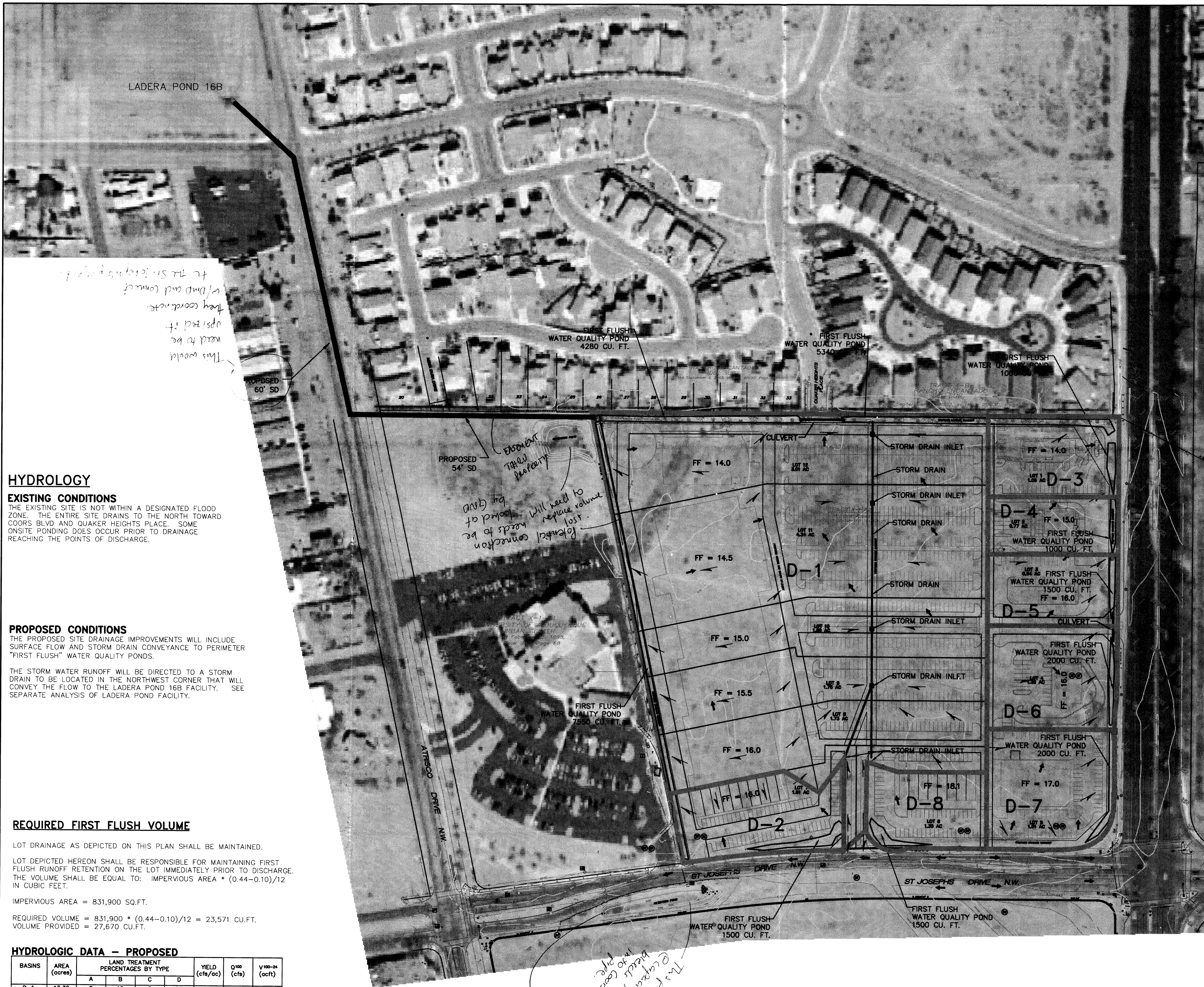




### HYDROLOGY

#### EXISTING CONDITIONS

THE EXISTING SITE IS NOT WITHIN A DESIGNATED FLOOD ZONE. THE ENTIRE SITE DRAINS TO THE NORTH TOWARD COORS BLVD AND QUAKER HEIGHTS PLACE. SOME ONSITE PONDING DOES OCCUR PRIOR TO DRAINAGE REACHING THE POINTS OF DISCHARGE.

#### PROPOSED CONDITIONS

THE PROPOSED SITE DRAINAGE IMPROVEMENTS WILL INCLUDE SURFACE FLOW AND STORM DRAIN CONVEYANCE TO PERIMETER "FIRST FLUSH" WATER QUALITY PONDS.

THE STORM WATER RUNOFF WILL BE DIRECTED TO A STORM DRAIN TO BE LOCATED IN THE NORTHWEST CORNER THAT WILL CONVEY THE FLOW TO THE LADERA POND 16B FACILITY. SEE SEPARATE ANALYSIS OF LADERA POND FACILITY.

#### REQUIRED FIRST FLUSH VOLUME

LOT DRAINAGE AS DEPICTED ON THIS PLAN SHALL BE MAINTAINED.

LOT DEPICTED HEREON SHALL BE RESPONSIBLE FOR MAINTAINING FIRST FLUSH RUNOFF RETENTION ON THE LOT IMMEDIATELY PRIOR TO DISCHARGE. THE VOLUME SHALL BE EQUAL TO: IMPERVIOUS AREA \* (0.44-0.10)/12 IN CUBIC FEET.

IMPERVIOUS AREA = 831,900 SQ.FT.

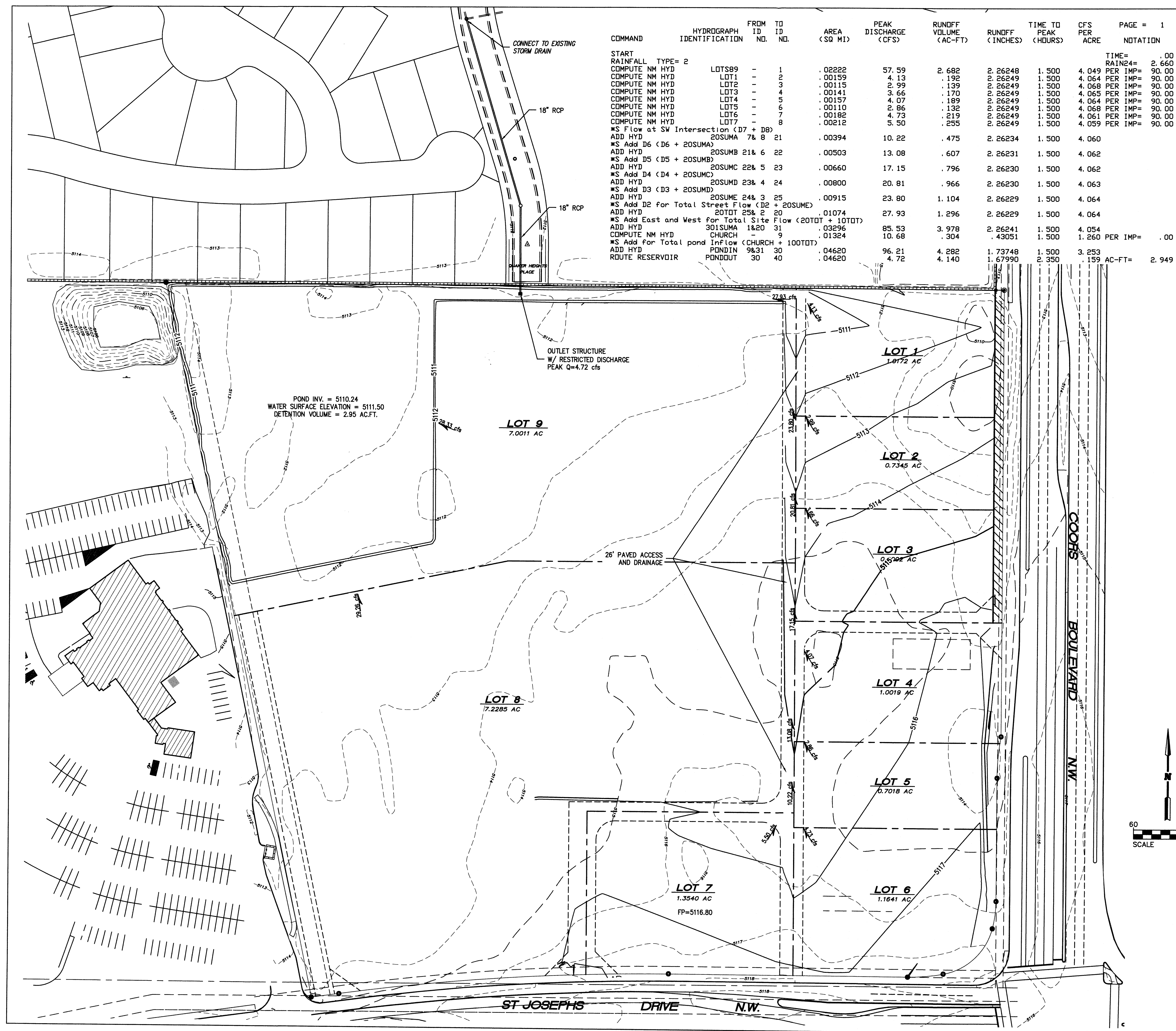
REQUIRED VOLUME = 831,900 \* (0.44-0.10)/12 = 23,571 CU.FT.  
VOLUME PROVIDED = 27,670 CU.FT.

