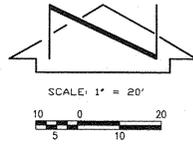


**LEGEND**



- TC TOP OF CURB
- FL FLOW LINE
- TC TOP OF GRATE
- W.G. WATER GATE/VALVE
- TSW TOP OF SIDEWALK
- TCO TOP OF CONCRETE
- P.P. POWER POLE
- EG EDGE OF GRASS
- W.M. WATER METER
- G.M. GAS METER
- TB TOP OF BRICK
- TR TOP OF RAMP
- TW TOP OF WALL
- EB EDGE OF BRICK
- CO CLEAR OUT
- SP STEEL PLATE
- CONFEROUS TREE
- DECIDUOUS TREE
- SHRUB TREE
- SMALL TREE
- 60.43 EXISTING CONTOUR
- 60.75 EXISTING SPOT ELEVATION
- 62 PROPOSED SPOT ELEVATION
- 62 PROPOSED CONTOUR
- ..... FLOW DIRECTION

**NOTE:**

- A TOPOGRAPHIC SURVEY WAS PERFORMED ON SEPTEMBER 22, 1994. ONLY EXISTING MONUMENTS FOUND AT THE TIME OF SURVEY ARE SHOWN. NO BOUNDARY MONUMENTS HAVE BEEN SET.
- THIS IS NOT A BOUNDARY SURVEY. APPARENT PROPERTY CORNERS ARE SHOWN FOR ORIENTATION ONLY. BOUNDARY DATA SHOWN IS BASED UPON THE SURVEY PERFORMED BY LAMONTE J. URBAN, SUMMARY PLAT OF LOS DURANES PARK, FILED SEPT. 7, 1979, BOOK D9, PAGE 177.
- UTILITIES SHOWN ON THE MAP ARE SHOWN IN AN APPROXIMATE MANNER ONLY. PER CITY OF ALBUQUERQUE WATERLINE AND SANITARY SEWER MAPS.

**LEGAL DESCRIPTION**

PORTION OF LOS DURANES PARK, AS SHOWN ON THE SUMMARY PLAT OF LOS DURANES PARK, FILED 9-7-1979, D9-177.

**PROJECT BENCHMARK**

STANDARD A.C.S. BRASS TABLET STAMPED "7-113", SET FLUSH WITH ASPHALT PAVING AT THE INTERSECTION OF 40 GRANDE BOULEVARD, N.W., AND INDIAN SCHOOL ROAD, N.W. ELEVATION = 4961.715' (M.S.L.D.)

