# CITY OF ALBUQUERQUE

PLANNING DEPARTMENT – Development Review Services

Richard J. Berry, Mayor

November 10, 2014

Bruce Stidworthy, PE
**BOHANNAN-HUSTON, INC.**
7500 Jefferson Street NE Courtyard I
Albuquerque, NM 87109

RE: **Paseo Del Norte Sports Complex (File: C17D008)**
**Drainage Management Plan, Engineer's Stamp Date 11-4-2014**
**Supplemental Calculations received 10-30-14**

Dear Mr. Stidworthy:

Based upon the information provided in your submittal received 11-4-14, the above referenced plan is approved for Site Plan for Building Permit action by the DRB.

Prior to Building Permit approval the following comments need to be addressed:

1. Show emergency overflow for Pond A.
2. Pond A needs to have 1' of freeboard
3. Detail rip-rap at Pond B (call out rock size and dimensions of rip –rap)
4. Show contours/spot elevations at waterblock
5. Flowline elevation along decel lane

If you have any questions, you can contact me at 924-3695.

Sincerely,

Rita Harmon, P.E.
Senior Engineer, Planning Dept.
Development Review Services

Orig: Drainage file
c.pdf Addressee via Email, Monica Ortiz

PO Box 1293
Albuquerque
New Mexico 87103
www.cabq.gov

# City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

Project Title: Paseo Del Norte Sports Complex Building Permit #: _____ City Drainage #: _____

DRB#: 1004205 EPC#: _____ Work Order#: _____

Legal Description: Lot 1 Loop Industrial Park

City Address: North of PDN between North Diversion Channel and Washington Street

**Engineering Firm:** Bohannan Huston, Inc. Contact: Bruce Stidworthy or Matt Satches

Address: 7500 Jefferson St NE Courtyard 1

Phone#: (505) 823-1000 Fax#: (505) 798-7988 E-mail: msatches@bhinc.com

**Owner:** Loop Industrial, LLC Contact: Scott Grady

Address: P.O. Box 1443 Corrales NM, 87048

Phone#: 505-233-0413 Fax#: _____ E-mail: RVSG7@rayleehomes.com

**Architect:** _____ Contact: _____

Address: _____

Phone#: _____ Fax#: _____ E-mail: _____

**Surveyor:** _____ Contact: _____

Address: _____

Phone#: _____ Fax#: _____ E-mail: _____

**Contractor:** _____ Contact: _____

Address: _____

Phone#: _____ Fax#: _____ E-mail: _____

**TYPE OF SUBMITTAL:**

- ____ DRAINAGE REPORT
- ____ DRAINAGE PLAN 1st SUBMITTAL
- X DRAINAGE PLAN RESUBMITTAL
- X CONCEPTUAL G & D PLAN
- ____ GRADING PLAN
- ____ EROSION & SEDIMENT CONTROL PLAN (ESC)
- ____ ENGINEER'S CERT (HYDROLOGY)
- ____ CLOMR/LOMR
- ____ TRAFFIC CIRCULATION LAYOUT (TCL)
- ____ ENGINEER'S CERT (TCL)
- ____ ENGINEER'S CERT (DRB SITE PLAN)
- ____ ENGINEER'S CERT (ESC)
- ____ SO-19
- ____ OTHER (SPECIFY)

**CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:**

- ____ SIA/FINANCIAL GUARANTEE RELEASE
- ____ PRELIMINARY PLAT APPROVAL
- ____ S. DEV. PLAN FOR SUB'D APPROVAL
- X S. DEV. FOR BLDG. PERMIT APPROVAL
- ____ SECTOR PLAN APPROVAL
- ____ FINAL PLAT APPROVAL
- ____ CERTIFICATE OF OCCUPANCY (PERM)
- ____ CERTIFICATE OF OCCUPANCY (TCL TEMP)
- ____ FOUNDATION PERMIT APPROVAL
- ____ BUILDING PERMIT APPROVAL
- ____ GRADING PERMIT APPROVAL
- ____ PAVING PERMIT APPROVAL
- ____ WORK ORDER APPROVAL
- ____ GRADING CERTIFICATION

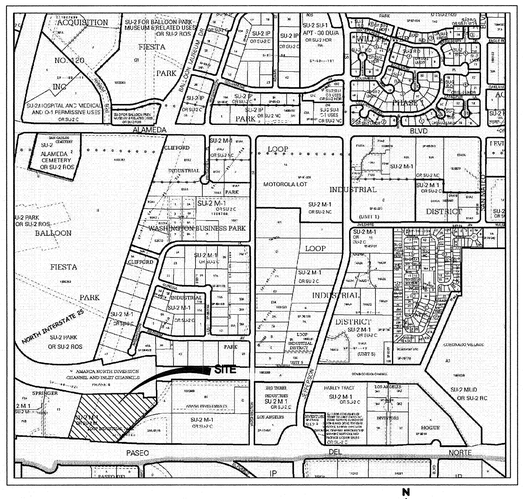
- ____ SO-19 APPROVAL
- ____ ESC PERMIT APPROVAL
- ____ ESC CERT. ACCEPTANCE
- ____ OTHER (SPECIFY)

WAS A PRE-DESIGN CONFERENCE ATTENDED: ____ Yes X No ____ Copy Provided

DATE SUBMITTED: November 3, 2014 By: Matt Satches

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location, and scope to the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the followin

1. **Conceptual Grading and Drainage Plan**: Required for approval of Site Development Plans greater than five (5) acres and Sector Plans
2. **Drainage Plans**: Required for building permits, grading permits, paving permits and site plans less than five (5) acres
3. **Drainage Report**: Required for subdivision containing more than ten (10) lots or constituting five (5) acres or more
4. **Erosion and Sediment Control Plan:** Required for any new development and redevelopment site with 1-acre or more of land disturbing area, including project less than 1-acre than are part of a larger common plan of development




ZONE ATLAS PAGE C-17

NTS

INTRODUCTION:

THE PROJECT IS LOCATED NORTH OF PASEO DEL NORTE BETWEEN THE NORTH DIVERSION CHANNEL AND WASHINGTON ST. THE PURPOSE OF THIS SUBMITTAL IS TO PROVIDE A DRAINAGE MANAGEMENT PLAN FOR THE DEVELOPMENT OF THE PASEO DEL NORTE SPORTS COMPLEX AND REQUEST DRB SITE PLAN FOR BUILDING PERMIT APPROVAL.

EXISTING CONDITIONS:

THE SITE IS CURRENTLY UNDEVELOPED AND HAS PREVIOUSLY BEEN INCLUDED IN AN APPROVED DRAINAGE PLAN (C-17 / D019 OFFICE WAREHOUSE DATED 10/22/1997). THE SITE IS BORDERED BY A DESIGNATED FEMA FLOODZONE TO THE NORTH. THE SITE CURRENTLY DRAINS FROM NORTHEAST TO THE SOUTHWEST. THE HIGHEST POINT OF THE SIGHT IS IN THE NORTHEAST CORNER AT AN ELEVATION OF APPROXIMATELY 5095. THE LOW POINT OF THE SITE IS IN THE SOUTHWEST CORNER AT AN ELEVATION OF APPROXIMATELY 5072. TWO EXISTING STORM DRAINS OUTFALL ONTO THE SITE NEAR THE NORTHEAST CORNER OF THE SITE AND IN THE SOUTHEAST CORNER OF THE SITE. WITH NO CLEAR DISCHARGE POINT, THE SITE SHEET FLOWS ONTO THE ADJACENT PROPERTY AT AN UNDEVELOPED FLOW OF APPROXIMATELY 16.01 CFS (PER THE PREVIOUSLY MENTIONED DRAINAGE MANAGEMENT PLAN).

AMAFCA NORTH DOMINGO BACA ARROYO:

IMMEDIATELY NORTH OF THE SITE, FLOWS IN THE NORTH DOMINGO BACA ARROYO ARE CONTAINED VIA A LEVEE. AMAFCA HAS REQUESTED A 15' ACCESS EASEMENT TO ALLOW FOR INSPECTION OF THE TOE OF THE LEVEE DUE TO A FEMA REQUIREMENT. THE SITE PLAN HAS BEEN MODIFIED TO ACCOMMODATE THE REQUEST. SEE SECTION "C" ON GRADING PLAN FOR MORE DETAIL.

OFFSITE FLOWS:

THE OFFSITE FLOW OF 4.0 CFS FROM THE EAST WAS DETERMINED BY VISUAL OBSERVATION DURING SITE VISITS. THE BASIN RUNS BETWEEN THE RAILROAD TRACKS FROM THE SITE TO WASHINGTON. NO ROOF DRAINS FROM THE EXISTING WAREHOUSES DAYLIGHT INTO THE BASIN. IT IS CLEAR FROM THE EXISTING CONDITION OF THE 24" CULVERT THAT NOT MUCH FLOW IS CONVEYED ONTO OUR SITE. THE OFFSITE FLOW OF 26 CFS FROM THE SOUTH WAS DETERMINED BY THE DRAINAGE REPORT PREPARED FOR PASEO DEL NORTE PROJECT USING EXISTING FLOWS AND FLOW PATTERNS.

