

NOTICE TO CONTRACTOR

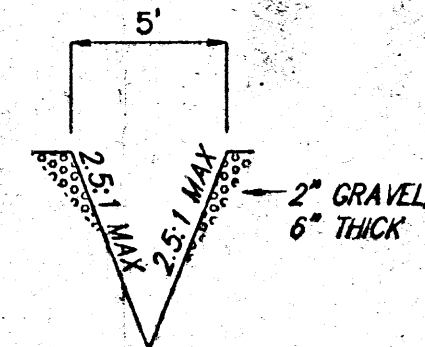
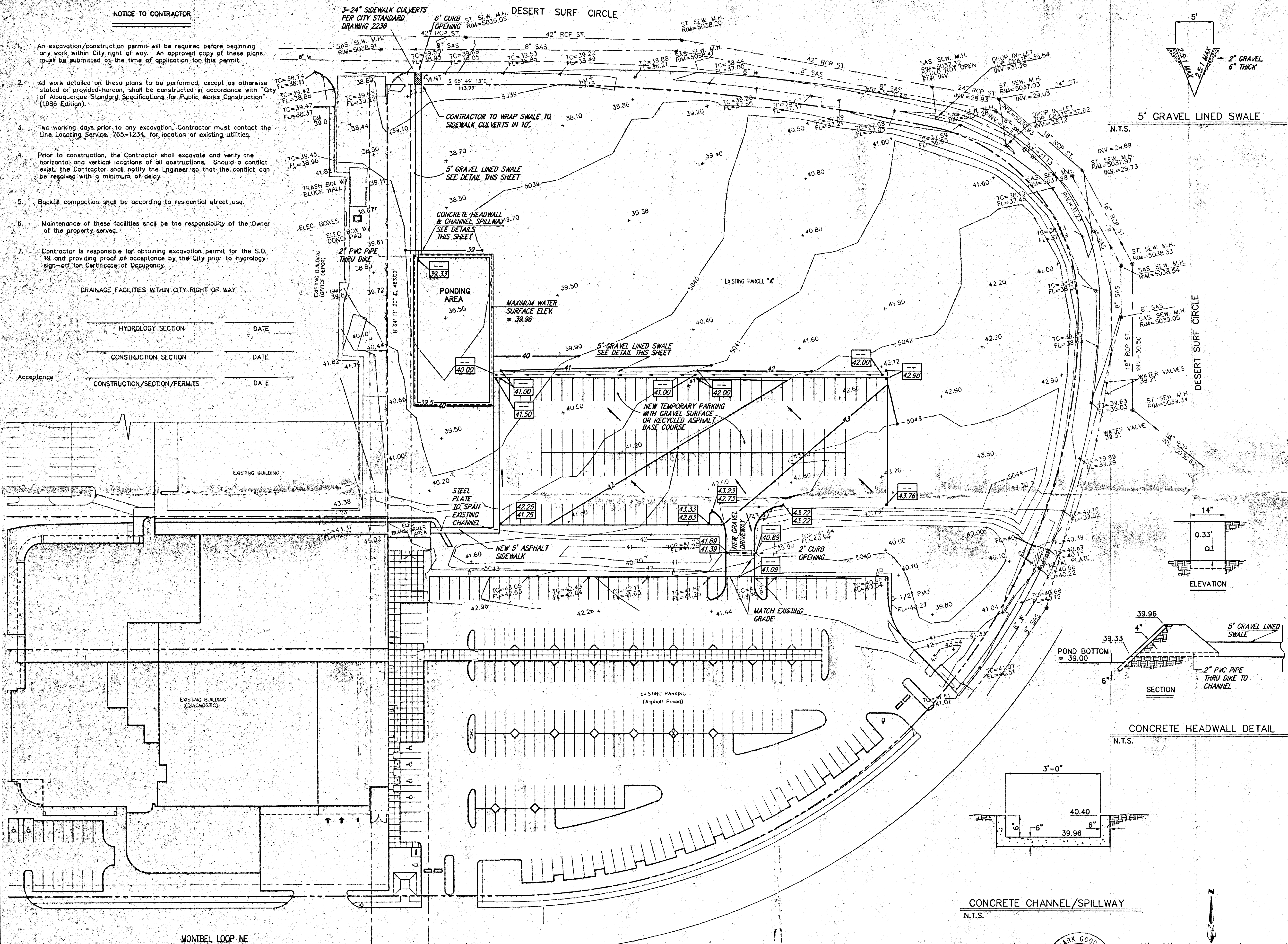
1. An excavation/construction permit will be required before beginning any work within City right of way. An approved copy of these plans must be submitted to the time of application for this permit.
2. All work detailed on these plans to be performed, except as otherwise stated or provided hereon, shall be constructed in accordance with City of Albuquerque Standard Specifications for Public Works Construction (1988 Edition).
3. Two working days prior to any excavation, Contractor must contact the 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 obstructions. Should a conflict exist, the Contractor shall notify the Engineer so that the conflict can be resolved with a minimum of delay.
5. Backfill compaction shall be according to residential street use.
6. Maintenance of these facilities shall be the responsibility of the Owner of the property served.
7. Contractor is responsible for obtaining excavation permit for the S.O. 19 and providing proof of acceptance by the City prior to Hydrology sign-off for Certificate of Occupancy.

DRAINAGE FACILITIES WITHIN CITY RIGHT OF WAY

HYDROLOGY SECTION	DATE
CONSTRUCTION SECTION	DATE
CONSTRUCTION/SECTION/PERMITS	DATE

Acceptance

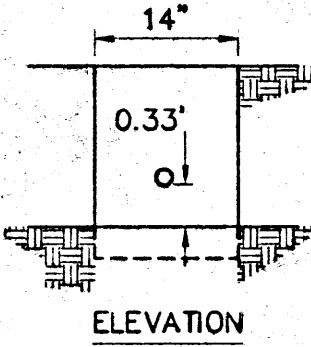
3-24" SIDEWALK CULVERTS PER CITY STANDARD DRAWING 2236



5' GRAVEL LINED SWALE

N.T.S.

DESERT SURF CIRCLE



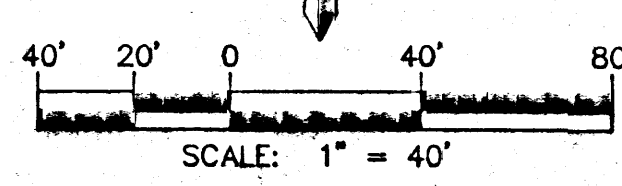
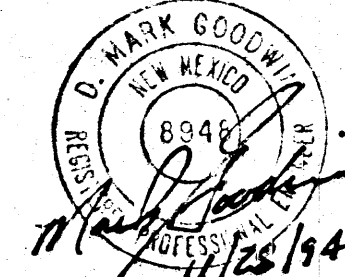
SECTION

CONCRETE HEADWALL DETAIL

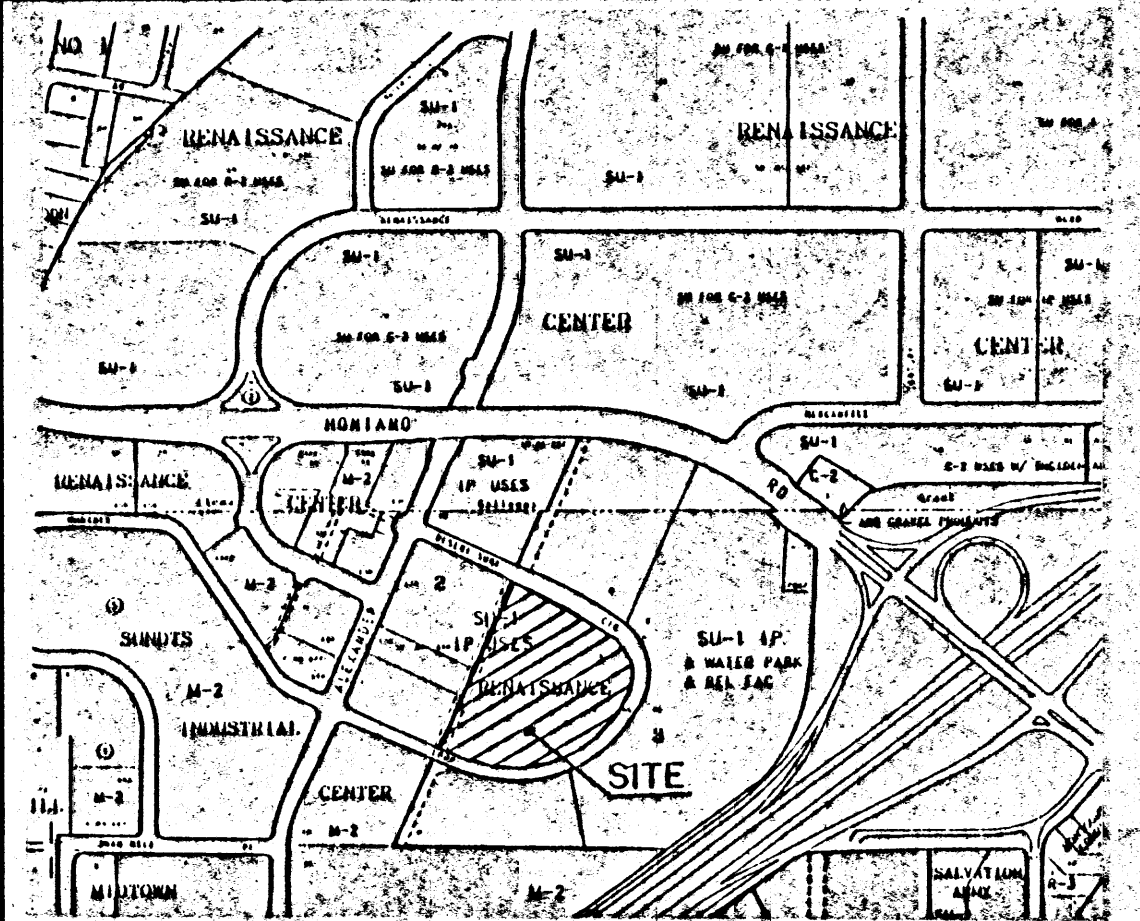
N.T.S.

