Lots 1 through 5 and 6A through 8A, Block 13, Timoteo Chavez Additions is located at 4016 Menaul Boulevard NE (southwest corner of Menaul Boulevard and Sierra Drive).

Purpose

The purpose of this drainage report is to present a grading and drainage solution for the proposed building addition to the exiting structure. We are requesting rough grading approval, building permit approval, and replat

Existing Drainage Conditions

The site drains from north to south and then west to an existing alley and from there the runoff will continue west to Morningside Drive. The site generates a 100-year/6-hour runoff of 5.71 cfs. The site is surrounded by public right-of-way to the north (Menaul Boulevard) to the east (Sierra Dr.), and to the west (an exisiting Alley). No runoff enters the site.

Proposed Conditions and On-Site Drainage Management Plan

The building is being added over the existing asphalt. Therefore, the runoff will not increase. Under the proposed conditions the runoff will continue to drains to the existing Alley to the west and then will drain to Morningside Drive.

Calculations

City of Albuquerque, Development Process Manuel, Section 22.2, Hydrology Section was used for runoff calculations. Zone 2 was used for runoff calculations. See this plan for AHYMO input and output files for runoff calculations.

RUNOFF CALCULATIONS

The site is @ Zone 2

DRPTH (INCHES) @ 100-YEAR STORM

P60 = 2.01 inche

P360 = 2.35 inche

P1440 = 2.75 inches DEPTH (INCHES) @ 16-YEAR STORM

P60 = 2.01 x 0.667 = 1.34 inch

P360 = 1.57

RUNOFF CALCULATION RESULTS

AHYMO INPUT FILE

* ZONE 2 *********** 100-YEAR, 6-HR STORM (UNDER HISTORICAL CONDITIONS)

*************** RAINFALL

TYPE=1 RAIN QUARTER=0.0 IN RAIN ONE=2.01 IN RAIN SIX=2.35 IN

RAIN DAY=2.75 IN DT=0.03333 HR ID=1 HYD NO=101.0 AREA=0.001995 SQ MI COMPUTE NM HYD

PER A=100.00 PER B=0.00 PER C=0.00 PER D=0.00 TP=0.1333 HR MASS RAINFALL=-1 *********** 10-YEAR, 6-HR STORM (UNDER HISTORICAL CONDITIONS)

RAINFALL

TIME=0.0 TYPE=1 RAIN QUARTER=0.0 IN RAIN ONE=1.34 IN RAIN SIX=1.57 IN

RAIN DAY=1.83 IN DT=0.03333 HR ID=1 HYD NO=111.0 AREA=0.001995 SQ MI PER A=100.00 PER B=0.00 PER C=0.00 PER D=0.00 TP=0.1333 HR MASS RAINFALL=-1

* 100-YEAR, 6-HR STORM (UNDER EXISTING / PROPOSED CONDITIONS) *

TYPE=1 RAIN QUARTER=0.0 IN RAIN ONE=2.01 IN RAIN SIX=2.35 IN

RAINFALL

RAIN DAY=2.75 IN DT=0.03333 HR ID=1 HYD NO=102.0 AREA=0.001995 SQ MI PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00 TP=0.1333 HR MASS RAINFALL=-1

