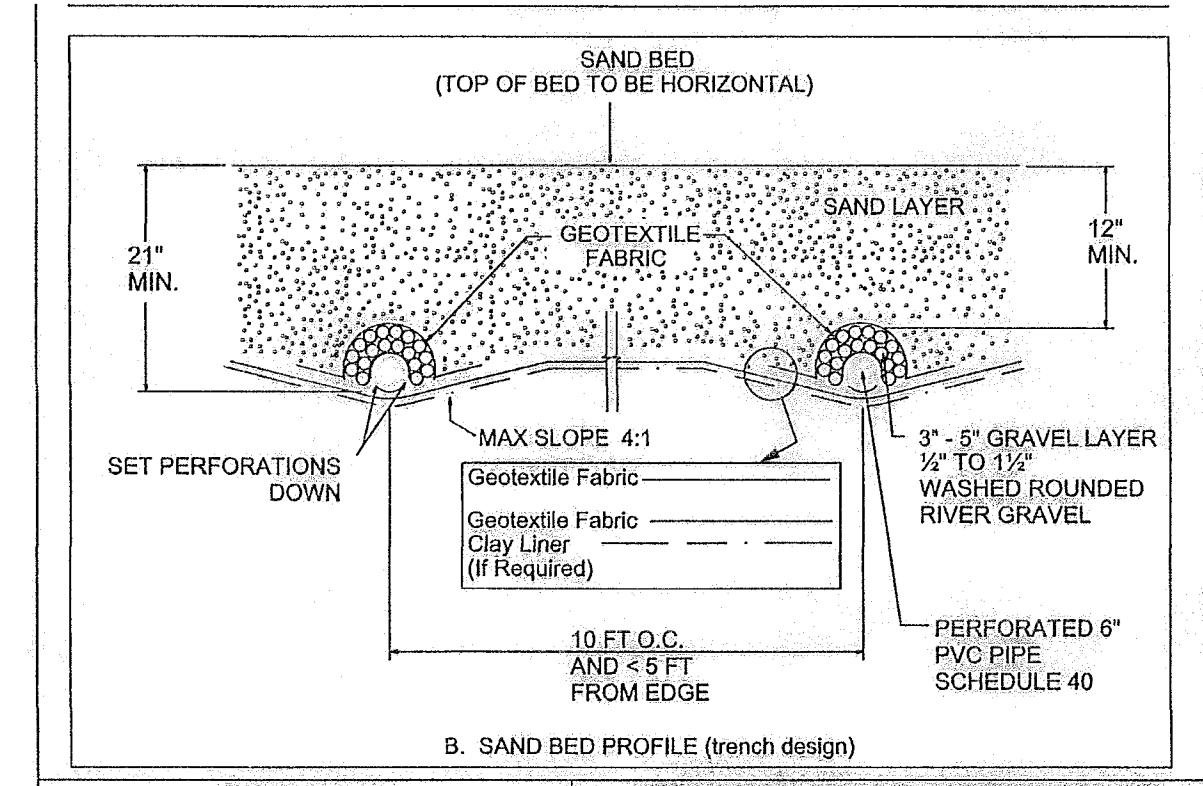


NOTES:

- ONE PARTIAL FILTRATION RAIN GARDEN IS PROPOSED AND THE DRAINAGE AREA TO THE RAIN GARDEN DOES NOT EXCEED 2 ACRES.
- THE RAIN GARDENS ARE SIZED PER APPENDIX R-11 AND THE R-11 TABLE CAN BE FOUND ON THE WATER QUALITY CALCULATIONS & DETAILS.
- RUNOFF SHEET FLOWS ARE OVER LAND AND OR ACROSS THE DRIVE AND ENTERS DIRECTLY INTO THE RAIN GARDENS OR VIA CURB CUTS IN THE ADJACENT CURB.
- RUNOFF IN EXCESS OF THE WATER QUALITY VOLUME EXITS THE RAIN GARDENS VIA A OR WEIR THAT FLOWS DIRECTLY INTO THE CREEK.
- BIOFILTRATION MEDIA MUST COMPLY WITH ECM 1.6.7.C.4:

PERCENT ORGANIC MATTER (BY WEIGHT)	=	0.5-5.0%
PERCENT SAND	=	70 - 90%
PERCENT CLAY	=	3-10%
PERCENT SILT PLUS CLAY	<	27%



CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT
 SAND BED FILTRATION CONFIGURATIONS NO LINER REQUIRED
 STANDARD NO. 661-2
 THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.
 P.E. 12/30/14 ADOPTED

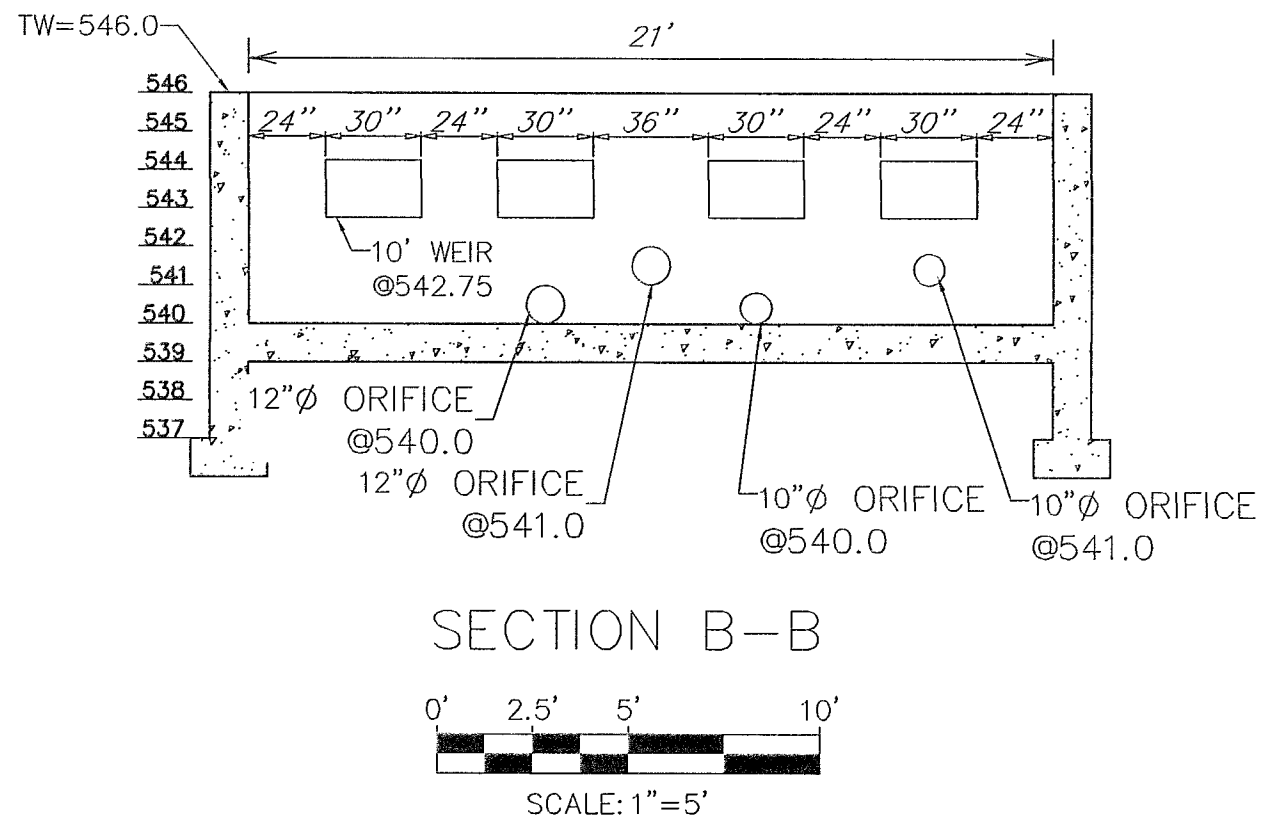
