

CITY OF ALBUQUERQUE



Timothy M. Keller, Mayor

February 21, 2018

Mark Goodwin, P.E.
Mark Goodwin & Associates
PO Box 90606
Albuquerque, NM, 87199

**RE: Bosque Plaza – Guardian Storage
Conceptual Grading and Drainage Plan
Stamp Date: 02/20/18
Hydrology File: E12D006E**

Dear Mr. Goodwin:

PO Box 1293 Based upon the information provided in your submittal received 02/20/2018, the Grading Plan is approved for Building Permit.

Albuquerque Please attach a copy of this approved plan in the construction sets for Building Permit processing. Prior to Certificate of Occupancy release, Engineer Certification per the DPM checklist will be required.

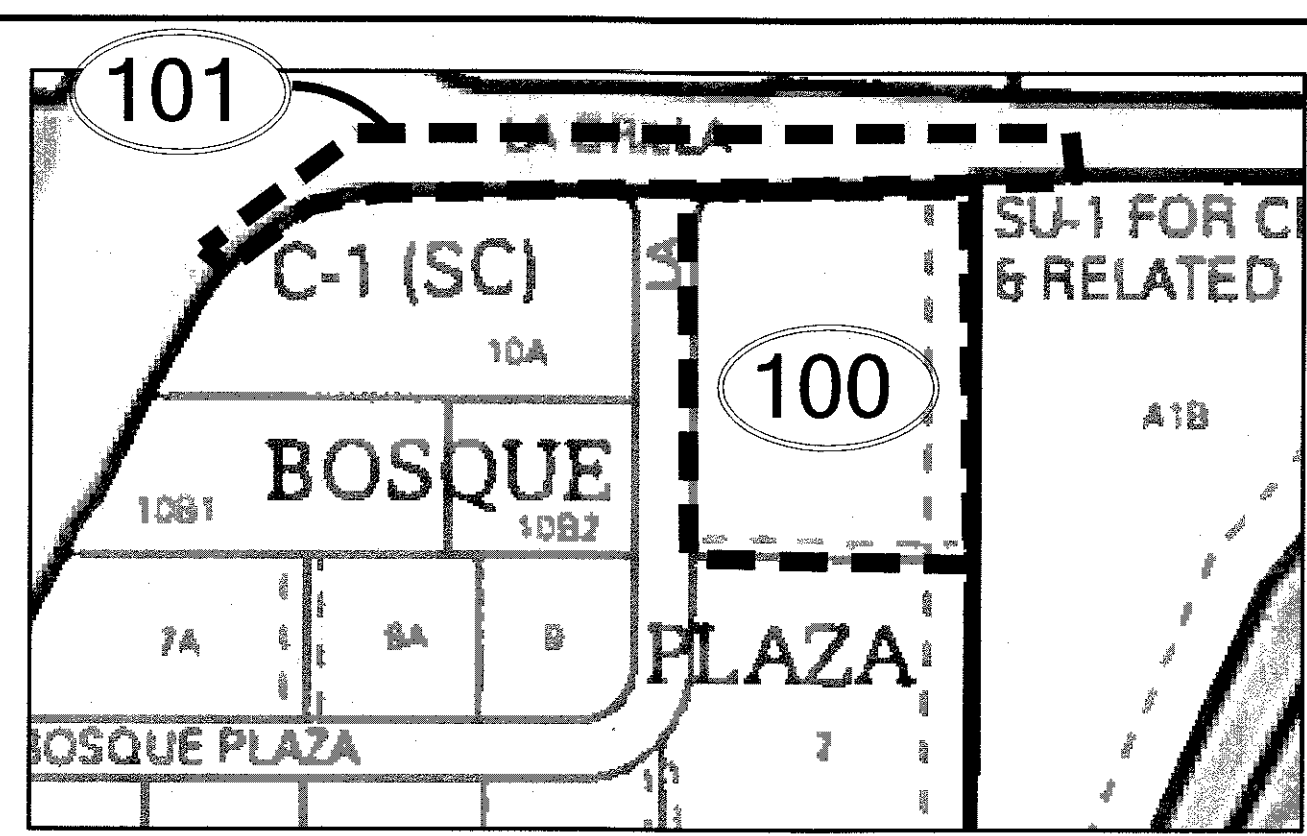
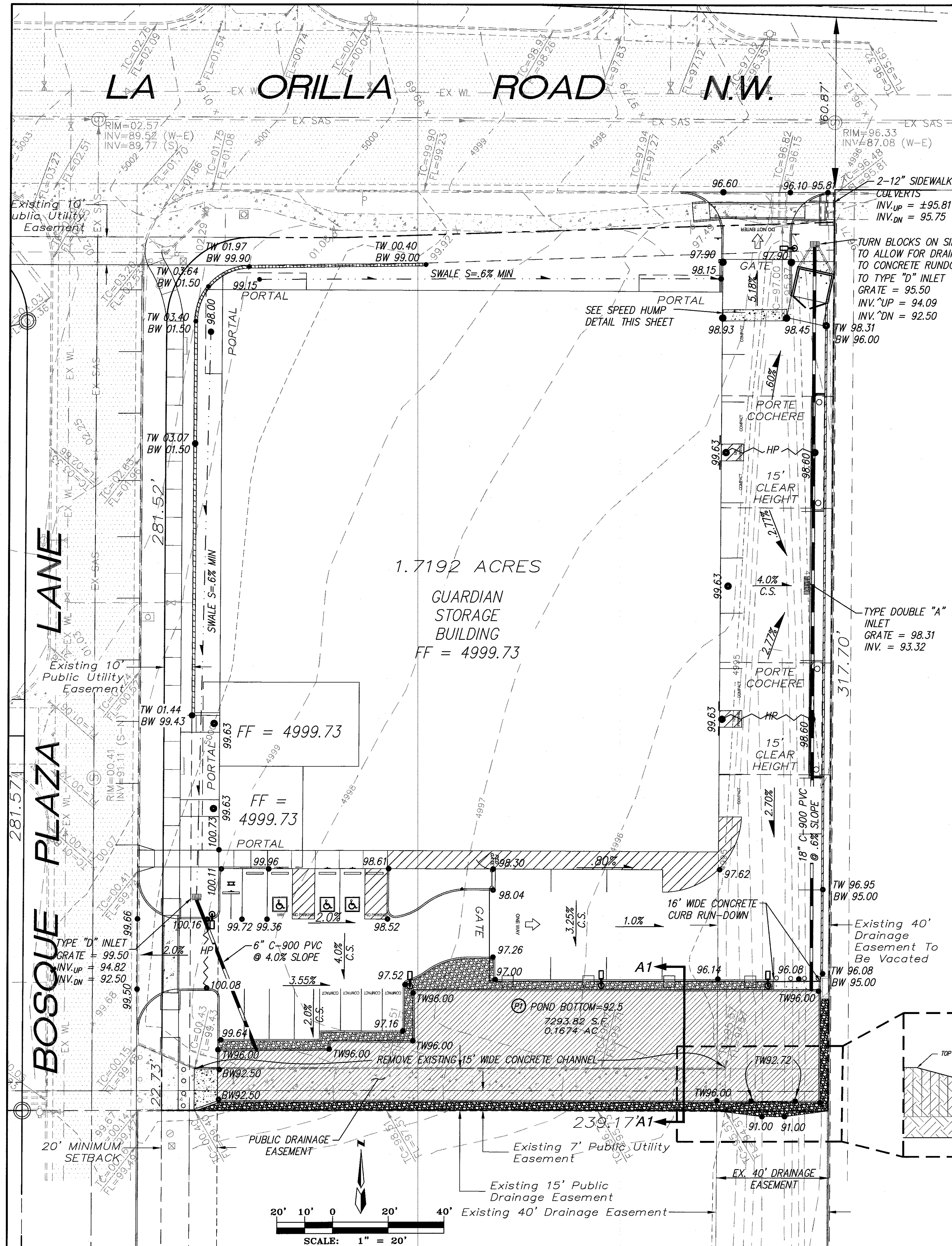
NM 87103 If you have any questions, please contact me at 924-3995 or rbrissette@cabq.gov.

Sincerely,

www.cabq.gov

Renée C. Brissette

Renée C. Brissette, P.E. CFM
Senior Engineer, Hydrology
Planning Department



HYDROLOGY NOTES

THE PROJECT SITE IS BOUNDED BY BOSQUE PLAZA LANE TO THE WEST, LA ORILLA ROAD TO THE NORTH, A DEVELOPED LOT TO THE EAST AND A CONCRETE DRAINAGE CHANNEL TO THE SOUTH. A 2-STORY STORAGE FACILITY IS BEING PROPOSED TO BE CONSTRUCTED ON THE 1.72 ACRE LOT. IT WILL HAVE TWO ACCESS ENTRANCE ROADS; ONE ON THE NORTH AND ONE ON THE WEST SIDE OF THE PROPERTY.