* 100-YEAR, 6-HR STORM (UNDER EXISTING / PROPOSED CONDITIONS) *

RAINFALL

TYPE=1 RAIN QUARTER=0.0 IN RAIN ONE=1.34 IN RAIN SIX=1.57 IN

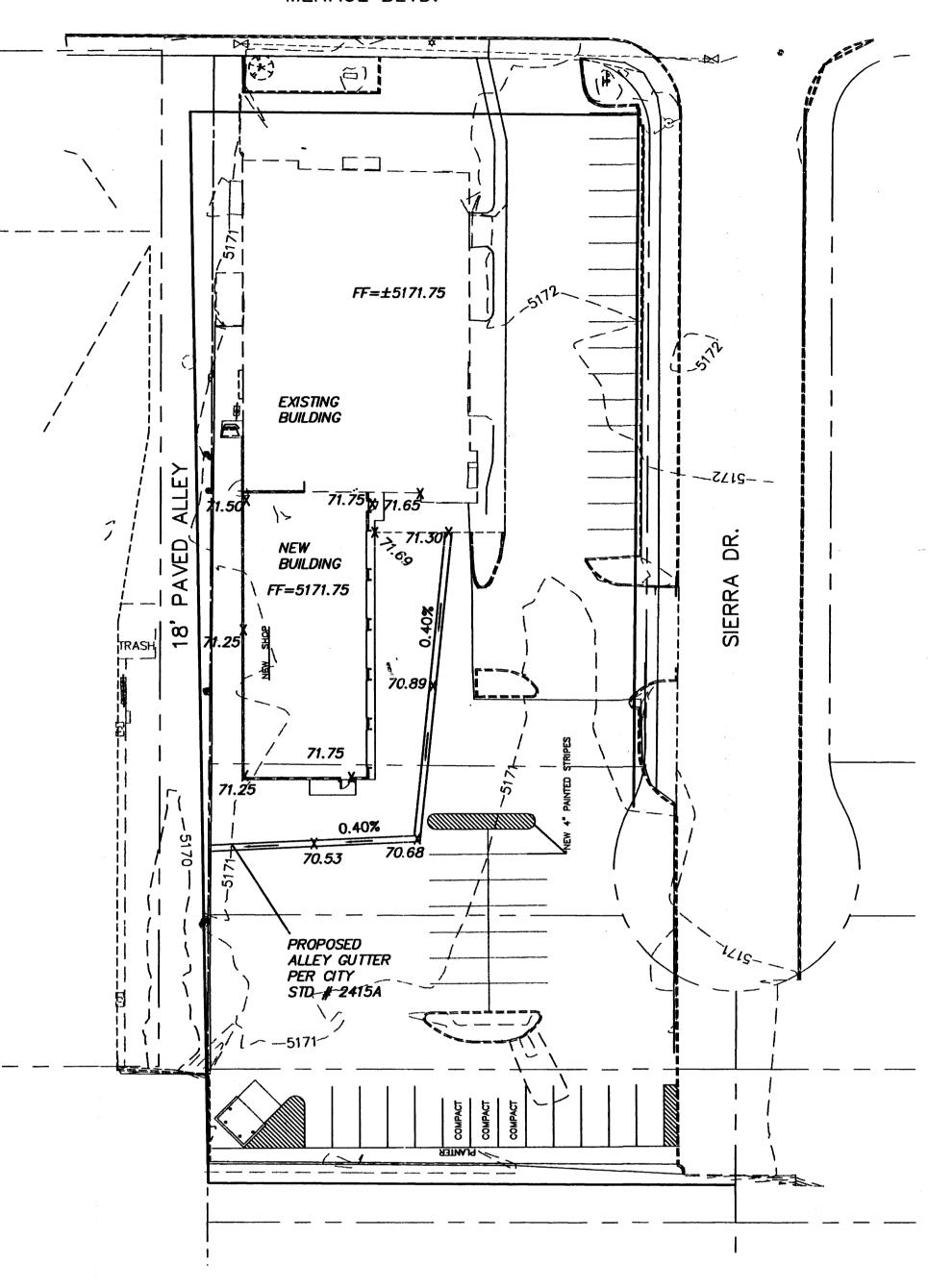
RAIN DAY=1.83 IN DT=0.03333 HR ID=1 HYD NO=112.0 AREA=0.001995 SO MI COMPUTE NM HYD PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00 TP=0.1333 HR MASS RAINFALL=-1 ***********

