CITY OF ALBUQUERQUE

Planning Department
Suzanne Lubar, Director

Mayor Richard J. Berry

September 28, 2015

Mark Goodwin, PE
Mark Goodwin & Associates, PA.
PO Box 90606
Albuquerque, NM 87199

Re: Massey Warehouse-Phase 2
8410 Washington St.
Grading and Drainage Plan
Engineer's Stamp dated: 11/22/2016 (C17D003)

Dear Mr. Goodwin,

Based on the information provided in your submittal received 11/23/2016, the above referenced Grading and Drainage Plan is approved for Building Permit.

Please attach a copy of this approved plan to the construction sets in the permitting process prior to sign-off by Hydrology.

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 or Rudy Rael at 924-3977.

Sincerely,

Abiel Carrillo, P.E.
Principal Engineer, Hydrology
Planning Department

RR/AC
C: File

PO Box 1293
Albuquerque
New Mexico 87103
www.cabq.gov

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

Project Title: Massey Warehouse- Phase 2 Building Permit #: _____ City Drainage #: C17D003

DRB#: _____ EPC#: _____ Work Order#: _____

Legal Description: LTF-1 Plat of lands of Los Angeles Investors lots E-1, E-2, & F-1

City Address: 8410 Washington St Abq, NM, 87113

Engineering Firm: Mark Goodwin & Associates Contact: Hiram L Crook

Address: PO Box 90606, Abq, NM, 87199

Phone#: (505) 898-2200 Fax#: (505) 797-9539 E-mail: Hiram@goodwinengineers com

Owner: Jerry Mosher Contact:

Address: 4441 Anaheim Ave NE, Abq, NM 87113

Phone#: (505) 822-5468 Fax#: _____ E-mail: jerry@mosherent com

Architect: N/A Contact: _____

Address: _____

Phone#: _____ Fax#: _____ E-mail: _____

Other Contact: _____ Contact: _____

Address: _____

Phone#: _____ Fax#: _____ E-mail: _____

Check all that Apply:

DEPARTMENT:

__x__ HYDROLOGY/ DRAINAGE
_____ TRAFFIC/ TRANSPORTATION
_____ MS4/ EROSION & SEDIMENT CONTROL

TYPE OF SUBMITTAL:

_____ ENGINEER/ ARCHITECT CERTIFICATION

_____ CONCEPTUAL G & D PLAN
__x__ GRADING PLAN
_____ DRAINAGE MASTER PLAN
_____ DRAINAGE REPORT
_____ CLOMR/LOMR

_____ TRAFFIC CIRCULATION LAYOUT (TCL)
_____ TRAFFIC IMPACT STUDY (TIS)
_____ EROSION & SEDIMENT CONTROL PLAN (ESC)

_____ OTHER (SPECIFY) _____

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

__x__ BUILDING PERMIT APPROVAL
_____ CERTIFICATE OF OCCUPANCY

_____ PRELIMINARY PLAT APPROVAL
_____ SITE PLAN FOR SUB'D APPROVAL
_____ SITE PLAN FOR BLDG. PERMIT APPROVAL
_____ FINAL PLAT APPROVAL
_____ SIA/ RELEASE OF FINANCIAL GUARANTEE
_____ FOUNDATION PERMIT APPROVAL
_____ GRADING PERMIT APPROVAL
_____ SO-19 APPROVAL
_____ PAVING PERMIT APPROVAL
_____ GRADING/ PAD CERTIFICATION
_____ WORK ORDER APPROVAL
_____ CLOMR/LOMR

_____ PRE-DESIGN MEETING
_____ OTHER (SPECIFY) _____

IS THIS A RESUBMITTAL?: __X__ Yes _____ No

DATE SUBMITTED: November 22, 2016 By: Hiram L Crook

COA STAFF: ELECTRONIC SUBMITTAL RECEIVED _____

RECEIVED
NOV 23 2016
LAND DEVELOPMENT SECTION

Carrillo, Abiel X.

From: Carrillo, Abiel X.
Sent: Wednesday, November 02, 2016 4:44 PM
To: D. Mark Goodwin (mark@goodwinengineers.com)
Subject: Massey - Phase 2 - C17D003 - Stamp Date 10-10-2016

Mr. Goodwin,

This email is being sent in lieu of a formal letter attached to this email to help expedite the review of initial submittals. A reply to this email will not substitute a resubmittal.

