# CITY OF ALBUQUERQUE

PLANNING DEPARTMENT - Development Review Services



Richard J. Berry, Mayor

April 1, 2015

Scott Eddings, P.E. Huitt-Zollars 6501 Americas Parkway NE Albuquerque, New Mexico 87110

RE: Winrock Redevelopment Parking Structure
Drainge Report
Grading Plan for Grading Permit
Engineer's Stamp Date 3-7-2015 (J19D058C)

Dear Mr. Eddings:

Based upon the information provided in your submittal received 3-9-15, the above referenced plan is approved for Grading Permit with the following condition:

- Winrock Development on the overall site is being constructed in phases. All interim phases must limit the runoff to any one of the discharge points to less than the existing capacity shown on sheet C-103.
- In the interim phases, the total proposed runoff to the 3 discharge points must be less than or equal to the total existing discharge at those same points.
- The interim phases must comply with the overall concept of the Master Drainage Plan.

Albuquerque

PO Box 1293

New Mexico 87103 If you have any questions, you can contact me at 924-3695.

www.cabq.gov

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Sincerely,

Rita Harmon, P.E.

Senior Engineer, Planning Dept. Development Review Services

Orig: Drainage file

c.pdf Addressee via Email, Monica Ortiz, Curtis Cherne

# CITY OF ALBUQUERQUE

PLANNING DEPARTMENT - Development Review Services



Richard J. Berry, Mayor

March 23, 2015

Scott M. McGee, P.E. 9700 Tanoan Dr NE Albuquerque, NM 87111

RE: Winrock Redevelopment Parking Structure
Drainge Report
Grading Plan for Grading Permit
Engineer's Stamp Date 3-7-2015 (J19D058C)

Dear Mr. McGee:

Based upon the information provided in your submittal received 3-9-15, the above referenced plan is approved for Grading Permit with the following condition:

- Winrock Development on the overall site is being constructed in phases. All interim phases must limit the runoff to any one of the discharge points to less than the existing capacity shown on sheet C-103.
- In the interim phases, the total proposed runoff to the 3 discharge points must be less than or equal to the total existing discharge at those same points.
- The interim phases must comply with the overall concept of the Master Drainage Plan.

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## DRAINAGE NARRATIVE

THE PURPOSE OF THIS DRAINAGE PLAN ADDRESSES STORM WATER RUNOFF AND PROPOSED INFRASTRUCTURE NECESSARY TO CONVEY RUNOFF FROM THE PROPOSED SECTION 2 AND SECTION 4 WINROCK TOWN CENTER SITE PLAN. THE PLAN WILL EXHIBIT COMPLIANCE WITH THE CITY OF ALBUQUERQUE DPM CHAPTER 22 AND THE DRAINAGE MASTER PLAN (DMP) FOR WINROCK TOWN CENTER PREPARED BY ISAACSON AND ARFMAN, P.A. DATED FEBRUARY 5,

#### **EXISTING CONDITIONS**

THE WINROCK SITE IS A COMPLEX OF BUILDINGS THAT INCLUDES THE MAIN MALL, A NUMBER OF OUTLYING RESTAURANTS, THE TOYS 'R' US, AND A RECENTLY COMPLETED MOVIE THEATER. THE EXISTING MALL BUILDING IS COMPOSED OF A NUMBER OF INDIVIDUAL BUILDINGS THAT WERE ENCLOSED BY AN OVERALL STRUCTURE.

THE SITE IS BOUNDED BY INDIAN SCHOOL ROAD TO THE NORTH, AMERICA'S PARKWAY (AKA UPTOWN LOOP) TO THE NORTHWEST, LOUISIANA BLVD TO THE WEST, I-40 AND THE EMBUDO ARROYO TO THE SOUTH, THE WINROCK VILLAS CONDO COMPLEX TO THE EAST, AND PENNSYLVANIA AVE TO THE NORTHEAST. THE SITE GENERALLY SLOPES FROM THE EAST TOWARDS THE SOUTHWEST CORNER.

EXISTING DRAINAGE PATTERNS DIRECT STORM WATER TOWARDS ONE OF THE EXISTING STORM DRAINS, OR TO THE SURROUNDING ROADS. THE SITE IS COMPLETELY DEVELOPED WITH ABOUT 88% IMPERVIOUS AREA.

DISCHARGE POINT.

- "DRAINAGE MASTER PLAN" FOR WINROCK TOWN CENTER BY ISAACSON AND ARFMAN, P.A. DATED 2/5/2015
- "PHASE 1 AMENDMENT TO THE FINAL DRAINAGE STUDY FOR WINROCK REDEVELOPMENT" BY HUITT- ZOLLARS, INC. DATED 09/07/2011 (H-Z
- "FINAL DRAINAGE STUDY FOR WINROCK REDEVELOPMENT WINROCK MARKET CENTER" BY HUITT- ZOLLARS, INC. DATED 03/13/2006 (H-Z DRAINAGE

IN THE EXISTING CONDITION THE SITE IS FULLY DEVELOPED AND DOESN'T PROVIDE ANY ONSITE DETENTION, RESULTING IN A HISTORIC FREE-DISCHARGE FROM THE OVERALL WINROCK SITE. DOWNSTREAM DRAINAGE INFRASTRUCTURE IS SIZED TO ACCEPT THE EXISTING FLOWS FROM EACH EXISTING

#### DMP DRAINAGE BASINS INCLUDED IN THIS PROJECT

- BASIN 110 BASIN 300 BASIN 400
- BASIN 500 BASIN 500P BASIN 510 BASIN 530

#### DMP REQUIREMENTS INCLUDE THE FOLLOW:

- DESIGN EACH PROJECT USING THE LAND TREATMENTS CALLED OUT FOR EACH BASIN IN THE HYDROLOGY CALCULATIONS IN APPENDIX B.
- EVERY NEW DEVELOPMENT IS REQUIRED TO BUILD DOWNSTREAM STORM DRAINS THAT ARE SHOWN IN THIS DMP. THE IMPROVEMENTS MUST MEET CITY OF ALBUQUERQUE STANDARDS.
- THE DEVELOPMENTS ARE ALSO REQUIRED TO DESIGN HOW FLOWS ARE DIRECTED TO THAT INFRASTRUCTURE.
- EXAMPLES INCLUDE NUMBER AND LOCATION OF STORM INLETS, ROOF DRAIN CONNECTIONS, SIDEWALK CULVERTS, STREET FLOW CAPACITY, ETC.
- AS PART OF THE INDIVIDUAL GRADING & DRAINAGE PLANS, EVERY NEW DEVELOPMENT WITHIN THE PROJECT IS REQUIRED TO TREAT "FIRST FLUSH" STORM WATER PER CITY OF ALBUQUERQUE DPM REQUIREMENTS.
- "ROOFTOP" BASINS WILL BE DIRECTED TO THE WATER FEATURE IN BASIN 500P FOR TREATMENT.
- EXISTING STORM DRAINS THAT ARE UNDER PROPOSED BUILDINGS MUST BE REMOVED. OTHER EXISTINGSTORM DRAINS THAT ARE NOT TO BE USED MAY BE ABANDONED IN-PLACE.

#### SUMMARY

#### STORM DRAIN 1 - 36" RCP

FIVE BASINS WILL DISCHARGE STORM WATER INTO STORM DRAIN 1.

- BASINS 500 A3, A4, A5 & A6 ARE ROOF TOP BASINS AND WILL DISCHARGE VIA ROOF DRAINS ONTO BASIN 500 C1.
- BASIN 500 C1 IS THE LOADING DOCK AREA AND IS GRADED TO A SUMP CONDITION AND A QUAD TYPE 'D' INLET IS LOCATED IN THE LOWEST POINT. THE INLET IS ANALYSIS POINT 1 (AP 1). NOTE THAT ROOF TOP BASINS WILL BE REROUTED IN THE FUTURE TO CISTERN LOCATED AT THE PROPOSED PARK.

## STORM DRAIN 2 - 42" RCP

TWO BASINS PLUS STORM DRAIN 1 WILL DISCHARGE STORM WATER INTO STORM DRAIN 2.

