City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

Project Title: TUYET SON BUDDHIST CENTER Building Permit #: _____ City Drainage #: _____

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

Legal Description: lot 2 block 5 HENDREN SUBDIVISION

City Address: 12125 CENTRAL

Engineering Firm: RIO GRANDE ENGINEERING Contact: DAVID SOULE

Address: PO BOX 93924, ALBUQUERQUE, NM 87199

Phone#: 505.321.9099 Fax#: 505.872.0999 E-mail: DAVID@RIOGRANDEENGINEERING.COM

Owner: TUYET SON BUDDHIST CENTER Contact: _____

Address: 324 PARSIFAL ST NE, ALB NM 87123

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

Architect: none Contact: _____

Address: _____

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

Other Contact: _____ Contact: _____

Address: _____

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

Check all that Apply:

DEPARTMENT:

x HYDROLOGY/ DRAINAGE

_____ TRAFFIC/ TRANSPORTATION

_____ MS4/ EROSION & SEDIMENT CONTROL

TYPE OF SUBMITTAL:

_____ ENGINEER/ ARCHITECT CERTIFICATION

_____ CONCEPTUAL G & D PLAN

x GRADING PLAN

_____ DRAINAGE MASTER PLAN

_____ DRAINAGE REPORT

_____ CLOMR/LOMR

_____ TRAFFIC CIRCULATION LAYOUT (TCL)

_____ TRAFFIC IMPACT STUDY (TIS)

_____ EROSION & SEDIMENT CONTROL PLAN (ESC)

_____ OTHER (SPECIFY) _____

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

x BUILDING PERMIT APPROVAL

_____ CERTIFICATE OF OCCUPANCY

_____ PRELIMINARY PLAT APPROVAL

_____ SITE PLAN FOR SUB'D APPROVAL

_____ SITE PLAN FOR BLDG. PERMIT APPROVAL

_____ FINAL PLAT APPROVAL

_____ SIA/ RELEASE OF FINANCIAL GUARANTEE

_____ FOUNDATION PERMIT APPROVAL

_____ GRADING PERMIT APPROVAL

_____ SO-19 APPROVAL

_____ PAVING PERMIT APPROVAL

_____ GRADING/ PAD CERTIFICATION

_____ WORK ORDER APPROVAL

_____ CLOMR/LOMR

_____ PRE-DESIGN MEETING

_____ OTHER (SPECIFY) _____

IS THIS A RESUBMITTAL?: _____ Yes x No

DATE SUBMITTED: 9/6/16 By: _____

COA STAFF: ELECTRONIC SUBMITTAL RECEIVED: ___

DRAINAGE REPORT

For

TUYET SON BUDDHIST CENTER
LOT 2 BLOCK 5 HENDREN SUBDIVISION
12125 CENTRAL NE
Albuquerque, New Mexico