#### HYDROLOGIC DATA -- PROPOSED

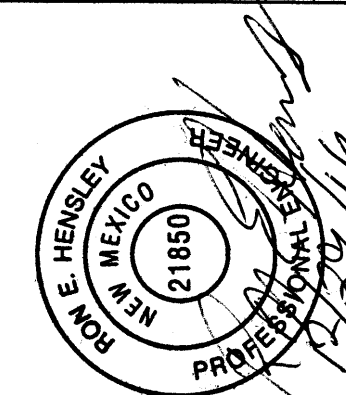
| BASINS | AREA (acres) | LAND TREATMENT PERCENTAGES BY TYPE |    |   |    | YIELD (cfs/ac) | Q <sub>100</sub> (cfs) | V <sub>100-24</sub> (acft) |
|--------|--------------|------------------------------------|----|---|----|----------------|------------------------|----------------------------|
|        |              | A                                  | B  | C | D  |                |                        |                            |
| D-1    | 13.36        | 0                                  | 10 | 0 | 90 | 4.13           | 55.23                  | 2.04                       |
| D-2    | 1.26         | 0                                  | 10 | 0 | 90 | 4.14           | 5.20                   | 0.19                       |
| D-3    | 1.39         | 0                                  | 10 | 0 | 90 | 4.14           | 5.76                   | 0.21                       |
| D-4    | 0.82         | 0                                  | 10 | 0 | 90 | 4.15           | 3.40                   | 0.12                       |
| D-5    | 0.99         | 0                                  | 10 | 0 | 90 | 4.15           | 4.09                   | 0.15                       |
| D-6    | 0.93         | 0                                  | 10 | 0 | 90 | 4.23           | 3.93                   | 0.14                       |
| D-7    | 1.51         | 0                                  | 10 | 0 | 90 | 4.14           | 6.23                   | 0.23                       |
| D-8    | 0.94         | 0                                  | 10 | 0 | 90 | 4.15           | 3.88                   | 0.14                       |

|                                             |  |                                         |  |
|---------------------------------------------|--|-----------------------------------------|--|
|                                             |  | <b>AS BUILT INFORMATION</b>             |  |
| <b>VICINITY MAP</b>                         |  | <b>BENCH MARKS</b>                      |  |
|                                             |  | <b>SURVEY INFORMATION</b>               |  |
| <b>FIRM MAP</b>                             |  | <b>ENGINEER'S SEAL</b>                  |  |
| <b>LEGAL DESCRIPTION</b>                    |  | <b>REVISIONS</b>                        |  |
| <b>LEGEND</b>                               |  | <b>DESIGN</b>                           |  |
| <b>GND, LLC</b>                             |  | <b>CONSULTING ENGINEERS</b>             |  |
| <b>CITY OF ALBUQUERQUE</b>                  |  | <b>MUNICIPAL DEVELOPMENT DEPARTMENT</b> |  |
| <b>ENGINEERING DIVISION</b>                 |  | <b>COORS PAVILION</b>                   |  |
| <b>CONCEPTUAL GRADING AND DRAINAGE PLAN</b> |  | <b>REVISIONS</b>                        |  |
| <b>MONTH/DAY/YEAR</b>                       |  | <b>USER DEPARTMENT</b>                  |  |
| <b>CITY PROJECT No.</b>                     |  | <b>ZONE MAP No.</b>                     |  |
| <b>G-11</b>                                 |  | <b>SHEET</b>                            |  |
| <b>1 OF 1</b>                               |  | <b>DATE: DEC 2015</b>                   |  |
| <b>DESIGNED BY: SEG</b>                     |  | <b>DRAWN BY: SEG</b>                    |  |
| <b>CHECKED BY: SEG</b>                      |  | <b>DATE: DEC 2015</b>                   |  |



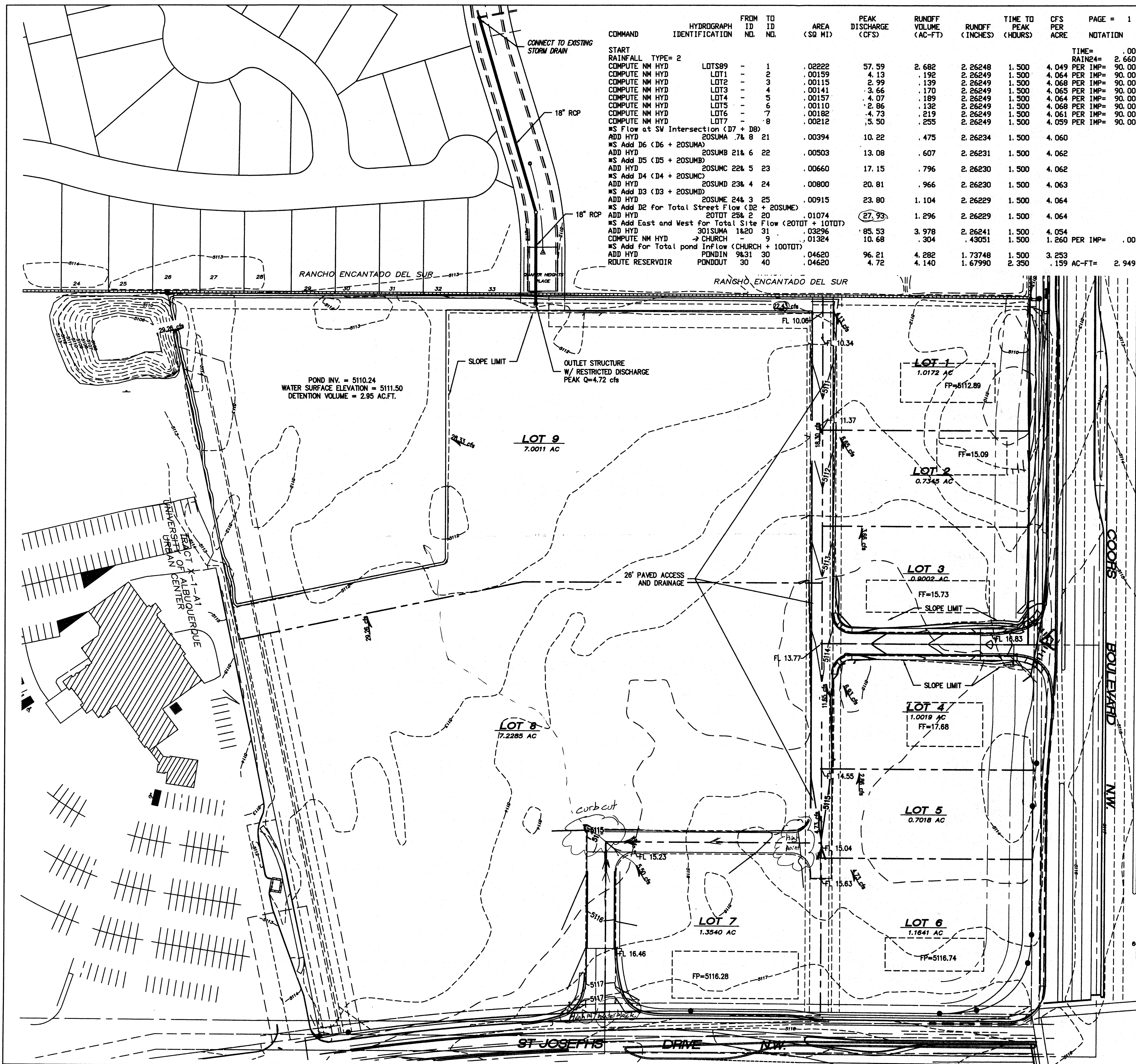


|                               |      |
|-------------------------------|------|
| <i>AS BUILT INFORMATION</i>   |      |
| CONTRACTOR                    |      |
| WORK                          |      |
| INSPECTOR'S                   | DATE |
| ACCEPTANCE BY                 | DATE |
| FIELD CLATION BY              | DATE |
| REPAIRS                       |      |
| CORRECTED BY                  | DATE |
| <i>MICRO-FILM INFORMATION</i> |      |
| RECORDED BY                   | DATE |
| NO.                           |      |

