

85-510

CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION/DESIGN HYDROLOGY SECTION

PRE-DESIGN CONFERENCE RECAP

HYDROLOGY SECTION PROJECT NO.: J-21 DATE: 3/1/85

PLANNING DIVISION NOS. EPC: _____ DRB: _____

SUBJECT: Sandra Plaza/Juan Tabo
LEGAL DESCRIP.: Tract B2-A B/LK 76A Princess Jean
Add'n.

APPROVAL REQUESTED

____ PRELIMINARY PLAT _____ FINAL PLAT
____ SITE DEVELOPMENT PLAN _____ X BUILDING PERMIT
____ ROUGH GRADING _____

WHO: REPRESENTING:
ATTENDANCE: Bob Sykas Wilson & Co.
Billy Goolsby City

- ____ Conceptual Drainage Plan/Report required for Preliminary Plat and/or Site Development Plan sign-off.
X Approved Drainage Plan/Report required for Final Plat and/or Building Permit sign-off.
____ Subdivision Improvements Agreement or Financial Security required.

FINDINGS: ① City approved allay grades required.
② Discharge directly to SD in Juan Tabo will
be the preferable solution - Discharge to
surface will be required to be controlled.

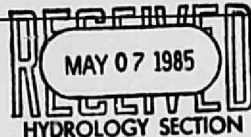
The undersigned agrees that the above findings are summarized accurately and are only subject to change if further investigation reveals that they are not reasonable or that they are based on inaccurate information.

SIGNED: Billy G. Goolsby SIGNED: Robert Wilson
TITLE: CE/Design Hydrology TITLE: Wilson & Co.
DATE: 3/1/85 DATE: 1 March 85

NOTE PLEASE PROVIDE A COPY OF THIS RECAP WITH THE DRAINAGE SUBMITTAL

DRAINAGE INFORMATION SHEET

PROJECT TITLE: Sandra Plaza ZONE ATLAS/DRNG. FILE #: J-21/D21
 LEGAL DESCRIPTION: Tract B-2A Block 76A Princess Jeanna Park Adm.
 CITY ADDRESS: _____
 ENGINEERING FIRM: Wilson & Company CONTACT: R.F. Sykes
 ADDRESS: PO Box 3548 ABQ 87190 PHONE: 305-5345
 OWNER: John B. Simon CONTACT: John Simon
 ADDRESS: 510 Doherty Rd. Beverly Hills CA 90210 PHONE: _____
 ARCHITECT: Wilson & Co CONTACT: H.M. Kaplan
 ADDRESS: PO Box 3548, ABQ 87190 PHONE: 305-5345
 SURVEYOR: _____ CONTACT: _____
 ADDRESS: _____ PHONE: _____
 CONTRACTOR: _____ CONTACT: _____
 ADDRESS: _____ PHONE: _____



PRE-DESIGN MEETING:

- ☒ YES
☐ NO
☒ COPY OF CONFERENCE RECAP SHEET PROVIDED

DRB NO. _____
 EPC NO. _____
 PROJ. NO. _____

TYPE OF SUBMITTAL:

- ☐ DRAINAGE REPORT
☒ DRAINAGE PLAN
☐ CONCEPTUAL GRADING & DRAINAGE PLAN
☒ GRADING PLAN
☐ EROSION CONTROL PLAN
☐ ENGINEER'S CERTIFICATION

CHECK TYPE OF APPROVAL SOUGHT:

- ☐ SKETCH PLAT APPROVAL
☐ PRELIMINARY PLAT APPROVAL
☐ SITE DEVELOPMENT PLAN APPROVAL
☐ FINAL PLAT APPROVAL
☒ BUILDING PERMIT APPROVAL
☐ FOUNDATION PERMIT APPROVAL
☐ CERTIFICATE OF OCCUPANCY APPROVAL
☐ ROUGH GRADING PERMIT APPROVAL
☐ GRADING/PAVING PERMIT APPROVAL
☐ OTHER _____ (SPECIFY)

DATE SUBMITTED:

BY:

7 May 1985R. Sykes



505 245-5245

ENGINEERS
ARCHITECTS
PLANNERS

Office Location... 5511 GULTON CT., N.E. ■ ALBUQUERQUE, NEW MEX CO 87109

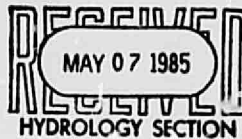
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Mailing Address... P.O. BOX 2548 ■

ALBUQUERQUE, NEW MEXICO 87100

7 May 1985

Mr. Billy Goolsby
Hydrology Section
City of Albuquerque
P. O. Box 1293
Albuquerque, NM 87103



Re: Sandra Plaza
Grading Plan & Drainage Report
WCEA File: 85-510

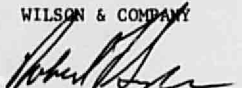
Dear Mr. Goolsby:

Enclosed is the drainage report for Sandra Plaza a small commercial business development on the west side of Juan Tabo Boulevard between Princess Jeanne Avenue and Haines Avenue.

The proposed alley grade for the alley along the west side of the property has been submitted to the City Engineer for review and approval.

Please give me a call if you have any questions.

WILSON & COMPANY


Robert F. Sykes, P.E.
Partner

Enc.

cc: Mr. John Simon

-nah



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

DESIGN HYDROLOGY SECTION
123 Central NW, Albuquerque, NM 87102
(505) 766-7644

May 28, 1985

Mr. Robert F. Sykes PE
Wilson & Company Engineers & Architects
6611 Gulton Court NE
P.O. Box 3548
Albuquerque, NM 87190

REF: DRAINAGE AND GRADING PLAN FOR SANDRA PLAZA (J21-D21) RECEIVED
MAY 7, 1985

Dear Mr. Sykes:

Based on the information provided on your May 7, 1985 submittal, listed you will find certain concerns that will need to be addressed before final approval is granted:

1. New information sheet with resubmittal designation.
2. Engineer's stamp with signature and revision date.
3. Please identify W.O. number for alley grades.
4. Legend indicating proposed and existing contours and all other pertinent information use DPM Volume 2, Table 27.3a-27.3d for recommended standard symbols (contours on plan do not indicate contour elevation, please address).
5. With the amount of flows developed, what impact will the discharge have into the alley through the proposed rundown. (How do you propose to turn the developed flows into the alley?)
6. Please indicate flow arrows within your master copy and not penciled in on a blue line print.
7. Please indicate what is existing to the north of proposed development.

