

CITY OF ALBUQUERQUE

Planning Department
Brennon Williams, Director



Mayor Timothy M. Keller

May 22, 2020

Shawn Biazar
SBS Construction and Engineering, LLC
10209 Snowflake Ct. NW
Albuquerque, NM 87114

RE: 2818 4th Street NW Apartments
Grading & Drainage Plan
Engineer's Stamp Date: 05/18/20
Hydrology File: H14D111

Dear Mr. Biazar:

Based upon the information provided in your submittal received 05/19/2020, the Grading & Drainage Plan **is not** approved for Building Permit, Grading Permit, SO-19 Permit, and for action by the DRB on Site Plan for Building Permit. The following comments need to be addressed for approval of the above referenced project:

1. Please include project benchmark and datum for the survey information.
2. Please provide the latest SO-19 notes. These have been attached.
3. Please move the callout text for the outfall pipes on La Poblana Rd. This is right on top of the road name and is unreadable.
4. Please provide a cover sheet with an engineer's stamp with a signature and date for the drainage calculations.
5. Please provide the weir calculations for the two feet curb cuts, per DPM Chapter 22.3.A.1. A coefficient of 2.7 is typically used for the weir equation $Q = CLH^{2/3}$.
6. As a reminder, if the project total area of disturbance (including the staging area and any work within the adjacent Right-of-Way) is 1 acre or more, then an Erosion and Sediment Control (ESC) Plan and Owner's certified Notice of Intent (NOI) is required to be submitted to the Stormwater Quality Engineer (Doug Hughes, PE, jhughes@cabq.gov , 924-3420) 14 days prior to any earth disturbance.
7. Standard review fee of \$300 (for DRB Site) will be required at the time of resubmittal.

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

CITY OF ALBUQUERQUE

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Brennon Williams, Director



Mayor Timothy M. Keller

If you have any questions, please contact me at 924-3995 or rbrissette@cabq.gov.

Sincerely,

Renée C. Brissette

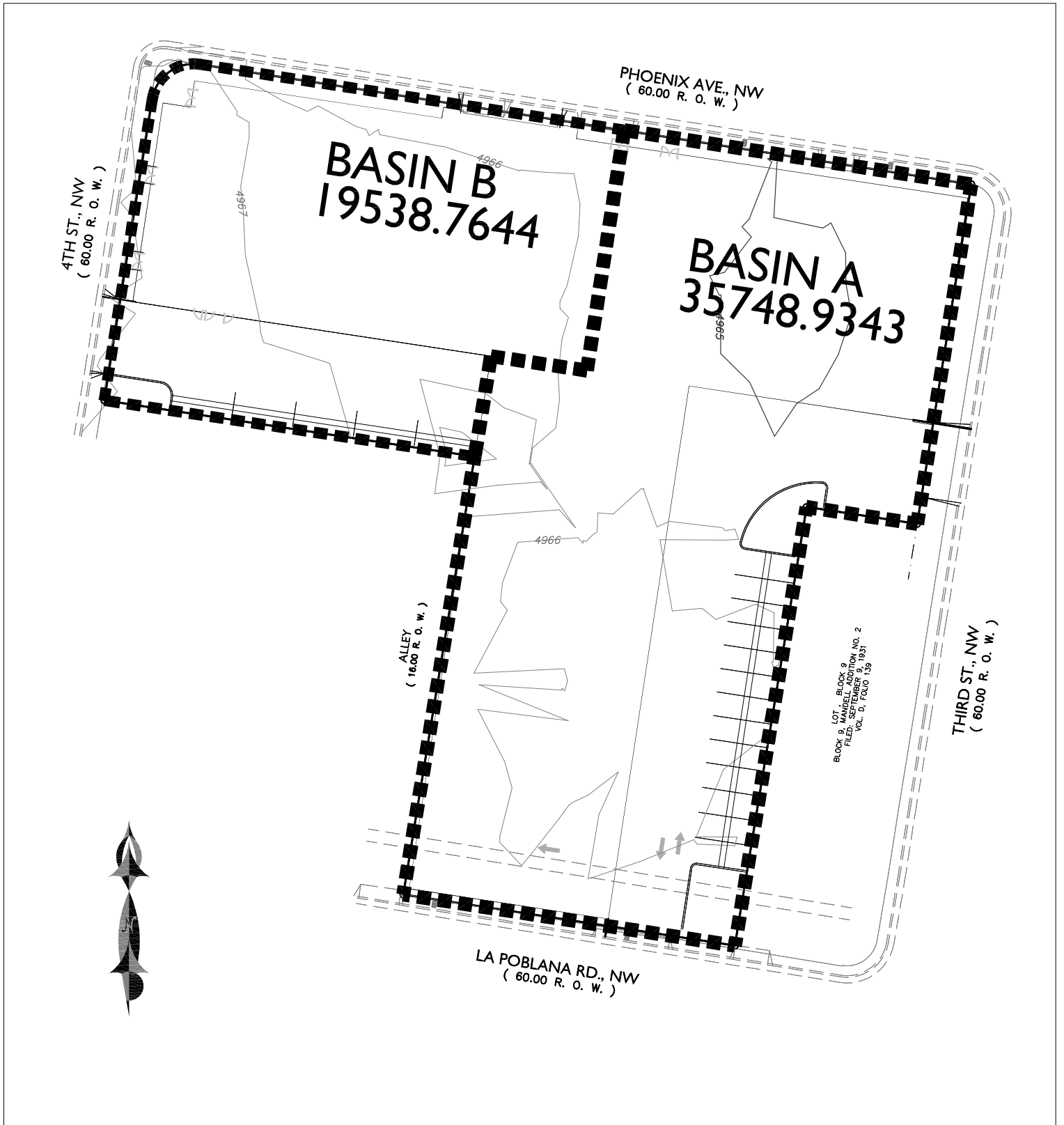
Renée C. Brissette, P.E. CFM
Senior Engineer, Hydrology
Planning Department

PO Box 1293

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NTS

BASIN MAP

RUNOFF CALCULATION RESULTS

BASIN	AREA (SF)	AREA (AC)	AREA (MI ²)
A	35748.93	0.82068	0.001282
B	19538.76	0.44855	0.000701

EXISTING / HISTORICAL

BASIN	Q-100 CFS	Q-10 CFS	TREATMENT A, B, C, D
A	3.22	1.96	0%, 20%, 20%, 60%
B	1.77	1.08	0%, 20%, 20%, 60%

PROPOSED

BASIN	Q-100 CFS	Q-10 CFS	TREATMENT A, B, C, D
A	3.77	2.47	0%, 5%, 0%, 95%
B	2.07	1.35	0%, 5%, 0%, 95%

Pond A Volume & Discharge Calculations

Actual Elev. (ft)	Depth (ft)	Surface Area (sf)	Volume (cf)	Volume (ac-ft)	Q (cfs) (cfs)
64.50	0.00	519.00	0.00	0.000000	0.000
64.75	64.75	675.21	149.28	0.003427	0.210
65.00	65.00	2211.70	510.14	0.011711	0.297
65.50	65.50	5150.33	2350.65	0.053963	0.420
66.00	66.00	7602.04	5538.74	0.127152	0.514

$$Q=CA \text{ SQRT}(2gH)$$

C 0.6

Orifice Size (in) 4 (dia)

