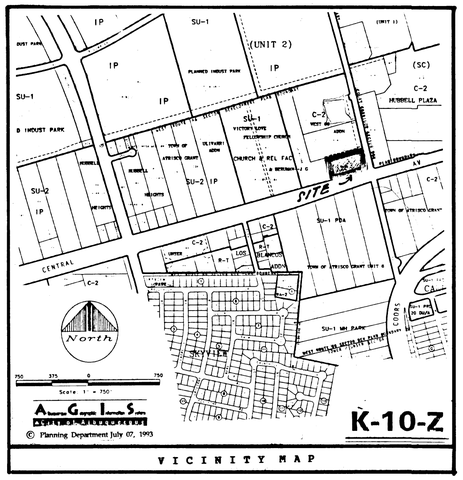
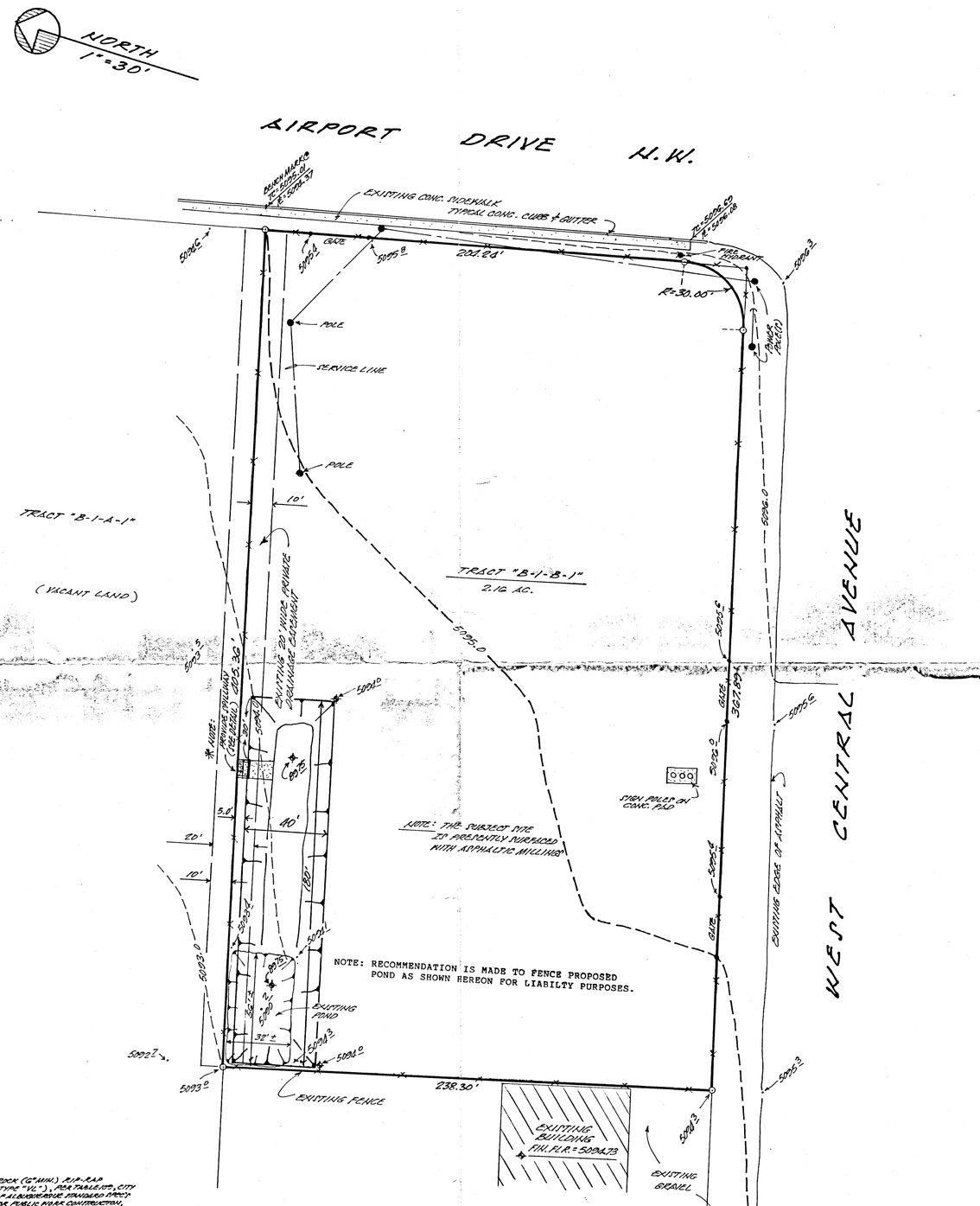


VICINITY MAP



LEGEND:

EXISTING SPOT ELEVATION = 5095.6
EXISTING CONTOUR = 5094.0
PROPOSED SPOT ELEVATION = 5094.50
PROPOSED CONTOUR = 5094.0

LEGAL DESCRIPTION:

TRACT "B-1-B-1", **WEST 66 ADDITION**, TO THE CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO, (CITY ZONE ATLAS "K-10-Z").

BENCH MARK REFERENCE:

ACS STATION "6K-10", M.S.L.D. ELEVATION = 5094.343; PROJECT BENCH MARK AS SHOWN ON THE PLAN HEREON.

CONSTRUCTION NOTES:

1.) TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE AT [illegible] FOR LOCATION OF EXISTING UTILITIES. 260-1990

2.) PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL POTENTIAL OBSTRUCTIONS; SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM OF DELAY.

3.) ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.

4.) ALL CONSTRUCTION WITHIN CITY RIGHT-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE CITY OF ALBUQUERQUE STANDARDS AND PROCEDURES.

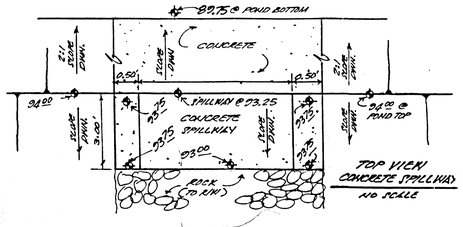
EROSION CONTROL MEASURES:

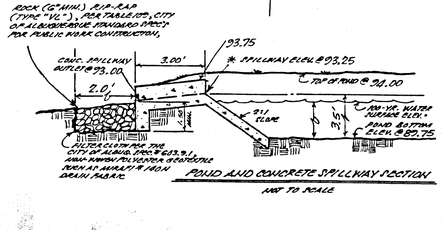
THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR MANAGEMENT FOR STORM RUNOFF DURING CONSTRUCTION; HE SHALL INSURE THAT THE FOLLOWING MEASURES ARE TAKEN:

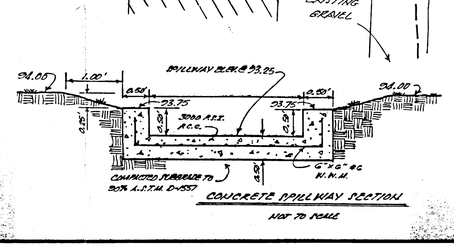
1.) ADJACENT PROPERTY SHALL BE PROTECTED AT ALL TIMES BY CONSTRUCTION OF BERMS, DIKES, SWALES, PONDS, AND OTHER TEMPORARY GRADING AS REQUIRED TO PREVENT STORM RUNOFF FROM LEAVING THE SITE AND ENTERING ADJACENT PROPERTIES.

2.) ADJACENT PUBLIC RIGHT-OF-WAYS SHALL BE PROTECTED AT ALL TIMES FROM STORM WATER RUNOFF FROM THE SITE. NO SEDIMENT BEARING WATER SHALL BE PERMITTED TO ENTER PUBLIC STREETS.

3.) THE CONTRACTOR SHALL IMMEDIATELY AND THROUGHLY REMOVE ANY AND ALL SEDIMENT WITHIN PUBLIC STREETS THAT HAS BEEN ERODED FROM THE SITE AND DEPOSITED THERE.







