

BENCH MARK
ACS BRASS CAP MONUMENT 5-K14A NMSP COORD. NAD 27, CENTRAL ZONE. N=1,484,816.92, E=381,874.83. ELEV.=4965.21.

LEGAL DESCRIPTION
A PORTION OF TRACT 'A', UNION DEPOT FRONTAGE ADDITION LOTS 1, 2, 7 THRU 10 IN BLOCK 4, HUNING'S HIGHLAND ADDITION. LOTS 3 THRU 6, 11, 12 OF BLOCK 4, HUNING'S HIGHLAND ADDITION. PORTION OF JOHN STREET SE BETWEEN SILVER AVENUE SE AND LEAD AVENUE SE, LOTS 3 THRU 6 OF BLOCK C, UNION DEPOT FRONTAGE ADDITION WITHIN PROJECTED SECTION 20, T 20 N, R 3 E, NMSP, ALBUQUERQUE, BERNALILLO COUNTY NEW MEXICO. JUNE 1999.

BASIN (103) - OFFSITE RUNOFF HYDRAULIC DATA

Area = 0.53 AC
 $Q_{100} = 2.37$ cfs

- (A) $Q = 4.08$ CFS, $V = 2.56$ FT/S, HGL ELEV = 4959.29 FT.
(B) $Q = 13.43$ CFS, $V = 4.27$ FT/S, HGL ELEV = 4959.06 FT.
(C) $Q = 17.03$ CFS, $V = 5.42$ FT/S, HGL ELEV = 4958.85 FT.
(D) $Q = 17.03$ CFS, $V = 5.42$ FT/S, HGL ELEV = 4958.51 FT.

KEY NOTES

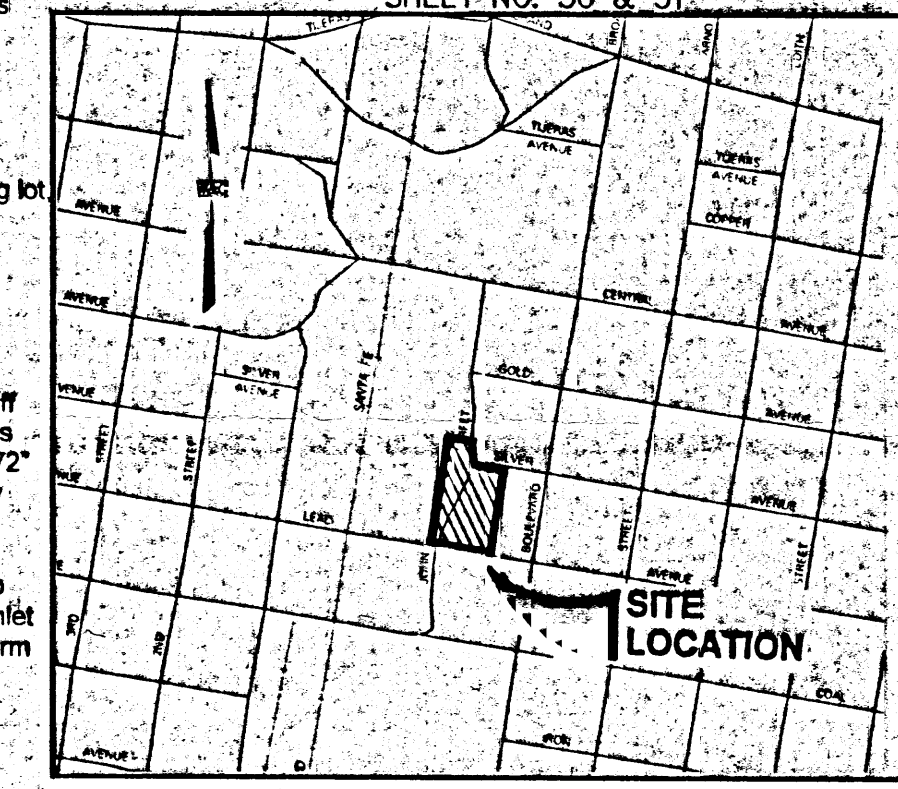
1. INSTALL SOUTH 4" PVC DOWN SPOUT SYSTEM. SEE DETAIL THIS SHT.
2. INSTALL WEST 10" DOWN SPOUT SYSTEM. SEE DETAIL THIS SHT. INV = 4962.41
3. INSTALL WEST 10" DOWN SPOUT SYSTEM. SEE DETAIL THIS SHT. INV = 4961.57
4. INSTALL WEST 10" DOWN SPOUT SYSTEM. SEE DETAIL THIS SHT. INV = 4960.72
5. INSTALL WEST 10" DOWN SPOUT SYSTEM. SEE DETAIL THIS SHT. INV = 4960.19
6. INSTALL 18" TO 10" TEE CONNECT 10" PVC TO 18" SD
7. INSTALL 1-10" PVC STORM DRAIN PIPE. SEE WEST BUILDING DOWN SPOUT SYSTEM DETAIL THIS SHT.
8. INSTALL 2 - 10" 45° BENDS TIE 10" WEST BUILDING DOWN SPOUT SYSTEM TO INLET.
9. CONCRETE SPLASH BLOCK
10. TIE 12" PIPE TO 24" RCP SD. CONNECTION SHALL BE WATER TIGHT.



LOCATION MAP
ATLAS MAP NO. K-14-Z



SOILS MAP
REFERENCE: SCS BERNALILLO COUNTY SOIL SURVEY SHEET NO. 30 & 31



FLOOD INSURANCE MAP
REFERENCE: FLOOD INSURANCE STUDY PANEL 334 OF 825

Site Location: USDA Forest Service Building is located 1/4 mile south of Central Ave. on Broadway Blvd. and Silver Ave. The proposed development includes asphalt paving, concrete work, landscaping, a 3 story building and a 300-space parking lot.

Methodology: Section 22.2 of the City of Albuquerque DPM was used in the hydrology analysis of the site. A principal design storm of 100-yr 6-hour event was used.

Existing Drainage Conditions: This proposed site consists of 3.71 acres of inflow development. The proposed development is separated into two basins. Basin 101 located on the north side of the site and Basin 102 located on the south side of the site. A third basin exists, Basin 103 (offsite), which originates from the fully developed lot located directly northeast of the site. Globe Furniture and a local Law Firm occupy Basin 103, which are divided by a common parking lot. Approximately 0.5 acres of the total development drains west toward the alley and south into Silver Ave. NE.

Currently, all runoff from Basin 101, 102 and 103 (offsite) flow to the west side of the lot, which drains into the Santa Fe-Atlantic rail yard. The total existing discharge onto the rail yard is approximately 14.74 cfs.

Table 1: TREATMENT							
Basin	Area (ac)	%A	%B	%C	%D	V ₁₀₀ (acre-in)	Q ₁₀₀ (cfs)
101	2.05	0	0	0.81	0.23	7.08	
102	1.66	0	0	0.96	0.04	0.16	5.31
103 (Offsite)	0.53	0	0.09	0	0.91	0.05	2.37
Total	4.24					0.44	14.74

Table 1: Breakdown of existing land type for each of the basins, including its respective volumetric runoff and discharge value.

Proposed Conditions: Due to the layout and grading of the proposed development, the basin boundaries have changed from three basins to five basins.

1. Basin 201, which includes the USDF employee parking lot and a portion of the building that faces this specific parking lot.
2. Basin 202, includes the eastern parking lot and a portion of the building that faces this specific parking lot.
3. Basin 203, includes the northern parking lot.
4. Basin 204, includes Silver Ave., west of Broadway Blvd., up to the employee parking lot and
5. Basin 103 (offsite), which is due to the north offsite flows.

An inlet will be installed in the south ROW in Silver Ave. NE to accommodate offsite flows. The total runoff collected by the inlet including the proposed improvements is approximately 3.3 cfs. Runoff in Basin 201 is collected at two different areas. Two inlets collect the south parking area runoff, which discharge onto a 72" storm drain along Broadway Boulevard. Two inlets that discharge onto a 60" storm drain along Broadway Boulevard collect runoff from the west parking lot area.