FINISH

SUMMARY OUTPUT FILE

SUMMARY COTTOT TIME												
	AHYMO PROGRAM INPUT FILE = 2		(AHYMO_	97) -		- VERSION: 1997.02d RUN DATE (MON/DAY/YR) =11/01/200 USER NO.= AHYMO-I-9702c01000R31-A						
		HYDROGRAPH	FROM ID NO.	TO ID	AREA	PEAK DISCHARGE	RUNOFF VOLUME	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	PAGE =	
	COMMAND	OMMAND IDENTIFICATION		NO.	(SQ MI)	(CFS)	(AC-FT)	(THOITIS)	(110010)			
	START RAINFALL TYPE	_ 1									TIME= RAIN6=	.00 2.350
	RAINFALL TYPE COMPUTE NM HYD START		-	1	.00200	1.99	.057	.53121	1.533	1.562	TIME=	.00
	RAINFALL TYPE COMPUTE NM HYD		-	1	.00200	.48	.013	.12517	1.533	.373	RAIN6= PER IMP= TIME=	1.570 .00 .00
	START RAINFALL TYPE COMPUTE NM HYD			1	.00200	5.71	.211	1.98165	1.500	4.470	RAIN6=	2.350 90.00 .00
	START RAINFALL TYPE COMPUTE NM HYD FINISH		-	1	.00200	3.69	.131	1.23172	1.500	2.893	RAIN6=	1.570 90.00

MENAUL BLVD.



REMOVE AND REPLACE EXISTING ASPHALT AS NECESSARY TO CONSTRUCT PROPOSED IMPROVEMENTS AND TO PROVIDE POSITIVE DRAINAGE ON SITE.

EROSION CONTROL PLAN AND POLLUTION PREVENTION NOTES

- CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.
- 2. CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL SEDIMENT OUT OF EXISTING RIGHT-OF-WAY.
- 3. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL STORM RUNOFF ON SITE.
- 4. REPAIR OF DAMAGED FACILITIES AND CLEAN-UP OF SEDIMENT ACCUMULATION ON ADJACENT PROPERTIES AND IN PUBLIC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
- 5. ALL EXPOSED EARTH SURFACES MUST BE PROTECTED FROM WIND AND WATER EROSION PRIOR TO FINAL ACCEPTANCE OF ANY
- 6. ALL THE DISTURBED AREAS MUST BE REVEGETATED.

NOTICE TO CONTRACTORS

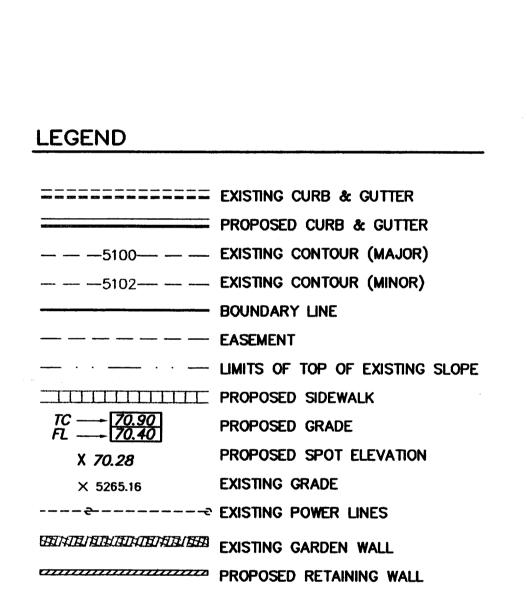
- 1. AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY.
- 2. ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF ALBUQUERQUE INTERIM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION,
- 3. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE, 765-1234, FOR LOCATION OF EXISTING UTILITIES.
- 4. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL CONSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
- 5. BACKFILL COMPACTION SHALL BE ACCORDING TO TRAFFIC/STREET USE.
- 6. MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.
- 7. WORK ON ARTERIAL STREETS SHALL BE PERFORMED ON A 24-HOUR BASIS.

GENERAL NOTES:

- 1: ADD 5100 TO SPOT ELEVATIONS TO SHOW TRUE ELEVATION.
- 2: CONTOUR INTERVAL IS ONE (1) FOOT.
- 3: ELEVATIONS ARE BASED ON CITY OF ALBUQUERQUE CONTROL STATION MON-10-H17 HAVING AN ELEVATION OF <u>5166.73</u> FEET (NAVD 88) ABOVE SEA LEVEL.
- 4: UTILITIES SHOWN HEREON ARE IN THEIR APPROXIMATE LOCATION BASED ONLY ON ABOVE GROUND EVIDENCE FOUND IN THE FIELD AND AS-BUILT INFORMATION PROVIDED BY THE CLIENT, UTILITIES SHOWN HEREON, WHETHER INDICATED AS ABANDONED OR NOT, SHALL BE VERIFIED BY OTHERS FOR EXACT LOCATION AND / OR DEPTH PRIOR TO EXCAVATION OR DESIGN CON-SIDERATIONS.
- 5: THIS IS NOT A BOUNDARY SURVEY, BEARINGS ARE ASSUMED, DISTANCES AND FOUND PROPERTY CORNERS ARE FOR <u>INFORMATIONAL PURPOSES ONLY.</u>



ROUGH GRADING APPROVAL



H-17-Z

MENAUL BLVD.

