

Journal Center Phase - 2 Unit - 2
Drainage Management Plan

Purpose

The purpose of this plan is to amend the approved drainage report for Journal Center Phase 2 Units 1&2 (ref. hydrology file # D17/D3AA). Unit 1 has been constructed and this plan amends Unit 2, for the purpose of obtaining preliminary plat approval of Unit 2.

Site Location and Background Information

Journal Center Phase - 2 Unit - 2 is located southwest of Journal Center Phase 1, west of the intersection of Masthead and Jefferson in northeast Albuquerque. This site is bounded on the east by Washington, on the north by the North Pino Arroyo, on the west by the AMAFCA North Diversion Channel and on the south by commercial development along Hawkins St. The site is in precipitation zone 2 as defined by Figure A-1 of the DPM section 22.2.A.1. The existing legal description of the site is Tract 8A-1 Journal Center Phase - 2. Please see the vicinity map on this sheet for a graphic depiction of the site location.

The most recent drainage report to address drainage of this site and the surrounding area is entitled "Drainage Report for Journal Center - Phase 2", dated August 25, 2000, and prepared by Bohannan Huston. This drainage report has been approved (see letter dated 10/3/00 from Brad Bingham to Kerry Davis) and can be found in hydrology file # D17/D3AA. This submission is in full compliance with the guidance and recommendations set forth in that report.

Existing Conditions

The existing conditions of this site are substantially unchanged from the description in the approved drainage report. Some earthwork/borrow was performed for the construction of Unit 1, however existing drainage patterns remain essentially unchanged.

Proposed Conditions

Under proposed conditions the site is 85% land treatment D, with 5% and 10% land treatment B and C respectively. The following changes to basins in the approved drainage report have been made. Please reference the Proposed Basin Map in the approved drainage report:

Basin F1 in Unit 1 is now Basin F1 where the lots on the west side of Washington are now included in Unit 2 Basin C1. The flow has been decreased from Q=109.1 cfs to Q=98.3 cfs. The sump condition proposed in Unit 1 to capture the flow from Basin F1 has been modified in this plan. Inlets are proposed west of the existing inlets in Masthead, this portion of the street would be considered "on grade" and the residual flow passing from basin F1 to basin C1 is 19.0 cfs. Basin E in Unit 1 is now Basin E1 where the lots on the west side of Washington are now included in Unit 2, Basin B1. The flow has been decreased from Q=12.8 cfs to Q=11.1 cfs. All of the previously approved basins in Unit 2 have been modified to accommodate earthwork and grading, see this sheet.

Flows from Basins D1 & D2 flow into the North Pino Arroyo (and/or the AMAFCA de-silting basin) and Basin A1 flows to the AMAFCA North Diversion Channel. These flows do not impact flows in any streets.

The residual flow from Basin F1 of 19.0 cfs combines with Basin C1 (Q=57.1 cfs) which flows in the street to inlets in sump condition (AP2) for a total flow of 76.1 cfs. The hydraulic capacity of the street, inlets and pipes are shown in tables on this sheet.

Basins E1 and Offsite 2 (total Q= 11.1 cfs) in Unit 1 flow in Washington to existing inlets in sump. A proposed 24" storm drain will tie to the existing 24" storm drain in Rutledge, and convey the 11.1 cfs to the 48" SD at the low point in Rutledge (AP1).

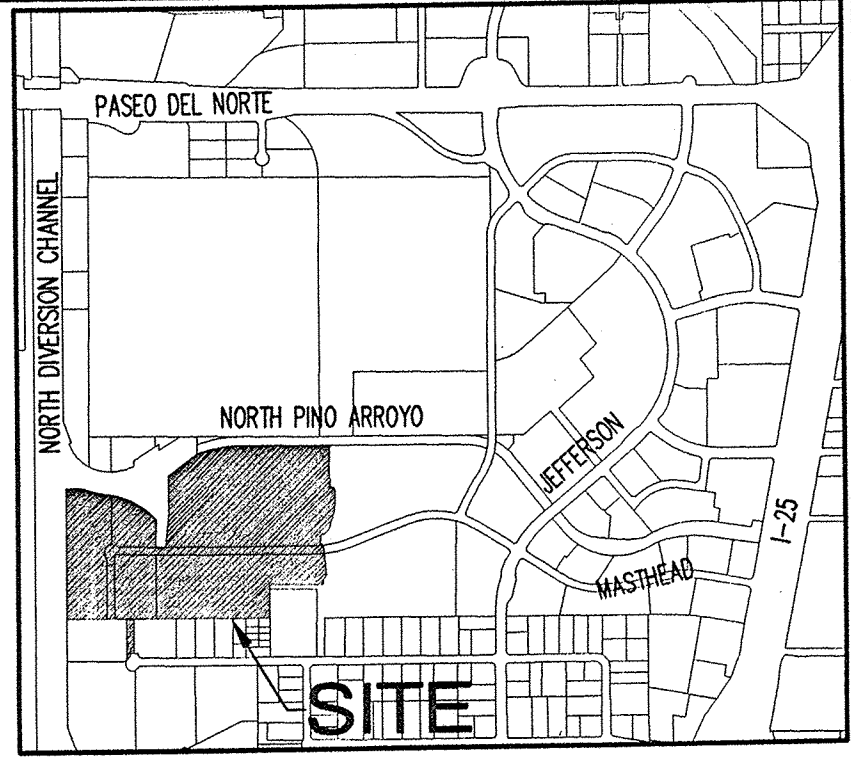
Basin B1 (Q=65.36 cfs) flows in the street to inlets in sump condition (AP1). In the storm drain this flow combines with the 11.1 cfs in the 24" SD for a total flow in the 48" SD of 76.4 cfs. Flows at AP1 and AP2 combine (Q= 152.5 cfs) and outfall from the 54" SD to the AMAFCA distillation basin west of basin D2.

Hydraulic capacity calculations for the streets, inlets and pipes are provided on this sheet. The storm drains are designed to operate as gravity systems, without pressure flow.

Conclusions

This drainage submission has been prepared in accordance with City of Albuquerque requirements, and complies with the previously approved drainage report for the area. This plan clearly demonstrates the proposed grading and drainage concepts. The implementation of these concepts will result in the safe passage of the 100 year storm event.

With this submission we request hydrology department approval of this Grading and Drainage Plan for preliminary plat approval.

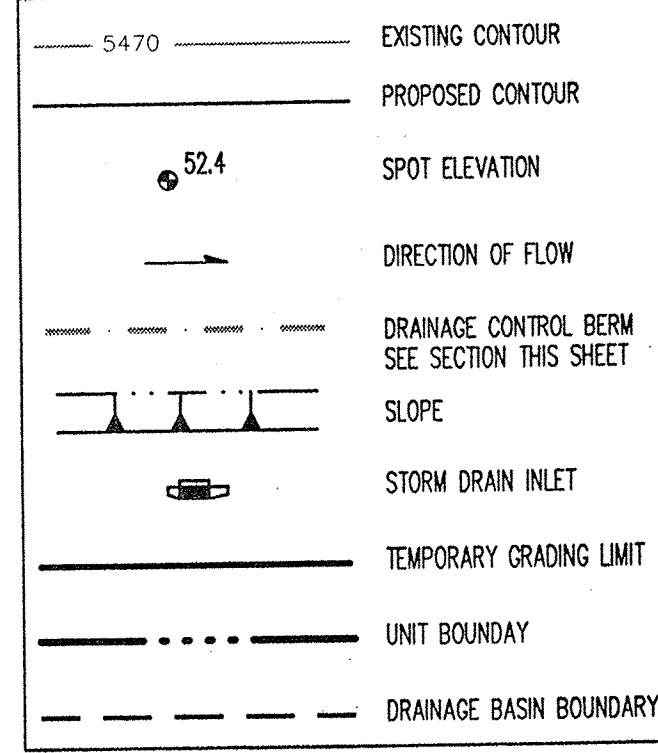


VICINITY MAP
ZONE ATLAS ZONE INDEX MAP NO. D-17-Z

LEGAL DESCRIPTION

TRACT 8A-1, JOURNAL CENTER PHASE 2

LEGEND



JOURNAL CENTER - PHASE 2
Ultimate Development Conditions Basin Data Table

| | This table is based on the DPM Section 22.2, Zone: 2 | | | | | | | | | |
|-------|--|-------|----------------------------|------|-------|-------|-----------|--------|----------|-----------------------|
| BASIN | Area | Area | Land Treatment Percentages | | | | Q(100) | Q(100) | WT E | V(100) ₃₆₀ |
| ID | (SQ. FT) | (AC.) | A | B | C | D | (cfs/ac.) | (csf) | (inches) | (CF) |
| UNIT1 | | | | | | | | | | |
| F1 | 967907 | 22.22 | 0.0% | 5.0% | 10.0% | 85.0% | 4.42 | 98.28 | 1.95 | 157608 |
| E1 | 91622 | 2.10 | 0.0% | 5.0% | 10.0% | 85.0% | 4.42 | 9.30 | 1.95 | 14919 |
| UNIT2 | | | | | | | | | | |
| C1 | 562195 | 12.91 | 0.0% | 5.0% | 10.0% | 85.0% | 4.42 | 57.08 | 1.95 | 91544 |
| B1 | 643724 | 14.78 | 0.0% | 5.0% | 10.0% | 85.0% | 4.42 | 65.36 | 1.95 | 104820 |
| D1 | 123807 | 2.84 | 0.0% | 5.0% | 10.0% | 85.0% | 4.42 | 12.57 | 1.95 | 20160 |
| D2 | 306295 | 7.03 | 0.0% | 5.0% | 10.0% | 85.0% | 4.42 | 31.10 | 1.95 | 49875 |
| A1 | 667021 | 15.31 | 0.0% | 5.0% | 10.0% | 85.0% | 4.42 | 67.73 | 1.95 | 108613 |

| Street Capacity Table | | | | | |
|---|----------------|----------------|--------------|------|----------------|
| ASSUMES 36" F-F, 2% CROSS-SLOPE, AND STD. CURB AND GUTTER | | | | | |
| | ANALYSIS POINT | FLOW IN STREET | STREET SLOPE | EGL | DEPTH ABOVE FL |
| Rutledge | AP1 | 65.2 | 1.10% | 0.98 | 0.65 |
| Bartlett | AP2 | 76.1 | 1.00% | 1.04 | 0.71 |
| Masthead | AP3 | 42.5 | 0.20% | 0.85 | 0.79 |

INLET TABLE

| INLET # | CONTRIBUTING BASIN | INLET TYPE | INLET CONDITION | ACTUAL FLOW cfs | AVAIL HEAD ft | CAPACITY | Notes |
|---------|-------------------------|-------------------------|-----------------|-------------------------------|---------------|----------------------------------|--------------------------------|
| I1 | 1/3 C1 & BYPASS FROM F1 | DBL A, DBL WING | sump | 25.36 | 0.85 | 37.57 | INCLUDES A 50% CLOGGING FACTOR |
| I2 | 1/3 C1 & BYPASS FROM F1 | DBL A, DBL WING | sump | 25.36 | 0.85 | 37.57 | INCLUDES A 50% CLOGGING FACTOR |
| I3 | 1/3 C1 & BYPASS FROM F1 | DBL A, DBL WING | sump | 25.36 | 0.85 | 37.57 | INCLUDES A 50% CLOGGING FACTOR |
| I4 | 1/2 B1 | DBL A, DBL WING | sump | 32.68 | 1.00 | 47.94 | INCLUDES A 50% CLOGGING FACTOR |
| I5 | 1/2 B1 | DBL A, DBL WING | sump | 32.68 | 1.00 | 47.94 | INCLUDES A 50% CLOGGING FACTOR |
| I6 | BASIN F1 | EXISTING, DBL A, S WING | on grade | FROM NOMOGRAPH d=1.0', s=0.2% | 17.5 | FLOW AT INLET = 38.75 CFS | |
| I7 | BASIN F1 | EXISTING, DBL A, S WING | on grade | FROM NOMOGRAPH d=1.0', s=0.2% | 17.5 | FLOW AT INLET = 38.75 CFS | |
| I8 | BASIN F1 | DBL C | on grade | FROM NOMOGRAPH d=.79', s=0.2% | 11.75 | BYPASS FLOW FROM BASIN F1 = 9.50 | |
| I9 | BASIN F1 | DBL C | on grade | FROM NOMOGRAPH d=.79', s=0.2% | 11.75 | BYPASS FLOW FROM BASIN F1 = 9.50 | |

STORM DRAIN PIPE TABLE

| PIPE # | Size in. | Slope | PIPE Capacity | ACTUAL FLOW | LENGTH | INVERT IN | INVERT OUT |
|--------|----------|--------|---------------|-------------|--------|-----------|------------|
| P6 | 24 | 0.0100 | 22.62 | 11.08 | 357.00 | 92.30 | 88.73 |
| P5 | 24 | 0.0100 | 22.62 | 11.08 | 400.00 | 88.63 | 84.63 |
| P4 | 24 | 0.0100 | 22.62 | 11.08 | 383.00 | 84.53 | 80.70 |
| P3B | 24 | 0.0100 | 22.62 | 11.08 | 20.00 | 80.60 | 80.40 |
| P3A | 24 | 0.0210 | 32.78 | 32.68 | 32.00 | 81.07 | 80.40 |
| P3 | 42 | 0.0060 | 77.93 | 76.44 | 450.00 | 80.40 | 77.70 |
| P2C | 24 | 0.0130 | 25.79 | 25.36 | 18.00 | 80.05 | 79.81 |
| P2B | 24 | 0.0150 | 27.71 | 25.36 | 46.00 | 80.50 | 79.81 |
| P2A | 24 | 0.0130 | 25.79 | 25.36 | 18.00 | 80.05 | 79.81 |
| P2 | 42 | 0.0060 | 77.93 | 76.08 | 336.00 | 79.71 | 77.70 |
| P1 | 54 | 0.0065 | 158.54 | 152.53 | 92.00 | 77.60 | 77.00 |

PIPE CAPACITIES ARE BASED ON GRAVITY FLOW USING MANNING'S EQN. WHERE n=0.013

DRB#

Bohannan & Huston
Court yard | 7500 Jefferson St. NE Albuquerque, NM 87109-4335
ENGINEERING • SPATIAL DATA • ADVANCED TECHNOLOGIES

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP

JOURNAL CENTER-PHASE 2
UNIT II: DRAINAGE PLAN & BASIN MAP

| | | | |
|-------------------------|------------------------|-------------|-------------|
| Design Review Committee | City Engineer Approval | Mo./Day/Yr. | Mo./Day/Yr. |
| | | | |
| | | | |
| | | | |
| City Project No. | Zone Map No. | Sheet | Of |
| | D-17 | | |