- BASIN 500 C2 IS AN ACCESS ROAD AND DISHARGES ONTO BASIN 500 C5.
- BASIN 500 C5 HAS A BANK OF DOUBLE C INLETS AT ANALYSIS POINT 2 (AP 2) DISCHARGING INTO STORM DRAIN 2.

## STORM DRAIN 3 - 24" RCP

ONE BASIN DISCHARGES INTO STORM DRAIN 3.

BASIN 530 A1 DISCHARGES INTO STORM DRAIN 3 IN A BANK OF INLETS AT ANALYSIS POINT 3 (AP 3).

## STORM DRAIN 4 - 36" RCP

FIVE BASINS AND STORM DRAIN 3 WILL DISCHARGE STORM WATER INTO STORM DRAIN 4.

- BASIN 500 A7 IS A ROOF TOP BASIN AND HAS ROOF DRAINS DISCHARGING INTO BASIN 500 C4 VIA SIDEWALK CULVERTS.
- BASIN 500 C4 IS A PARKING FIELD HAS A TYPE DOUBLE C INLET DISCHARGING INTO STORM DRAIN 3 AT ANALYSIS POINT 4 (AP 4).
- BASIN 500 C3 IS A PARKING FIELD HAS A TYPE DOUBLE C INLET DISCHARGING INTO STORM DRAIN 3 AT ANALYSIS POINT (AP 4).
- BASIN 530 A3 IS A PORTION OF THE RING ROAD AND DISCHARGES INTO BASIN 500 C5 VIA SURFACE FLOW.
- BASIN 500 C5 IS ALSO A PORTION OF THE RING ROAD. BASIN 500 C5 HAS A DOUBLE C A TYPE DOUBLE C INLET DISCHARGING INTO STORM DRAIN 4 AT ANALYSIS POINT 5 (AP 5).

## STORM DRAINS 2 AND 4 DISCHARGE INTO THE EXISTING 42" STORM DRAIN WHICH DISCHARGES AT OUTFALL 3 INTO THE I-40 CHANNEL.

## STORM DRAIN 5 - 18" HDPE

TWO BASINS WILL DISCHARGE INTO STORM DRAIN 5.

- BASIN 500 A1 IS A ROOF TOP BASIN AND THE ROOF DRAINS WILL BE TIED INTO STORM DRAIN 5.
- BASIN 500 A2 IS A ROOF TOP BASIN AND THE ROOF DRAINS WILL BE TIED INTO STORM DRAIN 5.

## STORM DRAIN 6 - 42" RCP

DMP STORM DRAIN FOR BASIN 300. STORM DRAIN DISCHARGES TO EXISTING 84" STORM DRAIN.

## STORM DRAIN 7 - 36" RCP

DMP STORM DRAIN FOR BASIN 300. STORM DRAIN DISCHARGES INTO STORM DRAIN 6.

DMP STORM DRAIN FOR BASIN 300. STORM DRAIN DISCHARGES INTO STORM DRAIN 7.

## STORM DRAIN 8 - 36" RCP

"FIRST FLUSH" TREATMENT

- BASINS WITH PARKING FIELDS HAVE DEPRESSED LANDSCAPE PARKING ISLANDS AND ARE GRADED TO ACCEPT SURFACE FLOWS ON THE HIGH SIDE AND EXCESS WATER WILL SPILL OVER THE HIGH SIDE CURBING IN ORDER TO TREAT THE "FIRST FLUSH" EVENT. THESE BASIN INCLUED:
- BASIN 500 C4 • BASIN 500 C3
- BASINS WITHIN 400
- BASINS WITH 300
- BASIN 500 B1 IS THE UPPER LEVEL OF THE PARKING STRUCTURE. BASIN 500 B1 DISCHARGES ONTO BASIN 500 D1. BASIN 500 D1 IS A DEPRESSED LANDSCAPE STRIP EXTENDING THE FULL LENGTH OF THE PARKING STRUCTURE.

