HYDROLOGY

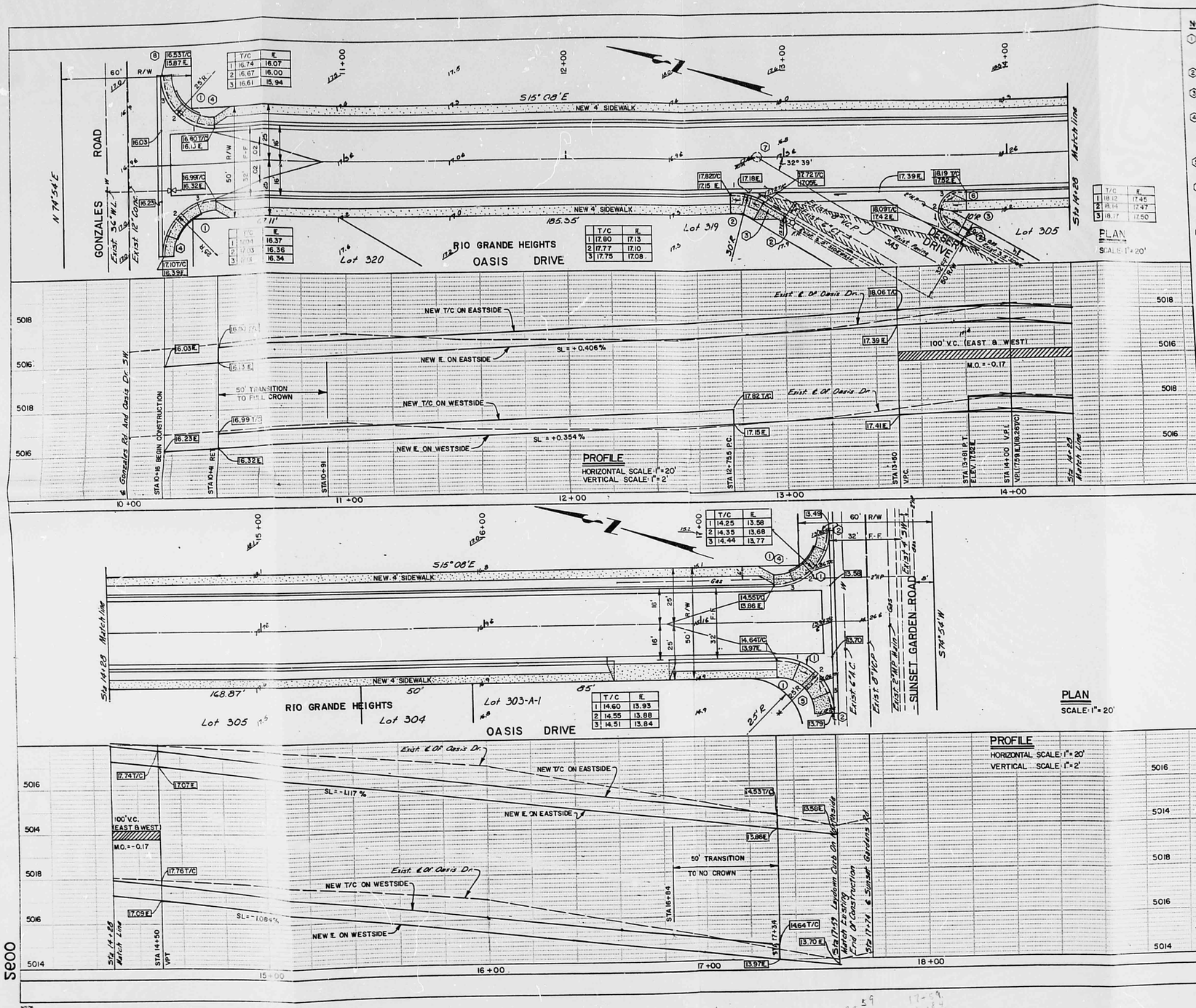
K11/D37

FOUR PLANS

PLANS FOR

PEREZ 6 PLEX

K-11/D37



NOTES:

