TIMBERLINE DRIVE
DRAINAGE PLANS

4824 TIMBERLINE DR.

AUSTIN, TEXAS 78746

DRAINAGE PLANS FOR
4824 TIMBERLINE DR.

OWNER:

EEF CUSTOM HOMES & REMODELING LLC
3267 BEE CAVE RD #107-293
AUSTIN, TX 78746-6700

ENGINEER

LOC CONSULTANTS
FIRM NO. 4756
SERGIO LOZANO-SANCHEZ P.E.
1715 E 7TH STREET, AUSTIN, TX 78702
PHONE: (512) 524-0677

CIVIL DIVISION
LOC CONSULTANTS

VICINITY MAP
NOT TO SCALE

MAPSCO PAGE: 616A
GEOGRAPHIC ID: 0108111004

PROPERTY ID NUMBER: 107636
DEED NUMBER: 2019193999

INDEX OF DRAWINGS

LEGAL DESCRIPTION

LOT 4 BLK B TIMBERLINE TERRACE SEC 3

WATERSHED STATUS - THIS PROJECT IS LOCATED IN THE EANES CREEK WATERSHED.

THERE ARE NO SLOPES GREATER THAN 15%

THIS SITE IS WITHIN THE EDWARD'S AQUIFER RECHARGE ZONE ACCORDING TO CITY OF AUSTIN MAP AND TECQ.

NO PORTION OF THE SITE LIES WITHIN THE 100 YEAR FLOOD PLAIN, ACCORDING T0 THE FLOOD INSURANCE RATE MAP, PANEL NO.FM 48453C0445J, DATED JANUARY 6, 2016 FOR TRAVIS COUNTY, TEXAS.

THIS SITE IS COMPOSED OF 0.3471 ACRES OF LAND.

GENERAL CONSTRUCTION NOTES

1. ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAIN WITH THE ENGINEER WHO PREPARED THEM. IN REVIEWEING THESE PLANS, THE CITY OF ROLLINGWOOD MUST RELY ON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.
2. CONTRACTOR SHALL CALL THE ONE CALL SYSTEM (1-800-344-8377) FOR UTILITY LOCATIONS PRIOR TO ANY WORK IN CITY EASEMENTS OR STREET R.O.W.
3. FOR SLOPES OR TRENCHES GREATER THAN FIVE FEET IN DEPTH: ALL CONSTRUCTION OPERATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA STANDARDS MAY BE PURCHASED FROM OSHA, 611 EAST 6TH STREET, AUSTIN, TEXAS).
4. ALL SITE WORK MUST ALSO COMPLY WITH ENVIRONMENTAL REGULATIONS.
5. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TRAFFIC CONTROL PERMIT PRIOR TO CONSTRUCTION IN THE RIGHT-OF-WAY.

I CETIFY THAT THESE ENGINEERING DOCUMENTS ARE COMPLETE, ACCURATE AND ADEQUATE FOR THE INTENDED PURPOSES, INCLUDING CONSTRUCTION, BUT ARE NOT AUTHORIZED FOR CONSTRUCTION PRIOR TO FORMAL CITY APPROVAL. I DO HEREBY CERTIFY THAT THE ENGINEERING WORK BEING SUBMITTED HEREIN COMPLIES WITH ALL PROVISIONS OF THE TEXAS ENGINEERING PRACTICE ACT, I HEREBY ACKNOWLEDGE THAT ANY MISREPRESENTATION REGARDING THIS CERTIFICATION CONSTITUTES A VIOLATION OF THE ACT, AND MAY RESULT IN CRIMINAL, CIVIL AND/OR ADMINISTRATIVE PENALTIES AGAINST ME, AS AUTHORIZED BY THE ACT.

STATE OF TEXAS
Sergio N. Lozano-Sanchez
89158
LICENSED
PROFESSIONAL ENGINEER

SERGIO LOZANO - TEXAS P.E.

01/21/2020
DATE

REVIEWED BY:

CITY OF ROLLINGWOOD

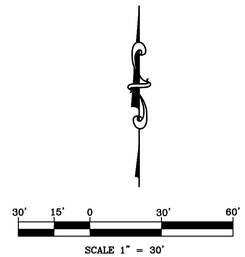
DATE

REVISIONS/CORRECTIONS

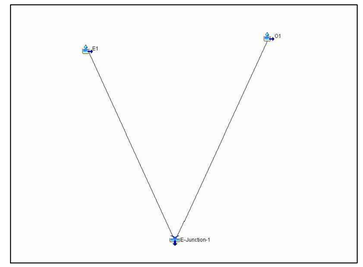
NO.	DESCRIPTION	REVISE(R) VOID(V) / ADD(A) SHEET NO.	TOTAL # SHEETS IN SET	NET CHANGE IMPERV. COVER	SITE IMPERV. COVER	% SITE IMPERV. COVER	CITY OF AUSTIN APPROVAL DATE	DATE IMAGED

