

# CITY OF ALBUQUERQUE

Hydrology Section Planning Department  
David S. Campbell, Director



Timothy M. Keller, Mayor

March 28, 2018

Dennis Lorenz  
Lorenz Design & Consulting LLC  
2501 Rio Grande NW Suite A  
Albuquerque, NM 87104

RE: **Silver Star Auto Haus**  
**5111 Wilshire Ave. NE**  
**Engineer's Stamp Date: 3/19/2018**  
**Hydrology File: C17D014A1**

Dear Mr. Lorenz:

Based on the information provided in the submittal received on 3/20/2018 the above-referenced Grading and Drainage Plan cannot be approved for Site Plan for Building Permit until the following comments are addressed.

This plan can be approved for "Site Plan for Building Permit" by just changing the sheet title to "Conceptual Grading and Drainage Plan" and placing a bold label on the plan that says "Not for Construction". Alternatively if seeking approval of the plan for both "Site Plan for Building Permit" and for "Building Permit" then check both items on the DTIS and address the following additional comments.

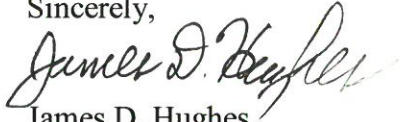
Prior to approval for Building Permit:

1. A Drainage Covenant is required to insure maintenance of the pond, pump and force main. The original signed and notarized document must be submitted to Madeline Carruthers along with a \$25 check payable to Bernalillo County for the recording fees for each document to be recorded. The blank form of the Drainage Covenant can be downloaded from the Hydrology section web page.
2. An SO-19 permit is required for the connection of the private storm drain (force main) in the public right of way. The standard SO-19 notes must be added to the G&D Plan and check the "SO-19 Approval" line on the DTIS.
3. More information is needed on the typical sections thru the retaining walls on the west and east sides of the site to insure compliance with DPM 22.5.B "Care should be taken to ensure that existing foundations, retaining walls, stable slopes or other structures are not endangered and that the adjacent property is not damaged or its use constrained due to grading at or near the property line." Specifically dimensions should be added to the typical sections showing the maximum retained height of fill across the wall and horizontal dimensions from the property line to the closest edge of the footer as necessary to keep the footer out of the soil friction plain.

4. Pump specifications and performance curve are required. They should be added to the G&D Plan and the information should be included in the Drainage Covenant.

If you have any questions, please contact me at 924-3986 or [jhughes@cabq.gov](mailto:jhughes@cabq.gov).

Sincerely,

A handwritten signature in dark ink, appearing to read "James D. Hughes", with a stylized flourish at the end.

James D. Hughes  
Principal Engineer, Planning Dept.  
Development Review Services



# City of Albuquerque

Planning Department

Development & Building Services Division

## DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

**Project Title:** \_\_\_\_\_ **Building Permit #:** \_\_\_\_\_ **City Drainage #:** \_\_\_\_\_

**DRB#:** \_\_\_\_\_ **EPC#:** \_\_\_\_\_ **Work Order#:** \_\_\_\_\_

**Legal Description:** \_\_\_\_\_

**City Address:** \_\_\_\_\_

**Engineering Firm:** \_\_\_\_\_ **Contact:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Phone#:** \_\_\_\_\_ **Fax#:** \_\_\_\_\_ **E-mail:** \_\_\_\_\_

**Owner:** \_\_\_\_\_ **Contact:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Phone#:** \_\_\_\_\_ **Fax#:** \_\_\_\_\_ **E-mail:** \_\_\_\_\_

**Architect:** \_\_\_\_\_ **Contact:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Phone#:** \_\_\_\_\_ **Fax#:** \_\_\_\_\_ **E-mail:** \_\_\_\_\_

**Other Contact:** \_\_\_\_\_ **Contact:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Phone#:** \_\_\_\_\_ **Fax#:** \_\_\_\_\_ **E-mail:** \_\_\_\_\_

Check all that Apply:

**DEPARTMENT:**

- ☐ HYDROLOGY/ DRAINAGE  
☐ TRAFFIC/ TRANSPORTATION  
☐ MS4/ EROSION & SEDIMENT CONTROL

**TYPE OF SUBMITTAL:**

- ☐ ENGINEER/ ARCHITECT CERTIFICATION
- ☐ CONCEPTUAL G & D PLAN  
☐ GRADING PLAN  
☐ DRAINAGE MASTER PLAN  
☐ DRAINAGE REPORT  
☐ CLOMR/LOMR
- ☐ TRAFFIC CIRCULATION LAYOUT (TCL)  
☐ TRAFFIC IMPACT STUDY (TIS)  
☐ EROSION & SEDIMENT CONTROL PLAN (ESC)
- ☐ OTHER (SPECIFY) \_\_\_\_\_

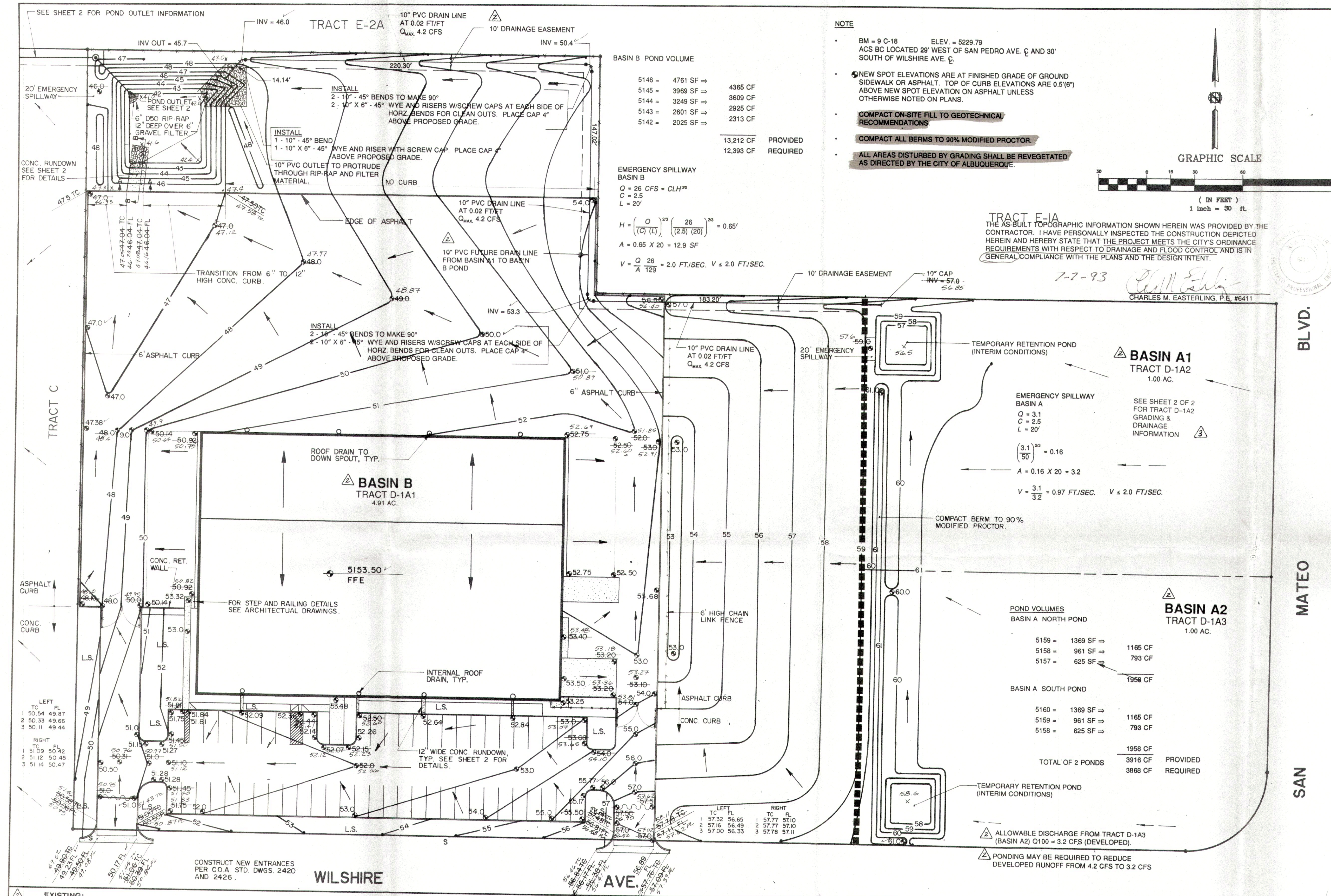
**CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:**

