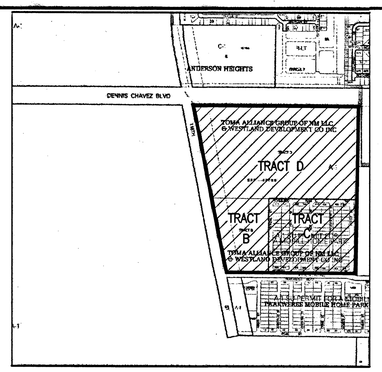
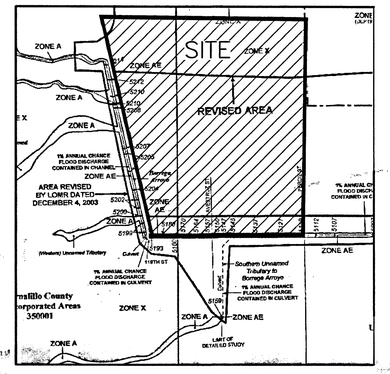


D2 VICINITY MAP P-8

N.T.S.



C2 FIRM PANEL 338

REVISED OCTOBER 13, 2005

N.T.S.

LEGAL DESCRIPTION

TRACTS B, C & D OF THE PAAKWEREE BULK LAND PLAT BERNALILLO COUNTY, NEW MEXICO, AS THE SAME IS SHOWN AND DESIGNATED ON THE PLAT FILED IN THE OFFICE OF THE COUNTY CLERK OF BERNALILLO COUNTY, NEW MEXICO ON DECEMBER 2, 2004, BOOK 2004C-372.

INDEX OF DRAWINGS

SHEET	DESCRIPTION
C101	DRAINAGE REPORT, VICINITY MAP, FIRM & INDEX OF DRAWINGS
C102	MASTER DRAINAGE SITE PLAN
C103	TRACT C STORM DRAIN PLAN AND PROFILE
C104	TRACT C STORM DRAIN PLAN AND PROFILE

DRAINAGE REPORT

I. EXECUTIVE SUMMARY AND INTRODUCTION

ALBUQUERQUE PUBLIC SCHOOLS (APS) IS CONSTRUCTING A NEW HIGH SCHOOL IN A RAPIDLY DEVELOPING UNINCORPORATED AREA OF BERNALILLO COUNTY'S SOUTHWEST MESA. A DRAINAGE ANALYSIS REPORT WAS PREPARED IN 2000 FOR THIS WATERSHED. THE PURPOSE OF THIS SUBMITTAL IS TO UPDATE 3 SPECIFIC DRAINAGE BASINS IDENTIFIED IN THAT RECORD REPORT TO: 1) REFLECT A REPLAT THAT CREATED TRACTS B, C AND D, THEREBY NECESSITATING CHANGES TO THE THREE CORRESPONDING DRAINAGE BASINS, 2) TO INCLUDE THE SPECIFIC INFORMATION FROM THE APS SOUTHWEST HIGH SCHOOL DEVELOPMENT, AND 3) TO SUPPORT TO THE DESIGN AND CONSTRUCTION OF A PUBLIC OFFSITE STORM DRAIN THAT WILL SERVE TRACT D. SUBSEQUENT SUBMITTALS WILL BE REQUIRED DEMONSTRATE AND JUSTIFY THE FUTURE DEVELOPMENT WITHIN TRACTS B, C AND D.

DOWNSTREAM DEVELOPMENT (CEJA VISTA) IS ALSO PROPOSING CHANGES TO THE WATERSHED ADDRESSED BY SEPARATE SUBMITTALS FROM MARK GOODWIN & ASSOCIATES (DMG). THE DMG PLANS REPRESENT A COMPREHENSIVE OVERHAUL OF THE 2000 PLAN AND WILL INCLUDE THE REVISIONS TO TRACTS B, C AND D AS CONTAINED HEREIN.

ALTHOUGH THIS SITE LIES WITHIN THE JURISDICTION OF BERNALILLO COUNTY, IT IS ADJACENT TO CITY OF ALBUQUERQUE LAND. PART OF THE DISCHARGE IS TO A FUTURE COA STORM DRAIN AND THE REMAINING DISCHARGE OUTFALLS TO AN EXISTING AMAFCA FACILITY. COPIES OF THIS PLAN ARE BEING SUBMITTED TO THE CITY OF ALBUQUERQUE AND TO AMAFCA.

II. PROJECT DESCRIPTION:

AS SHOWN BY VICINITY MAP P-8 HEREON, THE SITE IS LOCATED AT THE SOUTHEAST CORNER OF DENNIS CHAVEZ BLVD SW AND 118TH STREET SW. THE EXISTING LEGAL DESCRIPTION IS TRACTS B, C AND D, TOMA ALLIANCE GROUP OF NM LLC & WESTLAND DEVELOPMENT CO., INC. THE SITE IS ZONED A-1. THE PROPOSED PUBLIC HIGH SCHOOL DEVELOPMENT ON TRACT D RECEIVED A CONDITIONAL USE PERMIT APPROVAL FROM THE COUNTY EARLIER THIS YEAR. TRACT C HAS A COUNTY APPROVED SITE PLAN FOR RESIDENTIAL DEVELOPMENT.

AS SHOWN BY PANEL 338 OF 825 OF THE NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAPS, BERNALILLO COUNTY, NEW MEXICO, AND INCORPORATED AREAS, REVISED 10/13/2005, THE SITE DOES NOT LIE WITHIN A FLOOD HAZARD ZONE. UPSTREAM OFFSITE FLOWS PREVIOUSLY IMPACTING TRACT D WITH AN ASSOCIATED FLOOD HAZARD DESIGNATION WERE DIVERTED INTO A COUNTY MAINTAINED PUBLIC DRAINAGE CONVEYANCE CONSTRUCTED ON THE WEST SIDE OF 118TH STREET SW. THIS COUNTY CHANNEL ALONG 118TH CONVEYS FLOWS SOUTH TO THE AMAFCA MAINTAINED NORTH BORREGA CHANNEL RIGHT OF WAY BORDERING THE SOUTH SIDES OF TRACTS B AND C AND PREVENTS OFFSITE FLOWS FROM IMPACTING TRACTS B, C AND D.

III. REFERENCE DOCUMENTS

THE FOLLOWING IS A LIST OF DOCUMENTS RELATED TO THE SITE AND SURROUNDING AREA. THIS LIST MAY NOT BE INCLUSIVE, HOWEVER, REPRESENTS A SUMMARY OF RELEVANT PLANS AND DOCUMENTS KNOWN TO THE ENGINEER AT THE TIME OF PLAN PREPARATION.

