CITY OF ALBUQUERQUE

Planning Department
Brennon Williams, Director

Mayor Timothy M. Keller

June 24, 2021

Michael Balaskovits
Bohannan Huston, Inc.
7500 Jefferson St. NE
Albuquerque, NM 87109

RE: MDS OS-7 Storm Drain Relocation
Stryker Rd. and Fellini Blvd.
Grading and Drainage Report Stamp Date: 5/4/21
Hydrology File: R16D097A

Dear Mr. Balaskovits:

Based on the submittal received on 5/5/21, the Grading and Drainage Report is approved for Grading Permit and Work Order.

Please note, at DRC a note must be added to the pond grading sheet stating that pond slopes are to be stabilized with "Native Grass Seed with Aggregate Mulch or equal (Must satisfy the "Final Stabilization criteria" CGP 2.2.14.b.).

If you have any questions, please contact me at 924-3986 or earmijo@cabq.gov.

Sincerely,

Ernest Armijo, P.E.
Principal Engineer, Planning Dept.
Development Review Services

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 6/2018)

Project Title: MDS OS-7 STORM DRAINAGE RELOCATION Building Permit #: _____ Hydrology File #: _____

DRB#: _____ EPC#: _____ Work Order#: 775684

Legal Description: TRACT OS-7 AND TRACT A-1-A-1 OF MESA DEL SOL

City Address: STRYKER RD & FELLINI BLVD

Applicant: BOHANNAN HUSTON INC Contact: MICHAEL BALASKOVITS

Address: 7500 JEFFERSON ST NE COURTYARD I ALBUQUERQUE NM 87109

Phone#: 823-1000 Fax#: _____ E-mail: MBALASKOVITS@BHINC.COM

Other Contact: _____ Contact: _____

Address: _____

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

TYPE OF DEVELOPMENT: _____ PLAT (# of lots) _____ RESIDENCE _____ DRB SITE X ADMIN SITE

IS THIS A RESUBMITTAL? _____ Yes X No

DEPARTMENT _____ TRANSPORTATION X HYDROLOGY/DRAINAGE

Check all that Apply:

TYPE OF SUBMITTAL:

____ ENGINEER/ARCHITECT CERTIFICATION
____ PAD CERTIFICATION
____ CONCEPTUAL G & D PLAN
____ GRADING PLAN
X DRAINAGE REPORT
____ DRAINAGE MASTER PLAN
____ FLOODPLAIN DEVELOPMENT PERMIT APPLIC
____ ELEVATION CERTIFICATE
____ CLOMR/LOMR
____ TRAFFIC CIRCULATION LAYOUT (TCL)
____ TRAFFIC IMPACT STUDY (TIS)
____ STREET LIGHT LAYOUT
____ OTHER (SPECIFY) _____
____ PRE-DESIGN MEETING?

TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

____ BUILDING PERMIT APPROVAL
____ CERTIFICATE OF OCCUPANCY

____ PRELIMINARY PLAT APPROVAL
____ SITE PLAN FOR SUB'D APPROVAL
____ SITE PLAN FOR BLDG. PERMIT APPROVAL
____ FINAL PLAT APPROVAL

____ SIA/ RELEASE OF FINANCIAL GUARANTEE
____ FOUNDATION PERMIT APPROVAL
X GRADING PERMIT APPROVAL
____ SO-19 APPROVAL
____ PAVING PERMIT APPROVAL
____ GRADING/ PAD CERTIFICATION
X WORK ORDER APPROVAL
____ CLOMR/LOMR
____ FLOODPLAIN DEVELOPMENT PERMIT
____ OTHER (SPECIFY) _____

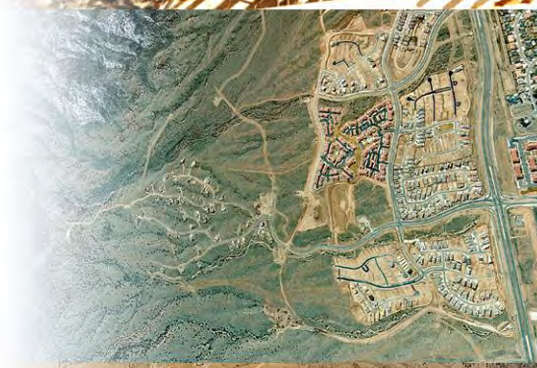
DATE SUBMITTED: 05-05-2021 By: MICHAEL BALASKOVITS

COA STAFF: ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____

DRAINAGE MANAGEMENT PLAN FOR MESA DEL SOL OS-7 STORM DRAINAGE RELOCATION



MAY 2021

Prepared for:
MDS Investment, LLC
4020 Vassar Dr. NE, Suite H
Albuquerque, NM 87107

Prepared by:

Bohannan Huston
Engineering
Spatial Data
Advanced Technologies

DRAINAGE REPORT
FOR
MESA DEL SOL OS-7
STORM DRAINAGE RELOCATION

MAY 4, 2021

Prepared for:

MDS INVESTMENT, LLC
4020 VASSAR DR. NE, SUITE H
ALBUQUERQUE, NM 87107

Prepared by:

BOHANNAN HUSTON, INC.
COURTYARD I
7500 JEFFERSON STREET NE
ALBUQUERQUE, NM 87109

PREPARED BY:

05/04/21

Abraham Mena Ortiz, EI Date

UNDER THE SUPERVISION OF:

Michael Balaskovits, PE Date

NEW MEXICO
MICHAEL BALASKOVITS
18187
5.9.21
LICENSED PROFESSIONAL ENGINEER

TABLE OF CONTENTS

I. PURPOSE 1

II. CONCEPTS AND METHODOLOGIES 1

III. DEVELOPED HYDRAULIC AND HYDROLOGIC CONDITIONS 2

A. EXISTING INFRASTRUCTURE 2
B. PROPOSED INFRASTRUCTURE 3
C. STORMWATER SUSTAINABILTY 3

IV. CONCLUSION 4

APPENDICES

APPENDIX A - EXISTING CONDITIONS
APPENDIX B - STORM DRAIN HGL ANALYSIS

EXHIBITS

EXHIBIT A - IDO ZONE ATLAS MAP
EXHIBIT B - INFRASTRUCTURE AS-BUILTS
EXHIBIT C - BASIN MAP EXHIBIT
EXHIBIT D - GRADING PLAN
EXHIBIT E - FELLINI BLVD. PNP

I. PURPOSE

The purpose of this report is to establish a drainage management plan to support the relocation of the storm drainage infrastructure and vacation of the public drainage easement over Tract OS-7, in Mesa Del Sol, Albuquerque (see **Exhibit A**). The existing 48" RCP storm drain line from the Stryker Rd and Hawkings Dr roundabout to tract OS-7 will be demolished to support a future development. A new underground storm drainage will be constructed on Fellini Blvd from Stryker Rd to a temporary retention pond at the Mesa Del Sol Blvd. couplet. This proposed retention facility will accommodate existing developed flows intercepted by the storm drain network that currently discharges into tract OS-7, in addition to offsite flows from the north and west. This report is submitted in support of easement vacation and public work order approval by the DRC.

II. CONCEPTS AND METHODOLOGIES

Drainage conditions were analyzed utilizing the City of Albuquerque 2020 DPM Part 6-2(A) Procedure for 40-Acre and Smaller Basins. The site is within zone 2 per Table 6.2.7, Section 6-2(A)(1) of the DPM. The 100-year, 6-hour storm event was utilized to determine peak flow rates for design of the storm drainage improvements. The 100-year, 10-day storm event was used to compute retention ponds required storage volume. The stormwater infrastructure Hydraulic Grade Line (HGL) was analyzed with Stormwater Studio Software in accordance with HEC-22, 3rd edition.

The following documents were referenced in the preparation of this report:

- *Drainage Management plan for Drainage Area 2*, COA Hydro File #R16/DA2, dated November 2008.
- *Drainage Report for Mesa Del Sol Residential Montage Unit 1 and 2*, COA Hydro File #R16-D003A, dated January 2011.
- *Drainage Report for Mesa Del Sol Residential Montage Unit 1 and 2*, COA Hydro File #R16-D003A, 2018 updated.
- *Drainage Report for Mesa Del Sol Community Center*, COA Hydro File #R16-DA3005, dated June 2007.
- *Drainage Report for Mesa Del Sol Town Center Units 1 and 2*, COA Hydro File #R16-D004, dated August 2007.
- *Mesa Del Sol Level B Plan,* revised September 2012.

III. DEVELOPED HYDRAULIC AND HYDROLOGIC CONDITIONS

A. EXISTING INFRASTRUCTURE

The existing storm drain network in Stryker Rd extends north and west on University Blvd., captures developed flows from the right-of-way as well as a portion of Montage Subdivision basin and the Town Center site at the University Blvd couplet through several inlets and ultimately discharges into tract OS-7 retention pond. See **Exhibit B** for infrastructure as-builts.

Contributing basins to the network, as shown in **Exhibit C**, have been analyzed per the COA 2020 DPM following approved drainage reports land treatment percentages, see **Table 1** for hydrologic results. The 100-year 6-hour design peak flow rate at the connection manhole is computed AP1 $Q_{100yr-6hr} = 77.7$ cfs.

BASINS CONTRIBUTING TO STRYKER STORM DRAINAGE (DISCHARGING TO TRACT OS-7)

Basin ID	Area (Ac)	%D	$Q_{100yr-6hr}\ (CFS)$	$V_{100yr-6hr}(CF)$	$Q_{100yr-10d}(CF)$
UNIVERSITY 1	5.77	90	24.28	46,046	71,099
UNIVERSITY 2	1.23	90	5.18	9,822	15,167
UNIVERSITY 3	1.17	90	4.93	9,350	14,438
MONTAGE 1	2.75	78	10.95	20,151	30,507
MONTAGE 2	2.14	25	6.71	9,914	12,500
STRYKER 1	0.95	90	4.00	7,585	11,712
STRYKER 2	1.59	90	6.69	12,685	19,587
TOWN CENTER 1	1.66	90	6.98	13,245	20,452
TOWN CENTER 2	1.84	100	7.97	15,523	24,384
TOTAL @ AP1			**77.7**	**144,322**	**219,846**

Table 1: Hydrologic Analysis of Basins conveyed by the Stryker-University Storm Drainage

An existing retention pond is located within the N Mesa Del Sol Blvd. ROW (See **Exhibit C**). This pond serves the Town Center development and undisturbed area south of Stryker Rd., basin TOWN CENTER 3 $(Q_{100yr-6hr} = 18.60\ cfs;\ Q_{100yr-10d} = 54{,}718\ cf)$ and basin M1 $Q_{100yr-6hr} = 27.73\ cfs;\ Q_{100yr-10d} = 35{,}726\ cf$ retention requirements. See **Appendix A** for hydrologic analysis.

B. PROPOSED INFRASTRUCTURE

To divert existing developed flows discharging into tract OS-7 to the new retention facility a new storm drainage is proposed in Fellini Blvd. ROW. The new line will connect the existing network in Stryker Rd at the intersection of Stryker Rd and Fellini Blvd and will discharge into the proposed retention pond at the Mesa Del Sol couplet. (See **Exhibit E**) The existing manhole will be rehab in accordance with COA Standard Specifications for Public Works Construction. The new 48" storm drainage is sized to accommodate existing developed flows at AP1($Q_{100yr-6hr} = 77.7$ cfs). See **Appendix B** for the HGL analysis results.

Offsite developed flows from the Town Center development and area south of Stryker Rd (basins Town Center 3 and M1) will be captured by IN1 ($Q_{100yr-6hr} = 46.33$ cfs), located on N Mesa del Sol Blvd., west of Fellini Blvd,. This proposed COA Dbl-Type D inlet in sump condition will ultimately discharge to the new retention pond, eliminating the retention requirements of the existing pond in N Mesa Del Sol Blvd. ROW. This will allow for a portion of the existing pond will be rough-graded and the 78' Public Drainage Easement to be vacated.

The proposed retention pond will be located east of Fellini Blvd between North and South Mesa Del Sol Blvd. couplet, within a new Public Drainage Easement. This facility will accommodate existing developed and undeveloped flows captured by the underground storm drainage system. This pond will retain the 100-yr 10-day storm volume $V_{100yr-10d} =$ 7.12 ac-ft. It will have a capacity of $V_{Storage} = 8.00$ ac-ft with 2 feet of freeboard. See **Appendix A** for storage calculations and **Exhibit D** for the grading plan. No infiltration is accounted for in the storage calculations.

The 60" pipe outlet discharging into the pond will be constructed with an offset of at least one foot from the pond bottom. An erosion protection rip rap rundown and blanket will be included to prevent erosion during the large storm events.

C. STORMWATER SUSTAINABILTY

In accordance with COA DPM 2020, developments are required to capture and infiltrate the stormwater quality volume (0.42 inches times impervious area). This volume corresponds to the runoff from small storms and the initial portion of larger storms.

The proposed retention pond satisfies stormwater quality requirements since it captures and infiltrates the 100-year 10-day runoff volume. Infiltration will occur thru the

pond bottom and side slopes, evacuating the pond within 96 hours. Soil amendment measures, if necessary, will be determined by the Geotech report.

In addition to retain and infiltrate developed flows, resulting in the recharge of the aquifers, the proposed pond will function as a centralized facility for pollutants removal. Consequently, oils, chemicals, sediments and other types of pollutants conveyed by the public storm drainage system will not reach natural watercourses, protecting and preserving the local resources. These stormwater sustainability goals are pursuant to the Mesa Del Sol Level B Community Master Plan development guidelines.

Due to soil properties, regular, periodic pond maintenance is required to ensure the facility maintains its intended functions. Maintenance activities should include, but is not limited to:

- Repair of slope rills and erosion
- Removal of sediment to design elevations
- Removal of trash, debris and other pollutants
- Maintenance of clean outlet works conduit
- Inspection of toe of outlet works for scour and undercutting

Maintenance shall occur at least bi-annually and within one week of any significant rainfall event.

IV. CONCLUSION

This drainage management plan provides a detailed study of the proposed public infrastructure to support the removal of the storm drainage and vacation of the public drainage easement on Tract OS-7. The proposed storm drainage in Fellini Blvd. provides an alternative outfall that allows for the safe management of storm runoff in the existing developed conditions. Future drainage analysis reports will be provided upon further development of the Town Center to help develop specific site and roadway drainage schemes. Included is the IDO Zone Atlas Map, infrastructure as-builts, Drainage Management Plan Exhibit, Grading Plan, Fellini Blvd PNP, and all necessary hydrologic and hydraulic analyses. This drainage plan maintains the overall drainage pattern of the area.

APPENDICES

APPENDIX A: EXISTING CONDITIONS HYDROLOGIC ANALYSIS AND POND STORAGE CALCULATIONS

APPENDIX B: STORM DRAIN HGL ANALYSIS

APPENDIX A -
EXISTING CONDITIONS
HYDROLOGIC ANALYSIS AND POND STORAGE CALCULATIONS

MESA DEL SOL - TRACT OS7 DRAINAGE RELOCATION

Basin Data Table

This table is based on the DPM Part 6-2(A), Zone: 2

Basin	Area	Land Treatment Percentages				$Q_{(100yr)}$	$Q_{(100yr\text{-}6hr)}$	$V_{(100yr\text{-}6hr)}$	$V_{(100yr\text{-}10day)}$	$V_{(100yr\text{-}10day)}$
ID	(AC.)	A	B	C	D	(cfs/ac.)	(CFS)	(CF)	CF	AC-FT
UNIVERSITY 1	5.77	0.0%	0.0%	10.0%	90.0%	4.21	*24.28*	*46046*	*71099*	1.63
UNIVERSITY 2	1.23	0.0%	0.0%	10.0%	90.0%	4.21	*5.18*	*9822*	*15167*	0.35
UNIVERSITY 3	1.17	0.0%	0.0%	10.0%	90.0%	4.21	*4.93*	*9350*	*14438*	0.33
MONTAGE 1 (1)	2.75	0.0%	11.0%	11.0%	78.0%	3.98	*10.95*	*20151*	*30507*	0.70
MONTAGE 2 (2)	2.14	0.0%	35.0%	40.0%	25.0%	3.13	*6.71*	*9914*	*12500*	0.29
STRYKER 1	0.95	0.0%	0.0%	10.0%	90.0%	4.21	*4.00*	*7585*	*11712*	0.27
STRYKER 2	1.59	0.0%	0.0%	10.0%	90.0%	4.21	*6.69*	*12685*	*19587*	0.45
TOWN CENTER 1 (3)	1.66	0.0%	0.0%	10.0%	90.0%	4.21	*6.98*	*13245*	*20452*	0.47
TOWN CENTER 2 (3)	1.84	0.0%	0.0%	0.0%	100.0%	4.34	*7.97*	*15523*	*24384*	0.56
TOTAL @ AP1							***77.68***	***144322***	***219846***	**5.05**
TOWN CENTER 3 (4)	4.45	0.0%	5.0%	5.0%	90.0%	4.18	*18.60*	*35372*	*54718*	1.26
M1	14.02	80.0%	0.0%	20.0%	0.0%	1.98	*27.73*	*35726*	*35726*	0.82
TOTAL @ AP2							***124.01***	***215420***	***310290***	**7.12**

(1) Land treatment percentages from COA Hydro File # R16-D003A
(2) Land treatment percentages from COA Hydro File # R16-D003A 2018 Update
(3) Land treatment percentages per COA Hydro File #R16-DA3005
(4) Land treatment percentages per COA Hydro File #R16-DA004

RETENTION POND INFORMATION:

BOTTOM ELEVATION =	*5274.00*
TOP ELEVATION =	*5291.00*
FREEBOARD =	*2.00 FT*
V_STORAGE =	*8.00 AC-FT*
V_100YR_10D =	*7.12 AC-FT*
Q_100YR_6HR =	*124.01 CFS*
WSE_100YR_10D =	*5288.20*
WSE_100YR_6HR =	*5285.50*

PIPE INFORMATION:

DIAMETER =	60"
INVERT ELEVATION =	*5275.50*

Retention Pond Stage Storage
Project: MDS OS-7 SD Relocation
Basin Description: Retention Pond at MDS Blvd Couplet

Contour Elevation	Contour Area (sq. ft)		Cumulative Volume Avg. End (cu. ft)	Incremental Volume Avg. End (cu. ft)	Cumulative Volume Conic (cu. ft)	Volume Conic (cu. ft)	
5,274.000	119.51	N/A	N/A	0.00	N/A	0.00	
5,275.000	8,981.65		4550.58	4550.58	3379.08	3379.08	
5,276.000	11,565.66		10273.65	14824.23	10246.46	13625.54	
5,277.000	13,509.42		12537.54	27361.77	12524.96	26150.50	
5,278.000	15,509.28		14509.35	41871.12	14497.85	40648.35	
5,279.000	17,565.24		16537.26	58408.38	16526.60	57174.95	
5,280.000	19,677.30		18621.27	77029.65	18611.28	75786.23	
5,281.000	21,866.47		20771.88	97801.53	20762.26	96548.49	
5,282.000	24,208.27		23037.37	120838.90	23027.45	119575.94	
5,283.000	26,787.89		25498.08	146336.98	25487.20	145063.14	
5,284.000	29,226.45		28007.17	174344.15	27998.32	173061.46	
5,285.000	31,488.24		30357.35	204701.50	30350.32	203411.78	- 4.66 ac-ft
5,285.500 = 100YR-6HR WSE - V_100YR_24HR = 5.0 ac-ft							
5,286.000	33,800.77		32644.51	237346.00	32637.68	236049.46	- 5.42 ac-ft
5,287.000	36,189.17		34994.97	272340.98	34988.18	271037.63	
5,288.000	38,654.39		37421.78	309762.75	37415.01	308452.64	- 7.08 ac-ft
5,288.200 = 100YR-10D WSE - V_100YR_10D = 7.12 ac-ft							
5,289.000	41,199.65		39927.02	349689.77	39920.26	348372.90	- 8.00 ac-ft
5,290.000	43,825.24		42512.45	392202.22	42505.69	390878.59	
5,291.000	65,129.91		54477.57	446679.79	54127.04	445005.63	- Top of Pond