A = 0.087

Pond B Volume & Discharge Calculations

Actual Elev. (ft)	Depth (ft)	Surface Area (sf)	Volume (cf)	Volume (ac-ft)	Q (cfs) (cfs)
66.48	0.00	211.52	0.00	0.000000	0.000
66.75	66.75	823.87	139.78	0.003209	1.746
67.00	67.00	1346.14	411.03	0.009436	2.423
67.15	67.15	4356.2	838.70	0.019254	2.750

$$Q=CA \text{ SQRT}(2gH)$$

C 0.6

Orifice Size (in) 8 (dia)

A = 0.698 2-8"

AHUMO INPUT FILE

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* ZONE 2
*****
*          100-YEAR,  6-HR STORM (UNDER EXISITNG CONDITIONS)      *
*****
START          TIME=0.0
RAINFALL       TYPE=1 RAIN QUARTER=0.0 IN
               RAIN ONE=2.01 IN RAIN SIX=2.35 IN
               RAIN DAY=2.75 IN DT=0.03333 HR

* BASIN A
COMPUTE NM HYD      ID=1 HYD NO=101.0 AREA=0.001282 SQ MI
                   PER A=0.00 PER B=20.00 PER C=20.00 PER D=60.00
                   TP=0.1333 HR MASS RAINFALL=-1
*****
*          10-YEAR,   6-HR STORM (UNDER EXISTING CONDITIONS)      *
*****
START          TIME=0.0
RAINFALL       TYPE=1 RAIN QUARTER=0.0 IN
               RAIN ONE=1.34 IN RAIN SIX=1.57 IN
               RAIN DAY=1.83 IN DT=0.03333 HR

* BASIN A
COMPUTE NM HYD      ID=2 HYD NO=111.0 AREA=0.001282 SQ MI
                   PER A=0.00 PER B=20.00 PER C=20.00 PER D=60.00
                   TP=0.1333 HR MASS RAINFALL=-1
*****
*          100-YEAR,  6-HR STORM (UNDER PROPOSED CONDITIONS)      *
*****
START          TIME=0.0
RAINFALL       TYPE=1 RAIN QUARTER=0.0 IN
               RAIN ONE=2.01 IN RAIN SIX=2.35 IN
               RAIN DAY=2.75 IN DT=0.03333 HR

* ON-STIE
COMPUTE NM HYD      ID=3 HYD NO=101.1 AREA=0.001282 SQ MI
                   PER A=0.00 PER B=5.00 PER C=0.00 PER D=95.00
                   TP=0.1333 HR MASS RAINFALL=-1
*****
*          10-YEAR,   6-HR STORM (UNDER PROPOSED CONDITIONS)      *
*****
START          TIME=0.0
RAINFALL       TYPE=1 RAIN QUARTER=0.0 IN
               RAIN ONE=1.34 IN RAIN SIX=1.57 IN
               RAIN DAY=1.83 IN DT=0.03333 HR

* ON-SITE
COMPUTE NM HYD      ID=4 HYD NO=111.1 AREA=0.001282 SQ MI
                   PER A=0.00 PER B=5.00 PER C=0.00 PER D=95.00
                   TP=0.1333 HR MASS RAINFALL=-1
*****
*          PONDING CONDITION                                         *
*****
ROUTE RESERVOIR    ID=20 HYD NO=501.1 INFLOW ID=3 CODE=24
                   OUTFLOW(CFS)      STORAGE(AC-FT)  ELEVATION(FT)
                   0.00              0.000000       64.50
                   0.210             0.003427       64.75
                   0.297             0.011711       65.00
                   0.420             0.053963       65.50
                   0.514             0.127152       66.00
*****
*          100-YEAR,  6-HR STORM (UNDER EXISITNG CONDITIONS)      *
*****
START          TIME=0.0
RAINFALL       TYPE=1 RAIN QUARTER=0.0 IN
               RAIN ONE=2.01 IN RAIN SIX=2.35 IN
               RAIN DAY=2.75 IN DT=0.03333 HR

* BASIN B
COMPUTE NM HYD      ID=5 HYD NO=102.0 AREA=0.000701 SQ MI
                   ER A=0.00 PER B=20.00 PER C=20.00 PER D=60.00
                   TP=0.1333 HR MASS RAINFALL=-1
*****
*          10-YEAR,   6-HR STORM (UNDER EXISTING CONDITIONS)      *
*****
START          TIME=0.0
RAINFALL       TYPE=1 RAIN QUARTER=0.0 IN
               RAIN ONE=1.34 IN RAIN SIX=1.57 IN
               RAIN DAY=1.83 IN DT=0.03333 HR

* BASIN A

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COMPUTE NM HYD ID=6 HYD NO=112.0 AREA=0.000701 SQ MI
 ER A=0.00 PER B=20.00 PER C=20.00 PER D=60.00
 TP=0.1333 HR MASS RAINFALL=-1

 * 100-YEAR, 6-HR STORM (UNDER PROPOSED CONDITIONS) *

 START TIME=0.0
 RAINFALL TYPE=1 RAIN QUARTER=0.0 IN
 RAIN ONE=2.01 IN RAIN SIX=2.35 IN
 RAIN DAY=2.75 IN DT=0.03333 HR
 * ON-STIE
 COMPUTE NM HYD ID=7 HYD NO=102.1 AREA=0.000701 SQ MI
 PER A=0.00 PER B=5.00 PER C=0.00 PER D=95.00
 TP=0.1333 HR MASS RAINFALL=-1

 * 10-YEAR, 6-HR STORM (UNDER PROPOSED CONDITIONS) *

 START TIME=0.0
 RAINFALL TYPE=1 RAIN QUARTER=0.0 IN
 RAIN ONE=1.34 IN RAIN SIX=1.57 IN
 RAIN DAY=1.83 IN DT=0.03333 HR
 * ON-SITE
 COMPUTE NM HYD ID=8 HYD NO=112.1 AREA=0.000701 SQ MI
 PER A=0.00 PER B=5.00 PER C=0.00 PER D=95.00
 TP=0.1333 HR MASS RAINFALL=-1

 * PONDING CONDITION *

 ROUTE RESERVOIR ID=30 HYD NO=601.1 INFLOW ID=7 CODE=24
 OUTFLOW(CFS) STORAGE (AC-FT) ELEVATION (FT)
 0.000 0.000000 66.48
 1.746 0.003209 66.75
 2.423 0.009436 67.00
 2.750 0.019254 67.15

