

VICINITY MAP ZONE MAP: M-21

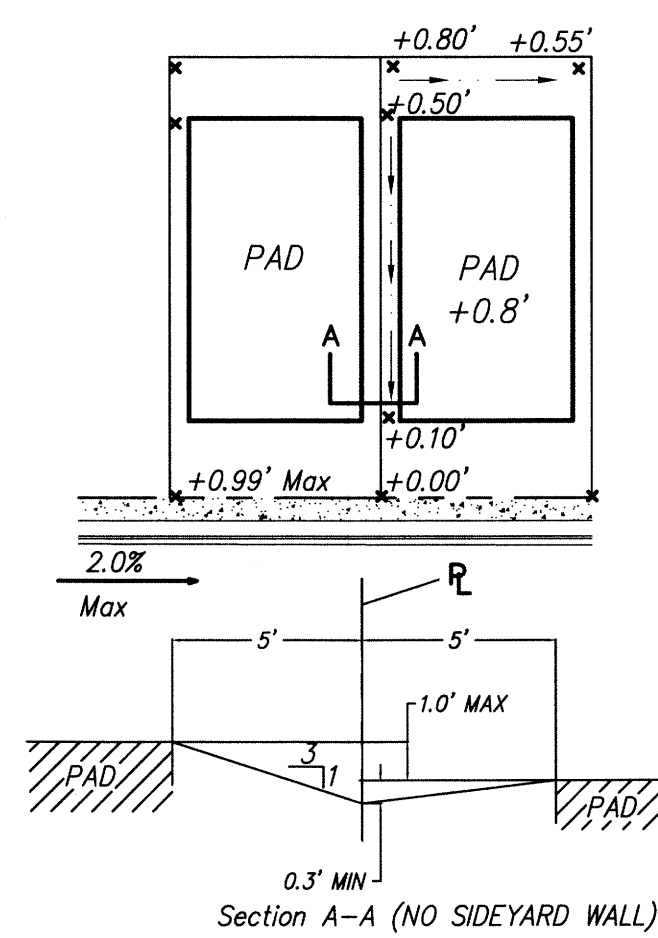
LEGEND

- EXIST. HANDRAIL
- EXIST. CONCRETE CURB
- EXIST. CONCRETE/SIDEWALK
- EXIST. WALL OR HEAD WALL
- EXIST. TOP CURB/FLOWLINE
- EXIST. SPOT ELEV.
- EXIST. BOLLARD
- EXIST. BENCH
- EXIST. CONDUIT
- EXIST. CABLE MARKER/ T.V. PEDESTAL
- EXIST. DROP INTEL
- EXIST. ELECTRIC SERVICE/PEDESTAL
- EXIST. ELECTRIC TRANSFORMER
- EXIST. ELECTRIC METER
- EXIST. FIRE HYDRANT
- EXIST. GAS VALVE
- EXIST. GAS MARKER
- EXIST. GAS METER
- EXIST. GUY WIRE
- EXIST. FIBER OPTIC MARKER
- EXIST. IRRIGATION MANHOLE
- EXIST. MONITOR WELL
- EXIST. OVERHEAD ELECTRIC
- EXIST. POWER POLE
- EXIST. PETRO PIPELINE MARKER
- EXIST. POST
- EXIST. SIGN
- EXIST. SANITARY SEWER MANHOLE
- EXIST. STORM DRAIN MANHOLE
- EXIST. SPRINKLER CONTROL VALVE
- EXIST. TRAFFIC SIGNAL
- EXIST. TREE
- EXIST. TELEPHONE PEDESTAL
- EXIST. UTILITY PULLBOX
- EXIST. EG TELEPHONE MARKER
- EXIST. UG GAS MARKER
- EXIST. WATER SPIGOT
- EXIST. WATER MANHOLE
- EXIST. WATER VALVE
- EXIST. WATER METER
- NEW SPOT ELEVATIONS
- NEW CONTOUR (MAJOR)
- NEW CONTOUR (MINOR)
- NEW BOUNDARY LINE
- NEW RIGHT-OF-WAY LINE
- NEW LOT LINE
- NEW CENTERLINE
- NEW EASEMENT
- NEW STANDARD CURB & GUTTER
- NEW MOUNTABLE CURB & GUTTER
- NEW SIDEWALK
- NEW RETAINING WALL THIS PROJECT
- NEW RETAINING WALL DEFERRED TO THE HOME BUILDERS

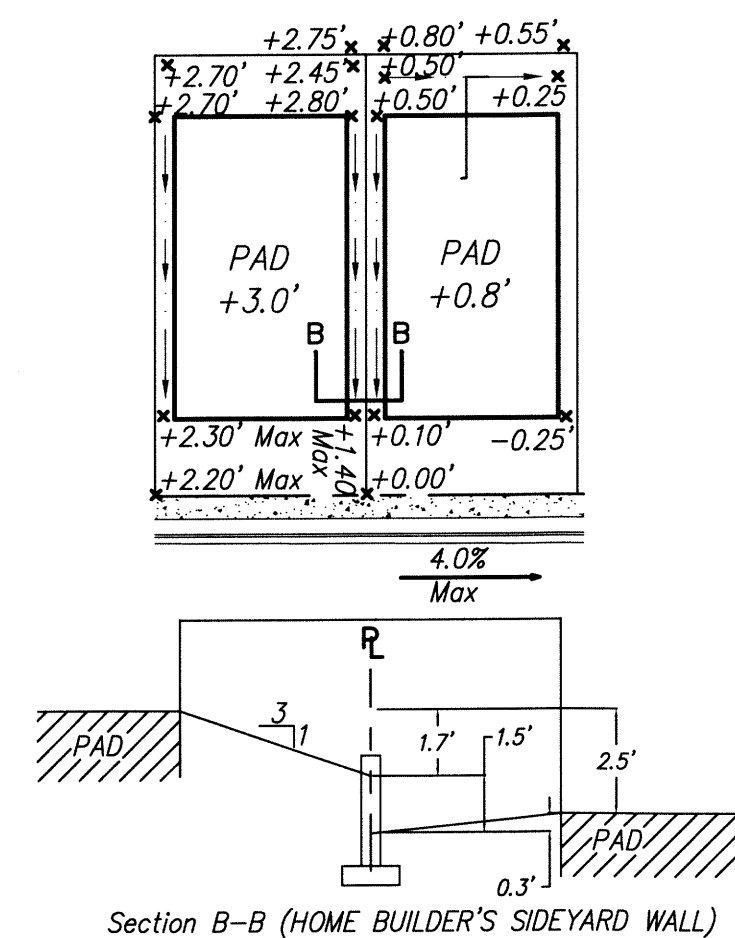
GRADING NOTES:

1. THE CONTRACTOR(S) MUST COMPLY WITH NPDES TEMPORARY CONSTRUCTION REQUIREMENTS AND OBTAIN A PERMIT. CONTRACTOR SHALL ALSO PROVIDE A COPY OF THE APPLICATION FOR PERMIT AND NOTICE OF TERMINATION TO THE OWNER.
2. THE CONTRACTOR(S) IS RESPONSIBLE FOR PREPARING AND MAINTAINING A SWPPP FOR THE DURATION OF INFRASTRUCTURE CONSTRUCTION AND UNTIL THE CITY OF ALBUQUERQUE ACCEPTS THE PUBLIC INFRASTRUCTURE. CONTRACTOR SHALL PROVIDE THE OWNER WITH A COPY OF THE SWPPP AT THE BEGINNING OF THE PROJECT AND AT THE TIME OF NOTICE OF TERMINATION.
3. THE CONTRACTOR(S) IS RESPONSIBLE FOR CONSTRUCTING AND MAINTAINING EROSION CONTROLS FOR THE DURATION OF THE CONSTRUCTION OF THE PUBLIC INFRASTRUCTURE AND FOR THE REMOVAL OF THE EROSION CONTROLS WHERE DIRECTED TO DO SO BY THE OWNER AT THE TIME OF NOTICE OF TERMINATION.
4. THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION STAKING AND IS TO PROVIDE AN AS-BUILT SURVEY CERTIFIED BY A REGISTERED PROFESSIONAL SURVEYOR TO THE OWNER UPON COMPLETION OF THE CONSTRUCTION. THE EARTHWORK CONTRACTOR IS TO PROVIDE EARTHWORK SURVEY, AND THE WALL BUILDER IS TO PROVIDE WALL SURVEY.
5. EARTHWORK CONTRACTOR SHALL PREPARE ROUGH SUBGRADE FOR THE RETAINING WALL CONSTRUCTION AND PROVIDE SUFFICIENT BACKFILL MATERIAL STOCKPILED ON THE HIGH SIDE OF EACH WALL FOR THE WALL BUILDER TO COMPLETELY BACKFILL THE WALLS.
6. RETAINING WALLS ARE SHOWN FOR GRADING PURPOSES ONLY. RETAINING WALL DESIGN IS TO BE PERFORMED BY OTHERS, AND SHALL BE SUBMITTED TO THE CITY OF ALBUQUERQUE FOR REVIEW, APPROVAL, PERMIT, AND INSPECTION
7. EARTHWORK CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL INVESTIGATION BY GEOTEST, INC. DATED JUNE 29, 2012.
8. TOPOGRAPHIC AND BOUNDARY SURVEY ARE BY ALDRICH LAND SURVEYING NOVEMBER 2011.
9. BENCHMARK USED IS AGRS BRASS CAP STAMPED "7-M21" HAVING AN ELEVATION OF 5498.07 (NGVD29).
10. FEMA SPECIAL FLOOD HAZARD ZONE ON THIS PROPERTY AS SHOWN ON CASE NO. 13-06-1053P EFFECTIVE JUNE 17, 2013.