1. WHEEL CHAIR RAMP TRANSITION AS PER STANDARD DRAWING P-18.
2. MATCH EXISTING CURBS
3. REMOVE EXIST. CURB AND GUTTER TO LIMIT OF NEW VALLEY GUTTER.
4. CONSTRUCT HANDICAP RAMP PER CITY STD. DWG. P-17, CASE I. IF SUFFICIENT R/W IS ACQUIRED PRIOR TO CONSTRUCTION OF OASIS USE CASE II RAMP.
5. CONSTRUCT HANDICAP RAMP PER CITY STD. DWG. P-17 CASE II.
6. IF SUFFICIENT R/W IS ACQUIRED PRIOR TO CONSTRUCTION OF OASIS, INCREASE CURB RETURN RADIUS TO 15' AND RECALCULATE QUARTER POINTS.
7. REPLACE EXISTING MH COVER WITH CURRENT STD. COVER PER STD. DWG., S-5. ADJUST MH TO GRADE.
8. IF OASIS IS CONSTRUCTED BEFORE GONZALES, CUT V-DITCH FROM NEW VALLEY GUTTER AT OASIS EASTWARD TO DAYLIGHT ALONG GONZALES ALIGNMENT.

CURB CURVE DATA

1. R = 25', L = 39.27', T = 25', Δ = 90°
2. R = 30', L = 16.88', T = 8.80', Δ = 32°41'
3. R = 10', L = 25.71', T = 34.11', Δ = 147°19'

LEGEND

- NEW CURB AND GUTTER AS PER CITY OF ALBUQUERQUE STD. DWG P-8.
- EXISTING MOUNTABLE CURB (ROLL TYP.)
- 14.88 T/C, 14.21 E. — NEW ELEVATIONS
- 17.5 — EXIST. ELEVATION
- NEW 4' SIDEWALK
- EXISTING STD. CURB & GUTTER

GENERAL NOTE

CONTACT CITY OF ALBUQUERQUE WATER UTILITIES DEPARTMENT, ENGINEERING SECTION PRIOR TO PAVING TO DETERMINE REQUIRED WATER AND SAS LINE EXTENSIONS.

AS BUILT INFORMATION

BENCH MARKS: B.M. ACS, NM 45-3A Aluminum Cap set in concrete flush with the Road On ℄ Of Coors Blvd SW, 31' South ℄ Of Gonzales Rd SW. Elevation 5017.927

SURVEY INFORMATION

NO.	FIELD NOTES BY	DATE
DS-14	G. Archuleta	10-16-85

ENGINEER'S SEAL

NO.	DATE	REMARKS	BY
		REVISIONS	

DESIGN: DESIGNED BY Phil Fischer & A.O. DATE Feb. 1986; DRAWN BY A.J. Olivas Sr. DATE Feb. 1986; CHECKED BY Phil Fischer DATE Feb. 1986

CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE: OASIS DR. SW. JUST EAST OF COORS BETWEEN SUNSET GARDENS AND GONZALES RD. (STREET GRADES ONLY)