 *
 ADD HYD ID=40 HYD NO=110.10 ID=20 ID=30
 **
 FINISH

AHYMO PROGRAM SUMMARY TABLE (AHYMO_97) -
INPUT FILE = 201836.TXT

RUN DATE (MON/DAY/YR) =05/18/2020

HYDROGRAPH IDENTIFICATION		FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	PAGE = 1	
										NOTATION	
START										TIME=	.00
RAINFALL	TYPE= 1									RAIN6=	2.350
COMPUTE NM HYD	101.00	-	1	.00128	3.22	.112	1.64387	1.500	3.919	PER IMP=	60.00
START										TIME=	.00
RAINFALL	TYPE= 1									RAIN6=	1.570
COMPUTE NM HYD	111.00	-	2	.00128	1.96	.065	.95502	1.500	2.386	PER IMP=	60.00
START										TIME=	.00
RAINFALL	TYPE= 1									RAIN6=	2.350
COMPUTE NM HYD	101.10	-	3	.00128	3.77	.140	2.04851	1.500	4.600	PER IMP=	95.00
START										TIME=	.00
RAINFALL	TYPE= 1									RAIN6=	1.570
COMPUTE NM HYD	111.10	-	4	.00128	2.47	.088	1.28468	1.500	3.008	PER IMP=	95.00
ROUTE RESERVOIR	501.10	3	20	.00128	.47	.140	2.04829	2.133	.577	AC-FT=	.095
START										TIME=	.00
RAINFALL	TYPE= 1									RAIN6=	2.350
COMPUTE NM HYD	102.00	-	5	.00070	1.77	.061	1.64388	1.500	3.936	PER IMP=	60.00
START										TIME=	.00
RAINFALL	TYPE= 1									RAIN6=	1.570
COMPUTE NM HYD	112.00	-	6	.00070	1.08	.036	.95502	1.500	2.396	PER IMP=	60.00
START										TIME=	.00
RAINFALL	TYPE= 1									RAIN6=	2.350
COMPUTE NM HYD	102.10	-	7	.00070	2.07	.077	2.04851	1.500	4.615	PER IMP=	95.00
START										TIME=	.00
RAINFALL	TYPE= 1									RAIN6=	1.570
COMPUTE NM HYD	112.10	-	8	.00070	1.35	.048	1.28468	1.500	3.016	PER IMP=	95.00
ROUTE RESERVOIR	601.10	7	30	.00070	1.86	.077	2.04810	1.533	4.147	AC-FT=	.004
ADD HYD	110.10	20&30	40	.00198	2.27	.217	2.04806	1.567	1.788		
FINISH											

AHYMO PROGRAM (AHYMO 97) -

- Version: 1997.02d

RUN DATE (MON/DAY/YR) = 05/18/2020

START TIME (HR:MIN:SEC) = 11:11:21

USER NO.= AHYMO-I-9702c01000R31-AH

INPUT FILE = 201836.TXT

* ZONE 2

* 100-YEAR, 6-HR STORM (UNDER EXISTING CONDITIONS) *

START TIME=0.0

RAINFALL TYPE=1 RAIN QUARTER=0.0 IN

RAIN ONE=2.01 IN RAIN SIX=2.35 IN

RAIN DAY=2.75 IN DT=0.03333 HR

COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK AT 1.40 HR.

DT = .033330 HOURS END TIME = 5.999400 HOURS

.0000	.0016	.0033	.0049	.0066	.0084	.0102
.0120	.0139	.0158	.0178	.0199	.0219	.0241
.0263	.0286	.0309	.0333	.0358	.0384	.0411
.0439	.0467	.0497	.0529	.0561	.0596	.0631
.0669	.0709	.0751	.0807	.0866	.0930	.1066
.1371	.1840	.2514	.3434	.4644	.6186	.8106
1.0449	1.2624	1.3533	1.4300	1.4982	1.5602	1.6174
1.6704	1.7200	1.7664	1.8102	1.8514	1.8904	1.9273
1.9622	1.9953	2.0268	2.0566	2.0850	2.0915	2.0976
2.1033	2.1088	2.1140	2.1191	2.1239	2.1285	2.1329
2.1373	2.1414	2.1454	2.1494	2.1531	2.1568	2.1604
2.1639	2.1673	2.1706	2.1739	2.1771	2.1802	2.1832
2.1862	2.1891	2.1919	2.1947	2.1975	2.2002	2.2028
2.2054	2.2080	2.2105	2.2130	2.2154	2.2178	2.2202
2.2225	2.2248	2.2270	2.2293	2.2315	2.2336	2.2358
2.2379	2.2399	2.2420	2.2440	2.2460	2.2480	2.2500
2.2519	2.2538	2.2557	2.2576	2.2594	2.2612	2.2631
2.2648	2.2666	2.2684	2.2701	2.2718	2.2735	2.2752
2.2769	2.2785	2.2802	2.2818	2.2834	2.2850	2.2866
2.2881	2.2897	2.2912	2.2928	2.2943	2.2958	2.2973
2.2987	2.3002	2.3017	2.3031	2.3045	2.3060	2.3074
2.3088	2.3102	2.3115	2.3129	2.3143	2.3156	2.3169
2.3183	2.3196	2.3209	2.3222	2.3235	2.3248	2.3261
2.3273	2.3286	2.3298	2.3311	2.3323	2.3335	2.3348
2.3360	2.3372	2.3384	2.3396	2.3408	2.3419	2.3431
2.3443	2.3454	2.3466	2.3477	2.3488	2.3500	

* BASIN A

COMPUTE NM HYD

ID=1 HYD NO=101.0 AREA=0.001282 SQ MI

PER A=0.00 PER B=20.00 PER C=20.00 PER D=60.00

TP=0.1333 HR MASS RAINFALL=-1

7.106420 K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N =

UNIT PEAK = 3.0368 CFS UNIT VOLUME = .9955 B = 526.28 P60 = 2.0100

AREA = .000769 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR

RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

3.944947 K = .119767HR TP = .133300HR K/TP RATIO = .898476 SHAPE CONSTANT, N =

UNIT PEAK = 1.3521 CFS UNIT VOLUME = .9902 B = 351.48 P60 = 2.0100

AREA = .000513 SQ MI IA = .42500 INCHES INF = 1.04000 INCHES PER HOUR

RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

* 10-YEAR, 6-HR STORM (UNDER EXISTING CONDITIONS) *

START TIME=0.0

RAINFALL TYPE=1 RAIN QUARTER=0.0 IN

RAIN ONE=1.34 IN RAIN SIX=1.57 IN

RAIN DAY=1.83 IN DT=0.03333 HR

COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK AT 1.40 HR.

