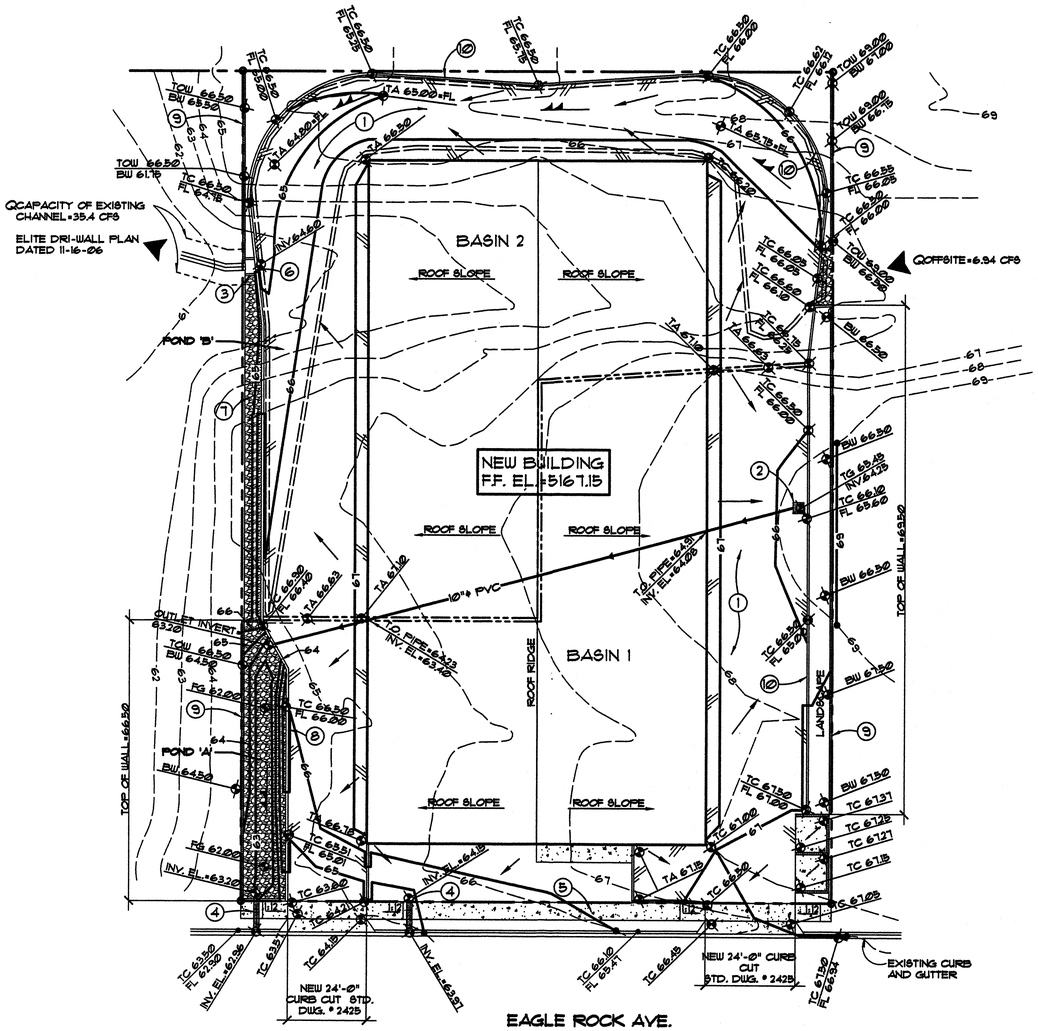
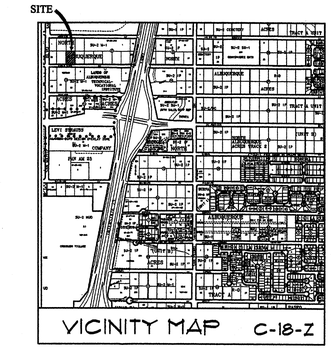


