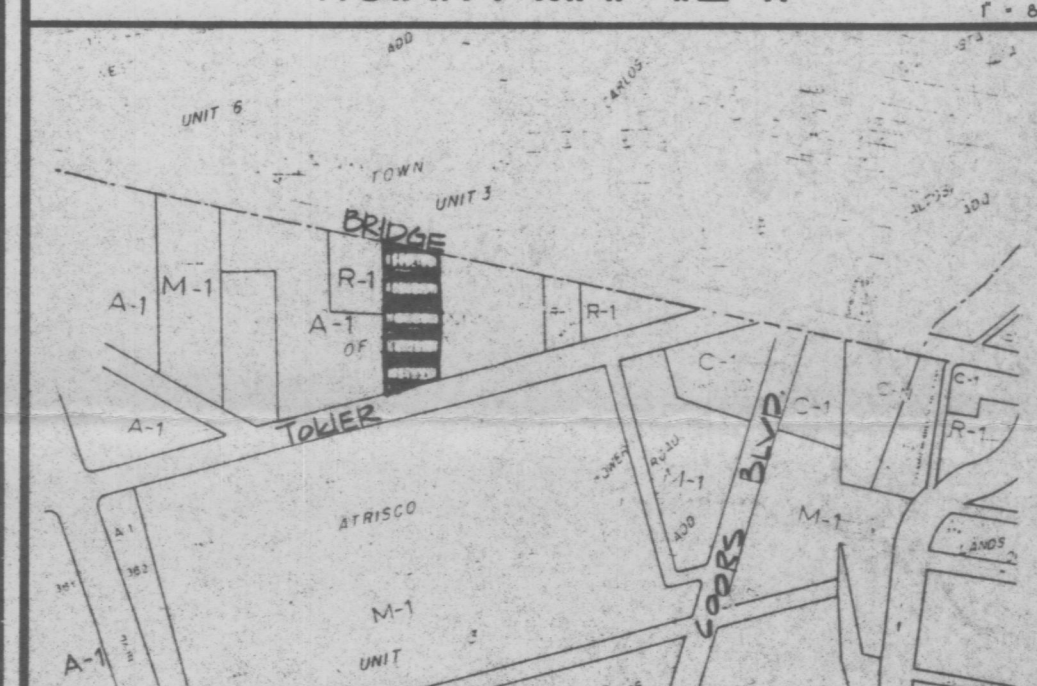


KEYNOTES

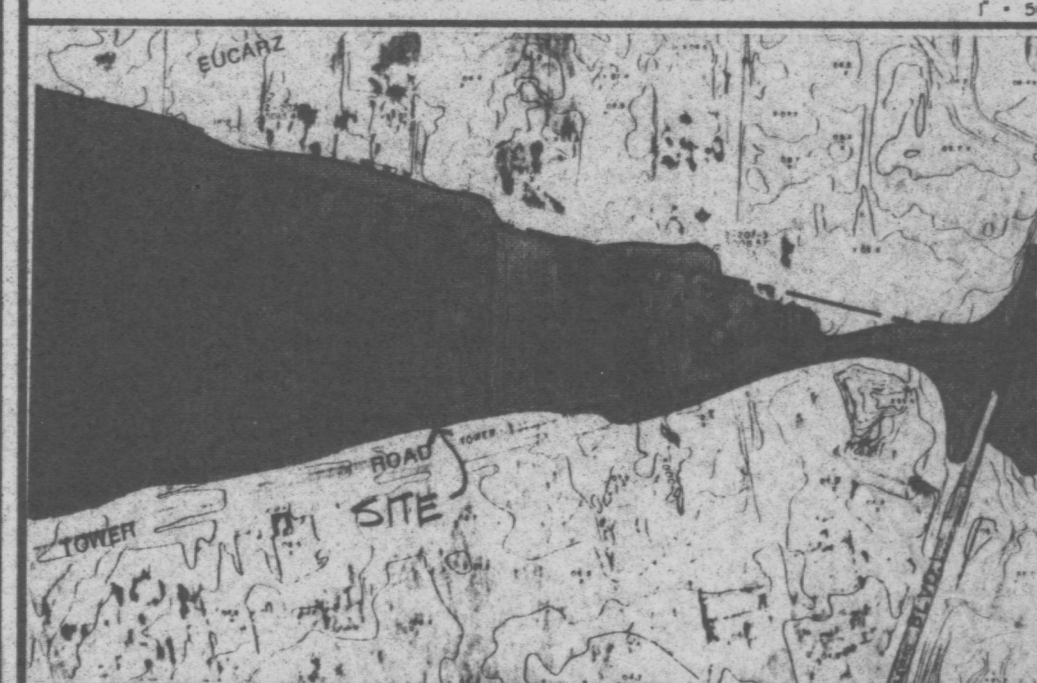
- ① EXISTING CHAIN LINK FENCE SURROUNDING PROPERTY.
- ② EXISTING CONCRETE BLOCK WALL THIS AREA.
- ③ PROPOSED CHAIN LINK FENCE LOCATED ALONG SETBACK LINES (FUTURE).
- ④ PROPOSED 24' WIDE GRAVEL DRIVE.
- ⑤ PROPOSED GRAVEL DRIVE ENTRANCE, MATCH EXISTING ASPHALT ELEVATIONS FOR SMOOTH RIDING TRANSITION. SEE SITE PLAN FOR DIMENSIONS.
- ⑥ CREATE SHALLOW DIP SECTION IN GRAVEL ROAD THIS AREA TO ALLOW NUISANCE FLOWS TO PASS.

