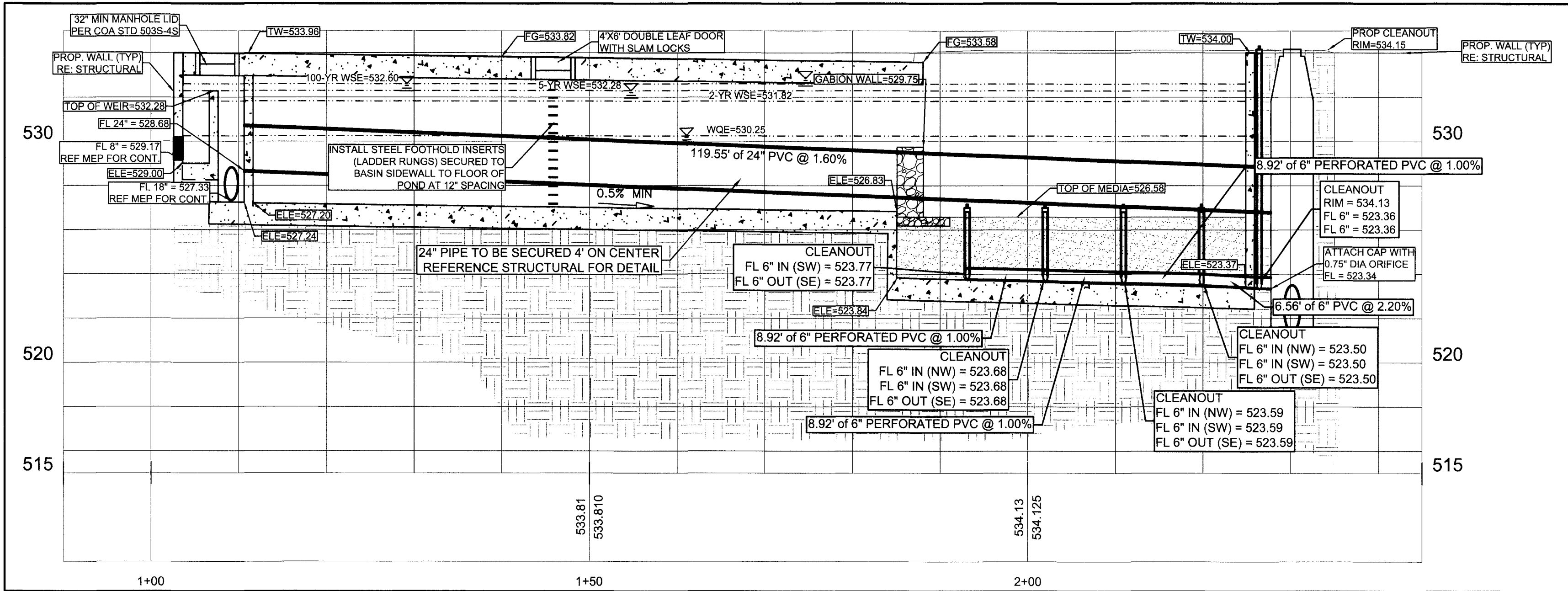
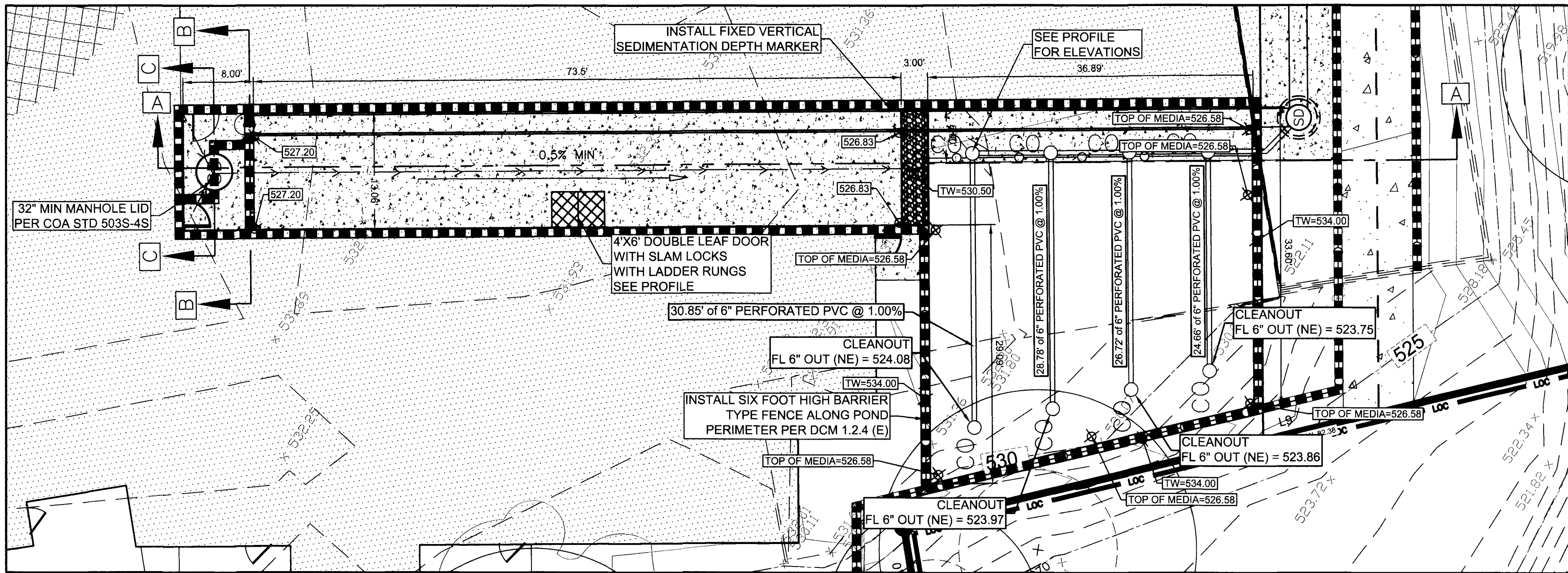