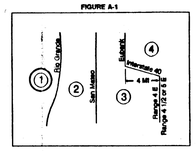
A.1 PRECIPITATION ZONES

Bernalillo County's four precipitation zones are indicated in TABLE A-1 and on FIGURE A-1.

TABLE A-1. PRECIPITATION ZONES

Zone	Location
(1)	West of the Rio Grande
2	Between the Rio Grande and San Mateo
3	Between San Mateo and Eubank. North of Interstate 40, and between San Mateo and the East boundary of Range 4 East, South of Interstate 40
4	East of Eubank. North of Interstate 40, and East of the East boundary of Range 4 East, South of Interstate 40

FIGURE A-1



Where a watershed extends across a zone boundary, use the zone which contains the largest portion of the watershed.

TABLE A-4. LAND TREATMENTS

Treatment	Land Condition
A	Soil uncompacted by human activity with 0 to 10 percent slopes. Native grasses, weeds and shrubs in typical densities with minimal disturbance to grading, groundcover and infiltration capacity. Croplands. Undried arroyos.
B	Irrigated lawns, parks and golf courses with 0 to 10 percent slopes. Native grasses, weeds and shrubs, and soil uncompacted by human activity with slopes greater than 10 percent and less than 20 percent.
C	Soil compacted by human activity. Minimal vegetation. Unpaved parking, roads, trails. Most vacant lots. Gravel or rock on plastic (desert landscaping). Irrigated lawns and parks with slopes greater than 10 percent. Native grasses, weeds and shrubs, and soil uncompacted by human activity with slopes at 20 percent or greater. Native grass, weed and shrub areas with clay or clay loam soils and other soils of very low permeability as classified by SCS Hydrologic Soil Group D.
D	Impervious areas, pavement and roofs.

Most watersheds contain a mix of land treatments. To determine proportional treatments, measure respective subareas. In lieu of specific measurement for treatment D, the areal percentages in TABLE A-5 may be employed.

DRAINAGE COMMENTS AND CALCULATIONS:

AS SHOWN ON THE VICINITY MAP HEREON, THE SUBJECT SITE IS LOCATED AT THE NORTHWEST INTERSECTION OF WEST CENTRAL AVENUE AND AIRPORT DRIVE N.W., IN THE CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO, (CITY ZONE MAP "K-10-Z").

THE SUBJECT, 1.) IS NOT LOCATED WITHIN A DESIGNATED FLOODPLAIN (RE: F.E.M.A. FLOODWAY MAP 27 OF 50), 2.) IS PRESENTLY AN UNDEVELOPED LOT SURFACED WITH ASPHALT MILLINGS AND BEING USED AS A MOBILE HOME SALES LOT, 3.) DOES NOT LIE ADJACENT TO A NATURAL OR ARTIFICIAL WATER COURSE, 4.) PRESENTLY CONTRIBUTES TO THE OFFSITE FLOWS OF THE PROPERTY LYING NORTH OF AND ADJACENT TO THE SUBJECT SITE, 5.) HAS AN UNDERSIZED POND ONSITE THAT WILL BE ENLARGED TO ACOMMODATE THE REQUIRED VOLUME AND WILL PROVIDE A SPILLWAY AS SHOWN ON THE PLAN HEREON.

CALCULATIONS:

PER SECTION 22.2, HYDROLOGY OF THE DEVELOPMENT PROCESS MANUAL, VOLUME 2, DESIGN CRITERIA FOR THE CITY OF ALBUQUERQUE, NEW MEXICO, DATED: JANUARY, 1993.

SITE AREA: 2.16 ACRES

PRECIPITATION ZONE: ONE (1)

PEAK INTENSITY: "I" = 4.70

LAND TREATMENT METHOD FOR CALCULATION OF "Q_p"

NOTE: THE SUBJECT SITE CALCULATIONS AS SHOWN HEREON ARE CONSIDERED AS A DEVELOPED LOT PER C.O.A. REQUIREMENTS.

CONDITIONS:

TREATMENT	AREA/ACRES		FACTOR		CFS
C	0.32	X	2.87	=	0.92
D	1.84	X	4.37	=	8.04

"Q_p" = 8.96 CFS

POND VOLUME CALCULATIONS: V_{360}, (100-YR. 6 HR.)

TREATMENT	AREA/ACRES		FACTOR		
C	0.32	X	0.99	=	0.31
D	1.84	X	1.97	=	3.62

"E" = $\frac{0.31 + 3.62}{2.16}$ = 1.82 INCHES

$V_{360} = \frac{1.82}{12}$ X 2.16 = 0.33 AC. FT.

FOR TEN (10) DAY STORMS:

$V_{10\ DAYS} = V_{360} + A_D \times (P_{10} - P_{360})/12$ IN. FT.

$V_{10\ DAYS} = 0.33 + 1.84 \times (3.67 - 2.20)/12 = 0.56$ AC. FT.

0.56 AC. FT. X 43,560.0 = 24,393.6 CU. FT. REQUIRED

REQUIRED POND SIZE: 40.0' X 180.0' X 3.5' = 25,200.0 CU. FT.
REQUIRED = 24,393.6 CU. FT.
** FREEBOARD = 806.4 CU. FT.

POND SPILLWAY - WEIR SIZE CALCULATION:

Q = 8.96 CFS BREADTH = 3.0' "C" = 2.63 "H" = 0.50'

NOTE: VALUE OF "C" = 2.63 INTERPOLATED FROM TABLE 5.3, BOOK OF HYDRAULICS, SECTION 5. BRATER & KING, 6th EDITION, 1976.

$Q = 2.63 \times LH^{1.5}$

$L = \frac{Q}{(2.63)(H^{1.5})} = \frac{8.96}{(2.63)(0.50^{1.5})} = 9.63'$ (USE 9.50')

GENERAL NOTES:

1.) NO PROPERTY CORNERS HAVE BEEN SET PER THIS SURVEY OF THE SUBJECT PROPERTY.

2.) NO SEARCH HAS BEEN MADE FOR EASEMENTS OF RECORD WITHIN THE SUBJECT PROPERTY OTHER THAN THOSE SHOWN ON THE PLAN HEREON.

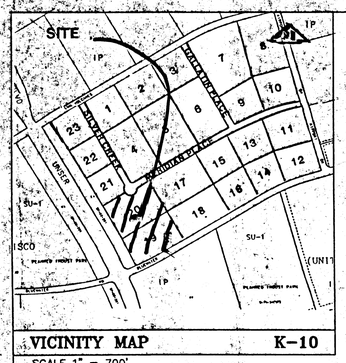
3.) TOPOGRAPHY SURVEY OBTAINED BY THE "TRANSIT-STADIA" METHOD.

