

Barbara - Hydrology

DRAINAGE INFORMATION SHEET

PROJECT TITLE: Burton Well No. 2 ZONE ATLAS/DRNG. FILE #: L-17 / D15

LEGAL DESCRIPTION: Lot A, Block 2, in Parkland Hills

CITY ADDRESS: _____

ENGINEERING FIRM: CH2M HILL CONTACT: Debra Sanchez

ADDRESS: 6121 Indian School Road, N.E. PHONE: 505/884-5600

OWNER: City of Albuquerque CONTACT: Art Stuart

ADDRESS: Public Works, Water System PHONE: 505/825-4279

ARCHITECT: Division CONTACT: _____
CH2M HILL

ADDRESS: _____ PHONE: _____

SURVEYOR: Albuquerque Surveying Company CONTACT: Fred Sanchez

ADDRESS: 2119 Menaul, N.E. PHONE: 505/884-2036

CONTRACTOR: American Industrial Contractors CONTACT: _____

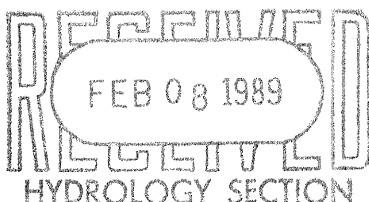
ADDRESS: 1116 2nd Street, N.W. PHONE: 505/243-3581

PRE-DESIGN MEETING:

☒ YES

☐ NO

☒ COPY OF CONFERENCE RECAP
SHEET PROVIDED



DRB NO. _____

EPC NO. Z-88-92

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: February 6, 1989

BY: _____

Debra Sanchez, CH2M HILL/ABQ

FILE COPY

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103



KEN SCHULTZ
MAYOR

CLARENCE V. LITHGOW
CHIEF
ADMINISTRATIVE OFFICER

DAN WEAKS
DEPUTY CAO
PUBLIC SERVICES

FRED E. MONDRAGON
DEPUTY CAO
DEVELOPMENT & ENTERPRISE SERVICES

February 23, 1989

John Winters
CH2M
6121 Indian School Road, NE
Albuquerque, New Mexico 87110

RE: REVISED DRAINAGE PLAN FOR BURTON WELL NO. 2
(L-17/D15) RECEIVED FEBRUARY 16, 1988

Dear Mr. Winters

Based on the information provided on your resubmittal of February 8, 1989, the above referenced plan is approved for Building Permit and Site Development.

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

If I can be of further assistance, please feel free to call me at 768-2650.

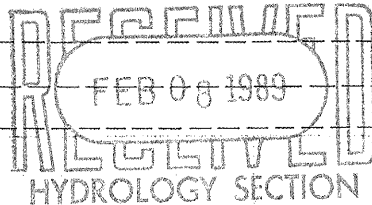
Cordially,

Bernie J. Montoya
Bernie J. Montoya, C.E.
Engineering Assistant

BJM/bsj
(WP+959)



SUBJECT _____

BY D. SatchDATE 2-1-89

SHEET _____

OF _____

PROJECT NO. _____

SUMMARY OF FLOW RATES & VOLUMES OF
RUNOFF FOR BORTON WELL NO. 2

	EXISTING WELL SITE	PROPOSED* WELL SITE
FLOW RATE	0.34 cfs	0.37 cfs
VOLUME	204 cf	222 cf

* AS OF 1-30-89



SUBJECT

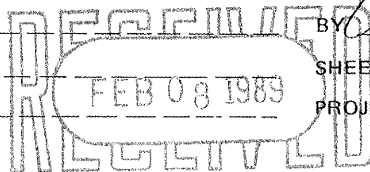
Burton 132

BY

Sand

DATE

11-178

Drainage
USING CITY DPM.

SHEET NO.

of

PROJECT NO.