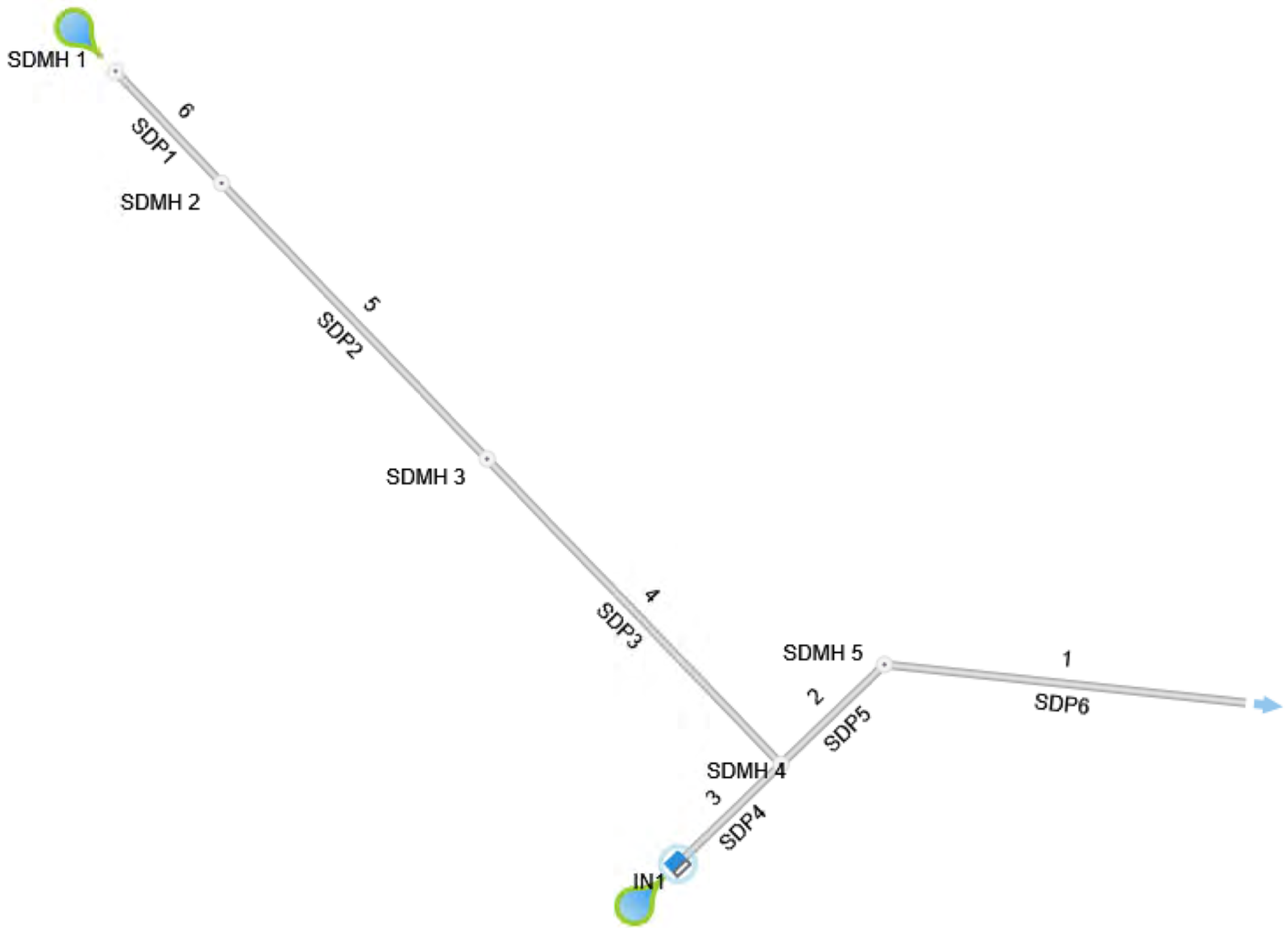
APPENDIX B -
STORM DRAIN HGL ANALYSIS

Plan View

Stormwater Studio 2021 v 3.0.0.24

Project Name: MDS OS-7 SD RELOCATION

04-15-2021

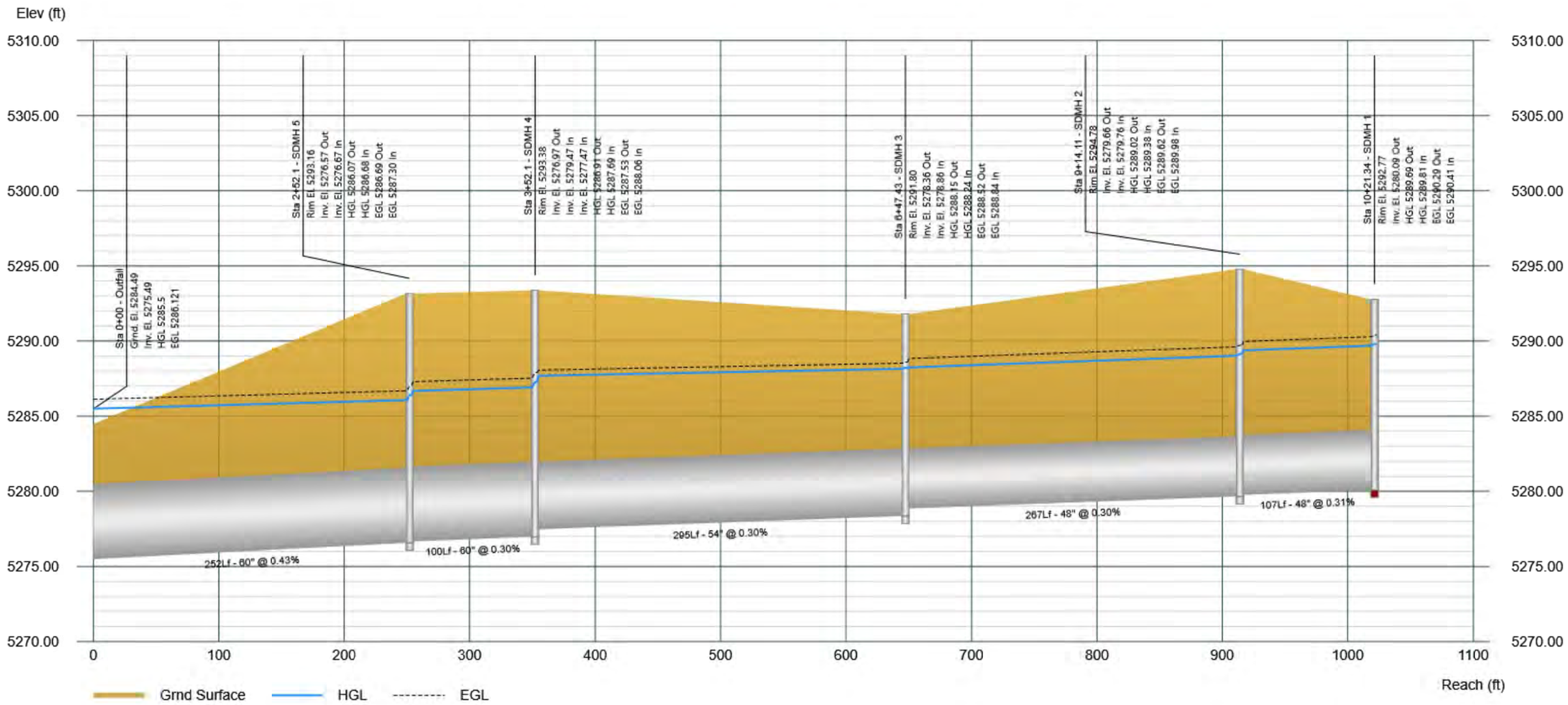


Profile View

Stormwater Studio 2021 v 3.0.0.24

Project Name: MDS OS-7 SD RELOCATION

04-15-2021

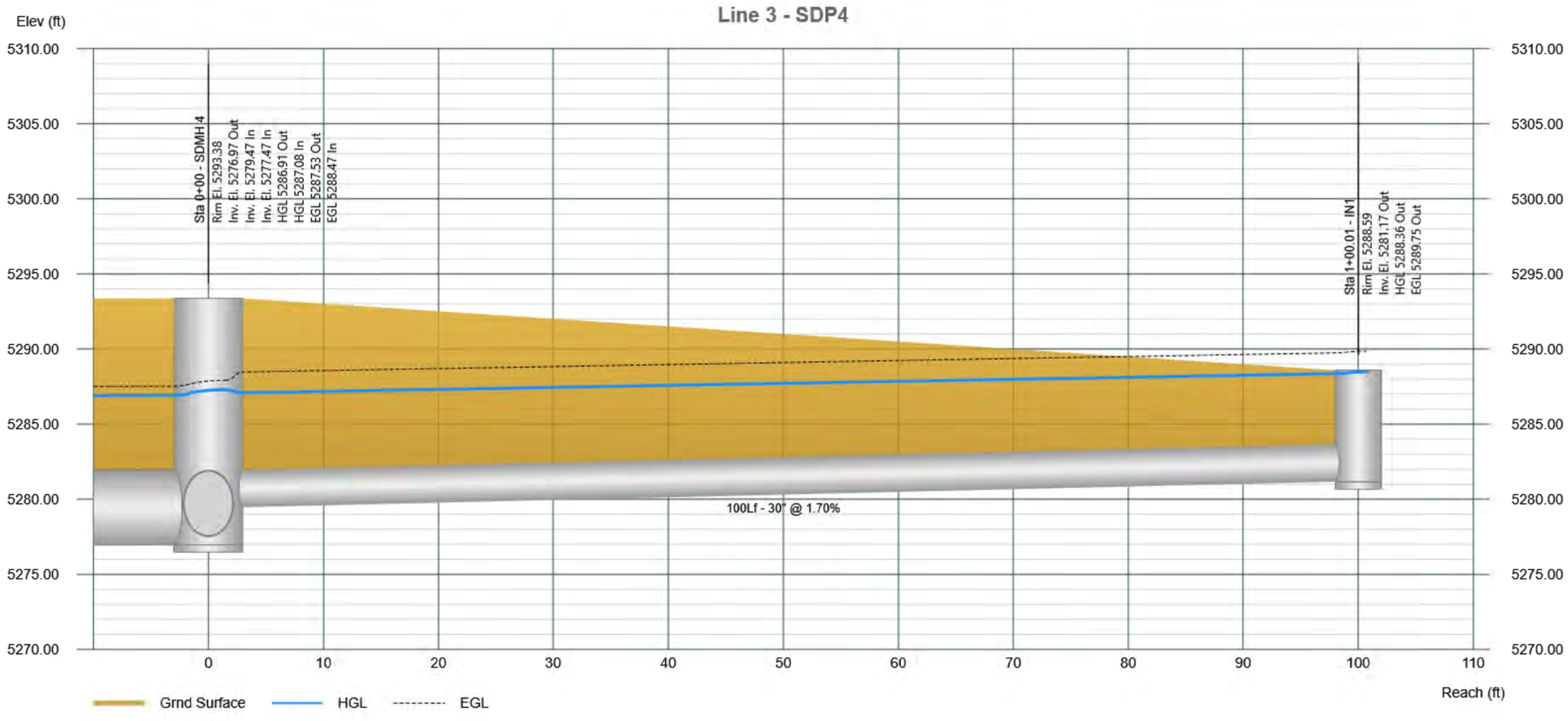


Profile View

Stormwater Studio 2021 v 3.0.0.24

Project Name: MDS OS-7 SD RELOCATION

04-15-2021



Energy Grade Line Calculations

Stormwater Studio 2021 v 3.0.0.24

Project Name: MDS OS-7 SD RELOCATION

04-15-2021

Line No	Line Size	Q	Downstream							Length	Upstream							Pipe		Junction		
			Invert Elev	Depth	Area	HGL Elev	Vel	Vel Head	EGL Elev		Invert Elev	Depth	Area	HGL Elev	Vel	Vel Head	EGL Elev	n Value	Enrgy Loss	HGLa Elev	EGLa Elev	Enrgy Loss
	(in)	(cfs)	(ft)	(ft)	(sqft)	(ft)	(ft/s)	(ft)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft)	(ft/s)	(ft)	(ft)		(ft)	(ft)	(ft)	(ft)
1	60	124.01	5275.49	5.00	19.63	5285.50	6.32	0.62	5286.12	252.10	5276.57	5.00	19.63	5286.07	6.32	0.62	5286.69	0.013	0.571	5286.43	5287.05	0.36
2	60	124.01	5276.67	5.00	19.63	5286.68	6.32	0.62	5287.30	100.00	5276.97	5.00	19.63	5286.91	6.32	0.62	5287.53	0.013	0.227	5287.29	5287.92	0.39
3	30	46.33	5279.47	2.50	4.91	5287.08	9.44	1.39	5288.47	100.02	5281.17	2.50	4.91	5288.36	9.44	1.38	5289.75	0.013	1.277	5288.48	5289.86	0.12
4	54	77.68	5277.47	4.50	15.90	5287.69	4.89	0.37	5288.06	295.32	5278.36	4.50	15.90	5288.15	4.88	0.37	5288.52	0.013	0.461	5288.23	5288.60	0.07
5	48	77.68	5278.86	4.00	12.56	5288.24	6.18	0.59	5288.84	266.68	5279.66	4.00	12.57	5289.02	6.18	0.59	5289.62	0.013	0.780	5289.14	5289.74	0.12
6	48	77.68	5279.76	4.00	12.56	5289.38	6.18	0.59	5289.98	107.23	5280.09	4.00	12.57	5289.69	6.18	0.59	5290.29	0.013	0.314	5289.81	5290.41	0.12

Notes: Return Period = 2-yrs.

Project File: 20210391STORM DRAINAGE.sws

IN1

Double D inlet, in sump conditions:
Open Area (for orifice calc in sq. ft.): 7.8628472
Length of Weir (feet): 9.9166667

Head (ft)	Head (in)	Weir Q	Orifice Q	Control Q	
0.05	0.6	0.30	8.47	0.30	
0.1	1.2	0.84	11.97	0.84	
0.15	1.8	1.54	14.66	1.54	
0.2	2.4	2.38	16.93	2.38	
0.25	3	3.32	18.93	3.32	
0.3	3.6	4.37	20.74	4.37	
0.35	4.2	5.50	22.40	5.50	
0.4	4.8	6.72	23.94	6.72	
0.45	5.4	8.02	25.40	8.02	
0.5	6	9.40	26.77	9.40	
0.55	6.6	10.84	28.08	10.84	
0.6	7.2	12.35	29.33	12.35	
0.65	7.8	13.93	30.52	13.93	
0.7	8.4	15.56	31.68	15.56	
0.75	9	17.26	32.79	17.26	
0.8	9.6	19.02	33.86	19.02	
0.85	10.2	20.83	34.90	20.83	
0.9	10.8	22.69	35.92	22.69	
0.95	11.4	24.61	36.90	24.61	
1	12	26.58	37.86	26.58	
1.5	18	48.82	46.37	46.37	Q_100 = 46.33 cfs
2	24	75.17	53.54	53.54	
3	36	138.10	65.57	65.57	
5	60	297.14	84.66	84.66	Q_Capacity = 84.00 cfs

Calculation of open area:

	(in^2)	(ft^2)
Total Grate Area	2000	13.888889
Cross Bar Area	-732	-5.0833333
Supports (ends)	-231.25	-1.6059028
Areas Counted Twice	95.5	0.6631944
	1132.25	7.8628472

Calculation of Length of Weir:

	(in)	(ft)
Total Perimeter of Grate	130	10.833333
Short Cross Bars	-7	-0.5833333
End Supports	9	0.75
Bearing Bars	-13	-1.0833333
	119	9.9166667

EXHIBITS

EXHIBIT A: IDO ZONE ATLAS MAP

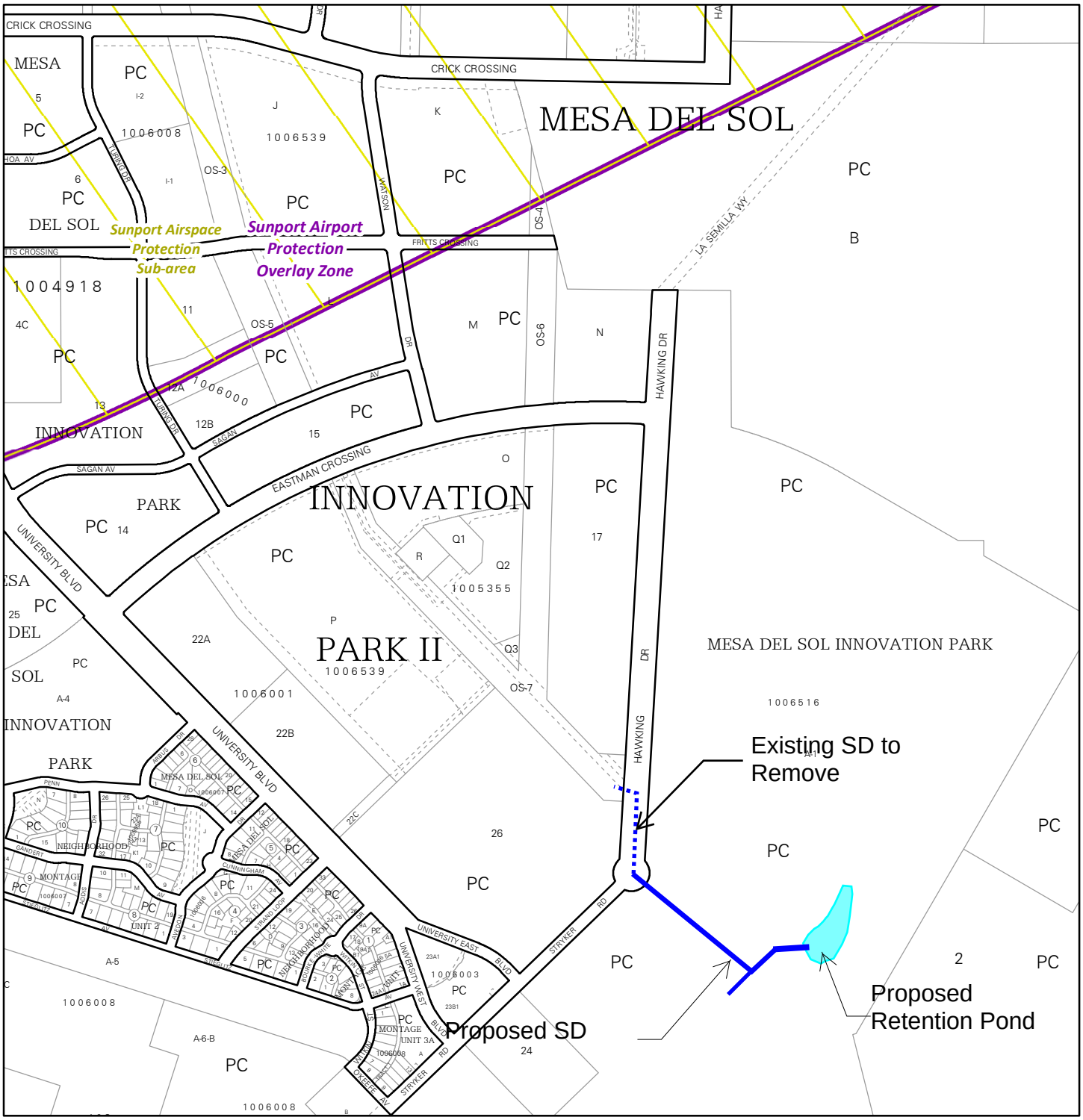
EXHIBIT B: INFRASTRUCTURE AS-BUILTS

EXHIBIT C: BASIN MAP EXHIBIT

EXHIBIT D: GRADING PLAN

EXHIBIT E: FELLINI BLVD. PNP

EXHIBIT A -
IDO ZONE ATLAS MAP



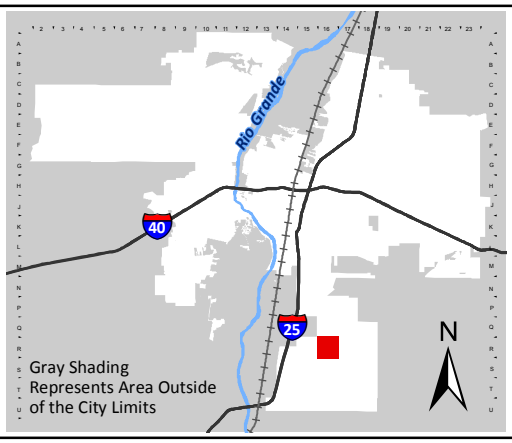
For more details about the Integrated Development Ordinance visit: http://www.cabq.gov/planning/codes-policies-regulations/integrated-development-ordinance

IDO Zone Atlas
May 2018

Albuquerque Geographic Information System

IDO Zoning information as of May 17, 2018

The Zone Districts and Overlay Zones are established by the Integrated Development Ordinance (IDO).



