

October 30, 1997

Martin J. Chávez, Mayor

Chris Weiss
C.L. Weiss Engineering
P.O. Box 97
Sandia Park, NM 87047

RE: DOWNTOWN PARKING LOT (K14-D66). GRADING AND DRAINAGE PLAN FOR BUILDING AND SO #19 PERMIT APPROVALS. ENGINEER'S STAMP DATED 10-9-97.

Dear Mr. Weiss:

Based on the information provided on your October 10, 1997 submittal, the above referenced project is approved for Building and SO #19 Permits.

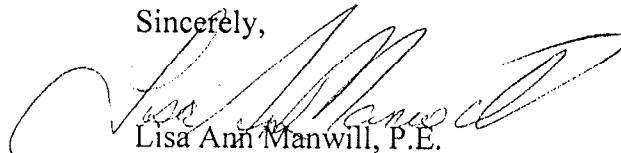
Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology.

A separate permit is required for construction within the City right-of-way. A copy of this approval letter must be on hand when applying for the excavation permit.

Prior to Certificate of Occupancy approval, and Engineer's Certification will be required.

If I can be of further assistance, please feel free to contact me at 924-3984.

Sincerely,



Lisa Ann Manwill, P.E.
Hydrology

c: Arlene Portillo
Andrew Garcia
File

Good for You, Albuquerque!



DRAINAGE INFORMATION SHEET

New
p066

PROJECT TITLE: Downtown Parking Lot ZONE ATLAS / DRNG. FILE #: K-14
LEGAL DESCRIPTION: A Portion of Block 28, New Mexico Town Company's Original Townsite, Albuquerque, NM
CITY ADDRESS: N/A

ENGINEERING FIRM: C.L. Weiss Engineering CONTACT: Chris Weiss

ADDRESS: P.O. Box 97, Sandia Park NM, 87047 PHONE: 281-1800

OWNER: N/A CONTACT: _____

ADDRESS: _____ PHONE: _____

ARCHITECT: Van H. Gilbert Architect - AIA CONTACT: Dick Dawson

ADDRESS: 319 Central Ave.NW - Suite 210 - 87102 PHONE: 247-9955

SURVEYOR: Forstbauer Surveying Co. CONTACT: Ron Forstbauer

ADDRESS: 1100 Alvarado Dr. NE - 87110 PHONE: 268-2112

CONTRACTOR FIRM: N/A CONTACT: _____

ADDRESS: _____ PHONE: _____

PRE-DESIGN MEETING:

☒ YES

☐ NO

☐ COPY OF CONFERENCE RECAP
SHEET PROVIDED

DRB NO. _____

EPC NO. _____

PROJ. NO. _____

TYPE OF SUBMITTAL:

☐ DRAINAGE REPORT

☒ DRAINAGE PLAN

☐ CONCEPTUAL GRADING & DRAINAGE PLAN

☒ GRADING PLAN

☐ EROSION CONTROL PLAN

☐ ENGINEER'S CERTIFICATION

CHECK TYPE OF APPROVAL SOUGHT:

☐ SKETCH PLAT

☐ PRELIMINARY PLAT

☐ SITE DEVELOPMENT PLAN

☐ FINAL PLAT

☒ BUILDING PERMIT

☐ FOUNDATION PERMIT

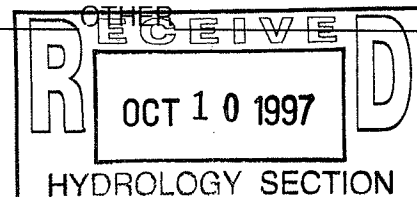
☐ CERT. OF OCCUPANCY

☐ ROUGH GRADING PERMIT

☐ GRADING / PAVING PERMIT

DATE SUBMITTED: October 9, 1997

BY: C.L. Weiss Engineering, Inc.



CALCULATIONS:

Calculations are based on the Drainage Design Criteria for City of Albuquerque, Section 22.2, DPM, Vol 2, dated Jan., 1993

ON-SITE**AREA OF SITE: Upper portion only** 72606 SF 1.667 Ac.

(note: The term "developed" refers to construction of the proposed plan.)