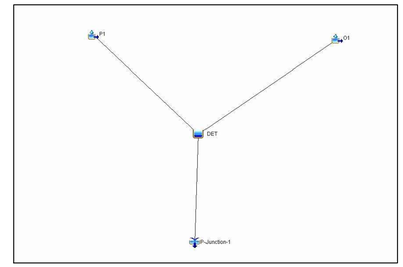
EXISTING DRAINAGE AREA MAP

PROPOSED DRAINAGE AREA MAP



HEC-HMS MODEL





Project Name: **Timberline Dr.**

HEC-HMS INPUTS

Drainage Area	Area (s.f.)	Area (sq. mi.)	Tc (hr)	Tlag (hr)	Imp. Cov. (s.f.)	Imp. Cov. (%)	Soil Type	Pervious Cover Type	Hydro. Cond.	Hydro Group	Imp. Cov. CN	Pervious CN	Weighted CN	Q2 (CFS)	Q10 (CFS)	Q25 (CFS)	Q100 (CFS)
EXISTING CONDITIONS																	
E1	14,991	0.00054	0.05	0.05	3,116	20.78%	UtD, UsC	Grassland	Good	D	98	61	68.69	0.90	1.80	2.40	3.30
O1	18,008	0.00065	0.02	0.05	7,905	43.90%	UtD, UsC	Grassland	Good	D	98	61	77.24	0.50	1.20	1.70	2.50
												E-JUNCTION1		1.30	3.00	4.10	5.80
PROPOSED CONDITIONS																	
P1	14,991	0.00054	0.08	0.05	5,704	38.05%	UtD, UsC	Grassland	Good	D	98	61	75.08	1.00	2.00	2.60	3.60
O1	18,008	0.00065	0.02	0.05	7,905	43.90%	UtD, UsC	Grassland	Good	D	98	61	77.24	0.70	1.40	1.90	2.70
												DET		1.30	2.80	3.60	5.70
												P-JUNCTION1		1.30	2.80	3.60	5.70

SOIL HYDROLOGIC GROUP (From Soil Survey of Travis County, Texas):

Tc: Calculated with TR-55

Tlag: Maximum of Tc x 0.60 or 5 minutes

TIME OF CONCENTRATION CALCULATIONS (SCS METHOD)

Project: Timberline Drive

Sheetflow Tt= {0.007 (L*n)^0.8) / {(P2^0.5) * (s^0.4)} Shallow Concentrated Tt=L/ (3600V) Vel=Q/A Q=(1.49/n)*A*(R^(2/3))*S^0.5

P2= 3.44 inches 2-year, 24 Hr rainfall Tt= L/Vel

Tt= Travel Time (hr) n= Manning's roughness coefficient Vel Paved surface = 20.3282 s^0.5 (1)

L = flow lebght (ft) s= slope of hydraulic grade line (land slope, ft/ft) Vel unpaved surface = 16.1345 s^0.5 (2)

V = average Velocity (ft/sec)

Tc=Tt1+Tt2+Tt3+Tt4+Tt5

	Sheetflow								Shallow Concentrated								Concentrated											Total
Area	L (ft)	n	s (%)	Tt1 (hr)	L (ft)	n	s (%)	Tt2 (hr)	L (ft)	Surface (1 OR 2)	s (%)	Tt3 (hr)	L (ft)	Surface (1 OR 2)	s (%)	Tt4 (hr)	Bottom (ft)	Depth (ft)	Width (ft)	s (%)	n	A (sq.ft)	R (ft)	P (ft)	Q (cfs)	Vel (ft/sec)	L ft	Tt5 (hr)	Tc (hr)
E1	100	0.10	6.10%	0.07					80	2	6.10%	0.0056																0.08
O1	100	0.02	8.40%	0.02					114	2	8.14%	0.0069																0.02
P1	100	0.10	6.10%	0.07					56	2	6.10%	0.0039																0.08

Project: 4824 Timberline Dr.
Date: 1/13/2020

IMPERVIOUS COVER CALCULATIONS

Site Area 14,988.62 SF

Existing

	SF	
Bldg	1,822.78	
Concrete	1,094.86	
Stone	80.46	
TOTAL	**2,998.10**	**20.0%**

Proposed

	SF	
Bldg	4,092.00	
Conc	940.14	
Wood Deck	1,075.09	537.545
TOTAL	**5,569.69**	**37.2%**

REVISIONS/CORRECTIONS

NO	DESCRIPTION

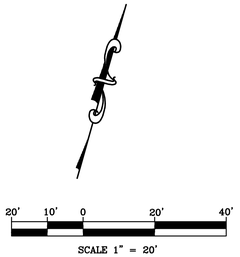
STATE OF TEXAS
Sergio N. Lozano-Sanchez
89158
LICENSED PROFESSIONAL ENGINEER
01/21/20

4824 TIMBERLINE DRIVE
AUSTIN, TEXAS 78746

DRAINAGE AREA MAP

LOC CONSULTANTS CIVIL DIVISION INC
FIRM 4756
1715 E 7TH STREET, AUSTIN TEXAS 78702
PHONE: (512) 524-0677 Email: Sergio@loccivil.com
Ph. (512) 524-0677
sergio@loccivil.com
1715 E. 7th Street
Austin, Texas 78702

SHEET: 2 OF 5



GENERAL SITE NOTES:

1. THE CONTRACTOR TO PROVIDE FINISHED GRADING AS SHOWN ON PLANS TO PROVIDE PROPER DRAINAGE OF SURFACE WATER AWAY FROM THE BUILDING(S).
2. FINAL LOCATION OF PROPOSED RESIDENCE SHALL BE DETERMINED BY THE CONTRACTOR.
3. THERE ARE NO STORM SEWER INLETS WITHIN THE LOT FRONTAGE OR 10' BEYOND THE SIDE PROPERTY LINES.
4. UTILITY LINE LOCATIONS ARE APPROXIMATE. THE CONTRACTOR SHALL FIELD VERIFY FOR EXACT LOCATIONS.
5. ANY EXISTING PAVEMENT, CURBS, AND/OR SIDEWALKS DAMAGED OR REMOVED WILL BE REPAIRED BY THE CONTRACTOR AT THE CONTRACTOR'S SOLE EXPENSE.
6. EROSION CONTROL BARRIERS SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF CONSTRUCTION.
7. STABILIZED TEMPORARY CONSTRUCTION ENTRANCE SHALL BE IN PLACE PRIOR TO COMMENCEMENT OF CONSTRUCTION UNLESS AN EXISTING IMPERVIOUS SURFACE OR DRIVEWAY IS BEING USED AS THE CONSTRUCTION SITE ENTRANCE.
8. ALL CONSTRUCTION MATERIALS AND WASTE SHALL BE STORED ONSITE DURING CONSTRUCTION.
9. LANDSCAPE PLANS TO BE PROVIDED BY OTHERS.
10. NO EXISTING TREES OR TREE LIMBS SHALL BE REMOVED OR DISTURBED WITHOUT OWNER APPROVAL.
11. CONTRACTOR SHALL CLEAN UP AREAS AFFECTED BY DAILY WORK AND REMOVE DEBRIS AND MATERIALS FROM THE SITE UPON COMPLETION OF THE WORK.
12. DISPOSAL OF SPOIL IS THE RESPONSIBILITY OF THE CONTRACTOR.
13. CONTRACTOR SHALL THOROUGHLY REVIEW PLANS AND ALL RELATED CONSTRUCTION DOCUMENTS TO VERIFY AND COORDINATE DIMENSIONS, LOCATIONS, ELEVATIONS, FLOW LINES, PLACEMENT AND APPLICABILITY OF CONSTRUCTION COMPONENTS AS WELL AS THEIR RELATIONSHIP TO EACH OTHER AND THE EXISTING CONDITIONS.
14. ANY DISCREPANCIES, CONFLICTS AND OMISSIONS THAT ARE CRITICAL TO THE BID SHALL BE ADDRESSED BY THE CONTRACTOR PRIOR TO HIS/HER BID, OR INCLUDED IN THE BID AS A PROPOSAL SOLUTION AND CHANGES TO DELIVER A COMPLETE PROJECT. ANY CHANGES AND ADDITIONAL WORKS REQUIRED TO CLARIFY DEISCREPANCIES, CONFLICTS, AND OMISSIONS THAT ARE NOT IDENTIFIED WITH THE BID ARE CONSIDERED NON-CRITICAL TO THE BID, AND SHALL BE COMPLETED AT NO ADDITIONAL COST TO THE OWNER.
15. CONTRACTOR SHALL BE COMPETENT AND EXPERIENCED IN THE TYPE OF CONSTRUCTION USED AND HAVE FULL KNOWLEDGE OF CONSTRUCTION METHODS AND PROCEDURES. CONTRACTOR SHALL COORDINATE ALL TRADES AND PROVIDE A COMPLETE PROJECT.
16. THESE DRAWINGS, IN GENERAL, ARE DIAGRAMMATIC, AND NOT INTENDED TO BE USED AS A MANUAL. FABRICATION, CONSTRUCTION METHODS, AND PLACEMENT SHALL COMPLY WITH STANDARD CONSTRUCTION PRACTICE AND APPLICABLE LOCAL CODE(S). IN THE ABSENCE OF THE LOCAL CODE, THE INTERNAL BUILDING CODE (LATEST EDITION) SHALL APPLY.
17. THE EXACT LOCATIONS OF STRUCTURES AND IMPROVEMENTS SHOWN ON ENGINEER'S PLANS ARE BASED ON THE ARCHITECTURAL SITE PLAN AND/OR OWNER'S PLAN. THE ARCHITECT AND THE CONTRACTOR, ARE RESPONSIBLE FOR VERIFYING ALL SITE RESTRICTIONS, SUCH AS BUILDING SETBACKS, RESTRICTIVE COVENANTS, PROPERTY LINES, AND HOMEOWNERS ASSOCIATIONS LIMITATIONS.
18. THE CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH OCCUR DUE TO THEIR FAILURE TO LOCATE AND PRESERVE ANY AND ALL UTILITIES.

Project: 4824 Timberline Dr.
Date: 1/13/2020

IMPERVIOUS COVER CALCULATIONS

Site Area 14,988.62 SF

Existing

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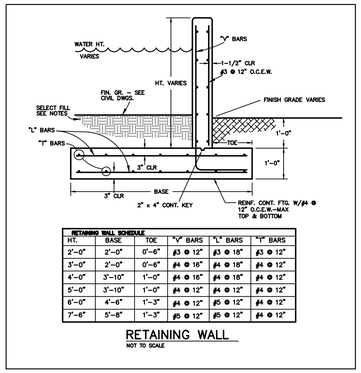