KEYED NOTES

- 1 TURNED BLOCK
- 2 EXISTING CHANNEL RUNDOWN

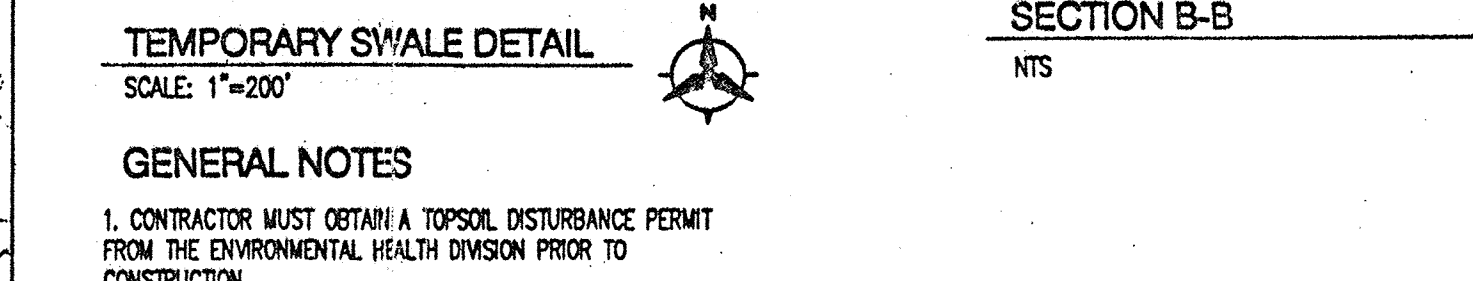
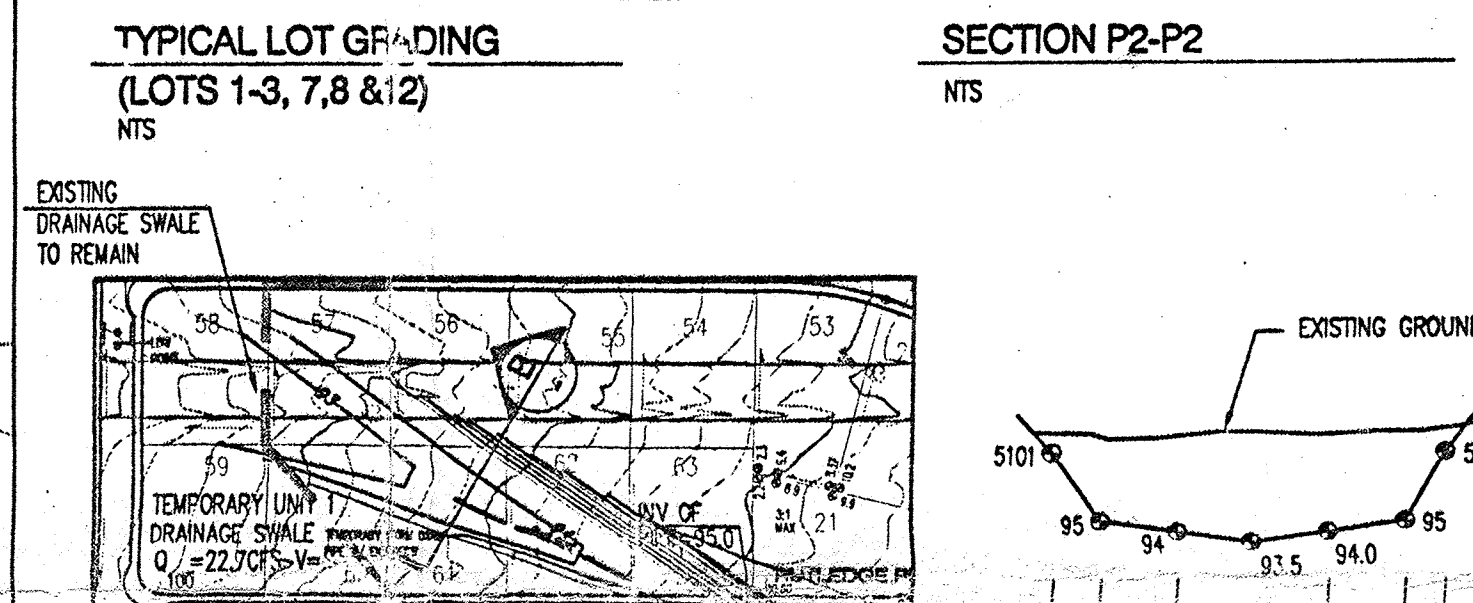
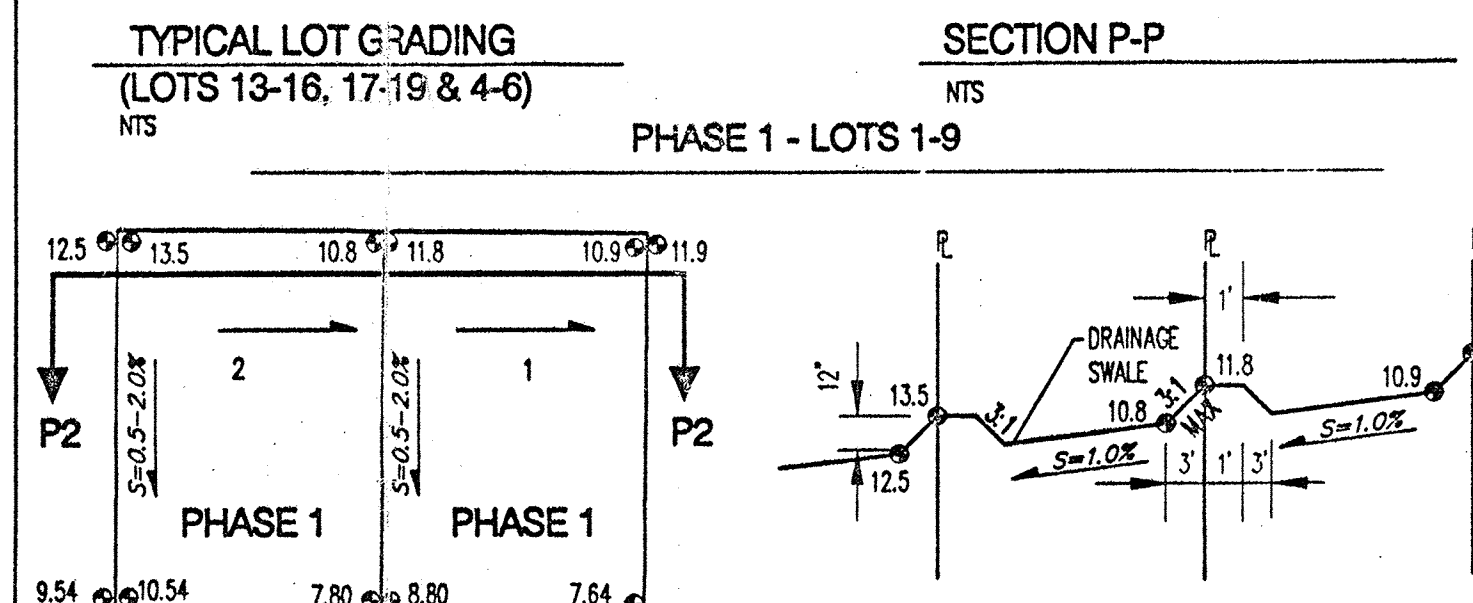
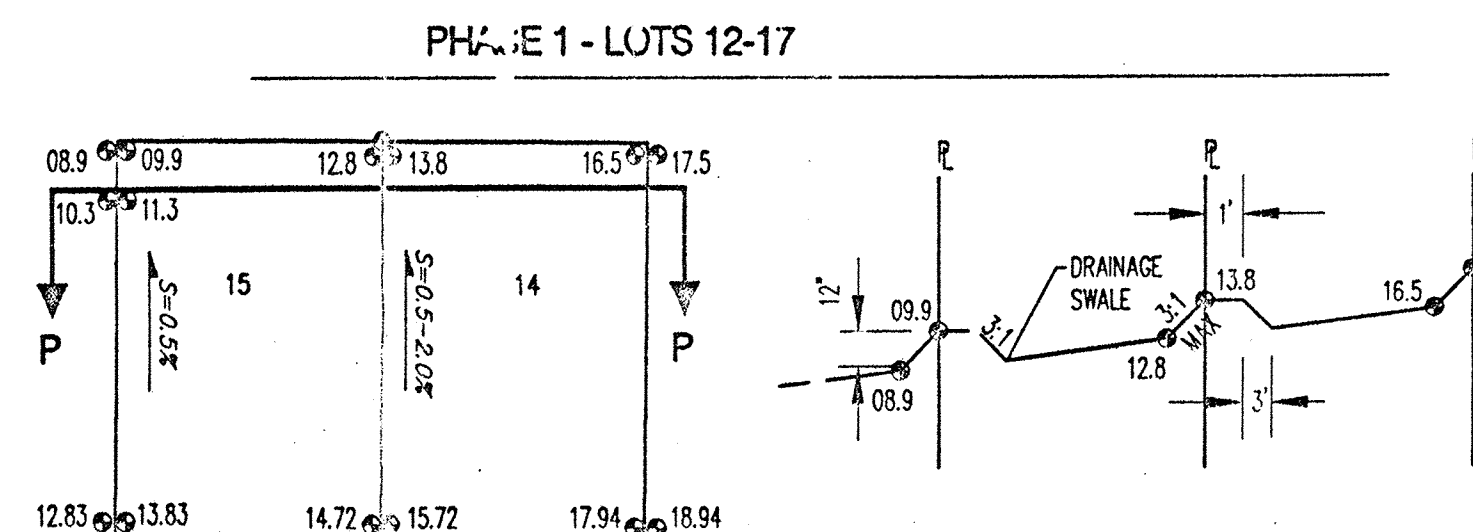
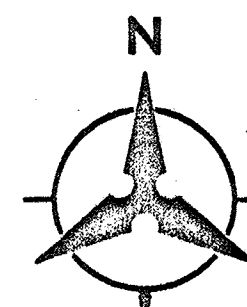
DRAINAGE CERTIFICATION

I, KERRY L. DAVIS, OF BOHANNAN HUSTON, N.M.P.E. # 9984, HEREBY CERTIFY THAT THE AS-BUILT DRAINAGE CONDITIONS OF THE SITE ARE IN SUBSTANTIAL COMPLIANCE WITH THE APPROVED GRADING AND DRAINAGE PLAN, TO THE BEST OF MY KNOWLEDGE AND BELIEF. AS-BUILT ELEVATIONS ARE SHOWN ON THE PLAN WHERE THE ORIGINAL DESIGN ELEVATION HAS BEEN CROSSED OUT AND THE AS-BUILT ELEVATION ADDED. AS-BUILT ELEVATIONS WERE VERIFIED BY SPARKLING CONSTRUCTION CO., INC. U.S. # 1. THIS STATEMENT DOES NOT REPRESENT CERTIFICATION OF CONTRACTOR'S METHODS OR MATERIALS.



I, Carl Smith, do hereby attest to the fact that the as-built information shown hereon is the result of a field survey performed by me or under my direct supervision, and that the same is true and correct. AS OF 15 JAN 01

Carl Smith S.C.C.I. Survey Manager



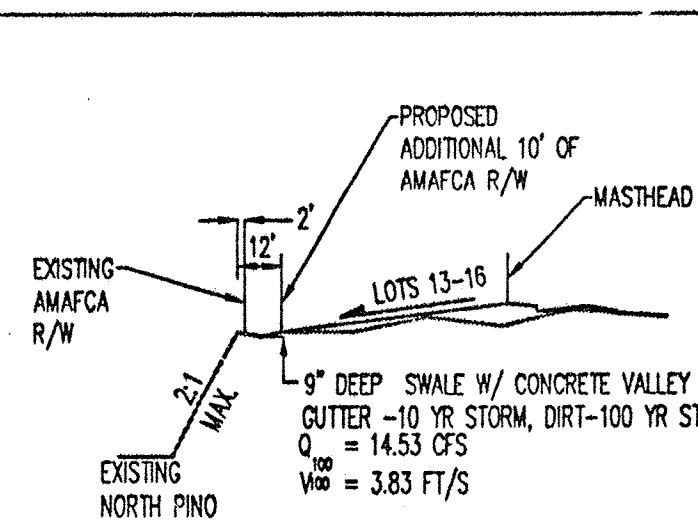
GENERAL NOTES

1. CONTRACTOR MUST OBTAIN A TOPSOIL DISTURBANCE PERMIT FROM THE ENVIRONMENTAL HEALTH DIVISION PRIOR TO CONSTRUCTION.
2. THE CONTRACTOR IS TO REFER TO EARTHWORK SPECIFICATIONS PROVIDED BY GEOTECH INC. DATED 10/24/00.
3. THE CONTRACTOR SHALL CONFORM TO ALL CITY, COUNTY, STATE, AND FEDERAL MEASUREMENTS AND REQUIREMENTS AND WILL BE RESPONSIBLE FOR PREPARING AND OBTAINING ALL NECESSARY APPLICATIONS AND APPROVALS.
4. THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM LOTS INTO PUBLIC RIGHT-OF-WAY. THIS CAN BE ACHIEVED BY CONSTRUCTING TEMPORARY BERMS AS PER THE DETAIL ON THIS SHEET AND KETING THE SOIL TO KEEP IT FROM BLOWING AS PER THE EROSION CONTROL DETAIL THIS SHEET.
5. ALL STREET ELEVATIONS ARE TOP OF CURB UNLESS OTHERWISE NOTED. VALLEY GUTTER ELEVATIONS ARE SHOWN AT FLOWLINE ELEVATIONS.

LEGEND

- 5470 EXISTING CONTOUR
- PROPOSED CONTOUR
- 52.4 SPOT ELEVATION
- CMU RETAINING WALL
- CMU WALL
- SWALE
- DIRECTION OF FLOW
- WATER BLOCK
- SLOPE
- STORM DRAIN INLET
- TEMPORARY GRADING LIMIT
- UNIT BOUNDARY

AMAFCA DRAINAGE SWALE



Bohannon-Houston
 Courtyard One 7500 JEFFERSON NE Albuquerque NEW MEXICO 87109
 ENGINEERS PLANNERS PHOTOGRAMMETRISTS SURVEYORS SOFTWARE DEVELOPERS

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP
JOURNAL CENTER-PHASE2
WAREHOUSE/STORAGE - UNIT 1
GRADING AND DRAINAGE PLAN

Design Review Committee City Engineer Approval

City Project No. Zone Map No. Sheet 4 Of 40

DRB#

City Project No. Zone Map No. Sheet 4 Of 40

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REVISED DRAINAGE MANAGEMENT PLAN FOR: JOURNAL CENTER

REVISED: NOVEMBER, 1990
PREPARED BY: BOHANNAN-HUSTON, INC.

The purpose of this revised drainage management plan is to update the plan to reflect the development of Journal Center since the plan was first approved in 1984. Since that time, Journal Center has been replatted, new streets constructed and new businesses have moved in. All new development has conformed to the 1984 plan and individual development plans have been approved by the City. The drainage concepts and basins remain substantially identical to the 1984 drainage management plan.

Additional functions of the updated plan will be to guide engineers in preparing future drainage plans and aiding City review of these future plans. Drainage basins which have been altered slightly have been re-analyzed and are shown in the table below to have no significant nor adverse impact on drainage facilities.

The criteria used for the minor re-analysis performed in this updated plan remained identical to that previously used and approved in the original 1984 plan.

The purpose of this plan is to outline drainage patterns, flow rates and facility capacities for the Journal Center Industrial/Commercial Park. The plan also serves to update recommendations made in an October 1980 report entitled *Journal Center Interim Drainage Report* based on current thinking outlined in the Drainage Ordinance and Development Process Manual (DPM).

It is proposed that runoff from sites be allowed to discharge to street rights-of-way or facilities in a free discharge manner. This runoff will be directed to three primary outfalls: the North Pino Arroyo Channel, Jefferson Street storm drain and Los Angeles Blvd. The North Pino Arroyo Channel, Jefferson Street storm drain and Los Angeles Blvd. are concrete lined with grass free board and discharges runoff into the North Division Channel. The Jefferson Street storm drain discharges into the Domingo Baca Arroyo, north of Los Angeles Blvd. Runoff collected in Los Angeles Blvd. discharges into the North Division Channel. The accompanying plan identifies flow directions and the location of the primary outfalls.

Runoff rates and facility capacities are contained in the tables below. Based on this information, three points should be highlighted:

1. Current runoff criteria yields flow rates less than those used in the 1980 report.
2. Approximately 112 cfs will be directed to Los Angeles Blvd. during the 100-year storm. 226 cfs is collected in the storm drain system and conveyed to the Domingo Baca Arroyo. The 112 cfs represents a figure less than the undeveloped flow rate from the site prior to its development.

3. Section 8C of the Drainage Ordinance stipulates that the curb flow line depth shall not exceed 0.5 feet during the 10-year storm in arterial street sections. As the values indicate, this criteria is exceeded at several locations along Jefferson Street.