**T.B.M.**

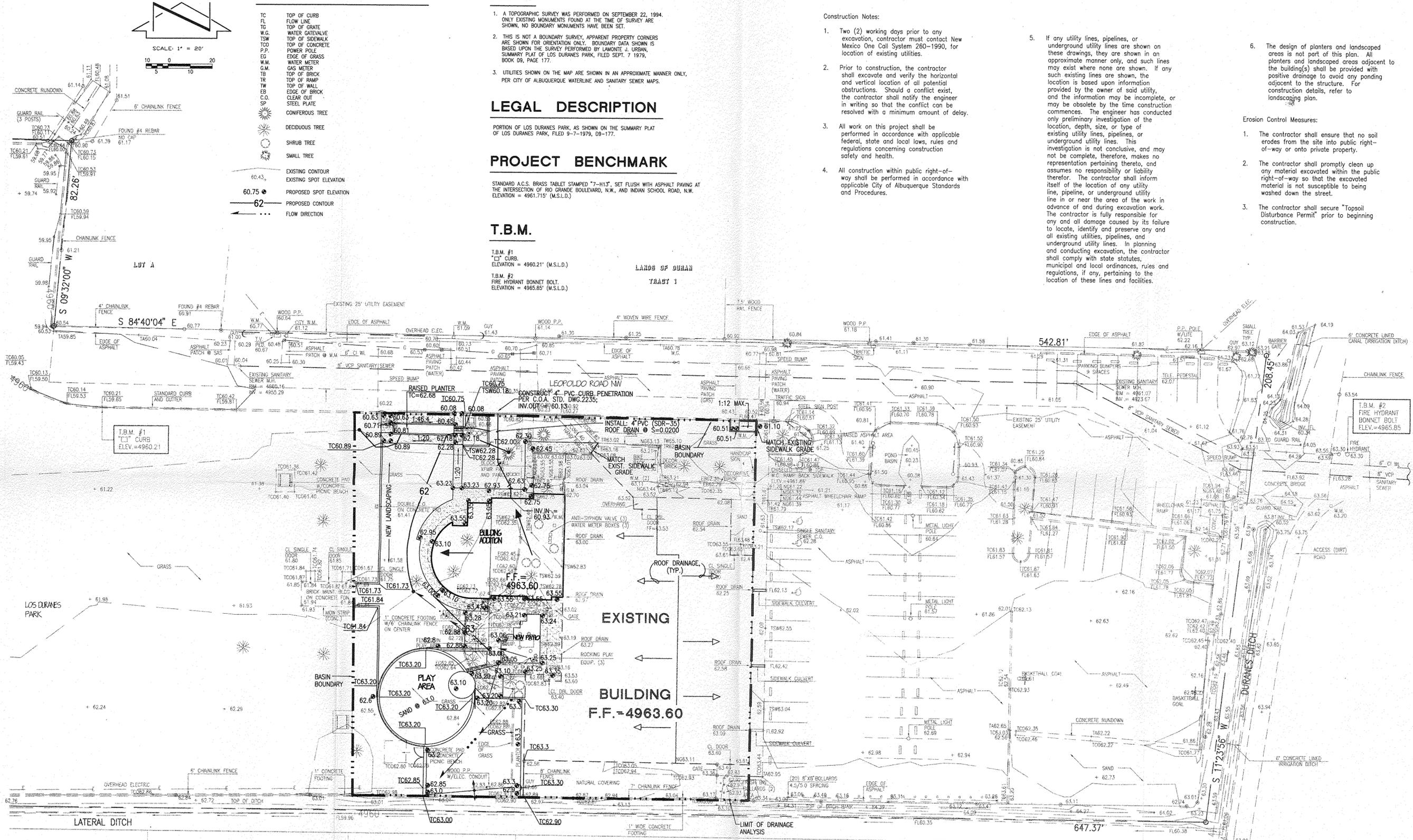
- T.B.M. #1  
"C" CURB  
ELEVATION = 4960.21' (M.S.L.D.)
- T.B.M. #2  
FIRE HYDRANT BONNET BOLT  
ELEVATION = 4965.85' (M.S.L.D.)

**Construction Notes:**

- Two (2) working days prior to any excavation, contractor must contact New Mexico One Call System 260-1990, for location of existing utilities.
- Prior to construction, the contractor shall excavate and verify the horizontal and vertical location of all potential obstructions. Should a conflict exist, the contractor shall notify the engineer in writing so that the conflict can be resolved with a minimum amount of delay.
- All work on this project shall be performed in accordance with applicable federal, state and local laws, rules and regulations concerning construction safety and health.
- All construction within public right-of-way shall be performed in accordance with applicable City of Albuquerque Standards and Procedures.
- If any utility lines, pipelines, or underground utility lines are shown on these drawings, they are shown in an approximate manner only, and such lines may exist where none are shown. If any such existing lines are shown, the location is based upon information provided by the owner of said utility, and the information may be incomplete, or may be obsolete by the time construction commences. The engineer has conducted only preliminary investigation of the location, depth, size, or type of existing utility lines, pipelines, or underground utility lines. This investigation is not conclusive, and may not be complete, therefore, makes no representation pertaining thereto, and assumes no responsibility or liability therefor. The contractor shall inform itself of the location of any utility line, pipeline, or underground utility line in or near the area of the work in advance of and during excavation work. The contractor is fully responsible for any and all damage caused by its failure to locate, identify and preserve any and all existing utilities, pipelines, and underground utility lines. In planning and conducting excavation, the contractor shall comply with state statutes, municipal and local ordinances, rules and regulations, if any, pertaining to the location of these lines and facilities.
- The design of planters and landscaped areas is not part of this plan. All planters and landscaped areas adjacent to the building(s) shall be provided with positive drainage to avoid any ponding adjacent to the structure. For construction details, refer to landscaping plan.