A DRAINAGE PLAN FOR TRACT "B-1-B-1" WEST 66 ADDITION ALBUQUERQUE, NEW MEXICO FEBRUARY, 1995

RECEIVED
FEB 13 1995
HYDROLOGY DIVISION

A. ARSENIO MARTINEZ
7875
NEW MEXICO
REGISTERED PROFESSIONAL ENGINEER
02-02-95

ENGINEER'S SEAL



VICINITY MAP K-10

SCALE 1" = 700'

ADDRESS

7601 BLUEWATER ROAD NW

LEGAL DESCRIPTION

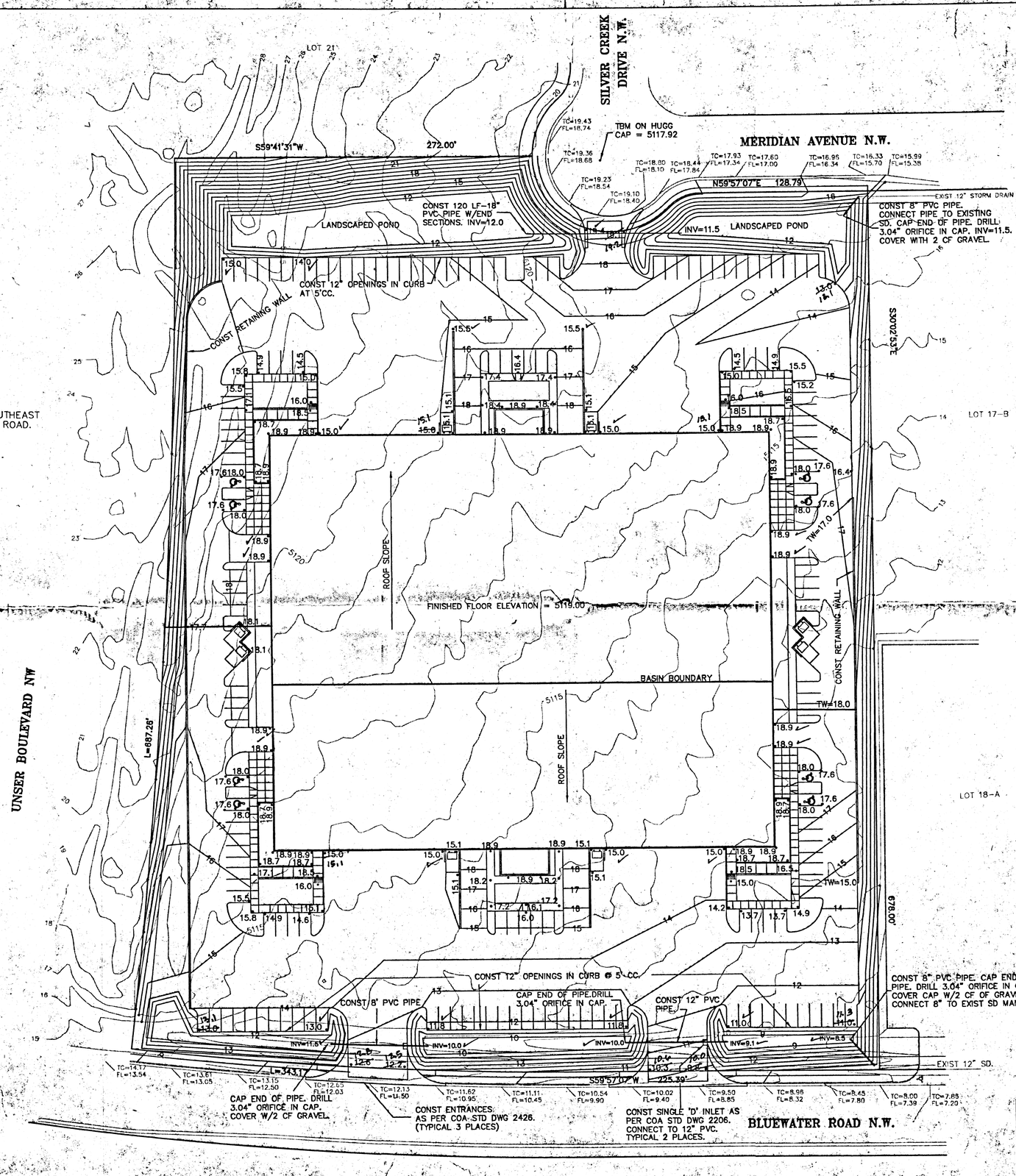
LOT 19-A, MERIDIAN BUSINESS PARK

BENCHMARK

ACS MONUMENT 10-K10 LOCATED AT THE SOUTHEAST CORNER OF UNSER BLVD AND LOS VOLCANES ROAD. ELEVATION = 5142.79.

LEGEND

- 35.8 — EXISTING SPOT ELEVATION
- •36.20 — NEW SPOT ELEVATION
- 36 — EXISTING CONTOUR
- 35 — NEW CONTOUR
- SWALE
- ✓ — VERIFIED ELEVATION
- 36.2 — AS-BUILT ELEVATION
- BASIN BOUNDARY



DRAINAGE PLAN

THE FOLLOWING ITEMS CONCERNING THE LOT 19-A, MERIDIAN BUSINESS PARK, GRADING AND DRAINAGE PLAN ARE CONTAINED HEREON:

1. VICINITY MAP
2. GRADING PLAN
3. CALCULATIONS

THE PROPOSED IMPROVEMENTS, AS SHOWN BY THE VICINITY MAP, ARE LOCATED ON THE NORTH SIDE OF BLUEWATER ROAD NW JUST EAST OF UNSER BLVD. THE SITE IS UNDEVELOPED. THE EXISTING LAND SLOPES FROM NORTHWEST TO SOUTHEAST AT APPROXIMATELY 2%. THE MASTER DRAINAGE PLAN FOR THE MERIDIAN BUSINESS PARK WAS PREPARED BY EASTERLING AND ASSOC. THAT PLAN ESTABLISHED A DISCHARGE RATE OF 0.10 CFS PER ACRE FOR THE SUBDIVISION. THE PLAN ALSO REQUIRED THAT TEMPORARY DRAINAGE FACILITIES BE CONSTRUCTED ON EACH LOT TO CONTAIN THE RUNOFF UNTIL THE LOT IS DEVELOPED.

THE SITE IS LOWER THAN THE LOT TO THE NORTH, BUT EXIST SWALES AND A POND RETAIN THE RUNOFF ON THAT SITE. THE PROJECT SITE IS HIGHER THAN BLUEWATER TO THE SOUTH AND LOT 18-B TO THE EAST. IT IS PARALLEL WITH THE UNSER RIGHT-OF-WAY TO THE WEST. THEREFORE, OFFSITE FLOWS ENTERING THE PROJECT SITE WILL BE NEGLIGIBLE.

THE GRADING PLAN SHOWS 1) THE EXISTING AND PROPOSED GRADES, INDICATED BY SPOT ELEVATIONS AND CONTOURS AT 1'-0" INTERVALS, 2) CONTINUITY BETWEEN EXISTING AND PROPOSED ELEVATIONS, 3) THE LIMIT AND CHARACTER OF EXISTING IMPROVEMENTS AND, 4) THE LIMIT AND CHARACTER OF THE PROPOSED IMPROVEMENTS. THE PROPOSED IMPROVEMENTS CONSIST OF A TILT WAREHOUSE AND OFFICE WITH ASSOCIATED PARKING AND LANDSCAPING. THE SITE IS BROKEN INTO TWO DRAINAGE BASINS. APPROXIMATELY 55% OF THE RUNOFF WILL BE IN THE NORTHERN BASIN AND APPROXIMATELY 45% IN THE SOUTHERN BASIN. ALL RUNOFF WILL BE ROUTED TO PONDS AND THEN RELEASED AT A RATE OF 0.10 CFS PER ACRE INTO THE EXISTING PRIVATE STORM DRAIN SYSTEM.

THE CALCULATIONS, WHICH APPEAR BELOW, ANALYZE THE EXISTING AND PROPOSED CONDITIONS FOR THE 6-HOUR, 100-YEAR RAINFALL EVENT. THE ANALYSIS IS IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL, VOLUME II, AS SHOWN BY THESE CALCULATIONS, THE RATE AND VOLUME OF RUNOFF WILL INCREASE, BUT THE PONDS WITH CONTROLLED OUTLETS WILL MITIGATE THE INCREASES. THIS PLAN IS IN CONFORMANCE WITH THE MASTER DRAINAGE PLAN.