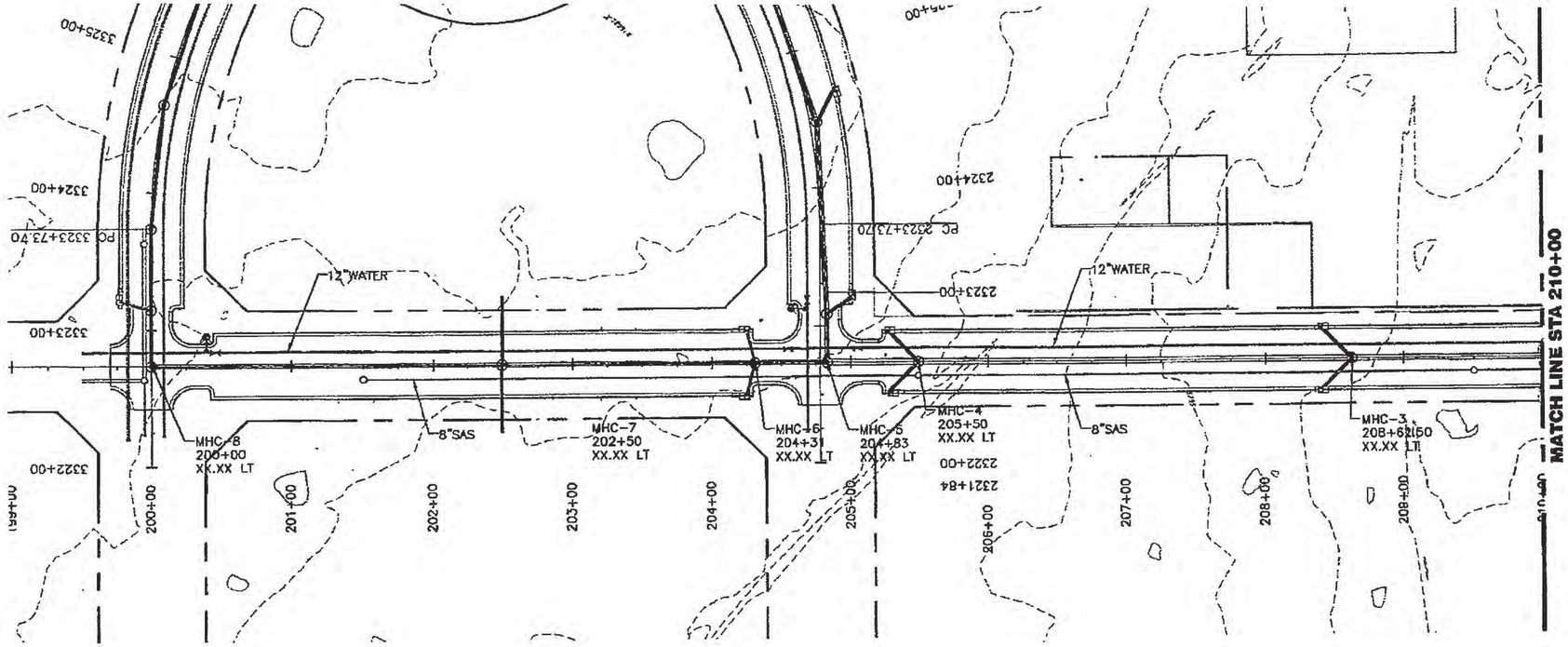
Zone Atlas Page:

R-16-Z

- Easement
- Escarpment
- Petroglyph National Monument
- Areas Outside of City Limits
- Airport Protection Overlay (APO) Zone
- Character Protection Overlay (CPO) Zone
- Historic Protection Overlay (HPO) Zone
- View Protection Overlay (VPO) Zone

Feet: 0 250 500 1,000

EXHIBIT B -
INFRASTRUCTURE AS-BUILTS



2. ALL STORM DRAIN PIPE WILL BE CLASS IV RCP PIPE

KEYED NOTES

1. TYPE "A" DOUBLE WING INLET SEE SHEET SD-_
2. TYPE "C" MANHOLE PER COA STD DWG 2101 FOR DEPTHS < 8'. TYPE "E" MANHOLE PER COA STD DWG 2102 FOR DEPTHS > 8'
3. TYPE "A" INLET PER COA STD DWG 2201
4. PROTECT AND SUPPORT EXISTING 24" WATERLINE
5. OUTFALL WITH EROSION CONTROL SEE SHEET __-__
6. WEST POND OUTLET SEE SHEET SD-_
7. POND OUTLET STRUCTURE, SEE _____
8. DRAINAGE EASEMENT REF NO. 2006173798 RECORDED 17 NOV 2006 BOOK: A127 PAGE: 3321
9. EXISTING EASEMENT REF NO:2006092610 RECORDED 06 JUN 2006 BOOK: 2006C PAGE: 197

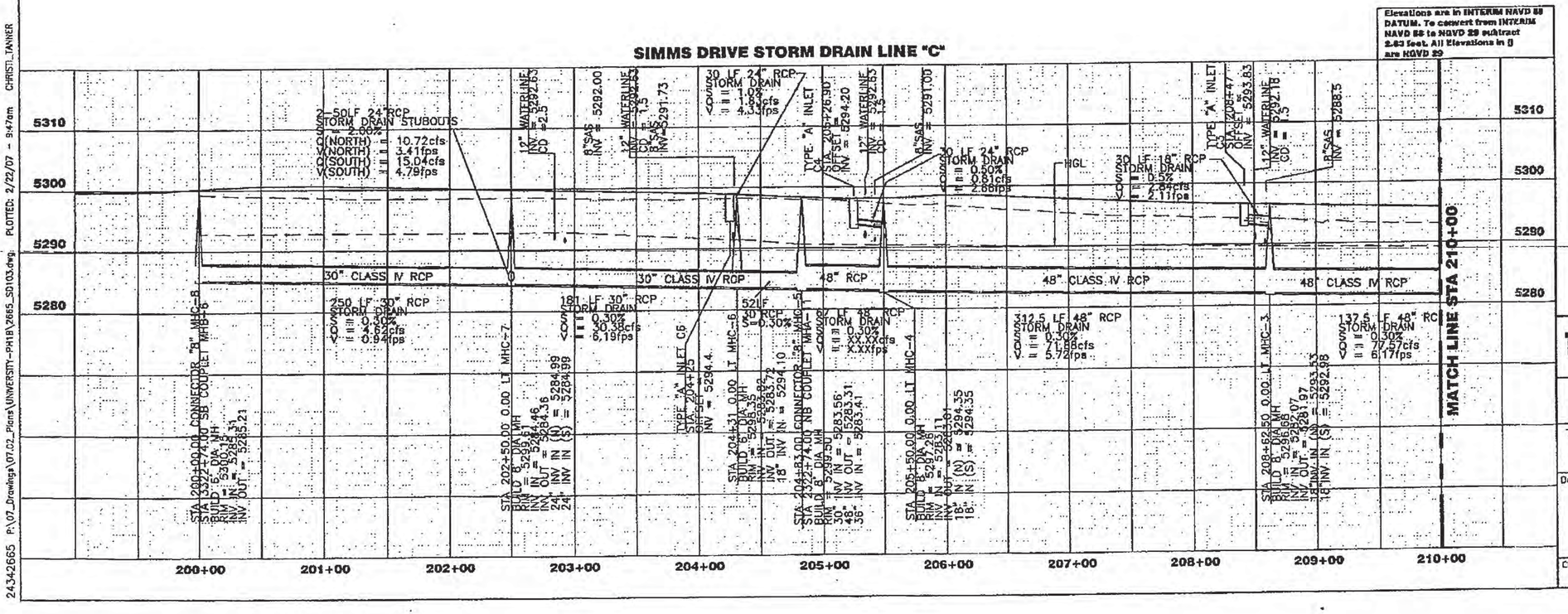
AS BUILT INFO
CONTRACTOR
WORK STAKED BY
INSPECTED BY
RELEASED BY
FIELD VERIFICATION BY
AS BUILT CHANGES CORRECTED BY
MICRO-FILM IN
RECORDED BY

BENCH MARKS
ACS 3-1/4" ALUMINUM CAP RIVETED TO A TUBE SET IN A CONCRETE BASE IN THE GROUND STAMPED "5-0-14, 1987". FROM THE RIO BRAVO BLVD AND BROADWAY INTERSECTION GO SOUTH 0.9 MILES AND PROCEED 123' WEST OF THE CENTERLINE.
STATE PLANE COORDINATES (CENTRAL ZONE, NAD83/NAVD88) N=1460471.432, E=1521388.180 (GROUND) ELEVATION=4981.17

SURVEY INFORMATION
FIELD NOTES

No.	By	Date

ENGINEER'S SEAL



No.	Remarks	By	Date
	REVISIONS		
	DESIGN		10/06
	Designed By	URS	Date 10/06
	Drawn By		Date 10/06
	Checked By		Date

URS
ONE PARK SQUARE
6501 AMERICAS PARKWAY, NE
SUITE 900
ALBUQUERQUE, NM 87110
(505) 855-7500

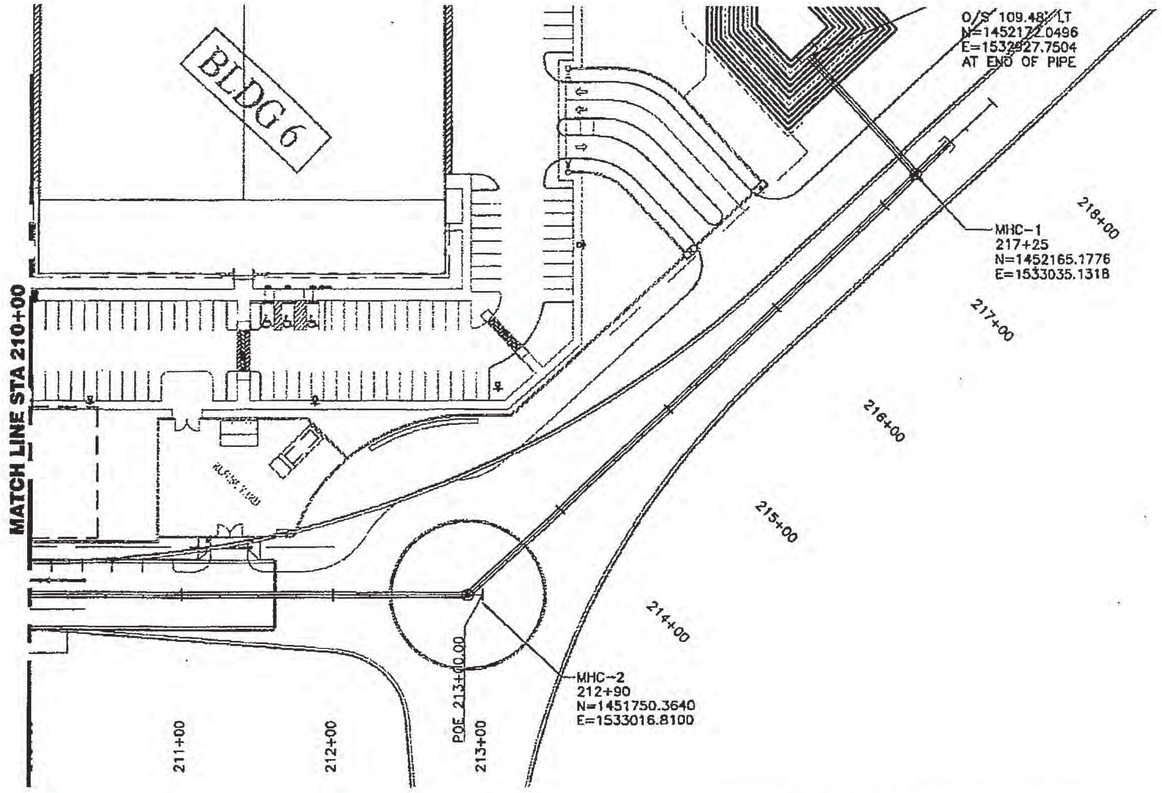
CITY OF ALBUQUERQUE
DEPARTMENT OF MUNICIPAL DEVELOPMENT

TITLE: UNIVERSITY BLVD. EXTENSION - PHASE 1B
STORM DRAIN PLAN AND PROFILE
STA 200+00 TO STA 210+00

Design Review Committee	City Engineer Approval	Last Design Update	

City Project No.	Zone Map No.	Sheet	Of	
775482	R-16, S-16	0		SD-15

24342665 P:\07_Drawings\07.02_Plans\UNIVERSITY-PH1B\2665_SD103.dwg PLOTTED: 2/22/07 - 9:47am CHRISTI_TANNER



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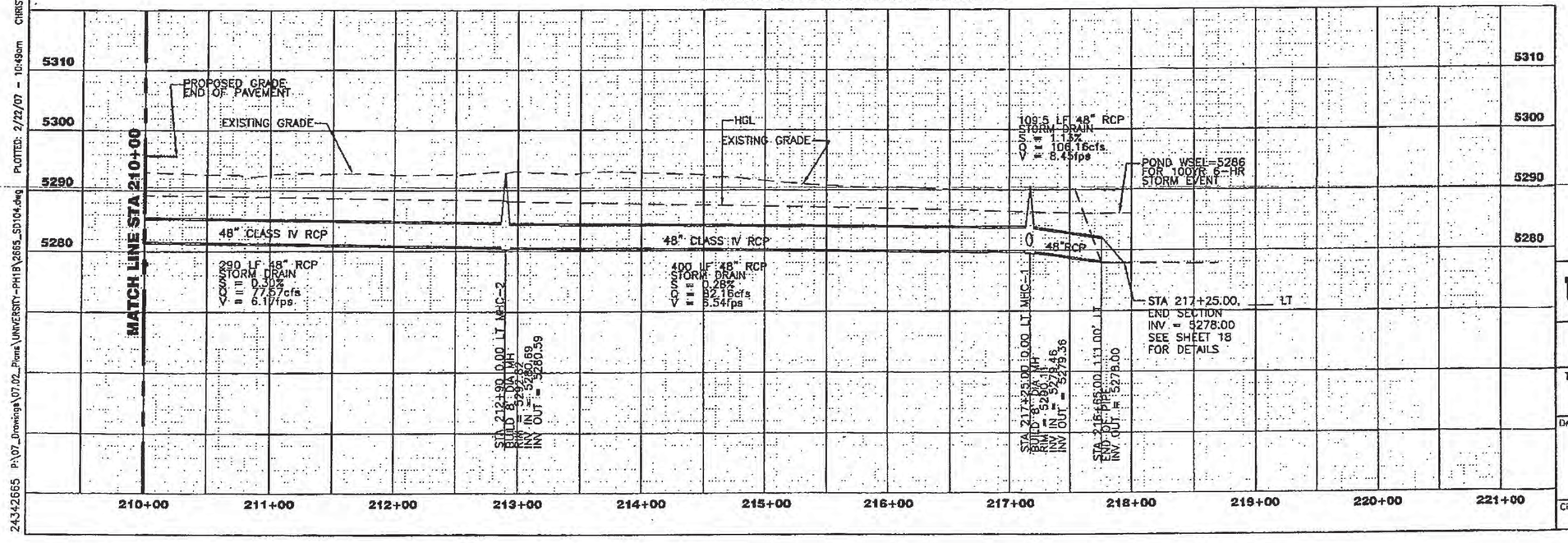
3. TYPE "A" INLET PER COA STD DWG 2201
4. PROTECT AND SUPPORT EXISTING 24" WATERLINE
5. OUTFALL WITH EROSION CONTROL SEE SHEET __-__-__
6. WEST POND OUTLET SEE SHEET SD-__
7. POND OUTLET STRUCTURE, SEE ——
8. DRAINAGE EASEMENT REF NO. 2008173798 RECORDED 17 NOV 2006 BOOK: A127 PAGE: 3321
9. EXISTING EASEMENT REF NO:2006092810 RECORDED 06 JUN 2006 BOOK: 2006C PAGE: 197

SIMMS DRIVE STORM DRAIN LINE "C"



GRAPHIC SCALE IN FEET

50 0 50 100

HORIZONTAL GRAPHIC SCALE IN FEET

10 0 10 20

VERTICAL

URS
ONE PARK SQUARE
6501 AMERICAS PARKWAY, NE
SUITE 900
ALBUQUERQUE, NM 87110
(505) 855-7500

CITY OF ALBUQUERQUE
DEPARTMENT OF MUNICIPAL DEVELOPMENT

TITLE: **UNIVERSITY BLVD. EXTENSION - PHASE 1B**
PLAN AND PROFILE
STA 210+00 TO STA 218+00

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No.	Zone Map No.	Sheet	Of	
775482	R-16, S-16	0		SD-16

AS BUILT INFO

CONTRACTOR
WORK STAKED BY
INSPECTED BY
FIELD LOCATION BY
DRAWINGS CORRECTED BY
MICRO-FILM INFO
RECORDED BY

BENCH MARKS
ACS 3-1/4" ALUMINUM CAP RIVETED TO A TUBE SET IN A CONCRETE BASE IN THE GROUND STAMPED "5-0-14, 1987", FROM THE RID BRAVO BLVD AND BROADWAY INTERSECTION GO SOUTH 0.9 MILES AND PROCEED 123' WEST OF THE CENTERLINE.
STATE PLANE COORDINATES (CENTRAL ZONE, NAD83/NAVD88) N=1460471.432, E=1521388.780 (GROUND) ELEVATION=4981.17

