

February 8, 2008

Shahab Biazar, P.E.
Advanced Engineering & Consulting
4416 Anaheim Ave. NE
Albuquerque, NM 87114

Re: 8810 Holly Ave. Building # 5,

Approval of Permanent Certificate of Occupancy (C.O.)

Engineer's Stamp dated 12/14/2006 (C-20/D048)

Certification dated 3-10-08

Mr. Biazar:

Based upon the information provided in your submittal received 3/11/2008, the above referenced certification is approved for release of Permanent Certificate of Occupancy by Hydrology.

P.O. Box 1293

If you have any questions, you can contact me at 924-3982.

Albuquerque

Sincerely,

New Mexico 87103

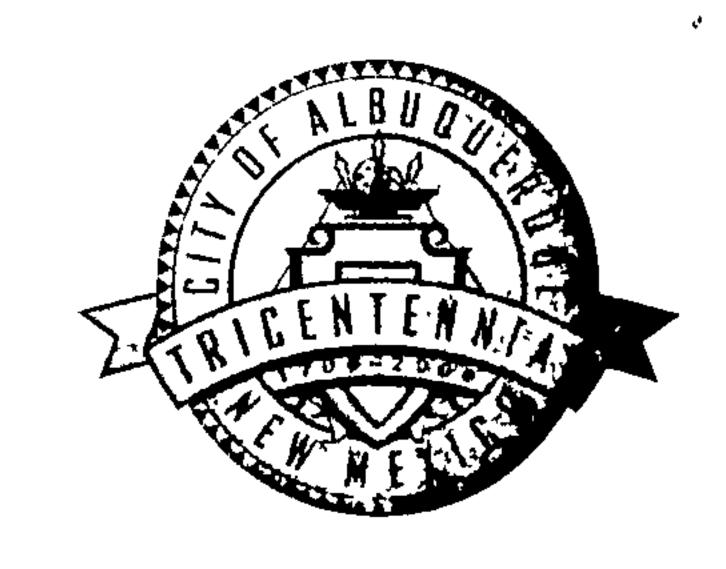
Timothy Sints

Plan Checker-Hydrology, Planning Dept.

Development and Building Services

www.cabq.gov

C: CO Clerk-Katrina Sigala



November 27, 2007

Shahab Biazar, P.E.
Advanced Engineering & Consulting
4416 Anaheim Ave. NE
Albuquerque, NM 87114

Re: 8850 Holly Ave. Building # 2,

Approval of Permanent Certificate of Occupancy (C.O.)

Engineer's Stamp dated 6/12/2006 (C-20/D048)

Certification dated 11/26/2007

Based upon the information provided in your submittal received 11/27/2007, the above referenced certification is approved for release of Permanent Certificate of Occupancy by Hydrology.

P.O. Box 1293

If you have any questions, you can contact me at 924-3982.

\$incerely,

Albuquerque

Timothy Sims

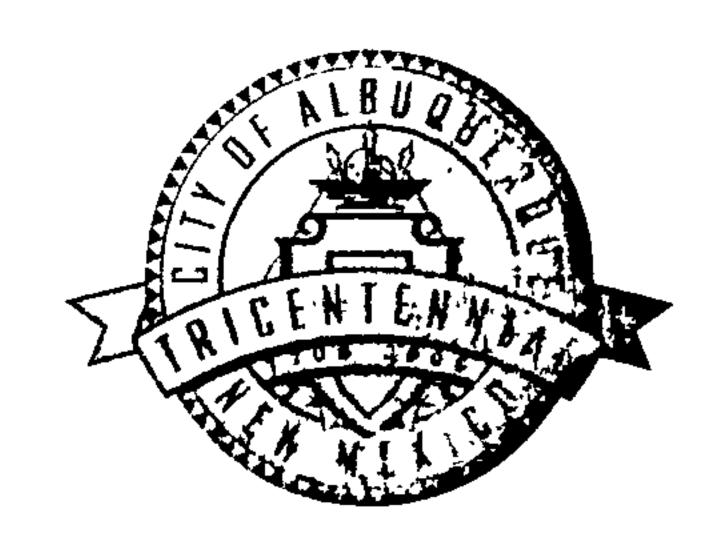
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New Mexico 87103

Plan Checker-Hydrology, Planning Dept. Development and Building Services

www.cabq.gov

C: CO Clerk-Katrina Sigala



April 18, 2007

Shahab Biazar, P.E.
Advanced Engineering & Consulting
4416 Anaheim Ave. NE
Albuquerque, NM 87114

Re: 8810 Holly Ave. Building #3,

Approval of Permanent Certificate of Occupancy (C.O.)

Engineer's Stamp dated 2/02/2007 (C-18/D039B)

Certification dated 04/16/2007

Based upon the information provided in your submittal received 4/17/2007, the above referenced certification is approved for release of Permanent Certificate of Occupancy by Hydrology.

P.O. Box 1293

If you have any questions, you can contact me at 924-3982.

Sincerely,

Albuquerque

Timothy Sims

New Mexico 87103

Plan Checker-Hydrology, Planning Dept.

Development and Building Services

www.cabq.gov

C: CO Clerk-Katrina Sigala



March 14, 2007

Shahab Biazar, P.E.
Advanced Engineering and Consulting, LLC
4416 Anaheim Ave., NE
Albuquerque, NM 87114

Re: Ventura Place – Buildings 2,3 & 5 Grading Plan Engineer's Stamp dated 2-2-07 (C20/D48)

Dear Mr. Biazar,

Based upon the information provided in your submittal dated 3-12-07, the above referenced plan is approved for Building Permit. Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology.

P.O. Box 1293

Prior to Certificate of Occupancy release, Engineer Certification per the DPM checklist will be required.

Albuquerque

If you have any questions, you can contact me at 924-3695.

New Mexico 87103

1. A

Sincerely,

www.cabq.gov

Curtis A. Cherne, E.I. Engineering Associate, Planning Dept. Development and Building Services

C: file



October 27, 2006

Mr. Shahab Biazar, P.E.

ADVANCED ENGINEERING AND
CONSULTING, LLC

4416 Anaheim Ave. NE
Albuquerque, NM 87113

Re: VENTURA PLACE, BUILDING 4

8910 Holly Ave. NE

Approval of Permanent Certificate of Occupancy (C.O.)

Engineer's Stamp dated 06/12/2006(C-20/D48)

Certification dated 09/13/2006

Dear Shahab:

CO Clerk

File

P.O. Box 1293

Based upon the information provided in your submittal received 10/27/2006, the above referenced certification is approved for release of Permanent Certificate of Occupancy by Hydrology.

Albuquerque

If you have any questions, you can contact me at 924-3982.

New Mexico 87103

www.cabq.gov

Sincerely,

Arlene V. Portillo

Plan Checker, Planning Dept. - Hydrology

Delen U. Portille

Development and Building Services



September 15, 2006

Mr. Shahab Biazar, P.E.

ADVANCED ENGINEERING AND
CONSULTING, LLC

4416 Anaheim Avenue NE
Albuquerque, NM 87114

Re: VENTURA PLACE, BUILDING 1 (JINJA BUILDING)

8900 HOLLY AVENUE NE

Approval of Permanent Certificate of Occupancy (C.O.)

Engineer's Stamp dated 06/12/2006 (C-20/D48)

Certification dated 09/13/2006

P.O. Box 1293 Dear Shahab:

Albuquerque Based upon the information provided in your submittal received 09/15/2006, the above referenced certification is approved for release of Permanent Certificate of Occupancy by Hydrology.

If you have any questions, you can contact me at 924-3982.

Sincerely,

www.cabq.gov

Arlene V. Portillo

Plan Checker, Planning Dept. - Hydrology

Development and Building Services

Releve V Portillo

C: CO Clerk File

Albuquerque Making History 1706-2006



June 16, 2006

Shahab Biazar, P.E.
Advanced Engineering and Consulting, LLC
4416 Anaheim Ave., NE
Albuquerque, NM 87114

Re: Ventura Place Overall Grading and Drainage Plan Engineer's Stamp dated 6-12-06 (C20/D48)

Dear Mr. Biazar,

Based upon the information provided in your submittal dated 6-12-06, the above referenced plan is approved for Building Permit. Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology.

Also, prior to Certificate of Occupancy release, Engineer Certification per the DPM checklist will be required.

This project requires a National Pollutant Discharge Elimination System (NPDES) permit. If you have any questions feel free to call the Municipal Development Department Hydrology Section at 768-3654 (Charles Caruso).

If you have any questions, you can contact me at 924-3695.

Curtis A. Cherne, E.I.

Sincerely, Cutual a- cheme

Engineering Associate, Planning Dept. Development and Building Services

BUD

C: file

Charles Caruso, DMD

www.cabq.gov

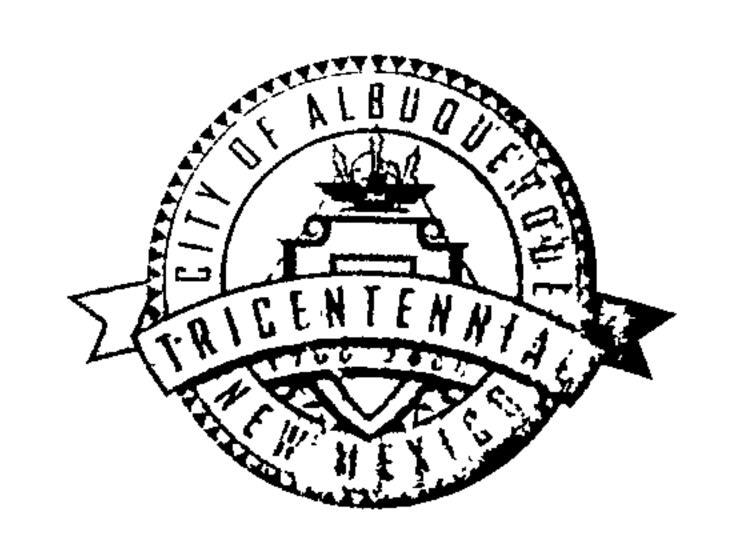
P.O. Box 1293

Albuquerque

New Mexico 87103

-Albuquerque - Making History 1706-2006

CIII OF ALBUQUERQUE



May 31, 2006

Shahab Biazar, P.E.
Advanced Engineering and Consulting, LLC
4416 Anaheim Ave., NE
Albuquerque, NM 87114

Re: Ventura Place Overall Grading and Drainage Plan Engineer's Stamp dated 5-8-06 (C20/D48)

Dear Mr. Biazar,

C:

file

Charles Caruso, DMD

Based upon the information provided in your submittal dated 5-9-06, the above referenced plan is approved for Building Permit. Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology.

Also, prior to Certificate of Occupancy release, Engineer Certification per the DPM checklist will be required.

This project requires a National Pollutant Discharge Elimination System (NPDES) permit. If you have any questions feel free to call the Municipal Development Department Hydrology Section at 768-3654 (Charles Caruso).

If you have any questions, you can contact me at 924-3695.

Curtis A. Cherne, E.I.

Sincerely,

Engineering Associate, Planning Dept.

Development and Building Services

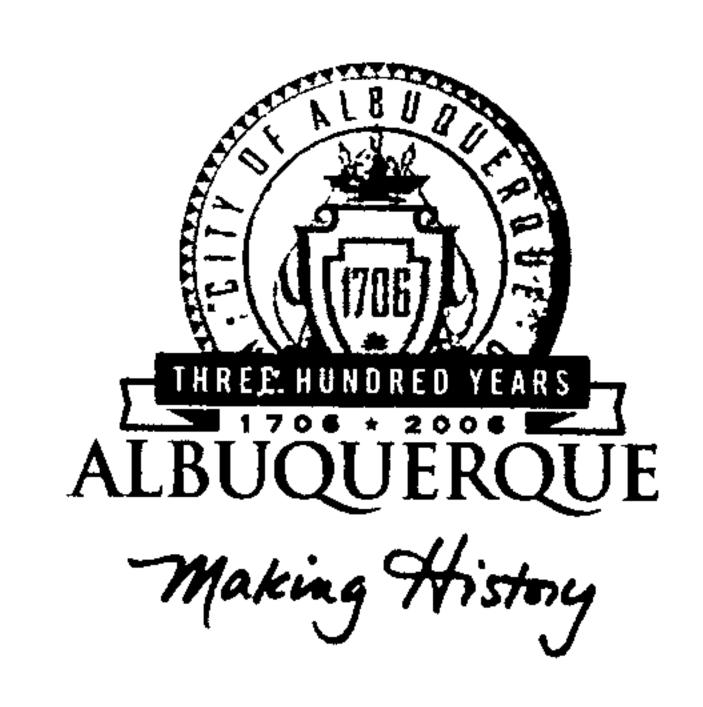
BUD

P.O. Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov



December 13, 2005

Mr. Shahab Biazar, P.E.

ADVANCED ENGINEERING AND
CONSULTING, LLC

4416 Anaheim Ave. NE
Albuquerque, NM 87113

Re: VENTURA PLACE, LOT 4, (TRADER JOE'S)

8928 Holly Ave. NE

Approval of Permanent Certificate of Occupancy (C.O.)

Approved Engineer's Stamp dated 06/28/2005

Submitted Engineer's Stamp dated 06/01/2005 (C-20/D48)

Certification dated 12/08/2005

P.O. Box 1293

Dear Shahab:

Albuquerque

Based upon the information provided in your submittal received 12/13/2005, the above referenced certification is approved for release of Permanent Certificate of Occupancy by Hydrology.

Sincerely,

New Mexico 87103

If you have any questions, you can contact me at 924-3982.

www.cabq.gov

Orlene V Portillo

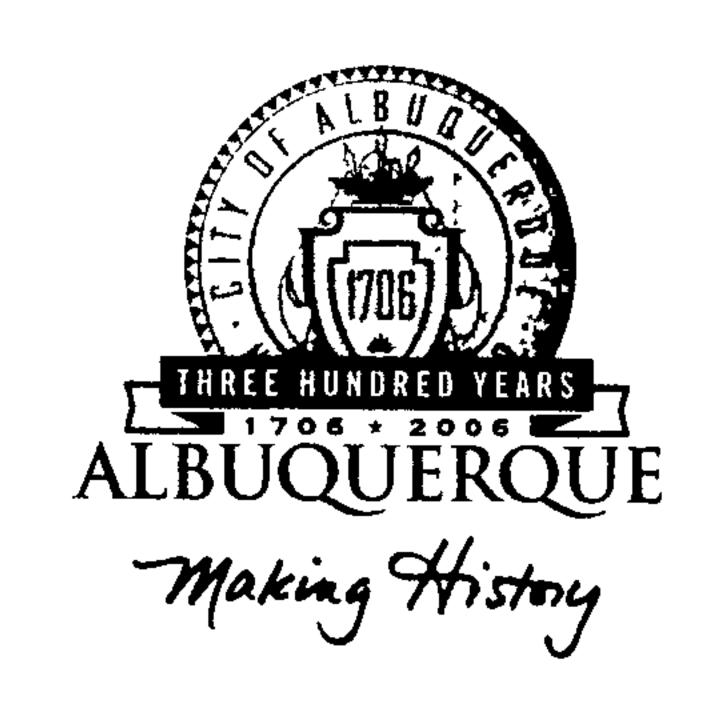
Arlene V. Portillo

Plan Checker, Planning Dept. - Hydrology

Development and Building Services

C:

CO Clerk



August 24, 2005

Mr. Shahab Biazar, P.E.

ADVANCED ENGINEERING AND
CONSULTING, LLC

4416 Anaheim Ave. NE
Albuquerque, NM 871113

Re: VENTURA PLACE, LOT 4

8920 Holly Ave. NE

Approval of Permanent Certificate of Occupancy (C.O.)

Engineer's Stamp dated 04/09/2004 (C-20/D48)

Certification dated 08/24/2005

Dear Shahab:

P.O. Box 1293

Based upon the information provided in your submittal received 08/24/2005, the above referenced certification is approved for release of Permanent Certificate of Occupancy by Hydrology.

Albuquerque

If you have any questions, you can contact me at 924-3982.

New Mexico 87103

www.cabq.gov

Sincerely,

Arlene V. Portillo

Plan Checker, Planning Dept. - Hydrology

Development and Building Services

C: Phyllis Villanueva



July 15, 2005

Shahab Biazar, P.E.
Advanced Engineering & Consulting, LLC
4416 Anaheim Ave. NE
Albuquerque, NM 87113

Re: Ventura Place, Lots 1 thru 6, Ventura Place, Grading & Drainage Plan Engineer's Stamp dated 6-28-05 (C20-D48)

Dear Mr. Biazar,

Based upon the information provided in your submittal dated 6-28-05, the above referenced plan is approved for Building Permit. Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology. Additionally, prior to release of the Certificate of Occupancy an Engineer's Certification of the grading plan per the DPM checklist will be required.

P.O. Box 1293

This project requires a National Pollutant Discharge Elimination System (NPDES) permit. Refer to the attachment that is provided with this letter for details. If you have any questions please feel free to call the Municipal Development Department Hydrology section at 768-3654 (Charles Caruso).

Albuquerque

New Mexico 87103

If you have any questions, you can contact me at 924-3990.

Sincerely,

www.cabq.gov

Phillip J. Lovato, E.I., C.F.M.

Engineering Associate, Hydrology,

Development and Building Services,

Planning Department

cc: Charles Caruso, DMD

file



January 27, 2005

Mr. Shahab Biazar, PE ADVANCED ENGINEERING AND CONSULTING, LLC 10205 Snowflake Ct. NW Albuquerque, NM 87114

RE: VENTURA PLACE (C-20/D48)

Engineers Certification for Release of Financial Guaranty

Engineers Stamp dated 02/19/2004

Engineers Certification dated 01/24/2005

Dear Shahab:

Based upon the information provided in your Engineer's Certification Submittal dated 01/27/2005, the above referenced plan is adequate to satisfy the Grading and Drainage Certification for Release of Financial Guaranty.

If you have any questions, you can contact me at 924-3982

Albuquerque

P.O. Box 1293

Ulene V. Portiblo

Sincerely,

New Mexico 87103

Arlene V. Portillo

Plan Checker, Planning Dept.- Hydrology Development and Building Services

www.cabq.gov

Marilyn Maldonado, COA# 719981

File !



City of Albuquerque P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

April 9, 2004

Shahab Biazar PE
Advanced Engineering and Consulting
10205 Snowflake Ct NW
Albuquerque, NM 87114

Re: Lot 4, Ventura Place Grading and Drainage Plan

Engineer's Stamp dated 4-9-04 (C20/D48)

Dear Mr. Biazar,

Based upon the information provided in your submittal dated 4-9-04, the above referenced report is approved for Building Permit. Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology.

This project requires a National Pollutant Discharge Elimination System (NPDES) permit. Refer to the attachment that is provided with this letter for details. If you have any questions please feel free to call the Municipal Development Department, Hydrology section at 768-3654 (Charles Caruso) or 768-3645 (Bryan Wolfe).

Prior to Certificate of Occupancy release, Engineer Certification per the DPM checklist will be required.

If you have any questions, you can contact me at 924-3986.

Sincerely,
Brads 2. BM

Bradley L. Bingham, PE

Principal Engineer, Planning Dept.