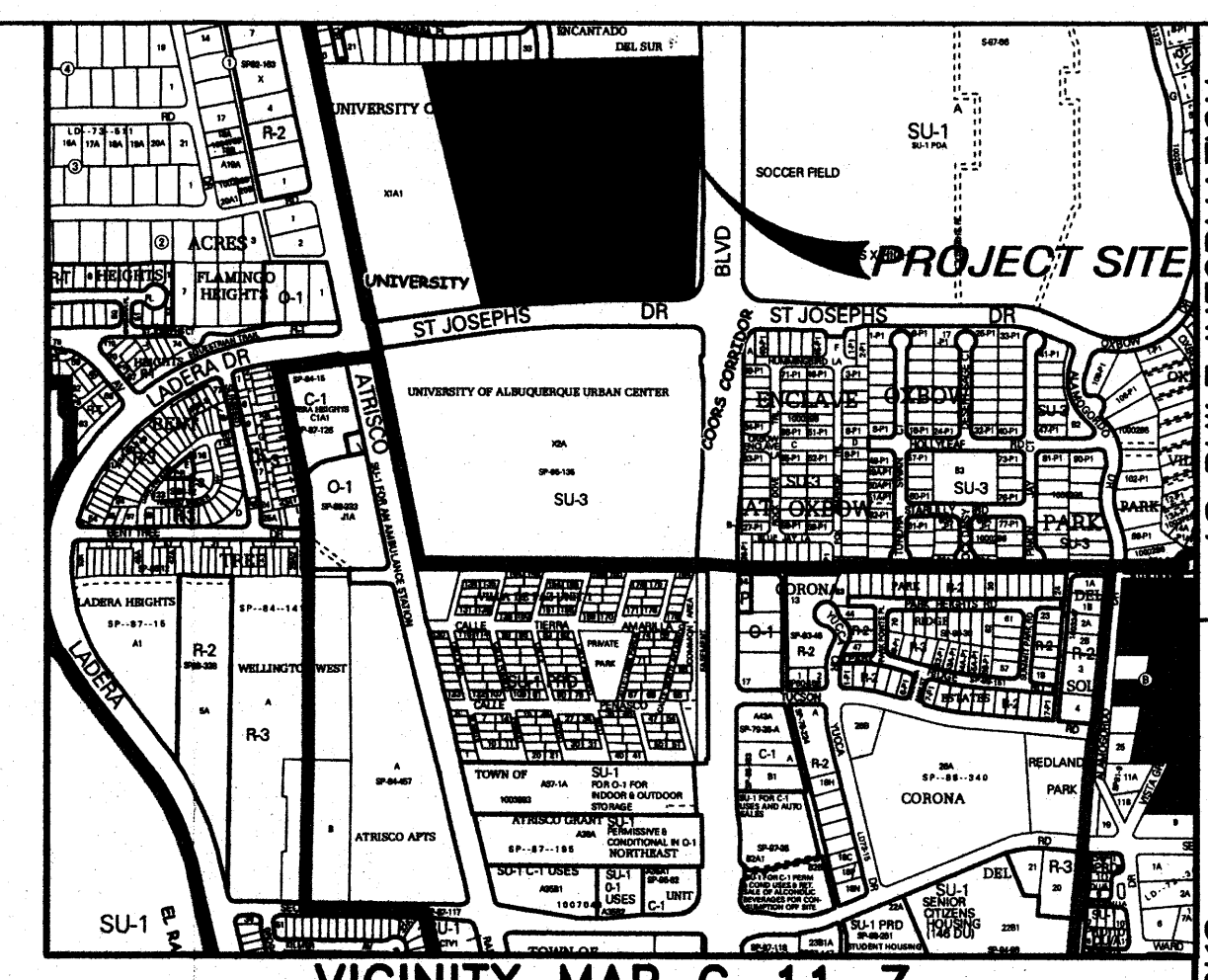
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|                                                     |                               |                    |                |
|-----------------------------------------------------|-------------------------------|--------------------|----------------|
| CITY OF ALBUQUERQUE                                 |                               |                    |                |
| PUBLIC WORKS DEPARTMENT                             |                               |                    |                |
| ENGINEERING DEVELOPMENT GROUP                       |                               |                    |                |
| <b>COORS PAVILION</b>                               |                               |                    |                |
| <b>SITE PLAN ADDENDUM</b>                           |                               |                    |                |
| <b>SUBDIVAION ROUGH GRADING &amp; DRAINAGE PLAN</b> |                               |                    |                |
| DESIGN REVIEW COMMITTEE                             | CITY ENGINEER APPROVAL        | LAST DESIGN UPDATE | Mo./DAY/YR.    |
|                                                     |                               |                    | Mo./DAY/YR.    |
|                                                     |                               |                    |                |
|                                                     |                               |                    |                |
|                                                     |                               |                    |                |
| CITY PROJECT No.                                    | ZONE MAP NO.<br><b>K-09-Z</b> | SHEET<br><b>1</b>  | OF<br><b>1</b> |





| COMMAND                                                  | HYDROGRAPH<br>IDENTIFICATION | FROM<br>ID<br>NO. | TO<br>ID<br>NO. | AREA<br>(SQ MI) | PEAK<br>DISCHARGE<br>(CFS) | RUNOFF<br>VOLUME<br>(AC-FT) | RUNOFF<br>(INCHES) | TIME TO<br>PEAK<br>(HOURS) | CFS<br>PER<br>ACRE | PAGE = 1<br>NOTATION |
|----------------------------------------------------------|------------------------------|-------------------|-----------------|-----------------|----------------------------|-----------------------------|--------------------|----------------------------|--------------------|----------------------|
| START                                                    |                              |                   |                 |                 |                            |                             |                    |                            |                    | TIME= .00            |
| RAINFALL                                                 | TYPE= 2                      |                   |                 |                 |                            |                             |                    |                            |                    | RAIN24= 2.660        |
| COMPUTE NM HYD                                           | LOTS89                       | -                 | 1               | .02222          | 57.59                      | 2.682                       | 2.26248            | 1.500                      | 4.049 PER IMP=     | 90.00                |
| COMPUTE NM HYD                                           | LOT1                         | -                 | 2               | .00159          | 4.13                       | .192                        | 2.26249            | 1.500                      | 4.064 PER IMP=     | 90.00                |
| COMPUTE NM HYD                                           | LOT2                         | -                 | 3               | .00115          | 2.99                       | .139                        | 2.26249            | 1.500                      | 4.068 PER IMP=     | 90.00                |
| COMPUTE NM HYD                                           | LOT3                         | -                 | 4               | .00141          | -3.66                      | .170                        | 2.26249            | 1.500                      | 4.065 PER IMP=     | 90.00                |
| COMPUTE NM HYD                                           | LOT4                         | -                 | 5               | .00157          | -4.07                      | .189                        | 2.26249            | 1.500                      | 4.064 PER IMP=     | 90.00                |
| COMPUTE NM HYD                                           | LOT5                         | -                 | 6               | .00110          | 2.86                       | .132                        | 2.26249            | 1.500                      | 4.068 PER IMP=     | 90.00                |
| COMPUTE NM HYD                                           | LOT6                         | -                 | 7               | .00182          | -4.73                      | .219                        | 2.26249            | 1.500                      | 4.061 PER IMP=     | 90.00                |
| COMPUTE NM HYD                                           | LOT7                         | -                 | 8               | .00212          | -5.50                      | .255                        | 2.26249            | 1.500                      | 4.059 PER IMP=     | 90.00                |
| WS Flow at SV Intersection (D7 + D8)                     |                              |                   |                 |                 |                            |                             |                    |                            |                    |                      |
| ADD HYD                                                  | 20SUMA                       | 7.8               | 21              | .00394          | 10.22                      | .475                        | 2.26234            | 1.500                      | 4.060              |                      |
| WS Add D6 (D6 + 20SUMA)                                  |                              |                   |                 |                 |                            |                             |                    |                            |                    |                      |
| ADD HYD                                                  | 20SUMB                       | 21.6              | 22              | .00503          | 13.08                      | .607                        | 2.26231            | 1.500                      | 4.062              |                      |
| WS Add D5 (D5 + 20SUMB)                                  |                              |                   |                 |                 |                            |                             |                    |                            |                    |                      |
| ADD HYD                                                  | 20SUMC                       | 22.8              | 23              | .00660          | 17.15                      | .796                        | 2.26230            | 1.500                      | 4.062              |                      |
| WS Add D4 (D4 + 20SUMC)                                  |                              |                   |                 |                 |                            |                             |                    |                            |                    |                      |
| ADD HYD                                                  | 20SUMD                       | 23.4              | 24              | .00800          | 20.81                      | .966                        | 2.26230            | 1.500                      | 4.063              |                      |
| WS Add D3 (D3 + 20SUMD)                                  |                              |                   |                 |                 |                            |                             |                    |                            |                    |                      |
| ADD HYD                                                  | 20SUME                       | 24.3              | 25              | .00915          | 23.80                      | 1.104                       | 2.26229            | 1.500                      | 4.064              |                      |
| WS Add D2 for Total Street Flow (D2 + 20SUME)            |                              |                   |                 |                 |                            |                             |                    |                            |                    |                      |
|                                                          | 20TOT 25.8                   | 20                |                 |                 | 27.93                      | 1.296                       | 2.26229            | 1.500                      | 4.064              |                      |
| WS Add East and West for Total Site Flow (20TOT + 10TOT) |                              |                   |                 |                 |                            |                             |                    |                            |                    |                      |
| ADD HYD                                                  | 301SUMA                      | 1.820             | 31              | .03296          | 85.53                      | 3.978                       | 2.26241            | 1.500                      | 4.054              |                      |
| COMPUTE NM HYD                                           | CHURCH                       | -                 | 9               | .01324          | 10.68                      | .304                        | 4.3051             | 1.500                      | 1.260 PER IMP=     | .00                  |
| WS Add for Total pond Inflow (CHURCH + 100TOT)           |                              |                   |                 |                 |                            |                             |                    |                            |                    |                      |
| ADD HYD                                                  | PONDIN                       | 9.831             | 30              | .04620          | 96.21                      | 4.282                       | 1.73748            | 1.500                      | 3.253              |                      |
| ROUTE RESERVOIR                                          | PONDOUT                      | 30                | 40              | .04620          | 4.72                       | 4.140                       | 1.67990            | 2.350                      | .159 AC-FT=        | 2.949                |