METHODOLOGY:

THE HYDROLOGIC ANALYSIS PROVIDED WITH THIS DRAINAGE MANAGEMENT PLAN HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 22.2 OF THE DPM. THE SITE IS LOCATED WEST OF THE RIO GRANDE WITHIN PRECIPITATION ZONE 2. ALTHOUGH THE SITE IS SMALL ENOUGH TO USE THE "SMALL WATERSHEDS" PROCEDURE GIVEN IN SECTION A.6, WE ELECTED TO USE AHYMO IN ORDER TO MODEL THE STORMWATER FLOWS THROUGH THE TWO PROPOSED PONDS ON THE SITE. LAND TREATMENT PERCENTAGES WERE CALCULATED BASED ON THE ACTUAL CONDITIONS IN EACH ONSITE BASIN AND ARE SUMMARIZED IN THE "AHYMO SUMMARY DATA TABLE" AND "BASIN DATA TABLE" THIS SHEET. PIPE SIZING BETWEEN POND "A" AND POND "B" WAS BASED ON THE ORIFICE EQUATION. THE WEIR OUTLET FOR POND "B" WAS BASED ON THE WEIR EQUATION.

PROPOSED CONDITIONS:

IT WAS DETERMINED THAT THE MAXIMUM ALLOWABLE DISCHARGE FROM OUR SITE IS APPROXIMATELY 46.0 CFS. THIS IS DERIVED FROM EXISTING ONSITE CONDITIONS PLUS THE ADDITIONAL OFFSITE FLOWS. THE OFFSITE FLOWS WILL BE CONVEYED THROUGH OUR SITE. BASIN 2 ALONG WITH THE OFFSITE FLOWS ARE CONVEYED TO POND "A" VIA A SWALE ALONG THE SOUTHERN PORTION OF THE SITE. POND "A" ULTIMATELY OUTFALLS INTO A 24" PIPE WHERE IT IS ROUTED TO POND "B". POND "B" MITIGATES THE DISCHARGE FROM BASIN 1 AND POND "A". A WEIR ON THE WEST SIDE POND "B" OUTFALLS TO THE ADJACENT PROPERTY AT A MAXIMUM DISCHARGE RATE OF 46.0 CFS. THE FIRST FLUSH DEVELOPED BY THE IMPERVIOUS AREA IS RETAINED IN POND "B". THE EMERGENCY OVERFLOW CAPACITY OF THE POND "B" WEIR IS APPROXIMATELY 57.7 CFS. THIS WAS DETERMINED BY TOTAL DEVELOPED FLOWS OUR SITE CONTRIBUTES ALONG WITH THE OFFSITE FLOWS. ONCE THE SITE OUTFALLS ONTO THE ADJACENT PROPERTY, IT WILL CONTINUE ON ITS HISTORIC FLOW PATH.

POND "A":
BOTTOM OF POND: 5074.5 FT
TOP OF POND: 5077.5 FT
MAXIMUM WATER SURFACE ELEVATION: 5077.1 FT

POND "B"
BOTTOM OF POND: 5070 FT
TOP OF POND: 5073 FT
MAXIMUM WATER SURFACE ELEVATION: 5072.7 FT

CONCLUSION:

THE PEAK DISCHARGE FROM OUR SITE IS 46.0 CFS WHICH IS EQUAL TO THE ALLOWABLE DISCHARGE. THEREFORE, WE ARE IN CONFORMANCE WITH THE CITY OF ALBUQUERQUE HYDROLOGY REQUIREMENTS AND REQUEST SITE DEVELOPMENT PLAN FOR BUILDING PERMIT APPROVAL.

Mon, 3-Nov-2014 - 2:32:pm, Plotted by: MSATCHES
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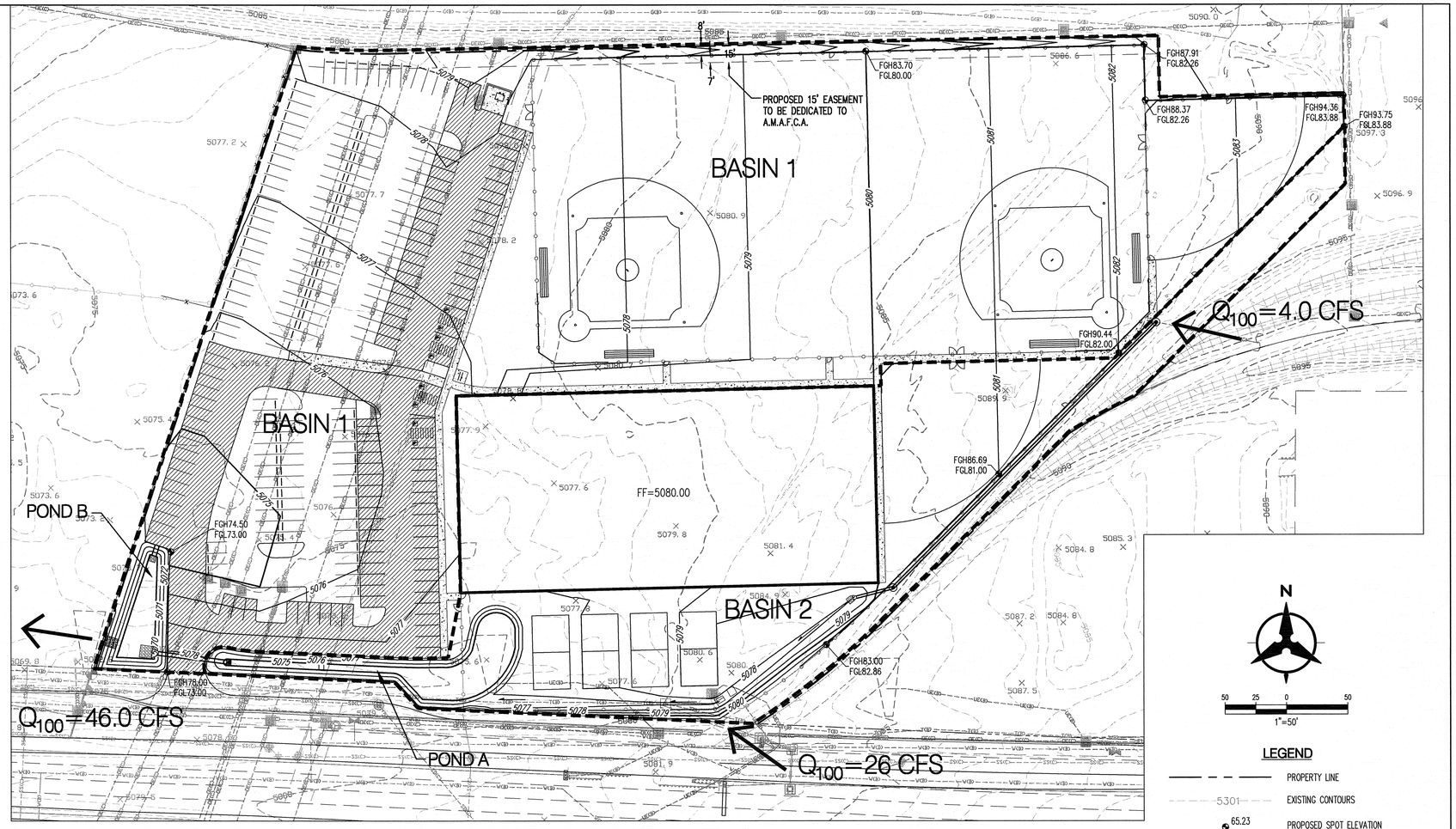


AHYMO PROGRAM SUMMARY TABLE (AHYMO-S4) - Ver. S4.01a, Rel: 01a RUN DATE (MON/DAY/YR) =10/29/2014

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| COMMAND | HYDROGRAPH IDENTIFICATION | FROM ID NO. | | TO ID NO. | AREA (SQ.MI) | PEAK DISCHARGE (CFS) | RUNOFF VOLUME (AC-FT) | RUNOFF (INCHES) | TIME TO PEAK (HOURS) | CFS PER ACRE | NOTATION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | PAGE = 1 |
| *S | AHYMO FILE FOR ALBUQUERQUE SPORTS COMPLEX - ALBUQUERQUE,NM , BH PROJ # 20150146 | | | | | | | | | | |
| *S | 100 YEAR - 6 HOUR STORM | | | | | | | | | | |
| *S | | | | | | | | | | | |
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| *S | OUTPUT FILE -- P:\20150146\CDP\HYDRO\AHYMO\Resubmittal\100YR.OUT | | | | | | | | | | |
| START | TIME=0 | | | | | | | | | | |
| LOCATION | ALBUQUERQUE | | | | | | | | | | |
| RAINFALL TYPE= 1 NOAA 14 | | | | | | | | | | | |
| *S********** | | | | | | | | | | | |
| *S | ---------- | | | | | | | | | | |
| *S* COMPUTE BASIN DEVELOPED CONDITIONS | | | | | | | | | | | |
| *S | ---------- | | | | | | | | | | |
| *S BASIN 1 | | | | | | | | | | | |
| COMPUTE NM HYD | | B1 | - | 1 | 0.00992 | 23.08 | 0.716 | 1.35395 | 1.5 | | 3.636 PER IMP= 16.00 |
| *S BASIN 2 | | | | | | | | | | | |
| COMPUTE NM HYD | | B2 | - | 2 | 0.00462 | 12.17 | 0.409 | 1.65814 | 1.5 | | 4.116 PER IMP= 50.00 |
| *S********** | | | | | | | | | | | |
| *S ADDITION OF OFFSITE SOUTH TO BASIN 2 | | | | | | | | | | | |
| ADD HYD | | SOUTHB2 | - | 20 | 0.01321 | 38.24 | 1.353 | 1.91989 | 1.5 | | |
| *S ADDITION OF OFFSITE EAST TO BASIN 2 | | | | | | | | | | | |
| ADD HYD | | EASTB2 | - | 21 | 0.01505 | 42.27 | 1.471 | 1.83319 | 1.5 | | |
| *S ROUTE BASIN 2 & OFFSITE EAST & SOUTH TO POND A. OUTFLOW BASED ON 24" ORIFICE | | | | | | | | | | | |
| ROUTE RESERVOIR | | PONDA | - | 10 | 0.01505 | 26.68 | 1.465 | 1.82575 | 1.65 | | MAX VOLUME = 0.318 AC-FT |
| *S ADDITION OF POND A TO BASIN 1 | | | | | | | | | | | |
| ADD HYD | | PAB1 | - | 22 | 0.02497 | 46.51 | 2.182 | 1.6383 | 1.55 | | |
| *S ROUTE BASIN 1 TO POND B. OUTFLOW BASED ON WEIR | | | | | | | | | | | |
| ROUTE RESERVOIR | | PONDB | - | 11 | 0.02497 | 45.97 | 2.296 | 1.72419 | 1.55 | | MAX VOLUME = 0.154 AC-FT |