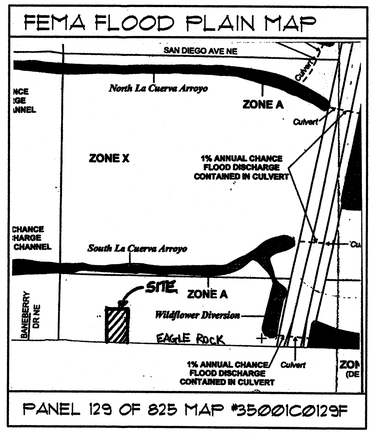
GRADING and DRAINAGE PLAN

1"=20'



VICINITY MAP C-18-Z

FEMA FLOOD PLAIN MAP



PANEL 129 OF 825 MAP #35001C0129F

LEGAL DESCRIPTION

LOT 30, IN BLOCK 9, IN TRACT LETTERED "A", IN UNIT LETTERED "B", OF NORTH ALBUQUERQUE ACRES SUBDIVISION, TO THE CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO.

HYDROLOGY CALCULATIONS

PRECIPITATION ZONE 3 C.O.A. DPM VOL. 2, SECTION 22.2

DESIGN STORM: (IN)	1hr	6hr	24hr	4day	10day
	2.14	2.60	3.10	3.95	4.90

EXISTING CONDITIONS-BASIN 1

LAND TRTMNT	AREA (ACRE)	AREA %	P6	Q (CFS/AC)	Q (CFS)	V6 (CF)	V24 (CF)	V4DAY (CF)	V10DAY (CF)
A	0.00	0%	0.66	1.87	0.00	0	0	0	0
B	0.44	100%	0.92	2.60	1.13	1,453	1,453	1,453	1,453
C	0.00	0%	1.29	3.45	0.00	0	0	0	0
D	0.00	0%	2.36	5.02	0.00	0	0	0	0
TOTALS	0.44	100%			1.13	1,453	1,453	1,453	1,453

EXISTING CONDITIONS-BASIN 2

LAND TRTMNT	AREA (ACRE)	AREA %	P6	Q (CFS/AC)	Q (CFS)	V6 (CF)	V24 (CF)	V4DAY (CF)	V10DAY (CF)
A	0.00	0%	0.66	1.87	0.00	0	0	0	0
B	0.45	100%	0.92	2.60	1.18	1,509	1,509	1,509	1,509
C	0.00	0%	1.29	3.45	0.00	0	0	0	0
D	0.00	0%	2.36	5.02	0.00	0	0	0	0
TOTALS	0.45	100%			1.18	1,509	1,509	1,509	1,509

PROPOSED CONDITIONS-BASIN 1

LAND TRTMNT	AREA (ACRE)	AREA %	P6	Q (CFS/AC)	Q (CFS)	V6 (CF)	V24 (CF)	V4DAY (CF)	V10DAY (CF)
A	0.00	0%	0.66	1.87	0.00	0	0	0	0
B	0.07	16%	0.92	2.60	0.18	227	227	227	227
C	0.00	0%	1.29	3.45	0.00	0	0	0	0
D	0.37	84%	2.36	5.02	1.84	3,144	3,810	4,942	6,208
TOTALS	0.44	100%			2.02	3,371	4,037	5,170	6,435

PROPOSED CONDITIONS-BASIN 2

LAND TRTMNT	AREA (ACRE)	AREA %	P6	Q (CFS/AC)	Q (CFS)	V6 (CF)	V24 (CF)	V4DAY (CF)	V10DAY (CF)
A	0.00	0%	0.66	1.87	0.00	0	0	0	0
B	0.03	8%	0.92	2.60	0.09	114	114	114	114
C	0.00	0%	1.29	3.45	0.00	0	0	0	0
D	0.42	92%	2.36	5.02	2.10	3,581	4,340	5,629	7,071
TOTALS	0.45	100%			2.19	3,694	4,453	5,743	7,184