DT = .033330 HOURS END TIME = 5.999400 HOURS

.0000	.0011	.0022	.0034	.0046	.0058	.0070
.0083	.0095	.0109	.0122	.0136	.0150	.0165
.0180	.0196	.0212	.0229	.0246	.0263	.0282
.0301	.0321	.0341	.0363	.0385	.0408	.0433
.0459	.0486	.0515	.0552	.0591	.0634	.0725
.0928	.1241	.1690	.2304	.3110	.4138	.5418
.6980	.8430	.9036	.9547	1.0002	1.0416	1.0797
1.1150	1.1481	1.1790	1.2082	1.2357	1.2617	1.2863
1.3096	1.3316	1.3526	1.3725	1.3914	1.3958	1.3999
1.4037	1.4074	1.4109	1.4143	1.4175	1.4206	1.4236
1.4265	1.4293	1.4320	1.4346	1.4372	1.4397	1.4421
1.4444	1.4467	1.4490	1.4511	1.4533	1.4554	1.4574
1.4594	1.4614	1.4633	1.4652	1.4670	1.4688	1.4706
1.4724	1.4741	1.4758	1.4775	1.4791	1.4807	1.4823
1.4839	1.4854	1.4869	1.4884	1.4899	1.4914	1.4928
1.4943	1.4957	1.4970	1.4984	1.4998	1.5011	1.5024
1.5037	1.5050	1.5063	1.5075	1.5088	1.5100	1.5113
1.5125	1.5137	1.5148	1.5160	1.5172	1.5183	1.5195
1.5206	1.5217	1.5228	1.5239	1.5250	1.5261	1.5271
1.5282	1.5292	1.5303	1.5313	1.5323	1.5333	1.5344
1.5354	1.5363	1.5373	1.5383	1.5393	1.5402	1.5412
1.5421	1.5431	1.5440	1.5449	1.5458	1.5467	1.5476
1.5485	1.5494	1.5503	1.5512	1.5521	1.5529	1.5538
1.5547	1.5555	1.5564	1.5572	1.5580	1.5589	1.5597
1.5605	1.5613	1.5621	1.5629	1.5637	1.5645	1.5653
1.5661	1.5669	1.5677	1.5685	1.5692	1.5700	

* BASIN A

COMPUTE NM HYD

ID=2 HYD NO=111.0 AREA=0.001282 SQ MI

PER A=0.00 PER B=20.00 PER C=20.00 PER D=60.00

TP=0.1333 HR MASS RAINFALL=-1

7.106420 K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N =
UNIT PEAK = 3.0368 CFS UNIT VOLUME = .9955 B = 526.28 P60 = 1.3400
AREA = .000769 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

3.812062 K = .123717HR TP = .133300HR K/TP RATIO = .928113 SHAPE CONSTANT, N =
UNIT PEAK = 1.3174 CFS UNIT VOLUME = .9897 B = 342.44 P60 = 1.3400
AREA = .000513 SQ MI IA = .42500 INCHES INF = 1.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

* 100-YEAR, 6-HR STORM (UNDER PROPOSED CONDITIONS) *

START TIME=0.0
RAINFALL TYPE=1 RAIN QUARTER=0.0 IN
RAIN ONE=2.01 IN RAIN SIX=2.35 IN
RAIN DAY=2.75 IN DT=0.03333 HR

COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK AT 1.40 HR.

DT = .033330 HOURS END TIME = 5.999400 HOURS

.0000	.0016	.0033	.0049	.0066	.0084	.0102
.0120	.0139	.0158	.0178	.0199	.0219	.0241
.0263	.0286	.0309	.0333	.0358	.0384	.0411
.0439	.0467	.0497	.0529	.0561	.0596	.0631
.0669	.0709	.0751	.0807	.0866	.0930	.1066
.1371	.1840	.2514	.3434	.4644	.6186	.8106
1.0449	1.2624	1.3533	1.4300	1.4982	1.5602	1.6174
1.6704	1.7200	1.7664	1.8102	1.8514	1.8904	1.9273
1.9622	1.9953	2.0268	2.0566	2.0850	2.0915	2.0976
2.1033	2.1088	2.1140	2.1191	2.1239	2.1285	2.1329
2.1373	2.1414	2.1454	2.1494	2.1531	2.1568	2.1604
2.1639	2.1673	2.1706	2.1739	2.1771	2.1802	2.1832

2.1862	2.1891	2.1919	2.1947	2.1975	2.2002	2.2028
2.2054	2.2080	2.2105	2.2130	2.2154	2.2178	2.2202
2.2225	2.2248	2.2270	2.2293	2.2315	2.2336	2.2358
2.2379	2.2399	2.2420	2.2440	2.2460	2.2480	2.2500
2.2519	2.2538	2.2557	2.2576	2.2594	2.2612	2.2631
2.2648	2.2666	2.2684	2.2701	2.2718	2.2735	2.2752
2.2769	2.2785	2.2802	2.2818	2.2834	2.2850	2.2866
2.2881	2.2897	2.2912	2.2928	2.2943	2.2958	2.2973
2.2987	2.3002	2.3017	2.3031	2.3045	2.3060	2.3074
2.3088	2.3102	2.3115	2.3129	2.3143	2.3156	2.3169
2.3183	2.3196	2.3209	2.3222	2.3235	2.3248	2.3261
2.3273	2.3286	2.3298	2.3311	2.3323	2.3335	2.3348
2.3360	2.3372	2.3384	2.3396	2.3408	2.3419	2.3431
2.3443	2.3454	2.3466	2.3477	2.3488	2.3500	

* ON-STIE

COMPUTE NM HYD ID=3 HYD NO=101.1 AREA=0.001282 SQ MI
PER A=0.00 PER B=5.00 PER C=0.00 PER D=95.00
TP=0.1333 HR MASS RAINFALL=-1

7.106420 K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N =
UNIT PEAK = 4.8083 CFS UNIT VOLUME = .9969 B = 526.28 P60 = 2.0100
AREA = .001218 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

3.563124 K = .132088HR TP = .133300HR K/TP RATIO = .990905 SHAPE CONSTANT, N =
UNIT PEAK = .15624 CFS UNIT VOLUME = .9154 B = 324.91 P60 = 2.0100
AREA = .000064 SQ MI IA = .50000 INCHES INF = 1.25000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

* 10-YEAR, 6-HR STORM (UNDER PROPOSED CONDITIONS) *

START TIME=0.0
RAINFALL TYPE=1 RAIN QUARTER=0.0 IN
RAIN ONE=1.34 IN RAIN SIX=1.57 IN
RAIN DAY=1.83 IN DT=0.03333 HR

COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK AT 1.40 HR.
DT = .033330 HOURS END TIME = 5.999400 HOURS

