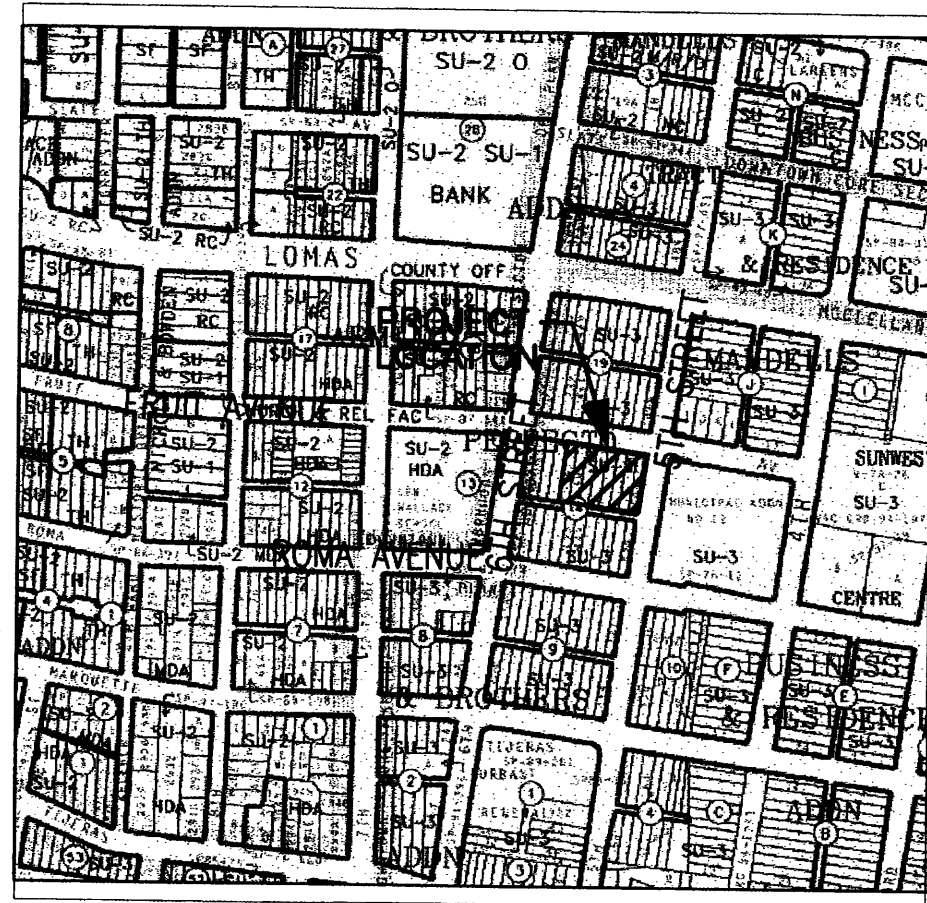


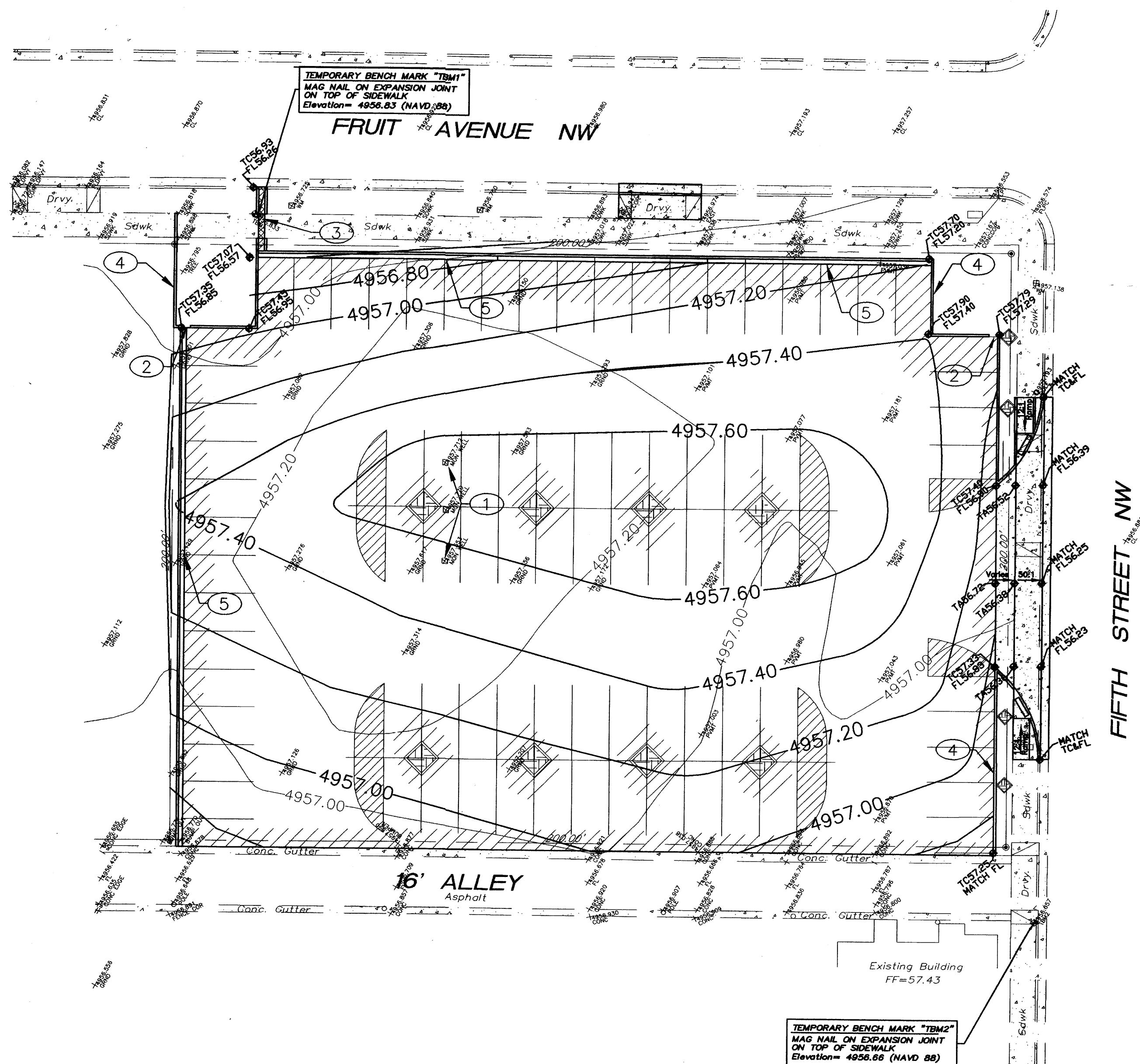
FIRM MAP 35001C0334D

SCALE: N.T.S.



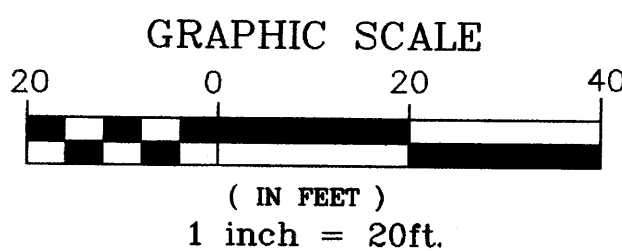
VICINITY MAP J-14

SCALE: N.T.S.



DRAINAGE AND GRADING PLAN

SCALE: 1" = 20'



#### DRAINAGE PLAN

THE FOLLOWING ITEMS CONCERN THE RECONSTRUCTION OF AN EXISTING PARKING LOT AT THE SOUTHWEST CORNER OF FIFTH STREET NW AND FRUIT AVENUE NW, ALBUQUERQUE, NEW MEXICO. THE FOLLOWING INFORMATION CONTAINED HEREON IS AS FOLLOWS:

1. DRAINAGE CALCULATIONS
2. VICINITY MAP J-14
3. FLOOD INSURANCE RATE MAP 35001C0334D

#### EXISTING CONDITIONS

AS SHOWN BY THE VICINITY MAP, THE SITE IS LOCATED ON THE SOUTHWEST CORNER OF FIFTH STREET NW AND FRUIT AVENUE NW. THE PARCEL'S LEGAL DESCRIPTION IS LOTS 448-455, BLOCK 14, PERFECTO ARMIJO & BRO'S ADDITION, BERNALILLO COUNTY, NEW MEXICO. THE PROPERTY IS BOUNDED ON THE SOUTH BY A CITY IMPROVED ALLEY, ON THE EAST BY FIFTH STREET NW, ON THE NORTH BY FRUIT AVENUE NW AND ON THE WEST BY A GRAVELLED PARKING LOT. THIS SITE CONTAINS APPROXIMATELY 0.65 ACRES AND THE EAST HALF OF THE LOT IS CURRENTLY PAVED WITH DETERIORATED ASPHALT AND THE WESTERN HALF WITH GRAVEL.

