Public Works/Hydrology

A14/D4A2

0000 0000 1196

A14/D4A2

25×10 32×10

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

December 16, 1993

Bob Ryals, P.E.
Ryals Engineering
4929 Idelwilde SE
Albuquerque, N.M. 87108

RE: ENGINEER'S CERTIFICATION FOR TRACT D4K2, 7 BAR RANCH (A-14/D4A2)
RECEIVED DECEMBER 15, 1993 FOR CERTIFICATE OF OCCUPANCY APPROVAL
STAMPED & DATED 12/15/93

Dear Mr. Ryals:

Based on the information included in the submittal referenced above, City Hydrology releases a Permanent Certificate of Occupancy for this project.

If I can be of further assistance, You may contact me at 768-2727.

Sincerely,

John P. Curtin

John P. Curtin, P.E.
Civil Engineer/Hydrology

xc: Alan Martinez

WPHYD/3779/jpc

PUBLIC WORKS DEPARTMENT

Walter H. Nickerson, Jr., P.E.
Assistant Director Public Works

ENGINEERING GROUP

Telephone (505) 768-2500

25×10 32×10

0000 0000 1198

DRAINAGE INFORMATION SHEET

PROJECT TITLE: TRACT D-4-K-2 SEVEN BAR RANCH ZONE ATLAS/DRNG. FILE #: A-14 / D4A2

DRB #: 92-300 EPC #: _____ WORK ORDER #: _____

LEGAL DESCRIPTION: _____

CITY ADDRESS: TRACT D-4-K-2 Seven BAR RANCH

ENGINEERING FIRM: Ryals Eng CONTACT: Bob Ryals

ADDRESS: 4929 Idlewild SE PHONE: 265-8267

OWNER: Bruce Dickenson, Ltd CONTACT: Bruce

ADDRESS: 1641 Eubank PHONE: _____

ARCHITECT: _____ CONTACT: _____

ADDRESS: _____ PHONE: _____

SURVEYOR: _____ CONTACT: _____

ADDRESS: _____ PHONE: _____

CONTRACTOR: _____ CONTACT: _____

ADDRESS: _____ PHONE: _____

TYPE OF SUBMITTAL:

___ DRAINAGE REPORT
___ DRAINAGE PLAN
___ CONCEPTUAL GRADING & DRAINAGE PLAN
___ GRADING PLAN
___ EROSION CONTROL PLAN
X ENGINEER'S CERTIFICATION
___ OTHER _____

PRE-DESIGN MEETING:

___ YES
___ NO
___ COPY PROVIDED

CHECK TYPE OF APPROVAL SOUGHT:

___ SKETCH PLAT APPROVAL
___ PRELIMINARY PLAT APPROVAL
___ S. DEV. PLAN FOR SUB'D. APPROVAL
___ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
___ SECTOR PLAN APPROVAL
___ FINAL PLAT APPROVAL
___ FOUNDATION PERMIT APPROVAL
___ BUILDING PERMIT APPROVAL
X CERTIFICATE OF OCCUPANCY APPROVAL
___ GRADING PERMIT APPROVAL
___ PAVING PERMIT APPROVAL
___ S.A.D. DRAINAGE REPORT
___ DRAINAGE REQUIREMENTS
___ OTHER _____ (SPECIFY)

DATE SUBMITTED: 12/15/93

BY: B Ryals

RECEIVED DEC 15 1993 DEVELOPMENT REVIEW DIVISION

DEC - 3

25×10 32×10

0000 0000 1199

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

December 10, 1992

Bob Ryals, P.E.
Ryals Engineering
4929 Idelwilde SE
Albuquerque, N.M. 87108

RE: ENGINEER'S CERTIFICATION FOR TRACT D4K2, 7 BAR RANCH (A-14/D4A2)
RECEIVED DECEMBER 3, 1993 FOR CERTIFICATE OF OCCUPANCY APPROVAL
STAMPED & DATED 12-1-93

Dear Mr. Ryals:

Based on the information included in the submittal referenced above, City Hydrology releases a Temporary Certificate of Occupancy for this project.

The following comments must be addressed before a Permanent Certificate of Occupancy will be released:

1. Include As-Built Elevations in the Legend. All proposed curb elevations must be checked at the parking lots to verify that they will drain.