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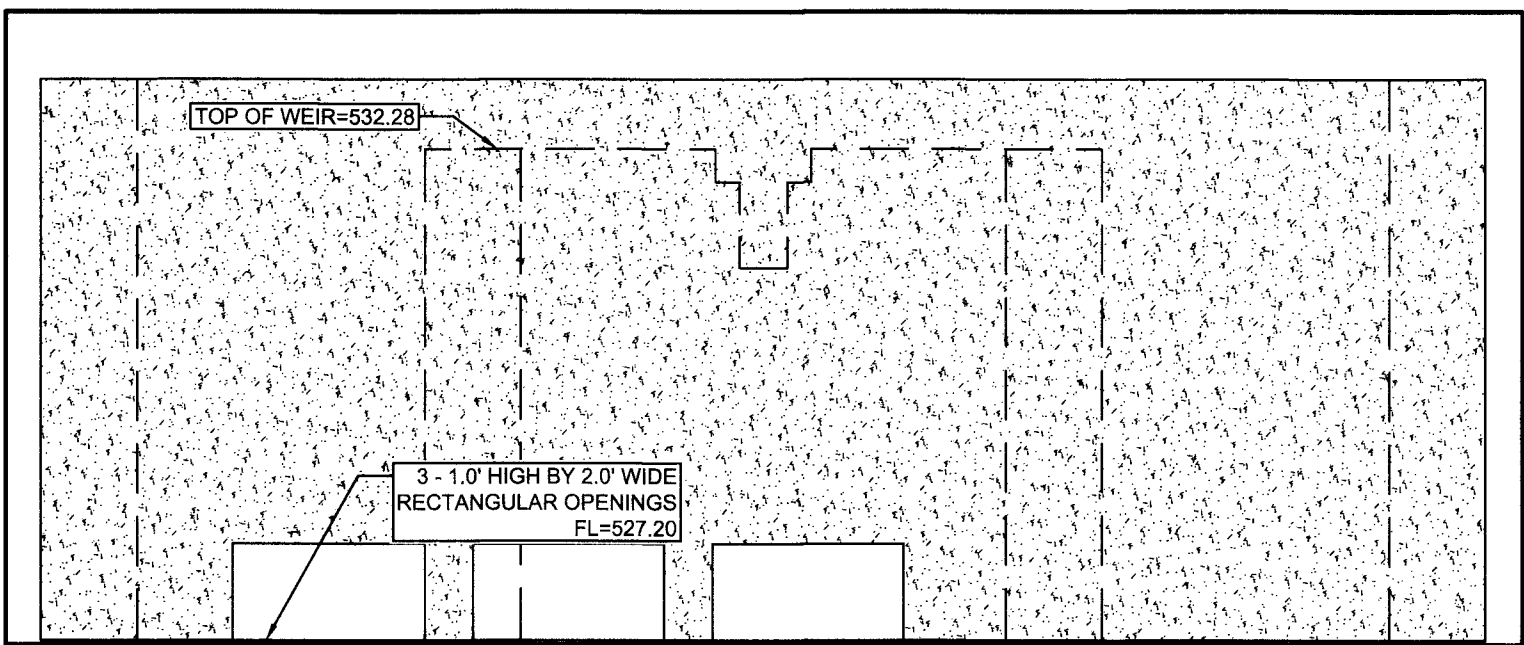
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C