Based on the information provided in your submittal, received 10-13-2016, the above-referenced Grading and Drainage Plan cannot be approved for Building Permit until the following comments are addressed:

1. The Hydrology Notes mention that the pond at the west end of the site will have enough volume to manage the first flush volume. The volume required needs to be shown on the plan, since the masterplan is dated prior to the date of the first flush ordinance.

    a. The pond does not appear to be designed to retain any volume; the outfall invert is set at the same elevation as the pond bottom.

2. Place rip rap or other erosion control element upstream of the sidewalk piping along the southern swale to prevent clogging and conveyance to the adjacent property.

3. Will the site be graveled? Based on aerial photos it appears that the area between the Building E and the gate is a dirt lot used by a lot of trucks. A track pad (rip rapped pad) just inside of the gate should be considered to minimize sediment tracking onto the paved portion of the site (not a requirement, but may minimize maintenance of the ponds).

Any question just let me know.

Abiel Carrillo, PE, CFM

Principal Engineer - Hydrology
Planning Department
Development Review Services Division
City of Albuquerque
505-924-3986
acarrillo@cabq.gov
600 2nd Street NW
Albuquerque, NM 87102

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

Project Title: Massey Warehouse- Phase 2 Building Permit #: _____ City Drainage #: C17D003

DRB# _____ EPC# _____ Work Order#: _____

Legal Description: LTF-1 Plat of lands of Los Angeles Investors lots E-1, E-2, & F-1

City Address: 8410 Washington St Abq, NM, 87113

Engineering Firm: Mark Goodwin & Associates Contact: Hiram L Crook

Address: PO Box 90606, Abq, NM, 87199

Phone# (505) 898-2200 Fax#. (505) 797-9539 E-mail: Hiram@goodwinengineers.com

Owner: Jerry Mosher Contact: _____

Address: 4441 Anaheim Ave NE, Abq, NM 87113

Phone# (505) 822-5468 Fax# _____ E-mail: jerry@mosherent com

Architect: N/A Contact: _____

Address: _____

Phone# _____ Fax# _____ E-mail: _____

Other Contact: _____ Contact: _____

Address: _____

Phone# _____ Fax#. _____ E-mail: _____

Check all that Apply

DEPARTMENT:

__x__ HYDROLOGY/ DRAINAGE
_____ TRAFFIC/ TRANSPORTATION
_____ MS4/ EROSION & SEDIMENT CONTROL

TYPE OF SUBMITTAL:

_____ ENGINEER/ ARCHITECT CERTIFICATION

_____ CONCEPTUAL G & D PLAN
__x__ GRADING PLAN
_____ DRAINAGE MASTER PLAN
_____ DRAINAGE REPORT
_____ CLOMR/LOMR

_____ TRAFFIC CIRCULATION LAYOUT (TCL)
_____ TRAFFIC IMPACT STUDY (TIS)
_____ EROSION & SEDIMENT CONTROL PLAN (ESC)

_____ OTHER (SPECIFY) _____

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

__x__ BUILDING PERMIT APPROVAL
_____ CERTIFICATE OF OCCUPANCY

_____ PRELIMINARY PLAT APPROVAL
_____ SITE PLAN FOR SUB'D APPROVAL
_____ SITE PLAN FOR BLDG. PERMIT APPROVAL
_____ FINAL PLAT APPROVAL
_____ SIA/ RELEASE OF FINANCIAL GUARANTEE
_____ FOUNDATION PERMIT APPROVAL
_____ GRADING PERMIT APPROVAL
_____ SO-19 APPROVAL
_____ PAVING PERMIT APPROVAL
_____ GRADING/ PAD CERTIFICATION
_____ WORK ORDER APPROVAL
_____ CLOMR/LOMR

