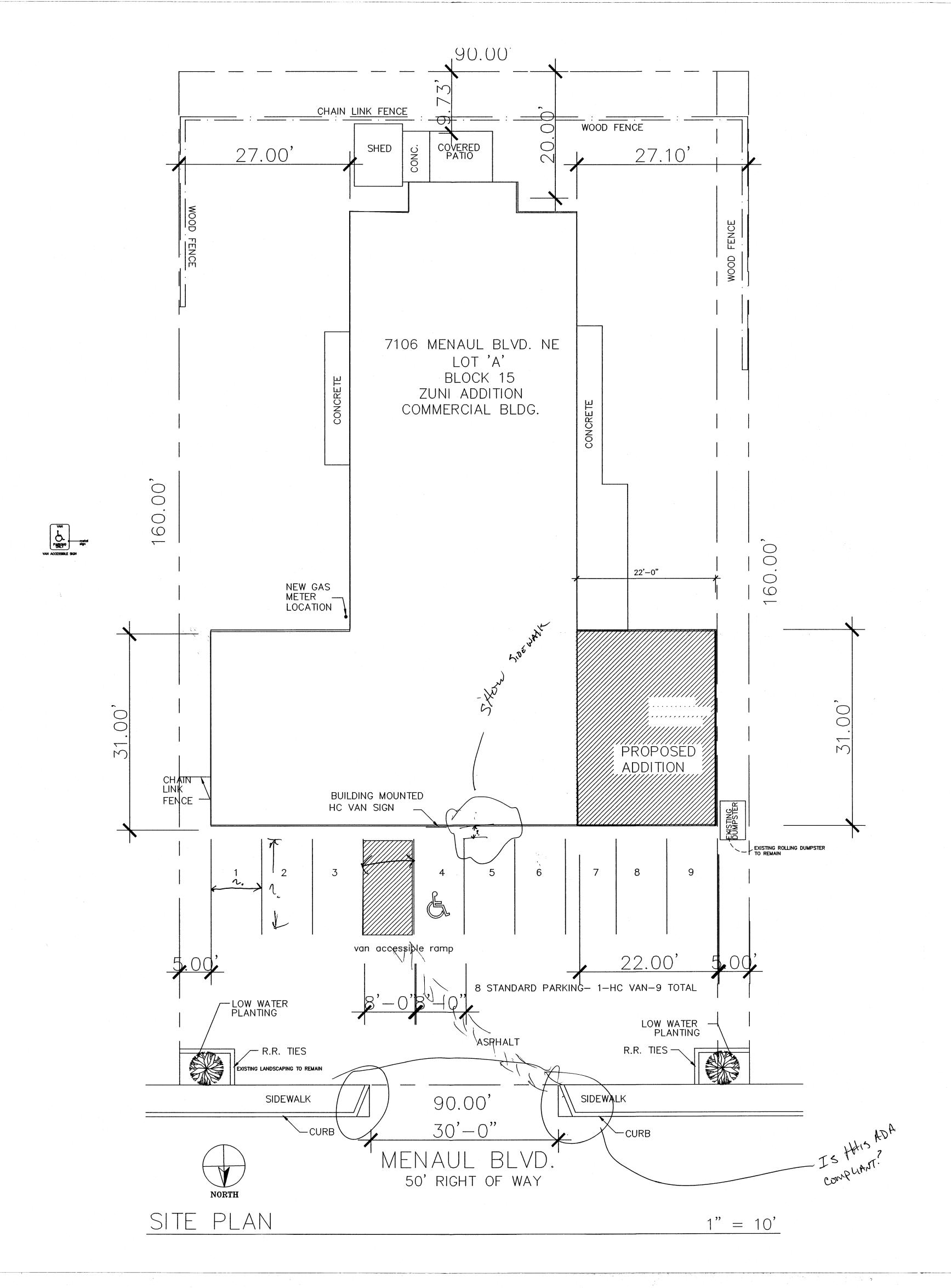
HYDROLOGY SECTION 3005 & I 99A |



PARKING CALC.S. REQ. BY ZONING.