POND 'A' CAPCITY± 70'x9'x.75'=472 CF

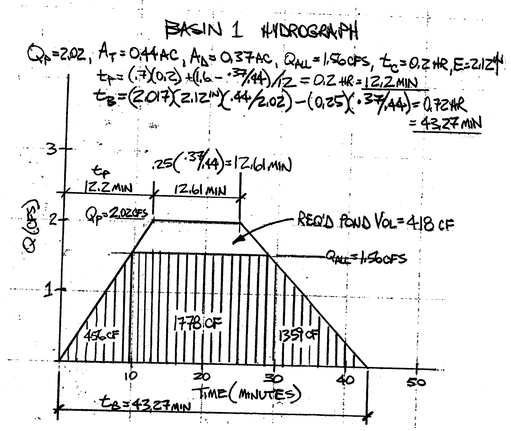
POND 'B' CAPACITY= 66.40 CONTOUR A=5130 SF VOLUME
66.00 CONTOUR A=4573 SF 1950 CF
65.00 CONTOUR A=750 SF 2662 CF
64.60 CONTOUR A= 1 SF 225 CF
TOTAL= 4837 CF

BASIN 1 HYDROGRAPH

$Q_p=2.02$, $A_T=0.44$ AC, $A_B=0.37$ AC, $Q_{ALL}=1.56$ CFS, $t_c=0.2$ HR, $E=2.12$

$t_p=(.7)(0.2)+(1.6-\frac{37}{44})/2=0.2$ HR $=12.2$ MIN

$t_B=(2.017)(2.12^{IN})(.44/2.02)-(0.25)(\frac{37}{44})=0.72$ HR $=43.27$ MIN



KEYED NOTES

1. NEW AC PAVING. PER DETAIL 3/C102.
2. STORM INLET PER DETAIL 2/C102.
3. CONCRETE CHANNEL PER DETAIL 1/C102.
4. 18" WIDE SIDEWALK CULVERT PER STANDARD DRAWING #2236.
5. 6'-0" WIDE CONCRETE SIDEWALK PER C.O.A. STD. DRWG. #2430
6. DRAINAGE OUTLET PER DETIAL 7/C102.
7. SLOPED ROCK FACING.
8. 4000 PSI CONCRETE CURB PER DETAIL 4/C102
9. 8" CMU RETAINING WALL PER 6/C101
10. 4000 PSI CONCRETE CURB PER DETAIL 5/C102

LEGEND

- PROPERTY LINE
- 5015 EXISTING CONTOUR
- 15 NEW CONTOUR
- 5000 NEW SPOT ELEVATION
- +15.5 EXISTING SPOT ELEVATION
- FLOW DIRECTION
- SWALE DIRECTION
- TG TOP OF GRATE
- FF FINISHED FLOOR
- FG FINISHED GRADE
- TC TOP OF CONCRETE
- FL FLOWLINE
- TA TOP OF ASPHALT
- INV. INVERT
- EDGE OF NEW ASPHALT
- NEW CONCRETE
- NEW BUILDING
- BASIN DIVISION LINE
- 100-YR POND LEVEL=66.40 & POND 'B'

BENCHMARK

ACS STATION "10-C11", , ELEV. 5179.24 (NAVD 88)± PROJECT T.B.M. AS SHOWN ON THE PLAN HEREON.

DESIGN NARRATIVE

THE SITE ORIGINALLY WAS UNIMPROVED WITH A PREVAILING EAST TO WEST SLOPE AND SWALE CARRYING OFF SITE RUNOFF ACROSS THE 0.89 AC SITE. THE DOWNSTREAM PROPERTY TO THE WEST HAS A SWALE WITH CAPACITY TO HANDLE 36 CFS WHICH DIRECTS FLOWS TO C.O.A. STORM DRAIN AT SAN MATEO. HALF OF THE DEVELOPED RUNOFF OF THIS SUBJECT SITE WILL FLOW TO THIS SWALE ON THE NORTH SIDE OF THE NEW BUILDING (BASIN 2). BASIN 2 DEVELOPMENT WILL INCREASE FLOW TO THE SWALE BY 1.01 CFS. BASIN 1 RUNOFF IS DIRECTED TO THE PAVED AND IMPROVED EAGLE ROCK AVE. VIA ON SITE STORM DRAIN LINE AND ROCK LINED SWALE OR SURFACE SHEET FLOW THROUGH SIDEWALK CULVERTS - SEE PLAN. THIS DEVELOPED BASIN WILL RESULT IN AN INCREASED FLOW TO CURB INLETS WEST OF THE SITE AND INTO 48"ø STORM DRAIN IN SAN MATEO BLVD. NE. PONDING PROVIDED ON THE SOUTH SIDE OF THE SITE WILL PROVIDE A CONTROLLED RELEASE OF RUNOFF LIMITED TO 1.76 CFS/ACRE OR 1.56 CFS TO DRAINAGE FACILITIES IN EAGLE ROCK.