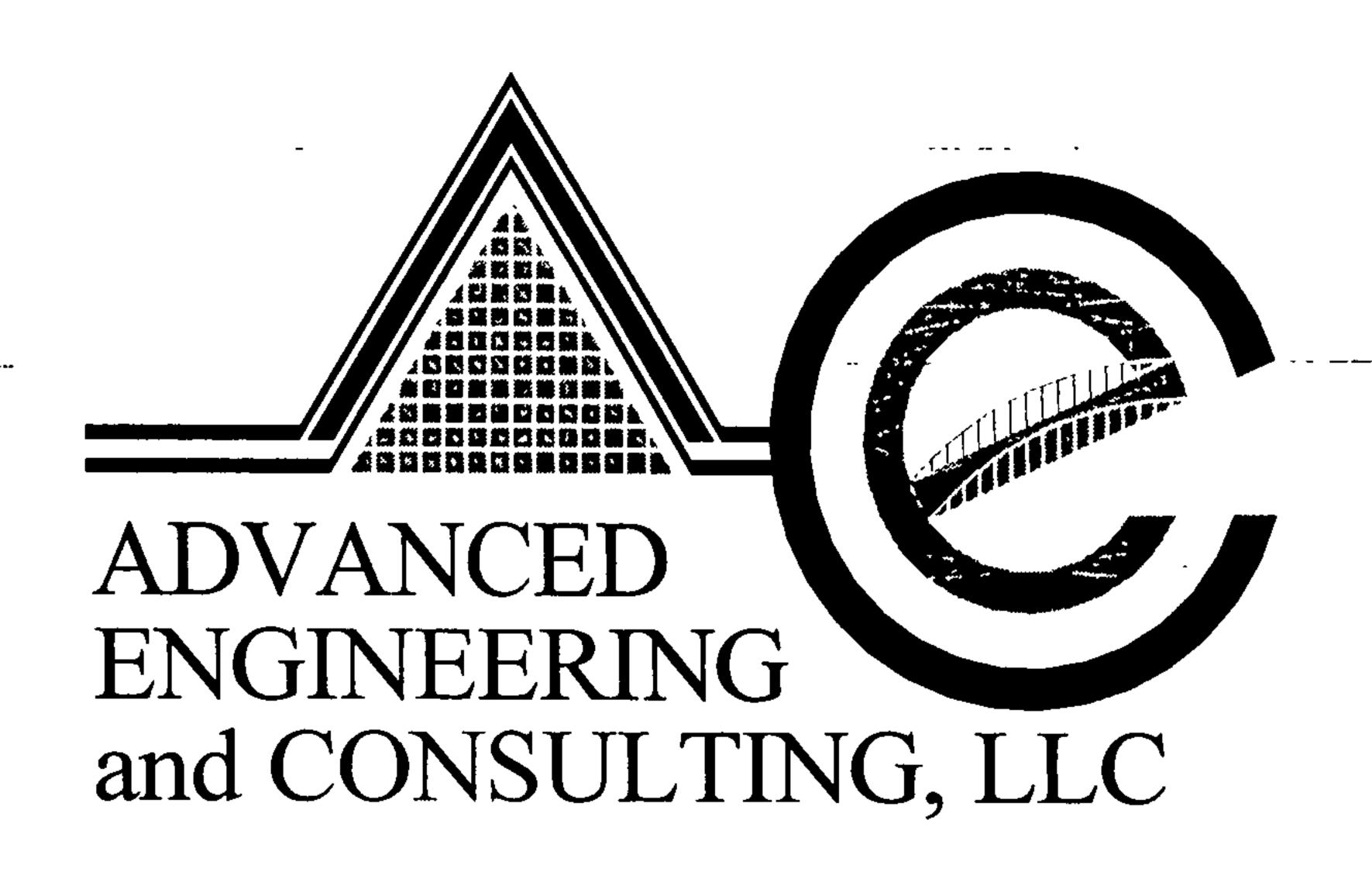
Development and Building Services

C: Chuck Caruso, CoA file

DRAINAGE REPORT FOR

VENTURA PLACE DRAINAGE BASIN MODIFICATIONS

Prepared by:



4416 Anaheim Avenue, NE
Albuquerque, New Mexico 87113

February, 2004



Shahab Biazar PE NO. 13479

Location

Ventura Place is located at the southwest corner of Ventura Street and Holly Avenue.

The site contains approximately 10 acres. See attached Zone Atlas page number C-20 for exact location.

Purpose

The purpose of this drainage report is to present a grading and drainage solution for the proposed sites. We are requesting rough grading approval, site development plan for subdivision purposes, site development plan for building permit, final plat and building permit approval.

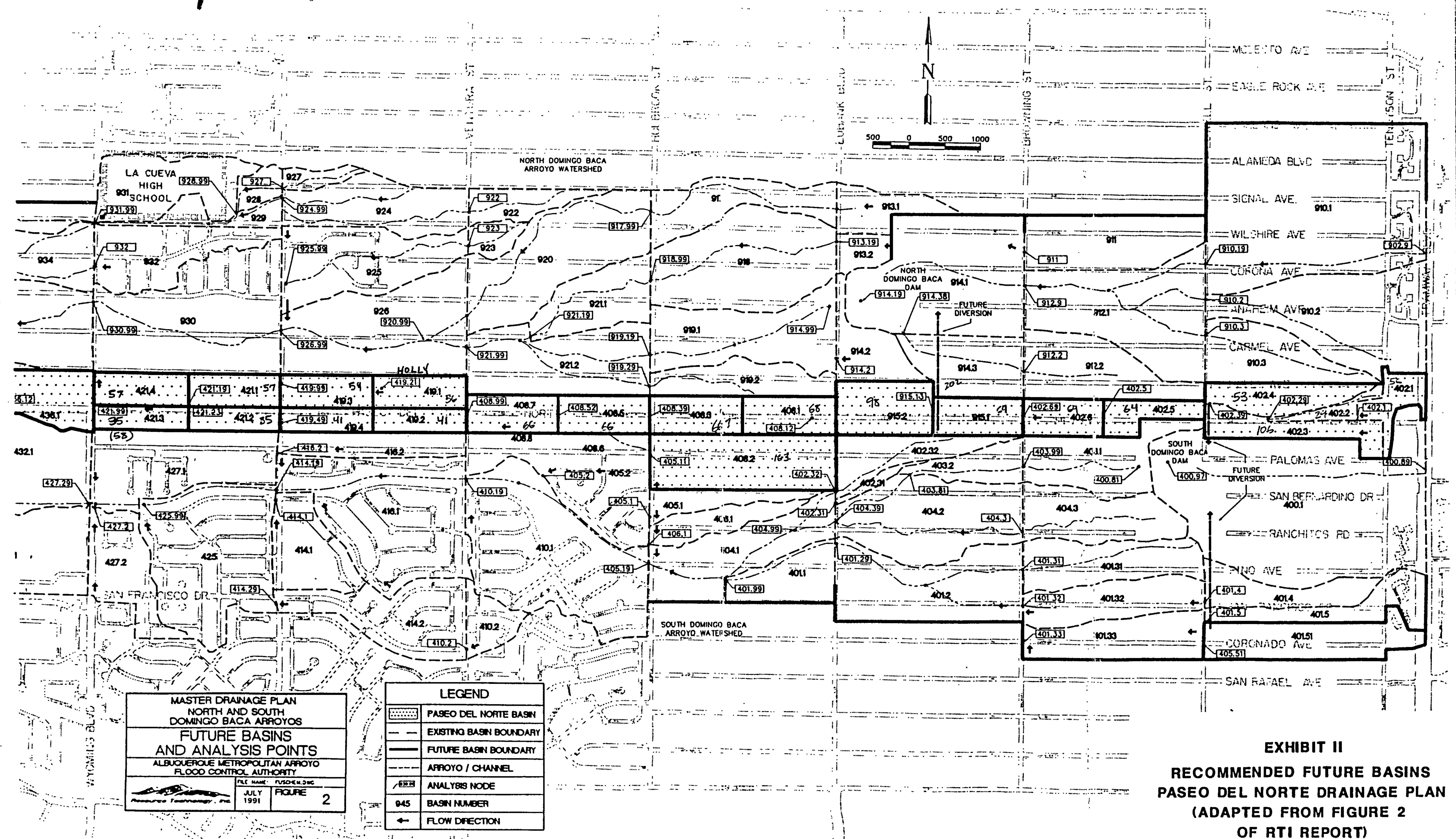
Existing Drainage Conditions

The site drains east to west and then to north to Holly Avenue. From the east and the south (Ventura Street and Paseo Del Norte right-of-way) there is an offsite basin that drains to this site. Based on the revised FIRM map 35001C0141 E (revised April 2, 2002) the site no longer falls within a 100-year floodplain.

Proposed Conditions and On-Site Drainage Management Plan

The offsite runoff (4.50 cfs) will continue to drain to this site. Ventura Place falls within basin 419.10 of RTI's Master Drainage Map, which was adopted by AVID engineering when they prepared the drainage report for the Paseo Del Norte right-of-way improvements. See attached RTI's basin map from AVID's drainage report for Paseo Del Norte construction. Therefore, Ventura Place under the developed conditions will drain to Paseo Del Norte storm sewer system. The runoff from on-site along with the runoff from offsite (at the total runoff discharge of 53.78 cfs) drains to the west end of the property. From there the runoff is intercepted by two drop inlets and then discharge via a 30" storm sewer pipe to an exiting inlet located on the north side of the Paseo Del Norte. Then from there the runoff will drain south to the 72" storm sewer pipe. One inlet is located at the loading area (just east of the most westerly entrance) where it would collect the runoff, and then drain it to the inlets located on the west end of the property via a 18" pipe. The inlets each will have a drainage capacity of 51.75 cfs in sump conditions. A drainage channel (3' wide by 2' deep) is designed for emergency overflow, where the runoff will drain north along the westerly boundary to two sidewalk culverts along Holly Avenue. The runoff from the Holly Avenue will continue to drain west. The runoff from Holly Avenue was analyzed under the City Drainage number C20/D34, prepared by Jeff Mortensen and Assoc. Inc. Based on the Mortensen report it was determined that the runoff at west end of the Lot 26 is 22.10 cfs. They also had proposed that the runoff would be intercepted by storm sewer inlets once Lot

For Info. Only



26 is developed. See copy of the Jeff Mortensen Analysis Plan located in the map pocket. We have analyzed the drainage capacity of Holly to be at a flow rate of 72.00 cfs which is considerably larger than the proposed flows in Holly. Therefore, storm sewer inlets are needed at this time to intercept the runoff in Holly. Due to recent developments along Holly, considerable amount runoff has be diverted away from Holly.

Calculations

City of Albuquerque, Development Process Manuel, Section 22.2, Hydrology Section, revised January, 1993, was used for runoff calculations. See this report for Summary Table for runoff results. See also this report for AHYMO input and output files for runoff and other calculations.

RUNOFF CALCULATION RESULTS

| BASIN | AREA (SF) | AREA (AC) | AREA (MI ²) |
|---------|-----------|-----------|-------------------------|
| ON-SITE | 449389.14 | 10.3166 | 0.016120 |
| OFFSITE | 75368.20 | 1.7302 | 0.002703 |

PROPOSED

| BASIN | Q-100 | Q-10 | TREATMENT |
|---------|-------|-------|------------------|
| | CFS | CFS | A, B, C, D |
| ON-SITE | 49.28 | 32.14 | 0%, 10%, 0%, 90% |
| OFFSITE | 4.50 | 2.02 | 0%, 100%, 0%, 0% |

EXISTING / HISTORICAL

| BASIN | Q-100 | Q-10 | TREATMENT |
|---------|-------|------|------------------|
| | CFS | CFS | A, B, C, D |
| ON-SITE | 19.31 | 5.78 | 100%, 0%, 0%, 0% |
| OFFSITE | 4.50 | 2.02 | 0%, 100%, 0%, 0% |

RUNOFF DRAINAGE DATA

The site is @ Zone 3

DEPTH (INCHES) @ 100-YEAR STORM

 $P_{60} = 2.14$ inches

 $P_{360} = 2.60 \text{ inches}$

 $P_{1440} = 3.10 \text{ inches}$

DEPTH (INCHES) @ 10-YEAR STORM

 $P_{60} = 2.14 \times 0.667$ = 1.43 inches

 $P_{360} = 1.73$

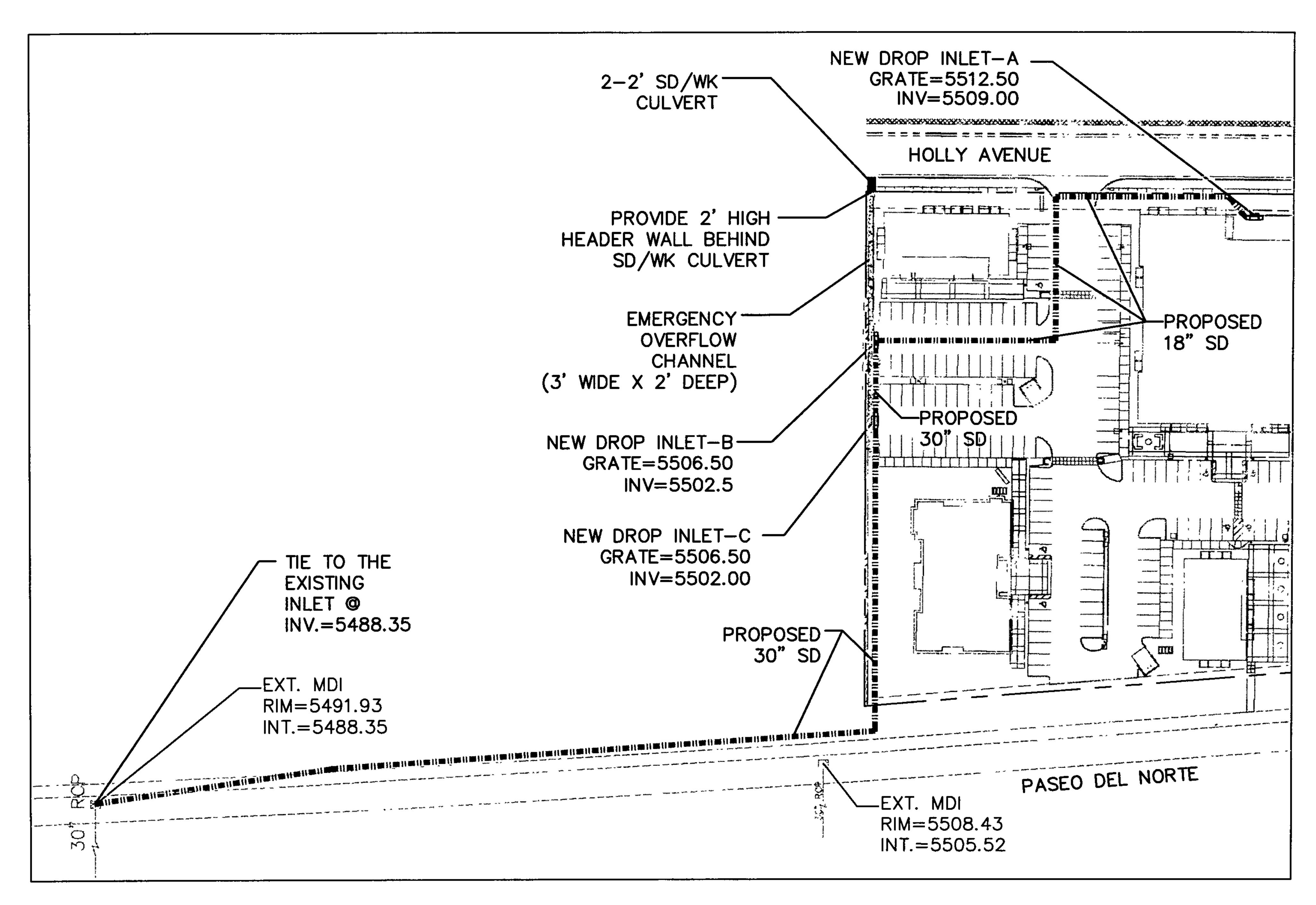
 $P_{1440} = 2.07$

See the summary output from AHYMO calculations.

Also see the following summary tables.

SUMMARY OUTPUT FILE

| AHYMO PROGRA | | TABLE (| AHYMO_ | 97) - | | - | VERSION: | 1997.02d | RUN DATE USER NO.= | | /YR) =08/0 9702c01000 | • |
|--------------|----------|---------|----------|----------|-----------------|-----------|----------|------------|-----------------------|-------|--------------------------|-------|
| | HVDD | | FROM | TO | ת כיו כיו א | PEAK | RUNOFF | | TIME TO | CFS | PAGE = | 1 |
| | IDENTIFI | CATION | ID NO | ID NO | AREA (SO MI) | DISCHARGE | VOLUME | | PEAK | PER | MAN | 017 |
| COMMAND | IDENITEI | CALLON | NO. | NO. | (SQ MI) | (CFS) | (AC-FT |) (INCHES) | (HOURS) | ACRE | NOTATI | ON |
| START | | | | | | | | | | | TIME= | .00 |
| RAINFALL TY | YPE= 1 | | | | | | | | | | RAIN6= | 2.600 |
| COMPUTE NM F | HYD | 100.00 | _ | 1 | .01612 | 19.31 | .563 | .65514 | 1.533 | 1.872 | PER IMP= | .00 |
| COMPUTE NM I | HYD | 101.00 | - | 1 | .00270 | 4.50 | .133 | .92096 | 1.500 | 2.601 | PER IMP= | .00 |
| START | | | | | | | | | | | TIME= | .00 |
| RAINFALL T | YPE= 1 | | | | | | | | | | RAIN6= | 1.730 |
| COMPUTE NM I | HYD | 110.00 | - | 1 | .01612 | 5.78 | .162 | .18834 | 1.533 | .561 | PER IMP= | .00 |
| COMPUTE NM I | HYD | 111.00 | - | 1 | .00270 | 2.02 | .051 | .35547 | 1.533 | 1.169 | PER IMP= | .00 |
| START | | | | | | | | | | | TIME= | .00 |
| RAINFALL T | YPE= 1 | | | | | | | | | | RAIN6= | 2.600 |
| COMPUTE NM I | HYD | 100.20 | - | 1 | .01612 | 49.28 | 1.902 | 2.21184 | 1.500 | 4.777 | PER IMP= | 90.00 |
| COMPUTE NM I | HYD | 101.20 | - | 1 | .00270 | 4.50 | .133 | .92096 | 1.500 | 2.601 | PER IMP= | .00 |
| START | | | | | | | | | | | TIME= | .00 |
| RAINFALL T | YPE= 1 | | | | | | | | | | RAIN6= | 1.730 |
| COMPUTE NM | HYD | 110.20 | - | 1 | .01612 | 32.14 | 1.188 | 1.38160 | 1.500 | 3.115 | PER IMP= | 90.00 |
| COMPUTE NM I | HYD | 111.20 | - | 1 | .00170 | 1.28 | .032 | .3554 | 1.533 | 1.170 | PER IMP= | .00 |



STORM DRAIN EXHIBIT

Open Channel - Uniform flow

Worksheet Name:

Comment: INLET A TO B

Solve For Actual Discharge

Given Input Data:

| Diameter | 1.50 ft |
|-------------|--------------|
| Slope | 0.0154 ft/ft |
| Manning's n | 0.012 |
| Depth | 1.50 ft |

Computed Results:

| Results: | |
|----------------|--------------|
| Discharge | 14.12 cfs |
| Velocity | 7.99 fps |
| Flow Area | 1.77 sf |
| Critical Depth | 1.38 ft - |
| Critical Slope | 0.0134 ft/ft |
| Percent Full | 100.00 % |
| Full Capacity | 14.12 cfs |
| QMAX @.94D | 15.19 cfs |
| Froude Number | FULL |
| | |

Open Channel Flow Module, Version 3.12 (c) 1990 Haestad Methods, Inc. * 37 Brookside Rd * Waterbury, Ct

Open Channel - Uniform flow

Worksheet Name:

Comment: INLET B TO C

Solve For Actual Discharge

Given Input Data:

2.50 ft Diameter..... 0.0096 ft/ft Slope....... 0.012 Manning's n....