A. DESIGN ANALYSIS REPORT FOR BORREGA DETENTION DAM AND NORTH BORREGA CHANNEL PREPARED FOR AMAFCA BY WILSON & COMPANY DATED APRIL 11, 2000. THIS REPORT PRESENTED AN OVERALL DRAINAGE MANAGEMENT PLAN FOR THE BORREGA DRAINAGE BASIN WITHIN THE AMOLE WATERSHED SOUTHWEST OF THE CITY OF ALBUQUERQUE. IT INCLUDED A HYDROLOGIC ANALYSIS OF THE BASINS DRAINING THE THE DAM AND CHANNEL, AS WELL AS A HYDRAULIC ANALYSIS OF THE DAM AND CHANNEL. THIS REPORT IS THE GOVERNING PLAN FOR DRAINAGE MANAGEMENT IN THE AREA AND THIS SPECIFIC SUBMITTAL IS INTENDED TO REVISE BASINS A, B AND B-4 EAST FROM THAT REPORT.
B. BULK LAND PLAT TRACTS A-D AND AMAFCA BORREGA CHANNEL R/W FOR TOMA ALLIANCE GROUP OF NM, LLC AND WESTLAND DEVELOPMENT CO, INC. RECORDED 12/02/2004. THIS PLAT CREATED TRACTS B, C AND D IN THEIR CURRENT CONFIGURATION.
C. MASS GRADING PLAN AND PHASE 1 GRADING AND DRAINAGE PLAN FOR APS SOUTHWEST HIGH SCHOOL PREPARED BY HIGH MESA CONSULTING GROUP DATED 5/15/2007 AND 6/20/2007, RESPECTIVELY. THESE PLANS, BOTH APPROVED BY BERNALILLO COUNTY, SUPPORTED THE MASS GRADING AND PHASE 1 HIGH SCHOOL CONSTRUCTION FOR THE APS HIGH SCHOOL ON TRACT D.
D. CONCEPTUAL DRAINAGE REPORT FOR CEJA VISTA SUBDIVISION PHASE II PREPARED BY MARK GOODWIN & ASSOCIATES DATED 10/16/2007. THIS REPORT WAS SUBMITTED TO BERNALILLO COUNTY TO SUPPORT A SPECIAL USE PERMIT REQUEST FOR CEJA VISTA PHASE II THAT LIES EAST AND DOWNSTREAM OF THE AREA ADDRESSED BY THE PAAKWEREE TRACTS. THE AHYMO ANALYSIS CONTAINED THEREIN ADDRESSES THE ENTIRE WATERSHED AND INCLUDES THE PROPOSED TRACT B, C AND D CHANGES AS WELL AS DOWNSTREAM CHANGES ATTRIBUTABLE TO CEJA VISTA DEVELOPMENT.

IV. HISTORIC/RECORD CONDITIONS

AS SHOWN BY THE RECORD DRAINAGE BASIN MAP ON SHEET C-102, THE SUBJECT ARE WAS DIVIDED INTO THREE DRAINAGE BASINS: A, B AND B-4 EAST. BASINS A AND B WERE IDENTIFIED TO DRAIN TO THE SOUTH THE NORTH BORREGA CHANNEL WHICH PROVIDED SIDE INLETS AND STORM DRAIN STUBOUTS TO RECEIVE THE RUNOFF FROM BASINS A AND B. BASIN B-4 EAST WAS IDENTIFIED TO DRAIN TO THE EAST A FUTURE STORM DRAIN. THE COMMON OUTFALL FOR ALL THREE BASINS IS THE BORREGA DAM.

THE WILSON PLAN (REF A) ESTABLISHED LAND TREATMENT ASSUMPTIONS AND ALLOWABLE DISCHARGES FOR THE ENTIRE WATERSHED AND INCLUDED HYDROLOGIC AND HYDRAULIC ANALYSES OF THE BASINS AND DRAINAGE FACILITIES. IT IS IMPORTANT TO NOTE THAT THE HEC-RAS HYDRAULIC ANALYSIS OF THE NORTH BORREGA CHANNEL ASSUMED A MANNING'S n VALUE OF 0.018 FOR THE CHANNEL. IT WAS CONFIRMED IN A MEETING WITH AMAFCA HELD 11/01/07 THAT AMAFCA TYPICALLY REQUIRES USING n=0.017 FOR CHANNEL ROUGHNESS. AS SUCH, THE CHANNEL DEPTH AND RESULTANT FREEBOARD CALCULATIONS IN THE WILSON PLAN ARE CONSERVATIVE BY A FACTOR OF 1.059 (0.018/0.017). THE AHYMO ROUTING DID ASSUME n=0.017 AND THEREFORE THE ROUTING AND TIMING OF THE FLOWS WILL NOT BE IMPACTED BY SUBSEQUENT DEPTH AND FREEBOARD ASSUMPTIONS THAT USE n=0.017.

AS SHOWN BY THE RECORD ANALYSIS, THE PEAK 100-YEAR FLOW RATE AT THE SOUTHEAST CORNER OF BASIN B (NOW TRACT C) WAS CALCULATED AS 727.6 CFS (HYDROGRAPH 107.10, TOTAL FLOW IN N BORREGA CHANNEL AT PERDIZ BRIDGE) WITH A CORRESPONDING DEPTH OF 2.47 FEET BASED ON n=0.018.

V. EXISTING CONDITIONS:

A PLAT WAS RECORDED IN 2004 (REF. B) THAT CREATED TRACTS B, C AND D IN THEIR CURRENT CONFIGURATIONS. THIS PLATTING EFFECTIVELY REDUCED THE AREAS OF RECORD DRAINAGE BASINS A AND B (CORRESPONDING TO PLATTED TRACTS B AND C) AND INCREASING THE SIZE OF BASIN B-4 EAST (CORRESPONDING TO PLATTED TRACT D). A PUBLIC AMAFCA DRAINAGE EASEMENT WAS GRANTED WITH THE PLAT ALONG THE EAST EDGE OF TRACT C TO ALLOW CONVEYANCE OF RUNOFF FROM TRACT D TO THE NORTH BORREGA CHANNEL.