Basin 202 drains into a drop inlet located in the center of the east parking lot. Basin 203 drains into a drop inlet located on the southeast corner of the west parking lot. Basin 204 and Basin 103 drain into a drop inlet located on the south side of Silver Ave. Runoff from all three basins is routed west by a proposed 18" storm drain to Broadway Boulevard, which ties into an existing manhole. The amount of additional flow in the Broadway Blvd. storm drain system will be 20.69 cfs.

Table 1: TREATMENT							
Basin	Area (ac)	%A	%B	%C	%D	V ₁₀₀ (acre-in)	Q ₁₀₀ (cfs)
201	2.966	0	0	13	87	0.492	13.33
202	0.807	0	0	15	85	0.133	3.60
203	0.103	0	0	16	85	0.017	0.46
204	0.209	0	0	15	85	0.034	0.93
103 (Offsite)	0.53	0	0.09	0	0.91	0.05	2.37
Total	4.23					0.726	20.69

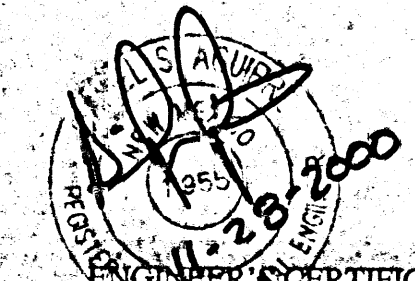
Table 2: Breakdown of proposed land types for each of the basins, including their respective volumetric runoff and discharge value.

Conclusions: The proposed development will increase the discharge by 40%, from 14.74 cfs to 20.69 cfs. This discharge will not be retained on the Santa Fe rail yard; instead the flows will be collected and re-routed to the Broadway storm drain system.

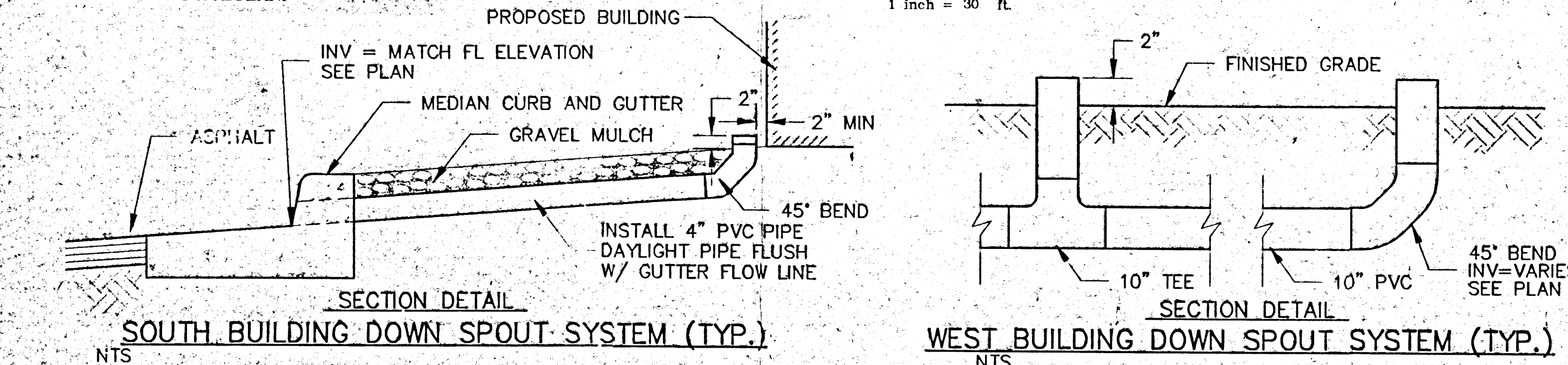
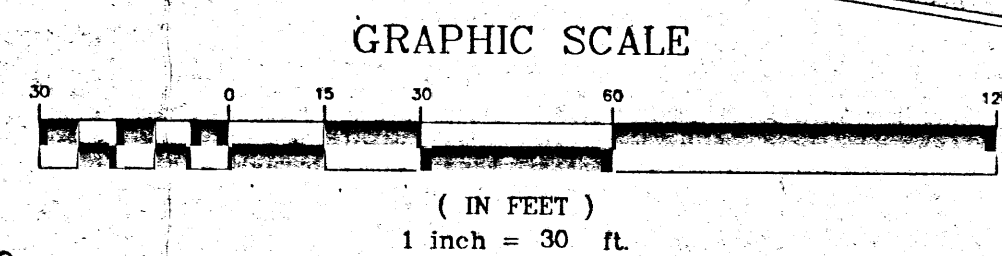
According to the Albuquerque Drainage Master Plan, the approximate basin boundary of this inflow site extends along the banks of the Rio Grande on the west side and Pan American Freeway on the east side (see maps K-13 and K-15). This basin area is 98% developed. The inflow site is insignificant as compared to the entire basin area. Therefore, the total discharge onto Broadway Blvd. will not impact the existing storm drain system.

LEGEND

- TBC & FL
TC
TA
TW
FL
FG
5070
5071
5175
73
131
- EXISTING SPOT ELEVATION
TOP OF CURB ELEVATION
TOP OF ASPHALT ELEVATION
TOP OF WALL ELEVATION
FLOW LINE ELEVATION
FINISHED GRADE ELEVATION
EXISTING INTER. CONTOUR
EXISTING INDEX CONTOUR
PROPOSED INTER. CONTOUR
PROPOSED INDEX CONTOUR
PROPOSED SPOT ELEVATION
PROPOSED BASIN DESIGNATION
- BASIN (201)
BASIN (101)
- EXISTING BASIN DESIGNATION
EXISTING BASIN BOUNDARY
PROPOSED SWALE
PROPOSED DIRECTION FLOW



ENGINEER'S CERTIFICATION
I, DANIEL S. AGUIRRE, DO HEREBY CERTIFY THAT THIS SITE IS GRADED HEREON AND IS IN SUBSTANTIAL COMPLIANCE WITH THE APPROVED DRAINAGE PLAN.



NOTICE TO CONTRACTORS
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3. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE, 985-1234, FOR LOCATION OF EXISTING UTILITIES.
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5. BACKFILL COMPACTION SHALL BE ACCORDING TO RESIDENTIAL STREET USE.
6. MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.

APPROVALS: HYDROLOGIST, ENGINEER, CITY ENGINEER, DATE

FOR INFORMATION ONLY

WILSON & COMPANY 4775 INDIAN SCHOOL ROAD N.E. SUITE 200 ALBUQUERQUE, NEW MEXICO 87110 (505) 254-4000		DATE NOV. 1999	
FILE NO. 99074		DESIGN M.J.	
DRAWN P.M.		CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING GROUP	
U.S.D.A. FOREST SERVICE BUILDING GRADING AND DRAINAGE			
Design Review Committee		City Engineer Approval	
City Project No. 627381		Zone Map No. K-14-Z	
Sheet C2.2		Last Design Update Mo./Day/Yr. Mo./Day/Yr.	