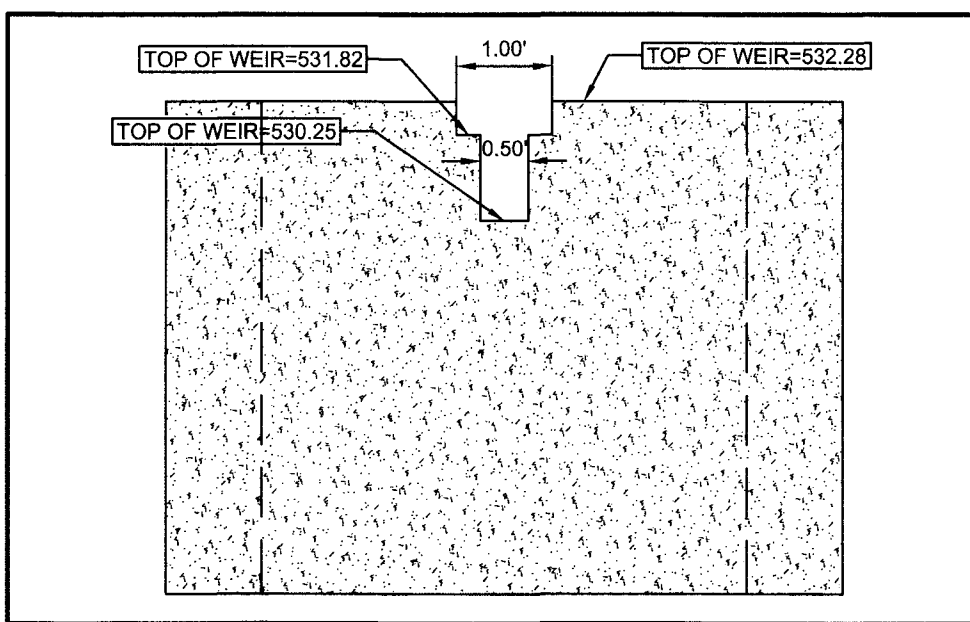
D



SEDIMENTATION/FILTRATION POND
SECTION A-A
HORIZONTAL SCALE: 1"=10'
VERTICAL SCALE: 1"=5'



SPLITTER BOX
SECTION B-B
N.T.S.



OUTFALL STRUCTURE
SECTION C-C
N.T.S.

LEGEND

BOUNDARY / RIGHT OF WAY

EASEMENT / SETBACK

CURB / EDGE OF PAVEMENT

OU

OVERHEAD UTILITY LINE

RETAINING / SCREEN WALL

EXIST. GRADE ELEVATIONS

XXXX

PROP. GRADE ELEVATIONS

EXIST. STORM DRAIN LINE

PROP. STORM DRAIN LINE

W

WATER LINE

WW

WASTEWATER LINE

DRAINAGE SWALE FLOW LINE

DIRECTION OF FLOW

###

TREE W/ TAG (TO REMAIN)

XXX.00

PROPOSED FINISHED GRADE

XXX.00

PROPOSED FINISHED GRADE

TC

TOP OF CURB ELEVATION

G

GUTTER ELEVATION

FL

FLOW LINE ELEVATION

HP

HIGH POINT ELEVATION

LP

LOW POINT ELEVATION

ME

MATCH EXISTING ELEVATION

PE

PAD ELEVATION

FF

FINISHED FLOOR ELEVATION

TW

TOP OF WALL ELEVATION

GW

FINISHED GRADE AT WALL

2%

2% MAXIMUM CROSS SLOPE FOR ACCESSIBLE ROUTE IN THIS AREA

- NOTES:
- REFERENCE "GRADING & DRAINAGE PLAN" SHEET(S) FOR CONTINUATION OF STORM DRAIN SYSTEM.
 - ALL ITEMS ARE TO BE FURNISHED & INSTALLED BY CONTRACTOR. REFERENCE CONSTRUCTION DETAILS SHEETS FOR ADDITIONAL INFORMATION.
 - ALL GRAVITY LINES ARE TO BE INSTALLED FROM DOWNSTREAM TO UPSTREAM.
 - LIMITS OF CONSTRUCTION ARE SHOWN ON THE "EROSION & SEDIMENTATION CONTROL PLAN" SHEET(S).
 - REFERENCE "WATER QUALITY & DETENTION POND DETAILS" SHEET FOR ADDITIONAL INFORMATION.
 - ALL POND BOTTOMS, SIDE SLOPES, AND EARTHEN EMBANKMENTS SHALL BE COMPACTED TO NINETY-FIVE (95) PERCENT MAXIMUM DENSITY, IN ACCORDANCE WITH CITY OF AUSTIN STANDARD SPECIFICATIONS.
 - THE TOPS OF ALL CLEANOUTS OTHER THAN THE ACCESSIBLE CLEANOUTS MUST BE FLUSH WITH THE TOP OF THE SAND/BIOFILTRATION BED.