- ☐ BUILDING PERMIT APPROVAL  
☐ CERTIFICATE OF OCCUPANCY
- ☐ PRELIMINARY PLAT APPROVAL  
☐ SITE PLAN FOR SUB'D APPROVAL  
☐ SITE PLAN FOR BLDG. PERMIT APPROVAL  
☐ FINAL PLAT APPROVAL  
☐ SIA/ RELEASE OF FINANCIAL GUARANTEE  
☐ FOUNDATION PERMIT APPROVAL  
☐ GRADING PERMIT APPROVAL  
☐ SO-19 APPROVAL  
☐ PAVING PERMIT APPROVAL  
☐ GRADING/ PAD CERTIFICATION  
☐ WORK ORDER APPROVAL  
☐ CLOMR/LOMR
- ☐ PRE-DESIGN MEETING  
☐ OTHER (SPECIFY) \_\_\_\_\_

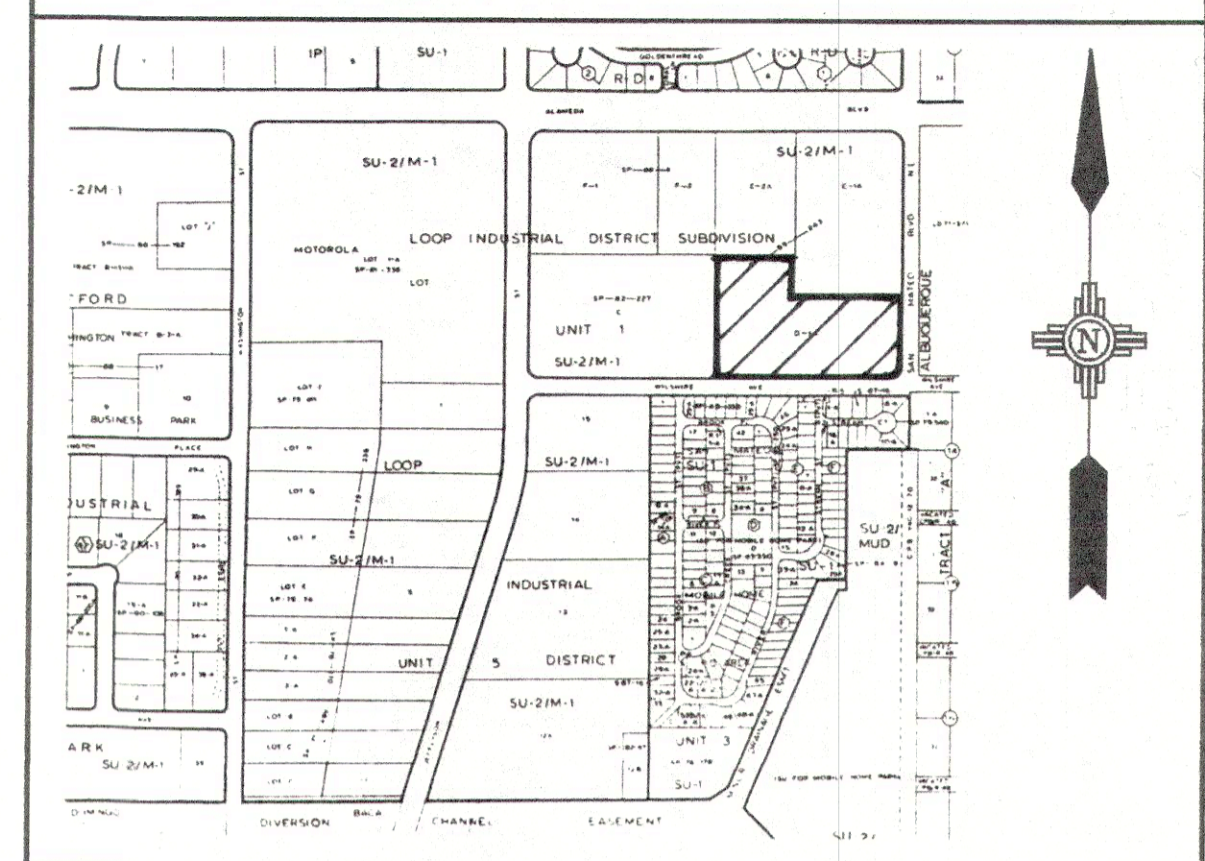
IS THIS A RESUBMITTAL?: ☐ Yes ☐ No

**DATE SUBMITTED:** \_\_\_\_\_ **By:** \_\_\_\_\_

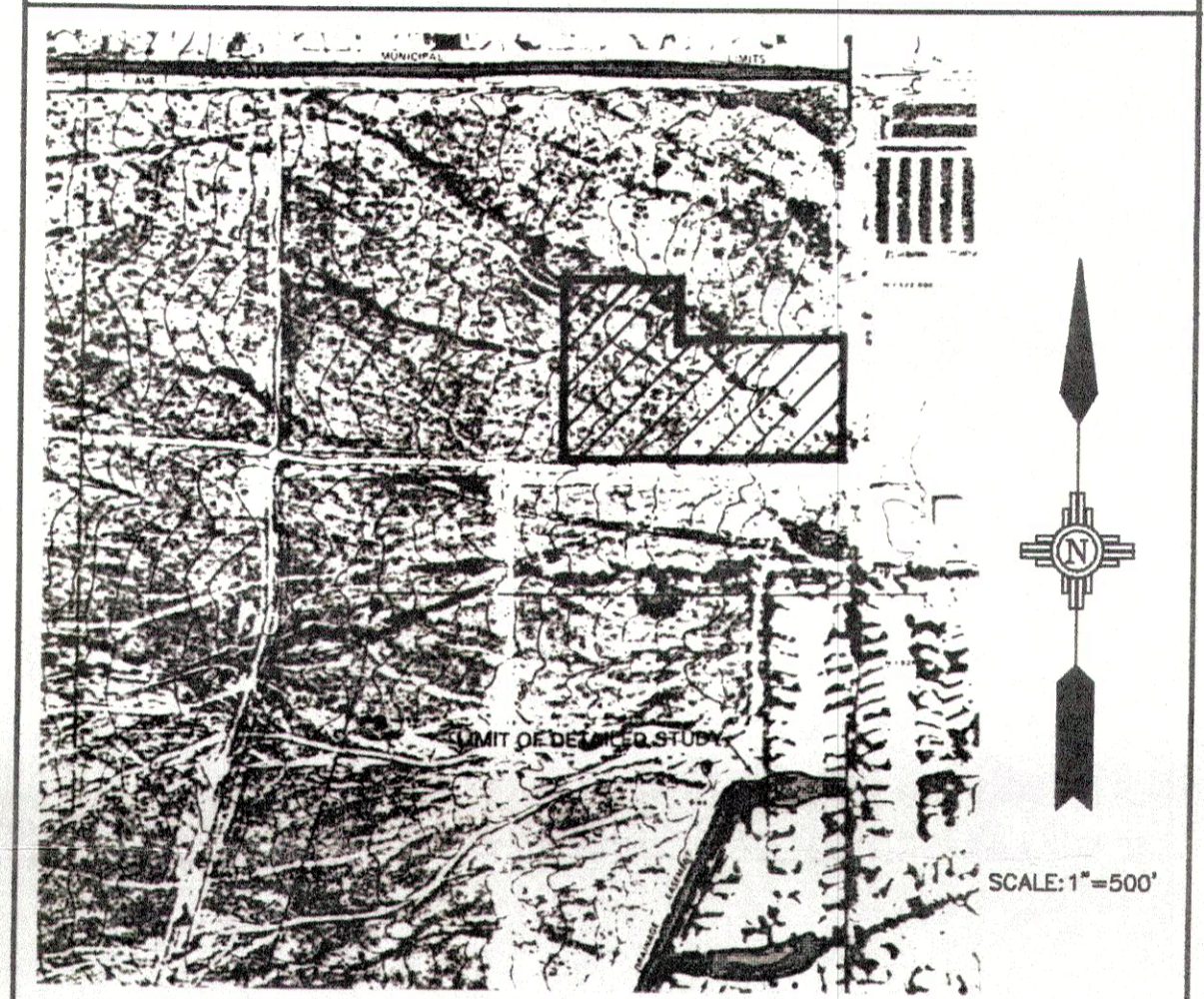
COA STAFF: \_\_\_\_\_ ELECTRONIC SUBMITTAL RECEIVED: \_\_\_\_\_



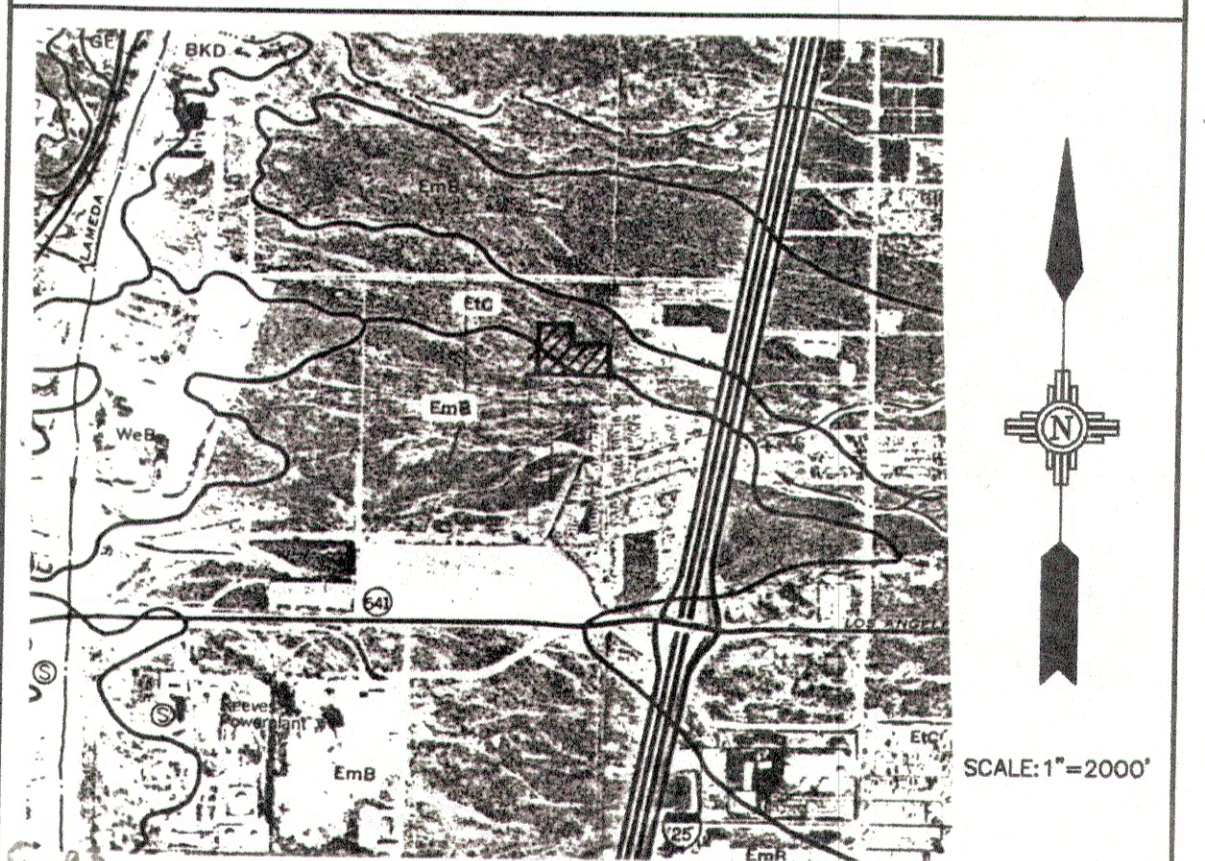
VICINITY MAP  
ZONE ATLAS MAP NO. C-17



FLOOD HAZARD MAP  
& OFFSITE FLOWS  
FEMA MAP NO. 9



SOILS MAP  
SOIL SURVEY U.S.D.A., S.C.S. MAP NO. 11