ON THE WEEK OF JULY 24, 1995
I, CHRISTOPHER L. WEISS, P.E.,
REGISTERED PROFESSIONAL ENGINEER,
STATE OF NEW MEXICO,
CERTIFICATE NO. 6653,
DATE 7/28/95

VICINITY MAP #L-11



FEMA MAP #33



C.L. WEISS ENGINEERING, INC.

SANDIA PARK OFFICE
POST OFFICE BOX 47
SANDIA PARK, NM 87047
(505) 261-1800

ALVARADO OFFICE
1100 ALVARADO DR. NE
ALBUQUERQUE, NM 87110
(505) 266-3444



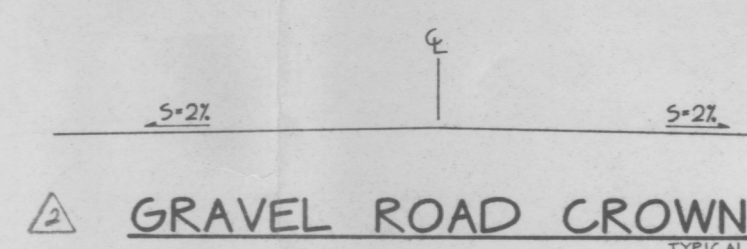
Revisions

ROMERO
A-1 FIREWOOD

Scale: 1" = 30' Drawn By: BJB Checked By: CLW Job Number: Date: AUGUST 1995

Drainage and
Grading Plan

C-1
SH. 1 OF 1



LEGEND

---	SIDEWALK, CURB AND GUTTER (EXISTING, PROPOSED)
---	PROPOSED PAVED DRIVE
---	BUILDING (EXISTING, PROPOSED)
---	PROPERTY LINE
x 65.7	EXISTING SPOT ELEVATION
o 75.2	PROPOSED SPOT ELEVATION
---	EXISTING CONTOUR
---	PROPOSED CONTOUR
---	SURFACE FLOW DIRECTION (EXISTING, PROPOSED)
LA	LANDSCAPED AREA
TGW	TOP OF GRADE WALL (< 18" HIGH)
TRW	TOP OF RETAINING WALL (> 18" HIGH)
TA	TOP OF ASPHALT
TC	TOP OF CURB
FL	FLOW LINE
FF	FINISHED FLOOR
R/W	RIGHT OF WAY
PL	PROPERTY LINE
PP	POWER POLE
▲	ENTRY / EXIT LOCATION

SCOPE

The proposed improvements include a 3200 SF (footprint) building area with adjacent gravel access road / parking area and paved walkways, general site work and minor site grading.

The present site is an undeveloped property with no significant slope. Bridge Blvd. SW borders the site on the north. Tower Road SW borders the property on the south. The properties to the east and west are developed commercial properties.

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 Bernalillo County 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: Although the current FEMA Map #33 indicates the presence of a floodplain affecting this property, this floodplain has been eliminated and map revisions which indicate this are proceeding concurrently with this submittal. The grading shall be limited to the road and the building area. Minor flows shall be ponded on the west side of the road.

GENERAL NOTES:

LEGAL: Tract 316, Unit 3 of the Plat Showing a Portion of Tracts Allotted from Town of Atrisco Grant, Albuquerque, New Mexico.

SURVEYOR: Forstbauer Surveying Co. - Ron Forstbauer, 1100 Alvarado Dr. NE, Albuquerque, NM 87110 - June 1995

B.M.: City of Albuquerque 9-L11, an aluminum cap riveted to a pipe 0.01' above the ground located near the southeast corner of a chain link fence at 3327 Tower Road, Elevation = 5009.22 (M.S.L.D.)

I.B.M.: Nail with disk in Power Pole located south of midpoint along east property boundary. Elevation = 5008.68" (M.S.L.D.)

FLOOD HAZARD: Based on FEMA Map #11, the site is located within a floodplain.

OFF-SITE DRAINAGE: Minor off-site flows from the northwest affect this property. A gravel dip section will be constructed at the north entrance to allow nuisance flows to pass.

SOILS: See calcs.

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.

CALCULATIONS:

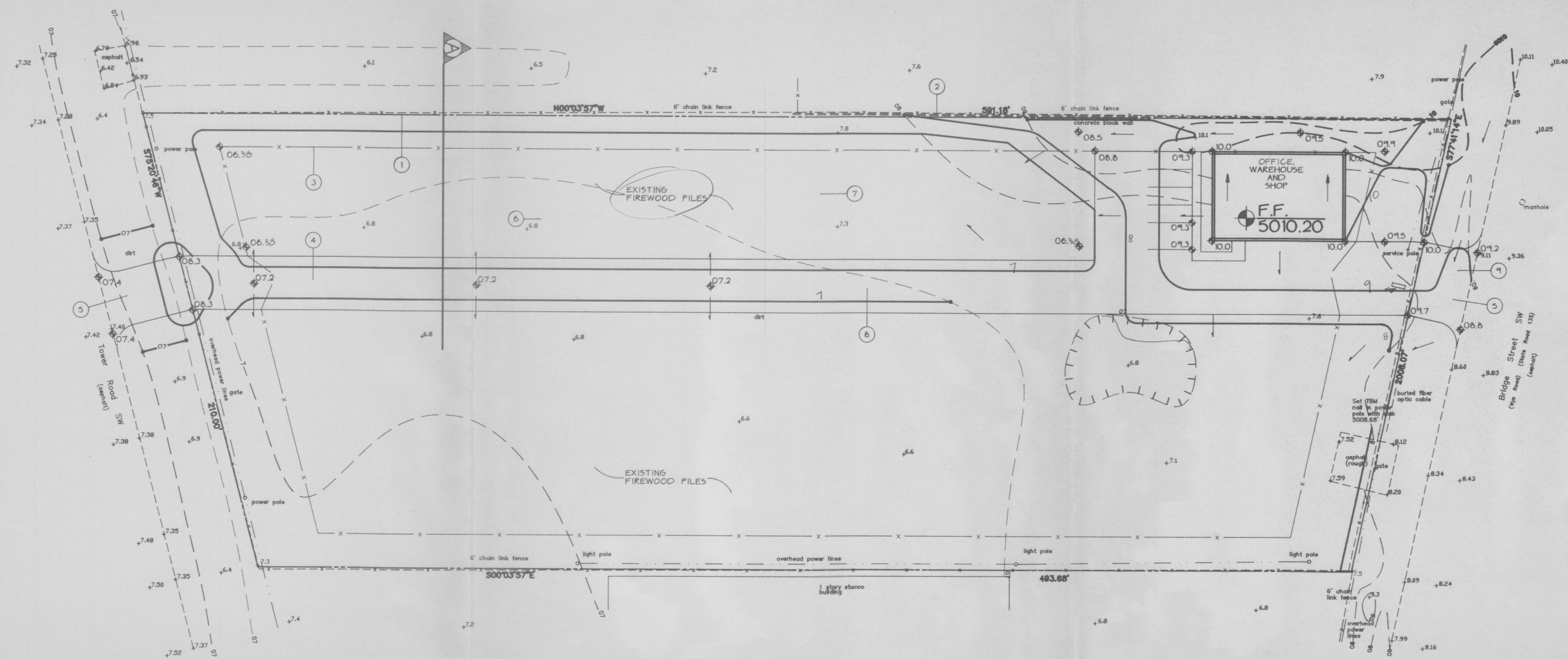
Calculations are based on the Drainage Design Criteria for Bernalillo County, Section 22.2, DPM, Vol. 2, dated Jan., 1993

ON-SITE			
AREA OF SITE:	110239	SF	= 2.53 Ac.
DEVELOPED FLOWS:			
HISTORIC FLOWS:	On-Site Historic Land Condition	On-Site Developed Land Condition	EXCESS PRECIPITATION:
Area a =	0 SF	Area a =	0 SF
Area b =	0 SF	Area b =	0 SF
Area c =	110239 SF	Area c =	107039 SF
Area d =	0 SF	Area d =	3200 SF
Total Area =	110239 SF	Total Area =	110239 SF
On-Site Weighted Excess Precipitation (100-Year, 6-Hour Storm)			
Weighted E =		EaAa + EbAb + EcAc + EdAd	
Historic E =		Aa + Ab + Ac + Ad	
Historic V360 =		Developed E =	
On-Site Volume of Runoff: V360 =		Historic V360 =	
On-Site Peak Discharge Rate: Qp = QpaAa + QpbAb + QpcAc + QpdAd / 43,560		Historic V360 =	
For Precipitation Zone 1		Historic V360 =	
Qpa = 1.29		Qpc = 2.87	
Qpb = 2.03		Qpd = 4.37	
Historic Qp =		Developed Qp =	
Historic Qp =		Developed Qp =	
Excess Flows to be ponded on west side of proposed gravel road =		261 CF	
Area of pond created (area of 07.0 contour) =		8000 SF	
Depth of pond required =		0.03 FT	

I, Christopher L. Weiss, P.E. hereby certify that the as-built information shown is in substantial compliance with the approved drainage / grading plan with the following areas of modification between the approved drainage / grading plan and the actual as-built:

- Proposed chain link fence not constructed this phase.
- Proposed 24' wide gravel drive not constructed this phase.
- Proposed gravel drive entrance(s) not constructed this phase.
- Revision to site plan.

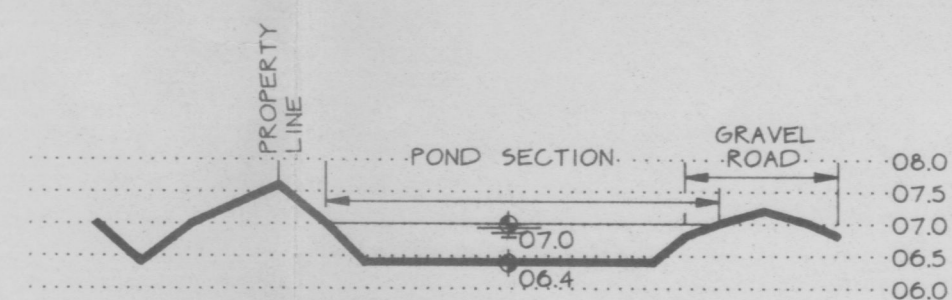
Christopher L. Weiss 12-12-95
Christopher L. Weiss, P.E. Date
As-Built Survey provided by Forstbauer Surveying Co. 12-11-95



→ North?

on Prelim FEMA maps
this fp is gone

GRAVEL ROAD CROWN



SECTION A

LEGEND

---	SIDEWALK, CURB AND GUTTER (EXISTING, PROPOSED)
---	PROPOSED PAVED DRIVE
---	BUILDING (EXISTING, PROPOSED)
---	PROPERTY LINE
x 65.7	EXISTING SPOT ELEVATION
20	EXISTING CONTOUR
75.2	PROPOSED SPOT ELEVATION
30	PROPOSED CONTOUR
---	SURFACE FLOW DIRECTION (EXISTING, PROPOSED)
---	LANDSCAPED AREA
LA	T&W
TRW	TOP OF GRADE WALL (< 18" HIGH)
TA	TOP OF RETAINING WALL (> 18" HIGH)
TC	TOP OF ASPHALT
FL	TOP OF CURB
FF	FLOW LINE
R/W	FINISHED FLOOR
PL	RIGHT OF WAY
PP	PROPERTY LINE
▲	POWER POLE
▲	ENTRY / EXIT LOCATION

SCOPE:

The proposed improvements include a 2400 SF (footprint) building area with adjacent gravel access road / parking area and paved walkways, general site work and minor site grading.