_____ PRE-DESIGN MEETING
_____ OTHER (SPECIFY) _____

RECEIVED
OCT 13 2016
LAND DEVELOPMENT SECTION

IS THIS A RESUBMITTAL? _____ Yes __x__ No

DATE SUBMITTED: October 11, 2016 By: Hiram L Crook

COA STAFF ELECTRONIC SUBMITTAL RECEIVED ___

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

February 5, 2001

D. Mark Goodwin, P.E.
MARK GOODWIN & ASSOC.
P.O. Box 90606
Albuquerque, NM 87199

RE: **Grading and Drainage Certification**
Massey Warehouse Project - <u>For Bldgs. "A" & "B" Only</u>
(C-17/D003) (Washington St.)
Engineer's Stamp dated 2/2/2000
Engineers Certification dated 2/2/2001

Dear Mr. Goodwin:

Based upon the information provided in your Engineers Certification submittal dated 2/2/2001, the above referenced site is approved for Permanent Certificate of Occupancy.

This permanent Certificate of Occupancy is for **<u>Buildings "A" and "B" ONLY</u>**.
If I can be of further assistance, please contact me at 924-3986.

Sincerely,

Bradley L. Bingham

Bradley L. Bingham, PE
Senior Civil Engineer, PWD

C: Vickie Chavez, COA
Teresa Martin,COA
file

PURPOSE OF REPORT

The entire Massey Project is to construct 5 buildings with 3 offices each. At this time, only buildings A and B will be constructed. This report is being submitted for drainage approval. Please note, traffic circulation for this project was approved by Mike Zamora on January 24, 2000.

EXISTING CONDITIONS

The site is located on the enclosed Zone Atlas Map C-17 and is zoned SU-2, M-1. The property is bounded on the west by Washington Street, on the north and south by undeveloped land, and on the east by businesses on the west side of Jefferson.

A drainage swale runs from the north to the south at the midpoint between Washington Street and Jefferson Street. This swale is along the eastern edge of the property and prevents off-site flows from entering this property. This site has a uniform grade of 2.2% from east to west. The site is not within the 100 year flood zone.

PROPOSED MANAGEMENT PLAN

Please see the enclosed Grading and Drainage Plan, C1.

The entire 2.12 acre site contributes 9.42 cfs for the 100 year, 6 hr storm event. Water from the site drains northward down Washington Avenue. Eventually, this water drains to the Alameda storm drain which is sized for the 10 year storm. As a result, the discharge from the Massey site must be less than the 10 year storm which is 6.05 cfs.

On site, most of the storm water (8.39 cfs) will drain to the center of the parking lot and then flow into the trench drain on the west side of the lot. Each side of the trench drain drains to an 18 inch pipe which goes to a detention pond. The remaining storm water (1.03 cfs) will drain behind the two westerly buildings and then directly into the detention ponds.

The storm water will be released at the northwest corner of the northern detention pond at a maximum rate of 6.05 cfs through a 0.7 foot opening in the wall of the detention pond. Thus, the site is discharging less than the 10 year storm.

City of Albuquerque

February 22, 2000

Mark Goodwin, P.E.
Amy Driscoll
Mark Goodwin & Associates, PA
P.O. Box 90606
Albuquerque, NM 87199

RE: GRADING AND DRAINAGE PLAN FOR **MASSEY WAREHOUSE** SUBMITTED FOR BUILDING PERMIT APPROVAL **(C-17/D003)**

Dear Mr. Goodwin,

Based upon the information provided in your February 1, 2000, submittal, the project, referred to above, is approved for Building Permit. Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology.

A separate permit is required for construction within the city right-of-way. A copy of this approval letter must be on hand when applying for the excavation permit.

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

If you have any questions, please call me at 924-3988.

Sincerely,

Stuart Reeder, P.E.