**EXISTING:**  
THE 6.91 AC. SITE IS COMPOSED OF PROPOSED TRACTS D-1A1 (BASIN B), D-1A2 (BASIN A1) AND D-1A3 (BASIN A2). BASIN B IS CURRENTLY BEING DEVELOPED PER APPROVED GRADING AND DRAINAGE PLAN C-17D-14A. THIS PLAN IS A REVISION OF C-17D-14A DUE TO THE PROPOSED SUBDIVIDING OF TRACT D-1A. THE SITE DRAINS FROM SOUTHEAST TO NORTHWEST. THERE ARE EXISTING DOWNSTREAM STORM DRAIN FACILITIES IN SAN MATEO AND WILSHIRE AVENUES (SAD 201). AN EXISTING PRIVATE DRAINAGE EASEMENT IS LOCATED AT THE NORTHWEST CORNER OF THE PROPERTY, AND RUNS ALONG TRACT C PROPERTY LINE TO THE WEST AND ENDS AT THE JEFFERSON ST. R.W. THERE IS AN EXISTING DOUBLE 12" CATCH BASIN IN A DRIVEWAY ENTRANCE TO TRACT C. THE ALLOWABLE DISCHARGE FROM TRACT C & D1A INTO THIS CATCH BASIN IS 27.7 CFS AS NOTED IN THE SAD 201 PLANS ALLOW 3.2 CFS OF DISCHARGE INTO WILSHIRE AVE. FROM THE SITE. THERE ARE NO OFF-SITE FLOWS FROM 100 YR. AND SMALLER STORMS ENTERING THE SITE.