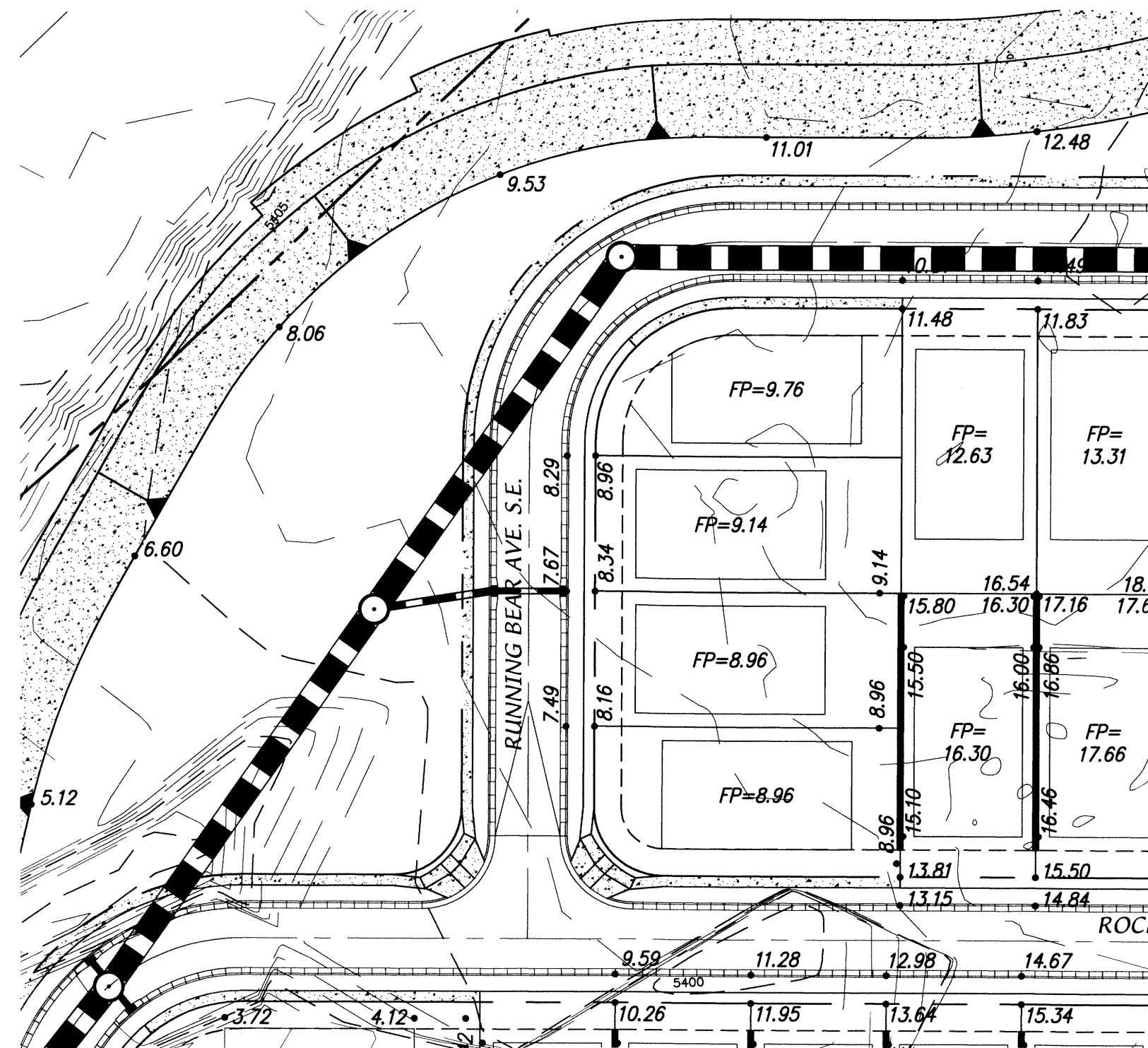
TYPICAL LOT GRADING
WO SIDEYARD WALL



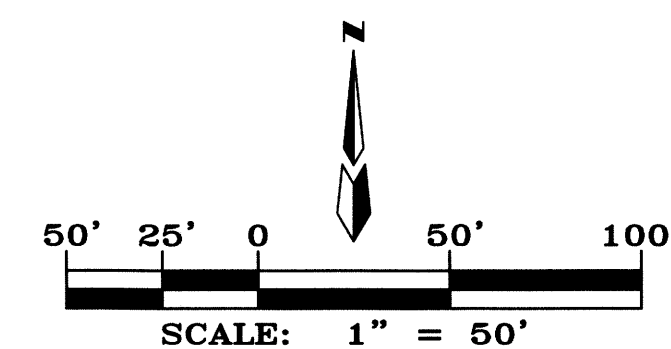
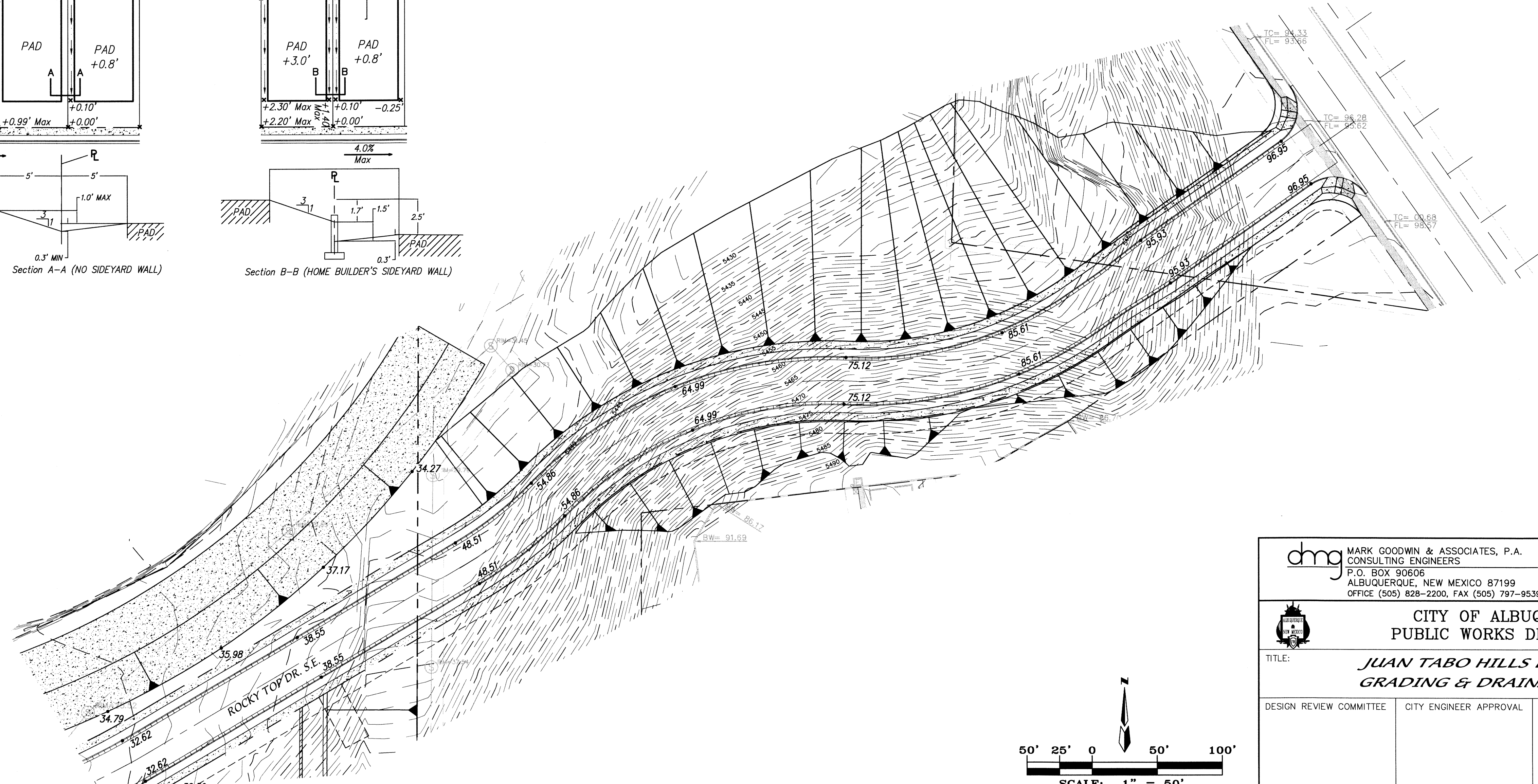
TYPICAL LOT GRADING
WITH SIDEYARD WALL



SEE SHEET 2 OF 8



SEE SHEET 4 OF 8



SEE SHEET 2 & 3 OF 8

SURVEY INFORMATION		FIELD NOTES		ENGINEER'S SEAL		REVISIONS		DESIGN	
NO.	DATE	NO.	DATE	[Seal Area]		NO.	DATE	DESIGNED BY	DATE
						1	06/14	JDH	06/14
						2	06/14	ACH	06/14
						3	06/14	DMG	06/14