CONCRETE CHANNEL/SPILLWAY

N.T.S.



DIAGNO/5D40/11/28/94



VICINITY MAP

ZONE MAP: F-16

DRAINAGE CALCULATIONS

A = 0.9556 Ac.	Q _{average} = 0.10 cfs
P ₁₀₀₋₄ = 2.35 in.	VOLUME _{Required} = 3,929 Cu.Ft.
P ₁₀₀₋₂₄ = 2.75 in.	VOLUME _{Provided} = 4,295 Cu.Ft.
DT = 0.03333 Hr.	
T _p = 0.1333 Hr.	
Q = 3.03 cfs	
V = 0.0902 Ac.Ft.	

BENCHMARK

THE STATION MARK IS A STANDARD NM SHC BRASS TABLET STAMPED "STA. 1-25-20", SET IN TOP OF A CONCRETE POST PROJECTING 0.1 FEET ABOVE GROUND.
X = 390,403.88
Y = 1,502,304.95
Z = 5079.46

LEGAL DESCRIPTION

PARCELS "E" AND "A", TRACT 12-B, RENAISSANCE CENTER II

NOTES

1. SITE DOES NOT LIE WITHIN A FLOOD ZONE.
2. ONE SITE CONSTRUCTION IS COMPLETE, THE OWNER SHALL ARRANGE AND BE RESPONSIBLE FOR PERIODIC MAINTENANCE OF ALL ON-SITE ORIFICE-CONTROLLED DEVICES.

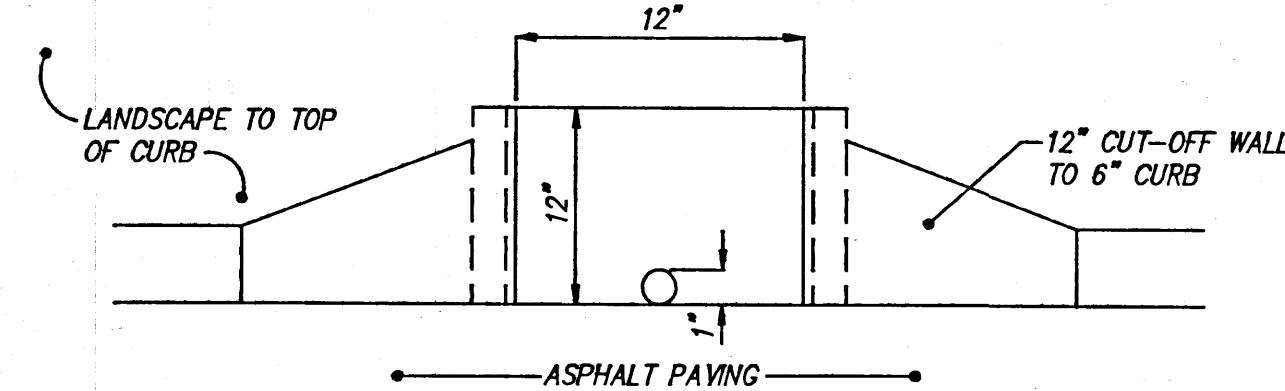
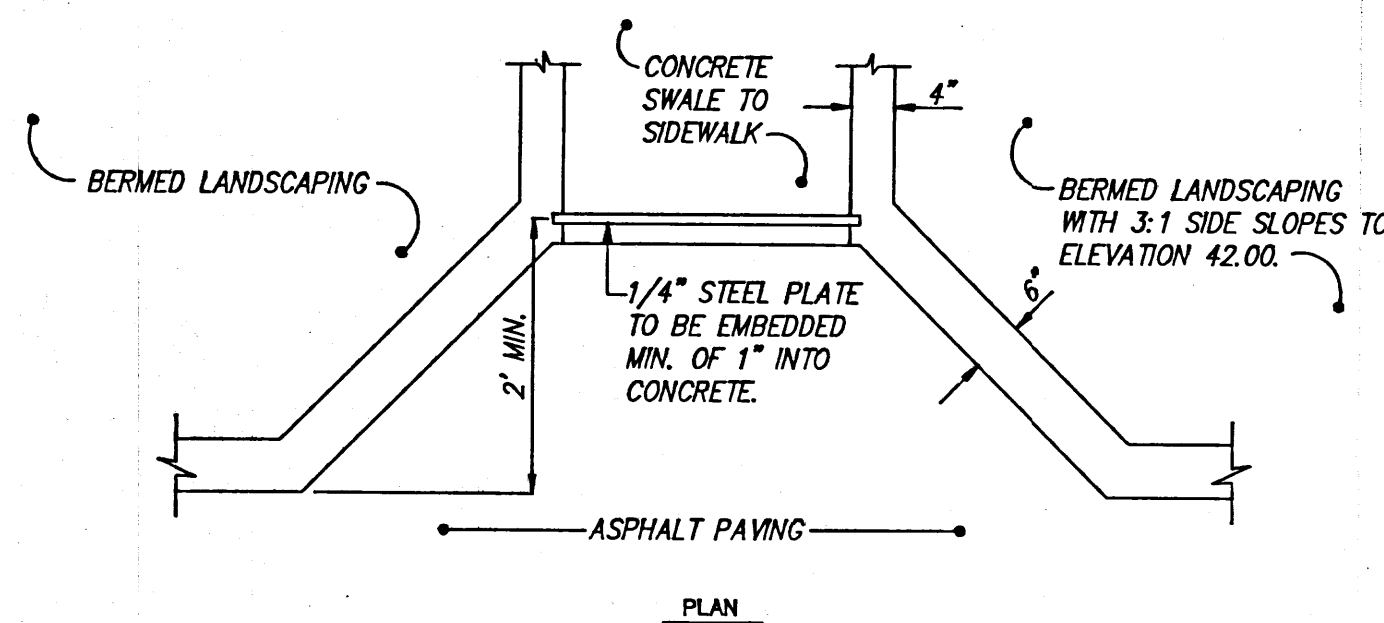
LEGEND

—	PROPERTY LINE
— 50.41 —	EXISTING CONTOUR
+ 41.80	EXISTING SPOT ELEVATION
— 39 —	PROPOSED CONTOUR
02.00 02.00	PROPOSED SPOT ELEVATION
—	FLOWLINE
—	SWALE

DIAGNOSEK PARKING EXPANSION GRADING & DRAINAGE PLAN

dmg D. MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS & SURVEYORS
P.O. BOX 90606
ALBUQUERQUE, NEW MEXICO 87199
(505) 345-2010

Designed: RM	Drawn By: DLD	Checked: DMG	Sheet 1 of 1
Scale: AS SHOWN	Date: 11/94	Job: 94146	

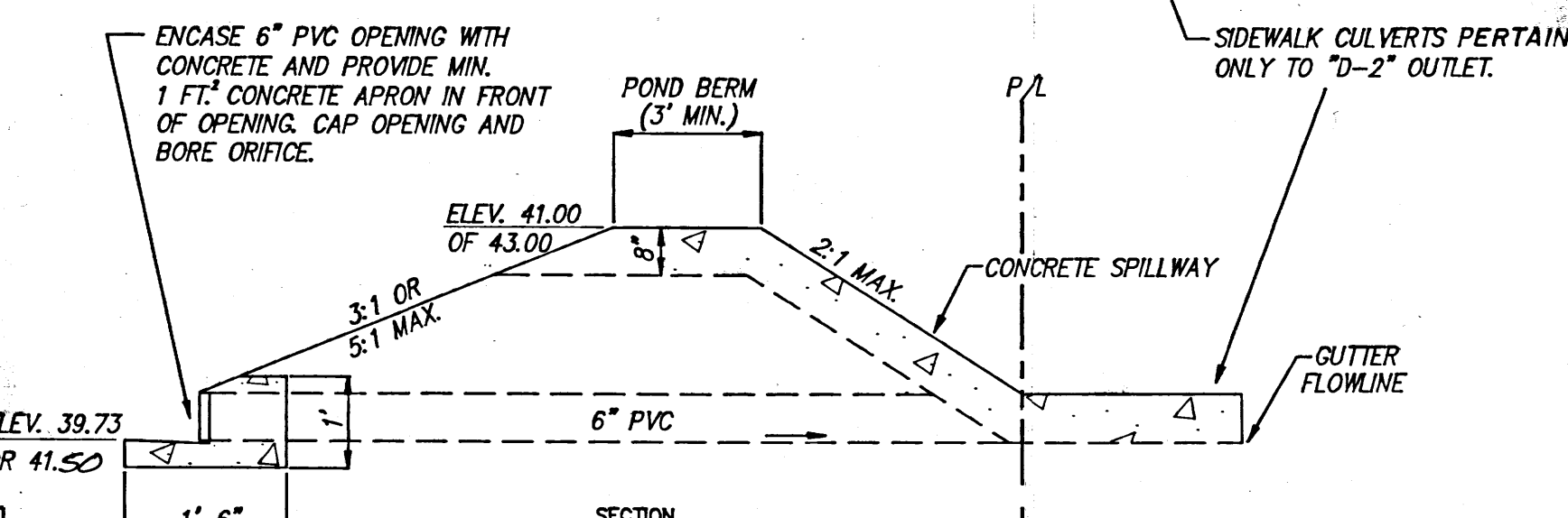


BASIN "C" OUTLET DETAIL
N.T.S.

I hereby certify that the information contained on this drawing has been revised in accordance with information furnished by the Contractor and the Surveyor, The Jaynes Corporation, and reflects the construction as actually accomplished. This plan as constructed is in substantial compliance with the Approved Plan.

John M. MacKenzie 11/15/94
John M. MacKenzie NMPE 11619

FOR BASIN "D-1" OUTLET, THE CONC. SPILLWAY AND ORIFICE ENCASUREMENT WILL BE PLACED AT SEPARATE LOCATIONS AS SHOWN ON THE PLAN. DO NOT FLARE SIDES OF BASIN "D-1" SPILLWAY.