## HYRDOLOGY

| Basin Sub-Basin | sin Description Land Treatements (DEVELOPED) 10-YR Peak Discharge 100-YR Peak Discharge |          |            |              |                 |                    |                            |      |       |      | Drainage Master Plan |      |      |                        |             |                 |                  |                  |     |  |
|-----------------|---|----------|------------|--------------|-----------------|--------------------|----------------------------|------|-------|------|----------------------|------|------|------------------------|-------------|-----------------|------------------|------------------|-----|--|
|                 |   |          | F          | Percentage   |                 | AREA               | AREA                       |      | CFS/A | ACRE |                      |      | CFS/ | ACRE                   |             | 10-YR PEAK FLOW | 100-YR PEAK FLOW | 100-YR PEAK FLOW |     |  |
|                 |   | Α        | В          | С            | D               | SF                 | AC                         | Α    | В     | С    | D                    | Α    | В    | С                      | D           | CFS             | CFS              | CFS              |     |  |
|                 |   |          |            |              |                 |                    |                            |      |       |      |                      |      |      |                        |             |                 |                  |                  |     |  |
| 110 A1          | Roads and Parking Field   | 0        | 17         | 0            | 83              | 68,124             | 1.564                      | 0.58 | 1.19  | 2.00 | 3.39                 | 1.87 | 2.60 | 3.45                   | 5.02        | 4.7             | 7.2              |                  |     |  |
| 110 A2          | Roads and Parking Field   | 0        | 17         | 0            | 83              | 6,001              | 0.138                      | 0.58 | 1.19  | 2.00 | 3.39                 | 1.87 | 2.60 | 3.45                   | 5.02        | 0.4             | 0.6              |                  |     |  |
| TOTAL           |   |          |            |              |                 |                    | 1.702                      |      |       |      |                      |      |      |                        |             | <u>5.1</u>      | <u>7.8</u>       | <u>10.4</u>      |     |  |
|                 |   |          |            |              |                 |                    |                            |      |       |      |                      |      |      |                        |             |                 |                  |                  |     |  |
| 300 A1          | Building Roof Top   | 0        | 0          | 0            | 100             | 33,966             | 0.780                      | 0.58 | 1.19  | 2.00 | 3.39                 | 1.87 | 2.60 | 3.45                   | 5.02        | 2.6             | 3.9              |                  |     |  |
| 300 A2          | Building Roof Top   | 0        | 0          | 0            | 100             | 193,967            | 4.453                      | 0.58 | 1.19  | 2.00 | 3.39                 | 1.87 | 2.60 | 3.45                   | 5.02        | 15.1            | 22.4             |                  |     |  |
| 300 A3          | Building Roof Top   | 0        | 0          | 0            | 100             | 31,477             | 0.723                      | 0.58 | 1.19  | 2.00 | 3.39                 | 1.87 | 2.60 | 3.45                   | 5.02        | 2.4             | 3.6              |                  |     |  |
| 300 A4          | Roads and Parking Field   | 0        | 17         | 0            | 83              | 15,869             | 0.364                      | 0.58 | 1.19  | 2.00 | 3.39                 | 1.87 | 2.60 | 3.45                   | 5.02        | 1.1             | 1.7              |                  |     |  |
| 300 A5          | Roads and Parking Field   | 0        | 17         | 0            | 83              | 93,477             | 2.146                      | 0.58 | 1.19  | 2.00 | 3.39                 | 1.87 | 2.60 | 3.45                   | 5.02        | 6.5             | 9.9              |                  |     |  |
| 300 A6          | Roads and Parking Field   | 0        | 17         | 0            | 83              | 36,154             | 0.830                      | 0.58 | 1.19  | 2.00 | 3.39                 | 1.87 | 2.60 | 3.45                   | 5.02        | 2.5             | 3.8              |                  |     |  |
| 300 A7          | Pad Site  | 0        | 17         | 0            | 83              | 16,756             | 0.385                      | 0.58 | 1.19  | 2.00 | 3.39                 | 1.87 | 2.60 | 3.45                   | 5.02        | 1.2             | 1.8              |                  |     |  |
| 300 A8          | Road  | 0        | 17         | 0            | 83              | 8,992              | 0.206                      | 0.58 | 1.19  | 2.00 | 3.39                 | 1.87 | 2.60 | 3.45                   | 5.02        | 0.6             | 1.0              |                  |     |  |
| 300 A9          | Road  | 0        | 17         | 0            | 83              | 10,214             | 0.234                      | 0.58 | 1.19  | 2.00 | 3.39                 | 1.87 | 2.60 | 3.45                   | 5.02        | 0.7             | 1.1              |                  |     |  |
| TOTAL           |   |          |            |              |                 |                    | 10.121                     |      |       |      |                      |      |      |                        |             | 32.8            | <u>49.1</u>      | 120.2            |     |  |
|                 |   |          |            |              |                 |                    |                            |      |       |      |                      |      |      |                        |             |                 |                  |                  |     |  |
| 400 A1          | Roads and Parking Field   | 0        | 9          | 0            | 91              | 70,877             | 1.627                      | 0.58 | 1.19  | 2.00 | 3.39                 | 1.87 | 2.60 | 3.45                   | 5.02        | 5.2             | 7.8              |                  |     |  |
| 400 A2          | Roads and Parking Field   | 0        | 9          | 0            | 91              | 31,688             | 0.727                      | 0.58 | 1.19  | 2.00 | 3.39                 | 1.87 | 2.60 | 3.45                   | 5.02        | 2.3             | 3.5              |                  |     |  |
|                 | arking Garage Ramp To Below Grade   | 0        | 0          | 0            | 100             | 4,445              | 0.102                      | 0.58 | 1.19  | 2.00 | 3.39                 | 1.87 | 2.60 | 3.45                   | 5.02        | 0.3             | 0.5              |                  |     |  |
| 100,000         | arking Garage Ramp To Below Grade   | 0        | 0          | 0            | 100             | 4,971              | 0.114                      | 0.58 | 1.19  | 2.00 | 3.39                 | 1.87 | 2.60 | 3.45                   | 5.02        | 0.4             | 0.6              |                  |     |  |
| 400 A5          | Roads and Parking Field   | 0        | 9          | 0            | 91              | 14,071             | 0.323                      | 0.58 | 1.19  | 2.00 | 3.39                 | 1.87 | 2.60 | 3.45                   | 5.02        | 1.0             | 1.6              |                  |     |  |
| TOTAL           |   |          | -          |              |                 | ,                  | 2.894                      | 7.55 | 44.13 |      |                      |      |      | 73                     |             | 9.3             | 13.9             | <u>15.2</u>      |     |  |
|                 |   |          |            |              |                 |                    |                            |      |       |      |                      |      |      |                        |             | <u>5.0</u>      | 15.5             | 10,2             |     |  |
| 500 A1          | Building Roof Top   | 0        | 0          | 0            | 100             | 17,042             | 0.391                      | 0.58 | 1.19  | 2.00 | 3.39                 | 1.87 | 2.60 | 3.45                   | 5.02        | 1.3             | 2.0              |                  |     |  |
| 500 A1          | Building Roof Top   | 0        | 0          | 0            | 100             | 19,339             | 0.444                      | 0.58 | 1.19  | 2.00 | 3.39                 | 1.87 | 2.60 | 3.45                   | 5.02        | 1.5             | 2.2              |                  |     |  |
| 500 A2          | Building Roof Top   | 0        | 0          | 0            | 100             | 43,404             | 0.996                      | 0.58 | 1.19  | 2.00 | 3.39                 | 1.87 | 2.60 | 3.45                   | 5.02        | 3.4             | 5.0              |                  |     |  |
| 500 A3          | 7 ,   | 0        | 0          | 0            | 100             | 51,894             | 1.191                      | 0.58 | 1.19  | 2.00 | 3.39                 | 1.87 | 2.60 |                        |             | 4.0             | 6.0              |                  |     |  |
| 500 A4          | Building Roof Top  Building Roof Top  | 0        | 0          | 0            | 100             | 27,646             | 0.635                      | 0.58 | 1.19  | 2.00 | 3.39                 | 1.87 | 2.60 | 3.45 5.02<br>3.45 5.02 |             | 2.2             | 3.2              |                  |     |  |
|                 |   | 78-840   |            | 1.32-0       |                 | 7                  |                            |      |       |      |                      |      |      |                        |             |                 |                  |                  |     |  |
