



KERR WOOD LEIDAL
consulting engineers

Appendix G

Drainage Assessment



Appendix G – Drainage Assessment

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G. Drainage Assessment

G.1 Introduction

This section summarizes the hydrotechnical drainage assessments for the:

- trunk storm sewer systems as identified by the City in the City GIS data;
- watercourse culverts; and,
- roadway and driveway culverts.

All existing trunk storm sewers were likely initially designed as a part of the minor drainage system. For the future/upgrades scenarios, the trunk storm sewer network was organized into two groups: the major and minor drainage systems. Consistent with the City of Courtenay Subdivision and Development Servicing Bylaw No. 2919 – 2018, driveway culverts were considered part of the minor drainage system. Roadway and watercourse culverts were considered part of the major drainage system. The trunk storm sewers and culverts were assessed for existing and future land use and climate conditions as discussed below.

G.2 Trunk Storm Sewer Assessment

Results from modelling the City trunk storm sewer network highlighted a number of areas where existing pipes are undersized and surcharging above the pipe inlet crowns and above road/ground surface elevations. The culverts assessment is presented in Section G.3.

Trunk Storm Sewer Assessment Criteria

Criteria to manage stormwater within the City was referenced from the City of Courtenay Subdivision and Development Servicing Bylaw No. 2919 – 2018, as shown below in Table G-1.

Table G-1: Summary of Existing Stormwater Criteria

Application	Criteria/Methodology
Conveyance	
Minor Drainage System	Consists of pipes, gutters, catch basins, driveway culverts, open channels, watercourses, and stormwater management “best management practices” (BMPs) designed to capture, convey, treat, or modify flows up to and including the 1 in 10-year return period storm event.
Major Drainage System	Consists of surface flow paths, roadways culverts, watercourses, and stormwater management facilities designed to capture, convey, treat or modify larger flows up to and including the 1 in 100-year return period storm event. If required to accommodate low building elevations, and if approved, a piped minor system may be enlarged or supplemented to accommodate major flows.
Stormwater Management – Rate Control	
Detention Release Rates	All stormwater detention facilities shall be designed to limit post-development peak flows to equal to the corresponding pre-development peak flows for the 2-, 5-, 10-, and 25-year return period storm events. Overland escape routes must be provided to account for



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Application	Criteria/Methodology
	greater storms up to 100-year return period in a manner which does not result in flooding of any properties. The total volume of runoff generated during storms can also have a significant impact on receiving watercourses. To the extent possible, the total runoff generated from storms should be minimized through the application of site adaptive planning and the use of source controls. Site adaptive planning focuses on limiting total imperviousness at development sites and preserving natural features such as wetlands, forests, and native soils. Source controls focus on reducing volume by retaining or enhancing opportunities for infiltration and evapotranspiration on development sites. Discharge shall be controlled such that the downstream watercourses receiving outflow from detention facilities are protected from surcharge and erosion. Where stability cannot be maintained, measures to avoid or mitigate erosion shall be proposed.

Minor Drainage System

The minor drainage system was assessed to determine its ability to convey the minor peak flows, generated by the 10-year return period design storm. The following three assessment criteria were used to determine whether each minor system trunk sewer and driveway culvert is undersized:

1. modelled instantaneous peak flow is larger than pipe capacity under free-flowing conditions;
2. pipe surcharged above inlet crown for longer than 15 minutes; and
3. water surcharged higher than 0.3 m above the pipe inlet crown.

All of the above assessment criteria must be exceeded for a pipe/culvert to be considered undersized. The surcharge allowed in the above criteria was incorporated to avoid flagging pipes/culverts that are likely adequate for the design flow with only minor surcharging. It also eliminates minor model instabilities as a reason for flagging a pipe/culvert as undersized.

Major Drainage System

The major drainage system is the conveyance system that carries large storms, greater than the 10-year event and up to the 100-year event. Rights-of-way and road surfaces, roadway and major watercourse culverts, watercourses, surface flow paths, and storm sewers without a safe overland flow route (as discussed below) make up most of the major drainage system in the City.

The interactions between topography, the road network, and the pipe network were reviewed to flag locations that may not have a suitable emergency overland flow route (i.e., sag in the road, dead-end/cul-de-sac, etc.). In locations that had existing trunk storm sewers without a safe overland flow route, those sections of trunk storm sewers were designated and sized as part of the **future (to be upgraded) major 100-year drainage system** for the future conditions. The trunk storm sewers identified as requiring upgrade to future major (100-year) drainage system pipes are shown on Figure 11 in the main body of the report.



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Additionally, the following criteria were used to determine whether each segment of existing trunk storm sewer was designated and sized as part of the future (to be upgraded) major 100-year drainage system:

- modelled future land use and future climate scenario 100-year event instantaneous peak flow is larger than the existing pipe capacity under free-flowing conditions; and,
- Surcharging above pipe inlet crown greater than 15 minutes.

Modelling Scenarios and Trunk Storm Sewer Assessment Results

Consistent with the previous IRMP Phase 1 and 2 modelling and assessment scenarios, and as requested by the City, the below land use and climate conditions modelling scenarios were simulated to assess the conveyance capacity for the City trunk storm sewers.

1) Existing Land Use and Existing Climate Scenario

The existing land use models were built to include the existing City-wide storm sewer and culvert network including several detention ponds/facilities according to the information in their respective as-built drawings. Figure 4 in the main body of the report shows the 2-year capacity assessment. Figure 5 in the main body of the report shows the 10-year capacity assessment and the trunk sewers that exceeded the minor system (10-year) assessment criteria described above, under the existing land use and climate conditions. Table G-2 lists the existing trunk storm sewers that exceeded the assessment criteria for the 10-year event. In total, 269 minor system trunk sewers of the 477 total minor system trunk storm sewers are identified as undersized. The capacity assessment results sheets are also included in this appendix.

Table G-2: Existing Minor Trunk Sewers Undersized for Existing Land Use and Climate

Conduit ID	Existing Diameter (m)	Existing Pipe Capacity (m ³ /s)	Inst. 10-year Peak Flow (Existing) (m ³ /s)
DMAIN-10-0001	0.6	0.394	0.694
DMAIN-10-0002-1	0.6	0.354	0.433
DMAIN-10-0002-2	0.6	0.242	0.661
DMAIN-10-0003	0.6	0.288	0.424
DMAIN-10-0004	0.45	0.230	0.54
DMAIN-10-0007	0.45	0.362	0.447
DMAIN-10-0008	0.45	0.278	0.318
DMAIN-1-0013	0.8	0.437	0.841
DMAIN-11-0002	0.45	0.231	0.514
DMAIN-11-0003	0.45	0.463	0.585
DMAIN-13-0001	0.75	0.776	1.544
DMAIN-13-0002	0.75	0.680	1.396
DMAIN-14-0004	1.35	1.290	2.648
DMAIN-14-0005_1	1.35	1.325	2.368



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Conduit ID	Existing Diameter (m)	Existing Pipe Capacity (m ³ /s)	Inst. 10-year Peak Flow (Existing) (m ³ /s)
DMAIN-14-0005_2	1.35	1.325	2.368
DMAIN-14-0006	1.2	1.013	1.962
DMAIN-14-0007_1	1.2	1.133	1.967
DMAIN-14-0007_2	1.2	1.133	1.967
DMAIN-14-0010	1.05	1.257	1.363
DMAIN-14-0012	1.05	0.650	1.331
DMAIN-14-0013	1.05	1.028	1.308
DMAIN-14-0014	1.05	0.631	1.055
DMAIN-14-0015	1.05	0.468	0.864
DMAIN-14-0016	0.9	0.557	0.829
DMAIN-14-0024	0.6	0.389	0.618
DMAIN-14-0025	0.6	0.410	0.618
DMAIN-14-0026	0.525	0.281	0.483
DMAIN-14-0027	0.525	0.307	0.465
DMAIN-14-0028	0.525	0.220	0.436
DMAIN-14-0029	0.525	0.229	0.388
DMAIN-14-0030	0.45	0.122	0.315
DMAIN-14-0033	0.375	0.069	0.149
DMAIN-14-0051	0.45	0.102	0.264
DMAIN-14-0052	0.45	0.097	0.24
DMAIN-14-0053	0.45	0.098	0.216
DMAIN-14-0058	0.45	0.051	0.159
DMAIN-14-0059	0.45	0.080	0.134
DMAIN-14-0062	0.45	0.077	0.099
DMAIN-14-0071	0.6	0.169	0.177
DMAIN-14-0098	0.45	0.162	0.242
DMAIN-14-0099	0.45	0.124	0.196
DMAIN-14-0102	0.3	0.031	0.176
DMAIN-14-0102A	0.3	0.031	0.167
DMAIN-14-0106	0.6	0.169	0.334
DMAIN-14-0107	0.6	0.192	0.232
DMAIN-14-0110	0.45	0.151	0.192



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Conduit ID	Existing Diameter (m)	Existing Pipe Capacity (m ³ /s)	Inst. 10-year Peak Flow (Existing) (m ³ /s)
DMAIN-14-0112	0.45	0.089	0.147
DMAIN-14-0114	0.25	0.037	0.056
DMAIN-14-0128	0.375	0.084	0.156
DMAIN-14-0129	0.375	0.088	0.095
DMAIN-14-0134	0.45	0.106	0.217
DMAIN-14-0135	0.45	0.107	0.182
DMAIN-14-0136	0.45	0.065	0.128
DMAIN-14-0137	0.45	0.071	0.128
DMAIN-14-0141	0.6	0.141	0.448
DMAIN-14-0142	0.6	0.105	0.465
DMAIN-14-0143	0.6	0.225	0.234
DMAIN-14-0188	1.05	0.791	1.387
DMAIN-14-0198	0.45	0.105	0.147
DMAIN-15-0001	1.05	0.864	2.387
DMAIN-15-0002	1.05	2.023	2.289
DMAIN-15-0004	0.75	1.169	1.773
DMAIN-15-0006	0.75	0.721	1.63
DMAIN-15-0007	0.75	0.565	1.494
DMAIN-15-0008	0.75	0.687	1.459
DMAIN-15-0009	0.75	0.625	0.958
DMAIN-15-0010	0.45	0.309	0.597
DMAIN-15-0011	0.45	0.198	0.595
DMAIN-15-0012	0.45	0.181	0.446
DMAIN-15-0013	0.45	0.231	0.266
DMAIN-15-0014	0.45	0.216	0.315
DMAIN-15-0057	0.6	0.333	0.423
DMAIN-15-0117	0.75	1.283	2.144
DMAIN-15-0125	0.75	0.953	2.178
DMAIN-16-0004_1	0.3	0.402	0.432
DMAIN-16-0004_2	0.3	0.031	0.403
DMAIN-16-0005	0.45	0.218	0.394
DMAIN-16-0006	0.525	0.286	0.333



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Conduit ID	Existing Diameter (m)	Existing Pipe Capacity (m ³ /s)	Inst. 10-year Peak Flow (Existing) (m ³ /s)
DMAIN-16-0007	0.45	0.229	0.274
DMAIN-16-0008	0.45	0.185	0.212
DMAIN-17-0001	0.6	0.436	0.802
DMAIN-17-0005	0.75	0.764	0.927
DMAIN-17-0007	0.6	0.356	0.622
DMAIN-17-0008	0.6	0.367	0.628
DMAIN-17-0009	0.6	0.435	0.67
DMAIN-17-0018	0.6	0.490	0.896
DMAIN-17-0069	0.45	0.090	0.623
DMAIN-18-0001	0.75	0.913	1.259
DMAIN-18-0009	0.75	0.745	1.114
DMAIN-18-0010	0.525	0.446	0.772
DMAIN-18-0011	0.45	0.371	0.417
DMAIN-18-0061	0.45	0.395	0.472
DMAIN-2-0001	0.75	0.191	0.927
DMAIN-2-0003	1	0.956	1.623
DMAIN-2-0004	0.75	0.424	0.777
DMAIN-2-0012	0.6	0.270	0.493
DMAIN-2-0013	0.6	0.156	0.387
DMAIN-2-0044	1.05	0.747	1.424
DMAIN-2-0049	0.6	0.264	0.429
DMAIN-2-0050	0.6	0.478	0.553
DMAIN-2-0064	1.2	1.242	1.423
DMAIN-2-0066	0.75	0.669	0.88
DMAIN-2-0067	0.75	0.424	0.777
DMAIN-2-0068	0.8	0.227	1.067
DMAIN-2-0074	0.6	0.194	0.142
DMAIN-2-0083	0.9	1.033	1.678
DMAIN-22-0915	0.45	0.248	0.452
DMAIN-22-0920	0.45	0.165	0.304
DMAIN-22-0921	0.45	0.168	0.322
DMAIN-22-0922	0.375	0.093	0.138



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Conduit ID	Existing Diameter (m)	Existing Pipe Capacity (m ³ /s)	Inst. 10-year Peak Flow (Existing) (m ³ /s)
DMAIN-22-0926	0.45	0.240	0.39
DMAIN-22-0927	0.45	0.372	0.389
DMAIN-22-0928	0.45	0.225	0.371
DMAIN-23-0002	0.75	0.573	1.466
DMAIN-23-0008	0.75	0.626	0.887
DMAIN-23-0035	0.75	0.622	0.939
DMAIN-30-0001	0.9	1.920	2.292
DMAIN-30-0002	0.9	1.946	2.292
DMAIN-30-0003	0.9	1.493	2.271
DMAIN-30-0004	0.75	0.908	1.707
DMAIN-30-0007	0.75	1.101	1.592
DMAIN-30-0008	0.75	1.004	1.572
DMAIN-30-0009	0.75	0.993	1.595
DMAIN-30-0035	0.6	0.289	0.365
DMAIN-30-0048	0.75	0.954	1.162
DMAIN-30-0049	0.75	1.310	1.34
DMAIN-30-0051	0.6	0.502	0.596
DMAIN-30-0052	0.6	0.470	0.658
DMAIN-30-0053	0.6	0.723	0.783
DMAIN-30-0068	0.6	0.693	0.903
DMAIN-3-0009	0.6	0.246	0.661
DMAIN-30-0121	0.6	0.676	0.979
DMAIN-30-0127	0.6	0.426	0.619
DMAIN-30-0128	0.6	0.359	0.637
DMAIN-30-0129	0.6	0.422	0.642
DMAIN-30-0130	0.6	0.392	0.68
DMAIN-3-0028	0.45	0.421	0.553
DMAIN-3-0041	0.45	0.249	0.408
DMAIN-3-0043	0.3	0.216	0.406
DMAIN-31-0010	0.9	1.414	1.883
DMAIN-31-0011	0.75	0.909	1.373
DMAIN-31-0012	0.75	1.229	1.324



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Conduit ID	Existing Diameter (m)	Existing Pipe Capacity (m ³ /s)	Inst. 10-year Peak Flow (Existing) (m ³ /s)
DMAIN-31-0015	0.75	0.687	0.776
DMAIN-31-0016	0.75	0.694	0.763
DMAIN-31-0017	0.6	0.318	0.623
DMAIN-31-0018	0.6	0.443	0.593
DMAIN-31-0020	0.6	0.105	0.498
DMAIN-31-0021	0.6	0.471	1.098
DMAIN-31-0118	0.6	1.092	3.372
DMAIN-31-0193	0.6	0.604	0.945
DMAIN-31-0258	0.6	0.368	0.685
DMAIN-31-0259	0.6	0.414	0.722
DMAIN-31-0260	0.6	0.382	0.599
DMAIN-31-0265	0.6	0.501	0.527
DMAIN-31-0304	0.6	0.158	0.503
DMAIN-31-0305	0.45	0.277	0.385
DMAIN-31-0312	0.375	0.084	0.111
DMAIN-31-0348	0.75	1.202	1.274
DMAIN-31-0360	0.6	0.105	0.657
DMAIN-31-0368	0.6	0.435	0.997
DMAIN-31-0374	0.6	0.194	0.453
DMAIN-31-0375	0.6	0.354	0.706
DMAIN-31-0376	0.9	1.089	1.811
DMAIN-34-0022	0.6	0.379	0.86
DMAIN-34-0023	0.6	0.475	0.754
DMAIN-34-0059	0.45	0.216	0.651
DMAIN-34-0136	0.45	0.324	0.439
DMAIN-35-0024	0.3	0.088	0.227
DMAIN-35-0035	0.675	0.465	1.015
DMAIN-35-0059	0.6	0.475	0.695
DMAIN-35-0063	0.6	0.773	0.963
DMAIN-35-0066	0.6	0.649	0.969
DMAIN-35-0067	0.75	0.935	0.968
DMAIN-35-0069	0.75	0.470	0.963



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Conduit ID	Existing Diameter (m)	Existing Pipe Capacity (m ³ /s)	Inst. 10-year Peak Flow (Existing) (m ³ /s)
DMAIN-35-0070	0.75	0.666	0.964
DMAIN-35-0080	0.675	0.846	1.585
DMAIN-36-0001	0.6	1.071	1.247
DMAIN-36-0002	0.6	1.198	1.297
DMAIN-36-0004	0.6	1.119	1.269
DMAIN-36-0005	0.6	0.942	1.258
DMAIN-36-0006	0.6	0.982	1.072
DMAIN-36-0007	0.6	0.865	1.065
DMAIN-36-0046	0.75	0.373	0.895
DMAIN-36-0047	0.75	0.507	0.702
DMAIN-36-0048	0.75	0.549	0.684
DMAIN-36-0049	0.525	0.165	0.703
DMAIN-38-0403	0.45	0.180	0.214
DMAIN-38-0414	0.9	0.643	1.106
DMAIN-38-0418	0.675	0.467	0.758
DMAIN-38-0419	0.6	0.523	0.721
DMAIN-38-0704	0.6	0.405	0.693
DMAIN-38-0706	0.6	0.457	0.664
DMAIN-38-0707	0.6	0.382	0.669
DMAIN-38-0708	0.6	0.426	0.784
DMAIN-38-0709	0.6	0.410	0.498
DMAIN-38-0710	0.45	0.302	0.411
DMAIN-38-0711	0.375	0.104	0.281
DMAIN-38-0712	0.375	0.130	0.181
DMAIN-38-2012	0.45	0.183	0.183
DMAIN-38-2037	0.375	0.140	0.234
DMAIN-38-2058	0.675	0.266	0.704
DMAIN-4-0002	0.9	1.083	2.758
DMAIN-4-0003	0.9	2.338	2.582
DMAIN-4-0004	0.9	2.070	2.531
DMAIN-4-0009	0.75	0.606	0.991
DMAIN-4-0011	0.75	0.286	0.929



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Conduit ID	Existing Diameter (m)	Existing Pipe Capacity (m ³ /s)	Inst. 10-year Peak Flow (Existing) (m ³ /s)
DMAIN-4-0012	0.75	0.526	0.9
DMAIN-4-0013	0.75	0.475	0.746
DMAIN-4-0014	0.6	0.246	0.599
DMAIN-4-0110	0.6	0.395	0.451
DMAIN-4-0111	0.6	0.309	0.44
DMAIN-4-0112	0.6	0.292	0.462
DMAIN-4-0113	0.6	0.259	0.461
DMAIN-4-0114	0.6	0.171	0.175
DMAIN-4-0142	0.6	0.313	0.472
DMAIN-4-0198	0.6	0.266	0.478
DMAIN-43-0001	0.6	1.042	1.444
DMAIN-43-0004	0.6	0.409	1.033
DMAIN-43-0005	0.525	0.291	1.069
DMAIN-45-0008	0.525	0.288	0.608
DMAIN-45-0010	0.525	0.268	0.615
DMAIN-45-0016	0.375	0.067	0.185
DMAIN-45-0017	0.45	0.202	0.283
DMAIN-45-0018	0.45	0.164	0.257
DMAIN-50-0001	0.6	0.852	1.554
DMAIN-50-0010	0.375	0.462	0.479
DMAIN-50-0011	0.375	0.351	0.429
DMAIN-5-0002	0.525	0.523	0.908
DMAIN-5-0003	0.525	0.876	0.949
DMAIN-5-0004	0.6	0.859	1.138
DMAIN-50-0050	0.525	0.688	1.031
DMAIN-50-0052	0.525	0.436	0.746
DMAIN-50-0053	0.525	0.518	0.922
DMAIN-5-0146	0.525	0.720	0.912
DMAIN-5-0147	0.525	0.553	0.907
DMAIN-6-0001	0.45	0.498	0.671
DMAIN-6-0002	0.45	0.551	0.692
DMAIN-6-0003	0.45	0.533	0.837



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Conduit ID	Existing Diameter (m)	Existing Pipe Capacity (m ³ /s)	Inst. 10-year Peak Flow (Existing) (m ³ /s)
DMAIN-7-0001	0.6	1.018	1.407
DMAIN-7-0002	0.6	1.351	1.431
DMAIN-7-0003	0.6	1.357	1.352
DMAIN-7-0005	0.525	0.803	0.849
DMAIN-7-0006	0.525	0.612	0.801
DMAIN-7-0007	0.525	0.574	0.943
DMAIN-8-0002	0.25	0.149	0.208
DMAIN-8-0003	0.25	0.148	0.214
DMAIN-9-0001	0.375	0.277	0.345
DMAIN-1-0003	0.8	1.120	1.413
DMAIN-1-0004	0.8	1.023	1.25
DMAIN-1-0012	0.8	0.556	0.85
DMAIN-13-0003	0.75	0.989	1.068
DMAIN-13-0005	0.75	0.481	0.812
DMAIN-20-0018	0.6	0.594	0.776
DMAIN-20-0029	0.75	0.543	0.972
DMAIN-20-0030	0.75	0.628	1.001
DMAIN-20-0033	0.75	0.606	1.152
DMAIN-20-0034	0.6	1.270	1.353
DMAIN-30-0122	0.6	0.969	1.072
DMAIN-31-0230	0.25	0.080	0.127
DMAIN-31-0231	0.25	0.080	0.086
DMAIN-35-0023	0.5	0.472	0.507
DMAIN-38-0200	0.45	0.231	0.39
DMAIN-38-0201	0.45	0.182	0.39
DMAIN-38-0300	0.6	0.638	0.833
DMAIN-38-0301	0.6	0.523	0.823
DMAIN-38-0302	0.45	0.190	0.39
DMAIN-38-0307	0.45	0.342	0.355
DMAIN-38-0326	0.525	0.323	0.431
DMAIN-50-0004	0.525	0.432	0.663



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2) Future Land Use with Future (Year 2050) Climate Change Scenario

To simulate future land use conditions, the City's Official Community Plan (OCP) future land use GIS data was used. The OCP future land use is shown on Figure 7 in the main body of the report.

Minor Drainage System

Figure 9 in the main body of the report shows the minor drainage system (10-year) trunk sewers that exceeded the assessment criteria, under the future land use and future climate (Year 2050) conditions. These undersized trunk sewers are listed in Table G-3. The capacity assessment results sheets are also included in this appendix.

In total, 204 minor system trunk sewers of the 477 total system trunk storm sewers are identified as undersized.

Major Drainage System (Future Upgrades)

Undersized trunk storm sewers requiring upgrade to future major drainage system (100-year) pipes, due to lack of a safe overland flow route, are shown on Figure 11 in the main body of the report and listed in Table G-4. The capacity assessment results sheets are also included in this appendix.

In total, 103 existing trunk storm sewers are identified as requiring upgrade to future major drainage system (100-year) pipes.

Table G-3: Minor Trunk Storm Sewers Undersized for Future Land Use and Future Climate

Conduit ID	Existing Diameter (m)	Existing Pipe Capacity (m ³ /s)	Inst. 10-Year Peak Flow (Future 2050) (m ³ /s)	Future Upgrade Diameter (m)
DITC-0729	0.6	0.858	0.930	0.675
DMAIN-10-0004	0.45	0.230	0.550	0.675
DMAIN-10-0007	0.45	0.362	0.450	0.525
DMAIN-10-0008	0.45	0.278	0.325	0.525
DMAIN-10-0009	0.45	0.322	0.323	0.525
DMAIN-1-0003	0.8	1.120	1.461	0.9
DMAIN-1-0004	0.8	1.023	1.321	0.9
DMAIN-1-0012	0.8	0.556	0.892	1.05
DMAIN-1-0013	0.8	0.437	0.865	1.05
DMAIN-11-0001	0.5	0.715	0.728	0.525
DMAIN-11-0002	0.45	0.231	0.519	0.675
DMAIN-11-0003	0.45	0.463	0.575	0.525
DMAIN-12-0001	0.3	0.125	0.164	0.375
DMAIN-13-0005	0.75	0.481	0.931	0.9
DMAIN-14-0004	1.35	1.290	2.803	1.65
DMAIN-14-0005_1	1.35	1.325	2.368	1.5
DMAIN-14-0007_1	1.2	1.133	1.967	1.35



Appendix G – Drainage Assessment

Conduit ID	Existing Diameter (m)	Existing Pipe Capacity (m ³ /s)	Inst. 10-Year Peak Flow (Future 2050) (m ³ /s)	Future Upgrade Diameter (m)
DMAIN-14-0008	1.2	1.590	1.614	1.35
DMAIN-14-0026	0.525	0.281	0.486	0.675
DMAIN-14-0033	0.375	0.069	0.153	0.525
DMAIN-14-0053	0.45	0.098	0.228	0.6
DMAIN-14-0058	0.45	0.051	0.164	0.525
DMAIN-14-0059	0.45	0.080	0.139	0.525
DMAIN-14-0062	0.45	0.077	0.097	0.525
DMAIN-14-0070	0.6	0.350	0.361	0.675
DMAIN-14-0071	0.6	0.169	0.230	0.75
DMAIN-14-0098	0.45	0.162	0.215	0.525
DMAIN-14-0099	0.45	0.124	0.199	0.525
DMAIN-14-0102	0.3	0.031	0.195	0.45
DMAIN-14-0102A	0.3	0.031	0.180	0.45
DMAIN-14-0110	0.45	0.151	0.200	0.525
DMAIN-14-0112	0.45	0.089	0.146	0.525
DMAIN-14-0114	0.25	0.037	0.056	0.3
DMAIN-14-0127	0.3	0.065	0.067	0.375
DMAIN-14-0128	0.375	0.084	0.117	0.45
DMAIN-14-0129	0.375	0.088	0.091	0.45
DMAIN-14-0135	0.45	0.107	0.172	0.6
DMAIN-14-0143	0.6	0.225	0.266	0.675
DMAIN-14-0188	1.05	0.791	1.403	1.2
DMAIN-14-0198	0.45	0.105	0.149	0.525
DMAIN-15-0001	1.05	0.864	2.547	1.2
DMAIN-15-0004	0.75	1.169	1.805	0.9
DMAIN-15-0014	0.45	0.216	0.305	0.525
DMAIN-15-0057	0.6	0.333	0.519	0.675
DMAIN-15-0117	0.75	1.283	2.253	1.05
DMAIN-15-0125	0.75	0.953	2.123	1.05
DMAIN-16-0008	0.45	0.185	0.205	0.525
DMAIN-16-0009	0.45	0.166	0.174	0.525
DMAIN-17-0001	0.6	0.436	0.829	0.9
DMAIN-17-0009	0.6	0.435	0.750	0.75
DMAIN-17-0018	0.6	0.490	0.914	0.9



Appendix G – Drainage Assessment

Conduit ID	Existing Diameter (m)	Existing Pipe Capacity (m ³ /s)	Inst. 10-Year Peak Flow (Future 2050) (m ³ /s)	Future Upgrade Diameter (m)
DMAIN-18-0001	0.75	0.913	1.369	0.9
DMAIN-18-0003	0.75	1.003	1.295	0.9
DMAIN-18-0008	0.75	1.013	1.220	0.9
DMAIN-18-0009	0.75	0.745	1.141	0.9
DMAIN-18-0010	0.525	0.446	0.815	0.675
DMAIN-18-0011	0.45	0.371	0.438	0.525
DMAIN-18-0052	0.75	1.703	1.771	0.9
DMAIN-18-0061	0.45	0.395	0.502	0.525
DMAIN-2-0001	0.75	0.191	1.014	1.05
DMAIN-20-0018	0.6	0.594	0.850	0.75
DMAIN-20-0034	0.6	1.270	1.387	0.675
DMAIN-2-0004	0.75	0.424	0.850	1.05
DMAIN-2-0049	0.6	0.264	0.461	0.675
DMAIN-2-0050	0.6	0.478	0.669	0.75
DMAIN-2-0066	0.75	0.669	0.932	0.9
DMAIN-2-0067	0.75	0.424	0.850	1.05
DMAIN-2-0068	0.8	0.227	1.213	1.2
DMAIN-2-0083	0.9	1.033	1.919	1.2
DMAIN-22-0922	0.375	0.093	0.136	0.45
DMAIN-23-0002	0.75	0.573	1.538	1.05
DMAIN-23-0008	0.75	0.626	0.921	0.9
DMAIN-23-0035	0.75	0.622	0.992	0.9
DMAIN-30-0001	0.9	1.920	2.403	1.05
DMAIN-30-0002	0.9	1.946	2.403	1.05
DMAIN-30-0003	0.9	1.493	2.378	1.2
DMAIN-30-0004	0.75	0.908	1.776	1.05
DMAIN-30-0035	0.6	0.289	0.419	0.75
DMAIN-30-0049	0.75	1.310	1.383	0.9
DMAIN-30-0051	0.6	0.502	0.584	0.675
DMAIN-30-0052	0.6	0.470	0.661	0.75
DMAIN-30-0053	0.6	0.723	0.803	0.675
DMAIN-30-0122	0.6	0.969	1.086	0.675
DMAIN-30-0126	0.6	0.426	0.654	0.75
DMAIN-30-0127	0.6	0.426	0.659	0.75



Appendix G – Drainage Assessment

Conduit ID	Existing Diameter (m)	Existing Pipe Capacity (m ³ /s)	Inst. 10-Year Peak Flow (Future 2050) (m ³ /s)	Future Upgrade Diameter (m)
DMAIN-30-0128	0.6	0.359	0.654	0.75
DMAIN-30-0129	0.6	0.422	0.662	0.75
DMAIN-30-0130	0.6	0.392	0.602	0.75
DMAIN-3-0028	0.45	0.421	0.547	0.525
DMAIN-3-0041	0.45	0.249	0.419	0.6
DMAIN-3-0043	0.3	0.216	0.417	0.45
DMAIN-30-1041	0.9	0.496	2.451	1.35
DMAIN-31-0010	0.9	1.414	1.916	1.05
DMAIN-31-0011	0.75	0.909	1.421	0.9
DMAIN-31-0018	0.6	0.443	0.629	0.75
DMAIN-31-0021	0.6	0.471	1.156	0.9
DMAIN-31-0053	0.45	0.288	0.769	0.675
DMAIN-31-0118	0.6	1.092	4.271	1.05
DMAIN-31-0193	0.6	0.604	1.026	0.75
DMAIN-31-0228	0.3	0.201	0.216	0.375
DMAIN-31-0230	0.25	0.080	0.129	0.3
DMAIN-31-0231	0.25	0.080	0.093	0.3
DMAIN-31-0259	0.6	0.414	0.768	0.75
DMAIN-31-0304	0.6	0.158	0.540	0.9
DMAIN-31-0305	0.45	0.277	0.408	0.525
DMAIN-31-0312	0.375	0.084	0.121	0.45
DMAIN-31-0360	0.6	0.105	0.844	1.05
DMAIN-31-0374	0.6	0.194	0.490	0.675
DMAIN-31-0375	0.6	0.354	0.720	0.75
DMAIN-31-0376	0.9	1.089	1.835	1.05
DMAIN-34-0003	1.4	2.656	3.817	1.65
DMAIN-34-0005	1.4	2.261	3.771	1.8
DMAIN-34-0022	0.6	0.379	0.905	0.9
DMAIN-34-0023	0.6	0.475	0.790	0.75
DMAIN-34-0058	0.75	0.546	0.659	0.9
DMAIN-34-0059	0.45	0.216	0.724	0.75
DMAIN-34-0136	0.45	0.324	0.450	0.525
DMAIN-35-0022	0.6	0.871	0.927	0.675
DMAIN-35-0023	0.5	0.472	0.509	0.525



Appendix G – Drainage Assessment

Conduit ID	Existing Diameter (m)	Existing Pipe Capacity (m ³ /s)	Inst. 10-Year Peak Flow (Future 2050) (m ³ /s)	Future Upgrade Diameter (m)
DMAIN-35-0024	0.3	0.088	0.240	0.45
DMAIN-35-0035	0.675	0.465	1.051	0.9
DMAIN-35-0059	0.6	0.475	0.679	0.75
DMAIN-35-0063	0.6	0.773	0.975	0.675
DMAIN-35-0066	0.6	0.649	0.981	0.75
DMAIN-35-0067	0.75	0.935	0.981	0.9
DMAIN-35-0069	0.75	0.470	0.990	0.9
DMAIN-35-0070	0.75	0.666	0.990	0.9
DMAIN-35-0080	0.675	0.846	1.759	0.9
DMAIN-36-0001	0.6	1.071	1.289	0.675
DMAIN-36-0002	0.6	1.198	1.328	0.675
DMAIN-36-0004	0.6	1.119	1.325	0.675
DMAIN-36-0005	0.6	0.942	1.312	0.75
DMAIN-36-0006	0.6	0.982	1.098	0.675
DMAIN-36-0007	0.6	0.865	1.113	0.675
DMAIN-36-0046	0.75	0.373	0.904	0.9
DMAIN-36-0048	0.75	0.549	0.750	0.9
DMAIN-36-0049	0.525	0.165	0.830	0.9
DMAIN-38-0200	0.45	0.231	0.433	0.6
DMAIN-38-0300	0.6	0.638	0.870	0.675
DMAIN-38-0301	0.6	0.523	0.846	0.75
DMAIN-38-0302	0.45	0.190	0.390	0.6
DMAIN-38-0307	0.45	0.342	0.380	0.525
DMAIN-38-0325	0.525	0.474	0.761	0.675
DMAIN-38-0326	0.525	0.323	0.525	0.675
DMAIN-38-0403	0.45	0.180	0.239	0.525
DMAIN-38-0404	0.45	0.181	0.224	0.525
DMAIN-38-0405	0.45	0.157	0.224	0.525
DMAIN-38-0412	0.9	0.572	1.060	1.2
DMAIN-38-0414	0.9	0.643	1.191	1.2
DMAIN-38-0418	0.675	0.467	0.803	0.9
DMAIN-38-0419	0.6	0.523	0.754	0.75
DMAIN-38-0704	0.6	0.405	0.714	0.75
DMAIN-38-0706	0.6	0.457	0.681	0.75



Appendix G – Drainage Assessment

Conduit ID	Existing Diameter (m)	Existing Pipe Capacity (m ³ /s)	Inst. 10-Year Peak Flow (Future 2050) (m ³ /s)	Future Upgrade Diameter (m)
DMAIN-38-0707	0.6	0.382	0.692	0.9
DMAIN-38-0708	0.6	0.426	0.816	0.9
DMAIN-38-0709	0.6	0.410	0.502	0.675
DMAIN-38-0712	0.375	0.130	0.187	0.45
DMAIN-38-2012	0.45	0.183	0.212	0.525
DMAIN-38-2037	0.375	0.140	0.257	0.525
DMAIN-38-2051	0.45	0.153	0.224	0.525
DMAIN-38-2052	0.45	0.153	0.224	0.525
DMAIN-38-2058	0.675	0.266	0.761	0.75
DMAIN-4-0002	0.9	1.083	2.844	1.35
DMAIN-4-0003	0.9	2.338	2.633	1.05
DMAIN-4-0004	0.9	2.070	2.633	1.05
DMAIN-4-0011	0.75	0.286	0.981	0.9
DMAIN-4-0012	0.75	0.526	0.929	0.9
DMAIN-4-0013	0.75	0.475	0.787	0.9
DMAIN-4-0014	0.6	0.246	0.598	0.75
DMAIN-4-0110	0.6	0.395	0.479	0.675
DMAIN-4-0111	0.6	0.309	0.437	0.75
DMAIN-4-0112	0.6	0.292	0.432	0.75
DMAIN-4-0113	0.6	0.259	0.451	0.75
DMAIN-4-0114	0.6	0.171	0.331	0.75
DMAIN-4-0198	0.6	0.266	0.427	0.75
DMAIN-43-0001	0.6	1.042	1.496	0.75
DMAIN-43-0004	0.6	0.409	1.140	0.9
DMAIN-43-0005	0.525	0.291	1.199	0.9
DMAIN-45-0008	0.525	0.288	0.649	0.75
DMAIN-45-0010	0.525	0.268	0.660	0.75
DMAIN-45-0016	0.375	0.067	0.213	0.525
DMAIN-45-0017	0.45	0.202	0.330	0.6
DMAIN-45-0018	0.45	0.164	0.279	0.525
DMAIN-50-0001	0.6	0.852	1.600	0.9
DMAIN-50-0010	0.375	0.462	0.495	0.45
DMAIN-50-0011	0.375	0.351	0.450	0.45
DMAIN-5-0002	0.525	0.523	0.939	0.675



Appendix G – Drainage Assessment

Conduit ID	Existing Diameter (m)	Existing Pipe Capacity (m ³ /s)	Inst. 10-Year Peak Flow (Future 2050) (m ³ /s)	Future Upgrade Diameter (m)
DMAIN-5-0003	0.525	0.876	0.990	0.6
DMAIN-5-0004	0.6	0.859	1.254	0.75
DMAIN-50-0052	0.525	0.436	0.739	0.675
DMAIN-50-0053	0.525	0.518	0.913	0.675
DMAIN-52-0170	0.75	1.017	1.908	1.05
DMAIN-52-0184	1.05	0.864	2.356	1.2
DMAIN-6-0001	0.45	0.498	0.698	0.525
DMAIN-6-0002	0.45	0.551	0.720	0.525
DMAIN-6-0003	0.45	0.533	0.904	0.6
DMAIN-7-0001	0.6	1.018	1.432	0.75
DMAIN-7-0002	0.6	1.351	1.457	0.675
DMAIN-7-0005	0.525	0.803	0.855	0.6
DMAIN-7-0006	0.525	0.612	0.819	0.6
DMAIN-7-0007	0.525	0.574	1.008	0.675
DMAIN-8-0002	0.25	0.149	0.211	0.3
DMAIN-8-0003	0.25	0.148	0.217	0.3
DMAIN-9-0003	0.375	0.380	0.462	0.45

Table G-4: Future Major Trunk Sewers Undersized for Future Land Use and Future Climate

Conduit ID	Existing Diameter (m)	Existing Pipe Capacity (m ³ /s)	Inst. 100-Year Peak Flow (Future 2050) (m ³ /s)	Future Upgrade Diameter (m)
DMAIN-10-0001	0.6	0.394	0.872	0.9
DMAIN-10-0002-1	0.6	0.354	0.520	0.75
DMAIN-10-0002-2	0.6	0.242	0.800	0.9
DMAIN-10-0003	0.6	0.288	0.508	0.675
DMAIN-13-0001	0.75	0.776	2.220	1.2
DMAIN-13-0002	0.75	0.680	1.931	1.2
DMAIN-13-0003	0.75	0.989	1.404	0.9
DMAIN-14-0001	1.8	1.969	4.626	2.1
DMAIN-14-0002	1.5	3.283	3.856	1.65
DMAIN-14-0005_2	1.35	1.325	2.807	1.65
DMAIN-14-0006	1.2	1.013	2.267	1.5
DMAIN-14-0007_2	1.2	1.133	2.259	1.5



Appendix G – Drainage Assessment

Conduit ID	Existing Diameter (m)	Existing Pipe Capacity (m ³ /s)	Inst. 100-Year Peak Flow (Future 2050) (m ³ /s)	Future Upgrade Diameter (m)
DMAIN-14-0010	1.05	1.257	1.590	1.2
DMAIN-14-0012	1.05	0.650	1.545	1.35
DMAIN-14-0013	1.05	1.028	1.510	1.35
DMAIN-14-0014	1.05	0.631	1.242	1.2
DMAIN-14-0016	0.9	0.557	0.949	1.05
DMAIN-14-0024	0.6	0.389	0.906	0.9
DMAIN-14-0025	0.6	0.410	0.910	0.9
DMAIN-14-0027	0.525	0.307	0.691	0.75
DMAIN-14-0028	0.525	0.220	0.716	0.9
DMAIN-14-0029	0.525	0.229	0.728	0.9
DMAIN-14-0030	0.45	0.122	0.705	0.9
DMAIN-14-0051	0.45	0.102	0.365	0.75
DMAIN-14-0052	0.45	0.097	0.331	0.75
DMAIN-14-0106	0.6	0.169	0.397	0.75
DMAIN-14-0134	0.45	0.106	0.235	0.6
DMAIN-14-0136	0.45	0.065	0.134	0.525
DMAIN-14-0137	0.45	0.071	0.317	0.675
DMAIN-14-0140	0.75	0.638	0.792	0.9
DMAIN-14-0141	0.6	0.141	0.775	1.05
DMAIN-14-0142	0.6	0.105	0.884	1.05
DMAIN-15-0002	1.05	2.023	3.401	1.35
DMAIN-15-0006	0.75	0.721	1.641	1.05
DMAIN-15-0007	0.75	0.565	1.404	1.05
DMAIN-15-0008	0.75	0.687	1.608	1.05
DMAIN-15-0009	0.75	0.625	1.117	0.9
DMAIN-15-0010	0.45	0.309	0.898	0.675
DMAIN-15-0011	0.45	0.198	0.738	0.75
DMAIN-15-0012	0.45	0.181	0.507	0.675
DMAIN-15-0013	0.45	0.231	0.312	0.525
DMAIN-16-0003	0.375	0.468	0.508	0.45
DMAIN-16-0004_1	0.3	0.402	0.462	0.375
DMAIN-16-0004_2	0.3	0.031	0.450	0.675
DMAIN-16-0005	0.45	0.218	0.494	0.675
DMAIN-16-0006	0.525	0.286	0.363	0.6



Appendix G – Drainage Assessment

Conduit ID	Existing Diameter (m)	Existing Pipe Capacity (m ³ /s)	Inst. 100-Year Peak Flow (Future 2050) (m ³ /s)	Future Upgrade Diameter (m)
DMAIN-16-0055	0.6	0.659	0.866	0.675
DMAIN-17-0004	0.75	0.951	1.278	0.9
DMAIN-17-0005	0.75	0.764	1.606	1.05
DMAIN-17-0007	0.6	0.356	1.088	0.9
DMAIN-17-0008	0.6	0.367	0.972	0.9
DMAIN-17-0069	0.45	0.090	1.348	1.05
DMAIN-20-0029	0.75	0.543	1.215	1.05
DMAIN-2-0003	1.0	0.956	2.608	1.2
DMAIN-20-0030	0.75	0.628	1.295	1.05
DMAIN-20-0033	0.75	0.606	1.368	1.05
DMAIN-2-0012	0.6	0.270	0.748	0.9
DMAIN-2-0013	0.6	0.156	0.650	0.9
DMAIN-2-0044	1.05	0.747	2.136	1.5
DMAIN-2-0059	1.05	1.757	2.145	1.2
DMAIN-2-0064	1.2	1.242	2.477	1.5
DMAIN-21-0001	0.6	0.274	0.940	0.9
DMAIN-21-0002	0.6	0.168	0.912	0.9
DMAIN-21-0003	0.6	0.233	0.506	0.675
DMAIN-22-0915	0.45	0.248	0.627	0.675
DMAIN-22-0920	0.45	0.165	0.434	0.675
DMAIN-22-0921	0.45	0.168	0.403	0.675
DMAIN-22-0926	0.45	0.240	0.554	0.675
DMAIN-22-0927	0.45	0.372	0.557	0.525
DMAIN-22-0928	0.45	0.225	0.542	0.675
DMAIN-30-0007	0.75	1.101	2.316	1.05
DMAIN-30-0008	0.75	1.004	2.360	1.05
DMAIN-30-0009	0.75	0.993	2.639	1.2
DMAIN-30-0048	0.75	0.954	1.605	1.05
DMAIN-30-0068	0.6	0.693	1.937	0.9
DMAIN-3-0008	0.6	1.143	1.209	0.675
DMAIN-3-0009	0.6	0.246	1.458	1.05
DMAIN-30-0121	0.6	0.676	1.358	0.9
DMAIN-31-0012	0.75	1.229	1.643	0.9
DMAIN-31-0014	0.75	1.146	1.308	0.9



Appendix G – Drainage Assessment

Conduit ID	Existing Diameter (m)	Existing Pipe Capacity (m ³ /s)	Inst. 100-Year Peak Flow (Future 2050) (m ³ /s)	Future Upgrade Diameter (m)
DMAIN-31-0015	0.75	0.687	1.005	0.9
DMAIN-31-0016	0.75	0.694	1.095	0.9
DMAIN-31-0017	0.6	0.318	0.810	0.9
DMAIN-31-0020	0.6	0.105	0.613	0.9
DMAIN-31-0258	0.6	0.368	0.631	0.75
DMAIN-31-0260	0.6	0.382	1.105	0.9
DMAIN-31-0265	0.6	0.501	1.121	0.9
DMAIN-31-0348	0.75	1.202	1.573	0.9
DMAIN-31-0368	0.6	0.435	1.559	1.05
DMAIN-31-0369	0.6	0.475	0.558	0.675
DMAIN-34-0012	1.2	3.370	4.001	1.35
DMAIN-36-0047	0.75	0.507	1.327	1.05
DMAIN-38-0201	0.45	0.182	0.746	0.75
DMAIN-38-0324	0.525	0.417	1.119	0.9
DMAIN-38-0710	0.45	0.302	0.637	0.6
DMAIN-38-0711	0.375	0.104	0.383	0.6
DMAIN-4-0009	0.75	0.606	1.177	1.05
DMAIN-4-0202	0.75	1.064	1.204	0.9
DMAIN-50-0004	0.525	0.432	0.912	0.75
DMAIN-50-0050	0.525	0.688	1.338	0.675
DMAIN-5-0146	0.525	0.720	1.243	0.675
DMAIN-5-0147	0.525	0.553	1.234	0.75
DMAIN-9-0001	0.375	0.277	0.390	0.45

G.3 Culverts Assessment

Culverts Assessment Criteria

Criteria to manage stormwater for culverts was referenced from the City of Courtenay Subdivision and Development Servicing Bylaw No. 2919 – 2018, as shown in Table G-1 above in Section G.2.



Appendix G – Drainage Assessment

Consistent with the criteria in Table D-1, the assessment criteria used to identify undersized culverts is as follows:

- **Major Drainage System Culverts**
 - Roadway and watercourse culverts – 100-year design storm peak flow is required to be conveyed without significant surcharging above the culvert inlet crown.
- **Minor Drainage System Culverts**
 - Driveway culverts - 10-year design storm peak flow is required to be conveyed without significant surcharging above the culvert inlet crown.

Modelling Scenarios and Culvert Assessment Results

Consistent with the previous IRMP Phase 1 and 2 modelling and assessment scenarios, and as requested by the City, the below land use and climate conditions modelling scenarios were simulated to assess the conveyance capacity for culverts within the City.

1) Existing Land Use and Existing Climate Scenario

Driveway culverts were assessed for the minor drainage system 10-year design storm conveyance capacity under existing land use and existing climate conditions. Undersized driveway (minor system) culverts were identified at multiple locations and are shown on Figure 5 in the main body of the report. In summary, 2 driveway (minor system) culverts of the 13 total modelled driveway culverts are identified as undersized.

City roadway and major watercourse culverts were assessed for the major drainage system 100-year design storm conveyance capacity. Undersized roadway and major watercourse (major system) culverts were identified at multiple locations and are shown on Figure 6 in the main body of the report. In summary, 31 roadway and major watercourse (major system) culverts of the 57 total modelled roadway and major watercourse culverts are identified as undersized. The capacity assessment results sheets are also included in this appendix.

