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

April 19, 2001

Pat Conley, P.E.
Smith Engineering
6400 Uptown Blvd NE
Albuquerque, New Mexico 87110

RE: ROSS ENCHANTED PARK (H-22/D71)
GRADING AND DRAINAGE PLAN FOR SITE DEVELOPMENT FOR BUILDING PERMIT APPROVAL AND DRAINAGE PLAN APPROVAL.
ENGINEER'S STAMP DATED APRIL 11, 2001.

Dear Mr. Conley:

Based on the information provided on your April 12, 2001 submittal, the above referenced project is approved for Site Development Plan for Building Permit and Work Order requirements.

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

Sincerely,

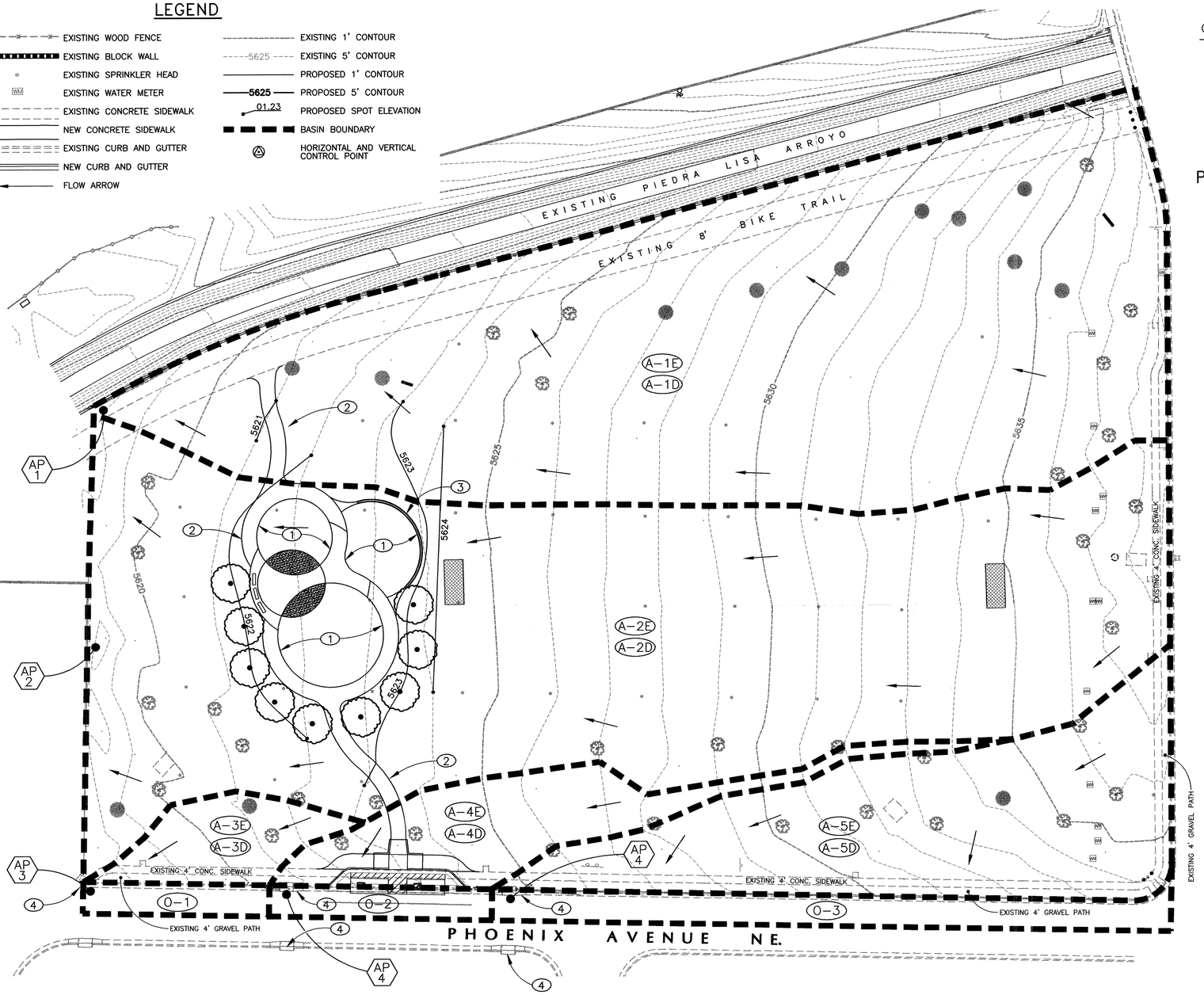
Bradley L. Bingham

Bradley L. Bingham, P.E.
Senior Civil Engineer
Hydrology Division, PWD

c: Terri Martin
File

LEGEND

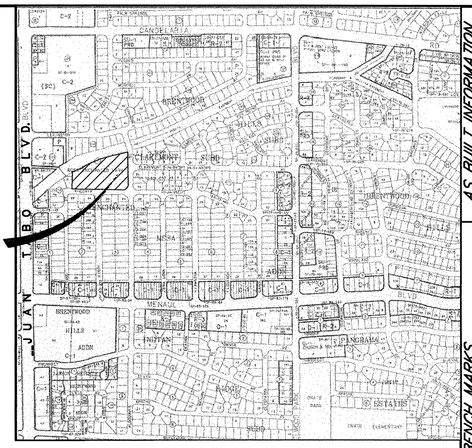
- EXISTING WOOD FENCE
- EXISTING BLOCK WALL
- EXISTING SPRINKLER HEAD
- EXISTING WATER METER
- EXISTING CONCRETE SIDEWALK
- NEW CONCRETE SIDEWALK
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- FLOW ARROW
- EXISTING 1' CONTOUR
- 5625 EXISTING 5' CONTOUR
- PROPOSED 1' CONTOUR
- 5625 PROPOSED 5' CONTOUR
- 01.23 PROPOSED SPOT ELEVATION
- BASIN BOUNDARY
- HORIZONTAL AND VERTICAL CONTROL POINT



KEYED NOTES:

1. NEW SAND PLAY AREA
2. NEW CONCRETE PATH
3. NEW HEADER CURB PER COA STD. DWG. 2415.
4. EXISTING TYPE DOUBLE 'C' STORM DRAIN INLET.

PROJECT LOCATION



LOCATION MAP

ZONE ATLAS MAP NO. H-22
NOT TO SCALE

DRAINAGE MANAGEMENT PLAN

PURPOSE: THE PURPOSE OF THIS PLAN IS TO PROVIDE A FINAL DRAINAGE MANAGEMENT PLAN FOR THE PROPOSED PLAY AREA IMPROVEMENTS OF THE CITY OF ALBUQUERQUE'S ROSS ENCHANTED PARK. THE PLAN IS SUBMITTED FOR REVIEW BY THE CITY OF ALBUQUERQUE HYDROLOGY SECTION OF THE PUBLIC WORKS DEPARTMENT.