DZ483 AL20

BURTON No. 2 - Determine Runoff from
Site for 100yr Storm

TIME OF CONCENTRATION:

$$T_c = 0.0078 \frac{L^{0.77}}{S^{0.385}} ; \text{MIN } T_c = 10 \text{ min}$$

RATIONAL FORMULA:

$$Q = C i A$$

EXISTING : $L = 110'$; $S = \frac{100 - 95}{110} = 0.0455 \frac{\text{ft}}{\text{ft}}$

TIME OF CONC:

$$T_c = 0.0078 \frac{(110)^{0.77}}{(0.0455)^{0.385}} = 0.957$$

use 10 minutes

I/6 hr Volume (in/hr) from Plate 22.2DZ
I/6 = 2.15

ACTUAL INTENSITY FROM PLATE 22.2D-1

$$2.15 \times 2.3 = 4.945 \text{ SAY } \underline{\underline{5 \text{ in/hr}}}$$

AREA OF SITE: = 0.3669

$$\text{SAY } \frac{235 \times 137}{2} = 16,048 \text{ ft}^2 = \underline{\underline{0.3669 \text{ acres}}}$$

IMPERVIOUS:

$$120' \times 3.5' + 10' \times 10' = 520 \text{ ft}^2$$

$$\% \text{ IMPERVIOUS} = \frac{520}{16,048} = 3.2\%$$

$$\Rightarrow \text{'C' factor} = \underline{\underline{0.185}}$$

$$Q = C i A = (0.185)(5)(0.3669) = 0.34 \text{ cfs}$$



SUBJECT BURTAN #2 BY DSALXHEZ DATE 2-1-89
STORM RUNOFF CALC. SHEET OF
USING CITY OF ABQ DPM PROJECT NO. DZ1983. AZ. 04

RECALCULATION OF SITE RUNOFF FOR BURTAN #2
(PLAN APPROVED 1-30-89)

TIME OF CONC. $T_c = 0.0078 \frac{L^{0.77}}{S^{0.385}}$; Min $T_c = 10 \text{ min}$

AREA OF SITE = 0.3669 Acres $\Rightarrow$ USE RATIONAL FORMULA

$$Q = C_i A$$

CALCULATIONS FOR PROPOSED SITE PLAN

TIME OF CONC - USE 10 min

$$I/6 = 2.15 \quad (\text{DPM Plate 22.2 DZ})$$

ACTUAL INTENSITY

$$\frac{I}{6} \times \left(\frac{\text{freq. } 100 \text{ yr}}{\text{freq. } 5 \text{ hrs}} \right) = 2.15 \times 2.3 = 4.945 \text{ in}$$

See 5 hrs

TOTAL AREA OF SITE = 0.3369

TOTAL IMPERVIOUS AREA = Building + walk way
+ $\frac{1}{2}$ area of Turf blk driveway

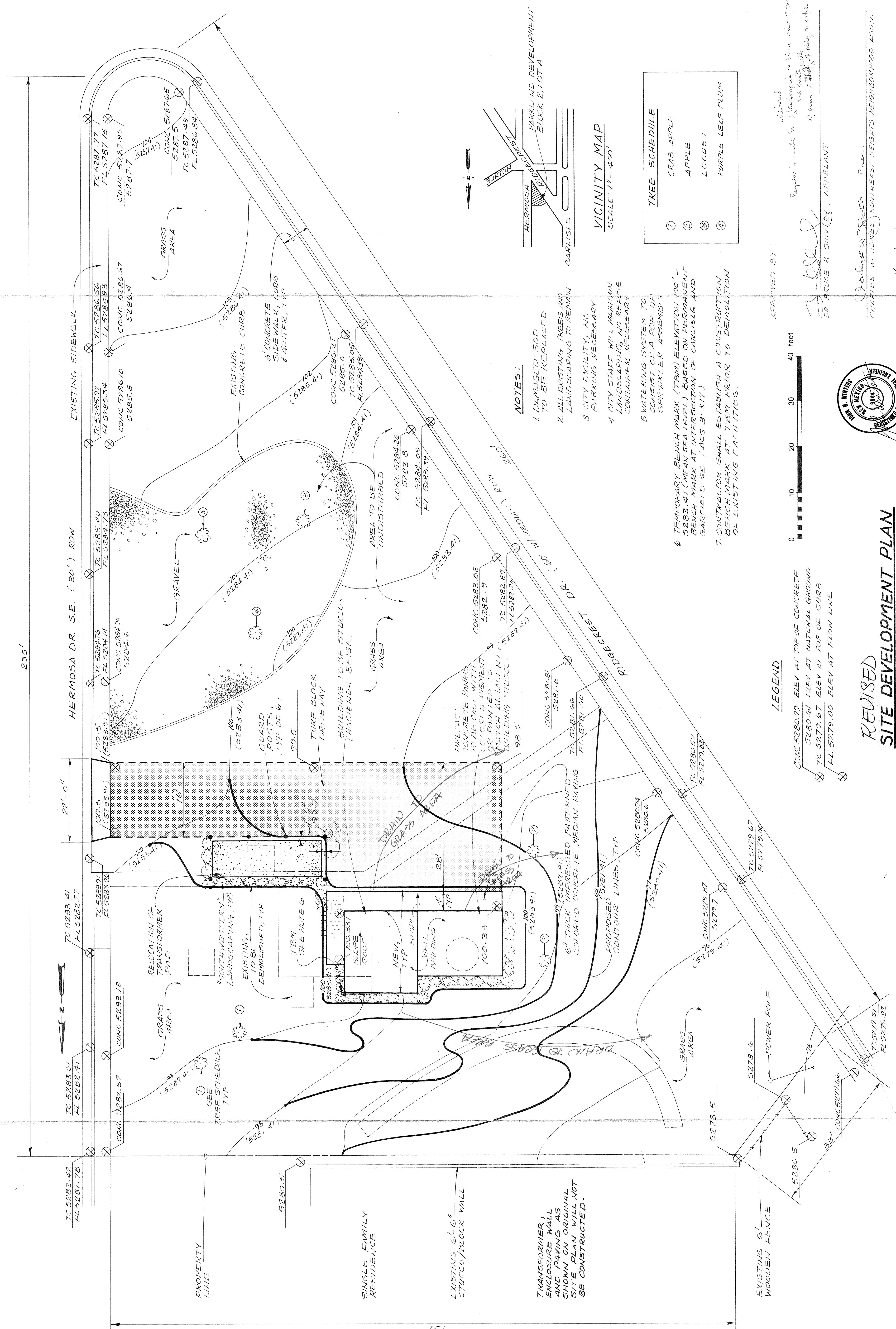
$$(18' \times 16' + 19.1 \times 15') + (15.3 + 35.1) \times 4' + \frac{1}{2}(39 \times 28 + 47 \times 16) =$$