Stuart Reeder, P.E.
Hydrology Division

xc: Pam Lujan, Permits
Whitney Reierson
File

DRAINAGE REPORT

for

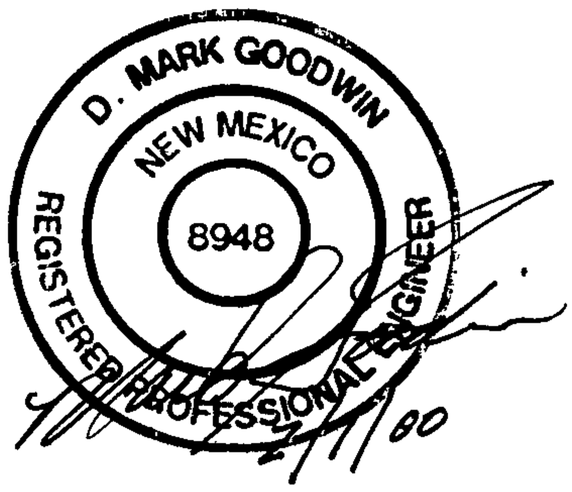
MASSEY PROJECT

Prepared By

Mark Goodwin & Associates, PA
P.O. Box 90606
Albuquerque, NM 87199

Prepared For

George Rainhart
2325 San Pedro NE, Suite 2B
Albuquerque, NM 87110



February 2000

D. Mark Goodwin & Associates, P.A.
Consulting Engineers
P.O. BOX 90606, ALBUQUERQUE,NM 87199
(505) 828-2200 FAX 797-9539

November 11, 2016

Mr. Abiel Carrillo, PE
Principal Engineer, Hydrology Planning Dept.
City of Albuquerque
PO Box 1293
Albuquerque, NM 87103

Re: Massey Warehouse
Massey - Phase 2 - C17D003 - Stamp Date 10-10-2016

Dear Mr. Carrillo;

In response to your comment letter dated 11-3-16, your comments are addressed below:

1. The Hydrology Notes mention that the pond as the west end of the site will have enough volume to manage the first flush volume. The volume required needs to be shown on the plan, since the masterplan is dated prior to the date of the first flush ordinance.

   The pond bottom will be dug out with a 2:1 side slope and will retain the volume needed for the first flush. The revised grading plan shows a detail of the pond along with notes for the first flush and its volume needed.

2. Place rip rap or other erosion control element upstream of the sidewalk piping along the southern swale to prevent clogging and conveyance to the adjacent property.

   With this iteration of the grading plan the sidewalk piping has been removed and is no longer needed. – Plan still shows it

3. Will the site be graveled? Based on aerial photos it appears that the area between the Building E and the gate is a dirt lot used by a lot of trucks. A track pad (rip rapped pad) just inside of the gate should be considered to minimize sediment tracking onto the paved portion of the site (not a requirement, but may minimize maintenance of the ponds).

   The portion of the site between the proposed building parking lot and the existing fence will be graveled to allow for truck movement and minimize sediment tracking. Notation of the graveled area is noted on the revised Grading & Drainage plan.

Please call me if you have any questions.

Sincerely,
MARK GOODWIN & ASSOCIATES, P.A.

Hiram L. Crook
Staff Engineer

F:\1-Projects\2016\A16056 - Massey Warehouse\HYDRO_LTR_11.21.016.docx

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

Public Works Department
Transportation Development Services Section

July 17, 2002

Bin Johnson for George Rainhart, Registered Architect
George Rainhart & Associates
2325 San Pedro N.E., #2B
Albuquerque, NM 87110

Re: Certification Submittal for Final Building Certificate of Occupancy for
Massey Office/Warehouse, [C-17 / D003]
8410 & 8418 Washington N.E.
Architect's Stamp Dated 07/10/2002

Dear Mr. Johnson:

The TCL / Letter of Certification submitted on July 12, 2002 is sufficient for acceptance by this office for final Certificate of Occupancy (C.O.). Notification has been made to Building and Safety and final C.O. has been logged in by Vicki Chavez in the Building Safety Section downstairs.

Sincerely,

Mike Zamora, Commercial Plan Checker
Development and Building Services
Planning Department

c: Hydrology file
Mike Zamora

June 27, 2002

Mr. Mike Zamora
City of Albuquerque
Transportation Division
600 2nd Street NW
Albuquerque, NM 87102

RE: 8410 and 8418 Washington
Office Warehouse
Albuquerque, NM
Transportation Certification

Dear Mr. Zamora:

This letter hereby certifies that the site construction referenced above has been completed to the best of my knowledge. The site is constructed within substantial compliance with the approved Site Plan, as of the date of this certification. Please see the attached site plan which indicates the as-built conditions of the site.