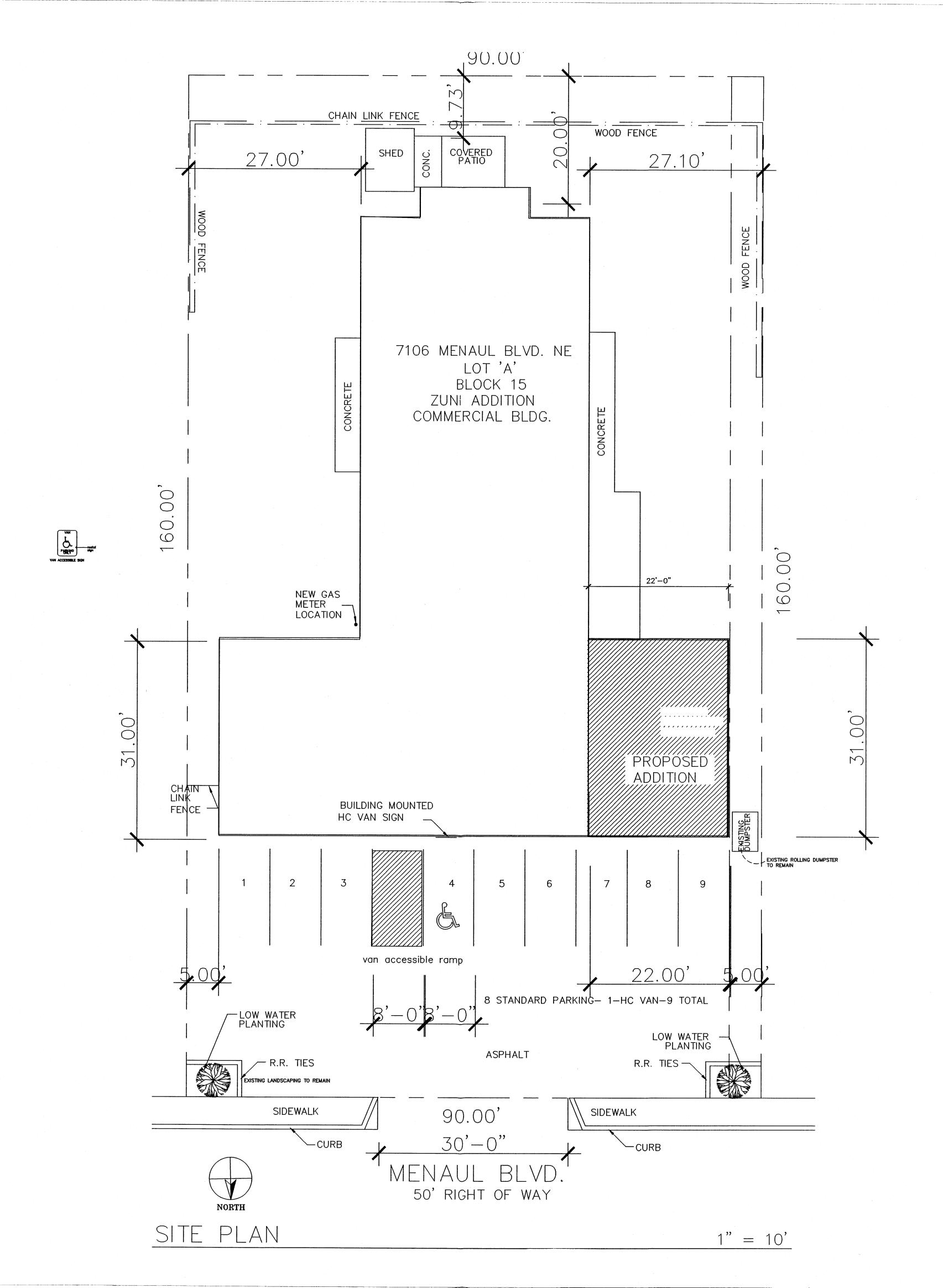
2) U.CINITY MAP

3) PRODIDE SOLDWASTE APPRUL

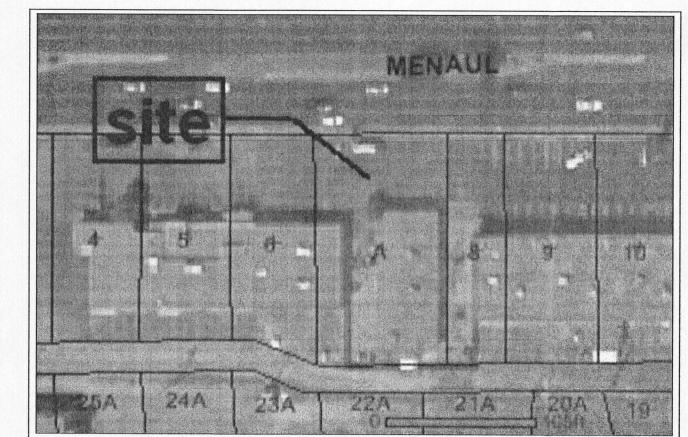
PRODUDE SOUDE SHOW ADA Access to SITE FROM STREET. SIGNED STAMPED ENGINEERS OF ARCHIT. SEAL. LABEL ALL EXISTING PROPOSED CONST. SUBMIT 4 PLANS WITH NEXT SUBMITTAL SUBMIT 4 PLANS WITH NEXT SUBMITTAL PLANEL WIDTH OF EXISTING SIDE WALK ALONG MENAUL