Prepared by

Rio Grande Engineering
PO Box 93924
Albuquerque, New Mexico 87199

AUGUST 2016

David Soule P.E. No. 14522

TABLE OF CONTENTS

Appendix

Map Pocket

Site Grading and Drainage Plan

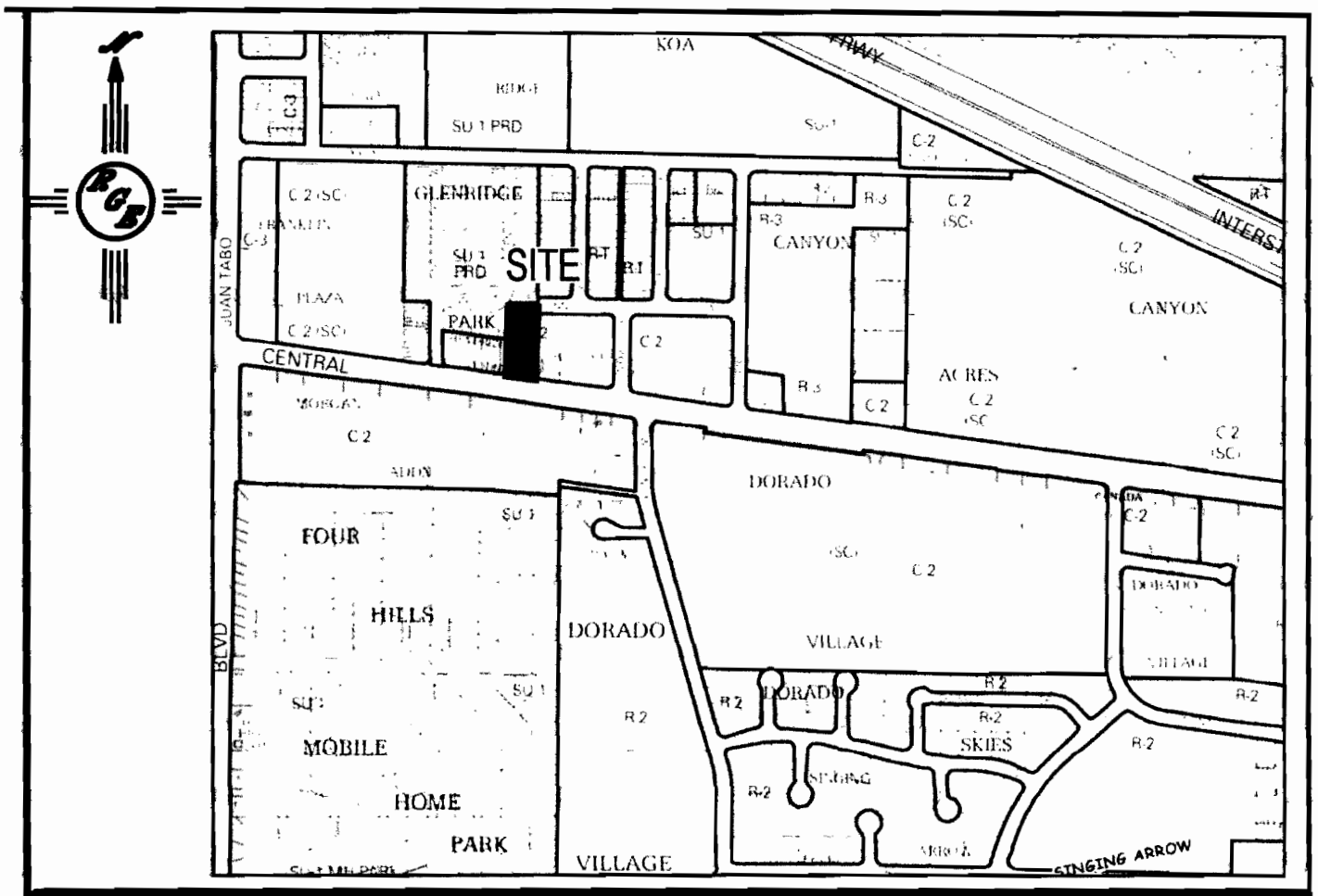
PURPOSE

The purpose of this report is to provide the Drainage Management Plan for the redevelopment of a 0.79 acre parcel of land located on Northeast Central. This plan will be utilized for the redevelopment of the subject property from a sales lot into a Buddhist retreat center with one building and several future buildings. This plan was prepared in accordance with the City of Albuquerque's Development Process Manual. This report will demonstrate that the proposed improvements do not adversely affect the surrounding properties, nor the upstream or downstream facilities.

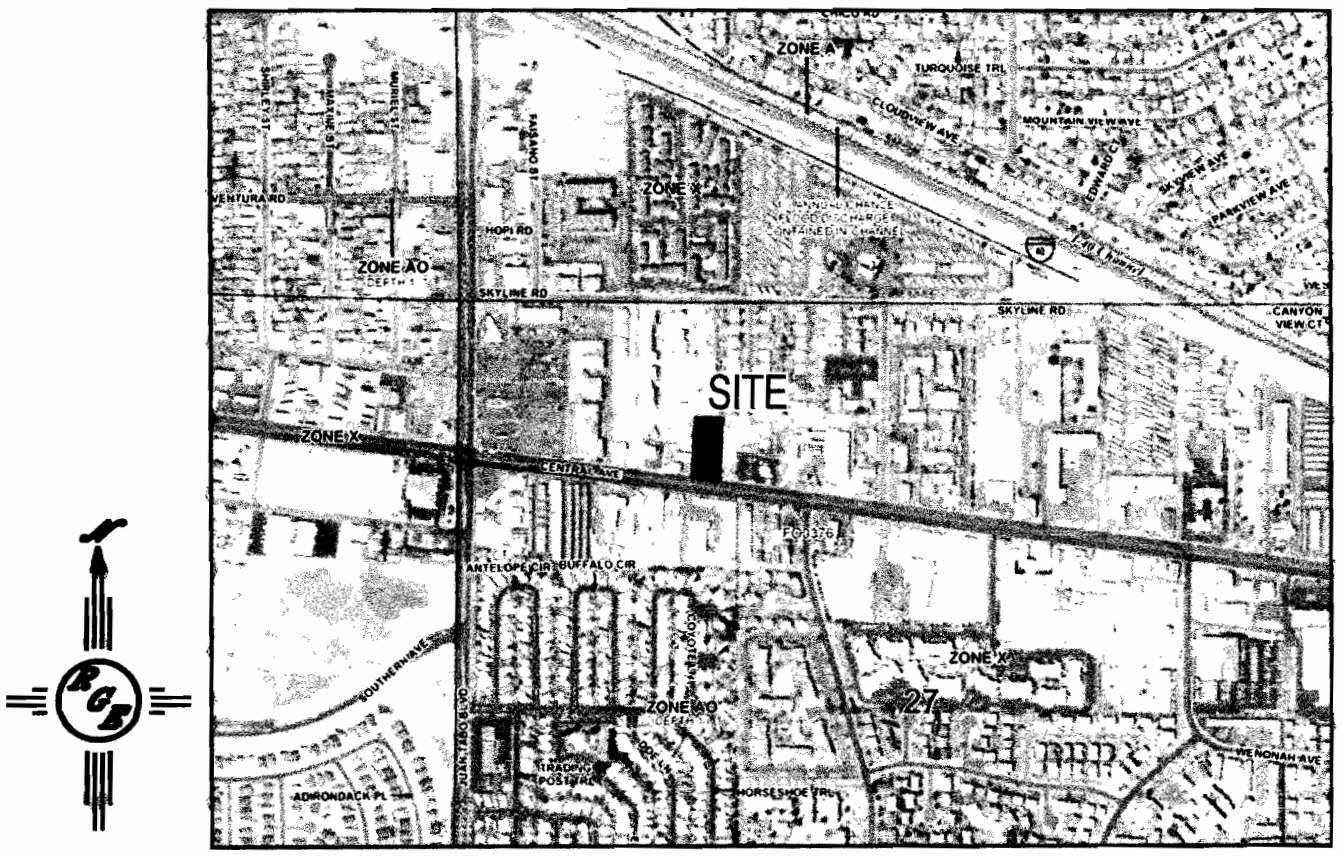
INTRODUCTION

The subject of this report, as shown on the Exhibit A, is a0.79-acre parcel of land located on the north side of Central Avenue NE east between Burma and Glenridge road NE. The site is located in a fully developed are of the north east heights of Albuquerque. The legal description of this site is lot 2 block 5 Hendren subdivision. As shown on FIRM map 35001C0359, the site is located entirely within Flood Zone X. The site is currently developed as a completely compacted gravel and paved sales lot.