PRE-DEVELOPMENT FLOWS:**DEVELOPED FLOWS:****EXCESS PRECIPITATION:**

On-Site Historic Land Condition

On-Site Developed Land Condition

Precip. Zone 2

Area a	=	0	SF
Area b	=	3630	SF
Area c	=	0	SF
Area d	=	68976	SF
Total Area	=	72606	SF

Area a	=	0	SF
Area b	=	7506	SF
Area c	=	0	SF
Area d	=	65100	SF
Total Area	=	72606	SF

Ea = 0.53
Eb = 0.78
Ec = 1.13
Ed = 2.12

On-Site Weighted Excess Precipitation (100-Year, 6-Hour Storm)

$$\text{Weighted E} = \frac{E_a A_a + E_b A_b + E_c A_c + E_d A_d}{A_a + A_b + A_c + A_d}$$

Historic E	=	2.05 in.	Developed E	=	1.98 in.
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On-Site Volume of Runoff: $V_{360} = E \cdot A / 12$

Historic V_{360}	=	12422 CF	Developed V_{360}	=	11989 CF
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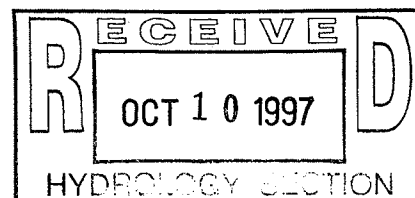
On-Site Peak Discharge Rate: $Q_p = Q_{pa}A_a + Q_{pb}A_b + Q_{pc}A_c + Q_{pd}A_d / 43,560$

For Precipitation Zone 2

Q_{pa}	=	1.56	Q_{pc}	=	3.14
Q_{bb}	=	2.28	Q_{pd}	=	4.70

Historic Q_p	=	7.6 CFS	Developed Q_p	=	7.4 CFS
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to be released directly into surrounding streets
at 4 locations - see subbasins below



BASIN 1

Area of basin flows =

9406	SF
------	----

 =

0.2	Ac.
-----	-----

 Precip. Zone

2

The following calculations are based on Treatment areas as shown in table to the right

Off-Site Weighted Excess Precipitation (see formula above)

Weighted E =

2.12	in.
------	-----

Off-Site Volume of Runoff (see formula above)

V360 =

1662	CF
------	----

Off-Site Peak Discharge Rate: (see formula above)

Qp =

1.0	cfs
-----	-----

TREATMENT	
A =	0%
B =	0%
C =	0%
D =	100%

To be released into 8th St. SW at the proposed drive entrance.

BASIN 2

Area of basin flows =

17762	SF
-------	----

 =

0.4	Ac.
-----	-----

 Precip. Zone

2

The following calculations are based on Treatment areas as shown in table to the right

Off-Site Weighted Excess Precipitation (see formula above)

Weighted E =

2.12	in.
------	-----

Off-Site Volume of Runoff (see formula above)

V360 =

3138	CF
------	----

Off-Site Peak Discharge Rate: (see formula above)

Qp =

1.9	cfs
-----	-----

TREATMENT	
A =	0%
B =	0%
C =	0%
D =	100%

To be released into Gold Ave. SW at the proposed sidewalk culvert

BASIN 3

Area of basin flows =

23030	SF
-------	----

 =

0.5	Ac.
-----	-----

 Precip. Zone

2

The following calculations are based on Treatment areas as shown in table to the right

Off-Site Weighted Excess Precipitation (see formula above)

Weighted E =

2.12	in.
------	-----

Off-Site Volume of Runoff (see formula above)

V360 =

4069	CF
------	----

Off-Site Peak Discharge Rate: (see formula above)

Qp =

2.5	cfs
-----	-----

TREATMENT	
A =	0%
B =	0%
C =	0%
D =	100%

To be released into Silver Ave. SW at the proposed sidewalk culvert

BASIN 4

Area of basin flows =

13997	SF
-------	----

 =

0.3	Ac.
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 Precip. Zone

2

The following calculations are based on Treatment areas as shown in table to the right

Off-Site Weighted Excess Precipitation (see formula above)

Weighted E =

2.12	in.
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Off-Site Volume of Runoff (see formula above)

V360 =

2473	CF
------	----

Off-Site Peak Discharge Rate: (see formula above)