| 500 A6          | Building Roof Top   | 0        | 0          | 0            | 100             | 33,374             | 0.766                      | 0.58 | 1.19  | 2.00 | 3.39                 | 1.87 | 2.60 | 3.45                   | 5.02        | 2.6             | 3.8              |                  |     |  |
| 500 A7          | Building Roof Top   | 0        | 0          | 0            | 100             | 46,707             | 1.072                      | 0.58 | 1.19  | 2.00 | 3.39                 | 1.87 | 2.60 | 3.45                   | 5.02        | 3.6             | 5.4              | 20.5             |     |  |
| TOTAL           |   |          |            |              |                 |                    | 5.496                      |      |       |      |                      |      |      |                        |             | <u>18.6</u>     | 27.6             | <u>26.5</u>      |     |  |
| 500             | - ID II 01 I  |          |            |              | 400             | 00004              | 4.407                      | 0.50 | 4.40  | 0.00 | 0.00                 | 4.07 | 0.00 | 0.45                   | 5.00        | 5.0             | 7.4              |                  |     |  |
| 500 B1          | Exposed Parking Structure   | 0        | 0          | 0            | 100             | 63891              | 1.467                      | 0.58 | 1.19  | 2.00 | 3.39                 | 1.87 | 2.60 | 3.45                   | 5.02        | 5.0             | 7.4              |                  |     |  |
| TOTAL           |   |          |            |              |                 |                    | 1.467                      |      |       |      |                      |      |      |                        |             | 5.0             | 7.4              |                  |     |  |
|                 |   | -        |            | 1.0          |                 |                    | 0.000                      |      | 2.22  |      |                      |      |      |                        |             |                 |                  |                  |     |  |
| 500 C1          | Roads and Parking Field   | 0        | 17         | 0            | 83              | 43,269             | 0.993                      | 0.58 | 1.19  | 2.00 | 3.39                 | 1.87 | 2.60 |                        | 3.45 5.02 3 |                 | 4.6              |                  |     |  |
| 500 C2          | Roads and Parking Field   | 0        | 17         | 0            | 83              | 15,659             | 0.359                      | 0.58 | 1.19  | 2.00 | 3.39                 | 1.87 | 2.60 | 3.45 5.02              |             |                 |                  | 1.1              | 1.7 |  |
| 500 C3          | Roads and Parking Field   | 0        | 17         | 0            | 83              | 44,893             | 1.031                      | 0.58 | 1.19  | 2.00 | 3.39                 | 1.87 | 2.60 | 3.45                   | 5.02        | 3.1             | 4.7              |                  |     |  |
| 500 C4          | Roads and Parking Field   | 0        | 17         | 0            | 83              | 64,510             | 1.481                      | 0.58 | 1.19  | 2.00 | 3.39                 | 1.87 | 2.60 | 3.45 5.02              |             |                 |                  | 4.5              | 6.8 |  |
| 500 C5          | Roads and Parking Field   | 0        | 17         | 0            | 83              | 38,683             | 0.888                      | 0.58 | 1.19  | 2.00 | 3.39                 | 1.87 | 2.60 | 3.45 5.02              |             | 2.7             | 4.1              |                  |     |  |
| TOTAL           |   |          |            |              |                 |                    | 4.752                      |      |       |      |                      |      |      |                        |             | 14.3            | 21.9             | 30.8             |     |  |
|                 |   |          |            |              |                 |                    |                            |      |       |      |                      |      |      |                        |             |                 |                  |                  |     |  |
| 500 D1          | Landscape   | 0        | 100        | 0            | 0               | 6,886              | 0.158                      | 0.58 | 1.19  | 2.00 | 3.39                 | 1.87 | 2.60 | 3.45                   | 5.02        | 0.2             | 0.4              |                  |     |  |
| TOTAL           |   |          |            |              |                 |                    | 0.158                      |      |       |      |                      |      |      |                        |             | 0.2             | 0.4              |                  |     |  |
|                 |   |          |            |              |                 |                    |                            |      |       |      |                      |      |      |                        |             |                 |                  |                  |     |  |
| 500P A1         | Building Roof Top   | 0        | 0          | 0            | 100             | 62,937             | 1.445                      | 0.58 | 1.19  | 2.00 | 3.39                 | 1.87 | 2.60 | 3.45                   | 5.02        | 4.9             | 7.3              |                  |     |  |
| TOTAL           |   |          |            |              |                 |                    | 1.445                      |      |       |      |                      |      |      |                        |             | 4.9             | 7.3              | <u>10.1</u>      |     |  |
|                 |   |          |            |              |                 |                    |                            |      |       |      |                      |      |      |                        |             |                 |                  |                  |     |  |
| 510 A1          | Building Roof Top   | 0        | 0          | 0            | 100             | 50,928             | 1.169                      | 0.58 | 1.19  | 2.00 | 3.39                 | 1.87 | 2.60 | 3.45                   | 5.02        | 4.0             | 5.9              |                  |     |  |
| 510 A2          | Roads and Parking Field   | 0        | 17         | 0            | 83              | 117,825            | 2.705                      | 0.58 | 1.19  | 2.00 | 3.39                 | 1.87 | 2.60 | 3.45                   | 5.02        | 8.2             | 12.5             |                  |     |  |
| TOTAL           |   |          |            |              |                 |                    | 3.874                      |      |       |      |                      |      |      |                        |             | <u>12.1</u>     | 18.3             | <u>17.9</u>      |     |  |
|                 |   |          |            |              |                 |                    |                            |      |       |      |                      |      |      |                        |             |                 |                  |                  |     |  |
| 530 A1          | Roads and Parking Field   | 0        | 17         | 0            | 83              | 98,598             | 2.263                      | 0.58 | 1.19  | 2.00 | 3.39                 | 1.87 | 2.60 | 3.45                   | 5.02        | 6.8             | 10.4             |                  |     |  |
| 530 A2          | Roads and Parking Field   | 0        | 17         | 0            | 83              | 12,152             | 0.279                      | 0.58 | 1.19  | 2.00 | 3.39                 | 1.87 | 2.60 | 3.45                   | 5.02        | 0.8             | 1.3              |                  |     |  |
| 530 A3          | Roads and Parking Field   | 0        | 17         | 0            | 83              | 8,385              | 0.193                      | 0.58 | 1.19  | 2.00 | 3.39                 | 1.87 | 2.60 | 3.45                   | 5.02        | 0.6             | 0.9              |                  |     |  |
| TOTAL           |   |          |            |              |                 |                    | 2.735                      |      |       |      |                      |      |      |                        |             | 8.2             | <u>12.6</u>      | <u>10.0</u>      |     |  |
|                 |   |          |            |              |                 |                    |                            |      |       |      |                      |      |      |                        |             |                 |                  |                  |     |  |
| 600 A1          | Roads   | 0        | 3          | 12           | 85              | 10,289             | 0.236                      | 0.58 | 1.19  | 2.00 | 3.39                 | 1.87 | 2.60 | 3.45                   | 5.02        | 0.7             | 1.1              |                  |     |  |
| 600 A2          | Roads and Parking Field   | 0        | 3          | 12           | 85              | 113,392            | 2.603                      | 0.58 | 1.19  | 2.00 | 3.39                 | 1.87 | 2.60 | 3.45                   | 5.02        | 8.2             | 12.4             |                  |     |  |
| TOTAL           |   |          |            |              |                 |                    | 2.839                      |      |       |      |                      |      |      |                        |             | 9.0             | <u>13.5</u>      | <u>18.4</u>      |     |  |
|                 |   |          |            |              |                 |                    |                            |      |       |      |                      |      |      |                        |             |                 |                  |                  |     |  |
|                 | Roads and Parkii  | ig Fleid | ig Field 0 | ig Field 0 3 | ig Field 0 5 12 | ig Field 0 3 12 85 | Ig Field 0 5 12 65 113,392 |      |       |      |                      |      |      |                        |             |                 |                  |                  |     |  |