2) Future Land Use with Future Climate Change Scenario

Driveway culverts were assessed for the minor drainage system 10-year design storm conveyance capacity under future land use and future climate change (Year 2050) conditions. Undersized driveway (minor system) culverts were identified at multiple locations and are shown on Figure 9 in the main body of the report. In summary, 2 driveway (minor system) culverts of the 13 total modelled driveway culverts are identified as undersized. City roadway and major watercourse culverts were assessed for the major drainage system future 100-year design storm conveyance capacity. Undersized roadway and major watercourse (major system) culverts were identified at multiple locations and are shown on Figure 10 in the main body of the report. In summary, 33 roadway and major watercourse (major system) culverts of the 57 total modelled roadway and major watercourse culverts are identified as undersized. The capacity assessment results sheets are also included in this appendix.

The legend on Figures 5, 6, 9, and 10 shows the Pipe Performance Ranking and Ground/Road Flooding Ranking. Culverts with red pipe performance ranking exceeded the assessment criteria. Culverts with red ground/road flooding ranking not only surcharged above the inlet crown, but also flooded above the ground level as indicated in the SWMM model.

2-Year Existing Scenario Capacity Assessment Results

Storm System Performance Assessment:
Existing 2-Year Design Storm (without 15% Climate Change increase) - Existing Land Use Conditions

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DCUL0001	0.14	24 hr	5.294	0.50	1.17	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0002	0.55	24 hr	5.313	0.56	1.31	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0003	0.58	24 hr	1.449	1.50	1.35	0.45	1.44	-	DASHED	GREEN	CULVERT	CreekCrossing
DCUL0006	0.72	24 hr	2.556	1.01	1.21	0.01	0.63	-	DASHED	GREEN	CULVERT	CreekCrossing
DCUL0013	0.09	24 hr	1.243	0.36	0.54	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0014	0.62	24 hr	2.552	1.00	1.2	0	0.31	-	DASHED	GREEN	CULVERT	CreekCrossing
DCUL0015	0.11	24 hr	0.969	0.32	0.68	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0016	0.53	24 hr	1.81	0.91	1.09	0	0	-	YELLOW	GREEN	CULVERT	CreekCrossing
DCUL0017	0.46	24 hr	1.292	0.55	0.77	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0018	0.77	24 hr	1.068	0.86	0.69	0	0	-	YELLOW	GREEN	CULVERT	CreekCrossing
DCUL0019	0.54	24 hr	1.884	0.93	1.12	0	0	-	YELLOW	GREEN	CULVERT	CreekCrossing
DCUL0020	0.96	24 hr	1.378	1.62	1.46	0.56	2.99	-	DASHED	GREEN	CULVERT	CreekCrossing
DCUL0021	0.19	24 hr	2.727	0.84	1.01	0	0	-	YELLOW	GREEN	CULVERT	CreekCrossing
DCUL0022	0.22	24 hr	2.068	0.70	0.84	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0023	0.29	24 hr	2.75	0.71	0.64	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0024_1	1.63	24 hr	2.141	1.34	1.61	0.41	1.73	-	RED	GREEN	CULVERT	CreekCrossing
DCUL0024_2	1.65	24 hr	2.185	1.23	1.54	0.27	1.44	-	ORANGE	RED	CULVERT	CreekCrossing
DCUL0041	0.27	24 hr	0.105	0.43	0.26	0	0	-	GREEN	GREEN	CULVERT	RoadCrossing
DCUL0045	0.16	24 hr	0.224	0.73	0.44	0	0	-	GREEN	GREEN	CULVERT	Driveway
DCUL0046	1.75	24 hr	0.527	1.48	0.89	0.29	5.24	-	ORANGE	GREEN	CULVERT	RoadCrossing
DCUL0132	5.56	24 hr	0.739	0.77	0.77	0	0.01	-	GREEN	GREEN	CULVERT	Driveway
DCUL0133	8.39	24 hr	0.733	0.76	0.76	0	0.01	-	GREEN	GREEN	CULVERT	Driveway
DCUL0134	8.78	24 hr	0.726	0.75	0.75	0	0.01	-	GREEN	GREEN	CULVERT	Driveway
DCUL0162	3.51	24 hr	0.048	0.47	0.21	0	0.01	-	GREEN	GREEN	CULVERT	RoadCrossing
DCUL0168	7.98	24 hr	0.986	0.80	0.64	0	0.01	-	GREEN	GREEN	CULVERT	RoadCrossing
DCUL0184	0.47	24 hr	0.335	0.72	0.54	0	0	-	GREEN	GREEN	CULVERT	Driveway
DCUL0186	0.84	24 hr	3.058	0.75	1.35	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0187	0.05	24 hr	0.077	0.25	0.2	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0188	0.13	24 hr	0.056	0.28	0.17	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0193	0.06	24 hr	0.046	0.19	0.15	0	0	-	GREEN	GREEN	CULVERT	RoadCrossing_WILDLIFE_CULVERTS
DCUL0203	0.02	24 hr	0.053	0.25	0.15	0	0	-	GREEN	GREEN	CULVERT	RoadCrossing
DCUL0205	0.3	24 hr	1.031	1.03	0.93	0.03	0.01	-	YELLOW	GREEN	CULVERT	Driveway
DCUL0218	0.86	24 hr	1.053	1.01	1.01	0.01	0.18	-	YELLOW	GREEN	CULVERT	RoadCrossing
DCUL0231	0.3	24 hr	0.726	0.82	0.74	0	0	-	YELLOW	GREEN	CULVERT	Driveway
DCUL0234	0.23	24 hr	0.383	0.36	0.43	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0235	0.05	24 hr	1.508	0.49	0.6	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0236	0.24	24 hr	0.549	0.54	0.54	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0237	0.81	24 hr	3.344	5.00	3.75	3	19.21	-	DASHED	RED	CULVERT	CreekCrossing
DCUL0238	0.08	24 hr	0.684	0.38	0.51	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0240	0.21	24 hr	13.125	0.89	1.51	0	0	-	YELLOW	GREEN	CULVERT	CreekCrossing
DCUL0253	0.22	24 hr	0.026	0.57	0.17	0	0	-	GREEN	GREEN	CULVERT	RoadCrossing
DCUL0347	2	24 hr	0.027	0.38	0.23	0	0.01	-	GREEN	GREEN	CULVERT	RoadCrossing
DCUL0348	0.03	24 hr	0.076	0.19	0.17	0	0	-	GREEN	GREEN	CULVERT	Driveway
DCUL0351	0.25	24 hr	0.331	0.48	0.43	0	0	-	GREEN	GREEN	CULVERT	RoadCrossing
DCUL0357	0.19	24 hr	0.164	0.62	0.37	0	0	-	GREEN	GREEN	CULVERT	RoadCrossing
DCUL0368	0.06	24 hr	0.186	0.22	0.26	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0369	24.2	24 hr	0.272	1.48	0.74	0.24	21.43	-	ORANGE	RED	CULVERT	RoadCrossing
DCUL0420	0.22	24 hr	0.163	0.62	0.37	0	0	-	GREEN	GREEN	CULVERT	RoadCrossing
DCUL0438	0.03	24 hr	0.082	0.32	0.19	0	0	-	GREEN	GREEN	CULVERT	RoadCrossing
DCUL0535	0.19	24 hr	0.705	0.61	0.61	0	0	-	GREEN	GREEN	CULVERT	Driveway
DCUL0536	0.16	24 hr	0.729	0.79	0.71	0	0	-	GREEN	GREEN	CULVERT	Driveway
DCUL0581	0.11	24 hr	0.808	0.35	0.63	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0582	0.03	24 hr	0.192	0.27	0.48	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0583	0.05	24 hr	0.305	0.57	0.94	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing

- Pipe Performance Ranking**
- **Green** = No Capacity Issues
 - **Yellow** = Between 80% - 100% Capacity and pipe crown surcharging < 30cm
 - **Orange** = Greater than 100% Capacity but no significant pipe crown surcharging
 - **Red** = > 100% Capacity and pipe crown surcharging > 30cm and > 15 minutes
 - **Dashed Red** = Surcharging of pipe crown > 30cm and > 15 minutes that may be due to backwater
- Ground/Road Flooding Ranking**
- Storm Trunk Sewers:**
- **Green** = Ground/Road Flooding = 0 minutes
 - **Red** = Ground/Road Flooding > 0 minutes possible
- Culverts:**
- **Green** = No Ground/Road Flooding occurring
 - **Red** = Ground/Road Flooding occurring

Storm System Performance Assessment:
Existing 2-Year Design Storm (without 15% Climate Change increase) - Existing Land Use Conditions

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surcharge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DCUL0589	0.1	24 hr	0.063	0.40	0.2	0	0	-	GREEN	GREEN	CULVERT	RoadCrossing
DCUL0590	0.47	24 hr	0.058	1.00	0.3	0	1.8	-	DASHED	RED	CULVERT	Driveway
DCUL0591	0.13	24 hr	0.036	0.28	0.17	0	0	-	GREEN	GREEN	CULVERT	RoadCrossing
DCUL0593	0.74	24 hr	0.327	1.52	0.76	0.26	0.28	-	DASHED	RED	CULVERT	RoadCrossing
DCUL0598	0.02	24 hr	0.019	0.12	0.12	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0612_1	0.33	24 hr	2.397	1.07	1.93	0.13	0.01	-	YELLOW	GREEN	CULVERT	RoadCrossing
DCUL0612_2	0.35	24 hr	2.5	0.99	1.79	0	0	-	YELLOW	GREEN	CULVERT	RoadCrossing
DCUL0613	0.58	24 hr	0.362	0.76	0.57	0	0	-	GREEN	GREEN	CULVERT	RoadCrossing
DCUL0617	0.11	24 hr	0.103	0.24	0.24	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0618	1.71	24 hr	0.114	1.18	0.53	0.08	0.72	-	ORANGE	RED	CULVERT	CreekCrossing
DCUL0623	0.16	24 hr	1.712	0.39	0.86	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0624	0.71	24 hr	12.82	0.80	2.23	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0633	0.33	24 hr	0.028	0.43	0.17	0	0	-	GREEN	GREEN	CULVERT	PRIVATE
DCUL0634	0.29	24 hr	0.031	0.45	0.18	0	0	-	GREEN	GREEN	CULVERT	PRIVATE
DCUL0639	1.27	24 hr	0.109	3.87	1.16	0.86	24.31	-	RED	GREEN	CULVERT	MOTI
DCUL0654	0.44	24 hr	0.223	0.73	0.89	0	0	-	GREEN	GREEN	CULVERT	RoadCrossing
DCUL0657	0.14	24 hr	0.066	0.40	0.21	0	0	-	GREEN	GREEN	CULVERT	Driveway
DCUL0659	0.09	24 hr	0.037	0.27	0.14	0	0	-	GREEN	GREEN	CULVERT	Driveway
DCUL0673	1.51	24 hr	0.801	1.12	0.67	0.07	0.54	-	ORANGE	GREEN	CULVERT	RoadCrossing
DCUL0698	0.06	24 hr	0.01	0.20	0.12	0	0	-	GREEN	GREEN	CULVERT	RoadCrossing
DCUL0699	0.05	24 hr	1.002	0.20	0.6	0	0	-	GREEN	GREEN	CULVERT	RoadCrossing
DCUL0733	0	24 hr	0.004	0.02	0.04	0	0	-	GREEN	GREEN	MAIN_TRUNK	
DCUL0751	0.03	24 hr	0.078	0.18	0.22	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0752	0.04	24 hr	0.084	0.21	0.21	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0753	0.08	24 hr	0.13	0.21	0.3	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0754	0.05	24 hr	0.009	0.23	0.23	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0755	0.16	24 hr	0.129	0.29	0.29	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0756	0.03	24 hr	0.013	0.12	0.12	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0757	0.05	24 hr	0.04	0.17	0.17	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0758	0.01	24 hr	0.008	0.09	0.08	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0759	0.05	24 hr	0.04	0.17	0.17	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0760	0.01	24 hr	0.005	0.08	0.07	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0761	0	1 hr	0	0.00	0	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0762	0	1 hr	0	0.00	0	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0763	0	1 hr	0	0.00	0	0	0	-	GREEN	GREEN	CULVERT	MOTI
DITC-0729	0.25	24 hr	0.226	0.32	0.19	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DITC-0729_2	0.24	24 hr	0.226	0.95	0.57	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-10-0001	1.05	24 hr	0.415	0.81	0.49	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-10-0002-1	0.92	24 hr	0.327	0.85	0.51	0	0	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-10-0002-2	1.68	24 hr	0.406	0.93	0.56	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-10-0003	1.13	24 hr	0.326	0.90	0.54	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-10-0004	1.5	24 hr	0.344	1.84	0.83	0.38	0.2	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-10-0005	0.59	24 hr	0.321	1.00	0.45	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-10-0006	0.52	24 hr	0.32	0.51	0.23	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-10-0007	0.75	24 hr	0.272	0.67	0.3	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-10-0008	0.62	24 hr	0.172	0.58	0.26	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-10-0009	0.45	24 hr	0.144	0.47	0.21	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-1-0001_1	0.32	24 hr	0.902	0.39	0.47	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-1-0001_2	0.32	24 hr	0.902	0.41	0.49	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-1-0003	0.61	24 hr	0.687	0.56	0.45	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-1-0004	0.6	24 hr	0.617	0.56	0.45	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-10-0041	0.19	24 hr	0.415	0.72	0.43	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-1-0012	0.69	24 hr	0.386	0.63	0.5	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-1-0013	0.87	24 hr	0.381	0.71	0.57	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-1-0014	0.36	24 hr	0.219	0.42	0.25	0	0	0	GREEN	GREEN	MAIN_TRUNK	

Storm System Performance Assessment:
Existing 2-Year Design Storm (without 15% Climate Change increase) - Existing Land Use Conditions

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surcharge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-11-0001	0.43	24 hr	0.305	0.53	0.29	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-11-0002	0.98	24 hr	0.226	0.82	0.37	0	0	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-11-0003	0.44	24 hr	0.203	0.47	0.21	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-11-0004	0.25	24 hr	0.201	0.33	0.15	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-12-0001	0.48	24 hr	0.06	0.50	0.15	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-12-0002	0.23	24 hr	0.038	0.33	0.1	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-13-0001	0.91	24 hr	0.705	0.95	0.71	0	0	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-13-0002	0.92	24 hr	0.625	0.71	0.53	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-13-0003	0.45	24 hr	0.446	0.47	0.35	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-13-0004_1	0.15	24 hr	0.43	0.25	0.19	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-13-0004_2	0.2	24 hr	0.43	0.31	0.31	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-13-0005	0.62	24 hr	0.299	0.49	0.37	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0001	1.15	24 hr	1.554	0.66	1.19	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0002	0.46	24 hr	1.505	0.47	0.71	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0003	0.36	24 hr	1.277	0.41	0.56	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0004	0.99	24 hr	1.273	0.71	0.96	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0005	0.9	24 hr	1.187	0.73	0.99	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0006	1.1	24 hr	1.112	0.83	1	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-14-0007	0.98	24 hr	1.113	0.81	0.97	0	0	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-14-0008	0.63	24 hr	1	0.58	0.69	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0009	0.62	24 hr	0.905	0.61	0.64	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0010	0.7	24 hr	0.877	0.62	0.65	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0012	1.3	24 hr	0.849	0.71	0.75	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0013	0.8	24 hr	0.821	0.68	0.71	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0014	1.07	24 hr	0.673	0.72	0.76	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0015	1.87	24 hr	0.611	0.79	0.83	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0016	1.07	24 hr	0.596	0.93	0.84	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-14-0018	0.78	24 hr	0.463	0.69	0.72	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0019	0.21	24 hr	0.056	0.32	0.19	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0020	0.09	24 hr	0.013	0.20	0.09	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0023	0.23	24 hr	0.25	0.52	0.39	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0024	0.63	24 hr	0.243	0.57	0.34	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0025	0.59	24 hr	0.243	0.55	0.33	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0026	0.68	24 hr	0.19	0.61	0.32	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0027	0.59	24 hr	0.181	0.55	0.29	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0028	0.79	24 hr	0.173	0.67	0.35	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0029	0.63	24 hr	0.145	0.59	0.31	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0030	0.84	24 hr	0.102	0.71	0.32	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0033	0.72	24 hr	0.049	0.61	0.23	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0051	2.16	24 hr	0.22	4.16	1.87	1.42	4.77	0	RED	GREEN	MAIN_TRUNK	
DMAIN-14-0052	2.08	24 hr	0.201	5.51	2.48	2.03	5.13	1.54	RED	RED	MAIN_TRUNK	
DMAIN-14-0053	1.82	24 hr	0.179	6.18	2.78	2.33	4.95	2.03	RED	RED	MAIN_TRUNK	
DMAIN-14-0058	2.68	24 hr	0.138	6.51	2.93	2.48	4.63	2.1	RED	RED	MAIN_TRUNK	
DMAIN-14-0059	1.37	24 hr	0.109	6.89	3.1	2.65	3.9	2.07	RED	RED	MAIN_TRUNK	
DMAIN-14-0062	1.15	24 hr	0.089	5.42	2.44	1.99	2.33	1.39	RED	RED	MAIN_TRUNK	
DMAIN-14-0063	0.58	24 hr	0.065	5.29	2.38	1.93	2.18	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0070	0.27	24 hr	0.093	0.35	0.21	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0071	0.27	24 hr	0.046	0.37	0.37	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0083	0.01	24 hr	0.003	0.07	0.03	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0084	0.01	24 hr	0.002	0.07	0.03	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0085	0	1 hr	0	0.00	0	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0086	0	1 hr	0	0.00	0	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0087	0	1 hr	0	0.00	0	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0097	0.14	24 hr	0.098	0.27	0.12	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0098	0.6	24 hr	0.097	0.58	0.26	0	0	0	GREEN	GREEN	MAIN_TRUNK	

Storm System Performance Assessment:
Existing 2-Year Design Storm (without 15% Climate Change increase) - Existing Land Use Conditions

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-14-0099	0.69	24 hr	0.085	0.62	0.28	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0100	0.39	24 hr	0.085	0.42	0.19	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0102	44.91	24 hr	0.078	8.30	2.49	2.19	19.51	0.01	RED	RED	MAIN_TRUNK	
DMAIN-14-0102A	12.38	24 hr	0.082	0.93	0.28	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-14-0106	0.74	24 hr	0.125	0.73	0.44	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0107	0.48	24 hr	0.092	0.50	0.3	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0108	0.15	24 hr	0.033	0.27	0.16	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0109	0.21	24 hr	0.112	0.58	0.26	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0110	0.54	24 hr	0.081	0.56	0.25	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0111	0.35	24 hr	0.057	0.44	0.2	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0112	0.63	24 hr	0.056	0.53	0.24	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0113	0.33	24 hr	0.048	0.40	0.18	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0114	0.99	24 hr	0.037	0.88	0.22	0	0	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-14-0121	0.08	24 hr	0.009	0.20	0.06	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0122	0.14	24 hr	0.004	0.25	0.05	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0127	0	1 hr	0	-0.93	0	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0128	0.49	24 hr	0.041	0.53	0.2	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0129	0.3	24 hr	0.026	0.43	0.16	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0130	0.02	24 hr	0.006	0.10	0.03	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0133	0.14	24 hr	0.045	0.24	0.09	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0134	1.05	24 hr	0.112	5.02	2.26	1.81	1.36	0.01	RED	RED	MAIN_TRUNK	
DMAIN-14-0135	0.88	24 hr	0.094	0.73	0.33	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0136	0.96	24 hr	0.063	0.76	0.34	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0137	0.9	24 hr	0.063	0.73	0.33	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0140	0.6	24 hr	0.381	0.56	0.42	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0141	2.39	24 hr	0.338	2.62	1.57	0.97	0.88	0.01	RED	RED	MAIN_TRUNK	
DMAIN-14-0142	11.48	24 hr	0.317	2.82	1.69	1.09	9.81	0.39	RED	RED	MAIN_TRUNK	
DMAIN-14-0143	0.78	24 hr	0.176	2.40	1.44	0.84	1.08	0.38	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0173	0.15	24 hr	0.133	0.27	0.22	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0187	0.36	24 hr	0.619	0.53	0.48	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0188	1.14	24 hr	0.906	0.71	0.75	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0190	0	1 hr	0	0.00	0	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0198	0.65	24 hr	0.069	0.56	0.25	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0202	0.07	24 hr	0.01	0.18	0.08	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-15-0001	1.55	24 hr	1.127	1.11	1.17	0.12	0.05	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-15-0002	0.55	24 hr	1.107	0.52	0.55	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-15-0004	0.72	24 hr	0.843	0.63	0.47	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-15-0005-1	0.27	24 hr	0.637	0.36	0.27	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-15-0005-2	0.19	24 hr	0.792	0.29	0.22	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-15-0006	0.95	24 hr	0.682	0.68	0.51	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-15-0007	1.19	24 hr	0.674	0.87	0.65	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-15-0008	0.97	24 hr	0.668	0.85	0.64	0	0	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-15-0009	0.7	24 hr	0.439	0.61	0.46	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-15-0010	0.94	24 hr	0.29	1.00	0.45	0	0.04	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-15-0011	1.46	24 hr	0.287	3.00	1.35	0.9	0.13	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-15-0012	1.43	24 hr	0.259	5.56	2.5	2.05	0.15	0.01	ORANGE	RED	MAIN_TRUNK	
DMAIN-15-0013	0.51	24 hr	0.117	0.56	0.25	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-15-0014	0.36	24 hr	0.078	0.42	0.19	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-15-0057	0.39	24 hr	0.13	0.43	0.26	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-15-0117	0.82	24 hr	1.054	0.69	0.52	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-15-0125	0.84	24 hr	0.803	0.71	0.53	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-16-0001	0.18	24 hr	0.193	0.33	0.2	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-16-0002	0.25	24 hr	0.158	0.35	0.21	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-16-0003	0.34	24 hr	0.157	0.40	0.15	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-16-0004_1	0.38	24 hr	0.152	0.43	0.13	0	0	0	GREEN	GREEN	MAIN_TRUNK	

Storm System Performance Assessment:
Existing 2-Year Design Storm (without 15% Climate Change increase) - Existing Land Use Conditions

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-16-0004_2	0.91	24 hr	0.143	2.33	0.7	0.4	0.01	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-16-0005	0.64	24 hr	0.14	0.91	0.41	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-16-0006	0.4	24 hr	0.114	0.44	0.23	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-16-0007	0.44	24 hr	0.1	0.47	0.21	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-16-0008	0.36	24 hr	0.066	0.42	0.19	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-16-0009	0.31	24 hr	0.052	0.38	0.17	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-16-0055	0.29	24 hr	0.188	0.37	0.22	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-17-0001	1.17	24 hr	0.51	3.50	2.1	1.5	0.19	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-17-0004	0.41	24 hr	0.389	0.44	0.33	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-17-0005	0.5	24 hr	0.385	0.51	0.38	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-17-0007	0.98	24 hr	0.349	0.78	0.47	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-17-0008	0.75	24 hr	0.275	0.68	0.65	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-17-0009	0.52	24 hr	0.224	0.52	0.31	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-17-0018	1.02	24 hr	0.502	3.62	2.17	1.57	0.18	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-17-0069	12.01	24 hr	0.273	1.00	0.69	3.55271E-15	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-17-0076	0.38	24 hr	0.404	0.43	0.32	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-18-0001	0.3	24 hr	0.274	0.41	0.31	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-18-0003	0.26	24 hr	0.256	0.35	0.26	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-18-0004	0.1	24 hr	0.255	0.21	0.16	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-18-0008	0.39	24 hr	0.395	0.44	0.33	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-18-0009	0.51	24 hr	0.377	0.51	0.38	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-18-0010	0.63	24 hr	0.281	0.57	0.3	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-18-0011	0.42	24 hr	0.154	0.44	0.2	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-18-0012	0.31	24 hr	0.147	0.38	0.17	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-18-0014	0.12	24 hr	0.082	0.24	0.11	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-18-0052	0.3	24 hr	0.517	0.72	0.54	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-18-0061	0.23	24 hr	0.091	0.33	0.15	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-2-0001	10.17	24 hr	0.705	3.73	2.8	2.05	0.47	0.21	RED	RED	MAIN_TRUNK	
DMAIN-20-0018	0.33	24 hr	0.197	0.39	0.81	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-20-0029	0.47	24 hr	0.253	0.48	0.36	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-2-0003	0.7	24 hr	0.666	0.61	0.61	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-20-0030	0.41	24 hr	0.258	0.44	0.37	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-20-0033	0.47	24 hr	0.286	0.48	0.36	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-20-0034	0.25	24 hr	0.319	0.35	0.21	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-2-0004	0.77	24 hr	0.328	0.67	0.5	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-20-0047	0.09	24 hr	0.319	0.33	0.25	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-2-0010	0.13	24 hr	0.051	1.22	0.73	0.13	0.27	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-2-0011	0.17	24 hr	0.062	0.40	0.24	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-2-0012	0.56	24 hr	0.15	0.53	0.32	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-2-0013	0.76	24 hr	0.118	0.68	0.41	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-2-0044	0.94	24 hr	0.699	0.71	0.75	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-2-0047	0.28	24 hr	0.764	2.93	2.34	1.54	0.27	0.13	DASHED	RED	MAIN_TRUNK	
DMAIN-2-0049	1.22	24 hr	0.323	3.67	2.2	1.6	0.27	0.06	RED	RED	MAIN_TRUNK	
DMAIN-2-0050	0.66	24 hr	0.317	3.05	1.83	1.23	0.23	0.06	DASHED	RED	MAIN_TRUNK	
DMAIN-2-0059	0.4	24 hr	0.697	0.62	0.78	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-2-0064	0.53	24 hr	0.662	0.52	0.62	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-2-0065	0.44	24 hr	0.755	0.60	0.63	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-2-0066	1.03	24 hr	0.687	3.31	2.48	1.73	0.27	0.01	RED	RED	MAIN_TRUNK	
DMAIN-2-0067	0.77	24 hr	0.328	0.67	0.5	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-2-0068	2.8	24 hr	0.624	2.78	2.22	1.42	0.25	0.2	ORANGE	RED	MAIN_TRUNK	
DMAIN-2-0070	0.14	24 hr	0.052	0.93	0.56	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-2-0072	0.16	24 hr	0.056	0.77	0.46	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-2-0073	0.15	24 hr	0.057	0.70	0.42	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-2-0074	0.43	24 hr	0.058	0.40	0.24	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-2-0083	0.63	24 hr	0.653	0.58	0.52	0	0	0	GREEN	GREEN	MAIN_TRUNK	

Storm System Performance Assessment:
Existing 2-Year Design Storm (without 15% Climate Change increase) - Existing Land Use Conditions

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surcharge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-21-0001	0.58	24 hr	0.159	0.60	0.36	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-21-0002	2.48	24 hr	0.154	0.62	0.37	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-21-0003	0.31	24 hr	0.072	0.40	0.24	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-22-0915	0.42	24 hr	0.103	0.44	0.2	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-22-0920	0.46	24 hr	0.076	0.53	0.24	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-22-0921	0.51	24 hr	0.085	1.67	0.75	0.3	8.33	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-22-0922	0.21	24 hr	0.02	0.32	0.12	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-22-0926	0.63	24 hr	0.152	0.58	0.26	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-22-0927	0.34	24 hr	0.126	0.40	0.18	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-22-0928	0.66	24 hr	0.149	0.73	0.33	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-23-0002	1.69	24 hr	0.967	2.27	1.7	0.95	0.25	0.01	ORANGE	RED	MAIN_TRUNK	
DMAIN-23-0003	0.18	24 hr	0.205	0.28	0.17	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-23-0008	0.98	24 hr	0.612	1.63	1.22	0.47	0.13	0.13	DASHED	RED	MAIN_TRUNK	
DMAIN-23-0035	1.02	24 hr	0.637	2.29	1.72	0.967	0.22	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-30-0001	1.02	24 hr	1.955	2.19	1.97	1.07	0.41	0	RED	GREEN	MAIN_TRUNK	
DMAIN-30-0002	1	24 hr	1.954	1.78	1.6	0.7	0.24	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-30-0003	1.3	24 hr	1.937	2.09	1.88	0.98	0.28	0.05	RED	RED	MAIN_TRUNK	
DMAIN-30-0004	1.67	24 hr	1.512	3.04	2.28	1.53	0.34	0.1	RED	RED	MAIN_TRUNK	
DMAIN-30-0005	0.76	24 hr	1.486	4.56	3.42	2.67	0.1	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-30-0006	0.39	24 hr	1.302	0.43	0.32	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-30-0007	1.17	24 hr	1.286	5.64	4.23	3.48	0.2	0.01	ORANGE	RED	MAIN_TRUNK	
DMAIN-30-0008	1.29	24 hr	1.295	3.33	2.5	1.75	0.25	0.01	ORANGE	RED	MAIN_TRUNK	
DMAIN-30-0009	1.29	24 hr	1.282	2.68	2.01	1.26	0.28	0	RED	GREEN	MAIN_TRUNK	
DMAIN-30-0034	0.64	24 hr	0.339	2.57	1.54	0.94	0.25	0.02	DASHED	RED	MAIN_TRUNK	
DMAIN-30-0035	1.04	24 hr	0.3	2.95	1.77	1.17	0.2	0.01	ORANGE	RED	MAIN_TRUNK	
DMAIN-30-0036	0.49	24 hr	0.248	1.72	1.16	0.43	0.12	0.06	DASHED	RED	MAIN_TRUNK	
DMAIN-30-0048	1.03	24 hr	0.984	2.41	1.81	1.06	0.26	0.1	RED	RED	MAIN_TRUNK	
DMAIN-30-0049	0.76	24 hr	0.994	2.01	1.51	0.76	0.2	0.15	DASHED	RED	MAIN_TRUNK	
DMAIN-30-0050	0.76	24 hr	0.607	2.24	1.68	0.93	0.1	0.05	DASHED	RED	MAIN_TRUNK	
DMAIN-30-0051	0.99	24 hr	0.497	3.60	2.16	1.56	0.13	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-30-0052	1.07	24 hr	0.503	3.48	2.09	1.49	0.11	0.01	ORANGE	RED	MAIN_TRUNK	
DMAIN-30-0053	0.57	24 hr	0.411	0.78	0.47	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-30-0067	0.4	24 hr	0.269	0.43	0.26	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-30-0068	0.63	24 hr	0.439	0.58	0.35	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-3-0007	0.25	24 hr	0.285	0.33	0.2	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-3-0008	0.23	24 hr	0.263	0.33	0.2	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-3-0009	0.87	24 hr	0.214	0.72	0.43	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-30-0121	0.63	24 hr	0.423	0.67	0.4	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-30-0122	0.44	24 hr	0.423	0.47	0.28	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-30-0123	0.23	24 hr	0.424	0.33	0.2	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-30-0125	0.18	24 hr	0.273	0.28	0.17	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-30-0126	0.64	24 hr	0.273	0.58	0.35	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-30-0127	0.64	24 hr	0.273	0.58	0.35	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-30-0128	0.75	24 hr	0.27	0.62	0.37	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-30-0129	0.63	24 hr	0.265	0.57	0.34	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-30-0130	0.63	24 hr	0.246	0.58	0.35	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-3-0028	0.46	24 hr	0.194	0.47	0.21	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-3-0037	0.28	24 hr	0.206	0.47	0.21	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-3-0041	0.83	24 hr	0.206	0.69	0.31	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-3-0043	0.94	24 hr	0.204	0.77	0.23	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-30-1041	1.03	24 hr	1.984	1.84	1.66	0.76	0.01	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-31-0010	0.79	24 hr	1.118	0.92	0.83	0	0	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-31-0011	1.08	24 hr	0.981	2.57	1.93	1.18	0.11	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-31-0012	0.79	24 hr	0.966	0.75	0.56	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0013	0.67	24 hr	0.93	0.60	0.45	0	0	0	GREEN	GREEN	MAIN_TRUNK	

Storm System Performance Assessment:
Existing 2-Year Design Storm (without 15% Climate Change increase) - Existing Land Use Conditions

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-31-0014	0.7	24 hr	0.804	0.61	0.46	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0015	0.93	24 hr	0.64	0.77	0.58	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0016	0.92	24 hr	0.641	0.76	0.57	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0017	1.71	24 hr	0.543	5.08	3.05	2.45	0.78	0	RED	GREEN	MAIN_TRUNK	
DMAIN-31-0018	1.16	24 hr	0.514	4.40	2.64	2.038	0.62	0.36	RED	RED	MAIN_TRUNK	
DMAIN-31-0019	0.85	24 hr	0.471	4.42	2.65	2.05	0.6	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-31-0020	4.68	24 hr	0.453	5.57	3.34	2.74	1.48	0.29	RED	RED	MAIN_TRUNK	
DMAIN-31-0021	1	24 hr	0.469	1.78	1.07	0.47	0.23	0.23	ORANGE	RED	MAIN_TRUNK	
DMAIN-31-0039	0.22	24 hr	1.157	0.37	0.52	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0048_1	0.28	24 hr	0.945	0.36	0.51	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0048_2	0.35	24 hr	1.172	0.40	0.56	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0049	0.1	24 hr	0.603	0.23	0.27	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0053	0.96	24 hr	0.277	0.78	0.35	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0074	0.33	24 hr	0.392	0.40	0.24	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0077	0.24	24 hr	0.336	0.33	0.2	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0118	1.18	24 hr	1.29	18.23	10.94	10.34	0.2	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-31-0193	0.74	24 hr	0.449	0.68	0.41	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0224	0.11	24 hr	0.161	0.23	0.17	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0227	0.07	24 hr	0.107	0.19	0.14	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0228	0.47	24 hr	0.095	0.50	0.15	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0230	0.78	24 hr	0.063	0.68	0.17	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0231	0.45	24 hr	0.036	0.48	0.12	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0232	0.19	24 hr	0.011	0.30	0.06	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0258	1.18	24 hr	0.433	1.70	1.02	0.42	0.29	0	RED	GREEN	MAIN_TRUNK	
DMAIN-31-0259	1.04	24 hr	0.429	4.62	2.77	2.17	0.2	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-31-0260	0.93	24 hr	0.356	5.50	3.3	2.7	0.1	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-31-0265	0.58	24 hr	0.29	0.55	0.69	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0286	0.17	24 hr	0.391	0.32	0.38	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0289	0.03	24 hr	0.096	0.13	0.08	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0289_2	0.11	24 hr	0.111	0.20	0.12	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0290	0.1	24 hr	0.093	0.23	0.14	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0304	2.8	24 hr	0.443	2.08	1.25	0.65	0.55	0	RED	GREEN	MAIN_TRUNK	
DMAIN-31-0305	1.23	24 hr	0.34	5.80	2.61	2.16	0.13	0.01	ORANGE	RED	MAIN_TRUNK	
DMAIN-31-0312	1.27	24 hr	0.107	3.63	1.36	0.985	0.26	0.15	RED	RED	MAIN_TRUNK	
DMAIN-31-0321	0.02	24 hr	0.007	0.11	0.05	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0348	0.79	24 hr	0.956	0.68	0.51	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0360	15.76	24 hr	0.371	1.03	0.62	0.02	0.08	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-31-0368	1.37	24 hr	0.596	1.48	0.89	0.29	0.35	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-31-0369	0.83	24 hr	0.393	4.90	2.94	2.34	0.61	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-31-0374	4.55	24 hr	0.32	1.53	0.92	0.32	0.6	0	RED	GREEN	MAIN_TRUNK	
DMAIN-31-0375	1.34	24 hr	0.473	1.53	0.92	0.32	0.6	0	RED	GREEN	MAIN_TRUNK	
DMAIN-31-0376	1.28	24 hr	1.398	1.66	1.49	0.59	1.24	0	RED	GREEN	MAIN_TRUNK	
DMAIN-31-0381	0.74	24 hr	1.417	1.49	1.34	0.44	1.25	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-34-0002	0.2	24 hr	1.464	0.35	0.49	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0003	0.55	24 hr	1.456	0.53	0.79	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0005	0.64	24 hr	1.443	0.58	0.81	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0006	0.26	24 hr	1.359	0.34	0.48	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0007	0.34	24 hr	1.356	0.41	0.58	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0008	0.3	24 hr	1.351	0.38	0.53	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0010	0.08	24 hr	0.785	0.19	0.31	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0012	0.36	24 hr	1.23	0.44	0.53	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0015	0.27	24 hr	1.15	0.36	0.38	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0022	1.75	24 hr	0.664	3.27	1.96	1.36	0.48	0.17	RED	RED	MAIN_TRUNK	
DMAIN-34-0023	1.35	24 hr	0.641	6.40	3.84	3.24	0.17	0.01	ORANGE	RED	MAIN_TRUNK	
DMAIN-34-0024	0.65	24 hr	0.511	0.68	0.71	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	

Storm System Performance Assessment:
Existing 2-Year Design Storm (without 15% Climate Change increase) - Existing Land Use Conditions

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surcharge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-34-0046	0.09	24 hr	0.416	0.22	0.37	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0049	0.16	24 hr	0.408	0.28	0.46	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0051	0.63	24 hr	0.379	0.33	0.55	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0052	0.14	24 hr	0.286	0.33	0.5	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0053	4.38	24 hr	0.288	0.40	0.56	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0054	0.03	24 hr	0.011	0.12	0.06	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0055	0.01	24 hr	0.004	0.08	0.04	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0056	0	24 hr	0.007	0.09	0.13	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0057	0	1 hr	0	-2.43	0	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0058	0.51	24 hr	0.281	0.53	0.4	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0059	1.29	24 hr	0.278	2.33	1.05	0.6	0.08	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-34-0060	0.13	24 hr	0.078	0.24	0.11	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0065	0.02	24 hr	0.064	0.10	0.14	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0068	0.01	24 hr	0.032	0.07	0.1	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0069	0.05	24 hr	0.031	0.16	0.19	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0070	0.06	24 hr	0.029	0.16	0.19	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0136	1	24 hr	0.326	0.84	0.38	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-34-0159	0.14	24 hr	0.76	0.26	0.43	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0161	0.22	24 hr	1.341	0.33	0.39	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0162	0.16	24 hr	0.569	0.28	0.29	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0163	0.54	24 hr	0.42	0.54	0.43	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0164	0.26	24 hr	1.102	0.44	0.46	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0174	0.15	24 hr	0.492	0.26	0.31	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0176	0.15	24 hr	0.759	0.26	0.31	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-35-0019	0.61	24 hr	0.506	0.60	0.36	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-35-0022	0.57	24 hr	0.498	0.55	0.33	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-35-0023	0.74	24 hr	0.35	0.64	0.32	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-35-0024	1.31	24 hr	0.115	2.23	0.67	0.37	0.14	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-35-0034	0.46	24 hr	0.708	0.71	0.48	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-35-0035	1.43	24 hr	0.666	0.83	0.56	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-35-0057	0.48	24 hr	0.507	0.49	0.22	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-35-0059	0.77	24 hr	0.367	0.72	0.44	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-35-0063	0.8	24 hr	0.618	0.68	0.41	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-35-0066	0.96	24 hr	0.622	0.78	0.47	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-35-0067	0.66	24 hr	0.622	1.05	0.79	0.04	0.14	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-35-0069	1.32	24 hr	0.622	0.93	0.98	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-35-0070	0.94	24 hr	0.623	0.75	0.56	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-35-0080	0.66	24 hr	0.555	2.25	1.52	0.845	1.59	0.34	DASHED	RED	MAIN_TRUNK	
DMAIN-36-0001	0.72	24 hr	0.769	0.80	0.48	0	0	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-36-0002	0.64	24 hr	0.765	0.58	0.41	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-36-0003	0.43	24 hr	0.761	0.45	0.27	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-36-0004	0.68	24 hr	0.757	0.60	0.36	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-36-0005	0.8	24 hr	0.753	0.68	0.41	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-36-0006	0.65	24 hr	0.636	0.58	0.57	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-36-0007	0.72	24 hr	0.624	0.63	0.38	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-36-0008	0.54	24 hr	0.409	0.53	0.48	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-36-0009	0.29	24 hr	0.151	0.38	0.33	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-36-0046	1.15	24 hr	0.428	0.99	0.74	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-36-0047	0.7	24 hr	0.353	0.79	0.59	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-36-0048	0.61	24 hr	0.337	0.71	0.53	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-36-0049	2.05	24 hr	0.339	1.01	0.53	0.005	0.05	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-38-0200	0.71	24 hr	0.163	0.67	0.3	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-38-0201	0.9	24 hr	0.163	0.73	0.33	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-38-0300	0.66	24 hr	0.423	0.63	0.38	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-38-0301	0.8	24 hr	0.419	0.68	0.41	0	0	0	GREEN	GREEN	MAIN_TRUNK	

Storm System Performance Assessment:
Existing 2-Year Design Storm (without 15% Climate Change increase) - Existing Land Use Conditions

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surcharge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-38-0302	0.84	24 hr	0.159	0.71	0.32	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-38-0307	0.43	24 hr	0.147	0.47	0.21	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-38-0323	0.22	24 hr	0.116	0.31	0.14	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-38-0324	0.72	24 hr	0.301	0.65	0.34	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-38-0325	0.64	24 hr	0.302	0.72	0.38	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-38-0326	0.57	24 hr	0.183	0.53	0.28	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-38-0403	0.87	24 hr	0.157	0.84	0.38	0	0	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-38-0404	0.86	24 hr	0.156	0.71	0.32	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-38-0405	1	24 hr	0.156	0.82	0.37	0	0	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-38-0412	3.32	24 hr	0.762	0.78	0.7	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-38-0413	0.73	24 hr	0.786	0.69	0.62	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-38-0414	1.27	24 hr	0.818	0.82	0.74	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-38-0416_1	0.51	24 hr	0.547	0.72	1.72	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-38-0416_2	0.72	24 hr	0.762	0.73	0.66	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-38-0418	0.76	24 hr	0.355	0.65	0.44	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-38-0419	0.65	24 hr	0.342	0.58	0.35	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-38-0703	0.65	24 hr	0.692	2.01	1.51	0.76	21.14	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-38-0704	1.62	24 hr	0.658	3.98	2.39	1.79	0.81	0.01	RED	RED	MAIN_TRUNK	
DMAIN-38-0705	0.79	24 hr	0.642	3.73	2.24	1.64	0.34	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-38-0706	1.47	24 hr	0.673	4.15	2.49	1.89	0.4	0.01	RED	RED	MAIN_TRUNK	
DMAIN-38-0707	1.72	24 hr	0.655	4.25	2.55	1.95	0.53	0.19	RED	RED	MAIN_TRUNK	
DMAIN-38-0708	1.5	24 hr	0.639	5.18	3.11	2.51	0.48	0.38	RED	RED	MAIN_TRUNK	
DMAIN-38-0709	1.13	24 hr	0.464	8.03	4.82	4.22	0.41	0.01	RED	RED	MAIN_TRUNK	
DMAIN-38-0710	1.31	24 hr	0.397	9.13	4.11	3.66	0.42	0.01	RED	RED	MAIN_TRUNK	
DMAIN-38-0711	2.35	24 hr	0.245	9.33	3.5	3.125	0.46	0.4	RED	RED	MAIN_TRUNK	
DMAIN-38-0712	1.42	24 hr	0.185	9.49	3.56	3.185	0.43	0.32	RED	RED	MAIN_TRUNK	
DMAIN-38-1033	0.31	24 hr	0.109	3.38	2.03	1.43	69.28	24.21	DASHED	RED	MAIN_TRUNK	
DMAIN-38-2010	0.35	24 hr	0.194	4.33	2.6	2	69.82	0.52	DASHED	RED	MAIN_TRUNK	
DMAIN-38-2011	0.46	24 hr	0.188	4.92	2.95	2.35	70.3	19.42	DASHED	RED	MAIN_TRUNK	
DMAIN-38-2012	0.56	24 hr	0.101	5.38	2.42	1.97	69.61	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-38-2033	0.36	24 hr	0.647	1.89	1.7	0.8	24.76	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-38-2037	1.35	24 hr	0.189	9.92	3.72	3.345	0.42	0.15	RED	RED	MAIN_TRUNK	
DMAIN-38-2051	1.02	24 hr	0.156	0.80	0.36	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-38-2052	1.02	24 hr	0.156	0.76	0.34	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-38-2058	0.48	24 hr	0.321	1.01	1.67	0.008	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-38-2062	0.2	24 hr	0.44	0.60	0.54	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-38-2063	4.69	24 hr	0.385	0.99	0.74	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-38-2063_2	0.79	24 hr	0.812	0.90	0.81	0	0	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-38-2067	0.25	24 hr	0.128	2.82	1.69	1.09	69.78	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-38-2068	0.27	24 hr	0.115	2.58	1.55	0.95	69.63	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-38-2069	0.26	24 hr	0.102	2.50	1.5	0.9	0.7	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-38-2081	0.97	24 hr	1.486	1.21	1.09	0.19	0.76	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-38-2082	0.76	24 hr	1.493	0.85	0.98	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-38-2083	0.8	24 hr	1.493	1.19	1.07	0.17	0.65	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-38-2092	0.17	24 hr	0.106	0.29	0.13	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-38-2093	0.31	24 hr	0.106	0.38	0.17	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-4-0001	0.31	24 hr	1.019	0.43	0.39	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-4-0002	0.94	24 hr	1.02	0.67	0.6	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-4-0003	0.37	24 hr	0.872	0.42	0.38	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-4-0004	0.4	24 hr	0.833	0.44	0.4	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-4-0007	0.32	24 hr	0.677	0.39	0.35	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-4-0009	0.45	24 hr	0.27	0.48	0.36	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-4-0011	3.29	24 hr	0.263	0.81	0.61	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-4-0012	0.49	24 hr	0.26	0.49	0.37	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-4-0013	0.42	24 hr	0.199	0.45	0.34	0	0	0	GREEN	GREEN	MAIN_TRUNK	

Storm System Performance Assessment:
Existing 2-Year Design Storm (without 15% Climate Change increase) - Existing Land Use Conditions

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surcharge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-4-0014	0.63	24 hr	0.154	0.57	0.34	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-4-0088	0.18	24 hr	0.168	0.28	0.17	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-4-0110	0.43	24 hr	0.169	0.45	0.27	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-4-0111	0.53	24 hr	0.164	0.53	0.32	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-4-0112	0.56	24 hr	0.163	0.53	0.32	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-4-0113	0.62	24 hr	0.16	0.57	0.34	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-4-0114	0.31	24 hr	0.053	0.53	0.32	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-4-0142	0.21	24 hr	0.066	0.32	0.19	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-4-0198	0.61	24 hr	0.162	0.58	0.35	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-4-0202	0.25	24 hr	0.271	0.36	0.27	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-43-0001	0.96	24 hr	1.005	2.17	1.3	0.7	0.87	0.23	DASHED	RED	MAIN_TRUNK	
DMAIN-43-0002	0.6	24 hr	0.743	0.57	0.34	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-43-0003	0.44	24 hr	0.685	0.47	0.28	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-43-0004	1.66	24 hr	0.678	4.05	2.43	1.83	0.43	0.01	RED	RED	MAIN_TRUNK	
DMAIN-43-0005	2.23	24 hr	0.648	6.19	3.25	2.725	0.76	0.27	RED	RED	MAIN_TRUNK	
DMAIN-45-0008	0.63	24 hr	0.182	0.57	0.3	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-45-0010	0.69	24 hr	0.185	0.68	0.36	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-45-0016	0.75	24 hr	0.05	0.64	0.24	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-45-0017	0.38	24 hr	0.077	0.69	0.31	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-45-0018	0.46	24 hr	0.076	1.67	0.75	0.3	1.45	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-45-0020	0.19	24 hr	0.027	0.30	0.09	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-50-0001	0.76	24 hr	0.645	2.60	1.56	0.96	1.31	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-50-0002	0.35	24 hr	0.591	0.42	0.25	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-50-0003	0.14	24 hr	0.153	0.25	0.13	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-50-0004	0.35	24 hr	0.152	0.42	0.22	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-50-0005	0.17	24 hr	0.15	0.29	1.38	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-50-0010	0.43	24 hr	0.201	0.45	0.17	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-50-0011	0.53	24 hr	0.186	0.51	0.19	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-5-0002	0.89	24 hr	0.464	0.72	0.38	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-5-0003	0.49	24 hr	0.431	0.49	0.26	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-5-0004	0.49	24 hr	0.421	0.50	0.3	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-50-0050	0.64	24 hr	0.438	0.57	0.3	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-50-0051	0.37	24 hr	0.227	0.42	0.91	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-50-0052	0.5	24 hr	0.217	1.20	0.63	0.105	2.5	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-50-0053	0.41	24 hr	0.212	0.44	0.23	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-5-0146	0.71	24 hr	0.509	0.63	0.33	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-5-0147	0.92	24 hr	0.509	1.37	0.72	0.195	0.14	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-52-0170	0.8	24 hr	0.817	0.68	0.51	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0171	0.39	24 hr	0.837	0.43	0.32	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0172	0.3	24 hr	0.844	0.37	0.28	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0173	0.17	24 hr	0.86	0.29	0.3	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0174	0	24 hr	0.002	0.02	0.01	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0175	0	24 hr	0.004	0.04	0.02	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0176	0.29	24 hr	0.881	0.36	0.45	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0180	0.15	24 hr	0.02	0.27	0.1	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0181	0.23	24 hr	0.053	0.33	0.15	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0182	0.19	24 hr	0.943	0.30	0.31	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0183	0.12	24 hr	0.945	0.24	0.25	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0184	1.21	24 hr	0.945	0.75	0.79	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0186	0.45	24 hr	0.625	0.48	0.25	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0187	0.09	24 hr	0.625	0.24	0.18	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-6-0001	1.04	24 hr	0.517	4.47	2.01	1.56	0.15	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-6-0002	0.91	24 hr	0.501	2.38	1.07	0.62	0.09	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-6-0003	0.92	24 hr	0.49	1.09	0.49	0.04	0.04	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-6-0014	0.53	24 hr	0.154	0.51	0.23	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	