THE SOUTH HALF OF THE EXISTING PARKING LOT DRAINS TO THE SOUTH AND INTO THE EXISTING PAVED ALLEY WHICH IT THEN WILL FLOW WEST INTO SIXTH STREET NW. THE NORTH HALF CURRENTLY DRAINS TOWARDS FRUIT AVENUE AND FLOWS WEST ON FRUIT AVENUE TOWARDS SIXTH STREET NW.

THE SITE IS CURRENTLY NOT IN A DESIGNATED 100-YEAR FLOODPLAIN PER FIRM MAP 35001C0334D

#### PROPOSED CONDITIONS

AS SHOWN BY THE PLAN THE PROPOSAL IS TO REMOVE THE EXISTING ASPHALT PAVING AND GRAVEL AND ADD ADDITIONAL SURGRADE MATERIAL ALONG WITH NEW ASPHALT PAVING IN ORDER TO ALLOW THE SITE TO DRAIN WHILE MINIMIZING BIRD BATHS ON THE SITE. THE PLAN IS TO CONTINUE TO DRAIN THE SOUTH HALF OF THE NEW PARKING LOT INTO THE EXISTING PAVED ALLEY WHICH IT THEN WILL FLOW WEST INTO SIXTH STREET NW. THE NORTH HAVE OF THE NEW PARKING LOT WILL CONTINUE TO DRAIN TOWARDS FRUIT AVENUE NW AND WILL FLOW WEST ON FRUIT AVENUE TOWARDS SIXTH STREET NW.

THE PLAN ALSO SHOWS PROPOSED ELEVATIONS AND GRADES REQUIRED TO PROPERLY GRADE THE SIDE TO NEW TO THE EXISTING ALLEY AND STREET.

THE CALCULATIONS WHICH APPEAR HEREON, ANALYZE BOTH THE EXISTING AND DEVELOPED CONDITIONS FOR THE 100-YEAR, 6 HOUR RAINFALL RUNOFF FOR PEAK FLOWS AND STORM DURATION FOR VOLUME REQUIREMENTS. THE PROCEDURE FOR 40 ACRE AND SMALLER BASINS AS SET FORTH IN THE REVISION OF SECTION 22.7, HYDROLOGY OF THE DEVELOPMENT PROCESS MANUAL, VOLUME 2, DESIGN CRITERIA, DATED JANUARY 1993. THIS D.P.M. PROCEDURE IS USED FOR ANALYZING ONSITE FLOWS.

#### DOWNSTREAM CAPACITY

THERE ARE EXISTING STORM DRAINS WITHIN THE PROJECT SITE. IT IS THE INTENT OF THIS PLAN TO MAINTAIN THE SAME DRAINAGE PATTERNS AND SINCE THIS IS A REPAVING PROJECT THERE SHOULD BE NO IMPACT TO THE DOWNSTREAM CAPACITY OF EXISTING STORM DRAIN.

#### OFFSITE FLOWS

A REVIEW OF THE TOPOGRAPHIC SURVEY AND A FIELD VISIT TO THE SITE INDICATES THAT NO OFFSITE FLOWS ENTER THIS SITE.

#### EROSION CONTROL

THE CONTRACTOR WILL BE REQUIRED TO PROVIDE SILT FENCES AROUND THE PROPOSED CONSTRUCTION AREAS TO MINIMIZE SEDIMENT INTO THE PUBLIC ROADWAYS OR ALLEYS DURING CONSTRUCTION. CONTRACTOR WILL BE REQUIRED TO PREPARE A STORM WATER POLLUTION PREVENTION PLAN.

#### DRAINAGE CALCULATIONS

##### 1. PRECIPITATION ZONE = 2

2. DESIGN STORM = DEPTH (INCHES) AT 100-YEAR STORM.  
4-HOUR = 2.35 INCHES  
10 DAY = 3.95 INCHES

##### 3. PEAK DISCHARGE (CFS/ACRE) FOR 100-YEAR, ZONE 2, TABLE A-2:

Q = 1.56 CFS/ACRE SOIL UNCOMPACTED "A"  
Q = 2.28 CFS/ACRE LANDSCAPED "B"  
Q = 3.14 CFS/ACRE COMPACTED SOIL "C"  
Q = 4.70 CFS/ACRE IMPERVIOUS AREA "D"  
FOR WATERSHEDS LESS THAN OR EQUAL TO 40 ACRES

##### 4. EXCESS PRECIPITATION, E (INCHES), 6 HOUR STORM, ZONE 2, TABLE A-3:

E = 0.53 INCHES SOIL UNCOMPACTED "A"  
E = 0.78 INCHES LANDSCAPED "B"  
E = 1.13 INCHES COMPACTED SOIL "C"  
E = 2.12 INCHES IMPERVIOUS AREA "D"

##### 5. EXISTING CONDITIONS:

EXISTING AREA OF DEVELOPMENT = 0.65 ACRES

##### NORTH HALF

TREATMENT "C" AREA = 0.13 ACRES (GRAVEL TREATMENT)  
TREATMENT "D" AREA = 0.13 ACRES (ASPHALT TREATMENT)

TREATMENT	AREA (ACRES)
A	0
B	0
C	0.13
D	0.13

Q (EXISTING-6HR) =  $(3.14 \times 0.13) + (4.70 \times 0.13) = 1.01 \text{ CFS (6HR)}$   
EXISTING ONSITE FLOW TO FRUIT AVENUE NW  
V (EXISTING-6HR) =  $((1.13 \times 0.13) + (2.12 \times 0.13)) / 12$   
= 0.04 AC-FI EXISTING ONSITE  
VOLUME TO FRUIT AVENUE NW

##### SOUTH HALF

TREATMENT "C" AREA = 0.20 ACRES (GRAVEL TREATMENT)  
TREATMENT "D" AREA = 0.20 ACRES (ASPHALT TREATMENT)

TREATMENT	AREA (ACRES)
A	0
B	0
C	0.20
D	0.20

Q (EXISTING-6HR) =  $(3.14 \times 0.13) + (4.70 \times 0.20) = 1.57 \text{ CFS (6HR)}$   
EXISTING ONSITE FLOW TO PAVED ALLEY  
V (EXISTING-6HR) =  $((1.13 \times 0.13) + (2.12 \times 0.20)) / 12$   
= 0.05 AC-FI EXISTING ONSITE  
VOLUME TO FRUIT AVENUE NW

##### 6. PROPOSED CONDITIONS ONSITE:

PROPOSED AREA OF DEVELOPMENT = 0.65 ACRES

##### NORTH HALF

TREATMENT "D" AREA = 0.29 ACRES (ASPHALT TREATMENT)

TREATMENT	AREA (ACRES)
A	0
B	0
C	0.29
D	0.29

Q (EXISTING-6HR) =  $(4.70 \times 0.29) = 1.35 \text{ CFS (6HR)}$  PROPOSED  
ONSITE FLOW TO FRUIT AVENUE NW  
V (EXISTING-6HR) =  $(2.12 \times 0.29) / 12$   
= 0.05 AC-FI EXISTING ONSITE  
VOLUME TO FRUIT AVENUE NW

#### SOUTH HALF

TREATMENT "D" AREA = 0.36 ACRES (ASPHALT TREATMENT)

TREATMENT	AREA (ACRES)
A	0
B	0
C	0
D	0.36

Q (EXISTING-6HR) =  $(4.70 \times 0.36) = 1.71 \text{ CFS (6HR)}$  PROPOSED  
ONSITE FLOW TO PAVED ALLEY  
V (EXISTING-6HR) =  $(2.12 \times 0.36) / 12$   
= 0.06 AC-FI EXISTING ONSITE  
VOLUME TO FRUIT AVENUE NW

##### 7. DIFFERENCE BETWEEN EXISTING CONDITIONS AND THIS PROPOSED DEVELOPMENT:

NORTH HALF  
Q (INCREASE-6HR) =  $1.35 - 1.01 \text{ CFS} = 0.34 \text{ CFS INCREASE}$   
V (INCREASE-6HR) =  $0.05 - 0.04 \text{ AC-FI} = 0.01 \text{ AC-FI INCREASE}$   
SOUTH HALF  
Q (INCREASE-6HR) =  $1.71 - 1.57 \text{ CFS} = 0.14 \text{ CFS INCREASE}$   
V (INCREASE-6HR) =  $0.06 - 0.05 \text{ AC-FI} = 0.01 \text{ AC-FI INCREASE}$

BASED ON THESE INCREASES IT APPEARS BY RESTORING THE EXISTING GRAVEL AND ASPHALT WITH NEW ASPHALT PAVING THE INCREASE IN FLOWS ARE NEGIGIBLE AND SHOULD NOT IMPACT DOWNSTREAM CAPACITY.