Sincerely,

George Rainhart, Architect & Associates

George R. Rainhart, AIA

Cc: file

GEORGE RAINHART, ARCHITECT & ASSOCIATES P.C.
2325 SAN PEDRO NE SUITE 2-B ■ ALBUQUERQUE, NEW MEXICO 87110
PHONE: 505-884-9110 ■ FAX: 505-837-9877 ■ Email: graa@gra-arch.com

May 25, 2001

Mike Zamora
Traffic Department
City of Albuquerque
600 Second St. NW
Albuquerque, NM 87103

RE: Massey Office Warehouse C17/D003
Ref Permit #: 0000916
8410 & 8418 Washington NE

Dear Mr. Zamora:

I have reviewed the completed project. To the best of my knowledge this site has been constructed per the approved Traffic control plan included in the building permit set.

Respectfully,

George Rainhart
George Rainhart, Architect & Associates

8418 & 8410 - Phase I
6/1/01 - To be issued on 5/31/01
7/31/01 - Called in (GT) Final C.O. for Phase I

GEORGE RAINHART, ARCHITECT & ASSOCIATES P.C.
2325 SAN PEDRO NE SUITE 2-B ■ ALBUQUERQUE, NEW MEXICO 87110
PHONE: 505-884-9110 ■ FAX: 505-837-9877 ■ Email: rainhart@worldnet.att.net

a.o. month of 8/01 Field Visit showed Phase II Not under const. (weeds fully Grown) No Barricading, some Striping Not Per Appl'd Plan (in front of O.H. Doors?), - Large Trucks Parked/Stored in Ph II

PURPOSE OF REPORT

The entire Massey Project is to construct 5 buildings with 3 offices each. At this time, only buildings A and B will be constructed. This report is being submitted for drainage approval. Please note, traffic circulation for this project was approved by Mike Zamora on January 24, 2000.

EXISTING CONDITIONS

The site is located on the enclosed Zone Atlas Map C-17 and is zoned SU-2, M-1. The property is bounded on the west by Washington Street, on the north and south by undeveloped land, and on the east by businesses on the west side of Jefferson.

A drainage swale runs from the north to the south at the midpoint between Washington Street and Jefferson Street. This swale is along the eastern edge of the property and prevents off-site flows from entering this property. This site has a uniform grade of 2.2% from east to west. The site is not within the 100 year flood zone.

PROPOSED MANAGEMENT PLAN

Please see the enclosed Grading and Drainage Plan, C1.

The entire 2.12 acre site contributes 9.42 cfs for the 100 year, 6 hr storm event. Water from the site drains northward down Washington Avenue. Eventually, this water drains to the Alameda storm drain which is sized for the 10 year storm. As a result, the discharge from the Massey site must be less than the 10 year storm which is 6.05 cfs.

On site, most of the storm water (8.39 cfs) will drain to the center of the parking lot and then flow into the trench drain on the west side of the lot. Each side of the trench drain drains to an 18 inch pipe which goes to a detention pond. The remaining storm water (1.03 cfs) will drain behind the two westerly buildings and then directly into the detention ponds.

The storm water will be released at the northwest corner of the northern detention pond at a maximum rate of 6.05 cfs through a 0.7 foot opening in the wall of the detention pond. Thus, the site is discharging less than the 10 year storm.

AHYMO SUMMARY TABLE (AHYMO194) - AMAFCA Hydrologic Model - January, 1994 RUN DATE (MON/DAY/YR) =02/01/2000
INPUT FILE = massey4.dat USER NO.= M_GOODWN.I01