2. Indicate the location of roof drains for the building on Tract D-4-G that drain to the common detention pond.

3. Now that the 4" PVC culvert has been deleted, How does runoff flow through the curb?

If you have any questions about this project, You may contact me at 768-2727.

Sincerely,

John P. Curtin, P.E.
Civil Engineer/Hydrology

xc: Alan Martinez

WPHYD/3779/jpc

25×10 32×10

0000 0000 1200

DRAINAGE INFORMATION SHEET

PROJECT TITLE: TRACT D-4-K-2 SEVEN BAR RANCH ZONE ATLAS/DRNG. FILE #: A-14 / D 4A2

DRB #: 92-300 EPC #: _____ WORK ORDER #: _____

LEGAL DESCRIPTION: _____

CITY ADDRESS: TRACT D-4-K-2 Seven Bar Ranch

ENGINEERING FIRM: Ryals Eng CONTACT: Bob Ryals

ADDRESS: 4929 Idlewild SE PHONE: 265-8267

OWNER: Bruce Dickenson, Ltd CONTACT: Bruce

ADDRESS: 1641 Rubank PHONE: _____

ARCHITECT: _____ CONTACT: _____

ADDRESS: _____ PHONE: _____

SURVEYOR: _____ CONTACT: _____

ADDRESS: _____ PHONE: _____

CONTRACTOR: _____ CONTACT: _____

ADDRESS: _____ PHONE: _____

TYPE OF SUBMITTAL:

___ DRAINAGE REPORT
___ DRAINAGE PLAN
___ CONCEPTUAL GRADING & DRAINAGE PLAN
___ GRADING PLAN
___ EROSION CONTROL PLAN
X ENGINEER'S CERTIFICATION
___ OTHER _____

PRE-DESIGN MEETING:

___ YES
___ NO
___ COPY PROVIDED

CHECK TYPE OF APPROVAL SOUGHT:

___ SKETCH PLAT APPROVAL
___ PRELIMINARY PLAT APPROVAL
___ S. DEV. PLAN FOR SUB'D. APPROVAL
___ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
___ SECTOR PLAN APPROVAL
___ FINAL PLAT APPROVAL
___ FOUNDATION PERMIT APPROVAL
___ BUILDING PERMIT APPROVAL
X CERTIFICATE OF OCCUPANCY APPROVAL
___ GRADING PERMIT APPROVAL
___ PAVING PERMIT APPROVAL
___ S.A.D. DRAINAGE REPORT
___ DRAINAGE REQUIREMENTS
___ OTHER _____ (SPECIFY)

DATE SUBMITTED: 12/2/93

BY: B Ryals

RECEIVED DEC - 3 HYDROLOGY DIV.

25×10 32×10

0000 0000 1201

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

November 16, 1992

Bob Ryals, P.E.
Ryals Engineering
4929 Idelwilde SE
Albuquerque, N.M. 87108

RE: DRAINAGE PLAN FOR TRACT D4K2, SEVEN BAR RANCH (A-14/D4A2)
RECEIVED NOVEMBER 6, 1992 FINAL PLAT & BUILDING PERMIT APPROVAL
STAMPED & DATED 11-5-92

Dear Mr. Ryals:

Based on the information included in the submittal referenced above, City Hydrology approves this project for Final Plat & Building Permit.

The Drainage & Grading plan must be included in the set of construction document that you submit for Building Permit.

Certification of grades in accordance with the DPM checklist will be required before any Certificate of Occupancy is released.

If I can be of further assistance, you may contact me at 768-2727.

Sincerely,

John P. Curtin

John P. Curtin, P.E.
PWD/Hydrology

xc: Alan Martinez
Fred Aguirre

WPHYD+3779;jpc

PUBLIC WORKS DEPARTMENT

Walter H. Nickerson, Jr., P.E.
Assistant Director Public Works

ENGINEERING GROUP

Telephone (505) 768-2500

25×10 32×10

0000 0000 1202

IMAGE INFORMATION SHEET

PROJECT TITLE: GRADING & DRAINAGE PLAN TRACT D-4-K-2 SEVEN-BAR RANCH ZONE ATLAS/DRNG. FILE #: A-14 D /4A2

DRB #: 92-300 EPC #: WORK ORDER #:

LEGAL DESCRIPTION: TRACT D-4-K-2 SEVEN-BAR RANCH

CITY ADDRESS:

ENGINEERING FIRM: RYALS ENGINEERING CONTACT: BOB RYALS

ADDRESS: 4929 Fallowilde SE 87108 PHONE: 265-8267

OWNER: BRUCE DICKENSON, LTD CONTACT: BRUCE DICKENSON

ADDRESS: 1641 FEUBANK PHONE:

ARCHITECT: DAVID GREEN CONTACT: DAVID GREEN

ADDRESS: SUITE E, 2701 SAN PEDRO PHONE: 880-1037

SURVEYOR: CONTACT:

ADDRESS: PHONE:

CONTRACTOR: CONTACT:

ADDRESS: PHONE:

TYPE OF SUBMITTAL:

___ DRAINAGE REPORT
X DRAINAGE PLAN
___ CONCEPTUAL GRADING & DRAINAGE PLAN
___ GRADING PLAN
___ EROSION CONTROL PLAN
___ ENGINEER'S CERTIFICATION
___ OTHER

PRE-DESIGN MEETING:

___ YES
___ NO
___ COPY PROVIDED

CHECK TYPE OF APPROVAL SOUGHT:

___ SKETCH PLAT APPROVAL
X PRELIMINARY PLAT APPROVAL
X S. DEV. PLAN FOR SUB'D. APPROVAL
___ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
___ SECTOR PLAN APPROVAL
X FINAL PLAT APPROVAL
___ FOUNDATION PERMIT APPROVAL
X BUILDING PERMIT APPROVAL
___ CERTIFICATE OF OCCUPANCY APPROVAL
___ GRADING PERMIT APPROVAL
___ PAVING PERMIT APPROVAL
___ S.A.D. DRAINAGE REPORT
___ DRAINAGE REQUIREMENTS
___ OTHER _____ (SPECIFY)

NOV - 6
HYDROLOGY DIVISION

DATE SUBMITTED: 11-5-92

BY: B Ryals

3779

25×10 32×10

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```
*                    ON SITE D[illegible]LOPED ANALYSIS
*
*  THIS HYDROGRAPH IS THE DEVELOPED AREA OF OF.4390 ACRES, 0.06983 ACRES
*  (0.0000109 SQ MI) IRRIGATED LAND TREATMENT AND 0.36917 ACRES (.000058SQ MI)
*  IMPERVIOUS LAND TREATMENT.
*  THIS ANALYSIS IS DONE USING A 6-HOUR RAINFALL DISTRIBUTION BASED ON
*  NOAA ATLAS 2 WITH PEAK INTENSITY AT 1.4 HOURS (APPENDIX A).THE TIME OF
*  CONCENTRATION IS 12 MINUTES. INITIAL ABSTRACTION AND INFILTRATION ARE
*  FROM TABLES 6 AND 7 RESPESTIVELY.

START               TIME=0.00

                    PUNCH CODE=0  PRINT LINES=-2

LAND FACTORS        TYPE=1
                    TREATMENT A  IA=0.65  INF=1.67
                    TREATMENT B  IA=0.50  INF=1.25
                    TREATMENT C  IA=0.35  INF=0.83
                    TREATMENT D  IA=0.10  INF=0.04

RAINFALL            TYPE=1
                    RAIN QUARTER=0.00  RAIN ONE=1.97  RAIN SIX=2.22
                    RAIN DAY=0.00  DT=0.033333 HRS