As provided in Section 6H of the Ordinance, a variance to the requirement outlined in No. 3 is requested for the following reasons:

1. Considerable expense has already been applied to the construction of drainage facilities in the area. The Pino Arroyo Channel and Jefferson Street storm sewer represent an investment of approximately 2 million dollars. Design was guided and approved based upon criteria in effect at the time assuming free discharge from all parcels.
2. The total length of street over which the criteria is exceeded is approximately 3000 feet. This represents a relatively short distance compared to the total length of Jefferson Street running through and south from the project.

BASED ON THE INFORMATION PRESENTED IN THIS PLAN, IT IS PROPOSED THAT A FREE DISCHARGE MANAGEMENT APPROACH BE APPROVED FOR ALL PARCELS WITHIN THE PARK, AND THAT A VARIANCE TO SECTION 8C BE GRANTED FOR THE 10-YEAR FLOW CRITERIA IN JEFFERSON STREET.

LOCATION MAP

Basin Hydrology (Developed Conditions)

| Basin ID | Area | Discharges To | Longest Reach (FT) | Slope (Average) | TC (Min) | Intensity (in/hr) | Q 100 | Q 100 1980 Report |
|----------|------|----------------|--------------------|-----------------|----------|-------------------|-------|-------------------|
| A** | 5.4 | Headline | 1200 | 0.02 | 10.0 | 4.7 | 61 | 95 |
| B-1** | 18.0 | Jefferson | 1650 | | 10.0 | 4.7 | 68 | N.A. |
| C | 27.6 | Diversion Berm | 1200 | | 10.0 | 4.7 | 102 | 116 |
| D-1 | 14.3 | Tiburon | 1000 | | 10.0 | 4.7 | 54 | N.A. |
| E-1 | 13.1 | Jefferson | 1100 | | 10.0 | 4.7 | 49 | N.A. |
| F | 19.6 | Pino Arroyo | 1250 | | 10.4 | 4.6 | 72 | 73 |
| G | 22.5 | Pino Arroyo | 1250 | | 10.4 | 4.6 | 83 | 84 |
| GST | 3.0 | Jefferson | 500 | | 10.0 | 4.7 | 12 | 12 |
| H-1 | 29.1 | Tiburon | 1600 | | 10.0 | 4.7 | 109 | N.A. |
| I | 5.2 | Pino Arroyo | 450 | | 10.0 | 4.7 | 20 | 21 |
| J | 4.6 | Pino Arroyo | 450 | | 10.0 | 4.7 | 17 | 19 |
| JST | 0.6 | Masthead | 1000 | | 10.0 | 4.7 | 3 | 2 |
| K | 15.6 | Pino Arroyo | 1200 | | 10.0 | 4.7 | 59 | 63 |
| KST | 1.3 | Masthead | 1300 | | 10.0 | 4.7 | 5 | 5 |
| L | 15.4 | Pino Arroyo | 1200 | | 10.0 | 4.7 | 58 | 64 |
| LST | 1.4 | Masthead | 1200 | | 10.0 | 4.7 | 5 | 6 |
| M | 25.5 | Masthead | 1200 | | 10.0 | 4.7 | 96 | 87 |
| N | 13.0 | Masthead | 1200 | | 10.0 | 4.7 | 49 | 51 |
| NCH | 3.4 | Masthead | 650 | | 10.0 | 4.7 | 13 | 14 |
| O | 5.3 | Snappell | 650 | 0.02 | 10.0 | 4.7 | 20 | 22 |
| A-1** | 19.6 | Headline | N.A. | N.A. | N.A. | N.A. | 85 | N.A. |

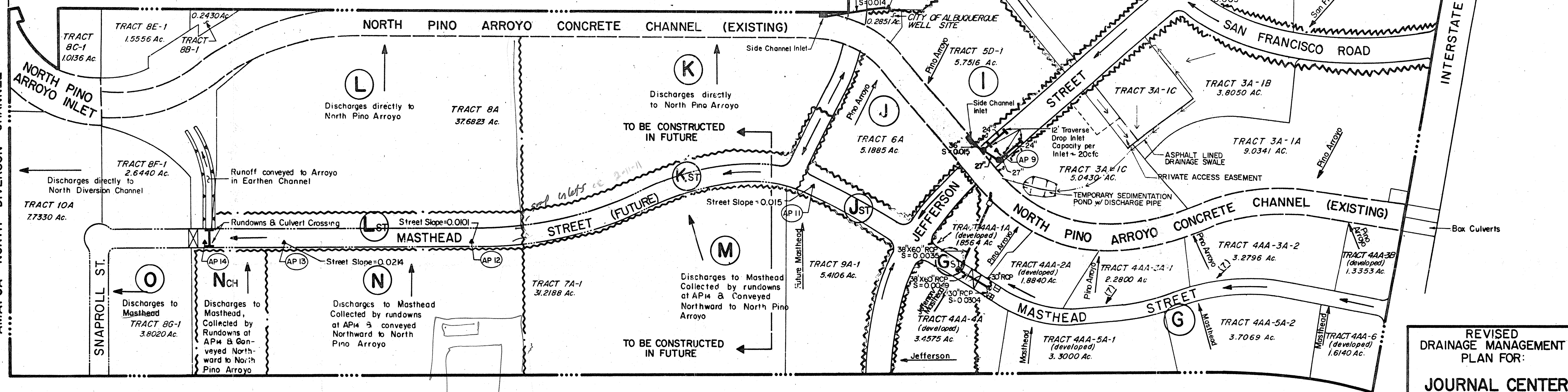
STREET & STORM SEWER HYDRAULICS

| AP | CONTRIB-UTING BASIN(S) | 10-YEAR STORM (all values cfs) | | | | | 100-YEAR STORM (all values cfs) | | | | | COMMENTS |
|----|------------------------------|--------------------------------|----------------------------------|--------------------|----------------|------------|---------------------------------|-----------------|-------------|----------------|------------|--|
| | | Q | STREET CAPACITY | SEWER(SS) CAPACITY | FLOW IN STREET | FLOW IN SS | Q | STREET CAPACITY | SS CAPACITY | FLOW IN STREET | FLOW IN SS | |
| 1 | A, OF-1 | 64 | 112 | N A | 64 | N A | 98 | 112 | N A | 98 | N A | Street has adequate capacity. |
| 2 | B-1 | 45 | 18-East half of street | N A | 45 | N.A. | 68 | 200 | N A | 45 | N.A. | 10 year street capacity exceeded. |
| 3 | OF-1, A, B-1 | 109 | 36-Full street section (30" RCP) | 59 | 69 | 40 * | 166 | 200 | 59 | 126 | 40 | " " " |
| 4 | OF-1, A, B-1, Street | 113 | 30-Full street section | 59 | 73 | 40 | 176 | 170 | 59 | 136 | 40 | " " " |
| 5 | D-1 | 35 | 100 | 107 (48" RCP) | 0 | 35 | 54 | 100 | 107 | 0 | 54 | Basin D-1 runoff collected in Triple 'C' inlets. |
| 6 | C | 67 | N A | 120 (48" RCP) | N A | 67 | 102 | N A | 120 | N.A. | 102 | Basin 'C' runoff collected in 48" RCP inlet. |
| 7 | Street, OF-1, A, B-1, C, D-1 | 211 | 36 | 232 (72" RCP) | 64 | 147 | 321 | 180 | 232 | 96 | 226 | 90 cfs discharged to Paseo del Norte. |
| 8 | E-1 | 32 | 9-East half of street | N.A. | 32 | N.A. | 49 | 104 | N.A. | 49 | N.A. | 10 year street capacity exceeded. |
| 9 | E-1, Street | 46 | 25-East half of street | 83 (36" RCP) | 0 | 46 | 69 | 200 | 83 | 0 | 69 | 74 cfs collected by inlets. |
| 10 | H-1 | 72 | N.A. | 110 (42" RCP) | N.A. | 72 | 109 | N.A. | 110 | N.A. | 109 | Runoff conveyed to Pino Arroyo. |
| 11 | Gst, Jst | 10 | 160 | N.A. | 10 | N.A. | 15 | 160 | N.A. | 15 | N.A. | " " " |
| 12 | API1, Kst, M | 76 | N.A. | N.A. | 76 | N.A. | 116 | 130 | N.A. | 116 | N.A. | " " " |
| 13 | API2, N | 108 | N.A. | N.A. | 108 | N.A. | 165 | 160 | N.A. | 165 | N.A. | " " " |
| 14 | API3, NCH | 117 | N.A. | N.A. | N.A. | N.A. | 178 | N.A. | N.A. | N.A. | N.A. | Runoff collected in concrete rundowns. |
| 15 | A, OFFSITE | N.A. | N.A. | N.A. | N.A. | N.A. | 43.1 | 84.7 | N.A. | 43.1 | N.A. | |

N.A. - Not Applicable
* - See Note #6
** - Using 1994 DPM Hydrology criteria to calculate flows

NOTES

1. Basin Hydrology based on DPM Criteria, Chapter 22 (DPM Edition, 1984).
 - a. TC - Plate 22.2 13-1 (10 minute minimum)
 - b. Intensity - Plate 22.2 D-2
 - c. 'C' for 85% impervious = 0.80
 - d. 100 year rainfall = 2.2 in. - Plate 22.2 D-1
2. Street capacities determined using DPM Criteria, Chapter 22, Plates 22.3 D-1 thru 22.3 D-4 (DPM Edition, 1984).
3. Storm sewer sized to operate under pressure flow - Plate 22.3 B-5.
4. $Q_{10} = 0.657(Q_{100})$ - Plate 22.2 D-1 (DPM Edition, 1984).
5. Jefferson Street classified as min. arterial - 10 year street capacities based on 0.5' at curb flowline.
6. Double 'B' and 'C' inlets assumed to collect an average of 10cfs during 100-year flow.
7. The south half (max.) of these lots may drain to Masthead Street as necessary.
8. The drainage basin for this 37 cfs (100-year storm) discharge is located east of and within the right-of-way of I-25. Calculations for this discharge can be found under City Drainage file D-17/030. Handling of this 37 cfs discharge will occur as follows:
 - a. Interim (undeveloped) Basin A and B-1 Plan - As shown, flow is discharged to the surface and will drain by overland flow to Headline Road.
 - b. Ultimate Plan - With the development of Basins A and B-1, the flow will be carried by surface facilities or underground storm drains to the Domingo Baca Arroyo or to Headline Road. This extension of drainage facilities may be performed in phases, i.e., each development will construct only its required portion of the facility, in accordance with the Drainage Ordinance and approved site-specific drainage plans.
9. The 37 cfs (100-year) offsite flow is labeled OF-1. The 10-year storm value is 24 cfs.
10. The high point in Headline Blvd. is located at the Lang Ave. intersection. This condition will cause a flow split. Approximately 37 cfs is assumed to flow north on Headline Blvd.



