

# CITY OF ALBUQUERQUE



Timothy M. Keller, Mayor

February 1, 2018

Ronald Bohannon, P.E.  
Tierra West, LLC  
5571 Midway Park Place NE  
Albuquerque, NM, 87109

**RE: Multi-Use Recreational Facility**  
**Grading and Drainage Plan**  
**Stamp Date: 01/25/18**  
**Hydrology File: F16D003E1**

Dear Mr. Bohannon:

PO Box 1293

Based upon the information provided in your re-submittal received 01/26/2018, the Grading Plan is approved for Grading Permit.

Albuquerque

Please remember that the following comments need to be addressed for approval for Building Permit on the above referenced project:

NM 87103

1. Need to record the proposed 20 feet Public Drainage Easement.
2. Need to build the proposed Public storm sewer system which must be accepted by the City.
3. A DRB submittal may be required for an approval of an Infrastructure List for the Proposed Public Storm Sewer System and an SIA must be recorded. If there is not going to be an approved Infrastructure List, then add a note that states, "Prior to Certificate of Occupancy the public infrastructure must be constructed and accepted by the City." and also list the public infrastructure.
4. DRC Work Construction documents for the Proposed Public storm sewer system needs to be submitted and approved. These drawings must include a profile of this Public storm sewer system with both EGL and HGL along with the calculations for them. This construction documents must be submitted to the DRC for approval.
5. Need to vacate the portion of the existing 20 feet Public Drainage Easement once the City has accepted the installation of the proposed Public storm sewer system.

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# CITY OF ALBUQUERQUE



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6. An Agreement and Covenant for the Public Drainage Easement for the proposed retention pond will have to be recorded prior to Hydrology's approval for Building Permit. Please include the recording information for the Agreement and Covenant on the Grading Plan.

If you have any questions, please contact me at 924-3995 or [rbrissette@cabq.gov](mailto:rbrissette@cabq.gov).

Sincerely,

*Renée C. Brissette*

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

PO Box 1293

Albuquerque

NM 87103

[www.cabq.gov](http://www.cabq.gov)



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#### NOTICE TO CONTRACTORS

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- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL CONNECTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
- BACKFILL COMPACTION SHALL BE ACCORDING TO TRAFFIC/STREET USE.
- MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.
- SOURCE OF TOP IS ALTA/ACSM LAND TITLE SURVEY OF LOT 2 HARMS INDUSTRIAL PARK PREPARED BY PRECISION SURVEYS, INC DATED JANUARY 11, 2012.
- STORM WATER RUNOFF WILL BE PASSIVELY HARVESTED ALONG THE WEST, SOUTH AND EAST PROPERTY LINES WITHIN LANDSCAPED AREAS IN COMPLIANCE WITH WATER CONSERVATION ORDINANCE REQUIREMENTS.

#### EXISTING DRAINAGE CONDITIONS

THE SITE IS CURRENTLY UNDEVELOPED AND WAS FORMALLY THE BEACH WATERPARK. THERE IS A PREVIOUS DRAINAGE REPORT FOR THE SITE DATED 9/15/15 BY TERRA WEST LLC. (F-16/D3E1). THE REPORT DEFINES BASINS AND PROVIDED FOR TRENCH DRAINS AND DROP INLETS TO DRAIN EACH BASIN. THE RUNOFF FROM BASINS 2 THROUGH 8 AND A-1E IS TRANSPORTED THROUGH AN UNDERGROUND STORM SEWER SYSTEM TO A DETENTION POND LOCATED ON THE NORTH OF THE SITE. BASIN 1, WHICH CONSISTS OF THE PARKING AREA, DRAINS WEST THROUGH A SERIES OF SIDEWALK CULVERTS INTO DESERT SURF CIRCLE AND FROM THERE INTO THE EXISTING STORM SEWER SYSTEM DESIGNED BY WILSON & CO. (F-16/D3E1).

THE SITE IS LOCATED ON FIRM MAP 3500C0138H AS SHOWN ABOVE. THE MAP SHOWS THAT THE SITE DOES NOT LIE WITHIN ANY 100 YEAR FLOOD PLAINS.

#### PROPOSED DRAINAGE MANAGEMENT PLAN

THE PROPOSED DRAINAGE MANAGEMENT PLAN IS TO CONTINUE USING THE EXISTING DRAINAGE SYSTEM DESIGNED BY WILSON & CO. FOR THE ORIGINAL BEACH WATERPARK DEVELOPMENT WITH SOME MODIFICATIONS.

THE BASIN LAYOUT AND LAND TREATMENTS HAVE BEEN MODIFIED FROM THE TERRA WEST DRAINAGE REPORT. ACCORDING TO THE DRAINAGE MASTER PLAN ONLY 0.1 CFS/ACRE CAN BE DISCHARGED FROM THE SITE. THE SITE IS 23.79 ACRES, CONSEQUENTLY, 2.38 CFS OF DISCHARGE IS ALLOWED FROM THE SITE. THIS DEVELOPMENT PROPOSES TO CHANGE THE EXISTING DETENTION BASIN WITH THE LIMITED DISCHARGE INTO A RETENTION BASIN. THIS WILL BRING THE DISCHARGE FROM THE SITE INTO COMPLIANCE WITH THE CLEAN WATER ACT AND THE NEW MS-4 PERMIT CAPTURING THE FIRST FLUSH AND FLOATABLES.

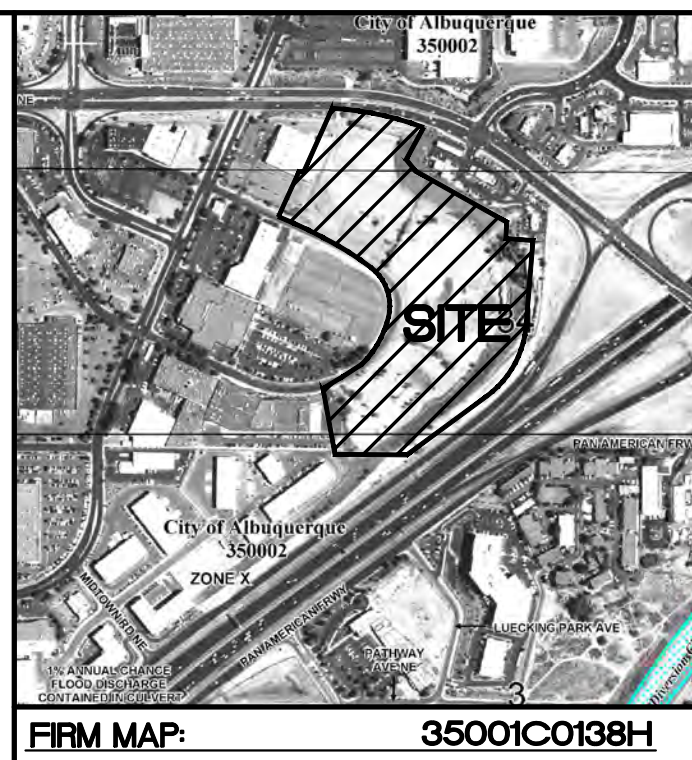
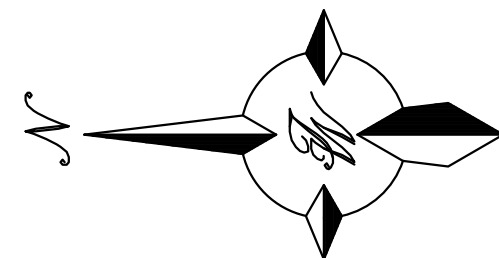
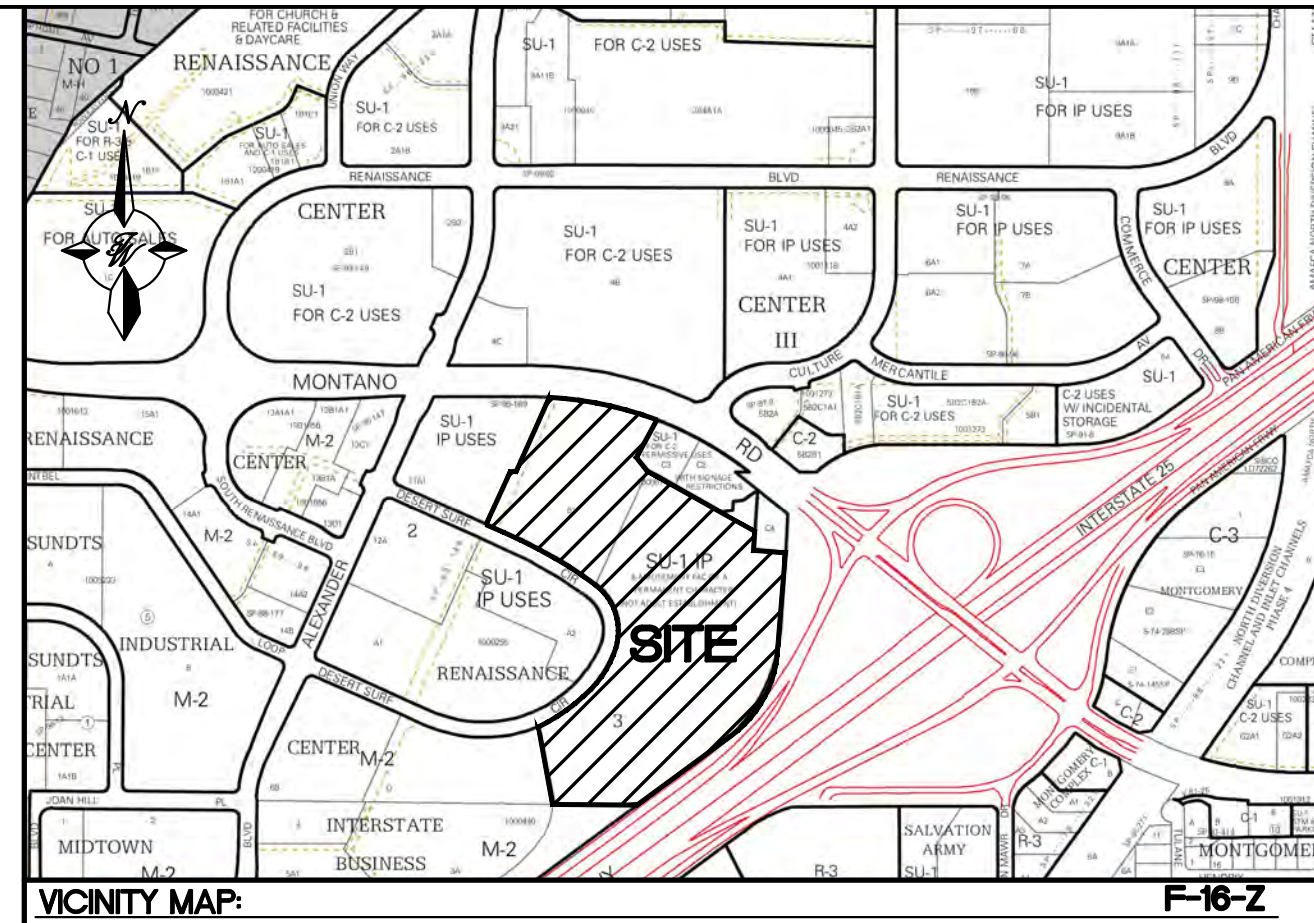
THE SITE IS NOT DIVIDED UP INTO SIX ON-SITE BASINS. THERE ARE TWO OFF-SITE BASINS THAT WILL ALSO CONTRIBUTE FLOWS TO THE RETENTION POND. ONE BASIN CONTAINS THE MCDONALD'S AND SHELL STATION DEVELOPMENT ON MONTANO AVENUE. THIS SITE WILL CONTINUE TO DISCHARGE 11.99 CFS TO THE POND. THE OTHER OFF-SITE BASIN IS FROM THE MNDOT RIGHT OF WAY THAT CAPTURES 12.90 CFS IN DROP INLETS AND IS CONVEYED THROUGH AN EXISTING STORM SEWER ACROSS THE PARKING LOT DOWN TO DESERT SURF. FROM THERE THE FLOWS WILL REMAIN IN THE EXISTING STORM SEWER SYSTEM UNTIL IT GETS TO THE CROSSING UNDER MONTANO AVENUE. FROM THERE THE FLOWS WILL NOW BE DIRECTED INTO THE PROPOSED DETENTION POND WHEREAS BEFORE THE FLOWS WOULD CONTINUE TO THE REGIONAL POND LOCATED BEHIND BOB TURNER FORD.

BASIN 1 CONSISTS OF THE DETENTION POND AREA WHICH WILL ALSO DOUBLE AS A PARK. BASINS 2, 3 AND 6 WILL DISCHARGE 28.09 CFS INTO DESERT SURF WHICH WILL BE CAPTURED BY EXISTING DROP INLETS. THIS IS SLIGHTLY LESS THAN THE 28.19 CFS THAT IS CURRENTLY DRAINING TO THE SAME DROP INLETS.

BASIN 4 CONSISTS OF AN IMPERVIOUS SURFACE WHICH WILL BE COLLECTED IN A SERIES OF DROP INLETS AND CONVEYED VIA STORM SEWER TO THE DETENTION POND AREA. BASIN 5 IS A SLOPE AREA THAT WILL BE CAPTURED IN A DROP INLET AND CONVEYED TO THE REALIGNED STORM SEWER THAT CROSSES THE PARKING LOT WHERE IT WILL CONTINUE TO BE DISCHARGED INTO THE RETENTION POND. THE MAIN PONDING AREA WITHIN THE RETENTION POND IS SIZED TO HOLD THE VOLUME FOR A 10-YEAR, 24 HOURS STORM OF 1.44 AC-FT. ANY STORMS LARGER THAN THE 10-YEAR STORM WILL THEN OVERFLOW TO THE SOCCER FIELD AREAS. BECAUSE OF THE DEPTH OF THE DETENTION POND AREA THERE IS NO EMERGENCY OVERFLOW.

#### EROSION CONTROL NOTES:

- CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.
- CONTRACTOR IS RESPONSIBLE FOR MAINTAINING RUN-OFF ON SITE DURING CONSTRUCTION.
- CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL SEDIMENT THAT GETS INTO EXISTING RIGHT-OF-WAY.
- REPAIR OF DAMAGED FACILITIES AND CLEANUP OF SEDIMENT ACCUMULATIONS ON ADJACENT PROPERTIES AND IN PUBLIC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
- ALL EXPOSED EARTH SURFACES MUST BE PROTECTED FROM WIND AND WATER EROSION PRIOR TO FINAL ACCEPTANCE OF ANY PROJECT.