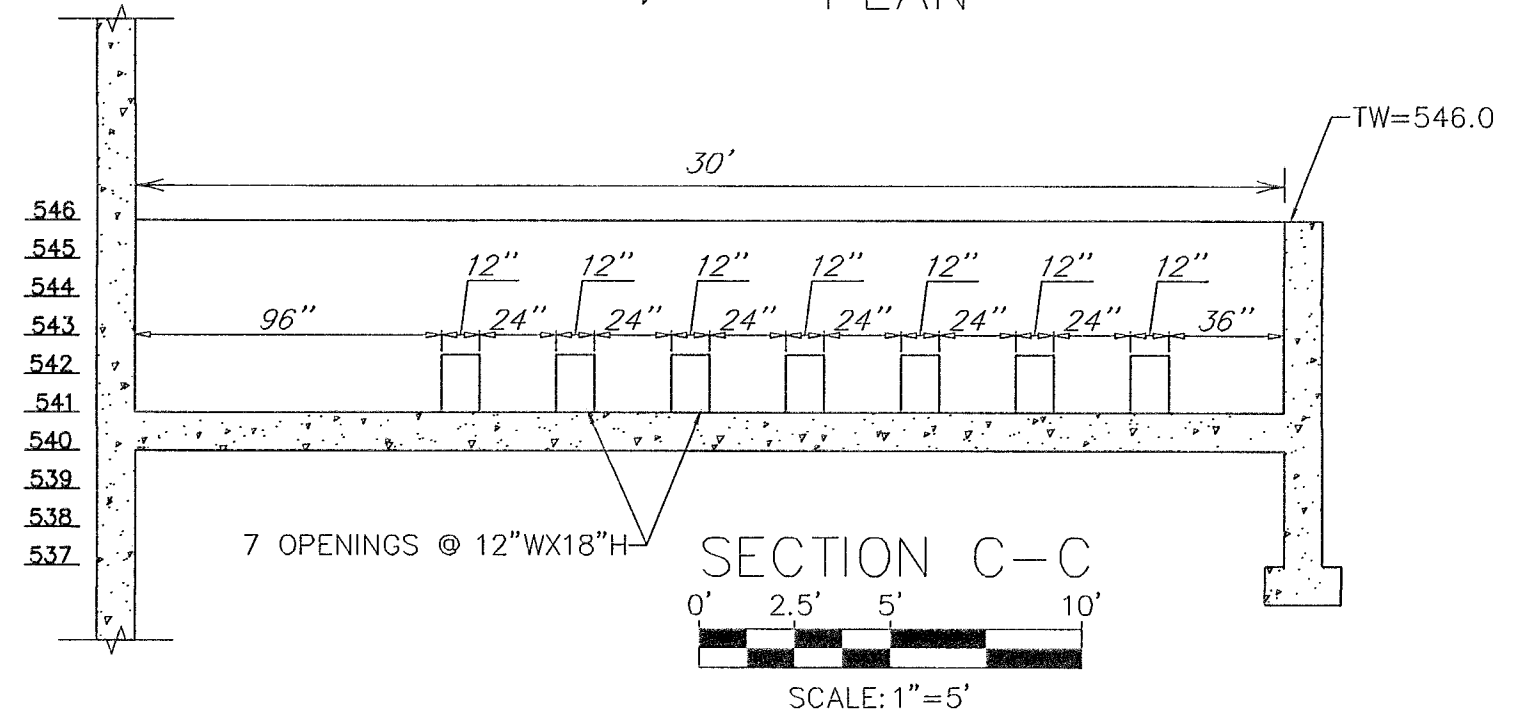
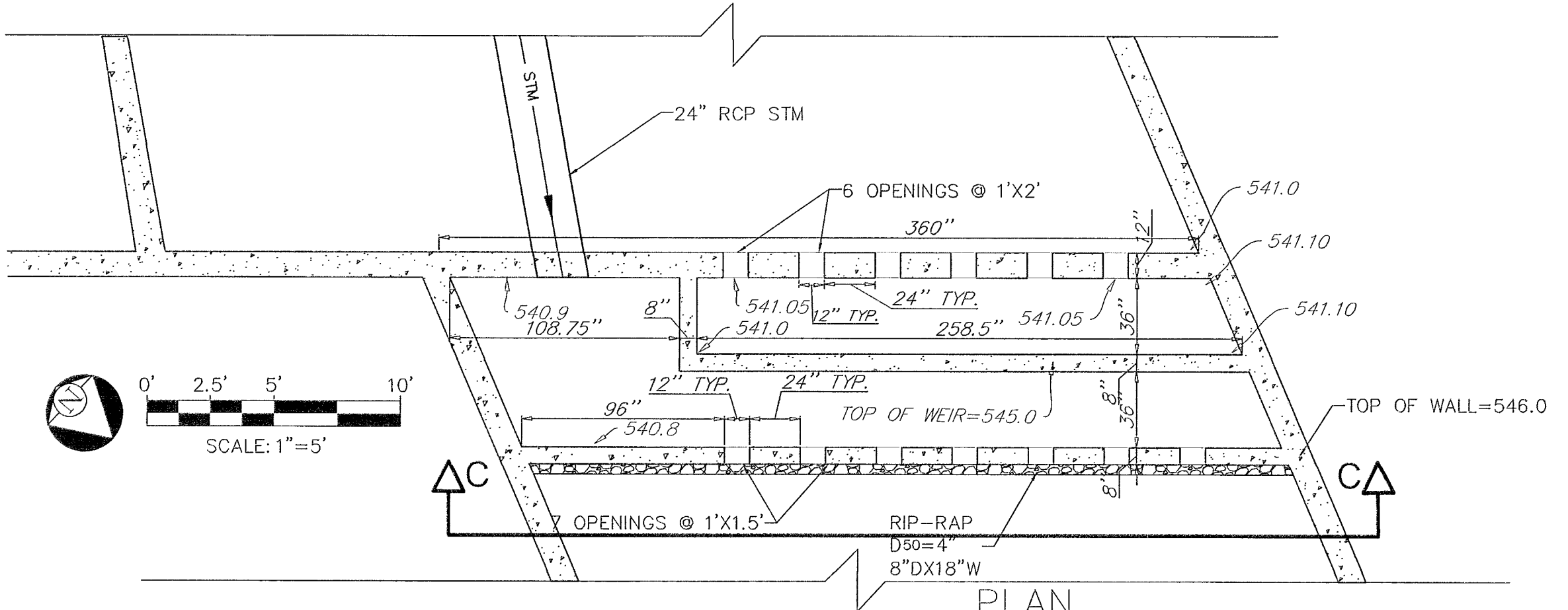
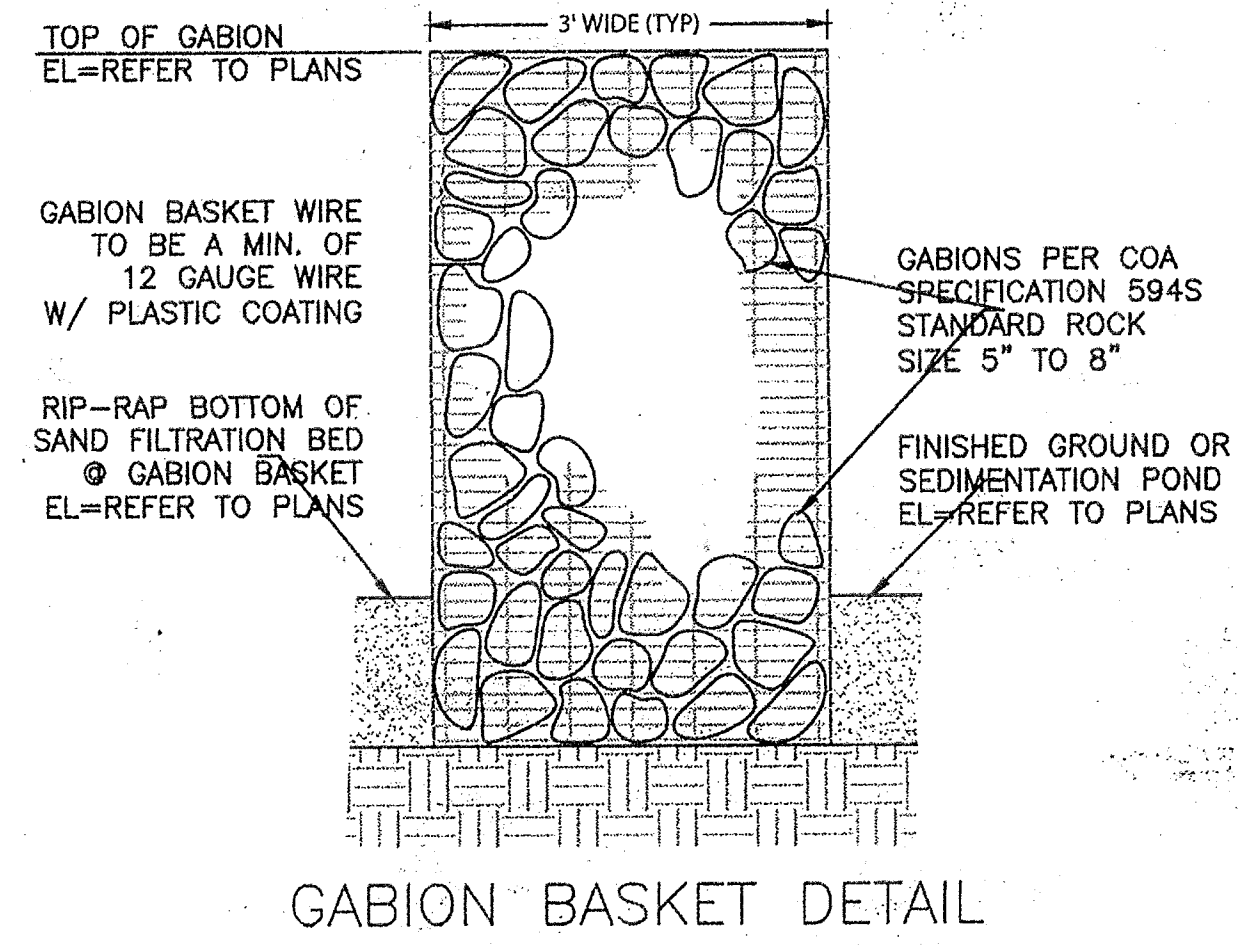
**APPENDIX R-3
 PARTIAL SEDIMENTATION/FILTRATION POND CALCULATIONS
 FOR DEVELOPMENT PERMITS**