CALCULATIONS

PRECITATION ZONE = 1

SOUTH BASIN
EXISTING CONDITIONS
AREA = 3.80
LAND TREATMENT A=100%
E = 0.44*1.00 = 0.44 INCHES
V = 0.44*3.80/12 = 0.14 ACRE FEET
Q = 1.29*1.00*3.80 = 4.90 CFS
DEVELOPED CONDITIONS
LAND TREATMENT B=17% D=83%
E = 0.67*0.17+1.97*0.83 = 1.75 INCHES
V = 1.75*3.80/12 = 0.55 ACRE FEET
Q = (2.03*0.17+4.37*0.83)3.80 = 15.09 CFS
INCREASE IN RATE OF RUNOFF = 15.09-4.90 = 10.19 CFS
INCREASE IN VOLUME OF RUNOFF = 0.55-0.14 = 0.41 ACRE FEET

NORTH BASIN
AREA = 4.72 ACRES
EXISTING CONDITIONS
LAND TREATMENT A=100%
E = 0.44*1.00 = 0.44 INCHES
V = 0.44*4.72/12 = 0.17 ACRE FEET
Q = 1.29*1.00*4.72 = 5.42 CFS
DEVELOPED CONDITIONS
LAND TREATMENT B=22% D=78%
E = 0.67*0.22+1.97*0.78 = 1.70 INCHES
V = 1.70*4.72/12 = 0.67 ACRE FEET
Q = (2.03*0.22+4.37*0.78)4.72 = 18.20 CFS
INCREASE IN RATE OF RUNOFF = 18.20-5.42 = 12.78 CFS
INCREASE IN VOLUME OF RUNOFF = 0.67-0.17 = 0.50 ACRE FEET

ORIFICE SIZES
NORTH = SOUTH
0.42 = 0.60A(2*32.2*3)^0.5 DIA=3.04 INCHES

POND VOLUMES
SOUTH
V = 6587+13365+7583 = 27535 CF > 0.55*43560=23958 CF @ WS ELEV=14.0,13.0 & 12.0
NORTH
V = 18749+11224 = 29973 CF > 0.67*43560=29185 CF @ WS ELEV = 14.1

NORTH

GRADING & DRAINAGE PLAN

NOVEMBER 16, 1998 SCALE: 1" = 40'-0"(U.N.O.)

CLAUDIO VIGIL ARCHITECTS

MERIDIAN BUSINESS PARK
BRUNACINI TILT-UP
OFFICE WAREHOUSE
7601 BLUEWATER ROAD, N.W.
ALBUQUERQUE, NEW MEXICO

THIS PROJECT WAS CONSTRUCTED IN SUBSTANTIAL COMPLIANCE WITH THE APPROVED GRADING PLAN.

8/16/99

REGISTERED PROFESSIONAL ENGINEER STATE OF THOMAS T. MANN, JR. 3792 NEW MEXICO AND LAND SURVEYOR

1.4.99

RECEIVED AUG 9 1999 HYDROLOGY SECTION

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Engineering & Surveying Associates, Inc.
5312 Horan Drive NE • Albuquerque, NM 87111 (505) 298-4651

1305 Tijeras NW Albuquerque, NM 87102-2882
Phone: 505/842-1113 Fax: 505/842-1330

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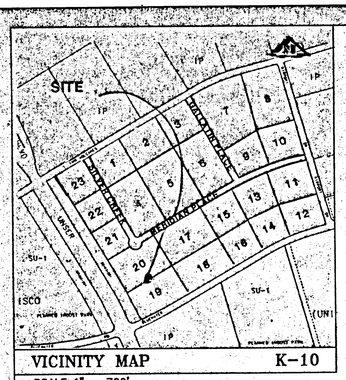


SCALE 1" = 700'

ADDRESS

7601 BLUEWATER ROAD NW

LEGAL DESCRIPTION

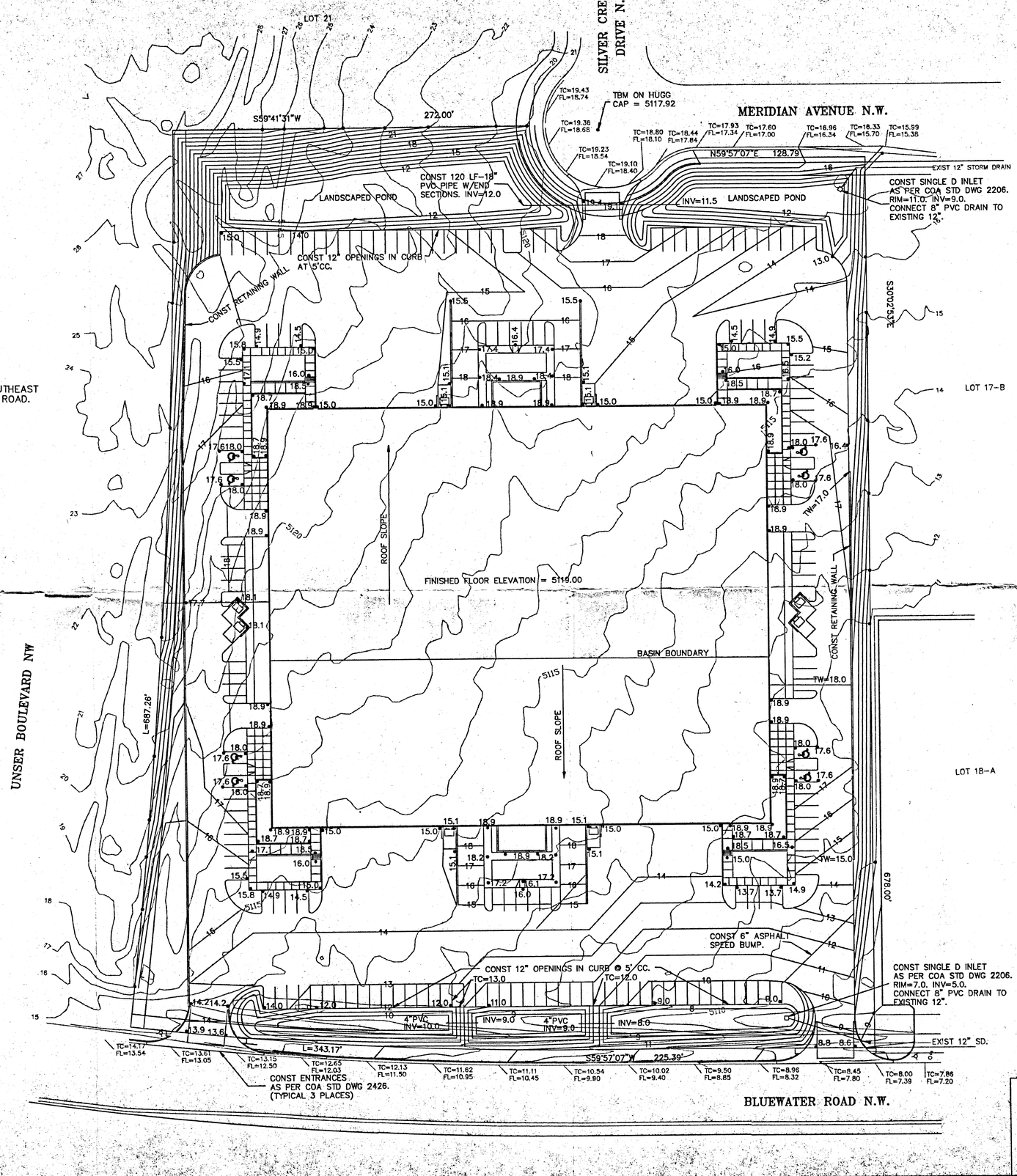
LOT 19-A, MERIDIAN BUSINESS PARK

BENCHMARK

ACS MONUMENT 10-K10 LOCATED AT THE SOUTHEAST CORNER OF UNSER BLVD AND LOS VOLCANES ROAD. ELEVATION = 5142.79.