#### LEGEND

- CURB & GUTTER
- BOUNDARY LINE
- EASEMENT
- CENTERLINE
- RIGHT-OF-WAY
- BUILDING
- SIDEWALK
- SCREEN WALL
- RETAINING WALL
- CONTOUR MAJOR
- CONTOUR MINOR
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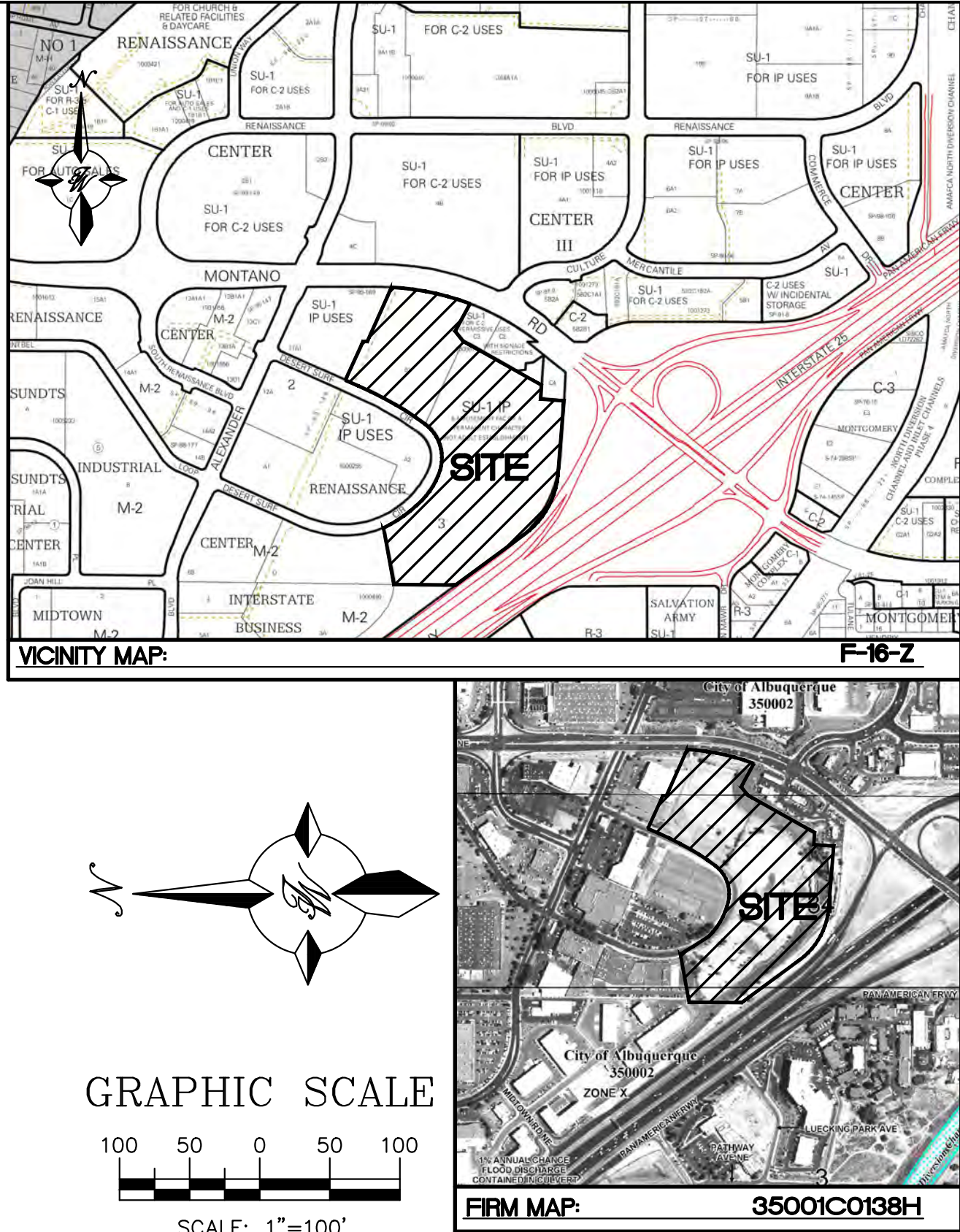
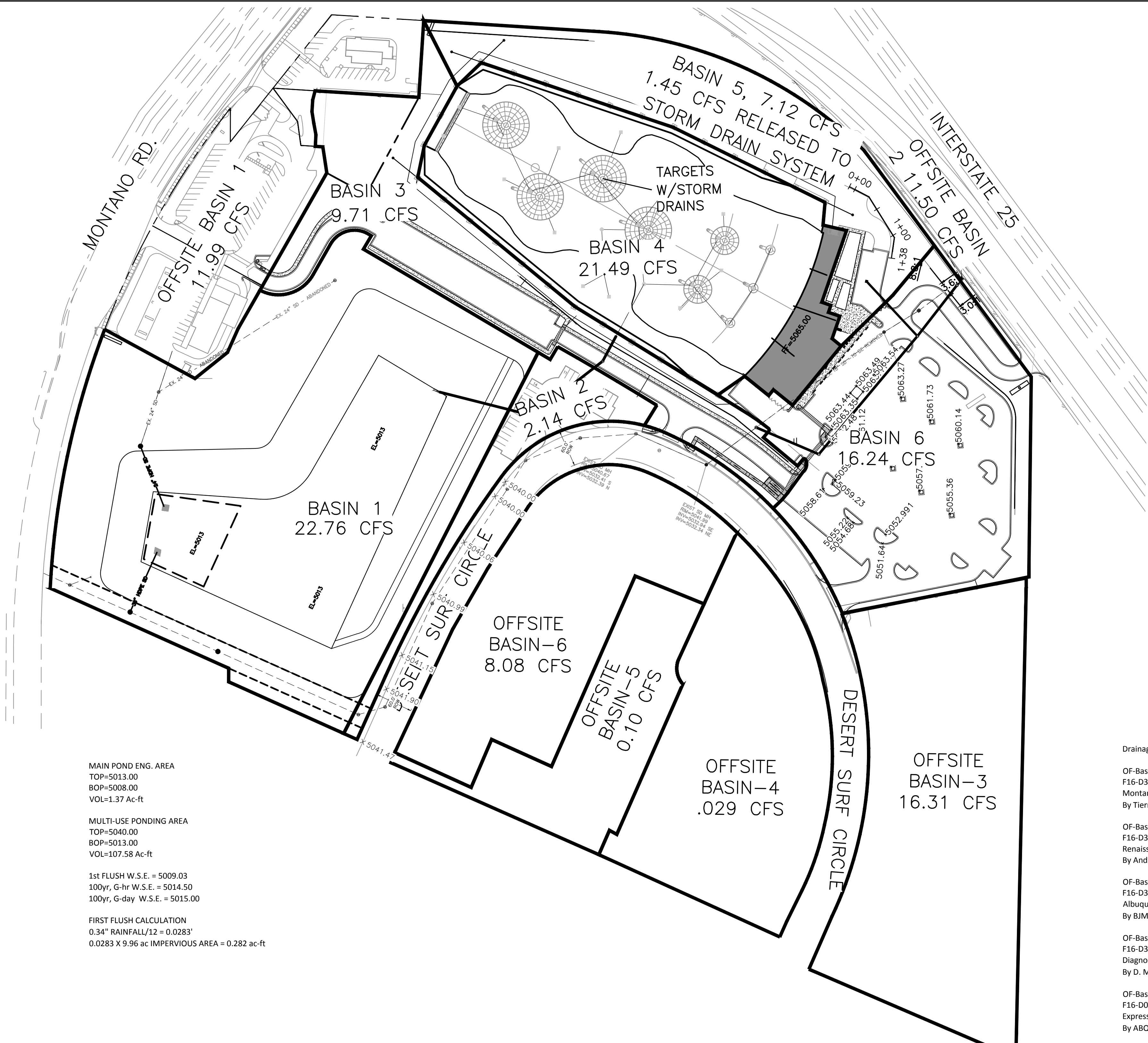
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 <div>ENGINEER'S SEAL RONALD R. BOHANNAN NEW MEXICO 7868 PROFESSIONAL ENGINEER 1/25/2018 RONALD R. BOHANNAN P.E. #7868</div>	<b>MULTI-USE RECREATIONAL FACILITY, ALBUQUERQUE, NM</b>	DRAWN BY BF
	<b>OVERALL MASS GRADING PLAN</b>	DATE 10-30-17
	 <div>TERRA WEST, LLC 5571 MIDWAY PARK PLACE NE ALBUQUERQUE, NM 87109 (505) 858-3100 www.terrawestllc.com</div>	SHEET # <b>C3</b> JOB # 2017035



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LEGEND	
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Drainage Reports Referenced for Off-Site Basins

- OF-Basin 1  
F16-D3E1  
Montano Pads Grading and Drainage Plan  
By Tierra West, LLC Stamped 09/14/15
- OF-Basin 2  
F16-D3E  
Renaissance III Drainage Report  
By Andrews, Asbury & Robert, Inc. Stamped March 1987
- OF-Basin 3  
F16-D3A  
Albuquerque Tortilla Co. Grading & Drainage Plan  
By BJM Development Consultants Stamped 09/05/00
- OF-Basins 4 & 5  
F16-D3H  
Diagnostek Expansion Grading & Drainage Plan  
By D. Mark Goodwin & Associates Stamped 12/14/94
- OF-Basin 6  
F16-D003L  
Express Scripts Parking Lot Expansion Grading & Drainage Plan  
By ABQ Engineering Stamped 10/1/04

Driveway and Street Capacity

Weir Equation:  
Q = Flow  
C = 2.95  
L = Length of weir  
H = Height of Weir

North Driveway  
Q = 48.54 cfs  
48.54 cfs > 9.71 cfs  
Driveway has capacity

South Driveway  
Q = 58.24 cfs  
58.24 cfs > 16.24 cfs  
Driveway has capacity

Desert Surf Circle  
Q = 64.71 cfs  
64.71 cfs > 51.50 cfs  
Street has capacity

Weighted E Method

Developed On-Site Basins

Basin	Area (sf)	Area (acres)	Treatment A		Treatment B		Treatment C		Treatment D		100-Year, 6-hr			10-Year, 6 hr			100-Year, 10 day		
			%	(acres)	%	(acres)	%	(acres)	%	(acres)	Weighted E	Volume (ac-ft)	Flow cfs	Weighted E	Volume (ac-ft)	Flow cfs	Weighted E	Volume (ac-ft)	Flow cfs
1	373,932	8.58	0%	0.00	22%	1.89	74%	6.35238	4%	0.34	0.959	0.686	23.57	0.424	0.303	11.89	0.959	0.728	23.57
2	35,315	0.81	0%	0.00	74%	0.60	0%	0.00	26%	0.21	1.008	0.068	2.14	0.485	0.033	1.07	1.008	0.094	2.14
3	125,711	2.89	0%	0.00	0%	0.00	67%	1.933571	33%	0.95	1.313	0.316	9.71	0.704	0.169	5.63	1.313	0.433	9.71
4	214,169	4.92	0%	0.00	0%	0.00	0%	0.00	100%	4.92	1.970	0.807	21.49	1.240	0.508	14.21	1.970	1.409	21.49
5	110,060	2.53	0%	0.00	15%	0.38	80%	2.021304	5%	0.13	0.991	0.209	7.12	0.447	0.094	3.66	0.991	0.224	7.12
6	177,044	4.06	0%	0.00	16%	0.65	0%	0.00	84%	3.41	1.762	0.597	16.24	1.077	0.365	10.36	1.762	1.015	16.24
Total	1,036,231	23.79								9.96		2.682	80.26		1.472	46.83		3.903	80.26

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

Excess Precipitation, E (inches)		
Zone 1	100-Year	10 - Year
Ea	0.44	0.08
Eb	0.67	0.22
Ec	0.99	0.44
Ed	1.97	1.24

Peak Discharge (cfs/acre)		
Zone 1	100-Year	10 - Year
Qa	1.29	0.24
Qb	2.03	0.76
Qc	2.87	1.49
Qd	4.37	2.89

LIMITED TO 1.45 CFS VIA PONDING TO BE ESTABLISHED ON THE SITE SPECIFIC GRADING PLAN FOR BUILDING PERMIT.

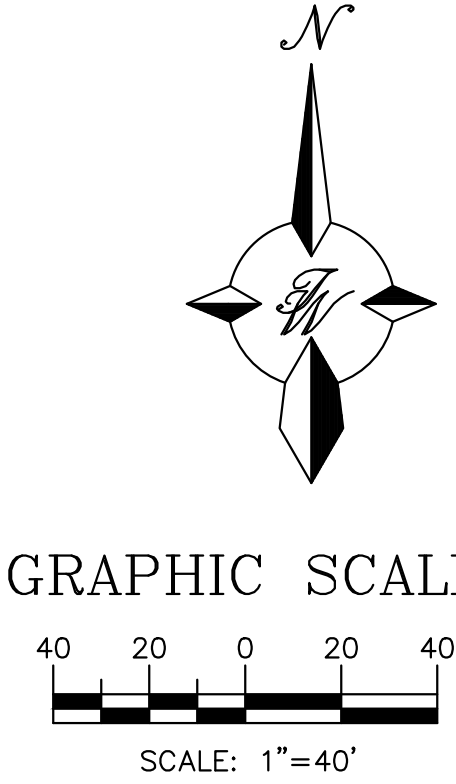
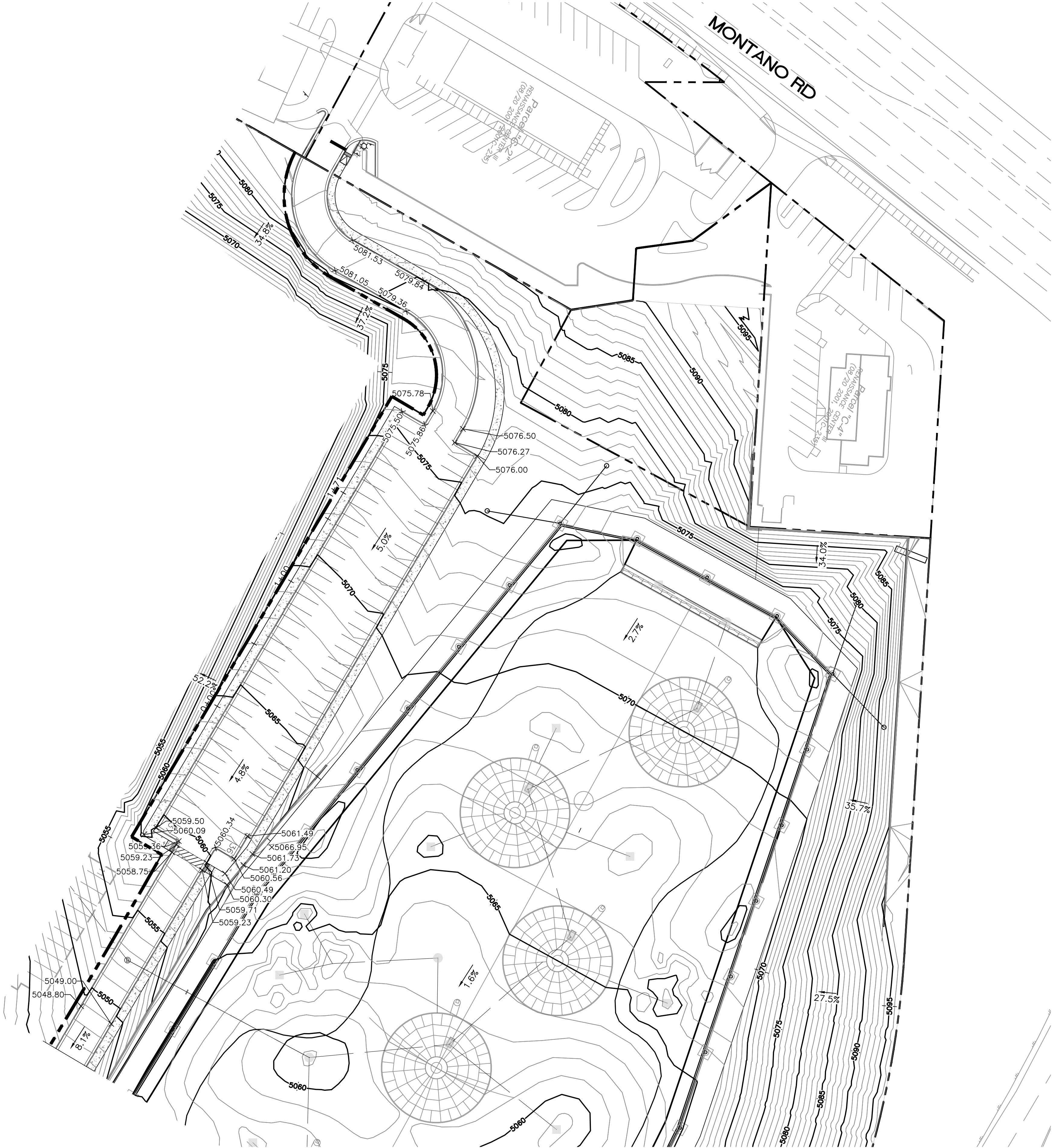
ENGINEER'S SEAL  
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7868  
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MULTI-USE RECREATIONAL FACILITY, ALBUQUERQUE, NM  
OVERALL DRAINAGE PLAN  
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ALBUQUERQUE, NM 87109  
(505) 858-3100  
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BF  
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**NOTES:**  
1. SPOT ELEVATIONS ARE AT FLOWLINE UNLESS ORTHERWISE SPECIFIED.