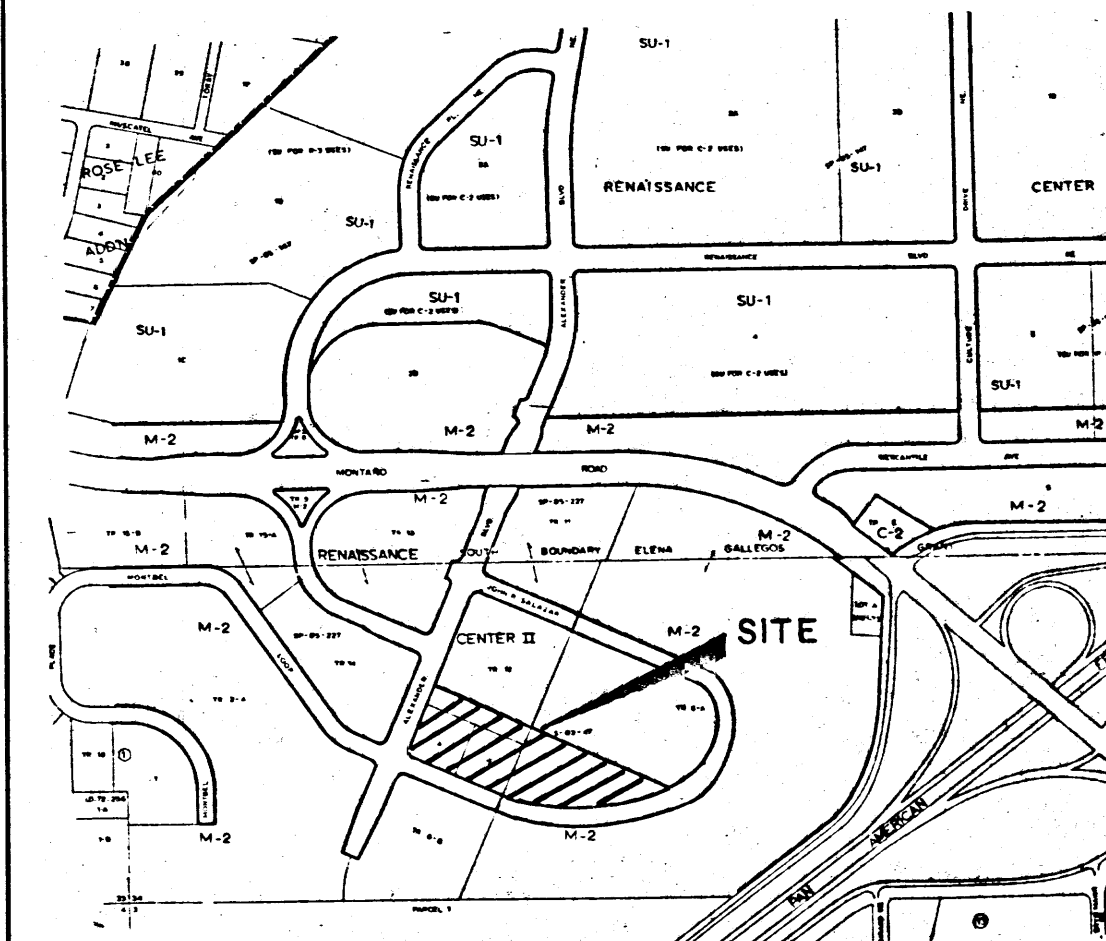
BASIN "D-1" & "D-2" OUTLET DETAIL
N.T.S.

LANDSCAPING IN PONDING AREAS TO CONSIST OF FESCUE GRASSES.

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DRAINAGE FACILITIES WITHIN CITY RIGHT OF WAY

Design Approval	HYDROLOGY SECTION	DATE
Inspection Approval	CONSTRUCTION SECTION	DATE
Acceptance	CONSTRUCTION/SECTION/PERMITS	DATE



VICINITY MAP ZONE MAP: F-16-Z

BENCHMARK

THE STATION MARK IS A STANDARD NM SHC BRASS TABLET STAMPED "STA. 1-25-20", SET IN TOP OF A CONCRETE POST PROJECTING 0.1 FT. ABOVE GROUND.
X=390,403.88, Y=1,502,304.95, Z=5079.46

LEGAL DESCRIPTION

PARCELS E & A, TRACT 12-B RENAISSANCE CENTER II

NOTES

1. SITE DOES NOT LIE WITHIN A FLOOD ZONE.
2. FOR DETAILS REGARDING THE AS-BUILT PONDING CONDITIONS AT THIS SITE, PLEASE REFER TO THE ORIGINAL GRADING AND DRAINAGE PLAN, SHEETS C-1 & C-2, SUBMITTED FOR THE INITIAL DIAGNOSTEK BUILDING CONSTRUCTION BY HALL ENGINEERING, INC. DATED 10/14/88.
3. ONCE SITE CONSTRUCTION IS COMPLETE, THE OWNER SHALL ARRANGE AND BE RESPONSIBLE FOR PERIODIC MAINTENANCE OF ALL ON-SITE ORIFICE-CONTROLLED DEVICES.

LEGEND

=====	EXISTING CONCRETE CURB
-----	PROPERTY LINE
---	CONTOUR
69 TC 69 FL	EXIST. SPOT ELEVATION
FF=	FINISHED FLOOR
107.61 TC 107.61 FL	PROPOSED SPOT ELEVATION
→	FLOW DIRECTION
"C"	DRAINAGE BASIN
"B"	

NOV 15 1994

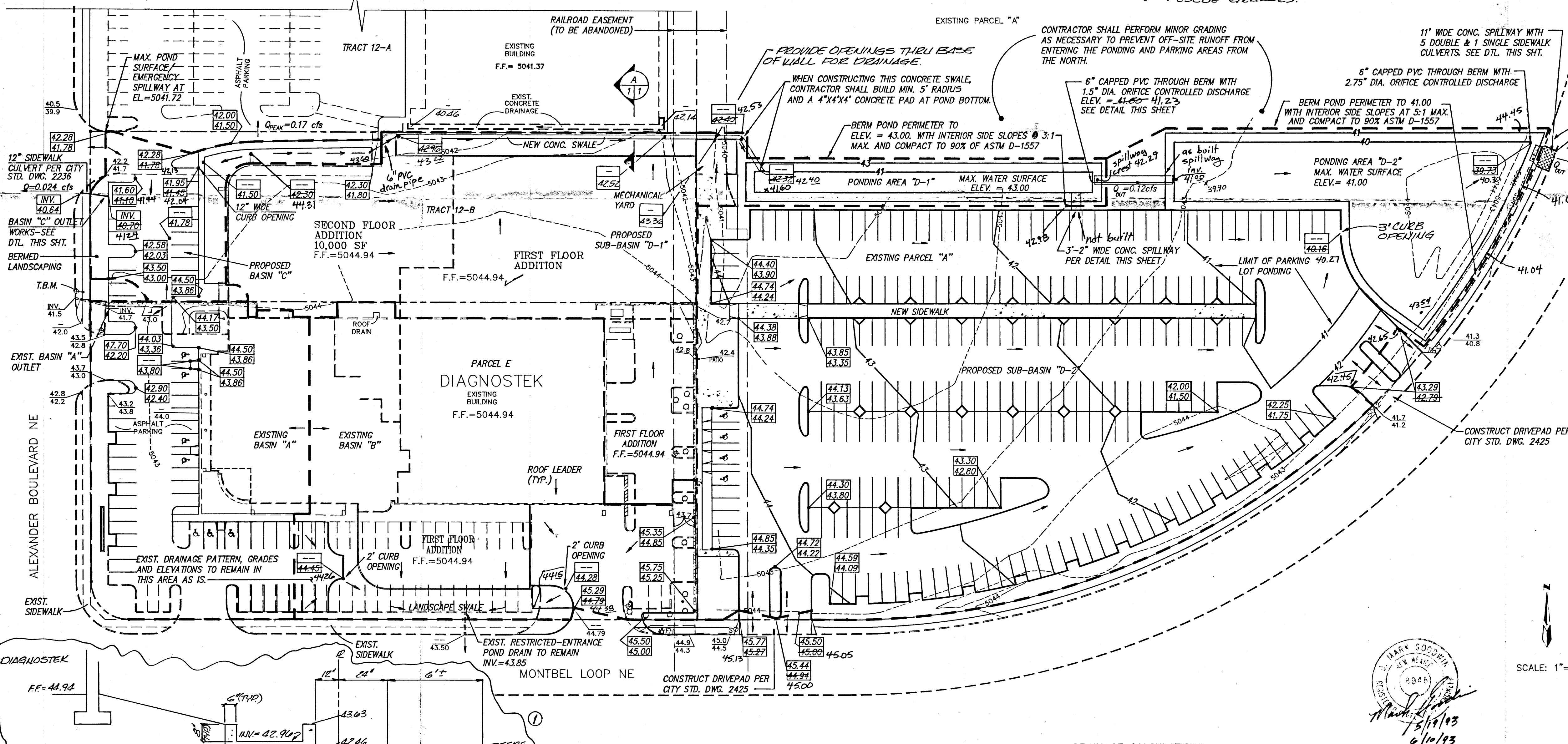
① REVISED FOR SWALE DETAIL 7/21/93

DIAGNOSTEK EXPANSION

GRADING & DRAINAGE

dmg D. MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS & SURVEYORS
P.O. BOX 90606
ALBUQUERQUE, NEW MEXICO 87199
(505) 828-2200

Designed: JMM	Drawn: JMB	Checked: DMG	Sheet C 1 of 1
Scale: 1"=40'	Date: 7/92	Job: 9250	



DRAINAGE CALCULATIONS

* BASIN A - EXISTING CONDITIONS	* BASIN B - EXISTING CONDITIONS	BASIN "C" FUTURE CONDITION	BASIN "D" FUTURE CONDITIONS
A=0.93 Ac. P(100-6)=2.2 in. hr. Q ALLOWABLE=0.102 cfs, PEAK NET RUNOFF VOLUME=3268 CU.FT.	A=1.02 Ac. P(100-6)=2.22 in. hr. Q ALLOWABLE=0.093 cfs NET RUNOFF VOLUME=3268 CU.FT.	A=0.238 Ac. P(100-6)=2.25 in. P(100-24)=2.58 in. DT=0.05 hr. Tp=0.1333 hr. Q ALLOWABLE=0.024 cfs, PEAK	SUB-BASIN "D-1" A=1.164 Ac. P(100-6)=2.25 in. P(100-24)=2.58 in. DT=0.05 hr. Tp=0.1333 hr. Q ALLOWABLE=0.12 cfs VOLUME REQUIRED=9,235 CU.FT. VOLUME PROVIDED=9,312 CU.FT.
			SUB-BASIN "D-2" A=2.903 Ac. P(100-6)=2.25 in. P(100-24)=2.58 in. DT=0.05 hr. Tp=0.1333 hr. Q ALLOWABLE=0.29 cfs VOLUME REQUIRED=23,035 CU.FT. VOLUME PROVIDED=23,072 CU.FT.