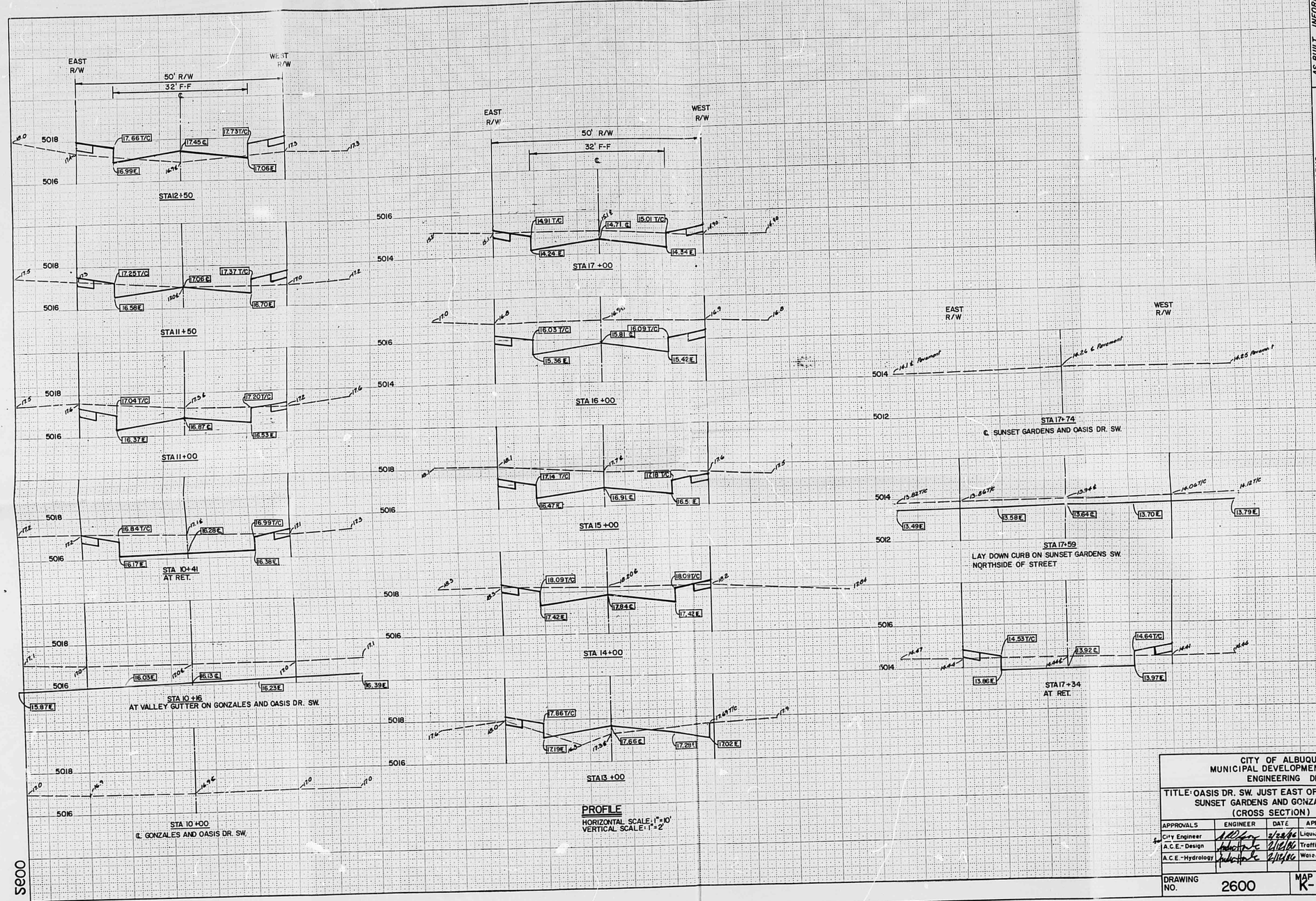
APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer		2/28/86	Liquid Waste		2-12-86
A.C.E.-Design		2/12/86	Traffic		2-12-86
A.C.E.-Hydrology		2/12/86	Water		2-12-86

DRAWING NO.	MAP NO.	SHEET	OF
2600	K-11	2	3

0035

2600

K11/D37



AS BUILT INFORMATION
CONTRACTOR — DATE
WORK STAKED BY — DATE
STAKE CHECK ACCEPTANCE BY — DATE
FIELD VERIFICATION BY — DATE
DRAWINGS CORRECTED BY — DATE
MICRO-FILM INFORMATION
RECORDED BY — DATE

BENCH MARKS
BM ACS, NM 45-3A Aluminum Cap Set In Concrete Flush With The Road On ℄ Of Coors Blvd. SW., 31' South ℄ Of Gonzales Rd. SW.
Elevation 5017.927

SURVEY INFORMATION
FIELD NOTES

NO.	BY	DATE
DS-46	G. Archunde	10/16/85

ENGINEER'S SEAL

NO.	DATE	REMARKS	BY

REVISIONS

DESIGN
DESIGNED BY Phil Fischer P.A.O. DATE Feb. 1986
DRAWN BY A.J. Olivas Jr. DATE Feb. 1986
CHECKED BY Phil Fischer DATE Feb. 1986

CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE: OASIS DR. SW. JUST EAST OF COORS BETWEEN SUNSET GARDENS AND GONZALES RD. N.W.
(CROSS SECTION)

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer		2-12-86	Liquid Waste	N/A	2-12-86
A.C.E.-Design		2/12/86	Traffic		2-12-86
A.C.E.-Hydrology		2/12/86	Water	N/A	2-12-86

DRAWING NO. 2600 | MAP NO. K-11 | SHEET 3 OF 3

2600

2600

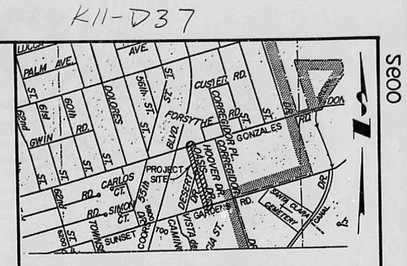
K11/D37

K11-D37

OASIS DR SW
BETWEEN SUNSET GARDENS AND GONZALES RD SW
(STREET GRADES ONLY)

INDEX

SHEET NO.	DESCRIPTION
1 OF 3	TITLE SHEET
2 OF 3	PLAN & PROFILE SHEET
3 OF 3	CROSS SECTION SHEET



MAP LOCATION ZONE ATLAS K-11

NOTICE TO CONTRACTORS

1. All work detailed on these plans to be performed under contract shall, except as otherwise stated or provided for hereon, be constructed in accordance with the City of Albuquerque Interim Standard Specifications For Public Works Construction 1985.