Rio Rancho, New Mexico 87124 Phone (505) 892-5141 Fax (505) 892-3259

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8

# FIRST FLUSH

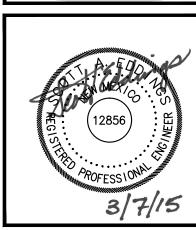
|       | ST FLU    | Description Description            |                     | and Treat | ements (DE | VELOPED) |         |        |     | FIRSTELL | USH RATES | s        | FIRST FLUSH VOLUME REQUIRED | 8" DEEP DEPRESSED LANDSCAPE AREA REQUIRED |
|-------|-----------|------------------------------------|---------------------|-----------|------------|----------|---------|--------|-----|----------|-----------|----------|-----------------------------|---|
| basin | Sub-Basin | Description                        |                     |           | Percentage |          | AREA    | AREA   |     |          | ACRE      | <b>5</b> | VOLUME VOLUME               | SQUARE FEET                               |
|       |           |                                    | A B C D SF AC A B C |           | D          | CF       |         |        |     |          |           |          |                             |   |
|       |           |                                    | A                   | В         |            | <u> </u> | 31      | AC     | A   | В        |           | , D      | CF                          |   |
| 110   | Λ.1       | Doods and Dadring Field            | 0                   | 17        | 0          | 92       | 69 124  | 1.564  | 399 | 545      | 762       | 1416     | 1.002.04                    |   |
| 110   | A1        | Roads and Parking Field            | 0                   |           | 0          | 83       | 68,124  |        |     |          |           |          | 1,982.94                    |   |
| 110   | A2        | Roads and Parking Field            | 0                   | 17        | 0          | 83       | 6,001   | 0.138  | 399 | 545      | 762       | 1416     | 174.69                      | 0.000 44                                  |
| TOTAL |           |                                    |                     |           |            |          |         | 1.702  |     |          |           |          | <u>2,157.63</u>             | <u>3,236.44</u>                           |
|       |           |                                    |                     | _         |            |          |         |        |     |          |           |          |                             |   |
| 300   | A1        | Building Roof Top                  | 0                   | 0         | 0          | 100      | 33,966  | 0.780  | 399 | 545      | 762       | 1416     | 1,104.13                    |   |
| 300   | A2        | Building Roof Top                  | 0                   | 0         | 0          | 100      | 193,967 | 4.453  | 399 | 545      | 762       | 1416     | 6,305.28                    |   |
| 300   | A3        | Building Roof Top                  | 0                   | 0         | 0          | 100      | 31,477  | 0.723  | 399 | 545      | 762       | 1416     | 1,023.21                    |   |
| 300   | A4        | Roads and Parking Field            | 0                   | 17        | 0          | 83       | 15,869  | 0.364  | 399 | 545      | 762       | 1416     | 461.92                      |   |
| 300   | A5        | Roads and Parking Field            | 0                   | 17        | 0          | 83       | 93,477  | 2.146  | 399 | 545      | 762       | 1416     | 2,720.91                    |   |
| 300   | A6        | Roads and Parking Field            | 0                   | 17        | 0          | 83       | 36,154  | 0.830  | 399 | 545      | 762       | 1416     | 1,052.37                    |   |
| 300   | A7        | Pad Site                           | 0                   | 17        | 0          | 83       | 16,756  | 0.385  | 399 | 545      | 762       | 1416     | 487.72                      |   |
| 300   | A8        | Road                               | 0                   | 17        | 0          | 83       | 8,992   | 0.206  | 399 | 545      | 762       | 1416     | 261.75                      |   |
| 300   | A9        | Road                               | 0                   | 17        | 0          | 83       | 10,214  | 0.234  | 399 | 545      | 762       | 1416     | 297.31                      |   |
| TOTAL |           |                                    |                     |           |            |          |         | 10.121 |     |          |           |          | <u>13,714.60</u>            | 20,571.89                                 |
|       |           |                                    |                     |           |            |          |         |        |     |          |           |          |                             |   |
| 400   | A1        | Roads and Parking Field            | 0                   | 9         | 0          | 91       | 70,877  | 1.627  | 399 | 545      | 762       | 1416     | 2,176.45                    |   |
| 400   | A2        | Roads and Parking Field            | 0                   | 9         | 0          | 91       | 31,688  | 0.727  | 399 | 545      | 762       | 1416     | 973.04                      |   |
| 400   | A3        | Parking Garage Ramp To Below Grade | 0                   | 0         | 0          | 100      | 4,445   | 0.102  | 399 | 545      | 762       | 1416     | 144.49                      |   |
| 400   | A4        | Parking Garage Ramp To Below Grade | 0                   | 0         | 0          | 100      | 4,971   | 0.114  | 399 | 545      | 762       | 1416     | 161.59                      |   |
| 400   | A5        | Roads and Parking Field            | 0                   | 9         | 0          | 91       | 14,071  | 0.323  | 399 | 545      | 762       | 1416     | 432.09                      |   |
| TOTAL |           |                                    |                     |           |            |          |         | 2.894  |     |          |           |          | 3,887.66                    | <u>5,831.50</u>                           |
|       |           |                                    |                     |           |            |          |         |        |     |          |           |          |                             |   |
| 500   | A1        | Building Roof Top                  | 0                   | 0         | 0          | 100      | 17,042  | 0.391  | 399 | 545      | 762       | 1416     | 553.98                      |   |
| 500   | A2        | Building Roof Top                  | 0                   | 0         | 0          | 100      | 19,339  | 0.444  | 399 | 545      | 762       | 1416     | 628.66                      |   |
| 500   | A3        | Building Roof Top                  | 0                   | 0         | 0          | 100      | 43,404  | 0.996  | 399 | 545      | 762       | 1416     | 1,410.92                    |   |
| 500   | A4        | Building Roof Top                  | 0                   | 0         | 0          | 100      | 51,894  | 1.191  | 399 | 545      | 762       | 1416     | 1,686.90                    |   |
| 500   | A5        | Building Roof Top                  | 0                   | 0         | 0          | 100      | 27,646  | 0.635  | 399 | 545      | 762       | 1416     | 898.67                      |   |
| 500   | A6        | Building Roof Top                  | 0                   | 0         | 0          | 100      | 33,374  | 0.766  | 399 | 545      | 762       | 1416     | 1,084.89                    |   |
| 500   | A7        | Building Roof Top                  | 0                   | 0         | 0          | 100      | 46,707  | 1.072  | 399 | 545      | 762       | 1416     | 1,518.28                    |   |
| TOTAL | A.        | Bullianing (Cool Top               | o o                 | -         |            | 100      | 40,707  | 5.496  | 333 | 545      | 702       | 1410     | 7,782.31                    | 11,673.46                                 |
| IOIAL |           |                                    |                     |           |            |          |         | 3.430  |     |          |           |          | 1,102.01                    | 11,073.40                                 |
| 500   | B1        | Exposed Parking Structure          | 0                   | 0         | 0          | 100      | 63891   | 1.467  | 399 | 545      | 762       | 1416     | 2,076.90                    |   |
| TOTAL | ы         | Exposed Faiking Structure          | U                   | 0         | 0          | 100      | 03691   | 1.467  | 399 | 545      | 702       | 1410     | 2,076.90                    | 3,115.35                                  |
| IOTAL |           |                                    |                     |           |            |          |         | 1.407  |     |          |           |          | 2,070.90                    | 3,113.33                                  |
| 500   | 04        | Deads and Dedicar Field            | 0                   | 47        | 0          | 00       | 42,200  | 0.000  | 200 | F.4F     | 700       | 4.440    | 4 250 45                    |   |
| 500   | C1        | Roads and Parking Field            | 0                   | 17        | 0          | 83       | 43,269  | 0.993  | 399 | 545      | 762       | 1416     | 1,259.45                    |   |
| 500   | C2        | Roads and Parking Field            | 0                   | 17        | 0          | 83       | 15,659  | 0.359  | 399 | 545      | 762       | 1416     | 455.80                      |   |
| 500   | C3        | Roads and Parking Field            | 0                   | 17        | 0          | 83       | 44,893  | 1.031  | 399 | 545      | 762       | 1416     | 1,306.73                    |   |
| 500   | C4        | Roads and Parking Field            | 0                   | 17        | 0          | 83       | 64,510  | 1.481  | 399 | 545      | 762       | 1416     | 1,877.74                    |   |
| 500   | C5        | Roads and Parking Field            | 0                   | 17        | 0          | 83       | 38,683  | 0.888  | 399 | 545      | 762       | 1416     | 1,125.96                    |   |
| TOTAL |           |                                    |                     |           |            |          |         | 4.752  |     |          |           |          | 6,025.68                    | 9,038.52                                  |
|       |           |                                    |                     |           |            |          |         |        |     | 2,000    |           |          |                             |   |
| 500   | D1        | Landscape                          | 0                   | 100       | 0          | 0        | 6,886   | 0.158  | 399 | 545      | 762       | 1416     | 86.2                        |   |
| TOTAL |           |                                    |                     |           |            |          |         | 0.158  |     |          |           |          | 86.2                        | 129.23                                    |
|       |           |                                    |                     |           |            |          |         |        |     |          |           |          |                             |   |
| 500P  | A1        | Building Roof Top                  | 0                   | 0         | 0          | 100      | 62,937  | 1.445  | 399 | 545      | 762       | 1416     | 2045.9                      |   |
| TOTAL |           |                                    |                     |           |            |          |         | 1.445  |     |          |           |          | <u>2045.9</u>               | <u>3,068.83</u>                           |
|       |           |                                    |                     |           |            |          |         |        |     |          |           |          |                             |   |
| 510   | A1        | Building Roof Top                  | 0                   | 0         | 0          | 100      | 50,928  | 1.169  | 399 | 545      | 762       | 1416     | 1655.5                      |   |
| 510   | A2        | Roads and Parking Field            | 0                   | 17        | 0          | 83       | 117,825 | 2.705  | 399 | 545      | 762       | 1416     | 3429.6                      |   |
| TOTAL |           |                                    |                     |           |            |          |         | 3.874  |     |          |           |          | <u>5085.1</u>               | 7,627.68                                  |
|       |           |                                    |                     |           |            |          |         |        |     |          |           |          |                             |   |
| 530   | A1        | Roads and Parking Field            | 0                   | 17        | 0          | 83       | 98,598  | 2.263  | 399 | 545      | 762       | 1416     | 2869.9                      |   |
| 530   | A2        | Roads and Parking Field            | 0                   | 17        | 0          | 83       | 12,152  | 0.279  | 399 | 545      | 762       | 1416     | 353.7                       |   |
| 530   | A3        | Roads and Parking Field            | 0                   | 17        | 0          | 83       | 8,385   | 0.193  | 399 | 545      | 762       | 1416     | 244.1                       |   |
| TOTAL | 7.5       | The second second second           | -                   | 2.1.      | -          |          | -,      | 2.735  |     | 2.0      |           |          | 3467.7                      | 5,201.60                                  |
|       |           |                                    |                     |           |            |          |         |        |     |          |           |          | 2.0111                      | <u> </u>                                  |
| 600   | A1        | Roads                              | 0                   | 3         | 12         | 85       | 10,289  | 0.236  | 399 | 545      | 762       | 1416     | 309.8                       |   |
| 600   | A1<br>A2  | Roads and Parking Field            | 0                   | 3         | 12         | 85       | 113,392 | 2.603  | 399 | 545      | 762       | 1416     | 3413.7                      |   |
| TOTAL | AZ        | Noaus and Faiking Field            | U                   | 3         | 12         | 00       | 113,382 |        | 299 | 545      | 102       | 1410     |                             | E 505 22                                  |
| IOTAL |           |                                    |                     |           |            |          |         | 2.839  |     |          |           |          | <u>3723.5</u>               | <u>5,585.23</u>                           |
|       |           |                                    |                     |           |            |          |         |        |     |          |           |          |                             |   |