AHYMO SUMMARY DATA TABLE

**PASEO DEL NORTE SPORTSPLEX**

***Developed Conditions Basin Data Table***

**This table is based on the DPM Section 22.2, Zone: 2**

| Basin ID | Area (SQ. FT) | Area (AC.) | Land Treatment Percentages A | B | C | D |
|---|---|---|---|---|---|---|
| **PROPOSED BASINS** | | | | | | |
| BASIN 1 | 276626 | 6.35 | 0.0% | 0.0% | 84.0% | 16.0% |
| BASIN 2 | 128788 | 2.96 | 0.0% | 0.0% | 50.0% | 50.0% |
| **TOTAL** | **405414** | **9.31** | - | - | - | - |

PREPARED BY: 11/3/14
MATTHEW SATCHES

UNDER SUPERVISION OF: 11/3/14
BRUCE STIDWORTHY

BRUCE J. STIDWORTHY NEW MEXICO 14523 REGISTERED PROFESSIONAL ENGINEER

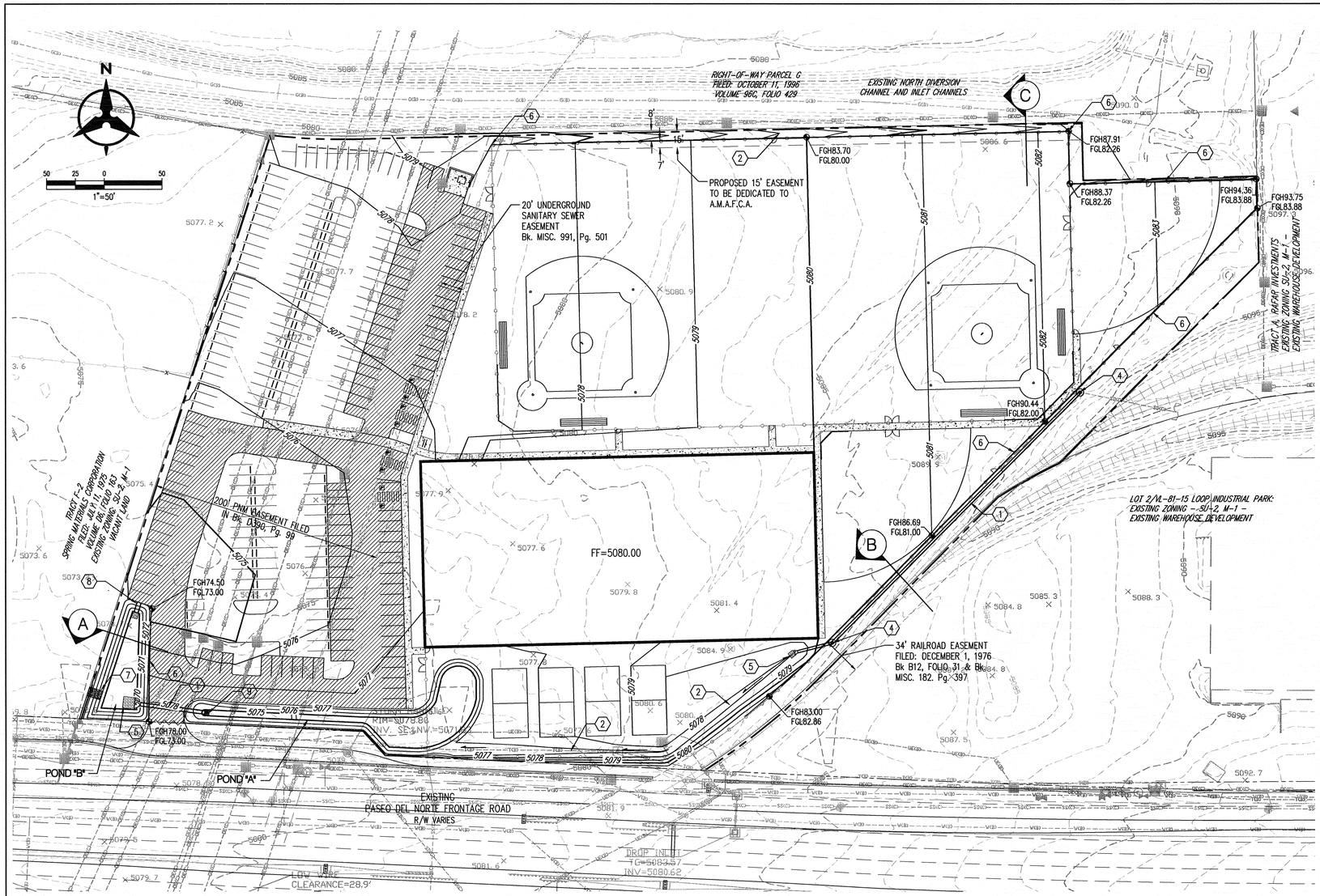
LEGEND

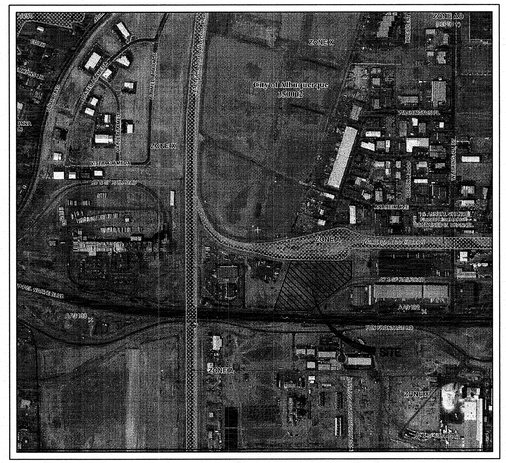
- PROPERTY LINE
- 5301 EXISTING CONTOURS
- 65.23 PROPOSED SPOT ELEVATION TC=TOP OF CURB, FL=FLOW LINE TW=TOP OF WALL, BW=BOTTOM OF WALL EX=EXISTING, TC=TOP OF GRADE
- S=2.0% PROPOSED DIRECTION OF FLOW
- WATER BLOCK
- PROPOSED RETAINING WALL
- 5305 PROPOSED INDEX CONTOURS
- PROPOSED INTER CONTOURS
- PROPOSED CURB & GUTTER
- EASEMENT
- PROPOSED LIGHTING
- SD PROPOSED STORM DRAIN LINE

DATE: NOVEMBER 3, 2014

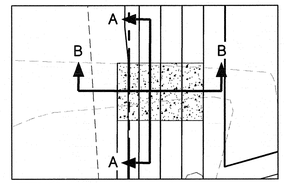
# DRAINAGE MANAGEMENT PLAN

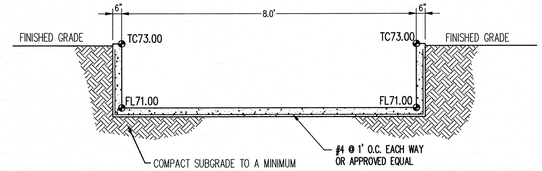
Bohannan Huston
www.bhinc.com 800.877.5332



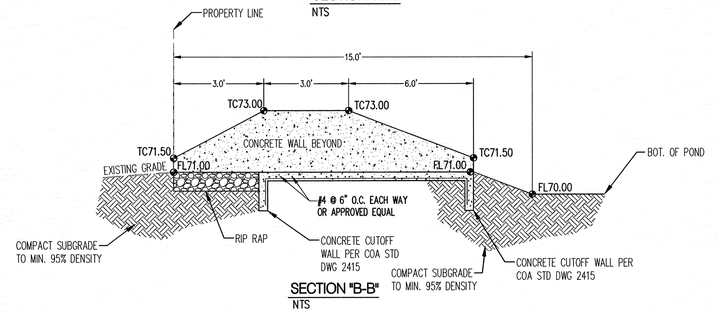




FEMA FLOODPLAIN MAP 35001C0136G
NTS




SECTION "A-A"
NTS




SECTION "B-B"
NTS

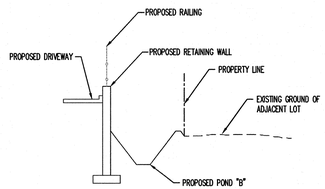
WEIR DETAIL

## GRADING KEYED NOTES

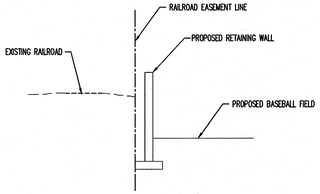
1. PRIVATE STORM DRAIN
2. SWALE
3. EXISTING FLOW FROM OFFSITE STORM DRAIN
4. INSTALL STORM DRAIN MANHOLE
5. STORM DRAIN END SECTION
6. RETAINING WALL
7. WEIR PER DETAIL THIS SHEET
8. CONCRETE RUNDOWN
9. INSTALL STORM DRAIN INLET