LOTS 1 THROUGH 5, BLOCK 13, TIMOTEO CHAVEZ ADDITION

CONTAINING 38,552.25 SQUARE FEET (0.8850 ACRES)

& LOTS 6A THROUGH 8A, BLOCK 13, TIMOTEO CHAVEZ ADDITION

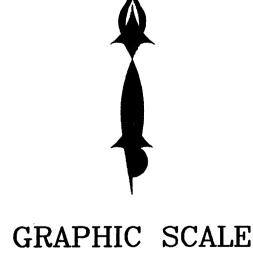
MENAUL

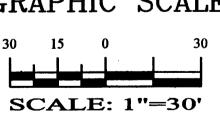
LEGAL DESCRIPTION:

4016 MENAUL BOULEVARD NE

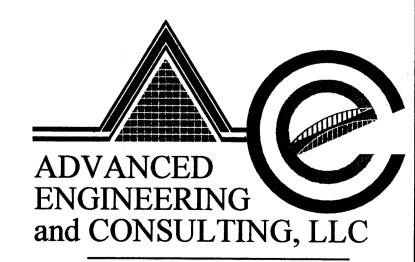
MORE OR LESS.

ADDRESS:









PROPOSED EXTENDED STEM WALL

EXISTING DROP INLET

EXISTING ANCHER

EXISTING STREET LIGHT

EXISTING POWER POLE

SHAHAB BIAZAR P.E. #13479

SBB

200556GR.DWG

4416 ANAHEIM AVE., NE ALBUQUERQUE, NEW MEXICO 87113

LOTS 1 THROUGH 8A, BLK 13, TIMOTEO CHAVEZ ADDITION GRADING AND DRAINAGE PLAN DRAWING: DRAWN BY:

11-02-2005

NOV 14 2005

HYDROLOGY SECT

LAST REVISION: 11-02-2005

DATE

Lots 1 through 5 and 6A through 8A, Block 13, Timoteo Chavez Additions is located at 4016 Menaul Boulevard NE (southwest corner of Menaul MENAUL BLVD. Boulevard and Sierra Drive). M-----The purpose of this drainage report is to present a grading and drainage solution for the proposed building addition to the exiting structure. We are requesting rough grading approval, building permit approval, and replat NOTICE TO CONTRACTORS **Existing Drainage Conditions** 1. AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY. The site drains from north to south and then west to an existing alley and from there the runoff will continue west to Morningside Drive. The site 2. ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF generates a 100-year/6-hour runoff of 5.71 cfs. The site is surrounded by public right-of-way to the north (Menaul Boulevard) to the east (Sierra Dr.), ALBUQUERQUE INTERIM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION. and to the west (an exisiting Alley). No runoff enters the site. Proposed Conditions and On-Site Drainage Management Plan 3. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE FF=±5171.75 LOCATING SERVICE, 765-1234, FOR LOCATION OF EXISTING UTILITIES. The building is being added over the existing asphalt. Therefore, the runoff will not increase. Under the proposed conditions the runoff will 4. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL CONSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN continue to drains to the existing Alley to the west and then will drain to Morningside Drive. BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY. Calculations 5. BACKFILL COMPACTION SHALL BE ACCORDING TO TRAFFIC/STREET USE. City of Albuquerque, Development Process Manuel, Section 22.2, **BUILDING** 6. MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER Hydrology Section was used for runoff calculations. Zone 2 was used for 2141.52 runoff calculations. See this plan for AHYMO input and output files for OF THE PROPERTY SERVED. runoff calculations. 15171.41 7. WORK ON ARTERIAL STREETS SHALL BE PERFORMED ON A 24-HOUR BASIS. -2172-**RUNOFF CALCULATIONS** The site is @ Zone 2 BUILDING 5170.65 DEPTH (INCHES) @ 100-YEAR STORM P360 = 2.35 inches DEPTH (INCHES) @ 10-YEAR STORM 70.89 -P60 = 2.01 x 0.667 P360 = 1.57 **GENERAL NOTES:** 5771,50 5170.56 1: ADD 5100 TO SPOT ELEVATIONS TO SHOW TRUE ELEVATION. P1440 = 1.83 71.75 2: CONTOUR INTERVAL IS ONE (1) FOOT. 3: ELEVATIONS ARE BASED ON CITY OF ALBUQUERQUE CONTROL STATION MON-10-H17 5171.30 -HAVING AN ELEVATION OF 5166.73 FEET (NAVD 88) ABOVE SEA LEVEL 4: UTILITIES SHOWN HEREON ARE IN THEIR APPROXIMATE LOCATION BASED 0.40% ONLY ON ABOVE GROUND EVIDENCE FOUND IN THE FIELD AND AS-BUILT INFORMATION PROVIDED BY THE CLIENT. UTILITIES SHOWN HEREON, WHETHER INDICATED AS ABANDONED OR NOT, SHALL BE VERIFIED BY OTHERS FOR EXACT LOCATION AND/ OR DEPTH PRIOR TO EXCAVATION OR DESIGN CON-SIDERATIONS. 5: THIS IS NOT A BOUNDARY SURVEY, BEARINGS ARE ASSUMED, DISTANCES AND E14.07 FOUND PROPERTY CORNERS ARE FOR INFORMATIONAL PURPOSES ONLY. -ALLEY GUTTER-6: SLOPES ARE AT 3:1 MAXIMUM. PER_CITY_ I SHAHAB BIAZAR, NMPE, OF THE ADVANCED ENGINEERING, LLC HEREBY CERTIFY THAT PROJECT HAS BEEN GRADED AND WILL DRAIN IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE AHYMO INPUT FILE WITH THE DESIGN INTENT OF THE APPROVED PLAN DATED 11-02-05. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY ME OR UNDER MY * ZONE 2 DIRECT SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. ******** THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR Certificate of Occupancy 100-YEAR, 6-HR STORM (UNDER HISTORICAL CONDITIONS) *********** THE RECORD INFORMATION PRESENTED HEREON IS NOT NECESSARILY COMPLETE AND INTENDED TIME=0.0 RAINFALL ONLY TO VERIFY SUBSTANTIAL COMPLIANCE OF THE GRADING AND DRAINAGE ASPECTS OF THIS TYPE=1 RAIN QUARTER=0.0 IN RAIN ONE=2.01 IN RAIN SIX=2.35 IN PROJECT. THOSE RELYING ON THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT RAIN DAY=2.75 IN DT=0.03333 HR VERIFICATION OF ITS ACCURACY BEFORE USING IT FOR ANY OTHER PURPOSE. ID=1 HYD NO=101.0 AREA=0.001995 SQ MI PER A=100.00 PER B=0.00 PER C=0.00 PER D=0.00 TP=0.1333 HR MASS RAINFALL=-1 10-YEAR, 6-HR STORM (UNDER HISTORICAL CONDITIONS) SHAHAB BIAZAR, NMPE # 13479 TIME=0.0 DATE REMOVE AND REPLACE EXISTING ASPHALT TYPE=1 RAIN QUARTER=0.0 IN RAINFALL RAIN ONE=1.34 IN RAIN SIX=1.57 IN AS NECESSARY TO CONSTRUCT PROPOSED RAIN DAY=1.83 IN DT=0.03333 HR IMPROVEMENTS AND TO PROVIDE POSITIVE ID=1 HYD NO=111.0 AREA=0.001995 SQ MI PER A=100.00 PER B=0.00 PER C=0.00 PER D=0.00 DRAINAGE ON SITE. TP=0.1333 HR MASS RAINFALL=-1 * 100-YEAR, 6-HR STORM (UNDER EXISTING / PROPOSED CONDITIONS) * RAINFALL TYPE=1 RAIN QUARTER=0.0 IN RAIN ONE=2.01 IN RAIN SIX=2.35 IN RAIN DAY=2.75 IN DT=0.03333 HR ID=1 HYD NO=102.0 AREA=0.001995 SQ MI PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00 TP=0.1333 HR MASS RAINFALL=-1 * 100-YEAR, 6-HR STORM (UNDER EXISTING / PROPOSED CONDITIONS) * EROSION CONTROL PLAN RAINFALL TYPE=1 RAIN QUARTER=0.0 IN AND POLLUTION PREVENTION NOTES RAIN ONE=1.34 IN RAIN SIX=1.57 IN RAIN DAY=1.83 IN DT=0.03333 HR . CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL COMPUTE NM HYD ID=1 HYD NO=112.0 AREA=0.001995 SQ MI DISTURBANCE PERMIT PRIOR TO BEGINNING WORK. PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00 SCALE: 1"=30" TP=0.1333 HR MASS RAINFALL=-1 2. CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL SEDIMENT OUT ********* FINISH OF EXISTING RIGHT-OF-WAY. 3. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL STORM RUNCFF ON SITE. REPAIR OF DAMAGED FACILITIES AND CLEAN-UP OF SEDIMENT ACCUMULATION ON ADJACENT PROPERTIES AND IN PUBLIC SUMMARY OUTPUT FILE FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR. AHYMO PROGRAM SUMMARY TABLE (AHYMO 97) RUN DATE (MON/DAY/YR) =11/01/2005 5. ALL EXPOSED EARTH SURFACES MUST BE PROTECTED FROM WIND INPUT FILE = 200556USER NO. = AHYMO-I-9702c01000R31-AH AND WATER EROSION PRIOR TO FINAL ACCEPTANCE OF ANY RUNOFF HYDROGRAPH ID ID VOLUME IDENTIFICATION NO. NO. 6. ALL THE DISTURBED AREAS MUST BE REVEGETATED. (SQ MI) (INCHES) (HOURS) RAINFALL TYPE= 1 RAIN6= COMPUTE NM HYD .00200 1.99 .53121 1.533 1.562 PER IMP= RAINFALL TYPE= RAIN6= 1.533 .373 PER IMP= RAINFALL TYPE= TIME= RAIN6= COMPUTE NM HYD 1.98165 1.500 4.470 PER IMP=