##### 8. SIZE RUNDOWN AND SIDEWALK CULVERT AT NORTHWEST CORNER OF PARKING LOT:

Q (PROPOSED-6HR) = 1.35 CFS

##### CHECK WEB CAPACITY:

Q (CAPACITY) =  $C \times L \times H^{1.48}$   
 $L = Q/C \times H^{1.48}$   
 $Q = 1.35 \text{ CFS}, H = 0.5 \text{ FEET}, C = 3$   
 $L = 1.35 / (3 \times 0.5^{1.48}) = 1.27$ . USE 18" WIDE SIDEWALK CULVERT

#### CONSTRUCTION NOTES:

1. MATCH EXISTING TOP OF MONITORING WELLS WITH NEW TOP OF ASPHALT GRADE.
2. PROVIDE 2' WIDE CURB OPENING.
3. 18" WIDE DRAINAGE SIDEWALK CULVERT FROM NORTH FACE OF CURB TO SOUTH FACE OF CURB WITH STEEL PLATE TOP AT SIDEWALK PER CITY STD. DWG. 2236 (SEE S.D. #19 FOR SIDEWALK CULVERT NOTICE TO CONTRACTOR FOR ADDITIONAL REQUIREMENTS).
4. 6" HEADER CURB PER CITY STD. DWG. 2415B.
5. 6" MEDIAN CURB AND GUTTER PER CITY STD. DWG. 2415B.

#### GENERAL NOTES NOTICE TO CONTRACTORS

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 REVISED THROUGH UPDATE #7, INCLUDING AMENDMENT No. 1.
2. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM (260-1990) AND DETERMINE LOCATION OF EXISTING UTILITIES.
3. PRIOR TO ANY CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL OBSTRUCTION. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OR THE OWNER SO THAT THE CONFLICT CAN BE RESOLVED WITHOUT DELAY.
4. CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING ALL CONSTRUCTION BARRICADING UNTIL PROJECT HAS BEEN COMPLETED.
5. ADJUST ALL VALVE CANS AND SEWER LINE CLEANOUTS TO FINAL GRADE.

#### LEGEND

- LIMITS OF ASPHALT PAVING REMOVAL AND REPLACEMENT, SEE PAVING SECTION.
- LIMITS OF CONCRETE PAVING, SEE PAVING SECTION
- EXISTING GRADE ELEVATION
- PROPOSED FLOWLINE GRADE
- PROPOSED TOP OF CURB

#### UTILITY PRECAUTIONS

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 ALL APPLICABLE STATE, MUNICIPAL AND LOCAL ORDINANCES, RULES AND REGULATIONS, IF ANY, PERTAINING TO THE LOCATION OF THESE LINES AND FACILITIES.

#### APPLIED ENGINEERING AND SURVEYING, INC.

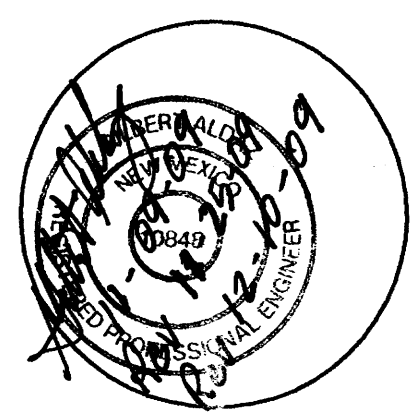
CIVIL ENGINEERING, LAND SURVEYING, PLANNING AND SURVEYING

1605 Blair Drive NE Albuquerque, New Mexico 87112  
Office: (505) 480-8125 Fax: (505) 237-8184  
E-mail: galdaz47@yahoo.com

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#### 5th and FRUIT PARKING LOT ALBUQUERQUE NEW MEXICO

#### S.O. #19 FOR SIDEWALK CULVERT NOTICE TO CONTRACTOR

Drainage Facilities within City Right-of-Way Notice to Contractor

1. An excavation permit will be required before beginning any work within City Right-Of-Way.
2. 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.
3. Two working days prior to any excavation, the contractor must contact the line locating service, New Mexico One Call 260-1990, (NM one call "811") for the location of existing utilities.
4. Prior to construction, the contractor shall excavate and verify the locations of all obstructions. Should a conflict exist, the contractor shall notify the engineer so that the conflict can be resolved with a minimum amount of delay.
5. Backfill compaction shall be according to traffic/street use.
6. Maintenance of the facility shall be the responsibility of the owner of the property being served.
7. Work on arterial streets shall be performed on a 24-hour basis.

APPROVALS	NAME	DATE
A.C.E. DESIGN		
INSPECTOR		
A.C.E. FIELD		

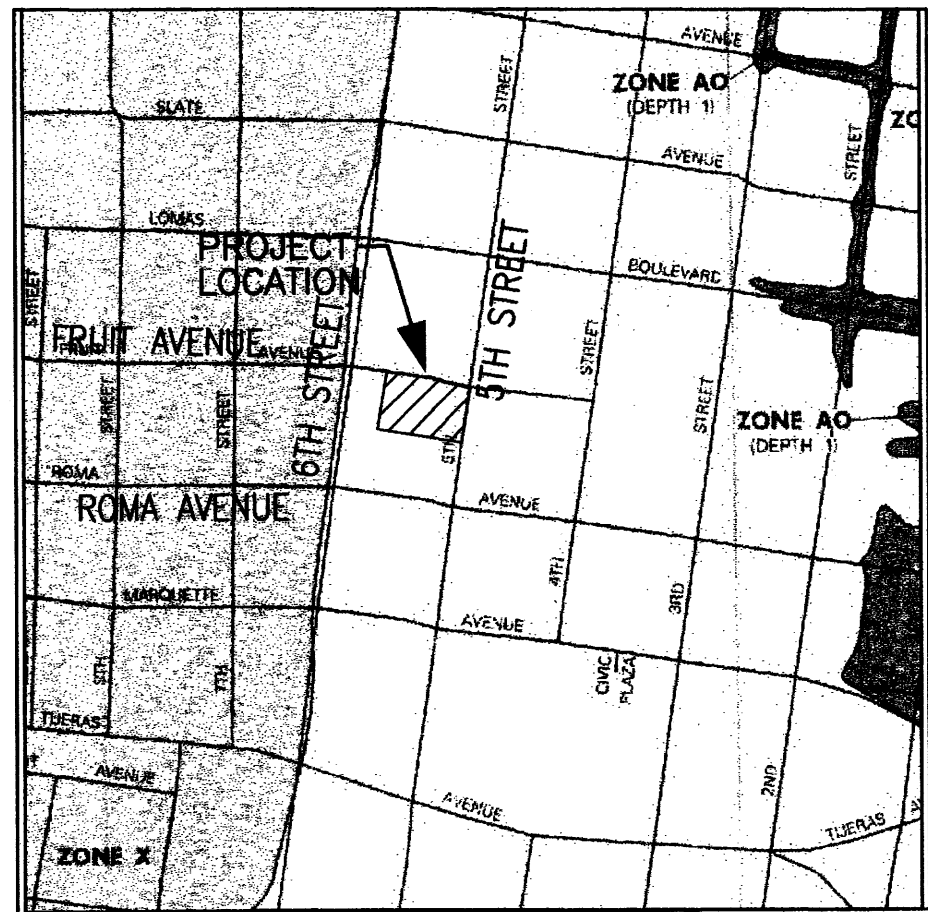
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DATE:	JULY 24, 2009