VICINITY MAP G-11-Z

### DRAINAGE INFORMATION

### LOCATION & DESCRIPTION

AS SEEN ON THE VICINITY MAP, THE PROPOSED SITE IS 21.22 ACRES LOCATED ON THE SOUTH SIDE OF ST. JOSEPH'S DRIVE AND WEST OF COORS BLVD. THE SITE IS UNDEVELOPED. THE ADJACENT PROPERTY TO THE WEST IS A CHURCH AND TO THE NORTH IS A RESIDENTIAL SUBDIVISION. THE PROPOSED DEVELOPMENT WILL BE EIGHT (8) OFFICE AND COMMERCIAL LOTS WITH PRIVATE DRAINAGE FEATURES AND PUBLIC STORM DRAIN TO CONVEY FLOWS TO THE LADERA POND.

## FLOODPLAIN STATUS. ✓

THIS PROJECT WITHIN FEMA'S FLOOD INSURANCE RATE MAP 35001C0142H, DATED APRIL 2, 2002 IS NOT WITHIN A DESIGNATED 100-YEAR FLOODPLAIN.

## METHODOLOGY

THE HYDROLOGY FOR THIS PROJECT WAS ANALYZED USING AHYMO SOFTWARE.

**PRECIPITATION** ✓

THE 100-YR 24-HR DURATION STORM WAS USED AS THE DESIGN STORM FOR THIS ANALYSIS.  
THIS SITE IS WITHIN ZONE 1 AS IDENTIFIED IN THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS  
MANUAL, SECTION 22.2.

### EXISTING DRAINAGE

THE EXISTING FLOW CONDITIONS FROM THE SITE DISCHARGE ARE DETAINED ONSITE WITH OVERFLOW TO THE NORTH OF THE SITE.

**DEVELOPED CONDITION**

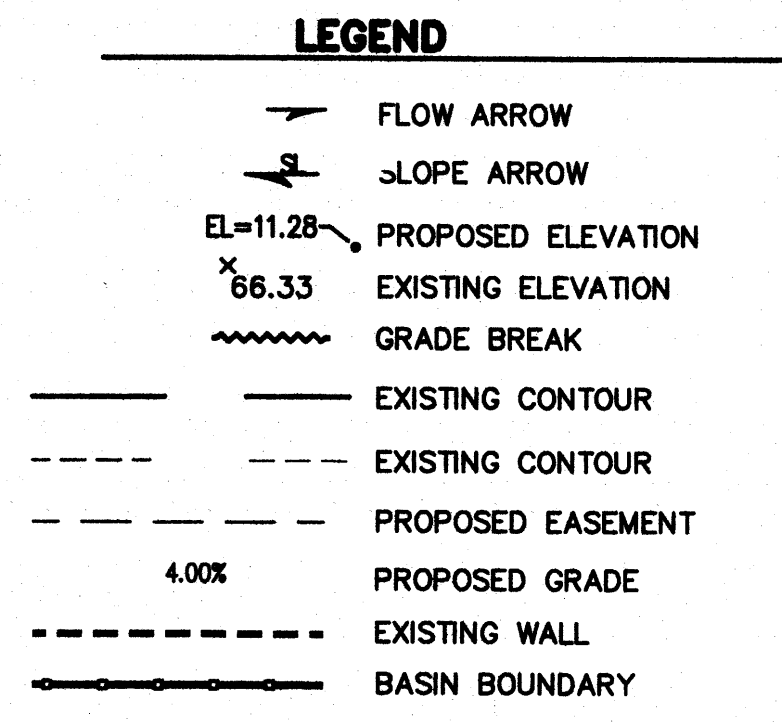
THIS SITE WILL BE DEVELOPED WITH AN ACCESS AND DRAINAGE EASEMENT TO INTERCEPT FLOW FROM LOT 1 THROUGH LOT 6. THE ASPHALT DRIVE SURFACE WILL CONVEY FLOW TO THE ONSITE DETENTION POND. LOT 7 THROUGH LOT 9 WILL DISCHARGE TO THE POND VIA SURFACE SHEET FLOW. THE RESTRICTED DISCHARGE FROM THE POND WILL HAVE MINIMAL IMPACT ON DOWNSTREAM FACILITIES.

EACH LOT WILL MAKE A

RETAINED WITHIN THE VOLUME OF THE SUBDIVISION POND.

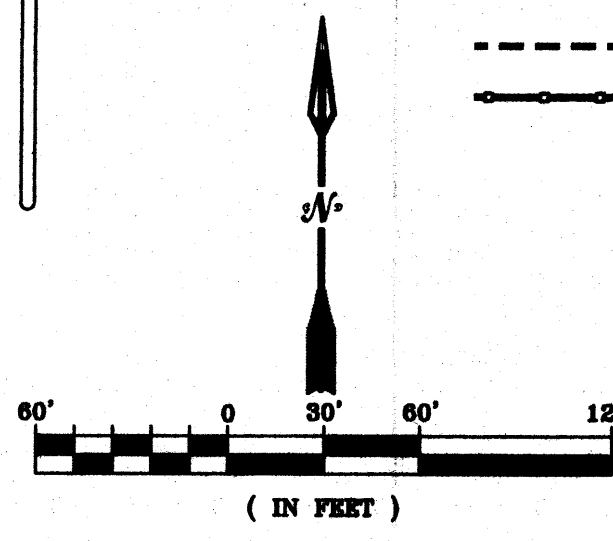
## CONCLUSION

THE RUNOFF FROM THE SITE IS WITHIN THE DESIGN CAPACITY OF THE DOWNSTREAM FACILITIES AND IN COMPLIANCE WITH CITY REQUIREMENTS.