EXISTING CONDITIONS: THE SITE IS CURRENTLY A DEVELOPED CITY OF ALBUQUERQUE PARK WITH IRRAGRATED GRASS AREAS, SHRUBS, AND TREES. A 4' SIDEWALK AND 5' GRAVEL AREA BORDER THE SITE ALONG PHOENIX AVENUE AND THE MAJORITY OF ALGODONES STREET. AN 8' ASPHALT BIKE TRAIL RUNS ALONG THE NOTHERN BOUNDARY OF THE SITE. THE EXISTING PIEDRA LISA ARROYO BOUNDS THE PARK TO THE NORTH.

THE SITE TOPOGRAPHY SLOPES AT APPROXIMATELY 3.6% FROM EAST TO WEST. FLOWS ON THE NORTHERN PORTION OF THE SITE ARE COLLECTED IN THE PIEDRA LISA ARROYO. FLOWS FROM THE SOUTHERN PORTION OF THE SITE ARE COLLECTED IN TWO CITY OF ALBUQUERQUE STANDARD TYPE 'A' STORM DRAIN INLETS LOCATED IN PHOENIX AVENUE. THESE INLETS COLLECT THE OFFSITE STREET FLOWS FROM PHOENIX AVENUE AS WELL. FLOWS FROM THE MIDDLE OF THE PARK FLOW OFFSITE TO NIEGHBORING PROPERTIES AND ARE EVENTUALLY COLLECTED IN JUAN TABO BOULEVARD.

CALCULATIONS: THE CALCULATIONS SHOWN HEREON DEFINE THE 100-YEAR / 6 HOUR DESIGN STORM FALLING WITHIN THE PROJECT SITE AND CONTRIBUTING OFF-SITE AREAS UNDER EXISTING AND DEVELOPING CONDITIONS. THE HYDROLOGY IS PER THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL, CHAPTER 22, VOLUME 2, 1997 REVISION.

DEVELOPED CONDITIONS:
THE PURPOSE OF THIS PROJECT IS TO CONSTRUCT A PARK PLAY AREA WITH A DEDICATED HANDICAPPED PARKING AREA. THIS IMPROVEMENT WILL BE CONSTRUCTED OF CONCRETE PATHS AND SAND PLAY AREAS THE PATHS WILL BE CONSTRUCTED TO MATCH THE EXISTING GRADE AS CLOSELY AS POSSIBLE. THE SAND PLAY AREAS WILL NEED TO BE CONSTRUCTED WITH NO SLOPE TO ENSURE STABILITY. THE PROPOSED IMPROVEMENTS WILL NOT CHANGE THE EXISTING DRAINAGE BASIN AREAS.