HYDROLOGY SECTION

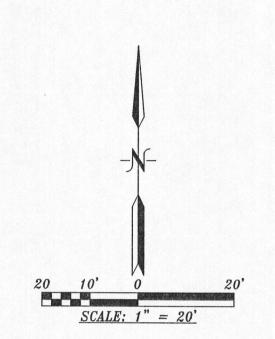
APR 1 3 2006







2004 AERIAL PHOTO

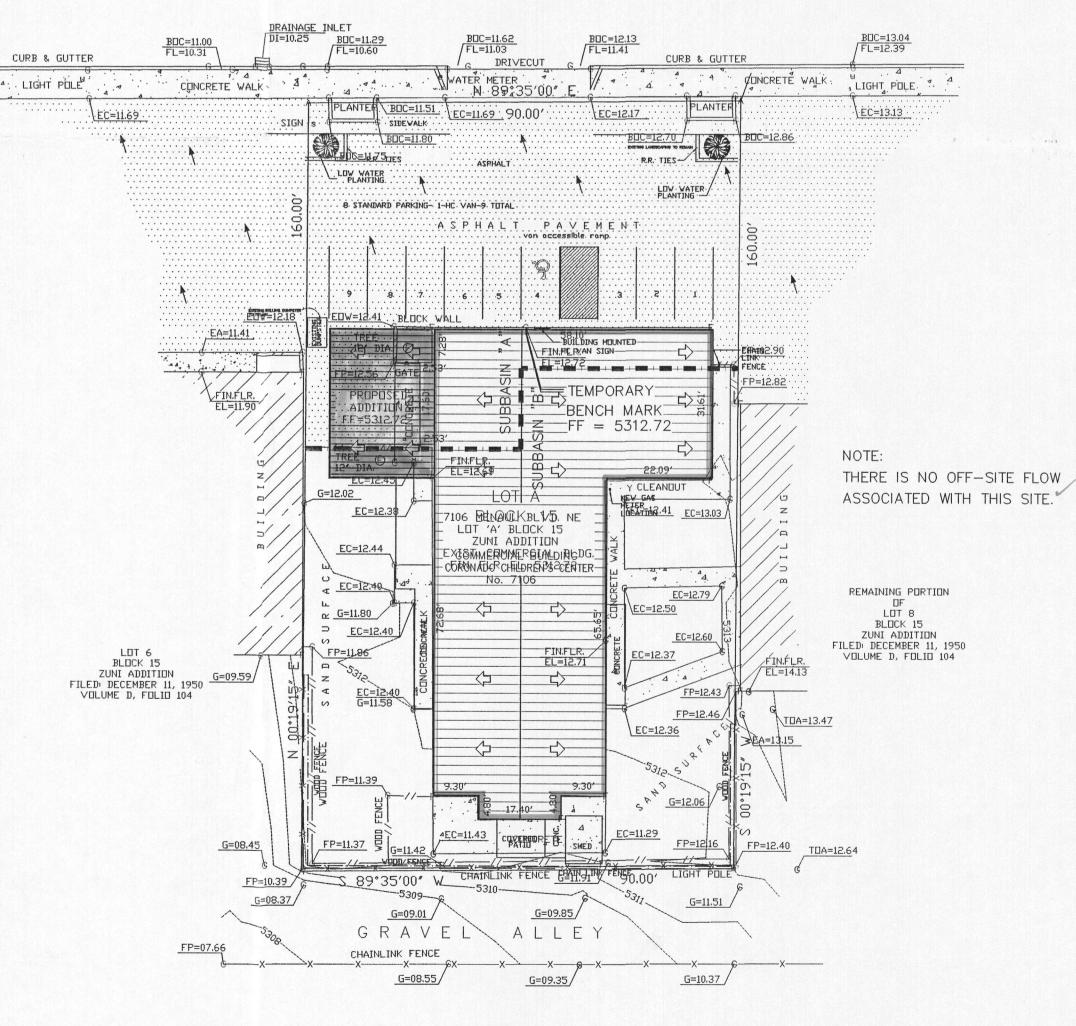


#### **CRADING PLAN LEGEND:** NEW DESCRIPTION <del>----</del>5284----CONTOUR 84.00 SPOT ELEVATION PROPERTY LINE SHEET FLOW ROOF FLOW LEGEND ER = EDGE OF ROAD= BACK OF CURB FIN.FLR = FINISH FLOOR = CURB CUT FL = FLOW LINE DRAINAGE INLET EDGE OF ASPHALT FND = FOUND = EDGE OF CONCRETE FP = FENCE POST EL = ELEVATION EDW = EDGE DF WALLINV = INVERT

#### TOPOGRAPHIC SURVEY GENERAL NOTES : 1: CONTOUR INTERVAL IS ONE (1) FOOT.

- 2: ELEVATIONS ARE BASED ON CITY OF ALBUQUERQUE STATION No. "13-H19" HAVING AN ELEVATION OF \_\_\_\_5315.869
- 3: 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, WHETHE 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 AND DISTANCES SHOWN HEREON ARE FOR REFERENCE ONLY.