**Erosion Control Measures:**

- The contractor shall ensure that no soil erodes from the site into public right-of-way or onto private property.
- The contractor shall promptly clean up any material excavated within the public right-of-way so that the excavated material is not susceptible to being washed down the street.
- The contractor shall secure "Topsoil Disturbance Permit" prior to beginning construction.



**LOS DURANES COMMUNITY CENTER EXPANSION**  
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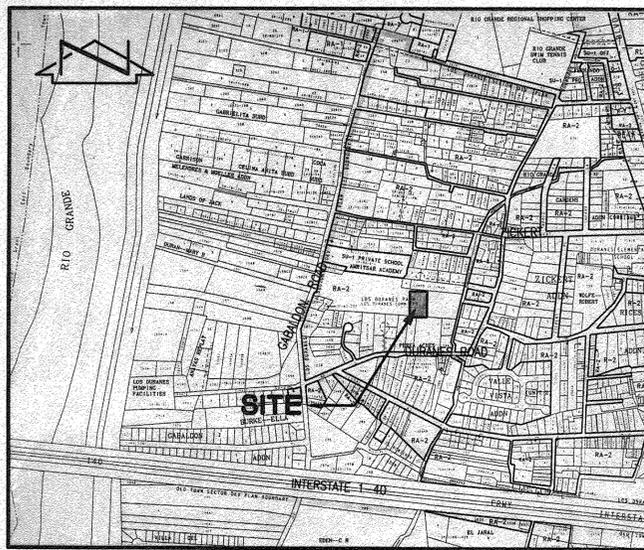
APR 19 1995  
HYDROLOGY DIVISION

JEFF MORTENSEN & ASSOCIATES, INC.  
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940922

Project no. 9404c  
sheet  
**C-1**  
3 of 30  
3-17-95



VICINITY MAP

H-12

SCALE: 1" = 750'

LEGAL DESCRIPTION

PORTION OF LOS DURANES PARK, AS SHOWN ON THE SUMMARY PLAT OF LOS DURANES PARK, FILED 9-7-1979, 09-177.

PROJECT BENCHMARK

STANDARD A.C.S. BRASS TABLET STAMPED "7-H13", SET FLUSH WITH ASPHALT PAVING AT THE INTERSECTION OF RIO GRANDE BOULEVARD, N.W., AND INDIAN SCHOOL ROAD, N.W. ELEVATION = 4961.715' (M.S.L.D.)

T.B.M.

T.B.M. #1  
 "C" CURB  
 ELEVATION = 4960.21' (M.S.L.D.)

T.B.M. #2  
 FIRE HYDRANT BONNET BOLT  
 ELEVATION = 4965.85' (M.S.L.D.)

DRAINAGE PLAN

The following items concerning the Los Duranes Community Center Expansion are contained hereon:

1. Vicinity Map
2. Grading Plan
3. Calculations

As shown by the Vicinity Map, the site is located at the east side of Los Duranes Park, east of Gabaldon Road N.W., adjacent to the Duranes Ditch. This site is currently developed with an approximate 10,500 s.f. building, associated parking facilities, and landscaping.

As shown by Panel 22 of 50 of the National Flood Insurance Program Flood Insurance Rate Maps published by F.E.M.A. for the City of Albuquerque, New Mexico dated October 14, 1983, the entire site does not lie within a 100-year designated Flood Hazard Zone.