MARK GOODWIN & ASSOCIATES, P.A.
 CONSULTING ENGINEERS
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 OFFICE (505) 828-2200, FAX (505) 797-9539

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT

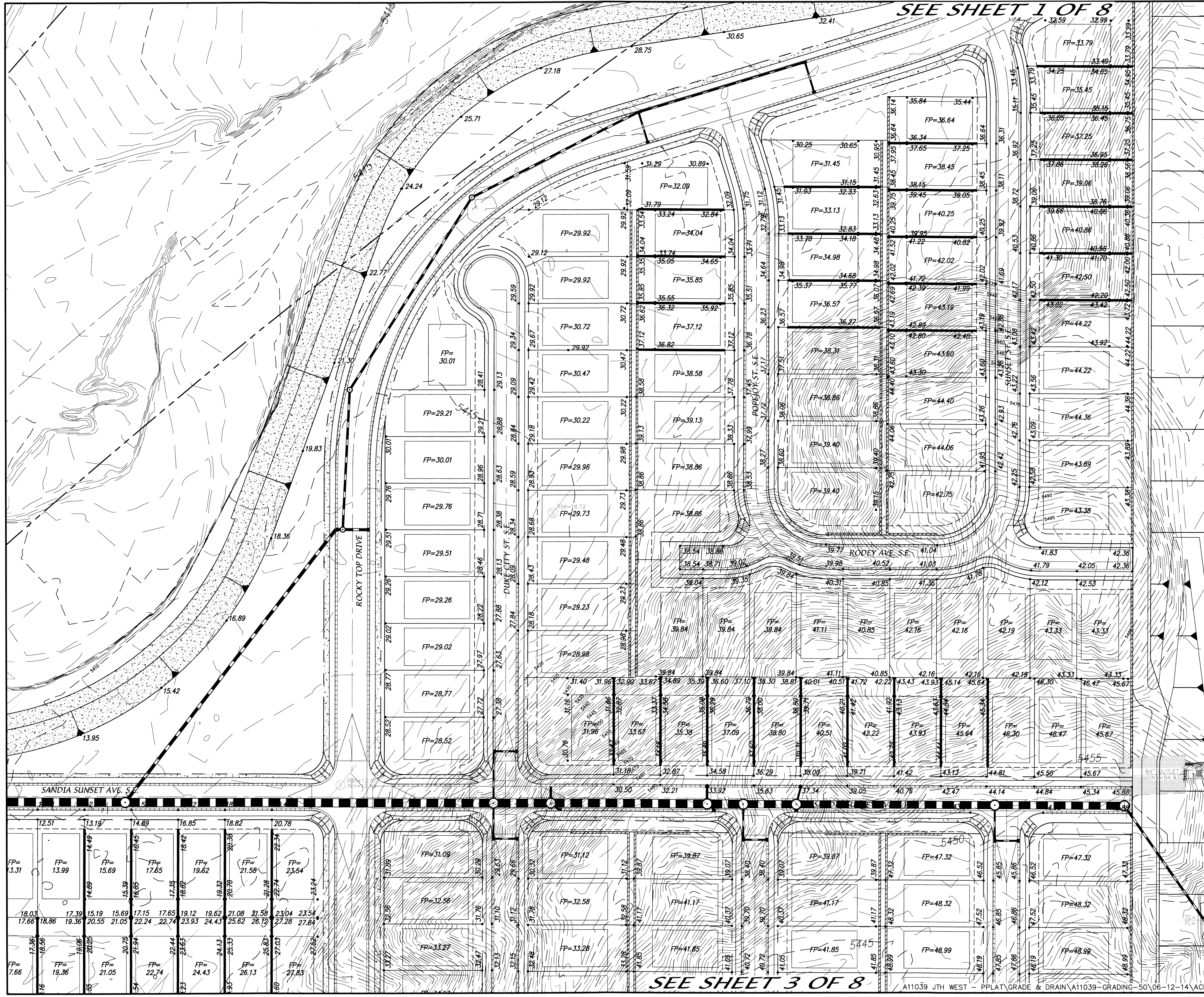
TITLE: **JUAN TABO HILLS ESTATES GRADING & DRAINAGE PLAN**

DESIGN REVIEW COMMITTEE: CITY ENGINEER APPROVAL

CITY PROJECT NO. ZONE MAP NO. SHEET OF

M-21-Z 1 8

F:\11039\11039 JTH West - P\PLAT\GRADE & DRAIN\11039-GRADING-50.dwg, 2/24/2015 2:40:25 PM, KIP 7100 local (Temporary)\PC3_CGIS



SEE SHEET 1 OF 8

SEE SHEET 3 OF 8

A11039 JTH WEST - PPLAT GRADE & DRAIN A11039-GRADING-50_06-12-14_ACH

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**CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT**

TITLE: **JUAN TABO HILLS ESTATES
GRADING & DRAINAGE PLAN**

DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL	MO./DAY/YR.	MO./DAY/YR.