THIS SITE IS PART OF THE MASTER DRAINAGE PLAN FOR BOSQUE PLAZA (BY TIERRA WEST STAMPED 9/25/2002). LOT 1 IS SUBJECT TO ALL RESTRICTIONS, CONDITIONS, AND REQUIREMENTS AS SET FORTH IN "BOSQUE PLAZA DECLARATION OF EASEMENTS, COVENANTS, AND RESTRICTIONS," FILED IN THE OFFICE OF BERNALILLO COUNTY, NEW MEXICO ON THE 28TH DAY OF JULY, 2004 IN BOOK A81, PAGE 5448."

THE SITE IS NOT LOCATED IN A 100YR FLOOD ZONE PER FEMA FIRM MAP 35001C0116G, SEPTEMBER 26, 2008.

EXISTING CONDITIONS: THE FLOW PATTERN FOR THIS AREA IS IN A GENERAL EAST TO SOUTHEAST DIRECTION. THE EXISTING CHANNEL ALONG THE SOUTH PROPERTY BOUNDARY WAS DESIGNED TO INTERCEPT RUNOFF FROM THE LOTS AND STREETS TO THE WEST. THIS EXISTING CHANNEL CONVEYS RUNOFF TO AN EXISTING DETENTION POND ALONG THE EASTERN PROPERTY BOUNDARY THAT IS CONTAINED WITHIN A 40' DRAINAGE EASEMENT. RUNOFF FROM THE DETENTION POND SPILLS THROUGH A CONTROLLED OUTFALL STRUCTURE WHERE IT IS THEN PUMPED. THERE ARE TWO EXISTING SIDEWALK CULVERTS ON LA ORILLA ROAD THAT WILL BE RELOCATED ABOUT 20 FEET TO THE EAST SO THEY ARE NOT IN THE MIDDLE OF THE NEW DRIVEWAY ENTRANCE.

PROPOSED DEVELOPED CONDITIONS: THE EXISTING CHANNEL LOCATED ALONG THE SOUTH PROPERTY LINE OF THIS LOT (LOT 1) IS TO BE CONVERTED AND EXPANDED TO REPLACE THE EXISTING PORTION OF THE POND ALONG THE PROJECT SITE'S EAST PROPERTY BOUNDARY.

THE 100 YR PEAK DISCHARGE FROM THE SITE IS 6.67 cfs. THE SITE WILL ALSO ACCEPT OFFSITE FLOWS (SB 101-2.93 cfs) FROM THE SOUTHERN PORTION OF LA ORILLA RD THAT ENTER THROUGH THE TWO EXISTING SIDEWALK CULVERTS.

THE HYDROLOGY WAS CALCULATED PER COA DPM USING AHYMO $P_2=2.49"$ FROM NOAA 14. THE RESULTS ARE SUMMARIZED IN THE HYDROLOGY TABLE ON THIS SHEET.

DRAINAGE FROM THE BUILDING WILL RUNOFF TOWARDS THE EAST TO THE ROAD AND THEN TO EITHER A SUMP INLET OR TOWARDS THE 16 FOOT WIDE RUNDOWN LOCATED AT THE NE CORNER OF THE POND AREA. THE TWO SUMP INLETS WILL BE CONNECTED TO THE POND THROUGH AN 18" STORM PIPE. THE RUNDOWN WILL BE PROTECTED BY BOLLARDS. THE POND WILL HAVE A MAXIMUM DEPTH OF 3.5 FEET.

THE DETENTION POND DESIGN VOLUME FOR THE EXISTING POND WAS 1.50 AC-FT. THE CALCULATED VOLUME OF THE EXISTING POND LOCATED ON LOT 1 AS DETERMINED BY RECENT SURVEY INFORMATION IS 0.43 AC-FT. THE PROPOSED POND WILL HAVE A DESIGN VOLUME OF 0.59 AC-FT. THIS WILL ALLOW FOR A SMALL FACTOR OF SAFETY.

WITHIN THE DETENTION POND THE WATER WILL BE RELEASED TO THE EXISTING ADJACENT CHANNEL SOUTH OF THE SITE IN THE 40' EASEMENT AND RELEASED BY THE EXISTING LIFT STATION FURTHER DOWNSTREAM.