RETAINING WALL SCHEDULE				
HT.	BASE	TOE	"V" BARS	"L" BARS	"T" BARS
2'-0"	2'-0"	0'-6"	#3 @ 12"	#3 @ 18"	#3 @ 12"
3'-0"	2'-0"	0'-6"	#4 @ 16"	#4 @ 18"	#4 @ 12"
4'-0"	3'-10"	1'-0"	#4 @ 16"	#4 @ 18"	#4 @ 12"
5'-0"	3'-10"	1'-0"	#4 @ 12"	#4 @ 12"	#4 @ 12"
6'-0"	4'-6"	1'-3"	#4 @ 12"	#5 @ 12"	#4 @ 12"
7'-0"	5'-8"	1'-3"	#5 @ 12"	#5 @ 12"	#4 @ 12"

RETAINING WALL
NOT TO SCALE

Project Name:	Timberline Dr.															
	HEC-HMS INPUTS															
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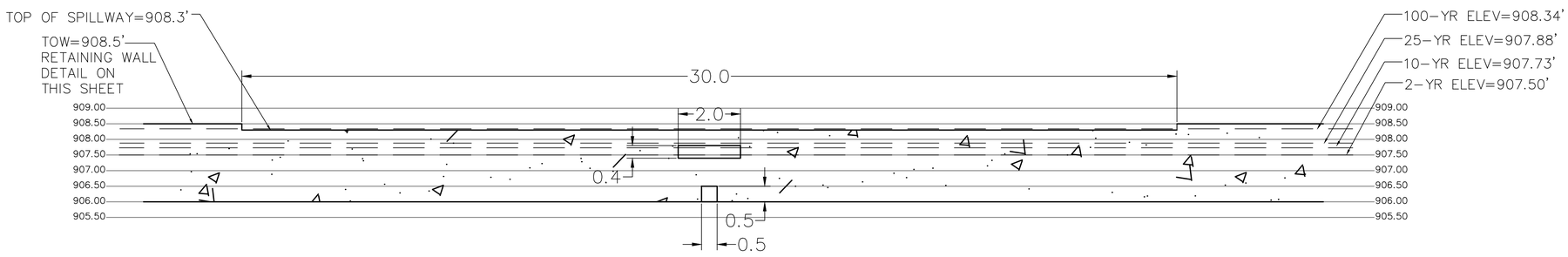
OUTLET STRUCTURE
SCALE 1"=2'



REVISIONS/CORRECTIONS

NO	DESCRIPTION

STATE OF TEXAS
N. Lozano-Sanchez
89158
LICENSED
PROFESSIONAL ENGINEER
01/21/20

4824 TIMBERLINE DRIVE
AUSTIN, TEXAS 78746

DRAINAGE SITE PLAN

LOC CONSULTANTS CIVIL DIVISION INC
FIRM 4756
1715 E 7TH STREET, AUSTIN TEXAS 78702
PHONE: (512) 524-0677 Email: Sergio@loccivil.com

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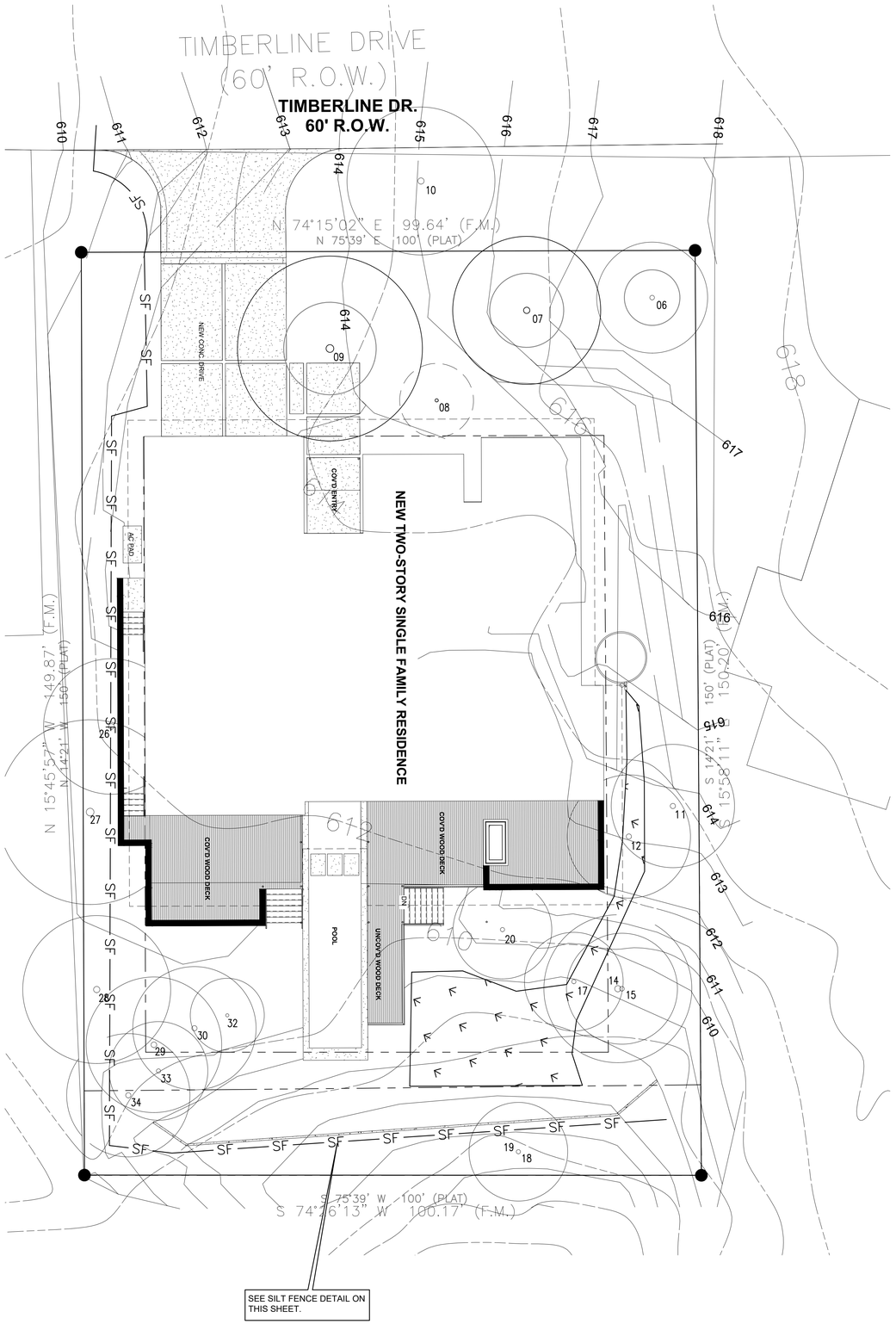
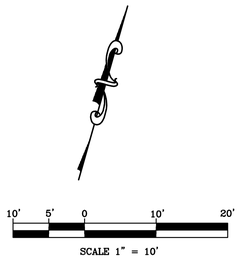
SHEET: 3 OF 5