LEGEND

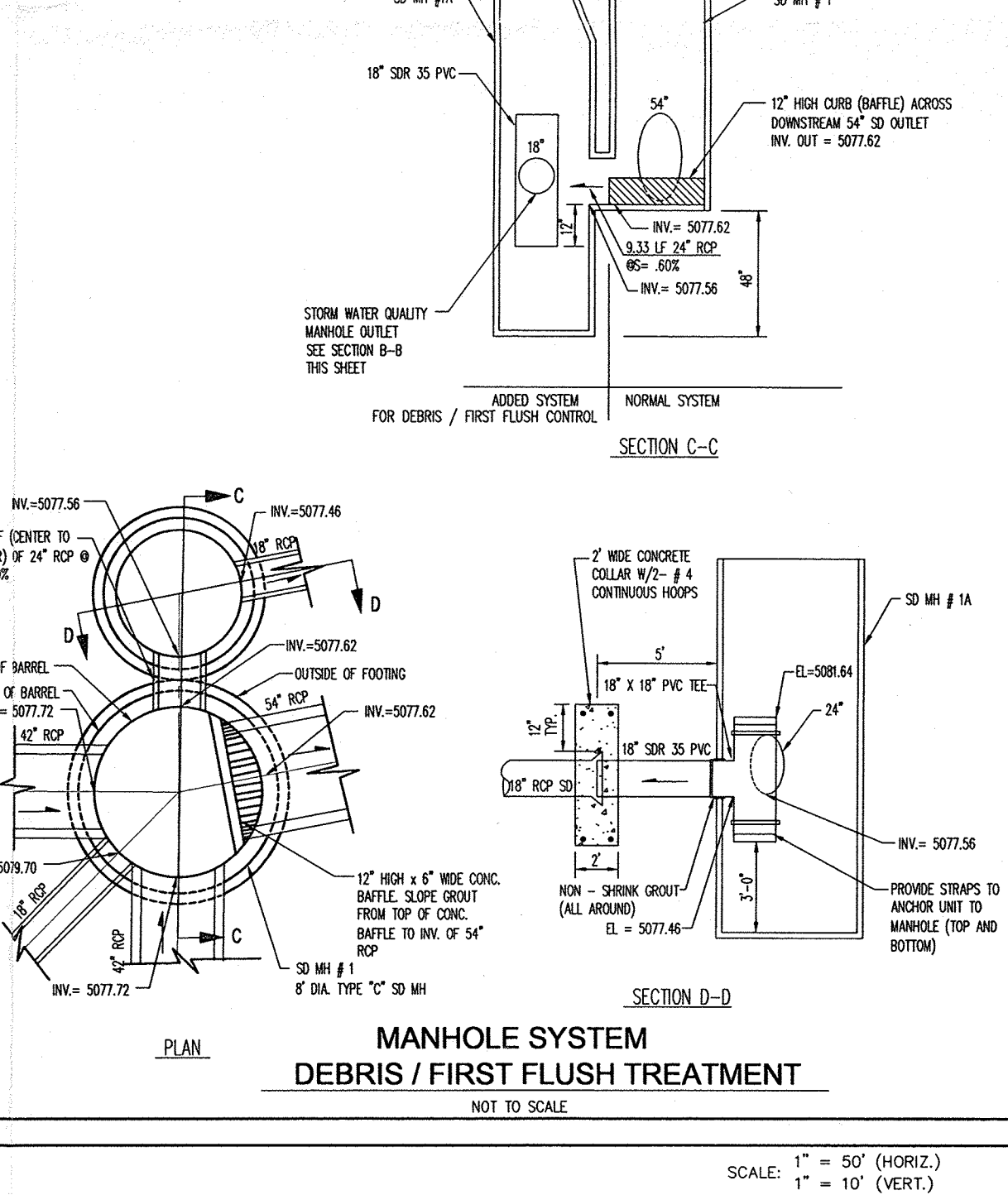
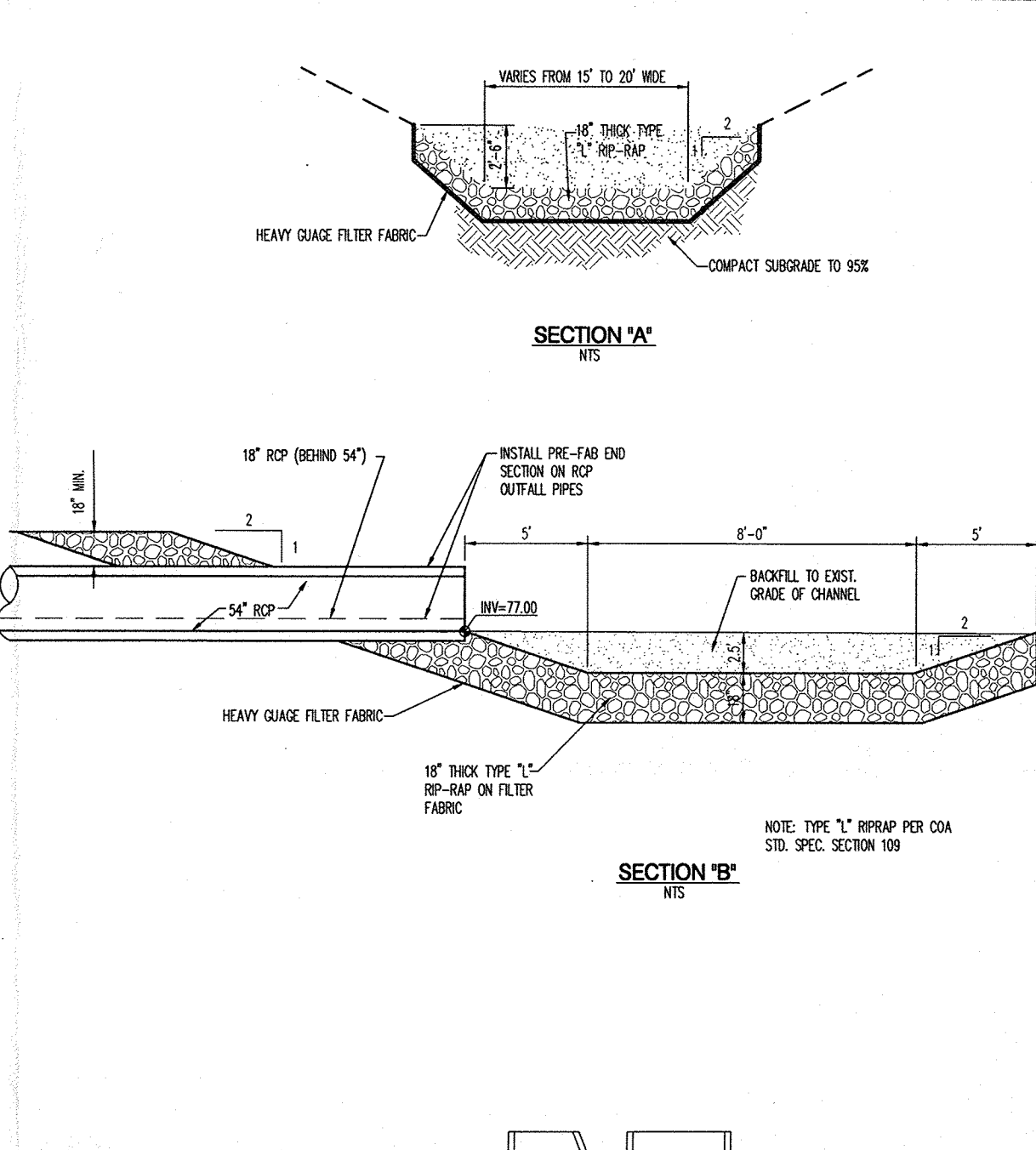
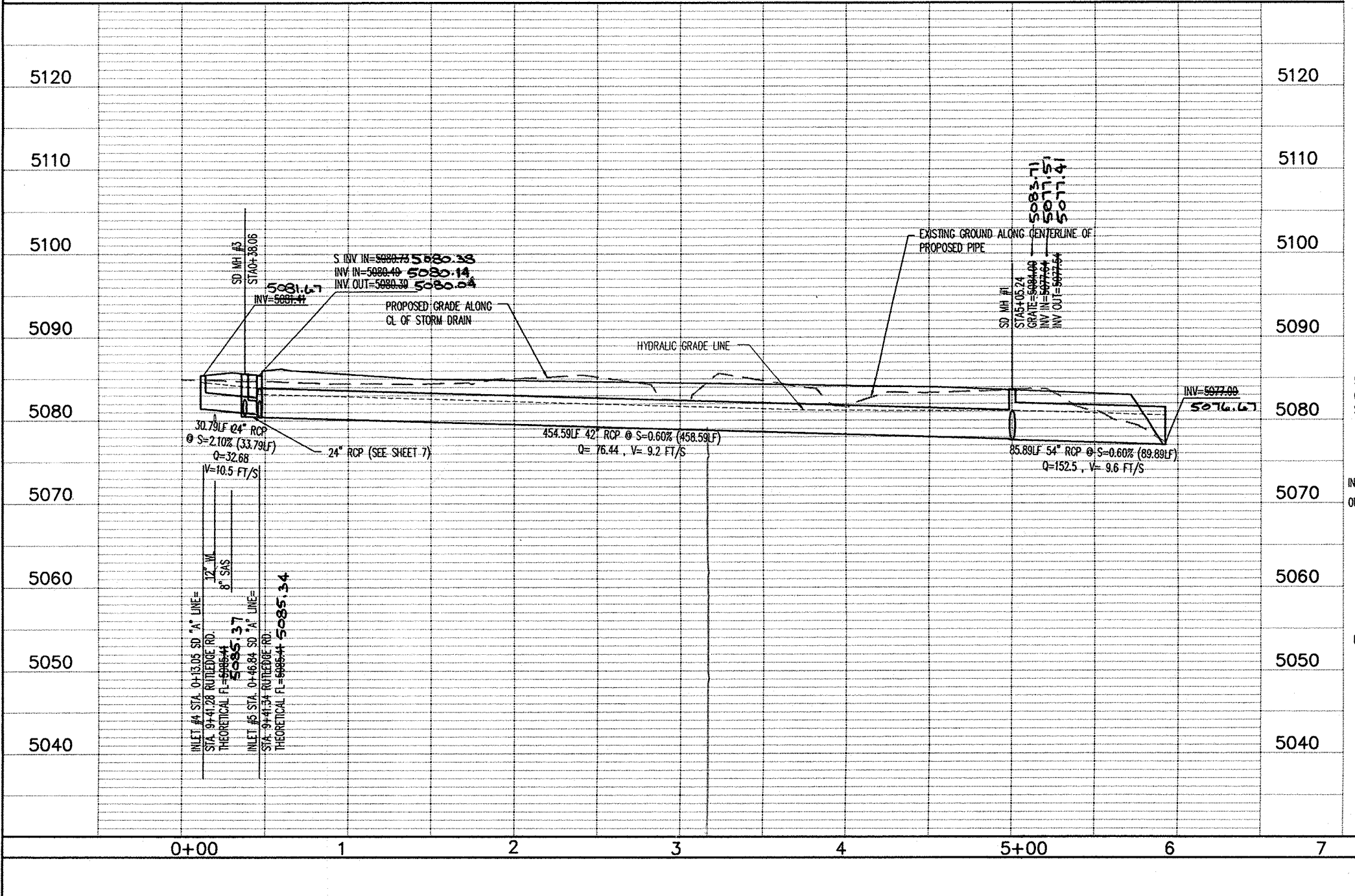
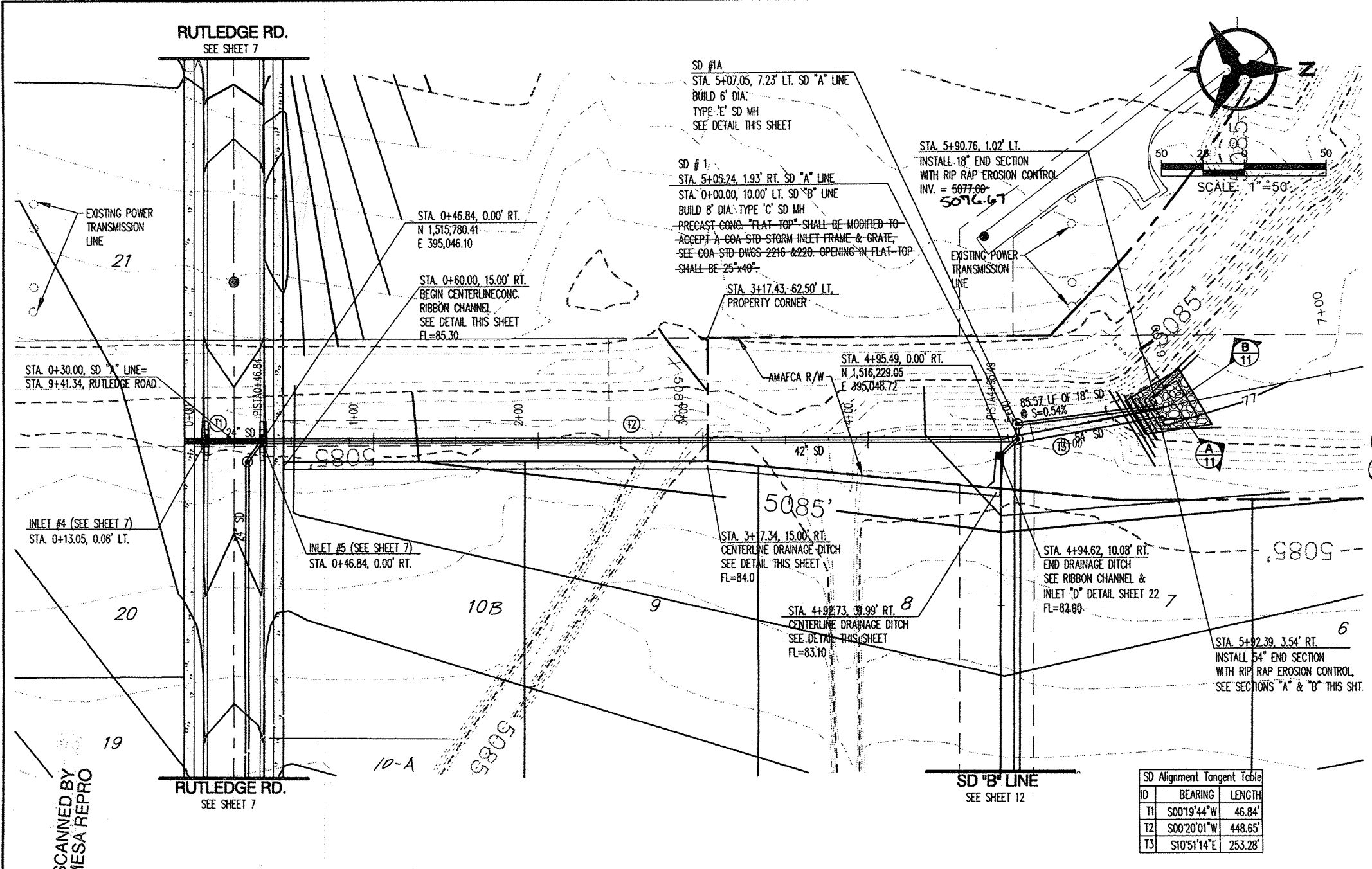
- PROPERTY LINE
- BASIN DIVIDE
- WATER BLOCK
- DOUBLE 'B' INLET
- DOUBLE 'C' INLET
- DOUBLE 'D' INLET
- TRIPLE 'C' INLET
- STORM SEWER & MANHOLE
- MAJOR FLOW DIRECTION & DISCHARGE LOCATION
- ANALYSIS POINT
- DEVELOPED TRACTS ARE NOTED AS SUCH

REVISED DRAINAGE MANAGEMENT PLAN FOR: JOURNAL CENTER

DECEMBER 1992

ORIGINAL PLAN JULY 1984
REVISION NO. 4 NOVEMBER 1990
REVISION NO. 5 DECEMBER 1992

JOB No. 901001



NOTES

- THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITY LOCATIONS AND NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
- ALL CURB RETURN RADII SHALL BE 30' UNLESS OTHERWISE SPECIFIED.
- ALL CURVE DATA AND DIMENSIONS REFER TO FACE OF CURB UNLESS OTHERWISE SPECIFIED.
- CONTRACTOR IS TO INSTALL A 4"x4"x5' POST AT THE END OF EACH SANITARY SEWER SERVICE LATERAL.
- CONTRACTOR IS RESPONSIBLE FOR REPAIR AND/OR REPLACEMENT OF ALL UTILITY CONDUITS AND EXISTING LINES.
- ANY ADDITIONAL GRADING REQUIRED TO MATCH PROPOSED STREET GRADES SHALL BE INCIDENTAL TO PAVING ITEMS.
- CONTRACTOR SHALL PROVIDE THE INSPECTORS, (CITY AND PRIVATE) WITH THE PROPOSED HYDROSTATIC TESTING PLAN. THE PLAN MUST BE APPROVED BEFORE TESTING OPERATIONS BEGIN.
- CONTRACTOR SHALL PARK EQUIPMENT AND VEHICLES AS NOT TO INTERFERE WITH NORMAL ACTIVITIES OF RESIDENTS OR OTHER CONTRACTORS ON SITE.
- ANY DAMAGE TO THE EXISTING FACILITIES (CURB & GUTTER, PAVEMENT, CONDUITS, LANDSCAPING, UTILITY LINES ETC.) DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTORS' EXPENSE.
- REMOVAL OF THE EXISTING CURB & GUTTER SHALL BE AS PER COA STD. DWG. 2415 (SAWCUT ONLY).
- WHEELCHAIR RAMPS SHALL BE CONSTRUCTED PRIOR TO ACCEPTANCE OF CURB & GUTTER.

AMAFCA NOTES

- AMAFCA FIELD ENGINEER SHALL BE NOTIFIED 48 HOURS PRIOR TO ANY WORK WITHIN THE AMAFCA R/W. TELEPHONE NUMBER 884-2215, JERRY LOVATO.
- NO WORK WILL BE PERFORMED IN THE AMAFCA R/W BETWEEN MAY 15 AND OCTOBER 15 WITHOUT WRITTEN PERMISSION FROM AMAFCA.
- ALL SUBGRADE, BACK FILL AND EMBANKMENT SHALL BE COMPACTED TO 95% (MODIFIED PROCTOR) WITHIN THE AMAFCA R/W. TESTING REPORTS SHALL BE PROVIDED TO AMAFCA FIELD ENGINEER.
- AMAFCA FIELD ENGINEER WILL BE NOTIFIED 48 HOURS PRIOR TO FINAL INSPECTION OF ANY FACILITIES WITHIN THE AMAFCA R/W.
- ALL DISTURBED GROUND AREAS SHALL BE REVEGETATED IN ACCORDANCE WITH CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION SECTION 1012 NATIVE SEEDING AS CURRENTLY UPDATED.

CONCRETE RIBBON CHANNEL DETAIL

JOINTS SHALL BE IN ACCORDANCE WITH SECTION 340.5 AND 340.6.2.2 OF CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.