## LEGEND

- PROPERTY LINE
- 5301 EXISTING CONTOURS
- 65.23 PROPOSED SPOT ELEVATION
  TC=TOP OF CURB, FL=FLOW LINE
  TW=TOP OF WALL, BW=BOTTOM OF WALL
  EX=EXISTING, TG=TOP OF GRADE
- S=2.0% PROPOSED DIRECTION OF FLOW
- WATER BLOCK
- PROPOSED RETAINING WALL
- 5305 PROPOSED INDEX CONTOURS
- PROPOSED INTER CONTOURS
- PROPOSED CURB & GUTTER
- EASEMENT
- SD PROPOSED STORM DRAIN LINE




SECTION "A"

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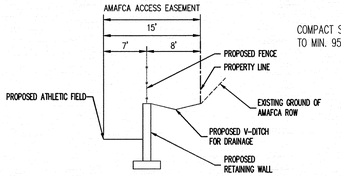


SECTION "C"

DATE: NOVEMBER 3, 2014

# CONCEPTUAL GRADING PLAN

BRUCE J. STIDWORTHY
NEW MEXICO
14529
REGISTERED PROFESSIONAL ENGINEER

Bohannan Huston
www.bhinc.com 800.877.5332

Mon, 3-Nov-2014 - 2:31:pm, Plotted by: MSATCHES
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Bohannan Huston

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7500 Jefferson St. NE
Albuquerque, NM
87109-4335

www.bhinc.com

voice: 505.823.1000
facsimile: 505.798.7988
toll free: 800.877.5332

October 30, 2014

Ms. Rita Harmon, P.E.
Senior Engineer
City of Albuquerque
600 2nd St NW
Albuquerque, NM 87102

Re: Paseo Del Norte Sportsplex, Hydrology Re-Submittal

Dear Ms. Harmon:

Enclosed for your review is a copy of the revised grading plan and drainage management plan. The revisions are based on comments received during our DRB hearing on October 8, 2014 and during our meeting with AMAFCA and City Hydrology on October 17, 2014. Below is a brief description of how the comments were addressed:

1. Included in this re-submittal is a memorandum discussing the capacity of the swale downstream of our site.
2. It was determined that the total allowable discharge from our site is 46 CFS. The Drainage Management Plan describes this in further detail.
3. The AMAFCA Access Easement on the North side of our site is shown along with a cross-section detailing the maintenance of the easement.
4. Updated runoff calculations and volumes are included in the Drainage Management Plan.

With this submittal we are requesting Hydrology Approval for Site Development Plan for Building Permit. If you have any questions or require further information, please feel free to contact me.

Sincerely,

Matthew Satches, E.I.
Engineer Intern
Community Development & Planning

MHS/jcm
Enclosures

Bohannan Huston

# M E M O R A N D U M

**DATE:** October 30, 2014

**TO:** Mr. Curtis Cherne, P.E.
Ms. Rita Harmon, P.E.
COA Planning Department
City of Albuquerque
600 2nd St NW
Albuquerque, NM 87102

**CC:** Lynn Mazur, P.E.
AMAFCA

**FROM:** Matt Satches, E.I.

**SUBJECT:** Paseo Del Norte Sportsplex (DRB# 1004205) Onsite and Offsite Flows

**Dear Mr. Cherne and Ms. Harmon:**

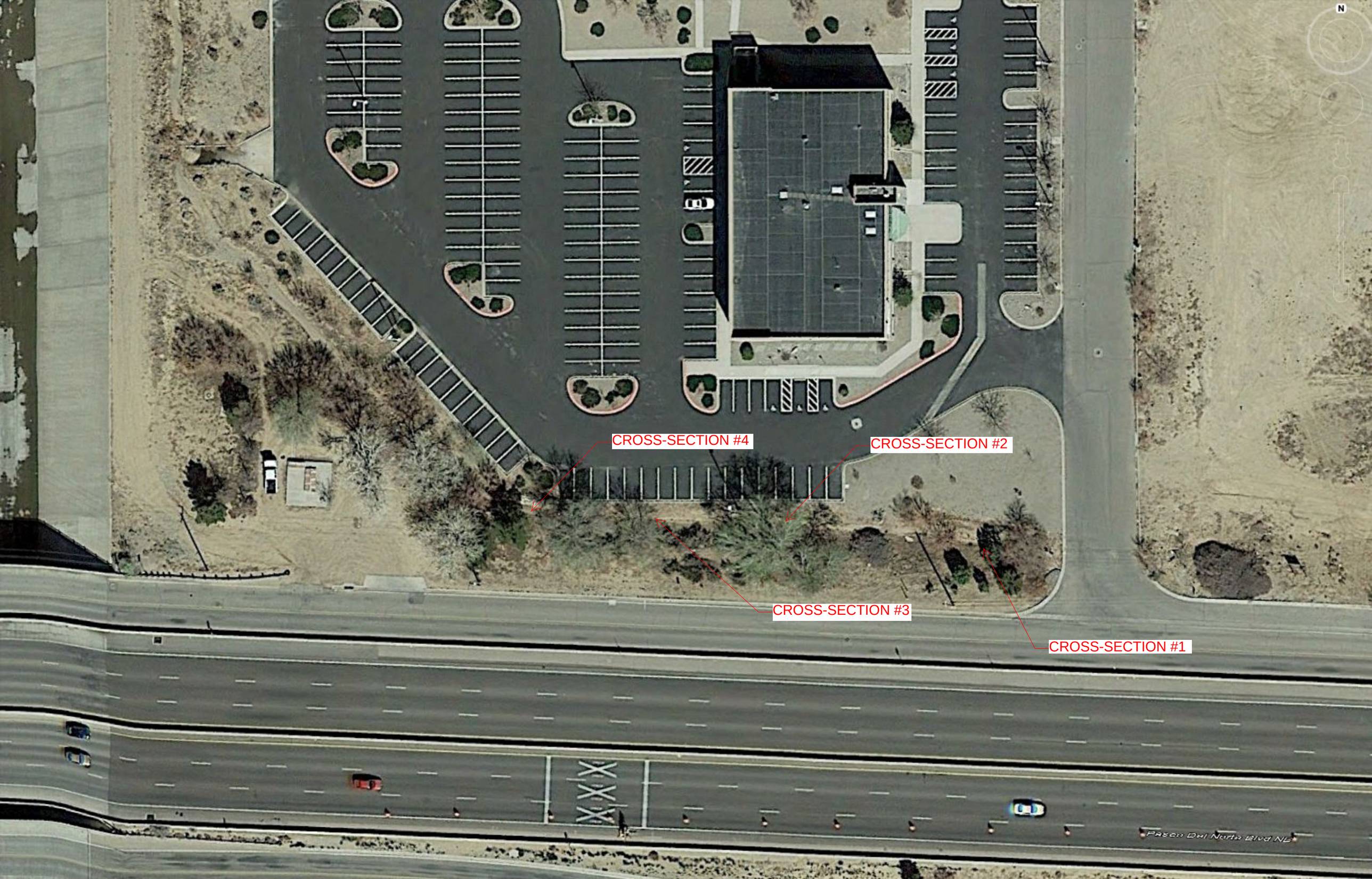
**The Paseo Del Norte Sportsplex is located North of Paseo Del Norte between the North Diversion Channel and Washington Street. During the preparation of our "Site Development Plan for Building Permit" submittal to the City of Albuquerque Development Review Board, several issues arose regarding the hydrology of our site.**