* THIS INFORMATION WAS OBTAINED FROM THE SOURCE REFERENCED IN NOTE 2 AND WAS NOT CALCULATED NOR VERIFIED.

DIA/GD40

1" DRAIN THROUGH CURB
INSTALL PER CITY
STD DNG 2239

TO	FROM	FL
1	43.50	44.50
2	43.50	44.50
3	43.50	44.50

TO SET 2042.00
FL 2042.00

TO	FROM	FL
1	43.50	44.50
2	43.50	44.50
3	43.50	44.50

TO SET 2042.00
FL 2042.00

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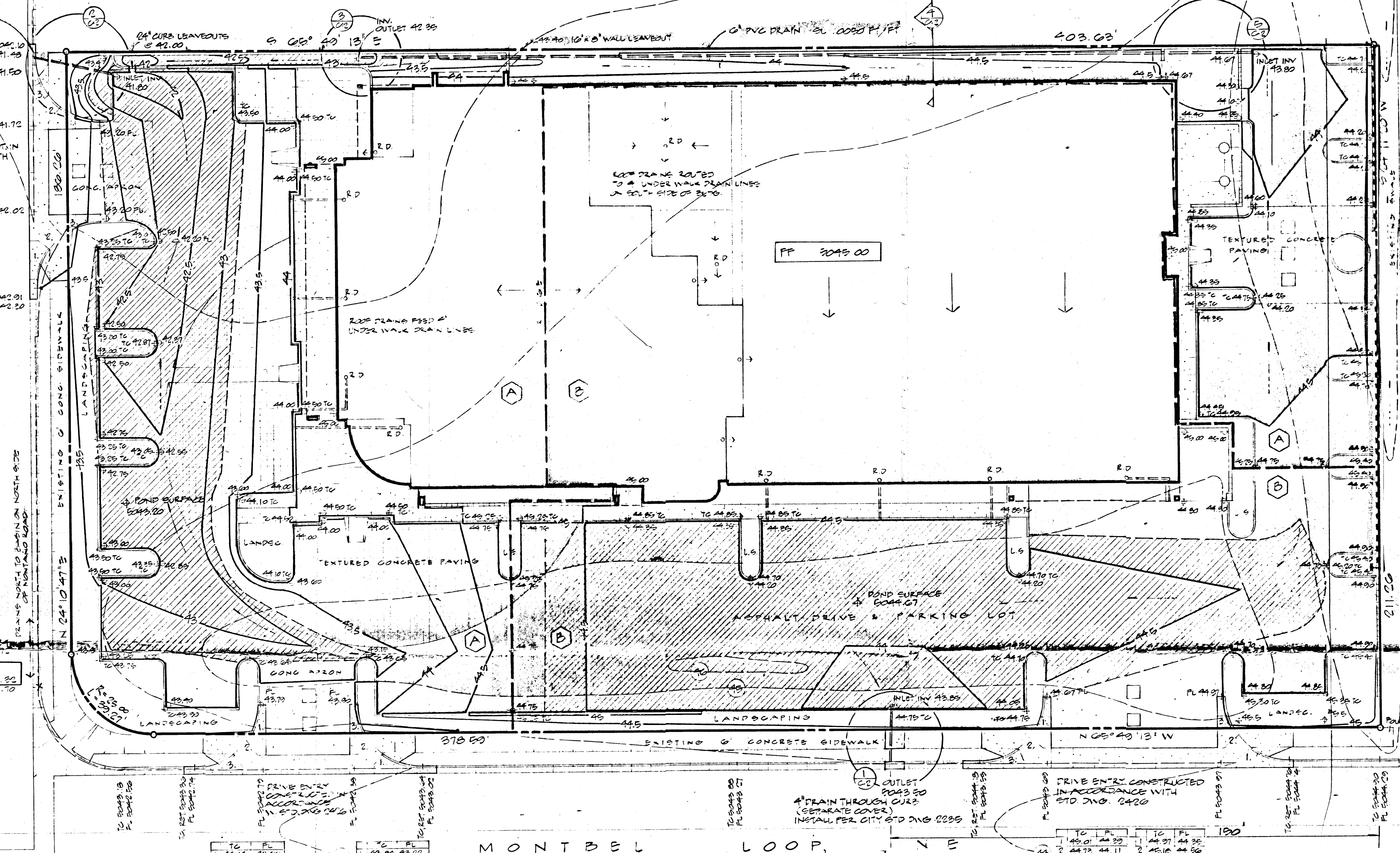
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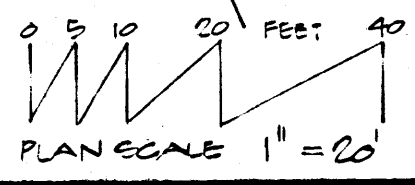
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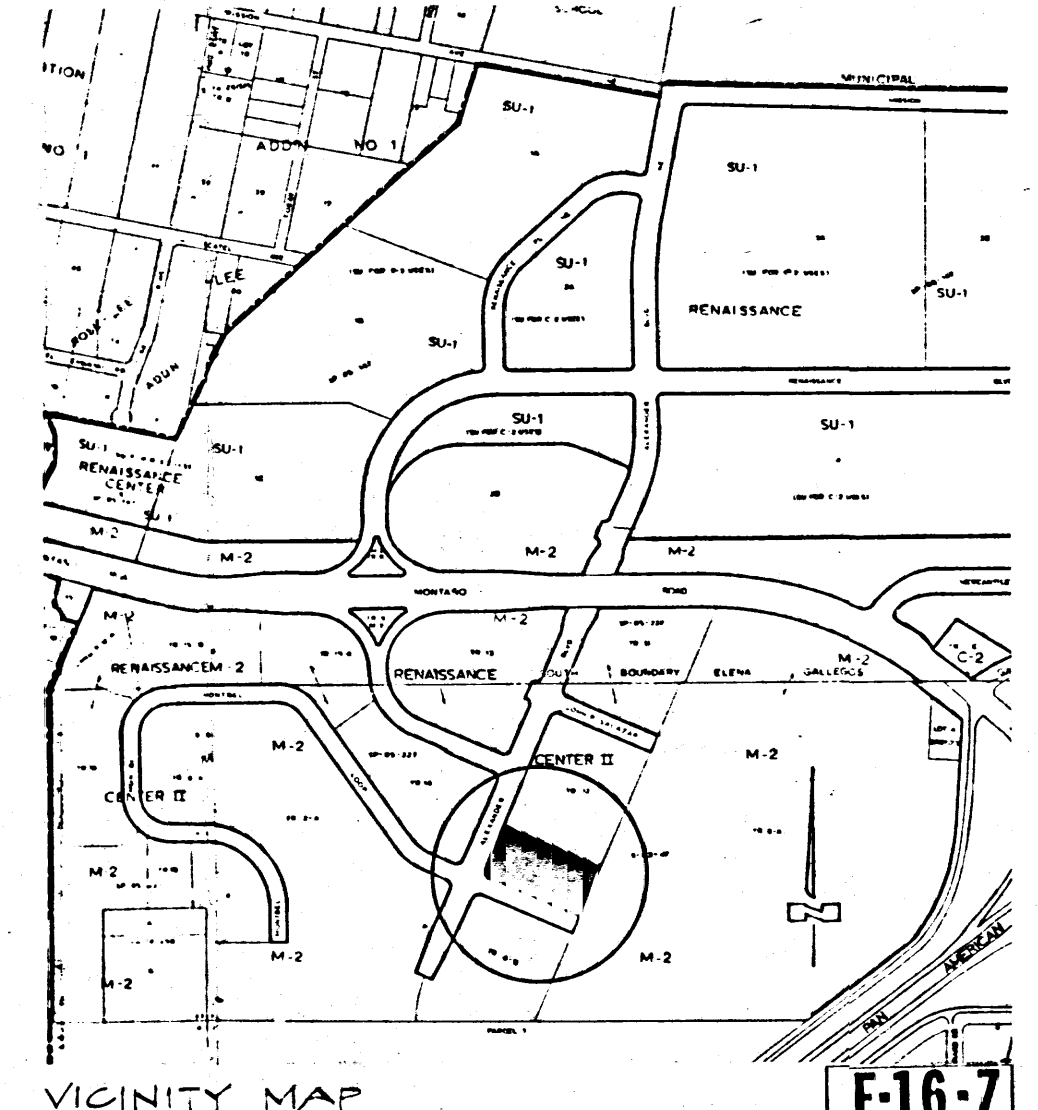


MONTBEL LOOP



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 5. Backfill and compaction shall be according to _____ to meet use.
 6. Maintenance of this facility shall be the responsibility of the owner served.