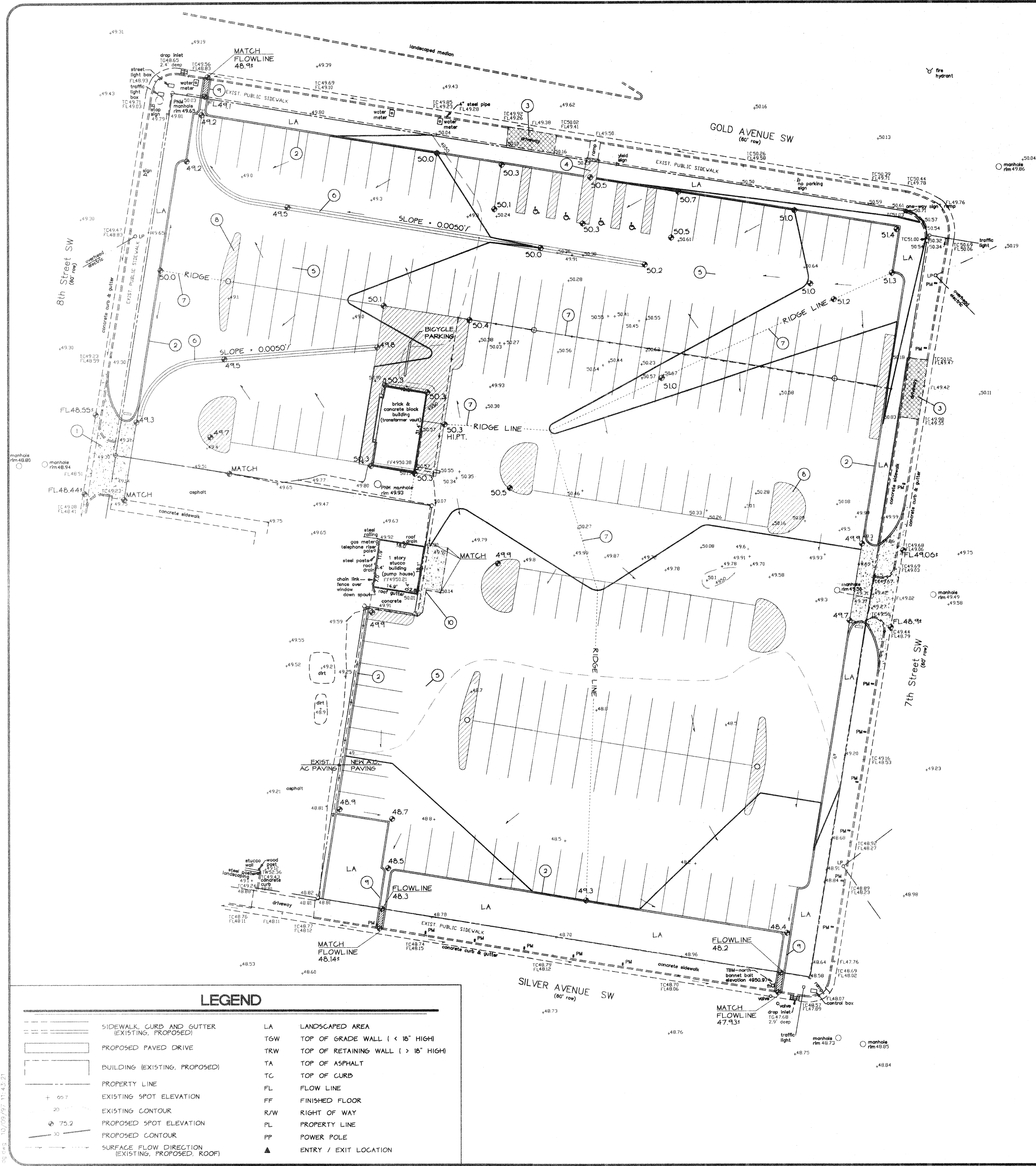
Qp =

1.5	cfs
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TREATMENT	
A =	0%
B =	0%
C =	0%
D =	100%

To be released into Silver Ave. SW at the proposed sidewalk culvert

Note: Total Basin flows reflect flows (1.0 cfs + 1.9 cfs + 2.5 cfs + 1.5 cfs) leaving site to City streets at basin outlets. The remaining 0.5 cfs falls within the perimeter landscaping area.



SCOPE
The proposed improvements include a downtown parking lot with associated landscaping.
The present site is a developed commercial property, Gold Ave. NW abuts the property to the north, 8th St. SW abuts the property to the west, Silver Ave. NW abuts the property to the south and 7th Ave. NW abuts the property to the east.
The intent of this plan is to show:

- Grading relationships between the existing ground elevations and proposed finished elevations in order to facilitate positive drainage to designated discharge points.
- The extent of proposed site improvements, including buildings, walks and pavement.
- The flow rate/volume of rainfall runoff across or around these improvements and methods of handling these flows to meet City of Albuquerque requirements for drainage management.
- The relationship of on-site improvements with existing neighboring property to insure an orderly transition between proposed and surrounding grades.