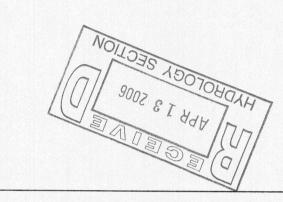






VICINITY MAP

ZONE ATLAS H-19-Z



LEGAL DESCRIPTION

LOT A, BLOCK 15, ZUNI ADDITION

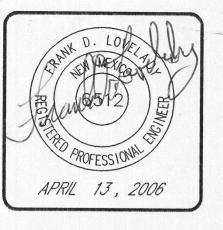
# GENERAL NOTES

- 1. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE LOCATION OF ALL POTENTIAL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AS SOON AS POSSIBLE TO RESOLVE THE CONFLICT WITH A MINIMUM AMOUNT OF DELAY.
- 2. ALL WORK ON THIS PLAN SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
- 3. IF ANY UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES ARE SHOWN ON THESE DRAWINGS, THEY ARE SHOWN IN AN APPROXIMATE LOCATION ONLY, AND LINES MAY EXIST WHERE NONE ARE SHOWN. THE LOCATION IS BASED UPON INFORMATION PROVIDED BY THE UTILITY OWNER OR FROM EXISTING PLANS, AND THIS INFORMATION MAY BE INCOMPLETE. OR OBSOLETE AT THE TIME OF CONSTRUCTION. THE ENGINEER HAS NOT UNDERTAKEN ANY FIELD VERIFICATION OF THESE LOCATIONS, LINE SIZES OR MATERIAL TYPE, MAKES NO REPRESENTATION THERETO, AND ASSUMES NO RESPONSIBILITY OR LIABILITY THEREFOR. THE CONTRACTOR SHALL INFORM ITSELF OF THE LOCATIONS OF ANY UTILITY LINE, PIPELINE OR UNDERGROUND INSTALLATION IN OR NEAR THE AREA IN ADVANCE OF OR DURING ANY EXCAVATION WORK. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES CAUSED BY ITS FAILURE TO LOCATE, IDENTIFY AND PRESERVE ANY AND ALL EXISTING UTILITIES, PIPELINES AND UNDERGROUND FACILITIES IN PLANNING AND CONDUCTING EXCAVATIONS, THE CONTRACTOR SHALL COMPLY WITH ALL STATE STATUTES, MUNICIPAL AND LOCAL ORDINANCES, RULES AND REGULATIONS, IF ANY, PERTAINING TO THE LOCATION OF THESE LINES AND FACILITIES.
- 4. THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE SITE INTO PUBLIC RIGHTS-OF-WAY OR ONTO PRIVATE PROPERTY. THIS CAN BE ACHIEVED BY CONSTRUCTING TEMPORARY BERMS AND BY WETTING THE SOIL TO KEEP IT FROM BLOWING.
- 5. THE CONTRACTOR SHALL OBTAIN ANY AND ALL PERMITS REQUIRED BY THE CITY OF ALBUQUERQUE FOR THE COMPLETION OF THE WORK PRIOR TO BEGINNING CONSTRUCTION.

### **EROSION CONTROL NOTES:**

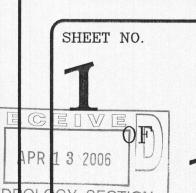
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONPLIANCE WITH THE FOLLOWING: NO SEDIMENT-BEARING WATER SHALL BE ALLOWED TO DISCHARGE FROM THE SITE DURING CONSTRUCTION.
- DURING GRADING OPERATIONS AND UNTIL THE PROJECT HAS BEEN COMPLETED, ALL ADJACENT PROPERTY, RIGHTS-OF-WAY, AND EASEMENTS SHALL BE PROTECTED FROM FLOODING BY RUNOFF FROM THE SITE.
- SHOULD THE CONTRACTOR FAIL TO PREVENT SEDIMENT-BEARING WATER FROM ENTER-ING PUBLIC RIGHT-DF-WAY, HE SHALL PROMPLTY REMOVE FROM THE PUBLIC RIGHT-DF-WAY ANY AND ALL SEDIMENT DRIGINATING FROM THE SITE.

CONTROL OF SEDIMENT-LADEN WATERS WILL BE ACCOMPLISHED BY USE OF A COM-PACTED EARTH BERM OF ADEQUATE HEIGHT. THE BERM SHALL BE LOCATED ALONG | THE DOWNSTREAM PERIMETER OF THE PROPERTY.





694 DATE: APRIL 13, 2006 REVISIONS





FLOOD INSURANCE RATE MAP (FIRMETTE)

**EXISTING CONDITIONS:** 

The site is located on the south side of Menaul Boulevard, the seventh lot East of Chama Street. The lots to the west are numbered 1 through 6 and the lots to the east are numbered 8 through 14. The letter designation is the result of a replat that combined the former Lot 7 and a portion of Lot 8 into Lot A. There is an existing building on the lot that begins approximately 48' from the north property line and ends approximately 10.5 feet from the south property line. The original building is approximately 3500 square feet and has an addition of 700 sf. which is on the east side. It is believed that the requirement for a drainage plan was waived for the previous addition.

The surface around the side and rear of the building is sand, except for a a slab and a few sidewalks. Sand us used in play areas because fewer injuries occur. The sand is 6 to 8 inches deep. The site is within a strip shopping center and all the front parking areas are paved with asphalt and slope toward Menaul Boulevard. There are no special drainage control features to prevent drainage from crossing lot lines or to convey drainage through sidewalk culverts. There is a 30' drivepad centered on the lot through which the drainage is routed. It appears that most of the drainage form the site will drain out through the existing 30' drivepad centered on Lot A. There is an alley at the rear of the lot. The existing and proposed development will not use it for drainage or

PROPOSED CONDITIONS:

It is proposed to construct another addition to the existing building on the west side almost identical in size to the first addition. The increase in impervious area is very small. Except for 102 sq. ft., the addition is being constructed over existing pavement. The drainage in the rear of the site will remain where it falls.

