

Location
LOT 8-A, BLOCK 2, NEW BIDGE ACRES ADDITION, is located at 144 40th Street, SW, containing 1.4668 acre. See attached portion of Vicinity Map K-12-Z for exact location.

Purpose
The purpose of this drainage report is to present a grading and drainage solution for new 26 Unit apartments on this parcel.

Existing Drainage Conditions
This lot is very flat and drains east to west to 40th Street, SW. No offsite runoff enters this site.

Proposed Conditions and On-Site Drainage Management Plan
The draiage patterns will remain the same. The additional runoff volume generated by the construction of the apartmend will be retained on site. We have provided several ponds on this site. The total volume requirement under proposed conditions is 12,805.69 CF . The retetion pond provided has a volume of 16,468.93 CF.

VOLUME CALCULATIONS FOR 10 DAY STORM

BASIN	AREA (SF)	AREA (AC)	AREA (MT ²)
ON-SITE	63,895.00	1.4668	0.002292

$$E = \frac{EA(AA) + EB(AB) + EC(AC) + ED(AD)}{AA + AB + AC + AD}$$

$$V-360 = E (AA + AB + AC + AD)$$

EA = 0.55
EB = 0.73
EC = 0.95
ED = 2.24

P-60 = 1.69
P-360 = 2.17
P-1440 = 2.49
P-10 Day = 3.90

EXISTING CONDITIONS	PROPOSED CONDITIONS
AA = 95.00%	AA = 0.00%
AB = 00.00%	AB = 18.00%
AC = 00.00%	AC = 08.00%
AD = 05.00%	AD = 74.00%

E =	0.6535 IN	E =	1.8650 IN
V-360 =	0.0799 AC-FT	V-360 =	0.2280 AC-FT
AD =	0.0733 AC	AD =	1.0855 AC
V-10 DAY =	0.0905 AC-FT	V-10 DAY =	0.3845 AC-FT
V-10 DAY=	3,940.19 CF	V-10 DAY=	16,748.88.79 CF

V (REQUIRED) =16,746.88 - 3,940.19 = 12,805.69 CF

POND VOLUME REQUIRED FOR FIRST FLUSH

0.62 INCHES x IMPERVIOUS AREA = (0.62/12 x 47123.45) = 2,434.71 CF
THIS VOLUME IS PART OF THE PONDING PROVIDED.

POND VOLUME CALCULATIONS

POND NO.	TOP AREA	BOT. AREA	DEPT	VOLUME PROVIDE
A	3147.32	1196.42	3.00'	6515.61 CF
B	1000.65	294.17	2.00'	1294.82 CF
C	1604.22	770.53	2.00'	2374.75 CF
D	691.32	375.51	1.00'	533.415 CF
E	3076.46	1632.66	2.00'	4709.09 CF
F	862.76	862.76	0.50'	431.38 CF
G	937.00	937.00	0.50'	468.50 CF
TOTAL VOL. PROVIDED				16468.93 CF