LEGEND

35.8 EXISTING SPOT ELEVATION
•36.20 NEW SPOT ELEVATION
36 EXISTING CONTOUR
35 NEW CONTOUR
SWALE
✓ VERIFIED ELEVATION
~~36.2~~ AS-BUILT ELEVATION
BASIN BOUNDARY



DRAINAGE PLAN

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2. GRADING PLAN
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THE SITE IS LOWER THAN THE LOT TO THE NORTH, BUT EXIST SWALES AND A POND RETAIN THE RUNOFF ON THAT SITE. THE PROJECT SITE IS HIGHER THAN BLUEWATER TO THE SOUTH AND LOT 18-B TO THE EAST. IT IS PARALLEL WITH THE UNSER RIGHT-OF-WAY TO THE WEST. THEREFORE, OFFSITE FLOWS ENTERING THE PROJECT SITE WILL BE NEGLIGIBLE.

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CALCULATIONS

PRECITATION ZONE = 1

SOUTH BASIN
EXISTING CONDITIONS
AREA = 3.80
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NORTH BASIN
AREA = 4.72 ACRES
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LAND TREATMENT A=100%
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Q = 1.29*1.00*4.72 = 5.42 CFS
DEVELOPED CONDITIONS
LAND TREATMENT B=22% D=78%
E = 0.67*0.22+1.97*0.78 = 1.70 INCHES
V = 1.70*4.72/12 = 0.67 ACRE FEET
Q = (2.03*0.22+4.37*0.78)4.72 = 18.20 CFS
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INCREASE IN VOLUME OF RUNOFF = 0.67-0.17 = 0.50 ACRE FEET

ORIFICE SIZES
NORTH = SOUTH
0.42 = 0.60A(2*32.2*5)^0.5 DIA=2.74 INCHES

POND VOLUMES
SOUTH
V = 12708+6135+7927 = 26770 CF > 0.55*43560=23958 CF @ DEPTH = 2.75'
NORTH
V = 18749+11224 = 29973 CF > 0.67*43560=29185 CF @ WS ELEV = 14.1

RECEIVED
NOV 17 1998
HYDROLOGY SECTION

NORTH

GRADING & DRAINAGE PLAN

NOVEMBER 16, 1998 SCALE: 1" = 40'-0"(U.N.O.)

CLAUDIO VIGIL ARCHITECTS

MERIDIAN BUSINESS PARK

BRUNACINI TILT-UP
OFFICE WAREHOUSE
7601 BLUEWATER ROAD, N.W.
ALBUQUERQUE, NEW MEXICO

REGISTERED PROFESSIONAL ENGINEER STATE OF NEW MEXICO THOMAS T. MANN, JR. 3792 11-16-98

SHEET C-1

Engineering & Surveying Associates, Inc.
6312 Horsen Drive NE • Albuquerque, NM 87111 (505) 296-4651

1305 Tijeras NW Albuquerque, NM 87102-2882
Phone: 505/842-1113 Fax: 505/842-1330

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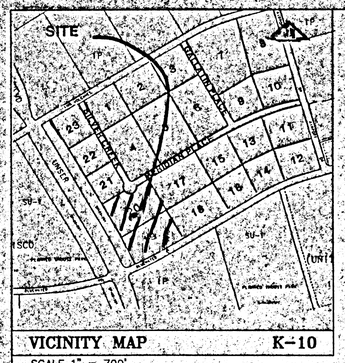


VICINITY MAP K-10

SCALE 1" = 700'

ADDRESS

7601 BLUEWATER ROAD NW

LEGAL DESCRIPTION

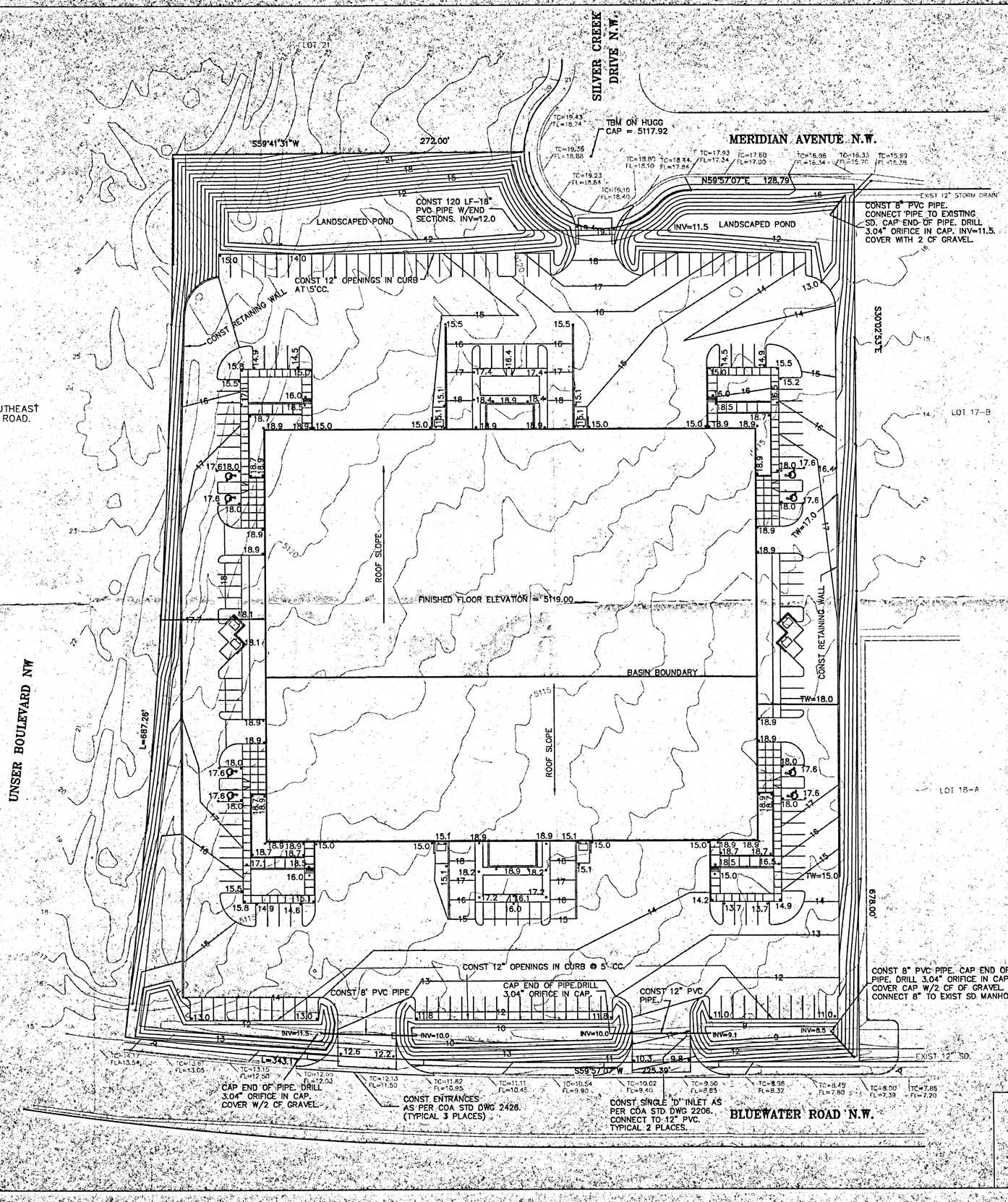
LOT 19-A, MERIDIAN BUSINESS PARK

BENCHMARK

ACS MONUMENT 10-K10 LOCATED AT THE SOUTHEAST CORNER OF UNSER BLVD AND LOS VOLCANES ROAD. ELEVATION = 5142.79.