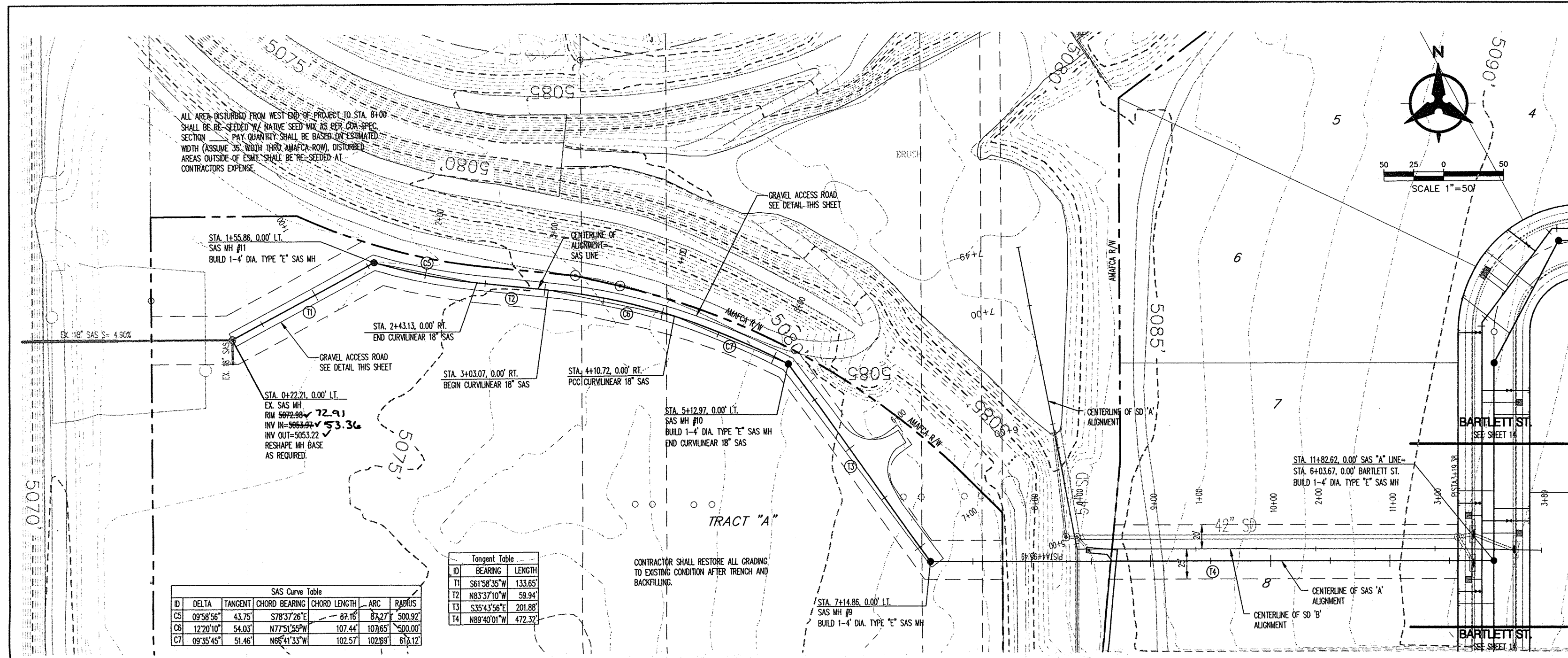
Bohannon & Huston

Courtyard | 7500 Jefferson St NE Albuquerque, NM 87109-4335
ENGINEERING & SPATIAL DATA • ADVANCED TECHNOLOGIES

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP

JOURNAL CENTER PHASE 2, UNIT2
STORM DRAIN PLAN & PROFILE
SD "A" LINE

| | | | |
|-------------------------|------------------------|-------------|-------------|
| Design Review Committee | City Engineer Approval | Mo./Day/Yr. | Mo./Day/Yr. |
| APPROVED | APR 25 2002 | | |
| City Project No. | Zone Map No. | Sheet | Of |
| 651783 | D-17 | 11 | 24 |



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AS-BUILT INFORMATION

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TRACT "A"

AMAFCA
DESILTING
BASIN

UTILITY POLES

18" SAS

25' ESMT.

18" SAS

45' ESMT.

25'

10-A

10-B

24" SD

8" SAS

12" WL

12" WL

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All waterlines were constructed of C-900 pipe.
All sanitary sewer mains were constructed of SDR-35.
All sanitary sewer services were constructed of SDR-26.

N. PINO ARROYO

MASTHEAD ST.

36' F-F (TYP)
60' R/W TYP.

12-A 12-B

13

14

15-A 15-B

RUTLEDGE RD.

EXISTING TRACT 9

INTERSTATE INDUSTRIAL TRACT

HAWKINS ST.

BARTLETT ST.

WASHINGTON ST.

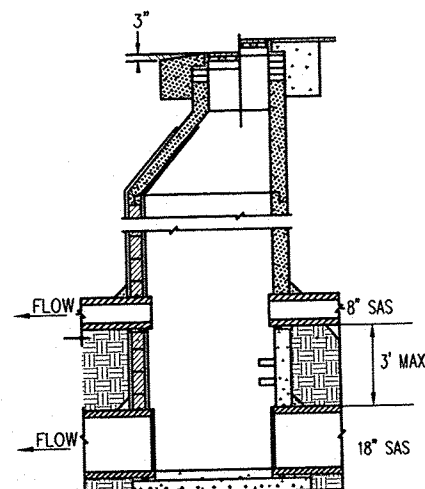
JOURNAL
CENTER
PHASE 2,
UNIT 1



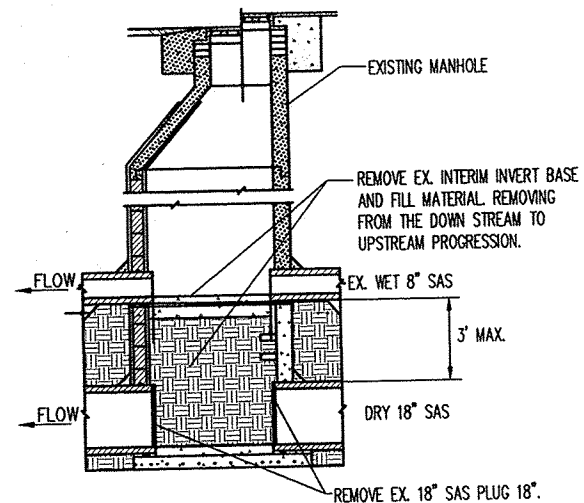
SCALE 1"=100'

UTILITY NOTES

- THIS CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE INSTALLATION OF ALL WORK RELATED TO MECHANICAL UTILITIES AS SHOWN ON THIS PLAN INCLUDING: TRENCHING, BACKFILL, SUPPORTS, CLEANOUT PADS, SERVICE STOPS AND BOXES, SERVICE LINES, TESTING, CLEANING, AND STERILIZING. ANY WORK NOT ACCEPTED BY THE ARCHITECT OR ENGINEER DUE TO IMPROPER WORKMANSHIP OR LACK OF PROPER COORDINATION SHALL BE REMOVED AND CORRECTLY INSTALLED AT THE CONTRACTOR'S EXPENSE, AS DIRECTED.
- MINIMUM DEPTHS OF COVER SHALL BE: 36" FOR WATERLINES AND 48" FOR SEWER, EXCEPT AT BUILDING CONNECTION.
- ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED UNDER CONTRACT SHALL, EXCEPT AS OTHERWISE STATED OR PROVIDED OF HEREON, BE CONSTRUCTED IN ACCORDANCE WITH THE IAPMO UNIFORM PLUMBING CODE, LATEST EDITION.
- UTILITY LINES SHALL BE INSTALLED PRIOR TO PAVEMENT, CURB AND GUTTER, AND/OR SIDEWALK, AS APPLICABLE.
- ROUGH GRADING OF SITE (±0.5') SHALL BE COMPLETED PRIOR TO INSTALLATION OF UTILITY LINES.
- CONTRACTOR WILL BE RESPONSIBLE FOR CONNECTIONS TO BUILDING DRAIN LINES AND ALL NECESSARY FITTINGS.
- ALL VALVES SHALL BE ANCHORED PER COA STANDARD DWG. 2333.
- FIRE LINES SHALL USE PIPE MATERIALS UNDERWRITERS LABORATORIES LISTED AND APPROVED FOR FIRE SERVICE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WATER METER, FIRE LINE, AND SEWER HOOKUP FEES FOR INSTALLATIONS. OWNER SHALL BE RESPONSIBLE FOR UTILITY EXPANSION CHARGES, PRORATA AND OTHER SPECIAL ASSESSMENTS.
- CONTRACTOR SHALL VERIFY INVERTS AND LOCATIONS OF EXISTING WATER/SAS LINES PRIOR TO BEGINNING WORK. ALL CONFLICTS SHALL BE BROUGHT TO ATTENTION OF THE ENGINEER AND RESOLVED PRIOR TO BEGINNING WORK.
- PROVIDE BOLLARDS TO PROTECT METER, AS PER PHM & UPC REQUIREMENTS.



PIGGY BACK MANHOLE DETAIL
NTS



EX. PIGGY BACK MANHOLE MODIFICATION DETAIL
ALONG MASTHEAD FROM STA. 18+29 - STA. 33+71 PHASE 1

Bohannon & Huston

Courtyard I 7500 Jefferson St NE Albuquerque, NM 87109-4335
ENGINEERING • SPATIAL DATA • ADVANCED TECHNOLOGIES

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP

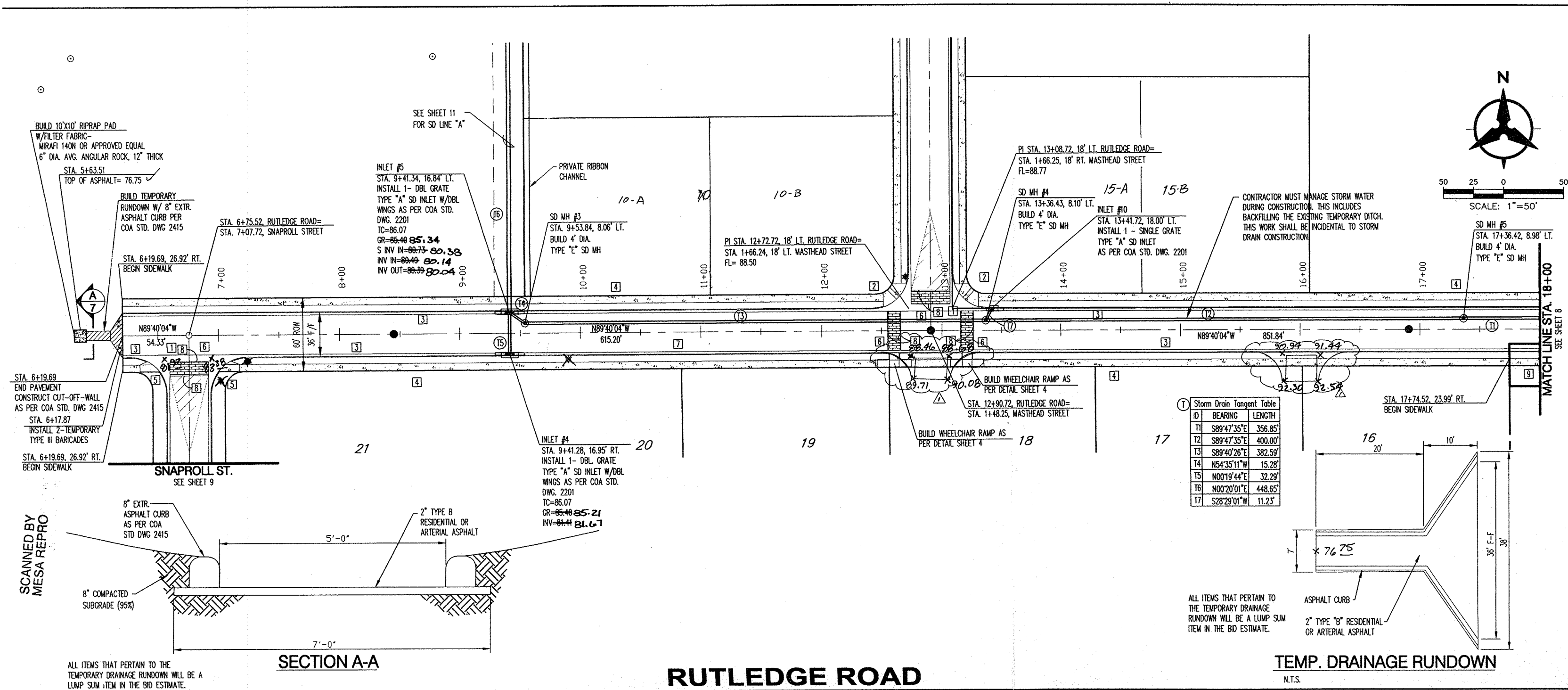
JOURNAL CENTER-PHASE2
WAREHOUSE/STORAGE - UNIT 1
OVERALL UTILITY PLAN

| Design/Review Committee | City Engineer Approval | Mo./Day/Yr. | Mo./Day/Yr. |
|---|------------------------|-------------|-------------|
| APPROVED DR 2 DESIGN REVIEW COMMITTEE | 25 | | |

| City Project No. | Zone Map No. | Sheet | Of |
|------------------|--------------|-------|----|
| 651783 | D-17 | 13 | 24 |

Copyright Bohannon Huston 2000
Date: AUGUST, 2003

BHI JOB NO. 020075



NOTES

- THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITY LOCATIONS AND NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
- ALL CURB RETURN RADII SHALL BE 30' UNLESS OTHERWISE SPECIFIED.
- ALL CURVE DATA AND DIMENSIONS REFER TO FACE OF CURB UNLESS OTHERWISE SPECIFIED.
- CONTRACTOR IS TO INSTALL A 4"x4"x5' POST AT THE END OF EACH SANITARY SEWER SERVICE LATERAL.
- CONTRACTOR IS RESPONSIBLE FOR REPAIR AND/OR REPLACEMENT OF ALL UTILITY CONDUITS AND EXISTING LINES.
- ANY ADDITIONAL GRADING REQUIRED TO MATCH PROPOSED STREET GRADES SHALL BE INCIDENTAL TO PAVING ITEMS.
- CONTRACTOR SHALL PROVIDE THE INSPECTORS, (CITY AND PRIVATE) WITH THE PROPOSED HYDROSTATIC TESTING PLAN. THE PLAN MUST BE APPROVED BEFORE TESTING OPERATIONS BEGIN.
- CONTRACTOR SHALL PARK EQUIPMENT AND VEHICLES AS NOT TO INTERFERE WITH NORMAL ACTIVITIES OF RESIDENTS OR OTHER CONTRACTORS ON SITE.
- ANY DAMAGE TO THE EXISTING FACILITIES (CURB & GUTTER, PAVEMENT, CONDUITS, LANDSCAPING, UTILITY LINES ETC.) DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTORS' EXPENSE.
- REMOVAL OF THE EXISTING CURB & GUTTER SHALL BE AS PER COA STD. DWG. 2415 (SAWOUT ONLY).
- WHEELCHAIR RAMPS SHALL BE CONSTRUCTED PRIOR TO ACCEPTANCE OF CURB & GUTTER.