DESIGNED BY **JDH** DATE **06/14**
DRAWN BY **ACH** DATE **06/14**
CHECKED BY **DMG** DATE **06/14**

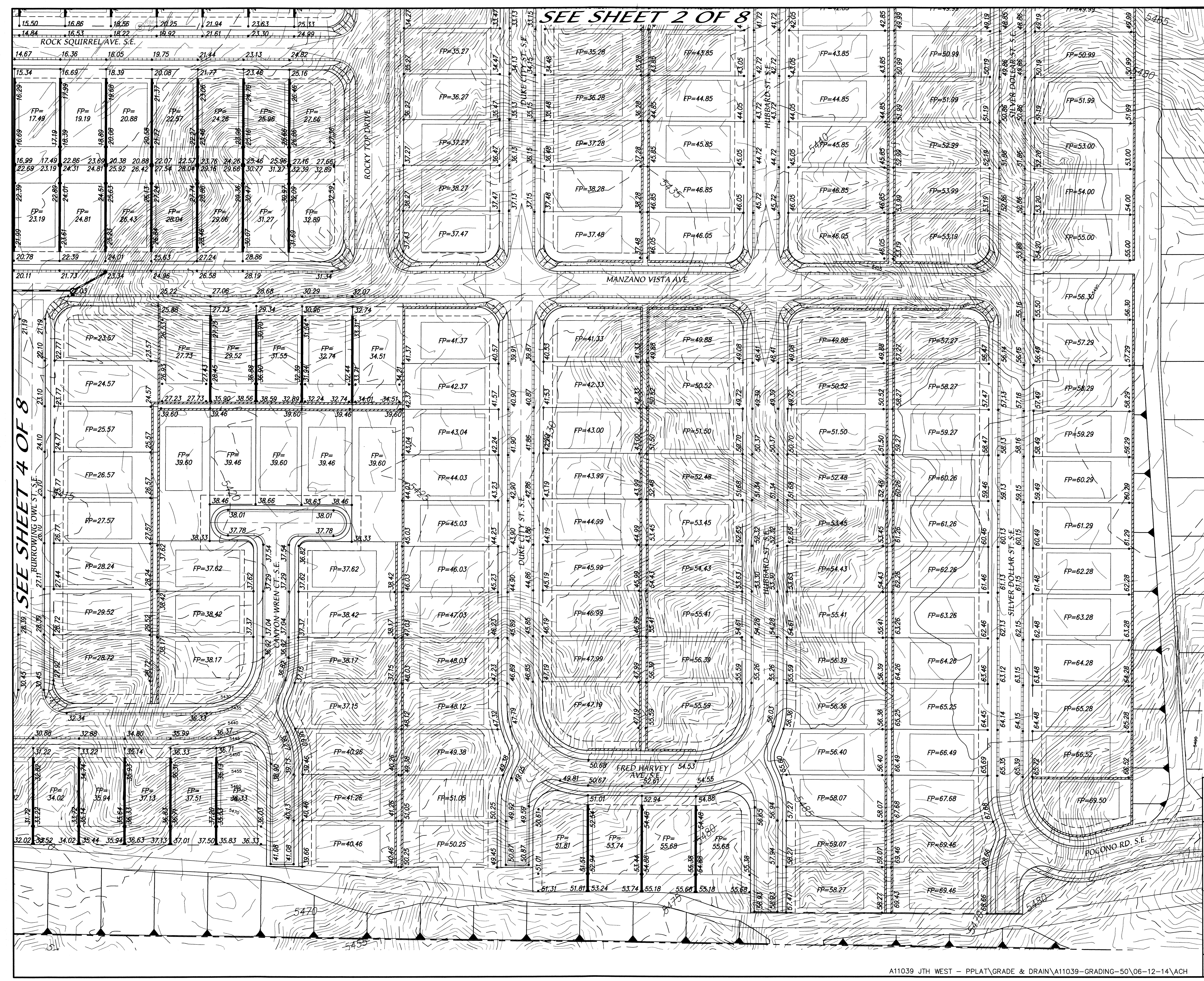
CITY PROJECT NO. _____ ZONE MAP NO. **M-21-Z** SHEET **2** OF **8**

ENGINEER'S SEAL		SURVEY INFORMATION		BENCH MARKS		AS BUILT INFORMATION		
NO.	DATE	NO.	BY	CONTRACTOR	INSPECTOR'S	DATE	DATE	
				STATION 5+422" IS LOCATED 8.7 MI. SE OF DOWNTOWN ALBUQUERQUE ON THE EAST SIDE OF THE MUNICIPAL LIMITS LINE IN THE FOUR HILLS SUBDIVISION AREA. STATION IS 600 FT. EAST OF MUNICIPAL LIMITS LINE. 77.9' SE OF POWER POLE #537 & 186.0' NW OF POWER POLE #60. MONUMENT IS A STANDARD ACS BRASS DISK SET IN A CONCRETE MOUND IN THE GROUND. STATION IS STAMPED "5+422, 1975ACS". X= 424,072.61, Y= 1,473,700.07, (NAD 1927), Z= 5594.616 (SLD 1929).				



2-28-2015

F:\AL1039\1039 JTH West - P\PLGRADE & DRAIN\A11039-GRADING-50\06-12-14\ACH



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**CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT**

TITLE: **JUAN TABO HILLS ESTATES
GRADING & DRAINAGE PLAN**

DESIGN REVIEW COMMITTEE CITY ENGINEER APPROVAL

LAST DESIGN UPDATE MO./DAY/YR. MO./DAY/YR.

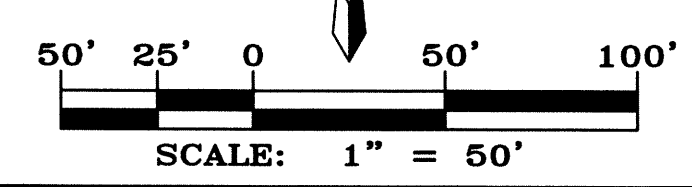
CITY PROJECT NO. ZONE MAP NO. SHEET OF

M-21-Z 3 8

ENGINEER'S SEAL		SURVEY INFORMATION		BENCH MARKS		AS BUILT INFORMATION		
NO.	DATE	NO.	BY	STATION	CONTRACTOR	WORK	DATE	
				STATION 5+M22 IS LOCATED 8.7 MI. SE OF DOWNTOWN ALBUQUERQUE ON THE EAST SIDE OF THE MUNICIPAL LIMITS LINE IN THE FOUR HILLS SUBDIVISION AREA. STATION IS 600 FT. EAST OF MUNICIPAL LIMITS LINE. 71.9' SE OF POWER POLE #E37 & 186.0' NW OF POWER POLE #60. STATION IS A STANDARD ACS BRASS DISK SET IN A CONCRETE MONUMENT IN THE GROUND. STATION IS STAMPED "5-M22, 1975HCS". X= 424,017.61, Y= 1,475,700.07. (NAD 1927). Z= 5594.918 (SLD 1929).	ALBUQUERQUE	DATE		
						FIELD STATION BY	DATE	
						ACCEPTANCE BY	DATE	
						DRAWN BY	DATE	
						CHECKED BY	DATE	
						RECORDED BY	DATE	