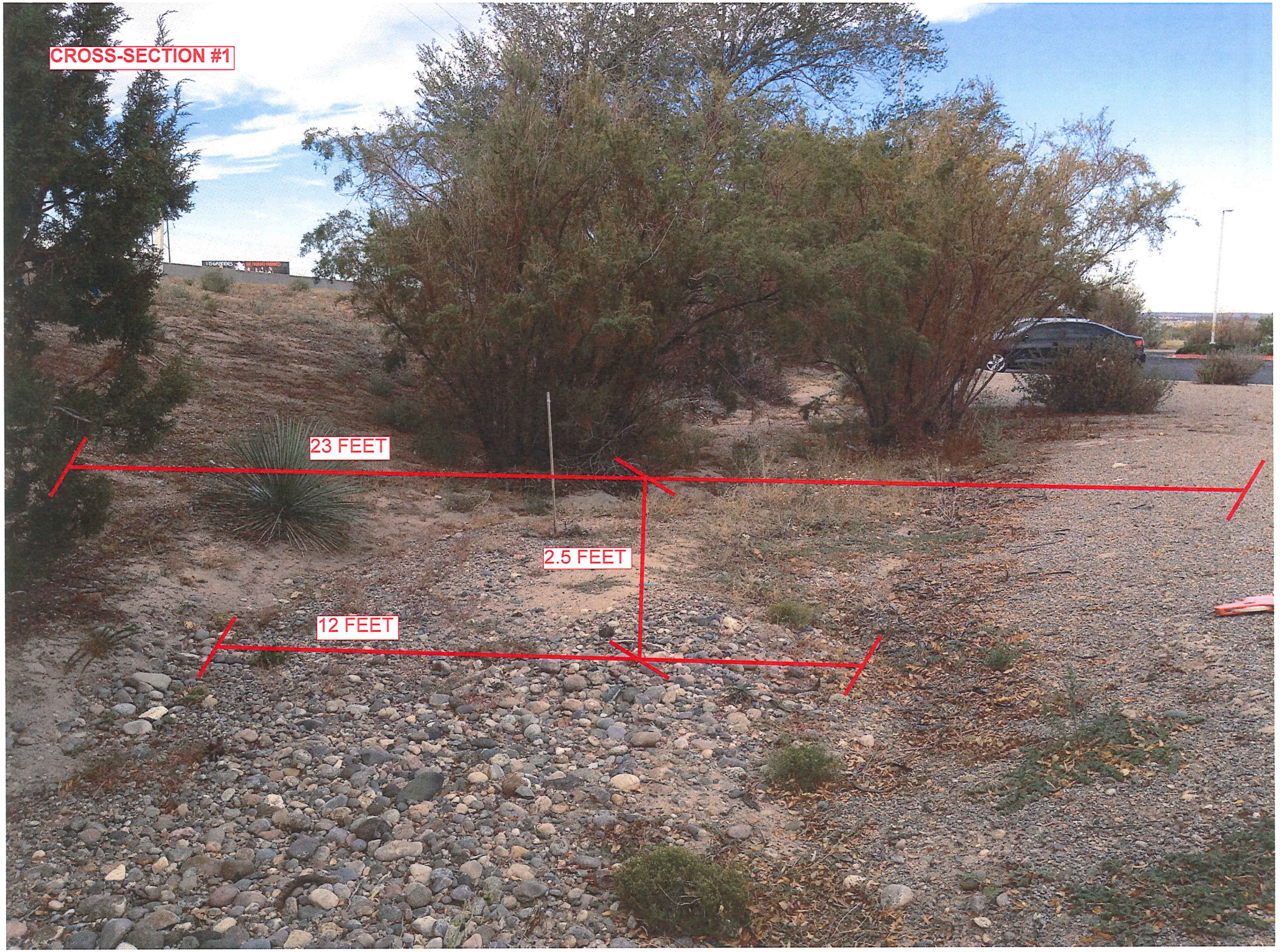
**We believe the comments we received during our DRB hearing (October 8, 2014), a meeting with AMAFCA and our client (October 6, 2014), and a meeting with AMAFCA and City Hydrology (October 17, 2014) have been satisfactorily addressed. Below is a description of the downstream swale capacity discussed in our meeting on October 17, 2014.**

- **<u>Downstream Swale Capacity:</u>**
    - **During the aforementioned meeting with AMAFCA and City Hydrology, a need to determine the capacity of the downstream swale was identified. Our site contributes 46 CFS to the swale. The property immediately west of our site contributes approximately 6.84 CFS per the previously mentioned approved drainage plan (C-17 / D019 Office Warehouse Dated 10/22/1997). Given this information, it was determined that the required capacity of the downstream swale is approximately 53 CFS.**
    - **During a site visit, we took measurements of several locations throughout the swale to determine a cross section. The slope of the swale is approximately 0.4%, this was determined using spot elevations provided on the topographic survey for the Paseo Del Norte / I-25 Interchange. Finally, using**

**a Manning's value of 0.022, it was determined that the existing swale has enough capacity to accommodate the 53 CFS. Please see attached documents for calculations and cross-section locations.**

**Please use this document for reference during your review of our Grading Plan and Drainage Management Plan we submitted for Site Development Plan for Building Permit.**


CROSS-SECTION #4
CROSS-SECTION #2
CROSS-SECTION #3
CROSS-SECTION #1
Paseo Del Norte Blvd NE
N


CROSS-SECTION #1
23 FEET
2.5 FEET
12 FEET

Cross-Section 1 Results.txt

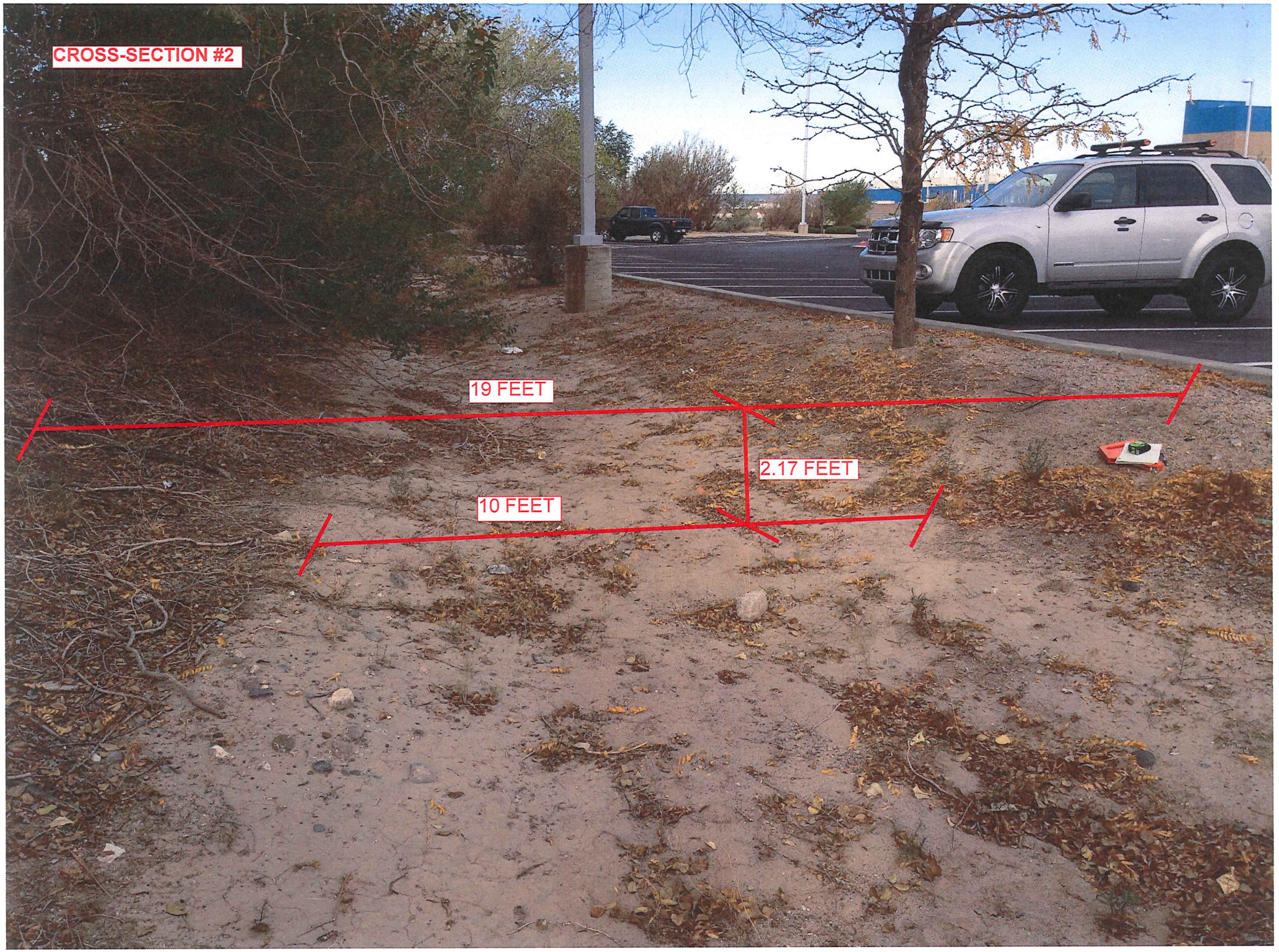
MANNING'S N = 0.022  SLOPE = 0.004

| POINT | DIST | ELEV | POINT | DIST | ELEV | POINT | DIST | ELEV |
|---|---|---|---|---|---|---|---|---|
| 1.0 | 0.0 | 2.5 | 3.0 | 17.5 | 0.0 | | | |
| 2.0 | 5.5 | 0.0 | 4.0 | 23.0 | 2.5 | | | |

| WSEL FT. | DEPTH INC | FLOW AREA SQ.FT. | FLOW RATE (CFS) | WETTED PER (FT) | FLOW VEL (FPS) | TOPWID PLUS OBSTRUCTIONS | TOTAL ENERGY (FT) |
|---|---|---|---|---|---|---|---|
| 0.100 | 0.100 | 1.222 | 1.109 | 12.483 | 0.907 | 12.440 | 0.113 |
| 0.200 | 0.200 | 2.488 | 3.536 | 12.967 | 1.421 | 12.880 | 0.231 |
| 0.300 | 0.300 | 3.798 | 6.983 | 13.450 | 1.839 | 13.320 | 0.353 |
| 0.400 | 0.400 | 5.152 | 11.338 | 13.933 | 2.201 | 13.760 | 0.475 |
| 0.500 | 0.500 | 6.550 | 16.537 | 14.417 | 2.525 | 14.200 | 0.599 |
| 0.600 | 0.600 | 7.992 | 22.539 | 14.900 | 2.820 | 14.640 | 0.724 |
| 0.700 | 0.700 | 9.478 | 29.317 | 15.383 | 3.093 | 15.080 | 0.849 |
| 0.800 | 0.800 | 11.008 | 36.854 | 15.867 | 3.348 | 15.520 | 0.974 |
| 0.900 | 0.900 | 12.582 | 45.137 | 16.350 | 3.587 | 15.960 | 1.100 |
| 1.000 | 1.000 | 14.200 | 54.158 | 16.833 | 3.814 | 16.400 | 1.226 |
| 1.100 | 1.100 | 15.862 | 63.912 | 17.317 | 4.029 | 16.840 | 1.353 |
| 1.200 | 1.200 | 17.568 | 74.396 | 17.800 | 4.235 | 17.280 | 1.479 |
| 1.300 | 1.300 | 19.318 | 85.611 | 18.283 | 4.432 | 17.720 | 1.605 |
| 1.400 | 1.400 | 21.112 | 97.556 | 18.767 | 4.621 | 18.160 | 1.732 |
| 1.500 | 1.500 | 22.950 | 110.233 | 19.250 | 4.803 | 18.600 | 1.859 |
| 1.600 | 1.600 | 24.832 | 123.646 | 19.733 | 4.979 | 19.040 | 1.986 |
| 1.700 | 1.700 | 26.758 | 137.799 | 20.216 | 5.150 | 19.480 | 2.113 |
| 1.800 | 1.800 | 28.728 | 152.695 | 20.700 | 5.315 | 19.920 | 2.239 |
| 1.900 | 1.900 | 30.742 | 168.340 | 21.183 | 5.476 | 20.360 | 2.366 |
| 2.000 | 2.000 | 32.800 | 184.739 | 21.666 | 5.632 | 20.800 | 2.493 |
| 2.100 | 2.100 | 34.902 | 201.897 | 22.150 | 5.785 | 21.240 | 2.620 |
| 2.200 | 2.200 | 37.048 | 219.822 | 22.633 | 5.933 | 21.680 | 2.748 |
| 2.300 | 2.300 | 39.238 | 238.520 | 23.116 | 6.079 | 22.120 | 2.875 |
| 2.400 | 2.400 | 41.472 | 257.996 | 23.600 | 6.221 | 22.560 | 3.002 |