Storm System Performance Assessment:
Existing 2-Year Design Storm (without 15% Climate Change increase) - Existing Land Use Conditions

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surcharge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-6-0030	0.39	24 hr	0.188	0.43	0.26	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-7-0001	0.96	24 hr	0.973	2.65	1.59	0.99	0.19	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-7-0002	0.72	24 hr	0.973	0.65	0.39	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-7-0003	0.64	24 hr	0.875	0.58	0.35	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-7-0004	0.6	24 hr	0.86	0.55	0.33	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-7-0005	0.64	24 hr	0.512	0.57	0.3	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-7-0006	0.82	24 hr	0.5	0.69	0.36	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-7-0007	0.8	24 hr	0.461	0.69	0.36	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-8-0001	0.18	24 hr	0.199	0.32	0.19	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-8-0002	1.29	24 hr	0.192	12.92	3.23	2.98	0.34	0.18	RED	RED	MAIN_TRUNK	
DMAIN-8-0003	1.23	24 hr	0.182	18.92	4.73	4.48	0.33	0.09	RED	RED	MAIN_TRUNK	
DMAIN-9-0001	0.71	24 hr	0.197	0.65	0.37	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-9-0002	0.42	24 hr	0.189	0.45	0.17	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-9-0003	0.48	24 hr	0.183	0.51	0.19	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-9-0010	0.09	24 hr	0.037	0.21	0.08	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-9-0011	0.18	24 hr	0.033	0.29	0.11	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-9-0022	0.14	24 hr	0.028	0.24	0.09	0	0	0	GREEN	GREEN	MAIN_TRUNK	

10-Year Existing Scenario Capacity Assessment Results

Storm System Performance Assessment:
Existing 10-Year Design Storm (without 15% Climate Change increase) - Existing Land Use Conditions

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surcharge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DCUL0001	0.28	24 hr	10.68	0.88	2.06	0	0	-	YELLOW	GREEN	CULVERT	CreekCrossing
DCUL0002	1.22	24 hr	11.825	1.03	2.42	0.07	2.43	-	ORANGE	GREEN	CULVERT	CreekCrossing
DCUL0003	0.74	24 hr	1.863	2.37	2.13	1.23	4.35	-	DASHED	GREEN	CULVERT	CreekCrossing
DCUL0006	1.81	24 hr	6.461	3.03	3.64	2.44	13.42	-	RED	RED	CULVERT	CreekCrossing
DCUL0013	0.16	24 hr	2.271	0.53	0.8	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0014	1.11	24 hr	4.561	1.79	2.15	0.95	13.21	-	RED	RED	CULVERT	CreekCrossing
DCUL0015	0.19	24 hr	1.666	0.44	0.93	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0016	0.73	24 hr	2.53	1.13	1.35	0.15	2.54	-	DASHED	GREEN	CULVERT	CreekCrossing
DCUL0017	0.81	24 hr	2.3	0.93	1.3	0	0	-	YELLOW	GREEN	CULVERT	CreekCrossing
DCUL0018	1.43	24 hr	1.982	1.51	1.21	0.41	1.97	-	RED	GREEN	CULVERT	CreekCrossing
DCUL0019	0.95	24 hr	3.33	1.78	2.14	0.94	2.46	-	DASHED	RED	CULVERT	CreekCrossing
DCUL0020	1.32	24 hr	1.901	2.62	2.36	1.46	8.58	-	RED	RED	CULVERT	CreekCrossing
DCUL0021	0.38	24 hr	5.366	1.41	1.69	0.49	1.86	-	DASHED	GREEN	CULVERT	CreekCrossing
DCUL0022	0.31	24 hr	2.969	0.89	1.07	0	0	-	YELLOW	GREEN	CULVERT	CreekCrossing
DCUL0023	0.49	24 hr	4.693	1.02	0.92	0.02	0.61	-	DASHED	GREEN	CULVERT	CreekCrossing
DCUL0024_1	2.36	24 hr	3.1	2.08	2.49	1.29	4.74	-	RED	GREEN	CULVERT	CreekCrossing
DCUL0024_2	2.35	24 hr	3.114	1.76	2.18	0.91	4.37	-	RED	RED	CULVERT	CreekCrossing
DCUL0041	0.93	24 hr	0.37	1.40	0.84	0.24	0.16	-	YELLOW	GREEN	CULVERT	RoadCrossing
DCUL0045	0.44	24 hr	0.625	1.70	1.02	0.42	0.81	-	DASHED	RED	CULVERT	Driveway
DCUL0046	2.14	24 hr	0.646	1.90	1.14	0.54	11.54	-	RED	RED	CULVERT	RoadCrossing
DCUL0132	7.71	24 hr	1.024	0.95	0.95	0	0.01	-	YELLOW	GREEN	CULVERT	Driveway
DCUL0133	11.65	24 hr	1.017	0.93	0.93	0	0.01	-	YELLOW	GREEN	CULVERT	Driveway
DCUL0134	11.99	24 hr	0.991	0.93	0.93	0	0.01	-	YELLOW	GREEN	CULVERT	Driveway
DCUL0162	14.32	24 hr	0.194	1.24	0.56	0.11	0.53	-	ORANGE	RED	CULVERT	RoadCrossing
DCUL0168	12.96	24 hr	1.602	1.15	0.92	0.12	0.36	-	ORANGE	GREEN	CULVERT	RoadCrossing
DCUL0184	0.75	24 hr	0.536	1.48	1.11	0.36	3.4	-	DASHED	GREEN	CULVERT	Driveway
DCUL0186	1.83	24 hr	6.708	1.31	2.36	0.56	5.24	-	RED	GREEN	CULVERT	CreekCrossing
DCUL0187	0.09	24 hr	0.148	0.31	0.25	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0188	0.27	24 hr	0.118	0.45	0.27	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0193	0.13	24 hr	0.107	0.28	0.22	0	0	-	GREEN	GREEN	CULVERT	RoadCrossing_WILDLIFE_CULVERTS
DCUL0203	0.05	24 hr	0.123	0.40	0.24	0	0	-	GREEN	GREEN	CULVERT	RoadCrossing
DCUL0205	0.46	24 hr	1.553	1.52	1.37	0.47	0.58	-	DASHED	GREEN	CULVERT	Driveway
DCUL0218	1.32	24 hr	1.624	1.58	1.58	0.58	2.75	-	RED	RED	CULVERT	RoadCrossing
DCUL0231	0.4	24 hr	0.991	1.01	0.91	0.01	0.14	-	YELLOW	RED	CULVERT	Driveway
DCUL0234	0.54	24 hr	0.881	0.63	0.76	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0235	0.13	24 hr	3.673	0.89	1.09	0	0	-	YELLOW	GREEN	CULVERT	CreekCrossing
DCUL0236	0.58	24 hr	1.308	1.15	1.15	0.15	0.85	-	DASHED	RED	CULVERT	CreekCrossing
DCUL0237	1.47	24 hr	6.093	15.64	11.73	10.98	21.25	-	RED	RED	CULVERT	CreekCrossing
DCUL0238	0.2	24 hr	1.702	0.76	1.03	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0240	0.42	24 hr	26.137	1.57	2.67	0.97	7.78	-	DASHED	GREEN	CULVERT	CreekCrossing
DCUL0253	0.62	24 hr	0.074	1.10	0.33	0.03	0.07	-	YELLOW	GREEN	CULVERT	RoadCrossing
DCUL0347	5.65	24 hr	0.076	0.57	0.34	0	0.01	-	GREEN	GREEN	CULVERT	RoadCrossing
DCUL0348	0.1	24 hr	0.217	0.36	0.32	0	0	-	GREEN	GREEN	CULVERT	Driveway
DCUL0351	0.52	24 hr	0.695	0.86	0.77	0	0	-	YELLOW	GREEN	CULVERT	RoadCrossing
DCUL0357	0.36	24 hr	0.311	0.92	0.55	0	0	-	YELLOW	GREEN	CULVERT	RoadCrossing
DCUL0368	0.22	24 hr	0.679	0.48	0.57	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0369	40.04	24 hr	0.45	2.92	1.46	0.96	23.66	-	RED	RED	CULVERT	RoadCrossing
DCUL0420	0.79	24 hr	0.593	23.07	13.84	13.24	0.31	-	DASHED	RED	CULVERT	RoadCrossing
DCUL0438	0.11	24 hr	0.251	0.73	0.44	0	0	-	GREEN	GREEN	CULVERT	RoadCrossing
DCUL0535	0.23	24 hr	0.859	0.79	0.79	0	0	-	GREEN	GREEN	CULVERT	Driveway
DCUL0536	0.21	24 hr	0.98	1.01	0.91	0.01	0.09	-	YELLOW	RED	CULVERT	Driveway
DCUL0581	0.27	24 hr	2.075	0.64	1.16	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0582	0.08	24 hr	0.581	0.56	1	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0583	0.14	24 hr	0.783	0.83	1.37	0	0	-	YELLOW	GREEN	CULVERT	CreekCrossing

- Pipe Performance Ranking**
- **Green** = No Capacity Issues
 - **Yellow** = Between 80% - 100% Capacity and pipe crown surcharging < 30cm
 - **Orange** = Greater than 100% Capacity but no significant pipe crown surcharging
 - **Red** = > 100% Capacity and pipe crown surcharging > 30cm and > 15 minutes
 - **Dashed Red** = Surcharging of pipe crown > 30cm and > 15 minutes that may be due to backwater
- Ground/Road Flooding Ranking**
- Storm Trunk Sewers:**
- **Green** = Ground/Road Flooding = 0 minutes
 - **Red** = Ground/Road Flooding > 0 minutes possible
- Culverts:**
- **Green** = No Ground/Road Flooding occurring
 - **Red** = Ground/Road Flooding occurring

Storm System Performance Assessment:

Existing 10-Year Design Storm (without 15% Climate Change increase) - Existing Land Use Conditions

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surcharge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DCUL0589	0.23	24 hr	0.149	0.78	0.39	0	0	-	GREEN	GREEN	CULVERT	RoadCrossing
DCUL0590	0.52	24 hr	0.064	1.10	0.33	0.03	5.48	-	DASHED	RED	CULVERT	Driveway
DCUL0591	0.49	24 hr	0.138	0.57	0.34	0	0	-	GREEN	GREEN	CULVERT	RoadCrossing
DCUL0593	1.2	24 hr	0.525	3.82	1.91	1.41	0.94	-	RED	RED	CULVERT	RoadCrossing
DCUL0598	0.06	24 hr	0.063	0.19	0.19	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0612_1	0.59	24 hr	4.254	1.29	2.32	0.52	0.77	-	DASHED	GREEN	CULVERT	RoadCrossing
DCUL0612_2	0.61	24 hr	4.399	1.19	2.15	0.35	0.37	-	DASHED	GREEN	CULVERT	RoadCrossing
DCUL0613	0.87	24 hr	0.542	1.39	1.04	0.29	3.2	-	DASHED	GREEN	CULVERT	RoadCrossing
DCUL0617	0.5	24 hr	0.482	0.55	0.55	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0618	2.3	24 hr	0.154	1.56	0.7	0.25	4.78	-	ORANGE	RED	CULVERT	CreekCrossing
DCUL0623	0.37	24 hr	3.893	0.60	1.32	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0624	1.42	24 hr	25.764	1.35	3.79	0.99	5.55	-	RED	GREEN	CULVERT	CreekCrossing
DCUL0633	0.75	24 hr	0.062	0.68	0.27	0	0	-	GREEN	GREEN	CULVERT	PRIVATE
DCUL0634	0.65	24 hr	0.069	0.73	0.29	0	0	-	GREEN	GREEN	CULVERT	PRIVATE
DCUL0639	1.38	24 hr	0.119	5.43	1.63	1.33	26.5	-	RED	GREEN	CULVERT	MOTI
DCUL0654	0.82	24 hr	0.418	1.15	1.14	0.09	0.83	-	DASHED	RED	CULVERT	RoadCrossing
DCUL0657	0.32	24 hr	0.155	0.76	0.4	0	0	-	GREEN	GREEN	CULVERT	Driveway
DCUL0659	0.2	24 hr	0.086	0.48	0.25	0	0	-	GREEN	GREEN	CULVERT	Driveway
DCUL0673	2.54	24 hr	1.348	1.90	1.14	0.54	5.02	-	RED	GREEN	CULVERT	RoadCrossing
DCUL0698	0.16	24 hr	0.028	0.27	0.16	0	0	-	GREEN	GREEN	CULVERT	RoadCrossing
DCUL0699	0.14	24 hr	2.797	0.34	1.03	0	0	-	GREEN	GREEN	CULVERT	RoadCrossing
DCUL0733	0.02	24 hr	0.032	0.18	0.38	0	0	-	GREEN	GREEN	MAIN_TRUNK	
DCUL0751	0.1	24 hr	0.284	0.27	0.32	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0752	0.11	24 hr	0.206	0.30	0.3	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0753	0.15	24 hr	0.231	0.31	0.44	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0754	0.19	24 hr	0.038	0.36	0.36	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0755	0.33	24 hr	0.265	0.45	0.45	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0756	0.1	24 hr	0.041	0.22	0.22	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0757	0.13	24 hr	0.103	0.28	0.28	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0758	0.03	24 hr	0.023	0.14	0.13	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0759	0.09	24 hr	0.08	0.24	0.24	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0760	0.02	24 hr	0.016	0.12	0.11	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0761	0	24 hr	0.001	0.06	0.06	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0762	0	1 hr	0	0.00	0	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0763	0	1 hr	0	0.00	0	0	0	-	GREEN	GREEN	CULVERT	MOTI
DITC-0729	0.74	24 hr	0.682	0.63	0.38	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DITC-0729_2	0.66	24 hr	0.613	1.73	1.04	0.44	0.34	0.33	DASHED	RED	MAIN_TRUNK	
DMAIN-10-0001	1.76	24 hr	0.694	2.21	1.33	0.727	0.7	0	RED	GREEN	MAIN_TRUNK	
DMAIN-10-0002-1	1.22	24 hr	0.433	2.68	1.61	1.01	0.74	0	RED	GREEN	MAIN_TRUNK	
DMAIN-10-0002-2	2.73	24 hr	0.661	2.53	1.52	0.92	0.76	0	RED	GREEN	MAIN_TRUNK	
DMAIN-10-0003	1.47	24 hr	0.424	3.02	1.81	1.21	0.73	0.01	RED	RED	MAIN_TRUNK	
DMAIN-10-0004	2.35	24 hr	0.54	6.18	2.78	2.33	1.24	0.65	RED	RED	MAIN_TRUNK	
DMAIN-10-0005	0.95	24 hr	0.517	5.91	2.66	2.21	0.75	0.62	DASHED	RED	MAIN_TRUNK	
DMAIN-10-0006	0.93	24 hr	0.568	5.56	2.5	2.05	0.6	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-10-0007	1.23	24 hr	0.447	6.09	2.74	2.29	0.56	0.23	RED	RED	MAIN_TRUNK	
DMAIN-10-0008	1.14	24 hr	0.318	6.00	2.7	2.25	0.52	0.47	RED	RED	MAIN_TRUNK	
DMAIN-10-0009	0.98	24 hr	0.316	5.40	2.43	1.98	0.47	0.42	DASHED	RED	MAIN_TRUNK	
DMAIN-1-0001_1	0.63	24 hr	1.76	0.58	0.7	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-1-0001_2	0.63	24 hr	1.76	0.61	0.73	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-1-0003	1.26	24 hr	1.413	2.61	2.09	1.29	0.21	0.01	ORANGE	RED	MAIN_TRUNK	
DMAIN-1-0004	1.22	24 hr	1.25	3.60	2.88	2.08	0.21	0.01	ORANGE	RED	MAIN_TRUNK	
DMAIN-10-0041	0.32	24 hr	0.689	1.28	0.77	0.17	0.58	0.54	DASHED	RED	MAIN_TRUNK	
DMAIN-1-0012	1.53	24 hr	0.85	3.10	2.48	1.68	0.22	0.16	ORANGE	RED	MAIN_TRUNK	
DMAIN-1-0013	1.92	24 hr	0.841	3.58	2.86	2.06	0.26	0.22	RED	RED	MAIN_TRUNK	
DMAIN-1-0014	0.81	24 hr	0.492	4.08	2.45	1.85	0.22	0.18	DASHED	RED	MAIN_TRUNK	

Storm System Performance Assessment:
Existing 10-Year Design Storm (without 15% Climate Change increase) - Existing Land Use Conditions

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-11-0001	0.98	24 hr	0.703	3.95	2	1.476	0.33	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-11-0002	2.23	24 hr	0.514	14.16	6.37	5.92	0.69	0.26	RED	RED	MAIN_TRUNK	
DMAIN-11-0003	1.26	24 hr	0.585	5.36	2.41	1.96	0.33	0.32	RED	RED	MAIN_TRUNK	
DMAIN-11-0004	0.77	24 hr	0.617	1.67	0.75	0.3	0.04	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-12-0001	1.24	24 hr	0.155	6.43	1.93	1.63	0.14	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-12-0002	0.6	24 hr	0.099	1.47	0.44	0.14	0.08	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-13-0001	1.99	24 hr	1.544	2.79	2.09	1.34	0.4	0.28	RED	RED	MAIN_TRUNK	
DMAIN-13-0002	2.05	24 hr	1.396	3.01	2.26	1.51	0.33	0.26	RED	RED	MAIN_TRUNK	
DMAIN-13-0003	1.08	24 hr	1.068	2.43	1.82	1.07	0.23	0.14	ORANGE	RED	MAIN_TRUNK	
DMAIN-13-0004_1	0.4	24 hr	1.169	1.89	1.42	0.67	0.13	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-13-0004_2	0.55	24 hr	1.173	1.81	1.81	0.81	0.17	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-13-0005	1.69	24 hr	0.812	2.51	1.88	1.13	0.13	0.01	ORANGE	RED	MAIN_TRUNK	
DMAIN-14-0001	2.37	24 hr	3.202	0.96	1.72	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-14-0002	0.9	24 hr	2.954	0.78	1.17	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0003	0.76	24 hr	2.671	0.65	0.88	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0004	2.05	24 hr	2.648	1.95	2.63	1.28	0.86	0.01	RED	RED	MAIN_TRUNK	
DMAIN-14-0005	1.72	24 hr	2.275	2.34	3.16	1.81	2.55	0.01	RED	RED	MAIN_TRUNK	
DMAIN-14-0006	1.94	24 hr	1.962	2.51	3.01	1.81	3.35	0.01	RED	RED	MAIN_TRUNK	
DMAIN-14-0007	1.72	24 hr	1.948	2.92	3.5	2.3	3.51	0.43	RED	RED	MAIN_TRUNK	
DMAIN-14-0008	0.98	24 hr	1.567	2.75	3.3	2.1	3.17	0.68	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0009	0.96	24 hr	1.387	3.12	3.28	2.23	3.26	0.56	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0010	1.08	24 hr	1.363	2.97	3.12	2.07	2.88	0.52	RED	RED	MAIN_TRUNK	
DMAIN-14-0012	2.05	24 hr	1.331	3.04	3.19	2.14	2.93	0.9	RED	RED	MAIN_TRUNK	
DMAIN-14-0013	1.27	24 hr	1.308	3.10	3.26	2.21	2.94	1.08	RED	RED	MAIN_TRUNK	
DMAIN-14-0014	1.67	24 hr	1.055	3.16	3.32	2.27	3	1.21	RED	RED	MAIN_TRUNK	
DMAIN-14-0015	2.65	24 hr	0.864	3.24	3.4	2.35	3.1	1.38	RED	RED	MAIN_TRUNK	
DMAIN-14-0016	1.49	24 hr	0.829	3.97	3.57	2.67	3.67	2.07	RED	RED	MAIN_TRUNK	
DMAIN-14-0018	0.97	24 hr	0.574	3.06	3.21	2.16	2.84	2.19	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0019	0.86	24 hr	0.232	3.78	2.27	1.67	2.22	0.78	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0020	0.4	24 hr	0.062	3.13	1.41	0.96	0.44	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0023	0.6	24 hr	0.652	1.59	1.19	0.44	3.71	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-14-0024	1.59	24 hr	0.618	4.67	2.8	2.2	3.26	0.01	RED	RED	MAIN_TRUNK	
DMAIN-14-0025	1.51	24 hr	0.618	4.55	2.73	2.13	2.75	0.01	RED	RED	MAIN_TRUNK	
DMAIN-14-0026	1.72	24 hr	0.483	5.33	2.8	2.275	2.68	0.01	RED	RED	MAIN_TRUNK	
DMAIN-14-0027	1.51	24 hr	0.465	5.24	2.75	2.225	2.36	0.99	RED	RED	MAIN_TRUNK	
DMAIN-14-0028	1.98	24 hr	0.436	6.19	3.25	2.725	2.46	1.16	RED	RED	MAIN_TRUNK	
DMAIN-14-0029	1.7	24 hr	0.388	7.10	3.73	3.205	1.93	1.72	RED	RED	MAIN_TRUNK	
DMAIN-14-0030	2.59	24 hr	0.315	10.96	4.93	4.48	2.61	1.85	RED	RED	MAIN_TRUNK	
DMAIN-14-0033	2.16	24 hr	0.149	9.31	3.49	3.115	2.83	1.04	RED	RED	MAIN_TRUNK	
DMAIN-14-0051	2.59	24 hr	0.264	6.40	2.88	2.43	10.23	3.43	RED	RED	MAIN_TRUNK	
DMAIN-14-0052	2.48	24 hr	0.24	8.84	3.98	3.53	10.81	6.82	RED	RED	MAIN_TRUNK	
DMAIN-14-0053	2.19	24 hr	0.216	9.93	4.47	4.02	10.5	7.48	RED	RED	MAIN_TRUNK	
DMAIN-14-0058	3.09	24 hr	0.159	10.51	4.73	4.28	10	7.56	RED	RED	MAIN_TRUNK	
DMAIN-14-0059	1.67	24 hr	0.134	11.47	5.16	4.71	9.04	7.49	RED	RED	MAIN_TRUNK	
DMAIN-14-0062	1.28	24 hr	0.099	10.22	4.6	4.15	7.92	6.86	RED	RED	MAIN_TRUNK	
DMAIN-14-0063	0.78	24 hr	0.087	9.71	4.37	3.92	7.81	6.26	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0070	0.97	24 hr	0.338	2.68	1.61	1.01	0.62	0.05	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0071	1.04	24 hr	0.177	2.48	1.64	0.889	0.43	0.39	RED	RED	MAIN_TRUNK	
DMAIN-14-0083	0.26	24 hr	0.126	7.56	3.4	2.95	2.41	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-14-0084	0.83	24 hr	0.13	15.91	7.16	6.71	1.28	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-14-0085	0	1 hr	0	0.00	0	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0086	0	1 hr	0	0.00	0	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0087	0	1 hr	0	0.00	0	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0097	0.36	24 hr	0.25	4.96	2.23	1.78	2.52	0.33	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0098	1.5	24 hr	0.242	6.44	2.9	2.45	2.18	0.01	RED	RED	MAIN_TRUNK	

Storm System Performance Assessment:
Existing 10-Year Design Storm (without 15% Climate Change increase) - Existing Land Use Conditions

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-14-0099	1.57	24 hr	0.196	5.76	2.59	2.14	1.92	1.03	RED	RED	MAIN_TRUNK	
DMAIN-14-0100	0.79	24 hr	0.172	5.40	2.43	1.98	1.28	0.64	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0102	101.54	24 hr	0.176	18.90	5.67	5.37	21.03	1.31	RED	RED	MAIN_TRUNK	
DMAIN-14-0102A	25.15	24 hr	0.167	8.70	2.61	2.31	1.85	0.98	RED	RED	MAIN_TRUNK	
DMAIN-14-0106	1.98	24 hr	0.334	4.52	2.71	2.11	2.69	1.9	RED	RED	MAIN_TRUNK	
DMAIN-14-0107	1.21	24 hr	0.232	4.36	2.62	2.017	2.3	2.09	RED	RED	MAIN_TRUNK	
DMAIN-14-0108	0.75	24 hr	0.164	3.38	2.03	1.43	1.86	1.83	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0109	0.48	24 hr	0.252	6.36	2.86	2.41	3.22	1.13	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0110	1.28	24 hr	0.192	6.33	2.85	2.4	3.2	1.22	RED	RED	MAIN_TRUNK	
DMAIN-14-0111	0.91	24 hr	0.15	6.09	2.74	2.29	3.02	1.6	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0112	1.66	24 hr	0.147	6.07	2.73	2.28	2.99	1.69	RED	RED	MAIN_TRUNK	
DMAIN-14-0113	0.77	24 hr	0.112	4.47	2.01	1.56	2.45	0.05	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0114	1.51	24 hr	0.056	10.92	2.73	2.48	3.08	2.09	RED	RED	MAIN_TRUNK	
DMAIN-14-0121	0.71	24 hr	0.076	3.50	1.05	0.75	1.8	1.67	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0122	0.38	24 hr	0.012	0.45	0.09	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0127	0.98	24 hr	0.063	8.63	2.87	2.29	3.03	2.18	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0128	1.86	24 hr	0.156	7.01	2.63	2.255	3	2.56	RED	RED	MAIN_TRUNK	
DMAIN-14-0129	1.08	24 hr	0.095	6.88	2.58	2.205	2.95	2.55	RED	RED	MAIN_TRUNK	
DMAIN-14-0130	0.26	24 hr	0.076	6.47	1.94	1.64	2.56	2.56	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0133	0.84	24 hr	0.272	7.65	2.87	2.495	3.3	2.18	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0134	2.05	24 hr	0.217	8.82	3.97	3.52	5.25	3.72	RED	RED	MAIN_TRUNK	
DMAIN-14-0135	1.71	24 hr	0.182	9.69	4.36	3.91	4.78	4.56	RED	RED	MAIN_TRUNK	
DMAIN-14-0136	1.96	24 hr	0.128	9.80	4.41	3.96	4.8	3.54	RED	RED	MAIN_TRUNK	
DMAIN-14-0137	1.81	24 hr	0.128	9.93	4.47	4.02	4.74	4.64	RED	RED	MAIN_TRUNK	
DMAIN-14-0140	0.84	24 hr	0.538	3.71	2.78	2.03	2.68	2.27	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0141	3.17	24 hr	0.448	6.33	3.8	3.2	8.88	2.69	RED	RED	MAIN_TRUNK	
DMAIN-14-0142	16.87	24 hr	0.465	8.17	4.9	4.3	18.93	3.46	RED	RED	MAIN_TRUNK	
DMAIN-14-0143	1.04	24 hr	0.234	8.12	4.87	4.27	10	3.54	RED	RED	MAIN_TRUNK	
DMAIN-14-0173	0.46	24 hr	0.405	4.17	2.56	1.9	2.62	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0187	0.51	24 hr	0.88	3.62	3.26	2.36	3.1	2.15	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0188	1.75	24 hr	1.387	3.20	3.36	2.31	3.34	0.62	RED	RED	MAIN_TRUNK	
DMAIN-14-0190	0	1 hr	0	0.00	0	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0198	1.39	24 hr	0.147	6.22	2.8	2.35	3.12	1.49	RED	RED	MAIN_TRUNK	
DMAIN-14-0202	0.42	24 hr	0.065	2.56	1.15	0.7	0.23	0.14	DASHED	RED	MAIN_TRUNK	
DMAIN-15-0001	3.28	24 hr	2.387	3.24	3.4	2.35	1.37	0	RED	GREEN	MAIN_TRUNK	
DMAIN-15-0002	1.13	24 hr	2.289	2.74	2.88	1.83	0.8	0.56	RED	RED	MAIN_TRUNK	
DMAIN-15-0004	1.52	24 hr	1.773	7.25	5.44	4.69	0.89	0.81	RED	RED	MAIN_TRUNK	
DMAIN-15-0005-1	0.7	24 hr	1.623	5.04	3.78	3.03	0.48	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-15-0005-2	0.49	24 hr	2.063	4.47	3.35	2.6	0.54	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-15-0006	2.26	24 hr	1.63	4.79	3.59	2.84	0.51	0	RED	GREEN	MAIN_TRUNK	
DMAIN-15-0007	2.64	24 hr	1.494	4.99	3.74	2.99	1.06	0	RED	GREEN	MAIN_TRUNK	
DMAIN-15-0008	2.12	24 hr	1.459	4.80	3.6	2.85	1.08	0.01	RED	RED	MAIN_TRUNK	
DMAIN-15-0009	1.53	24 hr	0.958	4.85	3.64	2.89	0.94	0.34	RED	RED	MAIN_TRUNK	
DMAIN-15-0010	1.93	24 hr	0.597	8.07	3.63	3.18	1.28	0.39	RED	RED	MAIN_TRUNK	
DMAIN-15-0011	3.01	24 hr	0.595	8.73	3.93	3.48	1.36	0.61	RED	RED	MAIN_TRUNK	
DMAIN-15-0012	2.46	24 hr	0.446	10.60	4.77	4.32	1.39	1.09	RED	RED	MAIN_TRUNK	
DMAIN-15-0013	1.15	24 hr	0.266	9.58	4.31	3.86	1.24	1.2	RED	RED	MAIN_TRUNK	
DMAIN-15-0014	1.46	24 hr	0.315	8.73	3.93	3.48	1.22	0.88	RED	RED	MAIN_TRUNK	
DMAIN-15-0057	1.27	24 hr	0.423	6.35	3.81	3.21	0.85	0.45	RED	RED	MAIN_TRUNK	
DMAIN-15-0117	1.67	24 hr	2.144	5.64	4.23	3.48	1.05	0.79	RED	RED	MAIN_TRUNK	
DMAIN-15-0125	2.29	24 hr	2.178	8.83	6.62	5.87	0.87	0.47	RED	RED	MAIN_TRUNK	
DMAIN-16-0001	0.53	24 hr	0.588	0.72	0.43	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-16-0002	0.73	24 hr	0.456	0.65	0.39	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-16-0003	0.96	24 hr	0.451	0.80	0.3	0	0	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-16-0004_1	1.07	24 hr	0.432	7.57	2.27	1.97	0.66	0	RED	GREEN	MAIN_TRUNK	

Storm System Performance Assessment:
Existing 10-Year Design Storm (without 15% Climate Change increase) - Existing Land Use Conditions

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-16-0004_2	2.57	24 hr	0.403	11.20	3.36	3.06	0.66	0	RED	GREEN	MAIN_TRUNK	
DMAIN-16-0005	1.8	24 hr	0.394	7.07	3.18	2.73	3.68	0.62	RED	RED	MAIN_TRUNK	
DMAIN-16-0006	1.16	24 hr	0.333	6.08	3.19	2.665	1.01	0.66	RED	RED	MAIN_TRUNK	
DMAIN-16-0007	1.2	24 hr	0.274	6.98	3.14	2.69	0.8	0.68	RED	RED	MAIN_TRUNK	
DMAIN-16-0008	1.15	24 hr	0.212	6.78	3.05	2.6	0.75	0.57	RED	RED	MAIN_TRUNK	
DMAIN-16-0009	0.93	24 hr	0.154	6.53	2.94	2.49	0.73	0.59	DASHED	RED	MAIN_TRUNK	
DMAIN-16-0055	0.88	24 hr	0.578	0.73	0.44	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-17-0001	1.84	24 hr	0.802	7.48	4.49	3.89	1.9	1.64	RED	RED	MAIN_TRUNK	
DMAIN-17-0004	0.99	24 hr	0.946	5.73	4.3	3.55	1.56	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-17-0005	1.21	24 hr	0.927	4.80	3.6	2.85	1.43	0.01	RED	RED	MAIN_TRUNK	
DMAIN-17-0007	1.75	24 hr	0.622	6.75	4.05	3.447	1.52	0.86	RED	RED	MAIN_TRUNK	
DMAIN-17-0008	1.71	24 hr	0.628	6.93	4.4	3.56	1.48	1.04	RED	RED	MAIN_TRUNK	
DMAIN-17-0009	1.54	24 hr	0.67	7.10	4.26	3.66	1.43	1.05	RED	RED	MAIN_TRUNK	
DMAIN-17-0018	1.83	24 hr	0.896	7.57	4.54	3.94	1.89	1.61	RED	RED	MAIN_TRUNK	
DMAIN-17-0069	27.41	24 hr	0.623	9.51	4.52	3.83	1.6	1.05	RED	RED	MAIN_TRUNK	
DMAIN-17-0076	0.96	24 hr	1.023	4.91	3.68	2.93	1.63	0.99	DASHED	RED	MAIN_TRUNK	
DMAIN-18-0001	1.38	24 hr	1.259	1.95	1.46	0.71	11.76	0	RED	GREEN	MAIN_TRUNK	
DMAIN-18-0003	1.19	24 hr	1.198	1.83	1.37	0.62	0.15	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-18-0004	0.49	24 hr	1.195	0.81	0.61	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-18-0008	1.16	24 hr	1.171	0.93	0.7	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-18-0009	1.49	24 hr	1.114	3.00	2.25	1.5	0.51	0.01	RED	RED	MAIN_TRUNK	
DMAIN-18-0010	1.73	24 hr	0.772	6.91	3.63	3.105	0.57	0.52	RED	RED	MAIN_TRUNK	
DMAIN-18-0011	1.12	24 hr	0.417	7.91	3.56	3.11	0.54	0.46	RED	RED	MAIN_TRUNK	
DMAIN-18-0012	0.92	24 hr	0.432	6.89	3.1	2.65	0.52	0.44	DASHED	RED	MAIN_TRUNK	
DMAIN-18-0014	0.67	24 hr	0.449	0.73	0.33	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-18-0052	0.95	24 hr	1.624	2.28	1.71	0.96	16.27	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-18-0061	1.2	24 hr	0.472	8.18	3.68	3.23	0.43	0.01	RED	RED	MAIN_TRUNK	
DMAIN-2-0001	13.37	24 hr	0.927	6.04	4.53	3.78	1.51	1.11	RED	RED	MAIN_TRUNK	
DMAIN-20-0018	1.31	24 hr	0.776	5.29	3.75	2.573	0.22	0.21	ORANGE	RED	MAIN_TRUNK	
DMAIN-20-0029	1.79	24 hr	0.972	3.73	2.8	2.05	0.24	0.01	ORANGE	RED	MAIN_TRUNK	
DMAIN-2-0003	1.7	24 hr	1.623	2.52	2.52	1.52	1.02	0.96	RED	RED	MAIN_TRUNK	
DMAIN-20-0030	1.59	24 hr	1.001	4.80	3.64	2.848	0.21	0.01	ORANGE	RED	MAIN_TRUNK	
DMAIN-20-0033	1.9	24 hr	1.152	5.83	4.37	3.62	0.24	0.01	ORANGE	RED	MAIN_TRUNK	
DMAIN-20-0034	1.07	24 hr	1.353	5.38	3.23	2.63	0.16	0.01	ORANGE	RED	MAIN_TRUNK	
DMAIN-2-0004	1.83	24 hr	0.777	4.49	3.37	2.62	1.35	0.62	RED	RED	MAIN_TRUNK	
DMAIN-20-0047	0.4	24 hr	1.353	1.59	1.19	0.44	0.18	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-2-0010	0.49	24 hr	0.191	3.47	2.08	1.48	4.62	0.51	DASHED	RED	MAIN_TRUNK	
DMAIN-2-0011	0.42	24 hr	0.154	2.72	1.63	1.03	1.01	0.81	DASHED	RED	MAIN_TRUNK	
DMAIN-2-0012	1.83	24 hr	0.493	8.47	5.08	4.48	1.23	0.93	RED	RED	MAIN_TRUNK	
DMAIN-2-0013	2.48	24 hr	0.387	11.10	6.66	6.06	1.97	1.2	RED	RED	MAIN_TRUNK	
DMAIN-2-0044	1.9	24 hr	1.424	2.06	2.16	1.11	1.05	0.01	RED	RED	MAIN_TRUNK	
DMAIN-2-0047	0.4	24 hr	1.092	5.13	4.1	3.3	1.17	1.01	DASHED	RED	MAIN_TRUNK	
DMAIN-2-0049	1.62	24 hr	0.429	6.88	4.13	3.53	1.15	1	RED	RED	MAIN_TRUNK	
DMAIN-2-0050	1.16	24 hr	0.553	6.75	4.05	3.45	1.12	0.96	RED	RED	MAIN_TRUNK	
DMAIN-2-0059	0.81	24 hr	1.421	1.93	2.16	0.98	0.99	0.08	DASHED	RED	MAIN_TRUNK	
DMAIN-2-0064	1.15	24 hr	1.423	1.88	2.26	1.06	0.94	0.94	RED	RED	MAIN_TRUNK	
DMAIN-2-0065	0.89	24 hr	1.525	2.32	2.44	1.39	0.94	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-2-0066	1.31	24 hr	0.88	3.85	2.89	2.14	1.13	0.59	RED	RED	MAIN_TRUNK	
DMAIN-2-0067	1.83	24 hr	0.777	4.49	3.37	2.62	1.35	0.62	RED	RED	MAIN_TRUNK	
DMAIN-2-0068	4.78	24 hr	1.067	5.00	4	3.2	1.14	1.08	RED	RED	MAIN_TRUNK	
DMAIN-2-0070	0.51	24 hr	0.184	3.23	1.94	1.34	1.67	0.77	DASHED	RED	MAIN_TRUNK	
DMAIN-2-0072	0.5	24 hr	0.174	3.07	1.84	1.24	1.4	0.91	DASHED	RED	MAIN_TRUNK	
DMAIN-2-0073	0.45	24 hr	0.168	3.02	1.81	1.21	1.3	0.92	DASHED	RED	MAIN_TRUNK	
DMAIN-2-0074	1.03	24 hr	0.142	2.80	1.68	1.08	1	0.01	RED	RED	MAIN_TRUNK	
DMAIN-2-0083	1.62	24 hr	1.678	5.11	4.6	3.7	1.15	0.29	RED	RED	MAIN_TRUNK	

Storm System Performance Assessment:
Existing 10-Year Design Storm (without 15% Climate Change increase) - Existing Land Use Conditions

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surcharge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-21-0001	1.45	24 hr	0.397	1.48	0.89	0.29	0.12	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-21-0002	6.51	24 hr	0.405	1.55	0.93	0.33	0.13	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-21-0003	0.77	24 hr	0.181	2.08	1.25	0.65	0.04	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-22-0915	1.82	24 hr	0.452	9.87	4.44	3.99	0.46	0.01	RED	RED	MAIN_TRUNK	
DMAIN-22-0920	1.84	24 hr	0.304	4.58	2.06	1.61	8.11	0.31	RED	RED	MAIN_TRUNK	
DMAIN-22-0921	1.92	24 hr	0.322	3.93	1.77	1.32	17.66	0	RED	GREEN	MAIN_TRUNK	
DMAIN-22-0922	1.48	24 hr	0.138	6.19	2.32	1.945	4.52	0.23	RED	RED	MAIN_TRUNK	
DMAIN-22-0926	1.62	24 hr	0.39	3.89	1.75	1.3	0.68	0.52	RED	RED	MAIN_TRUNK	
DMAIN-22-0927	1.04	24 hr	0.389	3.80	1.71	1.26	0.55	0.4	RED	RED	MAIN_TRUNK	
DMAIN-22-0928	1.65	24 hr	0.371	3.07	1.38	0.93	0.96	0.53	RED	RED	MAIN_TRUNK	
DMAIN-23-0002	2.56	24 hr	1.466	2.99	2.24	1.49	0.87	0.45	RED	RED	MAIN_TRUNK	
DMAIN-23-0003	0.43	24 hr	0.482	1.07	0.64	0.04	0.06	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-23-0008	1.42	24 hr	0.887	3.36	2.52	1.77	0.76	0.75	RED	RED	MAIN_TRUNK	
DMAIN-23-0035	1.51	24 hr	0.939	2.98	2.24	1.487	0.84	0.44	RED	RED	MAIN_TRUNK	
DMAIN-30-0001	1.19	24 hr	2.292	2.53	2.28	1.38	1.75	0	RED	GREEN	MAIN_TRUNK	
DMAIN-30-0002	1.18	24 hr	2.292	2.48	2.23	1.33	1.37	0	RED	GREEN	MAIN_TRUNK	
DMAIN-30-0003	1.52	24 hr	2.271	3.29	2.96	2.06	1.4	1.3	RED	RED	MAIN_TRUNK	
DMAIN-30-0004	1.88	24 hr	1.707	4.83	3.62	2.87	1.51	1.29	RED	RED	MAIN_TRUNK	
DMAIN-30-0005	0.86	24 hr	1.686	4.56	3.42	2.67	1.29	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-30-0006	0.48	24 hr	1.613	0.49	0.37	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-30-0007	1.45	24 hr	1.592	5.64	4.23	3.48	1.15	0.01	RED	RED	MAIN_TRUNK	
DMAIN-30-0008	1.57	24 hr	1.572	3.69	2.77	2.02	1.23	0.44	RED	RED	MAIN_TRUNK	
DMAIN-30-0009	1.61	24 hr	1.595	5.12	3.84	3.09	1.26	0.97	RED	RED	MAIN_TRUNK	
DMAIN-30-0034	0.76	24 hr	0.403	4.40	2.64	2.04	1.38	1.29	DASHED	RED	MAIN_TRUNK	
DMAIN-30-0035	1.26	24 hr	0.365	4.52	2.71	2.11	1.34	1.22	RED	RED	MAIN_TRUNK	
DMAIN-30-0036	0.77	24 hr	0.387	3.97	2.51	1.78	1.31	1.29	DASHED	RED	MAIN_TRUNK	
DMAIN-30-0048	1.22	24 hr	1.162	5.19	3.89	3.14	1.24	1.04	RED	RED	MAIN_TRUNK	
DMAIN-30-0049	1.02	24 hr	1.34	4.83	3.62	2.87	1.16	1.09	RED	RED	MAIN_TRUNK	
DMAIN-30-0050	0.84	24 hr	0.669	4.52	3.39	2.64	1.07	0.96	DASHED	RED	MAIN_TRUNK	
DMAIN-30-0051	1.19	24 hr	0.596	5.55	3.33	2.73	1.07	0.64	RED	RED	MAIN_TRUNK	
DMAIN-30-0052	1.4	24 hr	0.658	5.77	3.46	2.86	1.02	0.6	RED	RED	MAIN_TRUNK	
DMAIN-30-0053	1.08	24 hr	0.783	4.93	2.96	2.36	0.85	0.23	RED	RED	MAIN_TRUNK	
DMAIN-30-0067	0.69	24 hr	0.46	4.03	2.42	1.82	0.48	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-30-0068	1.3	24 hr	0.903	3.85	2.31	1.71	0.33	0.17	RED	RED	MAIN_TRUNK	
DMAIN-3-0007	0.71	24 hr	0.809	4.85	2.91	2.31	0.78	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-3-0008	0.65	24 hr	0.743	3.70	2.22	1.62	0.67	0.3	DASHED	RED	MAIN_TRUNK	
DMAIN-3-0009	2.69	24 hr	0.661	5.30	3.18	2.58	0.66	0.52	RED	RED	MAIN_TRUNK	
DMAIN-30-0121	1.45	24 hr	0.979	3.27	1.96	1.36	0.47	0.14	RED	RED	MAIN_TRUNK	
DMAIN-30-0122	1.11	24 hr	1.072	3.68	2.21	1.61	0.14	0.01	ORANGE	RED	MAIN_TRUNK	
DMAIN-30-0123	0.57	24 hr	1.04	0.55	0.33	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-30-0125	0.41	24 hr	0.629	0.45	0.27	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-30-0126	1.46	24 hr	0.623	2.77	1.66	1.06	0.14	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-30-0127	1.45	24 hr	0.619	5.48	3.29	2.69	0.29	0.01	RED	RED	MAIN_TRUNK	
DMAIN-30-0128	1.78	24 hr	0.637	7.42	4.45	3.85	0.41	0.01	RED	RED	MAIN_TRUNK	
DMAIN-30-0129	1.52	24 hr	0.642	6.23	3.74	3.14	0.42	0.01	RED	RED	MAIN_TRUNK	
DMAIN-30-0130	1.74	24 hr	0.68	2.92	1.75	1.15	0.46	0.11	RED	RED	MAIN_TRUNK	
DMAIN-3-0028	1.31	24 hr	0.553	8.22	3.7	3.25	0.83	0.71	RED	RED	MAIN_TRUNK	
DMAIN-3-0037	0.56	24 hr	0.408	0.78	0.35	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-3-0041	1.64	24 hr	0.408	3.76	1.69	1.24	0.81	0	RED	GREEN	MAIN_TRUNK	
DMAIN-3-0043	1.88	24 hr	0.406	12.47	3.74	3.44	0.91	0.8	RED	RED	MAIN_TRUNK	
DMAIN-30-1041	1.21	24 hr	2.331	2.13	1.92	1.02	0.01	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-31-0010	1.33	24 hr	1.883	2.54	2.29	1.39	2.17	0	RED	GREEN	MAIN_TRUNK	
DMAIN-31-0011	1.51	24 hr	1.373	3.37	2.53	1.78	2.21	0.15	RED	RED	MAIN_TRUNK	
DMAIN-31-0012	1.08	24 hr	1.324	3.44	2.58	1.83	1.55	0.2	RED	RED	MAIN_TRUNK	
DMAIN-31-0013	0.95	24 hr	1.314	3.31	2.48	1.73	0.4	0.17	DASHED	RED	MAIN_TRUNK	

Storm System Performance Assessment:
Existing 10-Year Design Storm (without 15% Climate Change increase) - Existing Land Use Conditions