APPROVALS	NAME	DATE
HYDROLOGY/DESIGN		
INSPECTOR/DESIGN		
CONST/ACPT.		



VICINITY MAP

BENCH MARK
3" FIG. 405 BRASS TABLET STAMPED "3" FIG. SET IN CONCRETE POST IN MEDIAN STRIP OF MONTANO ROAD, NE. 0.7 MILE WEST OF I-25 INTERCHANGE
ELEV. 2039.00

I.B.M.
TOP OF CURB, NINE RETURN, INTERSECTION OF MONTBEL LOOP & ALEXANDER BOULEVARD
3.5V. 2043.32

- LEGEND**
- 43.00 EXISTING CONTOUR
 - 43.00 PROPOSED SPOT ELEVATION
 - PROPOSED SPOT ELEVATIONS AND CONTOURS AS SHOWN ARE TO FINISHED SURFACES. CONTRACTOR SHALL DETERMINE APPROPRIATE SUBGRADES
 - MASONRY SCREEN WALL
 - MASONRY RETAINING WALL WHERE FILL EXCEEDS 1.33 FEET
 - EXTENT OF STORMWATER DETENTION
 - DIVISION OF INTERIOR DRAINAGE BASINS

DATA

AREA OF SITE 1.0544 AC (28133 SQ FT)
SLOPE 1%
TIME OF CONCENTRATION 10 MINUTES
100-YEAR 6-HOUR RAINFALL 2.2 INCHES
INTENSITY (2.2 x 60 x 60 x 10⁻³) 4.05 IN/HR.

EXISTING ON-SITE CONDITIONS

THERE IS NO CONSTRUCTION OR OTHER IMPROVEMENTS WITHIN THE EXISTING BOUNDARIES. APPROXIMATELY THREE-FOURTHS OF SITE AREA DRAINS TO THE NORTHWEST. THE REMAINING PORTIONS DRAIN SOUTH TO MONTBEL BOULEVARD AND NORTH VIA RAILROAD SPUR GRADE TO AN AREA ON ADJOINING PROPERTY (LOT 12) WHERE PONDING OCCURS. CURB GUTTER AND SIDEWALK IMPROVEMENTS ARE IN PLACE ALONG SOUTH AND WEST PROPERTY LINES.

DIVISION OF EXISTING DISCHARGE ROUTINES DETERMINED FROM SITE TOPOGRAPHY:

TO NORTHWEST INTO ALEXANDER BOULEVARD
AREA 1.51 ACRE
NO IMPERVIOUS COVERAGE, C = .40
Q₁₀₀ = 4.0 x 4.05 IN/HR x 1.91 AC = 31.0 CFS, PEAK
Q₁₀ = .057 Q₁₀₀ = 1.89 CFS

TO NORTH ALONG TRACK ONTO LOT 12
AREA .21 ACRE
Q₁₀₀ = 4.0 x 4.05 IN/HR x .21 AC = .39 CFS, PEAK
Q₁₀ = .057 Q₁₀₀ = .06 CFS

TO SOUTH INTO MONTBEL LOOP
AREA .23 ACRE
Q₁₀₀ = 4.0 x 4.05 IN/HR x .23 AC = .43 CFS, PEAK
Q₁₀ = .057 Q₁₀₀ = .06 CFS

TOTAL SITE PEAK RUNOFF RATES: (AUGUSTING SUM, T_c BEING CONSTANT)
Q₁₀₀ = 32.82 CFS
Q₁₀ = 2.01 CFS

UPSTREAM CONTRIBUTORY AREAS

NONE. SITE ISOLATED BY CURB & GUTTER ON SOUTH, WEST, BY RAILROAD GRADE ON EAST. ADJOINING PROPERTY ON NORTH IS LOWER.

PROPOSED DEVELOPMENT

COMMERCIAL WAREHOUSE/RETAIL BUILDING, PARKING AREAS, WALKS AND LANDSCAPING AS INDICATED ON PLAN. DRIVE ENTRIES WILL BE CONSTRUCTED IN ACCORDANCE WITH STD DNG. 2420 "PRIVATE ENTRANCES".

	C	%
PAVING	.02	1.02
ROOF	.05	.76
LANDSCAPING	.05	.17

LOT AS DEVELOPED WILL BE DIVIDED INTO TWO INTERIOR BASINS. EACH CONTRIBUTING TO DETENTION BASINS LOCATED IN PARKING LOTS. VOLUME OF EACH BASIN SHALL ACCOMMODATE 100% OF INCREASED RUNOFF GENERATED WITHIN CONTRIBUTORY ZONE. RELEASE WILL BE LIMITED TO 0.1 CFS PER CONTRIBUTING ACRE.

DISPOSAL ROUTING

AREA (A) WILL BE RELEASED TO ALEXANDER BOULEVARD. STREET FLOWS NORTH, UNDER MONTANO ROAD OVERPASS TO RENAISSANCE BLVD., THEN WEST TO A BASIN ADJACENT TO THE NORTH SIDE OF MONTANO RD.

AREA (B) WILL BE RELEASED TO MONTBEL LOOP. STREET FLOWS WEST TO A BASIN ADJACENT TO THE SOUTH SIDE OF MONTANO RD.

• VOLUMETRIC COMPUTATIONS, REND AND RELEASE DESIGNS AND DETAILS APPEAR ON SHEET D-2

EXCESS VOLUMES WILL OVERFLOW TO STREETS THROUGH DRIVEWAY ENTRANCES.