Capacity Required = 53 CFS

Capacity Provided = 258 CFS


CROSS-SECTION #2
19 FEET
2.17 FEET
10 FEET

Cross-Section 2 Results.txt

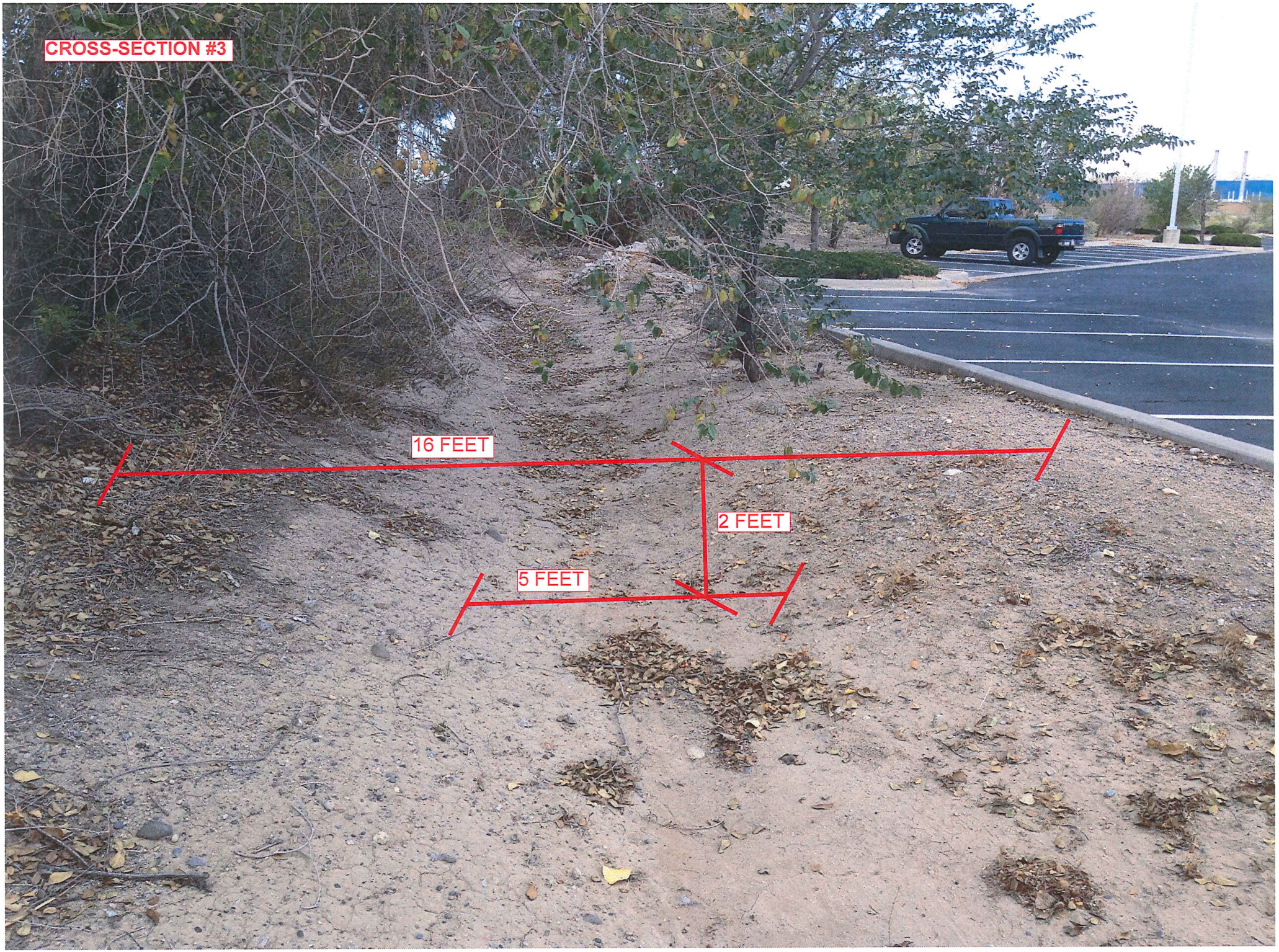
MANNING'S N = 0.022  SLOPE = 0.004

| POINT | DIST | ELEV | POINT | DIST | ELEV | POINT | DIST | ELEV |
|---|---|---|---|---|---|---|---|---|
| 1.0 | 0.0 | 2.2 | 3.0 | 14.5 | 0.0 | | | |
| 2.0 | 4.5 | 0.0 | 4.0 | 19.0 | 2.2 | | | |

| WSEL FT. | DEPTH INC | FLOW AREA SQ.FT. | FLOW RATE (CFS) | WETTED PER (FT) | FLOW VEL (FPS) | TOPWID PLUS OBSTRUCTIONS | TOTAL ENERGY (FT) |
|---|---|---|---|---|---|---|---|
| 0.100 | 0.100 | 1.021 | 0.924 | 10.460 | 0.905 | 10.415 | 0.113 |
| 0.200 | 0.200 | 2.083 | 2.948 | 10.921 | 1.415 | 10.829 | 0.231 |
| 0.300 | 0.300 | 3.187 | 5.826 | 11.381 | 1.828 | 11.244 | 0.352 |
| 0.400 | 0.400 | 4.332 | 9.465 | 11.842 | 2.185 | 11.659 | 0.474 |
| 0.500 | 0.500 | 5.518 | 13.814 | 12.302 | 2.503 | 12.074 | 0.597 |
| 0.600 | 0.600 | 6.747 | 18.842 | 12.763 | 2.793 | 12.488 | 0.721 |
| 0.700 | 0.700 | 8.016 | 24.529 | 13.223 | 3.060 | 12.903 | 0.846 |
| 0.800 | 0.800 | 9.327 | 30.861 | 13.684 | 3.309 | 13.318 | 0.970 |
| 0.900 | 0.900 | 10.680 | 37.831 | 14.144 | 3.542 | 13.733 | 1.095 |
| 1.000 | 1.000 | 12.074 | 45.433 | 14.605 | 3.763 | 14.147 | 1.220 |
| 1.100 | 1.100 | 13.509 | 53.666 | 15.065 | 3.973 | 14.562 | 1.345 |
| 1.200 | 1.200 | 14.986 | 62.529 | 15.525 | 4.172 | 14.977 | 1.471 |
| 1.300 | 1.300 | 16.505 | 72.024 | 15.986 | 4.364 | 15.392 | 1.596 |
| 1.400 | 1.400 | 18.065 | 82.153 | 16.446 | 4.548 | 15.806 | 1.722 |
| 1.500 | 1.500 | 19.666 | 92.920 | 16.907 | 4.725 | 16.221 | 1.847 |
| 1.600 | 1.600 | 21.309 | 104.328 | 17.367 | 4.896 | 16.636 | 1.973 |
| 1.700 | 1.700 | 22.993 | 116.384 | 17.828 | 5.062 | 17.051 | 2.099 |
| 1.800 | 1.800 | 24.719 | 129.091 | 18.288 | 5.222 | 17.465 | 2.224 |
| 1.900 | 1.900 | 26.486 | 142.456 | 18.749 | 5.378 | 17.880 | 2.350 |
| 2.000 | 2.000 | 28.295 | 156.484 | 19.209 | 5.530 | 18.295 | 2.476 |
| 2.100 | 2.100 | 30.145 | 171.183 | 19.669 | 5.679 | 18.710 | 2.602 |