DRAINAGE AREA DATA:			
Drainage Area to Control (DA)	2.81	ac.	
Drainage Area Impervious Cover	75.40%		
Capture Depth (CD)	1.054	in	
WATER QUALITY CONTROL CALCULATIONS:			
	Required		Provided
The Water Quality Control is to be PARTIAL SEDIMENTATION FILTRATION			
25-year Peak Flow Rate to Control (Q25)	≥ 18.90	cfs	79.94 cfs
100-year Peak Flow Rate to Control (Q100)	≥ 25.30	cfs	
Water Quality Volume (WQV=CD * DA* 3630)	10751	cf	10927 cf
Maximum Ponding Depth above Sand Bed (H)			5.00 ft
Sedimentation Pond Area			0 sf
Sedimentation Pond Volume (≥20%WQV)	≥ 2185	cf	3329 cf
Filtration Pond Area (WQV/(4 + 1.33*H))	≥ 1026	sf	1474 sf
Filtration Pond Volume			5896 cf
Water Quality Elevation			545.00 ft msl
Elevation of Splitter/Overflow Weir	≥ 545.00	ft msl	545.00 ft msl
Height of Gabion Wall	4.50	ft msl	544.50 ft msl
Gabion Wall under 6 ft (check)	≤ 6.00	ft (max)	4.50 ft
Length of Splitter Weir			24.00 ft
Required Head to Pass Q100	≤ 1.00	ft (max)	0.462 ft
Pond Freeboard Provided to Pass Q100	≥ 0.273	ft (min)	0.538 ft
48 Hour Drawdown Time Orifice Opening diameter (inches)			1.00 in
Drawdown Time COA Calc. Avg. Head (min 48 hrs)	≥ 48	hrs	51.70 hrs