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surcharge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-31-0014	0.94	24 hr	1.081	3.60	2.7	1.95	0.29	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-31-0015	1.13	24 hr	0.776	2.99	2.24	1.49	0.29	0.1	RED	RED	MAIN_TRUNK	
DMAIN-31-0016	1.1	24 hr	0.763	3.48	2.61	1.86	0.3	0.01	RED	RED	MAIN_TRUNK	
DMAIN-31-0017	1.96	24 hr	0.623	6.10	3.66	3.06	2.77	0.13	RED	RED	MAIN_TRUNK	
DMAIN-31-0018	1.34	24 hr	0.593	7.10	4.26	3.658	2.5	2.22	RED	RED	MAIN_TRUNK	
DMAIN-31-0019	0.9	24 hr	0.502	6.77	4.06	3.46	2.45	1.9	DASHED	RED	MAIN_TRUNK	
DMAIN-31-0020	5.14	24 hr	0.498	9.38	5.63	5.03	4.7	2.12	RED	RED	MAIN_TRUNK	
DMAIN-31-0021	2.33	24 hr	1.098	6.03	3.62	3.02	1.43	1.42	RED	RED	MAIN_TRUNK	
DMAIN-31-0039	0.41	24 hr	2.155	0.55	0.77	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0048_1	0.55	24 hr	1.855	0.54	0.75	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0048_2	0.64	24 hr	2.156	0.56	0.79	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0049	0.17	24 hr	1.025	0.30	0.36	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0053	2.26	24 hr	0.652	6.24	2.81	2.36	0.22	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-31-0074	0.77	24 hr	0.916	0.73	0.44	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0077	0.55	24 hr	0.791	0.53	0.32	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0118	3.09	24 hr	3.372	73.57	44.14	43.54	0.7	0	RED	GREEN	MAIN_TRUNK	
DMAIN-31-0193	1.56	24 hr	0.945	5.55	3.33	2.73	1.4	0.18	RED	RED	MAIN_TRUNK	
DMAIN-31-0224	0.24	24 hr	0.357	4.12	3.09	2.34	0.19	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-31-0227	0.16	24 hr	0.231	1.80	1.35	0.6	0.06	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-31-0228	1.04	24 hr	0.208	0.93	0.28	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-31-0230	1.58	24 hr	0.127	12.36	3.09	2.84	0.24	0.01	ORANGE	RED	MAIN_TRUNK	
DMAIN-31-0231	1.07	24 hr	0.086	10.00	2.5	2.25	0.22	0.2	ORANGE	RED	MAIN_TRUNK	
DMAIN-31-0232	0.81	24 hr	0.048	9.35	1.87	1.67	0.19	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-31-0258	1.86	24 hr	0.685	4.12	2.47	1.87	1.16	0	RED	GREEN	MAIN_TRUNK	
DMAIN-31-0259	1.74	24 hr	0.722	5.45	3.27	2.67	0.88	0.43	RED	RED	MAIN_TRUNK	
DMAIN-31-0260	1.57	24 hr	0.599	6.25	3.75	3.15	0.69	0.34	RED	RED	MAIN_TRUNK	
DMAIN-31-0265	1.05	24 hr	0.527	6.20	4.08	3.12	0.47	0.45	RED	RED	MAIN_TRUNK	
DMAIN-31-0286	0.31	24 hr	0.734	0.49	0.59	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0289	0.08	24 hr	0.227	0.20	0.12	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0289_2	0.26	24 hr	0.262	0.32	0.19	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0290	0.24	24 hr	0.22	0.38	0.23	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0304	3.18	24 hr	0.503	2.92	1.75	1.15	4.9	0.03	RED	RED	MAIN_TRUNK	
DMAIN-31-0305	1.39	24 hr	0.385	9.49	4.27	3.82	0.81	0.74	RED	RED	MAIN_TRUNK	
DMAIN-31-0312	1.32	24 hr	0.111	6.08	2.28	1.905	1.07	0.98	RED	RED	MAIN_TRUNK	
DMAIN-31-0321	0.11	24 hr	0.032	3.13	1.41	0.96	0.1	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-31-0348	1.06	24 hr	1.274	3.49	2.62	1.87	0.72	0.27	RED	RED	MAIN_TRUNK	
DMAIN-31-0360	27.94	24 hr	0.657	1.82	1.09	0.49	0.92	0	RED	GREEN	MAIN_TRUNK	
DMAIN-31-0368	2.29	24 hr	0.997	3.27	1.96	1.36	1.68	0	RED	GREEN	MAIN_TRUNK	
DMAIN-31-0369	0.94	24 hr	0.446	8.88	5.33	4.73	2.5	1.9	DASHED	RED	MAIN_TRUNK	
DMAIN-31-0374	6.44	24 hr	0.453	3.80	2.28	1.68	2.59	0	RED	GREEN	MAIN_TRUNK	
DMAIN-31-0375	1.99	24 hr	0.706	3.80	2.28	1.68	2.59	0	RED	GREEN	MAIN_TRUNK	
DMAIN-31-0376	1.66	24 hr	1.811	2.53	2.28	1.38	3.59	0	RED	GREEN	MAIN_TRUNK	
DMAIN-31-0381	0.96	24 hr	1.839	1.88	1.69	0.79	3.61	0.26	DASHED	RED	MAIN_TRUNK	
DMAIN-34-0002	0.44	24 hr	3.29	0.59	0.82	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0003	1.23	24 hr	3.266	0.93	1.35	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-34-0005	1.43	24 hr	3.24	1.72	2.41	1.01	0.13	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-34-0006	0.55	24 hr	2.924	0.53	0.74	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0007	0.74	24 hr	2.913	0.64	0.9	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0008	0.65	24 hr	2.891	0.59	0.83	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0010	0.16	24 hr	1.597	0.27	0.44	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0012	0.69	24 hr	2.327	0.64	0.77	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0015	0.49	24 hr	2.052	0.50	0.53	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0022	2.27	24 hr	0.86	5.02	3.01	2.41	5.58	0.98	RED	RED	MAIN_TRUNK	
DMAIN-34-0023	1.59	24 hr	0.754	8.73	5.24	4.64	0.98	0.78	RED	RED	MAIN_TRUNK	
DMAIN-34-0024	0.88	24 hr	0.686	6.00	3.9	3	0.77	0.48	DASHED	RED	MAIN_TRUNK	

Storm System Performance Assessment:
Existing 10-Year Design Storm (without 15% Climate Change increase) - Existing Land Use Conditions

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-34-0046	0.22	24 hr	0.988	0.36	0.59	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0049	0.37	24 hr	0.966	0.42	0.69	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0051	1.47	24 hr	0.893	0.50	0.82	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0052	0.34	24 hr	0.695	0.51	0.77	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0053	9.68	24 hr	0.637	0.60	0.84	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0054	0.07	24 hr	0.027	0.18	0.09	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0055	0.04	24 hr	0.008	0.12	0.06	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0056	0.02	24 hr	0.065	0.29	0.4	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0057	0.56	24 hr	0.053	0.53	0.89	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0058	1.13	24 hr	0.619	1.19	0.89	0.14	0.13	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-34-0059	3.02	24 hr	0.651	7.58	3.41	2.96	0.38	0.01	RED	RED	MAIN_TRUNK	
DMAIN-34-0060	0.3	24 hr	0.185	0.38	0.17	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0065	0.05	24 hr	0.146	0.27	0.38	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0068	0.02	24 hr	0.077	0.26	0.36	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0069	0.12	24 hr	0.074	0.25	0.3	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0070	0.14	24 hr	0.07	0.25	0.3	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0136	1.36	24 hr	0.439	11.36	5.11	4.66	0.79	0.75	RED	RED	MAIN_TRUNK	
DMAIN-34-0159	0.29	24 hr	1.538	0.39	0.65	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0161	0.47	24 hr	2.845	0.48	0.58	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0162	0.36	24 hr	1.25	0.42	0.44	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0163	0.8	24 hr	0.621	0.81	0.65	0	0	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-34-0164	0.47	24 hr	1.937	0.62	0.65	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0174	0.28	24 hr	0.953	0.37	0.44	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0176	0.28	24 hr	1.465	0.37	0.44	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-35-0019	0.94	24 hr	0.783	0.90	0.54	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-35-0022	0.99	24 hr	0.864	0.82	0.49	0	0	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-35-0023	1.07	24 hr	0.507	1.42	0.71	0.21	0.51	0.51	ORANGE	RED	MAIN_TRUNK	
DMAIN-35-0024	2.59	24 hr	0.227	9.37	2.81	2.51	0.49	0.2	RED	RED	MAIN_TRUNK	
DMAIN-35-0034	0.7	24 hr	1.081	1.29	0.87	0.195	0.57	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-35-0035	2.18	24 hr	1.015	1.78	1.2	0.525	0.64	0	RED	GREEN	MAIN_TRUNK	
DMAIN-35-0057	0.81	24 hr	0.851	2.58	1.16	0.71	0.14	0.06	DASHED	RED	MAIN_TRUNK	
DMAIN-35-0059	1.46	24 hr	0.695	4.44	2.67	2.062	0.55	0	RED	GREEN	MAIN_TRUNK	
DMAIN-35-0063	1.24	24 hr	0.963	3.23	1.94	1.34	0.56	0.18	RED	RED	MAIN_TRUNK	
DMAIN-35-0066	1.49	24 hr	0.969	2.92	1.75	1.15	0.63	0	RED	GREEN	MAIN_TRUNK	
DMAIN-35-0067	1.04	24 hr	0.968	2.71	2.03	1.28	0.98	0	RED	GREEN	MAIN_TRUNK	
DMAIN-35-0069	2.05	24 hr	0.963	2.15	1.89	0.86	0.84	0.56	RED	RED	MAIN_TRUNK	
DMAIN-35-0070	1.45	24 hr	0.964	1.68	1.26	0.51	0.61	0	RED	GREEN	MAIN_TRUNK	
DMAIN-35-0080	1.87	24 hr	1.585	4.50	3.04	2.365	7.49	0.87	RED	RED	MAIN_TRUNK	
DMAIN-36-0001	1.16	24 hr	1.247	3.65	2.19	1.59	0.38	0.35	RED	RED	MAIN_TRUNK	
DMAIN-36-0002	1.08	24 hr	1.297	4.63	2.84	2.18	0.34	0.01	RED	RED	MAIN_TRUNK	
DMAIN-36-0003	0.72	24 hr	1.277	0.68	0.41	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-36-0004	1.13	24 hr	1.269	3.22	1.93	1.33	0.3	0.01	RED	RED	MAIN_TRUNK	
DMAIN-36-0005	1.34	24 hr	1.258	4.50	2.7	2.1	0.36	0.01	RED	RED	MAIN_TRUNK	
DMAIN-36-0006	1.09	24 hr	1.072	3.63	2.4	1.579	0.3	0.3	RED	RED	MAIN_TRUNK	
DMAIN-36-0007	1.23	24 hr	1.065	4.78	2.87	2.27	0.35	0.3	RED	RED	MAIN_TRUNK	
DMAIN-36-0008	0.97	24 hr	0.734	3.98	2.55	1.79	0.29	0.29	DASHED	RED	MAIN_TRUNK	
DMAIN-36-0009	0.83	24 hr	0.433	3.23	2.04	1.336	0.27	0.23	DASHED	RED	MAIN_TRUNK	
DMAIN-36-0046	2.4	24 hr	0.895	2.20	1.65	0.9	2.57	0.12	RED	RED	MAIN_TRUNK	
DMAIN-36-0047	1.38	24 hr	0.702	2.40	1.8	1.05	1.81	0.11	RED	RED	MAIN_TRUNK	
DMAIN-36-0048	1.25	24 hr	0.684	2.45	1.84	1.09	1.54	0.15	RED	RED	MAIN_TRUNK	
DMAIN-36-0049	4.26	24 hr	0.703	4.23	2.22	1.695	1.63	0.33	RED	RED	MAIN_TRUNK	
DMAIN-38-0200	1.69	24 hr	0.39	5.40	2.43	1.98	0.21	0.01	ORANGE	RED	MAIN_TRUNK	
DMAIN-38-0201	2.15	24 hr	0.39	6.60	2.97	2.52	0.19	0.01	ORANGE	RED	MAIN_TRUNK	
DMAIN-38-0300	1.31	24 hr	0.833	5.92	3.55	2.95	0.22	0.01	ORANGE	RED	MAIN_TRUNK	
DMAIN-38-0301	1.57	24 hr	0.823	5.00	3	2.4	0.22	0.1	ORANGE	RED	MAIN_TRUNK	

Storm System Performance Assessment:
Existing 10-Year Design Storm (without 15% Climate Change increase) - Existing Land Use Conditions

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surcharge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-38-0302	2.06	24 hr	0.39	7.33	3.3	2.85	0.25	0.2	ORANGE	RED	MAIN_TRUNK	
DMAIN-38-0307	1.04	24 hr	0.355	6.89	3.1	2.65	0.2	0.01	ORANGE	RED	MAIN_TRUNK	
DMAIN-38-0323	0.55	24 hr	0.292	4.29	1.93	1.48	0.12	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-38-0324	1.68	24 hr	0.702	4.67	2.45	1.925	0.24	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-38-0325	1.48	24 hr	0.702	3.10	1.63	1.105	0.25	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-38-0326	1.33	24 hr	0.431	4.48	2.35	1.825	0.21	0.07	ORANGE	RED	MAIN_TRUNK	
DMAIN-38-0403	1.19	24 hr	0.214	3.67	1.65	1.2	0.29	0	RED	GREEN	MAIN_TRUNK	
DMAIN-38-0404	1.15	24 hr	0.209	3.62	1.63	1.18	0.14	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-38-0405	1.35	24 hr	0.211	3.96	1.78	1.33	0.21	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-38-0412	4.31	24 hr	0.989	1.24	1.12	0.22	0.87	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-38-0413	0.96	24 hr	1.022	1.16	1.04	0.14	0.96	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-38-0414	1.72	24 hr	1.106	1.51	1.36	0.46	1.43	0	RED	GREEN	MAIN_TRUNK	
DMAIN-38-0416_1	0.7	24 hr	0.747	1.22	2.17	0.2	0.69	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-38-0416_2	0.94	24 hr	0.99	1.23	1.11	0.21	0.74	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-38-0418	1.62	24 hr	0.758	3.01	2.03	1.355	0.63	0.01	RED	RED	MAIN_TRUNK	
DMAIN-38-0419	1.38	24 hr	0.721	2.77	1.66	1.06	0.38	0.14	RED	RED	MAIN_TRUNK	
DMAIN-38-0703	0.71	24 hr	0.76	2.57	1.93	1.18	22.41	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-38-0704	1.71	24 hr	0.693	4.53	2.72	2.12	2.61	1.27	RED	RED	MAIN_TRUNK	
DMAIN-38-0705	0.83	24 hr	0.675	3.73	2.24	1.64	1.84	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-38-0706	1.46	24 hr	0.664	4.67	2.8	2.2	2.06	0.97	RED	RED	MAIN_TRUNK	
DMAIN-38-0707	1.75	24 hr	0.669	6.90	4.14	3.54	2.25	1.69	RED	RED	MAIN_TRUNK	
DMAIN-38-0708	1.84	24 hr	0.784	8.52	5.11	4.51	2.17	1.87	RED	RED	MAIN_TRUNK	
DMAIN-38-0709	1.21	24 hr	0.498	8.53	5.12	4.52	2.08	0.56	RED	RED	MAIN_TRUNK	
DMAIN-38-0710	1.36	24 hr	0.411	12.38	5.57	5.12	2.08	1.26	RED	RED	MAIN_TRUNK	
DMAIN-38-0711	2.7	24 hr	0.281	14.85	5.57	5.195	2.12	2.06	RED	RED	MAIN_TRUNK	
DMAIN-38-0712	1.39	24 hr	0.181	14.80	5.55	5.175	2.08	2.02	RED	RED	MAIN_TRUNK	
DMAIN-38-1033	0.62	24 hr	0.221	4.17	2.5	1.9	69.71	31.89	DASHED	RED	MAIN_TRUNK	
DMAIN-38-2010	0.67	24 hr	0.372	4.92	2.95	2.35	70.22	1.81	DASHED	RED	MAIN_TRUNK	
DMAIN-38-2011	0.9	24 hr	0.367	5.30	3.18	2.58	70.6	21.69	DASHED	RED	MAIN_TRUNK	
DMAIN-38-2012	1	24 hr	0.183	6.22	2.8	2.35	70.07	0.55	RED	RED	MAIN_TRUNK	
DMAIN-38-2033	0.45	24 hr	0.806	2.30	2.07	1.17	42.76	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-38-2037	1.67	24 hr	0.234	14.59	5.47	5.095	2.06	1.85	RED	RED	MAIN_TRUNK	
DMAIN-38-2051	1.38	24 hr	0.212	3.87	1.74	1.29	0.18	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-38-2052	1.39	24 hr	0.213	3.87	1.74	1.29	0.15	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-38-2058	1.06	24 hr	0.704	1.75	2.17	0.508	1.7	0	RED	GREEN	MAIN_TRUNK	
DMAIN-38-2062	0.27	24 hr	0.595	0.73	0.66	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-38-2063	4.95	24 hr	0.407	1.12	0.84	0.09	0.87	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-38-2063_2	0.95	24 hr	0.985	1.01	0.91	0.01	0.21	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-38-2067	0.54	24 hr	0.273	3.33	2	1.4	70.1	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-38-2068	0.57	24 hr	0.244	2.95	1.77	1.17	69.98	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-38-2069	0.55	24 hr	0.214	2.43	1.46	0.86	2.53	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-38-2081	0.99	24 hr	1.514	1.37	1.23	0.33	2.6	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-38-2082	0.78	24 hr	1.525	1.32	1.4	0.287	0.05	0.02	YELLOW	RED	MAIN_TRUNK	
DMAIN-38-2083	0.82	24 hr	1.524	1.50	1.35	0.45	2.41	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-38-2092	0.42	24 hr	0.255	5.00	2.25	1.8	0.16	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-38-2093	0.79	24 hr	0.271	3.98	1.79	1.34	0.14	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-4-0001	0.86	24 hr	2.798	3.02	2.72	1.82	0.62	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-4-0002	2.55	24 hr	2.758	3.53	3.18	2.28	1.33	0.5	RED	RED	MAIN_TRUNK	
DMAIN-4-0003	1.1	24 hr	2.582	4.06	3.65	2.75	0.78	0.72	RED	RED	MAIN_TRUNK	
DMAIN-4-0004	1.22	24 hr	2.531	4.98	4.48	3.58	0.73	0.71	RED	RED	MAIN_TRUNK	
DMAIN-4-0007	0.98	24 hr	2.092	2.81	2.53	1.63	0.5	0.23	DASHED	RED	MAIN_TRUNK	
DMAIN-4-0009	1.64	24 hr	0.991	3.71	2.78	2.03	1.26	0.63	RED	RED	MAIN_TRUNK	
DMAIN-4-0011	11.61	24 hr	0.929	6.19	4.64	3.889	5.05	0.01	RED	RED	MAIN_TRUNK	
DMAIN-4-0012	1.71	24 hr	0.9	8.53	6.4	5.65	4.07	0.01	RED	RED	MAIN_TRUNK	
DMAIN-4-0013	1.57	24 hr	0.746	5.76	4.32	3.57	3.42	0.52	RED	RED	MAIN_TRUNK	

Storm System Performance Assessment:
Existing 10-Year Design Storm (without 15% Climate Change increase) - Existing Land Use Conditions

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-4-0014	2.44	24 hr	0.599	7.43	4.46	3.86	3.49	1.21	RED	RED	MAIN_TRUNK	
DMAIN-4-0088	0.5	24 hr	0.456	2.33	1.4	0.8	0.36	0.02	DASHED	RED	MAIN_TRUNK	
DMAIN-4-0110	1.14	24 hr	0.451	2.35	1.41	0.81	0.36	0.02	RED	RED	MAIN_TRUNK	
DMAIN-4-0111	1.43	24 hr	0.44	3.53	2.12	1.52	0.42	0.01	RED	RED	MAIN_TRUNK	
DMAIN-4-0112	1.58	24 hr	0.462	3.95	2.37	1.77	0.43	0.01	RED	RED	MAIN_TRUNK	
DMAIN-4-0113	1.78	24 hr	0.461	5.30	3.18	2.58	0.45	0.36	RED	RED	MAIN_TRUNK	
DMAIN-4-0114	1.03	24 hr	0.175	5.28	3.17	2.57	0.44	0.13	RED	RED	MAIN_TRUNK	
DMAIN-4-0142	1.51	24 hr	0.472	6.90	4.14	3.54	1.41	1.25	RED	RED	MAIN_TRUNK	
DMAIN-4-0198	1.79	24 hr	0.478	4.22	2.53	1.93	0.43	0.43	RED	RED	MAIN_TRUNK	
DMAIN-4-0202	0.94	24 hr	1.002	3.27	2.45	1.7	0.52	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-43-0001	1.39	24 hr	1.444	3.52	2.11	1.51	2.46	0.98	RED	RED	MAIN_TRUNK	
DMAIN-43-0002	0.91	24 hr	1.125	0.85	0.51	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-43-0003	0.67	24 hr	1.04	0.60	0.36	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-43-0004	2.52	24 hr	1.033	5.12	3.07	2.47	1.3	0.6	RED	RED	MAIN_TRUNK	
DMAIN-43-0005	3.68	24 hr	1.069	17.49	9.18	8.655	2.27	1.05	RED	RED	MAIN_TRUNK	
DMAIN-45-0008	2.11	24 hr	0.608	4.70	2.47	1.945	1.64	0.21	RED	RED	MAIN_TRUNK	
DMAIN-45-0010	2.29	24 hr	0.615	2.80	1.47	0.944	1.56	0.01	RED	RED	MAIN_TRUNK	
DMAIN-45-0016	2.78	24 hr	0.185	8.72	3.27	2.895	0.5	0.01	RED	RED	MAIN_TRUNK	
DMAIN-45-0017	1.4	24 hr	0.283	4.29	1.93	1.48	0.48	0	RED	GREEN	MAIN_TRUNK	
DMAIN-45-0018	1.57	24 hr	0.257	3.18	1.43	0.98	4.37	0.17	RED	RED	MAIN_TRUNK	
DMAIN-45-0020	0.65	24 hr	0.094	7.17	2.15	1.85	0.26	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-50-0001	1.82	24 hr	1.554	8.10	4.86	4.26	5.54	0	RED	GREEN	MAIN_TRUNK	
DMAIN-50-0002	0.86	24 hr	1.44	6.75	4.05	3.45	0.84	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-50-0003	0.63	24 hr	0.668	0.78	0.41	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-50-0004	1.54	24 hr	0.663	4.32	2.27	1.745	0.18	0.01	ORANGE	RED	MAIN_TRUNK	
DMAIN-50-0005	0.73	24 hr	0.644	1.30	1.91	0.155	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-50-0010	1.04	24 hr	0.479	8.56	3.21	2.835	0.8	0.79	RED	RED	MAIN_TRUNK	
DMAIN-50-0011	1.22	24 hr	0.429	12.59	4.72	4.345	0.8	0.78	RED	RED	MAIN_TRUNK	
DMAIN-5-0002	1.73	24 hr	0.908	6.84	3.59	3.065	0.79	0.76	RED	RED	MAIN_TRUNK	
DMAIN-5-0003	1.08	24 hr	0.949	7.29	3.83	3.302	0.69	0.49	RED	RED	MAIN_TRUNK	
DMAIN-5-0004	1.32	24 hr	1.138	6.48	3.89	3.29	0.65	0.47	RED	RED	MAIN_TRUNK	
DMAIN-50-0050	1.5	24 hr	1.031	8.48	4.45	3.925	0.85	0.69	RED	RED	MAIN_TRUNK	
DMAIN-50-0051	0.9	24 hr	0.542	7.54	4.65	3.435	0.82	0.8	DASHED	RED	MAIN_TRUNK	
DMAIN-50-0052	1.71	24 hr	0.746	9.26	4.86	4.335	6.1	0.68	RED	RED	MAIN_TRUNK	
DMAIN-50-0053	1.78	24 hr	0.922	9.89	5.19	4.665	0.84	0.22	RED	RED	MAIN_TRUNK	
DMAIN-5-0146	1.27	24 hr	0.912	6.17	3.24	2.715	0.78	0.72	RED	RED	MAIN_TRUNK	
DMAIN-5-0147	1.64	24 hr	0.907	3.77	1.98	1.455	1	0.66	RED	RED	MAIN_TRUNK	
DMAIN-52-0170	1.72	24 hr	1.748	3.45	2.59	1.84	0.25	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-52-0171	0.83	24 hr	1.788	0.69	0.52	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0172	0.63	24 hr	1.802	0.57	0.43	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0173	0.37	24 hr	1.833	0.42	0.44	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0174	0	24 hr	0.004	0.04	0.02	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0175	0.01	24 hr	0.009	0.06	0.03	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0176	0.61	24 hr	1.873	0.56	0.66	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0180	0.31	24 hr	0.041	0.37	0.14	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0181	0.47	24 hr	0.111	0.49	0.22	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0182	0.41	24 hr	1.998	0.45	0.47	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0183	0.25	24 hr	2.002	0.34	0.36	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0184	2.56	24 hr	2.002	1.20	1.26	0.21	0.21	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-52-0186	0.94	24 hr	1.317	3.66	1.92	1.395	0.15	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-52-0187	0.19	24 hr	1.358	0.51	0.38	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-6-0001	1.35	24 hr	0.671	7.22	3.25	2.8	1.95	1.77	RED	RED	MAIN_TRUNK	
DMAIN-6-0002	1.26	24 hr	0.692	9.89	4.45	4	1.92	1.8	RED	RED	MAIN_TRUNK	
DMAIN-6-0003	1.57	24 hr	0.837	10.71	4.82	4.37	1.9	1.84	RED	RED	MAIN_TRUNK	
DMAIN-6-0014	0.85	24 hr	0.25	10.24	4.61	4.16	1.83	1.78	DASHED	RED	MAIN_TRUNK	

Storm System Performance Assessment:
Existing 10-Year Design Storm (without 15% Climate Change increase) - Existing Land Use Conditions

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-6-0030	0.68	24 hr	0.329	7.33	4.4	3.8	1.83	1.75	DASHED	RED	MAIN_TRUNK	
DMAIN-7-0001	1.38	24 hr	1.407	4.42	2.65	2.05	1.04	0.94	RED	RED	MAIN_TRUNK	
DMAIN-7-0002	1.06	24 hr	1.431	4.80	2.88	2.28	0.91	0.91	RED	RED	MAIN_TRUNK	
DMAIN-7-0003	1	24 hr	1.352	4.43	2.66	2.06	0.83	0.63	RED	RED	MAIN_TRUNK	
DMAIN-7-0004	0.98	24 hr	1.416	3.97	2.38	1.78	0.78	0.73	DASHED	RED	MAIN_TRUNK	
DMAIN-7-0005	1.06	24 hr	0.849	3.96	2.08	1.555	0.75	0.65	RED	RED	MAIN_TRUNK	
DMAIN-7-0006	1.31	24 hr	0.801	8.93	4.69	4.165	0.9	0.86	RED	RED	MAIN_TRUNK	
DMAIN-7-0007	1.64	24 hr	0.943	13.14	6.9	6.375	0.9	0.81	RED	RED	MAIN_TRUNK	
DMAIN-8-0001	0.19	24 hr	0.217	0.32	0.19	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-8-0002	1.4	24 hr	0.208	17.16	4.29	4.04	1.66	1.54	RED	RED	MAIN_TRUNK	
DMAIN-8-0003	1.45	24 hr	0.214	28.40	7.1	6.85	1.64	1.33	RED	RED	MAIN_TRUNK	
DMAIN-9-0001	1.24	24 hr	0.345	7.21	2.83	2.329	0.37	0.35	RED	RED	MAIN_TRUNK	
DMAIN-9-0002	0.93	24 hr	0.422	4.83	1.81	1.435	0.18	0.16	DASHED	RED	MAIN_TRUNK	
DMAIN-9-0003	1.18	24 hr	0.447	7.79	2.92	2.545	0.18	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-9-0010	0.28	24 hr	0.118	5.60	2.1	1.725	0.16	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-9-0011	0.58	24 hr	0.108	4.16	1.56	1.185	0.08	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-9-0022	0.34	24 hr	0.069	0.48	0.18	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	

100-Year Existing Scenario Capacity Assessment Results

Storm System Performance Assessment:

Existing 100-Year Design Storm (without 15% Climate Change increase) - Existing Land Use Conditions

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DCUL0001	0.29	24 hr	10.951	1.29	3.04	0.69	5.07	-	DASHED	RED	CULVERT	CreekCrossing
DCUL0002	1.81	24 hr	17.482	1.49	3.5	1.15	10.38	-	RED	RED	CULVERT	CreekCrossing
DCUL0003	0.81	24 hr	2.049	2.79	2.51	1.61	8.09	-	DASHED	RED	CULVERT	CreekCrossing
DCUL0006	3.04	24 hr	10.856	7.90	9.48	8.28	17.96	-	RED	RED	CULVERT	CreekCrossing
DCUL0013	0.35	24 hr	4.794	0.88	1.32	0	0	-	YELLOW	GREEN	CULVERT	CreekCrossing
DCUL0014	1.2	24 hr	4.902	2.41	2.89	1.69	17.91	-	RED	RED	CULVERT	CreekCrossing
DCUL0015	0.3	24 hr	2.634	0.59	1.24	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0016	1.02	24 hr	3.527	1.53	1.84	0.64	4.92	-	RED	GREEN	CULVERT	CreekCrossing
DCUL0017	1.11	24 hr	3.154	1.17	1.64	0.24	2.11	-	ORANGE	RED	CULVERT	CreekCrossing
DCUL0018	1.8	24 hr	2.504	2.04	1.63	0.83	4.86	-	RED	RED	CULVERT	CreekCrossing
DCUL0019	1.18	24 hr	4.109	2.18	2.62	1.42	5.12	-	RED	RED	CULVERT	CreekCrossing
DCUL0020	1.57	24 hr	2.26	3.09	2.78	1.88	14.6	-	RED	RED	CULVERT	CreekCrossing
DCUL0021	0.59	24 hr	8.476	2.35	2.82	1.62	3.94	-	DASHED	RED	CULVERT	CreekCrossing
DCUL0022	0.62	24 hr	5.828	1.53	1.84	0.64	2.05	-	DASHED	GREEN	CULVERT	CreekCrossing
DCUL0023	0.79	24 hr	7.481	1.64	1.48	0.58	3.58	-	DASHED	RED	CULVERT	CreekCrossing
DCUL0024_1	2.77	24 hr	3.633	2.71	3.25	2.05	9.21	-	RED	RED	CULVERT	CreekCrossing
DCUL0024_2	2.79	24 hr	3.693	2.23	2.74	1.47	7.91	-	RED	RED	CULVERT	CreekCrossing
DCUL0041	2.98	24 hr	1.178	16.55	9.93	9.33	0.69	-	RED	RED	CULVERT	RoadCrossing
DCUL0045	1.86	24 hr	2.673	14.75	8.85	8.25	6.66	-	RED	RED	CULVERT	Driveway
DCUL0046	2.38	24 hr	0.717	2.15	1.29	0.69	19.16	-	RED	RED	CULVERT	RoadCrossing
DCUL0132	10.86	24 hr	1.443	1.26	1.26	0.26	1.35	-	ORANGE	RED	CULVERT	Driveway
DCUL0133	15.7	24 hr	1.371	1.18	1.18	0.18	1.33	-	ORANGE	RED	CULVERT	Driveway
DCUL0134	16.01	24 hr	1.323	1.15	1.15	0.15	1.39	-	ORANGE	RED	CULVERT	Driveway
DCUL0162	22.43	24 hr	0.304	3.71	1.67	1.22	23.35	-	RED	RED	CULVERT	RoadCrossing
DCUL0168	19.29	24 hr	2.385	1.59	1.27	0.47	1.35	-	RED	GREEN	CULVERT	RoadCrossing
DCUL0184	0.92	24 hr	0.661	1.92	1.44	0.69	9.41	-	DASHED	GREEN	CULVERT	Driveway
DCUL0186	2.25	24 hr	8.236	1.62	2.91	1.11	10.31	-	RED	RED	CULVERT	CreekCrossing
DCUL0187	0.21	24 hr	0.337	0.59	0.47	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0188	0.7	24 hr	0.307	0.88	0.53	0	0	-	YELLOW	GREEN	CULVERT	CreekCrossing
DCUL0193	0.37	24 hr	0.294	0.55	0.44	0	0	-	GREEN	GREEN	CULVERT	RoadCrossing_WILDLIFE_CULVERTS
DCUL0203	0.13	24 hr	0.298	0.80	0.48	0	0	-	YELLOW	GREEN	CULVERT	RoadCrossing
DCUL0205	0.55	24 hr	1.874	1.91	1.72	0.82	1.68	-	DASHED	RED	CULVERT	Driveway
DCUL0218	1.29	24 hr	1.588	1.90	1.9	0.9	6.69	-	RED	RED	CULVERT	RoadCrossing
DCUL0231	0.54	24 hr	1.323	1.37	1.23	0.33	2.22	-	DASHED	RED	CULVERT	Driveway
DCUL0234	1.34	24 hr	2.189	1.18	1.42	0.22	2.1	-	ORANGE	RED	CULVERT	CreekCrossing
DCUL0235	0.31	24 hr	9.07	2.01	2.45	1.23	5.14	-	DASHED	RED	CULVERT	CreekCrossing
DCUL0236	1.03	24 hr	2.322	2.19	2.19	1.19	2.99	-	RED	RED	CULVERT	CreekCrossing
DCUL0237	2.58	24 hr	10.668	40.96	30.72	29.97	22.86	-	RED	RED	CULVERT	CreekCrossing
DCUL0238	0.46	24 hr	3.851	1.47	1.98	0.63	4.02	-	DASHED	RED	CULVERT	CreekCrossing
DCUL0240	0.61	24 hr	37.578	2.53	4.3	2.6	12.8	-	DASHED	RED	CULVERT	CreekCrossing
DCUL0253	1.12	24 hr	0.133	3.03	0.91	0.61	0.22	-	ORANGE	RED	CULVERT	RoadCrossing
DCUL0347	17.9	24 hr	0.242	1.07	0.64	0.04	0.16	-	ORANGE	RED	CULVERT	RoadCrossing
DCUL0348	0.31	24 hr	0.705	0.86	0.77	0	0	-	YELLOW	GREEN	CULVERT	Driveway
DCUL0351	1.17	24 hr	1.553	1.73	1.56	0.66	5.93	-	RED	RED	CULVERT	RoadCrossing
DCUL0357	0.73	24 hr	0.627	1.73	1.04	0.44	0.96	-	DASHED	GREEN	CULVERT	RoadCrossing
DCUL0368	0.61	24 hr	1.859	1.04	1.25	0.05	0.44	-	DASHED	RED	CULVERT	CreekCrossing
DCUL0369	51.93	24 hr	0.584	4.30	2.15	1.65	25.51	-	RED	RED	CULVERT	RoadCrossing
DCUL0420	2.18	24 hr	1.647	254.55	152.73	152.13	2.27	-	RED	RED	CULVERT	RoadCrossing
DCUL0438	0.19	24 hr	0.458	1.18	0.71	0.11	0.21	-	YELLOW	GREEN	CULVERT	RoadCrossing
DCUL0535	0.29	24 hr	1.089	0.94	0.94	0	0	-	YELLOW	GREEN	CULVERT	Driveway
DCUL0536	0.28	24 hr	1.303	1.29	1.16	0.26	2.15	-	DASHED	RED	CULVERT	Driveway
DCUL0581	0.61	24 hr	4.646	1.03	1.85	0.05	0.85	-	DASHED	RED	CULVERT	CreekCrossing
DCUL0582	0.15	24 hr	1.028	0.94	1.69	0	0	-	YELLOW	GREEN	CULVERT	CreekCrossing
DCUL0583	0.24	24 hr	1.339	1.07	1.77	0.12	3.33	-	DASHED	RED	CULVERT	CreekCrossing

Pipe Performance Ranking

- Green = No Capacity Issues
- Yellow = Between 80% - 100% Capacity and pipe crown surcharging < 30cm
- Orange = Greater than 100% Capacity but no significant pipe crown surcharging
- Red = > 100% Capacity and pipe crown surcharging > 30cm and > 15 minutes
- Dashed Red = Surcharging of pipe crown > 30cm and > 15 minutes that may be due to backwater

Ground/Road Flooding Ranking

Storm Trunk Sewers:

- Green = Ground/Road Flooding = 0 minutes
- Red = Ground/Road Flooding > 0 minutes possible

Culverts:

- Green = No Ground/Road Flooding occurring
- Red = Ground/Road Flooding occurring

Storm System Performance Assessment:
Existing 100-Year Design Storm (without 15% Climate Change increase) - Existing Land Use Conditions

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surcharge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DCUL0589	0.54	24 hr	0.344	1.76	0.88	0.38	0.52	-	DASHED	RED	CULVERT	RoadCrossing
DCUL0590	0.59	24 hr	0.073	1.23	0.37	0.07	8.91	-	DASHED	RED	CULVERT	Driveway
DCUL0591	1.41	24 hr	0.397	1.40	0.84	0.24	0.42	-	ORANGE	RED	CULVERT	RoadCrossing
DCUL0593	1.72	24 hr	0.752	8.86	4.43	3.93	3.93	-	RED	RED	CULVERT	RoadCrossing
DCUL0598	0.16	24 hr	0.166	0.31	0.31	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0612_1	0.84	24 hr	6.102	1.52	2.74	0.94	3.27	-	DASHED	RED	CULVERT	RoadCrossing
DCUL0612_2	0.85	24 hr	6.137	1.37	2.46	0.66	1.41	-	DASHED	RED	CULVERT	RoadCrossing
DCUL0613	1.06	24 hr	0.662	1.99	1.49	0.74	8.41	-	RED	GREEN	CULVERT	RoadCrossing
DCUL0617	0.86	24 hr	0.829	0.94	0.94	0	0	-	YELLOW	GREEN	CULVERT	CreekCrossing
DCUL0618	2.49	24 hr	0.167	1.67	0.75	0.3	10.2	-	RED	RED	CULVERT	CreekCrossing
DCUL0623	0.53	24 hr	5.624	0.86	1.9	0	0	-	YELLOW	GREEN	CULVERT	MOTI
DCUL0624	2.06	24 hr	37.494	2.23	6.24	3.44	9.88	-	RED	GREEN	CULVERT	CreekCrossing
DCUL0633	1.83	24 hr	0.154	1.90	0.76	0.36	2.37	-	RED	RED	CULVERT	PRIVATE
DCUL0634	1.56	24 hr	0.166	1.65	0.66	0.26	2.48	-	ORANGE	GREEN	CULVERT	PRIVATE
DCUL0639	1.61	24 hr	0.138	8.43	2.53	2.23	27.96	-	RED	GREEN	CULVERT	MOTI
DCUL0654	1.04	24 hr	0.528	1.40	1.29	0.24	2.48	-	ORANGE	RED	CULVERT	RoadCrossing
DCUL0657	0.96	24 hr	0.461	2.51	1.32	0.795	0.63	-	DASHED	RED	CULVERT	Driveway
DCUL0659	0.76	24 hr	0.329	1.47	0.77	0.245	0.11	-	YELLOW	RED	CULVERT	Driveway
DCUL0673	3.32	24 hr	1.758	2.77	1.66	1.06	8.96	-	RED	GREEN	CULVERT	RoadCrossing
DCUL0698	0.42	24 hr	0.075	0.53	0.32	0	0	-	GREEN	GREEN	CULVERT	RoadCrossing
DCUL0699	0.17	24 hr	3.363	0.38	1.14	0	0	-	GREEN	GREEN	CULVERT	RoadCrossing
DCUL0733	0.09	24 hr	0.128	0.49	1.03	0	0	-	GREEN	GREEN	MAIN_TRUNK	
DCUL0751	0.14	24 hr	0.395	0.35	0.42	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0752	0.16	24 hr	0.301	0.41	0.41	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0753	0.28	24 hr	0.426	0.41	0.58	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0754	0.19	24 hr	0.037	0.48	0.48	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0755	0.53	24 hr	0.419	0.59	0.59	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0756	0.21	24 hr	0.09	0.32	0.32	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0757	0.24	24 hr	0.191	0.41	0.41	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0758	0.09	24 hr	0.078	0.23	0.21	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0759	0.19	24 hr	0.166	0.34	0.34	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0760	0.05	24 hr	0.033	0.18	0.16	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0761	0.01	24 hr	0.003	0.09	0.09	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0762	0	1 hr	0	0.00	0	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0763	0	1 hr	0	0.00	0	0	0	-	GREEN	GREEN	CULVERT	MOTI
DITC-0729	1.14	24 hr	1.04	8.22	4.93	4.33	0.62	0.61	RED	RED	MAIN_TRUNK	
DITC-0729_2	1.06	24 hr	0.985	3.78	2.27	1.67	4.46	2.79	RED	RED	MAIN_TRUNK	
DMAIN-10-0001	2.02	24 hr	0.796	2.91	1.75	1.147	1.87	0	RED	GREEN	MAIN_TRUNK	
DMAIN-10-0002-1	1.37	24 hr	0.485	3.53	2.12	1.52	1.91	0	RED	GREEN	MAIN_TRUNK	
DMAIN-10-0002-2	3.07	24 hr	0.743	3.28	1.97	1.37	1.94	0	RED	GREEN	MAIN_TRUNK	
DMAIN-10-0003	1.65	24 hr	0.475	3.93	2.36	1.76	1.9	1.17	RED	RED	MAIN_TRUNK	
DMAIN-10-0004	2.56	24 hr	0.587	8.22	3.7	3.25	3.29	1.8	RED	RED	MAIN_TRUNK	
DMAIN-10-0005	1.01	24 hr	0.549	8.07	3.63	3.18	1.96	1.77	RED	RED	MAIN_TRUNK	
DMAIN-10-0006	1.01	24 hr	0.616	7.07	3.18	2.73	1.76	1.13	RED	RED	MAIN_TRUNK	
DMAIN-10-0007	1.35	24 hr	0.488	9.60	4.32	3.87	1.71	1.38	RED	RED	MAIN_TRUNK	
DMAIN-10-0008	1.25	24 hr	0.347	9.87	4.44	3.99	1.68	1.63	RED	RED	MAIN_TRUNK	
DMAIN-10-0009	1.08	24 hr	0.347	9.56	4.3	3.85	1.62	1.55	RED	RED	MAIN_TRUNK	
DMAIN-1-0001_1	0.78	24 hr	2.173	0.68	0.81	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-1-0001_2	0.78	24 hr	2.178	0.72	0.86	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-1-0003	1.38	24 hr	1.547	2.76	2.21	1.41	0.64	0.21	RED	RED	MAIN_TRUNK	
DMAIN-1-0004	1.33	24 hr	1.362	4.95	3.96	3.16	0.66	0.43	RED	RED	MAIN_TRUNK	
DMAIN-10-0041	0.36	24 hr	0.789	1.60	0.96	0.36	1.72	1.67	DASHED	RED	MAIN_TRUNK	
DMAIN-1-0012	1.88	24 hr	1.045	5.31	4.25	3.45	0.67	0.63	RED	RED	MAIN_TRUNK	
DMAIN-1-0013	2.08	24 hr	0.91	5.93	4.74	3.94	0.7	0.66	RED	RED	MAIN_TRUNK	
DMAIN-1-0014	0.89	24 hr	0.545	7.52	4.51	3.91	0.66	0.66	DASHED	RED	MAIN_TRUNK	

Storm System Performance Assessment:
Existing 100-Year Design Storm (without 15% Climate Change increase) - Existing Land Use Conditions

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-11-0001	1.24	24 hr	0.885	4.41	2.23	1.706	1.11	0.13	RED	RED	MAIN_TRUNK	
DMAIN-11-0002	2.55	24 hr	0.588	19.76	8.89	8.44	1.47	1.07	RED	RED	MAIN_TRUNK	
DMAIN-11-0003	1.39	24 hr	0.645	11.91	5.36	4.91	1.11	1.1	RED	RED	MAIN_TRUNK	
DMAIN-11-0004	1.12	24 hr	0.894	11.07	4.98	4.53	0.77	0.44	RED	RED	MAIN_TRUNK	
DMAIN-12-0001	1.42	24 hr	0.177	8.43	2.53	2.23	0.43	0.39	RED	RED	MAIN_TRUNK	
DMAIN-12-0002	1.03	24 hr	0.171	7.77	2.33	2.03	0.41	0	RED	GREEN	MAIN_TRUNK	
DMAIN-13-0001	2.53	24 hr	1.968	4.23	3.17	2.42	0.84	0.69	RED	RED	MAIN_TRUNK	
DMAIN-13-0002	2.54	24 hr	1.729	4.92	3.69	2.94	0.76	0.65	RED	RED	MAIN_TRUNK	
DMAIN-13-0003	1.26	24 hr	1.246	4.85	3.64	2.89	0.62	0.55	RED	RED	MAIN_TRUNK	
DMAIN-13-0004_1	0.55	24 hr	1.609	3.93	2.95	2.2	0.54	0.47	DASHED	RED	MAIN_TRUNK	
DMAIN-13-0004_2	0.76	24 hr	1.612	3.48	3.48	2.48	0.56	0.49	DASHED	RED	MAIN_TRUNK	
DMAIN-13-0005	2.47	24 hr	1.188	4.44	3.33	2.58	0.54	0.44	RED	RED	MAIN_TRUNK	
DMAIN-14-0001	3.04	24 hr	4.105	1.16	2.09	0.29	2.3	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-14-0002	1.11	24 hr	3.642	1.21	1.81	0.31	0.61	0	RED	GREEN	MAIN_TRUNK	
DMAIN-14-0003	0.94	24 hr	3.301	0.99	1.33	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-14-0004	2.53	24 hr	3.27	1.95	2.63	1.28	4.55	0.01	RED	RED	MAIN_TRUNK	
DMAIN-14-0005	2.03	24 hr	2.684	2.80	3.78	2.43	6.7	0.57	RED	RED	MAIN_TRUNK	
DMAIN-14-0006	2.17	24 hr	2.201	3.23	3.88	2.68	7.6	0.85	RED	RED	MAIN_TRUNK	
DMAIN-14-0007	1.89	24 hr	2.142	4.11	4.93	3.73	7.94	4	RED	RED	MAIN_TRUNK	
DMAIN-14-0008	1.14	24 hr	1.816	3.84	4.61	3.41	7.42	4.9	RED	RED	MAIN_TRUNK	
DMAIN-14-0009	1.07	24 hr	1.544	4.34	4.56	3.51	7.57	4.86	RED	RED	MAIN_TRUNK	
DMAIN-14-0010	1.21	24 hr	1.526	4.29	4.5	3.45	7.3	5.11	RED	RED	MAIN_TRUNK	
DMAIN-14-0012	2.27	24 hr	1.478	4.41	4.63	3.58	7.34	5.51	RED	RED	MAIN_TRUNK	
DMAIN-14-0013	1.39	24 hr	1.428	4.81	5.05	4	7.34	5.93	RED	RED	MAIN_TRUNK	
DMAIN-14-0014	1.89	24 hr	1.195	4.94	5.19	4.14	7.37	6.1	RED	RED	MAIN_TRUNK	
DMAIN-14-0015	2.92	24 hr	0.952	5.07	5.32	4.27	7.53	6.23	RED	RED	MAIN_TRUNK	
DMAIN-14-0016	1.67	24 hr	0.931	6.32	5.69	4.79	8.74	6.78	RED	RED	MAIN_TRUNK	
DMAIN-14-0018	1.17	24 hr	0.693	5.16	5.42	4.37	7.29	7.05	RED	RED	MAIN_TRUNK	
DMAIN-14-0019	0.89	24 hr	0.243	6.48	3.89	3.29	6.92	6.04	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0020	0.66	24 hr	0.101	6.22	2.8	2.35	5.85	5.12	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0023	0.76	24 hr	0.817	2.11	1.58	0.83	7.65	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-14-0024	2.07	24 hr	0.802	4.22	2.53	1.93	7.13	0	RED	GREEN	MAIN_TRUNK	
DMAIN-14-0025	1.96	24 hr	0.802	4.98	2.99	2.39	6.57	1.37	RED	RED	MAIN_TRUNK	
DMAIN-14-0026	2.2	24 hr	0.618	9.68	5.08	4.555	6.08	3.4	RED	RED	MAIN_TRUNK	
DMAIN-14-0027	1.96	24 hr	0.601	11.10	5.83	5.305	5.78	4.15	RED	RED	MAIN_TRUNK	
DMAIN-14-0028	2.79	24 hr	0.614	13.22	6.94	6.415	5.73	4.26	RED	RED	MAIN_TRUNK	
DMAIN-14-0029	2.66	24 hr	0.608	15.94	8.37	7.845	5.35	4.94	RED	RED	MAIN_TRUNK	
DMAIN-14-0030	4.64	24 hr	0.564	27.18	12.23	11.78	5.62	5.11	RED	RED	MAIN_TRUNK	
DMAIN-14-0033	3.05	24 hr	0.21	19.09	7.16	6.785	6.43	3.21	RED	RED	MAIN_TRUNK	
DMAIN-14-0051	3.2	24 hr	0.325	10.02	4.51	4.06	17.1	8.61	RED	RED	MAIN_TRUNK	
DMAIN-14-0052	3.04	24 hr	0.294	13.91	6.26	5.81	18.02	12.24	RED	RED	MAIN_TRUNK	
DMAIN-14-0053	2.75	24 hr	0.27	15.69	7.06	6.61	17.53	13.06	RED	RED	MAIN_TRUNK	
DMAIN-14-0058	3.7	24 hr	0.191	16.71	7.52	7.07	16.72	13.14	RED	RED	MAIN_TRUNK	
DMAIN-14-0059	2.02	24 hr	0.162	18.56	8.35	7.9	15.26	13.06	RED	RED	MAIN_TRUNK	
DMAIN-14-0062	1.4	24 hr	0.108	17.56	7.9	7.45	13.88	12.16	RED	RED	MAIN_TRUNK	
DMAIN-14-0063	1.14	24 hr	0.127	17.11	7.7	7.25	13.71	11.41	RED	RED	MAIN_TRUNK	
DMAIN-14-0070	1.42	24 hr	0.498	5.55	3.33	2.73	2.39	1.22	RED	RED	MAIN_TRUNK	
DMAIN-14-0071	1.43	24 hr	0.242	5.98	3.74	2.989	1.52	1.29	RED	RED	MAIN_TRUNK	
DMAIN-14-0083	0.11	24 hr	0.055	6.42	2.89	2.44	6.63	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-14-0084	0.24	24 hr	0.037	5.93	2.67	2.22	5.3	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-14-0085	0	1 hr	0	0.00	0	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0086	0	1 hr	0	0.00	0	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0087	0	1 hr	0	0.00	0	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0097	0.4	24 hr	0.277	7.80	3.51	3.06	6.86	4.33	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0098	1.68	24 hr	0.271	8.71	3.92	3.47	6.56	3.6	RED	RED	MAIN_TRUNK	