TRACTS B ANC C ARE UNDEVELOPED WITH AN EXISTING GROUND COVER OF NATIVE VEGETATION. THE SITES GENERALLY SLOPE FROM NORTHWEST TO SOUTHEAST TO THE NORTH BORREGA CHANNEL THAT BORDERS THE SOUTH SIDES OF TRACTS B AND C. IT IS AN AMAFCA OWNED AND MAINTAINED PUBLIC DRAINAGE CHANNEL SIZED FOR RUNOFF FROM NEARBY AND ADJACENT SITES IN ACCORDANCE WITH THE LAND TREATMENT ASSUMPTIONS MADE IN THE RECORD 2000 DRAINAGE ANALYSIS REPORT (REFERENCE A). TRACT C WAS PLANNED FOR A RESIDENTIAL SUBDIVISION. THE NORTH BORREGA CHANNEL HAS SIDE INLETS AND STORM DRAIN PENETRATIONS DIRECTLY SERVING TRACTS B AND C.

APS OWNS TRACT D AND PHASE 1 OF THE NEW APS SOUTHWEST HIGH SCHOOL IS CURRENTLY UNDER CONSTRUCTION. THE ENTIRE SITE WAS MASS GRADED IN THE SUMMER OF 2007 IN ADVANCE OF THE PHASE 1 SITE CONSTRUCTION WHICH BEGAN IN SEPTEMBER OF 2007. PHASE 1 INCLUDES THE FIRST SITE BUILDING (9TH GRADE ONLY) AND RELATED PAVING IMPROVEMENTS FOR PARKING AND BUSSES. TEMPORARY RETENTION PONDING WAS PROVIDED TO OFFSET THE CHANGE IN LAND TREATMENT RESULTANT FROM THE MASS GRADING AND PHASE 1 CONSTRUCTION.

AS DESCRIBED BY THE WILSON REPORT (REF. A), THE OUTFALL FOR THE ENTIRE WATERSHED IS THE BORREGA DETENTION DAM. PER THE WILSON REPORT, BASINS A AND B ROUGHLY CORRESPOND TO PLATTED TRACTS B AND C AND DISCHARGE DIRECTLY TO THE NORTH BORREGA CHANNEL. BASIN B-4 EAST FROM THE WILSON PLAN ROUGHLY CORRESPONDS TO PLATTED TRACT D (THE HIGH SCHOOL SITE) AND WAS ASSUMED TO DRAIN TO THE EAST THROUGH A FUTURE STORM DRAIN SYSTEM TO THE DAM. THE AFOREMENTIONED REPLAT (REF. B) REDUCED THE SIZE OF TRACTS B AND C AND INCREASED THE SIZE OF TRACT D. IT ALSO SHIFTED DRAINAGE BASIN AREA FROM BASINS A AND B (DESIGNATED FOR THE CHANNEL) INTO TRACT D.

VI. DEVELOPED CONDITIONS

THE ULTIMATE DRAINAGE PATTERNS AND CONCEPTS FOR TRACTS B AND C ARE ESSENTIALLY UNCHANGED FROM THE PREVIOUSLY APPROVED PLAN WITH THE EXCEPTION THAT THE BASINS ARE NOW SMALLER AS A RESULT OF PLATTING. THE SAME LAND TREATMENTS APPLY TO DEVELOPMENT AND THE PEAK FLOW RATE ALLOWED IS REDUCED PROPORTIONALLY TO THE REDUCTION IN BASIN AREA.

THE DRAINAGE PATTERNS AND CONCEPTS FOR TRACT D WILL DEVIATE SOMEWHAT FROM THAT PREVIOUSLY ESTABLISHED FOR FORMER BASIN B-4 EAST. BECAUSE TRACT D INCLUDES AREA FROM FORMER BASINS A AND B THAT WERE PROGRAMMED FOR DIRECT DISCHARGE TO THE NORTH BORREGA CHANNEL, IT IS APPROPRIATE THAT A PORTION OF TRACT D ALSO DRAIN TO THE CHANNEL. THIS WILL BE ACCOMPLISHED VIA NEW PUBLIC STORM DRAIN TO BE CONSTRUCTED BY APS AND LOCATED WITHIN THE AMAFCA EASEMENT AT THE EAST EDGE OF TRACT C.

AS COORDINATED WITH THE DOWNSTREAM DEVELOPERS OF CEJA VISTA, THE VOLUME AND PEAK RATE OF RUNOFF IDENTIFIED TO DRAIN THROUGH THEIR SITE TO THE EAST WILL BE SIGNIFICANTLY REDUCED FROM THAT IDENTIFIED FOR BASIN B-4 EAST IN THE RECORD WILSON PLAN. THE PROPOSED DISCHARGE WILL HAVE A PEAK FLOW RATE OF 28 CFS (AS OPPOSED TO 110 CFS). THIS AREA IS IDENTIFIED AS BASIN "M" ON THE PROPOSED CONDITIONS PLAN. THIS REDUCED BASIN SIZE WILL SIGNIFICANTLY REDUCE THE CARRYING CAPACITY REQUIREMENTS FOR THE DOWNSTREAM CEJA VISTA DRAINAGE SYSTEM THAT WILL OUTFALL TO THE BORREGA DAM.

DEVELOPMENT ON TRACT D (NEW SOUTHWEST HIGH SCHOOL) BEYOND PHASE 1 WILL REQUIRE ON-SITE DETENTION PONDING. MOST OF THE SITE AREA ON TRACT D (BASIN S) WILL BE DIVERTED SOUTH TO THE PROPOSED STORM DRAIN ON TRACT C AND TO THE NORTH BORREGA CHANNEL. BASIN S WILL INCLUDE 2 DETENTION PONDS LOCATED ON ATHLETIC FIELDS DESIGNED TO: 1) REDUCE THE PEAK FLOW RATE ENTERING THE CHANNEL, 2) HOLD BACK AND DETAIN RUNOFF VOLUME TO KEEP IT FROM IMPACTING THE PEAK STAGE OF THE DOWNSTREAM DAM, AND 3) USE RUNOFF FOR WATER HARVESTING AND TO ENCOURAGE INFILTRATION IN ACCORDANCE WITH THE COUNTY WATER CONSERVATION ORDINANCE. ALTHOUGH THE PEAK RATE OF DISCHARGE AND VOLUME OF RUNOFF GENERATED BY THE SITE EXCEEDS THE AMOUNTS IDENTIFIED IN THE DMP, THE RETENTION PONDING WILL OFFSET THE INCREASE AND NOT ADVERSELY IMPACT DOWNSTREAM CONDITIONS. THE DMG REPORT (REF. D) INCLUDES AN OVERALL HYDROLOGIC ANALYSIS THAT CONFIRMS THIS.