ANALYSIS POINT	EXISTING CONTRIBUTING BASINS	DEVELOPED CONTRIBUTING BASINS	DEVELOPED Q 100 (CFS)	EXISTING Q 100 (CFS)	VOLUME V 100 (ACRE-FT)
AP-1	A-1E	A-1D	5.720	5.693	2.265
AP-2	A-2E	A-2D	6.047	5.852	2.317
AP-3	A-3E, O-1	A-3D, O-1	0.526	0.526	0.234
AP-4	A-4E, O-2	A-4D, O-2	0.946	0.906	0.409
AP-5	A-5E, O-3	A-5D, O-3	2.47	2.47	1.077

⬡ ANALYSIS POINT HYDROLOGY TABLE

N

15' 0 30' 60'

SCALE: 1" = 30'

BASIN	AREA (ACRES)	PRECIPITATION 100-YR, 6-HOUR (INCHES)	TIME OF CONCENTRATION (HOURS)	AREA LAND TREATMENT B (ACRES)	AREA LAND TREATMENT D (ACRES)	EXCESS PRECIPITATION E, B (INCHES)	EXCESS PRECIPITATION E, D (INCHES)	FLOW Q 100 (CFS)	VOLUME V 100 (ACRE-FT)
O-1	0.0376	3.65	0.20	0.00	0.0376	1.08	2.64	0.198	0.099
O-2	0.0451	3.65	0.20	0.00	0.0451	1.08	2.64	0.240	0.121
O-3	0.1394	3.65	0.20	0.00	0.1394	1.08	2.64	0.732	0.368
A-1E	1.787	3.65	0.20	1.583	0.204	1.08	2.64	5.693	2.248
A-2E	1.979	3.65	0.20	1.948	0.0313	1.08	2.64	5.852	2.186
A-3E	0.0966	3.65	0.20	0.0768	0.0197	1.08	2.64	0.328	0.135
A-4E	0.2120	3.65	0.20	0.1862	0.0253	1.08	2.64	0.677	0.268
A-5E	0.5190	3.65	0.20	0.4237	0.0953	1.08	2.64	1.738	0.709

HYDROLOGY TABLE – EXISTING CONDITIONS

BASIN	AREA (ACRES)	PRECIPITATION 100-YR, 6-HOUR (INCHES)	TIME OF CONCENTRATION (HOURS)	AREA LAND TREATMENT B (ACRES)	AREA LAND TREATMENT D (ACRES)	EXCESS PRECIPITATION E, B (INCHES)	EXCESS PRECIPITATION E, D (INCHES)	FLOW Q 100 (CFS)	VOLUME V 100 (ACRE-FT)
O-1	0.0376	3.65	0.20	0.00	0.0376	1.08	2.64	0.198	0.099
O-2	0.0451	3.65	0.20	0.00	0.0451	1.08	2.64	0.240	0.121
O-3	0.1394	3.65	0.20	0.00	0.1394	1.08	2.64	0.732	0.368
A-1D	1.787	3.65	0.20	1.574	0.214	1.08	2.64	5.720	2.265
A-2D	1.979	3.65	0.20	1.864	0.115	1.08	2.64	6.047	2.317
A-3D	0.0966	3.65	0.20	0.0768	0.0197	1.08	2.64	0.328	0.135
A-4D	0.2120	3.65	0.20	0.1736	0.0379	1.08	2.64	0.706	0.288
A-5D	0.5190	3.65	0.20	0.4237	0.0953	1.08	2.64	1.738	0.709

HYDROLOGY TABLE – DEVELOPED CONDITIONS

SURVEY INFORMATION
FIELD NOTES

NO.	BY	DATE
N105_ 01.630	JOSEPH FROM, COMMUNITY SCIENCT CORP.	

BENCH MARKS
C.O.A. BENCHMARK "10-H22"
THE BENCHMARK IS LOCATED 8.1 MILES EAST OF DOWNTOWN ALBUQUERQUE, AT THE INTERSECTION OF LEXINGTON AVE. NE & JUAN TABO BLVD. NE., 45' SOUTH OF THE CENTERLINE LEXINGTON . IN THE NOSE OF THE MEDAIN.
ELEVATION = 5611.101
GROUND COORDINATES: N = 1496557.28
E = 420728.75
GROUND-TO-GRID FACTOR: 0.99996388

AS BUILT INFORMATION
CONTRACTOR

	DATE
WORK STAKED BY	
INSPECTOR'S ACCEPTANCE BY	
AS-BUILT VERIFICATION BY	
DRAWINGS CORRECTED BY	

MICRO-FILM INFORMATION

	DATE
RECORDED BY	
NO.	

ENGINEERS SEAL
PATRICK J. CONLEY
NEW MEXICO
14826
REGISTERED PROFESSIONAL ENGINEER
4/11/01

RECEIVED
APR 12 2001
HYDROLOGY SECTION

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	
		DESIGNED BY CPI	DATE 03/01
		DRAWN BY CPI / SEC	DATE 03/01
		CHECKED BY SEC	DATE 03/01

101105
Smith Engineering Company
A Full Service Engineering Company
6400 Uptown Boulevard, N.E. Suite 500E Albuquerque, New Mexico 87110

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP

TITLE:
ROSS ENCHANTED PARK
EXISTING & DEVELOPED DRAINAGE CONDITIONS

Design Review Committee	City Engineer Approval	Last Design Update	No. / Day / Yr.	No. / Day / Yr.

City Project No.	Zone Map No.	Sheet	Of
6611.91	H-22	4	10