SURVEY INFORMATION
FIELD NOTES

No.	By	Date

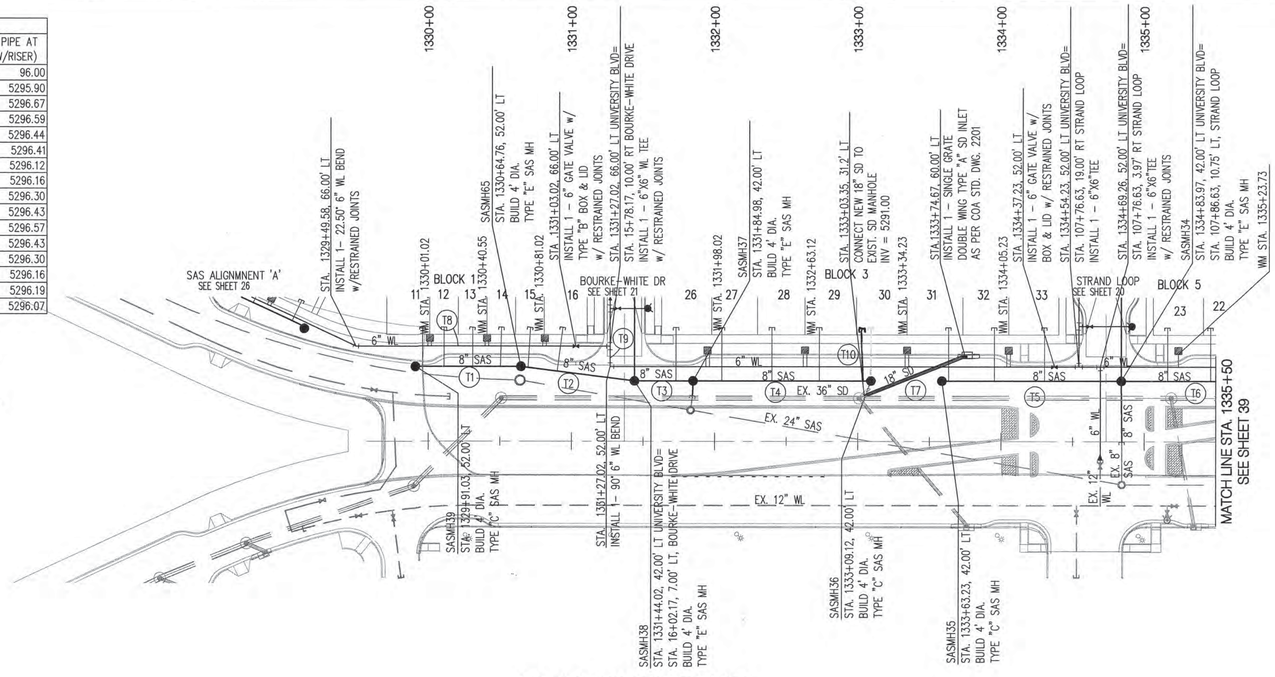
ENGINEER'S SEAL

No.	Remarks	By	Date
	REVISIONS		
	DESIGN		10/06
	Designed By	URS	10/06
	Drawn By		10/06
	Checked By		10/06

SANITARY SEWER SERVICES			
LOT ID	SAS STATION & OFFSET	SAS LENGTH	TOP OF PIPE AT PLUG (W/RISER)
1–11	1329+96.02 52.00'LT	22.12'	96.00
1–12	1330+08.73, 52.00'LT	22.12'	5295.90
1–13	1330+29.51, 52.00'LT	22.05'	5296.67
1–14	1330+50.28, 52.00'LT	22.01'	5296.59
1–15	1330+69.72, 51.37'LT	22.66'	5296.44
1–16	1330+89.95, 48.82'LT	25.40'	5296.41
3–26	1331+73.02, 42.00'LT	32.00'	5296.12
3–27	1332+05.02, 42.00'LT	32.00'	5296.16
3–28	1332+40.02, 42.00'LT	32.00'	5296.30
3–29	1332+73.12, 42.00'LT	32.00'	5296.43
3–30	1333+02.12, 42.00'LT	32.00'	5296.57
3–31	1333+63.26, 42.00'LT	32.00'	5296.43
3–32	1333+95.23, 42.00'LT	32.00'	5296.30
3–33	1334+30.23, 42.00'LT	32.00'	5296.16
5–22	1335+46.23, 42.00'LT	32.00'	5296.19
5–23	1335+16.23, 42.00'LT	32.00'	5296.07

NOTE: WATER METER LOCATIONS ARE DESIGNATED BY STATIONING AT PROPERTY CORNERS.

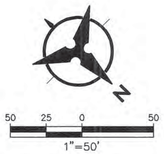
SANITARY SEWER SERVICES ALONG UNIVERSITY BLVD SHALL BE TERMINATED 5' BEHIND SIDEWALK. WATER SERVICES SHALL ALSO BE EXTENDED 5' BEHIND SIDEWALK (FOR DETAIL SEE SHEET 31)



SAS TANGENT TABLE		
ID	BEARING	LENGTH
T1	S43°57'36"E	68.74'
T2	S36°46'10"E	79.89'
T3	S43°57'36"E	40.96'
T4	N43°57'36"W	124.14'
T5	S43°57'36"E	120.75'
T6	N43°57'36"W	182.25'

SD TANGENT TABLE		
ID	BEARING	LENGTH
T7	N65°28'23"W	75.15'

WL Tangent Table		
ID	BEARING	LENGTH
T8	S43°57'36"E	177.44'
T9	N46°02'24"E	14.00'
T10	S43°57'36"E	1324.84'



GENERAL NOTES

1. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITY LOCATIONS AND NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
2. ALL CURVE DATA AND DIMENSIONS ARE CALCULATED FROM CENTERLINE OF PIPE OR MANHOLE. ALL SAS & SD SLOPES ARE CALCULATED TO TRUE PIPE DIMENSIONS FROM INVERT TO INVERT. (PAY ITEMS ARE SHOWN IN PARENTHESES)
3. GRADE ELEVATIONS, WHERE NOTED, ARE FOR FLOWLINE OF STANDARD CURB UNLESS OTHERWISE SPECIFIED.
4. CONTRACTOR IS TO INSTALL A 4" X 4" X 5' POST AND E.M.S. AT THE END OF EACH SANITARY SEWER SERVICE.
5. CONTRACTOR IS RESPONSIBLE FOR REPAIR AND/OR REPLACEMENT OF ALL DAMAGED EXISTING UTILITY CONDUITS AND EXISTING LINES.
6. CONTRACTOR SHALL PROVIDE THE INSPECTORS WITH THE PROPOSED HYDRO–STATIC PRESSURE TESTING PLAN. THE PLAN MUST BE APPROVED BEFORE TESTING OPERATIONS BEGIN.
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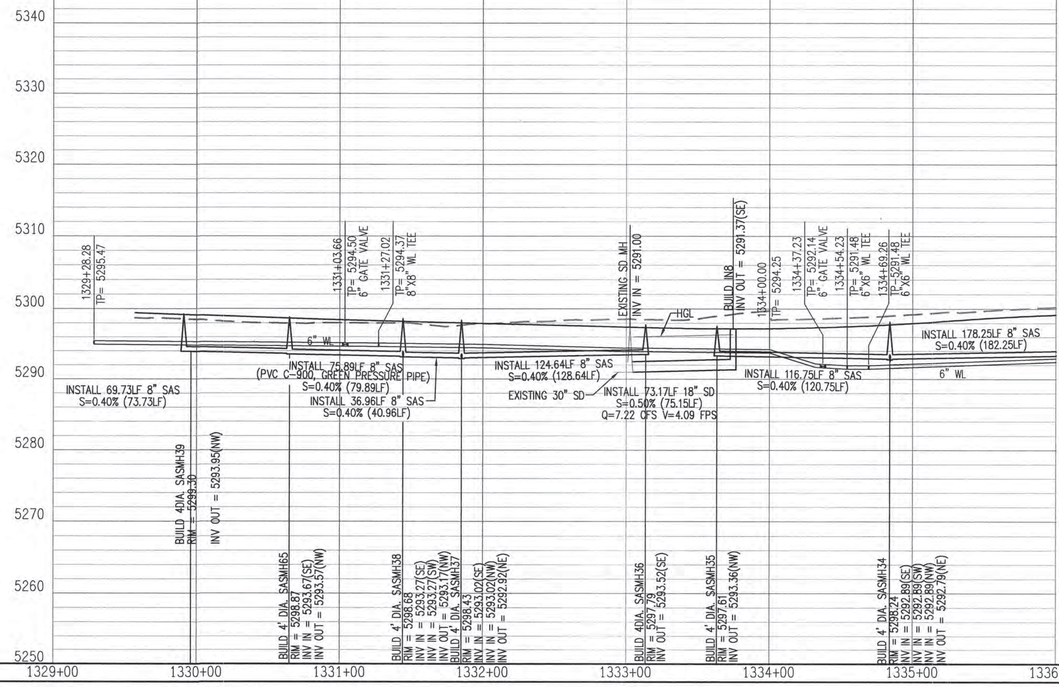
12. FLOWLINE ELEVATIONS FOR DROP INLETS ARE PROJECTED FROM FLOWLINE OF STANDARD CURB TO MIDDLE OF DOWNHILL GRATE.
13. ALL WATERLINE APPURTENANCES SHALL USE RESTRAINED JOINTS.
14. AT UTILITY CROSSING WHERE LESS THAN 1 FOOT OF COVER OVER STORM DRAIN PIPE IS PRESENT LEAN FILL IS TO BE USED FOR A DISTANCE OF 5 FEET ON EACH SIDE OF THE SD ℄ FROM TOP OF STORM DRAIN TO BOTTOM OF SANITARY SEWER OR WATER LINE.
15. CONTRACTOR SHALL ADJUST ALL EXISTING MANHOLE RIMS AND VALVE BOXES TO FINISHED GRADE WITHIN UNIVERSITY BLVD.



SCALE: 1" = 50' (HORIZ.)
1" = 10' (VERT.)

LEGEND

- DOUBLE WATER METER
- SINGLE WATER METER
- WATER LINE SHUTOFF VALVE
- WATER LINE TEE
- SAS LATERAL
- SAS MANHOLE
- STORM DRAIN MANHOLE
- STORM DRAIN INLET
- PROPOSED FIRE HYDRANT
- EXISTING WATER VALVE

Mesa del Sol

Bohannan ▲ Huston INC.
Courtyard I 7500 Jefferson St. NE Albuquerque, NM 87109-4335
ENGINEERING ▲ SPATIAL DATA ▲ ADVANCED TECHNOLOGIES

SURVEY INFORMATION
FIELD NOTES

NO.	BY	DATE

BENCH MARKS

ACS BRASS TABLET STAMPED "1_R16, 1984"
GEOGRAPHIC POSITION (NAD 83)
N.M. STATE PLANE COORDINATES (CENTRAL ZONE)
X = 1,532,715.669 Y = 1,453,438.899
GROUND–TO–GRID FACTOR = 0.9995664099
Δα = –00°12'22.46"
NAVD 1988 ELEVATION = 5291.451

AS–BUILT INFORMATION

CONTRACTOR — DATE
WORK STAKED BY — DATE
AS–BUILTS ACCEPTANCE BY — DATE
FIELD INFORMATION BY — DATE
DRAWINGS CORRECTED BY — DATE

MICRO–FILM INFORMATION
RECORDED BY — DATE
NO.

ENGINEER'S SEAL
CHRISTIAN J. SHOLTIS
NEW MEXICO
16244
PROFESSIONAL ENGINEER
4-7-11

No.	Date	By	REMARKS
			REVISIONS
			DESIGN

Designed By: CJS DATE: 10/2010
Drawn By: ARR/BJC DATE: 10/2010
Checked By: CJS DATE: 10/2010

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT

MESA DEL SOL NEIGHBORHOOD MONTAGE UNIT 1
UNIVERSITY BLVD. STA. 1330+50 TO STA. 1335+50
UTILITY PLAN AND PROFILE

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.
APPROVED JUN 07 2011 DESIGN REVIEW COMMITTEE	APPROVED JUN 14 2011 CITY ENGINEER			

City Project No. 775485 | Zone Map No. R–15,16 S–16 | Sheet 38 Of 43

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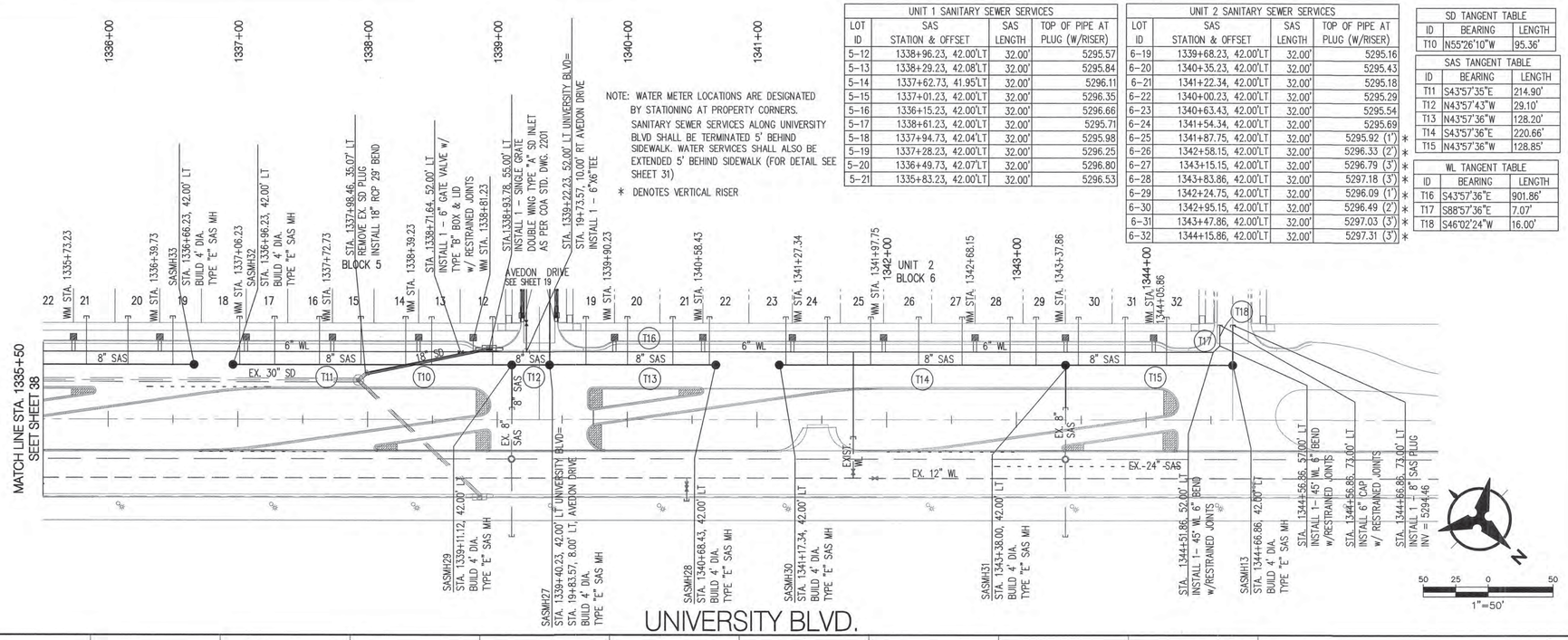

NOTE: WATER METER LOCATIONS ARE DESIGNATED BY STATIONING AT PROPERTY CORNERS. SANITARY SEWER SERVICES ALONG UNIVERSITY BLVD SHALL BE TERMINATED 5' BEHIND SIDEWALK. WATER SERVICES SHALL ALSO BE EXTENDED 5' BEHIND SIDEWALK (FOR DETAIL SEE SHEET 31)

* DENOTES VERTICAL RISER

UNIT 1 SANITARY SEWER SERVICES			
LOT ID	SAS STATION & OFFSET	SAS LENGTH	TOP OF PIPE AT PLUG (W/RISER)
5-12	1338+96.23, 42.00'LT	32.00'	5295.57
5-13	1338+29.23, 42.08'LT	32.00'	5295.84
5-14	1337+62.73, 41.95'LT	32.00'	5296.11
5-15	1337+01.23, 42.00'LT	32.00'	5296.35
5-16	1336+15.23, 42.00'LT	32.00'	5296.66
5-17	1338+61.23, 42.00'LT	32.00'	5295.71
5-18	1337+94.73, 42.04'LT	32.00'	5295.98
5-19	1337+28.23, 42.00'LT	32.00'	5296.25
5-20	1336+49.73, 42.07'LT	32.00'	5296.80
5-21	1335+83.23, 42.00'LT	32.00'	5296.53

UNIT 2 SANITARY SEWER SERVICES				
LOT ID	SAS STATION & OFFSET	SAS LENGTH	TOP OF PIPE AT PLUG (W/RISER)	
6-19	1339+68.23, 42.00'LT	32.00'	5295.16	
6-20	1340+35.23, 42.00'LT	32.00'	5295.43	
6-21	1341+22.34, 42.00'LT	32.00'	5295.18	
6-22	1340+00.23, 42.00'LT	32.00'	5295.29	
6-23	1340+63.43, 42.00'LT	32.00'	5295.54	
6-24	1341+54.34, 42.00'LT	32.00'	5295.69	
6-25	1341+87.75, 42.00'LT	32.00'	5295.92 (1')	*
6-26	1342+58.15, 42.00'LT	32.00'	5296.33 (2')	*
6-27	1343+15.15, 42.00'LT	32.00'	5296.79 (3')	*
6-28	1343+83.86, 42.00'LT	32.00'	5297.18 (3')	*
6-29	1342+24.75, 42.00'LT	32.00'	5296.09 (1')	*
6-30	1342+95.15, 42.00'LT	32.00'	5296.49 (2')	*
6-31	1343+47.86, 42.00'LT	32.00'	5297.03 (3')	*
6-32	1344+15.86, 42.00'LT	32.00'	5297.31 (3')	*

SD TANGENT TABLE		
ID	BEARING	LENGTH
T10	N55°26'10"W	95.36'

SAS TANGENT TABLE		
ID	BEARING	LENGTH
T11	S43°57'35"E	214.90'
T12	N43°57'43"W	29.10'
T13	N43°57'36"W	128.20'
T14	S43°57'36"E	220.66'
T15	N43°57'36"W	128.85'

WL TANGENT TABLE		
ID	BEARING	LENGTH
T16	S43°57'36"E	901.86'
T17	S88°57'36"E	7.07'
T18	S46°02'24"W	16.00'

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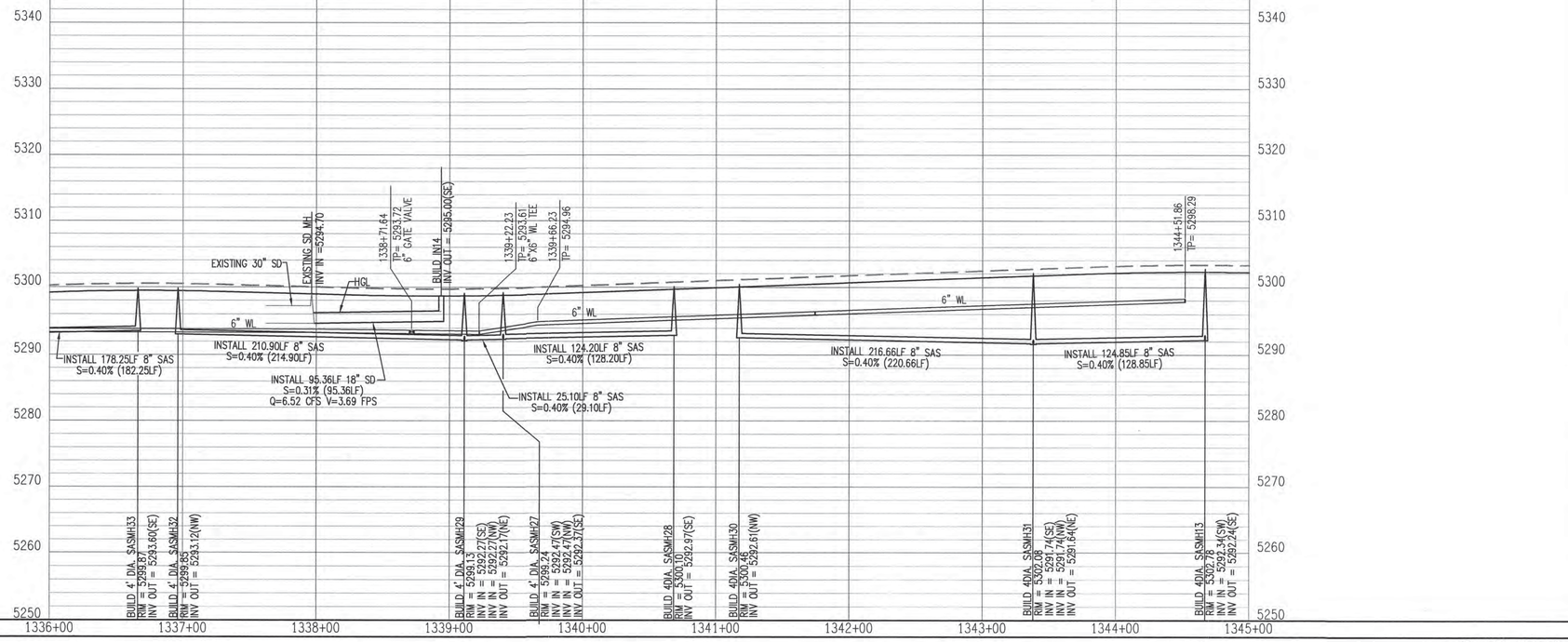

SCALE: 1" = 50' (HORIZ.)
1" = 10' (VERT.)