EROSION CONTROL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AND INSPECTING, ON A REGULAR BASIS, ALL EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES INCLUDING THE SILT FENCES, ROCK FILTER DAMS, ETC. DURING CONSTRUCTION/DEMOLITION AND INCLUDING THE REMOVAL AND PROPER DISPOSAL OF ANY ACCUMULATED SILT AND DEBRIS.
2. THE CONTRACTOR SHALL NOT BEGIN ANY WORK UNTIL TREE PROTECTION AND THE EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES SUCH AS SILT FENCE, CONSTRUCTION ENTRANCES, ROCK FILTER DAMS, ETC. HAVE BEEN INSTALLED.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING THE STREETS FREE OF MUD, DIRT, DEBRIS AND MATERIAL AT ALL TIMES AND SHALL CLEAN/SWEEP THE STREETS ON A REGULAR BASIS AND AT THE DIRECTION OF THE CITY.
4. INCREASED STORMWATER PEAK FLOWS DURING CONSTRUCTION MUST BE MITIGATED WITH TEMPORARY BEST MANAGEMENT PRACTICES TO PREVENT HARM TO NEIGHBORING PROPERTIES.
5. THE PLACEMENT OF EROSION/SEDIMENTATION CONTROLS SHALL BE IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN.
6. THE CONTRACTOR IS REQUIRED TO INSPECT THE CONTROLS AND FENCES AT WEEKLY INTERVALS AND AFTER SIGNIFICANT RAINFALL EVENTS TO INSURE THAT THEY ARE FUNCTIONING PROPERLY. THE PERSON(S) RESPONSIBLE FOR MAINTENANCE OF CONTROLS AND FENCES SHALL IMMEDIATELY MAKE ANY NECESSARY REPAIRS TO DAMAGED AREAS. SILT ACCUMULATION AT CONTROLS MUST BE REMOVED WHEN THE DEPTH REACHES SIX (6) INCHES.
7. IF INSPECTIONS INDICATE A CONTROL HAS BEEN USED INAPPROPRIATELY, OR INCORRECTLY, THE CONTRACTOR MUST REPLACE OR MODIFY THE CONTROL FOR SITE SITUATIONS.
8. ANY MAJOR VARIATION IN MATERIALS OR LOCATIONS OF CONTROLS OR FENCES FROM THOSE SHOWN ON THE APPROVED PLANS WILL REQUIRE A REVISION AND MUST BE APPROVED BY THE REVIEWING ENGINEER, ENVIRONMENTAL SPECIALIST OR CITY ARBORIST AS APPROPRIATE. MAJOR REVISIONS MUST BE APPROVED BY THE CITY. MINOR CHANGES TO BE MADE AS FIELD REVISIONS TO THE EROSION AND SEDIMENTATION CONTROL PLAN MAY BE REQUIRED BY THE ENVIRONMENTAL INSPECTOR DURING THE COURSE OF CONSTRUCTION TO CORRECT CONTROL INADEQUACIES.
9. THE VEGETATIVE STABILIZATION OF AREAS DISTURBED BY CONSTRUCTION SHALL BE AS FOLLOWS:

TEMPORARY VEGETATIVE STABILIZATION:

1. FROM SEPTEMBER 15 TO MARCH 1, SEEDING SHALL BE WITH COOL SEASON COVER CROPS (WHEAT AT 0.5 POUNDS PER 1000 SF, OATS AT 0.5 POUNDS PER 1000 SF, CEREAL RYE GRAIN AT 0.5 POUNDS PER 1000 SF) WITH A TOTAL RATE OF 1.5 POUNDS PER 1000 SF. COOL SEASON COVER CROPS ARE NOT PERMANENT EROSION CONTROL.
2. FROM MARCH 2 TO SEPTEMBER 14, SEEDING SHALL BE WITH HULLED BERMUDA AT A RATE OF 1 POUNDS PER 1000 SF.