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DRAINAGE REPORT

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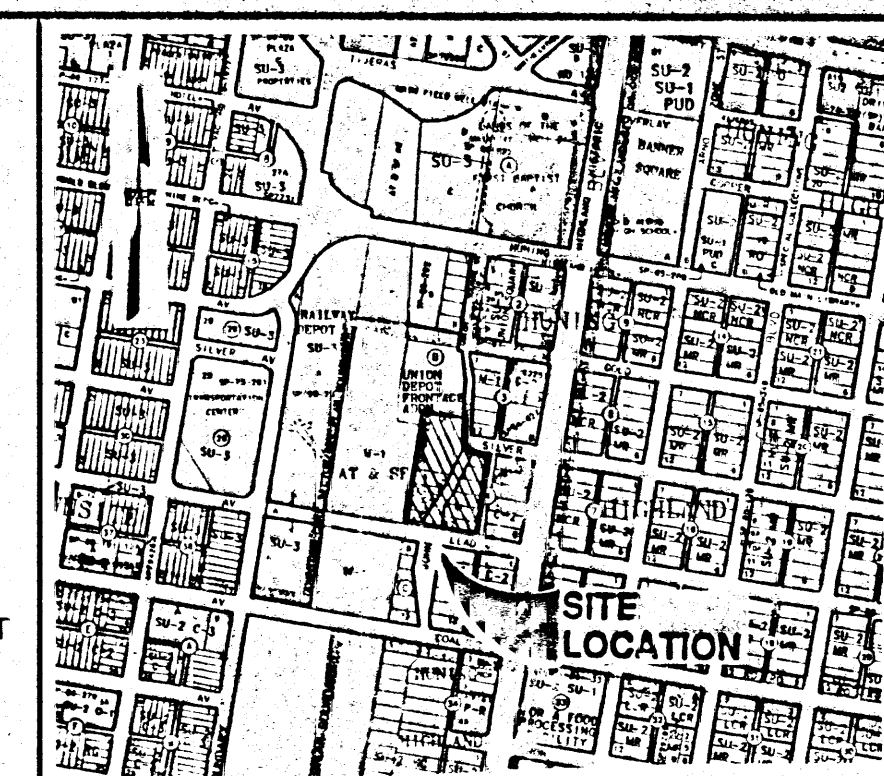
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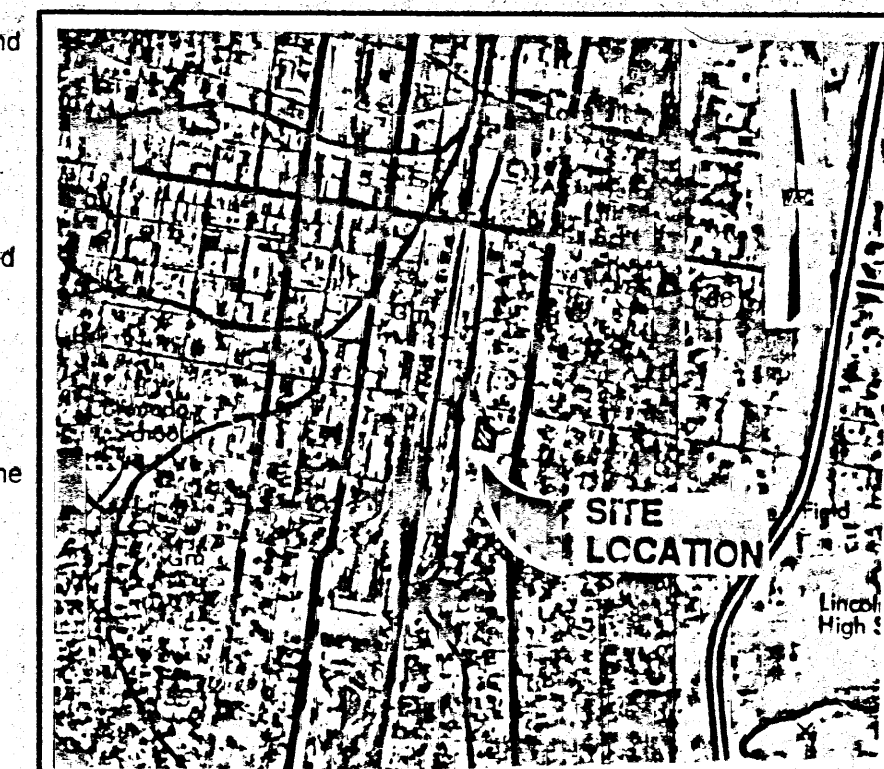
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LEGEND

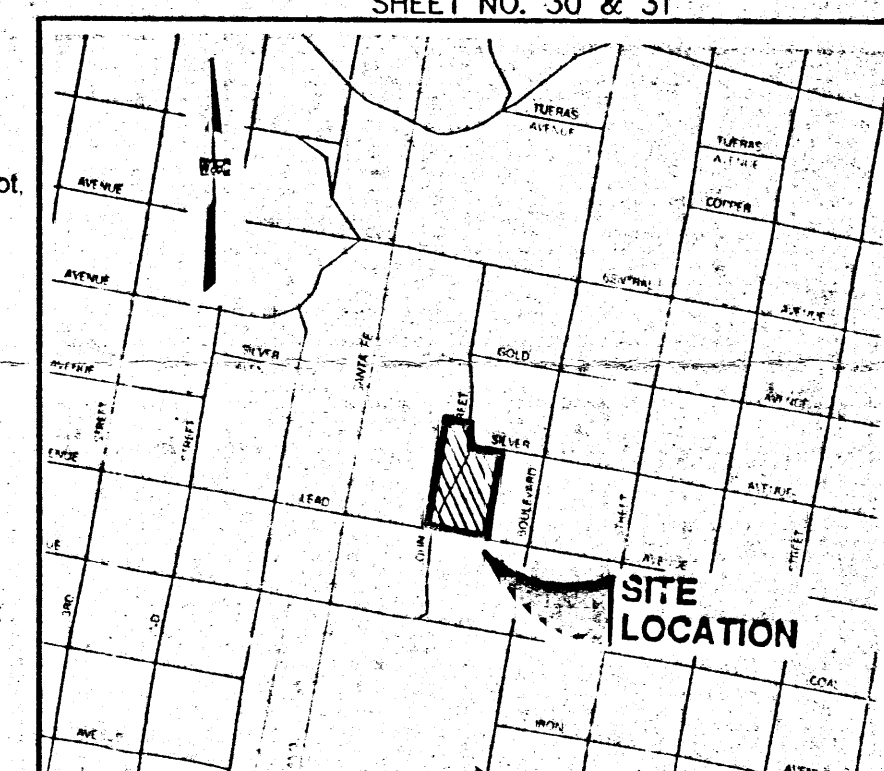
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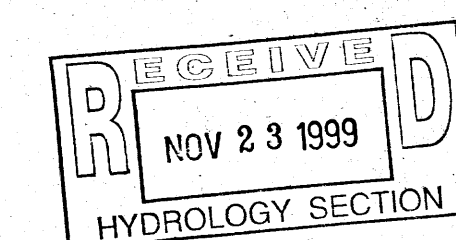
LOCATION MAP
ZONE ATLAS MAP NO. K-14-Z