#### PROPOSED GRADING/DRAINAGE IMPROVEMENTS

SHEET NUMBER  
2 of 2

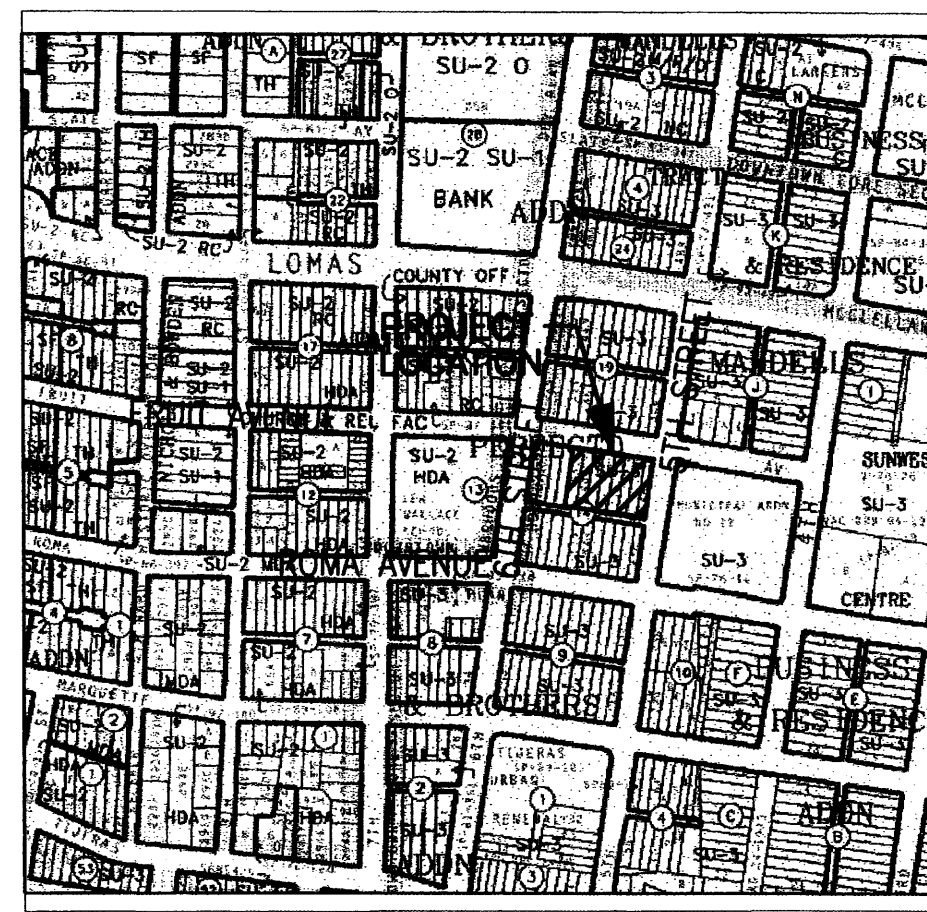
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HYDROLOGY SECTION





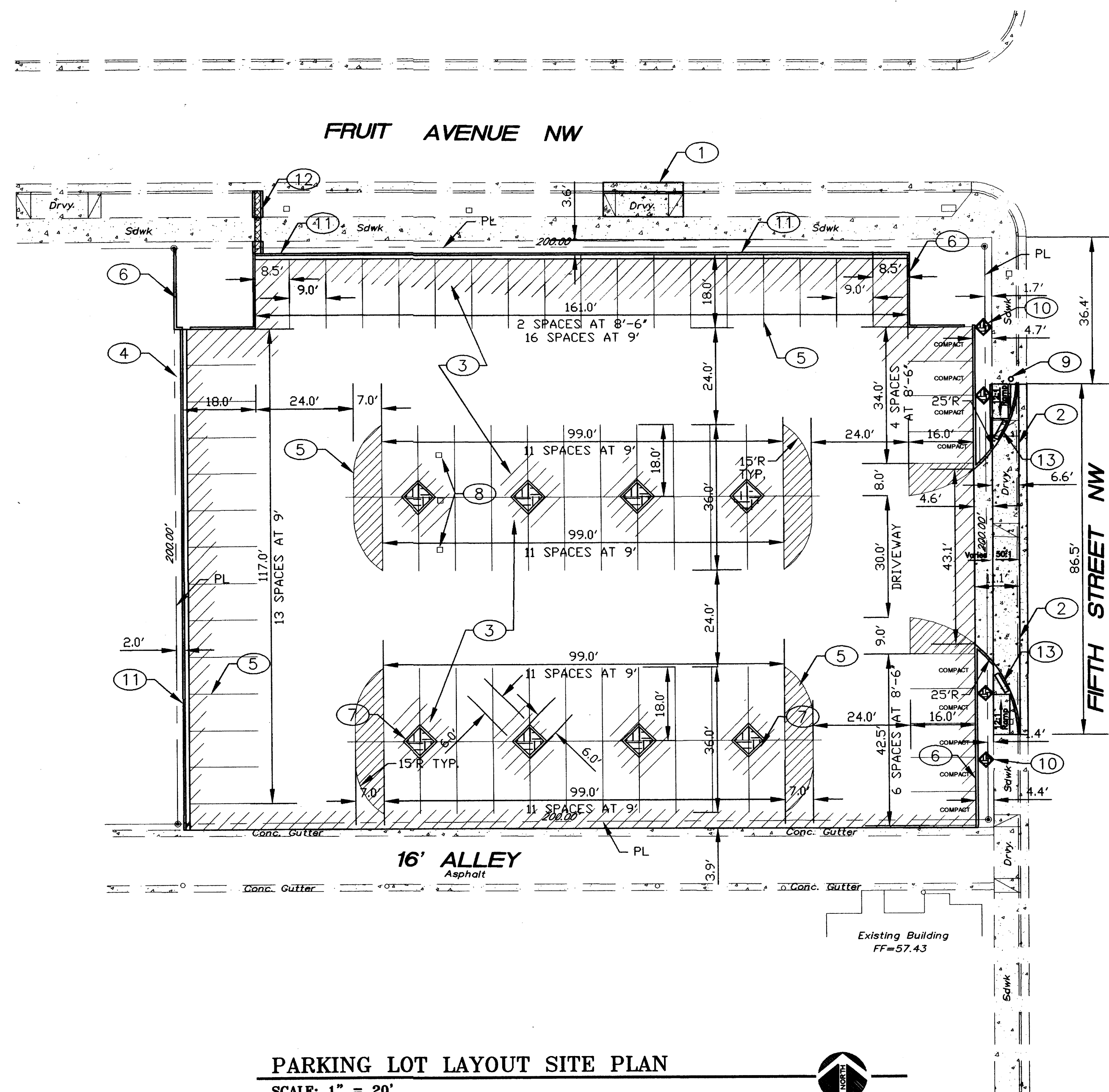
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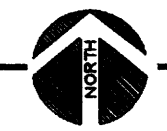
VICINITY MAP J-14

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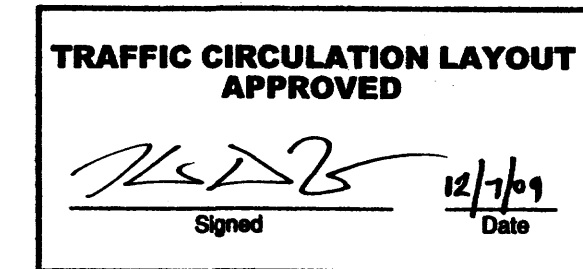
PARKING LOT LAYOUT SITE PLAN

SCALE: 1" = 20'



### CONSTRUCTION NOTES:

- 1 REMOVE 19.67 FEET OF EXISTING DRIVEWAY AND REPLACE WITH 19.67 FEET OF STANDARD CURB AND GUTTER PER CITY STANDARD DRAWING 2415A AND INSTALL 19.67 FEET OF 6' WIDE SIDEWALK PER DETAILS SHOWN ON COA STD. DWG. 2430.
- 2 REMOVE 29 FEET OF EXISTING DRIVEWAY AND REPLACE WITH 30 FOOT WIDE PAVING PRIVATE ENTRANCE WITH HANDICAP RAMPS PER DETAIL AS SHOWN ON COA STD. DWG. 2426.
- 3 NEW ASPHALT PAVING LIMITS.
- 4 NEW 6' LONG CONCRETE BUMPERS WITH 12" PINS FOR STAKING IN PLACE.
- 5 4" SOLID WHITE STRIPES.
- 6 6' HEADER CURB PER CITY STD. DWG. 2415B.
- 7 6'X6' PLANTER AREAS WITH 6' HEADER CURB PER CITY STD. DWG. 2415B.
- 8 EXISTING MONITORING WELLS. TO REMAIN.
- 9 EXISTING LIGHT POLE TO REMAIN.
- 10 2' X 2' PLANTER AREAS WITH 6' HEADER CURB PER CITY STD. DWG. 2415.
- 11 6' MEDIAN CUR AND GUTTER PER CITY STD. DWG. 2415B.
- 12 18" WIDE DRAINAGE SIDEWALK CULVERT FROM CURB TO CURB WITH STEEL PLATE TOP AT SIDEWALK PER CITY STD. DWG. 2236.
- 13 INSTALL TRUNCATED DOMES AT TWO HANDICAP RAMPS AS FOLLOWS:
  - \* DESIGN PER ADA GUIDELINE.
  - \* SUBMIT SPECT TO CITY CONSTRUCTION PRIOR TO CONSTRUCTION.

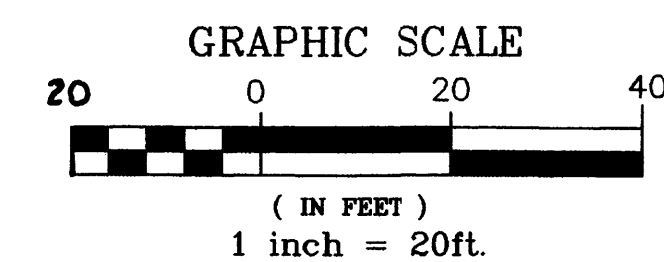


Public Infrastructure shown on these plans for information only and not part of approval. Separate DRG/Permit approval and Work Order required.