A. FERTILIZER SHALL BE WATER SOLUBLE WITH AN ANALYSIS OF 15-15-15 TO BE APPLIED ONCE AT PLANTING AND ONCE DURING THE PERIOD OF ESTABLISHMENT AT A RATE OF ¼ POUND PER 1000 SF.
B. HYDROMULCH SHALL COMPLY WITH TABLE 1, BELOW.
C. TEMPORARY EROSION CONTROL SHALL BE ACCEPTABLE WHEN THE GRASS HAS GROWN AT LEAST 1 ½ INCHES HIGH WITH 95% COVERAGE, PROVIDED NO BARE SPOTS LARGER THAN 16 SQUARE FEET EXIST.
D. WHEN REQUIRED, NATIVE GRASS SEEDING SHALL COMPLY WITH REQUIREMENTS OF THE CITY OF AUSTIN ENVIRONMENTAL CRITERIA.

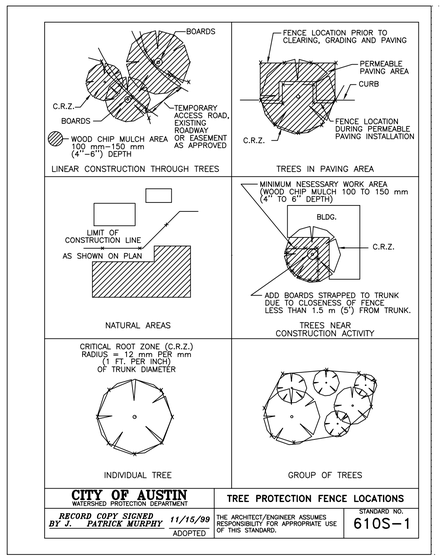
PERMANENT VEGETATIVE STABILIZATION:

1. FROM SEPTEMBER 15 TO MARCH 1, SEEDING IS CONSIDERED TO BE TEMPORARY STABILIZATION ONLY. IF COOL SEASON COVER CROPS EXIST WHERE PERMANENT VEGETATIVE STABILIZATION DESIRED, THE GRASSES SHALL BE MOWED TO A HEIGHT OF LESS THAN ONE-HALF (½) INCH AND THE AREA SHALL BE RE-SEEDED IN ACCORDANCE WITH 2 BELOW.
2. FROM MARCH 2 TO SEPTEMBER 14, SEEDING SHALL BE WITH HULLED BERMUDA AT A RATE OF 1 POUND PER 1000 SF WITH A PURITY OF 95% WITH 85% GERMINATION. BERMUDA GRASS IS A WARM SEASON GRASS AND IS CONSIDERED PERMANENT EROSION CONTROL.

A. FERTILIZER SHALL BE A WATER SOLUBLE WITH AN ANALYSIS OF 15-15-15 TO BE APPLIED ONCE AT PLANTING AND ONCE DURING THE PERIOD OF ESTABLISHMENT AT A RATE OF ¼ POUND PER 1000 SF.
B. HYDROMULCH SHALL COMPLY WITH TABLE 2, BELOW.
C. THE PLANTED AREA SHALL BE IRRIGATED OR SPRINKLED IN A MANNER THAT WILL NOT ERODE THE TOPSOIL, BUT WILL SUFFICIENTLY SOAK THE SOIL TO A DEPTH OF SIX INCHES. THE IRRIGATION SHALL OCCUR AT DAILY INTERVALS (MINIMUM) DURING THE FIRST TWO MONTHS. RAINFALL OCCURRENCES OF ½ INCH OR MORE SHALL POSTPONE THE WATERING SCHEDULE FOR ONE WEEK.

SEQUENCE OF MAJOR ACTIVITIES:

1. INSTALL TEMPORARY EROSION AND SEDIMENTATION CONTROLS AS SHOWN ON THE EROSION AND SEDIMENTATION CONTROL PLAN CONTAINED HERIN.
2. PRECONSTRUCTION MEETING
3. CONTACT "TEXAS 811" AT 811 TO LOCATE EXISTING UTILITIES.
4. CLEARING, GRUBBING AND ROUGH GRADING INCLUDING A ROUGH-CUT OF ALL WATER QUALITY STRUCTURES.
5. LAY BASE FOR FOUNDATION.
6. POUR SLAB AND COMMENCE HOME SITE CONSTRUCTION.
7. INSTALL DRIVEWAY ONCE LARGE VEHICLES ARE NO LONGER PRESENT AT SITE.
8. COMPLETE PERMANENT EROSION CONTROL AND RESTORATION OF SITE VEGETATION.
9. REMOVE AND DISPOSE OF TEMPORARY EROSION CONTROLS.
10. RESTORE ANY DISTURBED AREAS AS A RESULT OF TEMPORARY EROSION CONTROL REMOVAL. CLEAN UP AREA WITHIN THE LIMITS OF CONSTRUCTION.
11. INSPECTION VISIT BY DESIGN ENGINEER TO PROVIDE LETTER OF CONCURRENCE.
12. FINAL WALKTHROUGH WITH CITY INSPECTOR.