2-24-2015

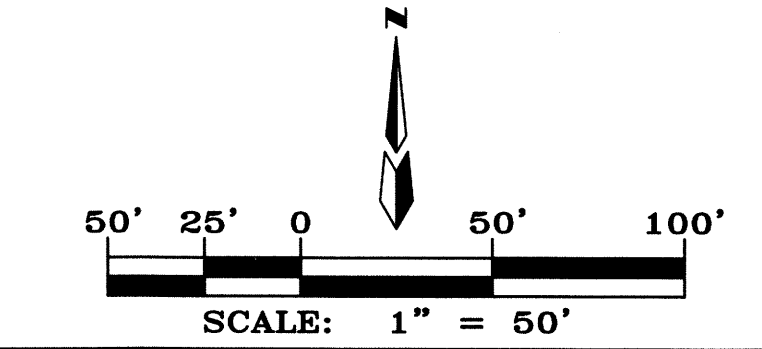
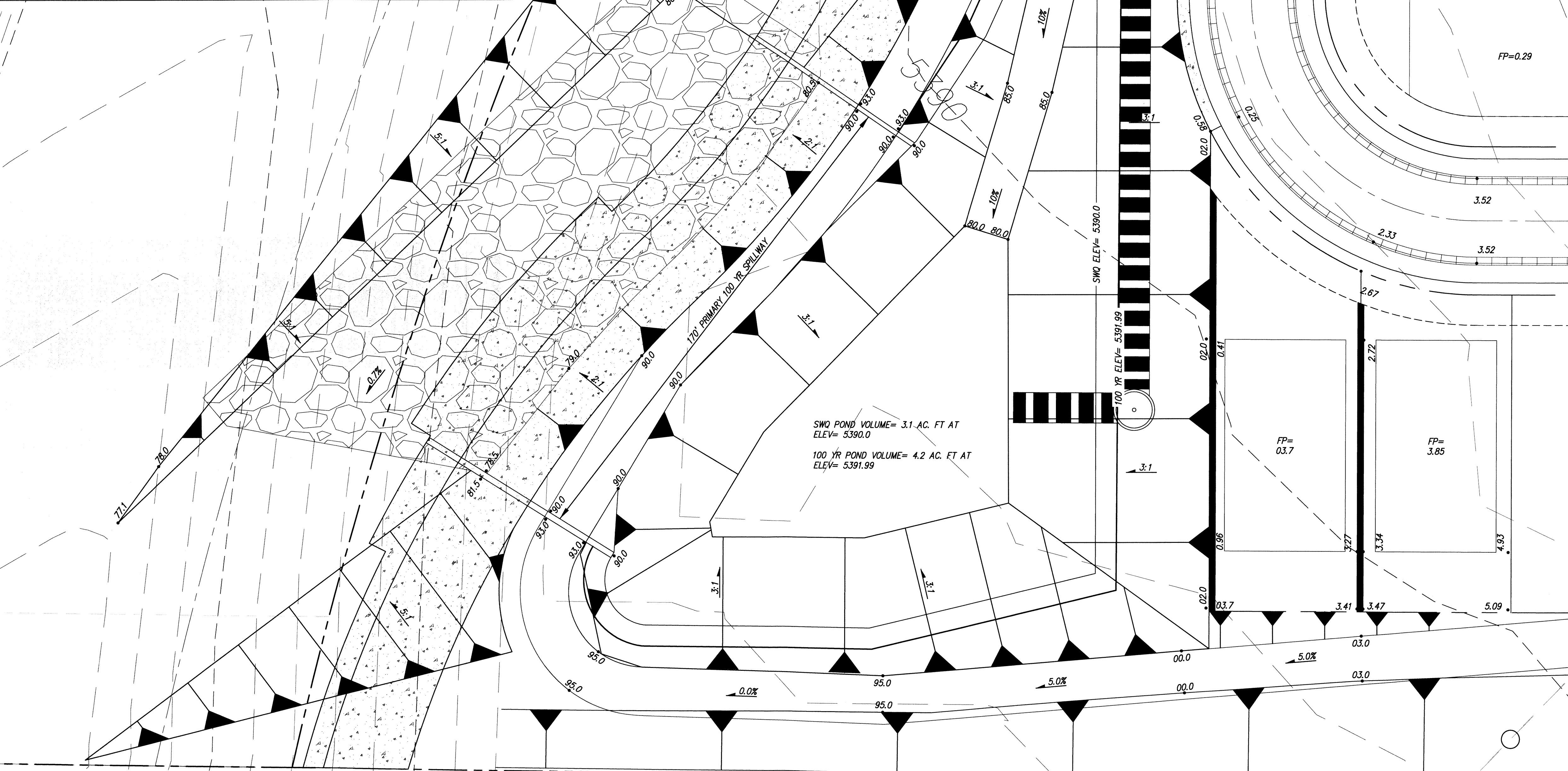


JTHE Juan Tabo Hills Estates Storm Water Quality Pond

Flow Line	Flow Line	Flow Line	Flow Line	Flow Line	Flow Line
80	90	92	80	90	92
5877	22797	26037	0.13	0.52	0.60
0.00	0.92	1.68	0.00	3.08	4.20

HYDROLOGY SUMMARY TABLE

AHYMO BASIN ID	SUB-BASIN ID	AREA (Ac)	Ground Cover (%)	Peak 100-YR Flow Q ₁₀₀ (cfs)				Water Quality Volume (Ac-Ft)				
				A	B	C	D	Incremental	Surface	Inc	Location	Sub Total
100	100.1	89.10	0.13922	8	18	35	39	328.22		1.3218	Four Hills	1.3218
101		66.80	0.10438	0	19	39	42	282.50	0.00	1.0755	Juan Tabo Hills	1.0755
200		9.00	0.01406	0	20	40	40	37.61	0.00	0.1380	Four Hills	1.4598
201		76.30	0.01828	100	0	0	0	27.64	11.64	0.0000	Kirtland	0.0000
203		42.50	0.06641	0	22	45	33	172.59		0.5376	Juan Tabo Hills	1.6131
300		22.30	0.03484	0	14	29	57	99.75		0.4873	Juan Tabo Hills	2.1004
400		77.70	0.12141	0	9	41	50	343.61		1.4893	JTH Estates	1.4893
											Total	5.0494



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**CITY OF ALBUQUERQUE
 PUBLIC WORKS DEPARTMENT**

TITLE: **JUAN TABO HILLS ESTATES
 GRADING & DRAINAGE PLAN
 POND DETAIL**

DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL	MO./DAY/YR.	MO./DAY/YR.