**NOTICE TO CONTRACTORS**

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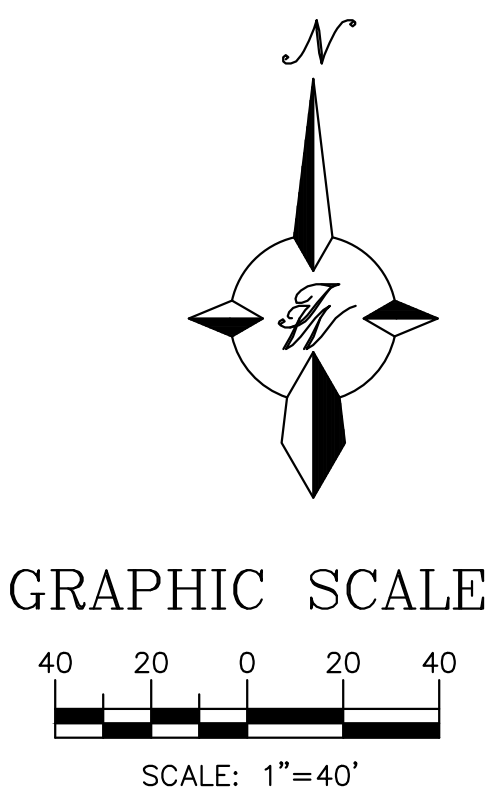
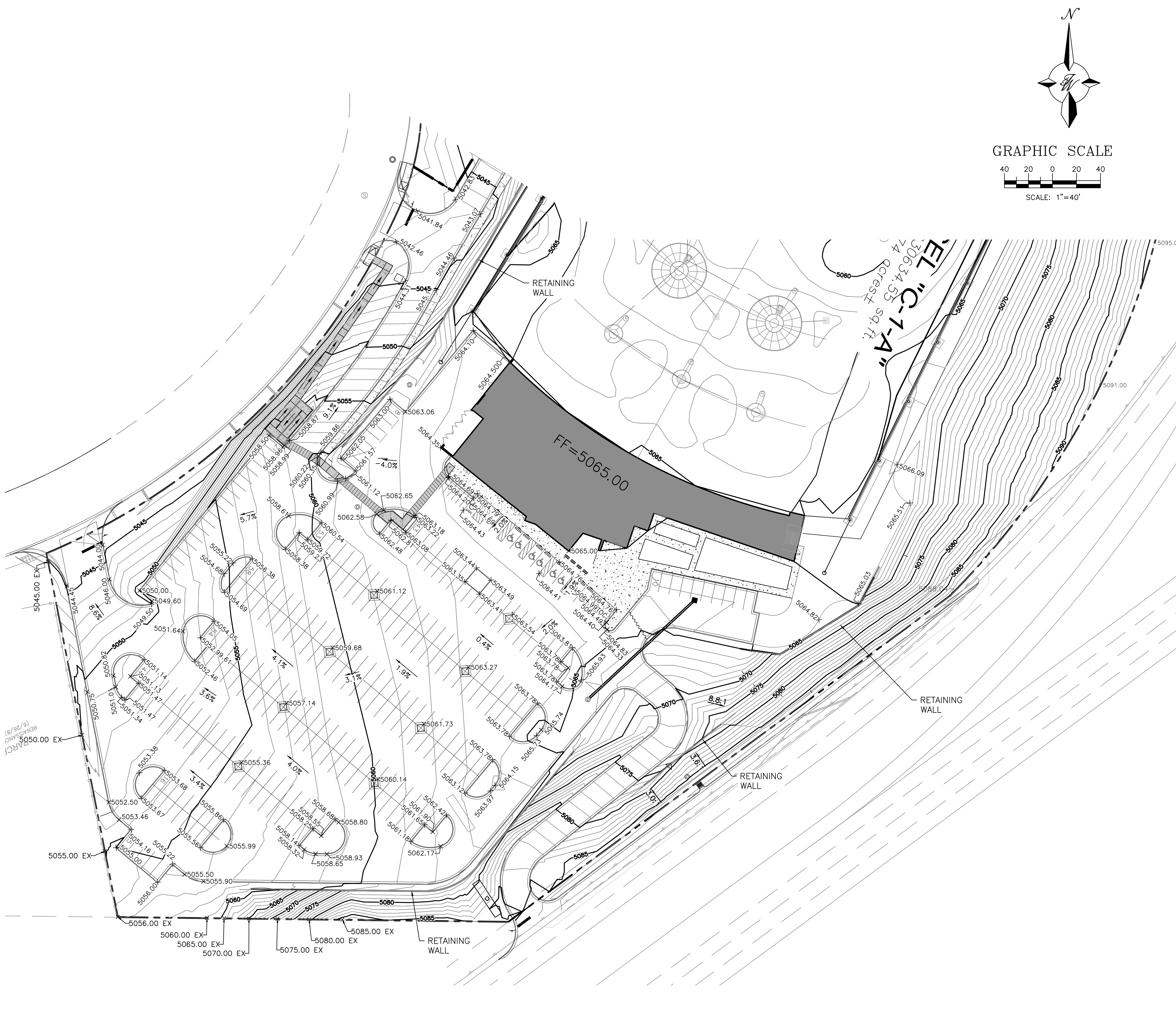
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 1/25/2018 RONALD R. BOHANNAN P.E. #7868	GRADING PLAN 1		DATE 10-30-17
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			SHEET # <b>C5</b>
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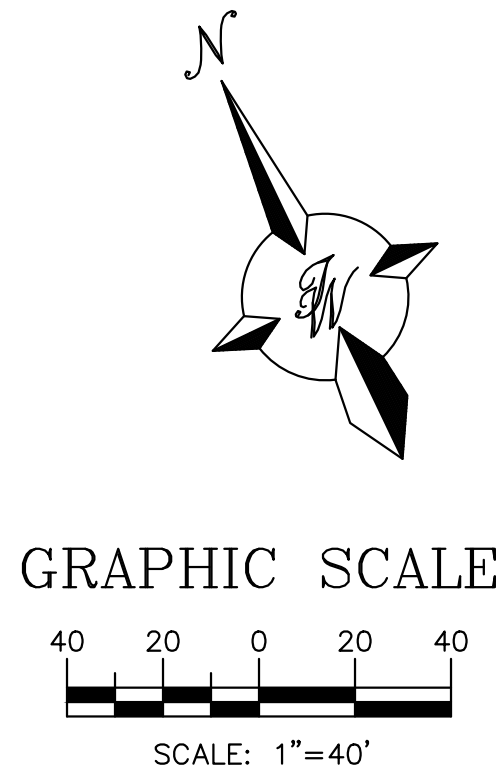
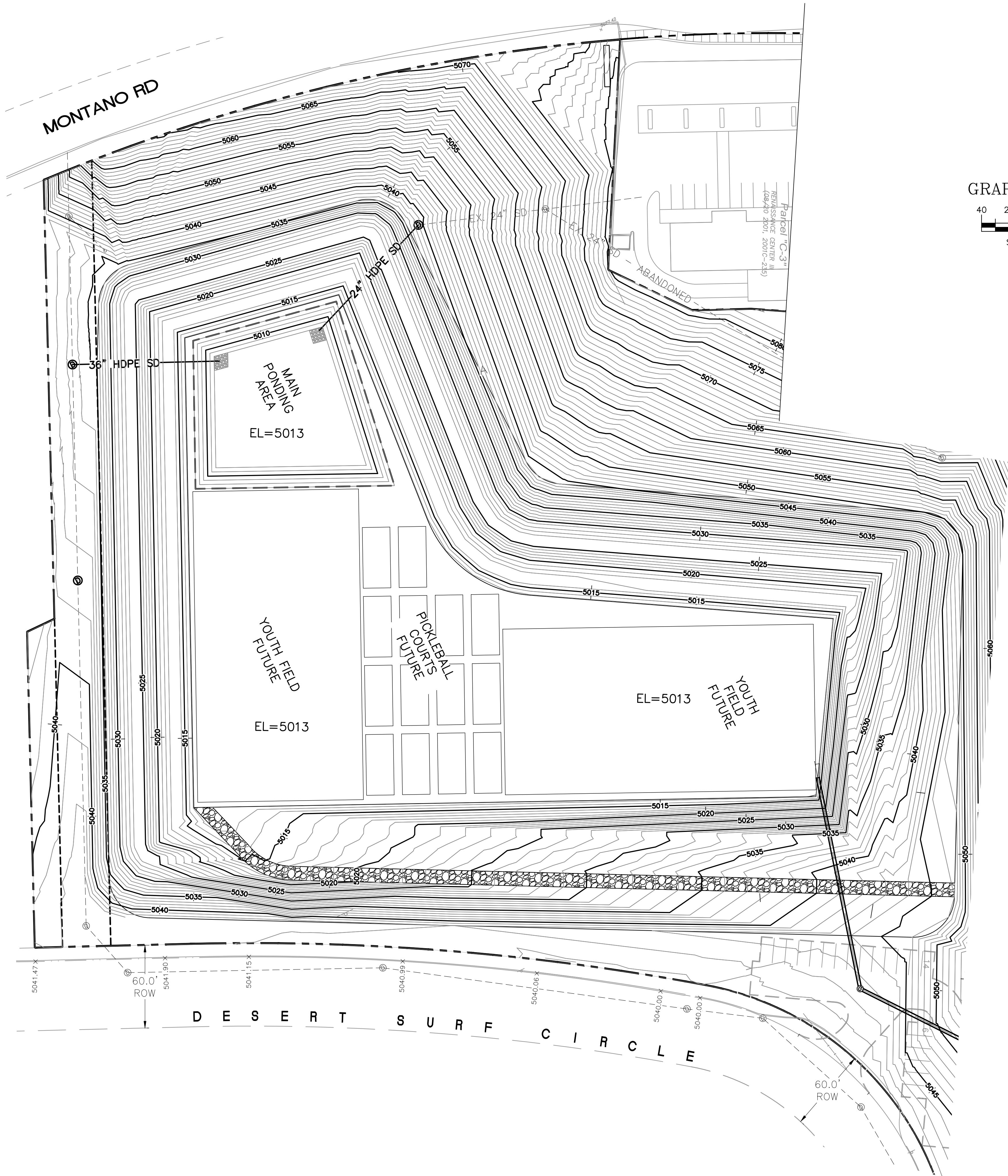
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	<b>GRADING PLAN 2</b>	DATE 10-30-17
	<p><b>TIERRA WEST, LLC</b> 5571 MIDWAY PARK PLACE NE ALBUQUERQUE, NM 87109 (505) 858-3100 www.tierrawestllc.com</p>	SHEET # <b>C6</b>  JOB # 2017035



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**LEGEND**

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|  | BUILDING                       |
|  | SIDEWALK                       |
|  | SCREEN WALL                    |
|  | RETAINING WALL                 |
|  | CONTOUR MAJOR                  |
|  | CONTOUR MINOR                  |
|  | SPOT ELEVATION                 |
|  | FLOW ARROW                     |
|  | EXISTING CURB & GUTTER         |
|  | EXISTING BOUNDARY LINE         |
|  | PROPOSED CONTOUR MAJOR         |
|  | PROPOSED CONTOUR MINOR         |
|  | EXISTING CONTOUR MAJOR         |
|  | EXISTING CONTOUR MINOR         |
|  | EXISTING SPOT ELEVATION        |
|  | SINGLE CLEAN OUT               |
|  | DOUBLE CLEAN OUT               |
|  | EXISTING SD MANHOLE            |
|  | EXISTING INLET                 |
|  | EXISTING SAS MANHOLE           |
|  | EXISTING FIRE HYDRANT          |
|  | EXISTING WATER VALVE           |
|  | EXISTING WATER METER           |
|  | EXISTING POWER POLE            |
|  | EXISTING GAS VALVE             |
|  | EXISTING OVERHEAD UTILITIES    |
|  | EXISTING UNDERGROUND UTILITIES |
|  | EXISTING GAS                   |
|  | EXISTING SANITARY SEWER LINE   |
|  | EXISTING WATER LINE            |
|  | EXISTING STORM SEWER LINE      |

**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.

**CAUTION:**

ALL EXISTING UTILITIES SHOWN WERE OBTAINED FROM RESEARCH, AS-BUILTS, SURVEYS OR INFORMATION PROVIDED BY OTHERS. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONDUCT ALL NECESSARY FIELD INVESTIGATIONS PRIOR TO AND INCLUDING ANY EXCAVATION, TO DETERMINE THE ACTUAL LOCATION OF UTILITIES AND OTHER IMPROVEMENTS, PRIOR TO STARTING THE WORK. ANY CHANGES FROM THIS PLAN SHALL BE COORDINATED WITH AND APPROVED BY THE ENGINEER.