MUNICIPAL DEVELOPMENT DEPARTMENT

C. Dwayne Sheppard, P.E., City Engineer

ENGINEERING DIVISION

Telephone (505) 766-7467

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Mr. Robert F. Sykes PE
May 28, 1985
Page -2-

8. Please indicate that the identified City BM will also act as the TBI for the project.

If you have any questions or comments, please feel free to contact me at 766-7644.

Sincerely,

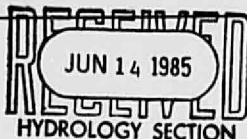


Carlos A. Montoya PE
City/County Flood Plain Admin.

CAM:BJI:mrk

DRAINAGE INFORMATION SHEET

PROJECT TITLE: Sandra Plaza ZONE ATLAS/DRNG. FILE #: J-21
 LEGAL DESCRIPTION: Tract B-2A Block 76A Princess Jeanne Park Addn.
 CITY ADDRESS: _____
 ENGINEERING FIRM: Wilson & Company CONTACT: Bob Sykes
 ADDRESS: PO Box 3548 PHONE: 345-5345
 OWNER: John B. Simon CONTACT: John Simon
 ADDRESS: 510 Doheny Rd PHONE: _____
Beverly Hills, CA 90210
 ARCHITECT: Wilson & Co CONTACT: Howard Kaplan
 ADDRESS: PO Box 3548 PHONE: 345-5345
 SURVEYOR: _____ CONTACT: _____
 ADDRESS: _____ PHONE: _____
 CONTRACTOR: _____ CONTACT: _____
 ADDRESS: _____ PHONE: _____



PRE-DESIGN MEETING:

☒

YES

☐

NO

☒COPY OF CONFERENCE RECAP
SHEET PROVIDED w/ original report

DRB NO. _____

EPC NO. _____

PROJ. NO. _____

TYPE OF SUBMITTAL:

- ____ DRAINAGE REPORT
☒ DRAINAGE PLAN
 ____ CONCEPTUAL GRADING & DRAINAGE PLAN
☒ GRADING PLAN
 ____ EROSION CONTROL PLAN
 ____ ENGINEER'S CERTIFICATION

CHECK TYPE OF APPROVAL SOUGHT:

- ____ SKETCH PLAT APPROVAL
 ____ PRELIMINARY PLAT APPROVAL
 ____ SITE DEVELOPMENT PLAN APPROVAL
 ____ FINAL PLAT APPROVAL
☒ BUILDING PERMIT APPROVAL
 ____ FOUNDATION PERMIT APPROVAL
 ____ CERTIFICATE OF OCCUPANCY APPROVAL
 ____ ROUGH GRADING PERMIT APPROVAL
 ____ GRADING/PAVING PERMIT APPROVAL
 ____ OTHER _____ (SPECIFY)

Revision For Report
(J21-D21)

DATE SUBMITTED: 6 June 1985BY: Robert F. [Signature]



505 245-5245

ENGINEERS
ARCHITECTS
PLANNERS

Office Location... 5511 GULTON CT., N.E. ■ ALBUQUERQUE, NEW MEXICO 87109

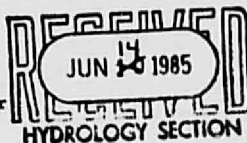
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Mailing Address... P.O. BOX 3548 ■

ALBUQUERQUE, NEW MEXICO 87100

14 June 1985

Carlos A. Montoya, P.E.
Design Hydrology Section
City of Albuquerque
P. O. Box 1293
Albuquerque, NM 87103



Re: Drainage and Grading Plan for
Sandra Plaza
(J21-D21)
WCEA File: 85-510

Dear Mr. Montoya:

We have revised and corrected the grading plan for the Sandra Plaza project in accordance with your letter of 28 May 1985.

The flows from the rundown into the alley will be turned by an existing block wall that extends the entire length of the alley along the west line of the alley right-of-way.

I will be glad to answer any additional questions you may have.

WILSON & COMPANY

Robert F. Sykes, P.E.
Partner

Enc.

-nab



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

DESIGN HYDROLOGY SECTION
123 Central NW, Albuquerque, NM 87102
(505) 766-7644

June 19, 1985

Robert F. Sykes, P.E.
Wilson & Company Engineers & Architects
Post Office Box 3548
Albuquerque, New Mexico 87190

RE: REVISED DRAINAGE AND GRADING PLAN FOR SANDRA PLAZA
(J-21/D21) RECEIVED JUNE 14, 1985

Dear Mr. Sykes:

Based on the information provided on your June 14, 1985 submittal, listed you will find certain concerns that will need to be addressed before final approval is granted:

1. New information sheet with resubmittal designation.
2. Engineer's stamp with signature and revision date.
3. Floor pads to full mean sea level designation.
4. Please identify the location, direction and quantification of each drainage basin.
5. Alley will need to be paved (developed runoff generated to existing alley, erosion protection required by means of pavement).

If you have any questions or comments regarding this project, please call me at 766-7644.