The site is located within the boundaries of the East Gateway sector plan. This area is completely developed. The proposed drainage solution must not increase existing flow rate and account for the 90th percentile storm. The site must retain the first .42" of rainfall, resulting in .34" of run off. The site shall maintain existing drainage patterns



VICINITY MAP: **L-22-Z**



FIRM MAP: **35001C0359G**

EXISTING CONDITIONS

The site is currently developed as a completely semi impervious sales lot. It appears to have been a lot for either car of mobile homes. The site has been completely paved, with asphalt base course with no landscaping. The site currently discharges 2.98 cfs to the adjacent property. The flows pass over private property and enter the public roadway they are conveyed to the Glen ridge roadway. The existing upland flows are diverted around the site to either central or Linn roadway due to solid fence on east property line. The site allows the upland flow to pass thru the site via an asphalt rundown at the rear of the site that appears to be previous half street

PROPOSED CONDITIONS

The proposed improvements consist of a single new building with a dumpster and storage building with future building sites. The onsite storm water will be conveyed within the parking areas and within water quality ponds located in all landscape area. The site will drain from east to west and be conveyed via landscape swales and water harvest pond to the north west corner. The site will generate 3.22 cfs, which exceeds the existing condition. To reduce the flow to existing, a 9" tall and 1.5' wide weir and berm will be constructed to throttle the flow to less than historical. The water storage area will not effect any structures.

As shown in Appendix A, the site was modeled using AHYMO. The stage storage table for the onsite detention is also enclosed. The site will discharge 2.58 cfs during the 100-year 6- hour event. The site will harvest 1526 cf of storm water, which exceeds the 489 cf required. In the event of clogging, the pond will overtop the berm and discharge at the historic locations.

SUMMARY AND RECOMMENDATIONS

This site is a redevelopment of a completely developed parcel of land located in a fully developed watershed located within the north east heights. The developed condition will produce

a peak discharge rate less than existing. The site has been designed to retain the 90th percentile storm event. The site will maintain the existing drainage patterns

The proposed site development does not adversely affect the upstream or downstream facilities. The site was designed in conformance to City of Albuquerque Drainage Policy. Therefore, we request approval of the site-grading plan. Since this site encompasses less than 1 acre, an Erosion Control Plan, NPDES permit and SWPPP may not be required prior to any construction activity.

APPENDIX A

SITE HYDROLOGY

Exhibit A- Vicinity Map

Weighted E Method

TUYET CENTER

Existing Developed Basins

											100-Year, 6-hr.		
Basin	Area (sf)	Area (acres)	Treatment A %	(acres)	Treatment B %	(acres)	Treatment C %	(acres)	Treatment D %	(acres)	Weighted E (ac-ft)	Volume (ac-ft)	Flow cfs
EXISTING	34514.00	0.792	0%	0	0.0%	0.000	80.0%	0.63387	20%	0.158	1.504	0.099	2.98
PROPOSED	34514	0.792	0%	0	20.0%	0.158	30.0%	0.2377	50%	0.396	1.751	0.116	3.22

Equations:

Weighted E = Ea*Aa + Eb*Ab + Ec*Ac + Ed*Ad / (Total Area)

Volume = Weighted D * Total Area

Flow = Qa * Aa + Qb * Ab + Qc * Ac + Qd * Ad

Where for 100-year, 6-hour storm (zone 4)

Ea= 0.66	Qa= 1.87
Eb= 0.92	Qb= 2.6
Ec= 1.29	Qc= 3.45
Ed= 2.36	Qd= 5.02

WATER QUALITY REQUIRED	489 cf
WATER QUALITY PROVIDED	1526 cf
EXISTING	

THIS SITE EXCEEDS THE EXISTING DISCHARGE RATE THERERFOR THE DISCHARGE SHALL BE CONTROLLED BY A WIER
THE PROPOSED POND OUTFALL WAS MODELLED UTILIZING AHYMO, THE DISHARGE LEAVING THE SITE WILL BE 2.56 CFS
THE SITE EXCEEDS THE WATER QUALITY REQUIR

STAGE STORAGE VOLUME CALCULATIONS

OUTFALL POND

POND OUTLET

ACTUAL ELEV.	DEPTH (FT)	AREA SF	VOLUME PER UNIT	VOLUME CUMULATIVE	VOLUME AC-FT	Q (CFS)
51.50	0.00					
51.75	0.00	202.0000		1526	0.035	0.00
52.00	0.25	460.0000	82.7500	1608.75	0.037	0.55
52.25	0.50	2156.0000	327.0000	1935.75	0.044	1.56
52.50	0.75	4102.0000	782.2500	2718	0.062	2.87