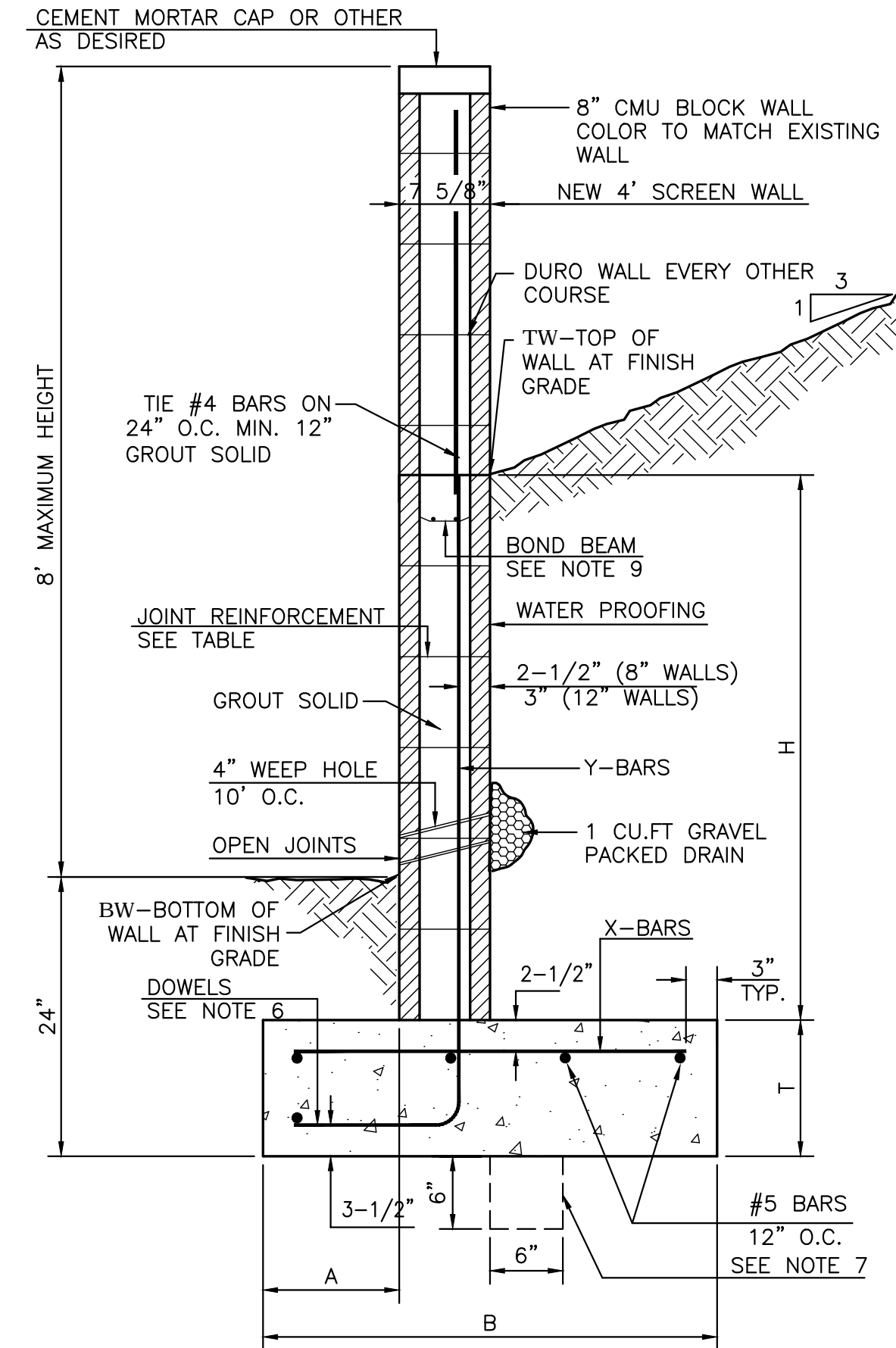
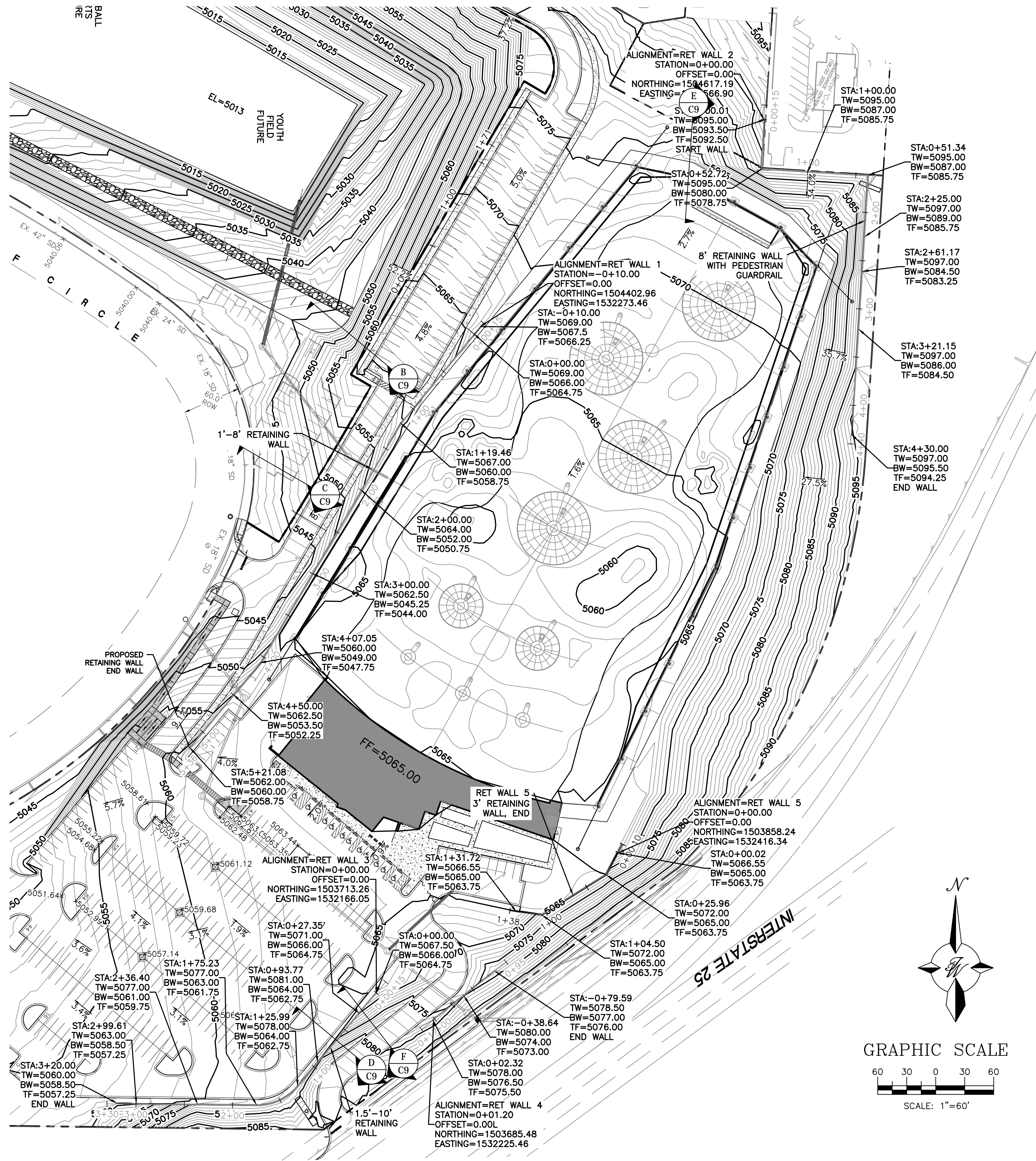
**NOTES:**

1. SPOT ELEVATIONS ARE AT FLOWLINE UNLESS OTHERWISE SPECIFIED.

		ENGINEER'S SEAL		MULTI-USE RECREATIONAL FACILITY, ALBUQUERQUE, NM	DRAWN BY BF
 1/25/2018		GRADING PLAN 3			DATE 10-30-17
RONALD R. BOHANNAN P.E. #7868		 <i>TERRA WEST, LLC</i> 5571 MIDWAY PARK PLACE NE ALBUQUERQUE, NM 87109 (505) 858-3100 www.tierrawestllc.com			2017035_GRB
				SHEET # <b>C7</b>	
				JOB # 2017035	



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RETAINING WALL DETAIL  
NTS

8 INCH REINFORCED CONCRETE MASONRY WALL						
H	A	B	T	Y-BARS	X-BARS	
ft.-in.	in.	ft.-in.	in.			
2'-0"	8"	2'-0"	9"	#4 @32" O.C.		
2'-8"	8"	2'-0"	9"	#4 @32" O.C.	#4 @24" O.C.	
3'-4"	8"	2'-4"	9"	#4 @32" O.C.	#4 @24" O.C.	
4'-0"	10"	2'-8"	9"	#4 @32" O.C.	#4 @24" O.C.	
4'-8"	12"	3'-4"	10"	#5 @32" O.C.	#4 @18" O.C.	
5'-4"	14"	3'-10"	10"	#6 @16" O.C.	#4 @18" O.C.	
6'-0"	16"	4'-8"	12"	#6 @8" O.C.	#4 @12" O.C.	

12 INCH REINFORCED CONCRETE MASONRY WALL						
H	A	B	T	Y-BARS	X-BARS	
ft.-in.	in.	ft.-in.	in.			
5'-4"	14"	3'-8"	10"	#6 @18" O.C.	#4 @24" O.C.	
6'-0"	15"	4'-2"	12"	#4 @16" O.C.	#4 @18" O.C.	
6'-8"	16"	4'-6"	12"	#6 @24" O.C.	#5 @18" O.C.	
7'-4"	18"	4'-10"	12"	#6 @16" O.C.	#5 @18" O.C.	
8'-0"	20"	5'-4"	12"	#7 @18" O.C.	#6 @12" O.C.	
8'-8"	20"	5'-8"	12"	#7 @16" O.C.	#6 @12" O.C.	

GENERAL NOTES:

- ALL CONCRETE IS TO BE 4000 PSI @ 28 DAYS.
- MINIMUM COMPACTION UNDER FOOTINGS IS TO BE 95% PER ASTM. D 1557 FOR A DEPTH OF 12" MOISTURE CONTENT IS TO BE  $\pm$  2.0%.
- BACK FILL AGAINST WALLS IS TO BE HAND-PLACED AND COMPACTED.
- ALL BARS ARE TO BE GRADE 60, ASTM 615.
- TRUSS TYPE DUR-O-WALL EVERY OTHER COURSE.
- DOWELS SHALL BE AT LEAST EQUAL IN SIZE AND SPACING TO V-BARS, SHALL PROJECT A MINIMUM OF 30 BAR DIA. INTO THE FILLED BLOCK CORES, AND SHALL EXTEND TO THE TOE OF THE FOOTING.
- PROVIDE KEY FOR 8" AND 12" WALLS WHERE H EXCEEDS 6'-0".
- USE EITHER EXPANSION JOINTS ON 20' CENTERS OR PILASTERS EVERY 16'.
- BOND BEAM, 1-#4 BARS FOR WALLS UNDER 3'-4", 2-#4 BARS FOR WALLS UNDER 5'-4", 2-#5 BARS FOR WALLS OVER 5'-4".

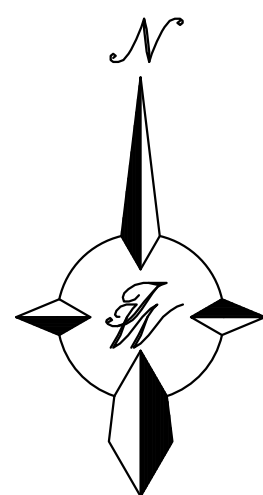
<div>ENGINEER'S SEAL</div> <div></div> <div>RONALD R. BOHANNAN P.E. #7868</div>	MULTI-USE RECREATIONAL FACILITY, ALBUQUERQUE, NM		DRAWN BY BF
	RETAINING WALLS		DATE 10-30-17
	 TIERRA WEST, LLC 5571 MIDWAY PARK PLACE NE ALBUQUERQUE, NM 87109 (505) 858-3100 www.tierrawestllc.com		2017035_RETAINING WALLS
	1/25/2018		SHEET # <b>C8</b> JOB # 2017035



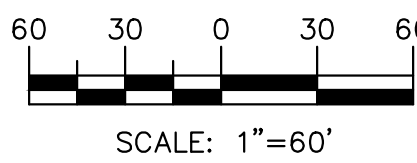
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LEGEND

- CURB & GUTTER
- BOUNDARY LINE
- EASEMENT
- BUILDING
- SIDEWALK
- RETAINING WALL
- EXISTING CURB & GUTTER
- STORM DRAIN LINE
- 6" SAS
- SANITARY SEWER LINE
- 3" WL
- WATER LINE
- 6" WL
- FIRE LINE
- EX. 18" SD
- EXISTING STORM DRAIN LINE
- STORM DRAIN MANHOLE
- EXISTING STORM DRAIN MANHOLE
- SANITARY SEWER MANHOLE
- EXISTING SANITARY SEWER MANHOLE
- DOUBLE CLEAN OUT
- EXISTING FIRE HYDRANT
- EXISTING WATER VALVE
- EXISTING WATER METER
- EXISTING POWER POLE
- EXISTING GAS VALVE



GRAPHIC SCALE



**CAUTION:**  
ALL EXISTING UTILITIES SHOWN WERE OBTAINED FROM RESEARCH, AS-BUILTS, SURVEYS OR INFORMATION PROVIDED BY OTHERS. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONDUCT ALL NECESSARY FIELD INVESTIGATIONS PRIOR TO AND INCLUDING ANY EXCAVATION, TO DETERMINE THE ACTUAL LOCATION OF UTILITIES AND OTHER IMPROVEMENTS, PRIOR TO STARTING THE WORK. ANY CHANGES FROM THIS PLAN SHALL BE COORDINATED WITH AND APPROVED BY THE ENGINEER.