The present site is an undeveloped property with no significant slope. Bridge Blvd. SW borders the site on the north. Tower Road SW borders the property on the south. The properties to the east and west are developed commercial properties.

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 the FIRM Map #33, the F.F. of the building is set at 5010.20 approximately 3.4' above the lowest elevation. A 0.6' deep ponding area will be constructed on the north side of the property to contain the excess volumes displaced by the proposed construction. The proposed gravel road will act as a berm. Minimal site grading to be done south of the proposed road.

GENERAL NOTES:

LEGAL: Tract 316, Unit 3 of the Plat Showing a Portion of Tracts Allotted from Town of Atrisco Grant, Albuquerque, New Mexico.

SURVEYOR: Forsbauer Surveying Co. - Ron Forsbauer, 1100 Alvarado Dr. NE, Albuquerque, NM 87110 - June 1995

B.M.: City of Albuquerque 9-111, an aluminum cap riveted to a pipe 0.01" above the ground located near the southeast corner of a chain link fence at 3327 Tower Road. Elevation = 5009.22 (M.S.L.D.)

I.B.M.: Nail with disk in Power Pole located south of midpoint along east property boundary. Elevation = 5008.68' (M.S.L.D.)

FLOOD HAZARD: Based on FEMA Map #111 the site is located within a floodplain.

OFF-SITE DRAINAGE: Per the FEMA Map insert, the area surrounding this property is located within the floodplain designated AO with an average depth of 1.0'. A minor dip section will be constructed at the east entrance to allow nuisance flows to pass.

SOILS: See calcs.

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.

CALCULATIONS:

Calculations are based on the Drainage Design Criteria (Bernalillo County) Section 22.2, DPM, Vol. 2, dated Jan., 1993

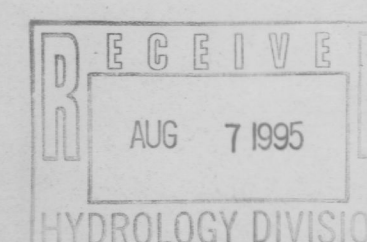
ON-SITE		
AREA OF SITE:	110239 SF	= 2.53 Ac.
HISTORIC FLOWS:	DEVELOPED FLOWS:	EXCESS PRECIPITATION:
On-Site Historic Land Condition	On-Site Developed Land Condition	Precip. Zone 1
Area a = 0 SF	Area a = 0 SF	Ea = 0.44
Area b = 0 SF	Area b = 0 SF	Eb = 0.67
Area c = 110239 SF	Area c = 107839 SF	Ec = 0.99
Area d = 0 SF	Area d = 2400 SF	Ed = 1.97
Total Area = 110239 SF	Total Area = 110239 SF	
On-Site Weighted Excess Precipitation (100-Year, 6-Hour Storm)		
Weighted E = $EaAa + EbAb + EcAc + EdAd$		
Aa + Ab + Ac + Ad		
Historic E = 0.99 in.	Developed E = 1.01 in.	
On-Site Volume of Runoff: V360 = $EPA/12$		
Historic V360 = 9095 CF	Developed V360 = 9291 CF	
On-Site Peak Discharge Rate: $Qp = QpaAa + QpbAb + QpcAc + QpdAd / 43,560$		
For Precipitation Zone 1		
Qpa = 1.29	Qpc = 2.87	
Qpb = 2.03	Qpd = 4.37	
Historic Qp = 7.3 CFS	Developed Qp = 7.3 CFS	
Excess Flows to be ponded on North side of proposed gravel road = 196 CF		

DISPLACED VOLUME CALCULATIONS

Based on the F.I.R.M. Map #33, the floodzone for this property is designated as AO which is an area of 100-year shallow flooding where depths are between one and three feet. Average depth for this property is given as one foot.

Comparing the existing and proposed contours using an Earthworks Volume program, the pond (bottom elev. = 06.38) provides a TOTAL CUT of 20583 CF to provide for the displaced volume (assume 3' depth) + the excess flows to be ponded of 196 CF. Which represents a total pond volume required of 20489 CF.