2. Two (2) working days prior to any excavation, the contractor must contact Line Locating Service, 765-1234 for location of existing utilities.

3. 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 or surveyor so that the conflict can be resolved with minimum amount of delay.

THE FOLLOWING NOTES ALSO APPLY WHEN CHECKED

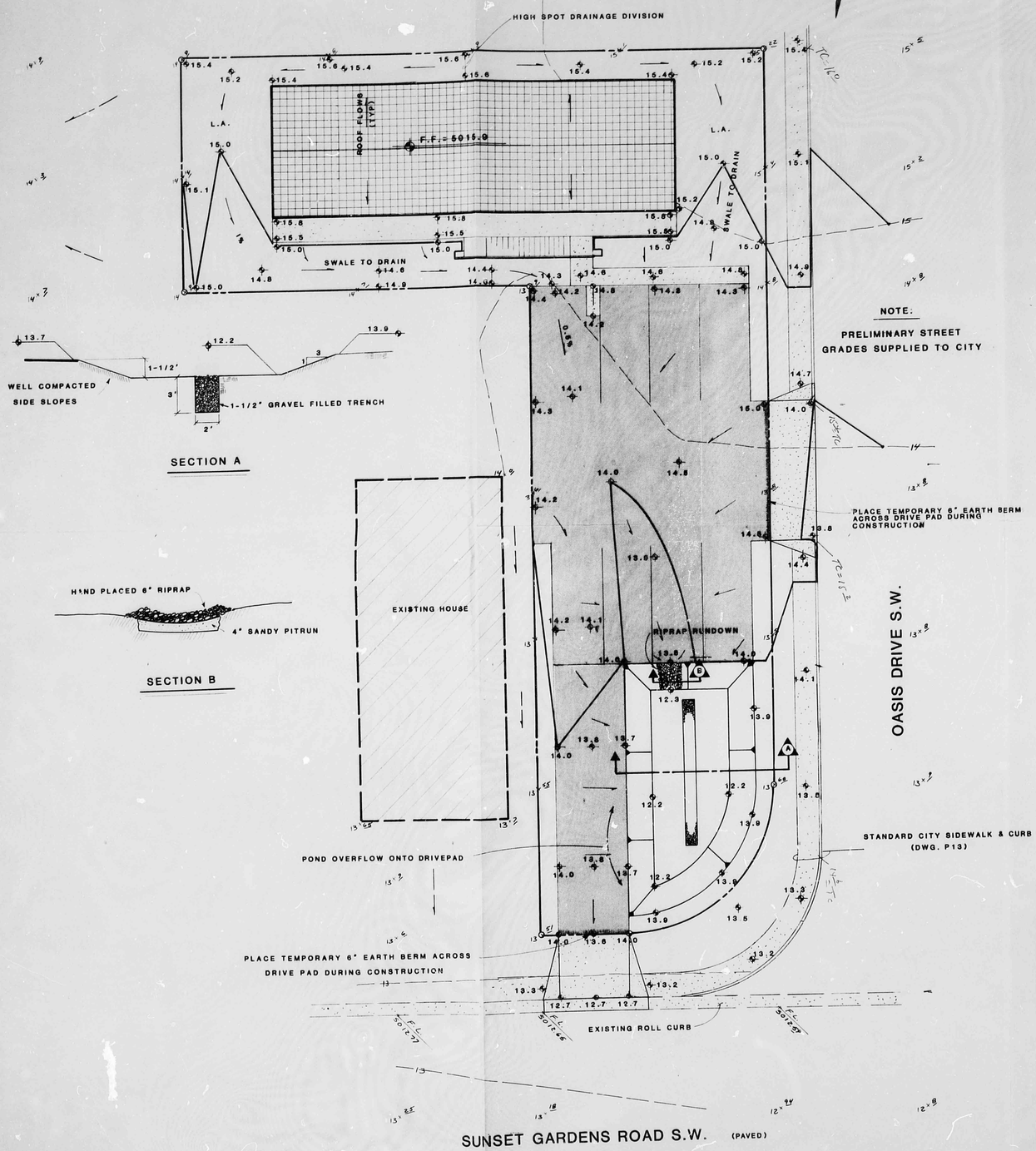
- [x] All utilities and utility service lines shall be installed prior to paving.
- [x] Backfill compaction shall be according to specified street use.
- [x] Tack coat requirments shall be determined by the City Engineer.
- [x] Sidewalks and wheelchair ramps within the curb returns shall be constructed wherever a new curb return is constructed.
- [x] If curb is depressed for a drivepad or a handicap ramp, the drivepad or ramp shall be constructed prior to acceptance of the curb and gutter.
- [ ] All storm drainage facilities shall be completed prior to final acceptance.