APPROVALS	NAME	DATE
HYDROLOGY		
PERMIT NO.	MAP NO. C-18-Z	

PUBLIC R.O.W. CONSTRUCTION NOTES

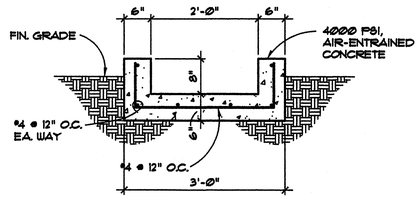
1. ALL WORK DETAILED ON THESE PLANS TO BE PREFORMED UNDER THE CONTRACT SHALL, EXCEPT AS OTHERWISE STATED AND PROVIDED FOR HEREIN, BE CONSTRUCTED IN ACCORDANCE WITH "CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS PUBLIC WORKS CONSTRUCTION 1988"
2. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR SHALL CONTACT LINE LOCATING SERVICE, 260-1990, FOR LOCATION OF EXISTING LINES.
3. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OR SURVEYOR SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM OF DELAY.
4. BACK FILL COMPACTION SHALL BE ACCORDING TO SPECIFIED STREET USE (ARTERIAL/COLLECTOR).
5. MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.
6. AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY. AN APPROVED COPY OF THESE PLANS MUST BE SUBMITTED AT THE TIME OF APPLICATION FOR THIS PERMIT.

Walla ENGINEERING LTD
Structural Engineering
Civil Engineering
6100 Indian School Road NE • Suite 105
Albuquerque • New Mexico • 87110
881-3008 • Facsimile 881-4025

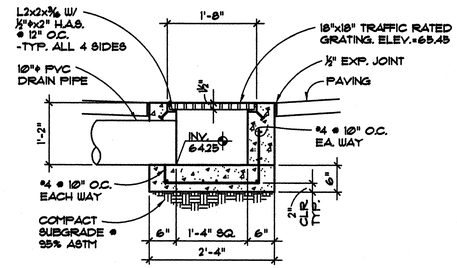
MIKE J. WALLA NEW MEXICO 9781 REGISTERED PROFESSIONAL ENGINEER
5/1/07

COMMERCIAL SELF STORAGE
GRADING & DRAINAGE PLAN

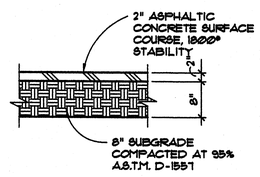
DESIGN: MJW PROJECT NO.: J12-0106 SHEET
DRAWN: KKG C101
CHECKED: MJW DATE: APRIL 30, 2007



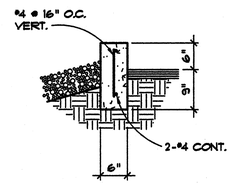
1 C102 — 3/4"=1'-0"



2 C102 — STORM INLET SECTION — 3/4"=1'-0"



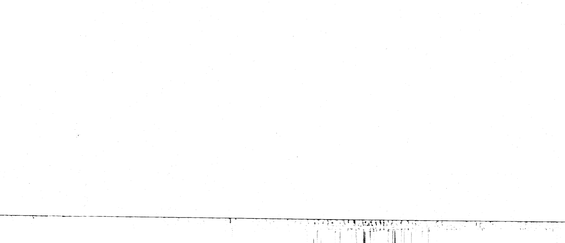
3 C102 — TYPICAL PARKING LOT PAVING SECTION — 3/4"=1'-0"



4 C102 — 3/4"=1'-0"

5 C102 — 3/4"=1'-0"

6 C102 — 3/4"=1'-0"



7 C102 — N.T.S.

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COMMERCIAL SELF STORAGE
GRADING & DRAINAGE DETAILS

DESIGN: MJW
DRAWN: KKG
CHECKED: MJW
PROJECT NO.: J12-0106
DATE: APRIL 30, 2007
SHEET C102