**PROPOSED:**  
ALL STORM WATER FROM BASINS A1 AND B WILL BE DIRECTED TO A DETENTION POND LOCATED AT THE NORTHWEST CORNER OF THE SITE. BASIN B IS THE ONLY BASIN BEING DEVELOPED AT THIS TIME. BASINS A1 AND A2 WILL REMAIN UNDEVELOPED AT PRESENT. BASINS A1 AND A2 STORM WATERS WILL BE RETAINED IN TEMPORARY PONDING AND ARE SIZED TO RETAIN THE 100 YR. 10 DAY UNDEVELOPED VOLUME OF 3848 CF. THE DETENTION POND AT THE NORTHWEST CORNER OF BASIN B IS SIZED FOR THE ROUTED 100 YR. 24 HR. FULLY DEVELOPED VOLUME FROM BASINS A1 AND B. THIS TRACT'S PROPORTED SHARE OF THE 27.7 CFS IS 13.2 CFS, WITH FLOWS ABOVE THAT RATE BEING DETAINED. 13.2 CFS WILL BE CONVEYED TO THE EXISTING CATCH BASIN IN JEFFERSON ST. THROUGH AN 18" PVC PIPE. DEVELOPED STORM WATERS FROM BASIN A1 WILL BE DISCHARGED TO THE NORTHWEST CORNER DETENTION POND BY WAY OF A 12" STORM LINE WITHIN A 10' DRAINAGE EASEMENT ALONG THE NORTH PROPERTY LINE. THE STORM WATER FROM BASIN A2 MAY BE DISCHARGED INTO WILSHIRE AVE. AT THE ALLOWABLE RATE OF 3.2 CFS. SOME ON SITE PONDING MAY BE REQUIRED TO ACHIEVE THIS RATE, DEPENDING UPON THE PERCENTAGE IMPERVIOUS OF PROPOSED DEVELOPMENT.

**SOILS INFORMATION**

SOIL SERIES AND MAP SYMBOLS	DEGREE AND KIND OF LIMITATIONS FOR					SUITABILITY AS SOURCE OF-				SOIL FEATURES AFFECTING-		HYDROLOGIC SOIL GROUP
	SEPTIC TANK ABSORPTION FIELDS	SEWAGE LAGOONS	SHALLOW EXCAVATIONS	DWELLINGS WITHOUT BASEMENTS	SANITARY LANDFILL (TRENCH TYPE)	ROAD FILL	SAND	GRAVEL	TOPSOIL	POND RESERVOIR AREAS	DIKES, LEVEES, AND OTHER EMBANKMENTS	
*Embudo: Emb, EIC, ..... For Tjeras part of EIC-400 Tjeras series.	Slight <sup>1</sup>	Severe: seepage.	Moderate: small stones.	Slight <sup>1</sup>	Severe: seepage.	Slight	Good	Poor: excess fines.	Poor: excess fines.	Poor: small stones.	Seepage Piping; compressible.	B

Emb-Embudo gravelly fine sandy loam, 0 to 5 percent slopes. This level to gently sloping soil is on the East Mesa. It has the profile described as representative of the series. Included in mapping are areas around Central Avenue and Tramway Road in Albuquerque where the surface layer is thick and slightly darker than the Embudo soil. The Embudo soil is in drainage ways and depressions, and the Tjeras soil is on low ridges in narrow undulations. The Tjeras soil has the profile described as representative of the Tjeras series. On both soils, runoff is medium and the hazard of water erosion is moderate.

EIC-Embudo-Tjeras complex, 0 to 9 percent slopes. This mapping unit is about 50 percent an Embudo gravelly fine sandy loam, 0 to 5 percent slopes, and about 35 percent a Tjeras gravelly fine sandy loam that has 1 to 9 percent slopes.

The Embudo soil is in drainage ways and depressions, and the Tjeras soil is on low ridges in narrow undulations. The Tjeras soil has the profile described as representative of the Tjeras series. On both soils, runoff is medium and the hazard of water erosion is moderate.

Included in this unit in mapping are areas of Tesajo, Millett, and Wink soils, which make up about 15 percent of the unit.

This mapping unit is used for community development, watershed, wildlife habitat, and range. The Embudo part of this unit is subject to flooding. Control of moisture is required for proper compaction. Dryland capability subclass VIIe; native plant community 4.