BASIN DATA

| BASIN ID | % D | % C | AREA | Q(100) | VOLUME |
|----------|------|------|-----------|----------|-------------|
| 100 | 76.5 | 23.5 | 1.54 AC | 6.67 cfs | .2781 AC-FT |
| 101 | 88 | 12 | 0.6643 AC | 2.93 cfs | .1097 AC-FT |

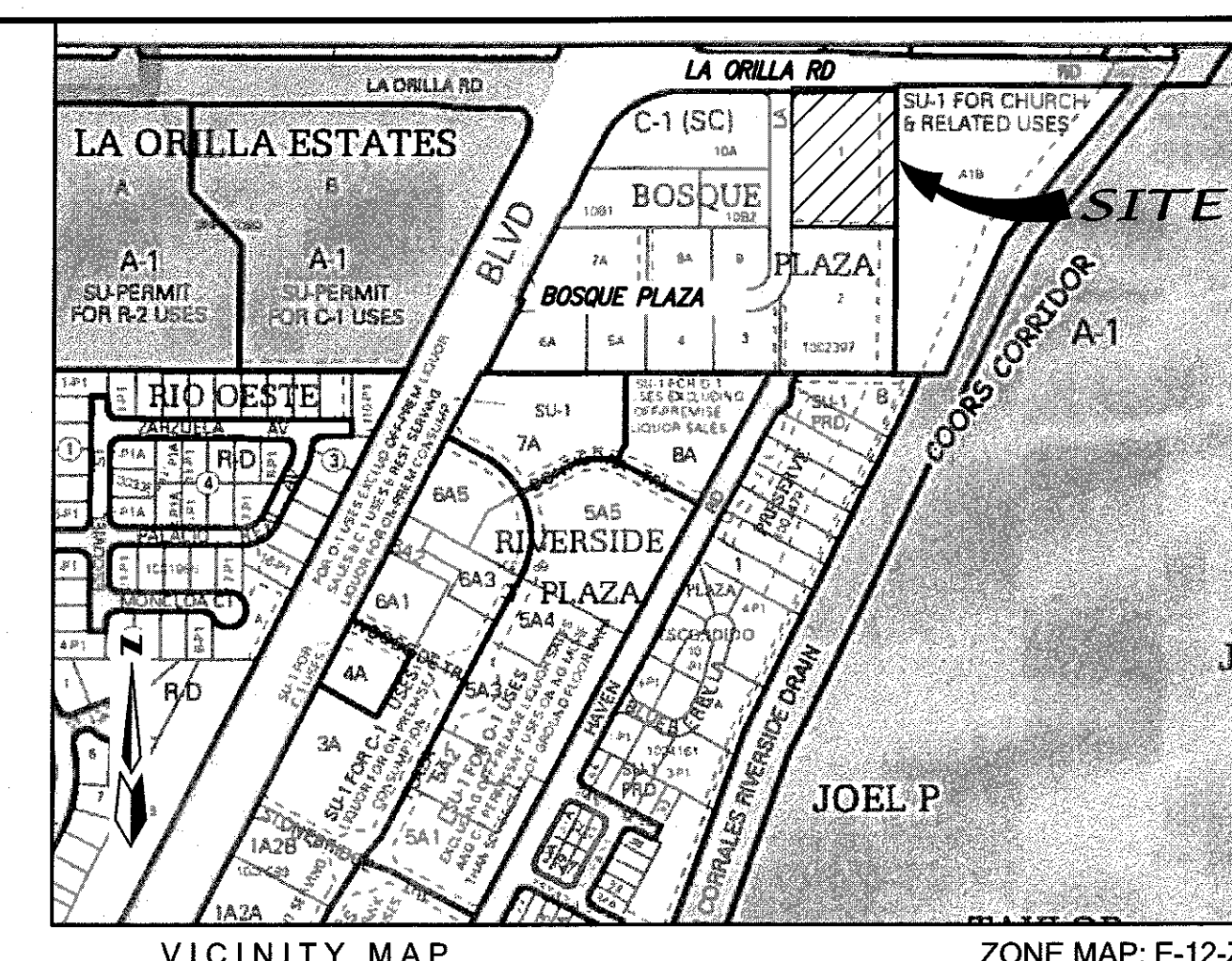
THE INTENT OF THIS PLAN IS TO PROVIDE COMPLETE DETENTION OF THE DEVELOPED, 100 YEAR, 24 HR. STORM.