Storm System Performance Assessment:
Existing 100-Year Design Storm (without 15% Climate Change increase) - Existing Land Use Conditions

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surcharge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-14-0099	1.98	24 hr	0.246	10.64	4.79	4.34	6.33	4.82	RED	RED	MAIN_TRUNK	
DMAIN-14-0100	1.06	24 hr	0.232	10.73	4.83	4.38	5.63	4.53	RED	RED	MAIN_TRUNK	
DMAIN-14-0102	176.55	24 hr	0.306	45.10	13.53	13.23	22.7	5.07	RED	RED	MAIN_TRUNK	
DMAIN-14-0102A	37.98	24 hr	0.253	17.30	5.19	4.89	6.07	4.73	RED	RED	MAIN_TRUNK	
DMAIN-14-0106	2.07	24 hr	0.35	7.95	4.77	4.17	7.08	6.45	RED	RED	MAIN_TRUNK	
DMAIN-14-0107	1.55	24 hr	0.297	8.18	4.91	4.307	6.75	6.57	RED	RED	MAIN_TRUNK	
DMAIN-14-0108	0.75	24 hr	0.164	7.33	4.4	3.8	6.35	6.32	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0109	0.57	24 hr	0.297	10.62	4.78	4.33	7.7	6.12	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0110	1.55	24 hr	0.234	10.64	4.79	4.34	7.65	6.18	RED	RED	MAIN_TRUNK	
DMAIN-14-0111	0.99	24 hr	0.162	10.49	4.72	4.27	7.37	6.46	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0112	1.81	24 hr	0.16	10.51	4.73	4.28	7.35	6.56	RED	RED	MAIN_TRUNK	
DMAIN-14-0113	0.73	24 hr	0.107	9.04	4.07	3.62	6.95	6.24	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0114	1.61	24 hr	0.06	24.68	6.17	5.92	7.19	6.8	RED	RED	MAIN_TRUNK	
DMAIN-14-0121	0.69	24 hr	0.074	10.03	3.01	2.71	6.54	6.53	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0122	0.69	24 hr	0.023	7.10	1.42	1.22	4.54	4.51	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0127	1.1	24 hr	0.072	15.77	5.01	4.43	7.52	6.87	RED	RED	MAIN_TRUNK	
DMAIN-14-0128	1.75	24 hr	0.146	12.88	4.83	4.455	7.36	7.21	RED	RED	MAIN_TRUNK	
DMAIN-14-0129	1.44	24 hr	0.127	12.77	4.79	4.415	7.32	7.21	RED	RED	MAIN_TRUNK	
DMAIN-14-0130	0.36	24 hr	0.103	13.83	4.15	3.85	7.22	7.22	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0133	0.36	24 hr	0.117	13.36	5.01	4.635	7.96	6.87	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0134	2.26	24 hr	0.239	15.09	6.79	6.34	10.02	8.43	RED	RED	MAIN_TRUNK	
DMAIN-14-0135	1.7	24 hr	0.182	17.16	7.72	7.27	9.61	9.16	RED	RED	MAIN_TRUNK	
DMAIN-14-0136	1.9	24 hr	0.124	17.38	7.82	7.37	9.63	8.29	RED	RED	MAIN_TRUNK	
DMAIN-14-0137	3.31	24 hr	0.233	17.67	7.95	7.5	9.58	9.37	RED	RED	MAIN_TRUNK	
DMAIN-14-0140	1.04	24 hr	0.665	6.97	5.23	4.48	7.2	7.08	RED	RED	MAIN_TRUNK	
DMAIN-14-0141	4.55	24 hr	0.643	12.42	7.45	6.85	18.82	7.39	RED	RED	MAIN_TRUNK	
DMAIN-14-0142	26.36	24 hr	0.727	16.60	9.96	9.36	25.01	8.87	RED	RED	MAIN_TRUNK	
DMAIN-14-0143	1.75	24 hr	0.394	17.73	10.64	10.04	19.22	9.41	RED	RED	MAIN_TRUNK	
DMAIN-14-0173	0.37	24 hr	0.327	7.00	4.26	3.6	7.06	5.46	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0187	0.54	24 hr	0.927	6.00	5.4	4.5	7.61	6.85	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0188	1.95	24 hr	1.545	4.43	4.65	3.6	7.69	4.87	RED	RED	MAIN_TRUNK	
DMAIN-14-0190	0	1 hr	0	0.00	0	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0198	1.98	24 hr	0.209	10.58	4.76	4.31	7.48	6.39	RED	RED	MAIN_TRUNK	
DMAIN-14-0202	0.83	24 hr	0.127	6.16	2.77	2.32	5.73	5.69	DASHED	RED	MAIN_TRUNK	
DMAIN-15-0001	4.4	24 hr	3.204	4.00	4.2	3.15	3.78	0.69	RED	RED	MAIN_TRUNK	
DMAIN-15-0002	1.42	24 hr	2.879	4.78	5.02	3.97	2.49	2.04	RED	RED	MAIN_TRUNK	
DMAIN-15-0004	1.7	24 hr	1.991	11.55	8.66	7.91	2.64	2.42	RED	RED	MAIN_TRUNK	
DMAIN-15-0005-1	0.73	24 hr	1.687	7.12	5.34	4.59	2.06	1.19	DASHED	RED	MAIN_TRUNK	
DMAIN-15-0005-2	0.54	24 hr	2.259	7.64	5.73	4.98	2.09	1.43	DASHED	RED	MAIN_TRUNK	
DMAIN-15-0006	2.26	24 hr	1.629	7.35	5.51	4.76	2.07	1.19	RED	RED	MAIN_TRUNK	
DMAIN-15-0007	2.55	24 hr	1.444	8.44	6.33	5.58	3.05	1.55	RED	RED	MAIN_TRUNK	
DMAIN-15-0008	2.12	24 hr	1.455	8.67	6.5	5.75	3.09	1.69	RED	RED	MAIN_TRUNK	
DMAIN-15-0009	1.8	24 hr	1.127	9.56	7.17	6.42	2.87	2	RED	RED	MAIN_TRUNK	
DMAIN-15-0010	3.11	24 hr	0.96	16.00	7.2	6.75	3.79	2.04	RED	RED	MAIN_TRUNK	
DMAIN-15-0011	3.58	24 hr	0.708	17.24	7.76	7.31	4.15	2.38	RED	RED	MAIN_TRUNK	
DMAIN-15-0012	2.79	24 hr	0.506	20.53	9.24	8.79	4.44	3.36	RED	RED	MAIN_TRUNK	
DMAIN-15-0013	1.28	24 hr	0.294	20.36	9.16	8.71	3.74	3.63	RED	RED	MAIN_TRUNK	
DMAIN-15-0014	1.88	24 hr	0.406	20.16	9.07	8.62	3.69	3.26	RED	RED	MAIN_TRUNK	
DMAIN-15-0057	2.12	24 hr	0.707	12.32	7.39	6.79	2.63	2.08	RED	RED	MAIN_TRUNK	
DMAIN-15-0117	2.04	24 hr	2.615	9.85	7.39	6.64	2.88	2.38	RED	RED	MAIN_TRUNK	
DMAIN-15-0125	2.19	24 hr	2.088	13.13	9.85	9.1	2.65	2.01	RED	RED	MAIN_TRUNK	
DMAIN-16-0001	0.7	24 hr	0.775	1.07	0.64	0.04	0.03	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-16-0002	0.79	24 hr	0.495	1.12	0.67	0.07	0.02	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-16-0003	1	24 hr	0.467	0.91	0.34	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-16-0004_1	1.09	24 hr	0.439	10.50	3.15	2.85	2.97	0	RED	GREEN	MAIN_TRUNK	

Storm System Performance Assessment:
Existing 100-Year Design Storm (without 15% Climate Change increase) - Existing Land Use Conditions

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-16-0004_2	2.69	24 hr	0.422	16.30	4.89	4.59	2.97	2.21	RED	RED	MAIN_TRUNK	
DMAIN-16-0005	2.01	24 hr	0.44	12.49	5.62	5.17	7.32	2.95	RED	RED	MAIN_TRUNK	
DMAIN-16-0006	1.2	24 hr	0.344	10.84	5.69	5.165	4.71	2.97	RED	RED	MAIN_TRUNK	
DMAIN-16-0007	1.11	24 hr	0.255	12.80	5.76	5.31	3.14	2.98	RED	RED	MAIN_TRUNK	
DMAIN-16-0008	1.11	24 hr	0.206	12.69	5.71	5.26	3.07	2.86	RED	RED	MAIN_TRUNK	
DMAIN-16-0009	1.56	24 hr	0.259	12.53	5.64	5.19	3.04	2.87	RED	RED	MAIN_TRUNK	
DMAIN-16-0055	1.14	24 hr	0.748	1.23	0.74	0.14	0.06	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-17-0001	2.21	24 hr	0.963	12.05	7.23	6.63	4.92	4.22	RED	RED	MAIN_TRUNK	
DMAIN-17-0004	1.23	24 hr	1.173	8.93	6.7	5.95	4.13	2.56	RED	RED	MAIN_TRUNK	
DMAIN-17-0005	1.66	24 hr	1.272	9.05	6.79	6.04	3.98	2.94	RED	RED	MAIN_TRUNK	
DMAIN-17-0007	2.53	24 hr	0.899	13.30	7.98	7.377	4.1	3.29	RED	RED	MAIN_TRUNK	
DMAIN-17-0008	2.1	24 hr	0.772	13.87	8.56	7.72	4.05	3.48	RED	RED	MAIN_TRUNK	
DMAIN-17-0009	2.89	24 hr	1.258	15.03	9.02	8.42	3.99	3.44	RED	RED	MAIN_TRUNK	
DMAIN-17-0018	2.03	24 hr	0.994	12.20	7.32	6.72	4.9	4.17	RED	RED	MAIN_TRUNK	
DMAIN-17-0069	45.35	24 hr	1.032	19.11	8.84	8.15	4.24	3.5	RED	RED	MAIN_TRUNK	
DMAIN-17-0076	0.98	24 hr	1.04	9.03	6.77	6.02	4.22	3.46	DASHED	RED	MAIN_TRUNK	
DMAIN-18-0001	1.79	24 hr	1.635	3.07	2.3	1.55	17.91	1.38	RED	RED	MAIN_TRUNK	
DMAIN-18-0003	1.52	24 hr	1.527	3.59	2.69	1.94	9.31	0	RED	GREEN	MAIN_TRUNK	
DMAIN-18-0004	0.62	24 hr	1.524	2.84	2.13	1.38	2.87	0.33	DASHED	RED	MAIN_TRUNK	
DMAIN-18-0008	1.45	24 hr	1.47	3.39	2.54	1.79	1.67	0.57	RED	RED	MAIN_TRUNK	
DMAIN-18-0009	1.79	24 hr	1.337	5.41	4.06	3.31	1.73	0.75	RED	RED	MAIN_TRUNK	
DMAIN-18-0010	2.12	24 hr	0.947	13.52	7.1	6.575	1.8	1.73	RED	RED	MAIN_TRUNK	
DMAIN-18-0011	1.48	24 hr	0.549	15.82	7.12	6.67	1.77	1.7	RED	RED	MAIN_TRUNK	
DMAIN-18-0012	0.99	24 hr	0.464	15.69	7.06	6.61	1.74	1.69	DASHED	RED	MAIN_TRUNK	
DMAIN-18-0014	0.94	24 hr	0.628	9.40	4.23	3.78	0.74	0.54	DASHED	RED	MAIN_TRUNK	
DMAIN-18-0052	1.25	24 hr	2.132	3.36	2.52	1.77	18.87	3.17	RED	RED	MAIN_TRUNK	
DMAIN-18-0061	1.28	24 hr	0.504	14.44	6.5	6.05	1.68	1.24	RED	RED	MAIN_TRUNK	
DMAIN-2-0001	17.96	24 hr	1.245	9.97	7.48	6.73	3.11	2.14	RED	RED	MAIN_TRUNK	
DMAIN-20-0018	1.52	24 hr	0.905	12.67	8.18	7.003	0.95	0.95	RED	RED	MAIN_TRUNK	
DMAIN-20-0029	2.2	24 hr	1.197	7.27	5.45	4.7	0.96	0.88	RED	RED	MAIN_TRUNK	
DMAIN-2-0003	2.21	24 hr	2.112	4.91	4.91	3.91	3.76	3.71	RED	RED	MAIN_TRUNK	
DMAIN-20-0030	1.95	24 hr	1.222	6.13	4.64	3.848	0.94	0.66	RED	RED	MAIN_TRUNK	
DMAIN-20-0033	2.17	24 hr	1.312	5.96	4.47	3.72	0.96	0.28	RED	RED	MAIN_TRUNK	
DMAIN-20-0034	1.17	24 hr	1.488	6.20	3.72	3.12	0.89	0.51	RED	RED	MAIN_TRUNK	
DMAIN-2-0004	2.62	24 hr	1.111	9.48	7.11	6.36	4.19	3.31	RED	RED	MAIN_TRUNK	
DMAIN-20-0047	0.44	24 hr	1.488	1.72	1.29	0.54	0.91	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-2-0010	0.67	24 hr	0.264	6.27	3.76	3.16	8.43	3.35	DASHED	RED	MAIN_TRUNK	
DMAIN-2-0011	0.52	24 hr	0.192	5.48	3.29	2.69	3.75	3.6	DASHED	RED	MAIN_TRUNK	
DMAIN-2-0012	2.44	24 hr	0.66	21.80	13.08	12.48	4.2	3.52	RED	RED	MAIN_TRUNK	
DMAIN-2-0013	3.67	24 hr	0.573	27.67	16.6	16	5.44	4.07	RED	RED	MAIN_TRUNK	
DMAIN-2-0044	2.42	24 hr	1.813	3.52	3.7	2.65	3.79	3.09	RED	RED	MAIN_TRUNK	
DMAIN-2-0047	0.61	24 hr	1.663	8.85	7.08	6.28	2.24	2.03	DASHED	RED	MAIN_TRUNK	
DMAIN-2-0049	2.38	24 hr	0.63	12.25	7.35	6.75	2.23	2.01	RED	RED	MAIN_TRUNK	
DMAIN-2-0050	1.93	24 hr	0.922	13.42	8.05	7.45	2.18	1.97	RED	RED	MAIN_TRUNK	
DMAIN-2-0059	1.04	24 hr	1.819	3.52	3.83	2.65	3.74	3.18	RED	RED	MAIN_TRUNK	
DMAIN-2-0064	1.63	24 hr	2.022	3.58	4.29	3.09	3.69	3.69	RED	RED	MAIN_TRUNK	
DMAIN-2-0065	1.1	24 hr	1.888	2.67	2.8	1.75	3.69	1.83	RED	RED	MAIN_TRUNK	
DMAIN-2-0066	1.66	24 hr	1.109	6.43	4.82	4.07	2.2	1.55	RED	RED	MAIN_TRUNK	
DMAIN-2-0067	2.62	24 hr	1.111	9.48	7.11	6.36	4.19	3.31	RED	RED	MAIN_TRUNK	
DMAIN-2-0068	8.14	24 hr	1.817	8.76	7.01	6.21	2.2	2.08	RED	RED	MAIN_TRUNK	
DMAIN-2-0070	0.58	24 hr	0.21	6.02	3.61	3.01	4.88	3.56	DASHED	RED	MAIN_TRUNK	
DMAIN-2-0072	0.45	24 hr	0.156	5.85	3.51	2.91	4.24	3.68	DASHED	RED	MAIN_TRUNK	
DMAIN-2-0073	0.34	24 hr	0.127	5.78	3.47	2.87	4.11	3.69	DASHED	RED	MAIN_TRUNK	
DMAIN-2-0074	1.88	24 hr	0.258	5.48	3.29	2.69	3.74	3.16	RED	RED	MAIN_TRUNK	
DMAIN-2-0083	2.49	24 hr	2.577	12.26	11.03	10.13	3.86	2.64	RED	RED	MAIN_TRUNK	

Storm System Performance Assessment:
Existing 100-Year Design Storm (without 15% Climate Change increase) - Existing Land Use Conditions

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-21-0001	2.66	24 hr	0.729	2.95	1.77	1.17	0.25	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-21-0002	11.37	24 hr	0.707	3.00	1.8	1.2	0.25	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-21-0003	1.45	24 hr	0.338	4.08	2.45	1.85	0.21	0.01	ORANGE	RED	MAIN_TRUNK	
DMAIN-22-0915	2.21	24 hr	0.55	15.29	6.88	6.43	1.27	0.62	RED	RED	MAIN_TRUNK	
DMAIN-22-0920	2.39	24 hr	0.396	8.49	3.82	3.37	13.25	4	RED	RED	MAIN_TRUNK	
DMAIN-22-0921	2.5	24 hr	0.419	5.33	2.4	1.95	19.3	4.51	RED	RED	MAIN_TRUNK	
DMAIN-22-0922	1.46	24 hr	0.137	10.85	4.07	3.695	9.12	1.08	RED	RED	MAIN_TRUNK	
DMAIN-22-0926	2.08	24 hr	0.499	6.51	2.93	2.48	1.61	1.33	RED	RED	MAIN_TRUNK	
DMAIN-22-0927	1.35	24 hr	0.502	7.18	3.23	2.78	1.36	1.2	RED	RED	MAIN_TRUNK	
DMAIN-22-0928	2.17	24 hr	0.488	4.71	2.12	1.67	2.39	1.34	RED	RED	MAIN_TRUNK	
DMAIN-23-0002	3.26	24 hr	1.868	4.52	3.39	2.64	1.86	1.2	RED	RED	MAIN_TRUNK	
DMAIN-23-0003	0.73	24 hr	0.827	3.42	2.05	1.45	0.66	0.27	DASHED	RED	MAIN_TRUNK	
DMAIN-23-0008	1.69	24 hr	1.057	4.91	3.68	2.93	1.61	1.57	RED	RED	MAIN_TRUNK	
DMAIN-23-0035	1.83	24 hr	1.136	4.53	3.4	2.647	1.78	1.18	RED	RED	MAIN_TRUNK	
DMAIN-30-0001	1.45	24 hr	2.791	3.38	3.04	2.14	4.18	1.4	RED	RED	MAIN_TRUNK	
DMAIN-30-0002	1.43	24 hr	2.787	3.42	3.08	2.18	3.54	1.38	RED	RED	MAIN_TRUNK	
DMAIN-30-0003	1.84	24 hr	2.751	5.41	4.87	3.97	3.68	3.04	RED	RED	MAIN_TRUNK	
DMAIN-30-0004	2.29	24 hr	2.077	7.63	5.72	4.97	4	3.06	RED	RED	MAIN_TRUNK	
DMAIN-30-0005	1.05	24 hr	2.063	7.59	5.69	4.94	3.07	2.1	RED	RED	MAIN_TRUNK	
DMAIN-30-0006	0.62	24 hr	2.103	0.67	0.5	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-30-0007	1.88	24 hr	2.074	4.64	3.48	2.73	2.67	0	RED	GREEN	MAIN_TRUNK	
DMAIN-30-0008	2.03	24 hr	2.042	7.45	5.59	4.84	2.77	1.92	RED	RED	MAIN_TRUNK	
DMAIN-30-0009	2.17	24 hr	2.153	10.59	7.94	7.19	2.81	2.46	RED	RED	MAIN_TRUNK	
DMAIN-30-0034	1.3	24 hr	0.694	8.30	4.98	4.38	3.55	2.98	RED	RED	MAIN_TRUNK	
DMAIN-30-0035	2.23	24 hr	0.645	9.27	5.56	4.96	3.32	2.88	RED	RED	MAIN_TRUNK	
DMAIN-30-0036	1.45	24 hr	0.73	9.43	5.79	5.06	3.07	3.04	RED	RED	MAIN_TRUNK	
DMAIN-30-0048	1.44	24 hr	1.372	10.76	8.07	7.32	2.79	2.54	RED	RED	MAIN_TRUNK	
DMAIN-30-0049	1.33	24 hr	1.745	10.44	7.83	7.08	2.69	2.59	RED	RED	MAIN_TRUNK	
DMAIN-30-0050	0.87	24 hr	0.695	10.09	7.57	6.82	2.57	2.45	DASHED	RED	MAIN_TRUNK	
DMAIN-30-0051	1.11	24 hr	0.559	12.35	7.41	6.81	2.58	2.09	RED	RED	MAIN_TRUNK	
DMAIN-30-0052	1.41	24 hr	0.663	12.23	7.34	6.74	2.54	2.08	RED	RED	MAIN_TRUNK	
DMAIN-30-0053	1.1	24 hr	0.799	11.02	6.61	6.01	2.37	1.74	RED	RED	MAIN_TRUNK	
DMAIN-30-0067	0.73	24 hr	0.49	9.43	5.66	5.06	1.97	1.52	DASHED	RED	MAIN_TRUNK	
DMAIN-30-0068	1.73	24 hr	1.196	10.03	6.02	5.42	1.81	1.57	RED	RED	MAIN_TRUNK	
DMAIN-3-0007	0.82	24 hr	0.927	9.63	5.78	5.18	2.3	1.68	DASHED	RED	MAIN_TRUNK	
DMAIN-3-0008	0.9	24 hr	1.031	8.78	5.27	4.67	2.13	1.77	DASHED	RED	MAIN_TRUNK	
DMAIN-3-0009	4.75	24 hr	1.167	14.08	8.45	7.85	2.16	1.96	RED	RED	MAIN_TRUNK	
DMAIN-30-0121	1.78	24 hr	1.202	4.98	2.99	2.39	1.92	0.82	RED	RED	MAIN_TRUNK	
DMAIN-30-0122	1.29	24 hr	1.255	6.67	4	3.4	1.17	0.7	RED	RED	MAIN_TRUNK	
DMAIN-30-0123	0.83	24 hr	1.526	3.02	1.81	1.21	0.12	0.1	DASHED	RED	MAIN_TRUNK	
DMAIN-30-0125	0.53	24 hr	0.818	0.53	0.32	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-30-0126	1.87	24 hr	0.797	1.68	1.01	0.41	1.62	0	RED	GREEN	MAIN_TRUNK	
DMAIN-30-0127	1.87	24 hr	0.797	3.08	1.85	1.25	1.85	0	RED	GREEN	MAIN_TRUNK	
DMAIN-30-0128	2.21	24 hr	0.793	3.63	2.18	1.58	2	0	RED	GREEN	MAIN_TRUNK	
DMAIN-30-0129	1.86	24 hr	0.787	4.58	2.75	2.15	2.03	0	RED	GREEN	MAIN_TRUNK	
DMAIN-30-0130	1.93	24 hr	0.757	6.30	3.78	3.18	2.09	1.62	RED	RED	MAIN_TRUNK	
DMAIN-3-0028	1.44	24 hr	0.608	14.31	6.44	5.99	2.53	2.17	RED	RED	MAIN_TRUNK	
DMAIN-3-0037	0.69	24 hr	0.501	1.33	0.6	0.15	0.85	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-3-0041	2.01	24 hr	0.501	3.53	1.59	1.14	2.34	0	RED	GREEN	MAIN_TRUNK	
DMAIN-3-0043	2.31	24 hr	0.498	21.00	6.3	6	3.33	2.33	RED	RED	MAIN_TRUNK	
DMAIN-30-1041	1.48	24 hr	2.851	2.68	2.41	1.51	1.39	0	RED	GREEN	MAIN_TRUNK	
DMAIN-31-0010	1.69	24 hr	2.387	3.50	3.15	2.25	4.42	0.56	RED	RED	MAIN_TRUNK	
DMAIN-31-0011	1.76	24 hr	1.604	4.81	3.61	2.86	4.63	1.04	RED	RED	MAIN_TRUNK	
DMAIN-31-0012	1.21	24 hr	1.488	5.09	3.82	3.07	3.72	1.15	RED	RED	MAIN_TRUNK	
DMAIN-31-0013	1.07	24 hr	1.477	5.28	3.96	3.21	2.12	1.13	RED	RED	MAIN_TRUNK	

Storm System Performance Assessment:
Existing 100-Year Design Storm (without 15% Climate Change increase) - Existing Land Use Conditions

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surcharge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-31-0014	1.03	24 hr	1.178	4.92	3.69	2.94	1.39	0.88	RED	RED	MAIN_TRUNK	
DMAIN-31-0015	1.34	24 hr	0.921	5.17	3.88	3.13	2.47	1.22	RED	RED	MAIN_TRUNK	
DMAIN-31-0016	1.26	24 hr	0.877	5.36	4.02	3.27	2.7	1.17	RED	RED	MAIN_TRUNK	
DMAIN-31-0017	2.43	24 hr	0.771	9.98	5.99	5.39	6.52	2.76	RED	RED	MAIN_TRUNK	
DMAIN-31-0018	1.51	24 hr	0.67	13.08	7.85	7.248	6	5.54	RED	RED	MAIN_TRUNK	
DMAIN-31-0019	1.01	24 hr	0.562	12.88	7.73	7.13	5.93	5.13	RED	RED	MAIN_TRUNK	
DMAIN-31-0020	5.68	24 hr	0.55	15.83	9.5	8.9	14.28	5.45	RED	RED	MAIN_TRUNK	
DMAIN-31-0021	3.45	24 hr	1.624	17.33	10.4	9.8	4.78	4.77	RED	RED	MAIN_TRUNK	
DMAIN-31-0039	0.67	24 hr	3.558	0.81	1.13	0	0	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-31-0048_1	0.94	24 hr	3.134	0.79	1.1	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0048_2	1.06	24 hr	3.557	0.83	1.16	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-31-0049	0.28	24 hr	1.68	0.38	0.46	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0053	3.65	24 hr	1.051	12.47	5.61	5.16	0.68	0.37	RED	RED	MAIN_TRUNK	
DMAIN-31-0074	1.12	24 hr	1.326	8.43	5.06	4.46	0.43	0.42	RED	RED	MAIN_TRUNK	
DMAIN-31-0077	0.98	24 hr	1.406	7.18	4.31	3.71	0.27	0.27	DASHED	RED	MAIN_TRUNK	
DMAIN-31-0118	7.69	24 hr	8.397	283.78	170.27	169.67	1.52	0	RED	GREEN	MAIN_TRUNK	
DMAIN-31-0193	2.51	24 hr	1.514	13.07	7.84	7.24	3.09	0.6	RED	RED	MAIN_TRUNK	
DMAIN-31-0224	0.4	24 hr	0.594	4.13	3.1	2.35	1.22	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-31-0227	0.25	24 hr	0.354	4.09	3.07	2.32	1.03	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-31-0228	1.21	24 hr	0.243	9.80	2.94	2.64	0.83	0.16	RED	RED	MAIN_TRUNK	
DMAIN-31-0230	1.62	24 hr	0.13	15.44	3.86	3.61	1.09	0.9	RED	RED	MAIN_TRUNK	
DMAIN-31-0231	1.32	24 hr	0.106	13.20	3.3	3.05	1.02	1.01	RED	RED	MAIN_TRUNK	
DMAIN-31-0232	0.79	24 hr	0.047	10.10	2.02	1.82	1.01	0.67	DASHED	RED	MAIN_TRUNK	
DMAIN-31-0258	1.73	24 hr	0.635	4.33	2.6	2	3.25	0	RED	GREEN	MAIN_TRUNK	
DMAIN-31-0259	2.48	24 hr	1.027	7.98	4.79	4.19	2.88	1.26	RED	RED	MAIN_TRUNK	
DMAIN-31-0260	2.31	24 hr	0.882	10.42	6.25	5.65	2.57	1.11	RED	RED	MAIN_TRUNK	
DMAIN-31-0265	1.72	24 hr	0.862	12.55	7.89	6.93	2.09	1.31	RED	RED	MAIN_TRUNK	
DMAIN-31-0286	0.5	24 hr	1.174	0.71	0.85	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0289	0.3	24 hr	0.833	0.38	0.23	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0289_2	0.88	24 hr	0.888	0.78	0.47	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0290	0.91	24 hr	0.821	1.53	0.92	0.32	0.07	0.07	DASHED	RED	MAIN_TRUNK	
DMAIN-31-0304	4.05	24 hr	0.641	4.93	2.96	2.36	10.36	1.6	RED	RED	MAIN_TRUNK	
DMAIN-31-0305	1.86	24 hr	0.514	20.53	9.24	8.79	2.75	2.09	RED	RED	MAIN_TRUNK	
DMAIN-31-0312	1.91	24 hr	0.161	12.59	4.72	4.345	4.29	2.58	RED	RED	MAIN_TRUNK	
DMAIN-31-0321	0.44	24 hr	0.123	5.78	2.6	2.15	1.08	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-31-0348	1.17	24 hr	1.404	5.36	4.02	3.27	2.96	1.23	RED	RED	MAIN_TRUNK	
DMAIN-31-0360	48.83	24 hr	1.148	3.32	1.99	1.39	3.73	0	RED	GREEN	MAIN_TRUNK	
DMAIN-31-0368	3.51	24 hr	1.526	6.42	3.85	3.25	3.84	0	RED	GREEN	MAIN_TRUNK	
DMAIN-31-0369	1.03	24 hr	0.491	15.48	9.29	8.69	6	5.2	RED	RED	MAIN_TRUNK	
DMAIN-31-0374	7.67	24 hr	0.539	5.23	3.14	2.54	5.6	0.56	RED	RED	MAIN_TRUNK	
DMAIN-31-0375	2.53	24 hr	0.894	5.23	3.14	2.54	5.6	0.56	RED	RED	MAIN_TRUNK	
DMAIN-31-0376	1.72	24 hr	1.871	2.80	2.52	1.62	7.23	0	RED	GREEN	MAIN_TRUNK	
DMAIN-31-0381	1.05	24 hr	2.001	2.10	1.89	0.99	7.28	1.26	RED	RED	MAIN_TRUNK	
DMAIN-34-0002	0.62	24 hr	4.603	0.76	1.06	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0003	1.72	24 hr	4.575	1.94	2.77	1.316	0.66	0.01	RED	RED	MAIN_TRUNK	
DMAIN-34-0005	2	24 hr	4.535	2.66	3.72	2.32	0.82	0.59	RED	RED	MAIN_TRUNK	
DMAIN-34-0006	0.8	24 hr	4.286	2.06	2.88	1.48	0.59	0.58	DASHED	RED	MAIN_TRUNK	
DMAIN-34-0007	1.08	24 hr	4.266	2.26	3.16	1.76	0.57	0.55	RED	RED	MAIN_TRUNK	
DMAIN-34-0008	0.99	24 hr	4.443	2.19	3.07	1.67	0.54	0.52	DASHED	RED	MAIN_TRUNK	
DMAIN-34-0010	0.35	24 hr	3.536	0.90	1.48	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-34-0012	1.14	24 hr	3.84	1.33	1.59	0.39	0.39	0	RED	GREEN	MAIN_TRUNK	
DMAIN-34-0015	0.83	24 hr	3.496	1.11	1.17	0.12	0.16	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-34-0022	2.85	24 hr	1.08	7.33	4.4	3.8	11.47	4.59	RED	RED	MAIN_TRUNK	
DMAIN-34-0023	2.04	24 hr	0.969	15.75	9.45	8.85	5.47	3.98	RED	RED	MAIN_TRUNK	
DMAIN-34-0024	1.07	24 hr	0.834	16.83	10.4	9.5	4.14	3.46	RED	RED	MAIN_TRUNK	

Storm System Performance Assessment:
Existing 100-Year Design Storm (without 15% Climate Change increase) - Existing Land Use Conditions

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-34-0046	0.35	24 hr	1.556	0.47	0.77	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0049	0.59	24 hr	1.512	0.53	0.88	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0051	2.29	24 hr	1.387	0.62	1.02	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0052	0.51	24 hr	1.032	0.65	0.98	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0053	13.02	24 hr	0.857	0.75	1.05	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0054	0.14	24 hr	0.054	0.26	0.13	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0055	0.07	24 hr	0.017	0.18	0.09	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0056	0.04	24 hr	0.122	0.44	0.61	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0057	1.07	24 hr	0.102	2.20	1.39	0.36	0.31	0	RED	GREEN	MAIN_TRUNK	
DMAIN-34-0058	1.45	24 hr	0.792	1.85	1.39	0.64	0.43	0	RED	GREEN	MAIN_TRUNK	
DMAIN-34-0059	4.09	24 hr	0.882	11.96	5.38	4.93	1.03	0.41	RED	RED	MAIN_TRUNK	
DMAIN-34-0060	0.55	24 hr	0.333	3.58	1.61	1.16	0.31	0.31	DASHED	RED	MAIN_TRUNK	
DMAIN-34-0065	0.08	24 hr	0.265	0.41	0.58	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0068	0.04	24 hr	0.123	0.40	0.56	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0069	0.2	24 hr	0.126	0.41	0.49	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0070	0.25	24 hr	0.128	0.41	0.49	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0136	2.04	24 hr	0.663	42.36	19.06	18.61	4.41	4.28	RED	RED	MAIN_TRUNK	
DMAIN-34-0159	0.61	24 hr	3.245	0.85	1.41	0	0	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-34-0161	0.78	24 hr	4.67	1.82	2.18	0.98	0.44	0.19	DASHED	RED	MAIN_TRUNK	
DMAIN-34-0162	0.58	24 hr	2.015	1.33	1.4	0.35	0.24	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-34-0163	0.82	24 hr	0.633	1.76	1.41	0.61	0.56	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-34-0164	0.8	24 hr	3.317	1.27	1.33	0.28	0.3	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-34-0174	0.42	24 hr	1.406	0.99	1.19	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-34-0176	0.62	24 hr	3.249	0.99	1.19	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-35-0019	0.98	24 hr	0.816	1.12	0.67	0.07	0.11	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-35-0022	1.08	24 hr	0.937	2.85	1.71	1.11	0.77	0.72	RED	RED	MAIN_TRUNK	
DMAIN-35-0023	1.24	24 hr	0.584	6.66	3.33	2.83	2.66	2.5	RED	RED	MAIN_TRUNK	
DMAIN-35-0024	3.11	24 hr	0.272	17.67	5.3	5	1.1	0.82	RED	RED	MAIN_TRUNK	
DMAIN-35-0034	0.88	24 hr	1.359	1.97	1.33	0.655	1.96	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-35-0035	2.55	24 hr	1.188	2.50	1.69	1.015	2.27	0.35	RED	RED	MAIN_TRUNK	
DMAIN-35-0057	0.78	24 hr	0.82	2.58	1.16	0.71	0.82	0.06	DASHED	RED	MAIN_TRUNK	
DMAIN-35-0059	1.4	24 hr	0.668	5.49	3.3	2.692	1.95	0.75	RED	RED	MAIN_TRUNK	
DMAIN-35-0063	1.35	24 hr	1.042	4.72	2.83	2.23	1.96	1.65	RED	RED	MAIN_TRUNK	
DMAIN-35-0066	1.61	24 hr	1.048	3.98	2.39	1.79	2.08	0	RED	GREEN	MAIN_TRUNK	
DMAIN-35-0067	1.12	24 hr	1.047	3.55	2.66	1.91	3.08	0	RED	GREEN	MAIN_TRUNK	
DMAIN-35-0069	2.24	24 hr	1.051	2.96	2.5	1.47	2.9	1.95	RED	RED	MAIN_TRUNK	
DMAIN-35-0070	1.58	24 hr	1.052	2.44	1.83	1.08	2.05	0	RED	GREEN	MAIN_TRUNK	
DMAIN-35-0080	2.18	24 hr	1.842	4.74	3.2	2.525	17.85	2.92	RED	RED	MAIN_TRUNK	
DMAIN-36-0001	1.3	24 hr	1.393	4.78	2.87	2.27	1.68	1.57	RED	RED	MAIN_TRUNK	
DMAIN-36-0002	1.16	24 hr	1.39	6.33	3.86	3.2	1.58	1.36	RED	RED	MAIN_TRUNK	
DMAIN-36-0003	0.81	24 hr	1.441	3.30	1.98	1.38	1.06	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-36-0004	1.29	24 hr	1.439	3.22	1.93	1.33	1.5	0.05	RED	RED	MAIN_TRUNK	
DMAIN-36-0005	1.51	24 hr	1.419	6.97	4.18	3.58	1.64	1.17	RED	RED	MAIN_TRUNK	
DMAIN-36-0006	1.27	24 hr	1.249	9.50	5.92	5.099	1.52	1.51	RED	RED	MAIN_TRUNK	
DMAIN-36-0007	1.63	24 hr	1.408	11.75	7.05	6.45	1.57	1.51	RED	RED	MAIN_TRUNK	
DMAIN-36-0008	1.34	24 hr	1.011	12.78	7.83	7.07	1.52	1.52	RED	RED	MAIN_TRUNK	
DMAIN-36-0009	1.22	24 hr	0.632	13.56	8.24	7.536	1.51	1.5	RED	RED	MAIN_TRUNK	
DMAIN-36-0046	3.3	24 hr	1.231	3.64	2.73	1.98	6.16	0.87	RED	RED	MAIN_TRUNK	
DMAIN-36-0047	2.06	24 hr	1.047	4.43	3.32	2.57	4.5	0.72	RED	RED	MAIN_TRUNK	
DMAIN-36-0048	1.94	24 hr	1.066	4.69	3.52	2.77	4.02	0.73	RED	RED	MAIN_TRUNK	
DMAIN-36-0049	7.74	24 hr	1.277	9.56	5.02	4.495	4.16	0.98	RED	RED	MAIN_TRUNK	
DMAIN-38-0200	2.19	24 hr	0.507	6.47	2.91	2.46	0.64	0.38	RED	RED	MAIN_TRUNK	
DMAIN-38-0201	3.22	24 hr	0.585	10.89	4.9	4.45	0.58	0.49	RED	RED	MAIN_TRUNK	
DMAIN-38-0300	1.69	24 hr	1.075	6.68	4.01	3.41	1.15	0.61	RED	RED	MAIN_TRUNK	
DMAIN-38-0301	1.81	24 hr	0.944	9.23	5.54	4.94	1.16	1.09	RED	RED	MAIN_TRUNK	

Storm System Performance Assessment:
Existing 100-Year Design Storm (without 15% Climate Change increase) - Existing Land Use Conditions

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-38-0302	2.19	24 hr	0.415	13.47	6.06	5.61	1.18	1.15	RED	RED	MAIN_TRUNK	
DMAIN-38-0307	1.2	24 hr	0.411	11.93	5.37	4.92	1.15	0.97	RED	RED	MAIN_TRUNK	
DMAIN-38-0323	0.78	24 hr	0.416	7.27	3.27	2.82	0.58	0.56	DASHED	RED	MAIN_TRUNK	
DMAIN-38-0324	2.15	24 hr	0.897	7.18	3.77	3.245	0.75	0.53	RED	RED	MAIN_TRUNK	
DMAIN-38-0325	1.9	24 hr	0.899	4.57	2.4	1.875	0.79	0.01	RED	RED	MAIN_TRUNK	
DMAIN-38-0326	2.04	24 hr	0.659	8.42	4.42	3.895	0.68	0.59	RED	RED	MAIN_TRUNK	
DMAIN-38-0403	1.98	24 hr	0.357	6.84	3.08	2.63	4.17	0	RED	GREEN	MAIN_TRUNK	
DMAIN-38-0404	1.45	24 hr	0.264	5.62	2.53	2.08	0.88	0.01	RED	RED	MAIN_TRUNK	
DMAIN-38-0405	1.68	24 hr	0.264	5.60	2.52	2.07	0.96	0.09	RED	RED	MAIN_TRUNK	
DMAIN-38-0412	5.53	24 hr	1.27	1.86	1.67	0.77	3.9	0.03	RED	RED	MAIN_TRUNK	
DMAIN-38-0413	1.24	24 hr	1.322	1.82	1.64	0.74	3.99	0	RED	GREEN	MAIN_TRUNK	
DMAIN-38-0414	2.22	24 hr	1.427	1.70	1.53	0.63	4.47	0	RED	GREEN	MAIN_TRUNK	
DMAIN-38-0416_1	0.82	24 hr	0.883	1.87	2.75	0.78	3.64	0.2	DASHED	RED	MAIN_TRUNK	
DMAIN-38-0416_2	1.21	24 hr	1.269	1.88	1.69	0.79	3.71	0.23	RED	RED	MAIN_TRUNK	
DMAIN-38-0418	2.11	24 hr	0.984	4.62	3.12	2.445	3.81	0.46	RED	RED	MAIN_TRUNK	
DMAIN-38-0419	2.12	24 hr	1.107	5.63	3.38	2.78	2.67	0.6	RED	RED	MAIN_TRUNK	
DMAIN-38-0703	0.78	24 hr	0.834	3.37	2.53	1.78	24.52	1.62	DASHED	RED	MAIN_TRUNK	
DMAIN-38-0704	1.92	24 hr	0.777	6.17	3.7	3.1	5.84	3.73	RED	RED	MAIN_TRUNK	
DMAIN-38-0705	0.93	24 hr	0.753	5.55	3.33	2.73	4.3	2.88	DASHED	RED	MAIN_TRUNK	
DMAIN-38-0706	1.62	24 hr	0.739	7.52	4.51	3.91	4.6	3.41	RED	RED	MAIN_TRUNK	
DMAIN-38-0707	2.05	24 hr	0.783	10.58	6.35	5.75	4.92	4.09	RED	RED	MAIN_TRUNK	
DMAIN-38-0708	2.25	24 hr	0.959	12.88	7.73	7.13	4.82	4.33	RED	RED	MAIN_TRUNK	
DMAIN-38-0709	1.23	24 hr	0.504	13.30	7.98	7.38	4.69	2.99	RED	RED	MAIN_TRUNK	
DMAIN-38-0710	1.77	24 hr	0.536	20.27	9.12	8.67	4.68	3.63	RED	RED	MAIN_TRUNK	
DMAIN-38-0711	2.81	24 hr	0.292	24.45	9.17	8.795	4.74	4.57	RED	RED	MAIN_TRUNK	
DMAIN-38-0712	1.49	24 hr	0.194	25.01	9.38	9.005	4.68	4.46	RED	RED	MAIN_TRUNK	
DMAIN-38-1033	1.15	24 hr	0.407	6.10	3.66	3.06	70.07	36.32	RED	RED	MAIN_TRUNK	
DMAIN-38-2010	1.18	24 hr	0.657	6.20	3.72	3.12	70.55	6.12	RED	RED	MAIN_TRUNK	
DMAIN-38-2011	1.61	24 hr	0.656	6.02	3.61	3.01	70.85	24.37	RED	RED	MAIN_TRUNK	
DMAIN-38-2012	1.87	24 hr	0.342	8.71	3.92	3.47	70.44	1.32	RED	RED	MAIN_TRUNK	
DMAIN-38-2033	0.55	24 hr	0.99	3.04	2.74	1.84	47.12	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-38-2037	2.62	24 hr	0.366	25.28	9.48	9.105	4.66	4.32	RED	RED	MAIN_TRUNK	
DMAIN-38-2051	1.72	24 hr	0.264	6.04	2.72	2.27	0.92	0.01	RED	RED	MAIN_TRUNK	
DMAIN-38-2052	1.72	24 hr	0.264	6.53	2.94	2.49	0.88	0.01	RED	RED	MAIN_TRUNK	
DMAIN-38-2058	1.39	24 hr	0.925	2.57	2.72	1.058	4.63	0.19	RED	RED	MAIN_TRUNK	
DMAIN-38-2062	0.35	24 hr	0.756	0.90	0.81	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-38-2063	5	24 hr	0.411	1.32	0.99	0.24	2.9	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-38-2063_2	1.08	24 hr	1.119	1.18	1.06	0.16	0.98	0.37	ORANGE	RED	MAIN_TRUNK	
DMAIN-38-2067	1.55	24 hr	0.786	3.80	2.28	1.68	70.38	0.36	RED	RED	MAIN_TRUNK	
DMAIN-38-2068	1.34	24 hr	0.571	3.80	2.28	1.68	70.28	0.2	RED	RED	MAIN_TRUNK	
DMAIN-38-2069	1.25	24 hr	0.487	4.28	2.57	1.97	10.91	0.18	RED	RED	MAIN_TRUNK	
DMAIN-38-2081	0.99	24 hr	1.515	1.53	1.38	0.48	13.33	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-38-2082	0.78	24 hr	1.526	1.33	1.41	0.297	0.92	0.12	DASHED	RED	MAIN_TRUNK	
DMAIN-38-2083	0.82	24 hr	1.524	1.74	1.57	0.67	11.33	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-38-2092	0.67	24 hr	0.405	8.73	3.93	3.48	1.1	0.73	DASHED	RED	MAIN_TRUNK	
DMAIN-38-2093	1.3	24 hr	0.442	8.29	3.73	3.28	1.09	0.91	RED	RED	MAIN_TRUNK	
DMAIN-4-0001	1.04	24 hr	3.364	4.49	4.04	3.14	2.62	1.08	RED	RED	MAIN_TRUNK	
DMAIN-4-0002	3.08	24 hr	3.335	6.81	6.13	5.23	4.9	1.99	RED	RED	MAIN_TRUNK	
DMAIN-4-0003	1.26	24 hr	2.943	8.50	7.65	6.75	3.69	3.38	RED	RED	MAIN_TRUNK	
DMAIN-4-0004	1.48	24 hr	3.072	10.41	9.37	8.47	3.61	3.58	RED	RED	MAIN_TRUNK	
DMAIN-4-0007	1	24 hr	2.14	7.02	6.32	5.42	3.39	3.14	RED	RED	MAIN_TRUNK	
DMAIN-4-0009	1.9	24 hr	1.152	9.65	7.24	6.49	4.65	3.87	RED	RED	MAIN_TRUNK	
DMAIN-4-0011	12.59	24 hr	1.008	11.67	8.75	7.999	8.64	3.22	RED	RED	MAIN_TRUNK	
DMAIN-4-0012	2.15	24 hr	1.132	12.65	9.49	8.74	6.93	2.76	RED	RED	MAIN_TRUNK	
DMAIN-4-0013	1.73	24 hr	0.824	12.95	9.71	8.96	6.1	3.84	RED	RED	MAIN_TRUNK	