2.50 ft Depth.....

Computed Results:

43.54 cfs Discharge..... 8.87 fps Velocity..... 4.91 sf Flow Area..... 2.20 ft Critical Depth... 0.0086 ft/ft Critical Slope... 100.00 % Percent Full....

43.54 cfs Full Capacity.... 46.83 cfs QMAX @.94D.... FULL

Froude Number....

Open Channel Flow Module, Version 3.12 (c) 1990 Haestad Methods, Inc. * 37 Brookside Rd * Waterbury, Ct

Open Channel - Uniform flow

Worksheet Name:

Comment: INLET C TO EXISTING INLET IN STATE ROW

Solve For Actual Discharge

Given Input Data:

 Diameter.....
 2.50 ft

 Slope.....
 0.0154 ft/ft

 Manning's n....
 0.012

Manning's n.... 0.012 Depth.... 2.50 ft

Computed Results:

55.14 cfs Discharge..... 11.23 fps Velocity..... 4.91 sf Flow Area..... 2.36 ft Critical Depth... 0.0133 ft/ft Critical Slope... 100.00 웅 Percent Full.... 55.14 cfs Full Capacity.... 59.32 cfs QMAX @.94D.....

Froude Number.... FULL

STORM DROP INLET DRAINAGE CAPACITY Double 'A'

Area at the grate:

$$L = 88 \frac{3}{4}" - 2(6"_{ends}) - 6"_{center \, piece} - 14(\frac{1}{2})$$

$$= 63 \frac{3}{4}"$$

$$= 5.3125'$$

$$W = 25 \frac{1}{2}$$
" - $13(\frac{1}{2}$ " middle bars)
= 19"
= 1.5833'

Area =
$$5.3125' \times 1.5833'$$

= 8.41 ft^2

Effective Area =
$$8.41 - 8.41 (0.5_{clogging factor})$$

= 4.21 ft^2 at the grate

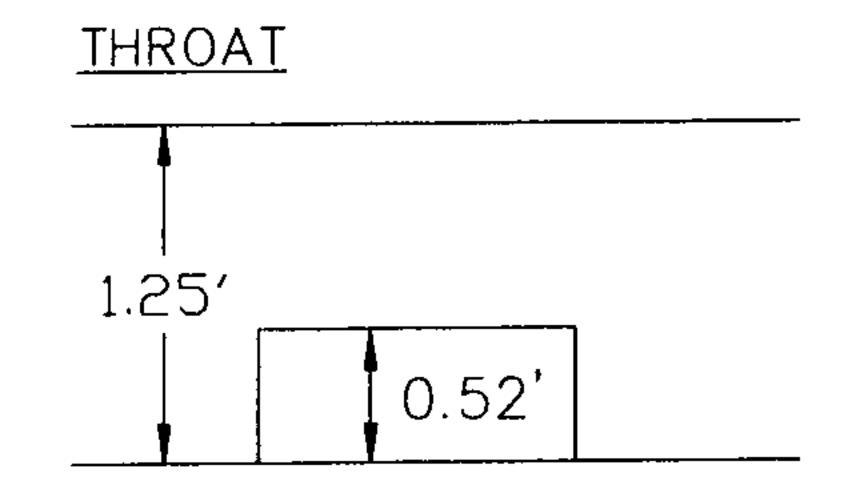
Area at the throat:

$$L = 10.95'$$

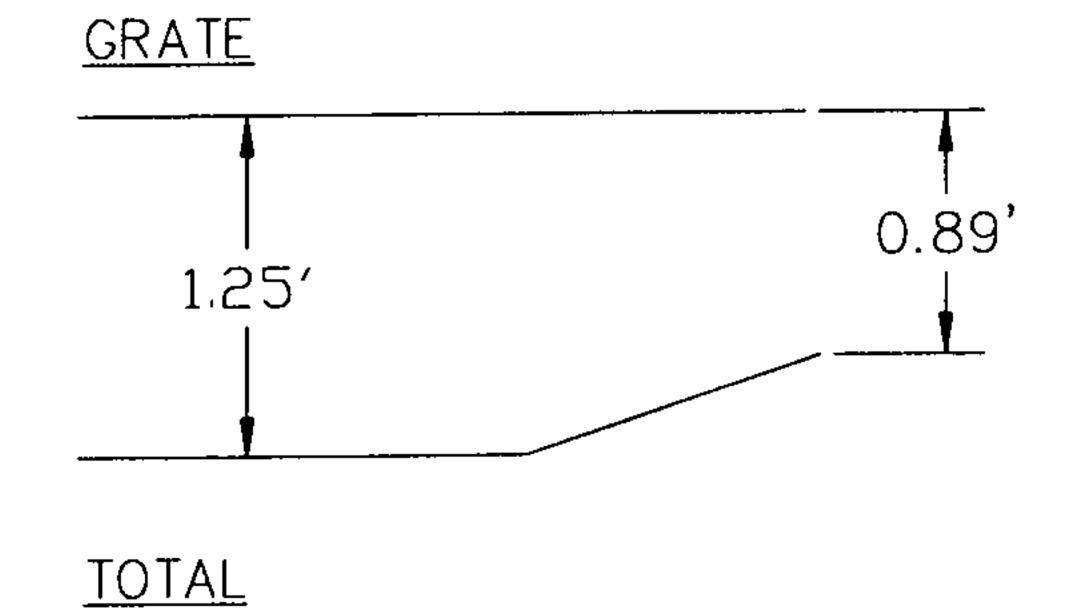
$$H = 10 \frac{3}{4}$$
" - 4 $\frac{1}{2}$ "
= 6 $\frac{1}{4}$ "
= 0.5208'

Area =
$$10.95' \times 0.5208'$$

= 5.70 ft^2 at the throat



H=1.25 Q= $CA\sqrt{2gH}$ Q=0.60(5.70) $\sqrt{2(32.2)(1.25)}$ Q=30 68 CFS



H=(1.25+0.89)/2=1.08 $Q=CA\sqrt{2gH}$ $Q=0.60(4.21)\sqrt{2(32.2)(1.08)}$ Q=21.07 CFS

Q=21.07+30.68=51.75 CFS

Rectangular Channel Analysis & Design Open Channel - Uniform flow

Worksheet Name:

Comment: EMERGENCY OVERLFOW CHANNEL

Solve For Discharge

Given Input Data:

Bottom Width... 3.00 ft Manning's n... 0.012

Channel Slope... 0.0100 ft/ft

Computed Results:

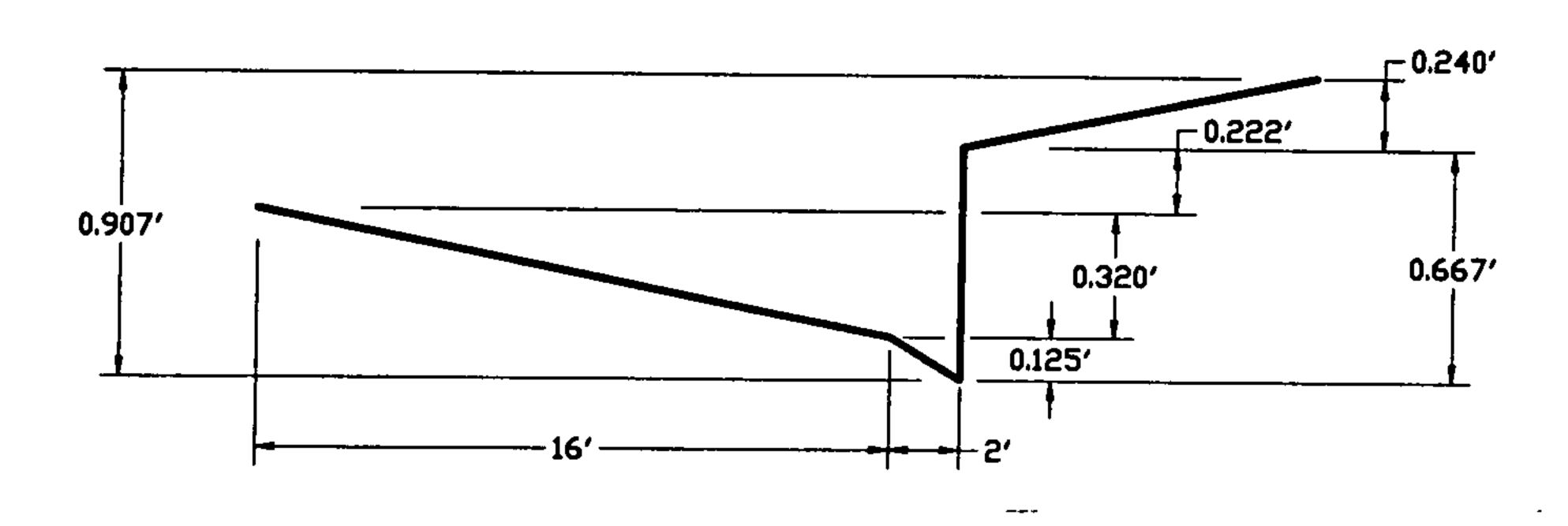
Discharge..... 56.38 cfs
Velocity..... 10.74 fps
Flow Area..... 5.25 sf
Flow Top Width... 3.00 ft
Wetted Perimeter. 6.50 ft
Critical Depth... 2.22 ft

Critical Slope... 0.0054 ft/ft

Froude Number.... 1.43 (flow is Supercritical)

Open Channel Flow Module, Version 3.12 (c) 1990 Haestad Methods, Inc. * 37 Brookside Rd * Waterbury, Ct

STREET FLOW CAPACITY 60 ROW / 36 F-F



HALF STREET SECTION

FINDING STREET CAPACITY

 $Q = 1.49 / n A (A/P)^{2/3} S^{1/2}$

n =

0.017

SLOPE = 0.02400

V = VELOCITY (FT/S)

D = TOTAL FLOW DEPTH (FT) D2 = HYDRAULIC JUMP (FT)

HALF STREET CALCULATION

@Y<0.125

 $A1 = \frac{1}{2} Y (Y / 0.0625) = 8 Y^{2}$

 $P1 = SQRT(Y^2 + (Y / 0.0625)^2) + Y = SQRT(257 Y^2) + Y$

| FULL STI | REET FLOW |
|----------|-----------|
| | |
| • | |

| Y (FT) | Α | Р | (A/P) ² /3 | Q | 2Q | V | Fr | D*V | D2 |
|--------|--------|--------|-----------------------|------|------|------|------|-------|------|
| 0.025 | 0.0050 | 0.4258 | 0.0517 | 0.00 | 0.01 | 0.70 | 0.78 | 0.017 | 0.02 |
| 0.050 | 0.0200 | 0.8516 | 0.0820 | 0.02 | 0.04 | 1.11 | 0.88 | 0.056 | 0.04 |
| 0.125 | 0.1250 | 2.1289 | 0.1511 | 0.26 | 0.51 | 2.05 | 0.03 | 0.256 | 0.00 |

@ 0.125 < Y < 0.445 & Y1 = Y - 0.125

 $A2 = A1 + \frac{1}{2} Y1(Y1 / 0.02) + 2 Y1 = A1 + 25 Y1^2 + 2 Y1$

 $P2 = P1 + SORTIY1^2 + (Y1 / 0.01)^2 + Y1 = P1 + SORT(2501 Y1^2) + Y1$

| | . – 1 1 1 0001 | | V.V 1 / 1 1 1 | | | | · · · · · · · · · · · · · · · · · · · | | | ···· |
|----------|----------------|--------|---------------|--------|-------|-------|---------------------------------------|-------------|-------|------|
| | 0.200 | 0.4156 | 6.0797 | 0.1672 | 0.94 | 1.88 | 2.26 | 0.89 | 0.453 | 0.17 |
| | 0.250 | 0.7656 | 8.6302 | 0.1989 | 2.06 | 4.12 | 2.69 | 0.95 | 0.673 | 0.23 |
| - | 0.350 | 1.8406 | 13.7312 | 0.2619 | 6.53 | 13.06 | 3.55 | 1.06 | 1.241 | 0.38 |
| | 0.445 | 3.3250 | 18.5771 | 0.3176 | 14.30 | 28.60 | 4.30 | 1.14 | 1.914 | 0.53 |

@ $0.445 < Y \le 0.667 & Y2 = Y - 0.445$

| @ 0.445 < Y < 0 A3 = A2 + 16 Y P3 = P2 + Y2 | | = Y - 0.445 | | | | Full | STree | r Cap | acity |
|---|--------|-------------|--------|-------|-------|--------|-------|-------|-------|
| 0.500 | 4.2050 | 18.6321 | 0.3707 | 21.11 | 42.22 | 5.02 | 1.25 | 2.510 | 0.67 |
| 0.550 | 5.0050 | 18.6821 | 0.4156 | 28.17 | 56.33 | 5.63 | 1.34 | 3.095 | 0.80 |
| 0.600 | 5.8050 | 18.7321 | 0.4579 | 36.00 | 72.00 | 7 6.20 | 1.41 | 3.721 | 0.93 |
| 0.667 | 6.8717 | 18.7988 | 0.5112 | 47.57 | 95.15 | 6.92 | 1.49 | 4.615 | 1.11 |

@ $0.667 < Y \le 0.907 & Y3 = Y - 0.667$

 $A4 = A3 + 16 Y3 + \frac{1}{2} (Y3) (Y3 / 0.02) = A3 + 16 Y3 + 25 Y3^{2}$

 $P4 = P3 + SORT(Y3^2 + (Y3 / 0.02)^2) = P3 + SQRT(2501 Y3^2)$

| | 7 — 1 0 · OQi | | <u> </u> | | | | | | | |
|---|---------------|---------|----------|--------|-------|--------|------|------|-------|-------------|
| | 0.700 | 7.4328 | 20.4656 | 0.5090 | 51.24 | 102.47 | 6.89 | 1.45 | 4.825 | 1.13 |
| 1 | 0.751 | 8.3887 | 22.9911 | 0.5106 | 58.00 | 116.01 | 6.91 | 1.41 | 5.189 | 1.16 |
| | 0.856 | 10.7870 | 28.2472 | 0.5264 | 76.89 | 153.78 | 7.13 | 1.36 | 6.099 | 1.27 |
| - | 0.907 | 12.1610 | 30.8177 | 0.5380 | 88.60 | 177.20 | 7.29 | 1.35 | 6.608 | 1.33 |

RUNOFF CALCULATION RESULTS

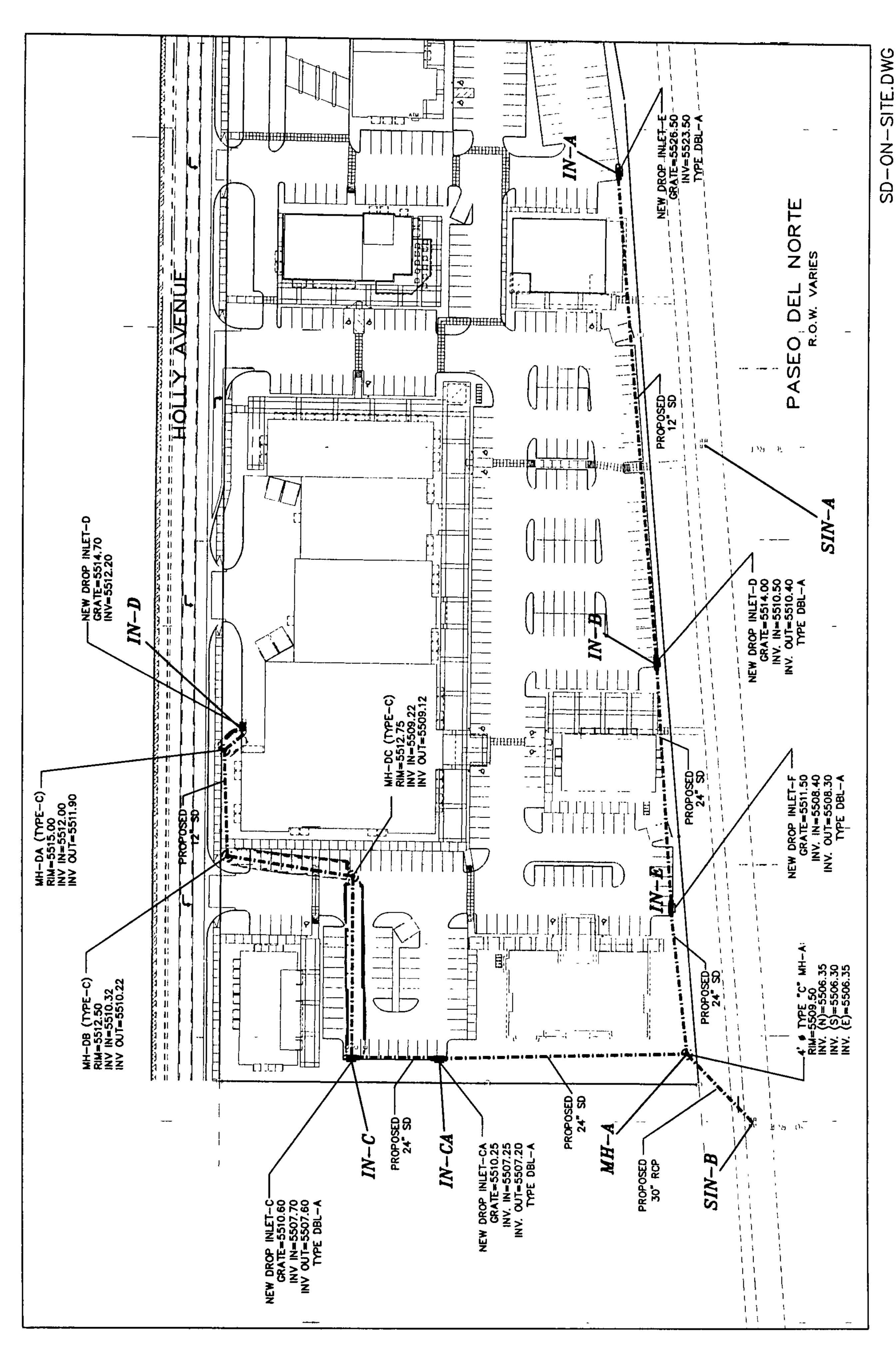
| BASIN | AREA (SF) | AREA (AC) | AREA (MI ²) |
|-------|-----------|-----------|-------------------------|
| OF-A | 53046.38 | 1.2178 | 0.001903 |
| OF-B | 8558.72 | 0.1965 | - 0.000307 |
| OF-C | 59824.53 | 1.3734 | 0.002146 |
| OF-D | 13211.81 | 0.3033 | 0.000474 |
| OF-E | 9432.99 | 0.2166 | 0.000338 |
| OF-F | 31502.69 | 0.7232 | 0.001130 |
| ON-A | 22975.38 | 0.5274 | 0.000824 |
| ON-B_ | 170013.95 | 3.9030 | 0.006098 |
| ON-C | 90972.97 | 2.0885 | 0.003263 |
| ON-D | 35135.45 | 0.8066 | 0.001260 |
| ON-E | 28017.78 | 0.6432 | 0.001005 |
| ON-1 | 86909.90 | 1.9952 | 0.003117 |
| ON-2 | 15394.52 | 0.3534 | 0.000552 |