wier equation

Q=2.95XWXH^1.5

W=1.5'

```
*S      AHYMO - BHUDDIST
*S              POND ROUTING

START                 TIME=0.0  PUNCH CODE=0


RAINFALL              TYPE=2
                      QUARTER=0.0     ONE= 2.20 IN
                      SIX= 2.66 IN    DAY= 3.12 IN    DT = 0.05 HR



COMPUTE NM HYD        ID=1  HYD NO=101  DA= .0012375 SQ MI
                      PER A=0  PER B=20  PER C=30  PER D=50
                      TP=-.133  MASSRAIN=-1


PRINT HYD             ID=1  CODE=3


* ROUTE THE TOTAL FLOW THROUGH THE PROPOSED RESERVOIR
ROUTE RESERVOIR       ID=2   HYD NO=102   INFLOW=1   CODE=3
                      OUTFLOW(CFS)     STORAGE(AC-FT)     ELEV(FT)
                         0.00              0.035          51.75
                         0.55              0.037          52.00

                         1.56              0.044          52.25
                         2.87              0.062          52.50


PRINT HYD             ID=2   CODE=3

FINISH
```

```
        AHYMO PROGRAM (AHYMO-S4)                        - Version: S4.01a - Rel: 01a
             RUN DATE (MON/DAY/YR) = 09/06/2016
             START TIME (HR:MIN:SEC) = 17:02:16     USER NO.=
RioGrandeSingleA41963517
             INPUT FILE = ents and Settings\Owner\Desktop\2016 jobs\16106-central
budda\pondrout090516.txt


    *S      AHYMO - BHUDDIST
    *S              POND ROUTING

    START                TIME=0.0  PUNCH CODE=0


    RAINFALL             TYPE=2
                         QUARTER=0.0    ONE= 2.20 IN
                         SIX= 2.66 IN   DAY= 3.12 IN   DT = 0.05 HR



                  24-HOUR RAINFALL DIST. - BASED ON NOAA ATLAS 14 FOR CONVECTIVE
AREAS (NM & AZ) - D1
                  DT =   0.050000 HOURS       END TIME =    24.000002 HOURS
                    0.0000  0.0031  0.0062  0.0096  0.0133  0.0171  0.0214
                    0.0274  0.0368  0.0470  0.0575  0.0690  0.0807  0.0927
                    0.1052  0.1178  0.1319  0.1467  0.1627  0.1893  0.2211
                    0.2637  0.3120  0.3717  0.4513  0.5408  0.6955  0.9358
                    1.3477  1.6372  1.8656  1.9803  2.0808  2.1531  2.2106
                    2.2607  2.2974  2.3311  2.3588  2.3781  2.3931  2.4065
                    2.4190  2.4300  2.4404  2.4505  2.4603  2.4683  2.4729
                    2.4775  2.4820  2.4862  2.4903  2.4943  2.4983  2.5022
                    2.5059  2.5096  2.5132  2.5167  2.5202  2.5235  2.5268
                    2.5300  2.5331  2.5363  2.5393  2.5423  2.5452  2.5481
                    2.5509  2.5537  2.5565  2.5593  2.5620  2.5646  2.5673
                    2.5699  2.5725  2.5750  2.5775  2.5800  2.5825  2.5849
                    2.5873  2.5897  2.5920  2.5944  2.5967  2.5990  2.6012
                    2.6034  2.6057  2.6078  2.6100  2.6122  2.6143  2.6164
                    2.6185  2.6205  2.6226  2.6246  2.6266  2.6286  2.6306
                    2.6326  2.6345  2.6364  2.6383  2.6402  2.6421  2.6439
                    2.6458  2.6476  2.6494  2.6512  2.6530  2.6548  2.6565
                    2.6583  2.6600  2.6617  2.6635  2.6652  2.6669  2.6686
                    2.6703  2.6721  2.6738  2.6755  2.6772  2.6789  2.6806
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                    2.7059  2.7075  2.7092  2.7109  2.7125  2.7142  2.7158
                    2.7175  2.7191  2.7208  2.7224  2.7240  2.7257  2.7273
                    2.7289  2.7306  2.7322  2.7338  2.7354  2.7371  2.7387
                    2.7403  2.7419  2.7435  2.7451  2.7467  2.7483  2.7499
                    2.7515  2.7531  2.7547  2.7563  2.7579  2.7595  2.7611
                    2.7626  2.7642  2.7658  2.7674  2.7689  2.7705  2.7721