Storm System Performance Assessment:
Existing 100-Year Design Storm (without 15% Climate Change increase) - Existing Land Use Conditions

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-4-0014	2.54	24 hr	0.626	16.70	10.02	9.42	6.17	4.57	RED	RED	MAIN_TRUNK	
DMAIN-4-0088	0.66	24 hr	0.601	8.45	5.07	4.47	3.25	3.12	DASHED	RED	MAIN_TRUNK	
DMAIN-4-0110	1.49	24 hr	0.59	8.32	4.99	4.39	3.25	3.15	RED	RED	MAIN_TRUNK	
DMAIN-4-0111	1.66	24 hr	0.513	8.45	5.07	4.47	3.43	3.1	RED	RED	MAIN_TRUNK	
DMAIN-4-0112	1.65	24 hr	0.48	8.77	5.26	4.66	3.43	3.17	RED	RED	MAIN_TRUNK	
DMAIN-4-0113	2.08	24 hr	0.54	9.98	5.99	5.39	3.45	3.36	RED	RED	MAIN_TRUNK	
DMAIN-4-0114	1.44	24 hr	0.246	9.97	5.98	5.38	3.45	3.18	RED	RED	MAIN_TRUNK	
DMAIN-4-0142	1.04	24 hr	0.327	16.20	9.72	9.12	5.04	4.63	RED	RED	MAIN_TRUNK	
DMAIN-4-0198	1.64	24 hr	0.437	9.32	5.59	4.99	3.44	3.43	RED	RED	MAIN_TRUNK	
DMAIN-4-0202	1.09	24 hr	1.164	8.32	6.24	5.49	3.43	3.05	RED	RED	MAIN_TRUNK	
DMAIN-43-0001	1.63	24 hr	1.7	5.47	3.28	2.68	5.44	2	RED	RED	MAIN_TRUNK	
DMAIN-43-0002	1.13	24 hr	1.392	7.03	4.22	3.62	1.37	1.25	RED	RED	MAIN_TRUNK	
DMAIN-43-0003	0.88	24 hr	1.355	6.13	3.68	3.08	1.29	1.23	DASHED	RED	MAIN_TRUNK	
DMAIN-43-0004	3.45	24 hr	1.414	14.03	8.42	7.82	2.74	1.54	RED	RED	MAIN_TRUNK	
DMAIN-43-0005	5.69	24 hr	1.655	41.75	21.92	21.395	5.84	2.12	RED	RED	MAIN_TRUNK	
DMAIN-45-0008	3.9	24 hr	1.124	14.36	7.54	7.015	3.14	0.92	RED	RED	MAIN_TRUNK	
DMAIN-45-0010	4	24 hr	1.074	5.43	2.85	2.324	3.08	0.73	RED	RED	MAIN_TRUNK	
DMAIN-45-0016	4.58	24 hr	0.305	11.65	4.37	3.995	1.47	0.5	RED	RED	MAIN_TRUNK	
DMAIN-45-0017	2.01	24 hr	0.405	6.20	2.79	2.34	1.33	0.52	RED	RED	MAIN_TRUNK	
DMAIN-45-0018	2.37	24 hr	0.388	5.02	2.26	1.81	7.16	0.75	RED	RED	MAIN_TRUNK	
DMAIN-45-0020	1.03	24 hr	0.15	8.23	2.47	2.17	0.8	0.48	RED	RED	MAIN_TRUNK	
DMAIN-50-0001	2.1	24 hr	1.793	10.02	6.01	5.41	10.93	0	RED	GREEN	MAIN_TRUNK	
DMAIN-50-0002	1.04	24 hr	1.727	10.25	6.15	5.55	2.52	0.01	RED	RED	MAIN_TRUNK	
DMAIN-50-0003	0.74	24 hr	0.791	5.90	3.1	2.575	0.74	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-50-0004	1.82	24 hr	0.785	8.88	4.66	4.135	0.77	0.72	RED	RED	MAIN_TRUNK	
DMAIN-50-0005	1.14	24 hr	1.004	8.80	5.85	4.095	0.72	0.63	RED	RED	MAIN_TRUNK	
DMAIN-50-0010	1.12	24 hr	0.517	21.84	8.19	7.815	2.49	2.46	RED	RED	MAIN_TRUNK	
DMAIN-50-0011	1.71	24 hr	0.6	33.65	12.62	12.245	2.48	2.44	RED	RED	MAIN_TRUNK	
DMAIN-5-0002	2.17	24 hr	1.136	12.30	6.46	5.935	2.37	2.11	RED	RED	MAIN_TRUNK	
DMAIN-5-0003	1.44	24 hr	1.262	16.91	8.88	8.352	2.1	1.68	RED	RED	MAIN_TRUNK	
DMAIN-5-0004	2.17	24 hr	1.863	15.43	9.26	8.66	2.05	1.66	RED	RED	MAIN_TRUNK	
DMAIN-50-0050	1.8	24 hr	1.241	14.88	7.81	7.285	2.53	2.29	RED	RED	MAIN_TRUNK	
DMAIN-50-0051	1.07	24 hr	0.647	14.86	8.49	7.275	2.43	2.4	RED	RED	MAIN_TRUNK	
DMAIN-50-0052	1.96	24 hr	0.854	16.82	8.83	8.305	10.14	2.27	RED	RED	MAIN_TRUNK	
DMAIN-50-0053	2.26	24 hr	1.17	19.09	10.02	9.495	2.46	1.82	RED	RED	MAIN_TRUNK	
DMAIN-5-0146	1.54	24 hr	1.11	11.01	5.78	5.255	2.25	2	RED	RED	MAIN_TRUNK	
DMAIN-5-0147	1.99	24 hr	1.103	5.39	2.83	2.305	3.9	1.91	RED	RED	MAIN_TRUNK	
DMAIN-52-0170	2.24	24 hr	2.274	6.79	5.09	4.34	0.64	0.09	RED	RED	MAIN_TRUNK	
DMAIN-52-0171	1.09	24 hr	2.351	6.05	4.54	3.79	0.08	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-52-0172	0.84	24 hr	2.391	0.71	0.53	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0173	0.51	24 hr	2.495	0.50	0.53	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0174	0.01	24 hr	0.011	0.06	0.03	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0175	0.01	24 hr	0.02	0.08	0.04	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0176	0.85	24 hr	2.62	0.70	0.81	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0180	0.8	24 hr	0.107	0.67	0.25	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0181	1.17	24 hr	0.277	1.64	0.74	0.29	0.08	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-52-0182	0.61	24 hr	2.955	0.56	0.59	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0183	0.38	24 hr	2.964	0.50	0.53	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0184	3.79	24 hr	2.964	1.64	1.72	0.67	0.59	0	RED	GREEN	MAIN_TRUNK	
DMAIN-52-0186	1.01	24 hr	1.419	6.46	3.39	2.865	0.52	0	RED	GREEN	MAIN_TRUNK	
DMAIN-52-0187	0.2	24 hr	1.42	1.47	1.1	0.35	0.29	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-6-0001	1.73	24 hr	0.861	14.49	6.52	6.07	4.95	4.64	RED	RED	MAIN_TRUNK	
DMAIN-6-0002	1.65	24 hr	0.908	22.53	10.14	9.69	4.91	4.72	RED	RED	MAIN_TRUNK	
DMAIN-6-0003	2.38	24 hr	1.267	24.78	11.15	10.7	4.88	4.78	RED	RED	MAIN_TRUNK	
DMAIN-6-0014	1.06	24 hr	0.311	24.56	11.05	10.6	4.78	4.7	RED	RED	MAIN_TRUNK	

Storm System Performance Assessment:
Existing 100-Year Design Storm (without 15% Climate Change increase) - Existing Land Use Conditions

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-6-0030	0.67	24 hr	0.321	18.00	10.8	10.2	4.78	4.55	DASHED	RED	MAIN_TRUNK	
DMAIN-7-0001	1.56	24 hr	1.593	5.80	3.48	2.88	2.49	2.31	RED	RED	MAIN_TRUNK	
DMAIN-7-0002	1.19	24 hr	1.614	7.43	4.46	3.86	2.29	2.29	RED	RED	MAIN_TRUNK	
DMAIN-7-0003	1.09	24 hr	1.476	8.47	5.08	4.48	2.19	2.03	RED	RED	MAIN_TRUNK	
DMAIN-7-0004	1.13	24 hr	1.634	8.32	4.99	4.39	2.16	2.14	RED	RED	MAIN_TRUNK	
DMAIN-7-0005	1.27	24 hr	1.017	10.25	5.38	4.855	2.14	2.03	RED	RED	MAIN_TRUNK	
DMAIN-7-0006	1.63	24 hr	0.999	22.30	11.71	11.185	2.25	2.21	RED	RED	MAIN_TRUNK	
DMAIN-7-0007	2.47	24 hr	1.415	32.78	17.21	16.685	2.26	2.15	RED	RED	MAIN_TRUNK	
DMAIN-8-0001	0.21	24 hr	0.242	0.35	0.21	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-8-0002	1.59	24 hr	0.236	25.40	6.35	6.1	3.5	3.26	RED	RED	MAIN_TRUNK	
DMAIN-8-0003	1.75	24 hr	0.259	45.24	11.31	11.06	3.47	2.98	RED	RED	MAIN_TRUNK	
DMAIN-9-0001	1.35	24 hr	0.374	9.90	3.84	3.339	0.98	0.94	RED	RED	MAIN_TRUNK	
DMAIN-9-0002	0.93	24 hr	0.421	7.47	2.8	2.425	0.67	0.66	DASHED	RED	MAIN_TRUNK	
DMAIN-9-0003	1.28	24 hr	0.488	9.57	3.59	3.215	0.63	0.38	RED	RED	MAIN_TRUNK	
DMAIN-9-0010	0.52	24 hr	0.22	8.03	3.01	2.635	0.55	0.47	DASHED	RED	MAIN_TRUNK	
DMAIN-9-0011	0.83	24 hr	0.155	5.17	1.94	1.565	0.47	0.35	DASHED	RED	MAIN_TRUNK	
DMAIN-9-0022	0.73	24 hr	0.146	5.60	2.1	1.725	0.44	0.01	DASHED	RED	MAIN_TRUNK	

2-Year Future Scenario Capacity Assessment Results

Storm System Assessment:

Future 2-Year Design Storm (with 15% Climate Change increase) - Future Land Use - Existing Sewers/Culverts

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DCUL0001	0.17	24 hr	6.584	0.60	1.4	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0002	0.68	24 hr	6.585	0.65	1.52	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0003	0.61	24 hr	1.523	1.64	1.48	0.58	1.97	-	DASHED	GREEN	CULVERT	CreekCrossing
DCUL0006	0.89	24 hr	3.18	1.20	1.44	0.24	7.21	-	DASHED	GREEN	CULVERT	CreekCrossing
DCUL0013	0.1	24 hr	1.424	0.39	0.59	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0014	0.77	24 hr	3.17	1.20	1.44	0.24	7.02	-	DASHED	GREEN	CULVERT	CreekCrossing
DCUL0015	0.12	24 hr	1.096	0.35	0.73	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0016	0.56	24 hr	1.946	0.94	1.13	0	0	-	YELLOW	GREEN	CULVERT	CreekCrossing
DCUL0017	0.52	24 hr	1.463	0.68	0.95	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0018	0.88	24 hr	1.221	0.95	0.76	0	0	-	YELLOW	GREEN	CULVERT	CreekCrossing
DCUL0019	0.61	24 hr	2.14	1.06	1.27	0.07	0.1	-	YELLOW	GREEN	CULVERT	CreekCrossing
DCUL0020	1.02	24 hr	1.465	1.77	1.59	0.69	4.49	-	RED	GREEN	CULVERT	CreekCrossing
DCUL0021	0.21	24 hr	3.063	0.91	1.09	0	0	-	YELLOW	GREEN	CULVERT	CreekCrossing
DCUL0022	0.24	24 hr	2.27	0.74	0.89	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0023	0.33	24 hr	3.102	0.77	0.69	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0024_1	1.79	24 hr	2.347	1.47	1.76	0.56	2.35	-	RED	GREEN	CULVERT	CreekCrossing
DCUL0024_2	1.78	24 hr	2.359	1.33	1.66	0.39	2.06	-	RED	RED	CULVERT	CreekCrossing
DCUL0041	0.49	24 hr	0.193	0.72	0.43	0	0	-	GREEN	GREEN	CULVERT	RoadCrossing
DCUL0045	0.29	24 hr	0.415	1.13	0.68	0.08	0.25	-	DASHED	RED	CULVERT	Driveway
DCUL0046	1.99	24 hr	0.599	1.73	1.04	0.44	8.35	-	RED	RED	CULVERT	RoadCrossing
DCUL0132	6.18	24 hr	0.821	0.82	0.82	0	0.01	-	YELLOW	GREEN	CULVERT	Driveway
DCUL0133	9.32	24 hr	0.814	0.81	0.81	0	0.01	-	YELLOW	GREEN	CULVERT	Driveway
DCUL0134	9.72	24 hr	0.803	0.80	0.8	0	0.01	-	GREEN	GREEN	CULVERT	Driveway
DCUL0162	8.37	24 hr	0.113	0.78	0.35	0	0.01	-	GREEN	GREEN	CULVERT	RoadCrossing
DCUL0168	9.07	24 hr	1.121	0.88	0.7	0	0.01	-	YELLOW	GREEN	CULVERT	RoadCrossing
DCUL0184	0.54	24 hr	0.384	0.81	0.61	0	0	-	YELLOW	GREEN	CULVERT	Driveway
DCUL0186	1.03	24 hr	3.759	0.85	1.53	0	0.01	-	YELLOW	GREEN	CULVERT	CreekCrossing
DCUL0187	0.06	24 hr	0.092	0.25	0.2	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0188	0.14	24 hr	0.063	0.30	0.18	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0193	0.07	24 hr	0.059	0.21	0.17	0	0	-	GREEN	GREEN	CULVERT	RoadCrossing_WILDLIFE_CULVERTS
DCUL0203	0.03	24 hr	0.076	0.30	0.18	0	0	-	GREEN	GREEN	CULVERT	RoadCrossing
DCUL0205	0.32	24 hr	1.101	1.10	0.99	0.09	0.06	-	YELLOW	GREEN	CULVERT	Driveway
DCUL0218	0.96	24 hr	1.177	1.13	1.13	0.13	0.8	-	DASHED	GREEN	CULVERT	RoadCrossing
DCUL0231	0.33	24 hr	0.803	0.88	0.79	0	0	-	YELLOW	GREEN	CULVERT	Driveway
DCUL0234	0.3	24 hr	0.485	0.42	0.5	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0235	0.08	24 hr	2.316	0.66	0.8	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0236	0.29	24 hr	0.653	0.65	0.65	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0237	0.99	24 hr	4.085	10.20	7.65	6.9	20.31	-	DASHED	RED	CULVERT	CreekCrossing
DCUL0238	0.1	24 hr	0.864	0.44	0.59	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0240	0.27	24 hr	16.879	1.06	1.81	0.11	2.08	-	DASHED	GREEN	CULVERT	CreekCrossing
DCUL0253	0.28	24 hr	0.033	0.60	0.18	0	0	-	GREEN	GREEN	CULVERT	RoadCrossing
DCUL0347	2.63	24 hr	0.036	0.42	0.25	0	0.01	-	GREEN	GREEN	CULVERT	RoadCrossing
DCUL0348	0.05	24 hr	0.123	0.24	0.22	0	0	-	GREEN	GREEN	CULVERT	Driveway
DCUL0351	0.29	24 hr	0.381	0.51	0.46	0	0	-	GREEN	GREEN	CULVERT	RoadCrossing
DCUL0357	0.25	24 hr	0.212	0.72	0.43	0	0	-	GREEN	GREEN	CULVERT	RoadCrossing
DCUL0368	0.07	24 hr	0.228	0.24	0.29	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0369	30.05	24 hr	0.338	1.96	0.98	0.48	22.55	-	RED	RED	CULVERT	RoadCrossing
DCUL0420	0.38	24 hr	0.284	0.87	0.52	0	0	-	YELLOW	GREEN	CULVERT	RoadCrossing
DCUL0438	0.07	24 hr	0.156	0.52	0.31	0	0	-	GREEN	GREEN	CULVERT	RoadCrossing
DCUL0535	0.19	24 hr	0.72	0.62	0.62	0	0	-	GREEN	GREEN	CULVERT	Driveway
DCUL0536	0.17	24 hr	0.798	0.84	0.76	0	0	-	YELLOW	GREEN	CULVERT	Driveway
DCUL0581	0.17	24 hr	1.314	0.44	0.8	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0582	0.04	24 hr	0.274	0.36	0.65	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0583	0.08	24 hr	0.452	0.63	1.04	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing

Pipe Performance Ranking

- Green = No Capacity Issues
- Yellow = Between 80% - 100% Capacity and pipe crown surcharging < 30cm
- Orange = Greater than 100% Capacity but no significant pipe crown surcharging
- Red = > 100% Capacity and pipe crown surcharging > 30cm and > 15 minutes
- Dashed Red = Surcharging of pipe crown > 30cm and > 15 minutes that may be due to backwater

Ground/Road Flooding Ranking

Storm Trunk Sewers:

- Green = Ground/Road Flooding = 0 minutes
- Red = Ground/Road Flooding > 0 minutes possible

Culverts:

- Green = No Ground/Road Flooding occurring
- Red = Ground/Road Flooding occurring

Storm System Assessment:

Future 2-Year Design Storm (with 15% Climate Change increase) - Future Land Use - Existing Sewers/Culverts

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surcharge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DCUL0589	0.11	24 hr	0.073	0.44	0.22	0	0	-	GREEN	GREEN	CULVERT	RoadCrossing
DCUL0590	0.48	24 hr	0.059	1.03	0.31	0.01	3.27	-	DASHED	RED	CULVERT	Driveway
DCUL0591	0.25	24 hr	0.069	0.38	0.23	0	0	-	GREEN	GREEN	CULVERT	RoadCrossing
DCUL0593	0.84	24 hr	0.366	1.78	0.89	0.39	0.37	-	DASHED	RED	CULVERT	RoadCrossing
DCUL0598	0.03	24 hr	0.031	0.15	0.15	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0612_1	0.38	24 hr	2.761	1.11	2	0.2	0.1	-	YELLOW	GREEN	CULVERT	RoadCrossing
DCUL0612_2	0.4	24 hr	2.86	1.04	1.88	0.08	0.01	-	YELLOW	GREEN	CULVERT	RoadCrossing
DCUL0613	0.67	24 hr	0.416	0.83	0.62	0	0	-	YELLOW	GREEN	CULVERT	RoadCrossing
DCUL0617	0.26	24 hr	0.252	0.39	0.39	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0618	2.09	24 hr	0.14	1.44	0.65	0.2	2.71	-	ORANGE	RED	CULVERT	CreekCrossing
DCUL0623	0.26	24 hr	2.765	0.46	1.02	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0624	0.91	24 hr	16.534	0.94	2.64	0	0	-	YELLOW	GREEN	CULVERT	CreekCrossing
DCUL0633	0.42	24 hr	0.035	0.48	0.19	0	0	-	GREEN	GREEN	CULVERT	PRIVATE
DCUL0634	0.37	24 hr	0.039	0.50	0.2	0	0	-	GREEN	GREEN	CULVERT	PRIVATE
DCUL0639	1.27	24 hr	0.11	4.10	1.23	0.93	25.46	-	RED	GREEN	CULVERT	MOTI
DCUL0654	0.67	24 hr	0.343	0.98	1.04	0	0	-	YELLOW	RED	CULVERT	RoadCrossing
DCUL0657	0.16	24 hr	0.076	0.44	0.23	0	0	-	GREEN	GREEN	CULVERT	Driveway
DCUL0659	0.1	24 hr	0.043	0.29	0.15	0	0	-	GREEN	GREEN	CULVERT	Driveway
DCUL0673	1.99	24 hr	1.053	1.42	0.85	0.25	3.01	-	ORANGE	GREEN	CULVERT	RoadCrossing
DCUL0698	0.12	24 hr	0.022	0.25	0.15	0	0	-	GREEN	GREEN	CULVERT	RoadCrossing
DCUL0699	0.12	24 hr	2.308	0.31	0.93	0	0	-	GREEN	GREEN	CULVERT	RoadCrossing
DCUL0733	0	24 hr	0.005	0.02	0.04	0	0	-	GREEN	GREEN	MAIN_TRUNK	
DCUL0751	0.05	24 hr	0.136	0.20	0.24	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0752	0.06	24 hr	0.118	0.21	0.21	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0753	0.09	24 hr	0.133	0.22	0.31	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0754	0.08	24 hr	0.016	0.25	0.25	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0755	0.19	24 hr	0.149	0.32	0.32	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0756	0.04	24 hr	0.017	0.14	0.14	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0757	0.07	24 hr	0.053	0.19	0.19	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0758	0.01	24 hr	0.009	0.09	0.08	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0759	0.05	24 hr	0.047	0.19	0.19	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0760	0.01	24 hr	0.006	0.09	0.08	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0761	0	1 hr	0	0.00	0	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0762	0	1 hr	0	0.00	0	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0763	0	1 hr	0	0.00	0	0	0	-	GREEN	GREEN	CULVERT	MOTI
DITC-0729	0.29	24 hr	0.262	0.33	0.2	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DITC-0729_2	0.28	24 hr	0.26	1.00	0.6	0	0.04	0.04	YELLOW	RED	MAIN_TRUNK	
DMAIN-10-0001	1.31	24 hr	0.517	1.46	0.88	0.277	0.09	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-10-0002-1	0.98	24 hr	0.346	1.42	0.85	0.25	0.13	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-10-0002-2	2.07	24 hr	0.502	1.40	0.84	0.24	0.15	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-10-0003	1.23	24 hr	0.354	1.45	0.87	0.27	0.13	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-10-0004	1.79	24 hr	0.412	4.22	1.9	1.45	0.28	0	RED	GREEN	MAIN_TRUNK	
DMAIN-10-0005	0.7	24 hr	0.384	3.67	1.65	1.2	0.15	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-10-0006	0.62	24 hr	0.381	0.60	0.27	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-10-0007	0.89	24 hr	0.323	0.76	0.34	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-10-0008	0.72	24 hr	0.199	0.64	0.29	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-10-0009	0.52	24 hr	0.168	0.51	0.23	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-1-0001_1	0.38	24 hr	1.063	0.43	0.52	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-1-0001_2	0.38	24 hr	1.062	0.44	0.53	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-1-0003	0.74	24 hr	0.829	0.64	0.51	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-1-0004	0.73	24 hr	0.742	0.64	0.51	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-10-0041	0.24	24 hr	0.516	0.85	0.51	0	0	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-1-0012	0.81	24 hr	0.45	0.69	0.55	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-1-0013	1.01	24 hr	0.443	0.80	0.64	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-1-0014	0.41	24 hr	0.253	0.45	0.27	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	

Storm System Assessment:

Future 2-Year Design Storm (with 15% Climate Change increase) - Future Land Use - Existing Sewers/Culverts

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-11-0001	0.56	24 hr	0.402	0.65	0.35	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-11-0002	1.33	24 hr	0.308	3.38	1.52	1.07	0.22	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-11-0003	0.62	24 hr	0.288	0.58	0.26	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-11-0004	0.36	24 hr	0.285	0.42	0.19	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-12-0001	0.56	24 hr	0.07	0.57	0.17	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-12-0002	0.26	24 hr	0.044	0.37	0.11	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-13-0001	1.12	24 hr	0.871	1.24	0.93	0.18	0.13	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-13-0002	1.14	24 hr	0.776	0.89	0.67	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-13-0003	0.57	24 hr	0.56	0.53	0.4	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-13-0004_1	0.18	24 hr	0.538	0.29	0.22	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-13-0004_2	0.25	24 hr	0.539	0.36	0.36	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-13-0005	0.79	24 hr	0.38	0.56	0.42	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0001	1.73	24 hr	2.338	0.81	1.45	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-14-0002	0.68	24 hr	2.249	0.61	0.91	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0003	0.57	24 hr	2.01	0.54	0.73	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0004	1.55	24 hr	2.002	0.94	1.27	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-14-0005	1.38	24 hr	1.828	1.55	2.09	0.74	0.23	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-14-0006	1.64	24 hr	1.665	1.85	2.22	1.02	0.75	0	RED	GREEN	MAIN_TRUNK	
DMAIN-14-0007	1.46	24 hr	1.651	2.68	3.21	2.01	0.89	0	RED	GREEN	MAIN_TRUNK	
DMAIN-14-0008	0.88	24 hr	1.393	2.40	2.88	1.68	0.6	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0009	0.83	24 hr	1.203	2.89	3.03	1.98	0.68	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-14-0010	0.92	24 hr	1.162	2.88	3.02	1.97	0.41	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0012	1.77	24 hr	1.15	2.80	2.94	1.89	0.44	0	RED	GREEN	MAIN_TRUNK	
DMAIN-14-0013	1.08	24 hr	1.115	2.81	2.95	1.9	0.44	0	RED	GREEN	MAIN_TRUNK	
DMAIN-14-0014	1.45	24 hr	0.913	2.45	2.57	1.52	0.47	0	RED	GREEN	MAIN_TRUNK	
DMAIN-14-0015	2.34	24 hr	0.764	2.73	2.87	1.82	0.56	0	RED	GREEN	MAIN_TRUNK	
DMAIN-14-0016	1.32	24 hr	0.733	3.06	2.75	1.85	0.96	0.01	RED	RED	MAIN_TRUNK	
DMAIN-14-0018	0.93	24 hr	0.552	2.13	2.24	1.19	0.37	0.04	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0019	0.4	24 hr	0.11	0.45	0.27	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0020	0.11	24 hr	0.017	0.24	0.11	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0023	0.52	24 hr	0.561	0.81	0.61	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-14-0024	1.4	24 hr	0.545	3.40	2.04	1.44	0.35	0	RED	GREEN	MAIN_TRUNK	
DMAIN-14-0025	1.33	24 hr	0.546	3.47	2.08	1.48	0.33	0	RED	GREEN	MAIN_TRUNK	
DMAIN-14-0026	1.43	24 hr	0.403	5.33	2.8	2.275	0.5	0	RED	GREEN	MAIN_TRUNK	
DMAIN-14-0027	1.25	24 hr	0.383	4.53	2.38	1.855	0.47	0.01	RED	RED	MAIN_TRUNK	
DMAIN-14-0028	1.7	24 hr	0.374	4.84	2.54	2.015	0.52	0.01	RED	RED	MAIN_TRUNK	
DMAIN-14-0029	1.44	24 hr	0.33	3.62	1.9	1.375	0.47	0.29	RED	RED	MAIN_TRUNK	
DMAIN-14-0030	2.22	24 hr	0.27	5.67	2.55	2.1	0.7	0.47	RED	RED	MAIN_TRUNK	
DMAIN-14-0033	1.96	24 hr	0.135	6.45	2.42	2.045	0.48	0.1	RED	RED	MAIN_TRUNK	
DMAIN-14-0051	2.28	24 hr	0.232	4.71	2.12	1.67	6.81	0	RED	GREEN	MAIN_TRUNK	
DMAIN-14-0052	2.22	24 hr	0.214	6.13	2.76	2.31	7.22	2.72	RED	RED	MAIN_TRUNK	
DMAIN-14-0053	1.93	24 hr	0.19	6.87	3.09	2.64	6.99	3.31	RED	RED	MAIN_TRUNK	
DMAIN-14-0058	2.69	24 hr	0.138	7.24	3.26	2.81	6.62	3.37	RED	RED	MAIN_TRUNK	
DMAIN-14-0059	1.41	24 hr	0.113	7.78	3.5	3.05	5.63	3.32	RED	RED	MAIN_TRUNK	
DMAIN-14-0062	1.18	24 hr	0.091	6.36	2.86	2.41	3.72	2.69	RED	RED	MAIN_TRUNK	
DMAIN-14-0063	0.77	24 hr	0.086	5.80	2.61	2.16	3.57	1.89	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0070	0.52	24 hr	0.182	0.70	0.42	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0071	0.6	24 hr	0.101	0.57	0.49	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0083	0.19	24 hr	0.089	4.13	1.86	1.41	0.2	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-14-0084	0.37	24 hr	0.058	0.84	0.38	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-14-0085	0	1 hr	0	0.00	0	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0086	0	1 hr	0	0.00	0	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0087	0	1 hr	0	0.00	0	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0097	0.31	24 hr	0.215	4.73	2.13	1.68	0.25	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0098	1.24	24 hr	0.2	5.00	2.25	1.8	0.27	0	RED	GREEN	MAIN_TRUNK	

Storm System Assessment:

Future 2-Year Design Storm (with 15% Climate Change increase) - Future Land Use - Existing Sewers/Culverts

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-14-0099	1.36	24 hr	0.17	4.96	2.23	1.78	0.32	0	RED	GREEN	MAIN_TRUNK	
DMAIN-14-0100	0.69	24 hr	0.151	4.38	1.97	1.52	0.25	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-14-0102	83.12	24 hr	0.144	9.67	2.9	2.6	22.96	0.34	RED	RED	MAIN_TRUNK	
DMAIN-14-0102A	22.56	24 hr	0.15	6.83	2.05	1.75	0.37	0	RED	GREEN	MAIN_TRUNK	
DMAIN-14-0106	1.5	24 hr	0.253	2.93	1.76	1.16	0.34	0	RED	GREEN	MAIN_TRUNK	
DMAIN-14-0107	0.99	24 hr	0.19	2.50	1.5	0.897	0.12	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0108	0.36	24 hr	0.079	0.53	0.32	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0109	0.37	24 hr	0.192	4.53	2.04	1.59	0.66	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-14-0110	0.91	24 hr	0.137	4.49	2.02	1.57	0.64	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-14-0111	0.67	24 hr	0.11	4.93	2.22	1.77	0.48	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-14-0112	1.22	24 hr	0.108	4.89	2.2	1.75	0.46	0	RED	GREEN	MAIN_TRUNK	
DMAIN-14-0113	0.58	24 hr	0.084	4.44	2	1.55	0.09	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0114	1.51	24 hr	0.056	6.56	1.64	1.39	0.62	0.24	RED	RED	MAIN_TRUNK	
DMAIN-14-0121	0.12	24 hr	0.012	0.23	0.07	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0122	0.17	24 hr	0.006	0.30	0.06	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0127	0.89	24 hr	0.058	5.70	1.99	1.41	0.52	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0128	1.25	24 hr	0.104	4.83	1.81	1.435	0.49	0.01	RED	RED	MAIN_TRUNK	
DMAIN-14-0129	0.75	24 hr	0.066	4.77	1.79	1.415	0.44	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0130	0.17	24 hr	0.049	3.77	1.13	0.83	0.09	0.02	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0133	0.28	24 hr	0.092	5.31	1.99	1.615	0.76	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0134	1.68	24 hr	0.178	5.11	2.3	1.85	1.75	0.26	RED	RED	MAIN_TRUNK	
DMAIN-14-0135	1.36	24 hr	0.145	5.60	2.52	2.07	1.26	0.79	RED	RED	MAIN_TRUNK	
DMAIN-14-0136	1.88	24 hr	0.122	5.89	2.65	2.2	1.25	0	RED	GREEN	MAIN_TRUNK	
DMAIN-14-0137	1.73	24 hr	0.122	5.80	2.61	2.16	1.15	0.86	RED	RED	MAIN_TRUNK	
DMAIN-14-0140	0.74	24 hr	0.472	2.07	1.55	0.8	0.24	0.03	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0141	2.94	24 hr	0.415	2.80	1.68	1.08	3.03	0.28	RED	RED	MAIN_TRUNK	
DMAIN-14-0142	13.5	24 hr	0.373	3.98	2.39	1.79	18.51	1.12	RED	RED	MAIN_TRUNK	
DMAIN-14-0143	0.92	24 hr	0.206	3.72	2.23	1.63	3.51	1.16	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0173	0.3	24 hr	0.268	3.70	2.28	1.62	0.23	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-14-0187	0.48	24 hr	0.826	2.67	2.4	1.5	0.58	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0188	1.52	24 hr	1.204	2.67	2.8	1.75	0.75	0	RED	GREEN	MAIN_TRUNK	
DMAIN-14-0190	0	1 hr	0	0.00	0	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0198	1.19	24 hr	0.125	5.02	2.26	1.81	0.56	0	RED	GREEN	MAIN_TRUNK	
DMAIN-14-0202	0.08	24 hr	0.013	0.20	0.09	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-15-0001	2.58	24 hr	1.881	2.80	2.94	1.89	0.55	0	RED	GREEN	MAIN_TRUNK	
DMAIN-15-0002	0.9	24 hr	1.814	2.38	2.5	1.45	0.2	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-15-0004	1.3	24 hr	1.519	3.75	2.81	2.06	0.27	0.15	RED	RED	MAIN_TRUNK	
DMAIN-15-0005-1	0.53	24 hr	1.233	0.56	0.42	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-15-0005-2	0.34	24 hr	1.43	0.48	0.36	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-15-0006	1.76	24 hr	1.267	0.93	0.7	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-15-0007	1.91	24 hr	1.082	2.77	2.08	1.33	0.34	0	RED	GREEN	MAIN_TRUNK	
DMAIN-15-0008	1.54	24 hr	1.058	2.59	1.94	1.19	0.35	0	RED	GREEN	MAIN_TRUNK	
DMAIN-15-0009	1.16	24 hr	0.726	3.91	2.93	2.18	0.25	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-15-0010	1.23	24 hr	0.379	6.71	3.02	2.57	0.43	0	RED	GREEN	MAIN_TRUNK	
DMAIN-15-0011	1.89	24 hr	0.373	6.00	2.7	2.25	0.44	0.01	RED	RED	MAIN_TRUNK	
DMAIN-15-0012	1.92	24 hr	0.347	5.73	2.58	2.13	0.45	0.16	RED	RED	MAIN_TRUNK	
DMAIN-15-0013	0.88	24 hr	0.204	4.56	2.05	1.6	0.31	0.27	DASHED	RED	MAIN_TRUNK	
DMAIN-15-0014	0.97	24 hr	0.21	3.89	1.75	1.3	0.3	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-15-0057	0.85	24 hr	0.283	5.17	3.1	2.5	0.23	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-15-0117	1.34	24 hr	1.717	3.33	2.5	1.75	0.37	0.01	RED	RED	MAIN_TRUNK	
DMAIN-15-0125	1.54	24 hr	1.464	4.99	3.74	2.99	0.29	0	RED	GREEN	MAIN_TRUNK	
DMAIN-16-0001	0.44	24 hr	0.489	0.62	0.37	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-16-0002	0.68	24 hr	0.425	0.60	0.36	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-16-0003	0.9	24 hr	0.421	0.75	0.28	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-16-0004_1	1.03	24 hr	0.413	0.83	0.25	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	

Storm System Assessment:

Future 2-Year Design Storm (with 15% Climate Change increase) - Future Land Use - Existing Sewers/Culverts

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-16-0004_2	2.49	24 hr	0.39	5.97	1.79	1.49	0.01	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-16-0005	1.75	24 hr	0.383	5.84	2.63	2.18	1.03	0	RED	GREEN	MAIN_TRUNK	
DMAIN-16-0006	1.02	24 hr	0.291	5.16	2.71	2.185	0.48	0.01	RED	RED	MAIN_TRUNK	
DMAIN-16-0007	0.9	24 hr	0.207	5.49	2.47	2.02	0.32	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-16-0008	0.67	24 hr	0.125	5.96	2.68	2.23	0.25	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-16-0009	0.58	24 hr	0.096	5.69	2.56	2.11	0.21	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-16-0055	0.73	24 hr	0.482	0.63	0.38	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-17-0001	1.49	24 hr	0.651	4.32	2.59	1.99	0.71	0.51	RED	RED	MAIN_TRUNK	
DMAIN-17-0004	0.72	24 hr	0.681	5.73	4.3	3.55	0.42	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-17-0005	0.93	24 hr	0.709	4.80	3.6	2.85	0.29	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-17-0007	1.49	24 hr	0.529	3.85	2.31	1.707	0.39	0	RED	GREEN	MAIN_TRUNK	
DMAIN-17-0008	1.14	24 hr	0.419	3.12	2.11	1.27	0.36	0	RED	GREEN	MAIN_TRUNK	
DMAIN-17-0009	0.79	24 hr	0.343	2.60	1.56	0.96	0.32	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-17-0018	1.53	24 hr	0.751	4.35	2.61	2.01	0.71	0.46	RED	RED	MAIN_TRUNK	
DMAIN-17-0069	18.23	24 hr	0.415	4.00	2.04	1.35	0.47	0	RED	GREEN	MAIN_TRUNK	
DMAIN-17-0076	0.67	24 hr	0.713	3.87	2.9	2.15	0.5	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-18-0001	0.74	24 hr	0.68	0.67	0.5	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-18-0003	0.65	24 hr	0.653	0.59	0.44	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-18-0004	0.26	24 hr	0.652	0.35	0.26	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-18-0008	0.78	24 hr	0.795	0.67	0.5	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-18-0009	1.03	24 hr	0.767	0.83	0.62	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-18-0010	1.3	24 hr	0.581	4.74	2.49	1.965	0.15	0.01	ORANGE	RED	MAIN_TRUNK	
DMAIN-18-0011	0.83	24 hr	0.308	5.38	2.42	1.97	0.08	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-18-0012	0.63	24 hr	0.297	0.64	0.29	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-18-0014	0.33	24 hr	0.219	0.40	0.18	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-18-0052	0.59	24 hr	1.011	1.05	0.79	0.04	4.71	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-18-0061	0.58	24 hr	0.229	0.56	0.25	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-2-0001	10.7	24 hr	0.742	3.95	2.96	2.21	0.69	0.33	RED	RED	MAIN_TRUNK	
DMAIN-20-0018	0.65	24 hr	0.385	0.59	0.93	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-20-0029	0.9	24 hr	0.49	0.73	0.55	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-2-0003	1.39	24 hr	1.329	1.49	1.49	0.49	0.14	0.05	ORANGE	RED	MAIN_TRUNK	
DMAIN-20-0030	0.79	24 hr	0.498	0.66	0.54	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-20-0033	0.93	24 hr	0.564	0.73	0.55	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-20-0034	0.53	24 hr	0.67	0.52	0.31	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-2-0004	1.51	24 hr	0.64	3.28	2.46	1.71	0.32	0.01	RED	RED	MAIN_TRUNK	
DMAIN-20-0047	0.2	24 hr	0.669	0.59	0.44	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-2-0010	0.26	24 hr	0.102	2.70	1.62	1.02	1.02	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-2-0011	0.23	24 hr	0.085	1.97	1.18	0.58	0.13	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-2-0012	1.39	24 hr	0.375	5.72	3.43	2.83	0.29	0.01	RED	RED	MAIN_TRUNK	
DMAIN-2-0013	2.17	24 hr	0.338	5.13	3.08	2.48	0.48	0.28	RED	RED	MAIN_TRUNK	
DMAIN-2-0044	1.77	24 hr	1.326	1.48	1.55	0.5	0.16	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-2-0047	0.3	24 hr	0.833	3.13	2.5	1.7	0.38	0.27	DASHED	RED	MAIN_TRUNK	
DMAIN-2-0049	1.34	24 hr	0.354	4.02	2.41	1.81	0.37	0.23	RED	RED	MAIN_TRUNK	
DMAIN-2-0050	0.71	24 hr	0.342	3.45	2.07	1.47	0.34	0.23	DASHED	RED	MAIN_TRUNK	
DMAIN-2-0059	0.75	24 hr	1.321	1.52	1.73	0.55	0.12	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-2-0064	0.99	24 hr	1.234	1.20	1.44	0.24	0.06	0.02	YELLOW	RED	MAIN_TRUNK	
DMAIN-2-0065	0.78	24 hr	1.342	1.18	1.24	0.19	0.04	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-2-0066	1.1	24 hr	0.736	3.31	2.48	1.73	0.36	0.01	RED	RED	MAIN_TRUNK	
DMAIN-2-0067	1.51	24 hr	0.64	3.28	2.46	1.71	0.32	0.01	RED	RED	MAIN_TRUNK	
DMAIN-2-0068	2.63	24 hr	0.586	2.99	2.39	1.59	0.36	0.32	RED	RED	MAIN_TRUNK	
DMAIN-2-0070	0.27	24 hr	0.098	2.37	1.42	0.82	0.49	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-2-0072	0.26	24 hr	0.092	2.10	1.26	0.66	0.35	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-2-0073	0.24	24 hr	0.088	2.02	1.21	0.61	0.31	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-2-0074	0.54	24 hr	0.074	2.10	1.26	0.66	0.12	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-2-0083	1.24	24 hr	1.278	4.43	3.99	3.09	0.21	0.01	ORANGE	RED	MAIN_TRUNK	

Storm System Assessment:

Future 2-Year Design Storm (with 15% Climate Change increase) - Future Land Use - Existing Sewers/Culverts

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-21-0001	0.64	24 hr	0.176	0.65	0.39	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-21-0002	2.75	24 hr	0.171	0.65	0.39	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-21-0003	0.34	24 hr	0.08	0.43	0.26	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-22-0915	0.96	24 hr	0.24	0.93	0.42	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-22-0920	0.93	24 hr	0.154	0.96	0.43	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-22-0921	0.98	24 hr	0.165	2.07	0.93	0.48	14.74	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-22-0922	0.46	24 hr	0.043	0.48	0.18	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-22-0926	1.2	24 hr	0.289	2.67	1.2	0.75	0.23	0.01	ORANGE	RED	MAIN_TRUNK	
DMAIN-22-0927	0.74	24 hr	0.274	2.76	1.24	0.79	0.12	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-22-0928	1.29	24 hr	0.292	2.33	1.05	0.6	0.41	0.01	RED	RED	MAIN_TRUNK	
DMAIN-23-0002	1.95	24 hr	1.116	2.27	1.7	0.95	0.33	0.01	RED	RED	MAIN_TRUNK	
DMAIN-23-0003	0.22	24 hr	0.243	0.32	0.19	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-23-0008	1.21	24 hr	0.757	2.20	1.65	0.9	0.21	0.21	ORANGE	RED	MAIN_TRUNK	
DMAIN-23-0035	1.25	24 hr	0.775	2.21	1.66	0.907	0.29	0	RED	GREEN	MAIN_TRUNK	
DMAIN-30-0001	1.05	24 hr	2.006	2.29	2.06	1.16	0.58	0	RED	GREEN	MAIN_TRUNK	
DMAIN-30-0002	1.03	24 hr	2.006	2.19	1.97	1.07	0.39	0	RED	GREEN	MAIN_TRUNK	
DMAIN-30-0003	1.33	24 hr	1.991	2.27	2.04	1.14	0.42	0.29	RED	RED	MAIN_TRUNK	
DMAIN-30-0004	1.71	24 hr	1.556	3.36	2.52	1.77	0.48	0.29	RED	RED	MAIN_TRUNK	
DMAIN-30-0005	0.79	24 hr	1.546	4.56	3.42	2.67	0.29	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-30-0006	0.4	24 hr	1.358	0.44	0.33	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-30-0007	1.22	24 hr	1.341	5.64	4.23	3.48	0.34	0	RED	GREEN	MAIN_TRUNK	
DMAIN-30-0008	1.32	24 hr	1.327	3.33	2.5	1.75	0.39	0.01	RED	RED	MAIN_TRUNK	
DMAIN-30-0009	1.33	24 hr	1.318	2.88	2.16	1.41	0.41	0.16	RED	RED	MAIN_TRUNK	
DMAIN-30-0034	0.64	24 hr	0.342	2.73	1.64	1.04	0.4	0.28	DASHED	RED	MAIN_TRUNK	
DMAIN-30-0035	1.18	24 hr	0.341	2.95	1.77	1.17	0.36	0.01	RED	RED	MAIN_TRUNK	
DMAIN-30-0036	0.56	24 hr	0.28	1.95	1.3	0.57	0.29	0.28	DASHED	RED	MAIN_TRUNK	
DMAIN-30-0048	1.08	24 hr	1.03	2.89	2.17	1.42	0.4	0.27	RED	RED	MAIN_TRUNK	
DMAIN-30-0049	0.84	24 hr	1.101	2.49	1.87	1.12	0.34	0.3	DASHED	RED	MAIN_TRUNK	
DMAIN-30-0050	0.84	24 hr	0.672	2.25	1.69	0.94	0.27	0.07	DASHED	RED	MAIN_TRUNK	
DMAIN-30-0051	1.13	24 hr	0.567	3.60	2.16	1.56	0.28	0.01	RED	RED	MAIN_TRUNK	
DMAIN-30-0052	1.17	24 hr	0.551	3.48	2.09	1.49	0.25	0.01	ORANGE	RED	MAIN_TRUNK	
DMAIN-30-0053	0.62	24 hr	0.45	4.18	2.51	1.91	0.12	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-30-0067	0.46	24 hr	0.305	0.53	0.32	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-30-0068	0.72	24 hr	0.497	0.63	0.38	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-3-0007	0.47	24 hr	0.53	2.50	1.5	0.9	0.11	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-3-0008	0.44	24 hr	0.5	0.52	0.31	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-3-0009	1.7	24 hr	0.418	2.67	1.6	1	0.13	0.01	ORANGE	RED	MAIN_TRUNK	
DMAIN-30-0121	0.77	24 hr	0.523	0.80	0.48	0	0	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-30-0122	0.54	24 hr	0.524	0.52	0.31	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-30-0123	0.29	24 hr	0.525	0.37	0.22	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-30-0125	0.23	24 hr	0.357	0.33	0.2	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-30-0126	0.84	24 hr	0.357	0.68	0.41	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-30-0127	0.84	24 hr	0.356	0.68	0.41	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-30-0128	0.99	24 hr	0.354	0.73	0.44	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-30-0129	0.83	24 hr	0.349	0.70	0.42	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-30-0130	0.84	24 hr	0.33	0.70	0.42	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-3-0028	0.86	24 hr	0.361	5.13	2.31	1.86	0.2	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-3-0037	0.44	24 hr	0.325	0.64	0.29	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-3-0041	1.31	24 hr	0.325	2.09	0.94	0.49	0.15	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-3-0043	1.49	24 hr	0.322	6.57	1.97	1.67	0.29	0.13	RED	RED	MAIN_TRUNK	
DMAIN-30-1041	1.06	24 hr	2.032	1.89	1.7	0.8	0.01	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-31-0010	0.88	24 hr	1.251	1.13	1.02	0.12	0.43	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-31-0011	1.16	24 hr	1.052	3.24	2.43	1.68	0.51	0.01	RED	RED	MAIN_TRUNK	
DMAIN-31-0012	0.84	24 hr	1.035	2.61	1.96	1.21	0.08	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-31-0013	0.72	24 hr	1.001	0.64	0.48	0	0	0	GREEN	GREEN	MAIN_TRUNK	

Storm System Assessment:

Future 2-Year Design Storm (with 15% Climate Change increase) - Future Land Use - Existing Sewers/Culverts