**NOTE:**  
ALL PUBLIC STORM SEWER TO BE CONSTRUCTED UNDER COA WORK ORDER PERMIT

Label	Start Node	Stop Node	Length (Unified) (ft)	Total Flow (ft <sup>3</sup> /s)	Rise (Unified) (in)	Capacity (Full Flow) (ft <sup>3</sup> /s)	Velocity (Average) (ft/s)	Invert (Upstream) (ft)	Invert (Downstream) (ft)	Slope (ft/ft)	Elevation Ground (Start) (ft)	Hydraulic Grade Line (In) (ft)	Elevation Ground (Stop) (ft)	Hydraulic Grade Line (Out) (ft)
CO-1	CB-1	MH-1	12.9	11.5	18	47.71	22.21	5,082.47	5,080.90	0.122	5,086.43	5,083.76	5,084.44	5,081.65
CO-2	MH-1	MH-2	104.7	11.5	18	44.56	21.15	5,069.05	5,057.90	0.106	5,084.44	5,070.34	5,065.94	5,059.90
CO-3	CB-2	MH-2	119.7	1.45	18	13.09	4.88	5,059.00	5,057.90	0.009	5,063.47	5,059.90	5,065.94	5,059.90
CO-4	MH-2	MH-3	250	12.95	18	23.51	13.63	5,057.90	5,050.49	0.03	5,065.94	5,059.25	5,062.05	5,052.30
CO-5	MH-3	MH-4	110.6	12.95	18	20.49	12.26	5,050.49	5,048.00	0.023	5,062.05	5,051.84	5,062.93	5,048.90
CO-6	MH-4	MH-5	101.4	12.95	18	23.4	7.33	5,037.93	5,032.90	0.05	5,062.93	5,043.47	5,041.99	5,041.93
CO-7	MH-5	MH-6	126.2	12.95	18	3.86	7.33	5,032.90	5,032.73	0.001	5,041.99	5,041.51	5,041.01	5,039.60
CO-8	MH-6	MH-7	90.8	12.95	18	8.54	7.33	5,032.73	5,032.13	0.007	5,041.01	5,039.26	5,040.50	5,037.88
CO-9	MH-7	MH-8	90.8	12.95	18	8.25	7.33	5,032.13	5,031.57	0.006	5,040.50	5,037.55	5,039.73	5,036.17
CO-10	MH-8	MH-9	57.9	26.17	24	21.85	8.33	5,031.57	5,031.03	0.009	5,039.73	5,035.52	5,039.90	5,034.75
CO-11	MH-9	MH-10	225.2	65.81	42	73.75	6.84	5,030.55	5,029.34	0.005	5,039.90	5,034.24	5,040.83	5,033.27
CO-12	MH-10	MH-11	182.9	65.81	42	73.27	6.84	5,029.34	5,028.37	0.005	5,040.83	5,032.91	5,041.67	5,032.13
CO-13	MH-11	MH-12	43.7	65.81	42	93.87	10.56	5,028.37	5,027.99	0.009	5,041.67	5,031.67	5,040.22	5,031.53
CO-14	MH-12	MH-13	250.6	65.81	42	69.33	8.2	5,027.99	5,026.80	0.005	5,040.22	5,031.01	5,038.69	5,030.19
CO-15	MH-13	MH-14	156.4	65.81	42	89.23	10.14	5,026.80	5,025.57	0.008	5,038.69	5,029.73	5,035.00	5,029.28
CO-16	MH-14	OF-1	45	65.81	36	416.75	43.04	5,025.57	5,008.00	0.39	5,035.00	5,028.17	5,035.00	5,008.99
CO-17	CB-3	CB-4	34.5	13.21	18	21.01	12.56	5,036.29	5,034.91	0.04	5,039.40	5,037.65	5,039.32	5,037.07
CO-18	CB-4	MH-9	13	26.43	24	115.48	29.8	5,034.41	5,031.03	0.261	5,039.32	5,036.21	5,039.90	5,034.75
CO-19	CB-5	MH-8	38.8	13.22	18	7.36	7.48	5,034.54	5,034.35	0.005	5,039.60	5,036.78	5,039.73	5,036.17
CO-20	CB-6	MH-9	25.7	13.21	18	7.47	7.48	5,034.13	5,034.00	0.005	5,039.33	5,035.85	5,039.90	5,035.36



MULTI-USE RECREATIONAL FACILITY, ALBUQUERQUE, NM

STORM DRAIN PLAN

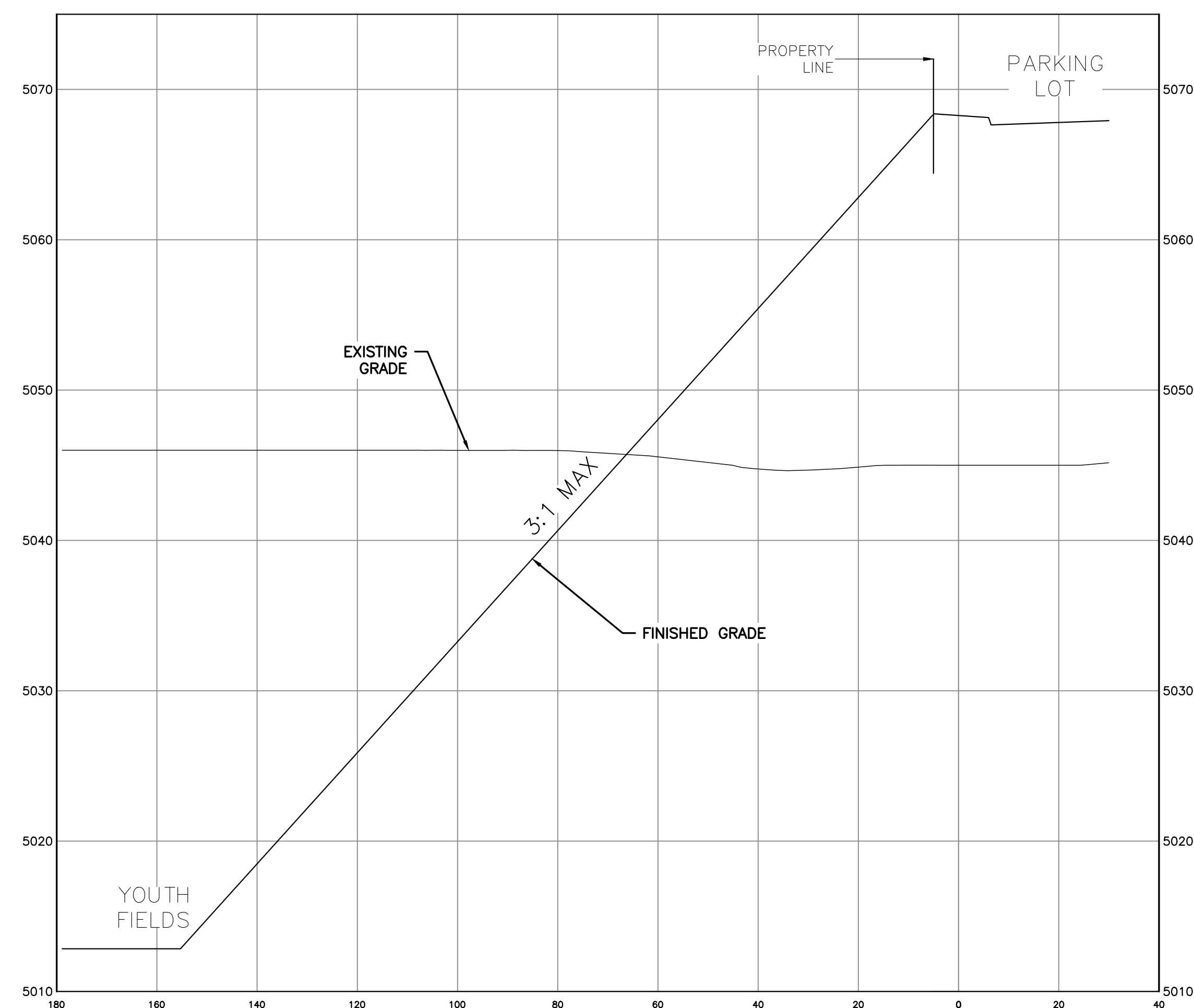
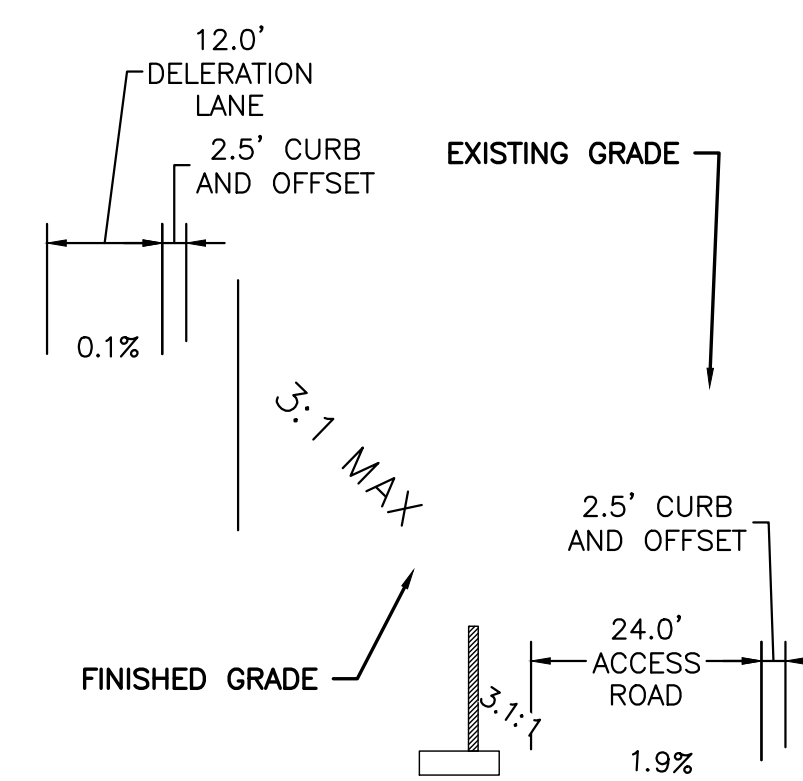
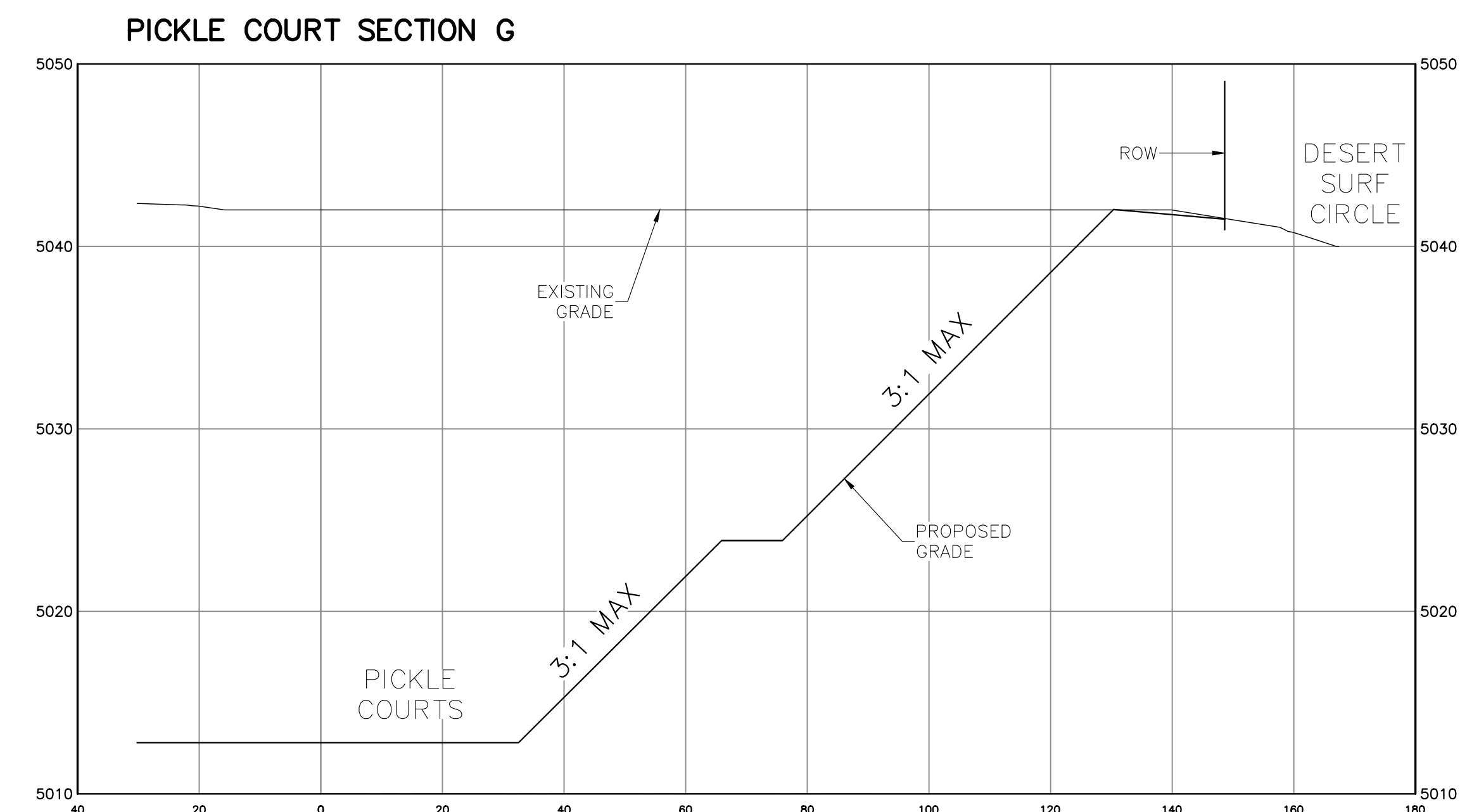
**TERRA WEST, LLC**  
5571 MIDWAY PARK PLACE NE  
ALBUQUERQUE, NM 87109  
(505) 858-3100  
www.terrawestllc.com

DRAWN BY  
BF  
DATE  
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**C9**

JOB #  
2017035







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### CAUTION

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### BMP MAINTENANCE:

ALL MEASURES STATED IN THIS EROSION AND SEDIMENT CONTROL PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR UNTIL FINAL STABILIZATION OF THE SITE IS ACHIEVED. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSPECTED AT THE END OF THE WORKDAY BY A QUALIFIED MEMBER OF THE SWPPP COMPLIANCE TEAM.

THE OPERATOR WITH CONTROL OF THE SITES DAILY ACTIVITIES IS RESPONSIBLE TO MAINTAIN, CLEAN AND REPAIR EROSION CONTROLS IN ACCORDANCE WITH THE FOLLOWING:

1. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED, IF THEY SHOW SIGNS OF UNDERMINING OR DETERIORATION. SEDIMENT SHALL BE REMOVED TO INSURE PROPER FLOWS. INLET PROTECTION TYPES MAY NEED TO BE MODIFIED DURING THE CONSTRUCTION PROGRESS.
2. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND OF VEGETATION IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED, AND RE-SEEDED AS NEEDED.
3. SILT FENCES, WADDLES OR OTHER CONTROLS SHALL BE REPLACED OR REPAIRED TO PROPER FUNCTIONING CONDITION, IF DAMAGED. SEDIMENT AND SOIL SHALL BE REMOVED WHEN REACHES ONE-HALF THE HEIGHT OF THE CONTROL.
4. THE CONSTRUCTION EXITS SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OF SEDIMENT ONTO PUBLIC OR PRIVATE ROADWAYS. THIS MAY REQUIRE PERIODIC TOP DRESSING, EXTENDING OR OTHERMODIFICATIONS TO THE CONSTRUCTION EXITS AS CONDITIONS DEMAND. SITE TRAFFIC SHOULD BE LIMITED TO THE CONTROLLED EXITS ONLY.
5. SEDIMENTATION BASINS SHALL BE MAINTAINED IN OPERATIONAL CONDITIONS AT ALL TIMES. SEDIMENT SHALL BE REMOVED FROM SEDIMENT BASINS OR TRAPS WHEN THE DESIGN CAPACITY HAS BEEN REDUCED BY 50%.
6. REFERENCE THE SWPPP BOOK FOR ALL EROSION CONTROL MAINTENANCE PROCEDURES AND FREQUENCIES. CONSULT THE SWPPP PREPARER WITH ANY QUESTIONS REGARDING THIS SWPPP AND ITS REQUIREMENTS.