BASIN S WILL INCLUDE APPROXIMATELY 26,065 SF OF "ZERO DISCHARGE" AREA FOR LEVEL DEPRESSED PLANTING AREAS THAT WILL RETAIN ALL RUNOFF THAT LANDS ON THEM.

THE PEAK 100-YEAR FLOW RATE AT PERDIZ ATTRIBUTABLE TO TRACTS B, C AND D AS PROPOSED HEREIN WILL BE 260.8 CFS AS COMPARED TO A COMBINED PEAK FLOW RATE OF 221.4 CFS BASED ON PREVIOUSLY MODELED CONDITIONS. THIS DOES NOT REPRESENT AN INCREASE IN DEPTH WHEN MANNING'S n VALUE IS ADJUSTED FROM 0.018 TO THE AMAFCA STANDARD OF 0.017.

A DETAILED PHASE 2 HIGH SCHOOL PLAN WILL BE SUBMITTED TO SUPPORT BUILDING PERMIT APPROVAL THAT DEMONSTRATES COMPLIANCE WITH THESE REQUIREMENTS.

VII. CALCULATIONS

THE CALCULATIONS, WHICH ARE SUMMARIZED ON SHEET C-102 IN TABLE FORM, ANALYZE BOTH THE RECORD AND PROPOSED CONDITIONS FOR THE 100-YEAR, 6-HOUR RAINFALL EVENT. ARID LANDS HYDROLOGIC MODELING (AHYMO) PROGRAM MODIFIED FOR USE IN ALBUQUERQUE WAS USED IN ACCORDANCE WITH THE PROCEDURE FOR 40-ACRE AND SMALLER BASINS, AS SET FORTH IN THE REVISION OF SECTION 22.2, HYDROLOGY OF THE DEVELOPMENT PROCESS MANUAL, VOLUME 2, DESIGN CRITERIA, DATED JANUARY, 1993, TO QUANTIFY THE PEAK RATE OF DISCHARGE AND VOLUME OF RUNOFF GENERATED. AS SHOWN BY AHYMO, THE PEAK 100-YEAR DISCHARGE FROM THE THREE SUBJECT BASINS IS 39 CFS GREATER THAN THE ORIGINAL CONDITIONS MODELED IN THE RECORD PLAN. PROPOSED CHANNEL DEPTHS WERE CALCULATED USING THE HAESTAD FLOWMASTER PROGRAM BASED ON A TYPICAL AMAFCA MANNING'S n VALUE OF 0.017 INSTEAD OF THE 0.018 USED IN THE RECORD STUDY. AS SHOWN BY THE DEPTH CALCULATIONS, THE PROPOSED CONDITIONS REPRESENT NO INCREASE IN CHANNEL DEPTH WHEN COMPARED TO THE RECORD PLAN. AS SUCH, THE PROPOSED BASIN MODIFICATIONS WILL NOT HAVE AN ADVERSE IMPACT ON DOWNSTREAM FACILITIES.

VIII. CONCLUSIONS

1) THIS PLAN IS SUBMITTED FOR MASTER DRAINAGE PLAN APPROVAL FOR TRACTS B, C AND D, AND TO SUPPORT THE SIZING OF A PUBLIC STORM DRAIN IN AN AMAFCA EASEMENT ON TRACT C. 2) SEPARATE SUBMITTALS WILL BE PREPARED AND SUBMITTED BY THIS OFFICE FOR PHASED CONSTRUCTION OF PUBLIC INFRASTRUCTURE AND PHASED TRACT D (HIGH SCHOOL) DEVELOPMENT. 3) THE PROPOSED DEVELOPMENT IS CONSISTENT WITH DEVELOPMENT CRITERIA ESTABLISHED BY BERNALILLO COUNTY AND AMAFCA FOR THIS WATERSHED, 4) THE PROPOSED DEVELOPMENT IS CONSISTENT WITH THE CONDITIONS MODELED FOR CEJA VISTA BY MARK GOODWIN & ASSOCIATES, 5) THE PROPOSED DOWNSTREAM CEJA VISTA DEVELOPMENTS WILL NOT BE ADVERSELY IMPACTED BY THESE REVISIONS AND WILL BENEFIT BY THE SIGNIFICANT REDUCTION IN PEAK FLOW RATE AND VOLUME DISCHARGED TO THEIR SYSTEM BY THIS SITE, 6) THE PROPOSED LAND TREATMENTS AND ALLOWABLE DISCHARGE PER ACRE FOR TRACTS B AND C ARE UNCHANGED FROM THE RECORD PLAN, AND 7) THERE ARE NO DESIGN VARIANCES OR NEW DRAINAGE EASEMENTS ANTICIPATED AT THIS TIME.

HIGH MESA Consulting Group
FORMERLY JEFF MORRISSEY AND ASSOCIATES, INC.
6010-B MIDWAY PARK BLVD. NE
ALBUQUERQUE, NEW MEXICO 87109
PHONE: 505.345.4250 FAX: 505.345.4254
www.highmesacg.com

J. GRAEME MEANS NEW MEXICO 13678 PROFESSIONAL ENGINEER

11/26/2007

MASTER DRAINAGE REPORT
TRACTS B, C & D
PAAKWEREE BULK LAND PLAT

P-09/0001

NO.	DATE	BY	REVISIONS

PROJECT No.	2005.180.4
DESIGNED BY	G.M.
DRAWN BY	JLP / RRW
APPROVED BY	G.M.