.0000	.0011	.0022	.0034	.0046	.0058	.0070
.0083	.0095	.0109	.0122	.0136	.0150	.0165
.0180	.0196	.0212	.0229	.0246	.0263	.0282
.0301	.0321	.0341	.0363	.0385	.0408	.0433
.0459	.0486	.0515	.0552	.0591	.0634	.0725
.0928	.1241	.1690	.2304	.3110	.4138	.5418
.6980	.8430	.9036	.9547	1.0002	1.0416	1.0797
1.1150	1.1481	1.1790	1.2082	1.2357	1.2617	1.2863
1.3096	1.3316	1.3526	1.3725	1.3914	1.3958	1.3999
1.4037	1.4074	1.4109	1.4143	1.4175	1.4206	1.4236
1.4265	1.4293	1.4320	1.4346	1.4372	1.4397	1.4421
1.4444	1.4467	1.4490	1.4511	1.4533	1.4554	1.4574
1.4594	1.4614	1.4633	1.4652	1.4670	1.4688	1.4706
1.4724	1.4741	1.4758	1.4775	1.4791	1.4807	1.4823
1.4839	1.4854	1.4869	1.4884	1.4899	1.4914	1.4928
1.4943	1.4957	1.4970	1.4984	1.4998	1.5011	1.5024
1.5037	1.5050	1.5063	1.5075	1.5088	1.5100	1.5113
1.5125	1.5137	1.5148	1.5160	1.5172	1.5183	1.5195
1.5206	1.5217	1.5228	1.5239	1.5250	1.5261	1.5271
1.5282	1.5292	1.5303	1.5313	1.5323	1.5333	1.5344
1.5354	1.5363	1.5373	1.5383	1.5393	1.5402	1.5412
1.5421	1.5431	1.5440	1.5449	1.5458	1.5467	1.5476
1.5485	1.5494	1.5503	1.5512	1.5521	1.5529	1.5538
1.5547	1.5555	1.5564	1.5572	1.5580	1.5589	1.5597
1.5605	1.5613	1.5621	1.5629	1.5637	1.5645	1.5653
1.5661	1.5669	1.5677	1.5685	1.5692	1.5700	

* ON-SITE

COMPUTE NM HYD ID=4 HYD NO=111.1 AREA=0.001282 SQ MI
PER A=0.00 PER B=5.00 PER C=0.00 PER D=95.00
TP=0.1333 HR MASS RAINFALL=-1

7.106420 K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N =
UNIT PEAK = 4.8083 CFS UNIT VOLUME = .9969 B = 526.28 P60 = 1.3400
AREA = .001218 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

3.354139 K = .140318HR TP = .133300HR K/TP RATIO = 1.052645 SHAPE CONSTANT, N =
UNIT PEAK = .14884 CFS UNIT VOLUME = .9067 B = 309.53 P60 = 1.3400
AREA = .000064 SQ MI IA = .50000 INCHES INF = 1.25000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

* PONDING CONDITION *

ROUTE RESERVOIR ID=20 HYD NO=501.1 INFLOW ID=3 CODE=24
OUTFLOW(CFS) STORAGE(AC-FT) ELEVATION(FT)
0.00 0.000000 64.50
0.210 0.003427 64.75
0.297 0.011711 65.00
0.420 0.053963 65.50
0.514 0.127152 66.00

* * * * *

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
---------------	-----------------	----------------	-------------------	------------------

.00	.00	64.50	.000	.00
.80	.00	64.50	.000	.00
1.60	2.59	65.53	.059	.43
2.40	.16	65.75	.091	.47
3.20	.03	65.58	.065	.43
4.00	.02	65.33	.040	.38
4.80	.02	65.08	.018	.32
5.60	.02	64.68	.002	.15
6.40	.00	64.51	.000	.01

PEAK DISCHARGE = .473 CFS - PEAK OCCURS AT HOUR 2.13
MAXIMUM WATER SURFACE ELEVATION = 65.782
MAXIMUM STORAGE = .0953 AC-FT INCREMENTAL TIME= .033330HRS

* 100-YEAR, 6-HR STORM (UNDER EXISITNG CONDITIONS) *

START TIME=0.0
RAINFALL TYPE=1 RAIN QUARTER=0.0 IN
RAIN ONE=2.01 IN RAIN SIX=2.35 IN
RAIN DAY=2.75 IN DT=0.03333 HR

COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK AT 1.40 HR.
DT = .033330 HOURS END TIME = 5.999400 HOURS

.0000	.0016	.0033	.0049	.0066	.0084	.0102
.0120	.0139	.0158	.0178	.0199	.0219	.0241
.0263	.0286	.0309	.0333	.0358	.0384	.0411
.0439	.0467	.0497	.0529	.0561	.0596	.0631
.0669	.0709	.0751	.0807	.0866	.0930	.1066
.1371	.1840	.2514	.3434	.4644	.6186	.8106
1.0449	1.2624	1.3533	1.4300	1.4982	1.5602	1.6174
1.6704	1.7200	1.7664	1.8102	1.8514	1.8904	1.9273
1.9622	1.9953	2.0268	2.0566	2.0850	2.0915	2.0976
2.1033	2.1088	2.1140	2.1191	2.1239	2.1285	2.1329
2.1373	2.1414	2.1454	2.1494	2.1531	2.1568	2.1604
2.1639	2.1673	2.1706	2.1739	2.1771	2.1802	2.1832
2.1862	2.1891	2.1919	2.1947	2.1975	2.2002	2.2028
2.2054	2.2080	2.2105	2.2130	2.2154	2.2178	2.2202
2.2225	2.2248	2.2270	2.2293	2.2315	2.2336	2.2358

2.2379	2.2399	2.2420	2.2440	2.2460	2.2480	2.2500
2.2519	2.2538	2.2557	2.2576	2.2594	2.2612	2.2631
2.2648	2.2666	2.2684	2.2701	2.2718	2.2735	2.2752
2.2769	2.2785	2.2802	2.2818	2.2834	2.2850	2.2866
2.2881	2.2897	2.2912	2.2928	2.2943	2.2958	2.2973
2.2987	2.3002	2.3017	2.3031	2.3045	2.3060	2.3074
2.3088	2.3102	2.3115	2.3129	2.3143	2.3156	2.3169
2.3183	2.3196	2.3209	2.3222	2.3235	2.3248	2.3261
2.3273	2.3286	2.3298	2.3311	2.3323	2.3335	2.3348
2.3360	2.3372	2.3384	2.3396	2.3408	2.3419	2.3431
2.3443	2.3454	2.3466	2.3477	2.3488	2.3500	

* BASIN B

COMPUTE NM HYD

ID=5 HYD NO=102.0 AREA=0.000701 SQ MI
ER A=0.00 PER B=20.00 PER C=20.00 PER D=60.00
TP=0.1333 HR MASS RAINFALL=-1

7.106420 K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N =
UNIT PEAK = 1.6606 CFS UNIT VOLUME = .9922 B = 526.28 P60 = 2.0100
AREA = .000421 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

3.944947 K = .119767HR TP = .133300HR K/TP RATIO = .898476 SHAPE CONSTANT, N =
UNIT PEAK = .73935 CFS UNIT VOLUME = .9825 B = 351.48 P60 = 2.0100
AREA = .000280 SQ MI IA = .42500 INCHES INF = 1.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

* 10-YEAR, 6-HR STORM (UNDER EXISTING CONDITIONS) *

START TIME=0.0
RAINFALL TYPE=1 RAIN QUARTER=0.0 IN
RAIN ONE=1.34 IN RAIN SIX=1.57 IN
RAIN DAY=1.83 IN DT=0.03333 HR

COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK AT 1.40 HR.
DT = .033330 HOURS END TIME = 5.999400 HOURS

