HYDROLOGY H16/D30 2 PLANS

H16/D30

2 PLANS

RAY L. HARRISON & ASSOCIATES
CONSULTING ENGINEERS

1517-A GIRARD BLVD. NE
ALBUQUERQUE, NEW MEXICO 87106
(505) 265-4276

REVISED DRAINAGE PLAN
ZUNI RENTALS
2705 PRINCETON DR. NE

The tract of land is developed as an Equipment Rental Yard, a 3600 sq. ft. office and display addition is proposed. The tract is gravel surfaced and drains from the northeast corner to the southwest corner.

Design Criteria: The tract is not in a flood hazard area. the downstream conditions are flood prone so ponding will be 100% of the runoff from the addition with $Q_1$ positive discharge. The drainage of the existing facilities will remain as is.

Check list:
Planning history: The tract is properly zoned, no zoning action is planned. A plat to remove the lot lines has been submitted to to the City Engineer's Office.

Soils: The tract has a 2 - 10 feet of trash and sand and gravel fill. A soil test was run at the foundation to assure the building is setting on satisfactory soil.

Other conditions: There are no offsite conditions that will affect the drainage on this site.

Offsite flow: There is no offsite flow onto this tract, the land slopes away from the streets and adjacent property slopes away from this tract.

Onsite flow: The property is developed and has a gravel surface.

Developed flow $Q_{50}$, tract size = 139,39- sq. ft.
Existing impervious 8,000 sq. ft.
8,000/43560 X 5.2 X .9 = .85 CFS
131,390/43560 X 5.2 X .6 = 9.4 CFS
Total = 10.2 CFS

Developed with addition
+13,00 impervious
21,000/43560 X 5.2 X .9 = 2.26 CFS
118,000/43560 X 5.2 X .6 = 8.44 CFS
Total 10.7 CFS

APPROVED FOR DRAINAGE
11-2-81
DATE
J. Chagin P.E.
SIGNATURE TITLE
ADVISE DRAINAGE INSPECTOR
WHEN GRADING EXECUTED
Engineer to Certify

RECEIVED
NOV 6 1981
RECEIVED

Pond volume calculations:

impervious addition 13,000 sq. ft.
13,000 X 2.0/12 = 2166 Cu. Ft.

ponding available (see Section 2 drainage drawing)
Avg. cross section area 27.2 X length 85 = 2312 Cu. Ft.

$Q_1$ Positive discharge:

The design is based on the amount of drainage that will enter a short tube and the pipe is sloped to carry this amount or more.

Short tube (pipe) design C = .82 H = .6'

$Q = Ca\,(2gH)^{\frac{1}{2}}$ $a = \frac{Q}{2(gH)^{\frac{1}{2}}}$ = .071 sq. ft. (3.6")

Use a 3" pipe s = 1.5% +

Emergency spillway $Q_{100}$

Q = 13,000/43560 X 6 X .9 = 1.61 CFS

The overflow spillway is equivalent to a broad crested weir.

$Q = CLh^{2/3}$ C 2.49 h = .2" L = 10'

Q = 2.23 CFS Capicity

Spillway is satisfactory

Ray L. Harrison
10/29/81

"RE-SUBMITTAL"

DRAINAGE INFORMATION SHEET

PROJECT TITLE: ZUNI RENTAL ZONE ATLAS/DRNG. FILE #: H-16/D30

LEGAL DESCRIPTION: LOTS 1-5, LAHR SUBDIVISION, SOUTH 200' TRACT G

CITY ADDRESS: 2705 PRINCETON N.E.

ENGINEERING FIRM: C.T.S. INC. CONTACT: CHRIS WEISS

ADDRESS: 1100 ALVARADO N.E. PHONE: 266-3444

OWNER: CONTACT:

ADDRESS: PHONE:

ARCHITECT: JOHN VANDERPOL CONTACT: JOHN

ADDRESS: 2539-B WYOMING NE PHONE: 298-7323

SURVEYOR: RON FORSTBAUER CONTACT: RON

ADDRESS: 520 CHAMA NE PHONE: 268-0248

CONTRACTOR: CONTACT:

ADDRESS: PHONE:

PRE-DESIGN MEETING:

___ YES

✓ NO

___ COPY OF CONFERENCE RECAP SHEET PROVIDED

RECEIVED JAN 29 1985 HYDROLOGY SECTION

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 APPROVAL

___ PRELIMINARY PLAT APPROVAL

___ SITE DEVELOPMENT PLAN APPROVAL

___ FINAL PLAT APPROVAL

✓ BUILDING PERMIT APPROVAL

___ FOUNDATION PERMIT APPROVAL

___ CERTIFICATE OF OCCUPANCY APPROVAL

___ ROUGH GRADING PERMIT APPROVAL

___ GRADING/PAVING PERMIT APPROVAL

___ OTHER ___ (SPECIFY)

DATE SUBMITTED: JANUARY 25, 1985 SUBMITTED: C.T.S. INC.