UNDER THE PROPOSED CONDITIONS

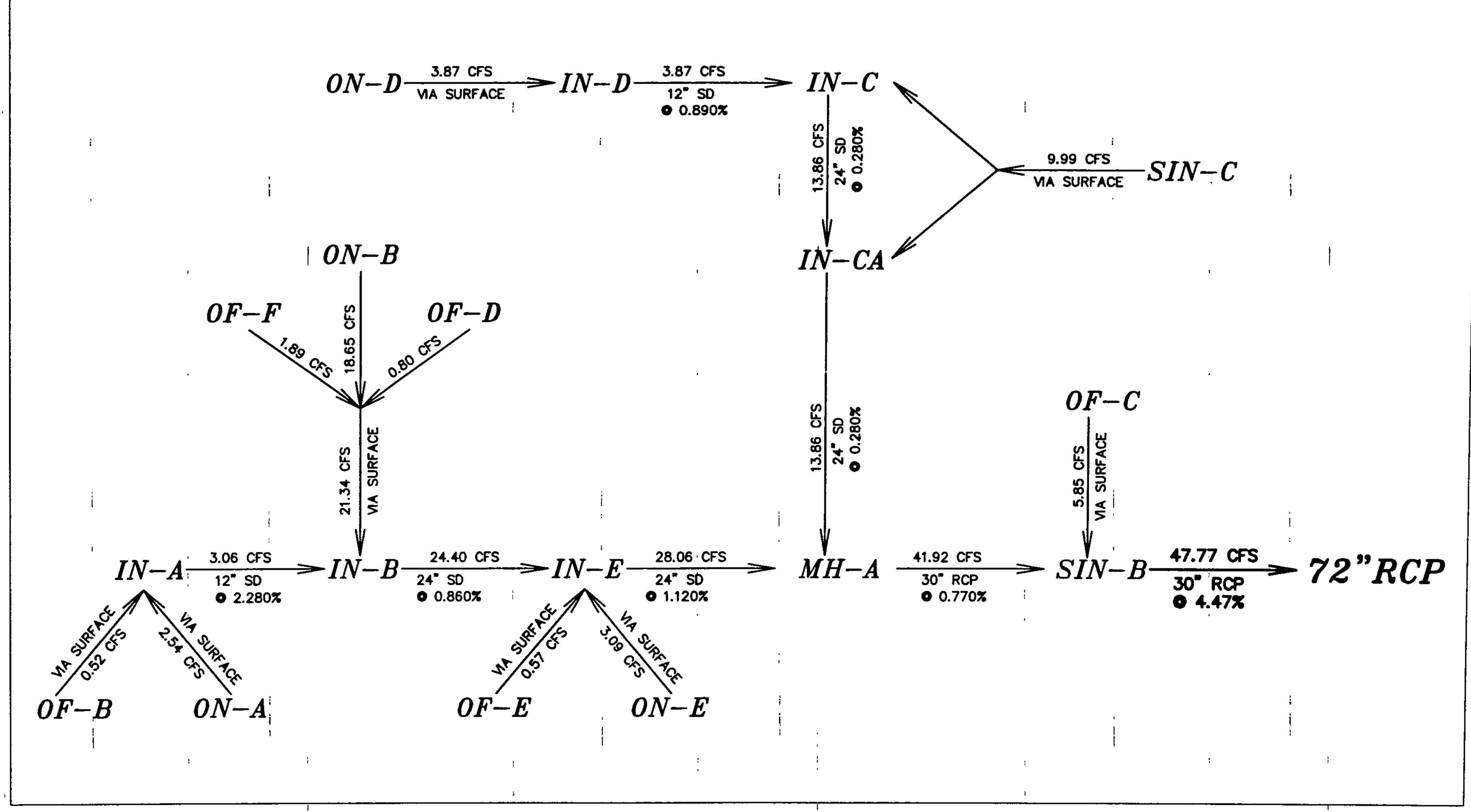
| BASIN | Q-100 | TREATMENT |
|-------|-------|------------------|
| | CFS | A, B, C, D |
| OF-A | 5.18 | 0%, 32%, 0%, 68% |
| OF-B | 0.52 | 0%, 100%, 0%, 0% |
| OF-C | 5.85 | 0%, 32%, 0%, 68% |
| OF-D | 0.80 | 0%, 100%, 0%, 0% |
| OF-E_ | 0.57 | 0%, 100%, 0%, 0% |
| OF-F | 1.89 | 0%, 100%, 0%, 0% |
| ON-A | 2.54 | 0%, 10%, 0%, 90% |
| ON-B | 18.65 | 0%, 10%, 0%, 90% |
| ON-C | 9.99 | 0%, 10%, 0%, 90% |
| ON-D | 3.87 | 0%, 10%, 0%, 90% |
| ON-E | 3.09 | 0%, 10%, 0%, 90% |
| ON-1 | 9.54 | 0%, 10%, 0%, 90% |
| ON-2 | 1.71 | 0%, 10%, 0%, 90% |

SUMMARY OUTPUT FILE

| AHYMO PROGR INPUT FILE | AM SUMMARY TABLE (= 2250NEWA | OMYHA) | 97) - | | _ | VERSION: 199 | | | (MON/DAY/Y AHYMO-I-97 | • | 12/2004 DR31-AH |
|---------------------------|-------------------------------|--------|-------|----------|-----------|---------------------------------------|----------|---------|--------------------------|---------|--------------------|
| | | FROM | TO | ţ | PEAK | RUNOFF | | TIME TO | CFS | PAGE = | = 1 |
| • | HYDROGRAPH | ID | ID | AREA | DISCHARGE | VOLUME | RUNOFF | PEAK | PER | | |
| COMMAND | IDENTIFICATION | NO. | NO. | (SQ MI) | (CFS) | (AC-FT) | (INCHES) | (HOURS) | ACRE | NOTAT | ION |
| START | ; ! | | | | | ; ! | | | Tr. | IME= | . O Ø |
| ŧ | YPE= 1 | | | | 1 | • | | | | AIN6= | 2.600 |
| COMPUTE NM | | - | 1 | .00190 | 5.18 | .192 | 1.89630 | 1.500 | | ER IMP= | |
| COMPUTE NM | | _ | 1 | .00031 | . 52 | .015 | .92096 | 1.500 | 2.647 P | | .00 |
| COMPUTE NM | ↓ | _ | 1 | .00215 | 5.85 | .217 | 1.89630 | 1.500 | 4.257 P | | 68.00 |
| COMPUTE NM | | _ | 1 | .00047 | .80 | .023 | .92096 | 1.500 | 2.626 P | ER IMP= | .00 |
| COMPUTE NM | | _ | 1 | .00034 | .57 | .017 | .92096 | 1.500 | 2.639 P | ER IMP= | .00 |
| COMPUTE NM | HYD 105.00 | _ | 1 | .00113 | 1.89 | .056 | .92096 | 1.500 | 2.609 P | ER IMP= | .00 |
| COMPUTE NM | HYD 106.00 | - | 1 | .00082 | 2.54 | .097 | 2.21184 | 1.500 | 4.812 P | ER IMP= | 90.00 |
| COMPUTE NM | HYD 107.00 | - | 1 | .00610 | 18.65 | .719 | 2.21184 | 1.500 | 4.780 P | ER IMP= | 90.00 |
| COMPUTE NM | HYD 108.00 | - | 1 | .00326 | 9.99 | .385 | 2.21185 | 1.500 | 4.784 P | ER IMP= | 90.00 |
| COMPUTE NM | HYD 109.00 | - | 1 | .00126 | 3.87 | .149 | 2.21185 | 1.500 | 4.798 P | ER IMP= | 90.00 |
| COMPUTE NM | HYD 110.00 | - | 1 | .00101 | 3.09 | .119 | 2.21184 | 1.500 | 4.806 P | ER IMP= | 90.00 |
| COMPUTE NM | HYD 111.00 | - | 1 | .00312 | 9.54 | .368 | 2.21185 | 1.500 | 4.784 P | ER IMP= | 90.00 |
| COMPUTE NM | HYD 112.00 | - | 1 | .00055 | 1.71 | .065 | 2.21184 | 1.500 | 4.833 P | ER IMP= | 90.00 |
| FINISH | | | | | | | | | į | | |
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FLOW-CHART.DWG

Open Channel - Uniform flow

| Worksheet | Name: |
|-----------|-------|
|-----------|-------|

Comment: MH-A TO SIN-B

Solve For Actual Depth

Given Input Data:

Diameter.... 2.50 ft

Slope.......... 0.0077 ft/ft

Manning's n.... 0.012 Discharge..... 41.92 cfs

Computed Results:

Flow Area..... 4.76 sf Critical Depth... 2.17 ft

Critical Slope... 0.0081 ft/ft

Percent Full.... 92.93 %
Full Capacity.... 38.99 cfs
QMAX @.94D..... 41.94 cfs

Fröude Number.... 0.81 (flow is Subcritical)

Open Channel - Uniform flow

| Worksheet Name: | | | | | |
|--|--|--|--|--|--|
| Comment: IN-E TO MH-A | | | | | |
| Solve For Actual Depth | | | | | |
| | 2.00 ft 0.0120 ft/ft 0.012 28.06 cfs | | | | |
| Computed Results: Depth Velocity Flow Area Critical Depth Critical Slope Percent Full Full Capacity QMAX @.94D Froude Number | 1.74 ft 9.69 fps 2.89 sf 1.83 ft 0.0114 ft/ft 86.76 % 26.85 cfs 28.88 cfs 1.17 (flow is Supercritical) | | | | |

Open Channel - Uniform flow

| Worksheet Name: | |
|--|--|
| Comment: IN-B TO IN-E | |
| Solve For Actual Depth | |
| Given Input Data: Diameter Slope Manning's n Discharge | 2.00 ft 0.0086 ft/ft 0.012 24.40 cfs |
| Computed Results: — Depth Velocity Flow Area Critical Depth Critical Slope Percent Full Full Capacity QMAX @.94D Froude Number | 1.84 ft 8.06 fps 3.03 sf 1.75 ft 0.0090 ft/ft 92.13 % 22.73 cfs 24.45 cfs 0.85 (flow is Subcritical) |

Open Channel - Uniform flow

| Worksheet Name: — | |
|--|-----------------------|
| Comment: IN-A TO IN-B | |
| Solve For Actual Depth | |
| Given Input Data: Diameter Slope Manning's n Discharge | 0.0280 ft/ft 0.012 |
| Computed Results: Depth Velocity Flow Area Critical Depth Critical Slope Percent Full Full Capacity QMAX @.94D Froude Number | |

Circular Channel Analysis & Design Solved with Manning's Equation

Open Channel - Uniform flow

Comment: IN-CA TO MH-A

Solve For Actual Depth

Given Input Data:

| Diameter | 2.00 ft |
|-------------|--------------|
| Slope | 0.0028 ft/ft |
| Manning's n | 0.012 |
| Discharge | 13.86 cfs. |

Computed Results:

| Depth | 1.81 ft |
|----------------|--------------|
| Velocity | 4.63 fps |
| Flow Area | 2.99 sf |
| Critical Depth | 1.34 ft |
| Critical Slope | 0.0051 ft/ft |
| Percent Full | 90.66 % |
| Full Capacity | 12.97 cfs |
| QMAX @.94D | 13.95 cfs |

Circular Channel Analysis & Design Solved with Manning's Equation

Open Channel - Uniform flow

| Worksheet | Name: | |
|-----------|-------|--|
| | | |

Comment: IN-C TO INC-A

Solve For Actual Depth

Given Input Data:

Diameter..... 2.00 ft

Slope.... 0.0028 ft/ft

Manning's n.... 0.012

Discharge..... 13.86 cfs

Computed Results:

Velocity..... 4.63 fps Flow Area..... 2.99 sf

Critical Depth... 1.34 ft

Critical Slope... 0.0051 ft/ft

90.66 % Percent Full.... Full Capacity.... 12.97 cfs

QMAX @.94D..... 13.95 cfs

Froude Number.... 0.51 (flow is Subcritical)

Open Ch

Circular Channel Analysis & Design Solved with Manning's Equation

Open Channel - Uniform flow

| Worksheet Name: | |
|--|--|
| Comment: IN-D TO IN-C | |
| Solve For Actual Depth | 10-11-11 III |
| Given Input Data: Diameter Slope Manning's n Discharge | 1.00 ft 0.0089 ft/ft 0.012 3.87 cfs |
| Velocity | 0.89 ft 5.22 fps 0.74 sf 0.84 ft 0.0097 ft/ft 89.42 % 3.64 cfs 3.92 cfs 0.84 (flow is Subcritical) |

Open Cha

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Holly Avenue Street Flow Analysis

Based on the revised grading plan we are proposing to discharge some of the runoff from on-site to Holly Avenue. Therefore, we have to analyzed Holly for its drainage capacity. Holly was analyzed for flow capacity under three different conditions, the Proposed Conditions, Future Alternative Conditions, and Future Conditions (most conservative conditions).

Attached basin shows the areas that contribute to the runoff in Holly Avenue. Basin B-1 and B-3 are from JMA for Desert Ridge Place. The following are the conclusion for three drainage conditions mentioned above:

Proposed Conditions

Under the proposed conditions the runoff from our site Basins ON-1 and ON-2 along with Basins B-1 and B-3 drain to point AP-1 at a flow rate of 26.87 cfs. At point AP-1 the runoff is intercepted by four existing inlets and only 4.27 cfs pass the exiting inlets. From there the runoff from basins OF-1 (at existing flow rate of 4.33 cfs) and OF-2 (at existing flow rate of 17.78 cfs) enter Holly Avenue (basin OF-3 with flow rate of 7.51 cfs). The runoff from AP-1 (4.27 cfs) along with other from Basin OF-1, OF-2, and OF-3 drains west on Holly Avenue. From there the entire runoff at a total runoff of 33.89 cfs to Barstow Street to Basin OF-4 (with flow rate of 4.29 cfs). The runoff from Holly and Barstow then drains south to an existing SD/WK culvert were then drains to an exiting pond with an existing inlet which drains the entire runoff to Paseo drainage system. The exiting inlet has to be modified to a 7-2' and 1-2' SD/WK culvert in order to drain the runoff into the pond properly, otherwise the runoff will over flow the SD/WK culvert over the pedestrian sidewalk and then into the pond.

Future Conditions (Alternative Condition)

Some assumptions were done under this analysis. We had assumed that under future conditions once basins OF-1 will drain to the existing inlet along the west side of the basin and that only 30% of the future development of Basin OF-2 will drain to Holly and the other 70% would drain to the existing inlet along Paseo Del Norte. The runoff passed AP-1 will be the same as developed conditions with runoff of 4.27 cfs. Therefore, the total runoff entering the Barstow will be only 22.91 cfs. From there the 22.91 cfs along with the runoff in Barstow (4.29 cfs) will drain to the existing SD/WK culvert at a flow rate of 27.20 cfs. The existing culvert has to be modified to 5-2' and 1-1' SD/WK culverts in order to drain the runoff to the exiting pond.

Future Conditions (Most Conservative Condition)

Under this assumption we have assumed that the entire developed runoff flow from Basis OF-1 and OF-2 will drain to Holly under the developed conditions. The runoff passed AP-1-will be the same as developed conditions with runoff of 4.27 cfs. Therefore, the total runoff entering Barstow will be 59.35 cfs. From there the 59.35 cfs along with the runoff in Barstow (4.29 cfs) will drain to the existing SD/WK culvert at a flow rate of 63.64 cfs. The existing culvert has to be modified to 12-2' and 1-1' SD/WK culverts in order to drain the runoff to the exiting pond.

Conclusion

Based on the proposed conditions, we are proposing to modify the existing sidewalk culvert to 7-2' and 1-1' culverts. Once OF-1 and OF-2 are developed additional inlets will be required to be placed on Barstow in order to drain the runoff into the exiting pond. We also have analyzed street flow capacity of Holly to be at a flow rate of 86.86 cfs which is larger than the future conditions of 59.35 cfs.

See the following basin map and flow chart analysis under different drainage conditions.

RUNOFF CALCULATION RESULTS

| BASIN | AREA (SF) | AREA (AC) | AREA (MIA) |
|-------|------------|-----------|------------|
| B-1 | 108900.00 | 2.5000 | 0.003906 |
| B-3 | 38768.40 | 0.8900 | 0.001391 |
| -QN-1 | 58724.53 | 1.3481 | 0.002106 |
| ON-2 | 12902.19 | 0.2962 | 0.000463 |
| OF-1 | 100492.49 | 2 3070 | 0.003605 |
| OF-2 | -356297.15 | 8.1795 | |
| OF-3 | 68310.97 | 1.5682 | 0.002450 |
| OF-4 | 38974.55 | 0.8947 | 0.001398 |

ULTIMATE CONDITIONS

| BASIN | Q-100 | Q-10 | TREATMENT |
|-------|-------|-------|--------------------|
| | CFAs | CFAs | A, B, C, D |
| B-1 | 4.69 | 32.14 | 0%, 20%, 0%, 80% |
| B-3 | 4.27 | 32.14 | 0%, 10%, 0%, 90% |
| ON-1 | 2.53 | 32.14 | 0%, 10%, 0%, 90% |
| ON-2 | 0.56 | 32.14 | 0%, 10%, 0%, 90% |
| OF-1 | 4.33 | 32.14 | 0%, 20%, 0%, 80% |
| OF-2 | 39.08 | 32.14 | 0%, 20%, 0%, 80% |
| OF-3 | 3.42 | 32.14 | _ 90%, 0%, 0%, 10% |
| OF-4 | 4.29 | 32.14 | 0%, 10%, 0%, 90% |

PROPOSED CONDITIONS

| BASIN | Q-100 | Q-10 | TREATMENT |
|-------|-------|------|------------------|
| | CFAs | CFAs | A, B, C, D |
| B-1 | 19.31 | 5.78 | 100%, 0%, 0%, 0% |
| B-3 | 4.50 | 2.02 | 0%, 10%, 0%, 90% |
| ON-1 | 4.50 | 2.02 | 100%, 0%, 0%, 0% |
| ON-2 | 4.50 | 2 02 | 100%, 0%, 0%, 0% |
| OF-1 | 4.50 | 2.02 | 100%, 0%, 0%, 0% |
| OF-2 | 4.50 | 2.02 | 0%, 10%, 0%, 90% |
| OF-3 | 4.50 | 2.02 | 90%, 0%, 0%, 10% |
| OF-4 | 4.50 | 2.02 | 0%, 10%, 0%, 90% |