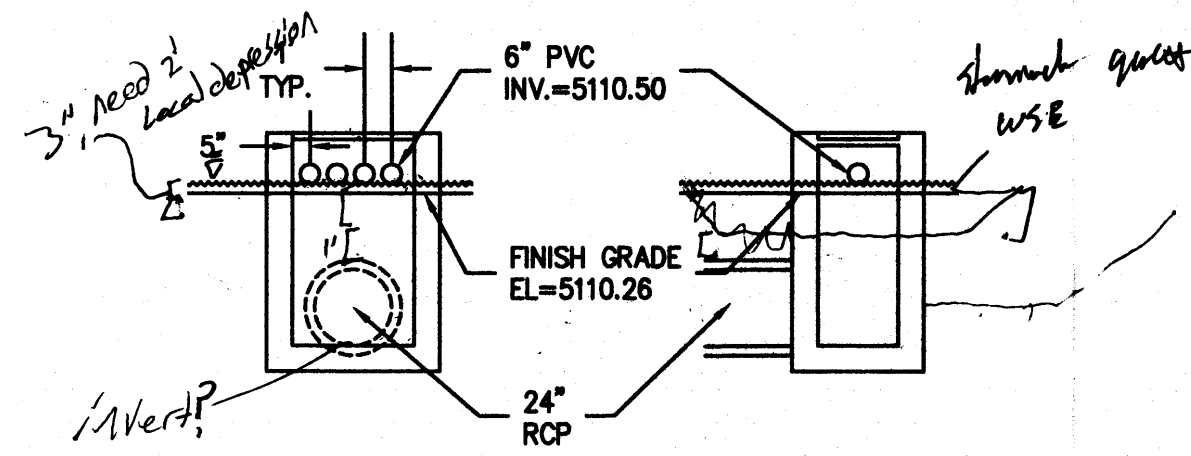
***GND, LLC***  
CONSULTING ENGINEERS

Albuquerque, NM 87114  
Phone: (505)-264-0472



|                                                                                                         |                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    |             |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---------------------------------------------------------------------------------------------------------|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-------------|-------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| CONSULTING ENGINEERS<br>CITY OF ALBUQUERQUE<br>PUBLIC WORKS DEPARTMENT<br>ENGINEERING DEVELOPMENT GROUP |                               | RECEIVED<br>JAN 13 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                    |             |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>COORS PAVILION</b><br><b>MASTER DRAINAGE PLAN</b><br><b>SITE GRADING &amp; DRAINAGE</b>              |                               | LAND DEVELOPMENT SECTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                    |             |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DESIGN REVIEW COMMITTEE                                                                                 | CITY ENGINEER APPROVAL        | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; text-align: center; vertical-align: middle;">LAST DESIGN UPDATE</td> <td style="width: 35%; padding: 5px;">Mo./DAY/YR.</td> <td style="width: 35%; padding: 5px;">Mo./DAY/YR.</td> </tr> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> </table> | LAST DESIGN UPDATE | Mo./DAY/YR. | Mo./DAY/YR. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| LAST DESIGN UPDATE                                                                                      | Mo./DAY/YR.                   | Mo./DAY/YR.                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |             |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                                                                                         |                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    |             |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                                                                                         |                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    |             |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                                                                                         |                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    |             |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                                                                                         |                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    |             |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                                                                                         |                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    |             |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CITY PROJECT No.                                                                                        | ZONE MAP NO.<br><b>K-09-Z</b> | SHEET <b>1</b> OF <b>1</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                    |             |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

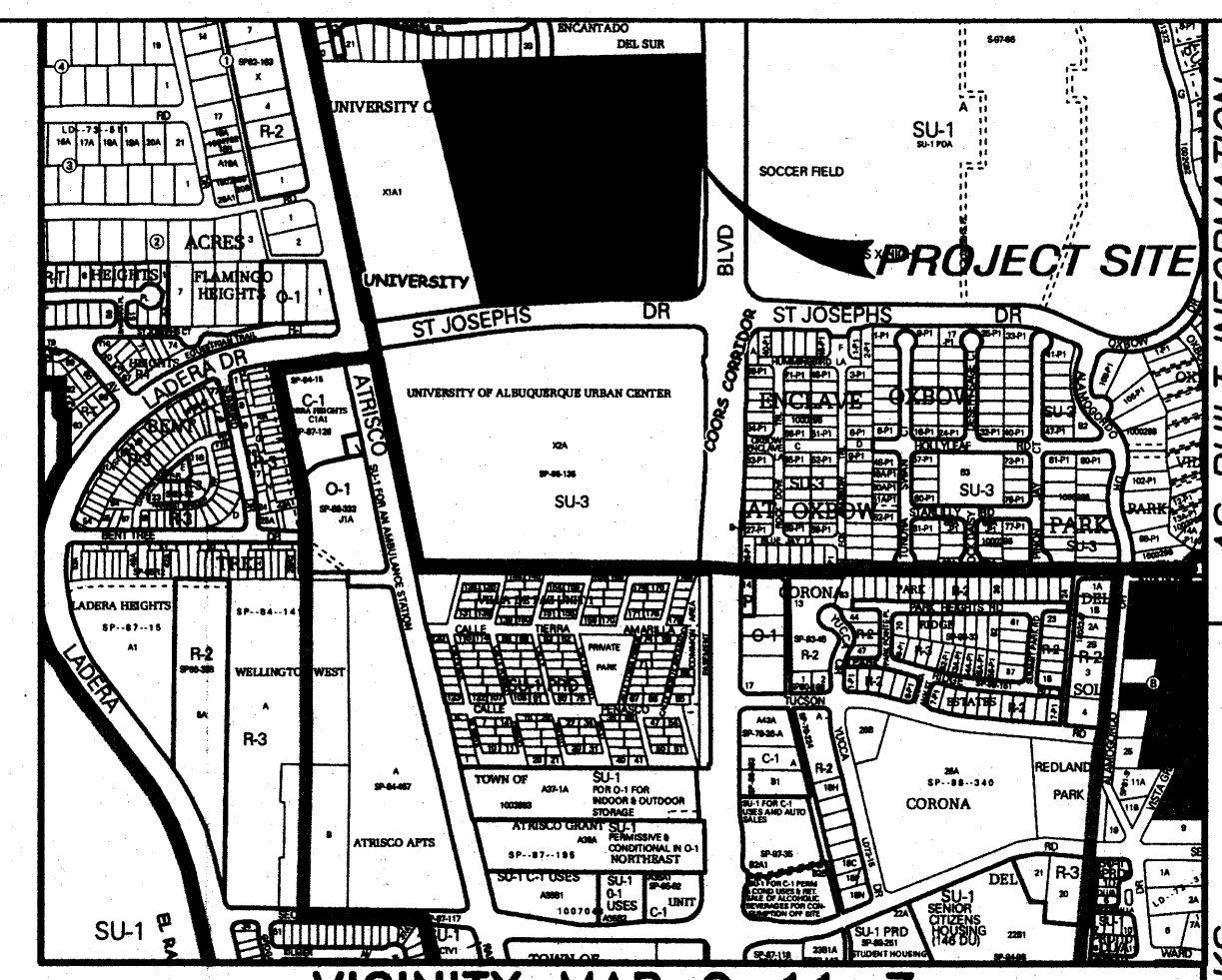




FRONT ELEVATION    SIDE ELEVATION  
**1 MODIFIED TYPE D INLET**  
Scale: 1:10

| HYDROLOGIC DATA |              |                                    |   |    |    |                |                        |                             |                           |
|-----------------|--------------|------------------------------------|---|----|----|----------------|------------------------|-----------------------------|---------------------------|
| BASINS          | AREA (acres) | LAND TREATMENT PERCENTAGES BY TYPE |   |    |    | YIELD (cfs/ac) | Q <sub>100</sub> (cfs) | V <sub>100-24</sub> (ac-ft) | FIRST FLUSH VOL. (cu.ft.) |
|                 |              | A                                  | B | C  | D  |                |                        |                             |                           |
| CHURCH          | 1.48         | 100                                | 0 | 0  | 0  | 1.28           | 10.88                  | 0.304                       | 0                         |
| LOT 1           | 1.02         | 0                                  | 0 | 10 | 90 | 4.05           | 4.13                   | 0.192                       | 1,133                     |
| LOT 2           | 0.73         | 0                                  | 0 | 10 | 90 | 4.05           | 2.99                   | 0.139                       | 811                       |
| LOT 3           | 0.90         | 0                                  | 0 | 10 | 90 | 4.05           | 3.66                   | 0.170                       | 1,000                     |
| LOT 4           | 1.00         | 0                                  | 0 | 10 | 90 | 4.05           | 4.07                   | 0.189                       | 1,111                     |
| LOT 5           | 0.70         | 0                                  | 0 | 10 | 90 | 4.05           | 2.88                   | 0.132                       | 778                       |
| LOT 6           | 1.16         | 0                                  | 0 | 10 | 90 | 4.05           | 4.73                   | 0.219                       | 1,289                     |
| LOT 7           | 1.35         | 0                                  | 0 | 10 | 90 | 4.05           | 5.50                   | 0.255                       | 1,524                     |
| LOT 8           | 7.23         | 0                                  | 0 | 10 | 90 | 4.05           | 29.28                  | 1.319                       | 8,031                     |
| LOT 9           | 7.00         | 0                                  | 0 | 10 | 90 | 4.05           | 28.33                  | 1.363                       | 7,775                     |

**REQUIRED FIRST FLUSH VOLUME**  
LOT DRAINAGE ROUTING AS DEPICTED ON THIS PLAN SHALL BE MAINTAINED.  
FLUSH VOLUME = IMPERVIOUS AREA \* (0.44-0.10)/12 IN CUBIC FEET.  
TOTAL REQUIRED FLUSH VOLUME = 826,812 \* (0.44-0.10)/12 = 23,426 CU.FT.  
SITE POND FLUSH VOLUME PROVIDED = 24,344 CU.FT.