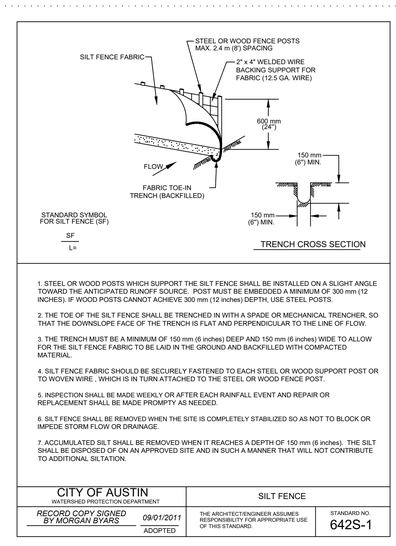
CITY OF AUSTIN
WATERSHED PROTECTION DEPARTMENT

TREE PROTECTION FENCE LOCATIONS

RECORD COPY SIGNED BY J. PATRICK MURPHY 11/15/99
ADOPTED

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.

STANDARD NO. 610S–1



1. STEEL OR WOOD POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF 300 mm (12 INCHES). IF WOOD POSTS CANNOT ACHIEVE 300 mm (12 inches) DEPTH, USE STEEL POSTS.

2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW.

3. THE TRENCH MUST BE A MINIMUM OF 150 mm (6 inches) DEEP AND 150 mm (6 inches) WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.

4. SILT FENCE FABRIC SHOULD BE SECURELY FASTENED TO EACH STEEL OR WOOD SUPPORT POST OR TO WOVEN WIRE , WHICH IS IN TURN ATTACHED TO THE STEEL OR WOOD FENCE POST.

5. INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTY AS NEEDED.

6. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150 mm (6 inches). THE SILT SHALL BE DISPOSED OF ON AN APPROVED SITE AND IN SUCH A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.

CITY OF AUSTIN
WATERSHED PROTECTION DEPARTMENT

SILT FENCE

RECORD COPY SIGNED BY MORGAN BYARS 09/01/2011
ADOPTED

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.

STANDARD NO. 642S-1

REVISIONS/CORRECTIONS

NO	DESCRIPTION

STATE OF TEXAS
N. Lozano-Sanchez
89158
LICENSED
PROFESSIONAL ENGINEER
01/21/20

4824 TIMBERLINE DRIVE
AUSTIN, TEXAS 78746

EROSION SEDIMENTATION CONTROLS PLAN

LOC CONSULTANTS CIVIL DIVISION INC
FIRM 4756
1715 E 7TH STREET, AUSTIN TEXAS 78702
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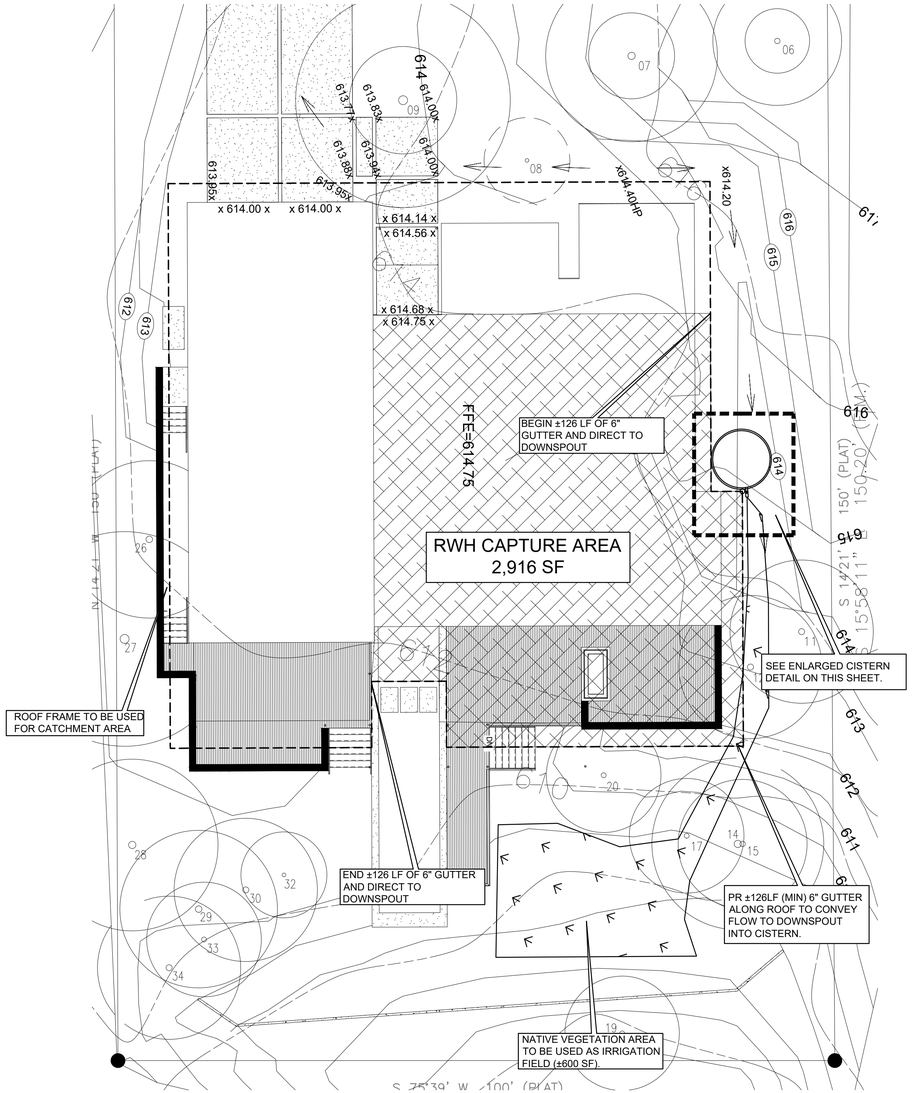
SHEET: 4 OF 5