LEGEND

- DOUBLE WATER METER
- SINGLE WATER METER
- WATER LINE SHUTOFF VALVE
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- SAS LATERAL
- SAS MANHOLE
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Mesa del Sol

Bohannan ▲ Huston INC.
Courtyard I 7500 Jefferson St. NE Albuquerque, NM 87109-4335
ENGINEERING ▲ SPATIAL DATA ▲ ADVANCED TECHNOLOGIES

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT

MESA DEL SOL NEIGHBORHOOD MONTAGE UNIT 1
UNIVERSITY BLVD
UTLITY PLAN AND PROFILE

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.
APPROVED JUN 07 2011 DESIGN REVIEW COMMITTEE	APPROVED JUN 14 2011 CITY ENGINEER			

City Project No.	Zone Map No.	Sheet	Of
775485	R-15,16 S-16	39	43

AS-BUILT INFORMATION

CONTRACTOR — DATE
WORK STAKED BY — DATE
ACCEPTANCE BY — DATE
FIELD VERIFICATION BY — DATE
DRAWINGS CORRECTED BY — DATE

MICRO-FILM INFORMATION
RECORDED BY — DATE
NO.

BENCH MARKS
ACS BRASS TABLET STAMPED "1_R16, 1984"
GEOGRAPHIC POSITION (NAD 83)
N.M. STATE PLANE COORDINATES (CENTRAL ZONE)
X = 1,532,715.669 Y = 1,453,436.899
GROUND-TO-GRID FACTOR = 0.999664099
Δα = -00°12'22.46"
NAVD 1988 ELEVATION = 5291.451

SURVEY INFORMATION
FIELD NOTES

NO.	BY	DATE

ENGINEER'S SEAL
CHRISTIAN J. SHOLTIS
NEW MEXICO
16244
PROFESSIONAL ENGINEER
4-7-11

No.	Date	By	REMARKS
			REVISIONS
			DESIGN

Designed By: CJS — DATE: 10/2010
Drawn By: ARR/BJG — DATE: 10/2010
Checked By: CJS — DATE: 10/2010

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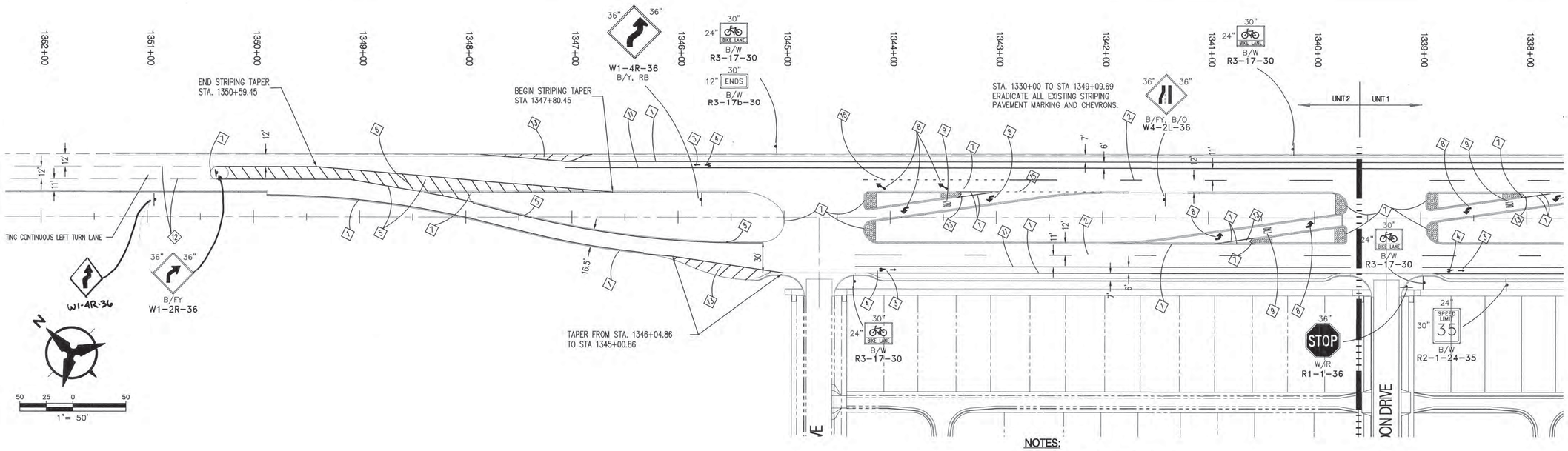
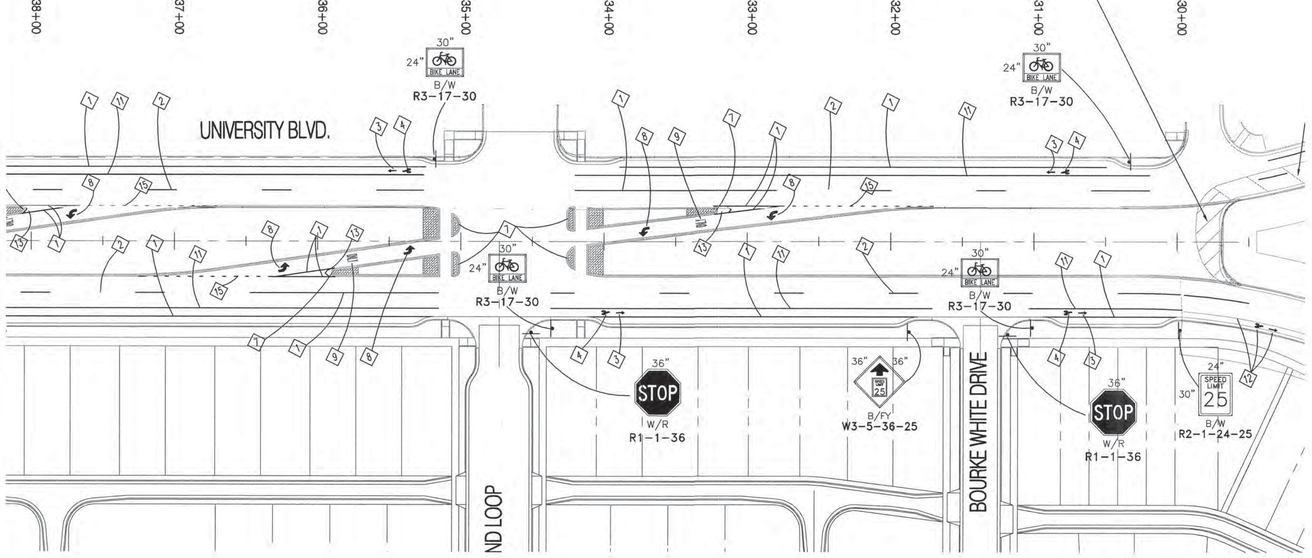
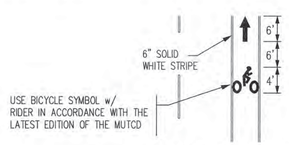
May 03, 2011 - 1:46pm







BICYCLE PAVEMENT MARKINGS
NOT TO SCALE

NOTES:

PROPOSED SIGN (PER CURRENT MUTCD)

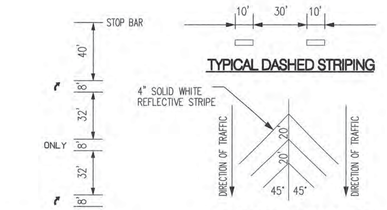
STRAND LOOP / STIEGLITZ DRIVE — ALL PUBLIC STREET NAME SIGNS ARE INSTALLED BY THE CITY OF ALBUQUERQUE.

STRIPING LEGEND

1. REFLECTORIZED PLASTIC PAVEMENT MARKING – 4" SOLID WHITE STRIPE
2. REFLECTORIZED PLASTIC PAVEMENT MARKING – 4" DASHED WHITE STRIPE (10' STRIPE w/ 30' GAP)
3. PREFORMED PAVEMENT MARKING – BICYCLE ARROW (WHITE)
4. PREFORMED PAVEMENT MARKING – BICYCLE RIDER SYMBOL (WHITE)
5. REFLECTORIZED PLASTIC PAVEMENT MARKING – 4" SOLID DOUBLE YELLOW STRIPE.
6. INSTALL NEW 4" SOLID YELLOW REFLECTORIZED PLASTIC PAVEMENT MARKING CHEVRON (20' APART)
7. PAINT MEDIAN NOSES YELLOW.
8. INSTALL NEW RETROREFLECTIVE PREFORMED PATTERNED OR THERMOPLASTIC PAVEMENT MARKING, LEFT ARROW, RIGHT ARROW OR THRU ARROW. SEE DETAIL THIS SHEET
9. INSTALL NEW RETROREFLECTIVE PREFORMED PATTERNED PAVEMENT MARKING, WORD ONLY. SEE DETAIL THIS SHEET
10. REMOVE EXISTING STRIPING OR PAVEMENT MARKINGS. SEE STRIPING ERADICATION NOTE THIS SHEET.
11. REFLECTORIZED PLASTIC PAVEMENT MARKING – 6" SOLID WHITE STRIPE
12. EXISTING STRIPING TO REMAIN
13. INSTALL NEW 4" SOLID WHITE REFLECTORIZED PLASTIC PAVEMENT MARKING CHEVRON (20' APART)
14. PAINT ASPHALT CURB WHITE
15. REFLECTORIZED PLASTIC PAVEMENT MARKING – 4" DASHED WHITE STRIPE (3' STRIPE w/ 7' GAP)

NOTES

1. ALL SIGNING & STRIPING SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF THE MUTCD.
2. MEDIAN NOSES SHALL BE PAINTED YELLOW FROM THE PC TO A PT 6' BACK FROM NOSE.
3. CONTRACTOR SHALL REMOVE ALL CONFLICTING EXISTING PAVEMENT MARKINGS. STRIPING ERADICATION SHALL BE ACCOMPLISHED BY WATER BLASTING OR SURFACE PLANING OF THE ROADWAY, TO A MAX. DEPTH OF 1/4" AND A WIDTH EQUAL TO TWICE THE WIDTH OF THE STRIPE OR MARKING TO BE REMOVED.
4. MARKED CROSSWALKS SHALL NOT BE LESS THAN 12' WIDE.
5. IF USED, STOP BAR STRIPES SHALL BE PLACED 4' IN ADVANCE OF AND PARALLEL TO THE NEAREST CROSSWALK LINE.
6. PAVEMENT WORD AND SYMBOL MARKINGS SHOULD BE PROPORTIONALLY SCALED TO FIT WITHIN THE WIDTH OF THE FACILITY UPON WHICH THEY ARE APPLIED.



TYPICAL DASHED STRIPING

TYPICAL RIGHT TURN ONLY

TYPICAL UNI-DIRECTIONAL CHEVRON / CROSS HATCHING

TYPICAL STRIPING DETAILS
NOT TO SCALE

AS-BUILT INFORMATION
CONTRACTOR — DATE
WORK STAKED BY — DATE
FIELD INSPECTION & ACCEPTANCE BY — DATE
FIELD VERIFICATION BY — DATE
DRAWINGS CORRECTED BY — DATE

BENCH MARKS
AGS BRASS TABLET STAMPED "1_R16, 1984"
GEOGRAPHIC POSITION (NAD 83)
N.M. STATE PLANE COORDINATES (CENTRAL ZONE)
X = 1,532,715.669 Y = 1,453,438.899
GROUND-TO-GRID FACTOR = 0.999664099
Δα = -00°12'22.46"
NAVD 1988 ELEVATION = 5291.451

MICROFILM INFORMATION
RECORDED BY — DATE
NO.

SURVEY INFORMATION FIELD NOTES

NO.	BY	DATE

SEAL

ENGINEER'S SEAL
CHRISTIAN J. SHOTTS
NEW MEXICO
16244
PROFESSIONAL ENGINEER
4-7-11

No.	Date	By
REMARKS		
REVISIONS		
DESIGN	DATE:10/2010	Designed By:CJS
	DATE:10/2010	Drawn By: ARR
	DATE:10/2010	Checked By: CJS

Mesa del Sol

Bohannan ▲ Huston Inc.
Courtyard I 7500 Jefferson St. NE Albuquerque, NM 87109-4335
ENGINEERING ▲ SPATIAL DATA ▲ ADVANCED TECHNOLOGIES

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT

MESA DEL SOL NEIGHBORHOOD MONTAGE UNIT 1
STRIPING AND SIGNAGE PLAN
UNIVERSITY BLVD

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.
APPROVED JUN 07 2011 DESIGN REVIEW COMMITTEE	APPROVED JUN 14 2011 CITY ENGINEER			

City Project No.	Zone Map No.	Sheet	Of
775485	R-15,16 S-16	40	43

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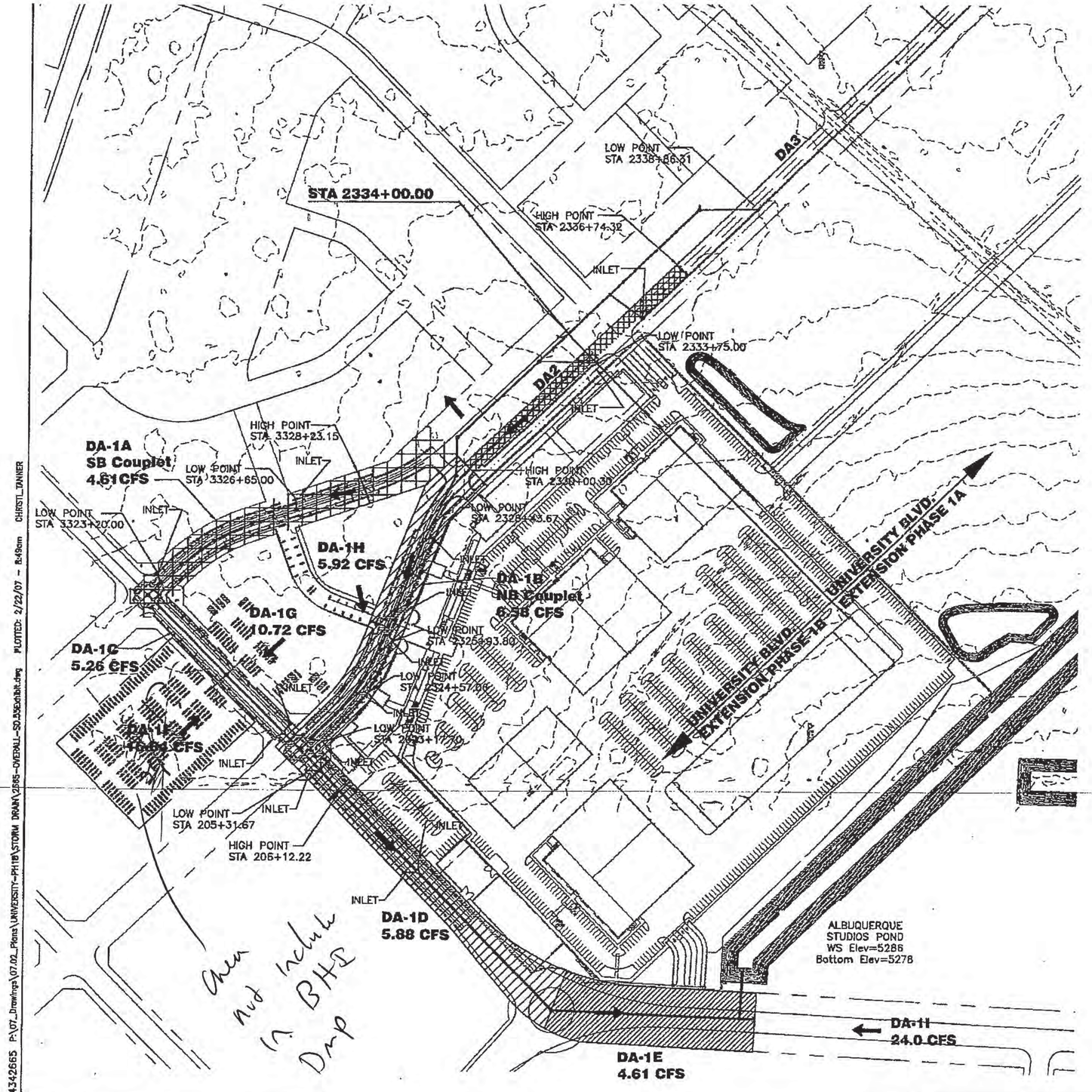


DA	STATIONS	STATION	AREA (ACRES)	Q10 (CFS)	Q100 (CFS)	AREA (ACRES)	Q10 (CFS)	Q100 (CFS)
1A	3322+74.00 TO 3328+23.15	3323+20.00	---	---	---	0.98	3.08	4.61
		3326+65.00						
		3333+74.91						
1B	2322+50.00 TO 2330+00.30	2323+17.70	---	---	---	1.40	4.40	6.58
		2324+57.06						
		2325+93.80						
		2328+43.67						
1C	200+00.00 TO 206+12.22	205+31.67	---	---	---	1.12	3.52	5.26
1D	206+12.22 TO 212+93.00	--------	---	---	---	1.25	3.93	5.88
1E	212+93.00 to 218+00	--------	---	---	---	0.98	3.08	4.61
1F	Parking Lot South of Simms Drive	--------	---	---	---	3.20	10.05	15.04
1G	Buildings A&B of Community Center	--------	---	---	---	2.28	7.16	10.72
1H	Community Center Park And Plaza Road	--------	---	---	---	1.26	3.96	5.92
1I	North of Hawking Drive Future Phase	--------	---	---	---	5.10	16.03	24.00
2	2330+00.30 TO 2336+74.32	2333+75.00	1.22	3.82	5.72	2.43	7.65	11.44
3	2336+74.32 TO 2344+63.96	2338+86.31	1.31	4.10	6.13	2.61	8.20	12.27

NOT TO SCALE

AS BUILT INFO
CONTRACTOR
WORK STAKED BY
WORK INSPECTED BY
FIELD VERIFICATION BY
AS-BUILTED BY
CORRECTED BY
MICRO-FILM INFO
RECORDED BY

BENCH MARKS
ACS 3-1/4" ALUMINUM CAP RIVETED TO A TUBE SET IN A CONCRETE BASE IN THE GROUND STAMPED "5-0-14, 1987" FROM THE RIO BRAVO BLVD AND BROADWAY INTERSECTION GO SOUTH 0.9 MILES AND PROCEED 123' WEST OF THE CENTERLINE.
STATE PLANE COORDINATES (CENTRAL ZONE, NAD83/NAVD88) N=1460471.432, E=1521388.180 (GROUND) ELEVATION=4981.17