SUMMARY OUTPUT FILE

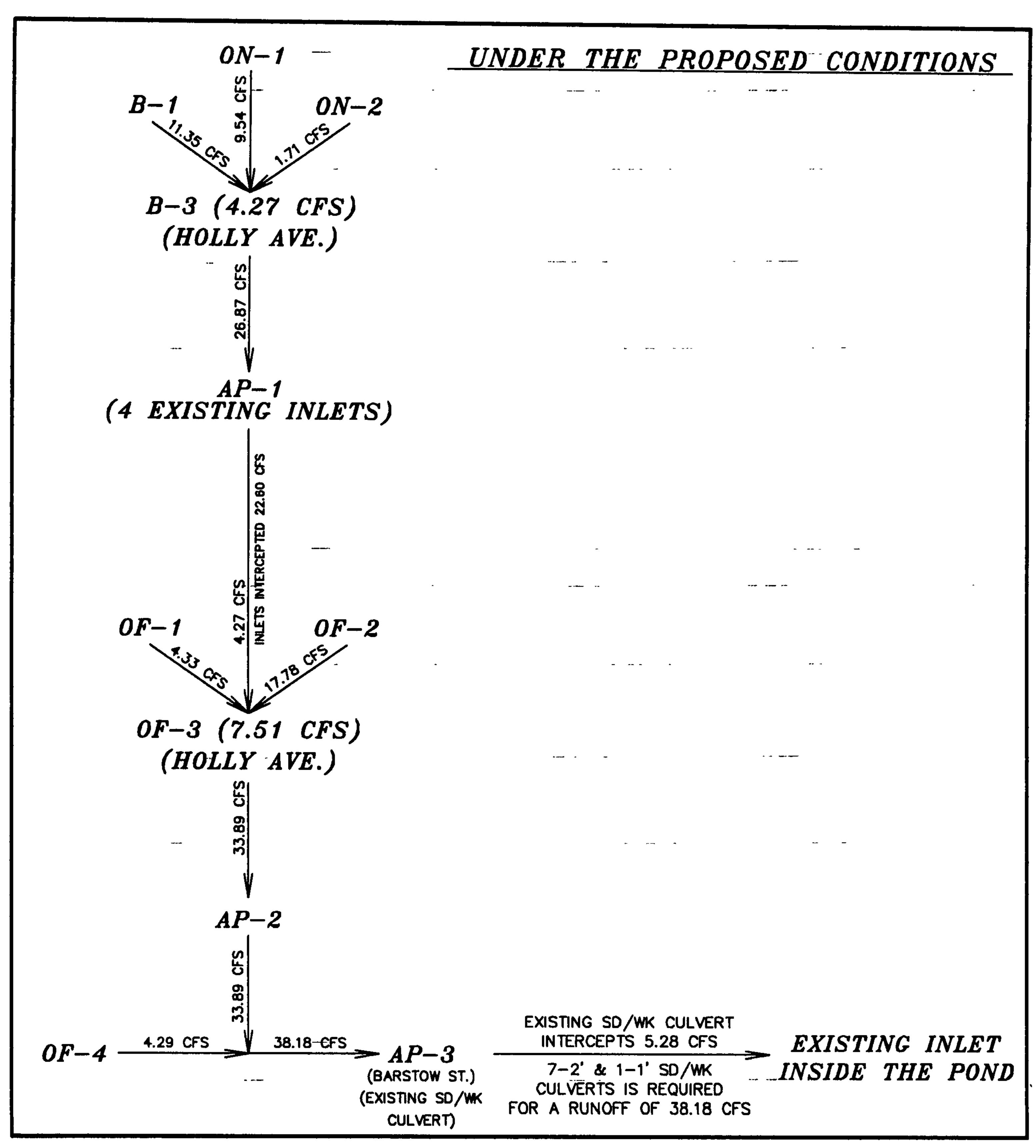
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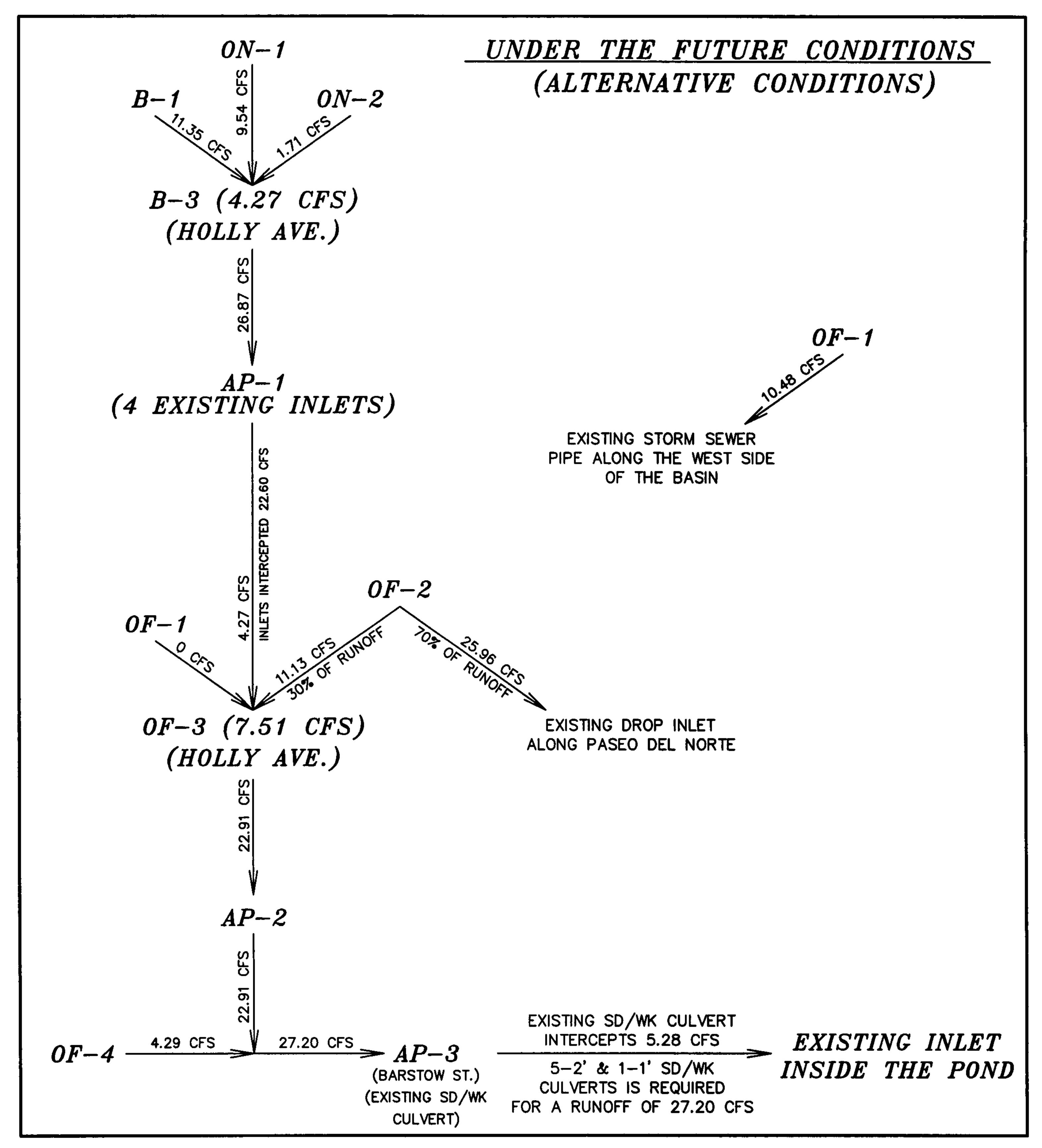
FINISH

- VERSION: 1997.02d

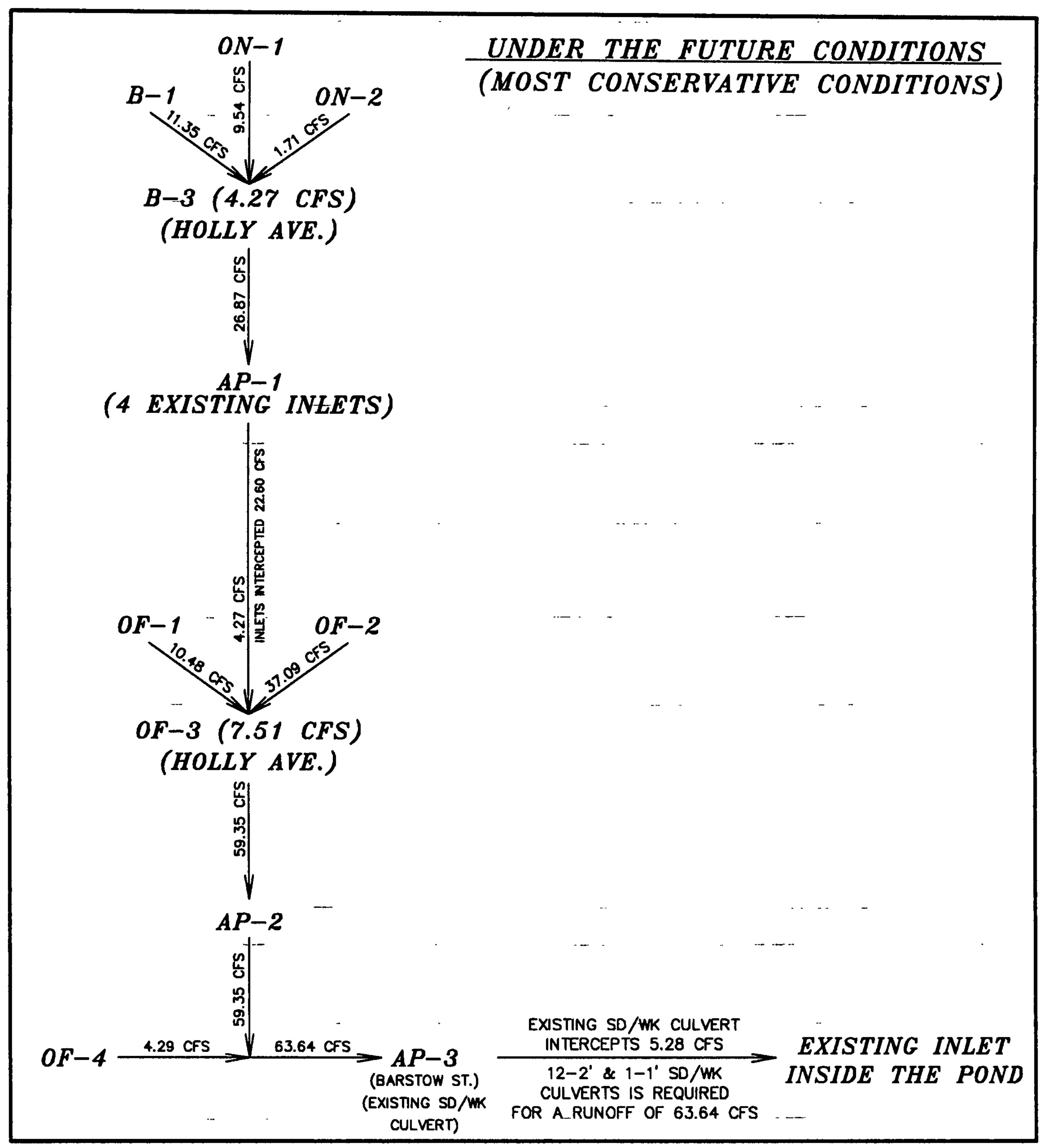
RUN DATE (MON/DAY/YR) =02/19/2004 USER NO.= AHYMO-I-9702c01000R31-AH

| | HYDROGRAPH | FROM | TO ID | | AREA | PEAK DISCHARGE | RUNOFF VOLUME (AC-FT) | RUNOFF | TIME TO PEAK (HOURS) | CFS PER ACRE | PAGE = | | |
|---------------|----------------|-------------|----------|---|---------|-------------------|-----------------------------|--------------------|----------------------|--------------------|----------------------|-------|---|
| COMMAND | IDENTIFICATION | NO. | NO. | | (SQ MI) | (CFS) | (AC-LI) | (IIICIIII) | (1100100) | HOND | 1401111 | | |
| START | į | | | | | | i | | | | TIME= | .00 | 1 |
| | PE= 1 | | | | | | | | | | RAIN6= | 2.600 | |
| COMPUTE NM HY | | _ | 1 | i | .00391 | 4.69 | .136 | .65514 | 1.533 | 1.875 | PER IMP= | .00 | |
| COMPUTE NM HY | 1 | _ | 1 | | .00139 | 4.27 | .164 | 2.21184 | 1.500 | 4.797 | PER IMP= | 90.00 | |
| COMPUTE NM HY | | - | 1 | | .00312 | 3.74 | .109 | .65514 | 1.533 | 1.875 | PER IMP= | .00 | |
| COMPUTE NM HY | | _ | 1 | | .00055 | .67 | .019 | .65514 | 1.533 | 1.895 | PER IMP= | .00 | |
| COMPUTE NM HY | | _ i | 1 | | .00361 | 4.33 | .126 | .65514 | 1.533 | 1.875 | PER IMP= | .00 | |
| COMPUTE NM HY | | _ | 1 | | .01278 | 17.78 | .562 | .82515 | 1.500 | 2.173 | PER IMP= | 10.00 | |
| COMPUTE NM HY | | - | 1 | | .00245 | 7.51 | .289 | 2.21184 | 1.500 | 4.787 | PER IMP= | 90.00 | |
| COMPUTE NM HY | | _ | 1 | | .00140 | 4.29 | .165 | 2.21185 | 1.500 | 4.797 | PER IMP= | 90.00 | |
| START | | | | | | | | | | | TIME= | .00 | |
| | PE= 1 | , | | | | | | • | • | | RAIN6= | 1.730 | |
| COMPUTE NM HY | | - | 1 | | .00391 | 1.40 | .039 | .18834 | 1.533 | . 562 | PER IMP= | .00 | |
| COMPUTE NM HY | | - | 1 | | .00139 | 2.78 | .102 | 1.38160 | 1.500 | 3.126 | PER IMP= | 90.00 | |
| COMPUTE NM HY | | - | 1 | | .00312 | 1.12 | .031 | .18834 | 1.533 | | PER IMP= | .00 | |
| COMPUTE NM HY | | - | 1 | | .00055 | .20 | .006 | .18834 | 1.533 | | PER IMP= | .00 | |
| COMPUTE NM HY | | - | 1 | | .00361 | 1.30 | .036 | .18834 | 1.533 | | PER IMP= | .00 | |
| COMPUTE NM HY | YD 115.00 | - | 1 | | .01278 | 6.76 | .217 | .31907 | 1.500 | | PER IMP= | 10.00 | |
| COMPUTE NM HY | ZD 116.00 | - | 1 | 1 | .00245 | 4.89 | .181 | 1.38160 | 1.500 | | PER IMP= | 90.00 | |
| COMPUTE NM HY | ZD 117.00 | - | 1 | | .00140 | 2.80 | .103 | 1.38160 | 1.500 | 3.126 | PER IMP= | 90.00 | |
| START | ł | • | | | | | i | • | | | TIME= | .00 | |
| RAINFALL TYPE | PE= 1 | 1 1 P | | | | 1 | | | | | RAIN6= | 2.600 | |
| COMPUTE NM HY | YD 100.10 | - | 1 | | .00391 | 11.35 | .431 | 2.06841 | 1.500 | | PER IMP= | 80.00 | |
| COMPUTE NM HY | YD , 101.10 | - ' | 1 | | .00139 | 4.27 | .164 | 2.21184 | 1.500 | | PER IMP= | 90.00 | |
| COMPUTE NM HY | YD : 102.10 | - | 1 | | .00312 | 9.54 | .368 | 2.21185 | 1.500 | | PER IMP= | 90.00 | |
| COMPUTE NM H | YD 103.10 | - | 1 | | .00055 | 1.71 | .065 | 2.21184 | 1.500 | | PER IMP= | 90.00 | |
| COMPUTE NM HY | YD 104.10 | - | 1 | | .00361 | 10.48 | .398 | 2.06841 | 1.500 | | PER IMP= | 80.00 | |
| COMPUTE NM HY | YD 105.10 | - | 1 | į | .01278 | 37.09 | 1.410 | 2.06841 | 1.500 | | PER IMP= | 80.00 | |
| COMPUTE NM HY | YD 106.10 | - | 1 | į | .00245 | 7.51 | .289 | 2.21184 | 1.500 | 4.787 | | 90.00 | |
| COMPUTE NM HY | YD 107.10 | - | 1 | 1 | .00140 | 4.29 | .165 | 2.21185 | 1.500 | 4.797 | | 90.00 | |
| START | • | : | | 1 | ‡ † | | | ; , | i i | | TIME= | .00 | |
| RAINFALL TYPE | PE= 1 | | | | | | 264 | 1 26750 | 1 500 | 2 000 | RAIN6= | 1.730 | |
| COMPUTE NM HY | YD ' 110.10 | - | 1 | | .00391 | 7.25 | .264 | 1.26758 | 1.500 | | PER IMP= | 90.00 | |
| COMPUTE NM HY | YD 111.10 | _ | 1 | | .00139 | 2.78 | .102 | 1.38160 | 1.500 | | PER IMP- | 90.00 | |
| COMPUTE NM H | | | 1 | | .00312 | 6.22 | .230 | 1.38159 | 1.500 | | PER IMP= PER IMP= | 90.00 | |
| COMPUTE NM HY | | | 1 | | .00055 | 1.11 | .041 | 1.38160 | 1.500 1.500 | | PER IMP= | 80.00 | |
| COMPUTE NM H | | | 1 | | .00361 | 6.69 | .244 | 1.26758 1.26758 | 1.500 | | PER IMP= | 80.00 | |
| COMPUTE NM H | | | 1 | | .01278 | 23.69 | .864 .181 | 1.38160 | 1.500 | | PER IMP= | 90.00 | |
| COMPUTE NM H | | | 1 | | .00245 | 4.89 2.80 | .103 | 1.38160 | 1.500 | | PER IMP= | 90.00 | |
| COMPUTE NM H | YD 117.10 | - | T | | .00140 | 2.00 | . 105 | 1.50100 | | J. 12 U | | | |



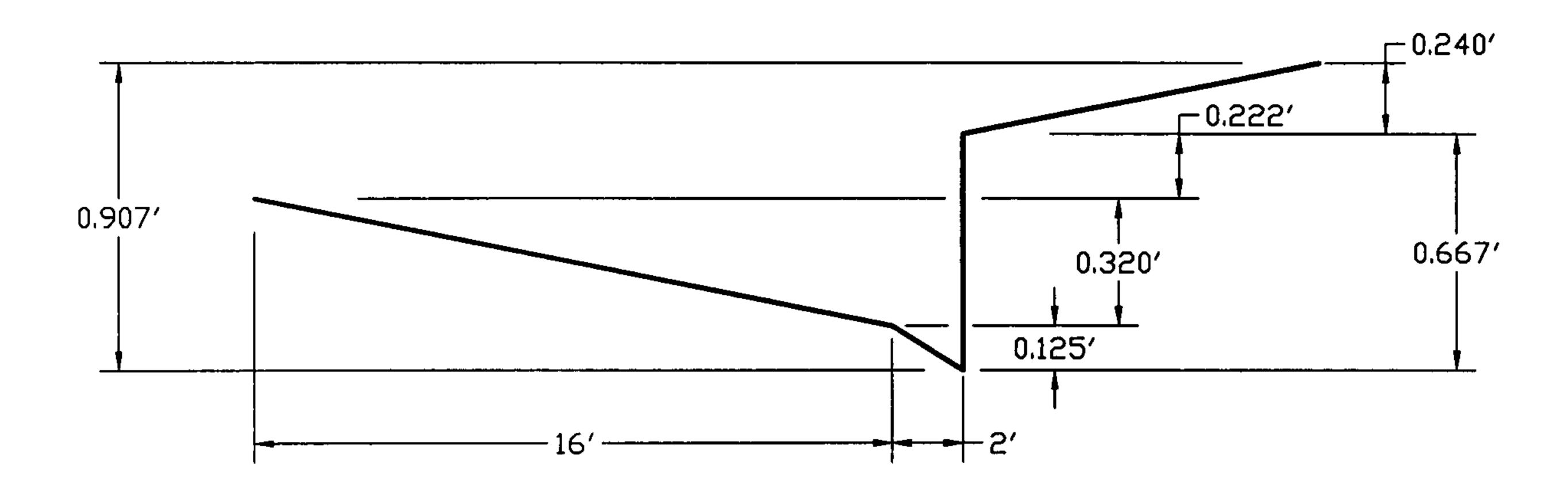


HOLLY-FLOW-CHART.DWG



HOLLY-FLOW-CHART.DWG

STREET FLOW CAPACITY (HOLLY AVENUE) @ AP-1 60 ROW / 36 F-F



HALF STREET SECTION

FINDING STREET CAPACITY

 $Q = 1.49 / n A (A/P)^{2/3} S^{1/2}$

n =

0.017

 $P4 = P3 + SQRT(Y3^2 + (Y3 / 0.02)^2) = P3 + SQRT(2501 Y3^2)$

20.4656

22.9911

28.2472

30.8177

7.4328

8.3887

10.7870

12.1610

0.7000

0.7505

0.8556

0.9070

SLOPE =

0.03500

V = VELOCITY (FT/S)