RAINFALL TYPE= 1

112.00 - 1

.00200

.131

1.23172 1.500 2.893 PER IMP= 90.00

COMPUTE NM HYD

PROFERTY MENAUL MENAUL BLVD. 2000 M CC CC VICINITY MAP: H-17-Z LEGAL DESCRIPTION: LOTS 1 THROUGH 5, BLOCK 13, TIMOTEO CHAVEZ ADDITION & LOTS 6A THROUGH 8A, BLOCK 13, TIMOTEO CHAVEZ ADDITION CONTAINING 38,552.25 SQUARE FEET (0.8850 ACRES) **ADDRESS:** 4016 MENAUL BOULEVARD NE LEGEND ========= EXISTING CURB & GUTTER PROPOSED CURB & GUTTER BOUNDARY LINE ---- EASEMENT - · · - LIMITS OF TOP OF EXISTING SLOPE PROPOSED SIDEWALK PROPOSED GRADE PROPOSED SPOT ELEVATION X 70.28 X 5265.16 **EXISTING GRADE** ---- EXISTING POWER LINES EXISTING GARDEN WALL PROPOSED RETAINING WALL PROPOSED EXTENDED STEM WALL EXISTING DROP INLET EXISTING STREET LIGHT EXISTING ANCHER EXISTING POWER POLE APR - 3 2006 HYDROLOGY SECTION **ENGINEERING** and CONSULTING, LLC SHAHAB BIAZAR 4416 ANAHEIM AVE., NE P.E. #13479 ALBUQUERQUE, NEW MEXICO 87113 (505)899-5570 LOTS 1 THROUGH 8A, BLK 13, TIMOTEO CHAVEZ ADDITION

GRADING AND DRAINAGE PLAN

11-02-2005

DRAWN BY:

SBB

DRAWING:

LAST REVISION: 11-02-200

200556GR.DWG

ROUGH GRADING APPROVAL

DATE