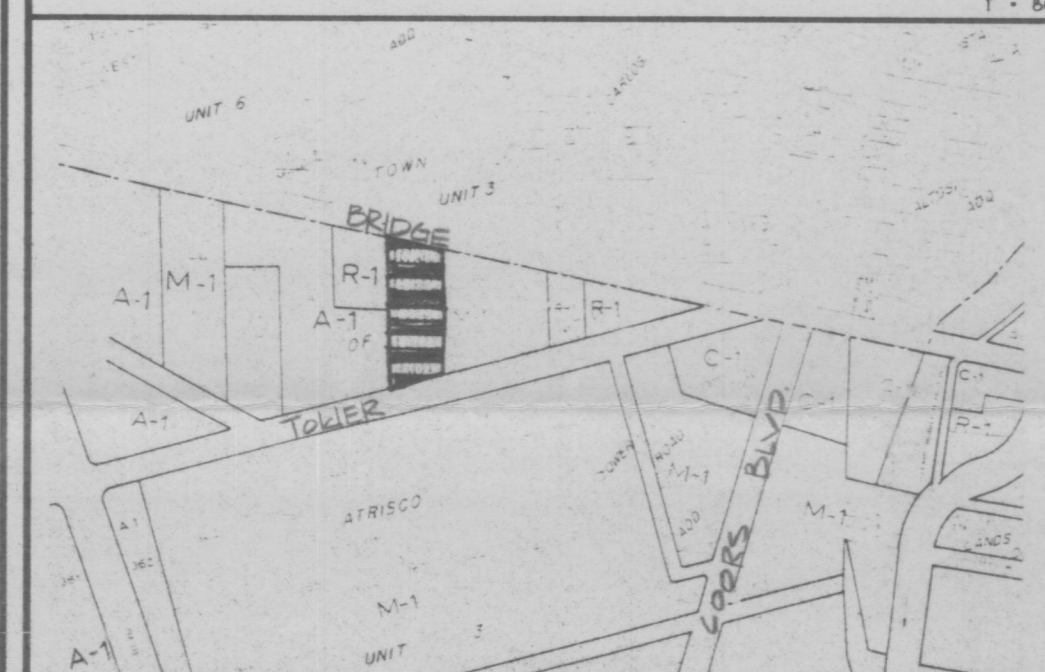
Based on the Bernalillo County Soil Survey, the soil type for this property is MWA (Madurez-Wink association- Hydrologic Soil Group 'B') with a permeability of 0.6 to 2.0 inches per hour. At this rate, the 0.6' deep pond will empty between 4 and 13 hours after the storm event. Excess flows will sheet flow over the road following historic paths.



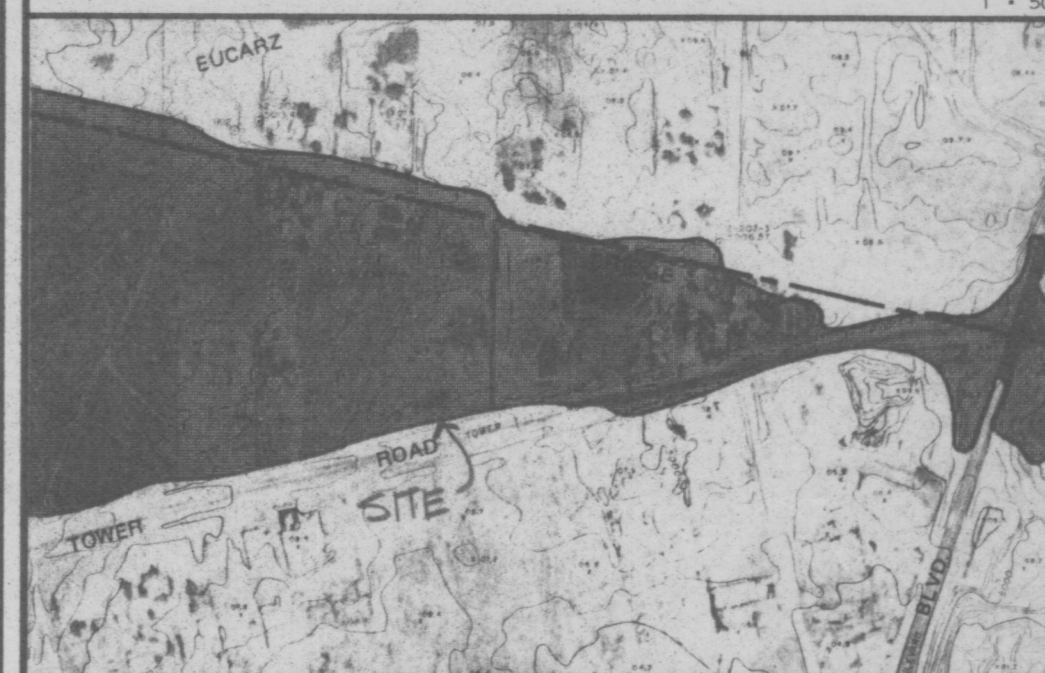
KEYNOTES

- EXISTING CHAIN LINK FENCE SURROUNDING PROPERTY.
- EXISTING CONCRETE BLOCK WALL THIS AREA.
- PROPOSED CHAIN LINK FENCE LOCATED ALONG SETBACK LINES (FUTURE)
- PROPOSED 24' WIDE GRAVEL DRIVE. SEE SECTION A THIS SHEET.
- PROPOSED GRAVEL DRIVE ENTRANCE PER C.O.A. STANDARDS. MATCH EXISTING ASPHALT ELEVATIONS FOR SMOOTH RIDING TRANSITION. SEE SITE PLAN FOR DIMENSIONS.
- CONSTRUCT RETENTION POND ON NORTH SIDE OF ROAD AS SHOWN TO STORE DIVERGED FLOWS DUE TO PROPOSED CONSTRUCTION WITHIN THE FLOODZONE.
- EXCESS FLOWS FROM THE PROPOSED CONSTRUCTION TO BE RETAINED THIS AREA ALSO. SEE CALCULATIONS AND SCOPE OF WORK NOTES THIS SHEET.
- CONSTRUCT GRAVEL ROAD AT ELEVATIONS SHOWN TO ACT AS A BERM FOR POND. SEE ROAD / POND SECTION THIS SHEET.
- CREATE SHALLOW DIP SECTION IN GRAVEL ROAD THIS AREA TO ALLOW NUISANCE FLOWS TO PASS.

VICINITY MAP #L-11

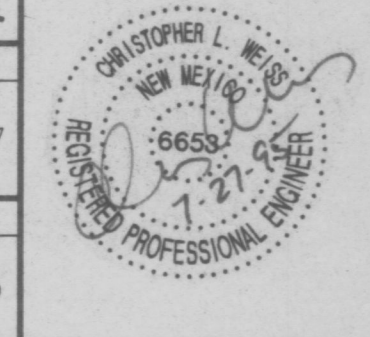


FEMA MAP #33



C.L. WEISS ENGINEERING, INC.