	CITY OF ALBUQUERQUE	APPROVED FOR STREET GRADES ONLY CITY ENGINEER — DATE
	DRAWING NO. 2600	SHEET 1 OF 3

K11/D37

S600

SCALE: 1" = 10'



NOTE:

PRELIMINARY STREET GRADES SUPPLIED TO CITY

SECTION A

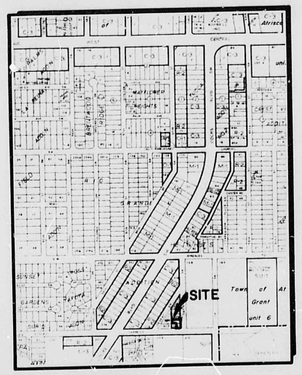
SECTION B

LEGEND

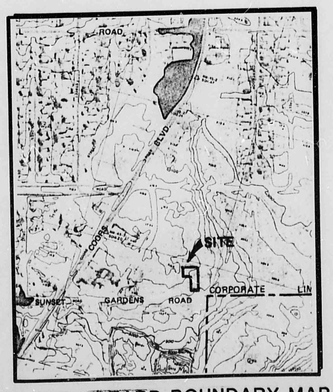
	SIDEWALK, CURB & GUTTER (EXISTING, PROPOSED)
	PROPOSED ASPHALT
	BUILDING (EXISTING, PROPOSED)
	PROPERTY LINE
12.7x	EXISTING SPOT ELEVATION
10	EXISTING CONTOUR
12.5	PROPOSED SPOT ELEVATION
10	PROPOSED CONTOUR
	SURFACE FLOW DIRECTION (EXISTING, PROPOSED)
L.A.	LANDSCAPED AREA
T.G.W.	TOP OF GRADE WALL (LESS THAN 18" HIGH)
T.R.W.	TOP OF RETAINING WALL (MORE THAN 18" HIGH)
T.A.	TOP OF ASPHALT
T.C.	TOP OF CURB
F.L.	FLOW LINE
F.F.	FINISHED FLOOR

CONSTRUCTION NOTES:

1. Before construction, the Contractor shall check and verify pertinent figures shown hereon and shall make all applicable field measurements. Should any conflict, error or discrepancy be discovered, the contractor shall notify the Engineer at once to resolve the problem. It is recommended that the Contractor meet with the Engineer for a pre-design conference to discuss the scope of work and critical areas involved.
2. The Contractor shall be responsible for following the plans using his best skill and attention. Any departure from the plans must be approved by the Engineer and the City Hydrology Department prior to construction.
3. The Contractor shall check the site plan for locations of existing utilities within or adjacent to streets and shall take all necessary precautions and efforts to locate and protect these utilities. He shall give 48 hours notice to Line Locating Service, 765-1234, for any work that may interfere with said utilities.



VICINITY MAP K-11



FLOOD HAZARD BOUNDARY MAP

SCOPE: The proposed improvements, comprised of one six-plex apartment unit and associated parking, sidewalks, and landscaping, is located at the intersection of Sunset Gardens Road and Oasis Drive, SW.

The present site is a vacant lot surrounded by undeveloped land except for a single residence immediately to the west. Access to the site is via Sunset Gardens Road (paved) to the south. Oasis Drive is presently unimproved.

Drainage from the existing site is generally from north to south onto Sunset Gardens Road, and thence east along the roll curb, one block to Corregidor Road. At this point, pavement ends and flows go across east-sloping "mesa" land having no defined drainageways. Drainage from the developed site will follow the same pathway.