.0000	.0011	.0022	.0034	.0046	.0058	.0070
.0083	.0095	.0109	.0122	.0136	.0150	.0165
.0180	.0196	.0212	.0229	.0246	.0263	.0282
.0301	.0321	.0341	.0363	.0385	.0408	.0433
.0459	.0486	.0515	.0552	.0591	.0634	.0725
.0928	.1241	.1690	.2304	.3110	.4138	.5418
.6980	.8430	.9036	.9547	1.0002	1.0416	1.0797
1.1150	1.1481	1.1790	1.2082	1.2357	1.2617	1.2863
1.3096	1.3316	1.3526	1.3725	1.3914	1.3958	1.3999
1.4037	1.4074	1.4109	1.4143	1.4175	1.4206	1.4236
1.4265	1.4293	1.4320	1.4346	1.4372	1.4397	1.4421
1.4444	1.4467	1.4490	1.4511	1.4533	1.4554	1.4574
1.4594	1.4614	1.4633	1.4652	1.4670	1.4688	1.4706
1.4724	1.4741	1.4758	1.4775	1.4791	1.4807	1.4823
1.4839	1.4854	1.4869	1.4884	1.4899	1.4914	1.4928
1.4943	1.4957	1.4970	1.4984	1.4998	1.5011	1.5024
1.5037	1.5050	1.5063	1.5075	1.5088	1.5100	1.5113
1.5125	1.5137	1.5148	1.5160	1.5172	1.5183	1.5195
1.5206	1.5217	1.5228	1.5239	1.5250	1.5261	1.5271
1.5282	1.5292	1.5303	1.5313	1.5323	1.5333	1.5344
1.5354	1.5363	1.5373	1.5383	1.5393	1.5402	1.5412
1.5421	1.5431	1.5440	1.5449	1.5458	1.5467	1.5476
1.5485	1.5494	1.5503	1.5512	1.5521	1.5529	1.5538
1.5547	1.5555	1.5564	1.5572	1.5580	1.5589	1.5597
1.5605	1.5613	1.5621	1.5629	1.5637	1.5645	1.5653
1.5661	1.5669	1.5677	1.5685	1.5692	1.5700	

* BASIN A

COMPUTE NM HYD

ID=6 HYD NO=112.0 AREA=0.000701 SQ MI
ER A=0.00 PER B=20.00 PER C=20.00 PER D=60.00
TP=0.1333 HR MASS RAINFALL=-1

7.106420 K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N =
UNIT PEAK = 1.6606 CFS UNIT VOLUME = .9922 B = 526.28 P60 = 1.3400
AREA = .000421 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

3.812062 K = .123717HR TP = .133300HR K/TP RATIO = .928113 SHAPE CONSTANT, N =
UNIT PEAK = .72033 CFS UNIT VOLUME = .9822 B = 342.44 P60 = 1.3400
AREA = .000280 SQ MI IA = .42500 INCHES INF = 1.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

* 100-YEAR, 6-HR STORM (UNDER PROPOSED CONDITIONS) *

START TIME=0.0
RAINFALL TYPE=1 RAIN QUARTER=0.0 IN
RAIN ONE=2.01 IN RAIN SIX=2.35 IN
RAIN DAY=2.75 IN DT=0.03333 HR

COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK AT 1.40 HR.
DT = .033330 HOURS END TIME = 5.999400 HOURS
.0000 .0016 .0033 .0049 .0066 .0084 .0102
.0120 .0139 .0158 .0178 .0199 .0219 .0241
.0263 .0286 .0309 .0333 .0358 .0384 .0411
.0439 .0467 .0497 .0529 .0561 .0596 .0631
.0669 .0709 .0751 .0807 .0866 .0930 .1066
.1371 .1840 .2514 .3434 .4644 .6186 .8106
1.0449 1.2624 1.3533 1.4300 1.4982 1.5602 1.6174
1.6704 1.7200 1.7664 1.8102 1.8514 1.8904 1.9273
1.9622 1.9953 2.0268 2.0566 2.0850 2.0915 2.0976
2.1033 2.1088 2.1140 2.1191 2.1239 2.1285 2.1329
2.1373 2.1414 2.1454 2.1494 2.1531 2.1568 2.1604
2.1639 2.1673 2.1706 2.1739 2.1771 2.1802 2.1832
2.1862 2.1891 2.1919 2.1947 2.1975 2.2002 2.2028
2.2054 2.2080 2.2105 2.2130 2.2154 2.2178 2.2202
2.2225 2.2248 2.2270 2.2293 2.2315 2.2336 2.2358
2.2379 2.2399 2.2420 2.2440 2.2460 2.2480 2.2500
2.2519 2.2538 2.2557 2.2576 2.2594 2.2612 2.2631
2.2648 2.2666 2.2684 2.2701 2.2718 2.2735 2.2752
2.2769 2.2785 2.2802 2.2818 2.2834 2.2850 2.2866
2.2881 2.2897 2.2912 2.2928 2.2943 2.2958 2.2973
2.2987 2.3002 2.3017 2.3031 2.3045 2.3060 2.3074
2.3088 2.3102 2.3115 2.3129 2.3143 2.3156 2.3169
2.3183 2.3196 2.3209 2.3222 2.3235 2.3248 2.3261
2.3273 2.3286 2.3298 2.3311 2.3323 2.3335 2.3348
2.3360 2.3372 2.3384 2.3396 2.3408 2.3419 2.3431
2.3443 2.3454 2.3466 2.3477 2.3488 2.3500

* ON-STIE
COMPUTE NM HYD ID=7 HYD NO=102.1 AREA=0.000701 SQ MI
PER A=0.00 PER B=5.00 PER C=0.00 PER D=95.00
TP=0.1333 HR MASS RAINFALL=-1

7.106420 K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N =
UNIT PEAK = 2.6292 CFS UNIT VOLUME = .9949 B = 526.28 P60 = 2.0100
AREA = .000666 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

3.563124 K = .132088HR TP = .133300HR K/TP RATIO = .990905 SHAPE CONSTANT, N =
UNIT PEAK = .85431E-01CFS UNIT VOLUME = .8709 B = 324.91 P60 = 2.0100
AREA = .000035 SQ MI IA = .50000 INCHES INF = 1.25000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

* 10-YEAR, 6-HR STORM (UNDER PROPOSED CONDITIONS) *

START TIME=0.0
RAINFALL TYPE=1 RAIN QUARTER=0.0 IN
RAIN ONE=1.34 IN RAIN SIX=1.57 IN
RAIN DAY=1.83 IN DT=0.03333 HR

COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK AT 1.40 HR.
DT = .033330 HOURS END TIME = 5.999400 HOURS