**VICINITY MAP G-11-Z**

**DRAINAGE INFORMATION**  
LOCATION & DESCRIPTION

AS SEEN ON THE VICINITY MAP, THE PROPOSED SITE IS 21.22 ACRES LOCATED ON THE SOUTH SIDE OF ST. JOSEPH'S DRIVE AND WEST OF COORS BLVD. THE SITE IS UNDEVELOPED. THE ADJACENT PROPERTY TO THE WEST IS A CHURCH AND TO THE NORTH IS A RESIDENTIAL SUBDIVISION. THE PROPOSED DEVELOPMENT WILL BE EIGHT (8) OFFICE AND COMMERCIAL LOTS WITH PRIVATE DRAINAGE FEATURES AND PUBLIC STORM DRAIN TO CONVEY FLOWS TO THE LADERA POND.

FLOODPLAIN STATUS

THIS PROJECT WITHIN FEMA'S FLOOD INSURANCE RATE MAP 35001C0142H, DATED APRIL 2, 2002 IS NOT WITHIN A DESIGNATED 100-YEAR FLOODPLAIN.

METHODOLOGY

THE HYDROLOGY FOR THIS PROJECT WAS ANALYZED USING AHYMO SOFTWARE.

PRECIPITATION

THE 100-YR 24-HR DURATION STORM WAS USED AS THE DESIGN STORM FOR THIS ANALYSIS. THIS SITE IS WITHIN ZONE 1 AS IDENTIFIED IN THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL, SECTION 22.2.

EXISTING DRAINAGE

THE EXISTING FLOW CONDITIONS FROM THE SITE DISCHARGE ARE DETAINED ONSITE WITH OVERFLOW TO THE NORTH OF THE SITE.

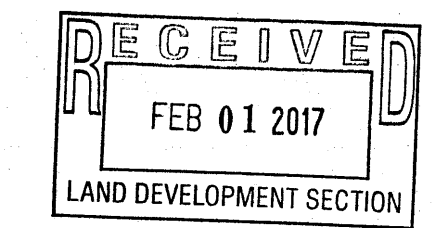
DEVELOPED CONDITION

THIS SITE WILL BE DEVELOPED WITH AN ACCESS AND DRAINAGE EASEMENT TO INTERCEPT FLOW FROM LOT 1 THROUGH LOT 6. THE ASPHALT DRIVE SURFACE WILL CONVEY FLOW TO THE ONSITE DETENTION POND. LOT 7 THROUGH LOT 9 WILL DISCHARGE TO THE POND VIA SURFACE SHEET FLOW. THE RESTRICTED DISCHARGE FROM THE POND WILL HAVE MINIMAL IMPACT ON DOWNSTREAM FACILITIES.

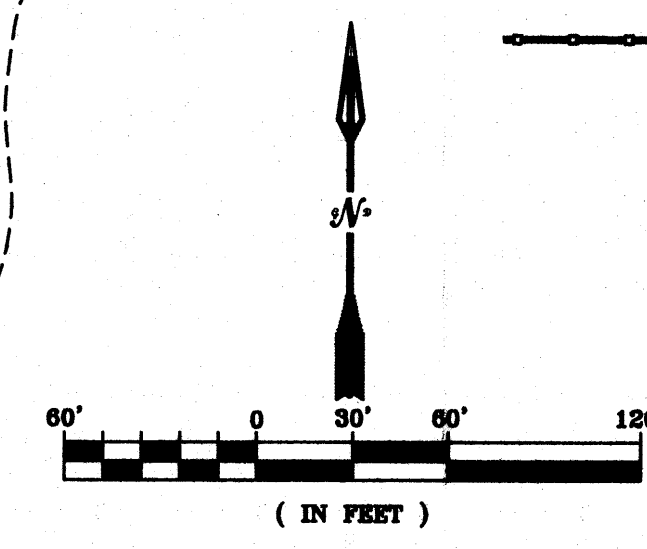
EACH LOT WILL MAKE ACCOMMODATION FOR THE "FIRST FLUSH" WHICH WILL BE PRIMARILY RETAINED WITHIN THE VOLUME OF THE SUBDIVISION POND.

CONCLUSION

THE RUNOFF FROM THE SITE IS WITHIN THE DESIGN CAPACITY OF THE DOWNSTREAM FACILITIES AND IN COMPLIANCE WITH CITY REQUIREMENTS.



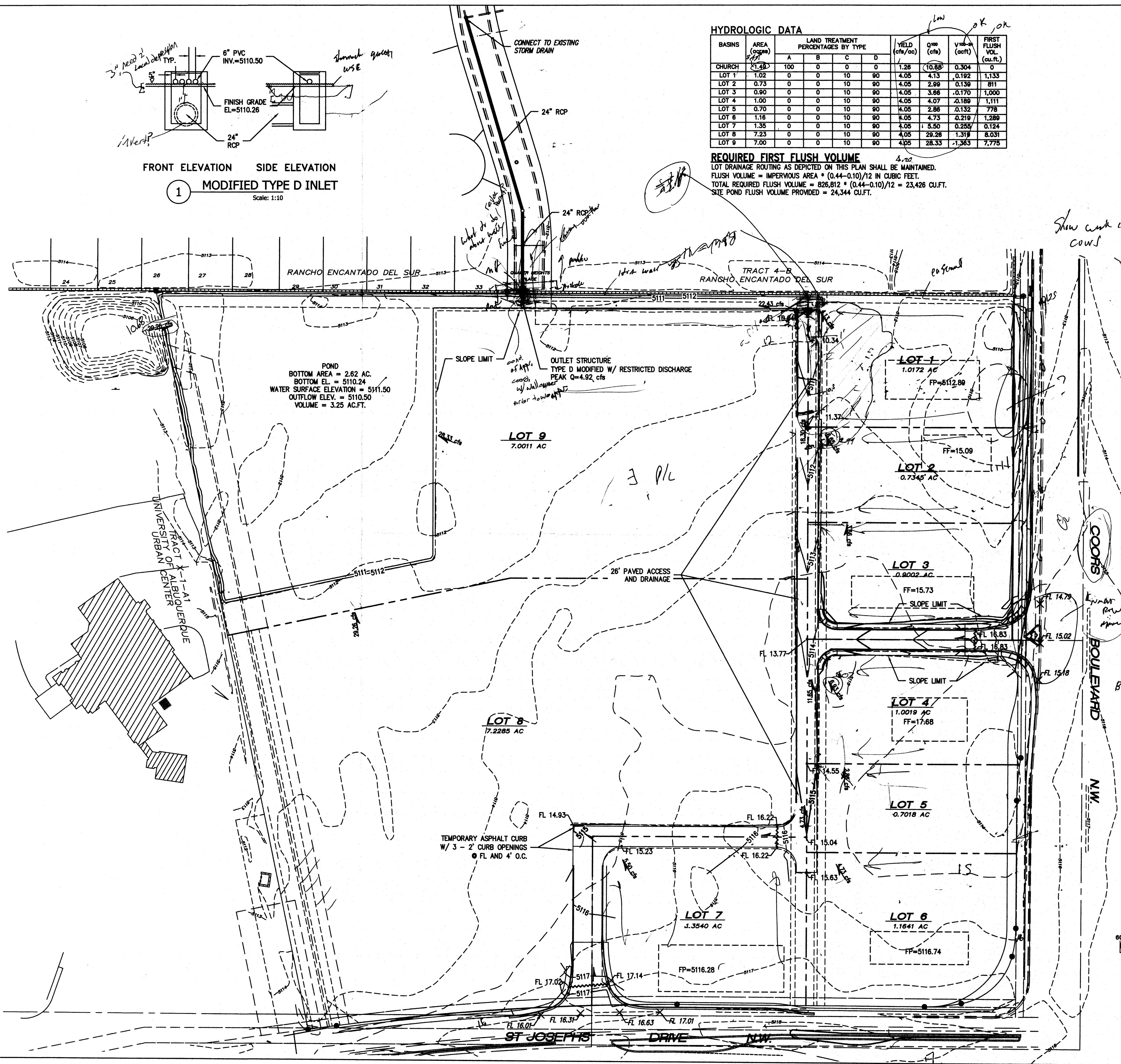
- LEGEND**
- > FLOW ARROW
  - > SLOPE ARROW
  - EL=11.28 PROPOSED ELEVATION
  - x 66.33 EXISTING ELEVATION
  - GRADE BREAK
  - PROPOSED CONTOUR
  - 5000 EXISTING CONTOUR
  - PROPOSED EASEMENT
  - EXISTING WALL
  - BASIN BOUNDARY