Cordially,

Carlos A. Montoya, P.E.
City/County Floodplain Administrator

BJM:CAM/bsj

MUNICIPAL DEVELOPMENT DEPARTMENT

C. Dwayne Sheppard, P.E., City Engineer

ENGINEERING DIVISION

Telephone (505) 766-7467

AN EQUAL OPPORTUNITY EMPLOYER

DRAINAGE INFORMATION SHEET

PROJECT TITLE: SANDRA PLAZA ZONE ATLAS/DRNG. FILE #: J-21/D21

LEGAL DESCRIPTION: _____

CITY ADDRESS: _____

ENGINEERING FIRM: Wilson & Co. CONTACT: R.F. Sykes

ADDRESS: PO Box 3548 PHONE: 345-5345

Alb. NM 87190

OWNER: John B. Simon CONTACT: John Simon

ADDRESS: 510 Doherty Rd. PHONE: _____

Beverly Hills, CA. 90210

ARCHITECT: Wilson & Co. CONTACT: Howard Kaplan

ADDRESS: PO Box 3548 PHONE: 345-534

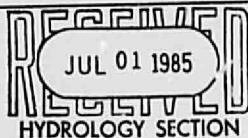
SURVEYOR: _____ CONTACT: _____

ADDRESS: _____ PHONE: _____

CONTRACTOR: _____ CONTACT: _____

ADDRESS: _____ PHONE: _____

PRE-DESIGN MEETING:

☒ YES☐ NO☒ COPY OF CONFERENCE RECAP SHEET PROVIDED *w/ original report*

DRB NO. _____

EPC NO. _____

PROJ. NO. _____

TYPE OF SUBMITTAL:

☐ DRAINAGE REPORT☒ DRAINAGE PLAN☐ CONCEPTUAL GRADING & DRAINAGE PLAN☒ GRADING PLAN☐ EROSION CONTROL PLAN☐ ENGINEER'S CERTIFICATION

of Revision
Revision For Report
(J21-D21)

CHECK TYPE OF APPROVAL SOUGHT:

☐ SKETCH PLAT APPROVAL☐ PRELIMINARY PLAT APPROVAL☐ SITE DEVELOPMENT PLAN APPROVAL☐ FINAL PLAT APPROVAL☒ BUILDING PERMIT APPROVAL☐ FOUNDATION PERMIT APPROVAL☐ CERTIFICATE OF OCCUPANCY APPROVAL☐ ROUGH GRADING PERMIT APPROVAL☐ GRADING/PAVING PERMIT APPROVAL☐ OTHER _____ (SPECIFY)DATE SUBMITTED: 1 July 1985BY: Robert F. Sykes

WILSON
& COMPANY
ENGINEERS
ARCHITECTS

505 245-5345

ENGINEERS
ARCHITECTS
PLANNERS

Office Location... 5611 GULTON CT., N.E. ■ ALBUQUERQUE, NEW MEXICO 87109

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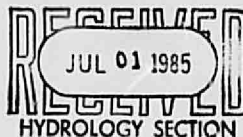
Mailing Address... P.O. BOX 3548

■ ALBUQUERQUE, NEW MEXICO 87100

1 July 1985

Mr. Carlos Montoya
Design Hydrology Section
City of Albuquerque
P. O. Box 1293
Albuquerque, NM 87103

Re: Revised Drainage & Grading Plan
Sandra Plaza
(J21-D21)
WCEA File: 85-510



Dear Mr. Montoya:

Enclosed is revised grading plan for the proposed Sandra Plaza Retail Center. I believe I have made the required revisions.

The developer for Sandra Plaza has received approved alley grades and is now in the process of obtaining a license to pave the alley from his north property line south to Princess Jeanne Avenue. This is project 2468.

I will be glad to answer any questions you may have.

WILSON & COMPANY

A handwritten signature in dark ink, appearing to read "Robert F. Sykes".

Robert F. Sykes, P.E.
Partner

Enc.

-nab



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

DESIGN HYDROLOGY SECTION
123 Central NW, Albuquerque, NM 87102
(505) 766-7841

July 11, 1985

Robert F. Sykes, P.E.
Wilson & Company Engineers & Architects
Post Office Box 3548
Albuquerque, New Mexico 87190

RE: REVISED DRAINAGE AND GRADING PLAN FOR SANDRA PLAZA
(J-21/D21) RECEIVED JULY 1, 1985

Dear Mr. Sykes:

Based on the information provided on the referenced plan dated June 29, 1985, approval is given for building permit sign-off.

If you have any questions or comments regarding this project, please call me at 766-7644.

Cordially,

Carlos A. Montoya, P.E.
City/County Floodplain Administrator

BJM:CAM/bsj

MUNICIPAL DEVELOPMENT DEPARTMENT

C. Dwayne Sheppard, P.E., City Engineer

ENGINEERING DIVISION

Telephone (505) 766-7487

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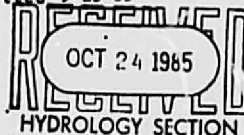
D.R.B. Case No. 85-686
D.R.C. Project No.
Date Submitted 9-25-85

521/021

Figure 11

EXHIBIT "D"
to Subdivision Improvements Agreement

D.R.B. REQUIRED INFRASTRUCTURE LISTING
for Replat of Tract B-2A, Block 76A - Princess Jeanne Park Add.



Following is a summary of Public/Private Infrastructure required to be constructed or financially guaranteed to be constructed for the above development.

Size	*Type Improvement	Location	From	To
DR. DETERMINED AT DEC	Wateline	Along Juan Tabo Blvd.	South Property Line	North Property Line
6"	PRIVATE Fireline	Along S. Property Line	Juan Tabo Blvd.	213' W. to Fire Hydrant
6"	PRIVATE Fireline	Along N. Property Line	Juan Tabo Blvd.	200' W. & 24' South to Fire Hydrant
6'	Sidewalk	Along Juan Tabo Blvd.	South Property Line	North Property Line
2'	Concrete Roundup	Along S. Property Line	West Property Line	23' East of N. Property Line
FIRE HYDRANTS PER DPM REQUIREMENTS				

This Instructional Information may be deleted from official listings

* Types may include Arterial Paving, Residential Paving, Water Line, Sanitary Sewer, Storm Sewer, Drainage Channel, Sidewalks, and Retaining Walls. Any non-standard design or waivers must be clearly described in this listing.

Use additional sheets as necessary to complete the listing. The final page must be signed by the preparer and provide signature spaces for DRB members, as illustrated below.