DRAINAGE PLAN CONCEPT: Per a pre-design conference with the C.O.A. Hydrology Department, because this is a City infill project with established drainage criteria, the property will continue to free discharge to the surrounding streets. Based on calculations, the proposed improvements reduce the total run-off from this site by 0.4 cfs.

GENERAL NOTES

LEGAL: A Portion of Block 28, New Mexico Town Company's Original Townsite, Albuquerque, New Mexico.

SURVEYOR: Forstbauer Surveying Co., Ron Forstbauer - 268-2112

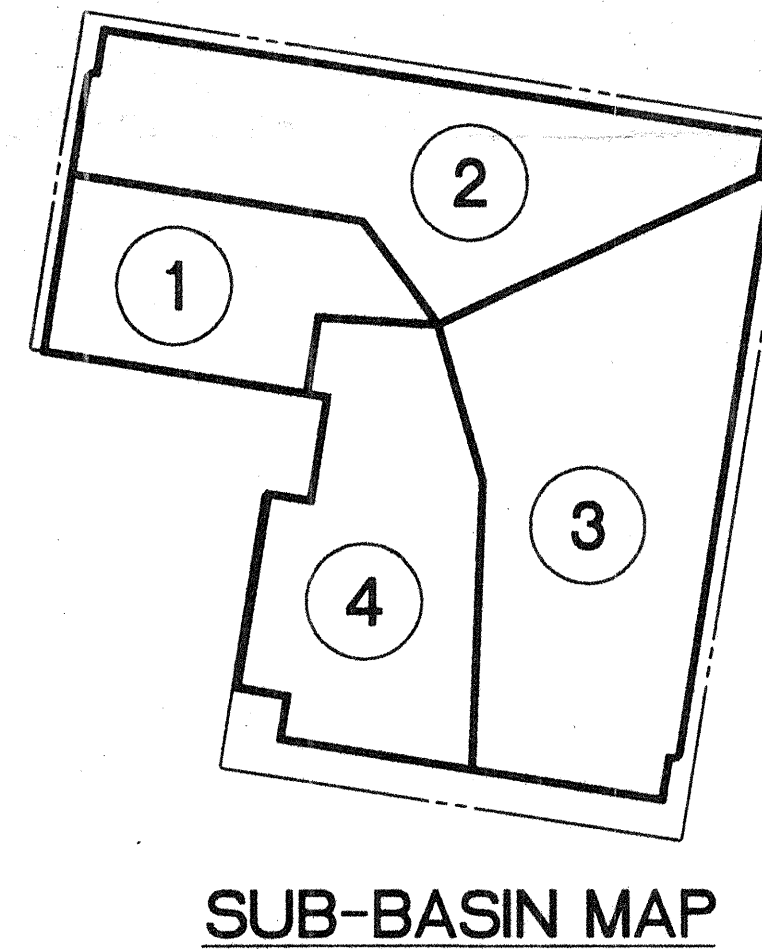
B.M.: City of Albuquerque 1-K14. A brass disk in sidewalk located in the southwest quadrant of the intersection of 6th Street and Copper Avenue NW. Elevation = 4952.29 (M.S.L.D.)

T.B.M.: North corner of fire hydrant located on the corner of 7th St. and Gold Ave. SW. Elevation = 4950.97 (M.S.L.D.)

FLOOD HAZARD: Per FEMA Boundary Map #28 / FIRM Map #334, the site is not located in a 100 year flood zone but lies within the 500 year flood zone.

OFF-SITE DRAINAGE: Based on survey information and site inspection, no off-site flows affect this property.

EROSION CONTROL: The contractor is responsible for retaining on-site all sediment generated during construction by means of temporary earth berms or silt fences at the low points on the west property line.



NOTICE TO CONTRACTOR

- 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.
- ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
- TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE, 765-1234, FOR LOCATION OF EXISTING UTILITIES.
- 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 WITHIN A MINIMUM AMOUNT OF DELAY.
- BACKFILL COMPACTION SHALL BE ACCORDING TO COLLECTOR STREET USE.
- MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.
- CONTRACTOR IS RESPONSIBLE FOR OBTAINING EXCAVATION PERMIT FOR SIDEWALK CULVERT/DRAIN.
- PROOF OF ACCEPTANCE WILL BE REQUIRED PRIOR TO SIGN OFF FOR CERTIFICATE OF OCCUPANCY (C.O.)