AS-BUILT INFORMATION

CONTRACTOR: **Bohannon & Huston**
 DATE: **12/03**
 BY: **AL**
 CHECKED BY: **AL**
 DATE: **12/03**

ENGINEER'S SEAL

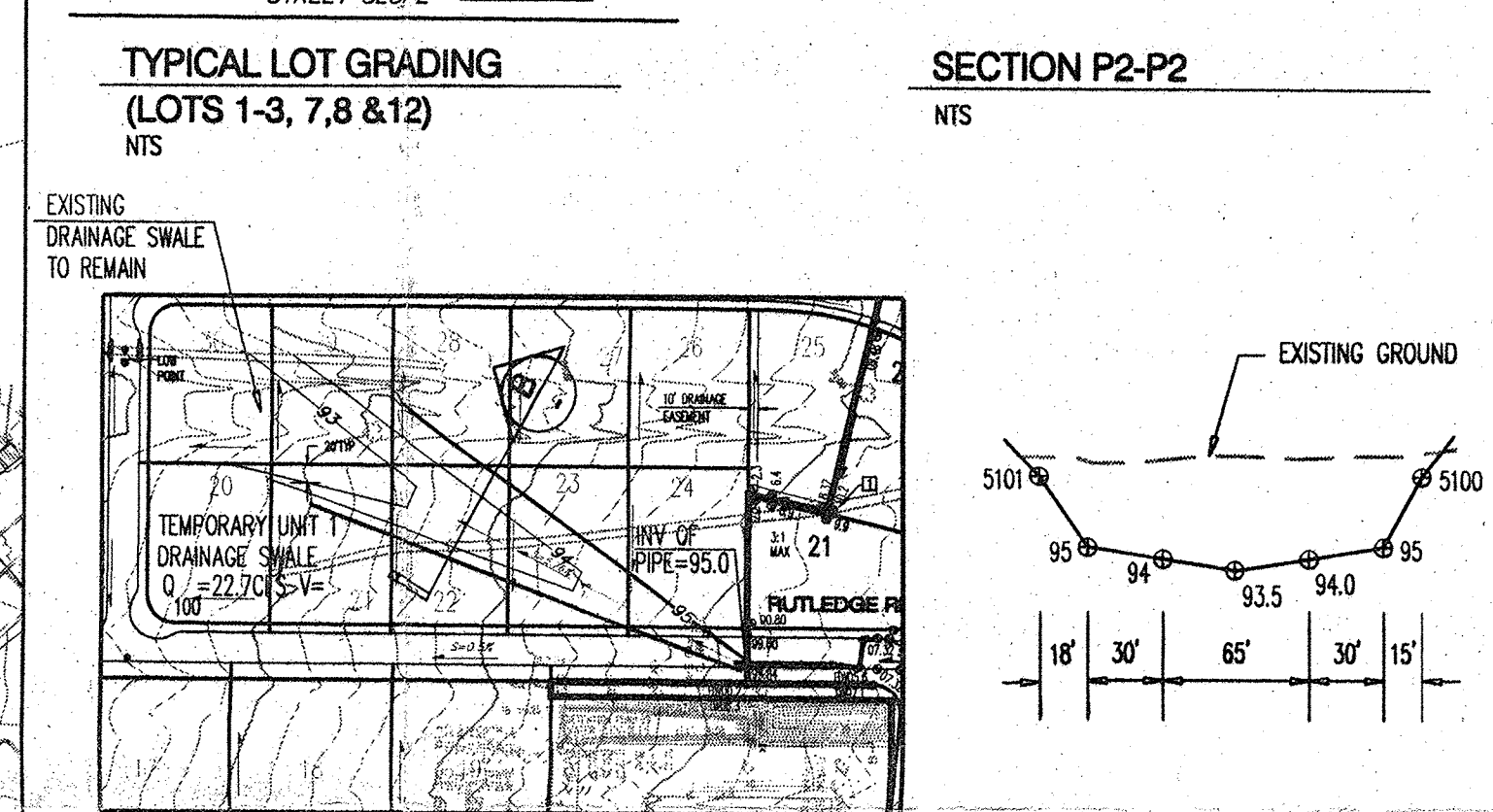
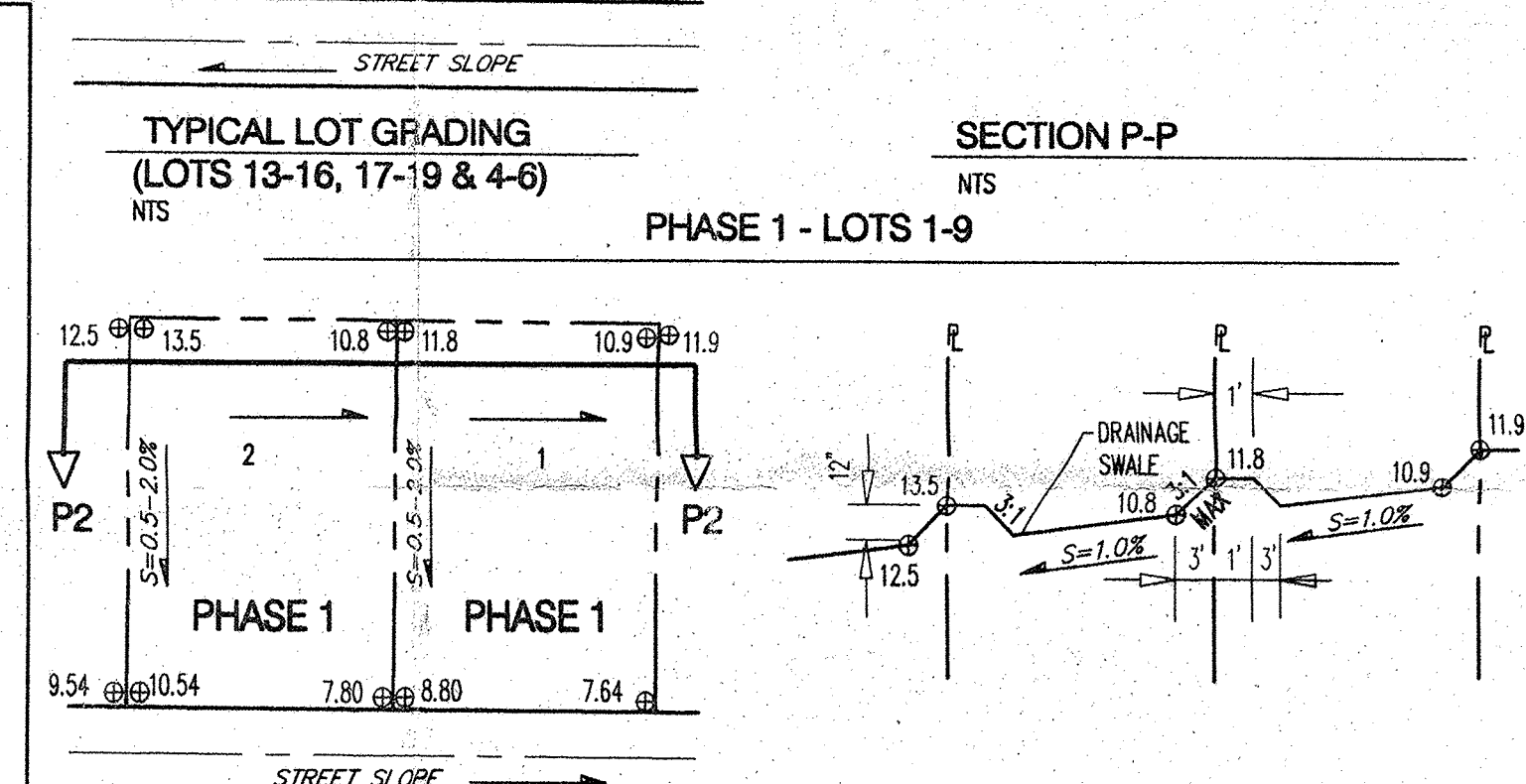
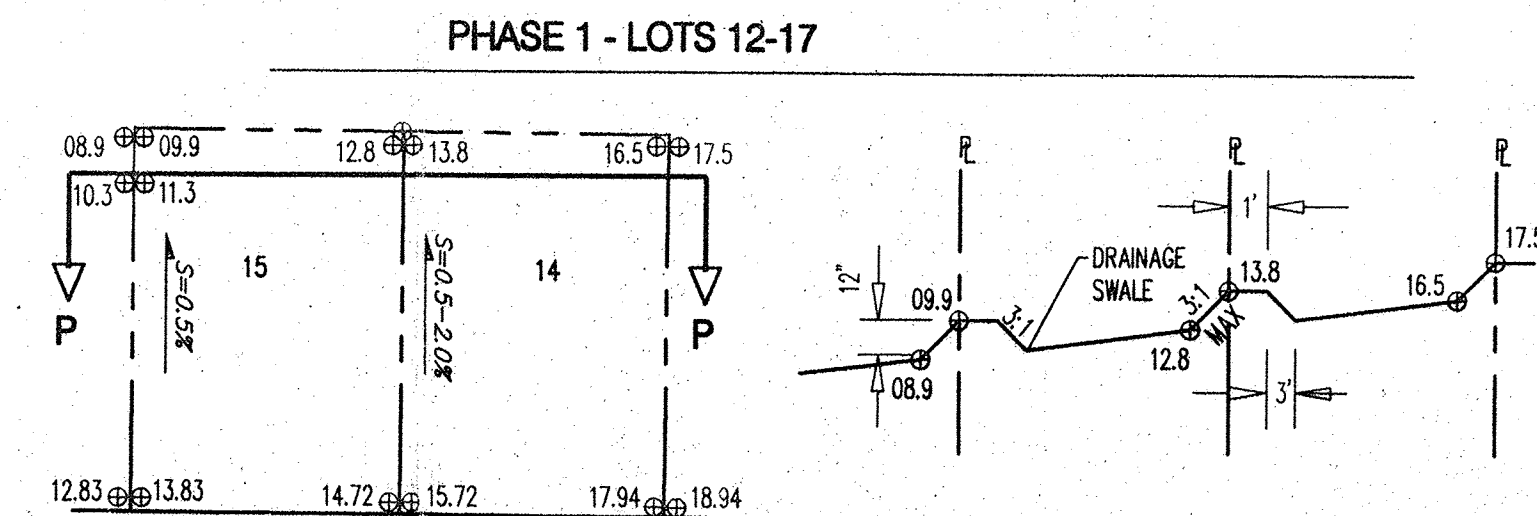
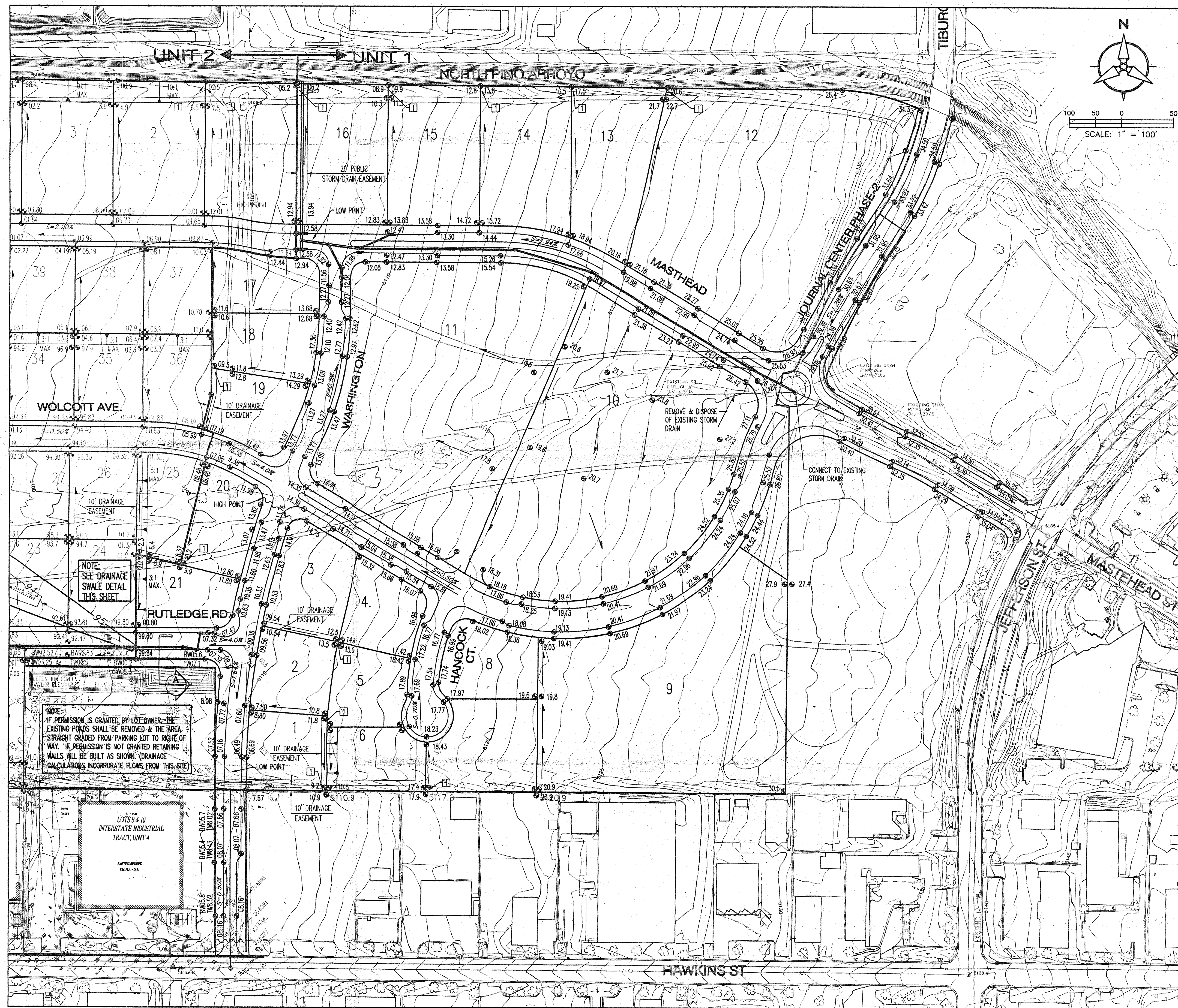
DATE: **12/03**
 BY: **AL**
 CHECKED BY: **AL**
 DATE: **12/03**

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP
JOURNAL CENTER PHASE 2, UNIT2
PAVING PLAN & PROFILE
RUTLEDGE ROAD

City Project No. **651783** Zone Map No. **D-17** Sheet **7** Of **24**

KEYED NOTES

TURNED BLOCK



GENERAL NOTES

1. CONTRACTOR MUST OBTAIN A TOPSOIL DISTURBANCE PERMIT FROM THE ENVIRONMENTAL HEALTH DIVISION PRIOR TO CONSTRUCTION.
2. THE CONTRACTOR IS TO REFER TO EARTHWORK SPECIFICATIONS AS NOTED IN THE SOILS REPORT.
3. THE CONTRACTOR SHALL CONFORM TO ALL CITY, COUNTY, STATE, AND FEDERAL MEASURES AND REQUIREMENTS AND WILL BE RESPONSIBLE FOR PREPARING AND OBTAINING ALL NECESSARY APPLICATIONS AND APPROVALS.
4. THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM LOTS INTO PUBLIC RIGHT-OF-WAY. THIS CAN BE ACHIEVED BY CONSTRUCTING TEMPORARY BERMS AS PER THE DETAIL ON THIS SHEET AND METTING THE SOIL TO KEEP IT FROM BLOWING AS PER THE EROSION CONTROL DETAIL THIS SHEET.
5. ALL STREET ELEVATIONS ARE TOP OF CURB UNLESS OTHERWISE NOTED. VALLEY GUTTER ELEVATIONS ARE SHOWN AT FLOWLINE ELEVATIONS.

LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- SPOT ELEVATION
- CMU RETAINING WALL
- CMU WALL
- SWALE
- DIRECTION OF FLOW
- WATER BLOCK
- SLOPE
- STORM DRAIN INLET
- TEMPORARY GRADING LIMIT
- UNIT BOUNDARY

Bohannon & Huston
 Courtyard One 7500 JEFFERSON NE ALBUQUERQUE NEW MEXICO 87109
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CITY OF ALBUQUERQUE
 PUBLIC WORKS DEPARTMENT
 ENGINEERING DEVELOPMENT GROUP

JOURNAL CENTER-PHASE2
 WAREHOUSE/STORAGE - UNIT 1
 GRADING AND DRAINAGE PLAN

| Design Review Committee | City Engineer Approval | Mo./Day/Yr. | Mo./Day/Yr. |
|-------------------------|------------------------|-------------|-------------|
| | | | |

City Project No. Zone Map No. Sheet X Of X

DRB#

| AS-BUILT INFORMATION | | BENCH MARKS | | SURVEY INFORMATION | | ENGINEER'S SEAL | | REVISIONS | | DESIGN | |
|---|------|-------------|------|--------------------|----|-----------------|------|-----------|------|--------|------|
| CONTRACTOR | DATE | STATION | DATE | NO. | BY | DATE | DATE | No. | Date | By | Date |
| AMS Brass Tablet stamped "1-A1-1980" | | | | | | | | | | | |
| Geographic Position (NAD 1927) | | | | | | | | | | | |
| N.M. State Plane Coordinates (Central Zone) | | | | | | | | | | | |
| X= 365,266.60 Y= 1,531,711.91 | | | | | | | | | | | |
| Ground-to-Gird Factor= 0.9996653 | | | | | | | | | | | |
| Grid= -00715.36" | | | | | | | | | | | |
| SD 1929 Elevation= 5331.73 | | | | | | | | | | | |

KEYED NOTES

- TURNED BLOCK
- EXISTING CHANNEL RUNDOWN

GRADING AND DRAINAGE CERTIFICATION

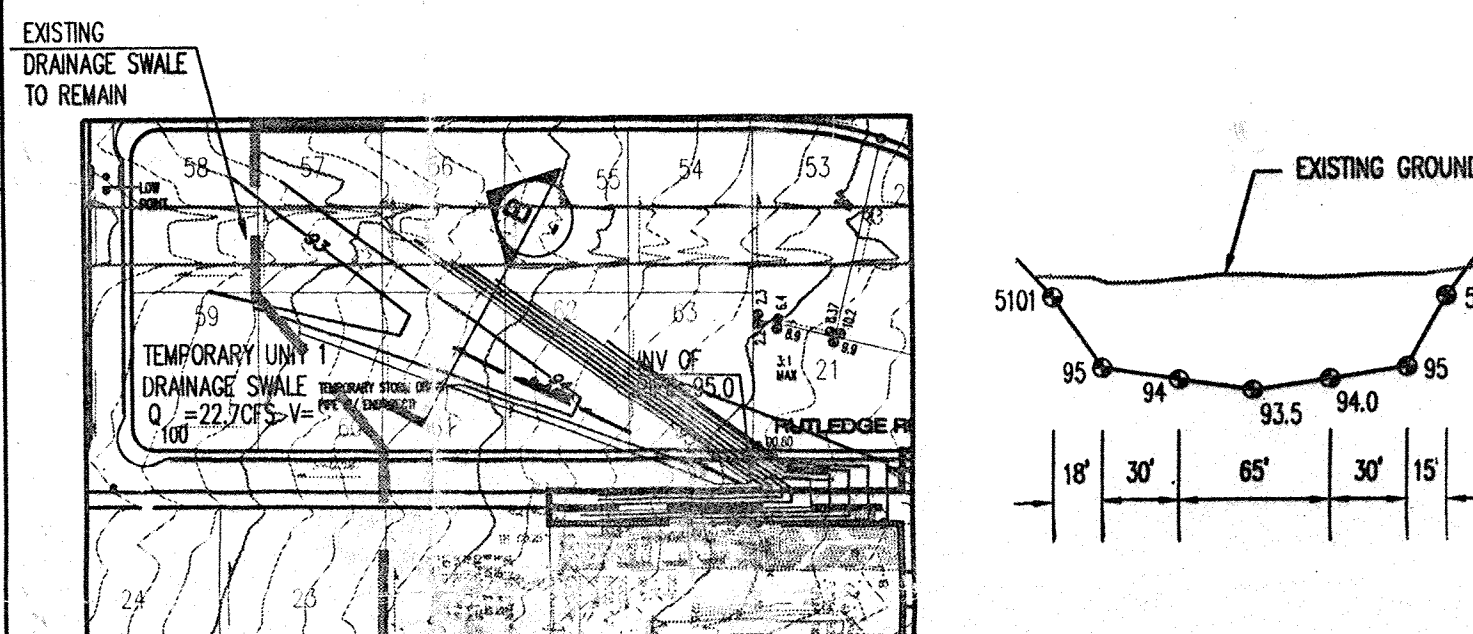
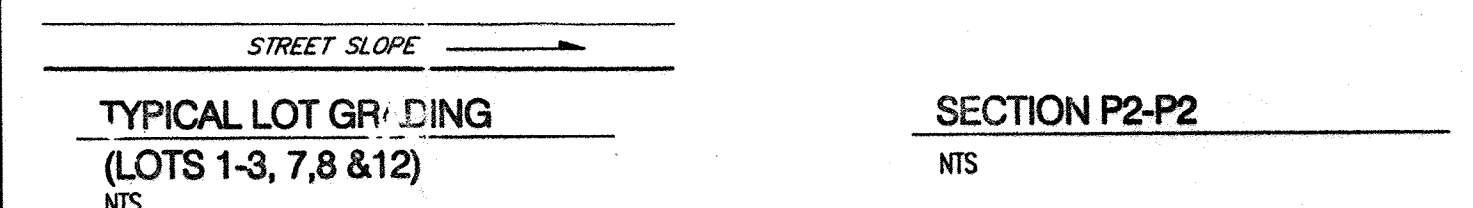
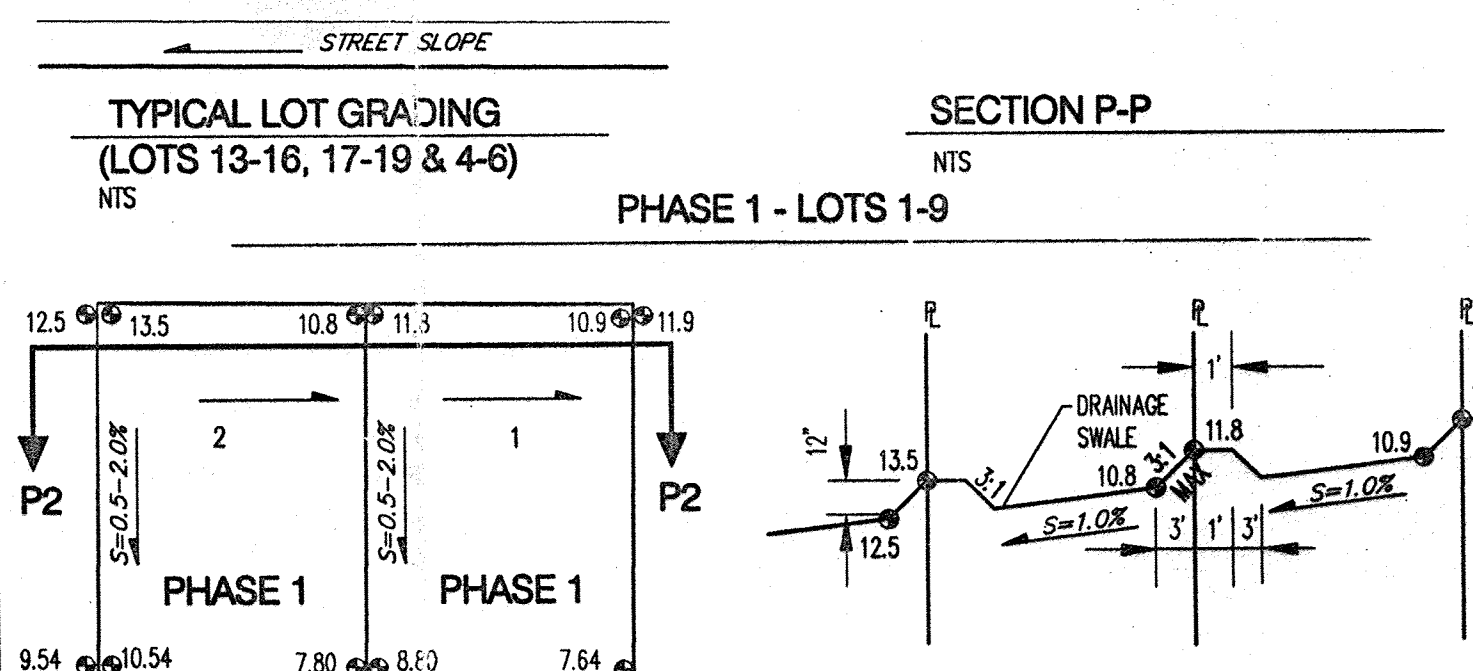
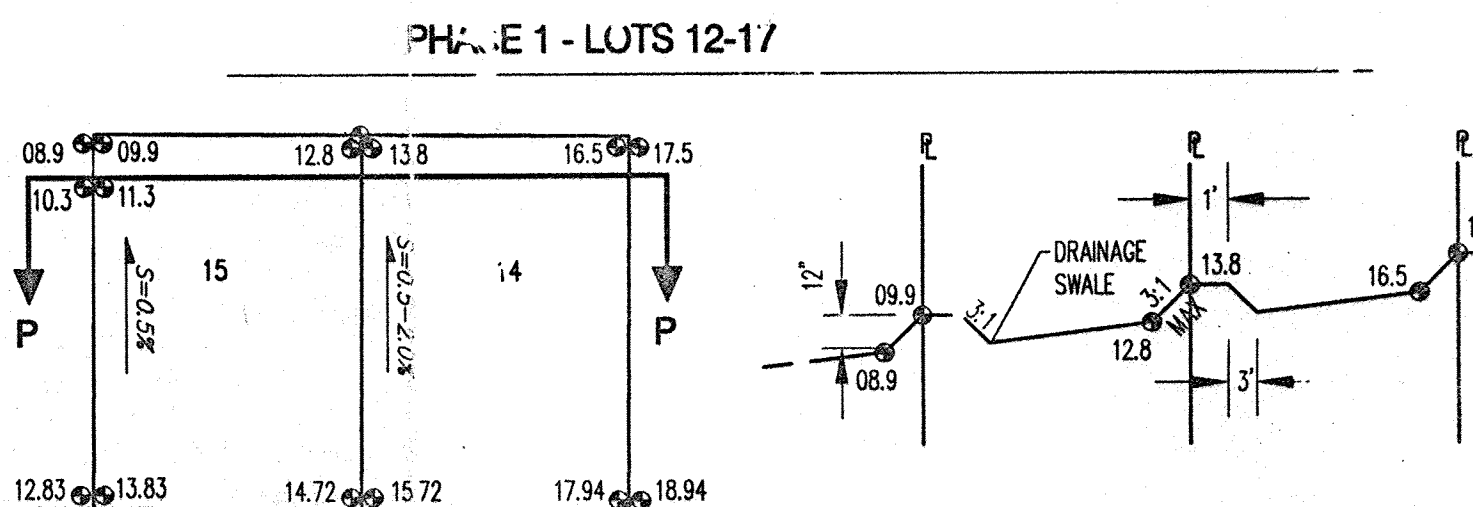
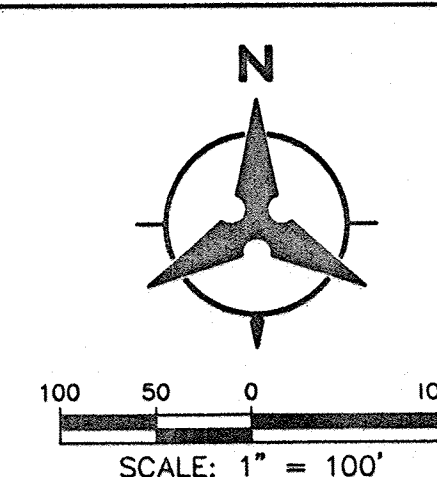
I, **KERRY L. DAVIS**, OF BOHANNAN HUSTON, N.M.P.E. # 9984, HEREBY CERTIFY THAT THE AS-BUILT GRADING AND DRAINAGE CONDITIONS OF THE SITE ARE IN SUBSTANTIAL COMPLIANCE WITH THE APPROVED GRADING AND DRAINAGE PLAN (CITY OF ALBUQUERQUE DRAINAGE FILE # D17/D3AA), TO THE BEST OF MY KNOWLEDGE AND BELIEF. AS-BUILT ELEVATIONS ARE SHOWN ON THE PLAN WHERE THE ORIGINAL DESIGN ELEVATION HAS BEEN CROSSED OUT AND THE AS-BUILT ELEVATION ADDED. AS-BUILT ELEVATIONS FOR MASS GRADING WERE VERIFIED BY SPARKLING CONSTRUCTION CO., INC. IN JANUARY, 2001. AS-BUILT ELEVATIONS FOR INFRASTRUCTURE IMPROVEMENTS WERE VERIFIED BY BOHANNAN HUSTON IN OCTOBER AND NOVEMBER, 2001. THIS STATEMENT DOES NOT REPRESENT CERTIFICATION OF CONTRACTOR'S METHODS OR MATERIALS.



NAME **Kerry L. Davis**
DATE **11-15-01**

I, Carl Smith, do hereby attest to the fact that the as-built information shown hereon is the result of a field survey performed by me or under my direct supervision, and that the same is true and correct. AS OF 15 JAN 01

Carl Smith
S.C.C.I. Survey Manager

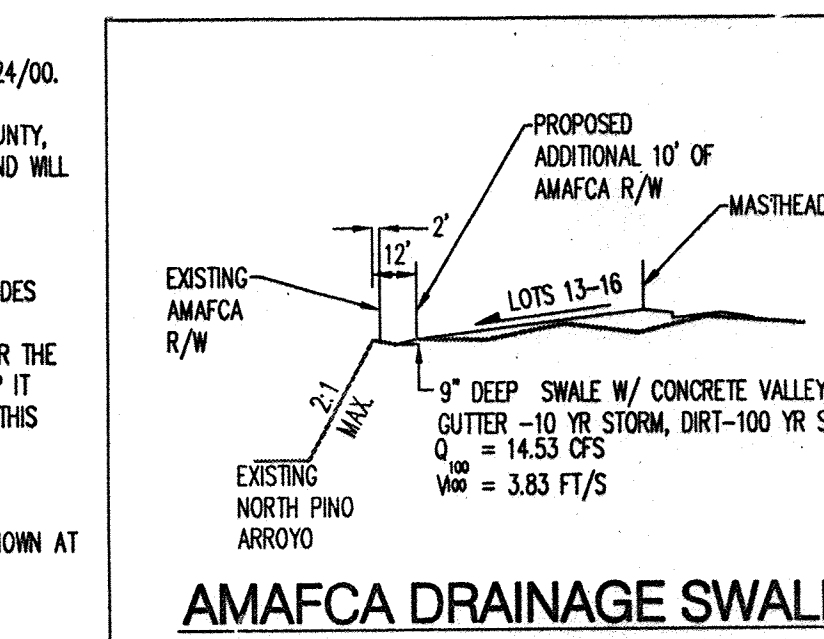


GENERAL NOTES

- CONTRACTOR MUST OBTAIN A TOPSOIL DISTURBANCE PERMIT FROM THE ENVIRONMENTAL HEALTH DIVISION PRIOR TO CONSTRUCTION.
- THE CONTRACTOR IS TO REFER TO EARTHWORK SPECIFICATIONS PROVIDED BY GEOTECH INC. DATED 10/24/00.
- THE CONTRACTOR SHALL CONFORM TO ALL CITY, COUNTY, STATE, AND FEDERAL MEASURES AND REQUIREMENTS AND WILL BE RESPONSIBLE FOR PREPARING AND OBTAINING ALL NECESSARY APPLICATIONS AND APPROVALS.
- THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM LOTS INTO PUBLIC RIGHT-OF-WAY. THIS CAN BE ACHIEVED BY CONSTRUCTING TEMPORARY BERMS AS PER THE DETAIL ON THIS SHEET AND WEIGHING THE SOIL TO KEEP IT FROM BLOWING AS PER THE EROSION CONTROL DETAIL THIS SHEET.
- ALL STREET ELEVATIONS ARE TYP OF CURB UNLESS OTHERWISE NOTED. VALLEY GUTTER ELEVATIONS ARE SHOWN AT FLOWLINE ELEVATIONS.