DRAINAGE CRITERIA:

The calculations shown on this plan were prepared in accordance with Section 22.2, Hydrology, of the Development Process Manual, Volume 2, Design Criteria, for the City of Albuquerque in cooperation with Bernalillo County, New Mexico and the Metropolitan Arroyo Flood Control Authority, January, 1993.

PRECIPITATION ZONE:

The site is east of San Mateo Boulevard and west of Eubank Boulevard. Therefore, it is with the limits of Precipitation Zone 3.

LAND TREATMENT AREAS, ETC.:

The peak discharge per acre and excess precipitation are shown for the four land treatments in Zone 3 in the table below, and the values shown are from the City of Albuquerque D. P. M. Also shown are the existing and proposed land treatment areas. LAND q(cfs/ac) E (in) Existing Site Areas | Developed Site Areas TREAT. 100-yr. 10-yr. 100-yr. 10-yr. % Sq. Ft. Acres % Sq. Ft. Acres A 1. 87 0. 58 0. 66 0. 19 0. 0 0 0. 0000 0. 0 0 0. 0000

B 2.60 1.19 0.92 0.36 0.0 0 0.0000 0.0 0 0.0000 C 3. 45 2. 00 1. 29 0. 62 28. 2 4, 062 0. 0932 28. 2 3, 960 0. 0909 D 5. 02 3. 39 2. 36 1. 50 71. 8 10, 337 0. 2373 71. 8 10, 439 0. 2396 100. 0 14, 399 0. 3305 100. 0 14, 399 0. 3305 Totals

PEAK DISCHARGE: **EXISTING CONDITIONS:** 

Q100 = 0.0932 \* 3.45 + 0.2373 \* 5.02 = 1.51 cfsQ10 = 0.0932 \* 2.00 + 0.2373 \* 3.39 = 0.99 cfsDEVELOPED CONDITIONS:

Q100 = 0.0909 \* 3.45 + 0.2396 \* 5.02 = 1.52 cfsQ10 = 0.0909 \* 2.00 + 0.2396 \* 3.39 = 0.99 cfsVOLUME, 100-YEAR AND 10-YEAR, 6-HOUR:

**EXISTING CONDITIONS:** V100 = (4,062 \* 1.29 + 10,337 \* 2.36) / 12 = 2,470 cf V10 = (4,062 \* 0.62 + 10,337 \* 1.50) / 12 = 1,502 cf

DEVELOPED CONDITIONS:

V100 = (3,960 \* 1.29 + 10,439 \* 2.36) / 12 = 2,479 cfV10 = (3,960 \* 0.62 + 10,439 \* 1.50) / 12 = 1,509 cf

SUMMARY OF ON-SITE VOLUMES AND DISCHARGE RATES: V100(CF) V10(CF) Q100(CFS)

Q10(CFS) 2,479 EXISTING INCREASE 0.01/

### DRAINAGE SUBBASINS:

Essentially, there are two subbasins. Subbasin "A" which drains to the parking lot and eventually into Menaul Boulevard, and Subbasin 'B' which remains where it falls.

Subbasin "A" Area = 5,760 sf (0.1322 Ac.), all Treatment D.  $Q100 = 0.1322 \times 5.02 = 0.66 \text{ cfs}$  $Q10 = 0.1322 \times 3.39 = 0.45 \text{ cfs}$ 

 $V10 = (5,760 \times 1.50) / 12 = 345 cf$ Subbasin 'B' Area = 14,399 sf - 5,760 = 8,639 sf (0.1983 ac.)Q100 = 1.52 - 0.66 = 0.86 cfs

 $Q10 = 0.99 \times 0.45 = 0.54 \text{ cfs}$ V100 = 2,479 - 619 = 1,860 cfV10 = 1,509 - 345 = 1,164 cf

 $V100 = (5,760 \times 1.29) / 12 = 619 cf$ 

· cross lot drainage easement?

What does this mean? Where does

the flow currently fall? Absorbed into sand (which covers the entire rear of the site), per Frank Lovelady

These percentages should have changed

LOT 23 BLOCK 15 ZUNI ADDITION FILED: DECEMBER 11, 1950 VOLUME D, FOLIO 104

MAP NO. 352

#### CERTIFICATION WITH VERFICATION BY ENGINEER OF RECORD

I, <u>FRANK D. LOVELADY</u>, NMPE <u>6512</u> OF THE FIRM <u>FRANK D. LOVELADY P.E.</u> HEREBY CERTIFY THAT THIS PROJECT HAS BEEN GRADED AND WILL DRAIN IN SUBSTANTIAL COMPLINACE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN DATED <u>04-13-2006</u>. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBAINED BY ME.