                    2.7736  2.7752  2.7767  2.7783  2.7798  2.7814  2.7829
                    2.7845  2.7860  2.7876  2.7891  2.7906  2.7922  2.7937
                    2.7952  2.7967  2.7983  2.7998  2.8013  2.8028  2.8043
                    2.8058  2.8073  2.8088  2.8103  2.8118  2.8133  2.8148
                    2.8163  2.8178  2.8193  2.8208  2.8223  2.8237  2.8252
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                    2.8471  2.8485  2.8499  2.8514  2.8528  2.8542  2.8556
                    2.8570  2.8585  2.8599  2.8613  2.8627  2.8641  2.8655
                    2.8669  2.8683  2.8697  2.8711  2.8725  2.8739  2.8753
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2.9144	2.9157	2.9170	2.9183	2.9196	2.9209	2.9222
2.9235	2.9248	2.9261	2.9274	2.9287	2.9300	2.9313
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2.9501	2.9514	2.9526	2.9539	2.9551	2.9563	2.9575
2.9588	2.9600	2.9612	2.9624	2.9636	2.9649	2.9661
2.9673	2.9685	2.9697	2.9709	2.9721	2.9733	2.9745
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2.9839	2.9851	2.9862	2.9874	2.9885	2.9897	2.9909
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3.0156	3.0167	3.0178	3.0189	3.0200	3.0211	3.0222
3.0232	3.0243	3.0254	3.0265	3.0275	3.0286	3.0297
3.0307	3.0318	3.0329	3.0339	3.0350	3.0360	3.0371
3.0381	3.0392	3.0402	3.0412	3.0423	3.0433	3.0443
3.0454	3.0464	3.0474	3.0484	3.0494	3.0504	3.0515
3.0525	3.0535	3.0545	3.0555	3.0565	3.0575	3.0585
3.0595	3.0604	3.0614	3.0624	3.0634	3.0644	3.0654
3.0663	3.0673	3.0683	3.0692	3.0702	3.0712	3.0721
3.0731	3.0740	3.0750	3.0759	3.0769	3.0778	3.0787
3.0797	3.0806	3.0815	3.0825	3.0834	3.0843	3.0852
3.0862	3.0871	3.0880	3.0889	3.0898	3.0907	3.0916
3.0925	3.0934	3.0943	3.0952	3.0961	3.0970	3.0979
3.0988	3.0996	3.1005	3.1014	3.1023	3.1031	3.1040
3.1049	3.1057	3.1066	3.1075	3.1083	3.1092	3.1100
3.1109	3.1117	3.1125	3.1134	3.1142	3.1151	3.1159
3.1167	3.1175	3.1184	3.1192	3.1200		

COMPUTE NM HYD ID=1 HYD NO=101 DA= .0012375 SQ MI
PER A=0 PER B=20 PER C=30 PER D=50
TP=-.133 MASSRAIN=-1

K = 0.072485HR TP = 0.133000HR K/TP RATIO = 0.545000 SHAPE CONSTANT, N = 7.106428
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AREA = 0.000619 SQ MI IA = 0.10000 INCHES INF = 0.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

K = 0.119236HR TP = 0.133000HR K/TP RATIO = 0.896514 SHAPE CONSTANT, N = 3.953997
UNIT PEAK = 1.6380 CFS UNIT VOLUME = 0.9933 B = 352.10 P60 = 2.2000
AREA = 0.000619 SQ MI IA = 0.41000 INCHES INF = 0.99800 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

PRINT HYD ID=1 CODE=3

PARTIAL HYDROGRAPH 101.00

TIME	FLOW	TIME	FLOW	TIME	FLOW

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	4.950	0.0	9.900	0.0
0.150	0.0	5.100	0.0	10.050	0.0
0.300	0.0	5.250	0.0	10.200	0.0
0.450	0.0	5.400	0.0	10.350	0.0
0.600	0.0	5.550	0.0	10.500	0.0
0.750	0.0	5.700	0.0	10.650	0.0
0.900	0.1	5.850	0.0	10.800	0.0
1.050	0.2	6.000	0.0	10.950	0.0
1.200	0.3	6.150	0.0	11.100	0.0
1.350	1.1	6.300	0.0	11.250	0.0
1.500	3.5	6.450	0.0	11.400	0.0
1.650	2.1	6.600	0.0	11.550	0.0
1.800	1.0	6.750	0.0	11.700	0.0
1.950	0.5	6.900	0.0	11.850	0.0
2.100	0.3	7.050	0.0	12.000	0.0
2.250	0.2	7.200	0.0	12.150	0.0
2.400	0.1	7.350	0.0	12.300	0.0
2.550	0.1	7.500	0.0	12.450	0.0
2.700	0.0	7.650	0.0	12.600	0.0
2.850	0.0	7.800	0.0	12.750	0.0
3.000	0.0	7.950	0.0	12.900	0.0
3.150	0.0	8.100	0.0	13.050	0.0
3.300	0.0	8.250	0.0	13.200	0.0
3.450	0.0	8.400	0.0	13.350	0.0
3.600	0.0	8.550	0.0	13.500	0.0
3.750	0.0	8.700	0.0	13.650	0.0
3.900	0.0	8.850	0.0	13.800	0.0
4.050	0.0	9.000	0.0	13.950	0.0
4.200	0.0	9.150	0.0	14.100	0.0
4.350	0.0	9.300	0.0	14.250	0.0
14.400	0.0	19.350	0.0	24.300	0.0
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14.850	0.0	19.800	0.0		