LEGEND

- 35.8 — EXISTING SPOT ELEVATION
- •36.20 — NEW SPOT ELEVATION
- 36 — EXISTING CONTOUR
- 35 — NEW CONTOUR
- → SWALE
- ✓ VERIFIED ELEVATION
- 36.2 — AS-BUILT ELEVATION
- BASIN BOUNDARY



DRAINAGE PLAN

THE FOLLOWING ITEMS CONCERNING THE LOT 19-A, MERIDIAN BUSINESS PARK, GRADING AND DRAINAGE PLAN ARE CONTAINED HEREON:

1. VICINITY MAP
2. GRADING PLAN
3. CALCULATIONS

THE PROPOSED IMPROVEMENTS, AS SHOWN BY THE VICINITY MAP, ARE LOCATED ON THE NORTH SIDE OF BLUEWATER ROAD NW JUST EAST OF UNSER BLVD. THE SITE IS UNDEVELOPED. THE EXISTING LAND SLOPES FROM NORTHWEST TO SOUTHEAST AT APPROXIMATELY 2%. THE MASTER DRAINAGE PLAN FOR THE MERIDIAN BUSINESS PARK WAS PREPARED BY EASTERLING AND ASSOC. THAT PLAN ESTABLISHED A DISCHARGE RATE OF 0.10 CFS PER ACRE FOR THE SUBDIVISION. THE PLAN ALSO REQUIRED THAT TEMPORARY DRAINAGE FACILITIES BE CONSTRUCTED ON EACH LOT TO CONTAIN THE RUNOFF UNTIL THE LOT IS DEVELOPED.

THE SITE IS LOWER THAN THE LOT TO THE NORTH, BUT EXISTS SWALES AND A POND RETAIN THE RUNOFF ON THAT SITE. THE PROJECT SITE IS HIGHER THAN BLUEWATER TO THE SOUTH AND LOT 18-B TO THE EAST. IT IS PARALLEL WITH THE UNSER RIGHT-OF-WAY TO THE WEST. THEREFORE, OFFSITE FLOWS ENTERING THE PROJECT SITE WILL BE NEGLIGIBLE.

THE GRADING PLAN SHOWS 1) THE EXISTING AND PROPOSED GRADES INDICATED BY SPOT ELEVATIONS AND CONTOURS AT 1'-0" INTERVALS; 2) CONTINUITY BETWEEN EXISTING AND PROPOSED ELEVATIONS; 3) THE LIMIT AND CHARACTER OF EXISTING IMPROVEMENTS AND 4) THE LIMIT AND CHARACTER OF THE PROPOSED IMPROVEMENTS. THE PROPOSED IMPROVEMENTS CONSIST OF A WAREHOUSE AND OFFICE WITH ASSOCIATED PARKING AND LANDSCAPING. THE SITE IS BROKEN INTO TWO DRAINAGE BASINS. APPROXIMATELY 55% OF THE RUNOFF WILL BE IN THE NORTHERN BASIN AND APPROXIMATELY 45% IN THE SOUTHERN BASIN. ALL RUNOFF WILL BE ROUTED TO PONDS AND THEN RELEASED AT A RATE OF 0.10 CFS PER ACRE INTO THE EXISTING PRIVATE STORM DRAIN SYSTEM.

THE CALCULATIONS, WHICH APPEAR BELOW, ANALYZE THE EXISTING AND PROPOSED CONDITIONS FOR THE 6-HOUR, 100-YEAR RAINFALL EVENT. THE ANALYSIS IS IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL, VOLUME II. AS SHOWN BY THESE CALCULATIONS, THE RATE AND VOLUME OF RUNOFF WILL INCREASE, BUT THE PONDS WITH CONTROLLED OUTLETS WILL MITIGATE THE INCREASES. THIS PLAN IS IN CONFORMANCE WITH THE MASTER DRAINAGE PLAN.

CALCULATIONS

PRECITATION ZONE = 1

SOUTH BASIN

EXISTING CONDITIONS

AREA = 3.80

LAND TREATMENT A=100%

E = 0.44*1.00 = 0.44 INCHES

V = 0.44*3.80/12 = 0.14 ACRE FEET

Q = 1.29*1.00*3.80 = 4.90 CFS

DEVELOPED CONDITIONS

LAND TREATMENT B=17% D=83%

E = 0.67*0.17+1.97*0.83 = 1.75 INCHES

V = 1.75*3.80/12 = 0.55 ACRE FEET

Q = (2.03*0.17+4.37*0.83)3.80 = 15.09 CFS

INCREASE IN RATE OF RUNOFF = 15.09-4.90 = 10.19 CFS

INCREASE IN VOLUME OF RUNOFF = 0.55-0.14 = 0.41 ACRE FEET

NORTH BASIN

AREA = 4.72 ACRES

EXISTING CONDITIONS

LAND TREATMENT A=100%

E = 0.44*1.00 = 0.44 INCHES

V = 0.44*4.72/12 = 0.17 ACRE FEET

Q = 1.29*1.00*4.72 = 5.42 CFS

DEVELOPED CONDITIONS

LAND TREATMENT B=22% D=78%

E = 0.67*0.22+1.97*0.78 = 1.70 INCHES

V = 1.70*4.72/12 = 0.67 ACRE FEET

Q = (2.03*0.22+4.37*0.78)4.72 = 18.20 CFS

INCREASE IN RATE OF RUNOFF = 18.20-5.42 = 12.78 CFS

INCREASE IN VOLUME OF RUNOFF = 0.67-0.17 = 0.50 ACRE FEET

ORIFICE SIZES

NORTH = SOUTH

0.42 = 0.60A(2*32.2*3)^0.5 DIA=3.04 INCHES Δ

POND VOLUMES

SOUTH

V = 6587+13365+7583 = 27535 CF > 0.55*43560=23958 CF @ WS ELEV=14.0,13.0 & 12.0 Δ

NORTH

V = 18749+11224 = 29973 CF > 0.67*43560=29185 CF @ WS ELEV = 14.1

NORTH

GRADING & DRAINAGE PLAN

NOVEMBER 16, 1998 SCALE: 1" = 40'-0"(U.N.O.)