	SANDIA PARK OFFICE	
	POST OFFICE BOX 47 SANDIA PARK, NM 87047 (505) 281-1800	
	ALVARADO OFFICE	
	100 ALVARADO DR. NE ALBUQUERQUE, NM 87110 (505) 266-3444	



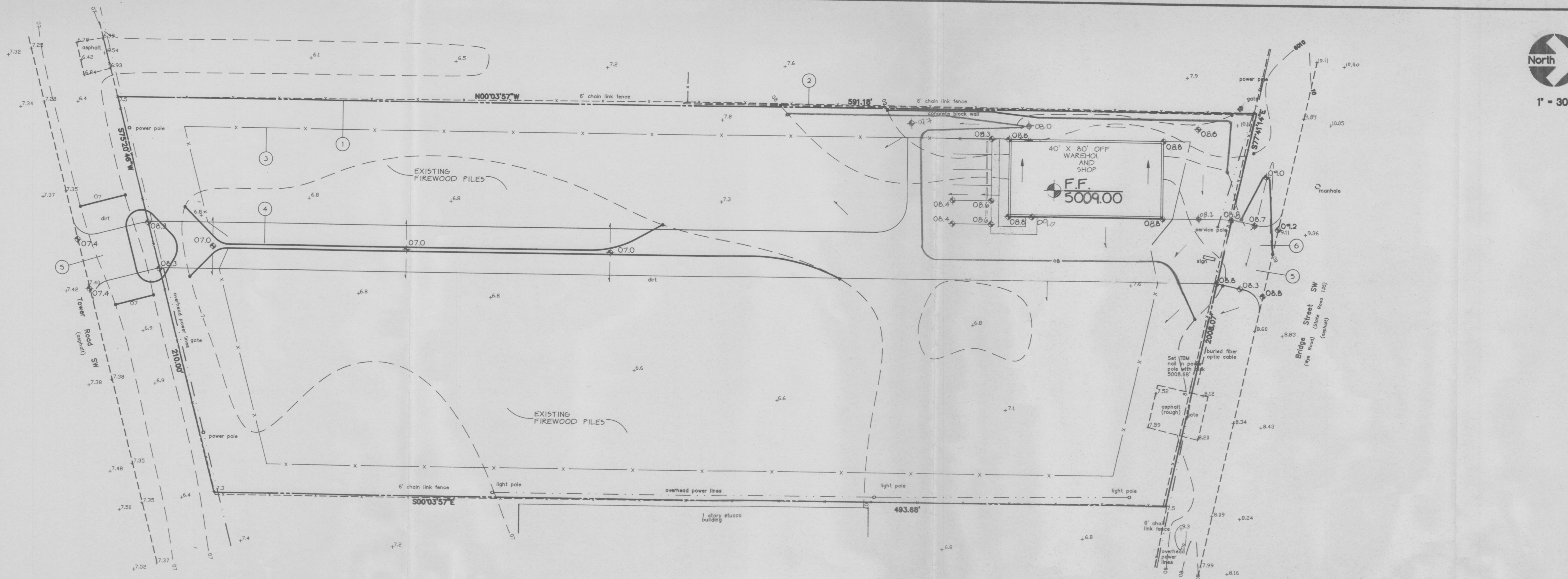
Revisions				

ROMERO A-1 FIREWOOD

Scale: 1" = 30'	Drawn By: BUB	Checked By: CLW	Job Number:	Date: JULY 1995
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Drainage and Grading Plan