15.000	0.0	19.950	0.0		
15.150	0.0	20.100	0.0		
15.300	0.0	20.250	0.0		
15.450	0.0	20.400	0.0		
15.600	0.0	20.550	0.0		
15.750	0.0	20.700	0.0		
15.900	0.0	20.850	0.0		
16.050	0.0	21.000	0.0		
16.200	0.0	21.150	0.0		
16.350	0.0	21.300	0.0		
16.500	0.0	21.450	0.0		
16.650	0.0	21.600	0.0		
16.800	0.0	21.750	0.0		
16.950	0.0	21.900	0.0		
17.100	0.0	22.050	0.0		
17.250	0.0	22.200	0.0		
17.400	0.0	22.350	0.0		
17.550	0.0	22.500	0.0		
17.700	0.0	22.650	0.0		
17.850	0.0	22.800	0.0		
18.000	0.0	22.950	0.0		
18.150	0.0	23.100	0.0		
18.300	0.0	23.250	0.0		
18.450	0.0	23.400	0.0		
18.600	0.0	23.550	0.0		
18.750	0.0	23.700	0.0		
18.900	0.0	23.850	0.0		
19.050	0.0	24.000	0.0		
19.200	0.0	24.150	0.0		

4.500	0.0	9.450	0.0	14.400	0.0
19.350	0.0				
4.650	0.0	9.600	0.0	14.550	0.0
19.500	0.0				
4.800	0.0	9.750	0.0	14.700	0.0
19.650	0.0				

RUNOFF VOLUME = 2.07286 INCHES = 0.1368 ACRE-FEET
PEAK DISCHARGE RATE = 3.49 CFS AT 1.500 HOURS BASIN AREA = 0.0012 SQ. MI.

* ROUTE THE TOTAL FLOW THROUGH THE PROPOSED RESERVOIR
ROUTE RESERVOIR ID=2 HYD NO=102 INFLOW=1 CODE=3

OUTFLOW(CFS)	STORAGE(AC-FT)	ELEV(FT)
0.00	0.035	51.75
0.55	0.037	52.00
1.56	0.044	52.25
2.87	0.062	52.50

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

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
0.00	0.00	51.75	0.035	0.00
0.15	0.00	51.75	0.035	0.00
0.30	0.00	51.75	0.035	0.00
0.45	0.00	51.75	0.035	0.00
0.60	0.00	51.75	0.035	0.00
0.75	0.01	51.75	0.035	0.00
0.90	0.08	51.78	0.035	0.06
1.05	0.16	51.81	0.035	0.13
1.20	0.35	51.88	0.036	0.29
1.35	1.10	52.04	0.038	0.70
1.50	3.49	52.34	0.051	2.04
1.65	2.15	52.44	0.058	2.55
1.80	0.97	52.31	0.048	1.87
1.95	0.53	52.09	0.040	0.93
2.10	0.30	51.94	0.036	0.41
2.25	0.19	51.85	0.036	0.22
2.40	0.12	51.81	0.036	0.14
2.55	0.06	51.79	0.035	0.08
2.70	0.04	51.77	0.035	0.05
2.85	0.02	51.76	0.035	0.03
3.00	0.02	51.76	0.035	0.02
3.15	0.01	51.76	0.035	0.01
3.30	0.01	51.76	0.035	0.01
3.45	0.01	51.75	0.035	0.01
3.60	0.01	51.75	0.035	0.01
3.75	0.01	51.75	0.035	0.01
3.90	0.01	51.75	0.035	0.01
4.05	0.01	51.75	0.035	0.01
4.20	0.01	51.75	0.035	0.01

4.35	0.01	51.75	0.035	0.01
4.50	0.01	51.75	0.035	0.01
4.65	0.01	51.75	0.035	0.01
4.80	0.01	51.75	0.035	0.01
4.95	0.01	51.75	0.035	0.01
5.10	0.01	51.76	0.035	0.01
5.25	0.01	51.76	0.035	0.01
5.40	0.01	51.76	0.035	0.01
5.55	0.01	51.76	0.035	0.01
5.70	0.01	51.76	0.035	0.01
5.85	0.01	51.76	0.035	0.01
6.00	0.01	51.76	0.035	0.01
6.15	0.01	51.76	0.035	0.01
6.30	0.01	51.76	0.035	0.01
6.45	0.01	51.76	0.035	0.01
6.60	0.01	51.76	0.035	0.01
6.75	0.01	51.76	0.035	0.01
6.90	0.01	51.76	0.035	0.01
7.05	0.01	51.76	0.035	0.01
7.20	0.01	51.76	0.035	0.01
7.35	0.01	51.76	0.035	0.01
7.50	0.01	51.76	0.035	0.01
7.65	0.01	51.76	0.035	0.01
7.80	0.01	51.76	0.035	0.01
7.95	0.01	51.76	0.035	0.01
8.10	0.01	51.76	0.035	0.01
8.25	0.01	51.76	0.035	0.01

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
8.40	0.01	51.76	0.035	0.01
8.55	0.01	51.76	0.035	0.01
8.70	0.01	51.76	0.035	0.01
8.85	0.01	51.76	0.035	0.01
9.00	0.01	51.76	0.035	0.01
9.15	0.01	51.76	0.035	0.01
9.30	0.01	51.76	0.035	0.01
9.45	0.01	51.76	0.035	0.01
9.60	0.01	51.76	0.035	0.01
9.75	0.01	51.76	0.035	0.01
9.90	0.01	51.76	0.035	0.01
10.05	0.01	51.76	0.035	0.01
10.20	0.01	51.76	0.035	0.01
10.35	0.01	51.76	0.035	0.01
10.50	0.01	51.76	0.035	0.01
10.65	0.01	51.76	0.035	0.01
10.80	0.01	51.76	0.035	0.01
10.95	0.01	51.76	0.035	0.01
11.10	0.01	51.76	0.035	0.01
11.25	0.01	51.76	0.035	0.01
11.40	0.01	51.76	0.035	0.01
11.55	0.01	51.76	0.035	0.01
11.70	0.01	51.76	0.035	0.01
11.85	0.01	51.76	0.035	0.01
12.00	0.01	51.76	0.035	0.01
12.15	0.01	51.76	0.035	0.01
12.30	0.01	51.76	0.035	0.01
12.45	0.01	51.76	0.035	0.01
12.60	0.01	51.76	0.035	0.01
12.75	0.01	51.76	0.035	0.01
12.90	0.01	51.76	0.035	0.01