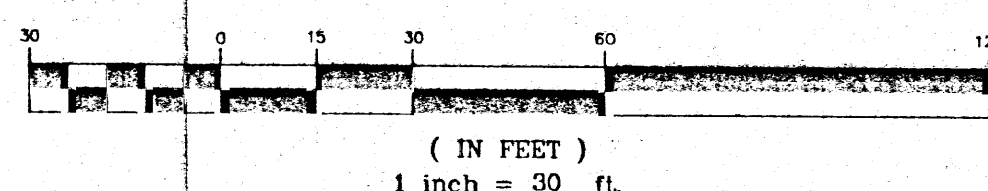
SOILS MAP
REFERENCE: SCS BERNALILLO COUNTY SOIL SURVEY
SHEET NO. 30 & 31



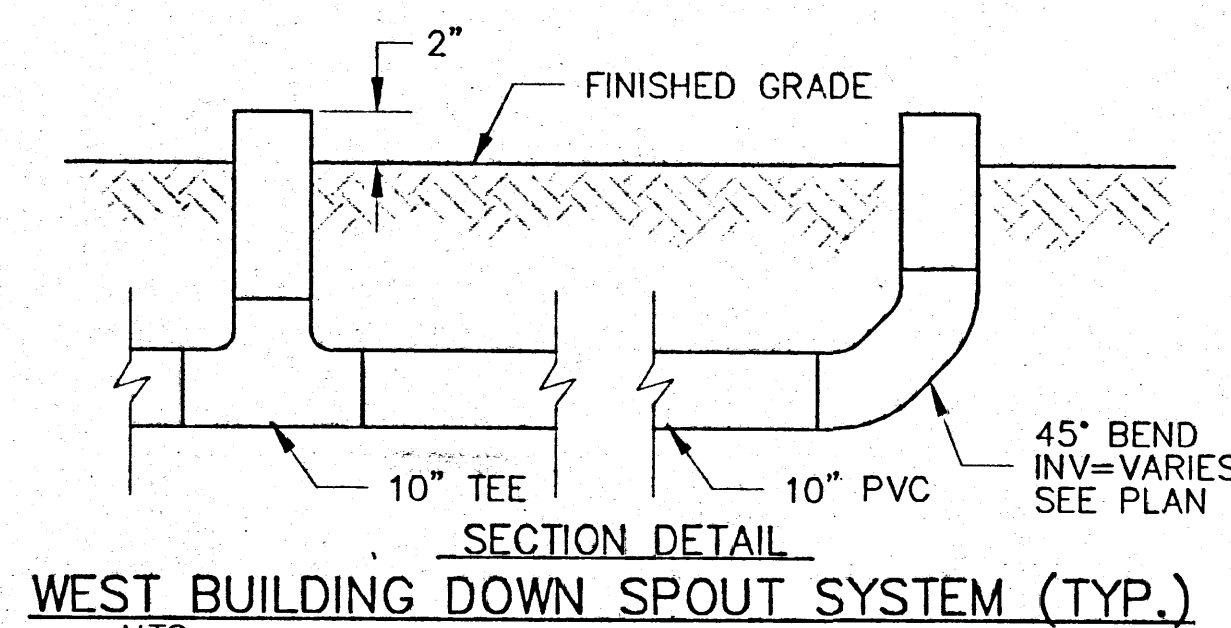
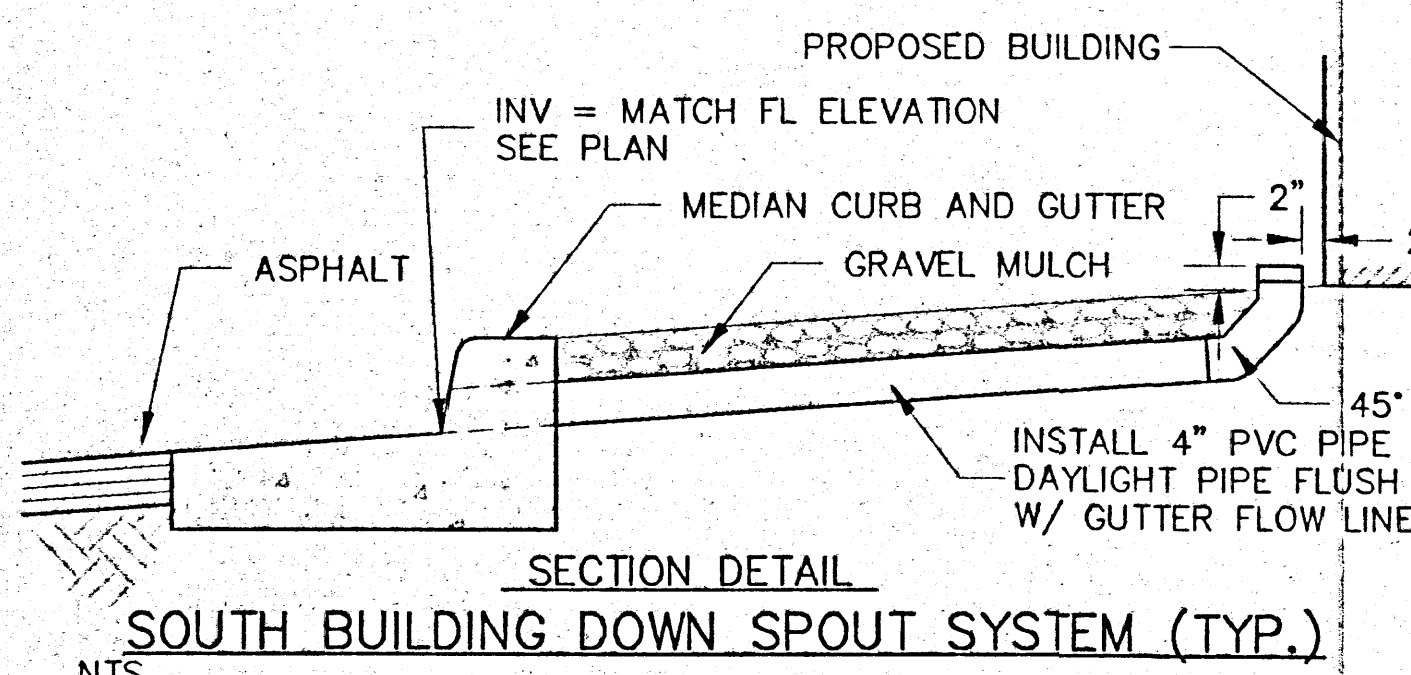
FLOOD INSURANCE MAP
REFERENCE: FLOOD INSURANCE STUDY
PANEL 334 OF 825



GRAPHIC SCALE

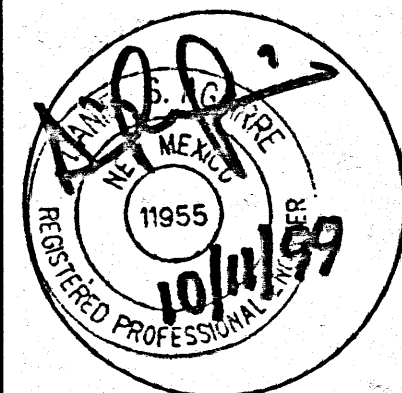


(IN FEET)
1 inch = 30 ft.



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APPROVALS	NAME	DATE
HYDROLOGY		
INSPECTOR		
AG-0101		



OWNER/DEVELOPER
AARDEX PROPERTIES LLC
12340 W. Alameda Pkwy, Suite 220
Lakewood, Colorado

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ISSUE RECORD:

DRAWING:

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REVISIONS:

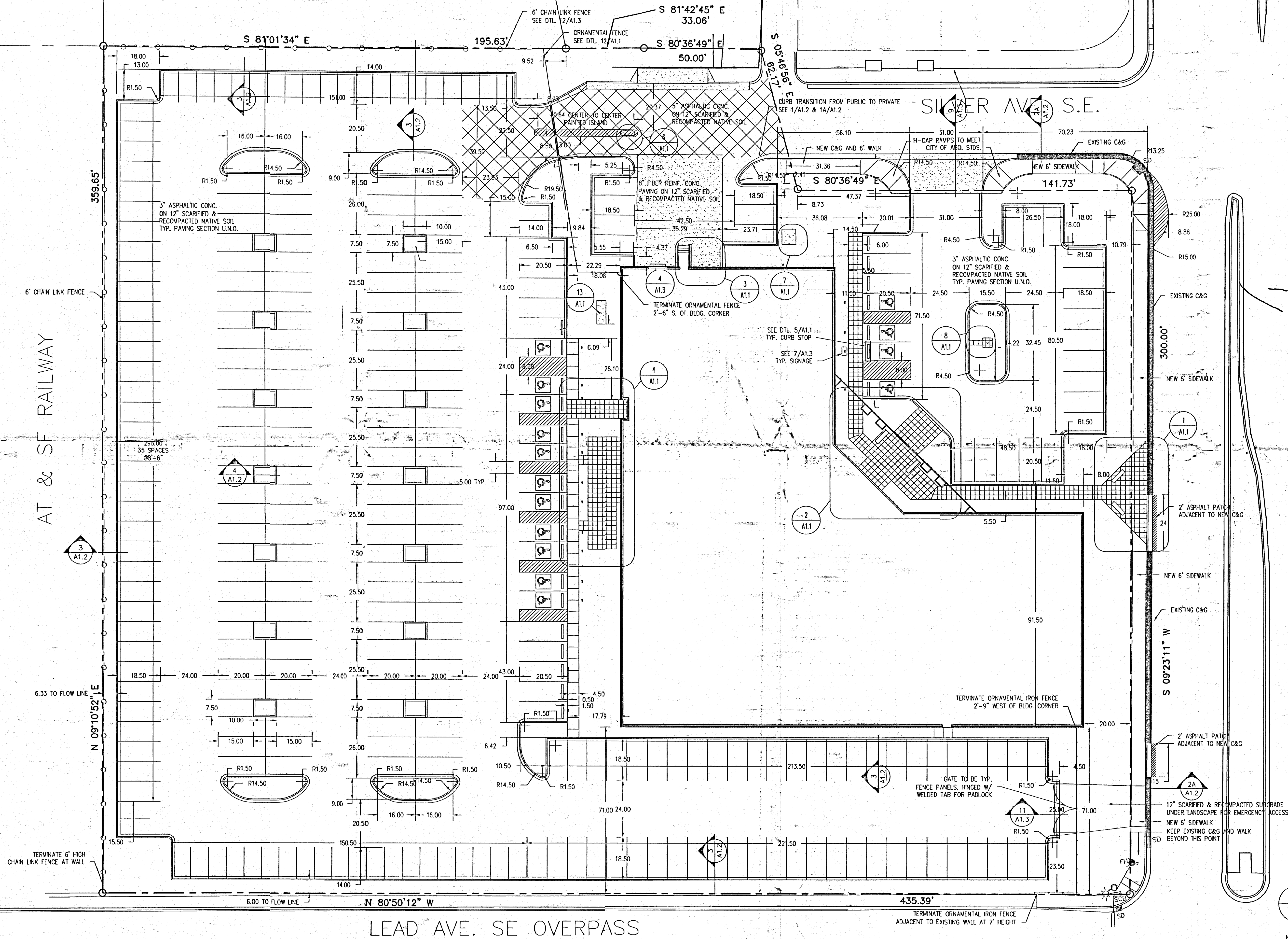
PROJECT NAME:

U.S.F.S. BUILDING
ALBUQUERQUE, NM

Site Plan

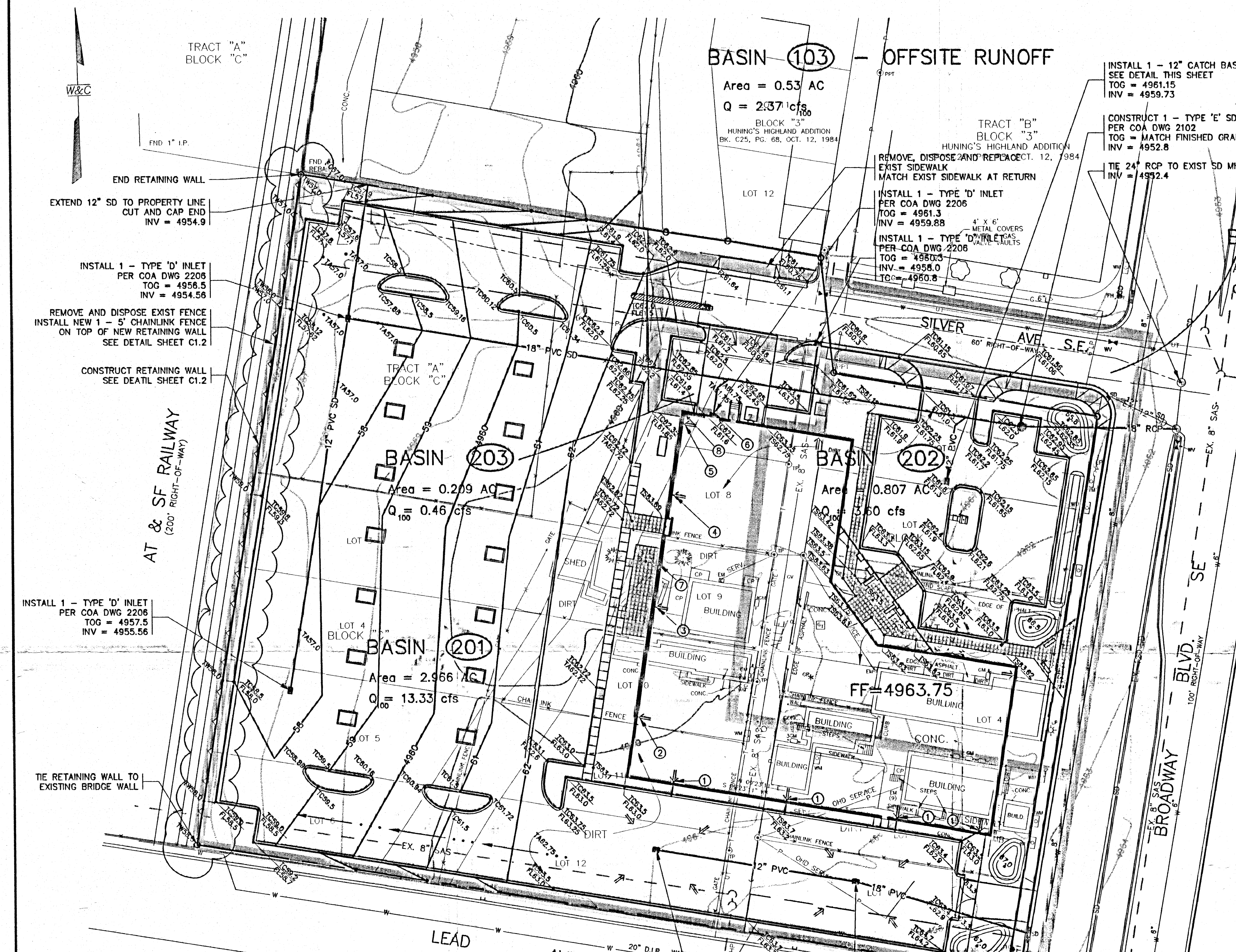
ISSUE RECORD:
08 OCT 99

SHEET NO.
C2.1
OF SHEETS



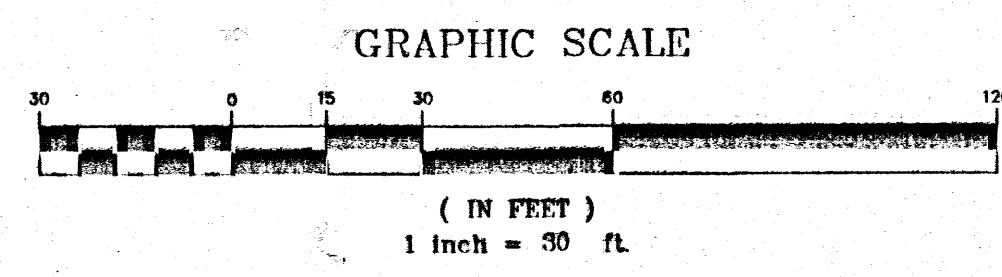
1 Preliminary Site Plan
C2.1 1" = 20' - 0"

NOTE: ALL DIMENSIONS ARE TO BOC
UNLESS NOTED OTHERWISE



BENCH MARK
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BASIN 203
Area = 0.209 AC
Q₁₀₀ = 0.93 cfs