Prepared by: Howard M. Kaplan
Print Name Howard M. Kaplan
Firm Wilson & Co.

Page 1 of 1

Development Review Board Member Approvals

Arthur R. [Signature] 10/22/85 Traffic Date
John E. Fitzgibbon 10/22/85 WRD Date
[Signature] 10/22/85 Parks & Rec. Date
Richard D. [Signature] 10/22/85 City Eng./AIA/PCA Date
DRB Chairman Date

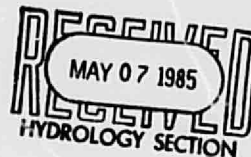
ENGINEER'S DRAINAGE REPORT

SANDRA PLAZA

TRACT B-2A
BLOCK 76-A
DALE J. BELLAMAH'S
PRINCESS JEANNE PARK ADDITION

ZONE MAP J-21

WILSON & COMPANY
ENGINEERS & ARCHITECTS
P. O. BOX 3548
ALBUQUERQUE, NEW MEXICO 87190



APRIL 1985
(85-510)

WILSON
COMPANY
ENGINEERS
ARCHITECTS

ENGINEER'S DRAINAGE REPORT

PURPOSE & SCOPE

The Owner is planning to develop the 2.34 acres as an office, small shops and restaurant complex along the north and west side of the property.

SITE LOCATION & TOPOGRAPHY

The site is Tract B-2A, Block 76-A, Princess Jeanne Park Addition located on the west side of Juan Tabo between Princess Jeanne Avenue and Haines Avenue. The property is zoned C-1.

The project site is not located within a designated flood hazard area.

From USDA Soil Conservation Service Bernalillo County Soil Map, the project site soils are classified Tijeras gravely fine loam with a one to five percent slope (TgB) and Embudo-Tijeras complex with zero to nine percent slope (EtC). Both soil series are in the hydrologic soil group B.

DESIGN CRITERIA

The Rationale Method is used to compute the design flows using the criteria outlined in Volume 2, City of Albuquerque Development Procedure Manual. A runoff coefficient of 1.0 is used since almost all surface area is pavement or roof.

OFF-SITE DRAINAGE

There is no off-site drainage flowing onto the site. All flows from the east are intercepted by Juan Tabo Boulevard and conveyed south in the street to the existing storm drainage system.

ON-SITE DRAINAGE

The attached grading plan depicts proposed elevations and drainage pattern. It is proposed to drain all storm-water runoff to the southwest corner of the property and discharge to a proposed alley which the developer of the site will improve from his north property line to Princess Jeanne Avenue. The capacity of the proposed flume along the south side of the building is 13.42 cfs. The required capacity is 12.21 cfs. The flow capacity of the proposed alley section is 18.19 cfs.

FLOODPLAIN

The project site discharges to Princess Jeanne Avenue which in turn discharges to the intersection of Bellamah Avenue and Morris Street, which is within the designated floodplain. We went to the field and shot cross sections of Bellamah Avenue and Morris Street. The capacity of Morris Street flowing at property line is 130 cfs. The capacity at elevation 95.0 (assumed) is 198 cfs. When water reaches elevation 95.0 it breaks over a ridge and flows east. The capacity of Bellamah Avenue east of Morris Street flowing at elevation of 96.62 is 297 cfs. The City of Albuquerque Master Drainage Study indicates a 100-year peak flow of 257 cfs along Morris Street from Indian School to Bellamah (Area 7-AP1901). From Constitution to Lomas along Morris Street the 100-year peak flow is 211 cfs (Area 7-AP2101). The study recommends the construction of a storm drain along Morris Street. The proposed improvements have not been scheduled as a part of the City's Capital Improvement Plan.

The flow at Morris and Bellamah, Morris and Constitution and Morris and Ralph goes south and when it reaches a depth of 3 to 4 inches it then breaks both south and west. The grades to the west are 3 percent or greater.

Assuming our flow from the developed site increases the flow in Bellamah 8 cfs and assuming 50% of the flow in Morris Street is coming down Bellamah Avenue, the flow would increase from 129 cfs to 137 cfs and the increase in depth of flow would be approximately 0.015 foot.

It is my belief the impact of the proposed development on the flooding at the intersection of Morris and Bellamah is insignificant, especially since most of the drainage basin is developed.

COMP. RFS

CK.

DATE

WILSON
COMPANY
ENGINEERS
ARCHITECTSLOC Albuquerque FILE 85-510PROJ SANDRA PLAZA SHEET 1SUBJ DRAIN REPORT OF

Gtr 100yr rainfall - 2.5 inches

 $t_c \leq 10 \text{ min}$

$$i_{100} = 2.5 \times 2.15 = 5.38 \text{ in/hr}$$

$$Q = C i A$$

$$A = 2.34 \text{ Ac}$$

$$C = 0.34$$

$$C = 0.97$$

(undeveloped) Soil Group B.

(95% roof & parking)

Undeveloped flow

$$Q_{100} = C i A$$

$$= 0.34 \times 5.38 \times 2.34$$

$$Q_{100} = 4.28 \text{ cfs}$$

Developed flow

$$Q_{100} = C i A$$

$$= 0.97 \times 5.38 \times 2.34$$

$$Q_{100} = 12.21 \text{ cfs}$$

Runoff @ South End Bldg.