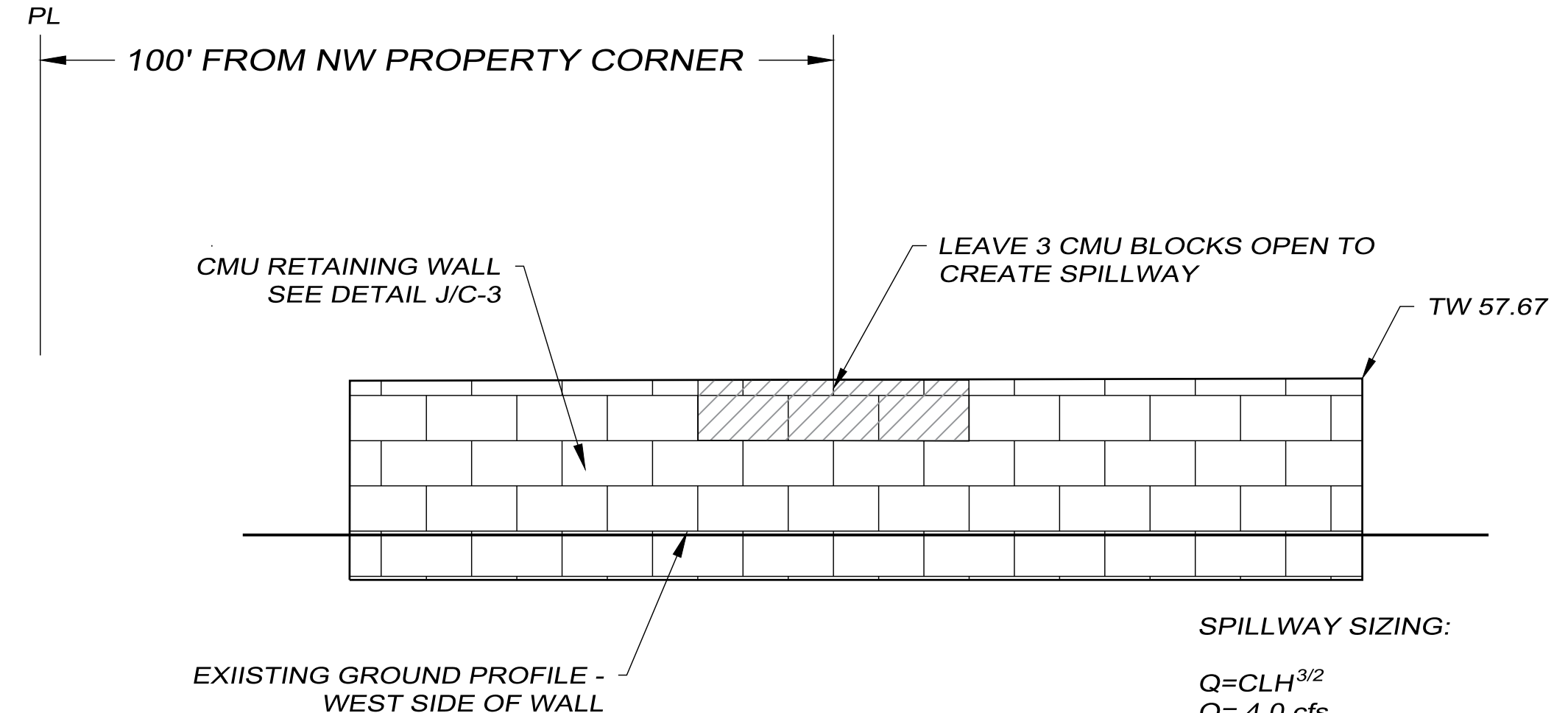
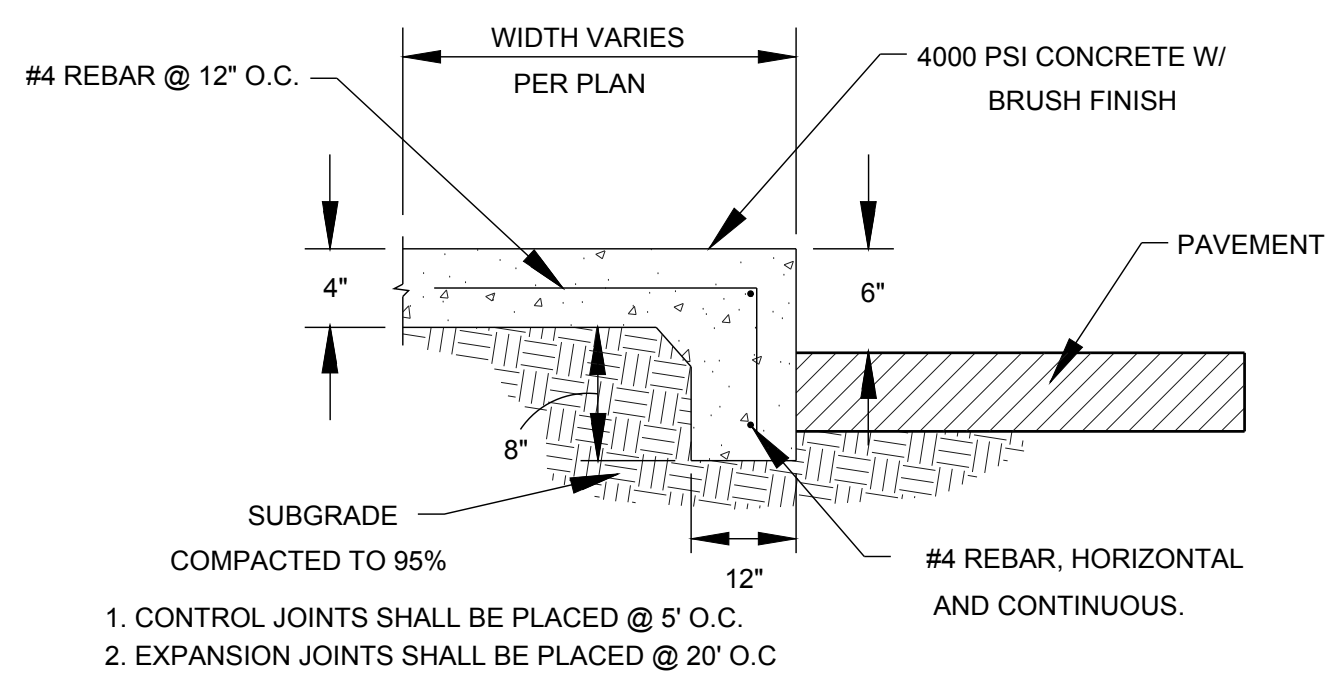
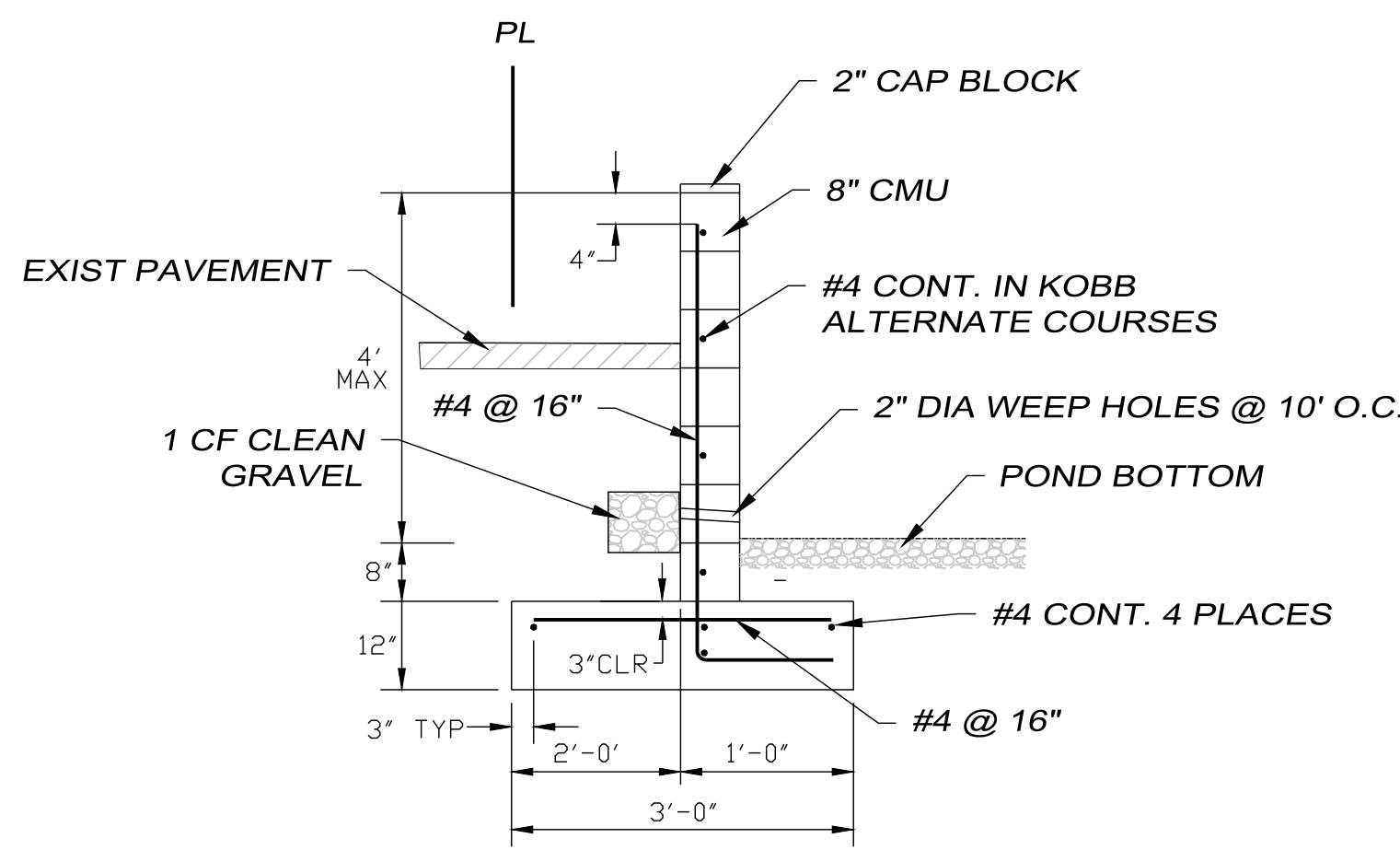
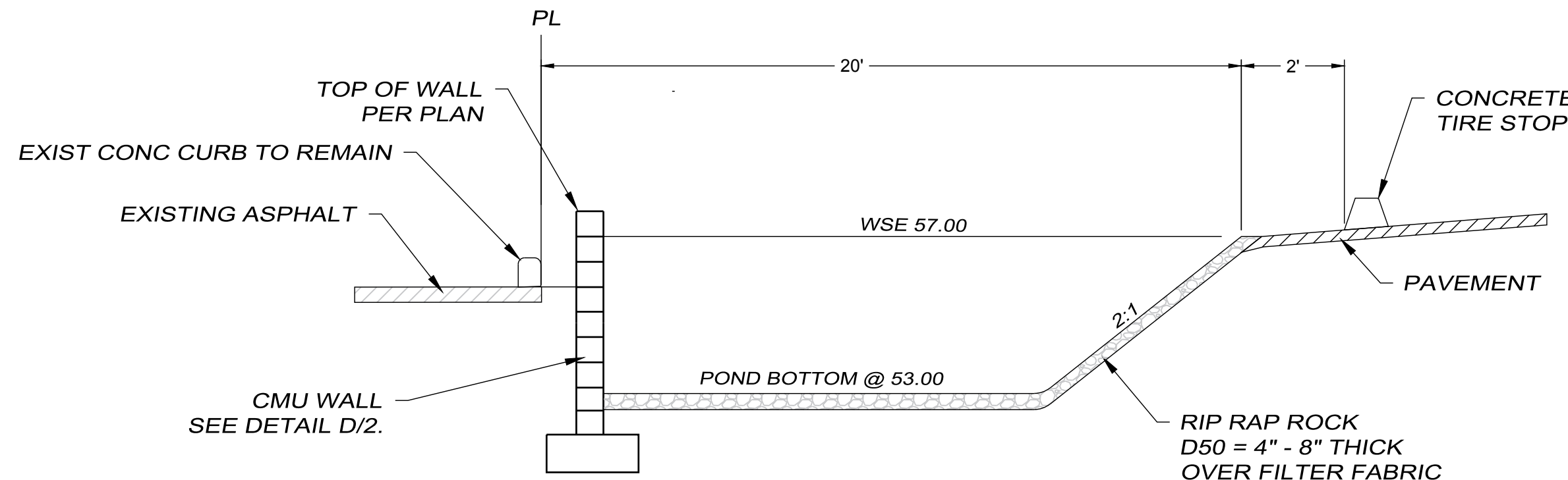