ALL WHEELCHAIR RAMPS LOCATED WITHIN THE PUBLIC RIGHT OF WAY MUST HAVE TRUNCATED DOMES.

### GENERAL NOTES NOTICE TO CONTRACTORS

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 REVISED THROUGH UPDATE #7, INCLUDING AMENDMENT No. 1.
2. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM (260-1990) AND DETERMINE LOCATION OF EXISTING UTILITIES.
3. PRIOR TO ANY CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL OBSTRUCTION. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OR THE OWNER SO THAT THE CONFLICT CAN BE RESOLVED WITHOUT DELAY.
4. CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING ALL CONSTRUCTION BARRICADING UNTIL PROJECT HAS BEEN COMPLETED.
5. ADJUST ALL VALVE CANS AND SEWER LINE CLEANOUTS TO FINAL GRADE.



### LEGEND

- LIMITS OF ASPHALT PAVING REMOVAL AND REPLACEMENT
- LIMITS OF CONCRETE PAVING, SEE COA STD. DWGS. FOR REQUIREMENTS

### UTILITY PRECAUTIONS

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.

APPLIED ENGINEERING AND SURVEYING, INC.

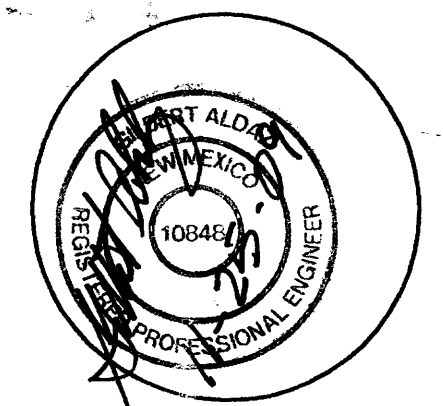
CIVIL ENGINEERING, LAND PLANNING AND SURVEYING

1605 Blair Drive NE Albuquerque, New Mexico 87112  
Office: (505) 480-8125 Facsimile: (505) 237-8164  
email: galdes47@yahoo.com

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5th and FRUIT  
PARKING LOT  
ALBUQUERQUE, NEW MEXICO

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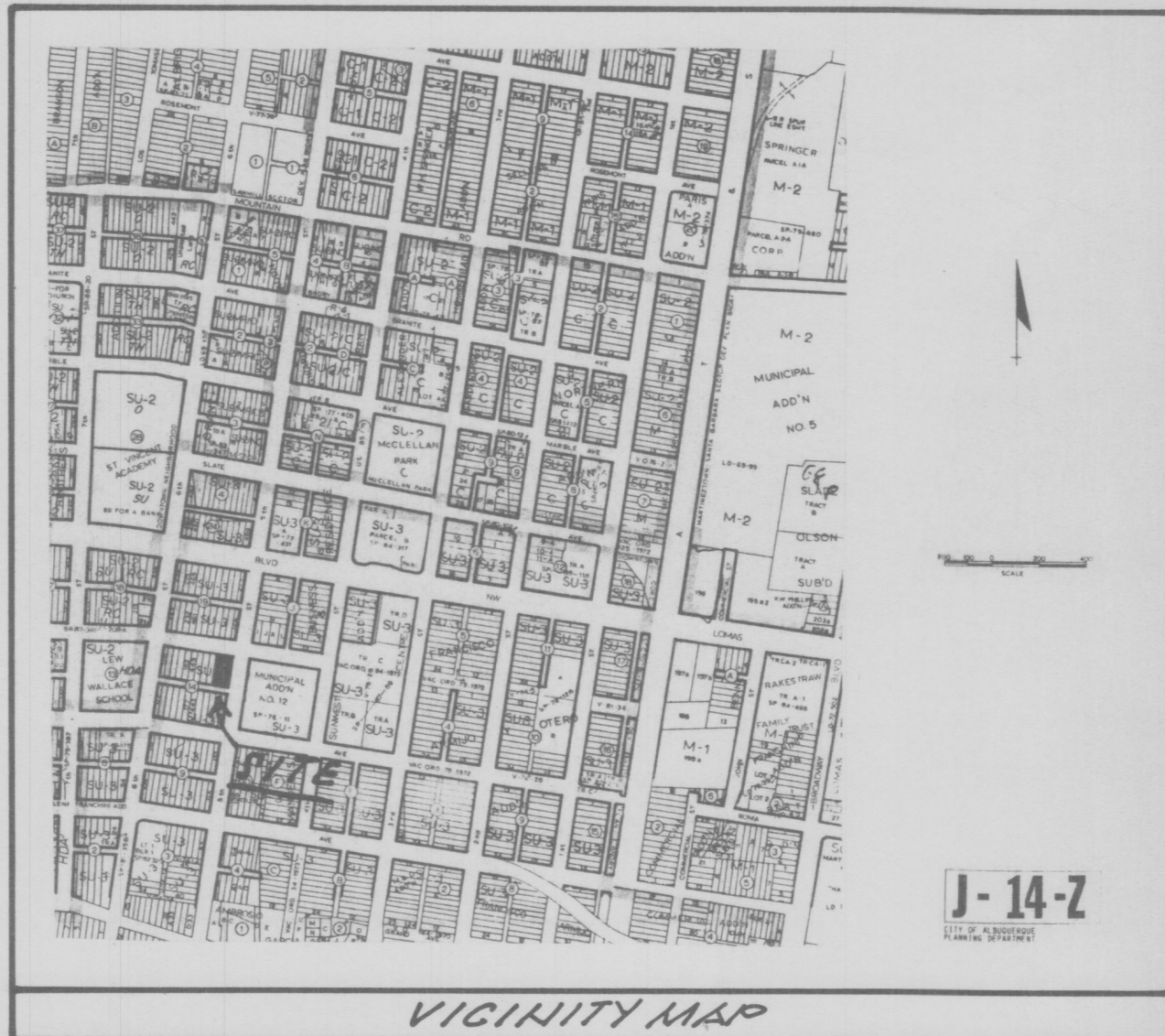
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PROJECT NUMBER: 090800  
DRAWING FILE:  
DRAWN BY:  
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SHEET TITLE  
PARKING LAYOUT  
SITE PLAN

SHEET NUMBER  
1 of 2





#### CONSTRUCTION NOTES:

- 1.) TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE AT 765-1234 FOR LOCATION OF EXISTING UTILITIES.
- 2.) PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL POTENTIAL OBSTRUCTIONS; SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM OF DELAY.
- 3.) 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.
- 4.) ALL CONSTRUCTION WITHIN CITY RIGHT-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE CITY OF ALBUQUERQUE STANDARDS AND PROCEDURES.

#### EROSION CONTROL MEASURES:

THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR MANAGEMENT FOR STORM RUN-OFF DURING CONSTRUCTION; HE SHALL INSURE THAT THE FOLLOWING MEASURES ARE TAKEN:

- 1.) ADJACENT PROPERTY SHALL BE PROTECTED AT ALL TIMES BY CONSTRUCTION OF BERMS, DIKES, SWALES, PONDS, AND OTHER TEMPORARY GRADING AS REQUIRED TO PREVENT STORM RUNOFF FROM LEAVING THE SITE AND ENTERING ADJACENT PROPERTIES.
- 2.) ADJACENT PUBLIC RIGHT-OF-WAYS SHALL BE PROTECTED AT ALL TIMES FROM STORM WATER RUNOFF FROM THE SITE. NO SEDIMENT BEARING WATER SHALL BE PERMITTED TO ENTER PUBLIC STREETS.
- 3.) THE CONTRACTOR SHALL IMMEDIATELY AND THOROUGHLY REMOVE ANY AND ALL SEDIMENT WITHIN PUBLIC STREETS THAT HAS BEEN ERODED FROM THE SITE AND DEPOSITED THERE.

#### GENERAL NOTES:

- 1.) NO PERIMETER BOUNDARY CORNERS HAVE BEEN FIELD ESTABLISHED PER THIS SURVEY OF THE SUBJECT PROPERTY.
- 2.) NO SEARCH HAS BEEN MADE FOR EASEMENTS OF RECORD WITHIN THE SUBJECT SITE OTHER THAN THOSE SHOWN ON THE PLAT OF RECORD.
- 3.) REFER TO "ARCHITECTURAL SITE PLAN" FOR FIELD LAYOUT OF THE PROPOSED IMPROVEMENTS.
- 4.) TOPOGRAPHY SURVEY OBTAINED BY "TRANSIT-STADIA" METHOD.