D = TOTAL FLOW DEPTH (FT)

D2 = HYDRAULIC JUMP (FT)

| HALF STREET | CALCULAT | <u>ION</u> | | | FULL STR | REET FLO | W | | | | | |
|------------------------------|-----------------------------|-----------------------------|---------------------------|------------------------|----------|----------|------|----------|-------------------------|---|-------------|------------|
| @Y 0.125 | | | | | | | | | | | | |
| $A1 = \frac{1}{2} Y (Y / 0.$ | $0625) = 8 Y^2$ | | | | | | | | | | | |
| $P1 = SQRT[Y^2 +$ | - (Y / 0.0625) ² | $^{2}] + Y = SQR^{2}$ | $T(257 Y^2) + Y$ | | | | | | | | | |
| Y (FT) | Α | Р | (A/P) ^{2/3} | Q | 2Q | V | Fr | D*V | D2 | | | |
| 0.0250 | 0.0050 | 0.4258 | 0.0517 | 0.00 | 0.01 | 0.84 | 0.94 | 0.021 | 0.02 | | | |
| 0.0500 | 0.0200 | 0.8516 | 0.0820 | 0.03 | 0.05 | 1.34 | 1.06 | 0.067 | 0.05 | | | |
| 0.1250 | 0.1250 | 2.1289 | 0.1511 | 0.31 | 0.62 | 2.47 | 0.03 | 0.309 | 0.00 | | | |
| @ 0.125 < Y 0 | .445 & Y1 | = Y - 0 125 | | | | | | | | | | |
| $A2 = A1 + \frac{1}{2} Y1$ | (Y1 / 0.02) + 3 | 2 Y1 = A1 + : | 25 Y1 ² + 2 Y1 | | | | | | | | DEPTH (| Y)=0.33' & |
| P2 = P1 + SQR | $T[Y1^2 + (Y1)]$ | 0.01) ²] + Y1 = | = P1 + SQRT(2 | 2501 Y1 ²) |) + Y1 | | | | 1 · 7 - 1 · 1 - 2 1 · 1 | | , Q=13.27 (| CFS |
| 0.2000 | 0 4156 | 6.0797 | 0.1672 | 1.14 | 2.27 | 2.73 | 1.08 | 0.547 | 0.22 | | | |
| 0.2500 | 0.7656 | 8.6302 | 0.1989 | 2.49 | 4.98 | 3.25 | 1.15 | 0.813 | 0.30 | | | |
| 0.3324 | 1.6152 | 12.8334 | 0.2511 | 6.63 | 13.27 | 4.11 | 1.26 | 1.365 | 0.45 | K | | |
| 0.3500 | 1.8406 | 13.7312 | 0.2619 | 7.88 | 15.77 | 4.28 | 1.28 | 1.499 | 0.48 | | | |
| 0.3919 | 2.4402 | 15.8700 | 0.2870 | 11.45 | 22.91 | 4.69 | 1.32 | 1.840 | 0.56 | | | |
| 0.4200 | 2.8906 | 17.3019 | 0.3033 | 14.34 | 28.68 | 4.96 | 1.35 | 2.083 | 0.62 | | | |
| 0.4117 | 2.7533 | 16.8785 | 0.2985 | 13.44 | 26.88 | 4.88 | 1.34 | 2.010 | 0.60 | | DEPTH (| Y)=0.41' & |
| 0.4400 | 3.2356 | 18.3221 | 0.3148 | 16.66 | 33.31 | 5.15 | 1.37 | 2.265 | 0.66 | | ~ Q=26.87 | CFS |
| 0.4423 | 3.2757 | 18.4368 | 0.3160 | 16.93 | 33.86 | 5.17 | 1.37 | 2.286 | 0.66 | | | |
| 0.4450 | 3.3250 | 18.5771 | 0.3176 | 17.27 | 34.54 | 5.19 | 1.37 | 2.311 | 0.67 | | | |
| @ 0.445 < Y 0 | .667 & Y2 | = Y - 0.445 | | | | | | <u>-</u> | | | | |
| A3 = A2 + 16 Y2 | 2 | | | | | | | | | | | |
| P3 = P2 + Y2 | | | | | | | | | | | | |
| 0.5000 | 4.2050 | 18.6321 | 0.3707 | 25.49 | 50.98 | 6.06 | 1.51 | 3.031 | 0.85 | | | |
| 0.5253 | 4.6092 | 18.6574 | 0.3937 | 29.68 | 59.35 | 6.44 | 1.57 | 3.382 | 0.93 | | | |
| 0.6000 | 5.8050 | 18.7321 | 0.4579 | 43.47 | 86.95 | 7.49 | 1.70 | 4.493 | 1.18 | | | |
| 0.6667 | 6.8717 | 18.7988 | 0.5112 | 57.45 | 114.90 | 8.36 | 1.80 | 5.574 | 1.40 | | | |
| @ 0.667 < Y 0 | .907 & Y3 | = Y - 0.667 | | | | | | | | | | |
| A4 = A3 + 16 Y3 | 3 + ½ (Y3) (Y3 | 3/0.02) = A | 3 + 16 Y3 + 25 | Y32 | | | | | | | | |
| | | • | . 00007/0504 | | | | | | | | | |

61.87

70.05

92.85

0.5380 106.99 213.98

123.75

140.09

185.70

8.32

8.35

8.61

8.80

0.5090

0.5106

0.5264

1.42

1.47

1.60

1.68

5.827

6.267

7.365

7.980

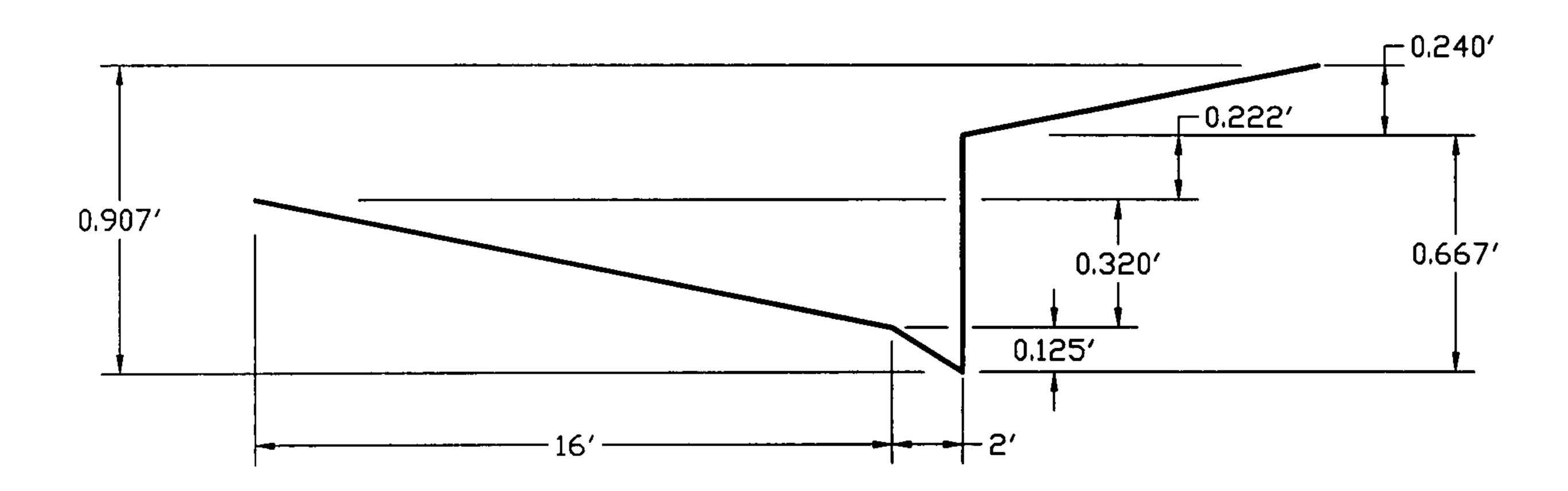
1.75

1.70

1.64

1.63

STREET FLOW CAPACITY (HOLLY AVENUE) @ AP-2 60 ROW / 36 F-F



HALF STREET SECTION

FINDING STREET CAPACITY

 $Q = 1.49 / n A (A/P)^{2/3} S^{1/2}$

n = 0.017

SLOPE = 0.02000 V = VELOCITY (FT/S)

D = TOTAL FLOW DEPTH (FT)

D2 = HYDRAULIC JUMP (FT)

| HALF STREET | CALCULATI | ON | | | FULL STR | REET FLO | W | | | | |
|---|------------------|--------------------|--------------------------|-------------------|---------------------------------------|--|--|-------|-------------|---|--------------------|
| @Y 0.125 A1 = $\frac{1}{2}$ Y (Y / 0 | 0625) - 8 V2 | | | | | | | | | | |
| $P1 = SQRT[Y^2]$ | • | 1 + V = SORT | 7(257 Y²) + Y | | | | | | | | |
| Y (FT) | Δ | P DGIV | (A/P)^2/3 | 0 | 2Q | V | Fr | D*V | D2 | | |
| 0.0250 | 0.0050 | 0.4258 | 0.0517 | 0.00 | 0.01 | 0.64 | 0.71 | 0.016 | 0.02 | | |
| 0.0500 | 0.0200 | 0.4235 | 0.0820 | 0.02 | 0.04 | 1.01 | 0.80 | 0.051 | 0.04 | | |
| 0.1250 | 0.1250 | 2.1289 | 0.0020 | 0.23 | 0.47 | 1.87 | 0.03 | 0.233 | 0.00 | | |
| <u> </u> | | = Y - 0.125 | | | <u> </u> | | 0.00 | 0.200 | 0.00 | | |
| $A2 = A1 + \frac{1}{2} Y1$ | | | 5 Y1 ² + 2 Y1 | | | | | | | | |
| P2 = P1 + SQR | • | | | 2501 Y1²) | + Y1 | | | | | | |
| 0.2000 | 0.4156 | 6.0797 | 0.1672 | 0.86 | 1.72 | 2.07 | 0.81 | 0.413 | 0.15 | | FUTURE ALTERNATIVE |
| 0.2500 | 0.7656 | 8.6302 | 0.1989 | 1.88 | 3.77 | 2.46 | 0.87 | 0.615 | 0.21 | | CONDITIONS |
| 0.3324 | 1.6152 | 12.8334 | 0.2511 | 5.01 | 10.03 | 3.10 | 0.95 | 1.032 | 0.31 | | DEPTH (Y)=0.43' & |
| 0.3500 | 1.8406 | 13.7312 | 0.2619 | 5.96 | 11.92 | 3.24 | 0.96 | 1.133 | 0.33 | | Q=22.91 CFS |
| 0.3919 | 2.4402 | 15.8700 | 0.2870 | 8.66 | 17.32 | 3.55 | 1.00 | 1.391 | 0.39 | | |
| 0.4200 | 2.8906 | 17.3019 | 0.3033 | 10.84 | 21.68 | 3.75 | 1.02 | 1.575 | 0.43 | | |
| 0.4273 | 3.0134 | 17.6717 | 0.3075 | 11.45 | 22.91 | 3.80 | 1.02 | 1.624 | 0.44 | | |
| 0.4400 | 3.2356 | 18.3221 | 0.3148 | 12.59 | 25.18 | 3.89 | 1.03 | 1.712 | 0.46 | | PROPOSED |
| 0.4423 | 3.2757 | 18.4368 | 0.3160 | 12.80 | 25.60 | 3.91 | 1.04 | 1.728 | 0.46 | | ✓ CONDITIONS |
| 0 4450 | 3.3250 | 18.5771 | 0.3176 | 13.05 | 26.11 | 3.93 | 1.04 | 1.747 | 0.47 | | DEPTH (Y)=0.48' & |
| @ 0.445 < Y C |).667 & Y2 | = Y - 0.445 | | | | | | • | | | Q=33.86 CFS |
| A3 = A2 + 16 Y | 2 | | | | | | | | | | |
| P3 = P2 + Y2 | | | , — <u>-</u> | | · · · · · · · · · · · · · · · · · · · | ······································ | <u>. </u> | | _ | | |
| 0.4803 | 3.8890 | 18.6124 | 0.3521 | 16.93 | 33.86 | 4.35 | 1.11 | 2.090 | 0.55 | | |
| 0.5788 | 5.4660 | 18.7109 | 0.4403 | 29.75 | 59.50 | 5.44 | 1.26 | 3.150 | 0.78 | | FUTURE CONDITIONS |
| 0.6000 | 5.8050 | 18.7321 | 0.4579 | 32.86 | 65.72 | 5.66 | 1.29 | 3.397 | 0.83 | | MOST CONSERVATIVE |
| 0.6667 | 6.8717 | 18.7988 | 0.5112 | 43.43 | 86.86 | 6.32 | 1.36 | 4.213 | 1.00 | • | DEPTH (Y)=0.58' & |
| @ 0.667 < Y (| 0.907 & Y3 | = Y - 0.667 | | · | | | | | | | Q=59.50 CFS |
| A4 = A3 + 16 Y | 3 + ½ (Y3) (Y3 | 3/0.02) = A3 | 3 + 16 Y3 + 25 | 5 Y32 | | | | | | | |
| P4 = P3 + SQR | RT(Y32 + (Y3 / 1 | $0.02)^2$) = P3 - | + SQRT(2501 | Y3 ²) | | | | | | | |
| 0.7000 | 7.4328 | 20.4656 | 0.5090 | 46.77 | 93.54 | 6.29 | 1.33 | 4.405 | 1.01 | | |
| 0.7505 | 8.3887 | 22.9911 | 0.5106 | 52.95 | 105.90 | 6.31 | 1.28 | 4.737 | 1.04 | \ | DEPTH (Y)=0.67' & |
| 0.8556 | 10.7870 | 28.2472 | 0.5264 | 70.19 | 140.38 | 6.51 | 1.24 | 5.567 | 1.13 | ` | \ Q=86.86 CFS |
| 0.9070 | 12.1610 | 30.8177 | 0.5380 | 80.88 | 161.76 | 6.65 | 1.23 | 6.032 | 1.19 | | (HOLLY AVE. FULL |
| | | | | | • | | | | | | FLOW CAPACITY) |

Sidewalk Culvert Flow Calculations @ AP-3

Orifice Equation: $Q=CA\sqrt{(2gh)}$ Q=? cfs (maximum runoff) C=0.6 g=32.20 h=0.67'Curb Opening = 1.00' $A=2.00 \times 0.67 = 1.34$ sf $Q=0.60 \times 1.34\sqrt{(2 \times 32.2 \times 0.67)}$ Q=5.28 cfs (existing flow capacity of the sidewalk culvert on Barstow St.)

Sidewalk Culvert Improvement Requirement on Barstow St.

<u>Under The Proposed Conditions</u>

Q=38.18 cfs, Solve for A A=Q/(CV(2gh))/A=38.18/(0.6 V(2x32.2x.67))A=9.69 sf, W=9.69/0.67, W = 14.46', : 7-2' & 1-1' Sidewalk culvert is required