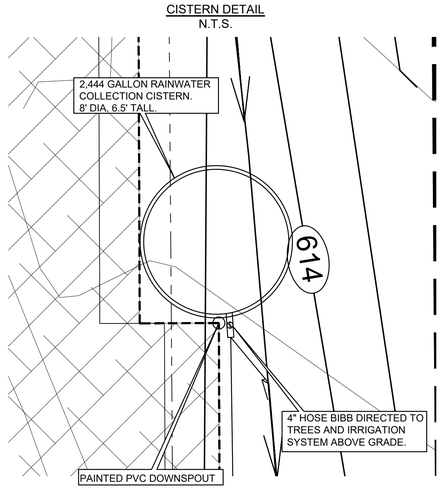


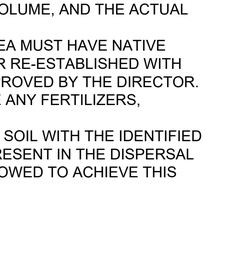
Rainwater Harvesting System Design Calculations
4824 Timberline Drive, Austin, TX 78746

Area of lot	14,988.62	SF
Existing Impervious Cover	2,998.10	SF
Proposed Impervious Cover	5,569.69	SF
Required Rainwater Capture Depth	1.50	IN
Water Quality Volume	**321.45**	**CF**
	2,404.60	**GAL**

On-Site Soil	TeA	
Infiltration Rate	0.06	IN/HR
Drawdown Time	168	HR
Required Irrigation Field Area	382.68	SF
Provided Irrigation Field Area	**400**	**SF**

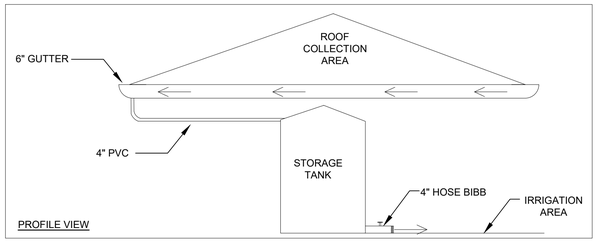
CISTERN DETAIL
N.T.S.

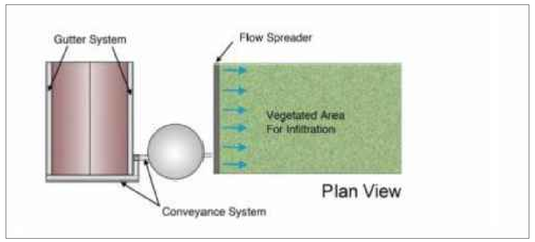




RAINWATER COLLECTION SYSTEM NOTES:

1. RAINWATER COLLECTION SYSTEM SHALL COLLECT RAINWATER TO BE USED SOLELY FOR IRRIGATION PURPOSES ONLY AND BE RELEASED OUTDOORS. NO CONNECTION TO ANY INDOOR PLUMBING SHALL BE MADE.
2. OVERFLOW WATER FROM THE RAINWATER COLLECTION SYSTEM SHALL BE ROUTED AS SHOWN ON PLANS TO FLOW AWAY FROM ANY STRUCTURE.
3. THE REQUIRED VOLUME OF RAINWATER MUST BE EMPTIED WITHIN 7 DAYS AFTER A RAIN EVENT ENDS.
4. DISPERSAL RATE. THE INFILTRATION RATE AT WHICH THE SOIL CAN ACCEPT THE IRRIGATED STORM WATER MUST BE ESTABLISHED USING STEPS OUTLINED IN SECTION 1.6.7.4. OTHER METHODS OF DEMONSTRATING SITE-SPECIFIC PERMEABILITY MAY BE APPROVED BY THE DIRECTOR. THE APPLICATION RATE MAY NOT EXCEED THE INFILTRATION RATE ON ANY PORTION OF THE DISPERSAL AREA.
5. DISPERSAL AREA. CALCULATIONS MUST BE PROVIDED WHICH DEMONSTRATE THAT ADEQUATE DISPERSAL AREA WILL BE PROVIDED BASED ON THE APPLICATION RATE, SOIL PERMEABILITY, WATER QUALITY VOLUME, AND THE ACTUAL IRRIGATION TIME.
6. VEGETATION. THE IRRIGATION AREA MUST HAVE NATIVE VEGETATION OR BE RESTORED OR RE-ESTABLISHED WITH NATIVE VEGETATION, UNLESS APPROVED BY THE DIRECTOR. THESE AREAS MUST NOT RECEIVE ANY FERTILIZERS, PESTICIDES, OR HERBICIDES.
7. SOIL. A MINIMUM OF 12 INCHES OF SOIL WITH THE IDENTIFIED PERMEABILITY RATES MUST BE PRESENT IN THE DISPERSAL AREA. SOIL ENHANCEMENT IS ALLOWED TO ACHIEVE THIS REQUIREMENT.





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RAINWATER HARVESTING FOR WATER QUALITY

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SHEET:
5
OF 5