C-1
SH. 1 OF 1

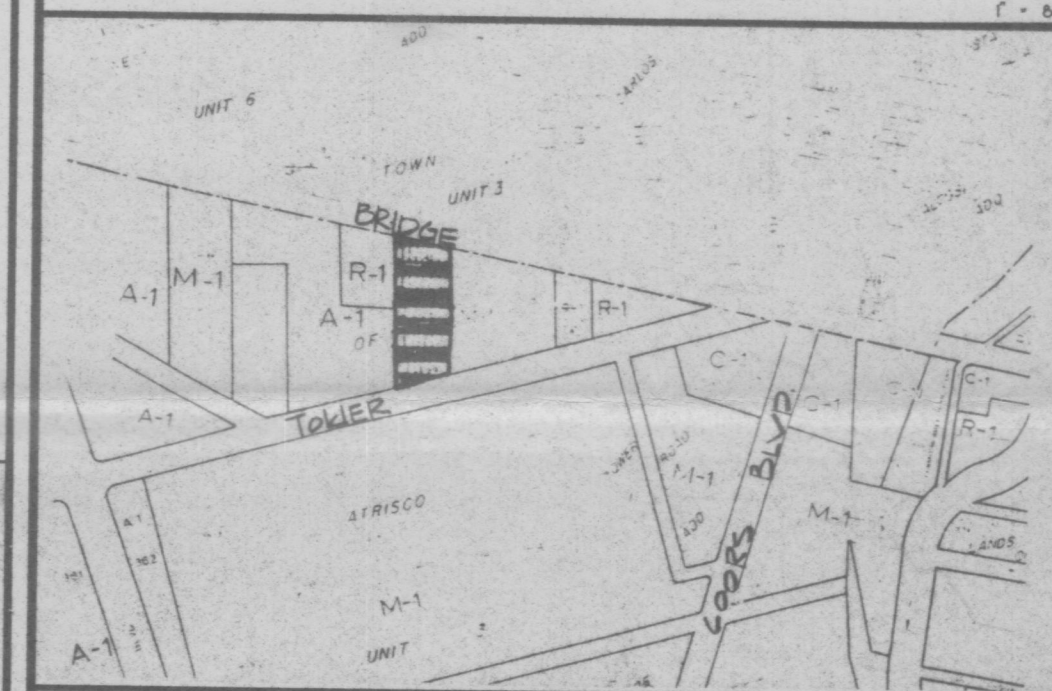


KEYNOTES

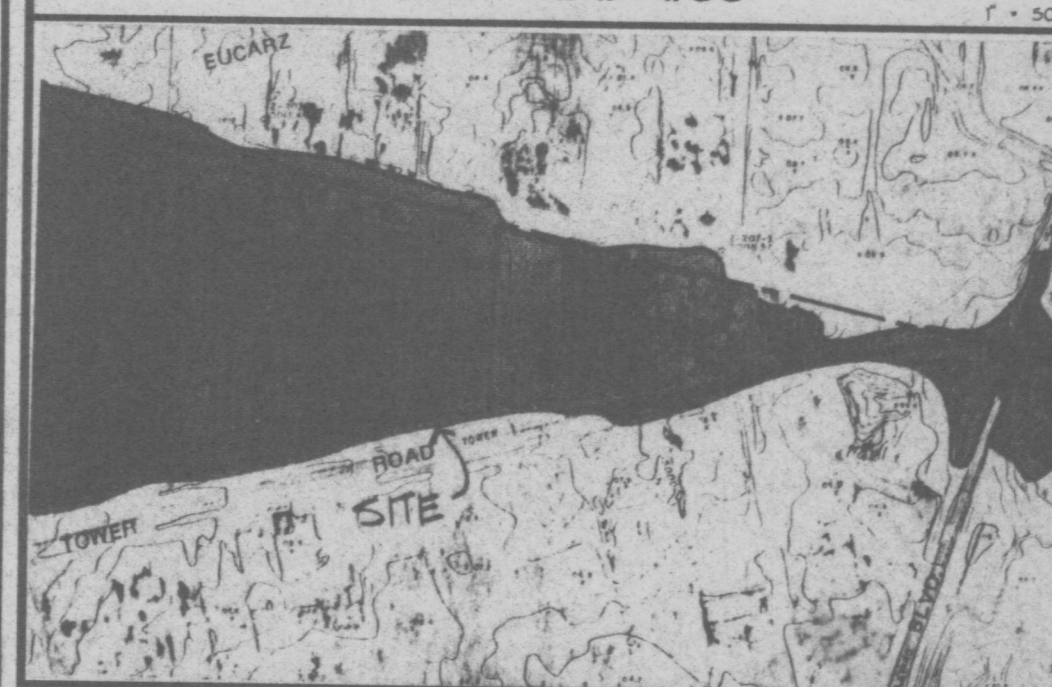
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- PROPOSED 24' WIDE GRAVEL DRIVE.
- PROPOSED GRAVEL DRIVE ENTRANCE MATCH EXISTING ASPHALT ELEVATIONS FOR SMOOTH RIDING TRANSITION. SEE SITE PLAN FOR DIMENSIONS
- CREATE SHALLOW DIP SECTION IN GRAVEL ROAD THIS AREA TO ALLOW NUISANCE FLOWS TO PASS.

ON THE WEEK OF JULY 24, 1995
I HEREBY CERTIFY THAT THE ABOVE
TRACT, 316, UNIT 3, TOWN OF ATRISCO GRANT
AT THE TIME IT WAS LAYED OUT, WAS
FILLED OR EXCAVATION HAD OCCURRED THEREON
SINCE THE PREPARATION OF THE EXISTING CONTOUR
MAP USED IN THE PREPARATION OF THIS PLAN.
REGISTERED L. WEISS DATE 8/28/95