### EROSION CONTROL NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT FROM THE LOCAL JURISDICTIONAL AUTHORITY PRIOR TO BEGINNING WORK.
2. THE OPERATOR WITH CONTROL OF THE DAILY SITES ACTIVITIES IS RESPONSIBLE FOR MAINTAINING RUN-OFF and RUN ON OF SITE DURING CONSTRUCTION.
3. THE OPERATOR WITH CONTROL OF THE DAILY SITES ACTIVITIES IS RESPONSIBLE FOR CLEANING ALL SEDIMENT THAT GETS INTO EXISTING RIGHT-OF-WAY. REPAIR OF DAMAGED FACILITIES AND CLEANUP OF SEDIMENT ACCUMULATIONS ON ADJACENT PROPERTIES AND IN PUBLIC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
4. ALL EXPOSED EARTH SURFACES MUST HAVE APPROPRIATE CONTROLS TO PROTECT FROM WIND AND WATER EROSION DURING ALL PHASES OF THE PROJECT.
5. STOCKPILES INACTIVE FOR 14 DAYS ARE REQUIRED TO HAVE TEMPORARY STABILIZATION OR APPROPRIATE COVER TO CONTROL WIND AND WATER EROSION.
6. THE OPERATOR WITH CONTROL OF THE DAILY SITES ACTIVITIES IS REQUIRED TO MAINTAIN ALL SITE BMP'S IN GOOD CONDITION FOR THE DURATION OF THE PROJECT UNTIL A NOTICE OF TERMINATION IS ACCEPTED BY THE EPA.
7. IF SITE EARTH DISTURBANCES EXCEED 5 ACRES AT ANY ONE TIME, TEMPORARY AND/OR PERMANENT STABILIZATION MUST BE COMPLETED WITHIN 7 DAYS WHEN AREA BECOMES INACTIVE OR EARTH DISTURBING ACTIVITIES ARE COMPLETE. SITE EARTH DISTURBANCES OF LESS THAN 5 ACRES, HAVE 14 DAYS TO PROVIDE TEMPORARY OR PERMANENT STABILIZATION WHEN AREA BECOMES INACTIVE OR EARTH DISTURBING ACTIVITIES ARE COMPLETE.

- EROSION NOTES

TPS

TPS TEMPORARY PARKING AND STORAGE

---

LIMITS OF DISTURBANCE

---

WATTLE
- EROSION DETAILS

CE

CE TEMPORARY STONE CONSTRUCTION EXIT

ST

ST TEMPORARY SILT FENCE

ST

ST TEMPORARY SEDIMENT TRAP

SS

SS SWPPP SIGN

W

W WATTLE-REFERENCE EC-2 FOR SPACING

IP

IP INLET PROTECTION-REFERENCE EC-2 FOR TYPE

- GENERAL EROSION NOTES:

A. THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IS COMPRISED OF THE SWPPP BOOK, THE 2017 GENERAL CONSTRUCTION PERMIT, THIS DRAWING (TEMPORARY EROSION CONTROL AND SEDIMENTATION PLAN"), STANDARD DETAILS (TEMPORARY EROSION CONTROL AND SEDIMENTATION DETAILS"), EPA NOTICE OF INTENT PERMIT AND ALL SUBSEQUENT REPORTS, CORRECTIVE ACTIONS AND EROSION CONTROL RELATED DOCUMENTS.

B. ALL OPERATORS AS DESIGNATED, CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH SITE ACTIVITIES RELATED TO STORM WATER POLLUTION PREVENTION SHALL REVIEW A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP), THE 2017 CONSTRUCTION GENERAL PERMIT, THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES), THE CLEAN WATER ACT OF 1972 AND BECOME FAMILIAR WITH THEIR CONTENTS.

C. THE OPERATOR IN CONTROL OF DAILY SITE ACTIVITIES SHALL IMPLEMENT BEST MANAGEMENT PRACTICES AS REQUIRED BY THE SWPPP. ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS DICTATED BY CONDITIONS THAT MAY OCCUR AT NO ADDITIONAL COST TO PROJECT OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.

D. BEST MANAGEMENT PRACTICES (BMP'S) AND CONTROLS SHALL CONFORM TO ALL FEDERAL, STATE, OR LOCAL REQUIREMENTS OR MANUAL OF PRACTICE, AS APPLICABLE. OPERATOR WITH CONTROL OF DAILY SITE ACTIVITIES SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY PERMITTING AGENCY, LOCAL JURISDICTIONAL AUTHORITY OR SWPPP COMPLIANCE INSPECTOR.

E. THE TEMPORARY EROSION CONTROL AND SEDIMENTATION PLAN IS A WORKING DOCUMENT AND IS REQUIRED TO BE UPDATED WITHIN 24 HOURS OF ANY CHANGES WHEN BMP'S ARE REPAIRED, RELOCATED OR REMOVED BY NOTING ON THE PLAN THE AREAS AND DATES OF THE REPAIRS, RELOCATIONS OR REMOVALS. AN ACTIVE COPY OF THE PLAN SHALL BE POSTED IN THE JOB SITE TRAILER ONSITE AND MUST BE MAINTAINED CURRENT AT ALL TIMES.

F. CONTRACTOR SHALL MINIMIZE CLEARING AND EARTH DISTURBANCE TO THE MAXIMUM ACREAGE AS REQUIRED BY THE EPA CONSTRUCTION GENERAL PERMIT.

G. CONTRACTOR SHALL DENOTE ON THIS PLAN, THE LOCATION OF TEMPORARY PARKING, STORAGE, PORTABLE SANITARY FACILITIES, OFFICE TRAILERS, AND ALL SUPPORT AREAS. RELOCATIONS OF EACH SHALL ALSO BE DOCUMENTED AS THEY OCCUR.

H. ALL WASH OUT WATER USED FOR CONCRETE, MASONRY, PAINT AND OTHER MATERIALS SHALL HAVE ADEQUATE SIGNAGE WITH PROPER CONTAINMENT AND DISPOSED OF PROPERLY WHEN CAPACITY REACHES 50% OR PER VENDOR RECOMMENDATIONS. VENDORS AND TRADESMEN SHALL BE INFORMED OF THE REQUIREMENTS TO USE THE WASH OUT.

I. A SPILL KIT SHALL BE READILY AVAILABLE TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS. A DISCHARGE OF ANY MATERIAL IN A QUANTITY THAT MAY WITHIN REASONABLE PROBABILITY CAUSE, INJURE OR BE DETRIMENTAL TO HUMAN HEALTH, ANIMAL OR PLANT LIFE, OR PROPERTY, OR INTERFERE WITH THE PUBLIC WELFARE, MUST BE REPORTED TO THE NEW MEXICO ENVIRONMENTAL DEPARTMENT HOTLINE AT (505) 827-9329 FOR EMERGENCIES OR FOR NON EMERGENCIES AT (866)-428-6535. IF UNSURE IF THE SPILL IS OF A SIGNIFICANT QUANTITY, THE SPILL SHOULD BE REPORTED TO THE HOTLINE AND INFORMATION PROVIDED WITH DETAILS OF THE SPILL FOR FURTHER ACTIONS.

J. DUST DURING CONSTRUCTION OPERATIONS SHALL BE FREQUENTLY CONTROLLED BY WATER SUPPRESSION METHODS ONLY. EARTH DISTURBING OPERATIONS SHALL CEASE IF HIGH WINDS ABOVE 35 MPH ARE PRESENT. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS IS STRICTLY PROHIBITED. OTHER CHEMICALS USED FOR DUST SUPPRESSION MUST BE APPROVED BY THE EPA PRIOR TO THEIR USE.

K. RUBBISH, TRASH, GARBAGE, LITTER, OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED, COVERED, LEAK PROOF CONTAINERS. CONTAINERS SHALL BE DISPOSED OF PROPERLY WHEN CAPACITY IS REACHED. MATERIALS SHALL BE PREVENTED FROM LEAVING THE PREMISES THROUGH THE ACTION OF WIND OR STORMWATER.

L. ALL STORM WATER POLLUTION PREVENTION MEASURES AND CONTROLS PRESENTED ON THIS PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE INITIATED PER THE SEQUENCE OF CONSTRUCTION AS NOTED.

M. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS BEEN TEMPORARILY SUSPENDED FOR 14 DAYS, SHALL HAVE TEMPORARILY STABILIZATION IN PLACE NO LATER THAN 14 DAYS FROM THE LAST DATE OF CONSTRUCTION ACTIVITY OCCURRING THESE AREAS.

N. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL HAVE PERMANENT CONTROLS IN PLACE NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS.

O. IF THE ACTION OF VEHICLES OR EQUIPMENTS TRAVELING OVER THE CONSTRUCTION ENTRANCES IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF DIRT OR MUD FROM LEAVING THE SITE, THEN THE LENGTH OF THE EXIT SHOULD BE EXTENDED TO PROVIDE ADDITIONAL TIRE ROTATIONS, LARGER ROCK MAY BE USED TO CREATE A SUFFICIENT JARRING MOTION OR INSTALL A TIRE WASH OFF WITH A SEDIMENT TRAP BEFORE LEAVING THE SITE.

P. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.

Q. THE OPERATOR IN CHARGE OF THE DAILY SITES ACTIVITIES WILL BE RESPONSIBLE FOR REMOVING SEDIMENT OR SOILS ACCUMULATING MORE THAN 50% OF THE DESIGN CAPACITY IN DETENTION PONDS, SILT FENCING OR OTHER SIMILAR EROSION CONTROLS.

R. ON-SITE & OFFSITE SOIL STOCKPILE AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGH IMPLEMENTATION OF BEST MANAGEMENT PRACTICES, AS REQUIRED PER THE CONSTRUCTION GENERAL PERMIT. STOCKPILE AND BORROW AREA LOCATIONS SHALL BE NOTED ON THE ESC PLAN AND PERMITTED IN ACCORDANCE WITH LOCAL AUTHORITIES HAVING JURISDICTIONAL CONTROL.

S. SLOPES SHALL BE LEFT WITH CROSS SLOPE GRADING PATTERN AND IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION RILLS. EXCESSIVE SLOPES MAY REQUIRE ADDITIONAL INDUSTRY STANDARD CONTROLS TO PREVENT EROSION.

T. DUE TO THE GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE OPERATOR IN CONTROL OF THE SITE'S DAILY ACTIVITIES SHALL BE RESPONSIBLE FOR ADJUSTING AND MAINTAINING ALL EROSION CONTROL TO PREVENT EROSION T.

U. ALL DISTURBED AREAS SHALL BE SUPPRESSED BY WATER AND ALL CONTROLS LEFT IN GOOD WORKING CONDITION AT THE END OF EACH WORKING DAY, THIS INCLUDES REPLACEMENT OF SILT FENCING AND/OR OTHER SURFACE CONTROLS, TRACK OUT SWEEP CLEAN, BACKFILL OF OPEN TRENCHES AND ANY OTHER EROSION CONTROLS.
- SEQUENCE OF CONSTRUCTION:

1. INSTALL STABILIZED CONSTRUCTION ENTRANCES.

2. POST PUBLIC NOTICE PER DETAIL

3. INSTALL DOWN GRADIENT PERIMETER CONTROLS.

4. INSTALL SEDIMENT CONTROLS AT INLETS AND DRAINAGE STRUCTURES.

5. INSTALL SEDIMENT TRAP BASINS INCLUDING EMERGENCY OVERFLOW.

6. NOTIFY SWPPP COMPLIANCE INSPECTOR OF COMPLETION OF THE ABOVE.

7. BEGIN GRUBBING AND SOIL DISTURBING ACTIVITIES.

8. PROVIDE POSITIVE GRADES TOWARDS SEDIMENT PONDS DURING SITE GRADING.

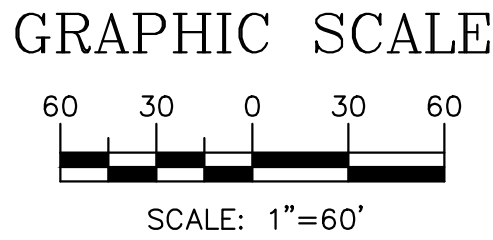
9. INSTALL INTERMEDIATE CONTROLS OF STEEP SLOPES.