DESCRIPTION OF PROPERTY

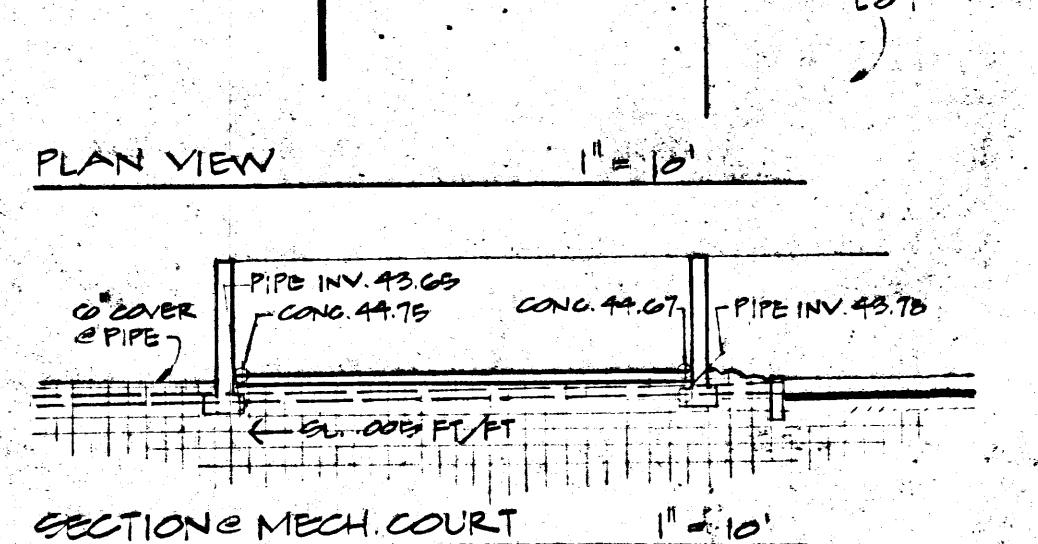
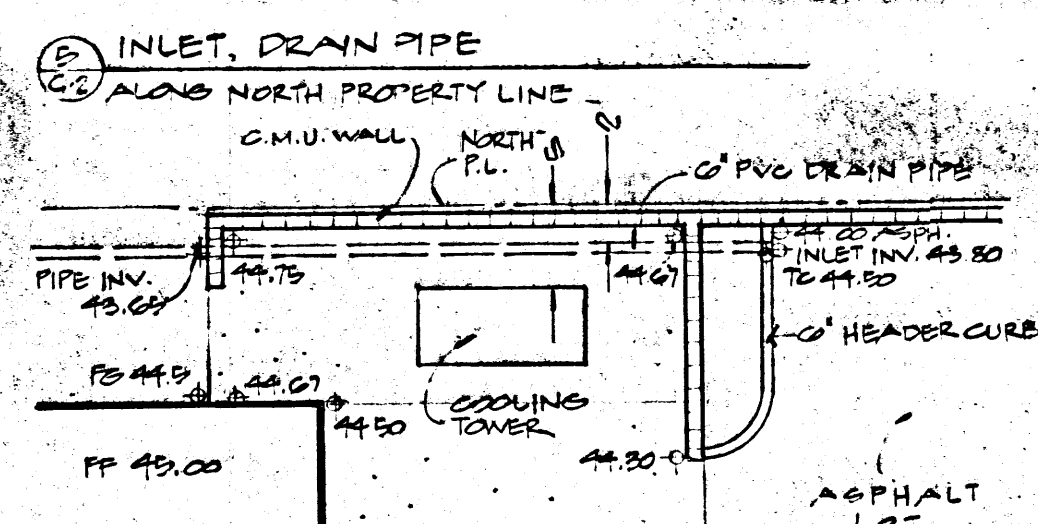
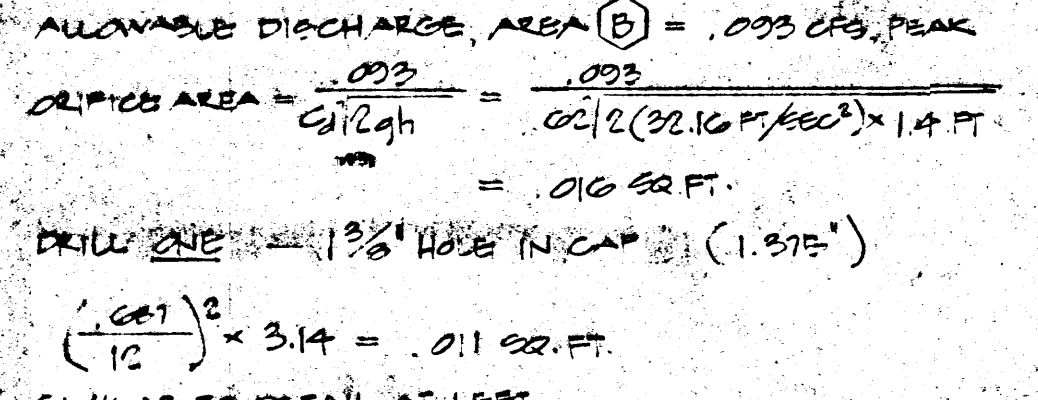
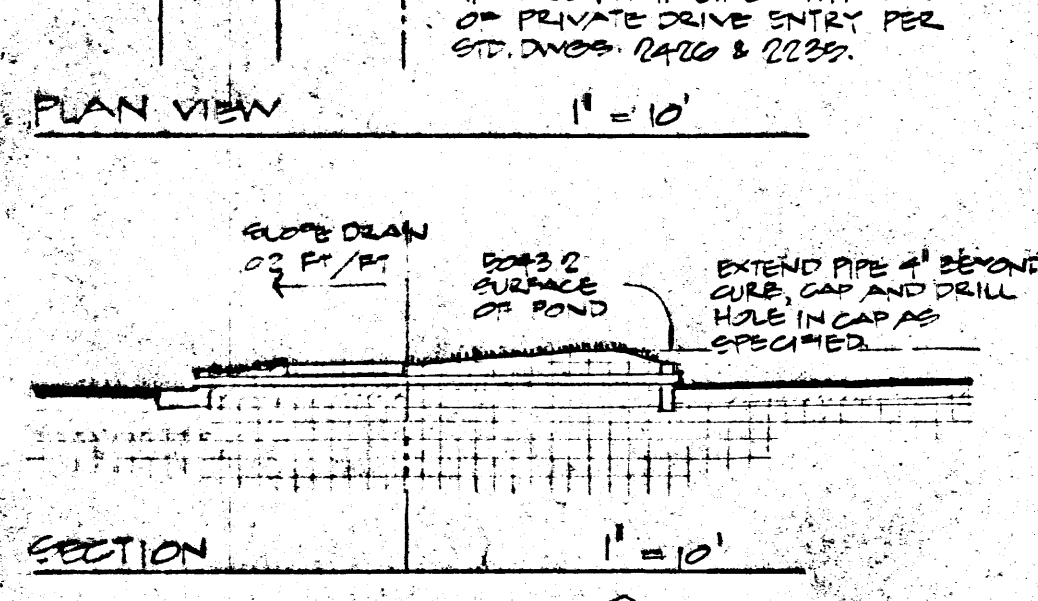
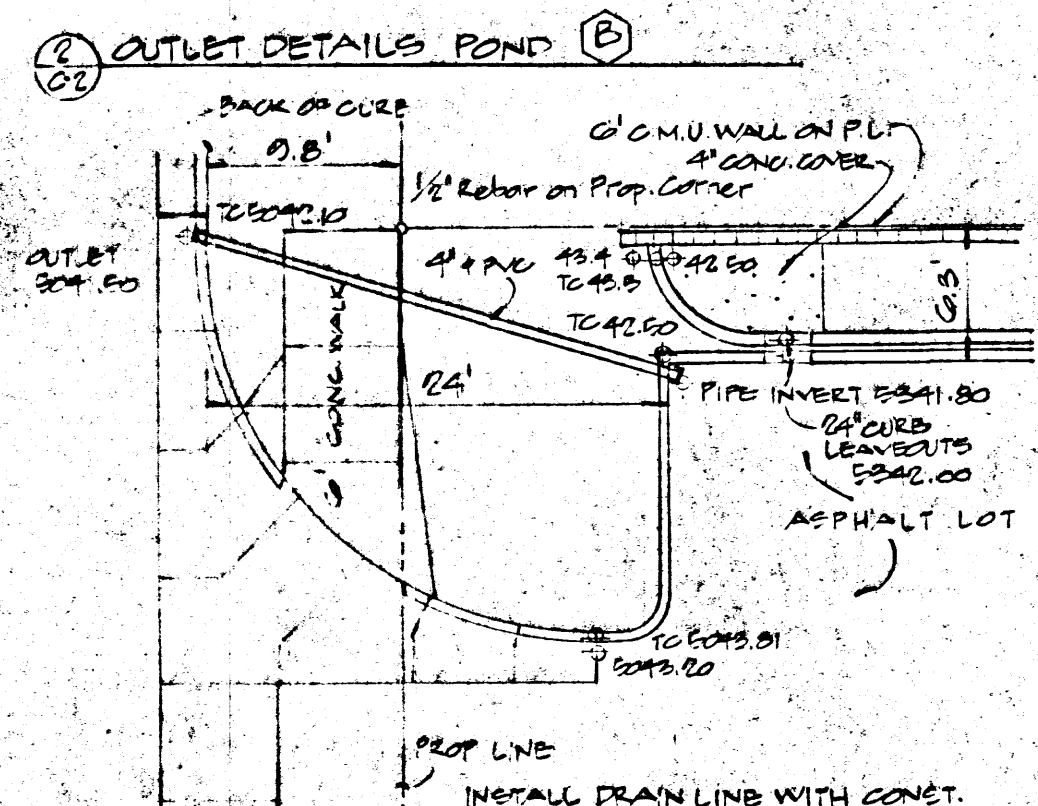
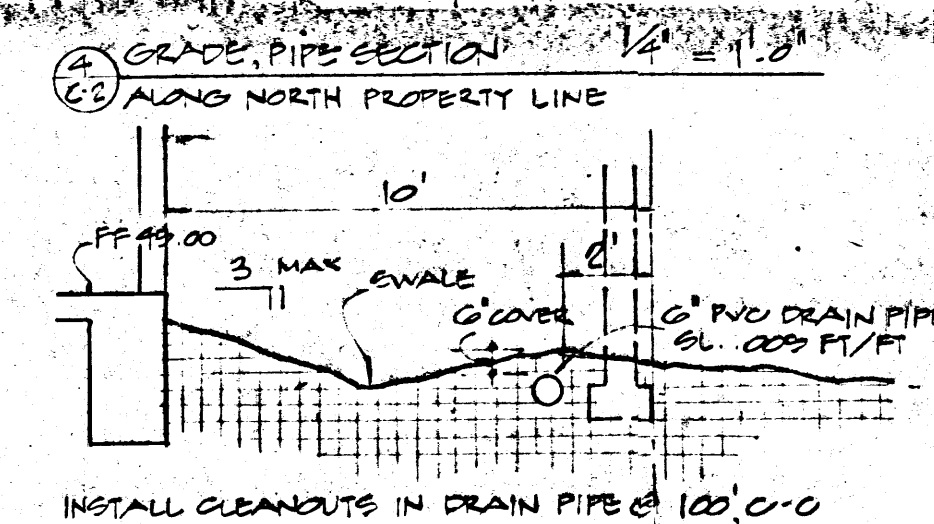
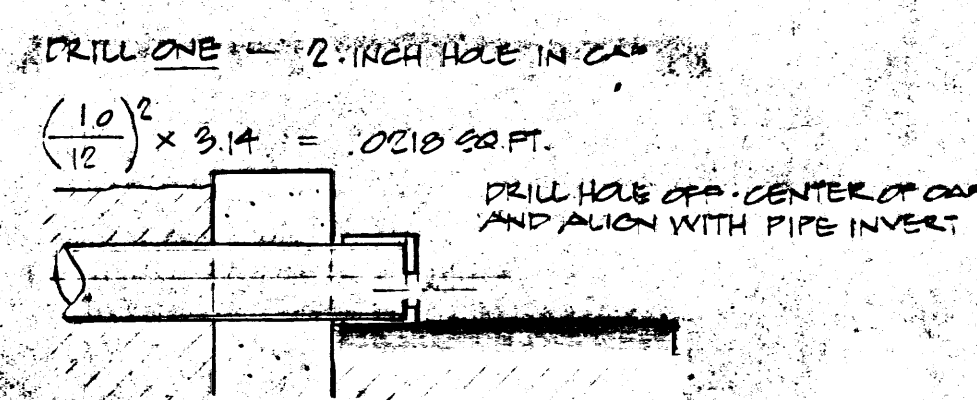
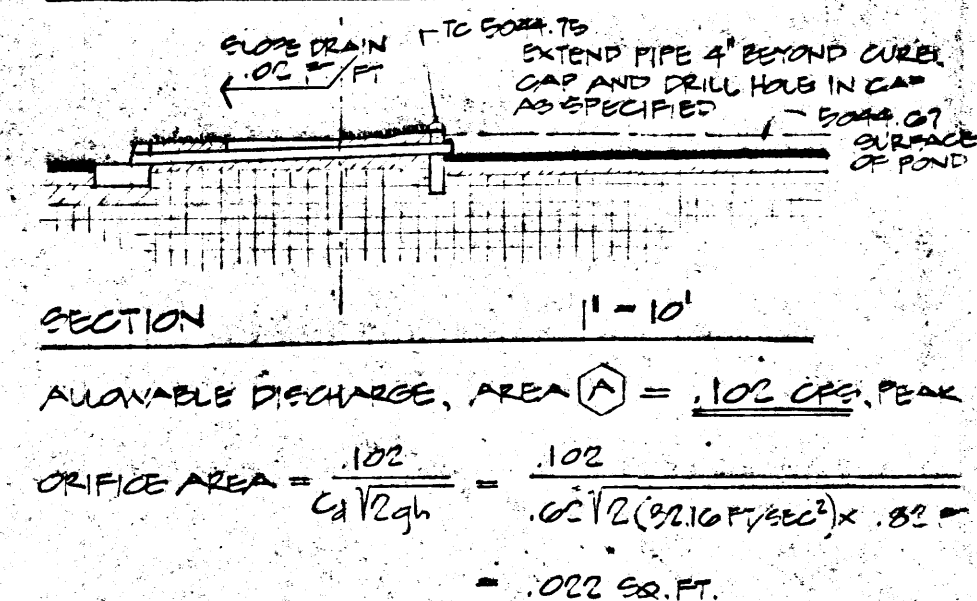
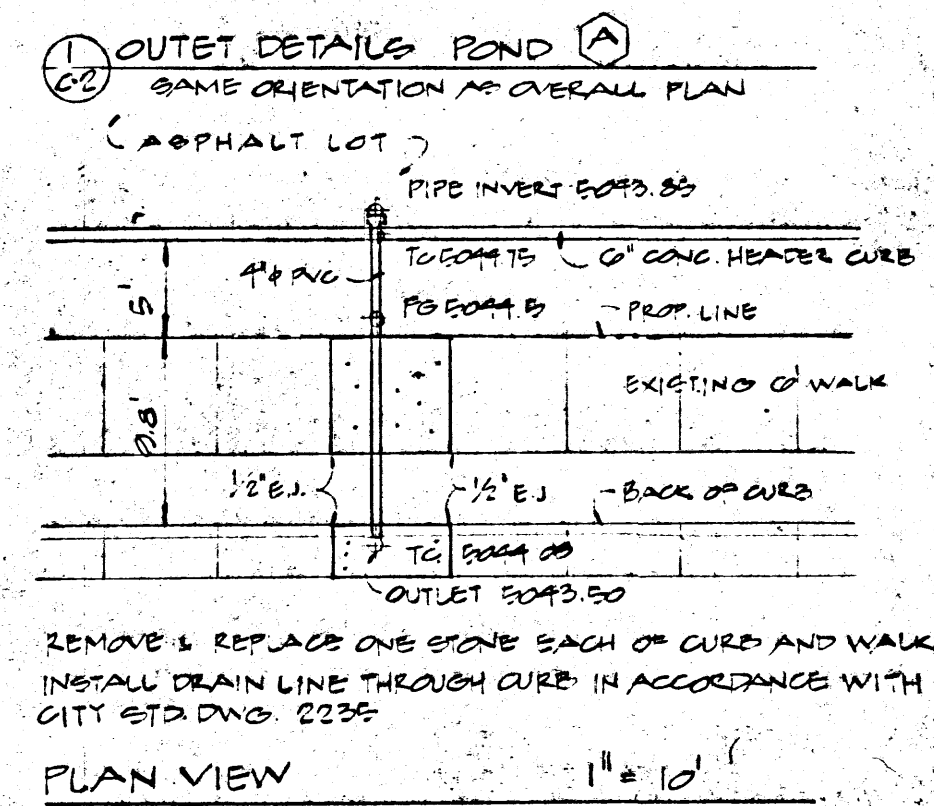
PARCEL "B"
RENAISSANCE CENTER III
ALBUQUERQUE, NEW MEXICO
ALEXANDER BOULEVARD, NE