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-31-0014	0.75	24 hr	0.855	0.64	0.48	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0015	0.97	24 hr	0.666	0.80	0.6	0	0	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-31-0016	0.96	24 hr	0.667	0.79	0.59	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0017	1.75	24 hr	0.555	4.12	2.47	1.87	1.04	0	RED	GREEN	MAIN_TRUNK	
DMAIN-31-0018	1.18	24 hr	0.525	4.71	2.83	2.228	0.89	0.63	RED	RED	MAIN_TRUNK	
DMAIN-31-0019	0.8	24 hr	0.447	4.42	2.65	2.05	0.85	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-31-0020	4.6	24 hr	0.446	6.10	3.66	3.06	2.14	0.55	RED	RED	MAIN_TRUNK	
DMAIN-31-0021	1.11	24 hr	0.522	2.25	1.35	0.75	0.3	0.3	RED	RED	MAIN_TRUNK	
DMAIN-31-0039	0.24	24 hr	1.286	0.40	0.56	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0048_1	0.32	24 hr	1.06	0.39	0.54	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0048_2	0.39	24 hr	1.304	0.42	0.59	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0049	0.11	24 hr	0.661	0.23	0.28	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0053	1.1	24 hr	0.318	0.96	0.43	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-31-0074	0.39	24 hr	0.46	0.43	0.26	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0077	0.28	24 hr	0.396	0.37	0.22	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0118	1.38	24 hr	1.507	21.53	12.92	12.32	0.28	0	RED	GREEN	MAIN_TRUNK	
DMAIN-31-0193	0.82	24 hr	0.493	1.08	0.65	0.05	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-31-0224	0.13	24 hr	0.185	0.24	0.18	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0227	0.09	24 hr	0.124	0.20	0.15	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0228	0.54	24 hr	0.11	0.53	0.16	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0230	0.9	24 hr	0.072	0.76	0.19	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0231	0.52	24 hr	0.042	0.52	0.13	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0232	0.22	24 hr	0.013	0.30	0.06	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0258	1.34	24 hr	0.491	2.25	1.35	0.75	0.39	0	RED	GREEN	MAIN_TRUNK	
DMAIN-31-0259	1.19	24 hr	0.49	4.62	2.77	2.17	0.3	0.01	RED	RED	MAIN_TRUNK	
DMAIN-31-0260	1.07	24 hr	0.408	5.50	3.3	2.7	0.21	0.01	ORANGE	RED	MAIN_TRUNK	
DMAIN-31-0265	0.66	24 hr	0.333	4.02	2.77	1.81	0.02	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-31-0286	0.19	24 hr	0.447	0.37	0.44	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0289	0.04	24 hr	0.111	0.13	0.08	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0289_2	0.13	24 hr	0.129	0.22	0.13	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0290	0.12	24 hr	0.108	0.27	0.16	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0304	2.85	24 hr	0.451	2.42	1.45	0.85	0.8	0	RED	GREEN	MAIN_TRUNK	
DMAIN-31-0305	1.25	24 hr	0.347	6.13	2.76	2.31	0.2	0.18	ORANGE	RED	MAIN_TRUNK	
DMAIN-31-0312	1.26	24 hr	0.107	3.87	1.45	1.075	0.36	0.27	RED	RED	MAIN_TRUNK	
DMAIN-31-0321	0.03	24 hr	0.008	0.11	0.05	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0348	0.86	24 hr	1.036	0.79	0.59	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0360	17.83	24 hr	0.419	1.15	0.69	0.09	0.23	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-31-0368	1.55	24 hr	0.674	1.78	1.07	0.47	0.47	0	RED	GREEN	MAIN_TRUNK	
DMAIN-31-0369	0.82	24 hr	0.389	5.43	3.26	2.66	0.89	0.29	DASHED	RED	MAIN_TRUNK	
DMAIN-31-0374	4.55	24 hr	0.32	1.83	1.1	0.5	0.94	0	RED	GREEN	MAIN_TRUNK	
DMAIN-31-0375	1.4	24 hr	0.497	1.83	1.1	0.5	0.94	0	RED	GREEN	MAIN_TRUNK	
DMAIN-31-0376	1.37	24 hr	1.497	1.84	1.66	0.76	1.7	0	RED	GREEN	MAIN_TRUNK	
DMAIN-31-0381	0.79	24 hr	1.516	1.59	1.43	0.53	1.71	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-34-0002	0.23	24 hr	1.712	0.38	0.53	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0003	0.64	24 hr	1.703	0.58	0.86	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0005	0.75	24 hr	1.688	0.64	0.9	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0006	0.29	24 hr	1.567	0.37	0.52	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0007	0.4	24 hr	1.562	0.44	0.62	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0008	0.35	24 hr	1.556	0.41	0.57	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0010	0.09	24 hr	0.903	0.20	0.33	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0012	0.42	24 hr	1.412	0.48	0.57	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0015	0.31	24 hr	1.318	0.38	0.4	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0022	1.9	24 hr	0.72	3.73	2.24	1.64	0.71	0.26	RED	RED	MAIN_TRUNK	
DMAIN-34-0023	1.51	24 hr	0.716	6.42	3.85	3.25	0.26	0.05	RED	RED	MAIN_TRUNK	
DMAIN-34-0024	0.75	24 hr	0.583	4.83	3.2	2.3	0.07	0.01	DASHED	RED	MAIN_TRUNK	

Storm System Assessment:

Future 2-Year Design Storm (with 15% Climate Change increase) - Future Land Use - Existing Sewers/Culverts

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-34-0046	0.11	24 hr	0.486	0.24	0.4	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0049	0.18	24 hr	0.476	0.30	0.49	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0051	0.73	24 hr	0.44	0.36	0.59	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0052	0.17	24 hr	0.335	0.36	0.54	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0053	5.08	24 hr	0.334	0.43	0.6	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0054	0.03	24 hr	0.013	0.12	0.06	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0055	0.02	24 hr	0.004	0.10	0.05	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0056	0	24 hr	0.008	0.12	0.17	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0057	0	1 hr	0	-2.43	0	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0058	0.59	24 hr	0.323	0.60	0.45	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0059	1.49	24 hr	0.32	4.82	2.17	1.72	0.14	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-34-0060	0.15	24 hr	0.09	0.27	0.12	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0065	0.02	24 hr	0.075	0.11	0.15	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0068	0.01	24 hr	0.037	0.09	0.13	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0069	0.06	24 hr	0.036	0.18	0.21	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0070	0.07	24 hr	0.034	0.18	0.21	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0136	1.17	24 hr	0.379	5.60	2.52	2.07	0.13	0.01	ORANGE	RED	MAIN_TRUNK	
DMAIN-34-0159	0.17	24 hr	0.882	0.28	0.47	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0161	0.26	24 hr	1.545	0.35	0.42	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0162	0.19	24 hr	0.669	0.30	0.31	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0163	0.61	24 hr	0.471	0.59	0.47	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0164	0.3	24 hr	1.263	0.48	0.5	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0174	0.17	24 hr	0.566	0.28	0.33	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0176	0.17	24 hr	0.872	0.28	0.33	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-35-0019	0.68	24 hr	0.567	0.63	0.38	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-35-0022	0.65	24 hr	0.564	0.58	0.35	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-35-0023	0.83	24 hr	0.393	0.70	0.35	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-35-0024	1.5	24 hr	0.132	3.03	0.91	0.61	0.18	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-35-0034	0.51	24 hr	0.791	0.77	0.52	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-35-0035	1.6	24 hr	0.744	0.95	0.64	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-35-0057	0.54	24 hr	0.568	0.56	0.25	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-35-0059	0.86	24 hr	0.41	0.79	0.48	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-35-0063	0.89	24 hr	0.688	0.73	0.44	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-35-0066	1.07	24 hr	0.692	0.88	0.53	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-35-0067	0.74	24 hr	0.693	1.23	0.92	0.17	0.35	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-35-0069	1.47	24 hr	0.693	1.07	1.08	0.05	0.13	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-35-0070	1.04	24 hr	0.695	0.85	0.64	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-35-0080	0.73	24 hr	0.621	2.62	1.77	1.095	2.55	0.48	DASHED	RED	MAIN_TRUNK	
DMAIN-36-0001	0.85	24 hr	0.907	2.88	1.73	1.13	0.09	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-36-0002	0.75	24 hr	0.902	0.65	0.45	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-36-0003	0.5	24 hr	0.898	0.50	0.3	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-36-0004	0.8	24 hr	0.893	0.68	0.41	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-36-0005	0.94	24 hr	0.888	0.78	0.47	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-36-0006	0.77	24 hr	0.753	0.65	0.61	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-36-0007	0.85	24 hr	0.739	0.72	0.43	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-36-0008	0.65	24 hr	0.491	0.58	0.51	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-36-0009	0.34	24 hr	0.175	0.39	0.34	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-36-0046	1.36	24 hr	0.506	1.16	0.87	0.12	0.75	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-36-0047	0.8	24 hr	0.408	1.04	0.78	0.03	0.02	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-36-0048	0.7	24 hr	0.384	0.96	0.72	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-36-0049	2.36	24 hr	0.389	1.49	0.78	0.255	0.17	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-38-0200	0.81	24 hr	0.187	0.76	0.34	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-38-0201	1.03	24 hr	0.186	0.82	0.37	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-38-0300	0.76	24 hr	0.487	0.70	0.42	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-38-0301	0.92	24 hr	0.482	0.75	0.45	0	0	0	GREEN	GREEN	MAIN_TRUNK	

Storm System Assessment:

Future 2-Year Design Storm (with 15% Climate Change increase) - Future Land Use - Existing Sewers/Culverts

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-38-0302	0.98	24 hr	0.187	0.80	0.36	0	0	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-38-0307	0.49	24 hr	0.167	0.49	0.22	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-38-0323	0.27	24 hr	0.141	0.36	0.16	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-38-0324	0.88	24 hr	0.366	0.74	0.39	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-38-0325	0.77	24 hr	0.366	0.86	0.45	0	0	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-38-0326	0.69	24 hr	0.223	0.61	0.32	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-38-0403	0.92	24 hr	0.165	0.87	0.39	0	0	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-38-0404	0.9	24 hr	0.163	0.73	0.33	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-38-0405	1.05	24 hr	0.164	0.87	0.39	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-38-0412	3.57	24 hr	0.819	0.83	0.75	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-38-0413	0.79	24 hr	0.841	0.80	0.72	0	0	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-38-0414	1.36	24 hr	0.878	0.94	0.85	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-38-0416_1	0.55	24 hr	0.587	0.78	1.77	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-38-0416_2	0.78	24 hr	0.82	0.79	0.71	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-38-0418	0.89	24 hr	0.413	0.79	0.53	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-38-0419	0.79	24 hr	0.414	0.67	0.4	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-38-0703	0.66	24 hr	0.698	2.11	1.58	0.83	21.85	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-38-0704	1.63	24 hr	0.66	3.98	2.39	1.79	1.12	0.01	RED	RED	MAIN_TRUNK	
DMAIN-38-0705	0.79	24 hr	0.638	3.73	2.24	1.64	0.54	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-38-0706	1.42	24 hr	0.648	4.15	2.49	1.89	0.61	0.01	RED	RED	MAIN_TRUNK	
DMAIN-38-0707	1.65	24 hr	0.63	4.55	2.73	2.13	0.78	0.43	RED	RED	MAIN_TRUNK	
DMAIN-38-0708	1.48	24 hr	0.632	5.65	3.39	2.79	0.7	0.57	RED	RED	MAIN_TRUNK	
DMAIN-38-0709	1.12	24 hr	0.46	8.03	4.82	4.22	0.62	0.01	RED	RED	MAIN_TRUNK	
DMAIN-38-0710	1.33	24 hr	0.403	9.13	4.11	3.66	0.62	0.01	RED	RED	MAIN_TRUNK	
DMAIN-38-0711	2.39	24 hr	0.249	10.00	3.75	3.375	0.66	0.61	RED	RED	MAIN_TRUNK	
DMAIN-38-0712	1.5	24 hr	0.196	10.08	3.78	3.405	0.63	0.54	RED	RED	MAIN_TRUNK	
DMAIN-38-1033	0.35	24 hr	0.124	3.48	2.09	1.49	69.56	26.82	DASHED	RED	MAIN_TRUNK	
DMAIN-38-2010	0.39	24 hr	0.22	4.42	2.65	2.05	70.05	0.74	DASHED	RED	MAIN_TRUNK	
DMAIN-38-2011	0.52	24 hr	0.214	4.98	2.99	2.39	70.48	20.53	DASHED	RED	MAIN_TRUNK	
DMAIN-38-2012	0.63	24 hr	0.115	5.38	2.42	1.97	69.88	0.02	DASHED	RED	MAIN_TRUNK	
DMAIN-38-2033	0.38	24 hr	0.686	1.94	1.75	0.85	29.4	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-38-2037	1.35	24 hr	0.188	10.27	3.85	3.475	0.61	0.31	RED	RED	MAIN_TRUNK	
DMAIN-38-2051	1.07	24 hr	0.164	0.84	0.38	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-38-2052	1.07	24 hr	0.164	0.80	0.36	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-38-2058	0.58	24 hr	0.386	1.10	1.73	0.068	0.37	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-38-2062	0.22	24 hr	0.468	0.62	0.56	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-38-2063	4.75	24 hr	0.39	1.01	0.76	0.01	0.18	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-38-2063_2	0.83	24 hr	0.858	0.92	0.83	0	0	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-38-2067	0.38	24 hr	0.192	2.97	1.78	1.18	69.99	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-38-2068	0.37	24 hr	0.16	2.60	1.56	0.96	69.86	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-38-2069	0.36	24 hr	0.141	2.47	1.48	0.88	1.06	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-38-2081	0.98	24 hr	1.502	1.24	1.12	0.22	1.05	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-38-2082	0.77	24 hr	1.515	0.90	1.02	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-38-2083	0.82	24 hr	1.515	1.19	1.07	0.17	0.93	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-38-2092	0.2	24 hr	0.122	0.31	0.14	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-38-2093	0.36	24 hr	0.122	0.42	0.19	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-4-0001	0.72	24 hr	2.332	0.79	0.71	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-4-0002	2.18	24 hr	2.358	2.01	1.81	0.91	0.38	0	RED	GREEN	MAIN_TRUNK	
DMAIN-4-0003	0.95	24 hr	2.228	2.22	2	1.1	0.13	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-4-0004	1.05	24 hr	2.178	2.33	2.1	1.2	0.05	0.01	ORANGE	RED	MAIN_TRUNK	
DMAIN-4-0007	0.81	24 hr	1.741	0.69	0.62	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-4-0009	1.28	24 hr	0.775	2.71	2.03	1.28	0.17	0.01	ORANGE	RED	MAIN_TRUNK	
DMAIN-4-0011	9.37	24 hr	0.75	4.28	3.21	2.459	1.02	0	RED	GREEN	MAIN_TRUNK	
DMAIN-4-0012	1.41	24 hr	0.744	5.05	3.79	3.04	0.72	0	RED	GREEN	MAIN_TRUNK	
DMAIN-4-0013	1.15	24 hr	0.544	5.09	3.82	3.07	0.54	0.01	RED	RED	MAIN_TRUNK	

Storm System Assessment:

Future 2-Year Design Storm (with 15% Climate Change increase) - Future Land Use - Existing Sewers/Culverts

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-4-0014	1.77	24 hr	0.436	4.08	2.45	1.85	0.58	0.02	RED	RED	MAIN_TRUNK	
DMAIN-4-0088	0.41	24 hr	0.373	0.45	0.27	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-4-0110	0.94	24 hr	0.371	0.67	0.4	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-4-0111	1.19	24 hr	0.367	3.05	1.83	1.23	0.04	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-4-0112	1.23	24 hr	0.36	2.93	1.76	1.16	0.07	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-4-0113	1.32	24 hr	0.343	3.57	2.14	1.54	0.13	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-4-0114	0.93	24 hr	0.158	3.52	2.11	1.51	0.12	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-4-0142	0.73	24 hr	0.227	3.48	2.09	1.49	0.34	0.17	DASHED	RED	MAIN_TRUNK	
DMAIN-4-0198	1.33	24 hr	0.354	3.30	1.98	1.38	0.1	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-4-0202	0.72	24 hr	0.771	0.69	0.52	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-43-0001	0.99	24 hr	1.032	2.17	1.3	0.7	1.16	0.36	DASHED	RED	MAIN_TRUNK	
DMAIN-43-0002	0.65	24 hr	0.803	0.58	0.35	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-43-0003	0.48	24 hr	0.738	0.48	0.29	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-43-0004	1.78	24 hr	0.73	4.05	2.43	1.83	0.58	0.01	RED	RED	MAIN_TRUNK	
DMAIN-43-0005	2.39	24 hr	0.697	7.33	3.85	3.325	1	0.4	RED	RED	MAIN_TRUNK	
DMAIN-45-0008	1.04	24 hr	0.301	1.01	0.53	0.005	0.01	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-45-0010	1.13	24 hr	0.303	0.99	0.52	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-45-0016	1.38	24 hr	0.092	1.76	0.66	0.285	0.12	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-45-0017	0.71	24 hr	0.142	1.78	0.8	0.35	0.11	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-45-0018	0.87	24 hr	0.142	1.89	0.85	0.4	1.8	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-45-0020	0.33	24 hr	0.048	0.40	0.12	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-50-0001	1.38	24 hr	1.176	5.70	3.42	2.82	3.59	0	RED	GREEN	MAIN_TRUNK	
DMAIN-50-0002	0.67	24 hr	1.116	3.53	2.12	1.52	0.13	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-50-0003	0.3	24 hr	0.318	0.38	0.2	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-50-0004	0.73	24 hr	0.316	0.63	0.33	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-50-0005	0.35	24 hr	0.308	0.40	1.44	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-50-0010	0.85	24 hr	0.393	0.75	0.28	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-50-0011	1.03	24 hr	0.363	0.83	0.31	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-5-0002	1.41	24 hr	0.739	3.85	2.02	1.495	0.25	0.01	ORANGE	RED	MAIN_TRUNK	
DMAIN-5-0003	0.82	24 hr	0.717	1.75	0.92	0.392	0.08	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-5-0004	0.84	24 hr	0.719	1.03	0.62	0.02	0.02	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-50-0050	1.16	24 hr	0.798	6.61	3.47	2.945	0.13	0.01	ORANGE	RED	MAIN_TRUNK	
DMAIN-50-0051	0.7	24 hr	0.426	1.20	1.32	0.105	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-50-0052	0.89	24 hr	0.39	2.42	1.27	0.745	3.07	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-50-0053	0.73	24 hr	0.376	1.56	0.82	0.295	0.07	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-5-0146	1.09	24 hr	0.785	4.10	2.15	1.625	0.22	0.01	ORANGE	RED	MAIN_TRUNK	
DMAIN-5-0147	1.42	24 hr	0.785	2.91	1.53	1.005	0.45	0	RED	GREEN	MAIN_TRUNK	
DMAIN-52-0170	0.93	24 hr	0.95	0.77	0.58	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0171	0.45	24 hr	0.976	0.47	0.35	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0172	0.35	24 hr	0.984	0.40	0.3	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0173	0.2	24 hr	1.005	0.30	0.32	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0174	0	24 hr	0.002	0.04	0.02	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0175	0	24 hr	0.004	0.04	0.02	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0176	0.33	24 hr	1.034	0.40	0.49	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0180	0.18	24 hr	0.025	0.29	0.11	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0181	0.32	24 hr	0.076	0.40	0.18	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0182	0.23	24 hr	1.119	0.32	0.34	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0183	0.14	24 hr	1.121	0.26	0.27	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0184	1.43	24 hr	1.121	0.83	0.87	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-52-0186	0.51	24 hr	0.721	0.51	0.27	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0187	0.1	24 hr	0.721	0.27	0.2	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-6-0001	1.18	24 hr	0.586	4.51	2.03	1.58	0.57	0.22	RED	RED	MAIN_TRUNK	
DMAIN-6-0002	1.05	24 hr	0.576	5.02	2.26	1.81	0.55	0.42	RED	RED	MAIN_TRUNK	
DMAIN-6-0003	1.15	24 hr	0.615	5.24	2.36	1.91	0.54	0.48	RED	RED	MAIN_TRUNK	
DMAIN-6-0014	0.91	24 hr	0.268	4.62	2.08	1.63	0.47	0.45	DASHED	RED	MAIN_TRUNK	

Storm System Assessment:

Future 2-Year Design Storm (with 15% Climate Change increase) - Future Land Use - Existing Sewers/Culverts

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-6-0030	0.74	24 hr	0.357	3.18	1.91	1.31	0.47	0.21	DASHED	RED	MAIN_TRUNK	
DMAIN-7-0001	1.2	24 hr	1.224	3.23	1.94	1.34	0.36	0.14	RED	RED	MAIN_TRUNK	
DMAIN-7-0002	0.93	24 hr	1.255	2.58	1.55	0.95	0.14	0.08	DASHED	RED	MAIN_TRUNK	
DMAIN-7-0003	0.89	24 hr	1.214	0.87	0.52	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-7-0004	0.83	24 hr	1.2	0.70	0.42	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-7-0005	0.9	24 hr	0.724	0.74	0.39	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-7-0006	1.17	24 hr	0.714	4.02	2.11	1.585	0.14	0.01	ORANGE	RED	MAIN_TRUNK	
DMAIN-7-0007	1.13	24 hr	0.649	4.88	2.56	2.035	0.15	0.01	ORANGE	RED	MAIN_TRUNK	
DMAIN-8-0001	0.18	24 hr	0.201	0.32	0.19	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-8-0002	1.3	24 hr	0.193	13.16	3.29	3.04	0.43	0.31	RED	RED	MAIN_TRUNK	
DMAIN-8-0003	1.24	24 hr	0.184	19.40	4.85	4.6	0.41	0.21	RED	RED	MAIN_TRUNK	
DMAIN-9-0001	0.81	24 hr	0.224	0.73	0.4	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-9-0002	0.47	24 hr	0.215	0.48	0.18	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-9-0003	0.55	24 hr	0.209	0.53	0.2	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-9-0010	0.1	24 hr	0.041	0.21	0.08	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-9-0011	0.19	24 hr	0.036	0.29	0.11	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-9-0022	0.15	24 hr	0.03	0.27	0.1	0	0	0	GREEN	GREEN	MAIN_TRUNK	

10-Year Future Scenario Capacity Assessment Results

Storm System Assessment:

Future 10-Year Design Storm (with 15% Climate Change increase) - Future Land Use - Existing Sewers/Culverts

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DCUL0001	0.29	24 hr	10.953	0.99	2.32	0	0.01	-	YELLOW	GREEN	CULVERT	CreekCrossing
DCUL0002	1.5	24 hr	14.478	1.24	2.91	0.56	7.13	-	RED	RED	CULVERT	CreekCrossing
DCUL0003	0.77	24 hr	1.948	2.56	2.3	1.4	5.55	-	DASHED	RED	CULVERT	CreekCrossing
DCUL0006	2.36	24 hr	8.427	5.72	6.86	5.66	16.98	-	RED	RED	CULVERT	CreekCrossing
DCUL0013	0.19	24 hr	2.64	0.59	0.89	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0014	1.15	24 hr	4.694	1.87	2.24	1.04	16.85	-	RED	RED	CULVERT	CreekCrossing
DCUL0015	0.22	24 hr	1.951	0.49	1.02	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0016	0.86	24 hr	2.973	1.28	1.54	0.34	3.39	-	DASHED	GREEN	CULVERT	CreekCrossing
DCUL0017	0.95	24 hr	2.692	1.04	1.45	0.05	0.6	-	DASHED	GREEN	CULVERT	CreekCrossing
DCUL0018	1.67	24 hr	2.318	1.83	1.46	0.66	2.9	-	RED	RED	CULVERT	CreekCrossing
DCUL0019	1.03	24 hr	3.616	1.93	2.31	1.11	3.42	-	RED	RED	CULVERT	CreekCrossing
DCUL0020	1.41	24 hr	2.036	2.76	2.48	1.58	11.52	-	RED	RED	CULVERT	CreekCrossing
DCUL0021	0.43	24 hr	6.217	1.63	1.95	0.75	2.71	-	DASHED	GREEN	CULVERT	CreekCrossing
DCUL0022	0.37	24 hr	3.462	0.99	1.19	0	0	-	YELLOW	GREEN	CULVERT	CreekCrossing
DCUL0023	0.55	24 hr	5.267	1.12	1.01	0.11	2.23	-	DASHED	GREEN	CULVERT	CreekCrossing
DCUL0024_1	2.61	24 hr	3.431	2.44	2.93	1.73	6.14	-	RED	RED	CULVERT	CreekCrossing
DCUL0024_2	2.6	24 hr	3.453	2.02	2.49	1.22	5.49	-	RED	RED	CULVERT	CreekCrossing
DCUL0041	1.21	24 hr	0.48	2.63	1.58	0.98	0.19	-	ORANGE	GREEN	CULVERT	RoadCrossing
DCUL0045	0.53	24 hr	0.754	2.15	1.29	0.69	1.26	-	DASHED	RED	CULVERT	Driveway
DCUL0046	2.18	24 hr	0.657	1.93	1.16	0.56	16.27	-	RED	RED	CULVERT	RoadCrossing
DCUL0132	8.39	24 hr	1.115	1.02	1.02	0.02	0.2	-	ORANGE	RED	CULVERT	Driveway
DCUL0133	12.6	24 hr	1.101	1.00	1	0	0.03	-	GREEN	GREEN	CULVERT	Driveway
DCUL0134	13.04	24 hr	1.078	1.00	1	0	0.06	-	GREEN	RED	CULVERT	Driveway
DCUL0162	15.14	24 hr	0.205	1.82	0.82	0.37	12.35	-	RED	RED	CULVERT	RoadCrossing
DCUL0168	15.01	24 hr	1.855	1.28	1.02	0.22	0.58	-	ORANGE	GREEN	CULVERT	RoadCrossing
DCUL0184	0.86	24 hr	0.617	1.88	1.41	0.66	5.52	-	DASHED	GREEN	CULVERT	Driveway
DCUL0186	2.11	24 hr	7.714	1.51	2.71	0.91	7.62	-	RED	RED	CULVERT	CreekCrossing
DCUL0187	0.13	24 hr	0.209	0.41	0.33	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0188	0.38	24 hr	0.17	0.62	0.37	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0193	0.2	24 hr	0.161	0.38	0.3	0	0	-	GREEN	GREEN	CULVERT	RoadCrossing_WILDLIFE_CULVERTS
DCUL0203	0.08	24 hr	0.199	0.57	0.34	0	0	-	GREEN	GREEN	CULVERT	RoadCrossing
DCUL0205	0.47	24 hr	1.597	1.57	1.41	0.51	0.85	-	DASHED	GREEN	CULVERT	Driveway
DCUL0218	1.31	24 hr	1.615	1.69	1.69	0.69	4.06	-	RED	RED	CULVERT	RoadCrossing
DCUL0231	0.44	24 hr	1.078	1.09	0.98	0.08	0.48	-	DASHED	RED	CULVERT	Driveway
DCUL0234	0.71	24 hr	1.167	0.76	0.91	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0235	0.19	24 hr	5.584	1.29	1.57	0.35	0.15	-	DASHED	GREEN	CULVERT	CreekCrossing
DCUL0236	0.66	24 hr	1.478	1.30	1.3	0.3	1.49	-	DASHED	RED	CULVERT	CreekCrossing
DCUL0237	1.53	24 hr	6.328	16.59	12.44	11.69	22.16	-	RED	RED	CULVERT	CreekCrossing
DCUL0238	0.28	24 hr	2.392	0.96	1.3	0	0	-	YELLOW	GREEN	CULVERT	CreekCrossing
DCUL0240	0.49	24 hr	30.117	1.86	3.17	1.47	10.12	-	DASHED	GREEN	CULVERT	CreekCrossing
DCUL0253	0.66	24 hr	0.079	1.50	0.45	0.15	0.11	-	YELLOW	GREEN	CULVERT	RoadCrossing
DCUL0347	7.66	24 hr	0.104	0.65	0.39	0	0.01	-	GREEN	GREEN	CULVERT	RoadCrossing
DCUL0348	0.14	24 hr	0.321	0.46	0.41	0	0	-	GREEN	GREEN	CULVERT	Driveway
DCUL0351	0.7	24 hr	0.922	1.06	0.95	0.05	1.98	-	DASHED	RED	CULVERT	RoadCrossing
DCUL0357	0.46	24 hr	0.396	1.10	0.66	0.06	0.14	-	YELLOW	GREEN	CULVERT	RoadCrossing
DCUL0368	0.3	24 hr	0.924	0.64	0.77	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0369	43.83	24 hr	0.493	3.34	1.67	1.17	25.27	-	RED	RED	CULVERT	RoadCrossing
DCUL0420	0.94	24 hr	0.706	34.60	20.76	20.16	0.8	-	DASHED	RED	CULVERT	RoadCrossing
DCUL0438	0.12	24 hr	0.29	0.82	0.49	0	0	-	YELLOW	GREEN	CULVERT	RoadCrossing
DCUL0535	0.24	24 hr	0.904	0.83	0.83	0	0	-	YELLOW	GREEN	CULVERT	Driveway
DCUL0536	0.23	24 hr	1.054	1.08	0.97	0.07	0.38	-	DASHED	RED	CULVERT	Driveway
DCUL0581	0.38	24 hr	2.945	0.72	1.29	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0582	0.09	24 hr	0.662	0.63	1.14	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0583	0.16	24 hr	0.873	0.95	1.56	0	0.01	-	YELLOW	GREEN	CULVERT	CreekCrossing

Pipe Performance Ranking

- Green = No Capacity Issues
- Yellow = Between 80% - 100% Capacity and pipe crown surcharging < 30cm
- Orange = Greater than 100% Capacity but no significant pipe crown surcharging
- Red = > 100% Capacity and pipe crown surcharging > 30cm and > 15 minutes
- Dashed Red = Surcharging of pipe crown > 30cm and > 15 minutes that may be due to backwater

Ground/Road Flooding Ranking

Storm Trunk Sewers:

- Green = Ground/Road Flooding = 0 minutes
- Red = Ground/Road Flooding > 0 minutes possible

Culverts:

- Green = No Ground/Road Flooding occurring
- Red = Ground/Road Flooding occurring

Storm System Assessment:

Future 10-Year Design Storm (with 15% Climate Change increase) - Future Land Use - Existing Sewers/Culverts

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DCUL0589	0.26	24 hr	0.165	0.84	0.42	0	0	-	YELLOW	GREEN	CULVERT	RoadCrossing
DCUL0590	0.53	24 hr	0.065	1.10	0.33	0.03	6.92	-	DASHED	RED	CULVERT	Driveway
DCUL0591	0.74	24 hr	0.208	0.77	0.46	0	0	-	GREEN	GREEN	CULVERT	RoadCrossing
DCUL0593	1.3	24 hr	0.568	4.70	2.35	1.85	1.48	-	RED	RED	CULVERT	RoadCrossing
DCUL0598	0.08	24 hr	0.079	0.21	0.21	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0612_1	0.66	24 hr	4.797	1.37	2.46	0.66	1.13	-	DASHED	GREEN	CULVERT	RoadCrossing
DCUL0612_2	0.69	24 hr	5.015	1.26	2.26	0.46	0.61	-	DASHED	GREEN	CULVERT	RoadCrossing
DCUL0613	0.93	24 hr	0.582	1.80	1.35	0.6	5.23	-	DASHED	GREEN	CULVERT	RoadCrossing
DCUL0617	0.53	24 hr	0.51	0.73	0.73	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0618	2.34	24 hr	0.157	1.58	0.71	0.26	7.58	-	ORANGE	RED	CULVERT	CreekCrossing
DCUL0623	0.41	24 hr	4.328	0.67	1.48	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0624	1.64	24 hr	29.758	1.63	4.57	1.77	7.42	-	RED	GREEN	CULVERT	CreekCrossing
DCUL0633	0.95	24 hr	0.079	0.80	0.32	0	0	-	YELLOW	GREEN	CULVERT	PRIVATE
DCUL0634	0.83	24 hr	0.088	0.85	0.34	0	0	-	YELLOW	GREEN	CULVERT	PRIVATE
DCUL0639	1.42	24 hr	0.122	6.00	1.8	1.5	27.27	-	RED	GREEN	CULVERT	MOTI
DCUL0654	0.86	24 hr	0.436	1.18	1.16	0.11	1.06	-	DASHED	RED	CULVERT	RoadCrossing
DCUL0657	0.4	24 hr	0.193	0.88	0.46	0	0	-	YELLOW	GREEN	CULVERT	Driveway
DCUL0659	0.26	24 hr	0.114	0.63	0.33	0	0	-	GREEN	GREEN	CULVERT	Driveway
DCUL0673	2.65	24 hr	1.403	2.00	1.2	0.6	7.41	-	RED	GREEN	CULVERT	RoadCrossing
DCUL0698	0.3	24 hr	0.054	0.38	0.23	0	0	-	GREEN	GREEN	CULVERT	RoadCrossing
DCUL0699	0.15	24 hr	2.891	0.35	1.05	0	0	-	GREEN	GREEN	CULVERT	RoadCrossing
DCUL0733	0.04	24 hr	0.05	0.35	0.73	0	0	-	GREEN	GREEN	MAIN_TRUNK	
DCUL0751	0.11	24 hr	0.316	0.29	0.35	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0752	0.11	24 hr	0.219	0.32	0.32	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0753	0.16	24 hr	0.249	0.34	0.47	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0754	0.19	24 hr	0.037	0.39	0.39	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0755	0.37	24 hr	0.298	0.48	0.48	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0756	0.12	24 hr	0.05	0.24	0.24	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0757	0.15	24 hr	0.118	0.31	0.31	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0758	0.03	24 hr	0.029	0.17	0.15	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0759	0.11	24 hr	0.095	0.26	0.26	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0760	0.02	24 hr	0.017	0.13	0.12	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0761	0	24 hr	0.001	0.06	0.06	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0762	0	1 hr	0	0.00	0	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0763	0	1 hr	0	0.00	0	0	0	-	GREEN	GREEN	CULVERT	MOTI
DITC-0729	1.02	24 hr	0.93	0.85	0.51	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DITC-0729_2	0.9	24 hr	0.832	2.40	1.44	0.84	0.55	0.52	DASHED	RED	MAIN_TRUNK	
DMAIN-10-0001	1.8	24 hr	0.708	2.31	1.39	0.787	0.85	0	RED	GREEN	MAIN_TRUNK	
DMAIN-10-0002-1	1.24	24 hr	0.439	2.75	1.65	1.05	0.91	0	RED	GREEN	MAIN_TRUNK	
DMAIN-10-0002-2	2.78	24 hr	0.672	2.65	1.59	0.99	0.95	0	RED	GREEN	MAIN_TRUNK	
DMAIN-10-0003	1.5	24 hr	0.431	3.02	1.81	1.21	0.9	0.02	RED	RED	MAIN_TRUNK	
DMAIN-10-0004	2.39	24 hr	0.55	6.38	2.87	2.42	1.81	0.77	RED	RED	MAIN_TRUNK	
DMAIN-10-0005	0.95	24 hr	0.521	6.09	2.74	2.29	0.95	0.74	DASHED	RED	MAIN_TRUNK	
DMAIN-10-0006	0.94	24 hr	0.577	5.56	2.5	2.05	0.73	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-10-0007	1.24	24 hr	0.45	6.40	2.88	2.43	0.69	0.34	RED	RED	MAIN_TRUNK	
DMAIN-10-0008	1.17	24 hr	0.325	6.33	2.85	2.4	0.64	0.58	RED	RED	MAIN_TRUNK	
DMAIN-10-0009	1	24 hr	0.323	5.80	2.61	2.16	0.57	0.53	RED	RED	MAIN_TRUNK	
DMAIN-1-0001_1	0.67	24 hr	1.868	0.61	0.73	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-1-0001_2	0.67	24 hr	1.87	0.63	0.76	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-1-0003	1.3	24 hr	1.461	2.61	2.09	1.29	0.3	0.01	RED	RED	MAIN_TRUNK	
DMAIN-1-0004	1.29	24 hr	1.321	3.60	2.88	2.08	0.31	0.01	RED	RED	MAIN_TRUNK	
DMAIN-10-0041	0.32	24 hr	0.701	1.32	0.79	0.19	0.71	0.66	DASHED	RED	MAIN_TRUNK	
DMAIN-1-0012	1.6	24 hr	0.892	3.73	2.98	2.18	0.32	0.28	RED	RED	MAIN_TRUNK	
DMAIN-1-0013	1.98	24 hr	0.865	4.18	3.34	2.54	0.35	0.31	RED	RED	MAIN_TRUNK	
DMAIN-1-0014	0.82	24 hr	0.5	4.87	2.92	2.32	0.32	0.3	DASHED	RED	MAIN_TRUNK	

Storm System Assessment:

Future 10-Year Design Storm (with 15% Climate Change increase) - Future Land Use - Existing Sewers/Culverts

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-11-0001	1.02	24 hr	0.728	3.93	1.99	1.466	0.38	0	RED	GREEN	MAIN_TRUNK	
DMAIN-11-0002	2.25	24 hr	0.519	14.58	6.56	6.11	1.07	0.33	RED	RED	MAIN_TRUNK	
DMAIN-11-0003	1.24	24 hr	0.575	5.98	2.69	2.24	0.39	0.38	RED	RED	MAIN_TRUNK	
DMAIN-11-0004	0.84	24 hr	0.672	3.16	1.42	0.97	0.12	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-12-0001	1.31	24 hr	0.164	6.43	1.93	1.63	0.15	0.01	ORANGE	RED	MAIN_TRUNK	
DMAIN-12-0002	0.64	24 hr	0.106	2.97	0.89	0.59	0.11	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-13-0001	2.09	24 hr	1.623	3.01	2.26	1.51	0.48	0.32	RED	RED	MAIN_TRUNK	
DMAIN-13-0002	2.17	24 hr	1.478	3.35	2.51	1.76	0.37	0.31	RED	RED	MAIN_TRUNK	
DMAIN-13-0003	1.12	24 hr	1.112	2.92	2.19	1.44	0.28	0.2	RED	RED	MAIN_TRUNK	
DMAIN-13-0004_1	0.47	24 hr	1.366	1.96	1.47	0.72	0.18	0.06	DASHED	RED	MAIN_TRUNK	
DMAIN-13-0004_2	0.64	24 hr	1.353	2.01	2.01	1.01	0.22	0.1	DASHED	RED	MAIN_TRUNK	
DMAIN-13-0005	1.93	24 hr	0.931	2.51	1.88	1.13	0.19	0.01	ORANGE	RED	MAIN_TRUNK	
DMAIN-14-0001	2.55	24 hr	3.442	0.99	1.78	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-14-0002	0.95	24 hr	3.129	0.84	1.26	0	0	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-14-0003	0.8	24 hr	2.83	0.67	0.91	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0004	2.17	24 hr	2.803	1.95	2.63	1.28	1.58	0.01	RED	RED	MAIN_TRUNK	
DMAIN-14-0005	1.79	24 hr	2.368	2.25	3.04	1.69	3.43	0	RED	GREEN	MAIN_TRUNK	
DMAIN-14-0006	1.95	24 hr	1.976	2.51	3.01	1.81	4.59	0.01	RED	RED	MAIN_TRUNK	
DMAIN-14-0007	1.73	24 hr	1.967	3.13	3.75	2.55	4.88	0.52	RED	RED	MAIN_TRUNK	
DMAIN-14-0008	1.01	24 hr	1.614	2.92	3.5	2.3	4.34	1.24	RED	RED	MAIN_TRUNK	
DMAIN-14-0009	0.97	24 hr	1.402	3.30	3.47	2.42	4.49	0.82	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0010	1.1	24 hr	1.38	3.13	3.29	2.24	4	1.05	RED	RED	MAIN_TRUNK	
DMAIN-14-0012	2.07	24 hr	1.347	3.19	3.35	2.3	4.07	1.7	RED	RED	MAIN_TRUNK	
DMAIN-14-0013	1.29	24 hr	1.326	3.26	3.42	2.37	4.08	2.03	RED	RED	MAIN_TRUNK	
DMAIN-14-0014	1.74	24 hr	1.097	3.33	3.5	2.45	4.18	2.24	RED	RED	MAIN_TRUNK	
DMAIN-14-0015	2.78	24 hr	0.907	3.42	3.59	2.54	4.36	2.43	RED	RED	MAIN_TRUNK	
DMAIN-14-0016	1.58	24 hr	0.879	4.22	3.8	2.9	5.62	3.19	RED	RED	MAIN_TRUNK	
DMAIN-14-0018	0.99	24 hr	0.588	3.30	3.47	2.42	4.05	3.34	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0019	0.9	24 hr	0.244	3.85	2.31	1.71	3.4	1.77	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0020	0.59	24 hr	0.09	3.13	1.41	0.96	1.62	0.02	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0023	0.62	24 hr	0.668	1.52	1.14	0.39	5.17	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-14-0024	1.63	24 hr	0.634	2.68	1.61	1.01	4.53	0	RED	GREEN	MAIN_TRUNK	
DMAIN-14-0025	1.55	24 hr	0.634	3.10	1.86	1.26	3.74	0	RED	GREEN	MAIN_TRUNK	
DMAIN-14-0026	1.73	24 hr	0.486	5.33	2.8	2.275	3.54	0.09	RED	RED	MAIN_TRUNK	
DMAIN-14-0027	1.51	24 hr	0.465	5.98	3.14	2.615	3.36	1.81	RED	RED	MAIN_TRUNK	
DMAIN-14-0028	2.05	24 hr	0.45	7.07	3.71	3.185	3.43	2	RED	RED	MAIN_TRUNK	
DMAIN-14-0029	1.86	24 hr	0.424	8.21	4.31	3.785	3.18	2.78	RED	RED	MAIN_TRUNK	
DMAIN-14-0030	3.11	24 hr	0.378	13.47	6.06	5.61	3.68	3	RED	RED	MAIN_TRUNK	
DMAIN-14-0033	2.22	24 hr	0.153	10.05	3.77	3.395	3.89	1.45	RED	RED	MAIN_TRUNK	
DMAIN-14-0051	2.73	24 hr	0.278	7.11	3.2	2.75	13.98	4.83	RED	RED	MAIN_TRUNK	
DMAIN-14-0052	2.61	24 hr	0.252	9.93	4.47	4.02	14.65	8.67	RED	RED	MAIN_TRUNK	
DMAIN-14-0053	2.32	24 hr	0.228	11.18	5.03	4.58	14.29	9.46	RED	RED	MAIN_TRUNK	
DMAIN-14-0058	3.19	24 hr	0.164	11.84	5.33	4.88	13.7	9.54	RED	RED	MAIN_TRUNK	
DMAIN-14-0059	1.74	24 hr	0.139	13.04	5.87	5.42	12.27	9.5	RED	RED	MAIN_TRUNK	
DMAIN-14-0062	1.25	24 hr	0.097	11.89	5.35	4.9	10.32	8.67	RED	RED	MAIN_TRUNK	
DMAIN-14-0063	0.74	24 hr	0.082	11.40	5.13	4.68	10.12	8	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0070	1.03	24 hr	0.361	2.98	1.79	1.19	0.65	0.27	RED	RED	MAIN_TRUNK	
DMAIN-14-0071	1.36	24 hr	0.23	2.98	1.94	1.189	0.44	0.43	RED	RED	MAIN_TRUNK	
DMAIN-14-0083	0.11	24 hr	0.053	4.69	2.11	1.66	3.34	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-14-0084	0.23	24 hr	0.036	4.13	1.86	1.41	2.16	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-14-0085	0	1 hr	0	0.00	0	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0086	0	1 hr	0	0.00	0	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0087	0	1 hr	0	0.00	0	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0097	0.34	24 hr	0.23	5.38	2.42	1.97	3.51	0.49	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0098	1.33	24 hr	0.215	6.44	2.9	2.45	3.11	0.01	RED	RED	MAIN_TRUNK	

Storm System Assessment:

Future 10-Year Design Storm (with 15% Climate Change increase) - Future Land Use - Existing Sewers/Culverts

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-14-0099	1.6	24 hr	0.199	6.18	2.78	2.33	2.95	1.56	RED	RED	MAIN_TRUNK	
DMAIN-14-0100	0.83	24 hr	0.181	5.89	2.65	2.2	2.28	1.21	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0102	112.57	24 hr	0.195	21.87	6.56	6.26	23.7	2.08	RED	RED	MAIN_TRUNK	
DMAIN-14-0102A	27.05	24 hr	0.18	9.53	2.86	2.56	2.84	1.51	RED	RED	MAIN_TRUNK	
DMAIN-14-0106	1.46	24 hr	0.247	4.80	2.88	2.28	3.77	2.85	RED	RED	MAIN_TRUNK	
DMAIN-14-0107	0.99	24 hr	0.189	4.68	2.81	2.207	3.26	3.04	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0108	0.75	24 hr	0.165	3.68	2.21	1.61	2.78	2.75	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0109	0.5	24 hr	0.259	6.80	3.06	2.61	4.55	2.21	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0110	1.33	24 hr	0.2	6.78	3.05	2.6	4.51	2.29	RED	RED	MAIN_TRUNK	
DMAIN-14-0111	0.9	24 hr	0.148	6.58	2.96	2.51	4.18	2.64	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0112	1.64	24 hr	0.146	6.56	2.95	2.5	4.1	2.74	RED	RED	MAIN_TRUNK	
DMAIN-14-0113	0.7	24 hr	0.103	4.89	2.2	1.75	3.54	2.13	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0114	1.5	24 hr	0.056	12.36	3.09	2.84	4.13	3.13	RED	RED	MAIN_TRUNK	
DMAIN-14-0121	0.52	24 hr	0.056	4.23	1.27	0.97	2.83	2.71	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0122	0.42	24 hr	0.014	0.45	0.09	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0127	1.03	24 hr	0.067	9.43	3.11	2.53	4.32	3.3	RED	RED	MAIN_TRUNK	
DMAIN-14-0128	1.4	24 hr	0.117	7.73	2.9	2.525	4.17	3.64	RED	RED	MAIN_TRUNK	
DMAIN-14-0129	1.03	24 hr	0.091	7.63	2.86	2.485	4.08	3.63	RED	RED	MAIN_TRUNK	
DMAIN-14-0130	0.26	24 hr	0.074	7.40	2.22	1.92	3.66	3.65	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0133	0.31	24 hr	0.101	8.29	3.11	2.735	4.83	3.3	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0134	2.04	24 hr	0.216	9.71	4.37	3.92	6.91	4.9	RED	RED	MAIN_TRUNK	
DMAIN-14-0135	1.61	24 hr	0.172	10.84	4.88	4.43	6.17	5.68	RED	RED	MAIN_TRUNK	
DMAIN-14-0136	1.92	24 hr	0.125	10.96	4.93	4.48	6.14	4.62	RED	RED	MAIN_TRUNK	
DMAIN-14-0137	2.32	24 hr	0.164	11.11	5	4.55	6.05	5.83	RED	RED	MAIN_TRUNK	
DMAIN-14-0140	0.77	24 hr	0.489	4.11	3.08	2.33	3.94	3.52	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0141	3.26	24 hr	0.461	7.07	4.24	3.64	17.85	4.1	RED	RED	MAIN_TRUNK	
DMAIN-14-0142	18.53	24 hr	0.511	9.15	5.49	4.89	20.63	5.87	RED	RED	MAIN_TRUNK	
DMAIN-14-0143	1.18	24 hr	0.266	9.20	5.52	4.92	17.98	6.64	RED	RED	MAIN_TRUNK	
DMAIN-14-0173	0.3	24 hr	0.269	4.27	2.62	1.96	3.73	1.01	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0187	0.54	24 hr	0.924	3.89	3.5	2.6	4.42	3.27	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0188	1.77	24 hr	1.403	3.39	3.56	2.51	4.61	0.95	RED	RED	MAIN_TRUNK	
DMAIN-14-0190	0	1 hr	0	0.00	0	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0198	1.42	24 hr	0.149	6.69	3.01	2.56	4.35	2.55	RED	RED	MAIN_TRUNK	
DMAIN-14-0202	0.55	24 hr	0.084	2.71	1.22	0.77	1.1	1	DASHED	RED	MAIN_TRUNK	
DMAIN-15-0001	3.5	24 hr	2.547	2.80	2.94	1.89	2.39	0	RED	GREEN	MAIN_TRUNK	
DMAIN-15-0002	1.19	24 hr	2.407	3.07	3.22	2.17	1.57	0.84	RED	RED	MAIN_TRUNK	
DMAIN-15-0004	1.54	24 hr	1.805	8.09	6.07	5.32	1.69	1.25	RED	RED	MAIN_TRUNK	
DMAIN-15-0005-1	0.72	24 hr	1.677	5.17	3.88	3.13	0.75	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-15-0005-2	0.5	24 hr	2.109	4.76	3.57	2.82	0.81	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-15-0006	2.31	24 hr	1.664	5.20	3.9	3.15	0.78	0	RED	GREEN	MAIN_TRUNK	
DMAIN-15-0007	2.67	24 hr	1.509	5.20	3.9	3.15	1.67	0.01	RED	RED	MAIN_TRUNK	
DMAIN-15-0008	2.14	24 hr	1.467	5.40	4.05	3.3	1.69	0.32	RED	RED	MAIN_TRUNK	
DMAIN-15-0009	1.57	24 hr	0.979	5.68	4.26	3.51	1.51	0.63	RED	RED	MAIN_TRUNK	
DMAIN-15-0010	2.1	24 hr	0.649	9.47	4.26	3.81	1.93	0.68	RED	RED	MAIN_TRUNK	
DMAIN-15-0011	3.23	24 hr	0.639	10.13	4.56	4.11	1.95	0.91	RED	RED	MAIN_TRUNK	
DMAIN-15-0012	2.5	24 hr	0.453	12.00	5.4	4.95	1.98	1.51	RED	RED	MAIN_TRUNK	
DMAIN-15-0013	1.06	24 hr	0.245	10.91	4.91	4.46	1.76	1.69	RED	RED	MAIN_TRUNK	
DMAIN-15-0014	1.41	24 hr	0.305	9.98	4.49	4.04	1.73	1.27	RED	RED	MAIN_TRUNK	
DMAIN-15-0057	1.56	24 hr	0.519	7.52	4.51	3.91	1.36	0.73	RED	RED	MAIN_TRUNK	
DMAIN-15-0117	1.76	24 hr	2.253	6.35	4.76	4.01	1.81	1.17	RED	RED	MAIN_TRUNK	
DMAIN-15-0125	2.23	24 hr	2.123	9.75	7.31	6.56	1.65	0.74	RED	RED	MAIN_TRUNK	
DMAIN-16-0001	0.55	24 hr	0.608	0.73	0.44	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-16-0002	0.72	24 hr	0.448	0.65	0.39	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-16-0003	0.94	24 hr	0.442	0.77	0.29	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-16-0004_1	1.07	24 hr	0.432	6.73	2.02	1.72	1.11	0	RED	GREEN	MAIN_TRUNK	