The intent of this plan is to show:

a) Grading relationships between the existing ground elevations and proposed finished elevations in order to facilitate positive drainage to designated discharge points.

b) The extent of proposed site improvements, including buildings, walks and pavement.

c) The flow rate/volume of rainfall runoff across or around these improvements and methods of handling these flows to meet City requirements for drainage management.

d) The relationship of onsite improvements with existing neighboring property to ensure an orderly transition between proposed and surrounding grades.

GENERAL NOTES:

Legal: Lot 303-A-1 of Rio Grande Heights, Albuquerque, New Mexico.

Surveyor: Douglas R. Smith Land Surveying Company, 1100-B Pennsylvania, NE, Albuquerque, New Mexico.

B.M.: City Bench Mark 5-L-11 on the west side of Coors Road, 70 ft. north of Salvador Street at Highway Sta. 640 + 15. Elevation = 5009.63.

T.B.M.: North Bonrat Bolt on fire hydrant on south side of Sunset Gardens Road. Elevation - 5006.02.

Soils: MWA: Hydrologic Soil Group "B".

Flood Hazard: Site is not located in flood hazard zone according to F.E.M.A. Map #27.

Off-Site Drainage: Off-site flows do not drain onto site flows from house to the west of site drain to Sunset Gardens.

Erosion Control: Site is quite flat and should not experience significant erosion. Six-inch berms will be placed across driveways on Oasis and Sunset Gardens to preclude sediment from leaving site during construction of six-plex.

Calculations: Calculations are based on the City of Albuquerque D.P.M. Manual, Vol. II for the 100 year-6 hour storm, using the Rational Formula to compare the existing and proposed runoff rates.

RATIONAL METHOD - Q = CIA

Area of Site: 8,266 sq. ft. = 0.19 acres.

Run-off Coefficient:

Existing Site:	Developed Site:
A imp. = 0 ac	A imp. = 0.12 Ac
% imp. = 0 %	% imp. = 62%
"C" = 0.14 (DPM 22.2 C-1)	"C" = 0.64 (DPM 22.2 C-1)

Rainfall Intensity:

$I = P_6 (6.8) Tc^{(-0.51)} = 4.65"$ per hour

where $P_6 = 2.27$ (DPM 22.2 D-1)

$Tc = 10$ minutes

Existing Condition:	Developed Condition:
$Q_{100} = (0.34)(4.65)(0.19) = 0.30$ cfs	$Q_{100} = (0.64)(4.65)(0.19) = 0.56$ cfs
$V_{100} = (0.30)(5\ Tc)(60\ sec/in)/2 = 450$ cu. ft.	$V_{100} = (0.56)(50)(60)/2 = 840$ cu. ft.

SUMMARY: $Q_{100} = (0.56)-(0.30) = 0.26$ cfs (increase)

$V_{100} = (840)-(450) = 390$ cu. ft. (increase)

DOWNSTREAM CAPACITY

Based on letter from E. Montoya, City Hydrology, August 16, 1985, downstream capacity for free discharge is not available. Therefore, a pond capable of retaining the entire V_{100} (840 cu. ft.) has been designed for the SE corner of the property. When downstream drainage improvements are made in the future, the pond area will be filled in and on site flows routed from the property to Sunset Gardens Road via the south drive pad.

RESUBMITTAL: 8-8-85

- PRELIMINARY STREET GRADES SUBMITTED
- FURTHER COMMENTS ON DOWNSTREAM CAPACITY PROVIDED

Walter G. Hines — WALTER G. HINES, P.E. — 8-8-85 DATE

RECEIVED SEP 11 1985 HYDROLOGY SECTION

RESUBMITTAL: 9-10-85

- RETENTION POND ADDED
- STREET GRADES PROVIDED FOR ENTIRE LENGTH OF OASIS DRIVE
- ELEVATIONS CORRECTED TO ALLEVIATE SURVEYING ERROR

Walter G. Hines — WALTER G. HINES, P.E. — 9-11-85 DATE

K11/D37

WEISS-HINES ENGINEERING INC.
1100 ALVARADO N.E. SUITE B
ALBUQUERQUE, NEW MEXICO 87110
(505) 266-3444

REVISIONS | DATE
DESIGNED
DRAWN
CHECKED

DRAINAGE / GRADING PLAN
PEREZ 6-PLEX
633 OASIS DRIVE S.W.

ENGINEERING

WALTER G. HINES NEW MEXICO 7-9-85

SHEET 1 OF 1