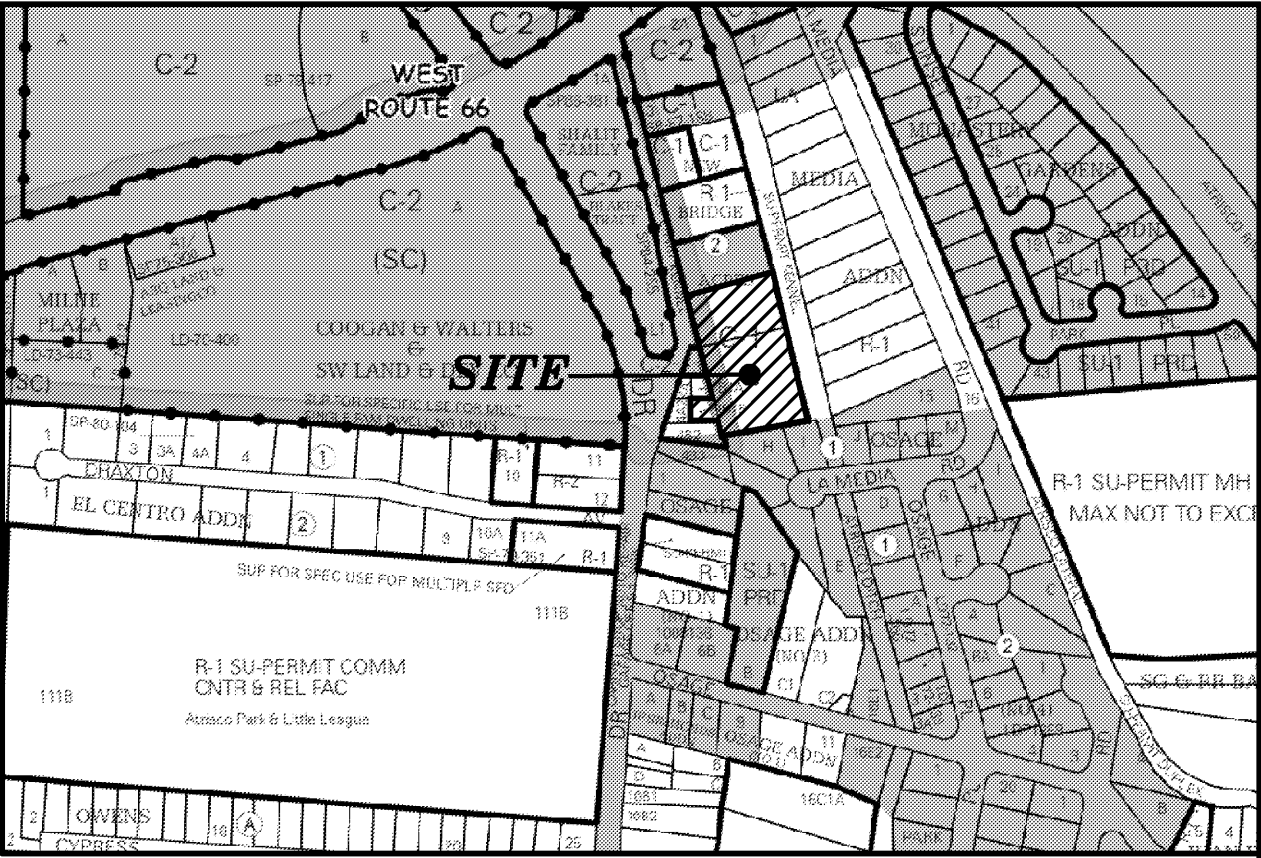
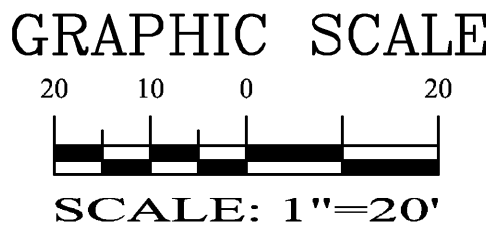
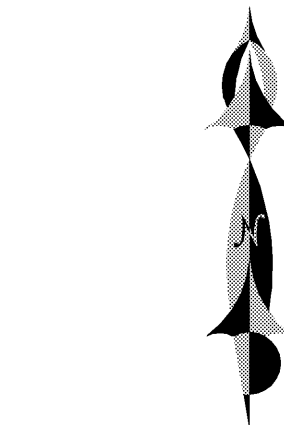


NOTES:

1. PROVIDE 2' CURB OEPNING.
2. INSTALL 6" STORM DRAIN PIPE.
3. INSTALL 2-4" STORM DRAIN PIPE.
4. INSTALL 1-4" STORM DRAIN PIPE.

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, 1985.
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.



LEGAL DESCRIPTION:
LOT 8-A, BLOCK 2, NEW BIDGE ACRES ADDITION

ADDRESS: 144 40TH STREET, SW

EXISTING CONDITIONS

THE ENGINEER HAS PERSONALLY INSPECTED THE LAND, AND NO GRADING, FILLING, OR EXCAVATION HAS OCCURRED THEREON SINCE THE EXISTING CONTOUR MAP WAS PREPARED.

[Signature]

12/04/2023

LEGEND

- 5030--- EXISTING CONTOUR (MAJOR)
- 5029--- EXISTING CONTOUR (MINOR)
- BOUNDARY LINE
- X 42.70 PROPOSED SPOT ELEVATION
- X 5029.16 EXISTING GRADE
- X 5075.65 EXISTING FLOWLINE ELEVATION
- FL
- PROPOSED RETAINING WALL
- BC=41.30 BOTTOM OF CHANEL
- TF=42.00 TOP OF FOOTING
- TRW=45.12 TOP OF RETAINING WALL
- HP HIGH POINT
- 42.40 AS-BUILT GRADES
- 69.77 AS-BUILT SPOT ELEVATIONS



SHAHAB BIAZAR
PE NO. 13479

**SBS CONSTRUCTION
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**144 40TH STREET, SW, APARTMETS
GRADING PLAN**

DRAWING: 202307-GD.DWG	DRAWN BY: SH-B	DATE: 8-15-2022	SHEET # CIVIL 101 1
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LAST REVISION: 12-4-2003