.0000	.0011	.0022	.0034	.0046	.0058	.0070
.0083	.0095	.0109	.0122	.0136	.0150	.0165
.0180	.0196	.0212	.0229	.0246	.0263	.0282
.0301	.0321	.0341	.0363	.0385	.0408	.0433
.0459	.0486	.0515	.0552	.0591	.0634	.0725
.0928	.1241	.1690	.2304	.3110	.4138	.5418
.6980	.8430	.9036	.9547	1.0002	1.0416	1.0797
1.1150	1.1481	1.1790	1.2082	1.2357	1.2617	1.2863
1.3096	1.3316	1.3526	1.3725	1.3914	1.3958	1.3999
1.4037	1.4074	1.4109	1.4143	1.4175	1.4206	1.4236
1.4265	1.4293	1.4320	1.4346	1.4372	1.4397	1.4421
1.4444	1.4467	1.4490	1.4511	1.4533	1.4554	1.4574
1.4594	1.4614	1.4633	1.4652	1.4670	1.4688	1.4706
1.4724	1.4741	1.4758	1.4775	1.4791	1.4807	1.4823
1.4839	1.4854	1.4869	1.4884	1.4899	1.4914	1.4928
1.4943	1.4957	1.4970	1.4984	1.4998	1.5011	1.5024
1.5037	1.5050	1.5063	1.5075	1.5088	1.5100	1.5113
1.5125	1.5137	1.5148	1.5160	1.5172	1.5183	1.5195
1.5206	1.5217	1.5228	1.5239	1.5250	1.5261	1.5271
1.5282	1.5292	1.5303	1.5313	1.5323	1.5333	1.5344
1.5354	1.5363	1.5373	1.5383	1.5393	1.5402	1.5412
1.5421	1.5431	1.5440	1.5449	1.5458	1.5467	1.5476
1.5485	1.5494	1.5503	1.5512	1.5521	1.5529	1.5538
1.5547	1.5555	1.5564	1.5572	1.5580	1.5589	1.5597
1.5605	1.5613	1.5621	1.5629	1.5637	1.5645	1.5653
1.5661	1.5669	1.5677	1.5685	1.5692	1.5700	

* ON-SITE
COMPUTE NM HYD ID=8 HYD NO=112.1 AREA=0.000701 SQ MI
PER A=0.00 PER B=5.00 PER C=0.00 PER D=95.00
TP=0.1333 HR MASS RAINFALL=-1

7.106420 K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N =
UNIT PEAK = 2.6292 CFS UNIT VOLUME = .9949 B = 526.28 P60 = 1.3400
AREA = .000666 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

3.354139 K = .140318HR TP = .133300HR K/TP RATIO = 1.052645 SHAPE CONSTANT, N =
UNIT PEAK = .81387E-01CFS UNIT VOLUME = .8719 B = 309.53 P60 = 1.3400
AREA = .000035 SQ MI IA = .50000 INCHES INF = 1.25000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

* PONDING CONDITION *

ROUTE RESERVOIR ID=30 HYD NO=601.1 INFLOW ID=7 CODE=24
OUTFLOW(CFS) STORAGE(AC-FT) ELEVATION(FT)
0.000 0.000000 66.48
1.746 0.003209 66.75
2.423 0.009436 67.00
2.750 0.019254 67.15

* * * * *

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	66.48	.000	.00

NORMAL PROGRAM FINISH END TIME (HR:MIN:SEC) = 11:11:21



City of Albuquerque

Planning Department
Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 6/2018)

Project Title: 2818 4TH STREET, NW, APTS. **Building Permit #:** _____ **Hydrology File #:** _____
DRB#: _____ **EPC#:** _____ **Work Order#:** _____
Legal Description: LOTS 1-A, 6,7,8, 9 10, Block 2, CITY REALTY COMPANY'S ADDITION NO. 1 AND LOTS 4,5, 6, BLOCK 9, MANDDLE ADDITION NO. 2.
City Address: 2818 4TH STREET, NW

Applicant: SBS CONSTRUCTION AND ENGINEERING, LLC **Contact:** SHAWN BIAZAR
Address: 10209 SNOWFLAKE CT., NW, ALBUQUERQUE, NM 87114
Phone#: (505) 804-5013 **Fax#:** (505) 897-4996 **E-mail:** AECLLC@AOL.COM

Other Contact: _____ **Contact:** _____
Address: _____
Phone#: _____ **Fax#:** _____ **E-mail:** _____

TYPE OF DEVELOPMENT: _____ PLAT (# of lots) _____ RESIDENCE _____ DRB SITE ☒ ADMIN SITE

IS THIS A RESUBMITTAL? _____ Yes ☒ No

DEPARTMENT _____ TRANSPORTATION ☒ HYDROLOGY/DRAINAGE

Check all that Apply:

TYPE OF SUBMITTAL:

- ☐ ENGINEER/ARCHITECT CERTIFICATION
☐ PAD CERTIFICATION
☐ CONCEPTUAL G & D PLAN
☒ GRADING PLAN
☒ DRAINAGE REPORT
☐ DRAINAGE MASTER PLAN
☐ FLOODPLAIN DEVELOPMENT PERMIT APPLIC
☐ ELEVATION CERTIFICATE
☐ CLOMR/LOMR
☐ TRAFFIC CIRCULATION LAYOUT (TCL)
☐ TRAFFIC IMPACT STUDY (TIS)
☐ STREET LIGHT LAYOUT
☐ OTHER (SPECIFY) _____
☐ PRE-DESIGN MEETING?

TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

- ☒ 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
☐ FLOODPLAIN DEVELOPMENT PERMIT
☐ OTHER (SPECIFY) _____

DATE SUBMITTED: 5-18-2020 **By:** SHAWN BIAZAR

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____

DRAINAGE MANAGEMENT PLAN

Location

LOTS 1-A, 6, 7, 8, 9, AND 10, BLOCK 2, CITY REALTY COMPANY'S ADDITION NO. 1; TOGETHER WITH LOTS 4, 5, AND 6, BLOCK 9, OF THE MANDELL ADDITION NO. 2. CONTAINING 1.2690 ACRE. See attached portion of Vicinity Map H-14-Z for exact location.

Purpose

The purpose of this drainage report is to present a grading and drainage solution for the proposed commercial buildings. We are requesting site plan for building permit approval as well as building permit approval.

Existing Site/Drainage Conditions

This site contained of existing buildings, concrete pads, asphalt and some gravel. All the existing structures and asphalt and concrete pads have been removed. The site is fairly flat. Most of the site was draining into adjacents streets. No offsite runoff impacts this site.

Proposed Conditions and On-Site Drainage Management Plan

This site is located within zone 2 and in the north valley. We are proposing a building with ground level and underground parking structure. This site will pond most of water and discharge at a control rate. According to grading plan file #G14-D086, the north valley rate of discharge is 2.75 CFS per acre. This site contains 1.2690 acre (55,277.64 sf). Therefore our rate of discharge will be at 3.49 CFS (1.2690 * 2.75). The site was analyzed under Basins A and B. The runoff from Basin A is detained in the parking lot and drained at a controlled discharge rate of 0.47 cfs via a 4" pipe to the back of sidewalk culvert to La Poblana Rd. Basin B is discharge at a detained rate of 1.86 cfs and drain out via 2-8" pipe to a sidewalk culvert to 4th St. The total detainee discharge rate is 2.33 cfs which is well below the allowable discharge of 3.49 cfs and less than current discharge under the existing conditions.