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION
START										TIME= .00
RAINFALL TYPE= 1										RAIN6= 2.400
COMPUTE NM HYD	100.00	-	1	.00332	9.42	.347	1.96222	1.500	4.437	PER IMP= 85.00
RAINFALL TYPE= 1										RAIN6= 1.600
COMPUTE NM HYD	200.00	-	2	.00332	6.05	.214	1.20693	1.500	2.849	PER IMP= 85.00
ROUTE RESERVOIR	300.00	1	3	.00332	6.02	.347	1.96214	1.633	2.838	AC-FT= .088
FINISH										

```
START                   TIME=0.0
*****     MASSEY WAREHOUSE
*****     FILE: c:\AHYMO\MASSEY4.DAT  JANUARY 2000 BY:AMY
*****
*****     100-YEAR 6-HOUR STORM EVENT
*****
RAINFALL                TYPE=1 RAIN QUARTER=0.0 IN
                        RAIN ONE=2.05 IN RAIN SIX=2.40 IN
                        RAIN DAY=2.7 IN DT=0.033333 HR
*****
*****  DEVELOPED CONDITIONS
*****
COMPUTE NM HYD          ID=1 HYD NO=100.00 AREA=0.003317 SQ MI
                        PER A=0.00 PER B=0.15 PER C=0.00 PER D=0.85
                        TP=0.1333 HR MASS RAINFALL=-1
PRINT HYD               ID=2 CODE=1
*****
*****     10-YEAR, 6-HOUR STORM EVENT
*****
RAINFALL                TYPE=1 RAIN QUARTER=0.0 IN
                        RAIN ONE=1.37 IN RAIN SIX=1.60 IN
                        RAIN DAY=1.80 IN DT=0.033333 HR
*****
*****  DEVELOPED CONDITIONS
*****
COMPUTE NM HYD          ID=2 HYD NO=200.00 AREA=0.003317 SQ MI
                        PER A=0.00 PER B=0.15 PER C=0.00 PER D=0.85
                        TP=0.1333 HR MASS RAINFALL=-1
PRINT HYD               ID=2 CODE=1
*****
*****
ROUTE RESERVOIR           ID=3 HYD NO=300.00 INFLOW ID=1 CODE=5
                          OUTFLOW(CFS)   STORAGE(AC-FT)   ELEVATION(FT)
                          0.0              0.0              0.0
                          6.05             0.0880           2.04
PRINT HYD                 ID=3 CODE=1
*****
FINISH
```

```
    AHYMO PROGRAM (AHYMO194) - AMAFCA Hydrologic Model - January, 1994
         RUN DATE (MON/DAY/YR) = 02/01/2000
         START TIME (HR:MIN:SEC) = 10:00:46     USER NO.= M_GOODWN.I01
         INPUT FILE = massey4.dat

START                TIME=0.0
*****    MASSEY WAREHOUSE
*****    FILE: c:\AHYMO\MASSEY4.DAT  JANUARY 2000 BY:AMY
*****
*****    100-YEAR 6-HOUR STORM EVENT
*****
RAINFALL             TYPE=1 RAIN QUARTER=0.0 IN
                     RAIN ONE=2.05 IN RAIN SIX=2.40 IN
                     RAIN DAY=2.7 IN DT=0.033333 HR

                COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK AT 1.40 HR.
                DT =     .033333 HOURS       END TIME =     5.999940 HOURS
                   .0000   .0017   .0034   .0051   .0069   .0087   .0106
                   .0125   .0145   .0165   .0185   .0206   .0228   .0250
                   .0273   .0297   .0321   .0346   .0372   .0399   .0427
                   .0455   .0485   .0517   .0549   .0583   .0618   .0656
                   .0695   .0736   .0780   .0837   .0897   .0962   .1101
                   .1413   .1892   .2580   .3520   .4755   .6329   .8289
                  1.0681  1.2893  1.3819  1.4601  1.5297  1.5929  1.6512
                  1.7053  1.7558  1.8032  1.8478  1.8898  1.9296  1.9672
                  2.0028  2.0366  2.0687  2.0991  2.1280  2.1346  2.1408
                  2.1467  2.1523  2.1576  2.1628  2.1677  2.1724  2.1770
                  2.1814  2.1857  2.1898  2.1938  2.1977  2.2015  2.2052
                  2.2088  2.2123  2.2157  2.2190  2.2223  2.2254  2.2286
                  2.2316  2.2346  2.2375  2.2404  2.2432  2.2460  2.2487
                  2.2514  2.2540  2.2566  2.2591  2.2616  2.2641  2.2665
                  2.2689  2.2712  2.2736  2.2758  2.2781  2.2803  2.2825
                  2.2847  2.2868  2.2889  2.2910  2.2931  2.2951  2.2971
                  2.2991  2.3011  2.3030  2.3049  2.3068  2.3087  2.3106
                  2.3124  2.3142  2.3160  2.3178  2.3196  2.3213  2.3231
                  2.3248  2.3265  2.3282  2.3299  2.3315  2.3331  2.3348
                  2.3364  2.3380  2.3396  2.3411  2.3427  2.3442  2.3458
                  2.3473  2.3488  2.3503  2.3518  2.3532  2.3547  2.3561
                  2.3576  2.3590  2.3604  2.3618  2.3632  2.3646  2.3660
                  2.3674  2.3687  2.3701  2.3714  2.3727  2.3741  2.3754
                  2.3767  2.3780  2.3793  2.3806  2.3818  2.3831  2.3843
                  2.3856  2.3868  2.3881  2.3893  2.3905  2.3917  2.3929
                  2.3941  2.3953  2.3965  2.3977  2.3988  2.4000

*****
*****  DEVELOPED CONDITIONS
*****
COMPUTE NM HYD       ID=1 HYD NO=100.00 AREA=0.003317 SQ MI
                     PER A=0.00 PER B=0.15 PER C=0.00 PER D=0.85
                     TP=0.1333 HR MASS RAINFALL=-1

    K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
    UNIT PEAK =   11.131    CFS   UNIT VOLUME =    .9984       B =   526.28      P60 = 2.0500
    AREA =      .002819 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
    RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033333


    K =   .132570HR    TP =   .133300HR    K/TP RATIO =   .994525     SHAPE CONSTANT, N =  3.549967
    UNIT PEAK =   1.2092    CFS   UNIT VOLUME =    .9889       B =   323.96      P60 = 2.0500
    AREA =      .000498 SQ MI    IA =    .50000 INCHES    INF =   1.25000 INCHES PER HOUR
    RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033333

PRINT HYD            ID=2 CODE=1

                                   OUTFLOW HYDROGRAPH REACH      .00


    RUNOFF VOLUME =      .00000 INCHES     =        .0000 ACRE-FEET
    PEAK DISCHARGE RATE =        .00 CFS  AT    .000 HOURS   BASIN AREA =   .0000 SQ. MI.


*****
*****    10-YEAR, 6-HOUR STORM EVENT
*****
```