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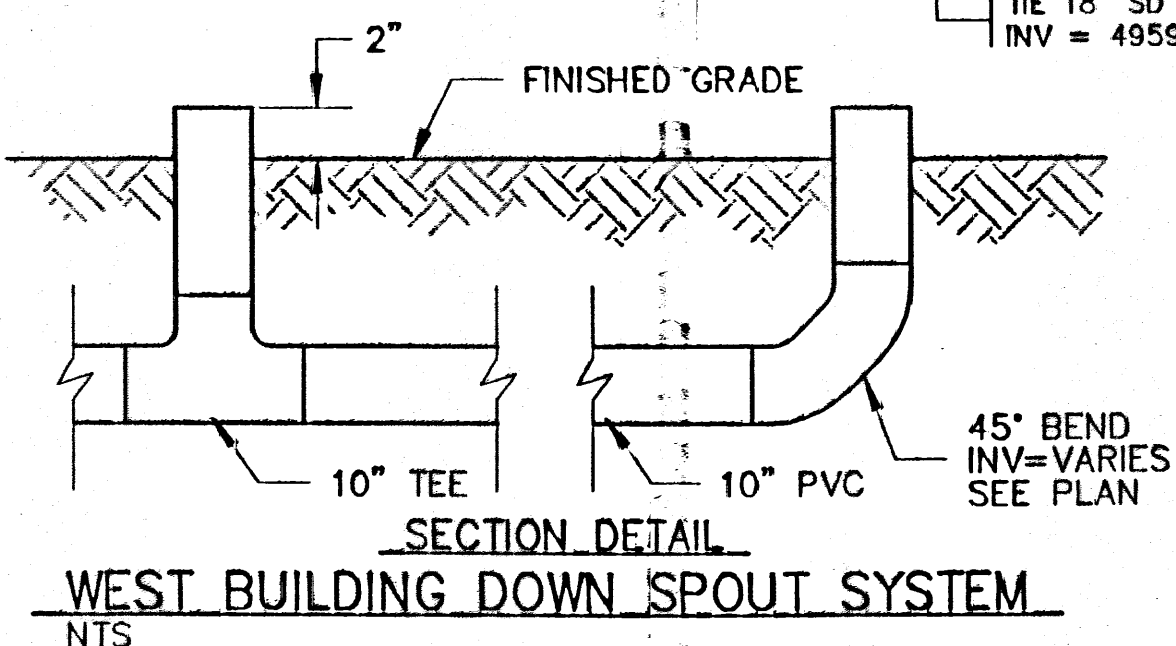
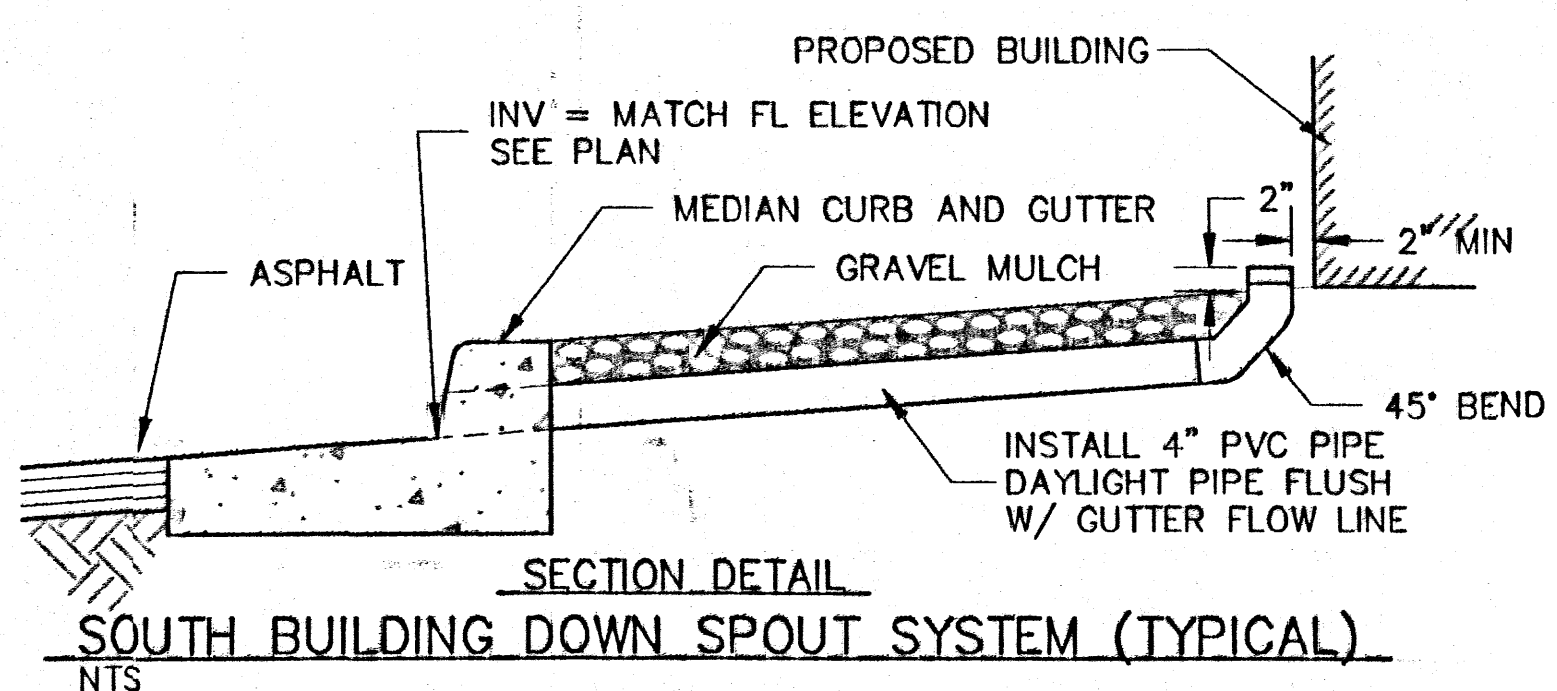
Table 2: Breakdown of proposed land types for each of the basins, including their respective volumetric runoff and discharge values.

Conclusions: The proposed development will increase the discharge by 40%, from 14.74 cfs to 20.69 cfs. This discharge will not be retained on the Santa Fe rail yard. Instead the flows will be collected and re-routed to the Broadway storm drain system.

According to the Albuquerque Drainage Master Plan, the approximate basin boundary of this infill site extends along the banks of the Rio Grande on the west side and Pan American Freeway on the east side (see maps K-13 and K-15). This basin area is 98% developed. The infill site is insignificant as compared to the entire basin area. Therefore, the total discharge onto Broadway Blvd will not impact the existing storm drain system.

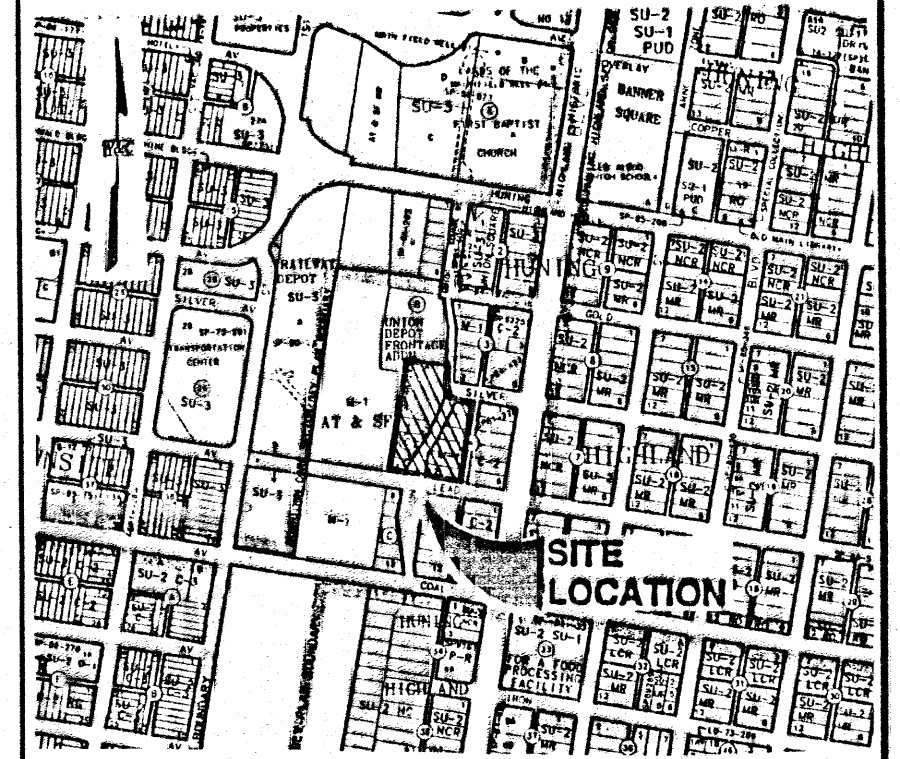
KEY NOTES

- INSTALL SOUTH 4" PVC DOWN SPOUT SYSTEM SEE DETAIL THIS SHEET
- INSTALL WEST 10" DOWN SPOUT SYSTEM SEE DETAIL THIS SHEET INV = 4962.41
- INSTALL WEST 10" DOWN SPOUT SYSTEM SEE DETAIL THIS SHEET INV = 4961.57
- INSTALL WEST 10" DOWN SPOUT SYSTEM SEE DETAIL THIS SHEET INV = 4960.72
- INSTALL WEST 10" DOWN SPOUT SYSTEM SEE DETAIL THIS SHEET INV = 4960.19
- TIE 10" PVC DOWN SPOUT SYSTEM TO INLET INV = 4959.9
- INSTALL 1-10" PVC STORM DRAIN PIPE SEE WEST BUILDING DOWN SPOUT SYSTEM DETAIL THIS SHEET
- INSTALL 2 - 10" 45° BENDS TIE 10" WEST BUILDING DOWN SPOUT SYSTEM TO INLET