10. PROVIDE TEMPORARY STABILIZATION OF DISTURBED AREAS OR STOCKPILES.

11. START CONSTRUCTION OF BUILDING PAD AND STRUCTURES.

12. FINISH GRADING THE SITE.

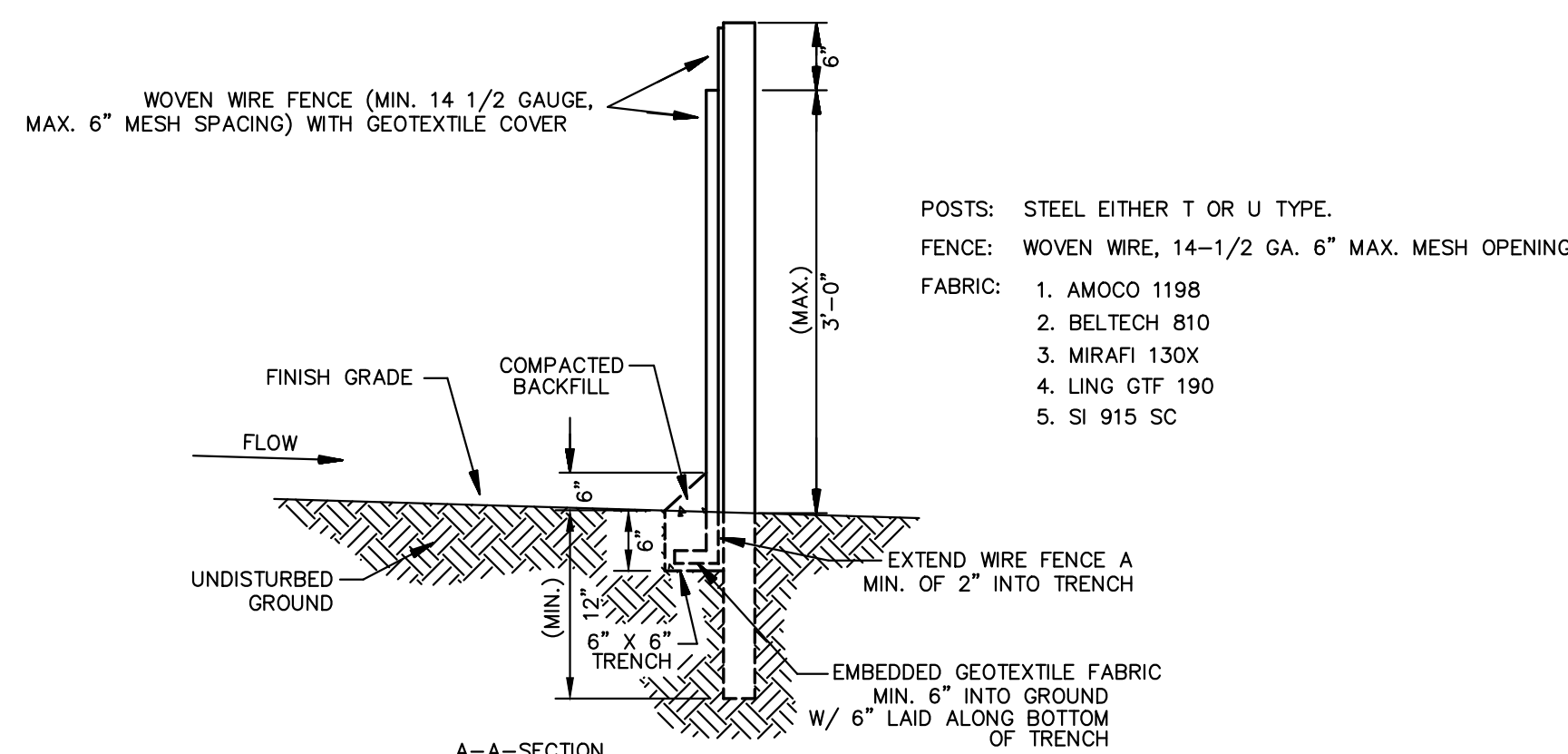
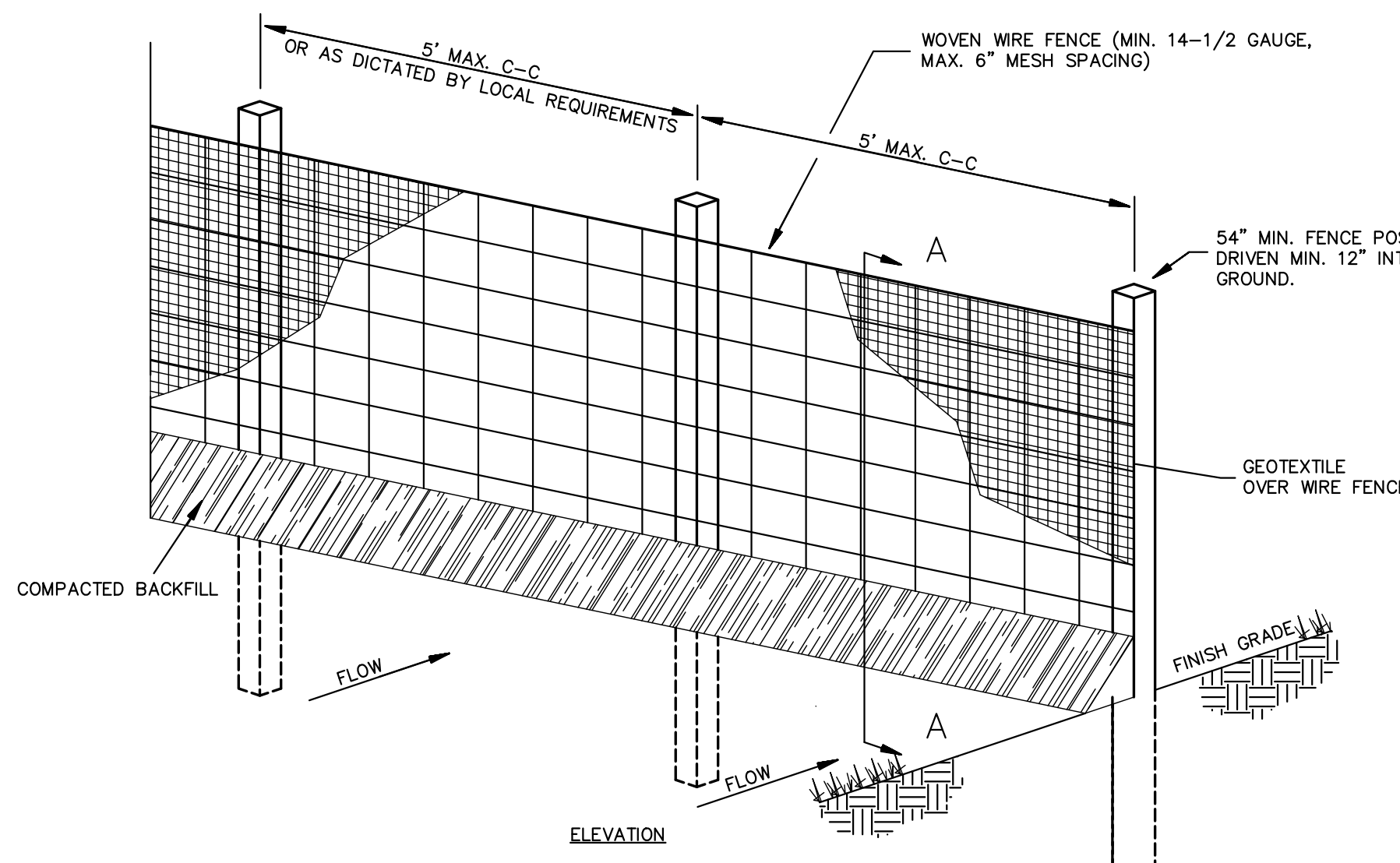
13. COMPLETE SITE FINAL STABILIZATION



ENGINEER'S SEAL	MULTI-USE RECREATIONAL FACILITY, ALBUQUERQUE, NM		DRAWN BY BF
   1/25/2018  RONALD R. BOHANNAN P.E. #7868	SWPPP PLAN		DATE 10-30-17
	 <i>TERRA WEST, LLC</i> 5571 MIDWAY PARK PLACE NE ALBUQUERQUE, NM 87109 (505) 858-3100 www.tierrowestllc.com		2017035 SWPPP PLAN
			SHEET # <b>EC-1</b>
			JOB # 2017035



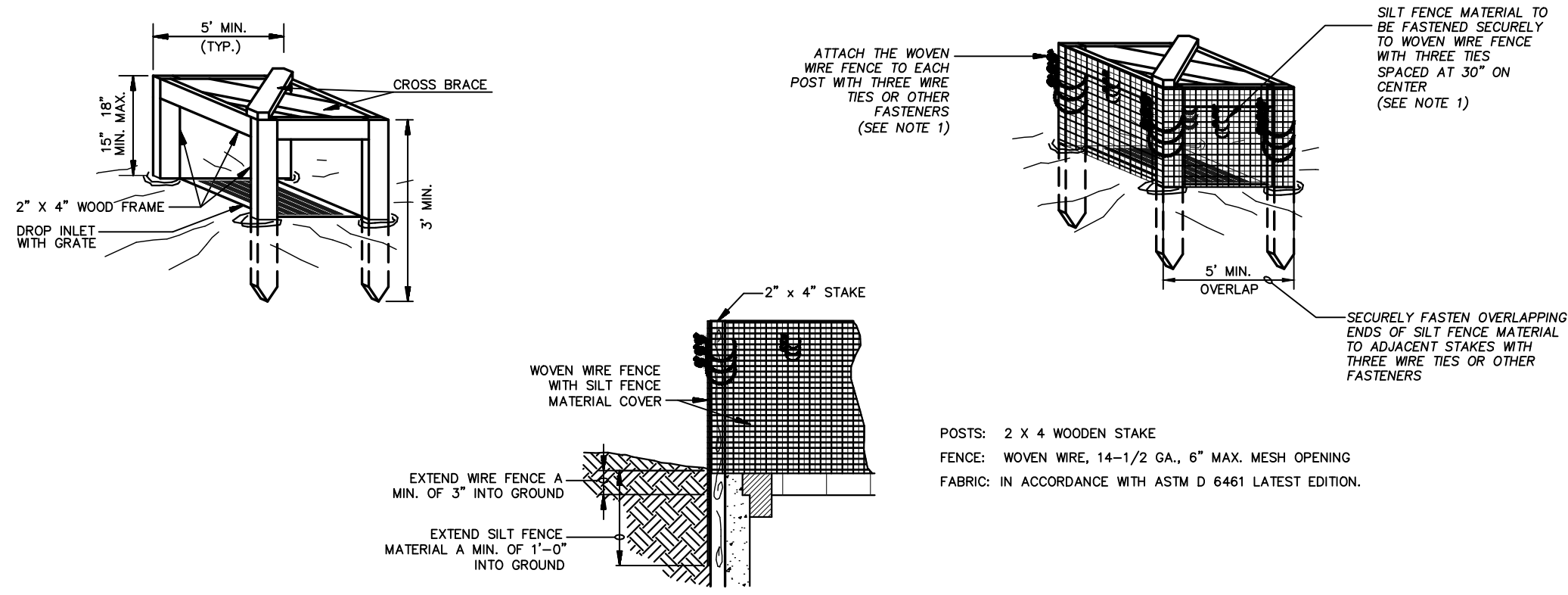
Z:\2017\2017035 Top Golf Albuquerque.dwg,DRB\2017035 SWPPP Plan.dwg, Feb 01, 2018 - 11:19am  
Z:\2017\2017035 Top Golf Albuquerque.dwg,DRB\2017035 SWPPP Plan.dwg, Feb 01, 2018 - 11:19am



1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES.
2. GEOTEXTILE TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
3. WHEN TWO SECTIONS OF GEOTEXTILE ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
4. MAINTENANCE SHALL BE PERFORMED AS NOTED IN THE EROSION CONTROL PLAN. COLLECTED MATERIAL SHALL BE REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.
5. ALL SILT FENCE SHALL INCLUDE WIRE SUPPORT UNLESS INDICATED OTHERWISE

### SEDIMENTATION/SILT FENCE WITH WIRE SUPPORT (SF)

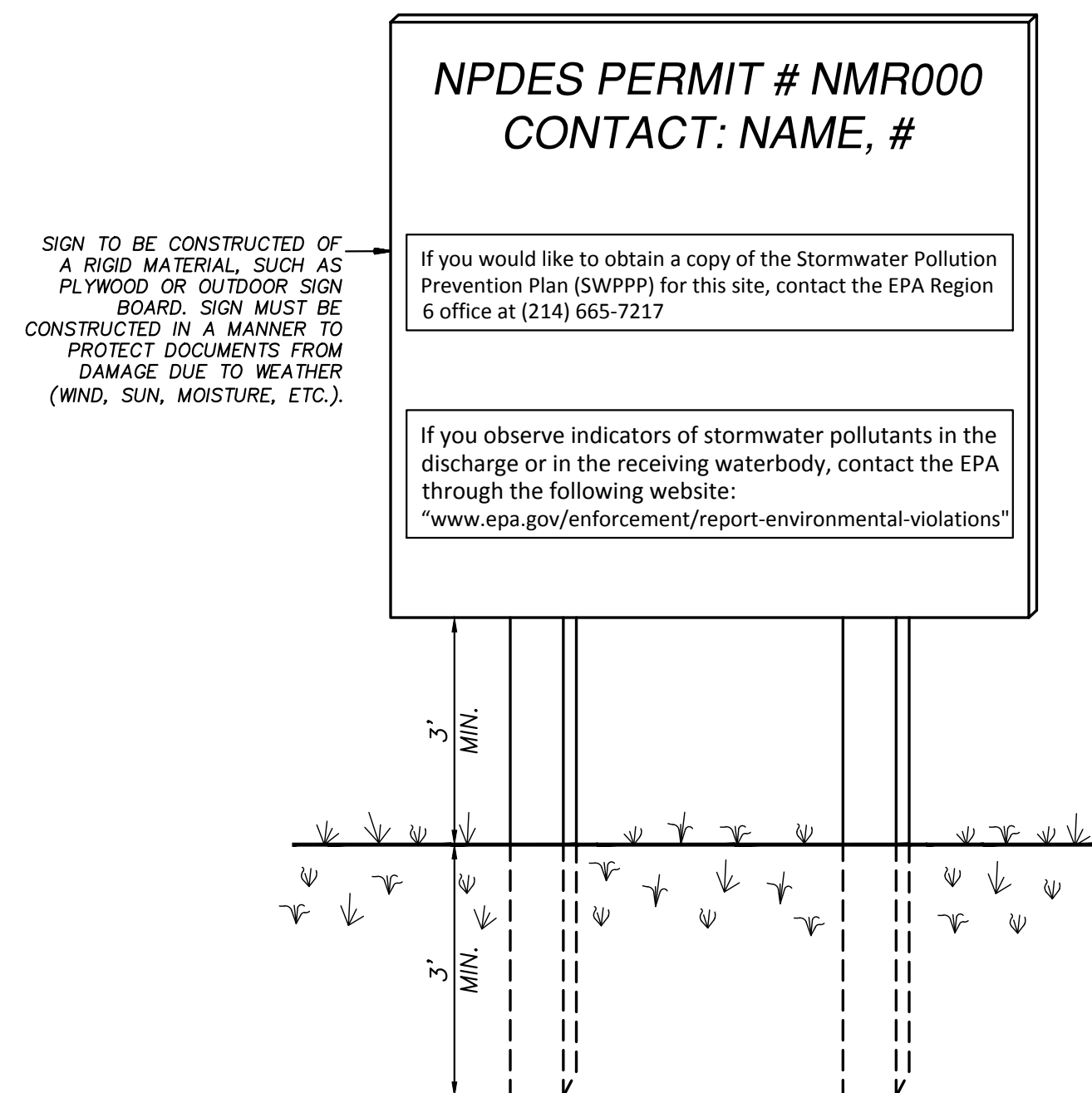
N.T.S.



1. ATTACH THE WOVEN WIRE FENCE TO EACH POST AND THE GEOTEXTILE TO THE WOVEN WIRE FENCE (SPACED EVERY 30") WITH THREE WIRE TIES OR OTHER FASTENERS, ALL SPACED WITHIN THE TOP 6" OF THE FABRIC. ATTACH EACH TIE DIAGONALLY AS DEPICTED THROUGH THE FABRIC, WITH EACH PUNCTURE AT LEAST 1" VERTICALLY APART.
2. WHEN TWO SECTIONS OF SILT FENCE MATERIAL ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED ACROSS TWO POSTS.
3. MAINTENANCE SHALL BE PERFORMED AS NOTED IN THE SWPPP. DEPTH OF ACCUMULATED SEDIMENTS MAY NOT EXCEED ONE-HALF THE HEIGHT OF THE FABRIC. MAINTENANCE CLEANOUT MUST BE CONDUCTED REGULARLY TO PREVENT ACCUMULATED SEDIMENTS FROM REACHING ONE-HALF THE HEIGHT OF THE SILT FENCE MATERIAL ABOVE GRADE.
4. ALL SILT FENCE INLETS SHALL INCLUDE WIRE SUPPORT.

### SILT FENCE INLET PROTECTION (IP6)

N.T.S.