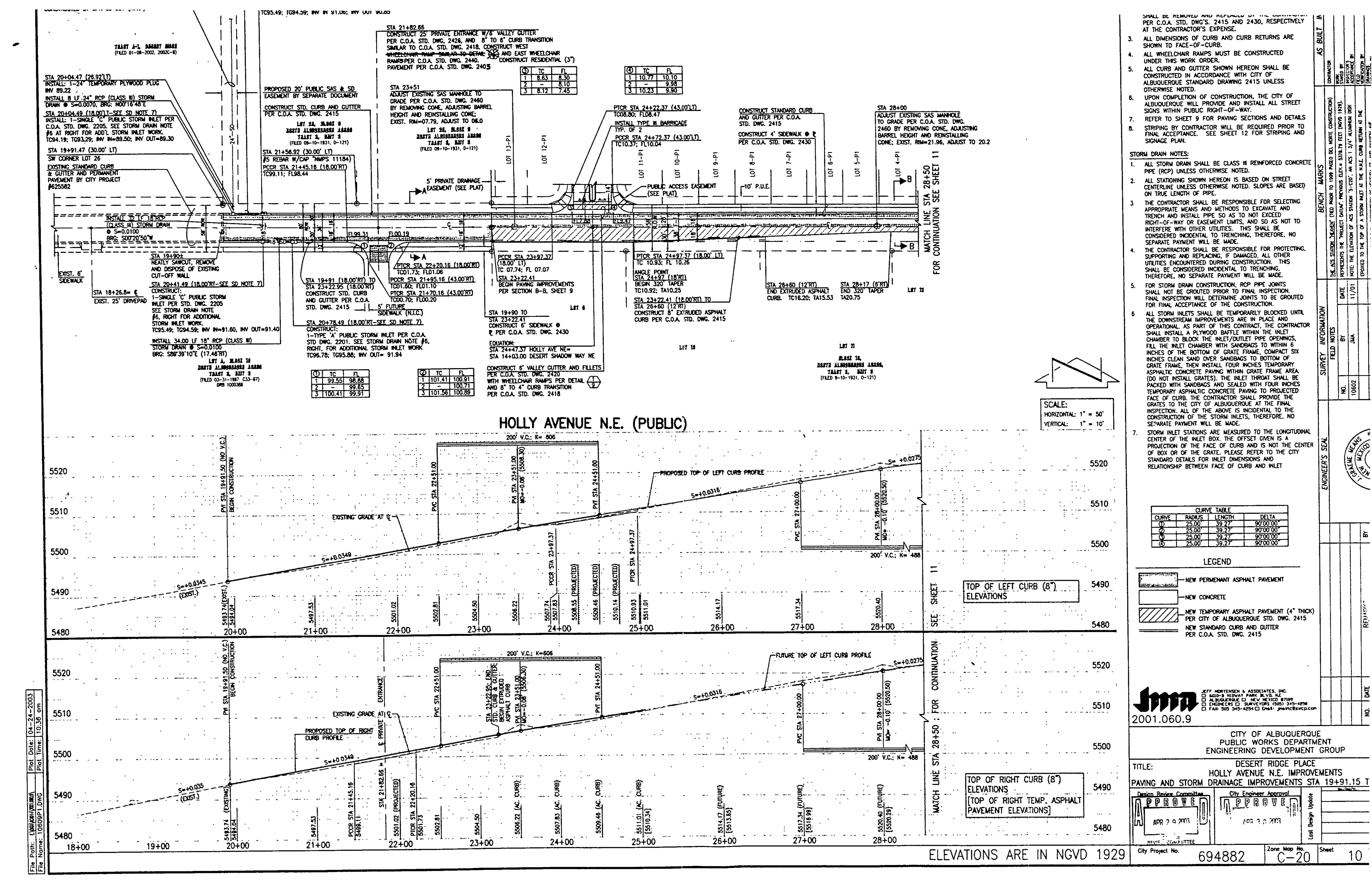
Under The Alternative Future Conditions

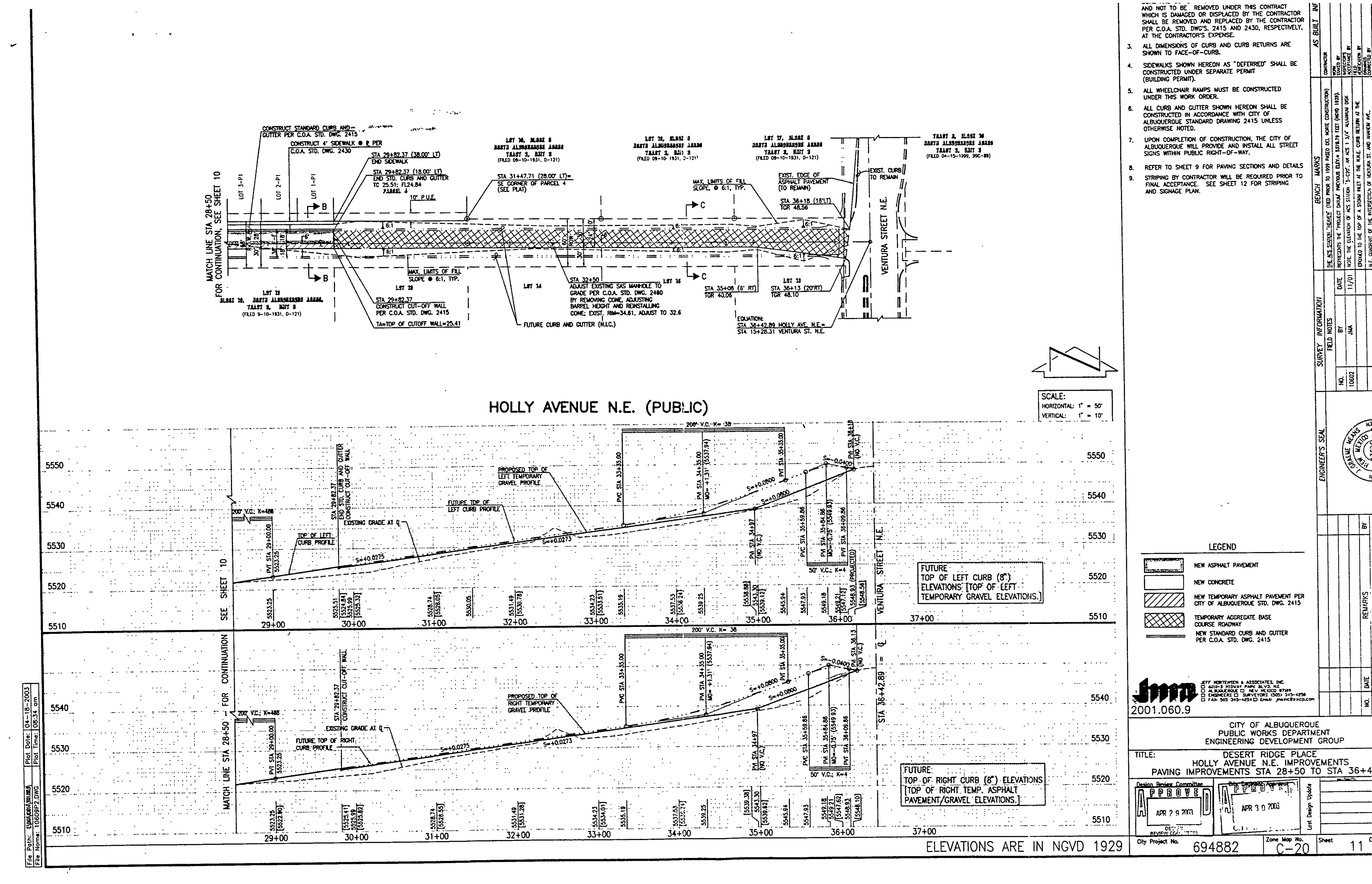
Q=27.20 cfs, Solve for A & W (width of the sd/wk culvert) A=Q / (C\((2gh))/ A=27.20 / (0.6 \((2x32.2x.67))/ A=6.90 sf, W=6.90 / 0.67, W = 10.30', \therefore 5-2' & 1-1' Sidewalk culvert is required

Under The Future Conditions (most conservative conditions)

Q=63.64 cfs, Solve for A & W (width of the sd/wk culvert) A=Q / (CV(2gh))/ A=63.64 / (0.6 V(2x32.2x.67) A=16.15 sf, W=16.15 / 0.67, W = 24.10', \therefore 12-2' & 1-1' Sidewalk culvert is required

We propose to build 7-2' & 1'1' sidewalk culverts based on the analysis under the proposed conditions (38.15 cfs). In the future conditions, if any of the basin (as shown on the Holly / Barstow Basin Map) are proposed to drain full developed runoff to Holly more sidewalk culverts are needed. Most conservative number of sd/wk culverts required is based on the Future Conditions (most conservative conditions) which requires 12-2' & 1-1" sidewalk culverts.







Planning Department Transportation Development Services Section

February 20, 2008

Christopher R. Gunning, Registered Architect 6801 Jefferson NE, Ste. 100 Albuquerque, NM 87109

Re:

Certification Submittal for Final Building Certificate of Occupancy for

Ventura Place, Bldg 5, [C-20 / D048]

8810 Holly Ave. NE

Architect's Stamp Dated 05/16/08

Dear Mr. Gunning:

P.O. Box 1293

The TCL / Letter of Certification submitted on February 20, 2008 is sufficient for acceptance by this office for final Certificate of Occupancy (C.O.). Notification has been made to the Building and Safety Section.

Albuquerque

Sincerely

New Mexico 87103

www.cabq.gov

Nile E. Salgado-Férnandez, P.E.

Senior Traffic Engineer

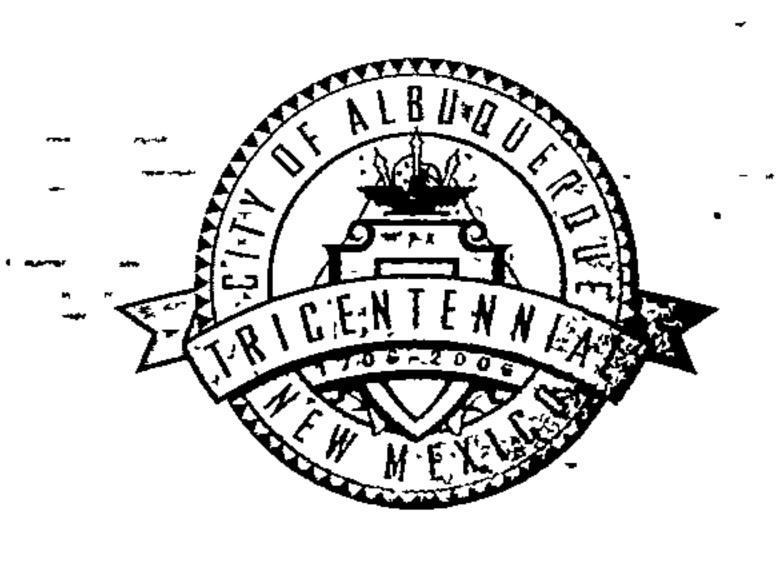
Development and Building Services

Planning Department

c:

Engineer
Hydrology file

CO Clerk



Planning Department Transportation Development Services Section

November 15, 2007

Christopher R. Gunning, Registered Architect 7601 Jefferson NE, Ste. 100 Albuquerque, NM 87109

Re: Certification Submittal for Final Building Certificate of Occupancy for

Ventura Place Bldg 2, [C-20 / D48]

8850 Holly Ave NE

Architect's Stamp Dated 11/14/07

Dear Mr. Gunning:

P.O. Box 1293

The TCL / Letter of Certification submitted on November 15, 2007 is sufficient for acceptance by this office for final Certificate of Occupancy (C.O.). Notification has been made to the Building and Safety Section.

Albuquerque

New Mexico 87103

www.cabq.gov

Nilo E. Salgado-Fernandez, P.E.

Senior Traffig Engineer

Development and Building Services

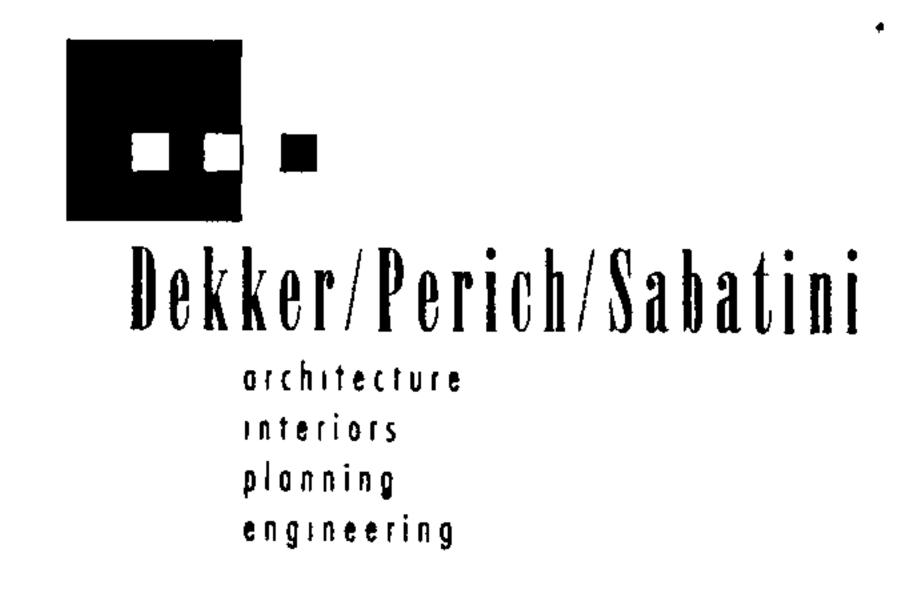
Planning Department

c: Engineer

Sincerely,

Hydrology file

CO Clerk



TRAFFIC CERTIFICATION

I, Christopher R. Gunning, NMRA 3203, of the firm Dekker/Perich/Sabatini, hereby certify that this project is in substantial compliance with and in accordance with the design intent of the approved plan dated the 4th of April The record information edited onto the original design document has been obtained by Dekker/Perich/Sabatini. I further certify that Dekker/Perich/Sabatini visited the project site on 11/14/07 and has 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 Certificate of Occupancy.

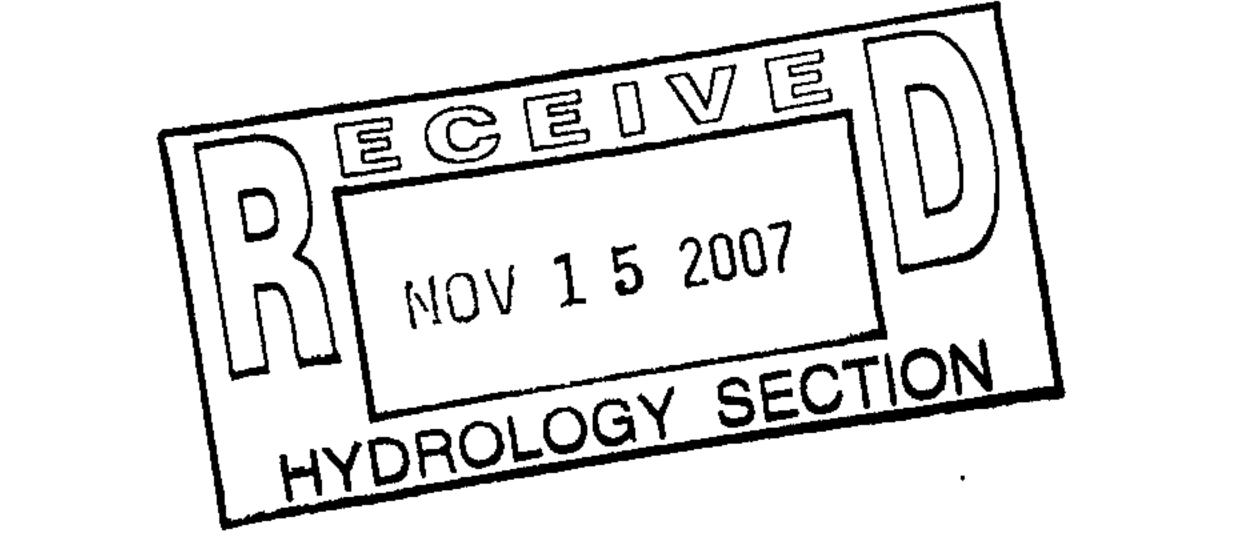
The record information presented hereon is not necessarily complete and intended only to verify substantial compliance of the traffic aspects of this project. Those relying on the record document are advised to obtain independent verification of its accuracy before using it for any other purpose.

Engineer's or Architect's Stamp

Signature of Engineer or Architect

Date

CHRISTOPHER R. GUNNING





Planning Department Transportation Development Services Section

May 16, 2007

Christopher R Gunning, Registered Architect 7601 Jefferson NE, Ste. 100 Albuquerque, NM 87109

Re:

Certification Submittal for Final Building Certificate of Occupancy for

Ventura Place Bldg 3, [C-20 / D48]

8810 Holly NE

Architect's Stamp Dated 05/16/07

Dear Mr. Gunning:

P.O. Box 1293

The TCL / Letter of Certification submitted on May 16, 2007 is sufficient for acceptance by this office for final Certificate of Occupancy (C.O.). Notification has been made to the Building and Safety Section.

Albuquerque

New Mexico 87103

Nilo E. Salgado Fernandez, P.E.

Senior Traffic Engineer

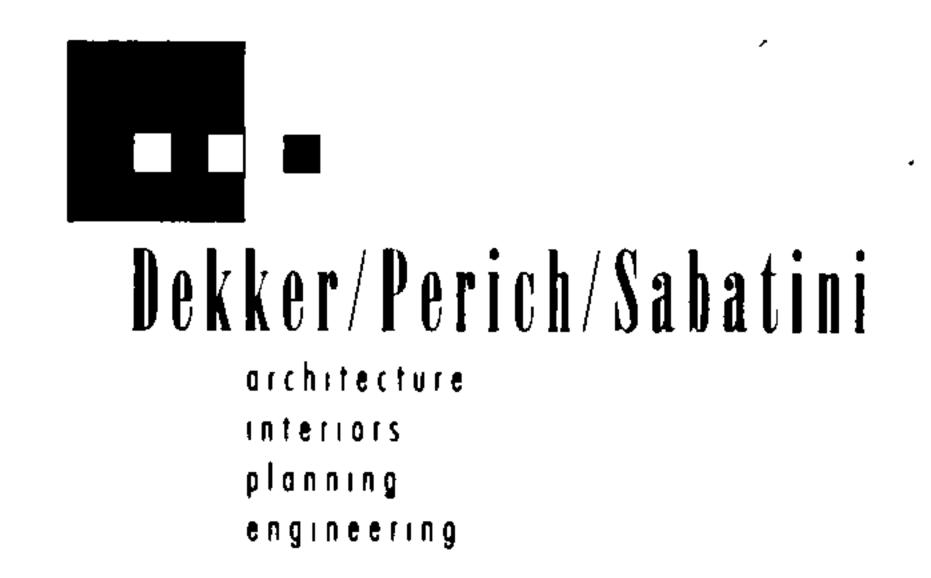
www.cabq.gov Development and Building Services

Sincerely,

Planning Department

c: Engineer

Hydrology file CO Clerk



TRAFFIC CERTIFICATION

I, Christopher R. Gunning, NMRA 3203, of the firm Dekker/Perich/Sabatini, hereby certify that this project has is in substantial compliance with and in accordance with the design intent of the approved plan dated the 1st of August 2006. The record information edited onto the original design document has been obtained by Dekker/Perich/Sabatini. I further certify that Dekker/Perich/Sabatini visited the project site on 05/04/07 and has 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 Certificate of Occupancy.

The record information presented hereon is not necessarily complete and intended only to verify substantial compliance of the traffic aspects of this project. Those relying on the record document are advised to obtain independent verification of its accuracy before using it for any other purpose.

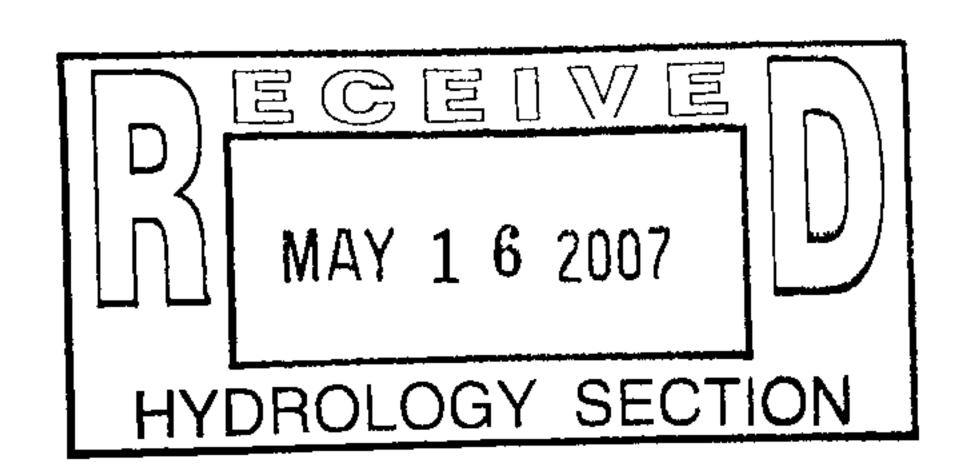
Engineer's or Architect's Stamp

Signature of Engineer or Architect

Date

60







Planning Department Transportation Development Services Section

November 16, 2006

Christopher R. Gunning, Registered Architect 7601 Jefferson NE, Ste. 100 Albuquerque, NM 87109

Re: Certification Submittal for Final Building Certificate of Occupancy for

Ventura Place - Bldg 4, [C-20 / D48]

8910 Holly Ave. NE

Architect's Stamp Dated 11/14/06

Dear Mr. Gunning:

P.O. Box 1293

The TCL / Letter of Certification submitted on November 15, 2006 is sufficient for

acceptance by this office for final Certificate of Occupancy (C.O.). Notification

has been made to the Building and Safety Section.

Albuquerque

-/.//

Sincerely,

New Mexico 87103

Nilo E. Salgado-Fernandez, P.E.

Senior Traffic Engineer

Development and Building Services

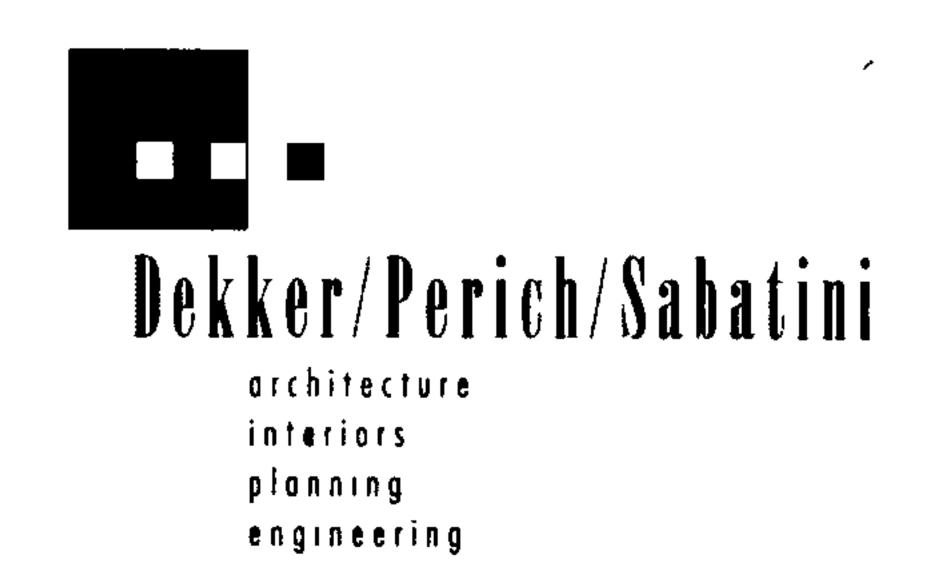
Planning Department

www.cabq.gov

c: Engineer

Hydrology file

CO Clerk



TRAFFIC CERTIFICATION

1. I, Christopher R. Gunning, NMRA 3203, of the firm Dekker/Perich/Sabatini, hereby certify that this project has is in substantial compliance with and in accordance with the design intent of the approved plan dated 31st March 06. The record information edited onto the original design document has been obtained by Dekker/Perich/Sabatini. I further certify that Dekker/Perich/Sabatini visited the project site on 11/14/06 and has 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.