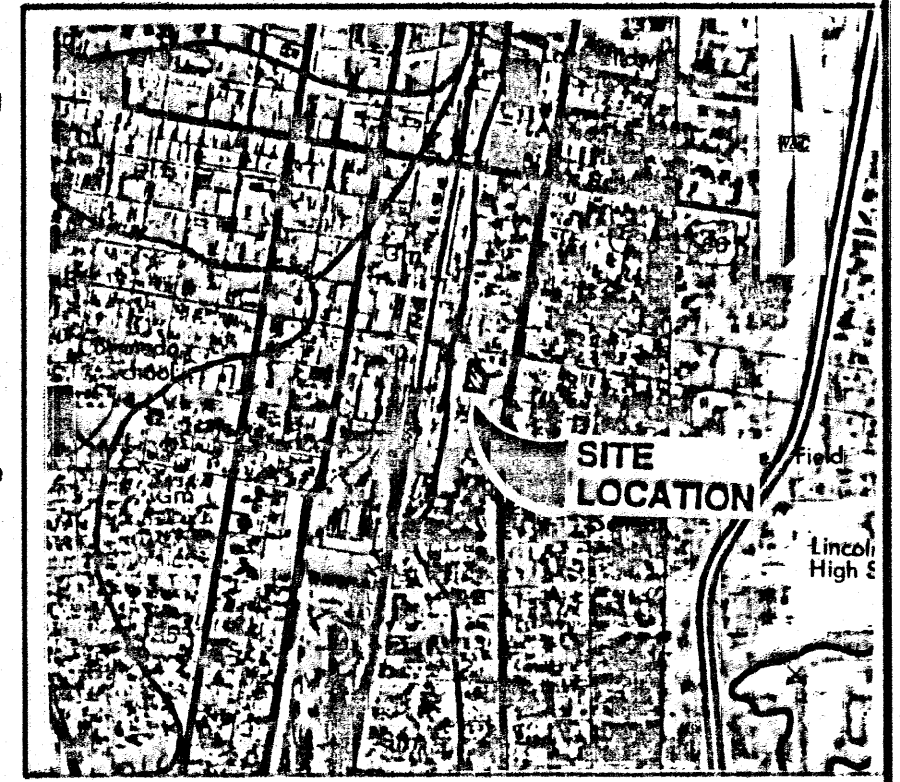


LEGEND

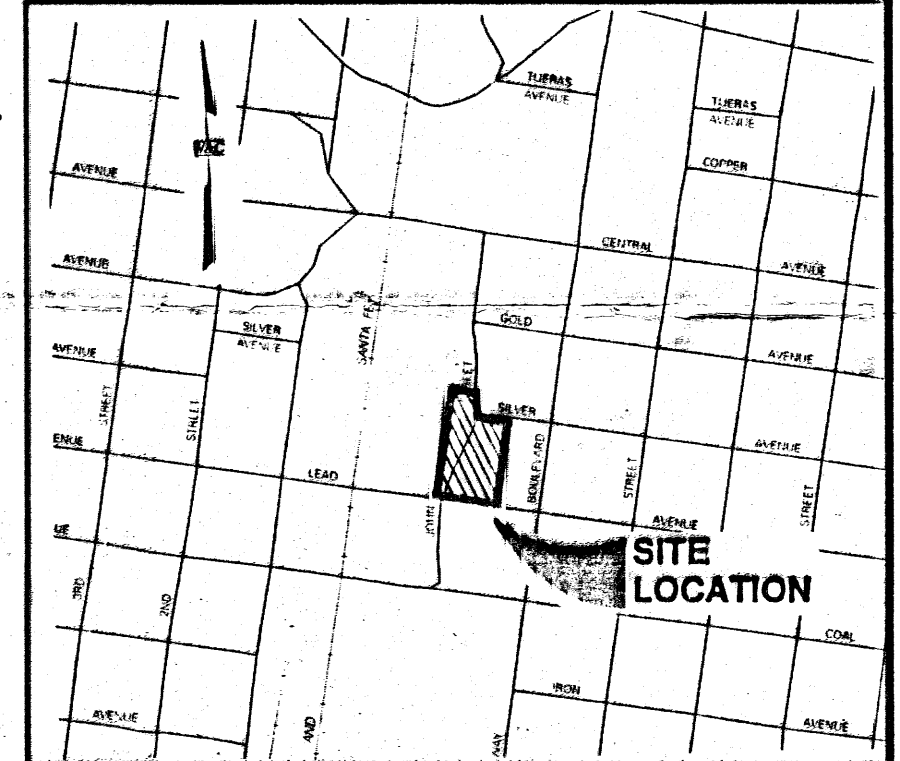
- TC TOP OF CURB ELEVATION
- TA TOP OF ASPHALT ELEVATION
- TW TOP OF WALL ELEVATION
- FL FLOW LINE ELEVATION
- FG FINISHED GRADE ELEVATION
- 5070 EXISTING INTERMEDIATE CONTOUR
- 5071 EXISTING INDEX CONTOUR
- 5175 PROPOSED INTERMEDIATE CONTOUR
- 73 PROPOSED INDEX CONTOUR
- PROPOSED SPOT ELEVATION
- PROPOSED BASIN DESIGNATION
- BASIN 201 EXISTING BASIN DESIGNATION
- BASIN 101 EXISTING BASIN BOUNDARY
- PROPOSED BASIN BOUNDARY
- PROPOSED SWALE
- PROPOSED DIRECTION FLOW
- PROPOSED RETAINING WALL
- PROPOSED FENCE LIMITS