SURVEY INFORMATION
FIELD NOTES

No.	By	Date

ENGINEER'S SEAL

No.	Remarks	By	Date
	REVISIONS		
	DESIGN	CR	10/06
	Designed By	CR	10/06
	Drawn By	URS	10/06
	Checked By	BPB	10/06

URS
ONE PARK SQUARE
6501 AMERICAS PARKWAY, NE
SUITE 900
ALBUQUERQUE, NM 87110
(505) 855-7500

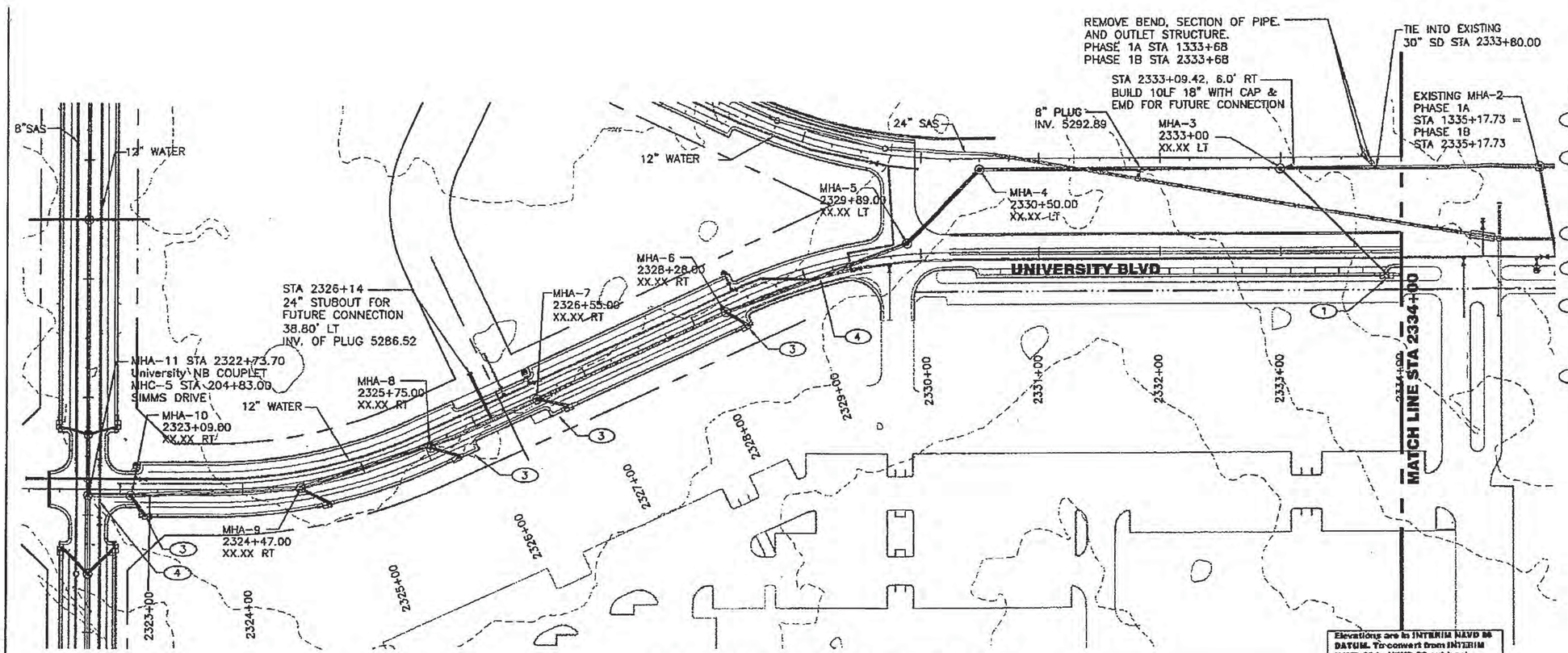
CITY OF ALBUQUERQUE
DEPARTMENT OF MUNICIPAL DEVELOPMENT

TITLE: UNIVERSITY BLVD. EXTENSION PHASE 1B
OVERALL DRAINAGE AREA MAP

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No.	Zone Map No	Sheet	Of	
775482	R-16, S-16			Figure 6

24342665 P:\07_Drawings\07.02_Plans\UNIVERSITY-PH1B\STORM DRAIN\2665-OVERALL-50.55EnhNt.dwg PLOTTED: 2/22/07 - 8:49am CHRISTL_DANNER

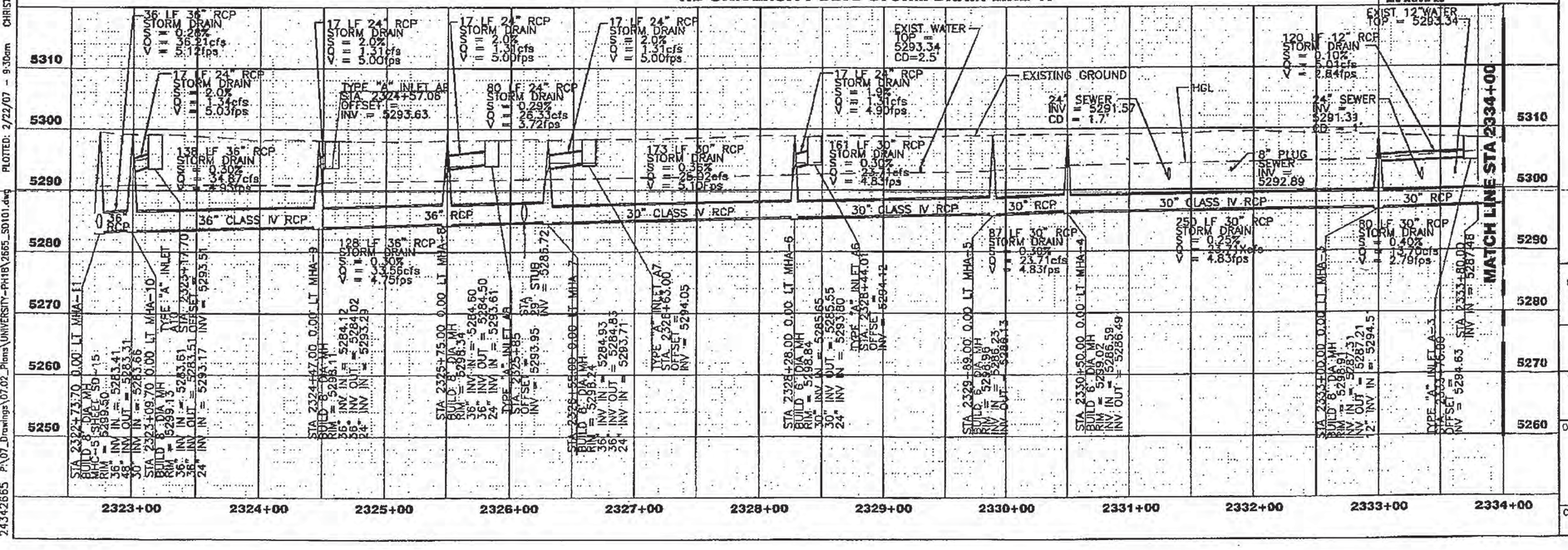


2. ALL STORM DRAIN PIPE WILL BE CLASS IV RCP PIPE

KEYED NOTES

1. TYPE "A" DOUBLE WING INLET SEE SHEET SD-_
2. TYPE "C" MANHOLE PER COA STD DWG 2101 FOR DEPTHS < 6'. TYPE "E" MANHOLE PER COA STD DWG 2102 FOR DEPTHS > 6'
3. TYPE "A" INLET PER COA STD DWG 2201
4. PROTECT AND SUPPORT EXISTING 24" WATERLINE
5. DRAINAGE EASEMENT REF NO. 2006173798 RECORDED 17 NOV 2006 BOOK: A127 PAGE: 3321
6. EXISTING EASEMENT REF NO:2006092610 RECORDED 06 JUN 2006 BOOK: 2006C PAGE: 197

NB UNIVERSITY BLVD STORM DRAIN LINE "A"



Elevations are in INTERIM NAVD 88 DATUM. To convert from INTERIM NAVD 88 to NGVD 29 subtract 2.83 feet. All Elevations in [ ] are NGVD 29

GRAPHIC SCALE IN FEET
50 0 50 100
HORIZONTAL GRAPHIC SCALE IN FEET
10 0 10 20
VERTICAL

AS BUILT INFORMATION
BENCH MARKS
ACS 3-1/4" ALUMINUM CAP RIVETED TO A TUBE SET IN A CONCRETE BASE IN THE GROUND STAMPED "5-0-14, 1987". FROM THE RIO BRAVO BLVD AND BROADWAY INTERSECTION GO SOUTH 0.9 MILES AND PROCEED 123' WEST OF THE CENTERLINE.
STATE PLANE COORDINATES (CENTRAL ZONE, NAD83/NAVD88) N=1460471.432, E=1521398.180 (GROUND) ELEVATION=4981.17
CONTRACTOR
WORK STAKED BY
AS-BUILTS BY
FIELD VERIFICATION BY
DRAWINGS CORRECTED BY
RECORDED BY

SURVEY INFORMATION
FIELD NOTES
No. By Date

ENGINEER'S SEAL

No.	Remarks	By	Date
	REVISIONS		
	DESIGN		10/06
Designed By		URS	10/06
Drawn By			10/06
Checked By			

URS
ONE PARK SQUARE
6501 AMERICAS PARKWAY, NE
SUITE 900
ALBUQUERQUE, NM 87110
(505) 855-7500

CITY OF ALBUQUERQUE
DEPARTMENT OF MUNICIPAL DEVELOPMENT

TITLE: **UNIVERSITY BLVD. EXTENSION - PHASE 1B STORM DRAIN PLAN AND PROFILE STA 2322+73.70 TO STA 2334+00**

Design Review Committee | City Engineer Approval | Last Design Update: mo./day/yr.

City Project No.	Zone Map No.	Sheet	Of	
775482	R-16, S-16	0		SD-13

PLOTTED: 2/22/07 - 9:30am CHRISTL_TANNER
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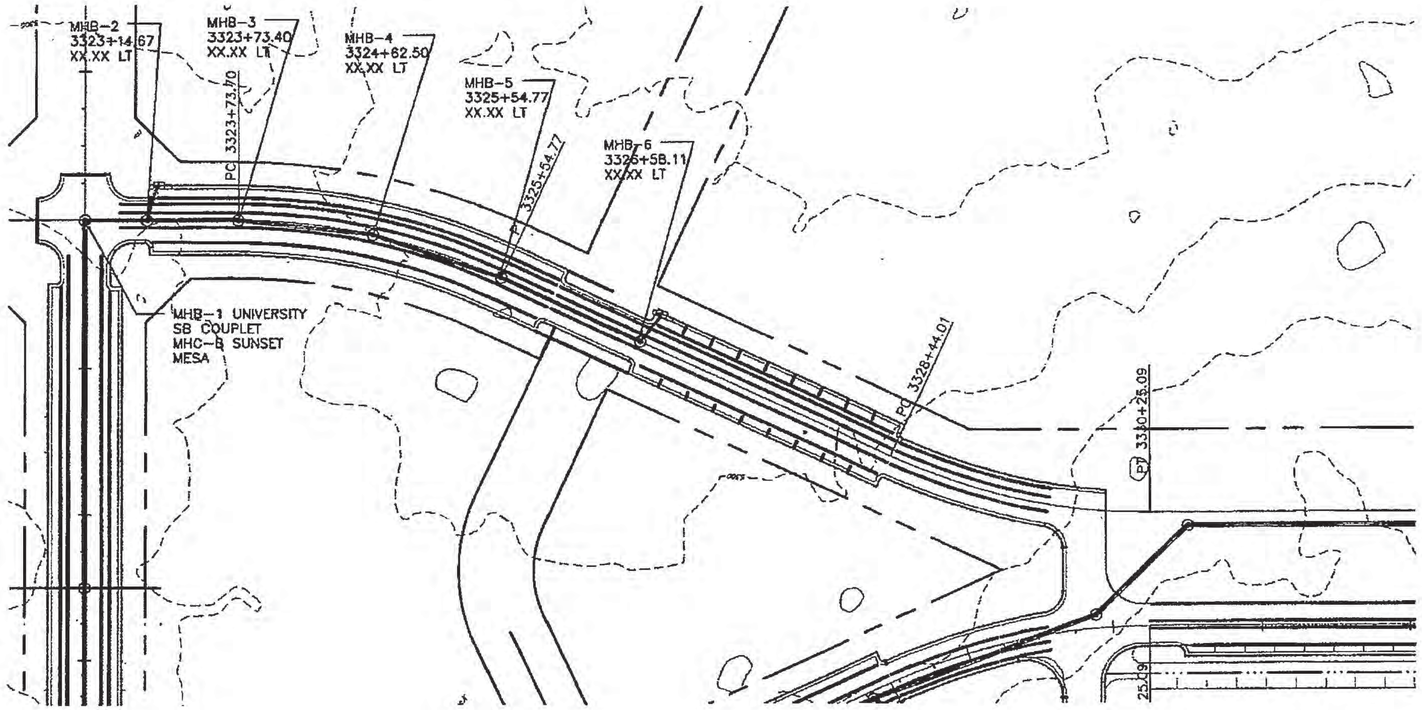


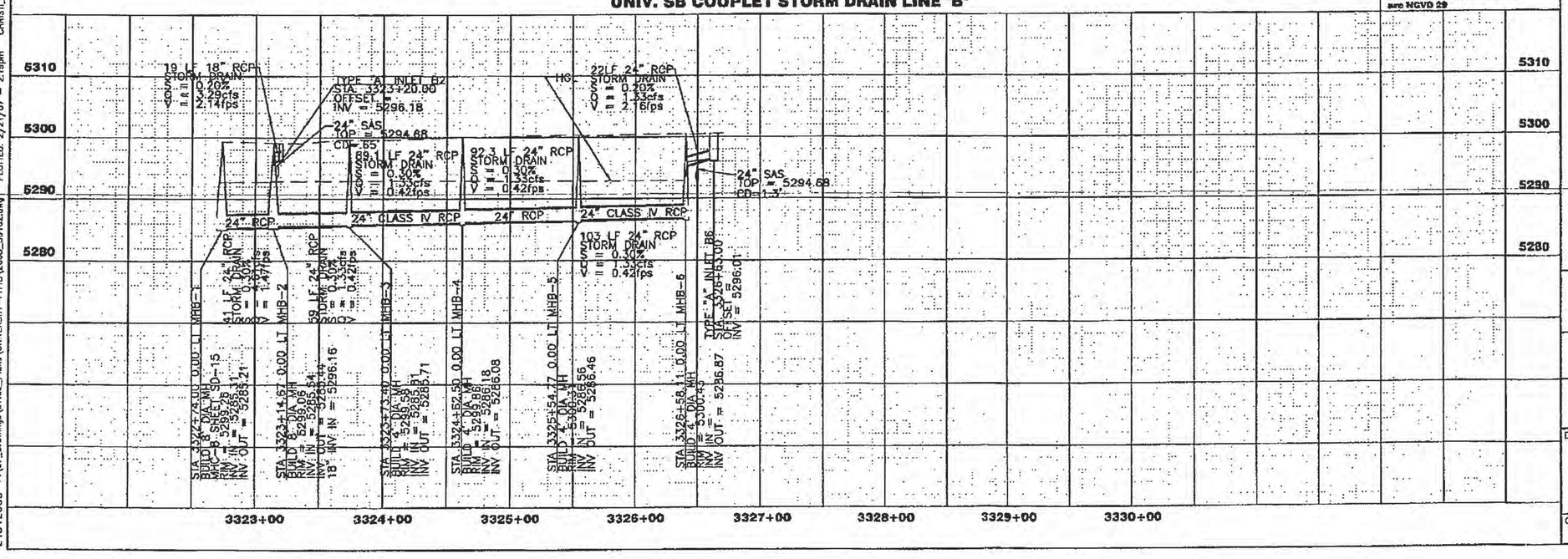
2. ALL STORM DRAIN PIPE WILL BE CLASS IV RCP PIPE

KEYED NOTES

1. TYPE "A" DOUBLE WING INLET SEE SHEET SD-__
2. TYPE "C" MANHOLE PER COA STD DWG 2101 FOR DEPTHS < 6'. TYPE "E" MANHOLE PER COA STD DWG 2102 FOR DEPTHS > 6'
3. TYPE "A" INLET PER COA STD DWG 2201
4. PROTECT AND SUPPORT EXISTING 24" WATERLINE
5. OUTFALL WITH EROSION CONTROL SEE SHEET ___-___
6. WEST POND OUTLET SEE SHEET SD-__
7. POND OUTLET STRUCTURE, SEE _____
8. DRAINAGE EASEMENT
   REF NO. 2006173798
   RECORDED 17 NOV 2006
   BOOK: A127
   PAGE: 3321
9. EXISTING EASEMENT
   REF NO:2006092610
   RECORDED 06 JUN 2006
   BOOK: 2006C
   PAGE: 197

UNIV. SB COUPLET STORM DRAIN LINE "B"

Elevations are in INTERIM NAVD 88 DATUM. To convert from INTERIM NAVD 88 to NGVD 29 subtract 2.63 feet. All Elevations in [] are NGVD 29



GRAPHIC SCALE IN FEET
50 0 50 100
HORIZONTAL
GRAPHIC SCALE IN FEET
10 0 10 20
VERTICAL

URS
ONE PARK SQUARE
6501 AMERICAS PARKWAY, NE
SUITE 900
ALBUQUERQUE, NM 87110
(505) 855-7500

CITY OF ALBUQUERQUE
DEPARTMENT OF
MUNICIPAL DEVELOPMENT

TITLE: **UNIVERSITY BLVD. EXTENSION - PHASE 1B**
STORM DRAIN PLAN AND PROFILE
STA 0000+00 TO STA 0000+00

Design Review Committee	City Engineer Approval	Last Design Update	mo/day/yr.	mo/day/yr.