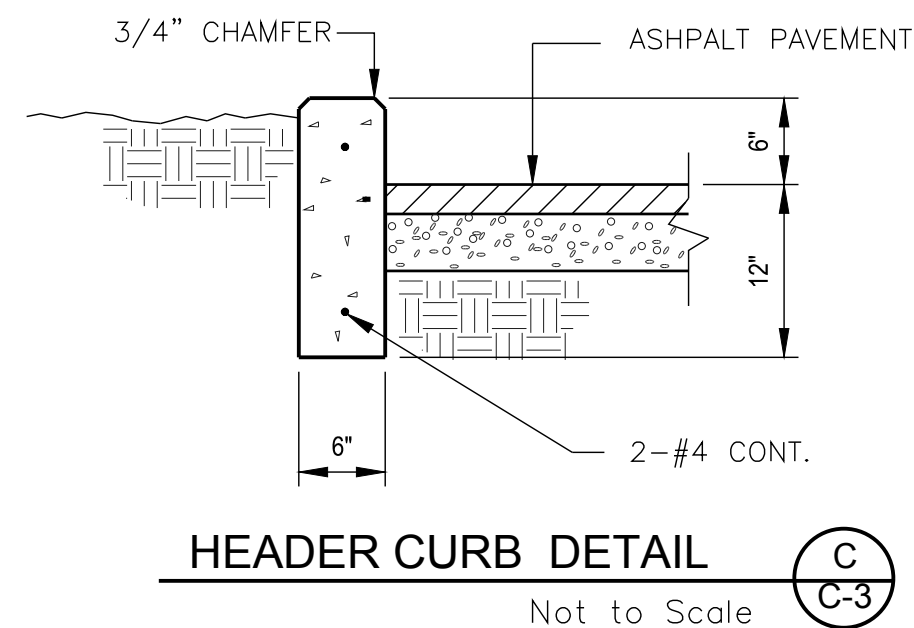
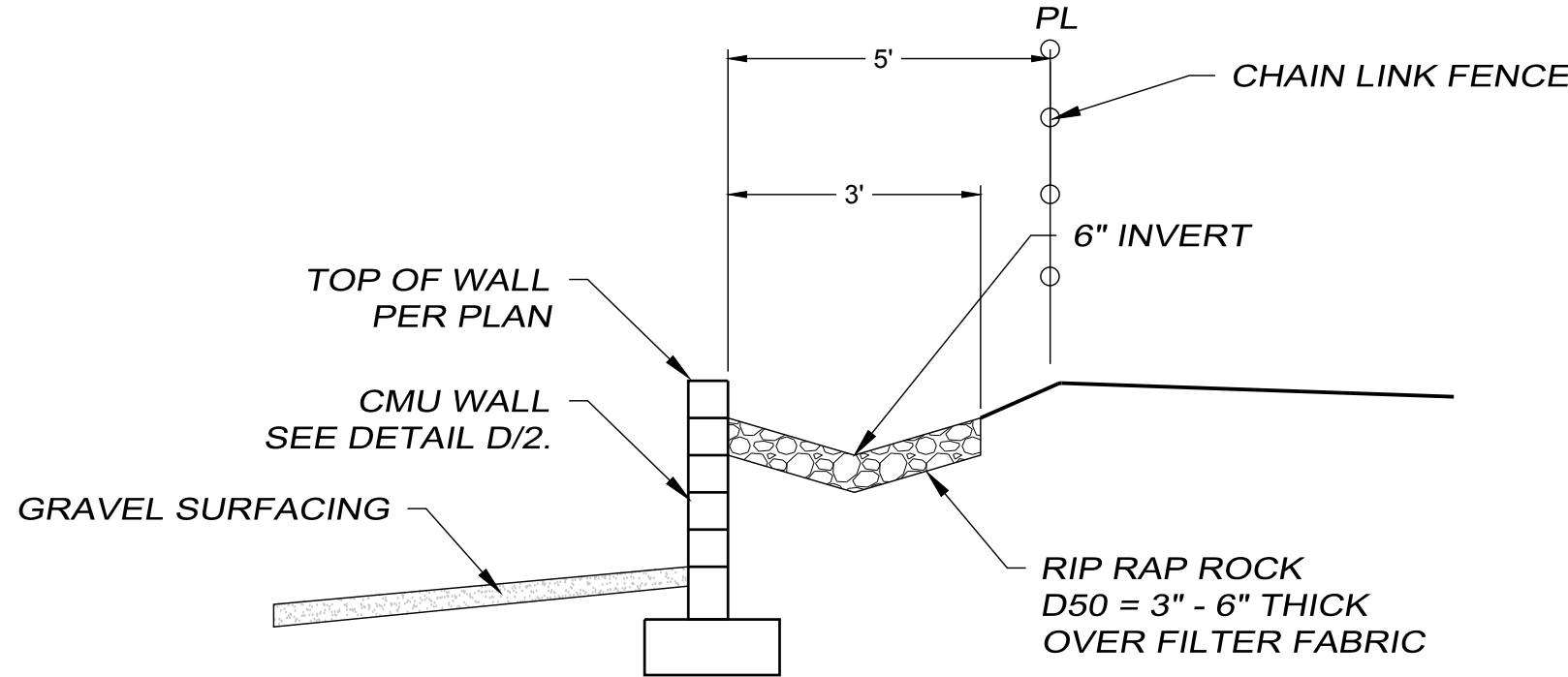
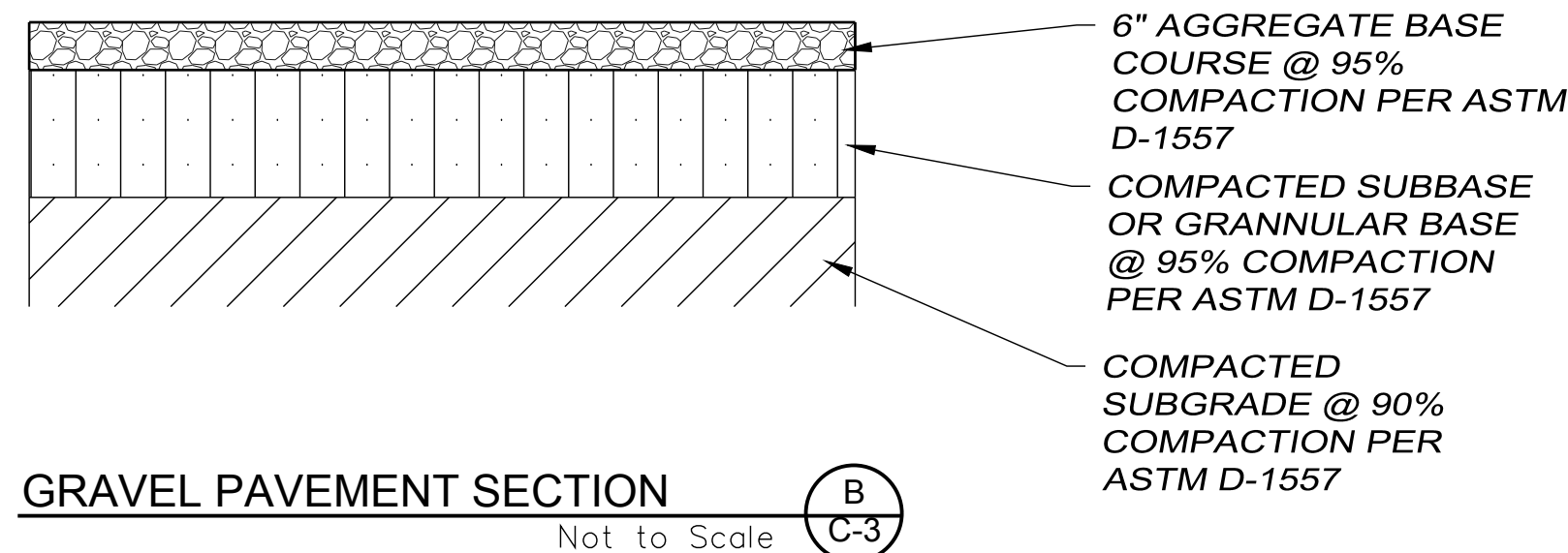
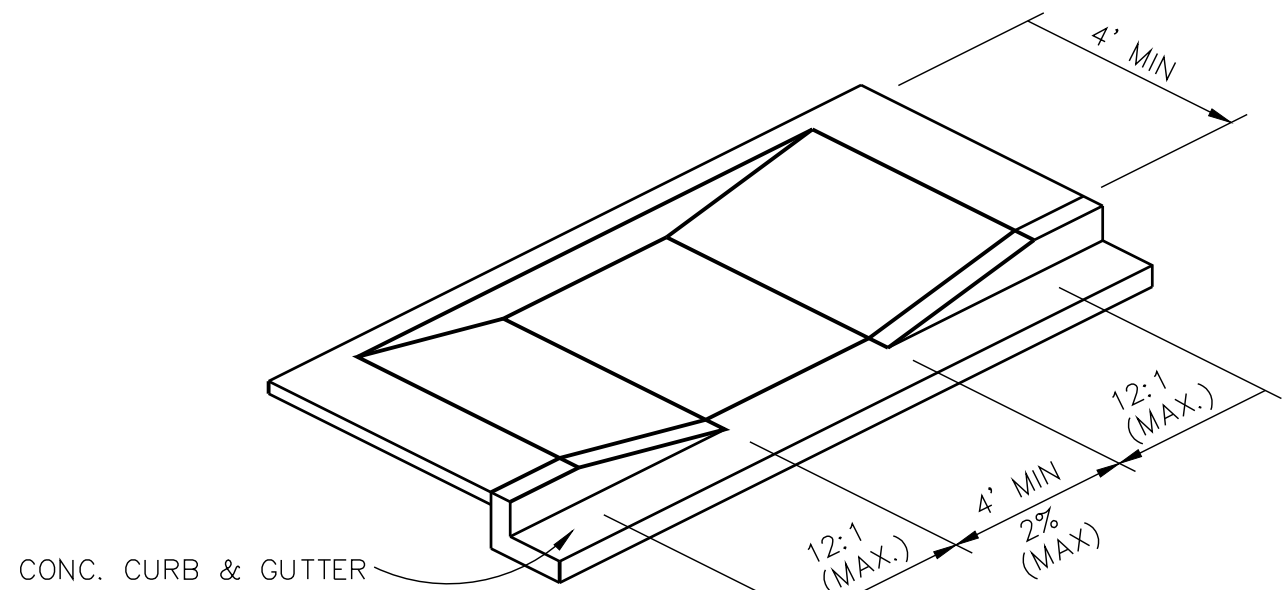