I FURTHER CERTIFY THAT I HAVE PERSONALLY VISITED THE PROJECT SITE ON 07-26-06 AND HAVE DETERMINED BY VISUAL INSPECTION THAT THE SURVEY DATA PROVIDED IS REPRESENTATIVE OF ACTUAL SITE CONDITIONS AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR PERMANANT CERTIFICATE OF OCCUPANCY.

NEW CONCRETE SLAB WAS PLACED ON THE WEST AND SOUTH SIDES OF THE ADDITION. ALSO, SOME PROPOSED SLABS SHOWN ON THE SITE PLAN WERE NOT PUT IN. DRAINAGE CALCULATIONS WERE REVISED ACCORDINGLY.

THE RECORD INFORMATION PRESENTED HEREON IS NOT NECESSARILY COMPLETE AND INTENDED ONLY TO VERIFY SUBSTANTIAL COMPLIANCE OF THE GRADING AND DRAINAGE ASPECTS OF THIS PROJECT. THOSE RELYING ON THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY BEFORE USING IT FOR ANY OTHER PURPOSE

JULY 28, 2006

SCALE: 1" = 20

**GRADING PLAN LEGEND:** DESCRIPTION

CONTOUR SPOT ELEVATION PROPERTY LINE

SWALE SHEET FLOW ROOF FLOW

**LEGEND** 

ER = EDGE OF ROAD= BACK OF CURB FIN.FLR = FINISH FLOOR CURB CUT = FLOW LINE DRAINAGE INLET FND = FOUND EDGE OF ASPHALT = EDGE OF CONCRETE FP = FENCE POST = ELEVATION

#### TOPOGRAPHIC SURVEY GENERAL NOTES 1: CONTOUR INTERVAL IS ONE (1) FOOT.

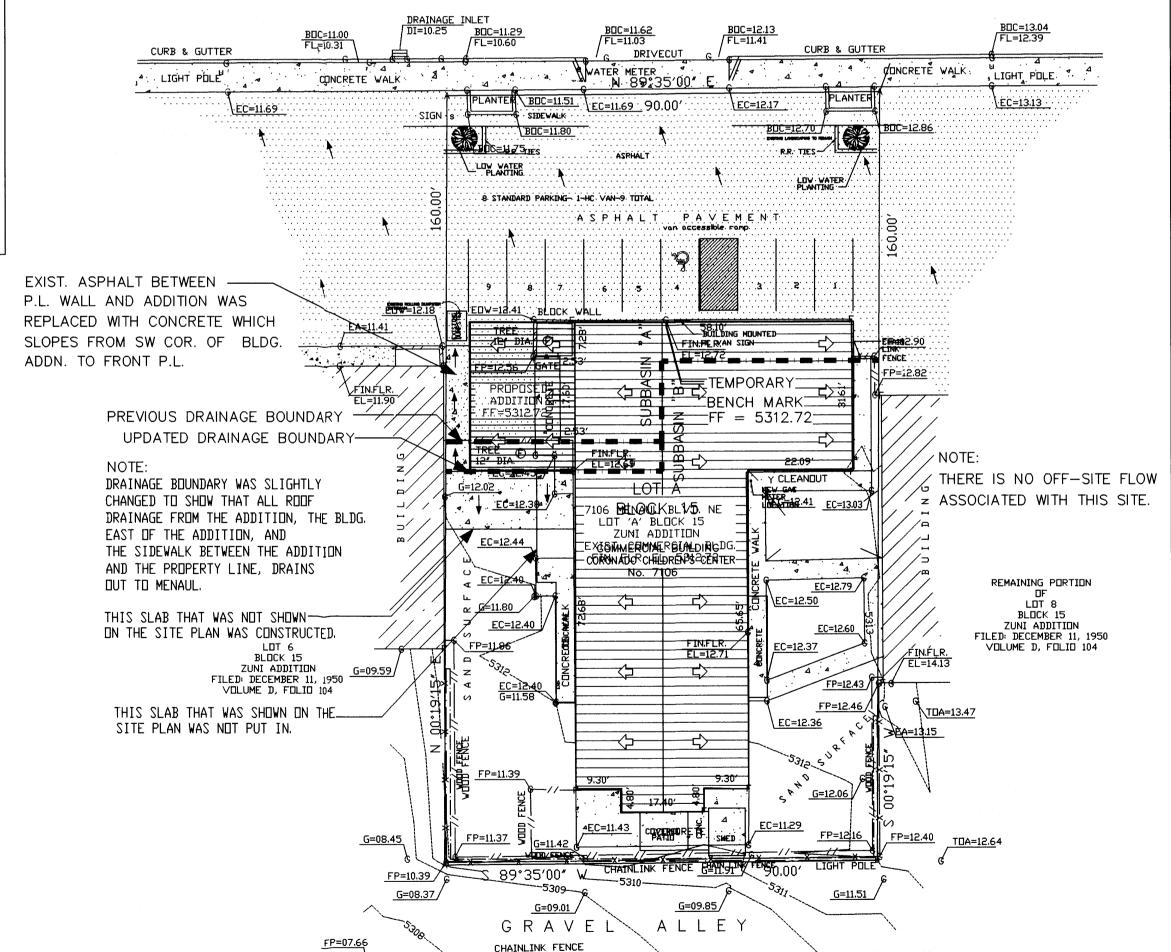
= EDGE OF WALL

: ELEVATIONS ARE BASED ON CITY OF ALBUQUERQUE STATION No. "13—H19", HAVING AN ELEVATION OF <u>5315.869</u>

INV = INVERT

- : 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.
- THIS IS NOT A BOUNDARY SURVEY. BEARINGS AND DISTANCES SHOWN

MENUAL BOULEVARD



VICINITY MAP

LOT A, BLOCK 15, ZUNI ADDITION.