DRAINAGE FACILITIES WITHIN CITY RIGHT-OF-WAY

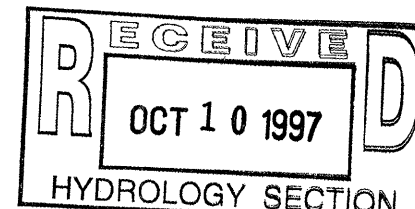
DESIGN APPROVAL: *Jon Williams* 10-30-97 DATE

INSPECTION APPROVAL: _____ DATE

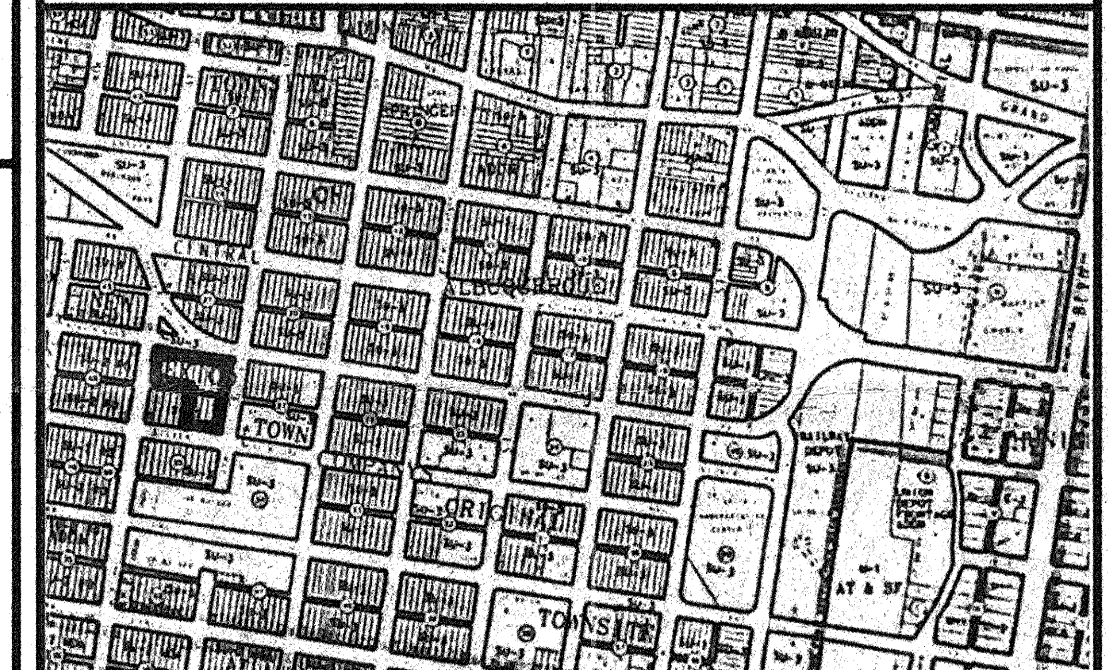
ACCEPTANCE: _____ DATE

KEYNOTES

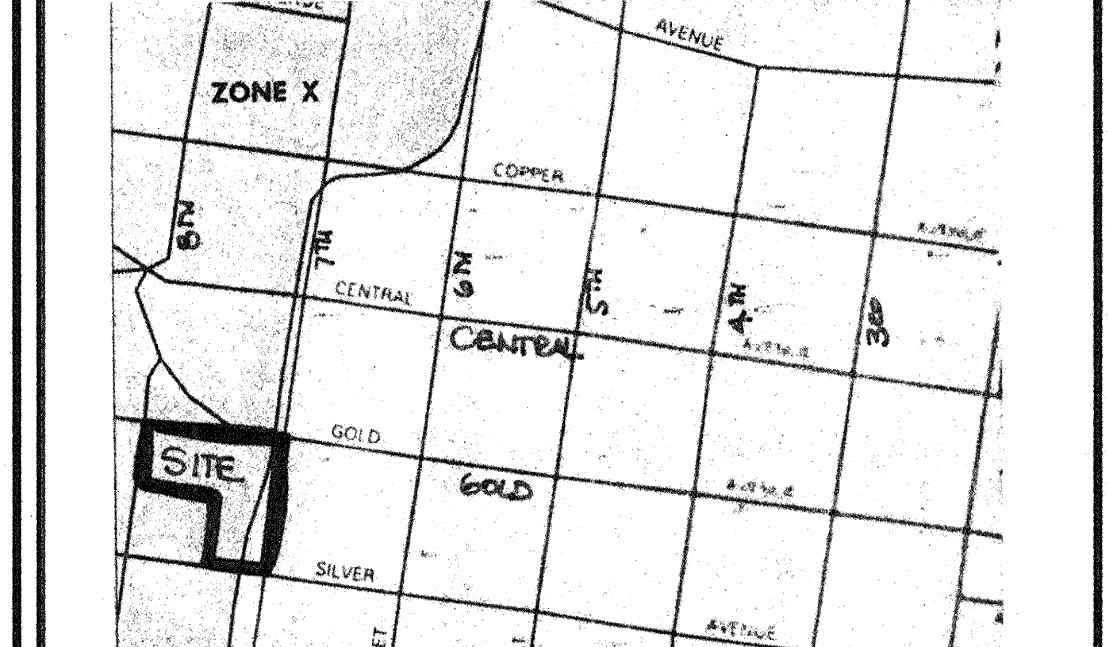
- CONSTRUCT CONCRETE DRIVEPAD AT ELEVATIONS SHOWN. SEE ARCHITECTURAL FOR DEMOLITION NOTES AND ADDITIONAL INFORMATION.
- CONSTRUCT CONCRETE HEADER CURB PER C.O.A. STD. DWG. 2415. TYPICAL OF ALL CURBS.
- REMOVE EXISTING DRIVEPAD AND REPLACE WITH SIDEWALK PER C.O.A. STD. DWG. 2430. MATCH TOP OF WALK ELEVATIONS TO PROVIDE SMOOTH TRANSITION.
- CONSTRUCT ASPHALT PAVING AT ELEVATIONS SHOWN AT THE EXISTING HANDICAP RAMP. MATCH TOP OF EXISTING RAMP ELEVATION MAXIMUM SLOPE TO BE 1:20. MAXIMUM CROSS-SLOPE TO BE 2%.
- 2" A.C. PAVING OVER 6" COMPACTED BASE COURSE. TYPICAL.
- CONSTRUCT 2' WIDE X 3/4" DEEP ALLEY GUTTER AT ELEVATIONS SHOWN. SLOPE = 0.0050'/'. SEE C.O.A. STD. DWG. 2415 FOR ADDITIONAL INFORMATION.
- DASHED LINE REPRESENTS RIDGE LINE IN PAVING WHICH SUBDIVIDES THE SITE INTO FOUR SUB-BASINS. SEE SEPARATE CALCULATIONS / BASIN MAP THIS SHEET FOR ADDITIONAL INFORMATION.