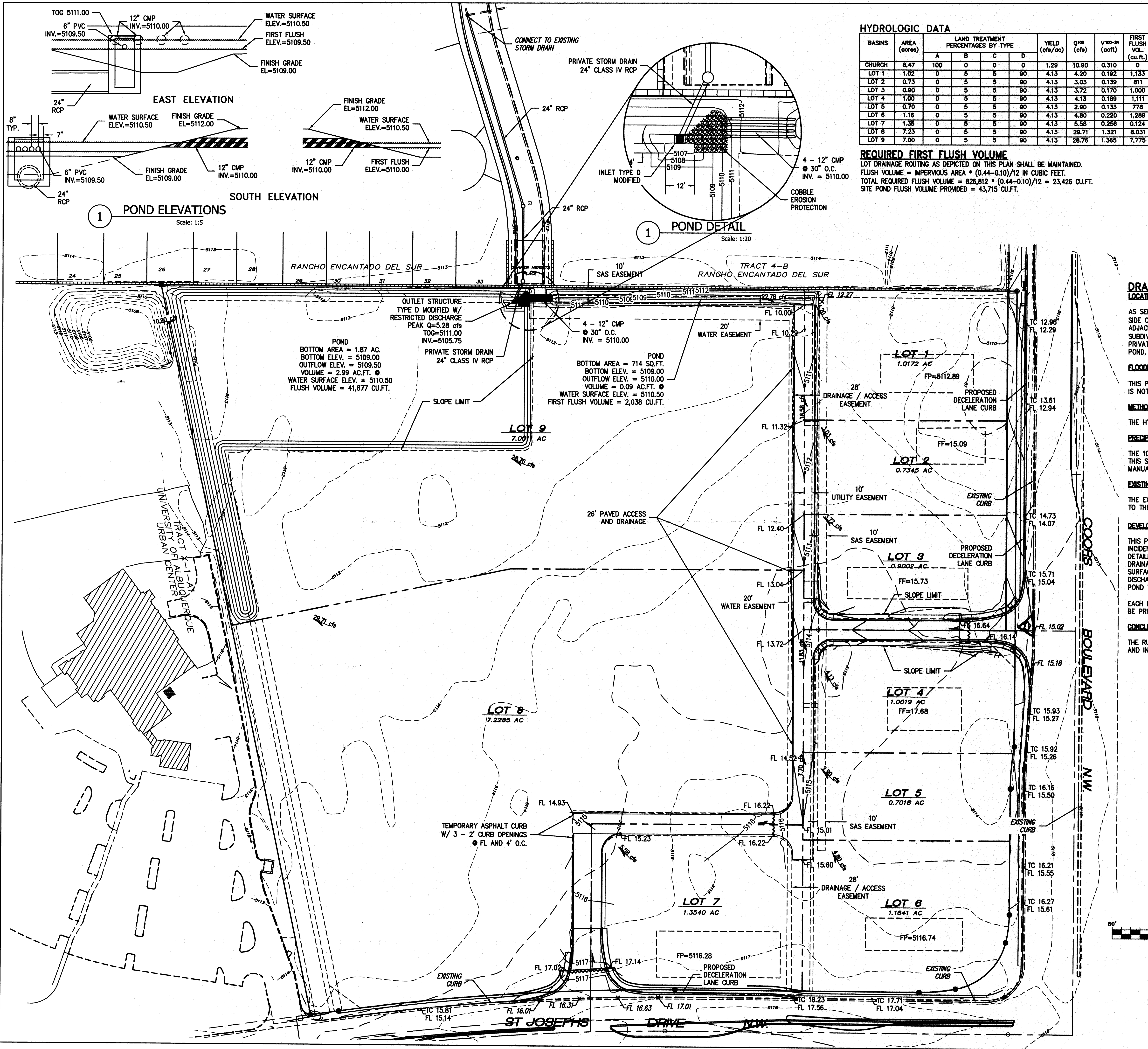
**GND, LLC**  
CONSULTING ENGINEERS

Albuquerque, NM 87114  
Phone: (505) 264-0472

|                                                                                            |                        |              |              |
|--------------------------------------------------------------------------------------------|------------------------|--------------|--------------|
| CITY OF ALBUQUERQUE<br>PUBLIC WORKS DEPARTMENT<br>ENGINEERING DEVELOPMENT GROUP            |                        |              |              |
| <b>COORS PAVILION</b><br><b>MASTER DRAINAGE PLAN</b><br><b>SITE GRADING &amp; DRAINAGE</b> |                        |              |              |
| DESIGN REVIEW COMMITTEE                                                                    | CITY ENGINEER APPROVAL | Mo./DAY/YR.  | Mo./DAY/YR.  |
| CITY PROJECT No.                                                                           |                        | ZONE MAP No. | SHEET 1 OF 1 |
| K-09-Z                                                                                     |                        |              |              |