LEGEND

| | |
|-------------------------|------------------|
| 5470 | EXISTING CONTOUR |
| 524 | PROPOSED CONTOUR |
| SPOT ELEVATION | |
| CMU RETAINING WALL | |
| CMU WALL | |
| SWALE | |
| DIRECTION OF FLOW | |
| WATER BLOCK | |
| SLOPE | |
| STORM DRAIN INLET | |
| TEMPORARY GRADING LIMIT | |
| UNIT BOUNDARY | |



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PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP

JOURNAL CENTER-PHASE2
WAREHOUSE/STORAGE - UNIT 1
GRADING AND DRAINAGE PLAN

| | | | |
|---------------------------------|--------------------------|----------------|--------------|
| Design Review Committee | City Engineer Approval | Mo./Day/Yr. | Mo./Day/Yr. |
| City Project No. R 10164 | Zone Map No. D-17 | Sheet 4 | Of 40 |

BHI JOB NO. 01164

FOR REFERENCE ONLY

Copyright Bohannon & Huston 2000
Date: AUGUST, 2000

GRADING NOTES:

- ALL WORK DETAILED ON THESE PLANS, EXCEPT AS OTHERWISE STATED OR PROVIDED HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS, 1986 EDITION, AS AMENDED THROUGH UPDATE # 7.
- A 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.
- CONSTRUCTION ACTIVITY SHALL BE LIMITED TO THE PROPERTY AND/OR PROJECT LIMITS. ANY DAMAGE TO ADJACENT PROPERTIES RESULTING FROM THE CONSTRUCTION PROCESS IS THE RESPONSIBILITY OF THE CONTRACTOR. ANY COSTS INCURRED FOR REPAIRS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- PAVING/ROADWAY GRADES SHALL BE ± 0.05 FT. FROM SHOWN PLAN ELEVATIONS.
- PADS SHALL NOT VARY FROM A TRUE HORIZONTAL PLANE BY MORE THAN ± 0.01 FOOT AT ANY POINT. THIS TRUE PLANE SHALL NOT VARY FROM THE SHOWN PAD ELEVATION BY ± 0.02 FOOT.
- MAINTENANCE OF DRAINAGE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY ON WHICH THEY ARE CONSTRUCTED. ROOF DRAINS AND APPURTENANCES SHALL BE REGULARLY INSPECTED AND OBSTRUCTIONS REMOVED.
- THE CONTRACTOR SHALL ABIDE BY ALL LOCAL, STATE AND FEDERAL REGULATIONS WHICH APPLY TO THE CONSTRUCTION OF THESE IMPROVEMENTS AND GRADING OPERATIONS.

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL CONSTRUCTION PERMITS AND INSPECTION APPROVALS NECESSARY FOR THE CONSTRUCTION OF THESE FACILITIES AND ALL GRADING OPERATIONS.
- THE COST FOR REQUIRED CONSTRUCTION DUST AND EROSION CONTROL MEASURES SHALL BE INCIDENTAL TO THE PROJECT COST.
- DISPOSAL OF ALL WASTE MATERIAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- CONSTRUCTION SAFETY: THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL REMAIN THE CONTRACTOR'S SOLE RESPONSIBILITY.
- THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE SITE INTO PUBLIC RIGHT-OF-WAY, ROADWAYS OR ONTO PRIVATE PROPERTY.
- THE CONTRACTOR SHALL EXERCISE CARE SO AS NOT TO DISTURB OR DAMAGE EXISTING FEATURES TO REMAIN DURING ALL PHASES OF CONSTRUCTION.
- ALL SIDEWALKS SHALL HAVE A 2% CROSS-SLOPE UNLESS OTHERWISE INDICATED.

AS BUILT LEGEND

- ✓ TC 77.51
FL 77.01 = AS BUILT MATCHES DESIGN ELEVATION
- TC 77.51
FL 77.01 77.08 = AS BUILT ELEVATION

DRAINAGE CERTIFICATION

I, Daniel S. Aguirre, NMPE 11955, OF THE FIRM Wilson & Company, HEREBY CERTIFY THAT THIS PROJECT HAS BEEN GRADED AND WILL DRAIN IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN DATED 9-1-04. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY Joaquin Arguelles, Jr., NMPS 7472.

I FURTHER CERTIFY THAT I HAVE PERSONALLY VISITED THE PROJECT SITE ON 3-28-05 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 Permanent Certificate of Occupancy.

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.

Daniel S. Aguirre, NMPE 11955
DATE 3/29/05

DRAINAGE REPORT

Site Description

The project site, in Journal Center Phase 2 Unit 2, is located west of the intersection of Masthead St. and Jefferson St. in northeast Albuquerque. It is the first lot in a four-lot business park and is bounded on the north by proposed Tract A-2, on the east by proposed Tract A-4, on the west by the North Diversion Channel and on the south by Rutledge Rd., Snaproll St. and Lot 17-A Interstate Industrial Tract Unit 4.

Legal Description

Tract A-1 Journal Center Phase 2 Unit 2

Flood Hazard Zones

The site is not located in a flood zone as shown by Panels 35001C0136D & 35001C0137D.

Existing Conditions

The site is entirely located in Basin A1 as shown on the "Journal Center-Phase 2 Unit II: Drainage Plan & Basin Map" by Bohannon Huston, Inc., dated 8 November 2002. That plan was an amendment to the approved drainage report for Journal Center Phase 2 Units 1&2 (D17/D3AA). The site was slightly graded to direct flows under the Bohannon Huston, Inc. plan.

Proposed Conditions

The site is located in Basin A1-b as shown on the "Brunacini @ Journal Center Drainage Plan" by Wilson & Company, Inc., dated 24 August 2004. Under developed conditions for Tract A-1, the site will continue to accept flows from Snaproll St. NE and Rutledge Rd. and from a portion of undeveloped Tract A-4. This basin is indicated as Basin 100 on this plan and flows will be directed through the parking lot and around the building to the northwest corner of the lot and discharged into a temporary retention pond located on Tract A-2.

Developed Condition results are as follows:

- Land Treatment - 56% Land Treatment D, 25% Land Treatment B and 19% Land Treatment C.
- $V(10day) = 1.65$ Ac-ft

The proposed grading will provide an interim retention pond with a minimum of the above required volume of 1.65 Ac-ft, 3:1 sides slopes and a depth of three feet with one foot of free board. The pond will remain until such time as proposed Tract A-2 is developed, at which time flows from Basin 101 will primarily flow to an outlet structure to be located on the west property line of Tract A-1, with ultimate discharge to the North Diversion Channel.

Conclusion

The development of this site is designed to adhere to the "Brunacini @ Journal Center Drainage Plan" by Wilson & Company, Inc., dated 24 August 2004. That document indicates interim temporary retention ponding with ultimate discharge to the North Diversion Channel.

LEGAL DESCRIPTION

TRACT A-1, JOURNAL CENTER, PHASE 2, UNIT 2

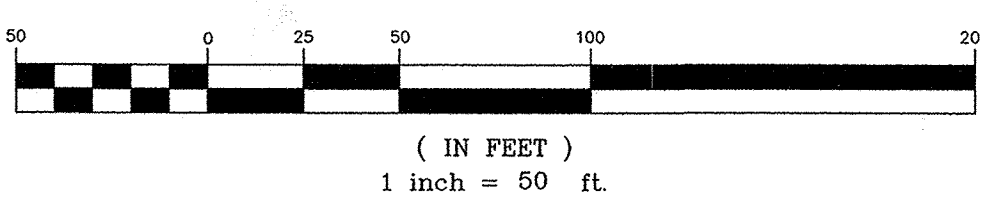
BENCH MARK

NGS BRASS TABLET STAMPED "REEVES 2, 1991" GEOGRAPHIC POSITION (NAD 1927)
NM STATE PLANE COORDINATES (CENTRAL ZONE) X = 394,062.557 Y = 1,516,507.279
GROUND TO GRID FACTOR = 0.99967022 DELTA ALPHA = -00'12"15"
NGVD 1929 TRIG ELEVATION = 5074.0

LEGEND

- EXISTING INTERMEDIATE CONTOUR
EXISTING INDEX CONTOUR
BASIN BOUNDARY LINE
- PROPOSED INTERMEDIATE CONTOUR
PROPOSED INDEX CONTOUR
BASIN TAG

GRAPHIC SCALE



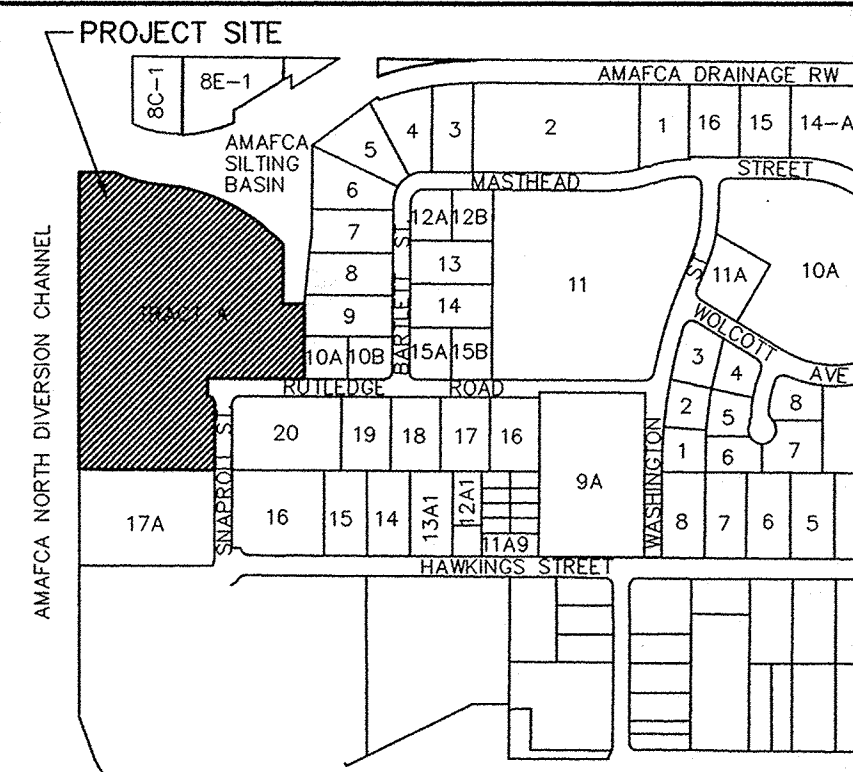
WCEA X4218034
AUGUST 2004

CURVE DATA

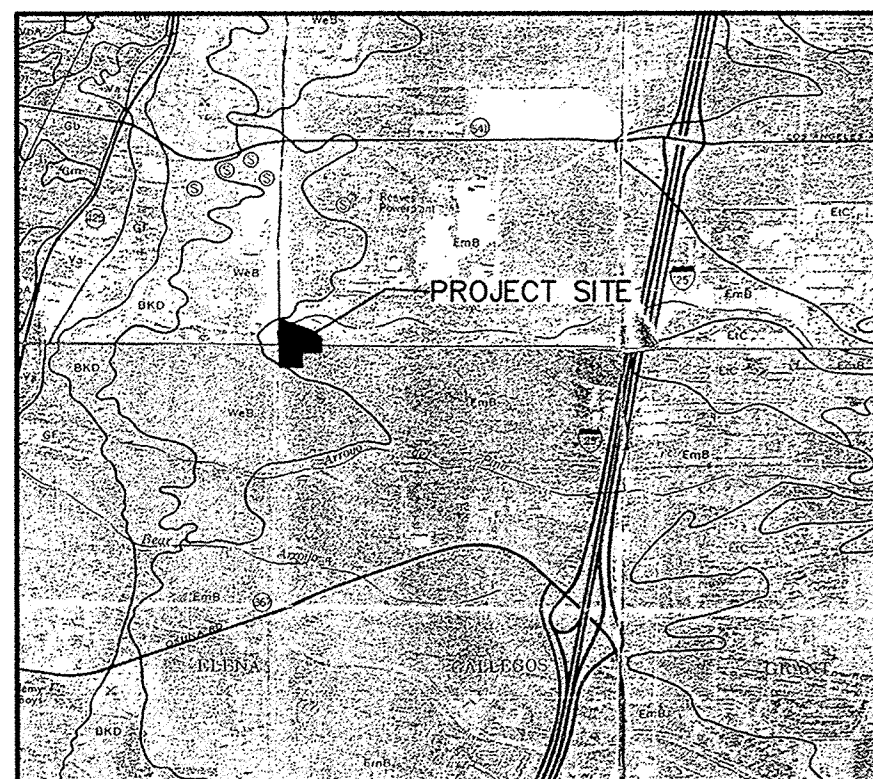
| ID | DELTA | TANGENT | ARC | RADIUS | CHORD | CHORD BRG |
|-----|------------|---------|---------|---------|---------|-------------|
| C1 | 90°12'33" | 25.09' | 39.36' | 25.00' | 35.42' | N45°13'40"E |
| C2 | 18°39'37" | 82.97' | 164.47' | 505.00' | 163.74' | S74°39'50"E |
| C3 | 30°45'00" | 166.69' | 325.34' | 606.20' | 321.45' | S61°07'47"E |
| C4 | 89°47'27" | 24.91' | 39.18' | 25.00' | 35.29' | S44°46'20"E |
| C5 | 150°33'52" | 80.15' | 159.38' | 606.20' | 158.93' | S60°33'21"E |
| C6 | 90°25'47" | 20.15' | 31.57' | 20.00' | 28.39' | S80°31'02"E |
| C7 | 89°34'13" | 19.85' | 31.27' | 20.00' | 28.18' | S09°28'58"W |
| C8 | 14°35'09" | 74.23' | 147.65' | 580.00' | 147.25' | N69°38'28"W |
| C9 | 09°46'40" | 45.76' | 91.30' | 535.00' | 91.19' | N79°52'39"W |
| C10 | 11°14'28" | 49.70' | 99.06' | 505.00' | 98.92' | S78°22'24"E |

TANGENT DATA

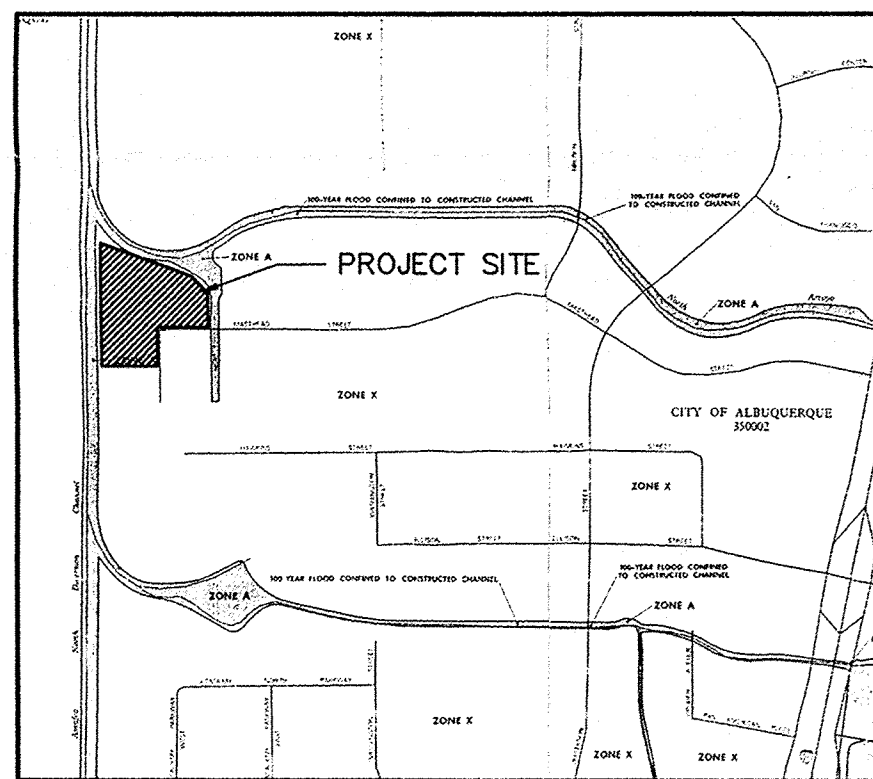
| ID | BEARING | DISTANCE |
|----|-------------|----------|
| T1 | S76°30'17"E | 38.16' |
| T2 | S45°45'17"E | 49.94' |
| T3 | S00°19'56"W | 60.00' |
| T4 | N54°16'04"E | 12.11' |
| T5 | S33°43'56"E | 20.00' |
| T6 | S54°16'04"W | 12.56' |
| T7 | S00°09'41"W | 25.00' |
| T8 | N76°57'03"W | 34.64' |
| T9 | N00°00'22"E | 40.00' |



LOCATION MAP
ZONE ATLAS MAP NO. D-16 & D-17



SOILS MAP
REFERENCE: SCS BERNALILLO COUNTY SOIL SURVEY
SHEET NO. 11 & 12



FLOOD INSURANCE MAP
REFERENCE: FLOOD INSURANCE STUDY
PANELS 35001C0136D & 35001C0137D