(See Next Sheet for Storage Calculations)

Sedimentation pond		
Stage (ft msl) (Elevation)	Area (sf)	Storage Volume (cf)
540.10	0.00	0
541.00	965.00	434
542.00	965.00	1,399
543.00	965.00	2,364
544.00	965.00	3,329
545.00	965.00	4,294

Filtration Pond		
Stage (ft msl) (Elevation)	Area (sf)	Storage Volume (cf)
540.00	1,474.00	0
541.00	1,474.00	1,474
542.00	1,474.00	2,948
543.00	1,474.00	4,422
544.00	1,474.00	5,896
545.00	1,474.00	6,633



2C	02/25/19	CHANGE POND LAYOUT	
1C	09/13/18	REPLACE BUILDING, CHANGE TREE LIST	
NO.	DATE	REVISIONS	APPROVAL

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

BOULDIN CREEK COMMONS
 2043 S LAMAR BLVD, AUSTIN, TX 78704

WATER QUALITY PLAN

CIVILITUDE
 ENGINEERS & PLANNERS
 5110 LANCASTER COURT, AUSTIN, TX 78723 FIRM REG # F12469
 PHONE 512 761 6161 FAX 512 761 6167 INFO@CIVILITUDE.COM

SCALE: 1"=30'

JOB NO: A340
 DGN BY: JMS
 DWN BY: MAA
 RVW BY: JMS

STATE OF TEXAS
 JAMES W. SCHISSLER
 82472
 LICENSED PROFESSIONAL ENGINEER

SITE PLAN APPROVAL SHEET OF 31
 FILE NUMBER: SP-2016-0481C APPLICATION DATE: OCTOBER 14, 2016
 APPROVED BY COMMISSION ON UNDER SECTION 112 ON
 CHAPTER 25-5 OF THE CITY OF AUSTIN CODE CASE MANAGER
 EXPIRATION DATE (25-5-81, LDC) DWPZ DUZ
 PROJECT EXPIRATION DATE (ORD.#970905-A) DWPZ DUZ

Director, DEVELOPMENT SERVICES DEPARTMENT CS, CS-MU-CO,
 RELEASED FOR GENERAL COMPLIANCE: 2/10/19

Rev. 1 Correction 1
 Rev. 2 Correction 2
 Rev. 3 Correction 3

Final plot must be recorded by the Project Expiration Date. If applicable Subsequent Site Plans which do not comply with the Code current at the time of filing, and all required Building Permits and/or a notice of construction (if a Building permit is not required), must also be approved prior to the Project Expiration Date.

SHEET NO. 12 OF 31

BOULDIN CREEK COMMONS - 2043 S LAMAR BLVD, AUSTIN, TX 78704
 SP-2016-0481C