13.05	0.01	51.76	0.035	0.01

13.20	0.01	51.76	0.035	0.01
13.35	0.01	51.75	0.035	0.01
13.50	0.01	51.75	0.035	0.01
13.65	0.01	51.75	0.035	0.01
13.80	0.01	51.75	0.035	0.01
13.95	0.01	51.75	0.035	0.01
14.10	0.01	51.75	0.035	0.01
14.25	0.01	51.75	0.035	0.01
14.40	0.01	51.75	0.035	0.01
14.55	0.01	51.75	0.035	0.01
14.70	0.01	51.75	0.035	0.01
14.85	0.01	51.75	0.035	0.01
15.00	0.01	51.75	0.035	0.01
15.15	0.01	51.75	0.035	0.01
15.30	0.01	51.75	0.035	0.01
15.45	0.01	51.75	0.035	0.01
15.60	0.01	51.75	0.035	0.01
15.75	0.01	51.75	0.035	0.01
15.90	0.01	51.75	0.035	0.01
16.05	0.01	51.75	0.035	0.01
16.20	0.01	51.75	0.035	0.01
16.35	0.01	51.75	0.035	0.01
16.50	0.01	51.75	0.035	0.01
16.65	0.01	51.75	0.035	0.01

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
16.80	0.01	51.75	0.035	0.01
16.95	0.01	51.75	0.035	0.01
17.10	0.01	51.75	0.035	0.01
17.25	0.01	51.75	0.035	0.01
17.40	0.01	51.75	0.035	0.01
17.55	0.01	51.75	0.035	0.01
17.70	0.01	51.75	0.035	0.01
17.85	0.01	51.75	0.035	0.01
18.00	0.01	51.75	0.035	0.01
18.15	0.01	51.75	0.035	0.01
18.30	0.01	51.75	0.035	0.01
18.45	0.01	51.75	0.035	0.01
18.60	0.01	51.75	0.035	0.01
18.75	0.01	51.75	0.035	0.01
18.90	0.01	51.75	0.035	0.01
19.05	0.01	51.75	0.035	0.01
19.20	0.01	51.75	0.035	0.01
19.35	0.01	51.75	0.035	0.01
19.50	0.01	51.75	0.035	0.01
19.65	0.01	51.75	0.035	0.01
19.80	0.01	51.75	0.035	0.01
19.95	0.01	51.75	0.035	0.01
20.10	0.01	51.75	0.035	0.01
20.25	0.01	51.75	0.035	0.01
20.40	0.01	51.75	0.035	0.01
20.55	0.01	51.75	0.035	0.01
20.70	0.01	51.75	0.035	0.01
20.85	0.01	51.75	0.035	0.01
21.00	0.01	51.75	0.035	0.01
21.15	0.01	51.75	0.035	0.01
21.30	0.01	51.75	0.035	0.01
21.45	0.01	51.75	0.035	0.01
21.60	0.01	51.75	0.035	0.01
21.75	0.01	51.75	0.035	0.01
21.90	0.01	51.75	0.035	0.01

22.05	0.01	51.75	0.035	0.01
22.20	0.01	51.75	0.035	0.01
22.35	0.01	51.75	0.035	0.01
22.50	0.01	51.75	0.035	0.01
22.65	0.01	51.75	0.035	0.01
22.80	0.01	51.75	0.035	0.01
22.95	0.01	51.75	0.035	0.01
23.10	0.01	51.75	0.035	0.01
23.25	0.01	51.75	0.035	0.01
23.40	0.01	51.75	0.035	0.01
23.55	0.01	51.75	0.035	0.01
23.70	0.01	51.75	0.035	0.01
23.85	0.01	51.75	0.035	0.01
24.00	0.01	51.75	0.035	0.01
24.15	0.00	51.75	0.035	0.00

PEAK DISCHARGE = 2.576 CFS - PEAK OCCURS AT HOUR 1.60
MAXIMUM WATER SURFACE ELEVATION = 52.444
MAXIMUM STORAGE = 0.0580 AC-FT INCREMENTAL TIME= 0.050000HRS

PRINT HYD ID=2 CODE=3

PARTIAL HYDROGRAPH 102.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	4.950	0.0	9.900	0.0
0.150	0.0	5.100	0.0	10.050	0.0
0.300	0.0	5.250	0.0	10.200	0.0
0.450	0.0	5.400	0.0	10.350	0.0
0.600	0.0	5.550	0.0	10.500	0.0
0.750	0.0	5.700	0.0	10.650	0.0
0.900	0.1	5.850	0.0	10.800	0.0
1.050	0.1	6.000	0.0	10.950	0.0
1.200	0.3	6.150	0.0	11.100	0.0
1.350	0.7	6.300	0.0	11.250	0.0
1.500	2.0	6.450	0.0	11.400	0.0
1.650	2.5	6.600	0.0	11.550	0.0
1.800	1.9	6.750	0.0	11.700	0.0
1.950	0.9	6.900	0.0	11.850	0.0
2.100	0.4	7.050	0.0	12.000	0.0
2.250	0.2	7.200	0.0	12.150	0.0
2.400	0.1	7.350	0.0	12.300	0.0
2.550	0.1	7.500	0.0	12.450	0.0

	2.700	0.0		7.650	0.0		12.600	0.0
17.550	0.0		22.500	0.0				
	2.850	0.0		7.800	0.0		12.750	0.0
17.700	0.0		22.650	0.0				
	3.000	0.0		7.950	0.0		12.900	0.0
17.850	0.0		22.800	0.0				
	3.150	0.0		8.100	0.0		13.050	0.0
18.000	0.0		22.950	0.0				
	3.300	0.0		8.250	0.0		13.200	0.0
18.150	0.0		23.100	0.0				
	3.450	0.0		8.400	0.0		13.350	0.0
18.300	0.0		23.250	0.0				
	3.600	0.0		8.550	0.0		13.500	0.0
18.450	0.0		23.400	0.0				
	3.750	0.0		8.700	0.0		13.650	0.0
18.600	0.0		23.550	0.0				
	3.900	0.0		8.850	0.0		13.800	0.0
18.750	0.0		23.700	0.0				
	4.050	0.0		9.000	0.0		13.950	0.0
18.900	0.0		23.850	0.0				
	4.200	0.0		9.150	0.0		14.100	0.0
19.050	0.0		24.000	0.0				
	4.350	0.0		9.300	0.0		14.250	0.0
19.200	0.0		24.150	0.0				