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

Project Name: Austin South Lamar Apartments
Address: 1515 South Lamar Blvd, Austin, TX
Project No.: 0881.10.001
Date: July 18, 2019

DRAINAGE AREA DATA

Drainage Area to Control	1.58	68916
Drainage Area Impervious Cover (IC)	100.00 %	
Capture Depth (CD) = 0.5"H((IC-20)/10)*0.1	1.30 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)	10.97 cfs
100-year Peak Flow Rate to Control (Q100)	14.65 cfs

Water Quality Volume (WQV = CD*DA*3630)	7,466 cf	7,506 cf
Maximum Ponding Depth above Sand Bed (H)	3.67 ft	3.67 ft
Sedimentation Pond Area	775 sf	775 sf
Sedimentation Pond Volume (min. of 20% of WQV)	1,493 cf	2,603 cf
Filtration Pond Area [WQV/(4*1.33*H)]	841 sf	1,300 sf
Filtration Pond Volume		4,902 cf

Water Quality Elevation	530.25 ft msl
Elevation of Splitter/Overflow Weir	Min WQE ft msl 530.25 ft msl
Height of Gabion Wall	WQE - 0.5' ft msl 529.75 ft msl

Length of Weir	13.00 ft
Required Head to Pass Q100	Max. 1.0 ft
Pond Freeboard Provided to Pass Q100	Min. 0.25 ft
Top of Pond	533.17 ft
Drawdown Time	Min. 48 hr
Underdrain Orifice Size (Dia.)	0.75 in
Underdrain Orifice Size (Area)	0.44 sq in

Sedimentation Basin:

Stage (ft msl) *	Area (sf)	Storage (cf)
526.58	0.00	0.00
527.00	350.00	73.50
528.00	775.00	636.00
529.00	860.00	1,453.50
530.00	960.00	2,363.50
530.25	960.00	2,603.50

Filtration Basin:

Stage (ft msl) *	Area (sf)	Storage (cf)
526.58	1,300.00	0.00
527.58	1,300.00	1,300.00
528.58	1,300.00	2,600.00
529.00	1,390.00	3,164.90
530.00	1,390.00	4,554.90
530.25	1,390.00	4,902.40

KNOCKOUT CALCULATION

# of Knockouts	3
Knockout Area	2
Head to pass water	5.03
Max Flow (CFS)	64.8
Velocity (FPS)	1.83
Can Pass 25-YR Flow?	TRUE

DRAWDOWN CALCULATION

Surface Area	2,350.00
Orifice Coefficient	0.6
H ₁ (ft)	530.25
H ₂ (ft)	524.56
t(hr)	59.14
A ₀ (sf)	0.0031
Orifice Diameter (in.)	0.75

POND DETENTION ELEVATION STORAGE TABLE					
Stage (ft msl)	Depth (ft)	Area (sf)	Incr. Col (cf)	Storage (cf)	Notes
528.90	0.00	1,685.00	0.00	0.00	24-hr Drawdown
529.00	0.10	1,685.00	168.50	168.50	
530.00	1.10	2,290.00	1,987.50	2,156.00	
530.25	1.35	2,290.00	572.50	2,728.50	WQE
531.00	2.10	2,290.00	1,717.50	4,446.00	
531.82	2.92	2,290.00	1,877.80	6,323.80	2-yr WSE
532.00	3.10	2,290.00	412.20	6,736.00	
532.28	3.38	2,290.00	641.20	7,377.20	5-yr WSE
532.60	3.70	2,290.00	732.80	8,110.00	100-yr WSE
533.17	4.27	2,290.00	1,297.74	9,407.74	Top of Wall

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512.660.5560



AUSTIN SOUTH LAMAR APARTMENTS
1515 SOUTH LAMAR
AUSTIN, TRAVIS COUNTY, TEXAS

POND PLAN (PRIVATE)

SHEET
CG500
31 OF 87
SP-2018-0296C