LOCATION MAP
ZONE ATLAS MAP NO. K-14-Z



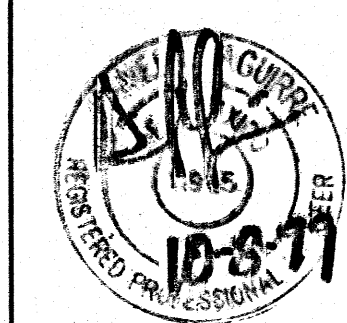
SOILS MAP
REFERENCE: SCS BERNALILLO COUNTY SOIL SURVEY SHEET NO. 30 & 31



FLOOD INSURANCE MAP
REFERENCE: FLOOD INSURANCE STUDY PANEL 334 OF 825

WILSON & COMPANY

4775 INDIAN SCHOOL ROAD N.E.
SUITE 200
ALBUQUERQUE, NEW MEXICO 87110
(505) 254-4000

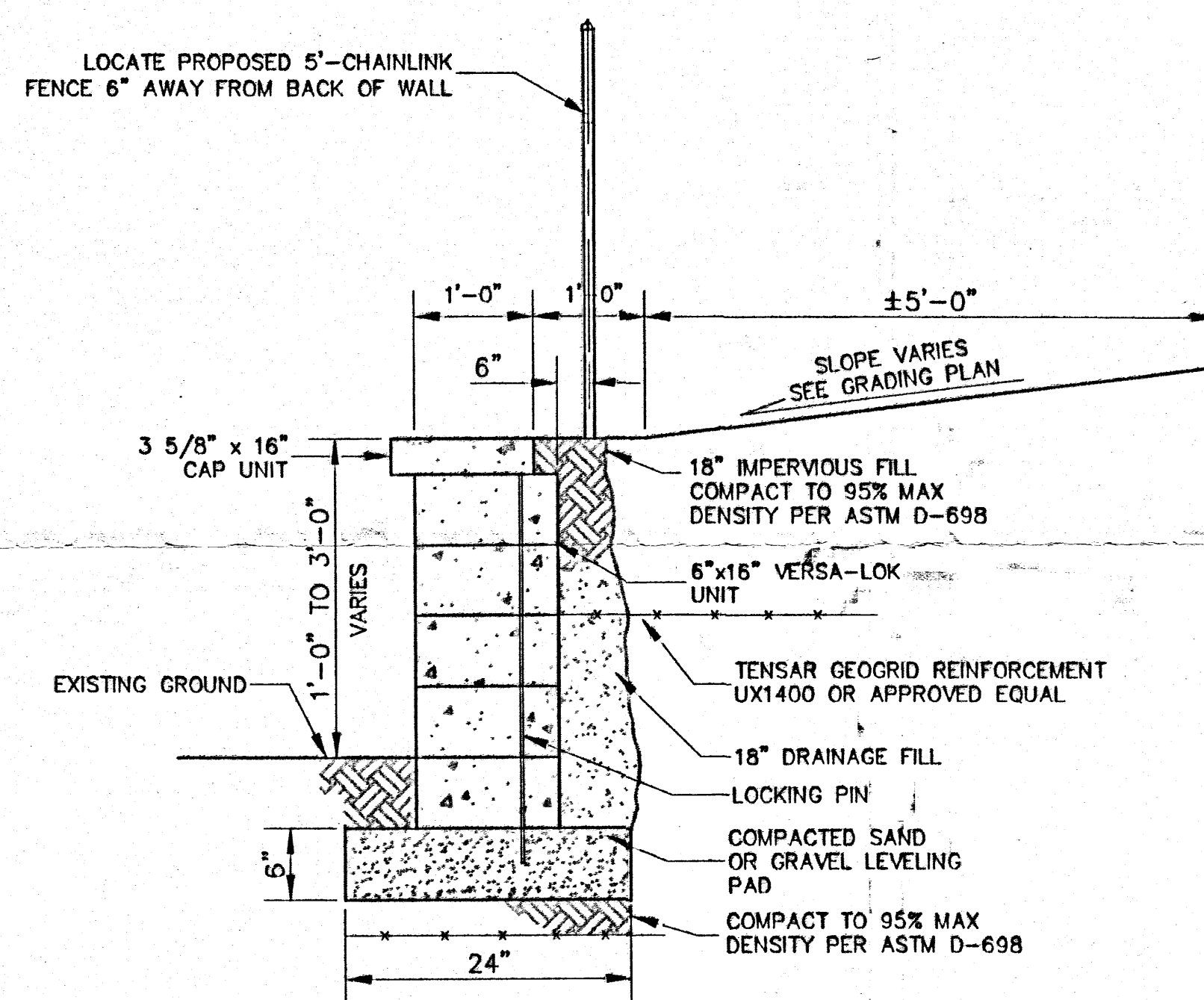


DATE
OCT. 1999
FILE NO.
99074
DESIGN
M.J.
DRAWN
P.J.M.

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

**U.S.D.A. FOREST SERVICE BUILDING
GRADING AND DRAINAGE**

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.
City Project No.	Zone Map No.	Sheet		
XXXX.XX	K-14-Z	C1.1		



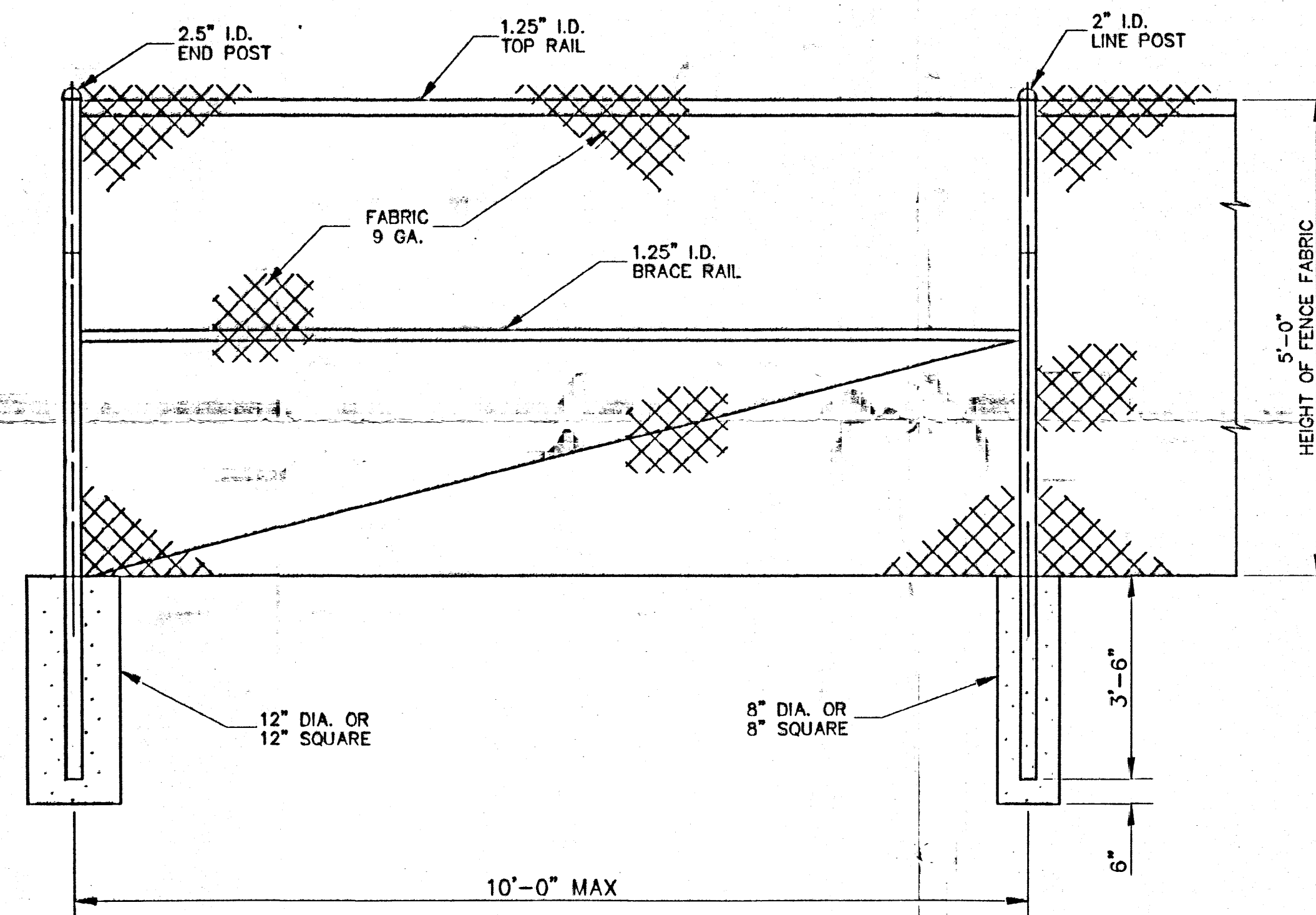
RETAINING WALL DETAIL
NTS

VERSA-LOK RETAINING WALL NOTES:

1. RETAINING WALL IS TO BE INSTALLED AS PER MANUFACTURES SPECIFICATIONS. BLOCK & GRID DESIGN MUST BE SUBMITTED TO PROJECT MANAGER FOR APPROVAL
2. USE:
 - 1) VERSA-LOK RETAINING WALLS
COLONY MATERIALS, INC
505-828-2448
 - 2) APPROVED EQUAL
3. WALL HEIGHTS AND LENGTHS VARY, SEE GRADING AND DRAINAGE SHEETS FOR RETAINING WALL LOCATIONS. REVIEW SPOT ELEVATIONS FOR APPROXIMATE WALL HEIGHTS & OFFSET LOCATIONS

VERSA-LOK FOOTING DETAIL NOTES:

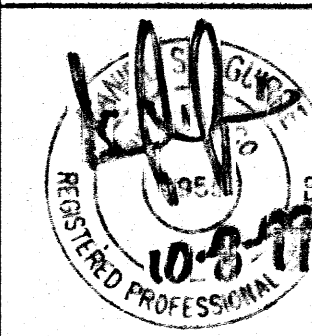
1. MINIMUM EMBEDMENT OF BASE UNIT SHALL BE 1 FT. WHERE WALL HEIGHTS EXCEEDS 5 FT. EMBEDMENT SHALL BE 1.5 FT
2. BASE SHALL BE CONSTRUCTED 12" THICK, 3 LAYERS GEOGRID (TENSAR UX1400)
3. PLACE A MINIMUM OF 18" DRAINAGE FILL BEHIND AND WITHIN UNITS. DRAINAGE FILL TO BE 3/8" TO 3/4" GRADED, NO FINES. PLACE FILTER FABRIC AGAINST EXISTING ON-SITE SOIL. WRAP DRAINAGE FILL
4. BACKFILL TO BE COMPACTED TO 95% STANDARD PROCTOR EACH LIFT BETWEEN GEOGRIDS IN LAYERS (WITH INSTALLATION OF GEOGRID)



CHAINLINK FENCE DETAIL
NTS

WILSON & COMPANY

4775 INDIAN SCHOOL ROAD N.E.
SUITE 200
ALBUQUERQUE, NEW MEXICO
87110
(505) 254-4000



DATE
SEPT. 1999

FILE NO.
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DESIGN
M.J.I.

DRAWN
P.J.M.

CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING GROUP			
U.S.D.A. FOREST SERVICE BUILDING GRADING AND DRAINAGE DETAILS			
Design Review Committee	City Engineer Approval	Mo./Day/Yr.	Mo./Day/Yr.
City Project No. XXXX.XX	Zone Map No. K-14	Sheet	C1.2