Assume

3' x 6"

$$A = 3 \times 5 = 15 \text{ sq ft}$$

$$WP = 4' \times 1.5$$

$$R = \frac{1.5}{2} = .3750$$

$$\text{slope} = \frac{2.78}{92} = .0302 \text{ ft}$$

$$n = 0.015$$

$$\text{Capacity} = Q = A V = A \frac{1.486}{n} \times 1^{2/3} \times 5^{1/2}$$

$$Q = 15 \times \frac{1.486}{0.015} \times .3750^{2/3} \times .0302^{1/2}$$

$$= 1.50 \times 99.07 \times .52 \times .1738$$

$$Q = 13.42 \text{ cfs}$$

Req 12.21 cfs

COMP. RFS
 CK.
 DATE

WILSON
 & CO. ANY
 ENGINEERS
 ARCHITECTS

LOC. Albuquerque FILE 85-510
 PROJ. SANDRA PLAZA SHEET 2
 SUBJ. DRAINAGE REPT. OF

Capacity Alley

Slope 2.0180

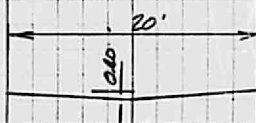
$n = 0.015$

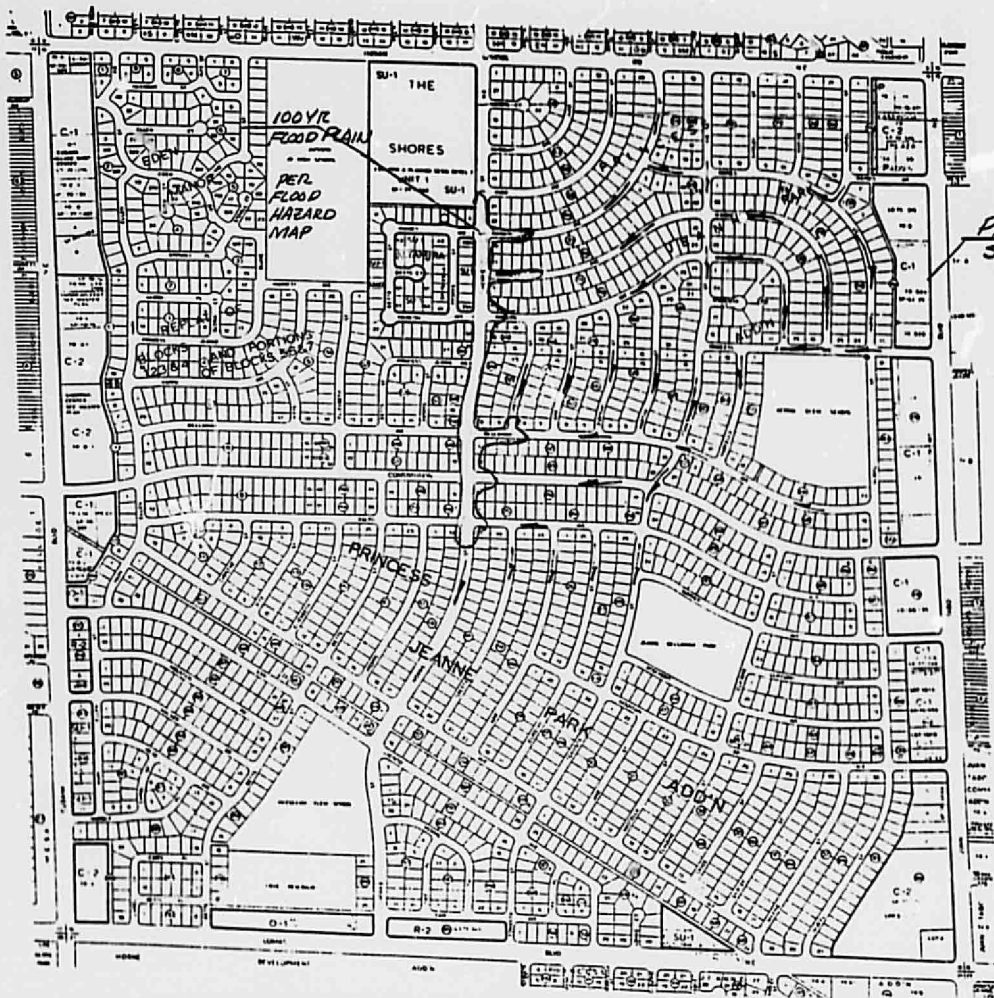
Area $(20 \times 4)(0.50) = 40 \text{ SF}$