SHEET TITLE

DRAINAGE REPORT, VICINITY MAP, FIRM, INDEX OF DRAWINGS

C-101

SHEET 1 OF 4

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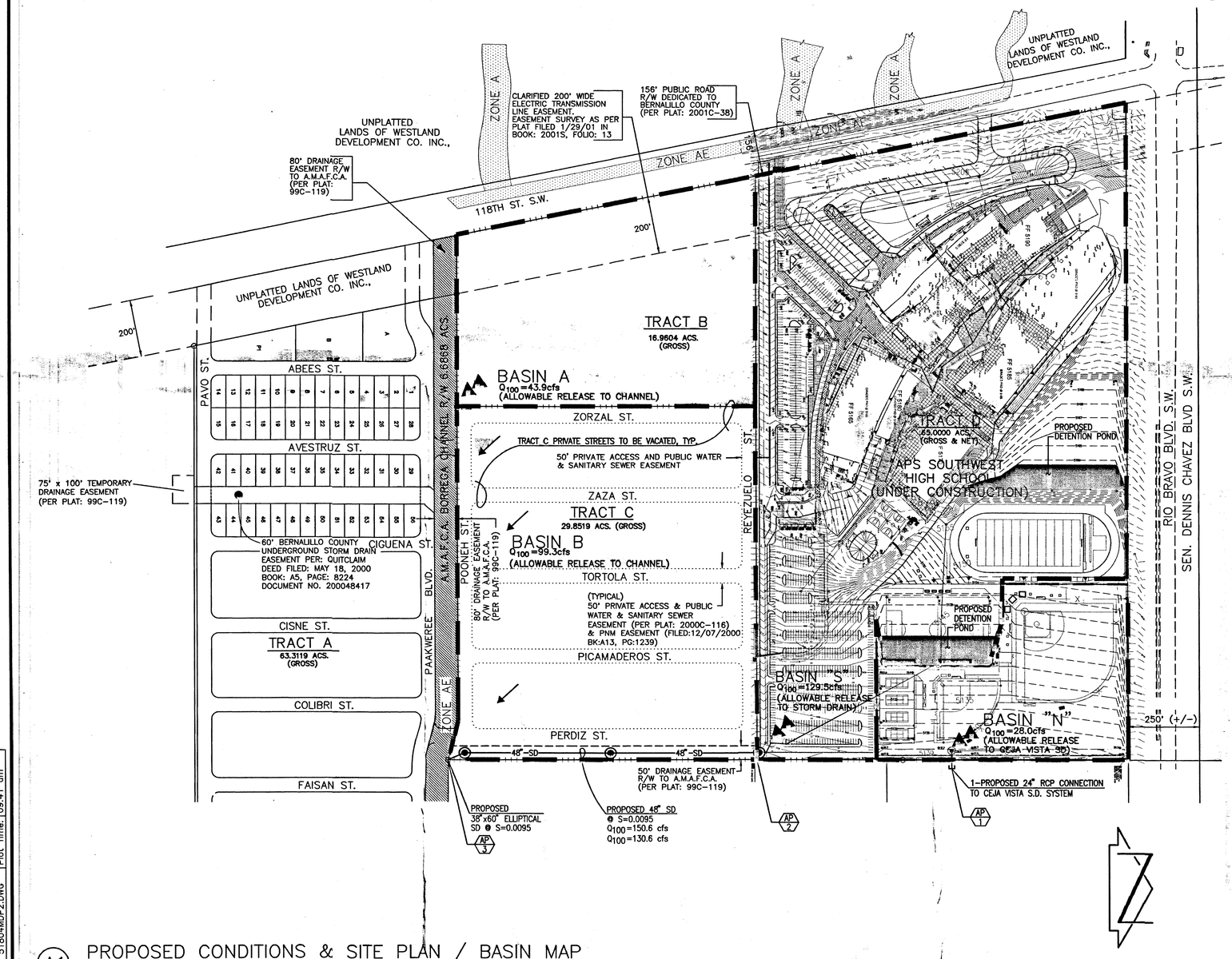


A1 PROPOSED CONDITIONS & SITE PLAN / BASIN MAP

SCALE: 1" = 200'

BASIN NOTES

BASIN SUMMARY (FROM RECORD MDP)

BASIN	AREA (AC)	% A	% B	% C	% D	Q100 (cfs)	V100 (ac-ft)	COMMENT
B-4 EAST	44.3	0	9	75	16	110	4.3	TO EAST
A	32.8	0	40	55	5	85	2.5	TO CHANNEL
B	41.0	0	28	23	49	137	5.5	TO CHANNEL

BASIN SUMMARY (AS PROPOSED)

BASIN	AREA (AC)	% A	% B	% C	% D	Q100 (cfs)	V100 (ac-ft)	COMMENT
N	9.7	0	50	18	32	28	1.0	TO EAST
S	55.3	6	21	10	63	130	8.0	TO SD TO CHANNEL
A	16.96	0	40	55	5	44	1.3	TO CHANNEL
B	29.85	0	28	23	49	99	4.0	TO CHANNEL

*THROUGH REQUIRED DETENTION PONDING

COMPARISON @ AP-1 (TO EAST)

BASIN	Q100 (cfs)	V100 (ac-ft)
B-4 EAST	110	4.3
N	28	1.0
DIFFERENCE	-82	-3.3

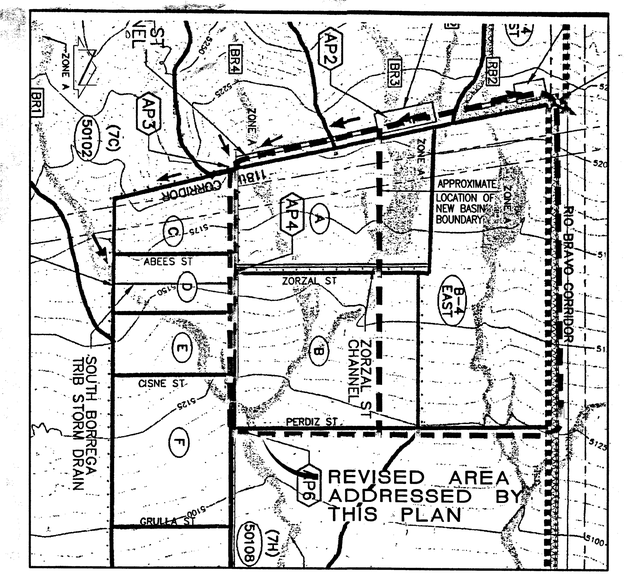
COMPARISON @ AP-3 (CHANNEL @ PERDIZ)

	Q100 (cfs)	DEPTH	CORRECTED DEPTH*
RECORD	728	2.47ft	
PROPOSED	767		2.46ft

* RECORD MDP HEC-RAS USED n=0.018 FOR DEPTH & FREEBOND. USING TYPICAL AMAFCA n=0.017 RESULTS IN NET REDUCTION IN DEPTH.

TOPOGRAPHY NOTE

THIS IS NOT A BOUNDARY SURVEY. APPARENT PROPERTY CORNERS ARE SHOWN FOR ORIENTATION ONLY. BOUNDARY INFORMATION DEPICTED ON THIS PLAN IS BASED UPON THE "BULK LAND PLAT, TRACTS A-D AND A.M.A.F.C.A. BORREGA CHANNEL R/W FOR TOMA ALLIANCE GROUP OF NM LLC AND WESTLAND DEVELOPMENT CO., INC." PREPARED BY WILSON & COMPANY AND DATED 09-28-2004, NMPLS NO. 14733.