The Grading Plan shows: 1) existing and proposed grades indicated by spot elevations and contours at 1'0" intervals, 2) the limit and character of the proposed improvements, and 3) continuity between existing and proposed grades. Development proposed under this Plan consists of a 2,250 sf building addition, a new patio area, and a new play area. This development does not affect the existing parking area, which generally drains to an existing pond in the lot. Approximately one-third (1/3) of the existing roof drainage is passed into this area. The remaining parking drains toward Leopoldo Road N.W., which drains westerly along the north side of the building. Leopoldo Road N.W. is a fully developed roadway with curb and gutter and asphaltic concrete paving, which ultimately drains to Gabaldon Road N.W., a fully developed public roadway with storm drain improvements. The remaining roof drainage will continue to be discharged into the grass park area west of the building which will mitigate nuisance flows. The addition and patio area will also drain to this area following historic drainage patterns. Because the increase of runoff is very minor ( $\Delta Q_{100} = 0.3$  cfs), existing runoff patterns are not being altered, and the proximity of downstream storm drain improvements, the continued free discharge of runoff from the building addition and patio is appropriate. No offsite flows impact the site, due to the building being topographically higher than the surrounding existing improvements.

The Calculations which appear hereon analyze both the existing and developed conditions for the 100-year, 6-hour rainfall event. For the purposes of this plan, only the area defined by the basin boundaries is being calculated to show the differences in runoff. The Procedure for 40-acre and Smaller Basins, as set forth in the Revision of Section 22.2, Hydrology of the Development Process Manual, Volume 2, Design Criteria, dated January, 1993, has been used to quantify the peak rate of discharge and volume of runoff generated. The calculations show a minor increase of volume ( $\Delta V_{100} = 560$  cf) and peak discharge rate ( $\Delta Q_{100} = 0.3$  cfs) is expected.

CALCULATIONS

Site Characteristics

1. Precipitation Zone = 2
2.  $P_{6,100} = P_{360} = 2.35$  in.
3. Total Area ( $A_T$ ) = 0.70 ac.

Existing Land Treatment	Area (sf/ac)	%
B	18,000/0.41	58.8
D	12,600/0.29	41.2

Developed Land Treatment	Area (sf/ac)	%
B	12,800/0.29	41.8
D	17,800/0.41	58.2

Existing Condition

1. Volume

$$E_w = (E_A A_A + E_B A_B + E_C A_C + E_D A_D) / A_T$$

$$E_w = (0.78(0.41) + 2.12(0.29)) / 0.70 = 1.34 \text{ in.}$$

$$V_{100} = (E_w / 12) A_T$$

$$V_{100} = (1.34 / 12) 0.70 = 0.0782 \text{ ac.ft.} = 3,400 \text{ cf}$$

2. Peak Discharge

$$Q_p = Q_{PA} A_A + Q_{PB} A_B + Q_{PC} A_C + Q_{PD} A_D$$

$$Q_p = Q_{100} = 2.28(0.41) + 4.70(0.29) = 2.3 \text{ cfs}$$

Developed Condition

1. Volume

$$E_w = (E_A A_A + E_B A_B + E_C A_C + E_D A_D) / A_T$$

$$E_w = (0.78(0.29) + 2.12(0.41)) / 0.70 = 1.56 \text{ in.}$$

$$V_{100} = (E_w / 12) A_T$$

$$V_{100} = (1.56 / 12) 0.70 = 0.0910 \text{ ac.ft.} = 3,960 \text{ cf}$$

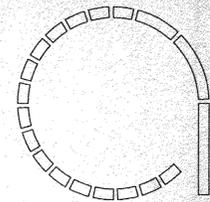
2. Peak Discharge

$$Q_p = Q_{PA} A_A + Q_{PB} A_B + Q_{PC} A_C + Q_{PD} A_D$$

$$Q_p = Q_{100} = 2.28(0.29) + 4.70(0.41) = 2.6 \text{ cfs}$$

Comparison

1.  $\Delta V_{100} = 3,960 - 3,400 = 560 \text{ cf (increase)}$
2.  $\Delta Q_{100} = 2.6 - 2.3 = 0.3 \text{ cfs (increase)}$



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02-13-95  
 03-10-95  
 04-13-95



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