS2	24+50.00 RT	1"
WS3	22+90.00 RT	1"
WS4	20+18.00 RT	1"
WS5	19+65.00 RT	1"

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CONSULTING ENGINEERS
2600 The American Rd., SE, Suite 100
Rio Rancho, New Mexico 87124
(505) 898-8021 FAX (505) 898-8501

CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP			
ALBUQUERQUE TEMPLE CITY WATER AND SEWER IMPROVEMENTS SAN FRANCISCO DR. NE			
DESIGN REVIEW COMMITTEE OCT 23 1998	CITY ENGINEER APPROVAL	Mo./DAY/YR.	Mo./DAY/YR.
LAST DESIGN UPDATE			
CITY PROJECT No.	COUNTY CASE No.	ZONE MAP No.	SHEET OF
597681	CON 98 30	D-21	5 OF 8

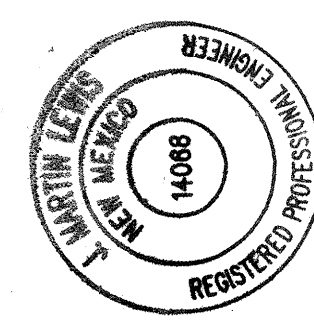


WATER SERVICE STUBS FOR TEMPLE			
SERVICE TYPE	STATION	PIPE SIZE	LENGTH
DOMESTIC	20+08.76	4"	43.1'
FIRE PROTECTION	19+98.76	8"	42.7'
IRRIGATION	19+88.76	2"	42.3'

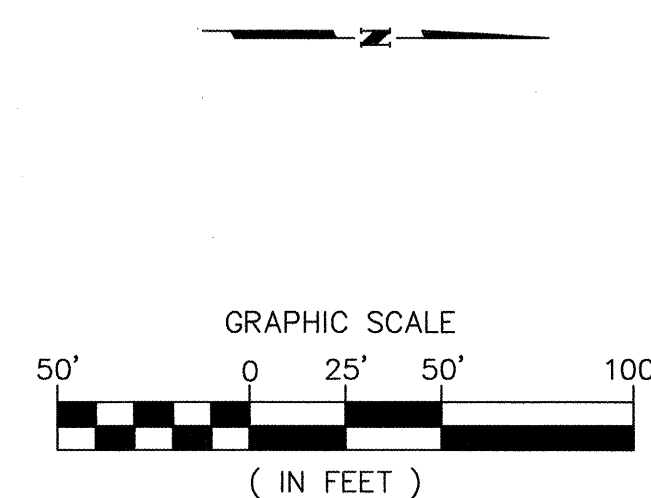
RECORD DRAWING

I, J. Martin Lewis, hereby certify that this drawing has been revised to incorporate the as-constructed information provided by the Contractor, Albuquerque Underground, Inc.

4/21/99



NOTE:
SEE SHEET 2 FOR WATER & SEWER CONSTRUCTION NOTES.



SCALE: 1"=50' (HORIZ.)
1"=5' (VERT.)

Easterling & Associates, Inc.
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CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP

ALBUQUERQUE TEMPLE
CITY WATER IMPROVEMENTS
EUBANK BLVD.



CITY ENGINEER APPROVAL

CITY PROJECT No. COUNTY CASE No. ZONE MAP No.
597681 CON 98 30 D-21

AS BUILT INFORMATION			
CONTRACTOR	ALB. UNDERGROUND	PROJECT BENCHMARK	"7D21"
INSPECTOR	STANLEY	ALBUQUERQUE CONTROL SYSTEM	
FIELD ENGINEER	CITY	LOCAL COORDINATE SYSTEM	
DATE	4/99	X=18136.57	
CITY		Y=16358.55	
DATE	4/99	Z=5742.75	
MICRO-FILM INFORMATION			
RECORDED BY		DATE	
NO.			

SURVEY INFORMATION			
FIELD NOTES		DATE	
NO.	BY		

ENGINEER'S SEAL			
NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	
DESIGNED BY	JML	DATE 9-98	
DRAWN BY	RLS	DATE 9-98	
CHECKED BY	JML	DATE 9-98	

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.

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.

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.

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.

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.

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.

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.

15. CONTRACTOR IS RESPONSIBLE FOR OBLITERATION OF ANY CONFLICTING STRIPING AND RESPONSIBLE FOR ALL TEMPORARY STRIPING.

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.

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.

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.

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

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



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

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

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

<u>TYPE OF TAPER</u>	<u>TAPER LENGTH</u>
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

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

 W1-1(R) 30 MPH or LESS	 W1-1(L) 30 MPH or LESS	 W1-2(R) 30 MPH or GREATER	 W1-2(L) 30 MPH or GREATER	 W1-3(R) 30 MPH or LESS	 W1-3(L) 30 MPH or LESS	 W1-4(R) 30 MPH or GREATER	 W1-4(L) 30 MPH or GREATER	 W1-6(R)	 W1-6(L)	 W3-1		
 W4-2(R)	 W4-2(L)	 W8-3	 W8-1	 W8-3	 W8-3A	 W8-7	 W13-1	 W12-1	 W8-9a	 W14-2	 W3-1A	
 W20-1	 W20-2	 W20-3	 W20-4	 W20-5(R)	 W20-5(L)	 W20-5(2R)	 W20-5(2L)	 W20-5(C)	 W20-7	 W20-7a	 W1-4bR	 W1-4bL
 R1-1	 R1-2	 R2-1	 R2-5a	 R2-5b	 R3-1	 R3-2	 R3-3	 R3-7(R)	 R3-7(L)	 R4-7b	 R4-7bL	
 R5-1	 R5-1a	 R8-1(R)	 R8-1(L)	 R7-1	 R11-2	 R11-2a	 R11-4	 M4-8a	 M4-9(R)	 M4-9(L)		
 SPECIAL SIGN 10	 SPECIAL SIGN 20	 SPECIAL SIGN 30	 SPECIAL SIGN 50	ALL CONSTRUCTION WARNING SIGNS SHALL HAVE A BLACK LEGEND ON A ORANGE BACKGROUND.				 M4-10(R)	 M4-10(L)	 G20-2		

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

**SPECIAL
SIGN
10**

**SPECIAL
SIGN
20**

**SPECIAL
SIGN
30**

**SPECIAL
SIGN
50**

G20-2

TITLE:	ALBUQUERQUE TEMPLE SIGNING AND CONSTRUCTION TRAFFIC CONTROL STANDARDS
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DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL	MO./DAY/YR.	MO./DAY/YR.
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DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL	DATE		
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[illegible]

CPW Standard	UPL

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CLAS		

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PROJECT	507681	MAP	2034	SHEET	OF	8
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NO.	397601	NO.	D-21	7	8
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