#### NOTICE TO CONTRACTOR:

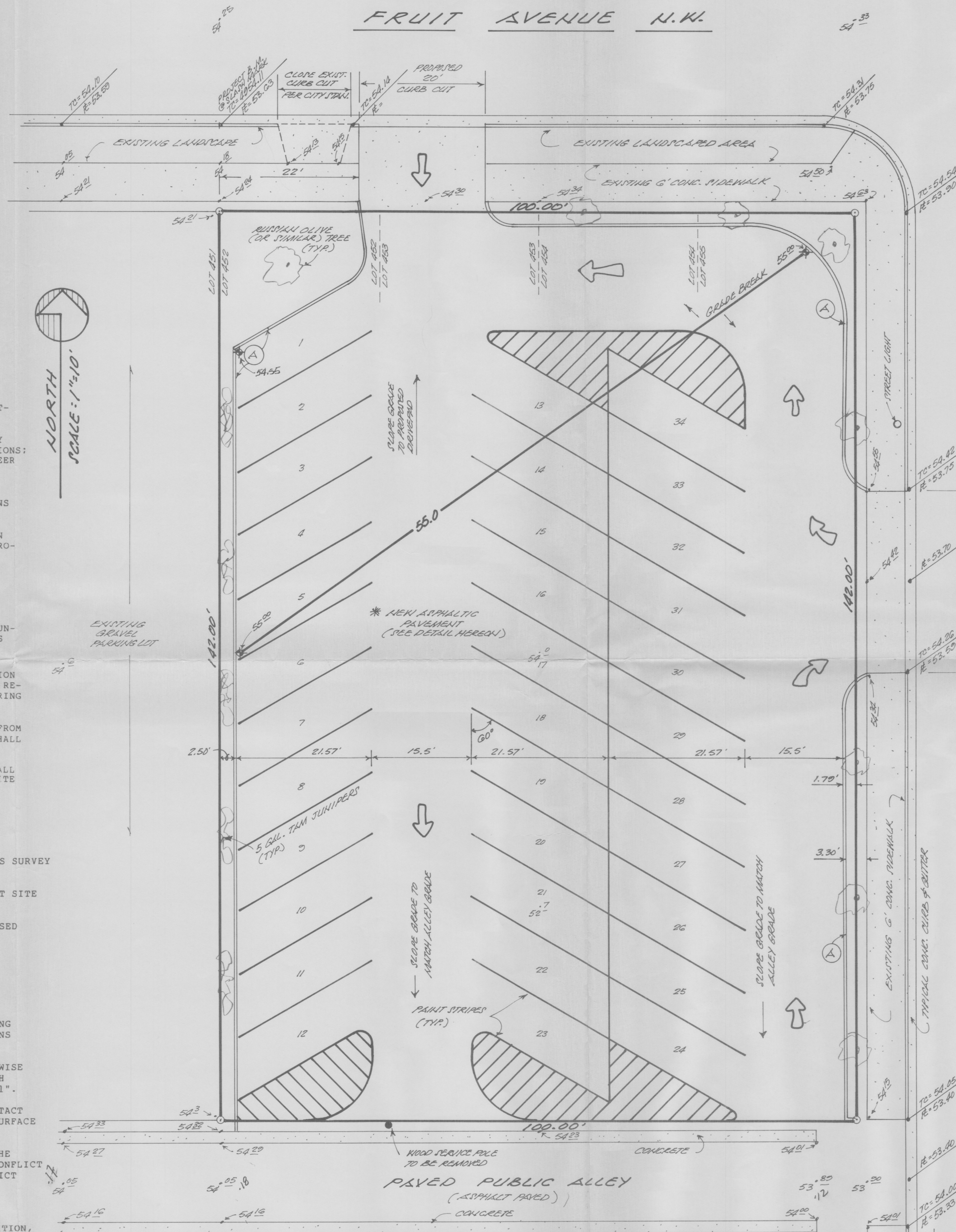
- 1.) AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY. AN APPROVED COPY OF THESE PLANS MUST BE SUBMITTED AT THE TIME OF APPLICATION FOR THIS PERMIT.
- 2.) ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH "CONTRACT DOCUMENTS FOR CITY WIDE UTILITIES AND CASH PAYING NO. 31".
- 3.) TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE ( 765-1234 ), FOR LOCATION OF EXISTING OF SURFACE AND SUBSURFACE UTILITIES.
- 4.) PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND 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 A MINIMUM AMOUNT OF DELAY FOR THE PROJECT.

#### LEGAL DESCRIPTION:

LOTS 452, 453, 454, AND 455, BLOCK 14, PERFECTO ARMIJO AND BROTHERS ADDITION, ALBUQUERQUE, NEW MEXICO.

#### BENCH MARK REFERENCE:

ACS STATION "4-J14", M.S.L.D. ELEVATION = 4954.015; PROJECT BENCH MARK AS SHOWN ON THE PLAN HEREON.



NOTE: PROVIDE 60° ANGLE PARKING PER CITY OF ALBUQUERQUE STANDARDS.

#### DRAINAGE COMMENTS:

AS SHOWN ON THE VICINITY MAP HEREON, THE SUBJECT SITE IS LOCATED AT THE SOUTHWEST INTERSECTION OF 5TH STREET N.W. AND FRUIT AVENUE N.W., IN THE CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO, (CITY ZONE ATLAS MAP "J-14-Z").

THE SUBJECT PROJECT SITE, (1.) DOES NOT LIE WITHIN A DESIGNATED FLOOD PLAIN, (F.E.M.A. PANEL 28 OF 50). (2.) DOES NOT LIE ADJACENT TO A NATURAL OR ARTIFICIAL WATER COURSE, (3.) HAS NO DRAINAGE EASEMENTS ON THE PROPERTY AT THE PRESENT TIME, (4.) DOES NOT CONTRIBUTE OR ACCEPTS OFFSITE FLOWS.

BASED ON A SITE INVESTIGATION, IT HAS BEEN DETERMINED THAT THE FREE DISCHARGE OF THE DEVELOPED SURFACE FLOWS OF THE PROPOSED IMPROVEMENTS WILL HAVE NO ADVERSE AFFECT TO DOWNSTREAM PROPERTIES.

#### DRAINAGE CALCULATIONS: (RATIONAL METHOD = $Q_{100}$ = CIA)

SITE AREA =  $100.0' \times 142.0' = 14,200.0 \text{ SQ. FT.} = 0.33 \text{ ACRE}$

RAINFALL,  $R_6$  (100-YR. - 6 HR.) = 2.3 INCHES

TIME OF CONCENTRATION,  $T_c$  = TEN (10) MINUTES FOR A SITE THIS SIZE

RAINFALL INTENSITY, "I" =  $2.3 \times 6.84 \times (10)^{-0.51} = 4.86 \text{ IN./HR.}$

#### EXISTING CONDITIONS: (VACANT LAND)

$14,200.00 \text{ SQ. FT.} = C_u = \frac{14,200.0 \times 0.40}{14,200.0} = 0.40$

$Q_{100} = 0.40 \times 4.86 \times 0.33 = 0.64 \text{ CFS}$

#### PROPOSED DEVELOPED CONDITIONS:

PROPOSED PAVED AREA = 13,000.00 SQ. FT.

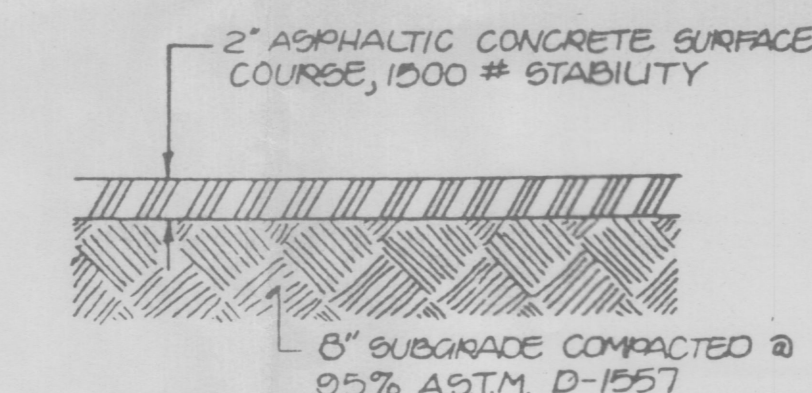
PROPOSED LANDSCAPED AREA = 1,200.00 SQ. FT.

$C_p = \frac{13,000.0 \times 0.95}{14,200.0} = 0.87$

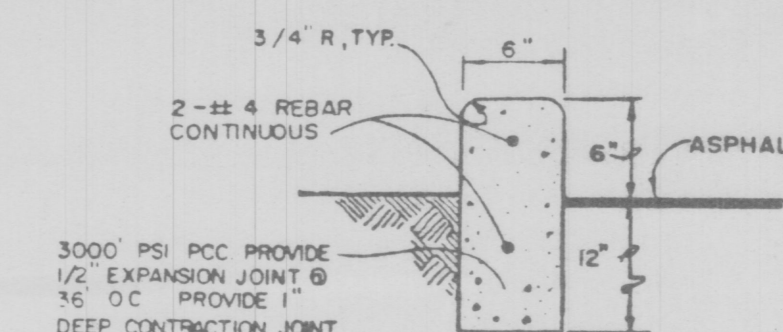
$C_L = \frac{1,200.0 \times 0.25}{14,200.0} = 0.02$

$Q_{100} = 0.89 \times 4.86 \times 0.33 = 1.43 \text{ CFS} \quad \text{*** INCREASE} = 0.79 \text{ CFS}$

\* REQUIRED LANDSCAPED AREA = 1,420.0 SQ. FT.  
PROVIDED LANDSCAPED AREA = 1,200.0 SQ. FT.