CLAUDIO VIGIL ARCHITECTS

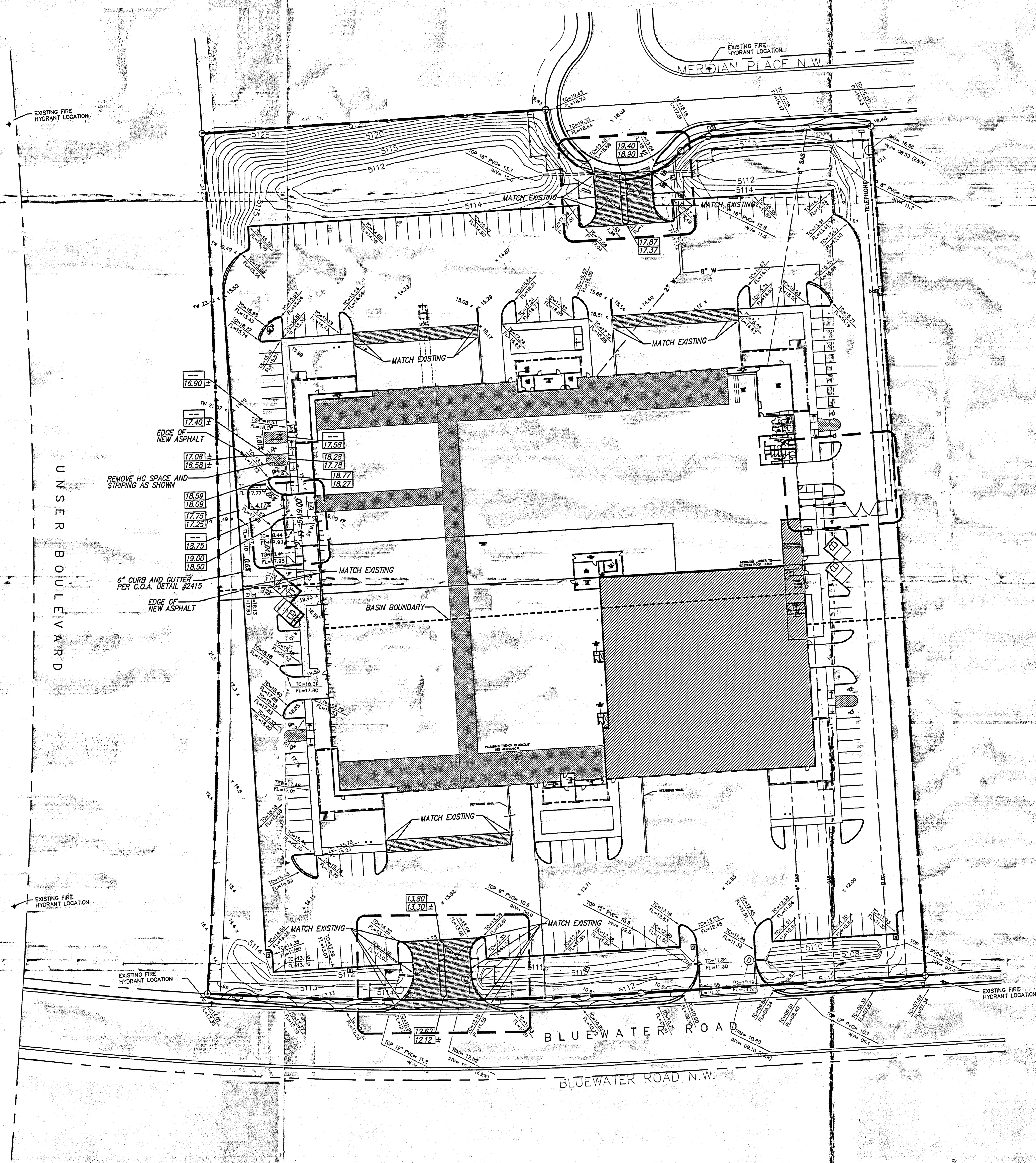
MERIDIAN BUSINESS PARK

BRUNACINI TILT-UP
OFFICE WAREHOUSE
7601 BLUEWATER ROAD, N.W.
ALBUQUERQUE, NEW MEXICO

REGISTERED PROFESSIONAL ENGINEER STATE OF NEW MEXICO THOMAS T. MANN, JR. 3792 1.4.99

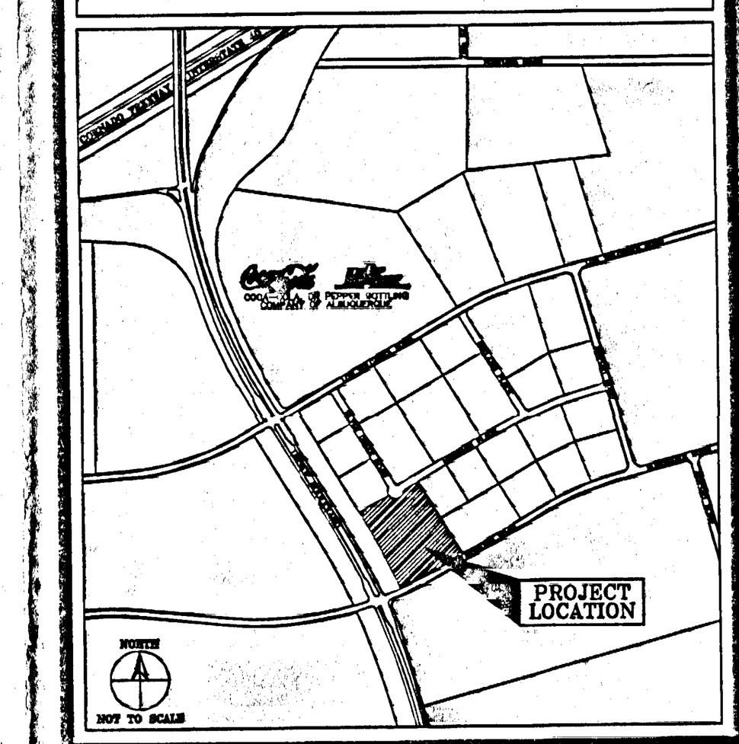
SHEET C-1

Engineering & Surveying Associates, Inc.
5312 Norwest Drive NE - Albuquerque, NM 87111
(505) 298-4651
1305 Tijeras NW Albuquerque, NM 87102-2882
Phone: 505/842-1113 Fax: 505/842-1330



GRADING AND DRAINAGE PLAN
SCALE : 1" = 40'

VICINITY MAP K-10



SITE PLAN LEGEND

THICKENED SLAB IN THIS AREA

THIS SUITE NOT PART OF THIS USPS LEASE SPACE

PROPERTY LINE, EASEMENT BOUNDARIES.

ACS BENCHMARK

BENCHMARK FOR THIS PROJECT IS THE ACS 3 1/4" ALUMINUM CAP STAMPED "9-K10, 1989" LOCATED FLUSH WITH THE TOP OF CURB AT THE SE QUADRANT OF THE INTERSECTION OF UNSER BLVD AND BLUEWATER RD IN THE TRAFFIC ISLAND.

LEGAL DESCRIPTION

LOTS 19 AND 20 OF MERIDIAN BUSINESS PARK, SITUATE WITHIN ATRISCO GRANT, PROJECTED SECTION 22, TOWNSHIP 10 NORTH, RANGE 2 EAST, N.M.P.M., CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO.

HYDROLOGY NOTES

EXISTING CONDITIONS:

THE GRADING AND DRAINAGE PLAN FOR THIS SITE WAS PREPARED IN NOVEMBER 1998 BY THOMAS MANN, Jr. OF ENGINEERING AND SURVEYING ASSOCIATES. PLEASE SEE EXCERPT ON THIS SHEET.

PROPOSED CONDITIONS:

THE DASHED AREAS INDICATE CHANGES TO THE SITE. THE EASTERN DASHED AREA INCLUDES CHANGES TO THE EXISTING INTERNAL PART OF THE BUILDING WHICH WILL NOT CHANGE THE SITE HYDROLOGY.

THE NORTHERN AND SOUTHERN DASHED AREAS ARE ADDING WROUGHT IRON FENCING AND REPLACING ASPHALT WITH CONCRETE AND MEDIANS TO ALREADY IMPERVIOUS AREAS. AS A RESULT, THIS WILL NOT CHANGE THE SITE HYDROLOGY.

THE WESTERN DASHED AREA IS ADDING A SECTION TO THE BUILDING AND TURNING PARKING AREA INTO LANDSCAPING. THE TOTAL AREA BEING AFFECTED IS 0.0173 AC. AND THE LANDSCAPING IS INCREASING BY 0.0051 AC. THE NET RESULT IS THAT THE VOLUME OF RUN-OFF AND FLOW ARE DECREASING BY 26 CF. AND 0.0119 CFS, RESPECTIVELY. THEREFORE, NO INCREASE IN THE VOLUME OF THE PONDS IS NECESSARY.

EXCERPT FROM ENGINEERING AND SURVEYING ASSOC. 1998.