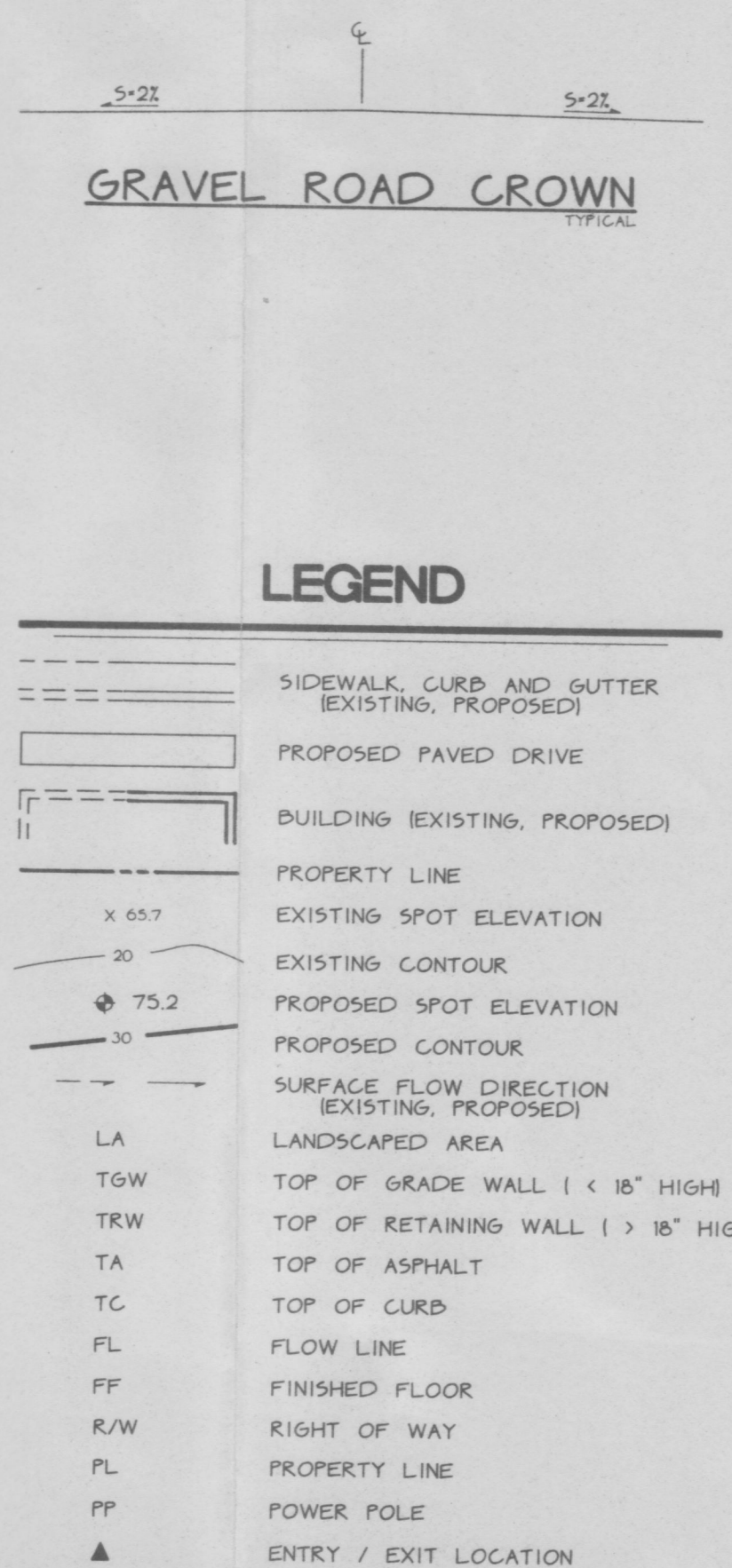
VICINITY MAP #L-11



FEMA MAP #33



GRAVEL ROAD CROWN



SCOPE:

The proposed improvements include a 32x0 SF (footprint) building area with adjacent gravel access road / parking area and paved walkways, general site work and minor site grading.

The present site is an undeveloped property with no significant slope. Bridge Blvd. SW borders the site on the north. Tower Road SW borders the property on the south. The properties to the east and west are developed commercial properties.

The intent of this plan is to show:

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DRAINAGE PLAN CONCEPT: Although the current FEMA Map #33 indicates the presence of a floodplain affecting this property, this floodplain has been eliminated and map revisions which indicate this are proceeding concurrently with this submittal. The grading shall be limited to the road and the building area. Minor flows shall be ponded on the west side of the road.

GENERAL NOTES:

LEGAL: Tract 316, Unit 3 of the Plat Showing a Portion of Tracts Allotted from Town of Atrisco Grant, Albuquerque, New Mexico.

SURVEYOR: Forstbauer Surveying Co. - Ron Forstbauer, 1100 Alvarado Dr. NE, Albuquerque, NM 87110 - June 1995

B.M.: City of Albuquerque 9+11.1, an aluminum cap riveted to a pipe 0.01' above the ground located near the southeast corner of a chain link fence at 3327 Tower Road. Elevation = 5009.22 (M.S.L.D.)

I.B.M.: Nail with disk in Power Pole located south of midpoint along east property boundary. Elevation = 5008.68' (M.S.L.D.)

FLOOD HAZARD: Based on FEMA Map #11, the site is located within a floodplain.

OFF-SITE DRAINAGE: Minor off-site flows from the northwest affect this property. A gravel dip section will be constructed at the north entrance to allow nuisance flows to pass.

SOILS: See calcs.

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.

CALCULATIONS:

Calculations are based on the Drainage Design Criteria for Bernalillo County, Section 22.2, DPM, Vol 2, dated Jan., 1993

ON-SITE			
AREA OF SITE:	110239 SF	=	2.53 Ac.
HISTORIC FLOWS:		DEVELOPED FLOWS:	
On-Site Historic Land Condition		On-Site Developed Land Condition	
Area a = 0 SF		Area a = 0 SF	
Area b = 0 SF		Area b = 0 SF	
Area c = 110239 SF		Area c = 107039 SF	
Area d = 0 SF		Area d = 3200 SF	
Total Area = 110239 SF		Total Area = 110239 SF	
On-Site Weighted Excess Precipitation (100-Year, 6-Hour Storm)			
Weighted E = $EaAa + EbAb + EcAc + EdAd$			
Historic E = 0.99 in.		Developed E = 1.02 in.	
On-Site Volume of Runoff: V360 = $E'A / 12$			
Historic V360 = 8095 CF		Developed V360 = 9356 CF	
On-Site Peak Discharge Rate: $Qp = QpaAa + QpbAb + QpcAc + QpdAd / 43,560$			
For Precipitation Zone 1			
Opd = 1.29		Opd = 2.87	
Obb = 2.03		Opd = 4.37	
Historic Op = 7.3 CFS		Developed Op = 7.4 CFS	
Excess Flows to be ponded on west side of proposed gravel road = 261 CF			
Area of pond created (area of 07.0 contour) = 8000 SF			
Depth of pond required = 0.03 FT			

C.L. WEISS ENGINEERING, INC.



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Revisions	

ROMERO
A-1 FIREWOOD

Scale: 1" = 30' Drawn By: BJB Checked By: CLW Job Number: Date: AUGUST 1995

Drainage and
Grading Plan

C-1
SH. 1 OF 1