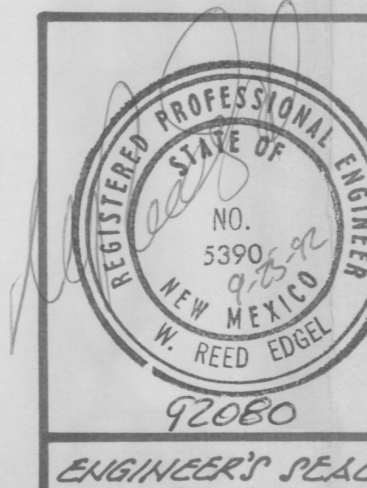
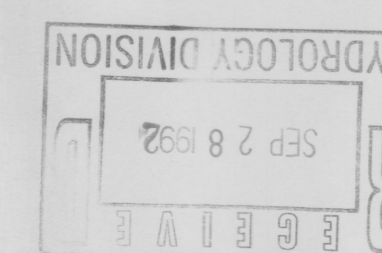
TYPICAL PAVEMENT SECTION  
SCALE: 1" = 1'-0"



HEADER CURB DETAIL - (A)  
SCALE: 1" = 1'-0"

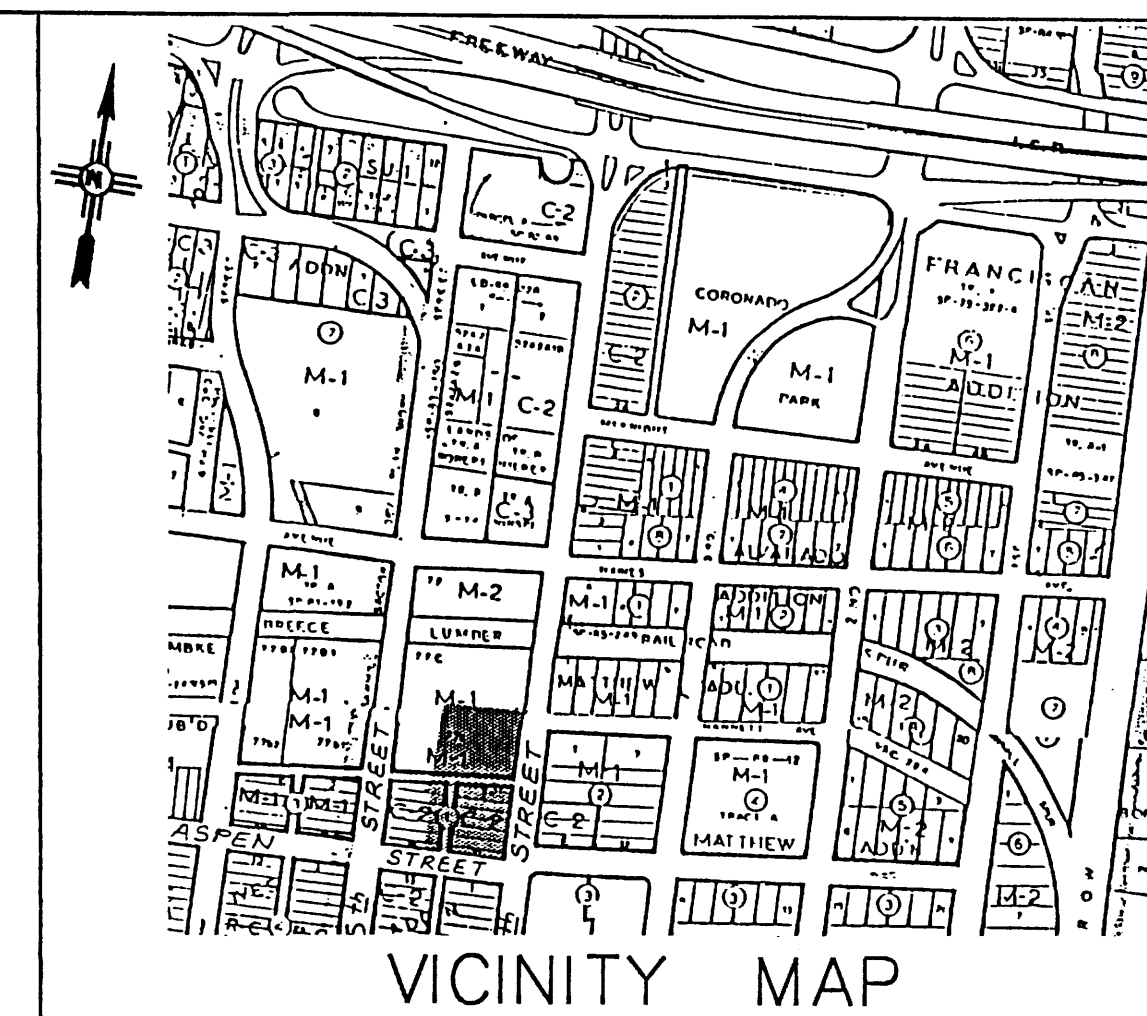
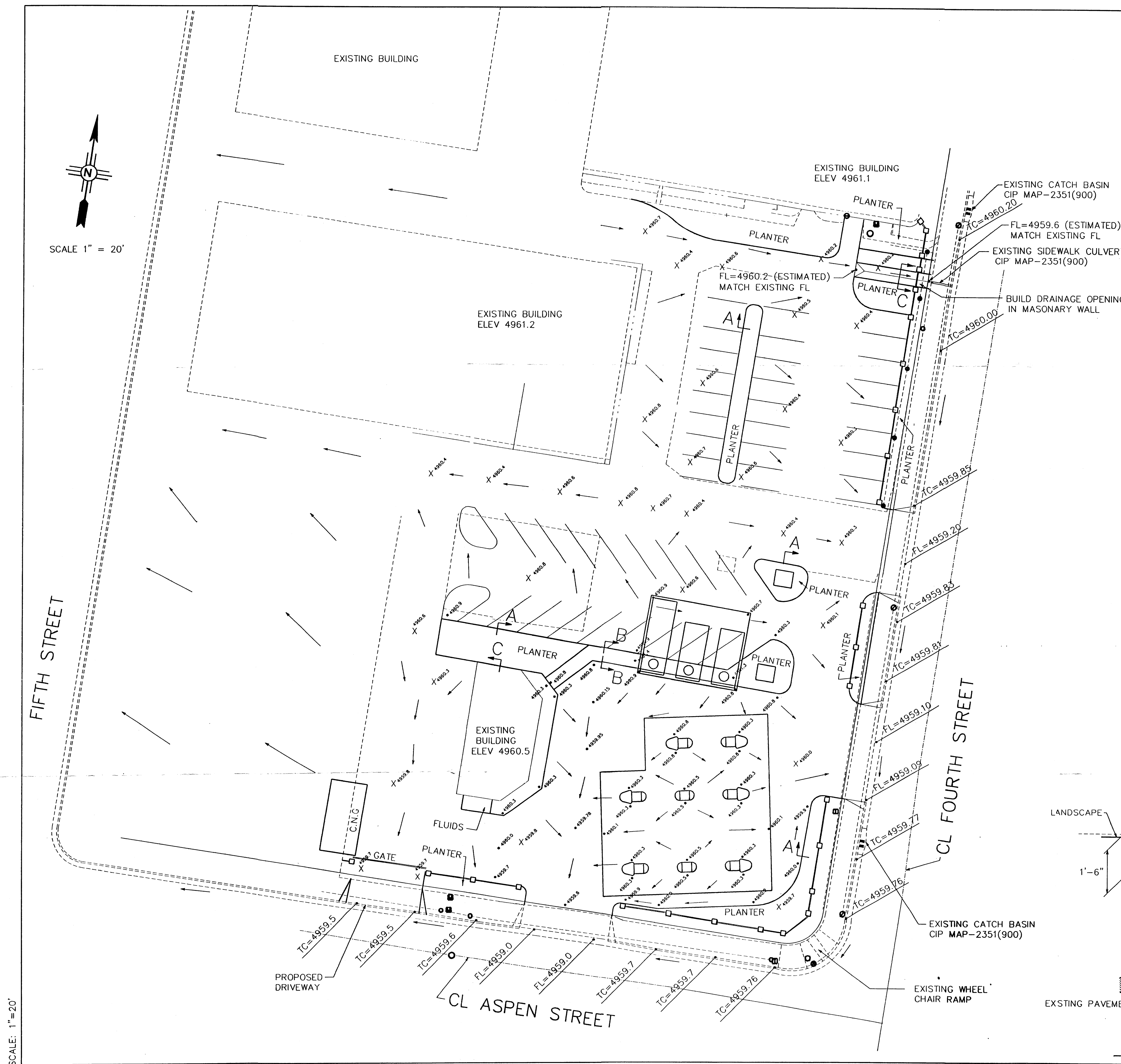
#### LEGEND:

- $T.C. = 54.42$  = TOP OF CURB ELEVATION
- $R.E. = 53.75$  = CURB FINISH ELEVATION
- $---$  = EXISTING OR PROPOSED CONCRETE
- $---$  = EXISTING CONTOUR
- $---$  = PROPOSED CONTOUR
- $---$  = EXISTING FENCE
- $---$  = PROPOSED FINISH ELEVATION
- $---$  = PROPOSED LIMIT OF NEW PAVING



GRADING AND DRAINAGE PLAN  
FOR PROPOSED PARKING LOT FOR  
MADRID BAIL BONDS  
5TH STREET N.W.  
ALBUQUERQUE, NEW MEXICO  
SEPTEMBER, 1992





## NOTES

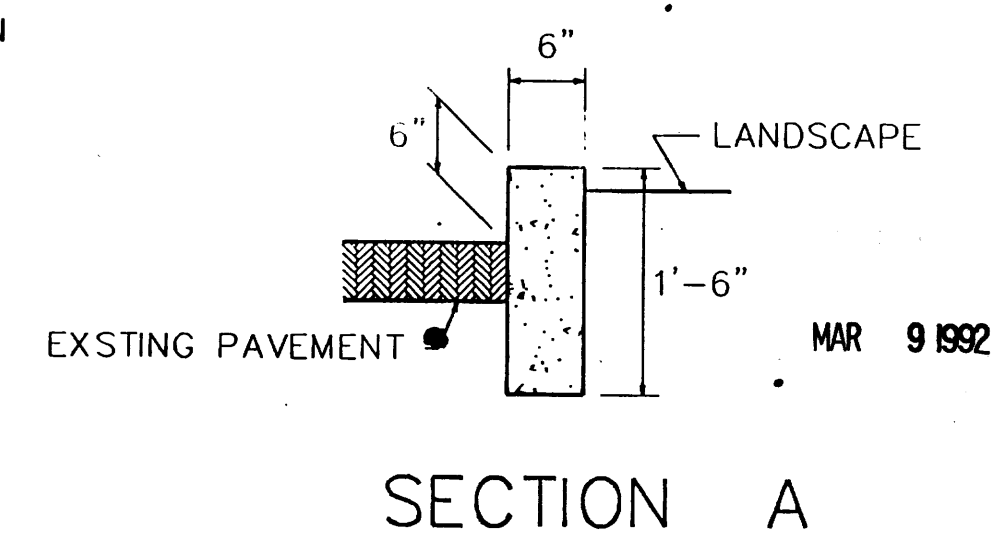
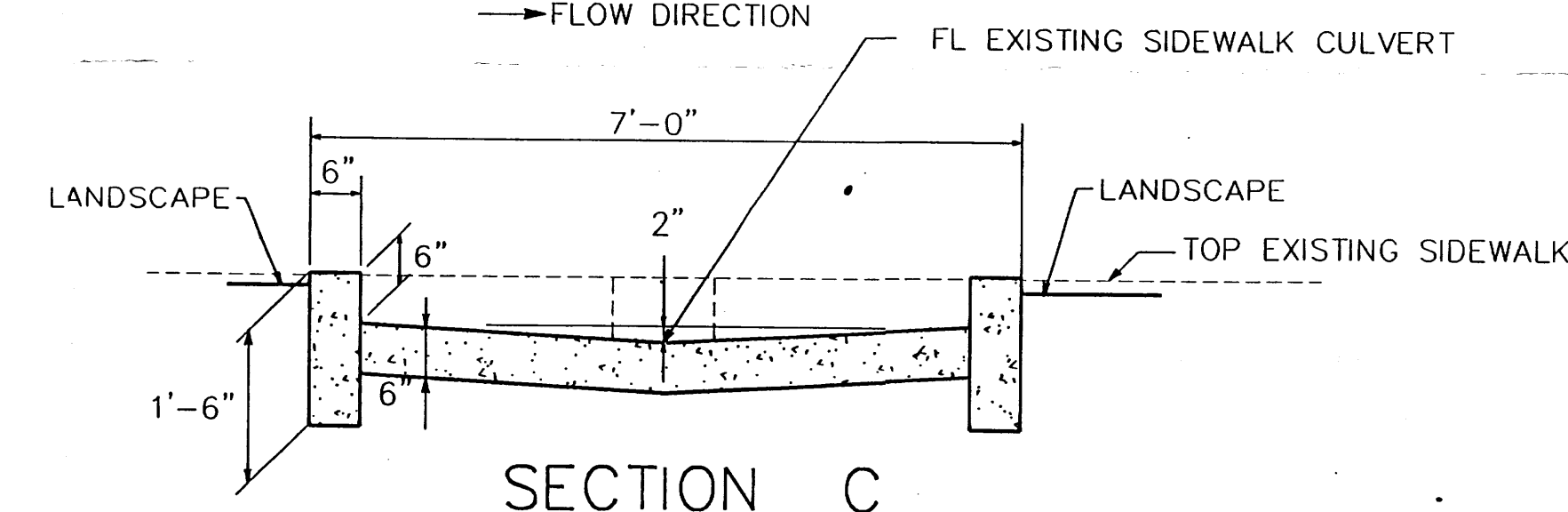
1. Existing Conditions:
  - a) Previous underground storage tanks have been removed.
  - b) Building has been gutted in preparation for this renovation project.
  - c) A new driveway, 2 new catch basins and a 12" sidewalk culvert have recently been constructed on the street under Project Map-2351 (900).
2. Existing Drainage:
  - a) Site drains to Aspen and/or 4th Street through existing driveways or over the sidewalks. A small portion of this site on the West side drains to 5th Street. Existing site is paved with various combinations of Asphalt and/or concrete pavement. There are no off-site flows through the site.
  - b) Areas draining toward 5th Street are shown for clarity. No topo survey was taken there since there will be no change to that site.
3. Scope of Project:
  - a) Renovated existing Fueling Station Building.
  - b) Install new double wall underground steel storage tanks.
  - c) Resurface portions of existing parking lot. The paved areas in the vicinity of the new underground storage tanks and the new dispenser islands are being slightly elevated to improve drainage and reduce ponding.
4. Conclusions:

Existing drainage patterns are being maintained as near to the existing condition as possible. Most of the surface runoff will leave the site through the driveways or the sidewalk culvert at the Northeast corner of the site. Excess flows will spill over the sidewalk as before. Site runoff will be moderately reduced by the construction of several new landscape areas (approximately 15% of project site.)

Drainage conditions along 4th Street have been greatly improved as a result of the storm drain system that was recently (1991) constructed as part of the street reconstruction.

## LEGEND

- X EXISTING ELEVATION  
• NEW ELEVATION  
→ FLOW DIRECTION



<p style="text-align: center;"><b>CITY OF ALBUQUERQUE</b>  <b>PUBLIC WORKS DEPARTMENT</b>  <b>ENGINEERING GROUP</b></p>					
<p><b>TITLE:</b>                      <b>FOURTH STREET FUELING FACILITY</b>  <b>DRAINAGE PLAN</b></p>					
<b>APPROVALS</b>	<b>ENGINEER</b>	<b>DATE</b>	<b>APPROVALS</b>	<b>ENGINEER</b>	<b>DATE</b>
D.R.C. Chair					
Trans. Dev.					
Utility Dev.					
<b>DRAWING NO.</b>		<b>MAP NO.</b>	<b>SHEET</b>		
4309.90		H14,J14	OF		

ENGINEER'S SEAL		SURVEY INFORMATION		BENCH MARKS		AS BUILT INFORMATION	
		FIELD NOTES					
		NO.	BY	DATE			
						CONTRACTOR	
						WORK ORDER BY	
						INSPECTIONS	
						ACCEPTANCE BY	
						DATE	
						REVISION BY	
						DATE	
						DRAWINGS	
						CORRECTED BY	
						DATE	
						MICRO-FILM INFORMATION	
						RECORDED BY	
						DATE	

*Paul C. Bell 10/3/69*

DESIGN	
DESIGNED BY: LEE BELL	DATE: FEB. 1992
DRAWN BY: LEE BELL	DATE: FEB. 1992
CHECKED BY: P. BOYBAL	DATE: FEB. 1992