FIRST FLUSH

THE "FIRST FLUSH" IS BEING ACCOMPLISHED THROUGH THE DETENTION POND ONSITE.

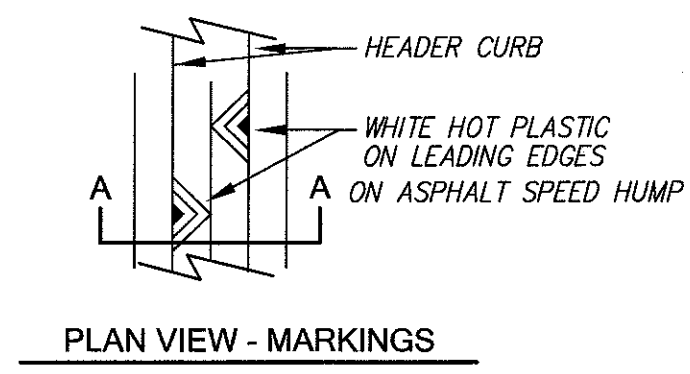
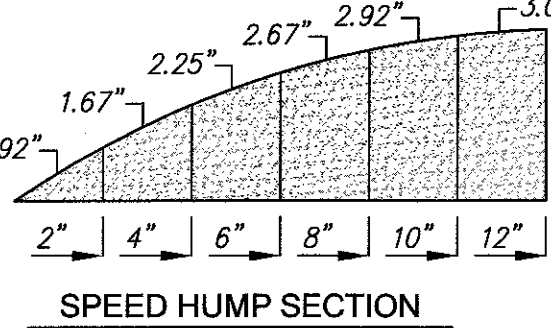
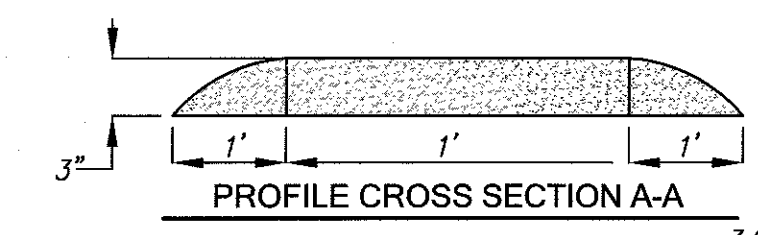
REQUIRED VOLUME = $0.34" \times$ IMPERVIOUS AREA
= $0.34"/12 \times$ (57316 SF)
= 1624 CF
= .04 AC-FT
= 2.2'