DESIGNED BY: JGH DATE: 06/14
 DRAWN BY: ACH DATE: 06/14
 CHECKED BY: DMG DATE: 06/14

CITY PROJECT NO. _____ ZONE MAP NO. **M-21-Z** SHEET **5** OF **8**

ENGINEER'S SEAL

JAMES D. HUCKER
 REGISTERED PROFESSIONAL ENGINEER
 NEW MEXICO
 2-24-2015

AS BUILT INFORMATION

CONTRACTOR	DATE	INSPECTOR'S FIELD CHECK BY	DATE	VERIFICATION BY	DATE	MICRO-FILM INFORMATION	RECORDED BY	DATE
STATION "5-M22" IS LOCATED 8.7 MI. SE OF DOWNTOWN ALBUQUERQUE ON THE EAST SIDE OF THE MUNICIPAL LIMITS LINE IN THE FOUR HILLS SUBDIVISION AREA. STATION IS 600 FT. EAST OF MUNICIPAL LIMITS LINE, 77.9' SE OF POWER POLE #E57 & 166.0' NW OF POWER POLE #60. STATION IS A STANDARD ACS BRASS DISK SET IN A CONCRETE MONUMENT IN THE GROUND. STATION IS STAMPED "5-M22, 1975ACS". X= 424,017.61, Y= 1,475,700.07. (MID 1927). Z= 5594.518 (SD 1929).								

SURVEY INFORMATION

NO.	DATE	BY

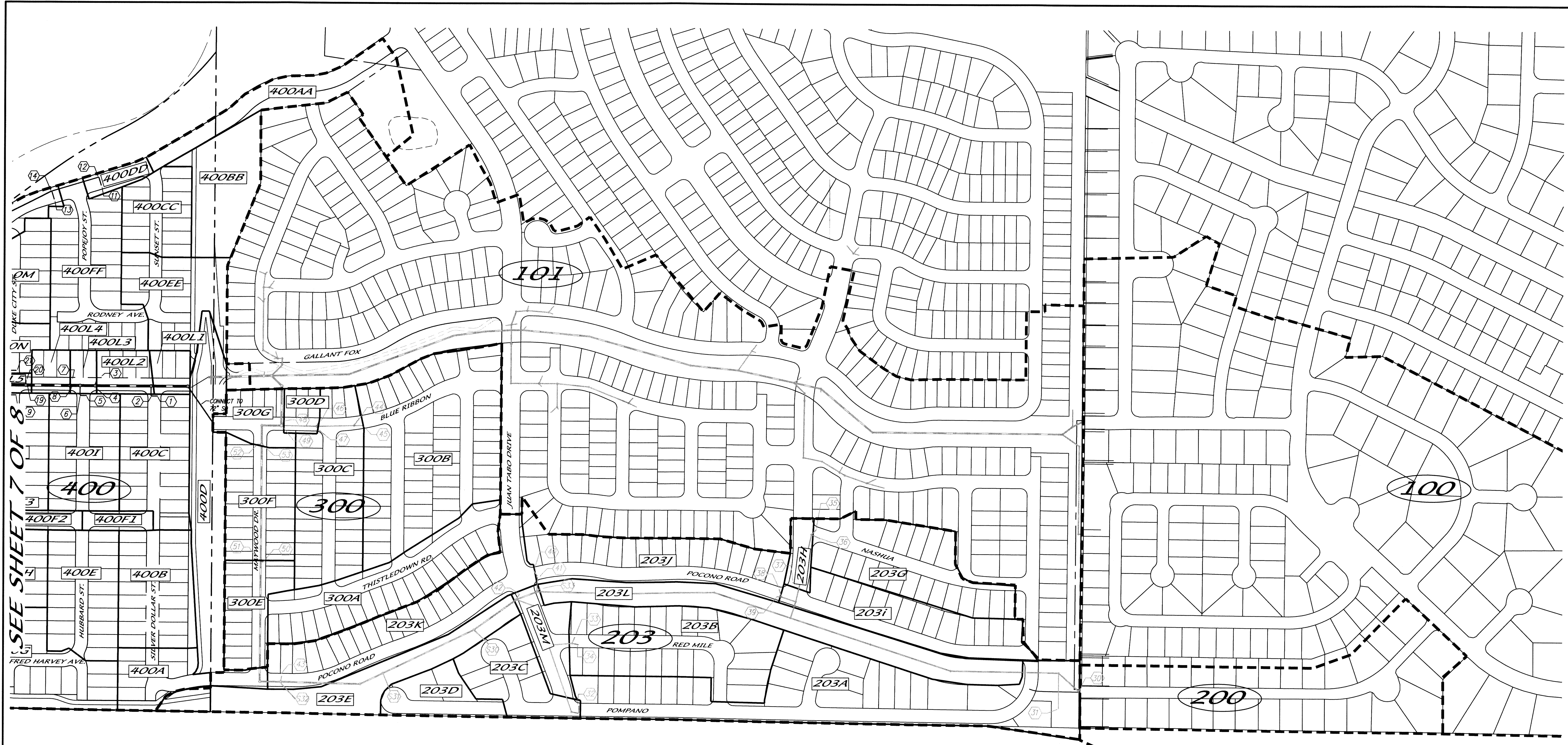
FIELD NOTES

REVISIONS

NO.	DATE	REMARKS	BY	DATE

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F:\11039\11039 JTH West - PPLAT/GRADE N DRAIN/BASIN MAP/A11039-DRAINAGE-BASIN/07-18-14/ACH