PREVIOUSLY APPROVED BASIN BOUNDARY MAP (FROM 3/22/00 PLAN BY WILSON & COMPANY

A5 SCALE: 1" = 500'

HIGH MESA Consulting Group
FORMERLY JEFF MORTENSEN AND ASSOCIATES, INC.
6010-B MIDWAY PARK BLVD. NE
ALBUQUERQUE, NEW MEXICO 87109
PHONE: 505.345.4250 FAX: 505.345.4254
www.highmesacg.com

J. GRAEME MEANS NEW MEXICO 13676 REGISTERED PROFESSIONAL ENGINEER
11/26/2007

MASTER DRAINAGE REPORT
TRACTS B, C & D
PAAKWEREE BULK LAND PLAT

NO.	DATE	BY	REVISIONS

PROJECT No.	2005.180.4
DESIGNED BY	G.M.
DRAWN BY	J.L.P. / J.Y.R. / RRW
APPROVED BY	G.M.
SHEET TITLE	

MASTER DRAINAGE SITE PLAN

C-102

SHEET 2 OF 4

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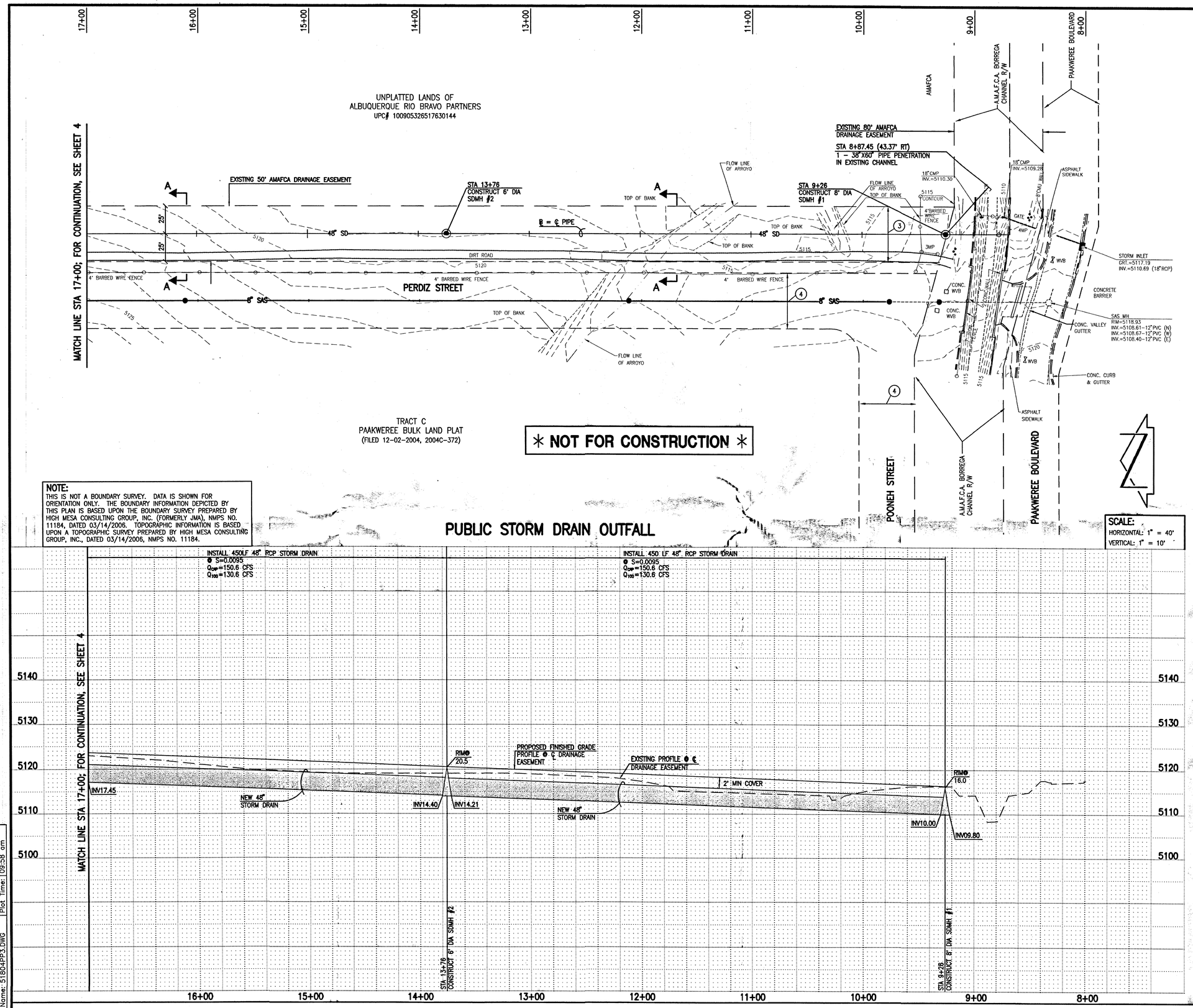

NOTE:
THIS IS NOT A BOUNDARY SURVEY. DATA IS SHOWN FOR ORIENTATION ONLY. THE BOUNDARY INFORMATION DEPICTED BY THIS PLAN IS BASED UPON THE BOUNDARY SURVEY PREPARED BY HIGH MESA CONSULTING GROUP, INC. (FORMERLY JMA), NMPS NO. 11184, DATED 03/14/2006. TOPOGRAPHIC INFORMATION IS BASED UPON A TOPOGRAPHIC SURVEY PREPARED BY HIGH MESA CONSULTING GROUP, INC., DATED 03/14/2006, NMPS NO. 11184.