Capacity Required = 53 CFS

Capacity Provided = 171 CFS


CROSS-SECTION #3
16 FEET
2 FEET
5 FEET

Cross-Section 3 Results.txt

MANNING'S N = 0.022  SLOPE = 0.004

| POINT | DIST | ELEV | POINT | DIST | ELEV | POINT | DIST | ELEV |
|---|---|---|---|---|---|---|---|---|
| 1.0 | 0.0 | 2.0 | 3.0 | 10.5 | 0.0 | | | |
| 2.0 | 5.5 | 0.0 | 4.0 | 16.0 | 2.0 | | | |

| WSEL FT. | DEPTH INC | FLOW AREA SQ.FT. | FLOW RATE (CFS) | WETTED PER (FT) | FLOW VEL (FPS) | TOPWID PLUS OBSTRUCTIONS | TOTAL ENERGY (FT) |
|---|---|---|---|---|---|---|---|
| 0.100 | 0.100 | 0.528 | 0.467 | 5.585 | 0.886 | 5.550 | 0.112 |
| 0.200 | 0.200 | 1.110 | 1.511 | 6.170 | 1.361 | 6.100 | 0.229 |
| 0.300 | 0.300 | 1.748 | 3.031 | 6.756 | 1.734 | 6.650 | 0.347 |
| 0.400 | 0.400 | 2.440 | 5.002 | 7.341 | 2.050 | 7.200 | 0.465 |
| 0.500 | 0.500 | 3.188 | 7.419 | 7.926 | 2.327 | 7.750 | 0.584 |
| 0.600 | 0.600 | 3.990 | 10.286 | 8.511 | 2.578 | 8.300 | 0.703 |
| 0.700 | 0.700 | 4.848 | 13.611 | 9.097 | 2.808 | 8.850 | 0.823 |
| 0.800 | 0.800 | 5.760 | 17.406 | 9.682 | 3.022 | 9.400 | 0.942 |
| 0.900 | 0.900 | 6.728 | 21.681 | 10.267 | 3.223 | 9.950 | 1.062 |
| 1.000 | 1.000 | 7.750 | 26.451 | 10.852 | 3.413 | 10.500 | 1.181 |
| 1.100 | 1.100 | 8.828 | 31.730 | 11.438 | 3.594 | 11.050 | 1.301 |
| 1.200 | 1.200 | 9.960 | 37.531 | 12.023 | 3.768 | 11.600 | 1.421 |
| 1.300 | 1.300 | 11.148 | 43.869 | 12.608 | 3.935 | 12.150 | 1.541 |
| 1.400 | 1.400 | 12.390 | 50.759 | 13.193 | 4.097 | 12.700 | 1.661 |
| 1.500 | 1.500 | 13.688 | 58.215 | 13.779 | 4.253 | 13.250 | 1.781 |
| 1.600 | 1.600 | 15.040 | 66.251 | 14.364 | 4.405 | 13.800 | 1.902 |
| 1.700 | 1.700 | 16.448 | 74.883 | 14.949 | 4.553 | 14.350 | 2.022 |
| 1.800 | 1.800 | 17.910 | 84.125 | 15.534 | 4.697 | 14.900 | 2.143 |
| 1.900 | 1.900 | 19.428 | 93.991 | 16.119 | 4.838 | 15.450 | 2.264 |

Capacity Required = 53 CFS

Capacity Provided = 94 CFS


CROSS-SECTION #4
10 FEET
2.33 FEET
5 FEET

Cross-Section 4 Results.txt

MANNING'S N = 0.022  SLOPE = 0.004

| POINT | DIST | ELEV | POINT | DIST | ELEV | POINT | DIST | ELEV |
|---|---|---|---|---|---|---|---|---|
| 1.0 | 0.0 | 2.3 | 3.0 | 7.5 | 0.0 | | | |
| 2.0 | 2.5 | 0.0 | 4.0 | 10.0 | 2.3 | | | |

| WSEL FT. | DEPTH INC | FLOW AREA SQ.FT. | FLOW RATE (CFS) | WETTED PER (FT) | FLOW VEL (FPS) | TOPWID PLUS OBSTRUCTIONS | TOTAL ENERGY (FT) |
|---|---|---|---|---|---|---|---|
| 0.100 | 0.100 | 0.511 | 0.459 | 5.293 | 0.899 | 5.215 | 0.113 |
| 0.200 | 0.200 | 1.043 | 1.455 | 5.587 | 1.395 | 5.429 | 0.230 |
| 0.300 | 0.300 | 1.597 | 2.860 | 5.880 | 1.791 | 5.644 | 0.350 |
| 0.400 | 0.400 | 2.172 | 4.623 | 6.173 | 2.129 | 5.858 | 0.470 |
| 0.500 | 0.500 | 2.768 | 6.717 | 6.467 | 2.426 | 6.073 | 0.592 |
| 0.600 | 0.600 | 3.386 | 9.124 | 6.760 | 2.694 | 6.288 | 0.713 |
| 0.700 | 0.700 | 4.026 | 11.833 | 7.053 | 2.939 | 6.502 | 0.834 |
| 0.800 | 0.800 | 4.687 | 14.837 | 7.347 | 3.166 | 6.717 | 0.956 |
| 0.900 | 0.900 | 5.369 | 18.130 | 7.640 | 3.377 | 6.931 | 1.077 |
| 1.000 | 1.000 | 6.073 | 21.710 | 7.933 | 3.575 | 7.146 | 1.199 |
| 1.100 | 1.100 | 6.798 | 25.574 | 8.227 | 3.762 | 7.361 | 1.320 |
| 1.200 | 1.200 | 7.545 | 29.724 | 8.520 | 3.939 | 7.575 | 1.441 |
| 1.300 | 1.300 | 8.313 | 34.157 | 8.813 | 4.109 | 7.790 | 1.563 |
| 1.400 | 1.400 | 9.103 | 38.877 | 9.107 | 4.271 | 8.004 | 1.684 |
| 1.500 | 1.500 | 9.914 | 43.883 | 9.400 | 4.426 | 8.219 | 1.805 |
| 1.600 | 1.600 | 10.747 | 49.178 | 9.693 | 4.576 | 8.433 | 1.926 |
| 1.700 | 1.700 | 11.601 | 54.764 | 9.987 | 4.721 | 8.648 | 2.047 |
| 1.800 | 1.800 | 12.476 | 60.642 | 10.280 | 4.861 | 8.863 | 2.167 |
| 1.900 | 1.900 | 13.373 | 66.816 | 10.574 | 4.996 | 9.077 | 2.288 |
| 2.000 | 2.000 | 14.292 | 73.289 | 10.867 | 5.128 | 9.292 | 2.409 |
| 2.100 | 2.100 | 15.232 | 80.062 | 11.160 | 5.256 | 9.506 | 2.530 |
| 2.200 | 2.200 | 16.193 | 87.140 | 11.454 | 5.381 | 9.721 | 2.650 |
| 2.300 | 2.300 | 17.176 | 94.525 | 11.747 | 5.503 | 9.936 | 2.771 |

Capacity Required = 53 CFS

Capacity Provided = 94.5 CFS

or

$$V = C\sqrt{R_h S_0} \tag{10.12}$$

where the constant $C$ is termed the Chezy coefficient and Eq. 10.12 is termed the ***Chezy equation.***

From a series of experiments it was found that the slope dependence of Eq. 10.12 ($V \sim S_0^{1/2}$) is reasonable but that the dependence on the hydraulic radius is more nearly $V \sim R_h^{2/3}$ rather than $V \sim R_h^{1/2}$. Thus, the following somewhat modified equation for open-channel flow is used to more accurately describe the $R_h$ dependence:

$$V = \frac{R_h^{2/3} S_0^{1/2}}{n} \tag{10.13}$$

Equation 10.13 is termed the ***Manning equation,*** and the parameter $n$ is the ***Manning resistance coefficient.*** Its value is dependent on the surface material of the channel's wetted perimeter and is obtained from experiments. It is not dimensionless, having the units of $s/m^{1/3}$ or $s/ft^{1/3}$.

Typical values of the Manning coefficient are indicated in Table 10.1. As expected, the rougher the wetted perimeter, the larger the value of $n$. The values of $n$ were developed for SI units. Standard practice is to use the same value of $n$ when using the BG system of units and to insert a conversion factor into the equation.

Thus, uniform flow in an open channel is obtained from the Manning equation written as

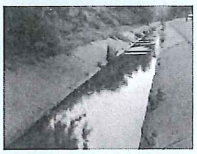
$$\boxed{V = \frac{\kappa}{n} R_h^{2/3} S_0^{1/2}} \tag{10.14}$$

and

$$\boxed{Q = \frac{\kappa}{n} A R_h^{2/3} S_0^{1/2}} \tag{10.15}$$

where $\kappa = 1$ if SI units are used, and $\kappa = 1.49$ if BG units are used. Thus, by using $R_h$ in meters, $A$ in $m^2$, and $\kappa = 1$, the average velocity is meters per second and the flowrate $m^3/s$.

*V10.7 Uniform channel flow*



■ **TABLE 10.1**
**Values of the Manning Coefficient, *n* (Ref. 5)**

| Wetted Perimeter | *n* | Wetted Perimeter | *n* |
|---|---|---|---|
| ***A. Natural channels*** | | ***D. Artificially lined channels*** | |
| Clean and straight | 0.030 | Glass | 0.010 |
| Sluggish with deep pools | 0.040 | Brass | 0.011 |
| Major rivers | 0.035 | Steel, smooth | 0.012 |
| ***B. Floodplains*** | | Steel, painted | 0.014 |
| Pasture, farmland | 0.035 | Steel, riveted | 0.015 |
| Light brush | 0.050 | Cast iron | 0.013 |
| Heavy brush | 0.075 | Concrete, finished | 0.012 |
| Trees | 0.15 | Concrete, unfinished | 0.014 |
| ***C. Excavated earth channels*** | | Planed wood | 0.012 |
| Clean | 0.022 | Clay tile | 0.014 |
| Gravelly | 0.025 | Brickwork | 0.015 |
| Weedy | 0.030 | Asphalt | 0.016 |
| Stony, cobbles | 0.035 | Corrugated metal | 0.022 |
| | | Rubble masonry | 0.025 |

**From:** Mazur, Lynn
**To:** Matthew Satches (msatches@bhinc.com); Harmon Rita T.
**Cc:** Bruce Stidworthy; Cherne, Curtis
**Subject:** PdN Sports Complex
**Date:** Friday, November 07, 2014 12:50:22 PM

---

Re: Paseo del Norte Sports Complex Site Plan for Building Permit, ZAP C-17
Engineer's Stamp Dated October 30, 2014

AMAFCA approves the Site Plan for Building Permit. The conceptual grading plan addresses the items we discussed at our meetings of October 6 and 17, 2014. I will work directly with the engineer and owner to obtain the access easements.