**City of Albuquerque**
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

DESIGN HYDROLOGY SECTION
123 Central NW, Albuquerque, NM 87102
(505) 766-7644

December 5, 1984

Mr. Christopher Weiss
CTS, Inc.
1100 A Alvarado NE
Albuquerque, NM 87110

REF: ZUNI RENTAL ADDITION LOTS 1-5 LAHR SUBDIVISION SOUTH 200' OF TRACT G
(H16-D30)

Dear Chris:

Based on the information provided on your November 9, 1984 submittal, listed below are certain concerns that will need to be addressed before final approval is granted:

1. Information sheet with resubmittal designation.

2. Engineer's stamp with signature and revision date.

3. On November 2, 1981 an approval was given by Mr. Fred Aguirre for a proposed addition on the east side of the existing building according to our records, no final inspection was requested; therefore, your client has two alternatives.

   1) Construct the site to the original approved plan dated 11-2-84 and request an inspection or;

   2) Submit a revised drainage plan which incorporates the complete area analyzing downstream capacity in order to obtain possible free discharge. (Ponding required per the 11-2-84 approved plan).

4. Approval cannot be granted until the 11-2-84 submittal has been cleared up.

If you have any questions or comments, feel free to contact me at 766-7644.

Sincerely yours,

Carlos Montoya

Carlos A. Montoya
City/County Flood Plain Admin.

CAM:BJM:mrk

# City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

RECEIVED

SEP 29 1981

ENGINEERING

DRAINAGE REPORT INFORMATION SHEET

PROJECT TITLE ZUNI RENTAL ADDITION

ZONE ATLAS PAGE NO. H-16 CITY ADDRESS 2705 Princeton Dr. NE

LEGAL ADDRESS Lots 1-5 Lahrs Subdivision S 200' Tract G Manual ~~Development~~ Area

ENGINEERING FIRM Ray Harrison & Assoc. CONTACT Ray Harrison

ADDRESS 1517 A Girard NE 87106 PHONE 265 4276

OWNER Jerry Losey CONTACT

ADDRESS 2705 Princeton Dr. NE PHONE 884 1560

ARCHITECT/SURVEYOR Ray Harrison & Assoc CONTACT Ray Harrison

ADDRESS 1517 A Girard NE PHONE 265 4276

DATE SUBMITTED 9/29/81

BY Ray Harrison

**City of Albuquerque**
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

DESIGN HYDROLOGY SECTION
123 Central NW, Albuquerque, NM 87102
(505) 766-7644

January 21, 1985

Mr. Christopher Weiss
CTS, Inc.
1100 A Alvarado NE
Albuquerque, NM 87110

REF: ZUNI RENTAL ADDITION LOTS 1-5 LAHR SUBDIVISION SOUTH 200' OF TRACT G (H16-D30) RECEIVED JANUARY 10, 1985

Dear Chris:

Based on new information compiled by our office, free discharge of the above referenced drainage plan is allowed. Please contact your clients and advise them of the new findings and contact our office as soon as possible as to their decision. Also, review of the resubmittal will be handled as priority.

If you have any questions or comments, please feel free to contact me at 766-7644.

Sincerely yours,

Billy J. Goolsby

Billy J. Goolsby, PE
Civil Engineer/Hydrology

BJG:BJM:mrk

**City of Albuquerque**
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

DESIGN HYDROLOGY SECTION
123 Central NW, Albuquerque, NM 87102
(505) 766-7644

February 6, 1985

Chris Weiss
C.T.S., Inc.
1100-A Alvarado, NE
Albuquerque, New Mexico 87110

RE: ZUNI RENTAL ADDITION, LOTS 1-5; LAHR SUBDIVISION
SOUTH 200' OF TRACT G (H-16/D30) RESUBMITTAL BLOCK
DATED JANUARY 24, 1985

Dear Chris:

Based on the information provided on your January 29, 1985 resubmittal, the referenced drainage plan is approved. Please advise your client that all underground facilities will need to be pre-inspected before backfilling takes place, or he has the option of having the engineer certify upon completion of project.

Please attach a copy of this approved drainage plan along with the appropriately approved "Drainage Facilities Within City Right-of-Way" document to the construction set before Hydrology signs-off.

If you have any questions or comments regarding this project, please call me at 766-7644.

Cordially,

Carlos A. Montoya

Carlos A. Montoya
City/County Floodplain Administrator

CAM:BJM/bsj