	4.500	0.0		9.450	0.0		14.400	0.0
19.350	0.0							
	4.650	0.0		9.600	0.0		14.550	0.0
19.500	0.0							
	4.800	0.0		9.750	0.0		14.700	0.0
19.650	0.0							

RUNOFF VOLUME = 2.07264 INCHES = 0.1368 ACRE-FEET
PEAK DISCHARGE RATE = 2.58 CFS AT 1.600 HOURS BASIN AREA = 0.0012 SQ. MI.

FINISH

NORMAL PROGRAM FINISH END TIME (HR:MIN:SEC) = 17:02:16

EROSION CONTROL NOTES:

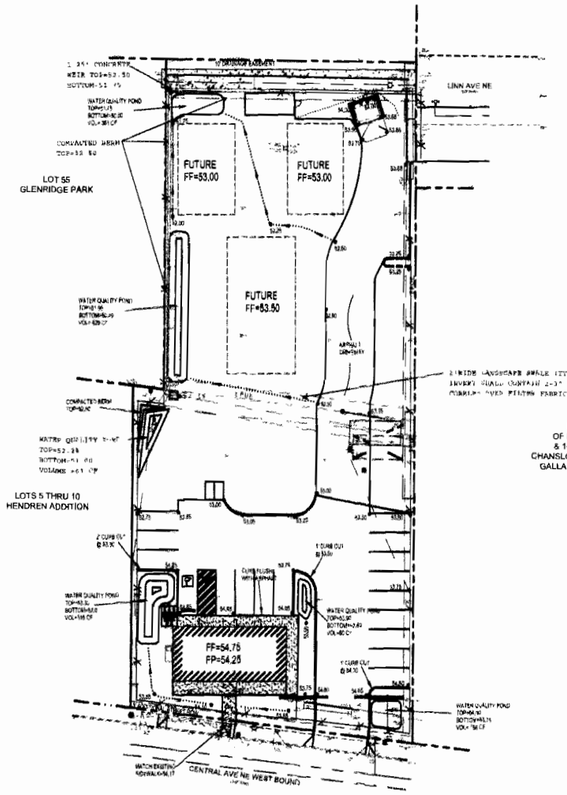
1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.

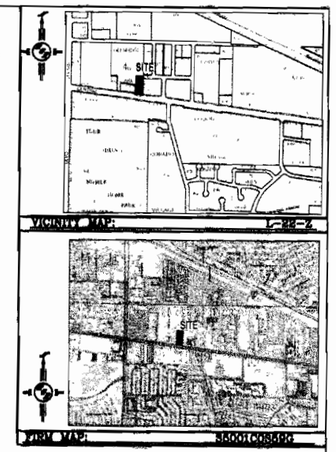
2. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING RUN-OFF ON SITE DURING CONSTRUCTION.

3. CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL SEDIMENT THAT GETS INTO EXISTING RIGHT-OF-WAY.

4. REPAIR OF DAMAGED FACILITIES AND CLEANUP OF SEDIMENT ACCUMULATIONS ON ADJACENT PROPERTIES AND IN PUBLIC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.

5. ALL EXPOSED EARTH SURFACES MUST BE PROTECTED FROM WIND AND WATER EROSION PRIOR TO FINAL ACCEPTANCE OF ANY PROJECT.





LEGAL DESCRIPTION:

LOT 2, BLK 5 HENDREN ADDITION
CITY OF ALBUQUERQUE
BERNALILLO COUNTY, NEW MEXICO

NOTES:

1. ALL SPOT ELEVATIONS REPRESENT FLOWLINE ELEVATION UNLESS OTHERWISE NOTED.

LEGEND

- EXISTING CONTOUR
- EXISTING INDEX CONTOUR
- PROPOSED CONTOUR
- PROPOSED INDEX CONTOUR
- LOT LINE
- CENTERLINE
- RIGHT-OF-WAY
- EXTENDED STEM WALL SEE ARCH PLANS FOR DETAILS
- PROPOSED ROCK FACE WALL
- EXISTING CURB AND GUTTER
- PROPOSED EDGE OF CONCRETE
- PROPOSED FLOWLINE
- EXISTING WALL

I DAVID SOULE, HAVE PERSONALLY INSPECTED THE PROPERTY ON 8/2/18 NO EARTHWORK HAS BEEN PERFORMED AND THE SITE IS CONSISTENT WITH THE TOPO SHOWN.

DAVID SOULE P.E. #14822 — 8/3/18 DATE

CAUTION:

EXISTING UTILITIES ARE NOT SHOWN. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONDUCT ALL NECESSARY FIELD INVESTIGATIONS PRIOR TO ANY EXCAVATION TO DETERMINE THE ACTUAL LOCATION OF UTILITIES & OTHER IMPROVEMENTS.

SCALE 1"=20'

OWNER'S SEAL	LOT B-1, BLK 5 HENDREN ADDITION TWENTY SIX MIDDLE CENTER	DRAWN BY MM
DAVID SOULE P.E. #14822 8/3/18	GRADING AND DRAINAGE PLAN	DATE 8-3-18
	Rio Grande Engineering	SHEET # 1 OF 1
		JOB # 20000

From: Rael, Rudy E.
To: "David Soule (david@riograndeengineering.com)"
Cc: Carrillo, Abiel X.
Subject: Tuyet Son Buddhist Center
Date: Tuesday, September 20, 2016 2:33:00 PM

Mr. Soule;

This email is being sent in lieu of an attached comment letter in order to expedite our response to previous comments.
Response to comments should continue to be included in the resubmittal. A reply to these comments via email will not be considered a resubmittal.

Based upon the information provided in your resubmittal received 4/29/16, the above referenced Grading and Drainage Report
and plan cannot be approved for Preliminary Plat, Grading Permit or Building Permit until the following comments are addressed:

- Provide a detail for the compacted Berm. Will it be protected from erosion?
- At the northern end of the property there is a box with a door, is this a future building or a pond?
- Are the ponds sized for the future buildings?
- Are the dark lines between the existing pavement and new pavement curbing?
- What is the double box at elevation point 53.00?
- Provide a water block at the entrance of this site.
- Increase the font on the flow points in Central Ave.
- At the front of the new building, is the dotted line a swale as called out in the center of the property?
  If so, how will flows pass the sidewalk from east to west. Provide a detail or a note.

If you should have any questions feel free to contact me or Abiel Carrillo at 924-3986.

Rudy E. Rael, CE, CFM
Engineer Associate, Hydrology
Planning Department
600 2nd St. NW Suite 201
Albuquerque NM 87102
(505) 924-3977