City Project No.	Zone Map No.	Sheet	Of	
775482	R-16, S-16	0		SD-14

AS BUILT INFOR
CONTRACTOR
WORK STARTED BY
INSPECTIONS AND APPROVALS BY
FIELD LOCATION BY
DRAWINGS POSTED BY
MICRO-FILM INFO
RECORDED BY

BENCH MARKS
ACS 3-1/4" ALUMINUM CAP RIVETED TO A TUBE SET IN A CONCRETE BASE IN THE GROUND STAMPED "5-0-14, 1987", FROM THE RIO BRAVO BLVD AND BROADWAY INTERSECTION GO SOUTH 0.9 MILES AND PROCEED 123' WEST OF THE CENTERLINE.
STATE PLANE COORDINATES (CENTRAL ZONE, NAD83/NAVD88) N=1460471.432, E=1521388.780 (GROUND) ELEVATION=4981.17

SURVEY INFORMATION
FIELD NOTES

No.	By	Date

ENGINEER'S SEAL

No.	Remarks	By	Date
	REVISIONS		
	DESIGN		10/06
	Designed By		10/06
	Drawn By	URS	10/06
	Checked By		10/05

PLOTTED: 2/21/07 - 2:19pm CHRISTI_TANNER

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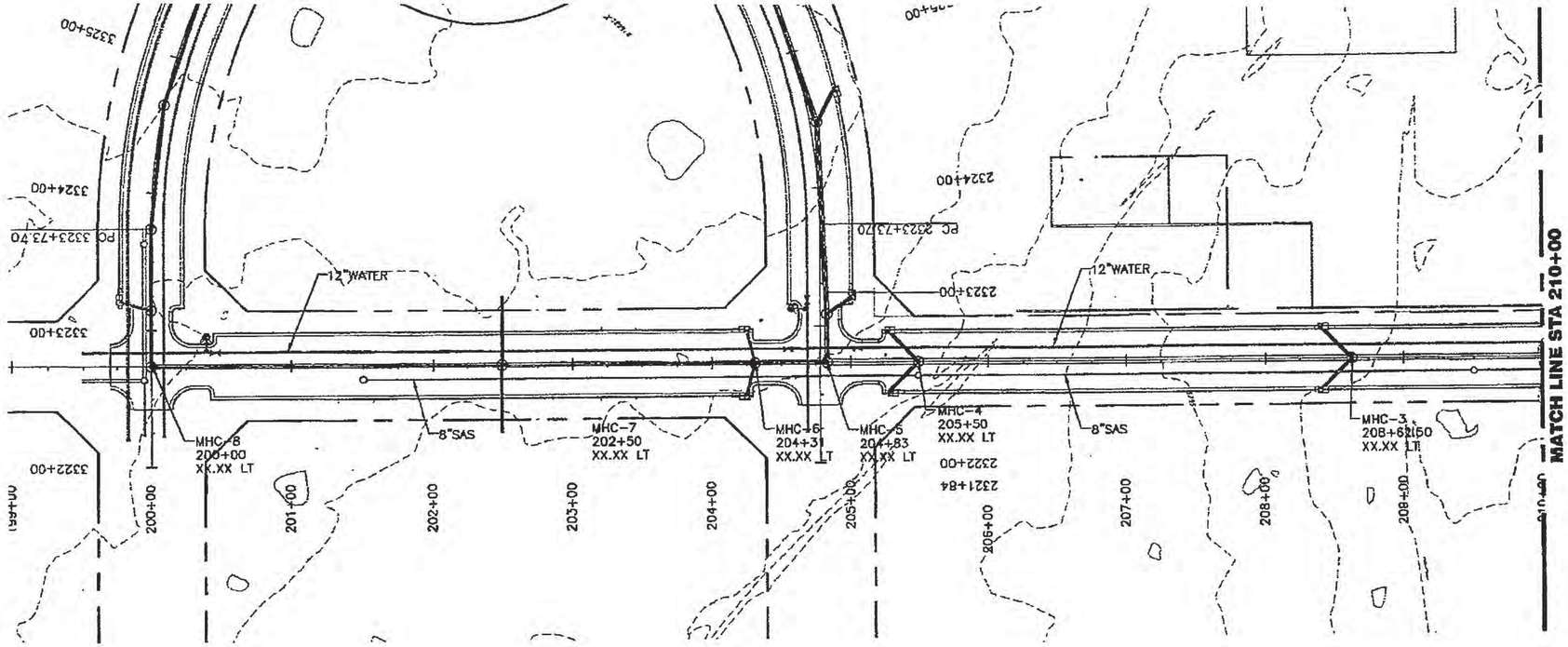


2. ALL STORM DRAIN PIPE WILL BE CLASS IV RCP PIPE

KEYED NOTES

1. TYPE "A" DOUBLE WING INLET SEE SHEET SD-_
2. TYPE "C" MANHOLE PER COA STD DWG 2101 FOR DEPTHS < 8'. TYPE "E" MANHOLE PER COA STD DWG 2102 FOR DEPTHS > 8'
3. TYPE "A" INLET PER COA STD DWG 2201
4. PROTECT AND SUPPORT EXISTING 24" WATERLINE
5. OUTFALL WITH EROSION CONTROL SEE SHEET __-__
6. WEST POND OUTLET SEE SHEET SD-_
7. POND OUTLET STRUCTURE, SEE _____
8. DRAINAGE EASEMENT REF NO. 2006173798 RECORDED 17 NOV 2006 BOOK: A127 PAGE: 3321
9. EXISTING EASEMENT REF NO:2006092610 RECORDED 06 JUN 2006 BOOK: 2006C PAGE: 197

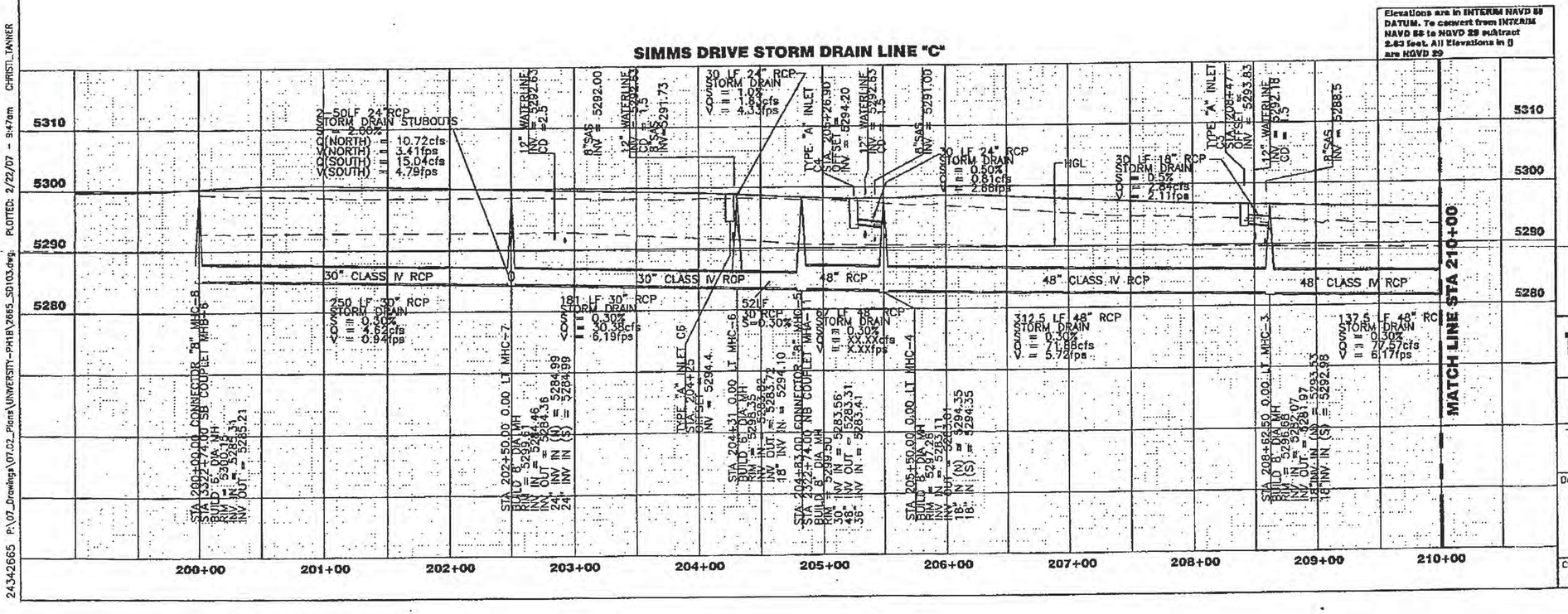
AS BUILT INFO
CONTRACTOR
WORK STAKED BY
INSPECTED BY
RELEASED BY
FIELD VERIFICATION BY
AS BUILT CHANGES CORRECTED BY
MICRO-FILM IN
RECORDED BY

BENCH MARKS
ACS 3-1/4" ALUMINUM CAP RIVETED TO A TUBE SET IN A CONCRETE BASE IN THE GROUND STAMPED "5-0-14, 1987". FROM THE RIO BRAVO BLVD AND BROADWAY INTERSECTION GO SOUTH 0.9 MILES AND PROCEED 123' WEST OF THE CENTERLINE.
STATE PLANE COORDINATES (CENTRAL ZONE, NAD83/NAVD88) N=1460471.432, E=1521388.180 (GROUND) ELEVATION=4981.17

SURVEY INFORMATION
FIELD NOTES

No.	By	Date

ENGINEER'S SEAL



No.	Remarks	By	Date
	REVISIONS		
	DESIGN		10/06
	Designed By	URS	Date 10/06
	Drawn By		Date 10/06
	Checked By		Date

URS
ONE PARK SQUARE
6501 AMERICAS PARKWAY, NE
SUITE 900
ALBUQUERQUE, NM 87110
(505) 855-7500

CITY OF ALBUQUERQUE
DEPARTMENT OF MUNICIPAL DEVELOPMENT

TITLE: UNIVERSITY BLVD. EXTENSION - PHASE 1B
STORM DRAIN PLAN AND PROFILE
STA 200+00 TO STA 210+00

Design Review Committee	City Engineer Approval	Last Design Update	

City Project No.	Zone Map No.	Sheet	Of	
775482	R-16, S-16	0		SD-15

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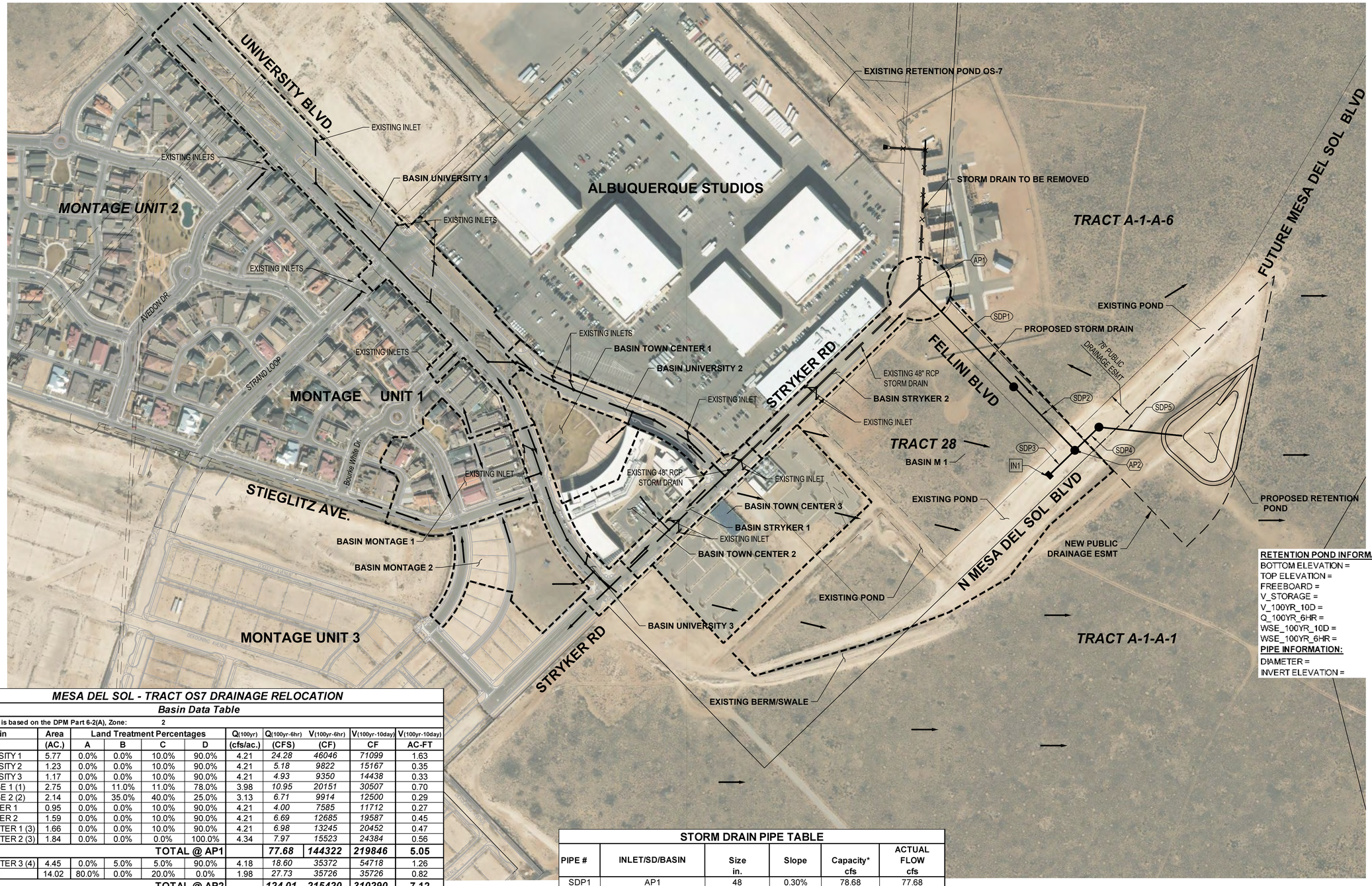
EXHIBIT C -
BASIN MAP EXHIBIT



RETENTION POND INFORMATION:

BOTTOM ELEVATION =	5274.00
TOP ELEVATION =	5291.00
FREEBOARD =	2.00 FT
V_STORAGE =	8.00 AC-FT
V_100YR_10D =	7.12 AC-FT
Q_100YR_6HR =	124.01 CFS
WSE_100YR_10D =	5288.20
WSE_100YR_6HR =	5285.50

PIPE INFORMATION:

DIAMETER =	60"
INVERT ELEVATION =	5275.50

MESA DEL SOL - TRACT OS7 DRAINAGE RELOCATION

Basin Data Table

This table is based on the DPM Part 6-2(A), Zone: 2

Basin	Area	Land Treatment Percentages				$Q_{(100yr)}$	$Q_{(100yr-6hr)}$	$V_{(100yr-6hr)}$	$V_{(100yr-10day)}$	$V_{(100yr-10day)}$
ID	(AC.)	A	B	C	D	(cfs/ac.)	(CFS)	(CF)	CF	AC-FT
UNIVERSITY 1	5.77	0.0%	0.0%	10.0%	90.0%	4.21	*24.28*	*46046*	*71099*	1.63
UNIVERSITY 2	1.23	0.0%	0.0%	10.0%	90.0%	4.21	*5.18*	*9822*	*15167*	0.35
UNIVERSITY 3	1.17	0.0%	0.0%	10.0%	90.0%	4.21	*4.93*	*9350*	*14438*	0.33
MONTAGE 1 (1)	2.75	0.0%	11.0%	11.0%	78.0%	3.98	*10.95*	*20151*	*30507*	0.70
MONTAGE 2 (2)	2.14	0.0%	35.0%	40.0%	25.0%	3.13	*6.71*	*9914*	*12500*	0.29
STRYKER 1	0.95	0.0%	0.0%	10.0%	90.0%	4.21	*4.00*	*7585*	*11712*	0.27
STRYKER 2	1.59	0.0%	0.0%	10.0%	90.0%	4.21	*6.69*	*12685*	*19587*	0.45
TOWN CENTER 1 (3)	1.66	0.0%	0.0%	10.0%	90.0%	4.21	*6.98*	*13245*	*20452*	0.47
TOWN CENTER 2 (3)	1.84	0.0%	0.0%	0.0%	100.0%	4.34	*7.97*	*15523*	*24384*	0.56
TOTAL @ AP1							***77.68***	***144322***	***219846***	**5.05**
TOWN CENTER 3 (4)	4.45	0.0%	5.0%	5.0%	90.0%	4.18	*18.60*	*35372*	*54718*	1.26
M1	14.02	80.0%	0.0%	20.0%	0.0%	1.98	*27.73*	*35726*	*35726*	0.82
TOTAL @ AP2							***124.01***	***215420***	***310290***	**7.12**

(1) Land treatment percentages from COA Hydro File # R16-D003A
(2) Land treatment percentages from COA Hydro File # R16-D003A 2018 Update
(3) Land treatment percentages per COA Hydro File #R16-DA3005
(4) Land treatment percentages per COA Hydro File #R16-DA004

STORM DRAIN PIPE TABLE

PIPE #	INLET/SD/BASIN	Size in.	Slope	Capacity* cfs	ACTUAL FLOW cfs
SDP1	AP1	48	0.30%	78.68	77.68
SDP2	AP1	54	0.30%	107.71	77.68
SDP3	IN1	30	1.50%	50.24	46.33
SDP4	AP2	60	0.30%	142.65	124.01
SDP4	AP2	60	0.35%	154.08	124.01

Capacity Based on Manning's Eq w/ N=0.013

INLET TABLE

Inlet #	Inlet Type	Basin	Actual Flow (cfs)	Avail Head (ft)	Capacity* (cfs)
IN1	1 - COA DBL TYPE D	TC3, M1	46.33	5.00	84.00

* IN SUMP CONDITION, BASED ON THE LESSER OF ORIFICE AND WEIR EQUATIONS

N

150 75 0 150

1" = 150'

MESA DEL SOL OS-7 DRAINAGE RELOCATION

BASIN MAP EXHIBIT

DRAWN BY: AO	DATE: 04/20/2021		
CHECKED BY: MJB	BHI PROJECT NO. 20210391	SHEET NO. 1 OF 1	

Bohannan Huston
www.bhinc.com 800.877.5332

Tue, 20-Apr-2021 - 9:21 am, Plotted by: AORTIZ
P:\20210391\COP\Revit\General\20210391_DMP.dwg

EXHIBIT D -
GRADING PLAN

POND TANGENT TABLE		
ID	BEARING	LENGTH
T1	N52°58'51"W	12.00'
T2	S46°02'24"W	132.43'
T3	S48°28'39"E	93.38'
T4	N11°07'27"E	78.01'
T5	N29°56'45"E	73.98'
T6	N13°59'41"E	38.95'
T7	S43°14'55"W	54.35'
T8	S11°07'27"W	307.69'
T9	N48°28'39"W	110.56'
T10	N54°30'21"E	289.68'

BOTTOM OF POND POINT TABLE			
☐	EASTING	NORTHING	ELEVATION
1	1533905.24	1451241.59	5274.00
2	1533882.23	1451233.81	5274.00
3	1533812.31	1451295.72	5274.00
4	1533811.87	1451316.28	5274.00
5	1533907.20	1451408.21	5280.00
6	1533916.78	1451400.98	5280.00
7	1533954.03	1451440.57	5283.50
8	1533971.01	1451431.30	5283.00
9	1533961.59	1451393.51	5282.00
10	1533922.59	1451324.26	5275.00
11	1533920.29	1451318.13	5275.00

POND CURVE TABLE				
ID	ARC	RADIUS	DELTA	TANGENT
C1	22.98'	14.24'	92°28'38"	14.87'
C2	29.42'	14.00'	120°23'55"	24.44'
C3	6.57'	20.00'	18°49'19"	3.31'
C4	5.57'	20.00'	15°57'04"	2.80'
C5	26.31'	10.00'	150°44'42"	38.32'
C6	126.08'	60.00'	120°23'55"	104.76'
C7	107.73'	60.17'	102°35'11"	75.08'

TOP OF POND POINT TABLE			
☐	EASTING	NORTHING	ELEVATION
12	1533955.34	1451221.65	5291.00
13	1533856.69	1451188.31	5291.00
14	1533773.92	1451261.60	5291.00
15	1533778.85	1451355.37	5291.00
16	1534014.70	1451523.56	5291.00

FELLINI BLVD (80' ROW)
N MESA DEL SOL BLVD (78' ROW)
FUTURE N MESA DEL SOL BLVD (78' ROW)
FUTURE S MESA DEL SOL BLVD (78' ROW)
FUTURE FELLINI BLVD (80' ROW)
TRACT A-1-A-6
TRACT 28
GRADING LIMITS
EXISTING PUBLIC DRAINAGE EASEMENT
EXISTING 78' PUBLIC DRAINAGE EASEMENT
NEW PUBLIC DRAINAGE EASEMENT
PROPERTY LINE
FUTRUE STORM DRAIN
FUTURE ROW LINE
FUTURE ROW
60" SD OUTLET INV=5275.50
12' ACCESS ROAD
BOTTOM OF POND=5274.00
STOCKPILE AREA FOR EXCESS MATERIAL
12' MAINTENANCE RD (TYP.)
78' FUTURE ROW
FUTURE 80' ROW
FG91.00
FG88.89
FG94.15
FG94.16
FG88.70
FG88.60
FG88.39
FG88.60
FG88.72
FG94.10
FG92.65
-0.53%
-7.11%
-1.98%
0.89%

NEW PUBLIC DRAINAGE EASEMENT.
DATE: _____
DOC #: _____

POND DATA:
BOTTOM ELEVATION = 5274.00'
TOP ELEVATION = 5291.00'
FREEBOARD = 2.00 FT
V_STORAGE = 8.00 AC-FT
V_100YR_10D = 7.12 AC-FT
Q_100YR_6HR = 124.01 CFS
WSE_100YR_10D = 5288.2'
WSE_100YR_6HR = 5285.5'

PIPE INFORMATION:
DIA. = 60"
INVERT ELEVATION = 5275.50'

GRADING KEYED NOTES

1. PROPOSED COA DBL-TYPE D INLET. SEE SHEET 8
2. PROPOSED RCP STORM DRAIN PIPE SIZE PER PLAN
3. EROSION PROTECTION PER DETAIL 1 SHEET 8
4. PROPOSED TYPE E MANHOLE
5. 3:1 MAX SLOPE

LEGEND

- PROPERTY LINE
- 95.40 — PROPOSED SPOT ELEVATION
- 4960 — PROPOSED INDEX CONTOUR
- 4959 — PROPOSED INTERMEDIATE CONTOUR
- 4960 — EXISTING INDEX CONTOUR
- 4959 — EXISTING INTERMEDIATE CONTOUR
- PROPOSED STORM DRAIN PIPE
- PROPOSED STORM DRAIN INLETS
- 6" RIP RAP, 12" THICK, PLACED OVER NON-WOVEN FILTER FABRIC

40 20 0 40
1"=40'

BHI JOB NO. 20210391

GENERAL NOTES:

1. CONTRACTOR FIELD VERIFY ALL EXISTING UTILITIES AND NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
2. DAMAGE TO UTILITIES OR FACILITIES WITHIN THE PROJECT RIGHT-OF-WAY SHALL BE RESTORED TO EXISTING CONDITIONS UNLESS OTHERWISE DENOTED IN PLANS.
3. GRADING LIMITS SHOWN ARE APPROXIMATE AND SUBJECT TO CHANGED FIELD CONDITIONS, AS APPROVED BY THE ENGINEER.