SCALE:
HORIZONTAL: 1" = 40'
VERTICAL: 1" = 10'

STORM DRAIN NOTES:

1. ALL STORM DRAIN TO BE CLASS III REINFORCED CONCRETE PIPE (RCP) UNLESS OTHERWISE NOTED.
2. ALL MANHOLES SHALL BE 6' DIAMETER TYPE 'C' PER C.O.A. STANDARD DRAWING 2101 UNLESS OTHERWISE NOTED.
3. ALL STATIONING SHOWN HEREON IS BASED ON STREET CENTERLINE UNLESS OTHERWISE NOTED. SLOPES ARE BASED ON TRUE LENGTH OF PIPE.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SELECTING APPROPRIATE MEANS AND METHODS TO EXCAVATE AND TRENCH AND INSTALL PIPE SO AS TO NOT EXCEED RIGHT-OF-WAY OR EASEMENT LIMITS, AND SO AS NOT TO INTERFERE WITH OTHER UTILITIES. THIS SHALL BE CONSIDERED INCIDENTAL TO TRENCHING, THEREFORE, NO SEPARATE PAYMENT WILL BE MADE.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING, SUPPORTING AND REPLACING, IF DAMAGED, ALL OTHER UTILITIES ENCOUNTERED DURING CONSTRUCTION. THIS SHALL BE CONSIDERED INCIDENTAL TO TRENCHING, THEREFORE, NO SEPARATE PAYMENT WILL BE MADE.
6. FOR STORM DRAIN CONSTRUCTION, RCP PIPE JOINTS SHALL NOT BE GROUTED PRIOR TO FINAL INSPECTION. FINAL INSPECTION WILL DETERMINE JOINTS TO BE GROUTED FOR FINAL ACCEPTANCE OF THE CONSTRUCTION.

AS BUILT INFORMATION
CONTRACTOR — DATE
BENCH MARKS BOARD BY — DATE
INSPECTOR'S FIELDTRACE BY — DATE
VERIFICATION BY — DATE
REVISIONS CORRECTED BY — DATE

MICRO-FILM INFORMATION
RECORDED BY — DATE
NO.

SURVEY INFORMATION

NO.	FIELD NOTES BY	DATE
2005.180.4	JMA	3/14/06

BENCH MARKS
PROJECT BENCHMARK
A 60 PENNY NAIL IN THE EAST SIDE OF THE EAST POLE OF PYLON #69/3
CITY OF ALBUQUERQUE BENCH MARK 1-P9(R)
ELEVATION = 5197.181 FEET (NGVD1929)

ENGINEER'S SEAL
J. LORAINE NEW — NEW MEXICO — PROFESSIONAL ENGINEER — REGISTERED
PRELIMINARY

NO.	REMARKS / Revisions / DESIGN	DATE	BY
	Designed By	Date 08-07	G.M./J.D.S.
	Drawn By	Date 08-07	S.G.H./JLP/CFA/RRW
	Checked By	Date 11-07	G.M.

KEYED NOTES
(3) 50' DRAINAGE RIGHT-OF-WAY TO A.M.A.F.C.A. GRANTED BY PLAT, FILED 05-13-99, BOOK 99C, PAGE 119.
(4) 50' PRIVATE ACCESS & PUBLIC WATER & SANITARY SEWER EASEMENT GRANTED BY PLAT, FILED 04-24-2000, BOOK 2000C, PAGE 116 AND PNM JOINT ELECTRIC & GAS EASEMENT GRANTED BY DOCUMENT, FILED 12-07-2000, BOOK A13, PAGE 1239.

2005.180.4

HIGH MESA Consulting Group
FORMERLY JEFF MORTENSEN AND ASSOCIATES, INC.
6010-B MIDWAY PARK BLVD. NE • ALBUQUERQUE, NEW MEXICO 87109
PHONE: 505.345.4250 • FAX: 505.345.4254 • www.highmesacg.com

TITLE: PUBLIC STORM DRAIN OUTFALL IMPROVEMENTS
PLAN AND PROFILE STA 8+30 TO STA 17+00
SOUTHWEST MESA HIGH SCHOOL INFRASTRUCTURE

AMAFACA APPROVAL	COUNTY APPROVAL	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

Project No. | Zone Map No. P-8 | Sheet 3 Of 4

File Path: D:\MAJOR\2005.180A
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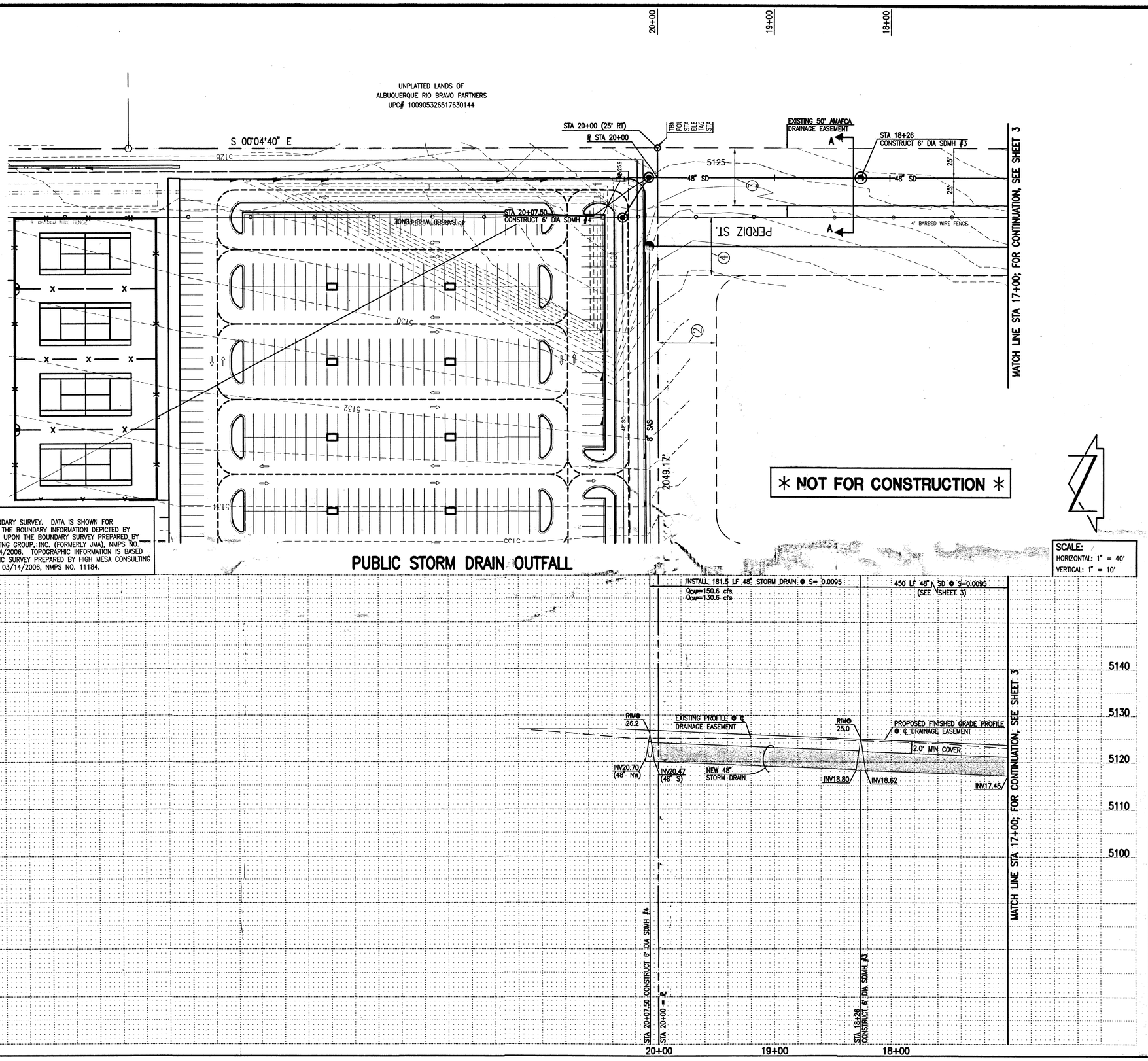
Plot Date: 11-26-2007
Plot Time: 09:58 am