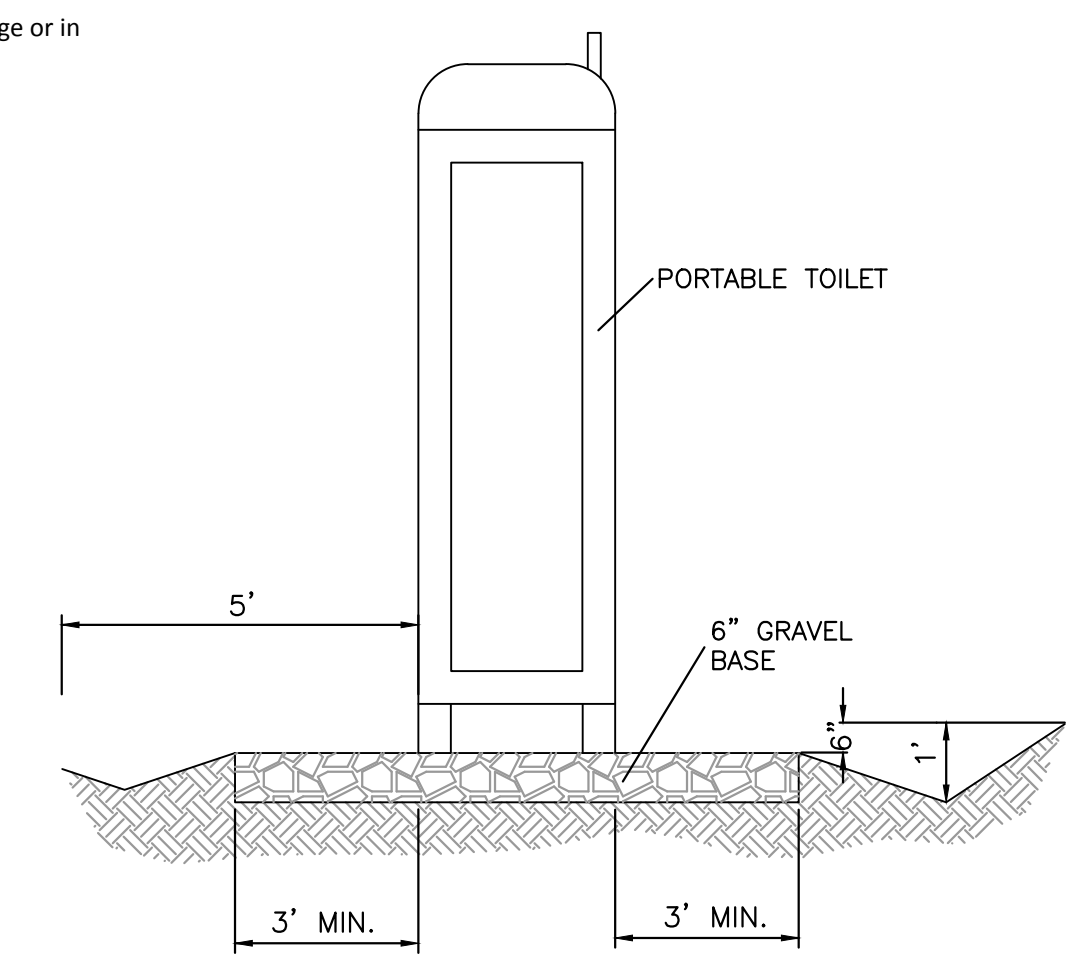
### SWPPP POSTING REQUIREMENTS:

You must post a sign or other notice of your permit coverage at a safe, publicly accessible location in close proximity to the construction site. The notice must be located so that it is visible from the public road that is nearest to the active part of the construction site, and it must use a font large enough to be readily viewed from a public right-of-way.

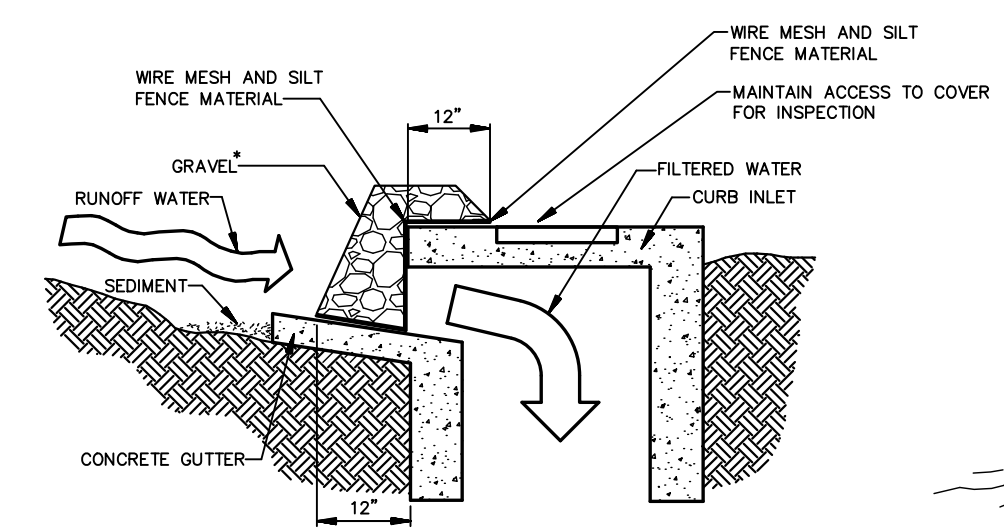
- At a minimum, the notice must include:
- 1) The NPDES ID (i.e., permit tracking numbers assigned to the project)
  - 2) A contact name and phone number for obtaining additional construction site information;
  - 3) A website where a copy of the SWPPP may be viewed or the following statement: "If you would like to obtain a copy of the Stormwater Pollution Prevention Plan (SWPPP) for this site, contact the EPA Region 6 office at (214) 665-7217" and;
  - 4) The following statement "If you observe indicators of stormwater pollutants in the discharge or in the receiving waterbody, contact the EPA through the following website: "www.epa.gov/enforcement/report-environmental-violations."

### SWPPP INFORMATION SIGN (SS)

NTS



### PORTABLE TOILET CONTAINMENT DETAIL

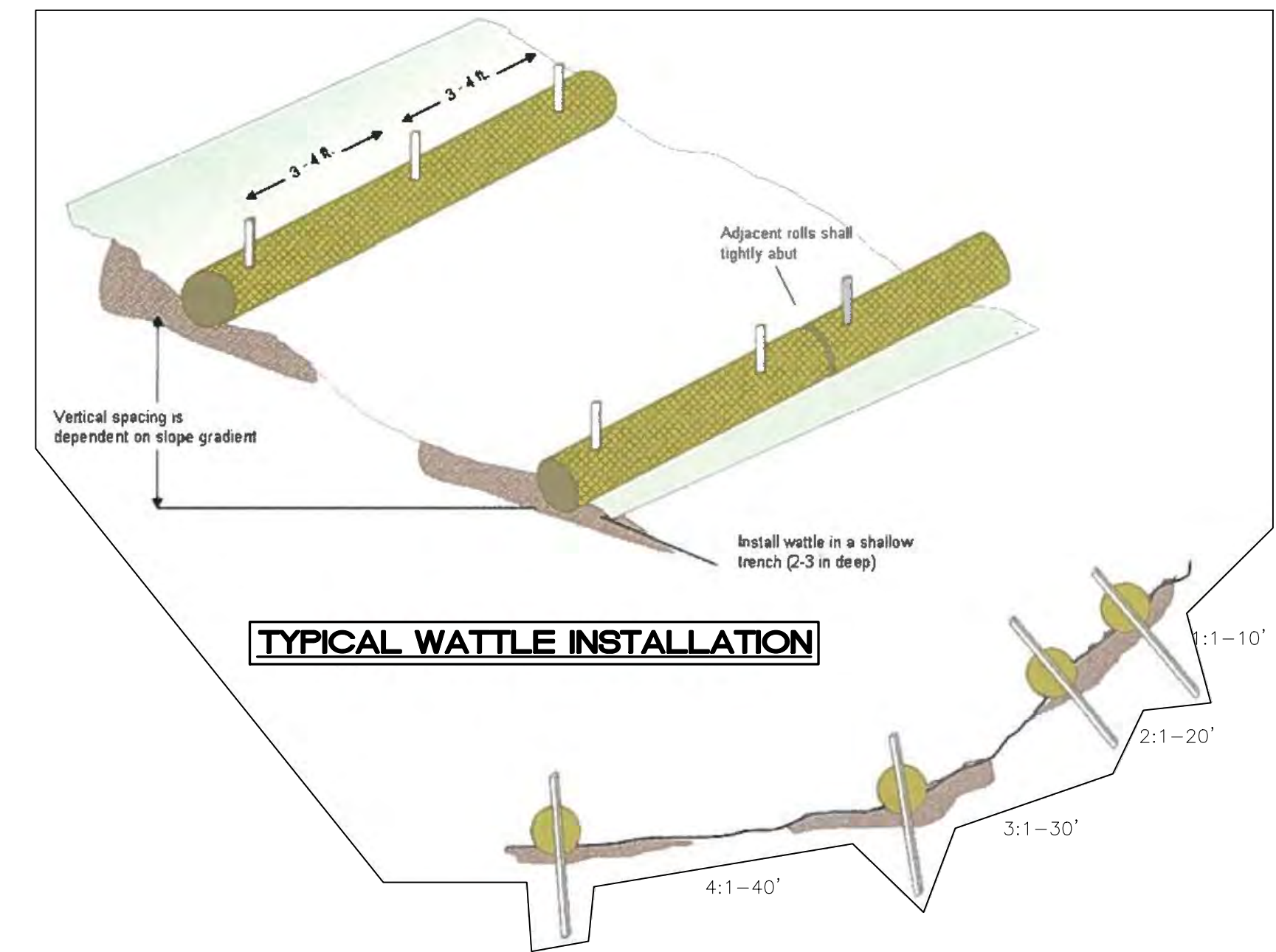


THIS METHOD OF INLET PROTECTION IS APPLICABLE AT CURB INLETS WHERE PONING IN FRONT OF THE STRUCTURE IS NOT LIKELY TO CAUSE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES AND UNPROTECTED AREAS.

\* GRAVEL SHALL BE 3/4"-2" ANGULAR CLEAN STONE

### GRAVEL CURB INLET SEDIMENT FILTER (IP5)

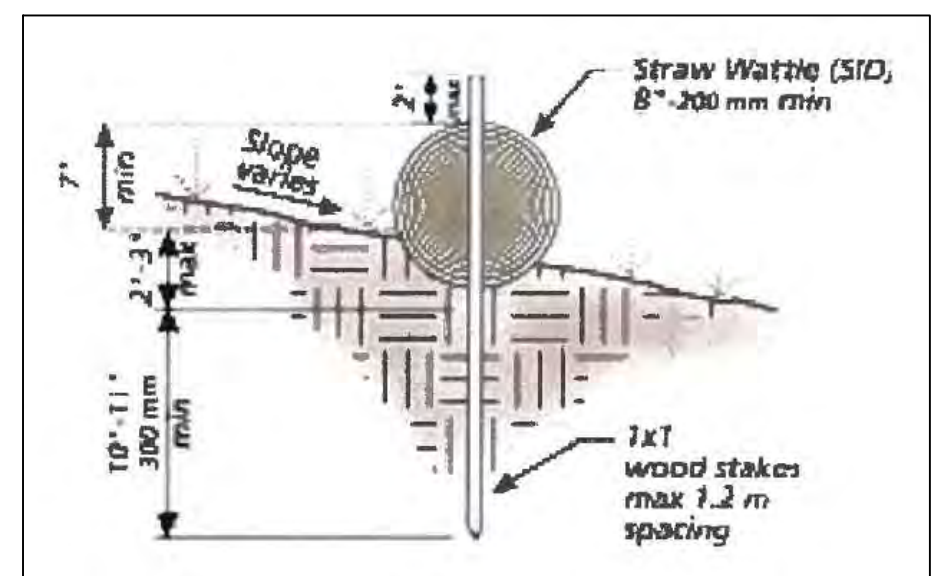
N.T.S.



### TYPICAL WATTLE INSTALLATION

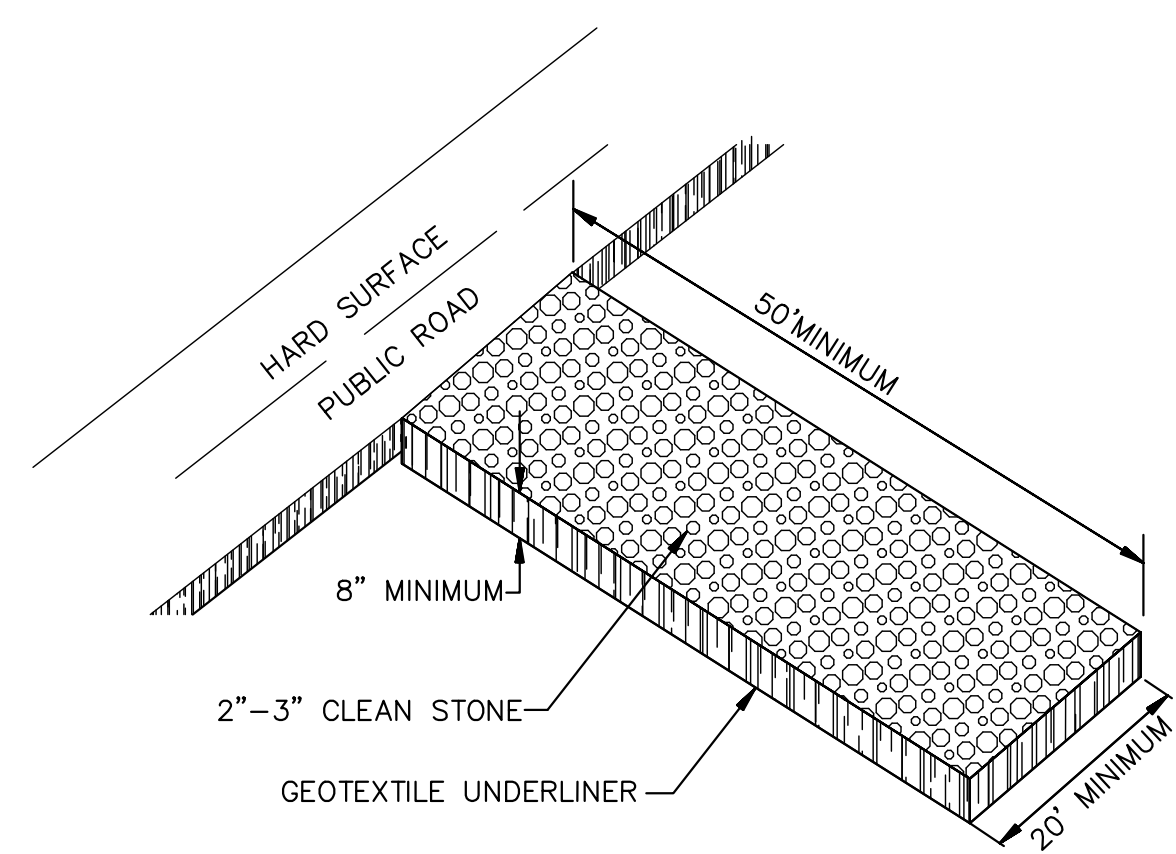
### TYPICAL WATTLE SPACING BASED ON SLOPE GRADIENT

N.T.S.



### ENTRENCHMENT DETAIL

N.T.S.



### CONSTRUCTION EXIT (CE)

N.T.S.

<div>ENGINEER'S SEAL</div> <div>RONALD R. BOHANNAN NEW MEXICO 7868 PROFESSIONAL ENGINEER</div> <div>1/25/2018</div> <div>RONALD R. BOHANNAN P.E. #7868</div>	MULTI-USE RECREATIONAL FACILITY, ALBUQUERQUE, NM	DRAWN BY BF
		DATE 10-30-17
	SWPPP NOTES & DETAILS	2017035 SWPPP PLAN
	<div>TERRA WEST, LLC</div> <div>5571 MIDWAY PARK PLACE NE ALBUQUERQUE, NM 87109 (505) 858-3100 www.tierrowestllc.com</div>	SHEET # <b>EC-2</b> JOB # 2017035