$R = \frac{4}{20} = .2000$

$Q_{cap} \cdot AV = A \frac{1.486}{n} \times R^{2/3} \times S^{1/2}$

$Q_{cap} = 4 \times \frac{1.486}{.015} \times .20^{2/3} \times .1342$
 18.19 cfs





J-21-7

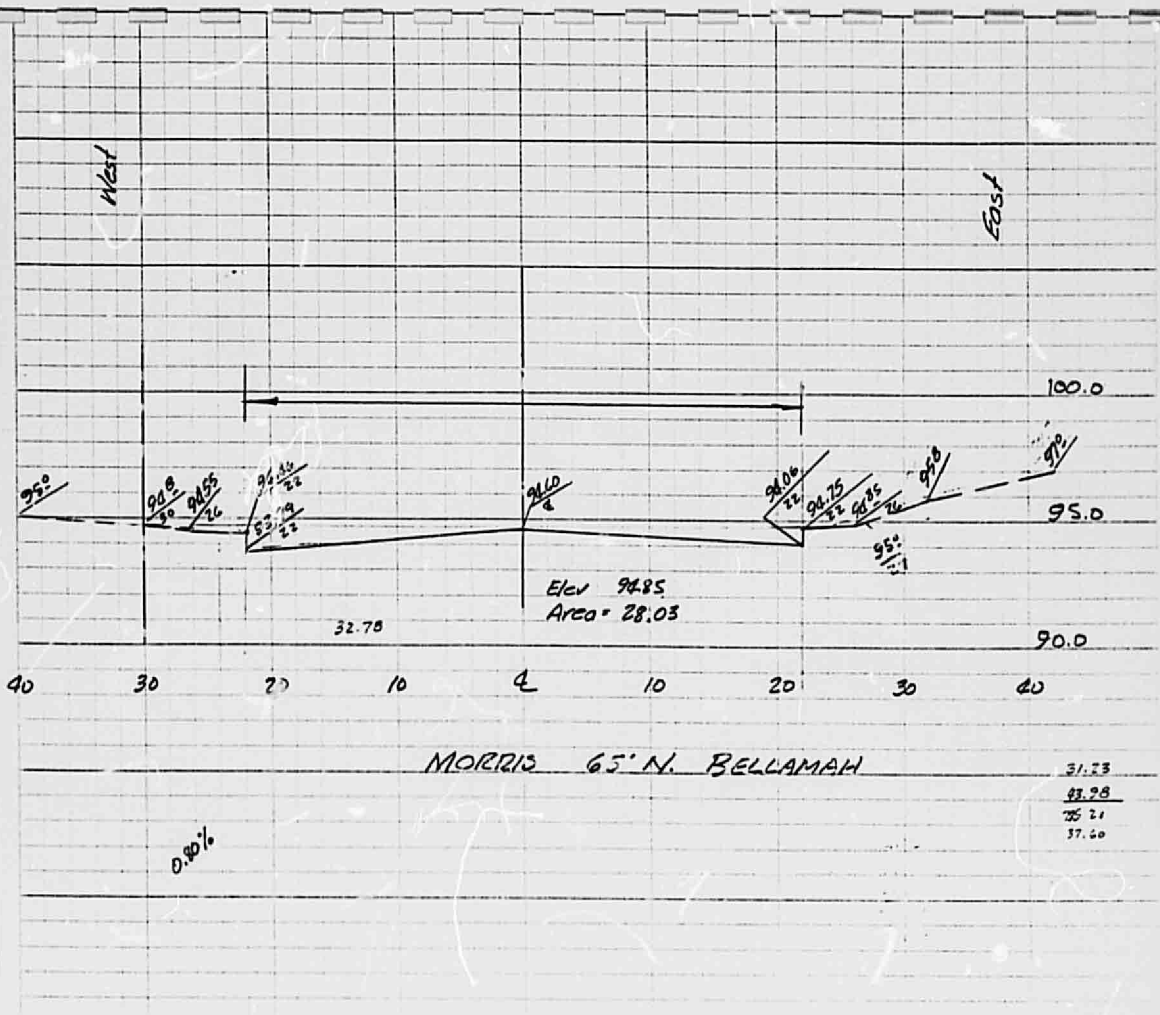
SANDRA PIERA
DR. REPORT
85-510

WILSON
 COMPANY
 ENGINEERS
 ARCHITECTS

LOC. Albuquerque FILE 85-510
 PROJ. SANDEA PLAZA SHEET 4
 SUBJ. DRAINAGE OF PER

RFS

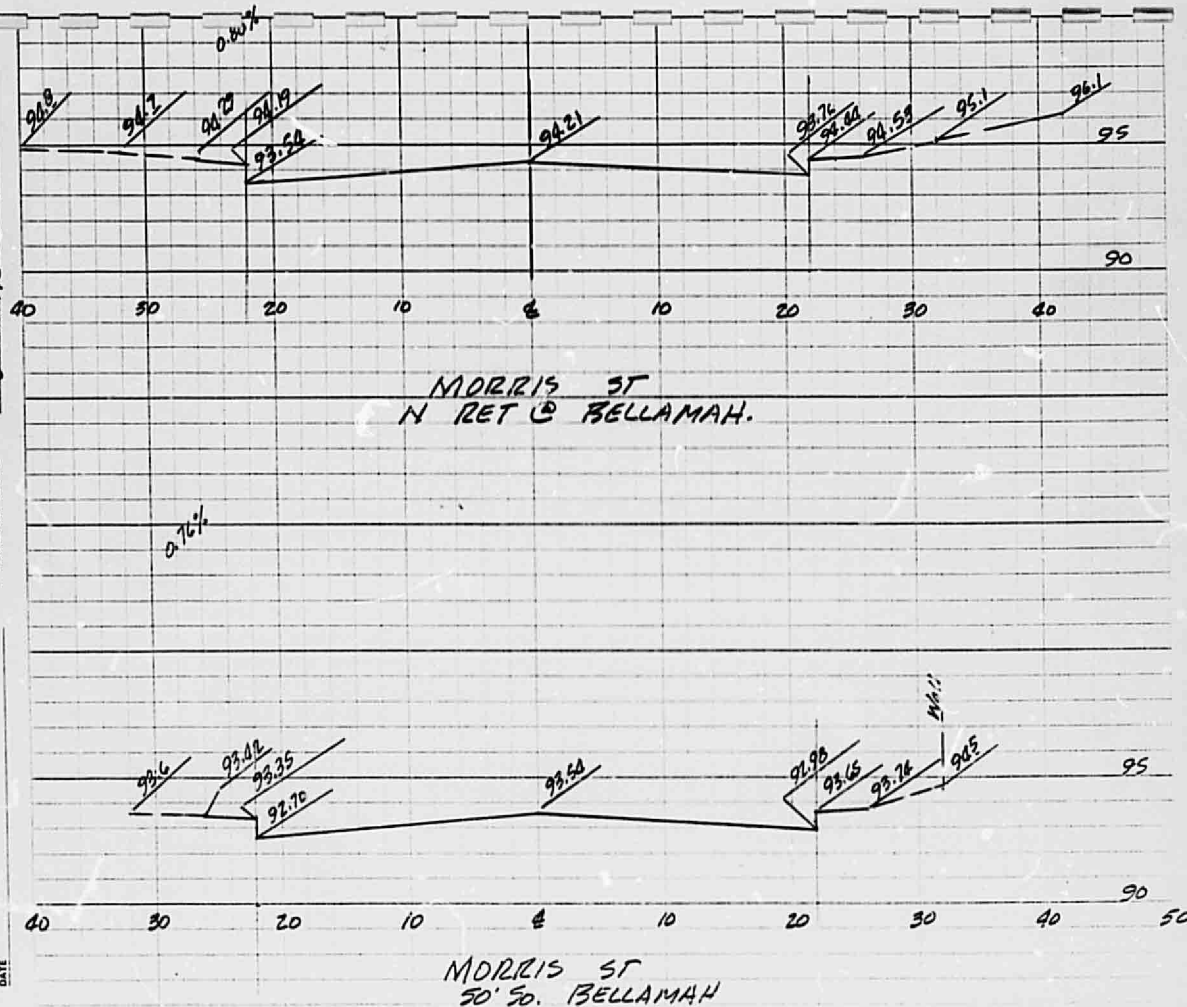
COMP _____
 CHK _____
 DATE _____



LOC. Albuquerque FILE 85-510
 PROJ. SANDRA PARRA SHEET 5
 DRAWN BY DEANAGE RPT. OF

WILSON
 COMPANY
 ENGINEERS
 ARCHITECTS

CLF
 DATE

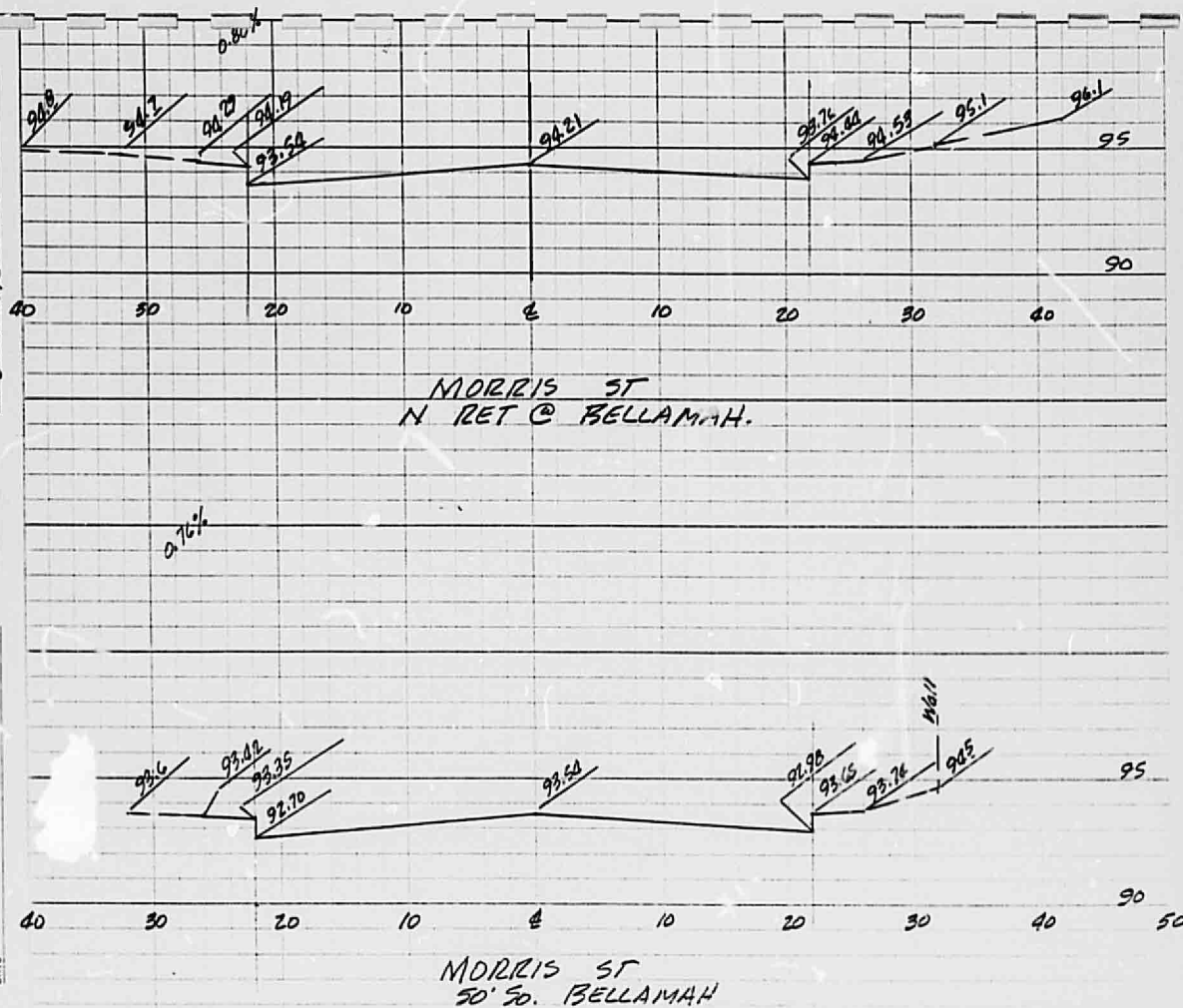


LOC Albuquerque FILE 85-510
 PROJ. ANDREA PIAZA SHEET 5
 SERIAL DRAINAGE RPT. OF

WILSON
 & COMPANY
 ENGINEERS
 ARCHITECTS

REF

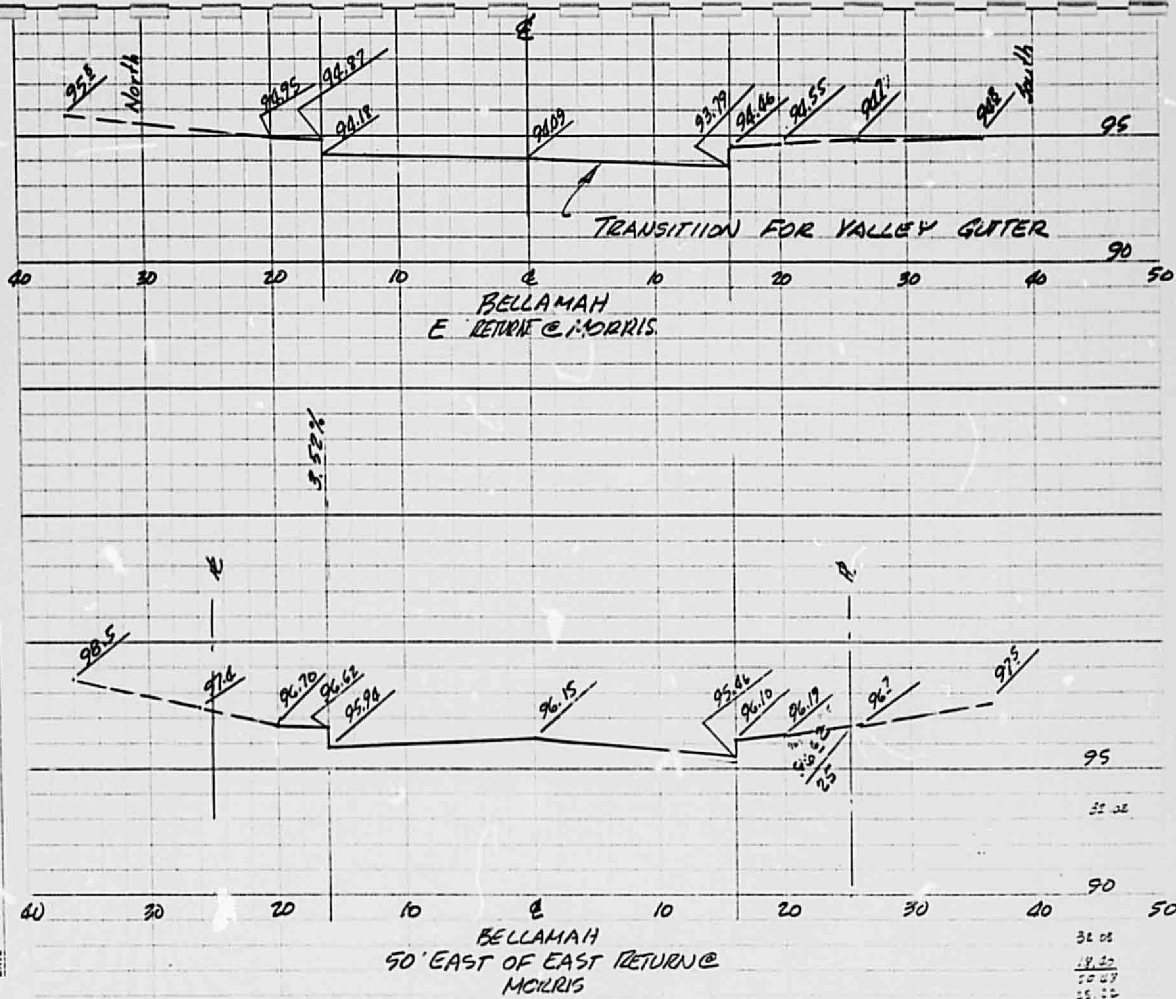
COMP. CK. DATE



LOC Albuquerque FILE 85-510
 PROJ SANDRA PLAZA SHEET C
 SERIAL DRAW REPAIR

WILSON
 & COMPANY
 ENGINEERS
 ARCHITECTS

COMP RFS
 CK
 DATE