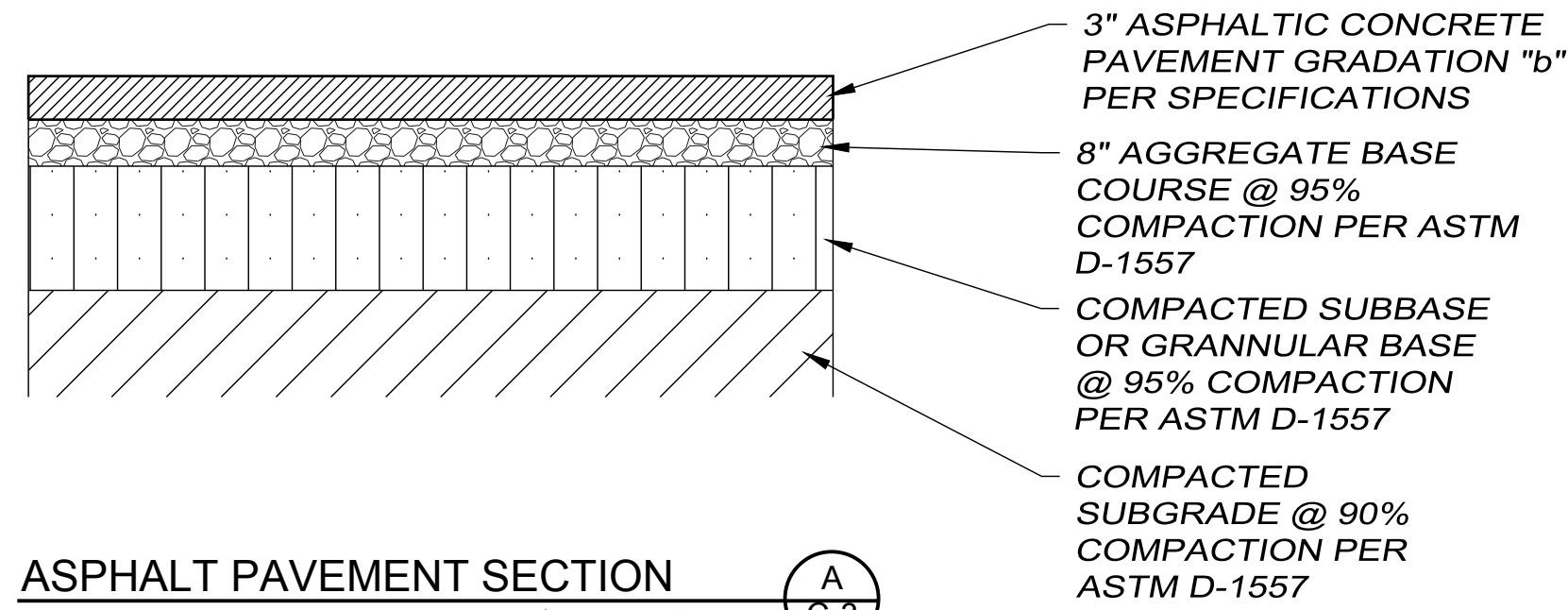
**GRADING & DRAINAGE PLAN  
G & K INDUSTRIES  
TRACTS D-1A1 & D-1A2  
LOOP INDUSTRIAL DISTRICT  
ALBUQUERQUE, NEW MEXICO**