LEGAL DESCRIPTION

**ZONE ATLAS H-19-Z** 

# GENERAL NOTES

- 1. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE LOCATION OF ALL POTENTIAL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AS SOON AS POSSIBLE TO RESOLVE THE CONFLICT WITH A MINIMUM AMOUNT OF DELAY.
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- 4. THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE SITE INTO PUBLIC RIGHTS-OF-WAY OR ONTO PRIVATE PROPERTY. THIS CAN BE ACHIEVED BY CONSTRUCTING TEMPORARY BERMS AND BY WETTING THE SOIL TO KEEP IT FROM BLOWING.
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## **EROSION CONTROL NOTES:**

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONPLIANCE WITH THE FOLLOWING: 1. NO SEDIMENT-BEARING WATER SHALL BE ALLOWED TO DISCHARGE FROM THE SITE DURING CONSTRUCTION.
- DURING GRADING OPERATIONS AND UNTIL THE PROJECT HAS BEEN COMPLETED, ALL ADJACENT PROPERTY, RIGHTS-OF-WAY, AND EASEMENTS SHALL BE PROTECTED FROM FLOODING BY RUNDFF FROM THE SITE.
- 3. SHOULD THE CONTRACTOR FAIL TO PREVENT SEDIMENT-BEARING WATER FROM ENTER-ING PUBLIC RIGHT-DF-WAY, HE SHALL PROMPLTY REMOVE FROM THE PUBLIC RIGHT-
- DF-WAY ANY AND ALL SEDIMENT DRIGINATING FROM THE SITE. CONTROL OF SEDIMENT-LADEN WATERS WILL BE ACCOMPLISHED BY USE OF A COM-

PACTED EARTH BERM OF ADEQUATE HEIGHT. THE BERM SHALL BE LOUATED ALINE IN TOTAL THE DOWNSTREAM PERIMETER OF THE PROPERTY.

APRIL 13, 2006 REVISED 07/28/06

W U 2002

694 REVISIONS

SHEET NO.

#### V100(CF) V10(CF) Q100(CFS) Q10(CF3) SUBBASIN B

1, 437

#### Subbasin "A" Area = 5,760 sf (0.1322 Ac.), all Treatment D. $Q100 = 0.1322 \times 5.02 = 0.66 \text{ cfs}$ $Q10 = 0.1322 \times 3.39 = 0.45 \text{ cfs}$ $V100 = (5,760 \times 1.29) / 12 = 619 cf$ $V10 = (5,760 \times 1.50) / 12 = 345 \text{ cf}$

it falls.

TOTALS

DRAINAGE SUBBASINS:

Subbasin 'B' Area = 14,399 sf - 5,760 = 8,639 sf (0.1983 ac.)Q100 = 1.52 - 0.66 = 0.86 cfs

 $Q10 = 0.99 \times 0.45 = 0.54 \text{ cfs}$ V100 = 2.479 - 619 = 1.860 cfV10 = 1,509 - 345 = 1,164 cf

# lot. The existing and proposed development will not use it for drainage or

PROPOSED CONDITIONS: It is proposed to construct another addition to the existing building on the west side almost identical in size to the first addition. The increase in impervious area is very small. Except for 102 sq. ft., the addition is being constructed over existing pavement. The drainage in the rear of the site will remain where it falls.

DRAINAGE CONSIDERATIONS:

The site is located on the south side of Menaul Boulevard, the seventh lot East

of Chama Street. The lots to the west are numbered 1 through 6 and the lots to

the east are numbered 8 through 14. The letter designation is the result of a

replat that combined the former Lot 7 and a portion of Lot 8 into Lot A. There

is an existing building on the lot that begins approximately 48' from the north

property line and ends approximately 10.5 feet from the south property line.

The original building is approximately 3500 square feet and has an addition of

700 sf. which is on the east side. It is believed that the requirement for a

a slab and a few sidewalks. Sand is used in play areas because fewer injuries

occur. The sand is 6 to 8 inches deep. The site is within a strip shopping

center and all the front parking areas are paved with asphalt and slope toward

drainage from crossing lot lines or to convey drainage through sidewalk culverts.

There is a 30' drivepad centered on the lot through which the drainage is routed.

Menaul Boulevard. There are no special drainage control features to prevent

It appears that most of the drainage form the site will drain out through the

existing 30' drivepad centered on Lot A. There is an alley at the rear of the

The surface around the side and rear of the building is sand, except for a

drainage plan was waived for the previous addition.