(P) DEPTH = 3.5' (SEE DETAIL) POND BOTTOM = 92.5
AREA = 7294 SF
VOLUME = 25529 CF = .59 AC-FT

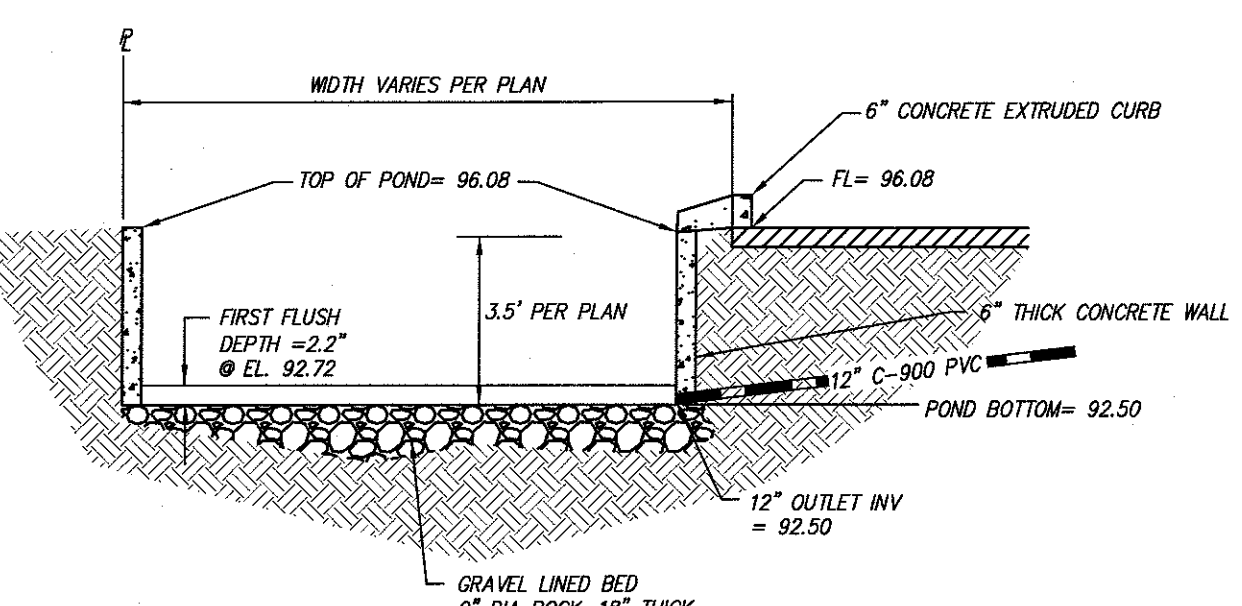


LEGAL DESCRIPTION

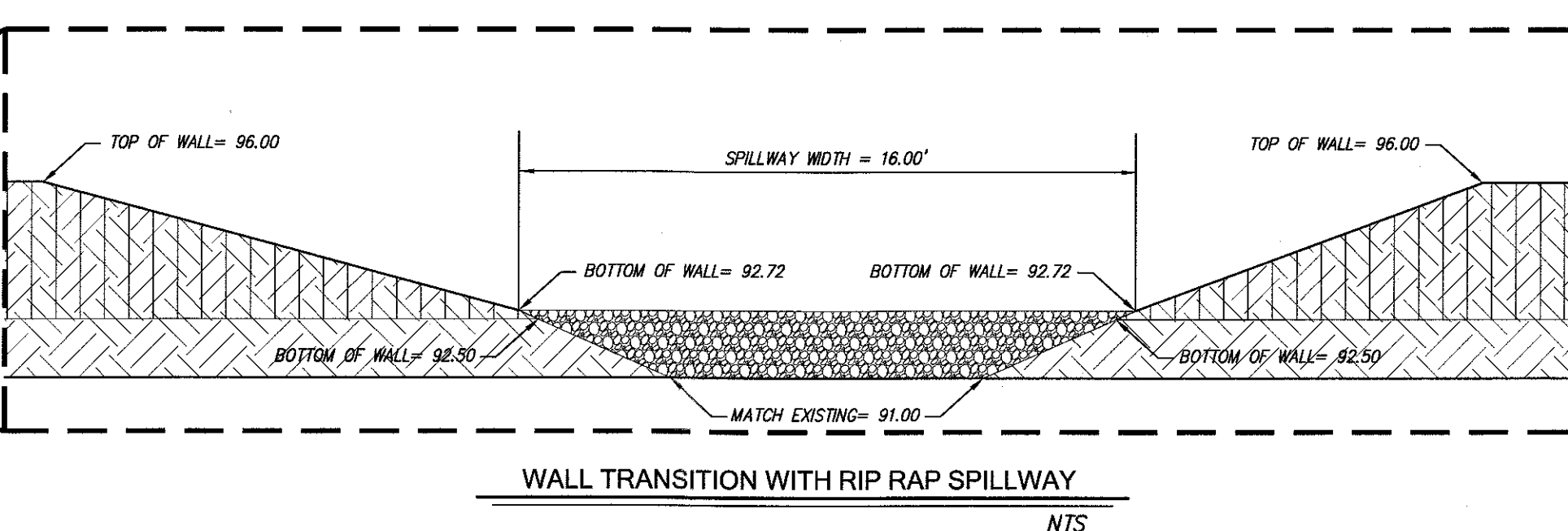
Lot 1 Bosque Plaza within the Section 25, Township 11 North, Range 2 East, N.M.P.M., City of Albuquerque, Bernalillo County, New Mexico.



SPEED HUMP DETAILS



(A1) TYPICAL CROSS SECTION FOR FIRST FLUSH PONDING



WALL TRANSITION WITH RIP RAP SPILLWAY

| | |
|---|------------------------|
| CITY OF ALBUQUERQUE PLANNING DEPARTMENT | |
| GUARDIAN STORAGE GRADING & DRAINAGE PLAN | |
| DESIGN REVIEW COMMITTEE | CITY ENGINEER APPROVAL |
| DATE | DATE |
| MO./DAY/YR. | MO./DAY/YR. |
| CITY PROJECT NO. | |
| ZONE MAP NO. | |
| SHEET | |
| 1 of 1 | |