# **ANALYSIS POINT**

|          | BASIN            | 10  | 00  |     |      |     |     | 300 |     |     |    |     |     | 400 |     |     |     |    |     |    |    |     | 500 |     |     |     |     |     |     |            | 500P | 5   | 10  |      | 530  |     | 60  | 00  |      |
|----------|------------------|-----|-----|-----|------|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|-----|-----|----|-----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|------------|------|-----|-----|------|------|-----|-----|-----|------|
|          | SUB-BASIN        | A1  | A2  | A1  | A2   | A3  | A4  | A5  | A6  | A7  | A8 | A9  | A1  | A2  | A3  | A4  | A5  | A1 | A2  | A3 | A4 | A5  | A6  | A7  | B1  | C1  | C2  | C3  | C4  | <b>C</b> 5 | D1   | A1  | A1  | A2   | A1   | A2  | A3  | A1  | A2   |
|          | 100-YR PEAK FLOW | 7.2 | 0.6 | 3.9 | 22.4 | 3.6 | 1.7 | 9.9 | 3.8 | 1.8 | 1  | 1.1 | 7.8 | 3.5 | 0.5 | 0.6 | 1.6 | 2  | 2.2 | 5  | 6  | 3.2 | 3.8 | 5.4 | 7.4 | 4.6 | 1.7 | 4.7 | 6.8 | 4.1        | 0.4  | 7.3 | 5.9 | 12.5 | 10.4 | 1.3 | 0.9 | 1.1 | 12.4 |
| ANALYSIS |                  |     |     |     |      |     |     |     |     |     |    |     |     |     |     |     |     |    |     |    |    |     |     |     |     |     |     |     |     |            |      |     |     |      |      |     | )   |     |      |
| POINT    |                  |     |     |     |      |     |     |     |     |     |    |     |     |     |     |     |     |    |     |    |    |     |     |     |     |     |     | v.  |     |            |      |     |     |      |      |     | , J |     |      |
| AP1      | 22.6             |     |     |     |      |     |     |     |     |     |    |     |     |     |     |     |     |    |     | 5  | 6  | 3.2 | 3.8 |     |     | 4.6 |     |     |     |            |      |     |     |      |      |     |     |     |      |
|          |                  |     |     |     |      |     |     |     |     |     |    |     |     |     |     |     |     |    |     |    |    |     |     |     |     |     |     |     |     |            |      |     |     |      |      |     | )   |     |      |
| AP2      | 4.57             |     |     |     |      |     |     |     |     |     |    |     |     |     |     |     |     |    |     |    |    |     |     |     |     |     | 1.7 |     |     | 2.87       |      |     |     |      |      |     |     |     |      |
|          |                  |     |     |     |      |     |     |     |     |     |    |     |     |     |     |     |     |    |     |    |    |     |     |     |     |     |     |     |     |            |      |     |     |      |      |     | )   |     |      |
| AP3      | 10.4             |     |     |     |      |     |     |     |     |     |    |     |     |     |     |     |     |    |     |    |    |     |     |     |     |     |     |     |     |            |      |     |     |      | 10.4 |     |     |     |      |
|          |                  |     |     |     |      |     |     |     |     |     |    |     |     |     |     |     |     |    |     |    |    |     |     |     |     |     |     |     |     |            |      |     |     |      |      |     |     |     |      |
| AP4      | 7.53             |     |     |     |      |     |     |     |     |     |    |     |     |     |     |     |     |    |     |    |    |     |     | 5.4 |     |     |     |     |     | 1.23       |      |     |     |      |      |     | 0.9 |     |      |

ODULUS ARCHITEC COPPER AVE. N.W. SUITE 350

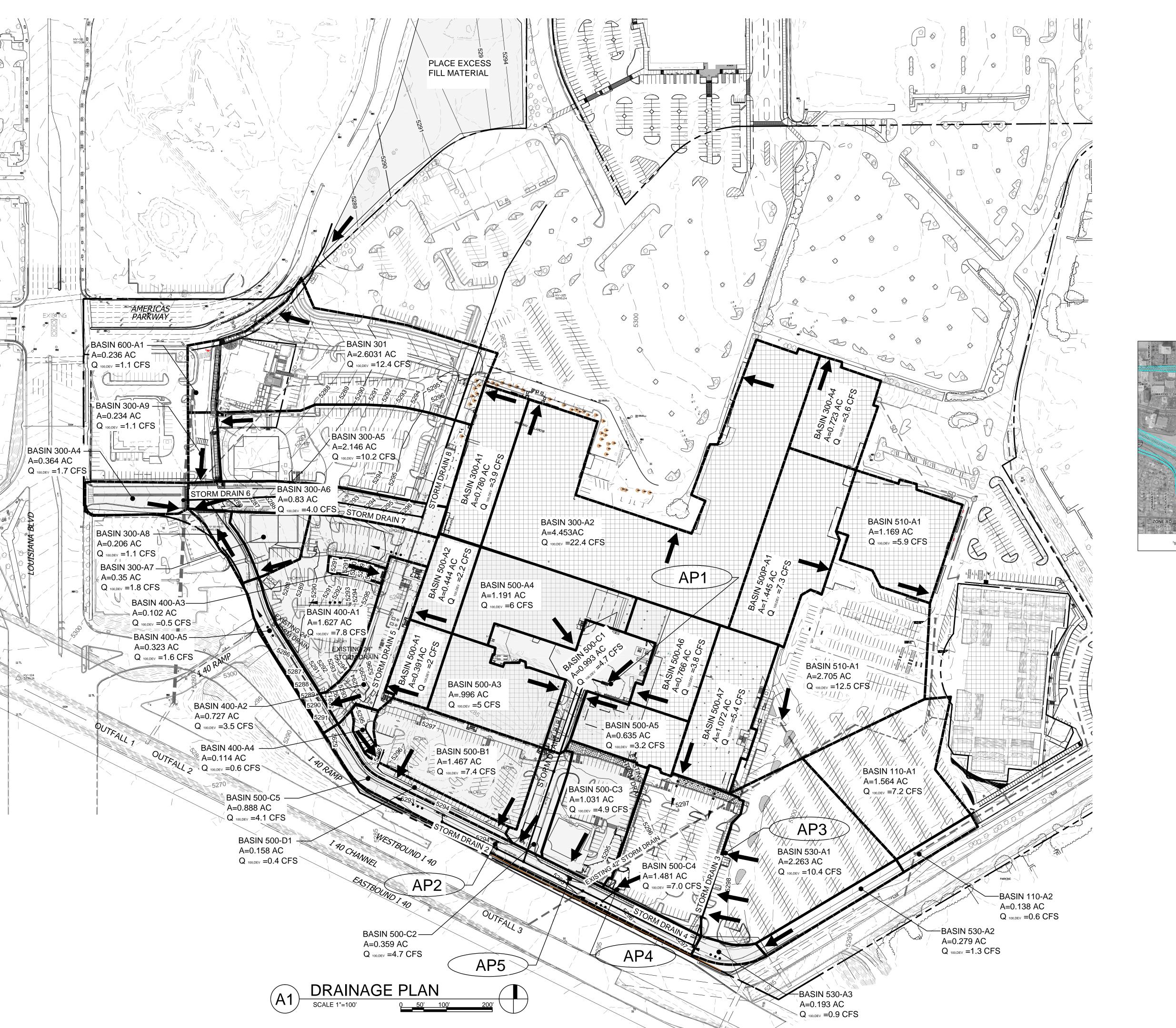


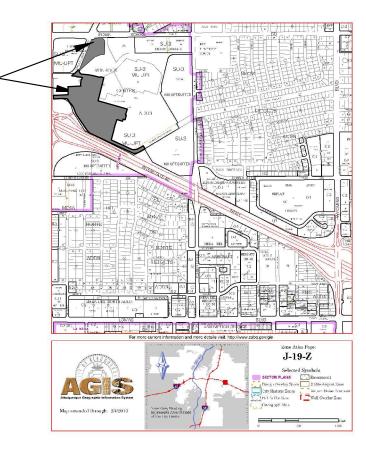


| н                              | 2/ 1/                | / / |
|--------------------------------|----------------------|-----|
| AND 4                          | DRAWN BY:<br>KLS     |     |
| CTION 2 AND 4<br>TER<br>MEXICO | JOB NO.<br>303699.01 |     |