**Albuquerque Metropolitan Arroyo**
**Flood Control Authority**
Lynn M. Mazur, P.E., C.F.M.
Development Review Engineer
Office: (505) 884-2215
Mobile: (505) 362-1273
Web: www.amafca.org

Deed File No. _____
RETURN TO
SECRETARY, ING A. T. & S. F. RY. CO., TOPEKA

86039

397

EASEMENT

LOOP DEVELOPMENT COMPANY, INC., a New Mexico corporation, ASSOCIATED INVESTORS, a partnership, and FIRST NATIONAL BANK IN ALBUQUERQUE, Title Agent, parties of the first part, for and in consideration of the sum of One Dollar ($1.00), the receipt of which is hereby acknowledged, do hereby give, grant and convey unto THE ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY, a Delaware corporation, party of the second part, its successors and assigns, easements and rights of way for the construction, maintenance and operation of a railroad track, and drainage structures (hereinafter called "Improvements") through, along, upon and across the property of the parties of the first part in Bernalillo County, State of New Mexico, described as follows, to-wit:

A strip of land 34 feet in width, lying in the Southwest Quarter (SW¼) of Section 14, Township 11 North, Range 3 East of the New Mexico Principal Meridian, the same lying and being 17 feet on each side of the following described centerline of Railroad Lead Track; commencing at the Southwest corner of said Southwest quarter of Section 14; thence North 0°17' East along the west line of said Section 14 a distance of 312 feet to a point on the north line of Los Angeles Road N.E., ~~the same line also being the south~~

~~property line of Loop Development Company, Inc.;~~ thence South 89°43' East along said north line of Los Angeles Road N.E. a distance of 1033.07 feet to the intersection of said centerline of track, said point also being the Point of Beginning of required easement; thence Northeasterly along a curve to the left having a radius of 601.41 feet an arc distance of 160.45 feet to end of curve; thence North 44°50'20" East along a line tangent to last described course a distance of 567.11 feet to a point of curve; thence Northeasterly along a curve to the left having a radius of 603.81 feet an arc distance of 200.23 feet to end of curve; thence North 25°50'20" East along a line tangent to last described course a distance of 298.46 feet to a Point on the North property line of said Loop Development Company, Inc.; containing an area of 41692.50 square feet or (0.96 of an acre) of land, more or less, and as is shown in red color on Exhibit "A" dated June 15, 1967, attached hereto and made a part hereof.

TOGETHER with the right of ingress and egress over, upon, across and through the lands of the parties of the first part for the purpose of constructing and maintaining said Improvements.

SUBJECT to an existing easement dated January 6, 1966 granted to the Albuquerque Metropolitan Arroyo Flood Control Authority by Associated Investors, a partnership, for the construction and maintenance of a drainage channel.

TO HAVE AND TO HOLD the said right and easement for

the uses and purposes aforesaid unto the said party of the second part, its successors and assigns for so long as above described land shall be used for the above mentioned purpose.

Excepting and reserving unto the parties of the first part their successors or assigns, the right from time to time, to construct, operate, maintain, renew and relocate upon, over or under the surface of the above described land such roadway crossings, pipe lines, wire lines, drainage structures or other facilities as will not unreasonably interfere with the use of said land by said party of the second part as herein provided.

Each and every covenant of this agreement shall run with the land, shall be binding upon the successors and assigns of the parties of the first part to the same extent and with like effect as they are binding upon the parties of the first part and shall inure to the benefit of the successors and assigns of the party of the second part.

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be executed on the 12 day of May, 1970.

LOOP DEVELOPMENT COMPANY, INC.

By _____
Its President
Jack M. Clifford

ATTEST:

_____
Secretary
Jasper S. Hawley

ASSOCIATED INVESTORS, a partnership

By _____
Jackson B. Akin Partner

FIRST NATIONAL BANK IN ALBUQUERQUE

By _____
Vice President and Trust Officer
Kenneth A. Krahn

STATE OF _____ )
) ss.
COUNTY OF _____ )

The foregoing instrument was acknowledged before me this _____ day of _____, 1970, by _____, _____ President of LOOP DEVELOPMENT COMPANY, INC., a New Mexico corporation, on behalf of said corporation.

_____
NOTARY PUBLIC
Charlotte A. Hutchman

My Commission expires:

_____

STATE OF [illegible] )
) ss.
COUNTY OF [illegible] )

The foregoing instrument was acknowledged before me this [illegible] day of [illegible], 1970, by [illegible], Partner on behalf of ASSOCIATED INVESTORS, a partnership.

[illegible]
NOTARY PUBLIC

My commission expires: Charlotte [illegible]

[illegible]

State of New Mexico } ss
County of Bernalillo }
This instrument was filed for record on
JUL 29 1970
at [illegible] o'clock [illegible] M. Recorded in Vol. [illegible]
of records of said County Folio [illegible]
[illegible] Clerk
By [illegible] Deputy

STATE OF NEW MEXICO )
) ss.
COUNTY OF BERNALILLO )

The foregoing instrument was acknowledged before me this [illegible] day of [illegible], 1970, by [illegible] Vice President and Trust Officer of [illegible] BANK IN ALBUQUERQUE, a corporation organized under the laws of the United States, on behalf of said corporation.

[illegible]
NOTARY PUBLIC

My commission expires: [illegible]

[illegible]

APPROVED AS TO FORM

[illegible]

June 15, 1967
102

**From:** Bruce Stidworthy
**To:** Harmon Rita T.
**Cc:** Matthew Satches
**Subject:** RE: Sportsplex
**Date:** Tuesday, November 04, 2014 10:14:15 AM
**Attachments:** image001.jpg
Rail EAS-Misc 182397.pdf

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Rita: Matt is at a project meeting in Alamogordo today, so I'm revising the grading plan to address the additional comments below. An updated version will be sent to you later this morning. Please note however that the storm drain can stay within the railroad easement. This pipe is conveying flows from the rail easement. Furthermore the easement document specifically gives the right to the land owner to construct improvements such as this within the rail easement. I have attached that document for your review. Please note the underlined wording on the 3rd page of the attached PDF.

Thank you,
Bruce

---

**From:** Harmon Rita T. [mailto:rharmon@cabq.gov]
**Sent:** Monday, November 03, 2014 3:48 PM
**To:** Matthew Satches
**Subject:** RE: Sportsplex

A few other comments you should take care of before you resubmit.
The stormdrain should be moved out of the railroad easement.
The billboard and sign are in the pond. The billboard foundation will be undermined by pond.
The foundation for the sign? I would think it would have to be deeper piers. Both signs should have keyed notes indicating how you plan to handle these structures.

***Rita Harmon, P.E.***
Planning Department
505-924-3695

---

**From:** Matthew Satches [mailto:msatches@bhinc.com]
**Sent:** Monday, November 03, 2014 2:54 PM
**To:** Harmon Rita T.
**Subject:** Sportsplex

Hi Rita,

Would it be okay if I sent you a PDF copy of the revised plans today, and get the actual hard copies down to you tomorrow morning? Our runner is out of the office today, and I won't be able to run down there myself. Let me know!

Thanks,

Matt Satches, E.I.
Engineer Intern
Community Development & Planning

**Bohannan Huston**
Courtyard I
7500 Jefferson St. NE
Albuquerque, NM 87109-4335
**www.bhinc.com**
**voice:** 505.823.1000 **facsimile:** 505.798.7988 **toll free:** 800.877.5332

**From:** Harmon Rita T.
**To:** Matthew Satches; Bruce Stidworthy (bstidwor@bhinc.com)
**Subject:** FW: NM 423 Sports Complex
**Date:** Friday, November 07, 2014 2:19:14 PM

---

Matthew, Bruce,

The email from Nancy Perea from the NMDOT will suffice. No other emails from NMDOT are needed.


***Rita Harmon, P.E.***
Planning Department
505-924-3695


---

**From:** Michel, Racquel M.
**Sent:** Friday, November 07, 2014 2:02 PM
**To:** 'Matthew Satches'
**Cc:** 'Bruce Stidworthy'; Loyd, Tony J.; Cherne, Curtis; Harmon Rita T.
**Subject:** FW: NM 423 Sports Complex

Here is what we received.
Thanks,


**Racquel M. Michel, P.E.**
City of Albuquerque
Transportation Development
505-924-3630
rmichel@cabq.gov


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**From:** Perea, Nancy, NMDOT [mailto:Nancy.Perea@state.nm.us]
**Sent:** Friday, November 07, 2014 12:46 PM
**To:** Metro, Kristal D.; Michel, Racquel M.
**Subject:** NM 423 Sports Complex

Kristal / Racquel:

Per the phone conversation this morning, the District concurs with the access location for the subject development as shown on page 18 of the Proposed Paseo del Norte Frontage Road Sports Complex TIS dated August 1, 2014.


Nancy R. Perea, P.E.
District 3 Assistant Traffic Engineer

New Mexico Department of Transportation - District Three
7500 Pan American Fwy NE – PO Box 91750 – Albuquerque, NM 87199
Main: 505.798.6600 – Direct: 505.798.6625 – Fax: 505.798-6663

Nancy.Perea@state.nm.us