                 COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK AT 1.40 HR.
                 DT =     .033333 HOURS        END TIME =     5.999940 HOURS
                    .0000   .0009   .0018   .0028   .0037   .0047   .0057
                    .0067   .0078   .0089   .0100   .0111   .0123   .0135
                    .0147   .0160   .0173   .0187   .0201   .0215   .0230
                    .0246   .0262   .0279   .0297   .0316   .0335   .0355
                    .0377   .0399   .0423   .0478   .0536   .0598   .0732
                    .1032   .1492   .2154   .3057   .4243   .5756   .7639
                    .9938  1.2064  1.2954  1.3705  1.4374  1.4981  1.5541
                   1.6061  1.6547  1.7002  1.7431  1.7835  1.8217  1.8578
                   1.8920  1.9245  1.9553  1.9846  2.0123  2.0178  2.0229
                   2.0277  2.0323  2.0367  2.0408  2.0443  2.0486  2.0523
                   2.0558  2.0592  2.0625  2.0657  2.0688  2.0718  2.0747
                   2.0775  2.0802  2.0829  2.0855  2.0830  2.0905  2.0929
                   2.0953  2.0976  2.0998  2.1020  2.1042  2.1063  2.1084
                   2.1105  2.1125  2.1144  2.1164  2.1183  2.1202  2.1220
                   2.1238  2.1256  2.1273  2.1291  2.1308  2.1324  2.1341
                   2.1357  2.1373  2.1389  2.1405  2.1420  2.1435  2.1450
                   2.1465  2.1480  2.1494  2.1509  2.1523  2.1537  2.1551
                   2.1564  2.1578  2.1591  2.1604  2.1617  2.1630  2.1643
                   2.1656  2.1668  2.1680  2.1693  2.1705  2.1717  2.1729
                   2.1741  2.1752  2.1764  2.1775  2.1787  2.1798  2.1809
                   2.1820  2.1831  2.1842  2.1853  2.1864  2.1874  2.1885
                   2.1895  2.1906  2.1916  2.1926  2.1936  2.1946  2.1956
                   2.1966  2.1976  2.1986  2.1995  2.2005  2.2014  2.2024
                   2.2033  2.2042  2.2052  2.2061  2.2070  2.2079  2.2088
                   2.2097  2.2106  2.2115  2.2124  2.2132  2.2141  2.2150
                   2.2158  2.2167  2.2175  2.2183  2.2192  2.2200

COMPUTE NM HYD      ID=1  HYD NO=101.20  DA=0.00069 SQ MI
                    PER A=0.00  PER B=15.91  PER C=0.00  PER D=84.09
                    TP=-0.13400  MASS RAINFALL=-1


   K =   .073030HR    TP =   .134000HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.10
   UNIT PEAK =   2.2788    CFS   UNIT VOLUME =    .9940       B =   526.28       P60 = 1.9700
   AREA =     .000580 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
   RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033333


   K =   .132296HR    TP =   .134000HR    K/TP RATIO =   .987285     SHAPE CONSTANT, N =  3.57
   UNIT PEAK =   .26696    CFS   UNIT VOLUME =    .9488       B =   325.86       P60 = 1.9700
   AREA =     .000110 SQ MI    IA =    .50000 INCHES    INF =   1.25000 INCHES PER HOUR
   RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033333

PRINT HYD           ID=1  CODE=1

                                   PARTIAL HYDROGRAPH   101.20


   RUNOFF VOLUME =     1.78594 INCHES     =         .0657 ACRE-FEET
   PEAK DISCHARGE RATE =       1.87 CFS  AT   1.500 HOURS   BASIN AREA =   .0007 SQ. MI.


FINISH

   NORMAL PROGRAM FINISH          END TIME (HR:MIN:SEC) = 13:06:31
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RECEIVED NOV - 6

25×10 32×10

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AHYMO PROGRAM (AHYMO392) - AMAFCA VERSION OF HYMO - MARCH, 1992
     RUN DATE (MON/DAY/YR) = 11/05/1992
     START TIME (HR:MIN:SEC) = 11:34:06      USER NO.= RYALS_NM.101
     INPUT FILE = HILLHIST.DAT

*                    TRACT D-4-K-2 SEVEN BAR RANCH
*                     ON SITE HISTORICAL ANALYSIS
*
*  THIS HYDROGRAPH IS THE UNDEVELOPED AREA OF 0.439 ACRES PERVIOUS
*  LAND TREATMENT.
*  THIS ANALYSIS IS DONE USING A 6-HOUR RAINFALL DISTRIBUTION BASED ON
*  NOAA ATLAS 2 WITH PEAK INTENSITY AT 1.4 HOURS (APPENDIX A).THE TIME OF
*  CONCENTRATION IS 12 MINUTES. INITIAL ABSTRACTION AND INFILTRATION ARE
*  FROM TABLES 6 AND 7 RESPESTIVELY.