RAINFALL TYPE=1 RAIN QUARTER=0.0 IN
RAIN ONE=1.37 IN RAIN SIX=1.60 IN
RAIN DAY=1.80 IN DT=0.033333 HR

COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK AT 1.40 HR.
DT = .033333 HOURS END TIME = 5.999940 HOURS

.0000	.0011	.0022	.0033	.0045	.0056	.0068
.0081	.0093	.0106	.0120	.0133	.0147	.0162
.0177	.0192	.0208	.0224	.0241	.0258	.0276
.0295	.0314	.0334	.0355	.0377	.0400	.0424
.0450	.0476	.0505	.0543	.0583	.0626	.0720
.0928	.1248	.1708	.2336	.3161	.4213	.5523
.7121	.8600	.9219	.9741	1.0206	1.0629	1.1018
1.1380	1.1717	1.2034	1.2332	1.2613	1.2879	1.3130
1.3368	1.3594	1.3808	1.4011	1.4205	1.4248	1.4290
1.4329	1.4366	1.4401	1.4435	1.4468	1.4499	1.4530
1.4559	1.4587	1.4614	1.4641	1.4667	1.4692	1.4716
1.4740	1.4763	1.4785	1.4807	1.4829	1.4850	1.4871
1.4891	1.4910	1.4930	1.4949	1.4967	1.4986	1.5004
1.5021	1.5039	1.5056	1.5072	1.5089	1.5105	1.5121
1.5137	1.5152	1.5168	1.5183	1.5198	1.5212	1.5227
1.5241	1.5255	1.5269	1.5283	1.5296	1.5310	1.5323
1.5336	1.5349	1.5362	1.5375	1.5387	1.5399	1.5412
1.5424	1.5436	1.5448	1.5459	1.5471	1.5483	1.5494
1.5505	1.5517	1.5528	1.5539	1.5549	1.5560	1.5571
1.5582	1.5592	1.5602	1.5613	1.5623	1.5633	1.5643
1.5653	1.5663	1.5673	1.5683	1.5693	1.5702	1.5712
1.5721	1.5731	1.5740	1.5749	1.5758	1.5767	1.5776
1.5785	1.5794	1.5803	1.5812	1.5821	1.5830	1.5838
1.5847	1.5855	1.5864	1.5872	1.5881	1.5889	1.5897
1.5905	1.5913	1.5922	1.5930	1.5938	1.5946	1.5953
1.5961	1.5969	1.5977	1.5985	1.5992	1.6000	