- SEE ARCHITECTURAL FOR PARKING LOT STRIPING THROUGHOUT. TYPICAL.
- CONSTRUCT 2' WIDE U-SHAPED CONCRETE CHANNEL / SIDEWALK CULVERT AT ELEVATIONS SHOWN. SEE C.O.A. STD. DWG. 2230 FOR ADDITIONAL INFORMATION. PROVIDE STEEL PLATE TOP FROM PROPERTY LINE TO FACE OF CURB. MATCH TOP OF WALK FOR SMOOTH TRANSITION.
- EXISTING CONCRETE TO REMAIN AS SHOWN. MATCH WITH TOP OF ASPHALT TO PROVIDE SMOOTH RIDING TRANSITION.



VICINITY MAP #K-14



FEMA MAP #28 / FIRM MAP 334



C.L. WEISS ENGINEERING, INC.

SANDIA PARK OFFICE
POST OFFICE BOX 97
SANDIA PARK, NM 87047
(505) 261-1800

ALVARADO OFFICE
100 ALVARADO DR. NE
ALBUQUERQUE, NM 87110
(505) 265-3444

Revisions

THIS DESIGN, CALCULATIONS, AND CONCEPTS ARE OWNED BY AND REMAIN THE PROPERTY OF C.L. WEISS ENGINEERING, INC. AND NO PART THEREOF SHALL BE UTILIZED BY ANY PERSON, FIRM, OR CORPORATION FOR ANY PURPOSE WHATSOEVER EXCEPT WITH THE WRITTEN PERMISSION OF CHRISTOPHER L. WEISS, P.E. ©

Downtown Parking Lot

Scale: 1" = 20' Drawn By: BJB Checked By: CLW Job Number: _____ Date: OCT. 1997

Drainage and Grading Plan

C-1 Sh. 1 of 1