DIAGNOSIS - TEK
APPROVED FOR DRAINAGE
DATE 12/16/89
SIGNATURE G. S. P. S. C. H. H.
TITLE ADVISE DRAINAGE INSPECTOR WHEN GRADING EXECUTED
OCTOBER 1988

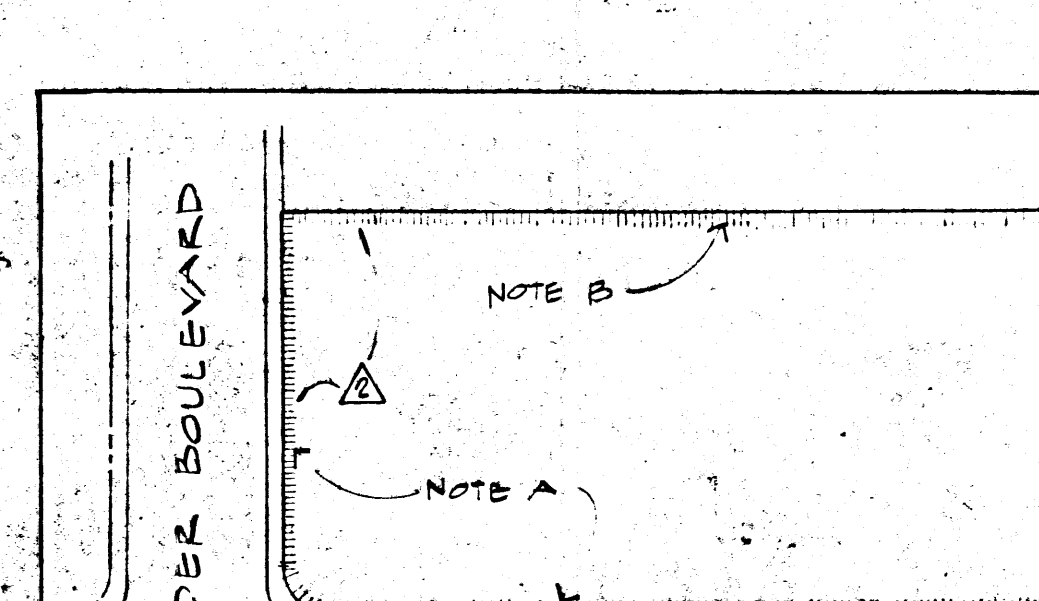
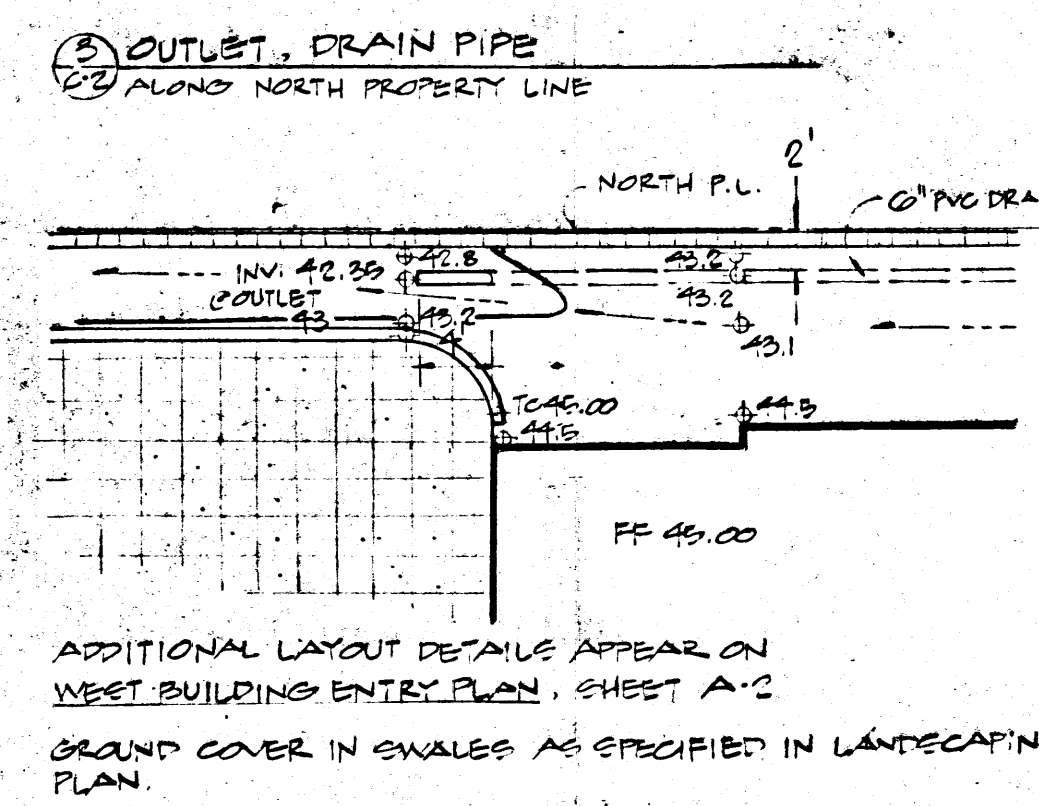
REVISION, TOPSOIL DISTURBANCE PERMIT 11-11-88
REVISION, EROSION CONTROL PLAN 11-11-88