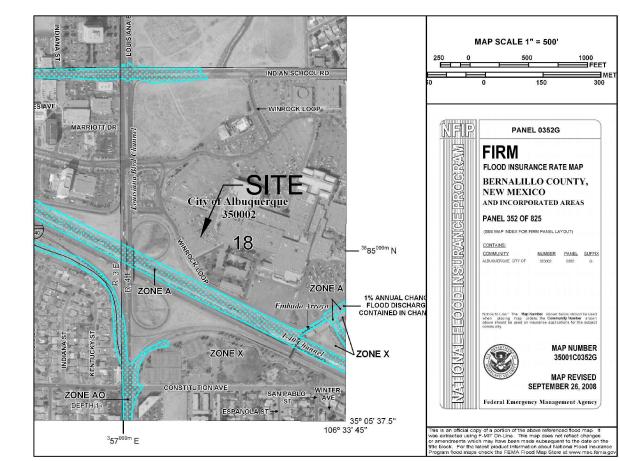
PROJECTITILE
WINROCK TOWN CENTER

|                    | PROJ<br>V |
|--------------------|-----------|
| Rio Rancho         | DATE:     |
| ve NE, Suite 101   | 03/06/15  |
| Mexico 87124       | SCALE:    |
| Fax (505) 892-3259 | 1"=100'   |

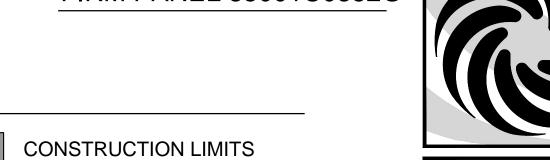




# **ZONE ATLAS PAGE J-19-Z**



FIRM PANEL 35001C0352G



BASIN BOUNDARY DISCHARGE LOCATION

FLOW DIRECTION

## **FLOOD ZONE**

LEGEND

PER THE FEMA MAP NUMBER 35001 C0352G DATED SEPTEMBER 26, 2008 SHOWS THE SITE IS NOT LOCATED WITHIN A FLOOD HAZARD ZONE AREA.