32.08
 18.20
 10.07
 25.11

COMP IRB

CK

DATE

WILSON
COMPANY
ENGINEERS
ARCHITECTSLOC AlbuquerquePROJ SANDRA PLAZASUBJ DRAIN REPORTFILE 85-SIDSHEET 7

OF

EXISTING STREET CAPACITIES.

MORRIS ST 65' N BELLAMAH

Capacity @ R 17.0.017 S=0.80% Elev 94.85

Area 28.03 SF

R= 28.03/6.13 = 4.570

$$Q = A \times \frac{1.486}{.017} \times R^{4/3} \times S^{1/2}$$

$$= 28.03 \times 87.41 \times .59 \times .09$$

$$= 130 \text{ cfs}$$

Capacity @ Elev 95.0

Area = 37.60 n=0.017 S=0.80 R= $\frac{37.60}{6.13} = 6.13$.5508 .675

$$Q = A \times \frac{1.486}{.017} \times R^{4/3} \times S^{1/2}$$

$$= 37.60 \times 87.41 \times .67 \times .09$$

$$Q = 198 \text{ cfs}$$

BELLAMAH 50' EAST OF MORRIS

Capacity @ Elev 96.19 (Curb Full - So Side)

Area = 8.61 n=0.017 R= $\frac{8.61}{6.13} = 1.40$.2333 S=.0352

$$Q = A \times \frac{1.486}{.017} \times R^{4/3} \times S^{1/2}$$

$$= 8.61 \times 87.41 \times .38 \times .19$$

$$Q = 54 \text{ cfs}$$

Capacity @ Elev 96.62 R (South Side)