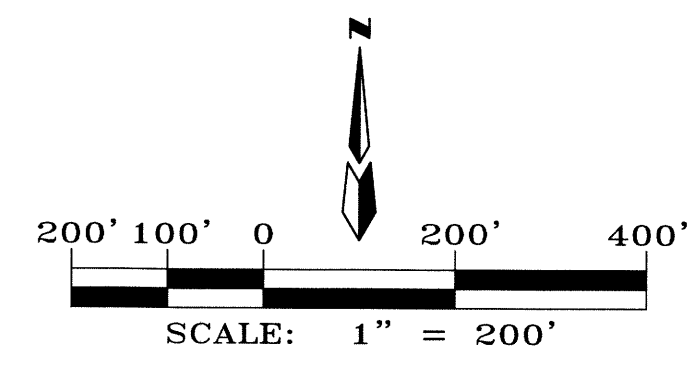


SEE SHEET 7 OF 8

HYDROLOGY SUMMARY TABLE																							
HYDROLOGY						Street flows				Inlet Calcs				Split Flows									
AHYMO BASIN ID	SUB-BASIN ID	AREA (Ac)	(Sq mi)	Ground Cover (%)			Peak 100-YR Flow Q ₁₀₀ (cfs)	Location		Slope (%)	Depth (ft)	Velocity (fps)	Energy (ft)	Inlet #	Intercepted (cfs)	By-pass (cfs)	Path 1		Path 2				
				A	B	C	Incremental	Surface									Downstrm ID	Flow (cfs)	Downstrm ID	Flow (cfs)			
100		89.10	0.13922	8	18	35	328.22																
	100.1							ROUTED in 54" pipe															
101		65.80	0.10438	0	19	39	42	282.50	0.00														
200		9.00	0.01406	0	20	40	40	37.61	0.00														
201		76.30	0.01828	100	0	0	0	27.64	11.64														
203		42.50	0.06641	0	22	45	33	172.59															
	203A	8.73						35.45	47.09	Pompano Pl SE	2.13	0.51	5.1	0.9	32	16.00	31.09	203M	15.54	203C	15.54		
	203B	5.05						20.50	20.50	Red Mile	3.00	0.38	4.3	0.7	33 & 34	11.80	17.10	203M	17.10	-	-		
	203C	2.19						8.89	16.66	Retama Ct	2.00	0.49	sump	sump	S30	16.66	0.00	-	-	-	-		
	203D	1.40						5.90	13.67	Pompano Pl	4.00	0.40	sump	sump	S31	13.67	0.00	-	-	-	-		
	203E	3.33						13.51	0.00	Trail	-	-	sump	sump	S32	13.51	0.00	-	-	-	-		
	203G	3.95						16.00	16.00	Nashua	3.00	0.36	4.0	0.6	35 & 36	9.80	6.20	203H	16.20	-	-		
	203H	0.50						2.03	8.26	Timonium	1.40	0.40	3.0	0.5	37	5.10	3.16	203J	3.16	-	-		
	203I	3.30						13.50	16.66	Pocono	2.00	0.39	3.5	0.6	38 & 39	13.60	3.06	203J	3.06	-	-		
	203J	4.04						16.40	19.46	Trail	-	-	4.5	0.7	40 & 41	14.00	5.46	203K	5.46	-	-		
	203K	4.00						16.25	20.18	Trail	-	-	sump	sump	S33	16.25	0.00	-	-	-	-		
	203M	1.25						5.07	22.10	Juan Tabo Drive	1.00	0.58	4.0	0.8	42	9.80	12.30	203K	12.30	-	-		
	203K	4.40						17.90	35.66	Pocono	1.00	0.46	3.2	0.6	43	17.20	18.46	300E	9.23	400A	9.23		
	300	22.30	0.03484	0	14	29	57	99.75															
	300A	4.13						18.47	18.47	Thistle Down Rd	3.00	3.50	4.0	3.7	-	0.00	17.47	300E	18.47	-	-		
	300B	8.00						35.78	35.78	Blue Ribbon Rd	2.00	0.49	4.6	0.8	44 & 45	18.00	17.78	300C	17.78	-	-		
	300C	3.96						17.70	17.70	Pleasanton Dr	1.88	0.49	4.5	0.8	46 & 47	18.00	17.50	300D	17.50	-	-		
	300D	0.52						2.33	19.80	Blue Ribbon Rd	3.43	0.38	4.5	0.7	48 & 49	16.80	3.00	300G	3.00	-	-		
	300E	1.84						8.21	35.91	Maywood Dr	1.00	0.51	3.7	0.7	50 & 51	15.20	20.71	300F	20.71	-	-		
	300F	2.89						12.02	32.73	Maywood Dr	1.00	0.50	3.7	0.7	52 & 53	16.00	16.73	300G	16.73	-	-		
	300G	1.15						5.16	24.89	Out To Basin 400	-	-	-	-	-	0.00	24.89	400.00	24.89	-	-		

LEGEND

- - - - - AHYMO BASIN BOUNDARY
- - - - - SUB-BASIN BOUNDARY
- - - - - NEW RCP STORM DRAIN
- ④④④ AHYMO BASIN NUMBER
- ④④④ SUB-BASIN NUMBER
- ⑮ NEW INLET NUMBER
- ⑮ EXISTING INLET NUMBER
- P1 NEW RCP PIPE NUMBER



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CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT

TITLE: **JUAN TABO HILLS ESTATES OFF-SITE DRAINAGE SUB-BASINS 1**

DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL	MO./DAY/YR.	MO./DAY/YR.

DESIGNED BY **JDH** DATE **06/14**
DRAWN BY **ACH** DATE **06/14**
CHECKED BY **DMG** DATE **06/14**

CITY PROJECT NO. _____ ZONE MAP NO. _____ SHEET **8** OF **8**

AS BUILT INFORMATION

CONTRACTOR	DATE
WORK STARTED BY	DATE
FIELD ACCEPTANCE BY	DATE
DRAWN BY	DATE
MICRO-FILM INFORMATION	DATE

STATION "S-M22" IS LOCATED 8.7 MI. SE OF DOWNTOWN ALBUQUERQUE ON THE EAST SIDE OF THE MUNICIPAL LIMITS LINE IN THE FOUR HILLS SUBDIVISION AREA. STATION IS 600 FT. EAST OF MUNICIPAL LIMITS LINE, 77.9' SE OF POWER POLE #E37 & 186.0' NW OF POWER POLE #P0. STATION IS A STANDARD ACS BRASS DISK SET IN A CONCRETE MONUMENT IN THE GROUND. STATION IS STAMPED "S-M22 1979ACS". X= 424,017.61, Y= 1,473,700.07, (NAD 1927), Z= 5594.518 (SLD 1929).

ENGINEER'S SEAL

DATE: 2-24-2015

SURVEY INFORMATION

FIELD NOTES	NO.	DATE	BY