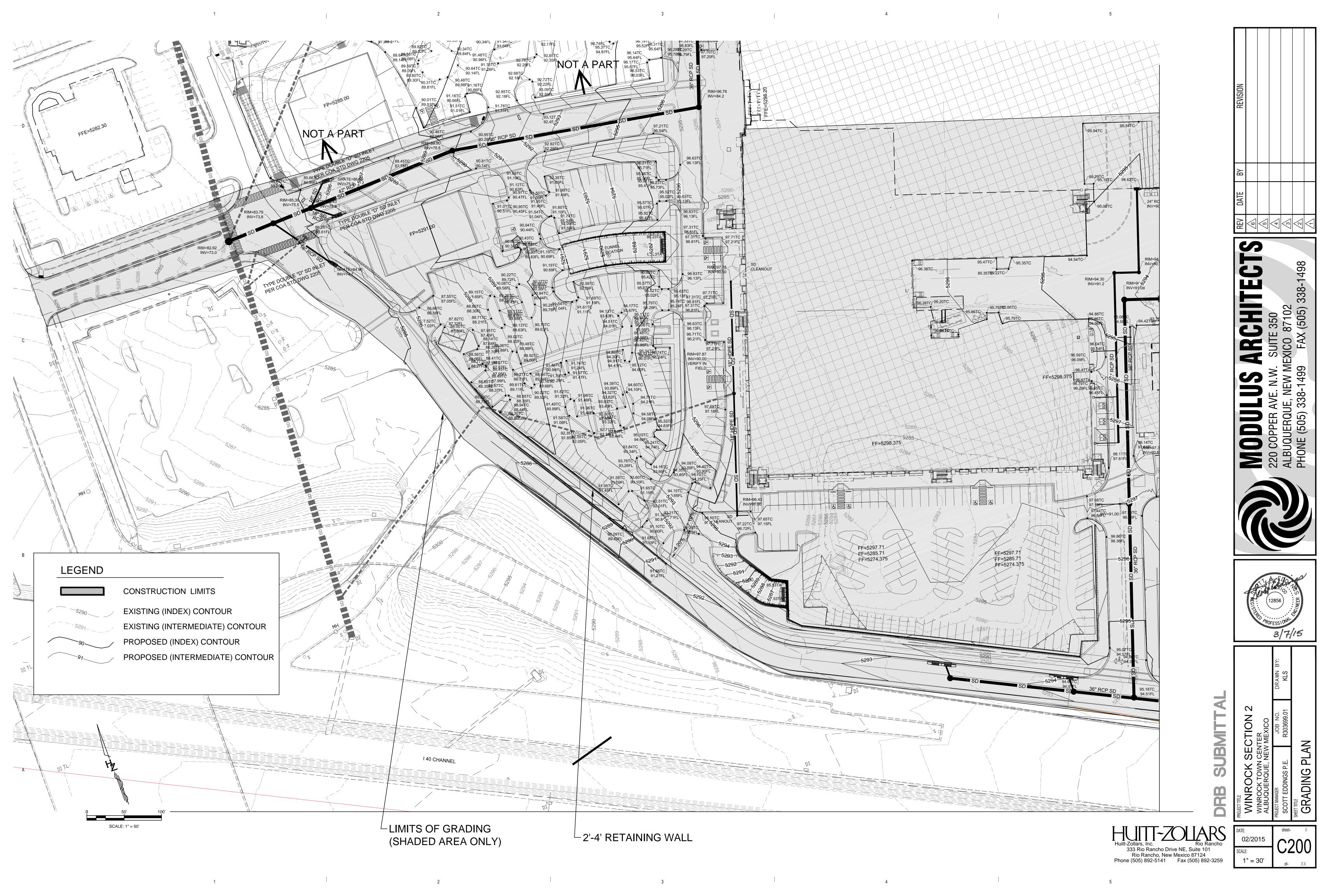
# **ENGINEER'S CERTIFICATION**

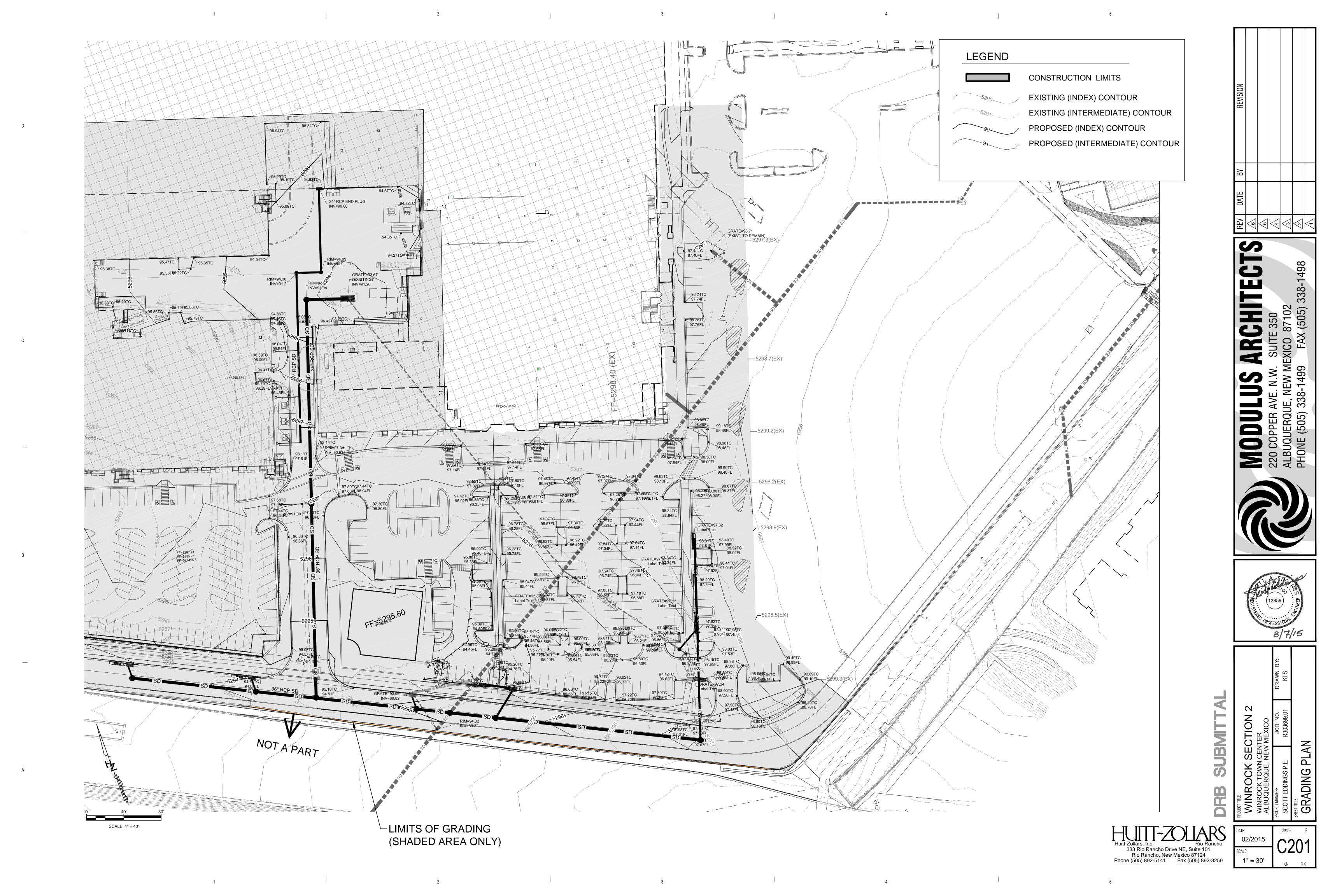
I PERSONALLY INSPECTED THIS SITE AND NO GRADING, FILLING, OR EXCAVATION HAS OCCURRED SINCE THE PREPARATION OF THE TOPOGRAPHY SHOWN ON THIS PLAN.

AND  $\sim$ TION

03/06/15 1"=100'







#### DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 12/2005)

| PROJECT TITLE:      | Winrock Redevelopment                                       | Sections 2   | 2 and 4                        | ZONE MAP: <u>J-19-Z</u> |              |  |  |  |  |
|---------------------|---|--------------|--------------------------------|-------------------------|--------------|--|--|--|--|
| DRB#:               | EPC#:   | WORK         | K ORDER#:                      |                         |              |  |  |  |  |
|                     |   |              |                                |                         |              |  |  |  |  |
|                     | Parcel A-1-A-1-   |              | k Center Addition              | <u> </u>                |              |  |  |  |  |
| CITY ADDRESS:       |   |              |                                |                         |              |  |  |  |  |
| ENCINEEDING FIDM.   | Huitt Zollone   |              |                                | CONTACT, C              | aatt Eddinaa |  |  |  |  |
| ENGINEERING FIRM:   | CONTACT: Scott Eddings PHONE: 892-5141                      |              |                                |                         |              |  |  |  |  |
| CITY STATE:         | _ FHONE   | 97110        |                                |                         |              |  |  |  |  |
| CITT, STATE.        | ABQ, NM   |              |                                | _ ZIF CODE              | 6/110        |  |  |  |  |
| OWNER:              | Winrock Partners, LLC                                       |              |                                | CONTACT:                | Fred Gorenz  |  |  |  |  |
| ADDRESS:            | 100 South Ave NE. Suite                                     | 100          |                                | PHONE:                  | 881-0100     |  |  |  |  |
| CITY. STATE:        | Winrock Partners, LLC<br>100 South Ave NE, Suite<br>ABQ, NM |              |                                | ZIP CODE:               | 87109        |  |  |  |  |
|                     |   |              |                                | _                       |              |  |  |  |  |
| ARCHITECT:          |   |              |                                | CONTACT: _              |              |  |  |  |  |
|                     |   |              |                                |                         |              |  |  |  |  |
| CITY, STATE: _      |   |              |                                | ZIP CODE:               |              |  |  |  |  |
|                     |   |              |                                |                         |              |  |  |  |  |
|                     |   |              |                                |                         |              |  |  |  |  |
| ADDRESS:            |   |              |                                | _ PHONE:                |              |  |  |  |  |
| CITY, STATE: _      |   |              |                                | _ ZIP CODE:             |              |  |  |  |  |
| CONTRACTOR:         |   |              |                                | CONTACT.                |              |  |  |  |  |
| ADDRESS:            |   |              |                                | PHONE:                  |              |  |  |  |  |
| CITY, STATE:        |   |              |                                | ZIP CODE:               |              |  |  |  |  |
| ,                   |   |              |                                |                         |              |  |  |  |  |
| TYPE OF SUBMITTAL:  |   | <b>CHECK</b> | TYPE OF APPR                   | OVAL SOUGH              | Γ:           |  |  |  |  |
| X DRAINAGE RE       |   |              | SIA/FINANCIA                   |                         |              |  |  |  |  |
| DRAINAGE PL         |   |              |                                | Y PLAT APPROVAL         |              |  |  |  |  |
| DRAINAGE PL         |   |              |                                | FOR SUB'D APPROVAL      |              |  |  |  |  |
| CONCEPTUAL          |   |              | S. DEV. FOR B                  |                         | APPROVAL     |  |  |  |  |
| X GRADING PLA       |   |              | _ SECTOR PLAN                  |                         |              |  |  |  |  |
| EROSION CON         |   |              | FINAL PLAT A                   |                         |              |  |  |  |  |
|                     | CERT (HYDROLOGY)  |              | FOUNDATION                     |                         |              |  |  |  |  |
| CLOMR/LOME          | \<br>\  | X            | BUILDING PER                   | RMIT APPROVA            | AL           |  |  |  |  |
| TRAFFIC CIRC        | CULATION LAYOUT   |              | CERTIFICATE                    | OF OCCUPANO             | CY (PERM)    |  |  |  |  |
| ENGINEER'S (        | CERT (TCL)  | 17           | CERTIFICATE                    | OF OCCUPANO             | CY (TEMP)    |  |  |  |  |
|                     | CERT (DRB SITE PLAN)  |              | GRADING PERM                   |                         | L            |  |  |  |  |
| OTHER (SPEC         | IF I )  |              | PAVING PERM WORK ORDER         |                         |              |  |  |  |  |
|                     |   | -            | _ WORK ORDER<br>_ OTHER (SPECI |                         |              |  |  |  |  |
|                     |   | -            | OTHER (SPECI                   | F1)                     |              |  |  |  |  |
| WAS A PRE-DESIGN CO | ONFERENCE ATTENDE   | D·           |                                |                         |              |  |  |  |  |
| X YES               |   |              |                                |                         |              |  |  |  |  |
| NO NO               |   |              |                                |                         |              |  |  |  |  |
| COPY PROVID         | DED   |              |                                |                         |              |  |  |  |  |
|                     |   |              |                                |                         |              |  |  |  |  |
| DATE SUBMITTED:     | 3-09-15   |              | BY:                            | Scott Eddings           |              |  |  |  |  |
|                     |   |              |                                |                         |              |  |  |  |  |

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location, and scope to the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the following:

- 1. Conceptual Grading and Drainage Plan: Required for approval of Site Development Plans greater than five (5) acres and Sector Plans.
- **Drainage Plans**: Required for building permits, grading permits, paving permits and site plans less than five (5) acres. **Drainage Report**: Required for subdivision containing more than ten (10) lots or constituting five (5) acres or more.