$$1698 \text{ ft}^2 = 0.04 \text{ acre}$$

% IMPERVIOUS = 10%

C' Factor 0.21

$$Q = C_i A = (0.21)(15)(0.3669) = 0.39 \text{ cfs}$$



NOTES:

1. DAMAGED SOD TO BE REPLACED.
2. ALL EXISTING TREES AND LANDSCAPING TO REMAIN.
3. CITY FACILITY, NO PARKING NECESSARY.
4. CITY STAFF WILL MAINTAIN LANDSCAPING, NO REFUSE CONTAINER NECESSARY.
5. WATERING SYSTEM TO CONSIST OF A POP-UP SPRINKLER ASSEMBLY.
6. TEMPORARY BENCH MARK (TBM) ELEVATION 100' = 5283.4 (MEAN SEA LEVEL) BASED ON PERMANENT BENCH MARK AT INTERSECTION OF CARLISLE AND GARFIELD SE. (ACS 3-K17).
7. CONTRACTOR SHALL ESTABLISH A CONSTRUCTION BENCH MARK AT TBM PRIOR TO DEMOLITION OF EXISTING FACILITIES.

VICINITY MAP
SCALE: 1" = 400'

TREE SCHEDULE	
①	CRAB APPLE
②	APPLE
③	LOCUST
④	PURPLE LEAF PLUM

LEGEND

- CONC 5280.79 ELEV AT TOP OF CONCRETE
- 5280.61 ELEV AT NATURAL GROUND
- TC 5279.67 ELEV AT TOP OF CURB
- FL 5279.00 ELEV AT FLOW LINE

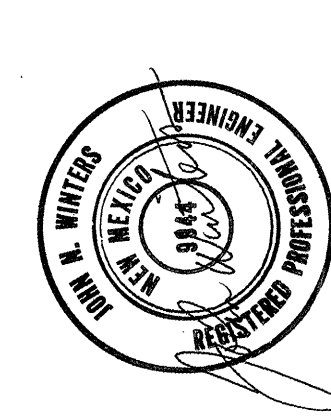
APPROVED BY:

Request is made for 1) landscaping to include value of trees to be removed from the site and 2) a copy of the site plan to be filed with the city engineer's office for filing to reflect any change in the site plan.

DR. BRUCE A. SHIVLEY, APPELLANT

CHARLES W. JONES, SOUTHEAST HEIGHTS NEIGHBORHOOD ASSN.

ART STUART, PROJECT MANAGER, CITY OF ALBUQUERQUE



REVISED
SITE DEVELOPMENT PLAN
BURTON WELL NO. 2
MAP NO. L-17