POND VOLUME REQUIRED FOR FIRST FLUSH

BASIN A

0.34 INCHES x IMPERVIOUS AREA = (0.34/12 x 33,961.48) = 962.24 CF
THIS VOLUME IS PART OF THE PONDING PROVIDED.

BASIN B

0.34 INCHES x IMPERVIOUS AREA = (0.34/12 x 18,561.82) = 525.92 CF
THIS VOLUME IS PART OF THE PONDING PROVIDED.

FIRST FLUSH PONDING VOLUME PROVIDED

POND A-1: AREA @ TOP = 464.46, BOTTOM =0, DEPTH=1.50'
POND VOLUME = (464.46+0)/2*1.50' = 348.35 CF

POND A-2: AREA @ TOP = 519.00, BOTTOM =0, DEPTH=2.50'
POND VOLUME = (519.00+0)/2*2.50' = 648.75 CF

POND A-1 + POND A-2 = 348.35 + 648.75 = 997.10 CF > 962.24 CF

POND B: AREA @ TOP = 211.52, BOTTOM =211.52, DEPTH=2.75'
POND VOLUME = (211.52+211.52)/2*2.75' = 581.68 CF > 525.92 CF

NOTICE TO CONTRACTORS

1. AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY.

2. ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF ALBUQUERQUE INTERIM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1985.

3. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL FOR LOCATING SERVICE, 260-1990 OR "811", FOR LOCATION OF EXISTING UTILITIES.

4. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL CONSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.

5. BACKFILL COMPACTION SHALL BE ACCORDING TO TRAFFIC/STREET USE.

6. MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.

7. WORK ON ARTERIAL STREETS SHALL BE PERFORMED ON A 24-HOUR BASIS.

APPROVALS	NAME	DATE
INSPECTOR		

NOTICE TO CONTRACTORS

1. AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN BERNALILLO COUNTY RIGHT-OF-WAY.

2. ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH BERNALILLO COUNTY STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.

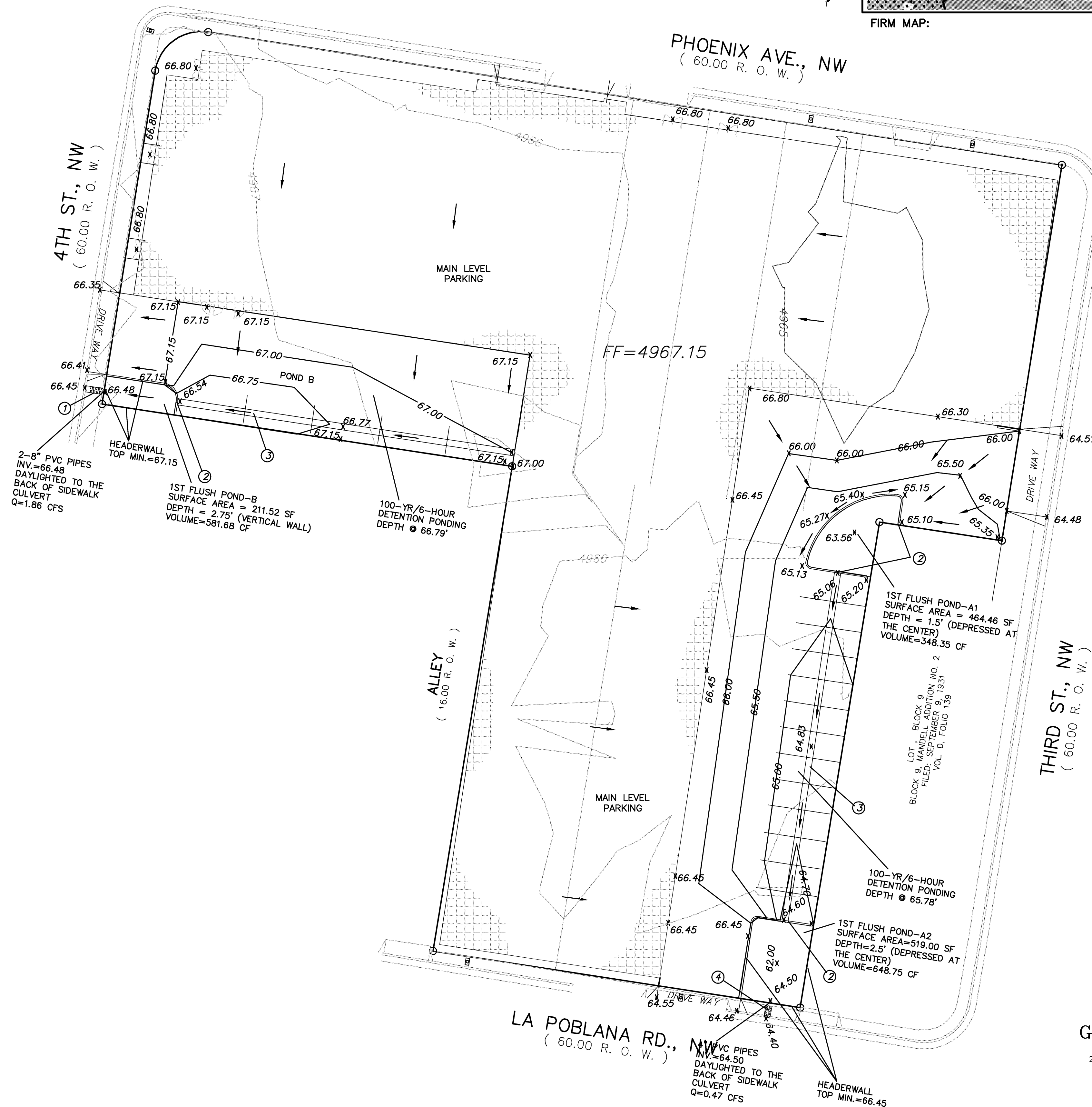
3. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE, 765-1234, FOR LOCATION OF EXISTING UTILITIES.

4. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL CONSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.

5. BACKFILL COMPACTION SHALL BE ACCORDING TO TRAFFIC/STREET USE.

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7. WORK ON ARTERIAL STREETS SHALL BE PERFORMED ON A 24-HOUR BASIS.



FIRM MAP:

35001C0332G

NOTES:

- 18" SIDEWALK CULRVET PER CITY STD DWG 2236 (TACK WELD PLATE AT THE BOLT).
- 2' CURB OEPNING
- 2' ALLEY GUTTER
- 6" SIDEWALK CULRVET PER CITY STD DWG 2236 (TACK WELD PLATE AT THE BOLT).

LEGEND

- EXISTING CONTOUR (MAJOR)
- EXISTING CONTOUR (MINOR)
- BOUNDARY LINE
- PROPOSED SPOT ELEVATION
- EXISTING GRADE
- EXISTING FLOWLINE ELEVATION
- PROPOSED RETAINING WALL
- BOTTOM OF CHANEL
- TOP OF CURB
- TOP OF ASPHALT
- HIGH POINT
- AS-BUILT GRADES
- AS-BUILT SPOT ELEVATIONS



REZA AFGHPOUR
P.E. #11814

GRAPHIC SCALE



2818 4TH STREET, NW
GRADING AND DRAINAGE PLAN

DRAWING:	DRAWN BY:	DATE:	SHEET #
201836.DWG	SH-B	02-20-2020	C 101

LAST REVISION: 05-18-2020