### DRAINAGE CRITERIA:

**EXISTING CONDITIONS:** 

The calculations shown on this plan were prepared in accordance with Section 22.2, Hydrology, of the Development Process Manual, Volume 2, Design Criteria, for the City of Albuquerque in cooperation with Bernalillo County, New Mexico and the Metropolitan Arroyo Flood Control Authority, January, 1993.

### PRECIPITATION ZONE:

The site is east of San Mateo Boulevard and west of Eubank Boulevard. Therefore, it is with the limits of Precipitation Zone 3.

## LAND TREATMENT AREAS, ETC.:

The peak discharge per acre and excess precipitation are shown for the four land treatments in Zone 3 in the table below, and the values shown are from the City of Albuquerque D. P. M. Also shown are the existing and proposed land treatment areas. LAND q(cfs/ac) E (in) Existing Site Areas Developed Site Areas

TREAT. 100-yr. 10-yr. 100-yr. 10-yr. % Sg. Ft. Acres % Sg. Ft. Acres A 1.87 0.58 0.66 0.19 0.0 0 0.0000 0.0 0 0.0000 B 2.60 1.19 0.92 0.36 34.6 4,986 0.1144 26.6 3,825 0.0878 C 3. 45 2. 00 1. 29 0. 62 0. 0 0 0. 0000 0. 0 0 0. 0000 D 5. 02 3. 39 2. 36 1. 50 65. 4 9, 413 0. 2161 73. 4 10, 574 0. 2427 100. 0 14, 399 0. 3305 100. 0 14, 399 0. 3305

### PEAK DISCHARGE:

EXISTING CONDITIONS: Q100 = 0.1144 \* 2.60 + 0.2161 \* 5.02 = 1.38 cfsQ10 = 0.1144 \* 1.19 + 0.2161 \* 3.39 = 0.87 cfs

**DEVELOPED CONDITIONS:** Q100 = 0.0878 \* 2.60 + 0.2427 \* 5.02 = 1.45 cfsQ10 = 0.0878 \* 1.19 + 0.2427 \* 3.39 = 0.93 cfs

# VOLUME, 100-YEAR AND 10-YEAR, 6-HOUR:

**EXISTING CONDITIONS:** V100 = (4,986 \* 0.92 + 9,413 \* 2.36) / 12 = 2,233 cfV10 = (4,986 \* 0.36 + 9,413 \* 1.50) / 12 = 1,326 cf**DEVELOPED CONDITIONS:** 

V100 = (3.825 \* 0.92 + 10,574 \* 2.36) / 12 = 2,373 cfV10 = (3,825 \* 0.36 + 10,574 \* 1.50) / 12 = 1,436 cfSUMMARY OF ON-SITE VOLUMES AND DISCHARGE RATES: V100(CF) V10(CF) Q100(CFS)

DEVELOPED 2, 479 SUMMARY OF ON-SITE VOLUMES AND DISCHARGE RATES (REVISED):

V100(CF) V10(CF) Q100(CF3) Q10(CF3) DEVELOPED INCREASE 140 110 0. 07

UPDATED DRAINAGE SUBBASIN CALCS: Drainage Subbasin "A" increased slightly as explained in the note at right.

+ 277 sf = 6,037 sf (0.1386 Ac.), all Treatment D.

Essentially, there are two subbasins. Subbasin 'A' which drains to the parking

lot and eventually into Menaul Boulevard, and Subbasin "B" which remains where

Q100 = 0.1386 \* 5.02 = 0.66 cfs010 = 0.1386 \* 3.39 = 0.45 cfsV100 = (6.037 \* 2.36) / 12 = 1.187 cf

V10 = (6.037 \* 1.50) / 12 = 755 cfSubbasin 'B' Area = 14.399 sf - 6.037 = 8.362 sf (0.1920 ac.)Treat. D

Exist. Sidewalks, E. Side 859 sf Exist. Sidewalks, W. Side 148 sf Exist. Sidewalks, S. Side 339 sf 2,867 sf Exist. Building

2, 373

Total Treatment D 4,537 sf (0.1042 ac.) Since the unsurfaced areas consist of a rather deep layer of sand, it is presumed that the runoff characteristics would be more similar to

Treatment B than Treatment C. Area of Treatment B is 8,362 sf - 4,537 sf = 3.825 sf (0.0878 ac.) Q100 = 0.0878 ac \* 2.60 cfs/ac + 0.1042 ac \* 5.02 cfs/ac = 0.75 cfsQ10 = 0.0878 ac \* 1.19 cfs/ac + 0.1042 ac \* 3.39 cfs/ac = 0.46 cfs

V100 = (3,825 \* 0.92 + 4,537 \* 2.36) / 12 = 1,186 cfV10 = (3,825 \* 0.36 + 4,537 \* 1.50) / 12 = 682 cf

UPDATED SUMMARY OF SUBBASIN VOLUMES AND DISCHARGE RATES:

1. 45

LOT 23 BLOCK 15 ZUNI ADDITION VOLUME D, FOLIO 104

\_G=09.35/

G=08.55

<u>G=10.37</u>

HYDROLOGY SECTION