NOTE:
THIS IS NOT A BOUNDARY SURVEY. DATA IS SHOWN FOR ORIENTATION ONLY. THE BOUNDARY INFORMATION DEPICTED BY THIS PLAN IS BASED UPON THE BOUNDARY SURVEY PREPARED BY HIGH MESA CONSULTING GROUP, INC. (FORMERLY JMA), NMPS NO. 11184, DATED 03/14/2006. TOPOGRAPHIC INFORMATION IS BASED UPON A TOPOGRAPHIC SURVEY PREPARED BY HIGH MESA CONSULTING GROUP, INC., DATED 03/14/2006, NMPS NO. 11184.

SCALE:
HORIZONTAL: 1" = 40'
VERTICAL: 1" = 10'

ELEVATIONS ARE IN NGVD 1929

STORM DRAIN NOTES:

1. ALL STORM DRAIN TO BE CLASS III REINFORCED CONCRETE PIPE (RCP) UNLESS OTHERWISE NOTED.
2. ALL MANHOLES SHALL BE 6' DIAMETER TYPE 'C' PER C.O.A. STANDARD DRAWING 2101 UNLESS OTHERWISE NOTED.
3. ALL STATIONING SHOWN HEREON IS BASED ON STREET CENTERLINE UNLESS OTHERWISE NOTED. SLOPES ARE BASED ON TRUE LENGTH OF PIPE.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SELECTING APPROPRIATE MEANS AND METHODS TO EXCAVATE AND TRENCH AND INSTALL PIPE SO AS TO NOT EXCEED RIGHT-OF-WAY OR EASEMENT LIMITS, AND SO AS NOT TO INTERFERE WITH OTHER UTILITIES. THIS SHALL BE CONSIDERED INCIDENTAL TO TRENCHING, THEREFORE, NO SEPARATE PAYMENT WILL BE MADE.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING, SUPPORTING AND REPLACING, IF DAMAGED, ALL OTHER UTILITIES ENCOUNTERED DURING CONSTRUCTION. THIS SHALL BE CONSIDERED INCIDENTAL TO TRENCHING, THEREFORE, NO SEPARATE PAYMENT WILL BE MADE.
6. FOR STORM DRAIN CONSTRUCTION, RCP PIPE JOINTS SHALL NOT BE GROUTED PRIOR TO FINAL INSPECTION. FINAL INSPECTION WILL DETERMINE JOINTS TO BE GROUTED FOR FINAL ACCEPTANCE OF THE CONSTRUCTION.

KEYED NOTES

EXISTING EASEMENTS – OFFSITE

(2) 50' PRIVATE ACCESS & PUBLIC WATER & SANITARY SEWER EASEMENT GRANTED BY PLAT, FILED 12-02-2004, BOOK 2000C, PAGE 372.

(3) 50' DRAINAGE RIGHT-OF-WAY TO A.M.A.F.C.A. GRANTED BY PLAT, FILED 05-13-99, BOOK 99C, PAGE 119.

(4) 50' PRIVATE ACCESS & PUBLIC WATER & SANITARY SEWER EASEMENT GRANTED BY PLAT, FILED 04-24-2000, BOOK 2000C, PAGE 116 AND PNM JOINT ELECTRIC & GAS EASEMENT GRANTED BY DOCUMENT, FILED 12-07-2000, BOOK A13, PAGE 1239.

2005.180.4

HIGH MESA Consulting Group
FORMERLY JEFF MORTENSEN AND ASSOCIATES, INC.
6010-B MIDWAY PARK BLVD. NE • ALBUQUERQUE, NEW MEXICO 87109
PHONE: 505.345.4250 • FAX: 505.345.4254 • www.highmesacg.com

NO.	DATE	REMARKS	BY
		Revisions	
		DESIGN	
	Date 08-07	G.M./J.D.S.	Designed By
	Date 08-07	JLP/CFA/RRV	Drawn By
	Date 10-07	G.M.	Checked By

SURVEY INFORMATION

NO.	FIELD NOTES BY	DATE
2005.180.4	JMA	3/14/06

BENCH MARKS

PROJECT BENCHMARK
A 60 PENNY NAIL IN THE EAST SIDE OF THE EAST POLE OF PYLON #69/3
CITY OF ALBUQUERQUE BENCH MARK 1-P9(R)
ELEVATION = 5197.181 FEET (NGVD1929)

AS BUILT INFORMATION

CONTRACTOR — DATE
WORKS BY
INSPECTOR'S FIELD CHANGE BY — DATE
VERIFICATION BY
DRAWINGS CORRECTED BY — DATE

MICRO-FILM INFORMATION

RECORDED BY — DATE
NO.

ENGINEER'S SEAL

PRELIMINARY
1,08 ACRE NEW MEXICO PROFESSIONAL ENGINEER REGISTERED

TITLE: PUBLIC STORM DRAIN OUTFALL IMPROVEMENTS
PLAN AND PROFILE STA 17+00 TO STA 20+07.50
SOUTHWEST MESA HIGH SCHOOL INFRASTRUCTURE

AMAFCA APPROVAL	COUNTY APPROVAL	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

Project No.	Zone Map No.	Sheet	Of
	P-8	4	4

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