SHEET C-1 OF 2

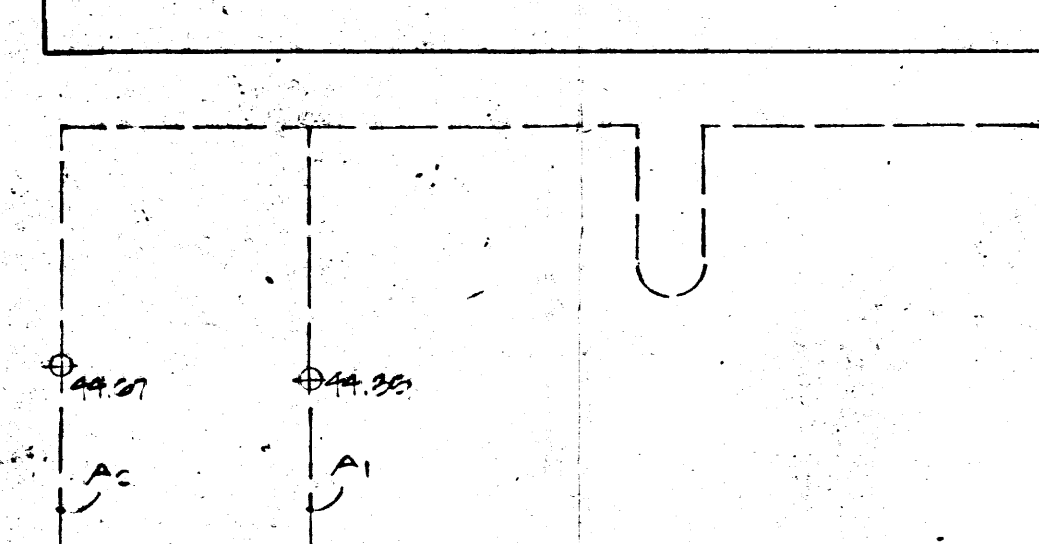
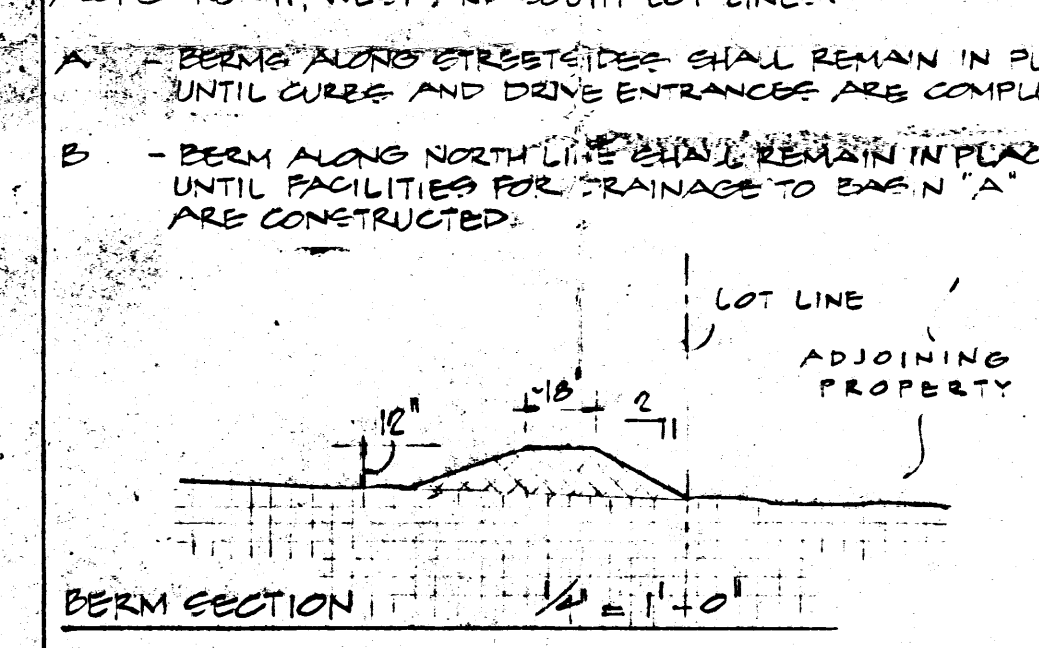
HALL ENGINEERING COMPANY INC.
ENGINEERING • SURVEYING • PLANNING • CONSTRUCTION
6840 2ND ST., N.W., SUITE 306 • ALBUQUERQUE, NEW MEXICO 87107
PHONE: (505) 345-1064



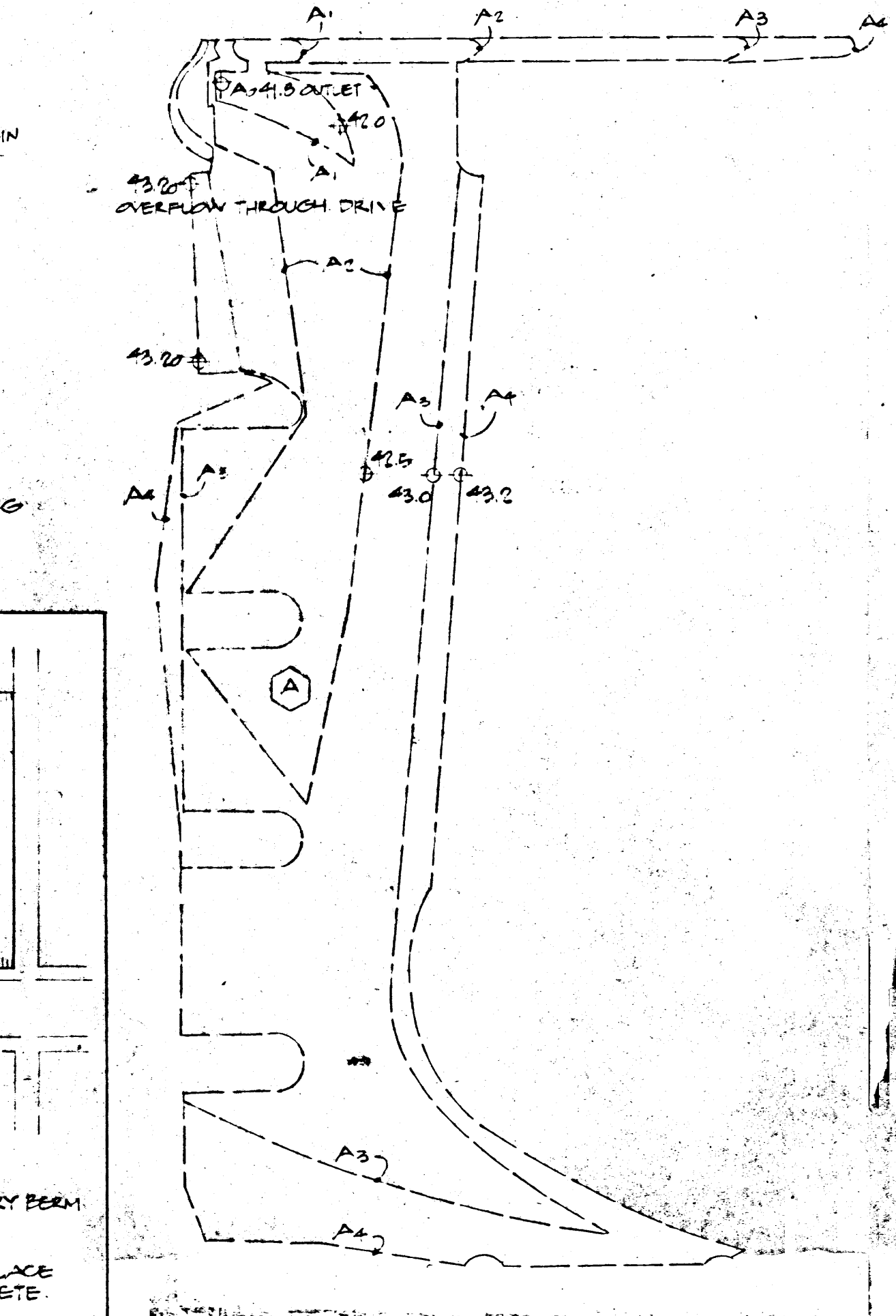
ADDITIONAL LAYOUT DETAILS APPEAR ON
MECHANICAL/LOUNGE COURT PLAN, SHEET A-2



ADDITIONAL LAYOUT DETAILS APPEAR ON
WEST BUILDING ENTRY PLAN, SHEET A-2



ADDITIONAL LAYOUT DETAILS APPEAR ON
MECHANICAL/LOUNGE COURT PLAN, SHEET A-2



DRAINAGE AREA (A)

.03 ACRE

COVER	C	AC	% OF CONTRIBUTORY AREA
PAVING	.92	.61	65
ROOF	.95	.20	22
LANDSCAPING	.25	.12	13

$C_{avg} = (.92 \times .65) + (.95 \times .22) + (.25 \times .13) = .84$

REQUIRED POND VOLUME

DEV. RUNOFF VOL. = $\frac{.84 \times 2.2 \text{ IN} \times .93 \times 43560}{12} = 6225 \text{ CU. FT.}$

LESS:

NATURAL RUNOFF VOL. = $\frac{.93 \times 2.2 \text{ IN} \times .93 \times 43560}{12} = 6071 \text{ CU. FT.}$

3265 CU. FT.

VOLUME OF POND (A)

A0 - A1 (A0 @ 5041.5, A1 @ 5043.0 = 100 FT²)

$\frac{100 \text{ FT}^2}{3} \times .2 \text{ FT} = 7 \text{ CU. FT.}$

A1 - A2 (A2 @ 5043.5 = 1300 FT²)

$\frac{1300 \times 100 + 1300 \times 100}{3} \times .5 \text{ FT} = 381 \text{ CU. FT.}$

A2 - A3 (A3 @ 5043.0 = 5000 FT²)

$\frac{5000 \times 1300 + 5000 \times 1300}{3} \times .5 \text{ FT} = 1760 \text{ CU. FT.}$

A3 - A4 (A4 @ 5043.2 = 6300 FT²)

$\frac{6300 \times 5000 + 6300 \times 5000}{3} \times .2 \text{ FT} = 1238 \text{ CU. FT.}$

TOTAL AVAILABLE VOL. = 3394 CU. FT.

DRAINAGE AREA (B)

1.02 ACRE

COVER	C	AC	% OF CONTRIBUTORY AREA
PAVING	.92	.41	40
ROOF	.95	.56	55
LANDSCAPING	.25	.05	5

$C_{avg} = (.92 \times .40) + (.95 \times .55) + (.25 \times .05) = .90$

REQUIRED POND VOLUME

DEV. RUNOFF VOL. = $\frac{.90 \times 2.2 \text{ IN} \times 1.02 \times 43560}{12} = 7331 \text{ CU. FT.}$

LESS:

NATURAL RUNOFF VOL. = $\frac{.90 \times 2.2 \text{ IN} \times 1.02 \times 43560}{12} = 3058 \text{ CU. FT.}$

4073 CU. FT.

A0 - A1 (A0 @ 5043.5, A1 @ 5044.5 = 1000 FT²)

$\frac{1000 \times 100 + 1000 \times 100}{3} \times .5 \text{ FT} = 1000 \text{ CU. FT.}$

A1 - A2 (A2 @ 5044.07 = 14100 FT²)

$\frac{14100 \times 1000 + 14100 \times 1000}{3} \times .3 = 3061 \text{ CU. FT.}$

TOTAL AVAILABLE VOL. = 4061 CU. FT.

APPROVED FOR DRAINAGE
12 JAN 89
DATE
G.S. Pender RE. CE/HYDROLOGY
SIGNATURE TITLE
ADVISE DRAINAGE INSPECTOR
WHEN GRADING EXECUTED

10-14-88

REVISOR 11-11-88 ADDED EROSION CONTROL

SHEET C-2 OF 2

HALL ENGINEERING COMPANY INC.
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