START                TIME=0.00

                     PUNCH CODE=0  PRINT LINES=-2

LAND FACTORS         TYPE=1
                     TREATMENT A  IA=0.65  INF=1.67
                     TREATMENT B  IA=0.50  INF=1.25
                     TREATMENT C  IA=0.35  INF=0.83
                     TREATMENT D  IA=0.10  INF=0.04

RAINFALL             TYPE=1
                     RAIN QUARTER=0.00  RAIN ONE=1.97  RAIN SIX=2.22
                     RAIN DAY=0.00  DT=0.033333 HRS


                COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK AT 1.40 H
                DT =     .033333 HOURS        END TIME =      5.999940 HOURS
                   .0000   .0009   .0018   .0028   .0037   .0047   .0057
                   .0067   .0078   .0089   .0100   .0111   .0123   .0135
                   .0147   .0160   .0173   .0187   .0201   .0215   .0230
                   .0246   .0262   .0279   .0297   .0316   .0335   .0355
                   .0377   .0399   .0423   .0478   .0536   .0598   .0732
                   .1032   .1492   .2154   .3057   .4243   .5756   .7639
                   .9938  1.2064  1.2954  1.3705  1.4374  1.4981  1.5541
                  1.6061  1.6547  1.7002  1.7431  1.7835  1.8217  1.8578
                  1.8920  1.9245  1.9553  1.9846  2.0123  2.0178  2.0229
                  2.0277  2.0323  2.0367  2.0408  2.0448  2.0486  2.0523
                  2.0558  2.0592  2.0625  2.0657  2.0688  2.0718  2.0747
                  2.0775  2.0802  2.0829  2.0855  2.0880  2.0905  2.0929
                  2.0953  2.0976  2.0998  2.1020  2.1042  2.1063  2.1084
                  2.1105  2.1125  2.1144  2.1164  2.1183  2.1202  2.1220
                  2.1238  2.1256  2.1273  2.1291  2.1308  2.1324  2.1341
                  2.1357  2.1373  2.1389  2.1405  2.1420  2.1435  2.1450
                  2.1465  2.1480  2.1494  2.1509  2.1523  2.1537  2.1551
                  2.1564  2.1578  2.1591  2.1604  2.1617  2.1630  2.1643
                  2.1656  2.1668  2.1680  2.1693  2.1705  2.1717  2.1729
                  2.1741  2.1752  2.1764  2.1775  2.1787  2.1798  2.1809
                  2.1820  2.1831  2.1842  2.1853  2.1864  2.1874  2.1885
                  2.1895  2.1906  2.1916  2.1926  2.1936  2.1946  2.1956
                  2.1966  2.1976  2.1986  2.1995  2.2005  2.2014  2.2024
                  2.2033  2.2042  2.2052  2.2061  2.2070  2.2079  2.2088
                  2.2097  2.2106  2.2115  2.2124  2.2132  2.2141  2.2150
                  2.2158  2.2167  2.2175  2.2183  2.2192  2.2200

COMPUTE NM HYD       ID=1  HYD NO=101.20  DA=0.00069 SQ MI
                     PER A=100.00 PER B=0.00  PER C=0.00  PER D=0.00
                     TP=-0.13400  MASS RAINFALL=-1


    K =   .162009HR    TP =   .134000HR    K/TP RATIO =  1.209024     SHAPE CONSTANT, N =
    UNIT PEAK =   1.4262    CFS   UNIT VOLUME =    .9894       B =   276.97       P60 = 1.97
    AREA =      .000690 SQ MI    IA =    .65000 INCHES    INF =   1.67000 INCHES PER HOUR
    RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033333

PRINT HYD            ID=1  CODE=1

                                   PARTIAL HYDROGRAPH   101.20


    RUNOFF VOLUME =      .48077 INCHES     =        .0177 ACRE-FEET
    PEAK DISCHARGE RATE =        .63 CFS  AT   1.533 HOURS   BASIN AREA =   .0007 SQ. MI.


FINISH

    NORMAL PROGRAM FINISH          END TIME (HR:MIN:SEC) = 11:34:06
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25× 32×

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PLANS/PLATS ON FILE

FILE DESC: A14/D4A2

PLANS/PLATS 3

25×10 32×10

0000 0000 1206