*****
***** DEVELOPED CONDITIONS
*****
COMPUTE NM HYD ID=2 HYD NO=200.00 AREA=0.003317 SQ MI
PER A=0.00 PER B=0.15 PER C=0.00 PER D=0.85
TP=0.1333 HR MASS RAINFALL=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 11.131 CFS UNIT VOLUME = .9984 B = 526.28 P60 = 1.3700
AREA = .002819 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033333

K = .139790HR TP = .133300HR K/TP RATIO = 1.048685 SHAPE CONSTANT, N = 3.366619
UNIT PEAK = 1.1588 CFS UNIT VOLUME = .9883 B = 310.46 P60 = 1.3700
AREA = .000498 SQ MI IA = .50000 INCHES INF = 1.25000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033333

PRINT HYD ID=2 CODE=1

PARTIAL HYDROGRAPH 200.00

RUNOFF VOLUME = 1.20693 INCHES = .2135 ACRE-FEET
PEAK DISCHARGE RATE = 6.05 CFS AT 1.500 HOURS BASIN AREA = .0033 SQ. MI.

*****
*****
ROUTE RESERVOIR ID=3 HYD NO=300.00 INFLOW ID=1 CODE=5

OUTFLOW(CFS)	STORAGE(AC-FT)	ELEVATION(FT)
0.0	0.0	0.0
6.05	0.0880	2.04

* * * * * * * * * * * * * * * * * *

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	.00	.000	.00
.17	.00	.00	.000	.00
.33	.00	.00	.000	.00

.50	.00	.00	.000	.00
.67	.00	.00	.000	.00
.83	.00	.00	.000	.00
1.00	.00	.00	.000	.00
1.17	.04	.00	.000	.00
1.33	2.72	.25	.011	.74
1.50	9.42	1.49	.064	4.41
1.67	4.81	1.98	.085	5.88
1.83	3.08	1.53	.066	4.52
2.00	2.23	1.12	.048	3.32
2.17	1.02	.77	.033	2.27
2.33	.48	.43	.019	1.27
2.50	.30	.24	.010	.72
2.67	.20	.14	.006	.43
2.83	.14	.09	.004	.26
3.00	.10	.06	.003	.17
3.17	.08	.04	.002	.12
3.33	.07	.03	.001	.09
3.50	.06	.03	.001	.08
3.67	.06	.02	.001	.07
3.83	.06	.02	.001	.06
4.00	.05	.02	.001	.06
4.17	.05	.02	.001	.05
4.33	.05	.02	.001	.05
4.50	.05	.02	.001	.05
4.67	.05	.02	.001	.05
4.83	.05	.02	.001	.05
5.00	.05	.02	.001	.05
5.17	.05	.02	.001	.05
5.33	.05	.02	.001	.05
5.50	.06	.02	.001	.05
5.67	.06	.02	.001	.06
5.83	.06	.02	.001	.06
6.00	.06	.02	.001	.06
6.17	.02	.02	.001	.05
6.33	.01	.01	.000	.03
6.50	.00	.00	.000	.01
6.67	.00	.00	.000	.01
6.83	.00	.00	.000	.00

PEAK DISCHARGE = 6.024 CFS - PEAK OCCURS AT HOUR 1.63
MAXIMUM WATER SURFACE ELEVATION = 2.031
MAXIMUM STORAGE = .0876 AC-FT INCREMENTAL TIME= .033333HRS

PRINT HYD ID=3 CODE=1

HYDROGRAPH FROM AREA 300.00

RUNOFF VOLUME = 1.96214 INCHES = .3471 ACRE-FEET
PEAK DISCHARGE RATE = 6.02 CFS AT 1.633 HOURS BASIN AREA = .0033 SQ. MI.

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FINISH

NORMAL PROGRAM FINISH END TIME (HR:MIN:SEC) = 10:00:47