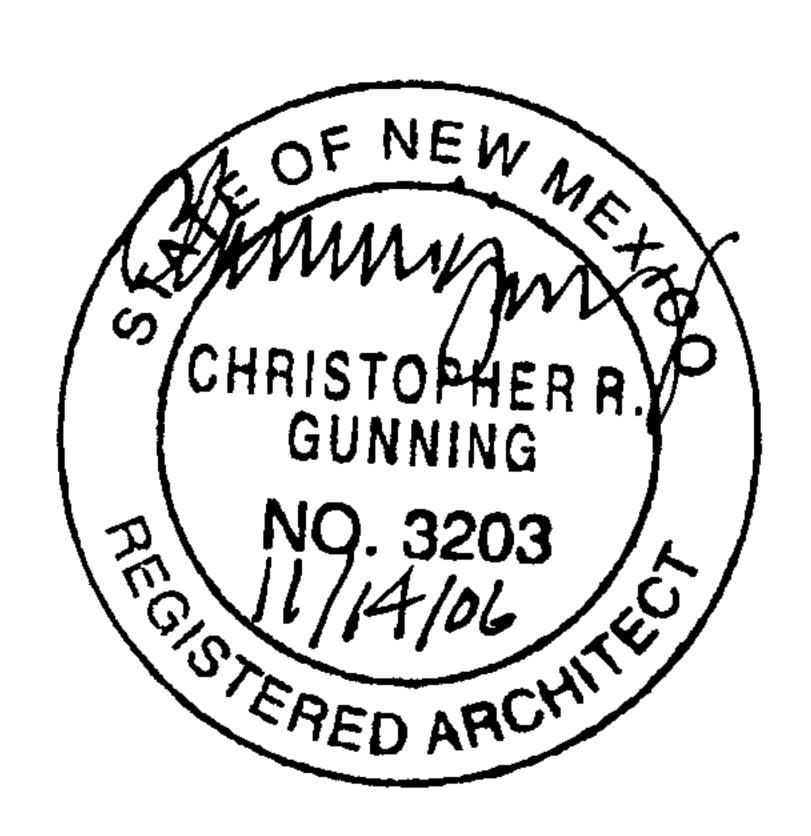
This certification is submitted in support of a request for Certificate of Occupancy.

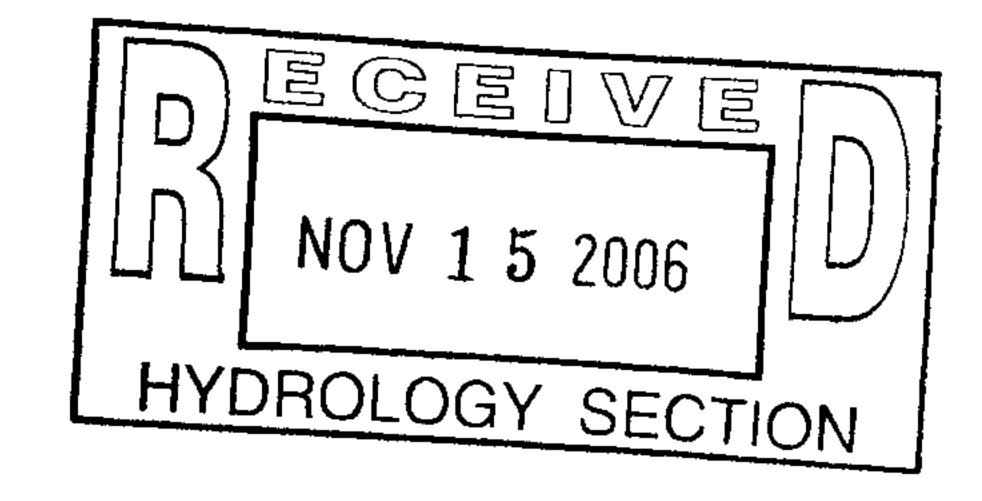
The record information presented hereon is not necessarily complete and intended only to verify substantial compliance of the traffic aspects of this project. Those relying on the record document are advised to obtain independent verification of its accuracy before using it for any other purpose.

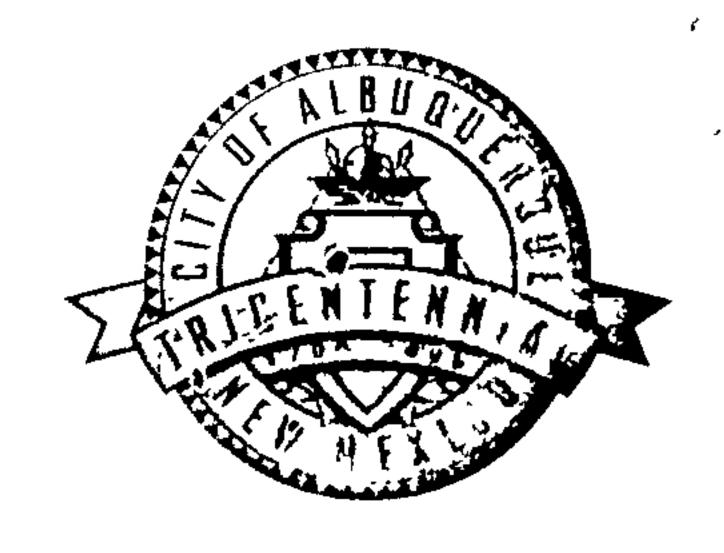
Engineer's or Architect's Stamp

Signature of Engineer or Architect

Date







Planning Department Transportation Development Services Section

October 20, 2006

Christopher R. Gunning, Registered Architect, Dekker/Perich/Sabatini 7601 Jefferson NE, Ste. 100 Albuquerque, NM 87109

Re:

Approval of Final Certificate of Occupancy (C.O.) for

Ventura Place Bldg 1, [C-20 / D48]

8900 Holly Ave. NE

Architect's Stamp Dated 10/19/06

Dear Mr. Gunning:

Sincérely.

The AA/DRB letter of certification submitted on October 19, 2006 is sufficient for acceptance by this office for Final Certificate of Occupancy (C.O.). Notification has been made to the Building and Safety Section.

P.O. Box 1293

Albuquerque

Nilo E. Salgado-Fernandez, P.E.

Senior Traffic Engineer

New Mexico 87103

Development and Building Services

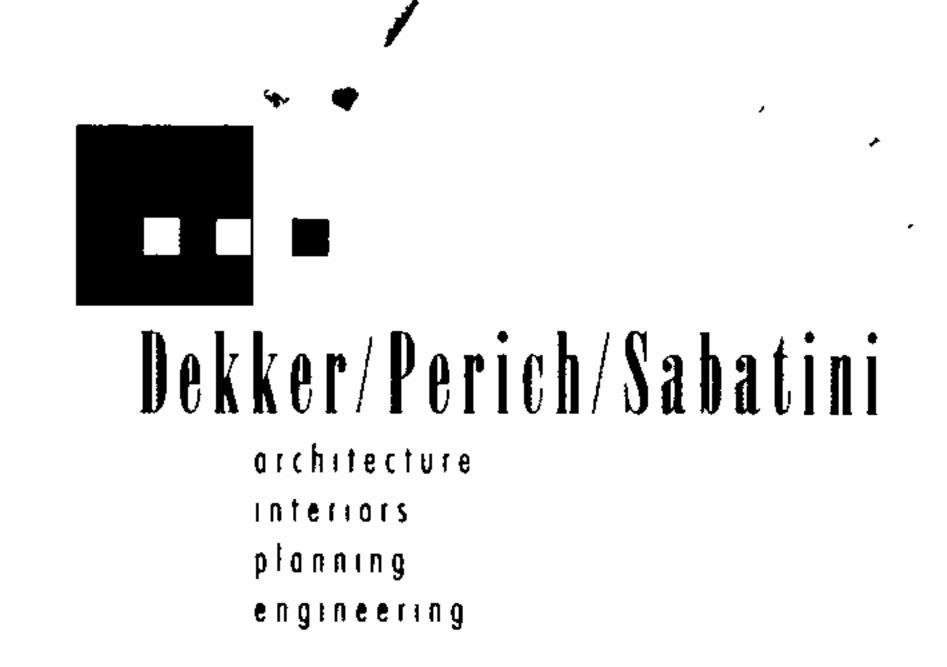
Planning Department

C:

Engineer

www.cabq.gov

Hydrology file CO Clerk



TRAFFIC CERTIFICATION

I, Christopher R. Gunning, NMRA 3203, of the firm Dekker/Perich/Sabatini, hereby certify that this project has is in substantial compliance with and in accordance with the design intent of the approved plan dated 30th June 05. The record information edited onto the original design document has been obtained by Dekker/Perich/Sabatini. I further certify that Dekker/Perich/Sabatini visited the project site on 9/13/06 to determine 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, and to verify that all conditions noted below were completed during this final inspection conducted on 9/13/06.

- 1. The HC signs were too short and are being lengthened and installed on 9/11/06. Verified, was completed on 9/11/06.
- 2. The crosswalk leading to the main access street, Holly Ave., is cut out but not installed yet due to weather. Will be installed on 9/12/06, weather permitting. Verified, was installed on 9/12/06.
- 3. The bike rack was not installed, but is scheduled to be installed on 9/11/06. Verified, was installed on 9/11/06.

This certification is submitted in support of a request for Certificate of Occupancy.

The record information presented hereon is not necessarily complete and intended only to verify substantial compliance of the traffic aspects of this project. Those relying on the record document are advised to obtain independent verification of its accuracy before using it for any other purpose.

Signature of Engineer or Architect

Engineer's or Architect's Stamp

10/10/01

Date

CHRISTOPHER B.

GUNNING

NO. 3203

10/19/06

D) 国 G 国 V 国 D) OCT 19 2006 D) HYDENIOGY, SECTION



Planning Department Transportation Development Services Section

December 22, 2005

Shahab Biazar, Registered Architect 4416 Anaheim Ave. NE Albuquerque, NM 87113

Re: Certification Submittal for Final Building Certificate of Occupancy for

Trader Joe's (Lot 5), [C-20 / D48]

8928 Hollly Ave NE

Engineer's Stamp Dated 12/13/05

Dear Mr. Biazar:

Sincerely,

P.O. Box 1293

The TCL / Letter of Certification submitted on December 21, 2005 is sufficient for acceptance by this office for final Certificate of Occupancy (C.O.). Notification has been made to the Building and Safety Section.

Albuquerque

New Mexico 87103

www.cabq.gov

Nilo E. Salgado-Fernandez, P.E.

Senior Traffic Engineer

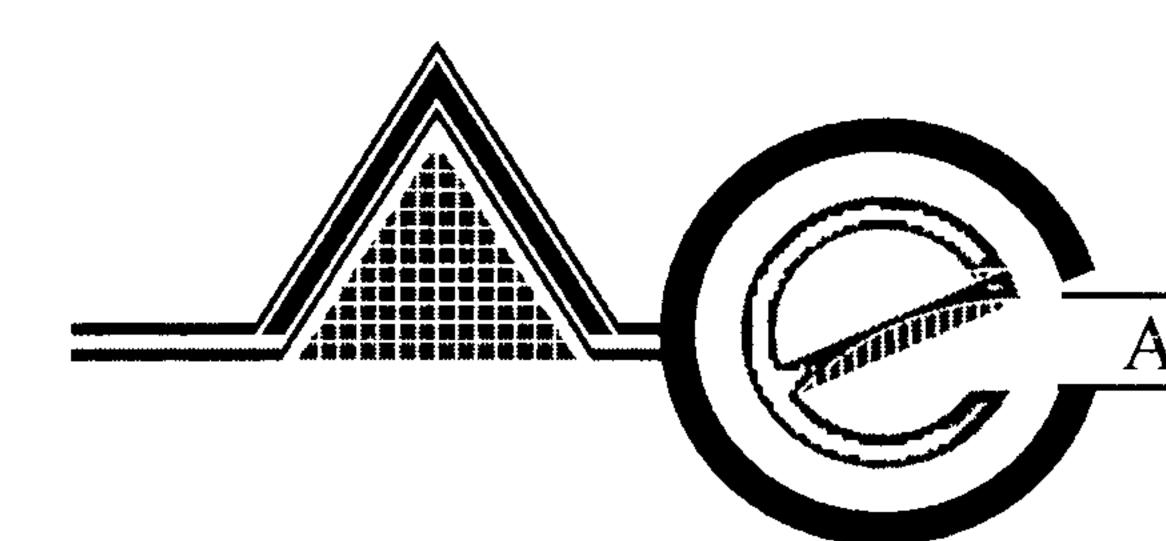
Development and Building Services

Planning Department

c:

Engineer Hydrology file

CO Clerk



ADVANCED ENGINEERING and CONSULTING, LLC

Consulting
Design
Development
Management
Inspection
Surveying

December 13, 2005

Mr. Nilo Salgado, P.E. City Transportation Department 600 Second Street NW Albuquerque, New Mexico 87102

Re: SITE PLAN CERTIFICATION FOR FINAL CERTIFICATION OF OCCUPANCY FOR LOT 5, VENTURA PLACE (C20/D48)

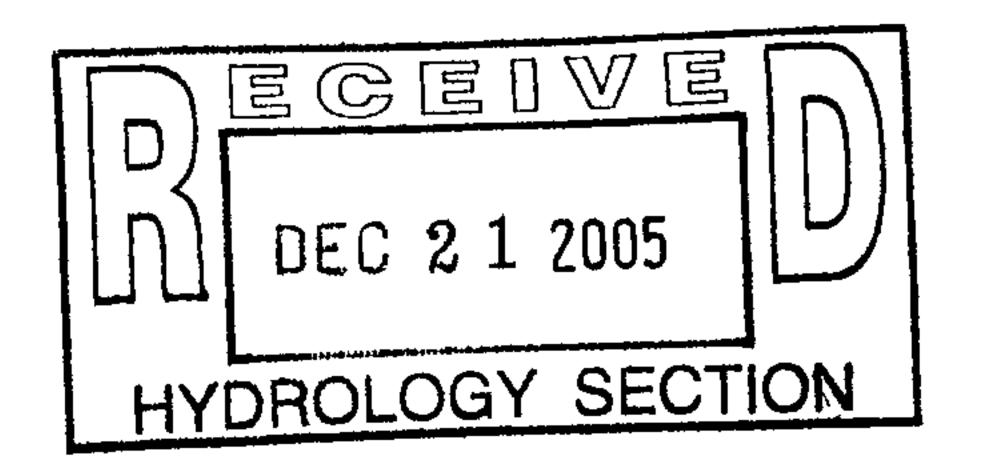
Dear Mr. Salgado:

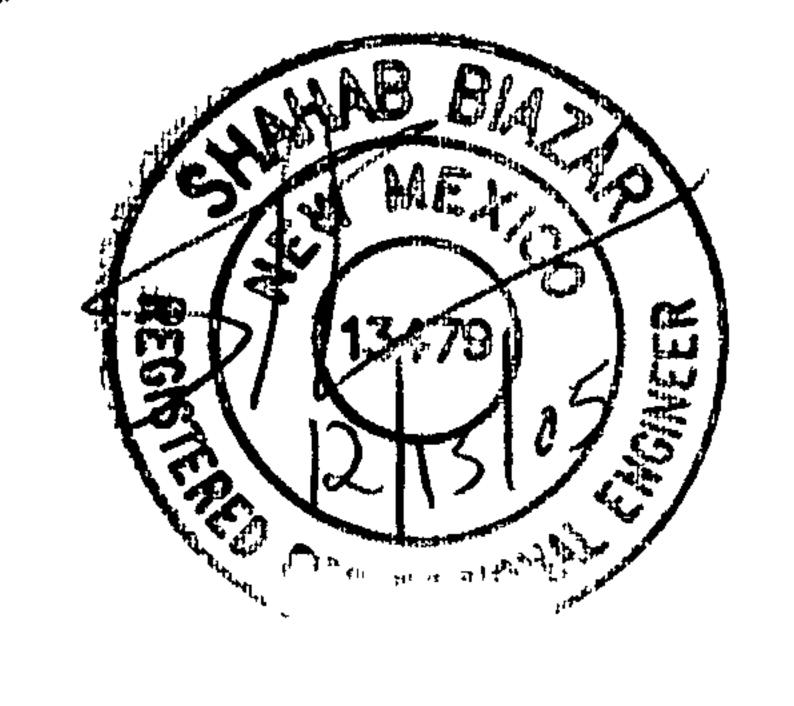
We are requesting Final Certification of Occupancy with this submittal. Enclosed please find copy of the as-built Site Plan for the above mentioned site. This project was administratively approved with approval date of 06/17/2005. The project was inspected by Advanced Engineering and Consulting, LLC on December 12, 2005. I certify that the project was built in substantial compliance to the approved site plan. Minor striping was left in the parking lot. The trailer within the parking lot was being removed in order to complete the striping for the parking spaces.

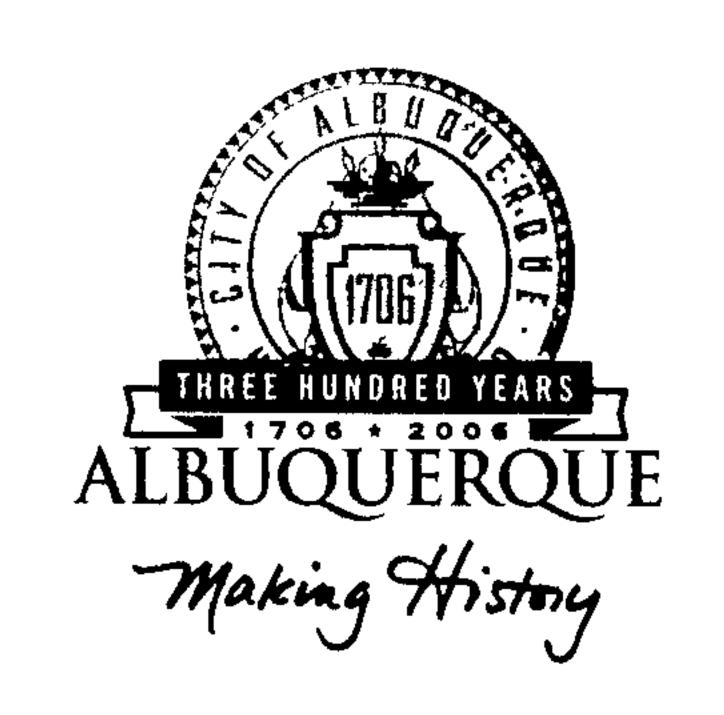
Sincerely,

Should you have any questions, please do not hesitate to contact our office.

Shahab Biazar, P.E.







Planning Department Transportation Development Services Section

August 30, 2005

Shahab Biazar, P.E. 4416 Anaheim Ave NE Albuquerque, NM 87113

Re:

Certification Submittal for Final Building Certificate of Occupancy for Lot 4, Ventura(Sandia Lab Federal Credit Union), [C-20 / D48]

8920 Hollly Ave NE

Engineer's Stamp Dated 08/24/05

Dear Mr. Biazar:

P.O. Box 1293

The TCL / Letter of Certification submitted on August 24, 2005 is sufficient for acceptance by this office for final Certificate of Occupancy (C.O.). Notification has been made to the Building and Safety Section.

Albuquerque

Sincerely, //

New Mexico 87103

www.cabq.gov

Nilo E. Salgádo-Fernandez, P.E.

Senior Traffic Engineer

Development and Building Services

Planning Department

C:

Engineer
Hydrology file
CO Clerk