**EASTERLING & ASSOCIATES, INC.**  
CONSULTING ENGINEERS  
10131 Coors Rd., NW, Suite H-7/B  
ALBUQUERQUE, NEW MEXICO 87114  
(505) 898-8021 FAX (505) 898-8501

DESIGNED BY: D.E.C. DRAWN BY: D.E.C. CHECKED BY: C.M.E.  
JOB NO. 3470 DATE 8-1-92 AUG. 1992 SHEET 1 OF 2

C-17/D-1A1





**SPILLWAY SIZING:**

$$Q = CLH^{3/2}$$

$$Q = 4.0 \text{ cfs}$$

$$H = 0.67 \text{ FT}$$

$$C = 2.40$$

$$L = 3' = 3 \text{ CMU BLOCKS (48")}$$

## 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 DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE "CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION", 1986 EDITION, AS AMENDED THROUGH UPDATE NO. 7.
3. THREE WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR MUST CONTACT LINE LOCATING SERVICE, 765-1234 FOR THE LOCATION OF EXISTING UTILITIES.
4. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE LOCATIONS OF ALL CONSTRUCTIONS. 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.

APPROVAL: \_\_\_\_\_

INSPECTOR \_\_\_\_\_ DATE \_\_\_\_\_

## DRAINAGE PLAN NOTES

1. LDC recommends that the Owner obtain a Geotechnical Evaluation of the on-site soils prior to foundation/structural design.
2. This Plan recommends positive drainage away from all structures to prohibit ponding of runoff which may cause structural settlement. Future alteration of grades adjacent to the proposed structures is not recommended.
3. Irrigation within 10 feet of any proposed structure is not recommended. Introduction of irrigation water into subsurface soils adjacent to the structure could cause settlement.
4. This Plan is prepared to establish on-site drainage and grading criteria only. LDC assumes no responsibility for subsurface analysis, foundation/structural design, or utility design.
5. Local codes may require all footings to be placed in natural undisturbed soil. If the Contractor plans to place footings on engineered fill, a certification by a registered Professional Engineer will be required. If the contractor wishes LDC to prepare the Certification, we must be notified PRIOR to placement of the fill.
6. LDC recommends that the Owner obtain the services of a Geotechnical Engineer to test and inspect all earthwork aspects of the project.
7. The property boundary shown on this Plan is given for information only to describe the project limits. Property boundary information shown hereon does not constitute a boundary survey. A boundary survey performed by a licensed New Mexico Registered Professional Surveyor is recommended prior to construction.
8. All spot elevations are finished grade or top of pavement, unless noted otherwise.
9. The City of Albuquerque has received its EPA MS4 Permit for stormwater quality with an effective date of March 1, 2012.
10. See Site Plan for dimension control and location of all site improvements.

## RETAINING WALL NOTES:

1. ALL CELLS SHALL BE COMPLETELY FILLED WITH CONCRETE.
2. ALL WALL SECTIONS ARE DESIGNED BASED ON SPECIAL INSPECTION PER UBC.
3. CONTRACTOR SHALL SUBMIT TO OWNER RESULTS OF MASONRY TEST PRISMS BUILT AND TESTED PER UBC STD 24-26, UBC SEC 2405.
4. FOOTING SUBGRADE AND BASE SHALL BE COMPACTED TO 95% MODIFIED PROCTOR PER ASTM D-1557.
5. 1/2" FELT EXPANSION JOINTS SHALL BE INSTALLED AT 30 FEET ON CENTER AND AT SECTION CHANGES.
6. ALL MASONRY SHALL BE LAID IN RUNNING BOND ONLY.
7. THIS RETAINING WALL IS DESIGNED EXCLUSIVELY FOR USE ON VILLAS TUSCAND AND IS NOT APPLICABLE TO ANY OTHER SITE.
8. ALL MASONRY SURFACES TO BE BACKFILL SHALL BE COATED WITH EMULSIFIED ASPHALT, OR OTHER MOISTURE BARRIER AS APPROVED BY THE ENGINEER.
9. BEFORE CONSTRUCTION, THE CONTRACTOR SHALL FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ANY UTILITIES WHICH MAY BE WITHIN THE WORK AREA.
10. WALLS ARE DESIGNED ASSUMING THE FOLLOWING:

$f_c$  = 4000 psi; maximum aggregate size = 3/4"

$f_y$  = 60,000 psi ( ASTM A-615 GR 60 )

$f_m$  = 1500 psi

unit weight of backfill = 115 pcf

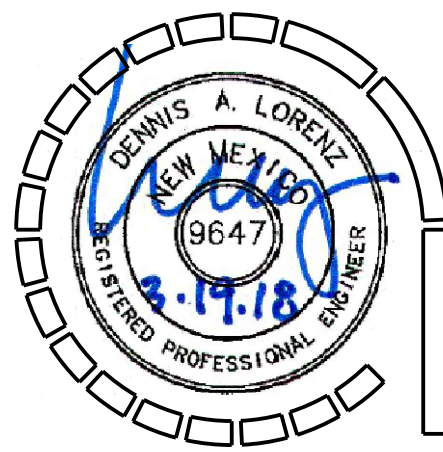
concrete / soil coeff of friction = 0.40

allowable soil bearing pressure = 1500 psf

active pressure = 34 psf / ft

slope active pressure = 34 psf / ft

passive pressure = 400 psf / ft



**LORENZ**  
DESIGN & CONSULTING, LLC  
Civil Engineering | Construction Management

2501 Rio Grande Blvd NW, Suite A  
Albuquerque, New Mexico 87104  
Ph: 505-868-0055 Fax: 505-242-0655

## SITE DETAILS

SILVER STAR AUTO HAUS  
5111 WILSHIRE AVE. N.E.  
ALBUQUERQUE, NEW MEXICO  
SANDERS & ASSOCIATES ARCHITECTS, P.C. 6000 ROGERS AVE. N.E. ALBUQUERQUE N.M. 87110 (505) 255-5040 FAX (505) 255-5040