CALCULATIONS

PRECITATION ZONE = 1
SOUTH BASIN
EXISTING CONDITIONS
AREA = 3.80
LAND TREATMENT A=100%
E = 0.44*1.00 = 0.44 INCHES
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NORTH
V = 18749+11224 = 29973 CF > 0.67*43560=29185 CF @ WS ELEV = 14.1

GREGORY JAMES KRENIK ... 11-17-00 REGISTERED PROFESSIONAL ENGINEER

UNITED STATES POSTAL SERVICE
Denver Facilities Service Office, 8055 E. Tufts Ave. Pkwy, Suite 400, Denver, CO 80237-2881

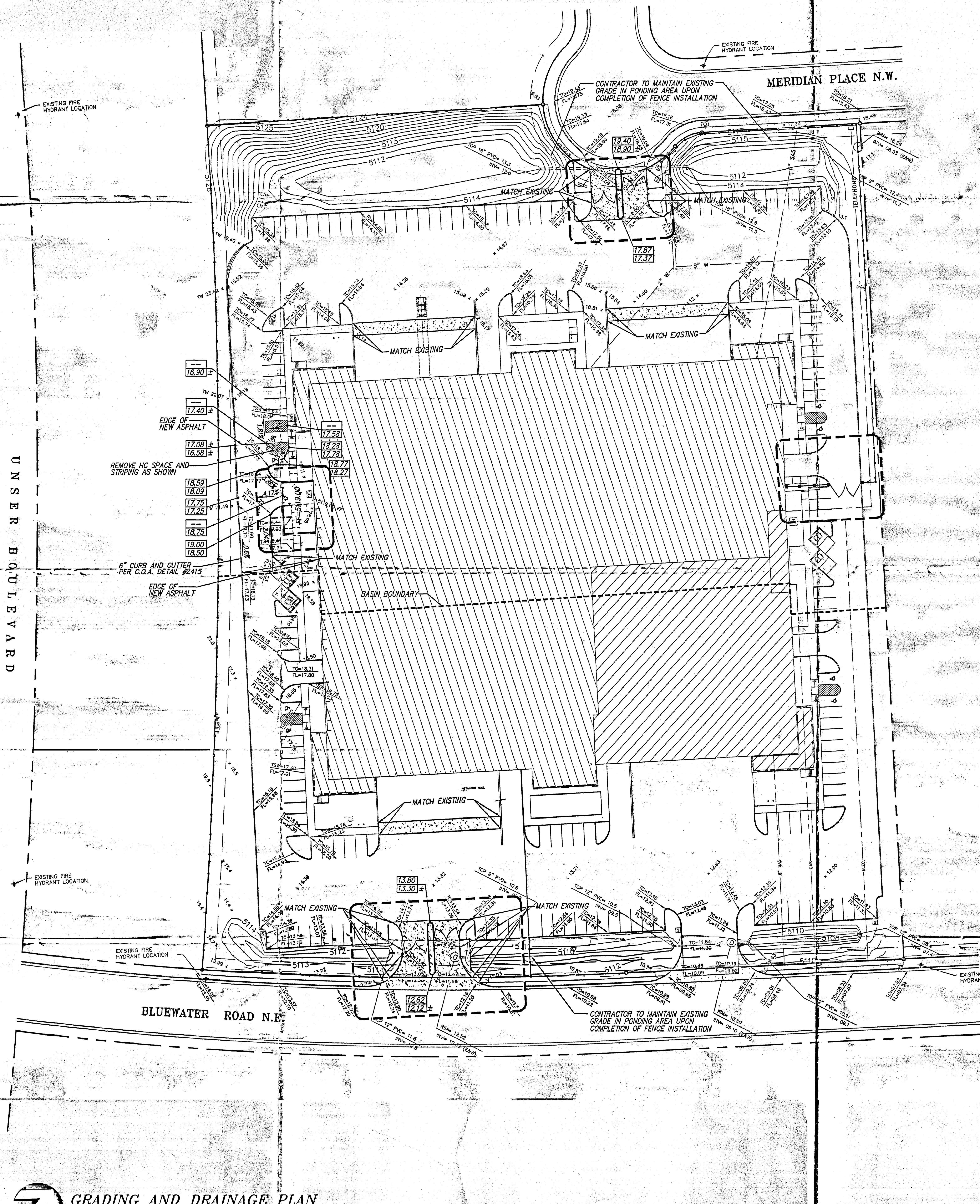
USPS Albuquerque
Temporary Mail Processing Annex
ASF Renovations
7601 Bluewater Rd NW, Suite B
Albuquerque, NM 87120

PRE-FINAL SUBMITTAL
98% REVIEW
PRELIMINARY
NOT FOR CONSTRUCTION

DCSW ARCHITECTS — Design Collaborative Southwest Inc.

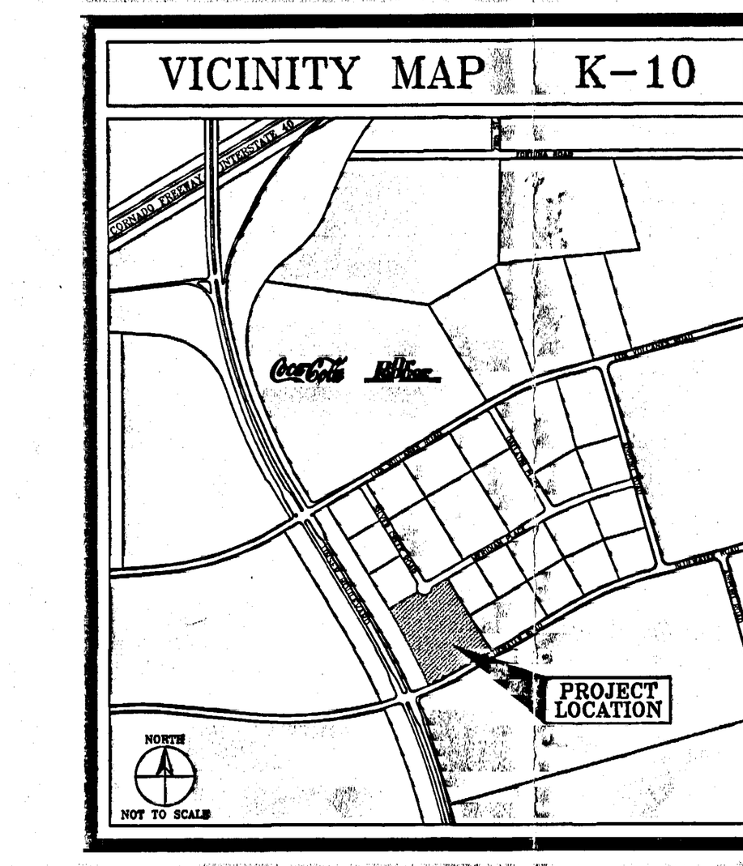
MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS
P.O. BOX 90606
ALBUQUERQUE, NEW MEXICO 87199
(505) 828-2200, FAX (505) 797-9539

Scale: 1"=40' Date: 11.17.00
Project: Albuquerque Temporary Mail Processing Annex ASF Renovations



GRADING AND DRAINAGE PLAN

SCALE : 1" = 40'



LEGEND

EXISTING TOP OF CURB & FLOWLINE ELEVATION

PROPOSED TOP OF CURB ELEVATION
PROPOSED FLOWLINE ELEVATION

PROPOSED CONCRETE

ACS BENCHMARK

BENCHMARK FOR THIS PROJECT IS THE ACS 3 1/4" ALUMINUM CAP STAMPED "9–K10, 1989" LOCATED FLUSH WITH THE TOP OF CURB AT THE SE QUADRANT OF THE INTERSECTION OF UNSER BLVD AND BLUEWATER RD IN THE TRAFFIC ISLAND.

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ORIFICE SIZES
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0.42 = 0.60[illegible] [illegible]=3.04 INCHES
POND VOLUMES
SOUTH
V = 6587+[illegible]3365+7583 = 27535 CF > 0.55*43560=23958 CF @ WS ELEV=14.0,13.0 & 12.0
NORTH
V = 18749+11224 = 29973 CF > 0.67*43560=29185 CF @ WS ELEV = 14.1

RECEIVED JAN 17 2001 HYDROLOGY SECTION

UNITED STATES POSTAL SERVICE

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7601 Bluewater Rd NW Suite B
Albuquerque, NM 87120

GRADING AND DRAINAGE PLAN
C1
Scale: 1"= 40' Date: 12/29/00