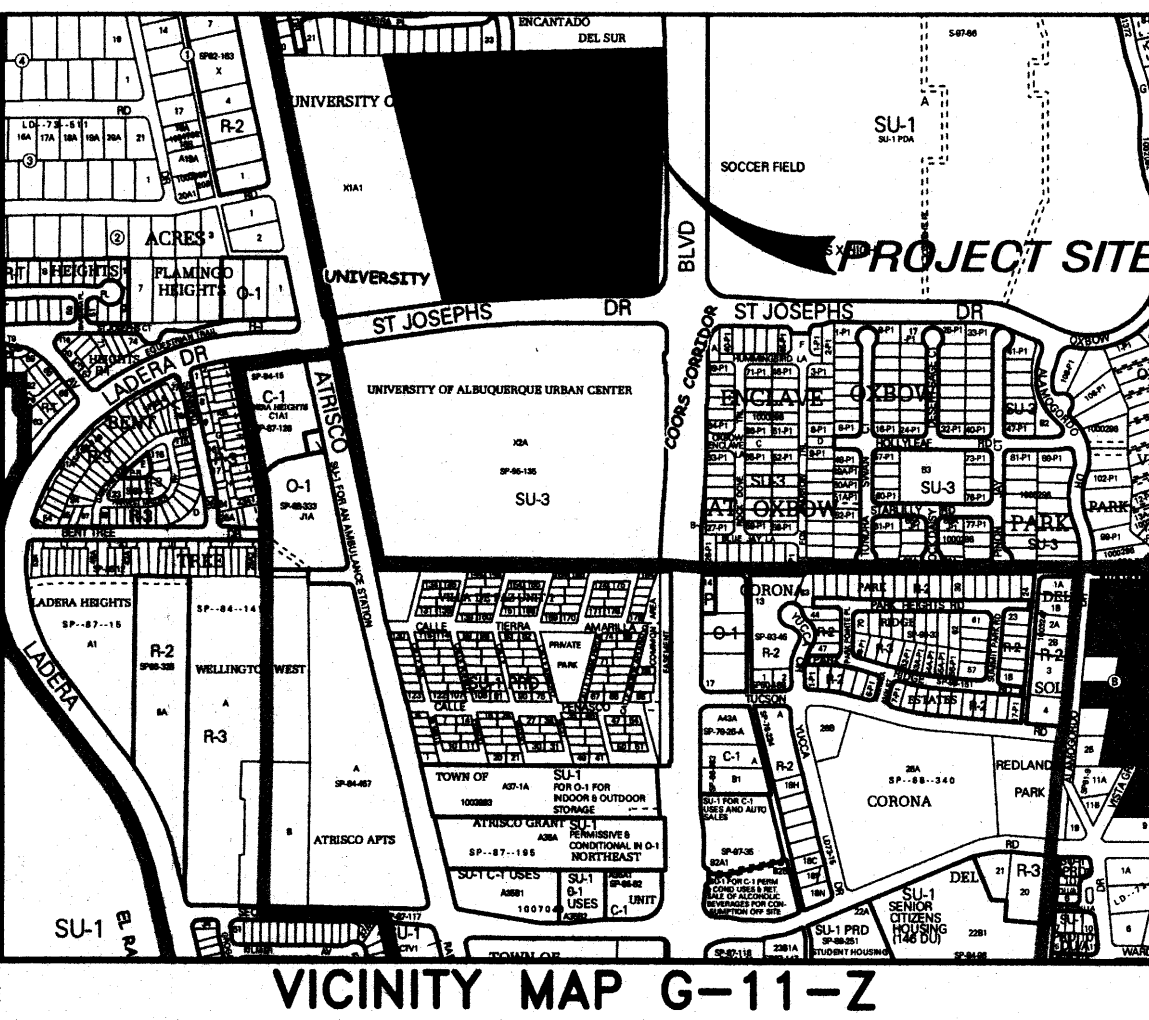




HYDROLOGIC DATA

| BASINS | AREA (acres) | LAND TREATMENT PERCENTAGES BY TYPE |   |   |    | YIELD (cfs/acre) | Q100 (cfs) | V100-24 (ac-ft) | FIRST FLUSH VOL (cu-ft.) |
|--------|--------------|------------------------------------|---|---|----|------------------|------------|-----------------|--------------------------|
|        |              | A                                  | B | C | D  |                  |            |                 |                          |
| CHURCH | 8.47         | 100                                | 0 | 0 | 0  | 1.29             | 10.90      | 0.310           | 0                        |
| LOT 1  | 1.02         | 0                                  | 5 | 5 | 90 | 4.13             | 4.20       | 0.192           | 1,133                    |
| LOT 2  | 0.73         | 0                                  | 5 | 5 | 90 | 4.13             | 3.03       | 0.139           | 811                      |
| LOT 3  | 0.90         | 0                                  | 5 | 5 | 90 | 4.13             | 3.72       | 0.170           | 1,000                    |
| LOT 4  | 1.00         | 0                                  | 5 | 5 | 90 | 4.13             | 4.13       | 0.189           | 1,111                    |
| LOT 5  | 0.70         | 0                                  | 5 | 5 | 90 | 4.13             | 2.90       | 0.133           | 778                      |
| LOT 6  | 1.18         | 0                                  | 5 | 5 | 90 | 4.13             | 4.80       | 0.220           | 1,289                    |
| LOT 7  | 1.35         | 0                                  | 5 | 5 | 90 | 4.13             | 5.58       | 0.256           | 1,124                    |
| LOT 8  | 7.23         | 0                                  | 5 | 5 | 90 | 4.13             | 28.71      | 1.321           | 8,031                    |
| LOT 9  | 7.00         | 0                                  | 5 | 5 | 90 | 4.13             | 28.78      | 1.365           | 7,775                    |

REQUIRED FIRST FLUSH VOLUME  
LOT DRAINAGE ROUTING AS DEPICTED ON THIS PLAN SHALL BE MAINTAINED.  
FLUSH VOLUME = IMPERVIOUS AREA \* (0.44-0.10)/12 IN CUBIC FEET.  
TOTAL REQUIRED FLUSH VOLUME = 826,812 \* (0.44-0.10)/12 = 23,426 CU.FT.  
SITE POND FLUSH VOLUME PROVIDED = 43,715 CU.FT.



**DRAINAGE INFORMATION**  
**LOCATION & DESCRIPTION**  
AS SEEN ON THE VICINITY MAP, THE PROPOSED SITE IS 21.22 ACRES LOCATED ON THE SOUTH SIDE OF ST JOSEPH'S DRIVE AND WEST OF COORS BLVD. THE SITE IS UNDEVELOPED. THE ADJACENT PROPERTY TO THE WEST IS A CHURCH AND TO THE NORTH IS A RESIDENTIAL SUBDIVISION. THE PROPOSED DEVELOPMENT WILL BE EIGHT (8) OFFICE AND COMMERCIAL LOTS WITH PRIVATE DRAINAGE FEATURES AND PUBLIC STORM DRAIN TO CONVEY FLOWS TO THE LADERA POND.

**FLOODPLAIN STATUS**  
THIS PROJECT WITHIN FEMA'S FLOOD INSURANCE RATE MAP 35001C0142H, DATED APRIL 2, 2002 IS NOT WITHIN A DESIGNATED 100-YEAR FLOODPLAIN.

**METHODOLOGY**  
THE HYDROLOGY FOR THIS PROJECT WAS ANALYZED USING AHYMO SOFTWARE.

**PRECIPITATION**  
THE 100-YR 24-HR DURATION STORM WAS USED AS THE DESIGN STORM FOR THIS ANALYSIS. THIS SITE IS WITHIN ZONE 1 AS IDENTIFIED IN THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL, SECTION 22.2.

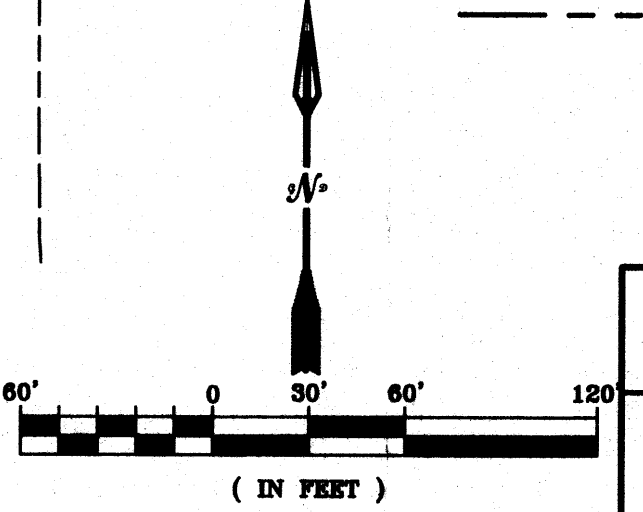
**EXISTING DRAINAGE**  
THE EXISTING FLOW CONDITIONS FROM THE SITE DISCHARGE ARE DETAINED ONSITE WITH OVERFLOW TO THE NORTH OF THE SITE.

**DEVELOPED CONDITION**  
THIS PLAN IS IN SUPPORT OF THE GRADING OF THE SUBDIVISION IMPROVEMENTS. ONLY GRADING INCIDENTAL TO THAT PURPOSE IS PROPOSED. GRADING PLANS FOR LOT DEVELOPMENT WILL BE DETAILED UNDER SEPARATE PLANS. THE SITE WILL BE DEVELOPED WITH AN ACCESS AND DRAINAGE EASEMENT TO INTERCEPT FLOW FROM LOT 1 THROUGH LOT 6. THE ASPHALT DRIVE SURFACE WILL CONVEY FLOW TO THE ONSITE DETENTION POND. LOT 7 THROUGH LOT 9 WILL DISCHARGE TO THE POND VIA SURFACE SHEET FLOW. THE RESTRICTED DISCHARGE FROM THE POND WILL HAVE MINIMAL IMPACT ON DOWNSTREAM FACILITIES.

EACH LOT WILL MAKE ACCOMMODATION FOR WATER QUALITY. HOWEVER, THE "FIRST FLUSH" WILL BE PRIMARILY RETAINED WITHIN THE VOLUME OF THE SUBDIVISION POND.

**CONCLUSION**  
THE RUNOFF FROM THE SITE IS WITHIN THE DESIGN CAPACITY OF THE DOWNSTREAM FACILITIES AND IN COMPLIANCE WITH CITY REQUIREMENTS.

- LEGEND**
- 8.85 TOP OF CURB ELEVATION
  - 9.35 BOTTOM OF CURB ELEVATION
  - LAND DEVELOPMENT SECTION
  - FLOW ARROW
  - SLOPE ARROW
  - EL=11.28 PROPOSED ELEVATION
  - 66.33 EXISTING ELEVATION
  - GRADE BREAK
  - 5000 PROPOSED CONTOUR
  - 5000 EXISTING CONTOUR
  - PROPOSED EASEMENT
  - EXISTING WALL
  - PROP. LINE / BASIN BOUNDARY



**GND, LLC**  
CONSULTING ENGINEERS  
Albuquerque, NM 87114  
Phone: (505) 264-0472

CITY OF ALBUQUERQUE  
PUBLIC WORKS DEPARTMENT  
ENGINEERING DEVELOPMENT GROUP

**COORS PAVILION**  
**MASTER DRAINAGE PLAN**  
**SITE GRADING & DRAINAGE**

|                         |                        |              |             |
|-------------------------|------------------------|--------------|-------------|
| DESIGN REVIEW COMMITTEE | CITY ENGINEER APPROVAL | Mo./DAY/YR.  | Mo./DAY/YR. |
| CITY PROJECT No.        |                        | ZONE MAP No. | SHEET OF    |
| K-09-Z                  |                        | 1            | 1           |

**AS BUILT INFORMATION**

|                 |      |
|-----------------|------|
| CONTRACTOR      | DATE |
| STAMPED BY      | DATE |
| INSPECTOR'S     | DATE |
| ACCEPTANCE BY   | DATE |
| VERIFICATION BY | DATE |
| DRAWINGS        | DATE |
| CHECKED BY      | DATE |
| RECORDED BY     | DATE |

**FIELD NOTES**

|     |      |
|-----|------|
| NO. | DATE |
|     |      |
|     |      |
|     |      |
|     |      |

**ENGINEER'S SEAL**

RECEIVED  
FEB 27 2017

**REVISIONS**

|     |      |         |
|-----|------|---------|
| NO. | DATE | REMARKS |
|     |      |         |
|     |      |         |
|     |      |         |

DESIGNED BY: REH  
DRAWN BY: REH  
CHECKED BY: REH