

1. Project Information

Project name: Thornhyke Commercial Project (0.75' infl)

Project location: Wisteria Lane & Germaine Way

Tier 3/Tier 3: 116305

Design rainfall depth (in'): 1.5

Total project area (R2): 113392

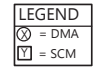
Total new impervious area (R2): 8362

Total replaced impervious within a USA (R2): 0

Total replaced impervious not in a USA (R2): 0

Total pervious/landscape area (R2): 27760

Total SCM area (R2): 5183



2. DMA Characterization

Name	DMA Type	Area (R2)	Surface Type	Add DMA Row	Remove DMA Row	Connection
DMA A1 - AC	Drains to SCM	24250	Concrete or asphalt	New	Replaced	SCM 1
DMA A2 - Landscape	Self-Treating	660		New		
DMA B1 - Building 1	Drains to SCM	6930	Roof	New		SCM 2
DMA B2 - AC/Conc	Drains to SCM	2722	Concrete or asphalt	New		SCM 2
DMA B3 - Base	Drains to SCM	2170	Crushed aggregate	New		SCM 2
DMA B4 - Landscape	Self-Treating	2580		New		
DMA C1 - Building 2	Drains to SCM	7519	Roof	New		SCM 3
DMA C2 - AC/Conc	Drains to SCM	1820	Concrete or asphalt	New		SCM 3
DMA C3 - Base	Drains to SCM	2170	Crushed aggregate	New		SCM 3
DMA C4 - Landscape	Self-Treating	2339		New		
DMA D1 - Building 3	Drains to SCM	6748	Roof	New		SCM 4
DMA D2 - AC/Conc	Drains to SCM	1859	Concrete or asphalt	New		SCM 4
DMA D3 - Base	Drains to SCM	1720	Crushed aggregate	New		SCM 4
DMA D4 - Landscape	Self-Treating	1285		New		
DMA E1 - Building 4	Drains to SCM	6660	Roof	New		SCM 5
DMA E2 - AC/Conc	Drains to SCM	4714	Concrete or asphalt	New		SCM 5
DMA E3 - Base	Drains to SCM	4375	Crushed aggregate	New		SCM 5
DMA E4 - Landscape	Self-Treating	841		New		
DMA F1 - Building 5	Drains to SCM	6660	Roof	New		SCM 6
DMA F2 - AC/Conc	Drains to SCM	3035	Concrete or asphalt	New		SCM 6
DMA F3 - Base	Drains to SCM	3990	Crushed aggregate	New		SCM 6
DMA F4 - Landscape	Self-Treating	565		New		
DMA G1 - Building 6	Drains to SCM	5760	Roof	New		SCM 7
DMA G2 - AC/Conc	Drains to SCM	3675	Concrete or asphalt	New		SCM 7
DMA G3 - Base	Drains to SCM	2345	Crushed aggregate	New		SCM 7
DMA G4 - Landscape	Self-Treating	2720		New		

3. SCM Characterization

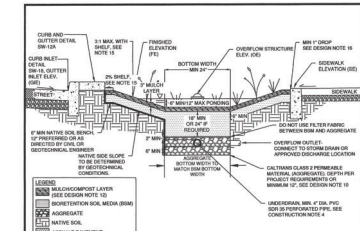
Name	SCM Type	Safety Factor	SCM Soil Type	Infl. Rate (in/hr)	Area (R2)	Flow Control	Reservoir Depth (in)
SCM 1	Boretention	1	HSG A/B	0.75	1640	No	
SCM 2	Boretention	1	HSG A/B	0.75	645	No	
SCM 3	Boretention	1	HSG A/B	0.75	548	No	
SCM 4	Boretention	1	HSG A/B	0.75	610	No	
SCM 5	Boretention	1	HSG A/B	0.75	570	No	
SCM 6	Boretention	1	HSG A/B	0.75	570	No	
SCM 7	Boretention	1	HSG A/B	0.75	600	No	

5. SCM Minimum Sizing Requirements

SCM Name	Min. Required Storage Vol. (R2)	Depth Below Underdrain (ft)	Drain Time (hours)	Orifice Diameter (in)
SCM 1	1063	1.62	7.3	
SCM 2	494	1.91	9.9	
SCM 3	440	2.01	10.7	
SCM 4	359	1.51	6.3	
SCM 5	588	2.58	15.1	
SCM 6	456	2.00	10.6	
SCM 7	426	1.77	8.7	

DMA Summary Area

Total assigned DMA area (R2):	111122
New impervious area (R2):	8362
Replaced impervious within a USA (R2):	0
Replaced impervious not in a USA (R2):	0
Total pervious/landscape area (R2):	27760



- CONSTRUCTION NOTES**
- MAINTAIN UNDISTURBED NATIVE SOIL BANK TO SUPPORT ADJACENT SIDEWALK/ROAD. SUBSEQUENT WORK TO CONSTRUCT CURBS BEFORE EXCAVATING BORETENTION AREA FOR AGGREGATE AND BIRM.
 - SCAFFY SUBGRADE BEFORE INSTALLING BORETENTION AREA AGGREGATE AND BIRM.
 - FACILITY EXCAVATION TO ALLOW FOR SPECIFIED AGGREGATE, BIRM, AND MOUND DEPTHS TO ACHIEVE FINISHED ELEVATIONS ON CURB FLARE.
 - INSTALL UNDERDRAIN WITH HOLES FACING DOWN. TOP OF UNDERDRAIN 6" BELOW TOP OF AGGREGATE LAYER. UNDERDRAIN SLOPE MAY BE FLAT.
 - PLACE BIRM IN 4" LIFTS, COMPACT EACH 4" LIFT OF BIRM WITH LANDSCAPE ROLLER OR BY LIGHT TAMPING. IF TAMPING, LET DRY OUTSIDE BEFORE PAVING.
 - DO NOT WORK WITHIN BORETENTION AREA DURING RAIN OR UNDER WET CONDITIONS.
 - KEEP HEAVY MACHINERY OUTSIDE BORETENTION AREA LIMITS.
 - PERMANENT BIRM SHOULD BE DIRECTED AWAY FROM BORETENTION UNTIL CONSTRUCTION IS COMPLETE AND DRAINAGE AREA VEGETATION IS ESTABLISHED.

LOW IMPACT DEVELOPMENT (LID) WATER MANAGEMENT STANDARDS DE TABLE 10-10.1
 STREET SLOPE-SIDED BORETENTION WITH PARKING, WITH UNDERDRAIN
 SW-1
 DEVELOPED UNDER PERM IN 2017
 08/01/2017
 USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORK CONSTRUCTION
 SHEET 1 OF 2

Roberts Engineering, Inc.
 Thornhyke, Germaine Way
 Drainage Management Area Plan

Record Drawings
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