CALL NM ONE-CALL SYSTEM SEVEN (7) DAYS PRIOR TO ANY EXCAVATION

CONSULTANTS
Bohannan Huston
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800.877.5332

BENCH MARKS

SEAL

NO.	DATE	DESCRIPTION	BY
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		WORK STAKED BY:	DATE:
		INSPECTOR'S ACCEPTANCE BY:	DATE:
		FIELD VERIFICATION BY:	DATE:
		DRAWINGS CORRECTED BY:	DATE:

DESIGNED BY: AO
DRAWN BY: AO
CHECKED BY: MJB
DATE 03/26/2021

CITY OF ALBUQUERQUE
DEPARTMENT OF MUNICIPAL DEVELOPMENT
ENGINEERING DIVISION

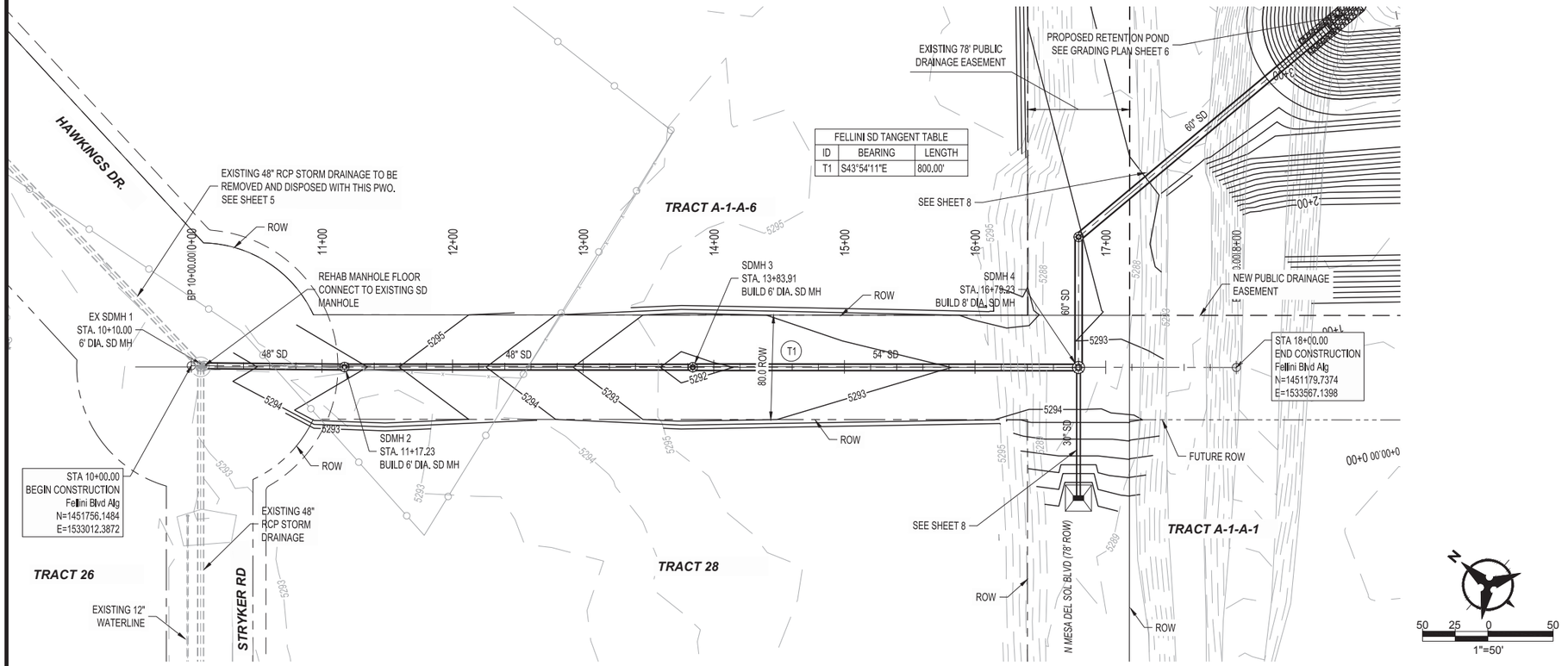
MDS OS-7 STORM DRAINAGE RELOCATION

GRADING PLAN

DESIGN REVIEW COMMITTEE | CITY ENGINEER APPROVAL

ZONE MAP NO. R-16
CITY PROJECT NO. 775684
SHEET NO. 6 OF 8

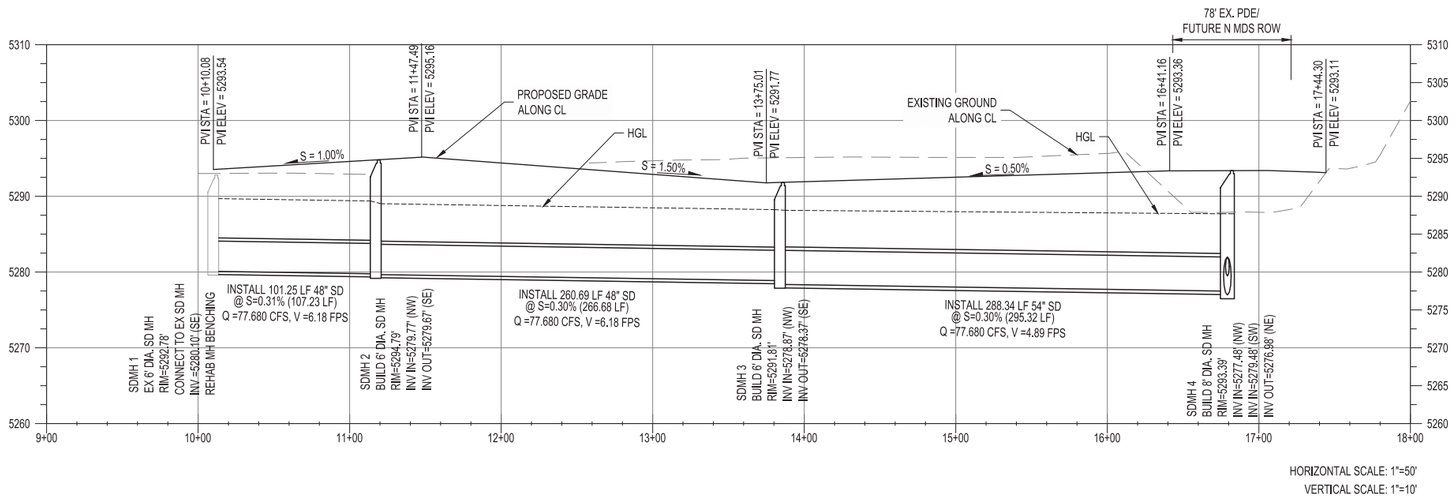
EXHIBIT E -
FELLINI BLVD. PNP



FELLINI SD TANGENT TABLE		
ID	BEARING	LENGTH
T1	S43°54'11"E	800.00'

50 25 0 50
1"=50'

FELLINI BLVD



HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=10'

NOTES

1. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITY LOCATIONS AND NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
2. ALL CURB RETURN RADII SHALL BE 25' UNLESS OTHERWISE SPECIFIED.
3. ALL CURVE DATA AND DIMENSIONS REFER TO FACE OF CURB UNLESS OTHERWISE SPECIFIED.
4. GRADE ELEVATIONS, WHERE NOTED, ARE ALONG FLOWLINE OF CURB UNLESS OTHERWISE SPECIFIED.
5. CONTRACTOR IS RESPONSIBLE FOR REPAIR AND/OR REPLACEMENT OF ALL UTILITY CONDUITS AND EXISTING LINES.
6. ANY ADDITIONAL GRADING REQUIRED TO MATCH PROPOSED STREET GRADES SHALL BE INCIDENTAL TO PAVING ITEMS.
7. CONTRACTOR SHALL PARK EQUIPMENT AND VEHICLES AS NOT TO INTERFERE WITH NORMAL ACTIVITIES OF RESIDENTS OR OTHER CONTRACTORS ON SITE.
8. ANY DAMAGE TO THE EXISTING FACILITIES (CURB & GUTTER, PAVEMENT, CONDUITS, LANDSCAPING, UTILITY LINES, ETC.) DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTORS' EXPENSE.
9. RCP SHALL BE INSTALLED SO THAT THE JOINT GAP AT THE HOME POSITION SHALL CONFORM TO THE APPROVED MANUFACTURER'S RECOMMENDATIONS. MANUFACTURER'S RECOMMENDED JOINT GAP TOLERANCES FOR EACH PIPE SIZE AND TYPE SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO PLACEMENT OF PIPE. RCP JOINTS SHALL NOT BE GROUTED UNLESS DIRECTED BY THE ENGINEER AFTER CITY APPROVAL.
10. ALL EXCAVATION, TRENCHING, AND SHORING ACTIVITIES MUST BE CARRIED-OUT IN ACCORDANCE WITH OSHA 29 CFR 1926.650 SUBPART P.
11. ELECTRONIC MARKER SPHERES (EMS) WILL BE PLACED ACCORDING TO SECTION 170 OF THE CITY OF ALBUQUERQUE STANDARD SPECIFICATION FOR PUBLIC WORKS CONSTRUCTION, 1986 EDITION AS REVISED THROUGH UPDATE #9.
12. AT UTILITY CROSSINGS WHERE LESS THAN 1.5 FOOT OF SEPARATION FROM STORM DRAIN PIPE OR MANHOLE IS PRESENT LEAN FILL IS TO BE USED 1) FOR A DISTANCE OF 5 FEET ON EACH SIDE OF THE SD ℄ FROM TOP OF STORM DRAIN TO BOTTOM OF SANITARY SEWER OR WATER LINE OR 2) FOR 10 FEET ALONG SANITARY SEWER OR WATER LINE CENTERED ON THE MANHOLE WITH DEPTH EQUAL TO 2X SEWER OR WATER LINE DIAMETER.
13. DEFLECT PIPE 1/2 OF ALLOWABLE MANUFACTURER SPECIFICATION. A VERTICAL & HORIZONTAL DEFLECTION SHALL NOT OCCUR AT SAME JOINT.

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BENCH MARKS

SEAL

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811
CALL NM ONE-CALL
SYSTEM SEVEN (7) DAYS
PRIOR TO ANY EXCAVATION

DESIGNED BY:	AO
DRAWN BY:	KH
CHECKED BY:	MJB
DATE	

CITY OF ALBUQUERQUE
DEPARTMENT OF MUNICIPAL DEVELOPMENT
ENGINEERING DIVISION

MDS OS-7 STORM DRAINAGE RELOCATION

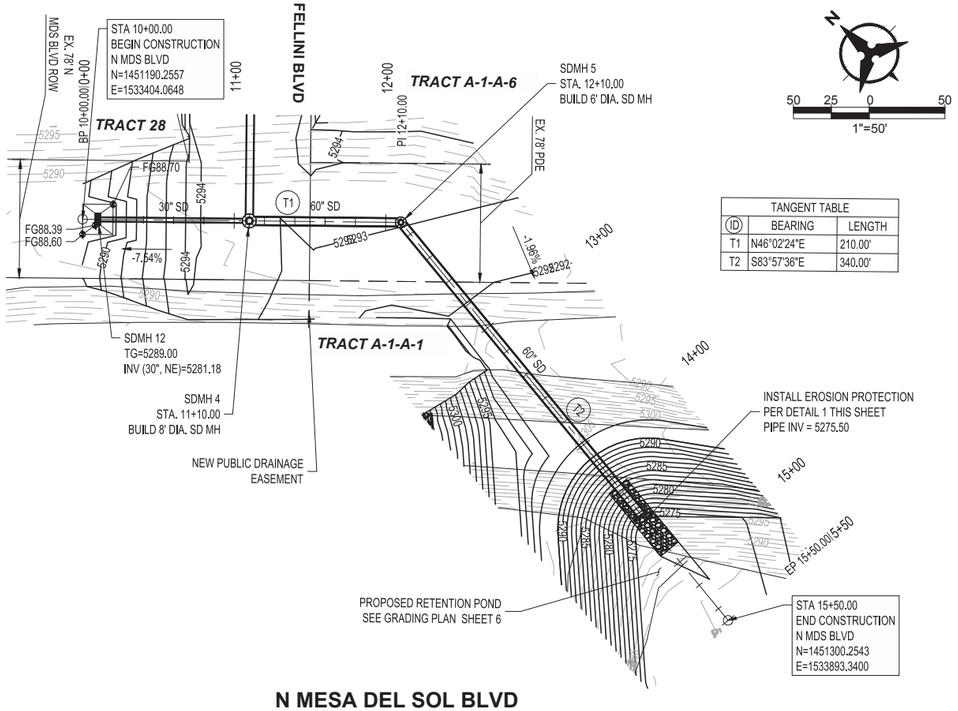
FELLINI BLVD PLAN AND PROFILE

DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL

ZONE MAP NO. **R-16**

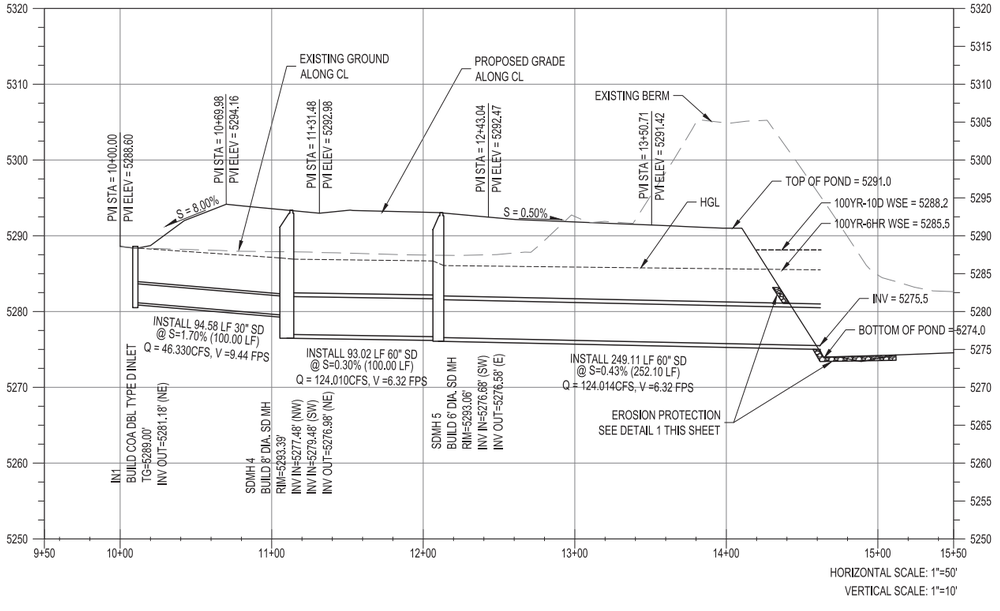
CITY PROJECT NO. **775684**

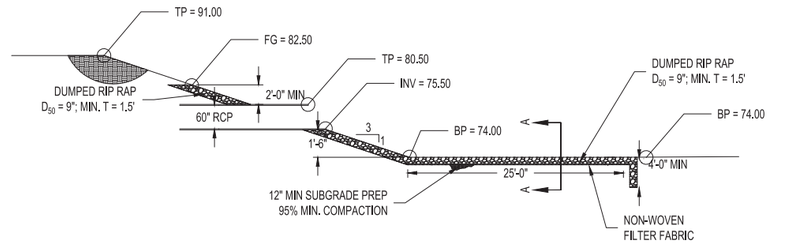
SHEET NO. 7 OF 8



TANGENT TABLE		
ID	BEARING	LENGTH
T1	N46°02'24"E	210.00'
T2	S83°57'36"E	340.00'

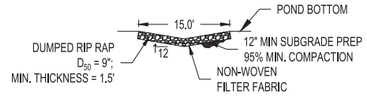
N MESA DEL SOL BLVD



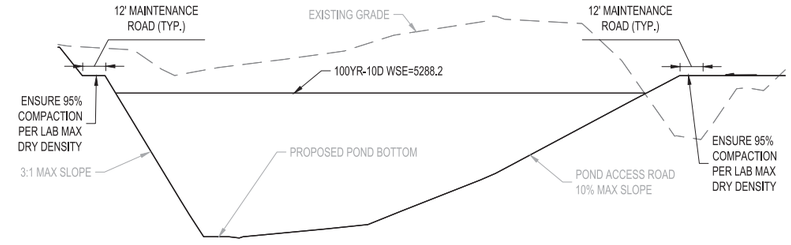


1 POND INLET PIPE EROSION PROTECTION

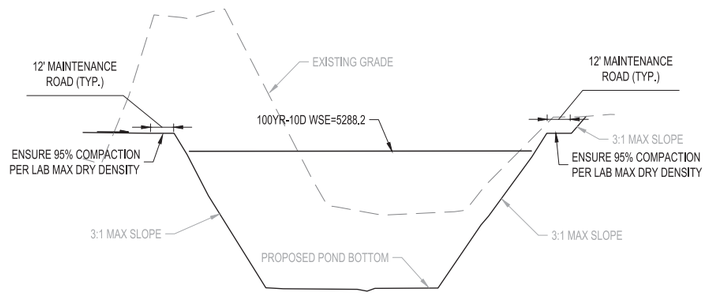
NTS



SECTION A-A



SECTION C-C
SOUTH TO NORTH POND



SECTION D-D
WEST TO EAST POND

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811
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PRIOR TO ANY EXCAVATION

DESIGNED BY: AO
DRAWN BY: KH
CHECKED BY: MJB
DATE

CITY OF ALBUQUERQUE
DEPARTMENT OF MUNICIPAL DEVELOPMENT
ENGINEERING DIVISION

MDS OS-7 STORM DRAINAGE RELOCATION

POND INLET PIPE PNP

DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL	ZONE MAP NO. R-16
		CITY PROJECT NO. 775684
		SHEET NO. 8 OF 8