Area = 25.22 n=0.017 R= $\frac{25.22}{6.13} = 4.11$.5958 S=.0352

$$Q = A \times \frac{1.486}{.017} \times R^{4/3} \times S^{1/2}$$

$$= 25.22 \times 87.41 \times .71 \times .19$$

$$Q = 297.38$$

COMP. RFSWILSON
& COMPANY
ENGINEERS
ARCHITECTSLOC AlbuquerqueFILE 85-510

CK.

PROJ. SANDRA PLAZASHEET 8

DATE

SUBJ. DRAIN REPORT

OF

FLOW IN BELLAMAH
50' EAST OF
EAST RETURN & MORRIS

ELEV	AREA	12	5	17	Q _{cap}
96.19	8.61	.2333	.0352	.017	58
96.30	12.66	.3323	.0352	.017	101
96.35	14.50	.3756	.0352	.017	125
96.40	16.43	.4191	.0352	.017	152

ASSUME PROPORTIONAL RATIO

Elev
96.35 to
96.40

$$\frac{.05}{27} = \frac{x}{(129-125)} \cdot \frac{4}{12} \cdot \frac{1}{(137-125)}^{**}$$

$$x = .0074 \text{ ft}$$

$$y = .0222 \text{ ft}$$

1 * 129 = Assumed Flow in Bellamah
 ** 137 = Assumed Flow in Bellamah
 with increase due to
 proposed improvements.

increase in depth of flow due to development

$$\Delta_{inc} = .0222 - .0074 = .0148 \text{ ft} = \frac{3}{16}''$$