Storm System Assessment:

Future 10-Year Design Storm (with 15% Climate Change increase) - Future Land Use - Existing Sewers/Culverts

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-16-0004_2	2.66	24 hr	0.417	11.10	3.33	3.03	1.11	0	RED	GREEN	MAIN_TRUNK	
DMAIN-16-0005	1.87	24 hr	0.407	8.40	3.78	3.33	4.91	1.07	RED	RED	MAIN_TRUNK	
DMAIN-16-0006	1.15	24 hr	0.33	7.20	3.78	3.255	2.36	1.11	RED	RED	MAIN_TRUNK	
DMAIN-16-0007	0.94	24 hr	0.215	8.13	3.66	3.21	1.39	1.11	DASHED	RED	MAIN_TRUNK	
DMAIN-16-0008	1.11	24 hr	0.205	7.89	3.55	3.1	1.3	0.99	RED	RED	MAIN_TRUNK	
DMAIN-16-0009	1.05	24 hr	0.174	7.62	3.43	2.98	1.26	1	RED	RED	MAIN_TRUNK	
DMAIN-16-0055	0.89	24 hr	0.589	0.73	0.44	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-17-0001	1.9	24 hr	0.829	8.13	4.88	4.28	2.96	2.37	RED	RED	MAIN_TRUNK	
DMAIN-17-0004	1.1	24 hr	1.042	5.73	4.3	3.55	2.27	0.01	RED	RED	MAIN_TRUNK	
DMAIN-17-0005	1.34	24 hr	1.023	5.25	3.94	3.19	2.11	0.81	RED	RED	MAIN_TRUNK	
DMAIN-17-0007	1.88	24 hr	0.67	7.61	4.57	3.967	2.23	1.35	RED	RED	MAIN_TRUNK	
DMAIN-17-0008	1.56	24 hr	0.574	7.83	4.94	4.1	2.18	1.56	RED	RED	MAIN_TRUNK	
DMAIN-17-0009	1.72	24 hr	0.75	8.22	4.93	4.33	2.12	1.51	RED	RED	MAIN_TRUNK	
DMAIN-17-0018	1.86	24 hr	0.914	8.23	4.94	4.34	2.94	2.3	RED	RED	MAIN_TRUNK	
DMAIN-17-0069	29.06	24 hr	0.661	10.76	5.08	4.39	2.35	1.58	RED	RED	MAIN_TRUNK	
DMAIN-17-0076	0.97	24 hr	1.032	5.49	4.12	3.37	2.37	1.54	DASHED	RED	MAIN_TRUNK	
DMAIN-18-0001	1.5	24 hr	1.369	2.52	1.89	1.14	16.3	0	RED	GREEN	MAIN_TRUNK	
DMAIN-18-0003	1.29	24 hr	1.295	2.84	2.13	1.38	5.09	0	RED	GREEN	MAIN_TRUNK	
DMAIN-18-0004	0.53	24 hr	1.293	2.12	1.59	0.84	0.08	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-18-0008	1.2	24 hr	1.22	2.19	1.64	0.89	0.11	0.01	ORANGE	RED	MAIN_TRUNK	
DMAIN-18-0009	1.53	24 hr	1.141	3.00	2.25	1.5	0.7	0.01	RED	RED	MAIN_TRUNK	
DMAIN-18-0010	1.83	24 hr	0.815	7.85	4.12	3.595	0.92	0.71	RED	RED	MAIN_TRUNK	
DMAIN-18-0011	1.18	24 hr	0.438	8.89	4	3.55	0.76	0.65	RED	RED	MAIN_TRUNK	
DMAIN-18-0012	0.93	24 hr	0.435	8.22	3.7	3.25	0.72	0.64	DASHED	RED	MAIN_TRUNK	
DMAIN-18-0014	0.85	24 hr	0.568	5.04	2.27	1.82	0.12	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-18-0052	1.04	24 hr	1.771	2.84	2.13	1.38	18.02	0	RED	GREEN	MAIN_TRUNK	
DMAIN-18-0061	1.27	24 hr	0.502	8.62	3.88	3.43	0.64	0.17	RED	RED	MAIN_TRUNK	
DMAIN-2-0001	14.63	24 hr	1.014	6.89	5.17	4.42	2.09	1.41	RED	RED	MAIN_TRUNK	
DMAIN-20-0018	1.43	24 hr	0.85	6.79	4.65	3.473	0.31	0.31	RED	RED	MAIN_TRUNK	
DMAIN-20-0029	1.92	24 hr	1.042	3.97	2.98	2.23	0.33	0.16	RED	RED	MAIN_TRUNK	
DMAIN-2-0003	1.7	24 hr	1.627	3.01	3.01	2.01	1.81	1.7	RED	RED	MAIN_TRUNK	
DMAIN-20-0030	1.68	24 hr	1.054	4.80	3.64	2.848	0.3	0.01	RED	RED	MAIN_TRUNK	
DMAIN-20-0033	1.89	24 hr	1.145	5.83	4.37	3.62	0.32	0	RED	GREEN	MAIN_TRUNK	
DMAIN-20-0034	1.09	24 hr	1.387	5.38	3.23	2.63	0.22	0.01	ORANGE	RED	MAIN_TRUNK	
DMAIN-2-0004	2.01	24 hr	0.85	5.56	4.17	3.42	2.21	1.29	RED	RED	MAIN_TRUNK	
DMAIN-20-0047	0.41	24 hr	1.387	1.43	1.07	0.32	0.24	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-2-0010	0.43	24 hr	0.168	4.02	2.41	1.81	6.13	1.2	DASHED	RED	MAIN_TRUNK	
DMAIN-2-0011	0.43	24 hr	0.158	3.25	1.95	1.35	1.79	1.53	DASHED	RED	MAIN_TRUNK	
DMAIN-2-0012	1.82	24 hr	0.491	10.60	6.36	5.76	2.07	1.46	RED	RED	MAIN_TRUNK	
DMAIN-2-0013	2.4	24 hr	0.374	12.93	7.76	7.16	2.44	1.96	RED	RED	MAIN_TRUNK	
DMAIN-2-0044	2.02	24 hr	1.511	2.27	2.38	1.33	1.84	0.76	RED	RED	MAIN_TRUNK	
DMAIN-2-0047	0.45	24 hr	1.247	5.93	4.74	3.94	1.46	1.33	DASHED	RED	MAIN_TRUNK	
DMAIN-2-0049	1.74	24 hr	0.461	8.00	4.8	4.2	1.46	1.31	RED	RED	MAIN_TRUNK	
DMAIN-2-0050	1.4	24 hr	0.669	8.20	4.92	4.32	1.41	1.3	RED	RED	MAIN_TRUNK	
DMAIN-2-0059	0.86	24 hr	1.508	2.24	2.48	1.3	1.77	0.92	DASHED	RED	MAIN_TRUNK	
DMAIN-2-0064	1.27	24 hr	1.582	2.22	2.66	1.46	1.69	1.69	RED	RED	MAIN_TRUNK	
DMAIN-2-0065	0.92	24 hr	1.586	2.32	2.44	1.39	1.69	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-2-0066	1.39	24 hr	0.932	4.40	3.3	2.55	1.42	0.86	RED	RED	MAIN_TRUNK	
DMAIN-2-0067	2.01	24 hr	0.85	5.56	4.17	3.42	2.21	1.29	RED	RED	MAIN_TRUNK	
DMAIN-2-0068	5.43	24 hr	1.213	5.83	4.66	3.86	1.43	1.38	RED	RED	MAIN_TRUNK	
DMAIN-2-0070	0.37	24 hr	0.135	3.77	2.26	1.66	2.85	1.5	DASHED	RED	MAIN_TRUNK	
DMAIN-2-0072	0.35	24 hr	0.124	3.60	2.16	1.56	2.24	1.65	DASHED	RED	MAIN_TRUNK	
DMAIN-2-0073	0.28	24 hr	0.105	3.53	2.12	1.52	2.08	1.67	DASHED	RED	MAIN_TRUNK	
DMAIN-2-0074	1.2	24 hr	0.165	3.23	1.94	1.34	1.78	0.86	RED	RED	MAIN_TRUNK	
DMAIN-2-0083	1.86	24 hr	1.919	6.88	6.19	5.29	1.96	0.64	RED	RED	MAIN_TRUNK	

Storm System Assessment:

Future 10-Year Design Storm (with 15% Climate Change increase) - Future Land Use - Existing Sewers/Culverts

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-21-0001	1.55	24 hr	0.424	1.55	0.93	0.33	0.14	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-21-0002	6.85	24 hr	0.426	1.70	1.02	0.42	0.14	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-21-0003	0.83	24 hr	0.193	2.33	1.4	0.8	0.09	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-22-0915	1.85	24 hr	0.46	9.87	4.44	3.99	0.54	0.01	RED	RED	MAIN_TRUNK	
DMAIN-22-0920	1.85	24 hr	0.306	5.09	2.29	1.84	10.46	0.41	RED	RED	MAIN_TRUNK	
DMAIN-22-0921	1.95	24 hr	0.327	4.49	2.02	1.57	18.43	1.37	RED	RED	MAIN_TRUNK	
DMAIN-22-0922	1.46	24 hr	0.136	6.59	2.47	2.095	6.98	0.31	RED	RED	MAIN_TRUNK	
DMAIN-22-0926	1.67	24 hr	0.402	4.07	1.83	1.38	1.07	0.59	RED	RED	MAIN_TRUNK	
DMAIN-22-0927	1.08	24 hr	0.403	4.07	1.83	1.38	0.68	0.46	RED	RED	MAIN_TRUNK	
DMAIN-22-0928	1.69	24 hr	0.381	3.20	1.44	0.99	2.46	0.61	RED	RED	MAIN_TRUNK	
DMAIN-23-0002	2.68	24 hr	1.538	3.23	2.42	1.67	1.19	0.6	RED	RED	MAIN_TRUNK	
DMAIN-23-0003	0.51	24 hr	0.573	2.57	1.54	0.94	0.18	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-23-0008	1.47	24 hr	0.921	3.72	2.79	2.04	0.96	0.95	RED	RED	MAIN_TRUNK	
DMAIN-23-0035	1.6	24 hr	0.992	3.22	2.42	1.667	1.09	0.59	RED	RED	MAIN_TRUNK	
DMAIN-30-0001	1.25	24 hr	2.403	2.69	2.42	1.52	2.35	0	RED	GREEN	MAIN_TRUNK	
DMAIN-30-0002	1.23	24 hr	2.403	2.54	2.29	1.39	1.92	0	RED	GREEN	MAIN_TRUNK	
DMAIN-30-0003	1.59	24 hr	2.378	3.72	3.35	2.45	1.96	1.79	RED	RED	MAIN_TRUNK	
DMAIN-30-0004	1.96	24 hr	1.776	5.39	4.04	3.29	2.13	1.78	RED	RED	MAIN_TRUNK	
DMAIN-30-0005	0.89	24 hr	1.755	4.56	3.42	2.67	1.78	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-30-0006	0.5	24 hr	1.706	0.51	0.38	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-30-0007	1.53	24 hr	1.683	5.64	4.23	3.48	1.56	0	RED	GREEN	MAIN_TRUNK	
DMAIN-30-0008	1.65	24 hr	1.662	4.44	3.33	2.58	1.63	0.83	RED	RED	MAIN_TRUNK	
DMAIN-30-0009	1.73	24 hr	1.72	6.16	4.62	3.87	1.66	1.36	RED	RED	MAIN_TRUNK	
DMAIN-30-0034	0.87	24 hr	0.462	5.17	3.1	2.5	1.93	1.78	DASHED	RED	MAIN_TRUNK	
DMAIN-30-0035	1.45	24 hr	0.419	5.38	3.23	2.63	1.87	1.57	RED	RED	MAIN_TRUNK	
DMAIN-30-0036	0.89	24 hr	0.449	4.92	3.08	2.35	1.79	1.78	DASHED	RED	MAIN_TRUNK	
DMAIN-30-0048	1.25	24 hr	1.192	6.25	4.69	3.94	1.65	1.46	RED	RED	MAIN_TRUNK	
DMAIN-30-0049	1.06	24 hr	1.383	5.89	4.42	3.67	1.56	1.5	RED	RED	MAIN_TRUNK	
DMAIN-30-0050	0.85	24 hr	0.676	5.59	4.19	3.44	1.45	1.39	DASHED	RED	MAIN_TRUNK	
DMAIN-30-0051	1.16	24 hr	0.584	6.85	4.11	3.51	1.48	1	RED	RED	MAIN_TRUNK	
DMAIN-30-0052	1.41	24 hr	0.661	6.90	4.14	3.54	1.44	0.94	RED	RED	MAIN_TRUNK	
DMAIN-30-0053	1.11	24 hr	0.803	5.83	3.5	2.9	1.24	0.58	RED	RED	MAIN_TRUNK	
DMAIN-30-0067	0.69	24 hr	0.463	4.50	2.7	2.1	0.82	0.3	DASHED	RED	MAIN_TRUNK	
DMAIN-30-0068	1.22	24 hr	0.844	4.82	2.89	2.29	0.66	0.38	RED	RED	MAIN_TRUNK	
DMAIN-3-0007	0.74	24 hr	0.836	5.27	3.16	2.56	1.01	0.37	DASHED	RED	MAIN_TRUNK	
DMAIN-3-0008	0.66	24 hr	0.76	4.17	2.5	1.9	0.87	0.5	DASHED	RED	MAIN_TRUNK	
DMAIN-3-0009	2.97	24 hr	0.73	6.25	3.75	3.15	0.95	0.7	RED	RED	MAIN_TRUNK	
DMAIN-30-0121	1.53	24 hr	1.031	3.63	2.18	1.58	0.79	0.26	RED	RED	MAIN_TRUNK	
DMAIN-30-0122	1.12	24 hr	1.086	4.08	2.45	1.85	0.31	0.19	RED	RED	MAIN_TRUNK	
DMAIN-30-0123	0.63	24 hr	1.15	0.62	0.37	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-30-0125	0.42	24 hr	0.653	0.45	0.27	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-30-0126	1.53	24 hr	0.654	3.27	1.96	1.36	0.43	0	RED	GREEN	MAIN_TRUNK	
DMAIN-30-0127	1.54	24 hr	0.659	5.48	3.29	2.69	0.65	0.01	RED	RED	MAIN_TRUNK	
DMAIN-30-0128	1.82	24 hr	0.654	7.42	4.45	3.85	0.79	0	RED	GREEN	MAIN_TRUNK	
DMAIN-30-0129	1.57	24 hr	0.662	6.23	3.74	3.14	0.79	0.01	RED	RED	MAIN_TRUNK	
DMAIN-30-0130	1.54	24 hr	0.602	3.55	2.13	1.53	0.88	0.44	RED	RED	MAIN_TRUNK	
DMAIN-3-0028	1.3	24 hr	0.547	8.84	3.98	3.53	1.18	0.91	RED	RED	MAIN_TRUNK	
DMAIN-3-0037	0.57	24 hr	0.419	0.80	0.36	0	0	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-3-0041	1.68	24 hr	0.419	2.44	1.1	0.65	1.1	0	RED	GREEN	MAIN_TRUNK	
DMAIN-3-0043	1.93	24 hr	0.417	13.33	4	3.7	1.37	1.04	RED	RED	MAIN_TRUNK	
DMAIN-30-1041	1.28	24 hr	2.451	2.24	2.02	1.12	0.01	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-31-0010	1.35	24 hr	1.916	2.66	2.39	1.49	2.85	0.1	RED	RED	MAIN_TRUNK	
DMAIN-31-0011	1.56	24 hr	1.421	3.71	2.78	2.03	2.92	0.37	RED	RED	MAIN_TRUNK	
DMAIN-31-0012	1.09	24 hr	1.335	3.79	2.84	2.09	2.17	0.42	RED	RED	MAIN_TRUNK	
DMAIN-31-0013	0.97	24 hr	1.345	3.72	2.79	2.04	0.68	0.39	DASHED	RED	MAIN_TRUNK	

Storm System Assessment:

Future 10-Year Design Storm (with 15% Climate Change increase) - Future Land Use - Existing Sewers/Culverts

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-31-0014	0.96	24 hr	1.106	3.60	2.7	1.95	0.5	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-31-0015	1.14	24 hr	0.783	3.40	2.55	1.8	0.57	0.31	RED	RED	MAIN_TRUNK	
DMAIN-31-0016	1.15	24 hr	0.797	3.49	2.62	1.87	0.58	0.07	RED	RED	MAIN_TRUNK	
DMAIN-31-0017	2.13	24 hr	0.676	6.62	3.97	3.37	3.73	0.55	RED	RED	MAIN_TRUNK	
DMAIN-31-0018	1.42	24 hr	0.629	8.58	5.15	4.548	3.36	3.04	RED	RED	MAIN_TRUNK	
DMAIN-31-0019	0.94	24 hr	0.522	8.22	4.93	4.33	3.32	2.68	DASHED	RED	MAIN_TRUNK	
DMAIN-31-0020	5.24	24 hr	0.507	10.85	6.51	5.91	7.58	2.95	RED	RED	MAIN_TRUNK	
DMAIN-31-0021	2.46	24 hr	1.156	7.63	4.58	3.98	2.22	2.22	RED	RED	MAIN_TRUNK	
DMAIN-31-0039	0.47	24 hr	2.5	0.61	0.85	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0048_1	0.65	24 hr	2.172	0.59	0.83	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0048_2	0.75	24 hr	2.5	0.63	0.88	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0049	0.2	24 hr	1.182	0.32	0.38	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0053	2.67	24 hr	0.769	6.44	2.9	2.45	0.36	0.11	RED	RED	MAIN_TRUNK	
DMAIN-31-0074	0.98	24 hr	1.165	4.28	2.57	1.97	0.08	0.07	DASHED	RED	MAIN_TRUNK	
DMAIN-31-0077	0.73	24 hr	1.046	0.68	0.41	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0118	3.91	24 hr	4.271	121.62	72.97	72.37	0.91	0	RED	GREEN	MAIN_TRUNK	
DMAIN-31-0193	1.7	24 hr	1.026	6.75	4.05	3.45	1.91	0.28	RED	RED	MAIN_TRUNK	
DMAIN-31-0224	0.27	24 hr	0.398	4.12	3.09	2.34	0.39	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-31-0227	0.17	24 hr	0.244	4.08	3.06	2.31	0.25	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-31-0228	1.07	24 hr	0.216	9.50	2.85	2.55	0.14	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-31-0230	1.61	24 hr	0.129	12.68	3.17	2.92	0.38	0.21	RED	RED	MAIN_TRUNK	
DMAIN-31-0231	1.16	24 hr	0.093	10.56	2.64	2.39	0.36	0.34	RED	RED	MAIN_TRUNK	
DMAIN-31-0232	0.81	24 hr	0.048	9.35	1.87	1.67	0.34	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-31-0258	1.87	24 hr	0.687	4.13	2.48	1.88	2.07	0	RED	GREEN	MAIN_TRUNK	
DMAIN-31-0259	1.86	24 hr	0.768	5.87	3.52	2.92	1.8	0.65	RED	RED	MAIN_TRUNK	
DMAIN-31-0260	1.71	24 hr	0.655	6.93	4.16	3.56	1.52	0.54	RED	RED	MAIN_TRUNK	
DMAIN-31-0265	1.19	24 hr	0.594	7.27	4.72	3.76	1.02	0.66	RED	RED	MAIN_TRUNK	
DMAIN-31-0286	0.36	24 hr	0.847	0.58	0.69	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0289	0.12	24 hr	0.331	0.23	0.14	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0289_2	0.37	24 hr	0.371	0.40	0.24	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0290	0.36	24 hr	0.322	0.47	0.28	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0304	3.42	24 hr	0.54	3.30	1.98	1.38	7.45	0.52	RED	RED	MAIN_TRUNK	
DMAIN-31-0305	1.47	24 hr	0.408	11.40	5.13	4.68	1.13	1.05	RED	RED	MAIN_TRUNK	
DMAIN-31-0312	1.43	24 hr	0.121	7.23	2.71	2.335	1.67	1.39	RED	RED	MAIN_TRUNK	
DMAIN-31-0321	0.22	24 hr	0.06	5.78	2.6	2.15	0.3	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-31-0348	1.08	24 hr	1.296	3.88	2.91	2.16	1.41	0.47	RED	RED	MAIN_TRUNK	
DMAIN-31-0360	35.9	24 hr	0.844	2.12	1.27	0.67	1.35	0	RED	GREEN	MAIN_TRUNK	
DMAIN-31-0368	2.44	24 hr	1.059	3.52	2.11	1.51	2.49	0	RED	GREEN	MAIN_TRUNK	
DMAIN-31-0369	0.95	24 hr	0.451	10.35	6.21	5.61	3.35	2.7	DASHED	RED	MAIN_TRUNK	
DMAIN-31-0374	6.98	24 hr	0.49	3.97	2.38	1.78	3.4	0.09	RED	RED	MAIN_TRUNK	
DMAIN-31-0375	2.03	24 hr	0.72	3.97	2.38	1.78	3.4	0.09	RED	RED	MAIN_TRUNK	
DMAIN-31-0376	1.68	24 hr	1.835	2.61	2.35	1.45	4.66	0	RED	GREEN	MAIN_TRUNK	
DMAIN-31-0381	0.98	24 hr	1.883	1.93	1.74	0.84	4.69	0.5	DASHED	RED	MAIN_TRUNK	
DMAIN-34-0002	0.52	24 hr	3.843	0.66	0.92	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0003	1.44	24 hr	3.817	1.15	1.67	0.216	0.13	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-34-0005	1.67	24 hr	3.771	2.12	2.97	1.57	0.35	0.01	RED	RED	MAIN_TRUNK	
DMAIN-34-0006	0.65	24 hr	3.467	0.79	1.1	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0007	0.89	24 hr	3.501	0.74	1.03	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0008	0.78	24 hr	3.476	0.68	0.95	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0010	0.19	24 hr	1.927	0.30	0.49	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0012	0.83	24 hr	2.79	0.73	0.87	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0015	0.58	24 hr	2.445	0.57	0.6	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0022	2.39	24 hr	0.905	5.47	3.28	2.68	8.18	1.6	RED	RED	MAIN_TRUNK	
DMAIN-34-0023	1.66	24 hr	0.79	9.83	5.9	5.3	3.03	1.28	RED	RED	MAIN_TRUNK	
DMAIN-34-0024	0.88	24 hr	0.684	7.42	4.75	3.85	1.29	0.95	DASHED	RED	MAIN_TRUNK	

Storm System Assessment:

Future 10-Year Design Storm (with 15% Climate Change increase) - Future Land Use - Existing Sewers/Culverts

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-34-0046	0.25	24 hr	1.137	0.39	0.64	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0049	0.43	24 hr	1.112	0.45	0.75	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0051	1.71	24 hr	1.034	0.53	0.88	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0052	0.4	24 hr	0.808	0.55	0.83	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0053	10.3	24 hr	0.678	0.64	0.9	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0054	0.08	24 hr	0.032	0.20	0.1	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0055	0.04	24 hr	0.01	0.14	0.07	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0056	0.03	24 hr	0.102	0.34	0.47	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0057	0.97	24 hr	0.092	0.87	0.99	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-34-0058	1.21	24 hr	0.659	1.32	0.99	0.24	0.18	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-34-0059	3.36	24 hr	0.724	7.96	3.58	3.13	0.6	0.14	RED	RED	MAIN_TRUNK	
DMAIN-34-0060	0.38	24 hr	0.23	0.56	0.25	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0065	0.06	24 hr	0.177	0.31	0.44	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0068	0.03	24 hr	0.109	0.30	0.42	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0069	0.13	24 hr	0.082	0.29	0.35	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0070	0.16	24 hr	0.08	0.29	0.35	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0136	1.39	24 hr	0.45	16.20	7.29	6.84	1.42	1.31	RED	RED	MAIN_TRUNK	
DMAIN-34-0159	0.37	24 hr	1.993	0.46	0.76	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0161	0.57	24 hr	3.422	0.54	0.65	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0162	0.43	24 hr	1.498	0.46	0.48	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0163	0.82	24 hr	0.63	0.95	0.76	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-34-0164	0.55	24 hr	2.291	0.70	0.74	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0174	0.34	24 hr	1.143	0.40	0.48	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0176	0.34	24 hr	1.755	0.40	0.48	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-35-0019	0.98	24 hr	0.821	1.03	0.62	0.02	0.04	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-35-0022	1.06	24 hr	0.927	0.90	0.54	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-35-0023	1.08	24 hr	0.509	2.34	1.17	0.67	1.06	1.06	RED	RED	MAIN_TRUNK	
DMAIN-35-0024	2.73	24 hr	0.24	10.53	3.16	2.86	0.65	0.32	RED	RED	MAIN_TRUNK	
DMAIN-35-0034	0.74	24 hr	1.154	1.47	0.99	0.315	0.8	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-35-0035	2.26	24 hr	1.051	1.99	1.34	0.665	1.08	0	RED	GREEN	MAIN_TRUNK	
DMAIN-35-0057	0.85	24 hr	0.885	2.58	1.16	0.71	0.16	0.06	DASHED	RED	MAIN_TRUNK	
DMAIN-35-0059	1.43	24 hr	0.679	4.65	2.8	2.192	0.78	0	RED	GREEN	MAIN_TRUNK	
DMAIN-35-0063	1.26	24 hr	0.975	3.60	2.16	1.56	0.8	0.45	RED	RED	MAIN_TRUNK	
DMAIN-35-0066	1.51	24 hr	0.981	3.18	1.91	1.31	0.87	0	RED	GREEN	MAIN_TRUNK	
DMAIN-35-0067	1.05	24 hr	0.981	2.89	2.17	1.42	1.49	0	RED	GREEN	MAIN_TRUNK	
DMAIN-35-0069	2.11	24 hr	0.99	2.33	2.03	1	1.32	0.79	RED	RED	MAIN_TRUNK	
DMAIN-35-0070	1.49	24 hr	0.99	1.88	1.41	0.66	0.84	0	RED	GREEN	MAIN_TRUNK	
DMAIN-35-0080	2.08	24 hr	1.759	4.65	3.14	2.465	11.71	1.25	RED	RED	MAIN_TRUNK	
DMAIN-36-0001	1.2	24 hr	1.289	3.97	2.38	1.78	0.62	0.58	RED	RED	MAIN_TRUNK	
DMAIN-36-0002	1.11	24 hr	1.328	4.70	2.88	2.22	0.58	0.15	RED	RED	MAIN_TRUNK	
DMAIN-36-0003	0.75	24 hr	1.335	0.75	0.45	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-36-0004	1.18	24 hr	1.325	3.22	1.93	1.33	0.54	0.01	RED	RED	MAIN_TRUNK	
DMAIN-36-0005	1.39	24 hr	1.312	4.50	2.7	2.1	0.6	0.01	RED	RED	MAIN_TRUNK	
DMAIN-36-0006	1.12	24 hr	1.098	4.40	2.86	2.039	0.54	0.54	RED	RED	MAIN_TRUNK	
DMAIN-36-0007	1.29	24 hr	1.113	5.77	3.46	2.86	0.59	0.54	RED	RED	MAIN_TRUNK	
DMAIN-36-0008	0.99	24 hr	0.75	5.23	3.3	2.54	0.54	0.54	DASHED	RED	MAIN_TRUNK	
DMAIN-36-0009	0.82	24 hr	0.429	4.61	2.87	2.166	0.52	0.5	DASHED	RED	MAIN_TRUNK	
DMAIN-36-0046	2.43	24 hr	0.904	2.49	1.87	1.12	3.74	0.35	RED	RED	MAIN_TRUNK	
DMAIN-36-0047	1.47	24 hr	0.748	2.77	2.08	1.33	2.67	0.3	RED	RED	MAIN_TRUNK	
DMAIN-36-0048	1.37	24 hr	0.75	2.85	2.14	1.39	2.29	0.32	RED	RED	MAIN_TRUNK	
DMAIN-36-0049	5.03	24 hr	0.83	5.10	2.68	2.155	2.44	0.49	RED	RED	MAIN_TRUNK	
DMAIN-38-0200	1.87	24 hr	0.433	5.40	2.43	1.98	0.32	0.01	RED	RED	MAIN_TRUNK	
DMAIN-38-0201	2.38	24 hr	0.433	6.89	3.1	2.65	0.28	0.15	RED	RED	MAIN_TRUNK	
DMAIN-38-0300	1.36	24 hr	0.87	5.92	3.55	2.95	0.39	0.01	RED	RED	MAIN_TRUNK	
DMAIN-38-0301	1.62	24 hr	0.846	5.80	3.48	2.88	0.39	0.28	RED	RED	MAIN_TRUNK	

Storm System Assessment:

Future 10-Year Design Storm (with 15% Climate Change increase) - Future Land Use - Existing Sewers/Culverts

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-38-0302	2.06	24 hr	0.39	8.44	3.8	3.35	0.41	0.36	RED	RED	MAIN_TRUNK	
DMAIN-38-0307	1.11	24 hr	0.38	7.18	3.23	2.78	0.37	0.17	RED	RED	MAIN_TRUNK	
DMAIN-38-0323	0.65	24 hr	0.344	4.53	2.04	1.59	0.21	0.15	DASHED	RED	MAIN_TRUNK	
DMAIN-38-0324	1.82	24 hr	0.761	4.95	2.6	2.075	0.37	0.1	RED	RED	MAIN_TRUNK	
DMAIN-38-0325	1.6	24 hr	0.761	3.35	1.76	1.235	0.38	0	RED	GREEN	MAIN_TRUNK	
DMAIN-38-0326	1.62	24 hr	0.525	5.43	2.85	2.325	0.33	0.21	RED	RED	MAIN_TRUNK	
DMAIN-38-0403	1.33	24 hr	0.239	4.87	2.19	1.74	0.53	0	RED	GREEN	MAIN_TRUNK	
DMAIN-38-0404	1.23	24 hr	0.224	5.04	2.27	1.82	0.31	0	RED	GREEN	MAIN_TRUNK	
DMAIN-38-0405	1.43	24 hr	0.224	5.53	2.49	2.04	0.39	0.01	RED	RED	MAIN_TRUNK	
DMAIN-38-0412	4.62	24 hr	1.06	1.41	1.27	0.37	1.39	0	RED	GREEN	MAIN_TRUNK	
DMAIN-38-0413	1.03	24 hr	1.104	1.30	1.17	0.27	1.48	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-38-0414	1.85	24 hr	1.191	1.38	1.24	0.34	2.03	0	RED	GREEN	MAIN_TRUNK	
DMAIN-38-0416_1	0.73	24 hr	0.788	1.39	2.32	0.35	1.2	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-38-0416_2	1.01	24 hr	1.063	1.42	1.28	0.38	1.25	0	RED	GREEN	MAIN_TRUNK	
DMAIN-38-0418	1.72	24 hr	0.803	3.01	2.03	1.355	1.05	0.01	RED	RED	MAIN_TRUNK	
DMAIN-38-0419	1.44	24 hr	0.754	3.45	2.07	1.47	0.7	0.23	RED	RED	MAIN_TRUNK	
DMAIN-38-0703	0.72	24 hr	0.762	2.77	2.08	1.33	23.16	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-38-0704	1.76	24 hr	0.714	4.88	2.93	2.33	3.49	1.85	RED	RED	MAIN_TRUNK	
DMAIN-38-0705	0.85	24 hr	0.693	3.80	2.28	1.68	2.46	0.6	DASHED	RED	MAIN_TRUNK	
DMAIN-38-0706	1.49	24 hr	0.681	5.28	3.17	2.57	2.75	1.59	RED	RED	MAIN_TRUNK	
DMAIN-38-0707	1.81	24 hr	0.692	7.70	4.62	4.02	2.97	2.31	RED	RED	MAIN_TRUNK	
DMAIN-38-0708	1.92	24 hr	0.816	9.37	5.62	5.02	2.87	2.49	RED	RED	MAIN_TRUNK	
DMAIN-38-0709	1.22	24 hr	0.502	9.52	5.71	5.11	2.79	1.2	RED	RED	MAIN_TRUNK	
DMAIN-38-0710	1.43	24 hr	0.433	13.89	6.25	5.8	2.78	1.86	RED	RED	MAIN_TRUNK	
DMAIN-38-0711	2.71	24 hr	0.282	16.85	6.32	5.945	2.84	2.71	RED	RED	MAIN_TRUNK	
DMAIN-38-0712	1.44	24 hr	0.187	16.93	6.35	5.975	2.78	2.67	RED	RED	MAIN_TRUNK	
DMAIN-38-1033	0.73	24 hr	0.257	4.50	2.7	2.1	69.94	34.08	DASHED	RED	MAIN_TRUNK	
DMAIN-38-2010	0.77	24 hr	0.43	5.13	3.08	2.48	70.4	2.8	DASHED	RED	MAIN_TRUNK	
DMAIN-38-2011	1.05	24 hr	0.427	5.43	3.26	2.66	70.74	22.89	RED	RED	MAIN_TRUNK	
DMAIN-38-2012	1.16	24 hr	0.212	6.64	2.99	2.54	70.28	0.72	RED	RED	MAIN_TRUNK	
DMAIN-38-2033	0.48	24 hr	0.85	2.47	2.22	1.32	45.56	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-38-2037	1.84	24 hr	0.257	16.83	6.31	5.935	2.76	2.55	RED	RED	MAIN_TRUNK	
DMAIN-38-2051	1.46	24 hr	0.224	5.62	2.53	2.08	0.35	0	RED	GREEN	MAIN_TRUNK	
DMAIN-38-2052	1.46	24 hr	0.224	4.98	2.24	1.79	0.32	0	RED	GREEN	MAIN_TRUNK	
DMAIN-38-2058	1.15	24 hr	0.761	1.95	2.3	0.638	2.35	0	RED	GREEN	MAIN_TRUNK	
DMAIN-38-2062	0.3	24 hr	0.651	0.77	0.69	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-38-2063	4.96	24 hr	0.408	1.16	0.87	0.12	1.21	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-38-2063_2	0.99	24 hr	1.027	1.06	0.95	0.05	0.43	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-38-2067	0.95	24 hr	0.482	3.48	2.09	1.49	70.28	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-38-2068	0.94	24 hr	0.402	3.28	1.97	1.37	70.17	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-38-2069	0.91	24 hr	0.356	3.90	2.34	1.74	3.66	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-38-2081	0.99	24 hr	1.512	1.41	1.27	0.37	3.85	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-38-2082	0.78	24 hr	1.525	1.32	1.4	0.287	0.22	0.02	YELLOW	RED	MAIN_TRUNK	
DMAIN-38-2083	0.82	24 hr	1.523	1.58	1.42	0.52	3.39	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-38-2092	0.48	24 hr	0.295	6.51	2.93	2.48	0.31	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-38-2093	0.86	24 hr	0.295	4.67	2.1	1.65	0.29	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-4-0001	0.89	24 hr	2.892	2.54	2.29	1.39	0.9	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-4-0002	2.63	24 hr	2.844	4.03	3.63	2.73	2.2	0.71	RED	RED	MAIN_TRUNK	
DMAIN-4-0003	1.13	24 hr	2.633	4.71	4.24	3.34	1.19	1.07	RED	RED	MAIN_TRUNK	
DMAIN-4-0004	1.27	24 hr	2.633	5.77	5.19	4.29	1.11	1.1	RED	RED	MAIN_TRUNK	
DMAIN-4-0007	0.97	24 hr	2.075	3.49	3.14	2.24	0.9	0.72	DASHED	RED	MAIN_TRUNK	
DMAIN-4-0009	1.79	24 hr	1.082	4.68	3.51	2.76	2	1.15	RED	RED	MAIN_TRUNK	
DMAIN-4-0011	12.26	24 hr	0.981	6.19	4.64	3.889	6.38	0.01	RED	RED	MAIN_TRUNK	
DMAIN-4-0012	1.77	24 hr	0.929	6.81	5.11	4.36	4.47	0	RED	GREEN	MAIN_TRUNK	
DMAIN-4-0013	1.66	24 hr	0.787	6.81	5.11	4.36	3.52	1.04	RED	RED	MAIN_TRUNK	

Storm System Assessment:

Future 10-Year Design Storm (with 15% Climate Change increase) - Future Land Use - Existing Sewers/Culverts

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-4-0014	2.43	24 hr	0.598	8.70	5.22	4.62	3.63	1.83	RED	RED	MAIN_TRUNK	
DMAIN-4-0088	0.66	24 hr	0.606	3.20	1.92	1.32	0.76	0.69	DASHED	RED	MAIN_TRUNK	
DMAIN-4-0110	1.21	24 hr	0.479	3.15	1.89	1.29	0.77	0.7	RED	RED	MAIN_TRUNK	
DMAIN-4-0111	1.41	24 hr	0.437	3.67	2.2	1.6	0.94	0.45	RED	RED	MAIN_TRUNK	
DMAIN-4-0112	1.48	24 hr	0.432	4.28	2.57	1.97	0.95	0.58	RED	RED	MAIN_TRUNK	
DMAIN-4-0113	1.74	24 hr	0.451	6.62	3.97	3.37	1.01	0.87	RED	RED	MAIN_TRUNK	
DMAIN-4-0114	1.94	24 hr	0.331	6.63	3.98	3.38	1.01	0.7	RED	RED	MAIN_TRUNK	
DMAIN-4-0142	0.8	24 hr	0.251	8.13	4.88	4.28	2.29	1.95	DASHED	RED	MAIN_TRUNK	
DMAIN-4-0198	1.6	24 hr	0.427	5.23	3.14	2.54	0.99	0.94	RED	RED	MAIN_TRUNK	
DMAIN-4-0202	1.05	24 hr	1.116	4.00	3	2.25	0.93	0.61	RED	RED	MAIN_TRUNK	
DMAIN-43-0001	1.44	24 hr	1.496	3.93	2.36	1.76	3.23	1.23	RED	RED	MAIN_TRUNK	
DMAIN-43-0002	0.98	24 hr	1.21	4.32	2.59	1.99	0.5	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-43-0003	0.74	24 hr	1.148	2.37	1.42	0.82	0.34	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-43-0004	2.79	24 hr	1.14	6.53	3.92	3.32	1.69	0.8	RED	RED	MAIN_TRUNK	
DMAIN-43-0005	4.12	24 hr	1.199	21.89	11.49	10.965	3.21	1.31	RED	RED	MAIN_TRUNK	
DMAIN-45-0008	2.25	24 hr	0.649	5.33	2.8	2.275	2.4	0.26	RED	RED	MAIN_TRUNK	
DMAIN-45-0010	2.46	24 hr	0.66	2.80	1.47	0.944	2.36	0.01	RED	RED	MAIN_TRUNK	
DMAIN-45-0016	3.19	24 hr	0.213	8.72	3.27	2.895	0.65	0.01	RED	RED	MAIN_TRUNK	
DMAIN-45-0017	1.63	24 hr	0.33	4.53	2.04	1.59	0.61	0	RED	GREEN	MAIN_TRUNK	
DMAIN-45-0018	1.7	24 hr	0.279	3.56	1.6	1.15	5.45	0.22	RED	RED	MAIN_TRUNK	
DMAIN-45-0020	0.78	24 hr	0.113	7.17	2.15	1.85	0.29	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-50-0001	1.88	24 hr	1.6	8.43	5.06	4.46	9.24	0	RED	GREEN	MAIN_TRUNK	
DMAIN-50-0002	0.89	24 hr	1.481	7.43	4.46	3.86	1.08	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-50-0003	0.69	24 hr	0.735	5.90	3.1	2.575	0.09	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-50-0004	1.77	24 hr	0.764	4.55	2.39	1.865	0.18	0.1	ORANGE	RED	MAIN_TRUNK	
DMAIN-50-0005	0.88	24 hr	0.769	4.11	3.39	1.635	0.11	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-50-0010	1.07	24 hr	0.495	9.33	3.5	3.125	1	0.96	RED	RED	MAIN_TRUNK	
DMAIN-50-0011	1.28	24 hr	0.45	14.24	5.34	4.965	1	0.99	RED	RED	MAIN_TRUNK	
DMAIN-5-0002	1.79	24 hr	0.939	7.50	3.94	3.415	1.06	0.97	RED	RED	MAIN_TRUNK	
DMAIN-5-0003	1.13	24 hr	0.99	8.45	4.44	3.912	0.91	0.64	RED	RED	MAIN_TRUNK	
DMAIN-5-0004	1.46	24 hr	1.254	7.57	4.54	3.94	0.86	0.63	RED	RED	MAIN_TRUNK	
DMAIN-50-0050	1.51	24 hr	1.037	8.78	4.61	4.085	1.11	0.79	RED	RED	MAIN_TRUNK	
DMAIN-50-0051	0.91	24 hr	0.553	7.90	4.84	3.625	0.96	0.91	DASHED	RED	MAIN_TRUNK	
DMAIN-50-0052	1.69	24 hr	0.739	9.56	5.02	4.495	8.25	0.77	RED	RED	MAIN_TRUNK	
DMAIN-50-0053	1.76	24 hr	0.913	10.36	5.44	4.915	0.99	0.28	RED	RED	MAIN_TRUNK	
DMAIN-5-0146	1.3	24 hr	0.939	6.76	3.55	3.025	1.03	0.91	RED	RED	MAIN_TRUNK	
DMAIN-5-0147	1.69	24 hr	0.933	3.96	2.08	1.555	1.64	0.85	RED	RED	MAIN_TRUNK	
DMAIN-52-0170	1.88	24 hr	1.908	4.99	3.74	2.99	0.34	0	RED	GREEN	MAIN_TRUNK	
DMAIN-52-0171	0.91	24 hr	1.975	0.75	0.56	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0172	0.7	24 hr	1.998	0.61	0.46	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0173	0.42	24 hr	2.055	0.45	0.47	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0174	0	24 hr	0.006	0.04	0.02	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0175	0.01	24 hr	0.011	0.06	0.03	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0176	0.69	24 hr	2.134	0.61	0.71	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0180	0.43	24 hr	0.058	0.45	0.17	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0181	0.77	24 hr	0.182	0.67	0.3	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0182	0.49	24 hr	2.35	0.50	0.52	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0183	0.3	24 hr	2.356	0.38	0.4	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0184	3.01	24 hr	2.356	1.35	1.42	0.37	0.31	0	RED	GREEN	MAIN_TRUNK	
DMAIN-52-0186	0.97	24 hr	1.363	4.93	2.59	2.065	0.23	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-52-0187	0.19	24 hr	1.378	0.69	0.52	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-6-0001	1.4	24 hr	0.698	8.11	3.65	3.2	2.86	2.5	RED	RED	MAIN_TRUNK	
DMAIN-6-0002	1.31	24 hr	0.72	11.40	5.13	4.68	2.75	2.59	RED	RED	MAIN_TRUNK	
DMAIN-6-0003	1.7	24 hr	0.904	12.36	5.56	5.11	2.72	2.65	RED	RED	MAIN_TRUNK	
DMAIN-6-0014	0.88	24 hr	0.257	11.89	5.35	4.9	2.64	2.59	DASHED	RED	MAIN_TRUNK	

Storm System Assessment:

Future 10-Year Design Storm (with 15% Climate Change increase) - Future Land Use - Existing Sewers/Culverts

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-6-0030	0.55	24 hr	0.266	8.58	5.15	4.55	2.65	2.39	DASHED	RED	MAIN_TRUNK	
DMAIN-7-0001	1.41	24 hr	1.432	4.60	2.76	2.16	1.34	1.17	RED	RED	MAIN_TRUNK	
DMAIN-7-0002	1.08	24 hr	1.457	5.13	3.08	2.48	1.16	1.12	RED	RED	MAIN_TRUNK	
DMAIN-7-0003	1	24 hr	1.354	4.83	2.9	2.3	1.05	0.85	RED	RED	MAIN_TRUNK	
DMAIN-7-0004	1	24 hr	1.44	4.40	2.64	2.04	0.99	0.94	RED	RED	MAIN_TRUNK	
DMAIN-7-0005	1.06	24 hr	0.855	4.59	2.41	1.885	0.96	0.85	RED	RED	MAIN_TRUNK	
DMAIN-7-0006	1.34	24 hr	0.819	10.17	5.34	4.815	1.12	1.06	RED	RED	MAIN_TRUNK	
DMAIN-7-0007	1.76	24 hr	1.008	15.18	7.97	7.445	1.11	1.01	RED	RED	MAIN_TRUNK	
DMAIN-8-0001	0.19	24 hr	0.22	0.33	0.2	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-8-0002	1.42	24 hr	0.211	17.92	4.48	4.23	2.08	1.95	RED	RED	MAIN_TRUNK	
DMAIN-8-0003	1.47	24 hr	0.217	29.60	7.4	7.15	2.06	1.69	RED	RED	MAIN_TRUNK	
DMAIN-9-0001	1.26	24 hr	0.349	7.56	2.96	2.459	0.42	0.41	RED	RED	MAIN_TRUNK	
DMAIN-9-0002	0.93	24 hr	0.423	5.28	1.98	1.605	0.22	0.21	DASHED	RED	MAIN_TRUNK	
DMAIN-9-0003	1.21	24 hr	0.462	7.55	2.83	2.455	0.22	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-9-0010	0.41	24 hr	0.171	5.84	2.19	1.815	0.18	0.11	DASHED	RED	MAIN_TRUNK	
DMAIN-9-0011	0.75	24 hr	0.14	4.16	1.56	1.185	0.13	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-9-0022	0.67	24 hr	0.134	2.85	1.07	0.695	0.08	0	DASHED	GREEN	MAIN_TRUNK	

100-Year Future Scenario Capacity Assessment Results

Storm System Assessment:

Future 100-Year Design Storm (with 32% Climate Change increase) - Future Land Use - Existing Sewers/Culverts

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DCUL0001	0.29	24 hr	11.199	1.47	3.46	1.11	9.33	-	DASHED	RED	CULVERT	CreekCrossing
DCUL0002	1.95	24 hr	18.855	1.60	3.77	1.42	16.76	-	RED	RED	CULVERT	CreekCrossing
DCUL0003	0.85	24 hr	2.138	3.00	2.7	1.8	15.4	-	DASHED	RED	CULVERT	CreekCrossing
DCUL0006	4.25	24 hr	15.16	12.31	14.77	13.57	19.83	-	RED	RED	CULVERT	CreekCrossing
DCUL0013	0.58	24 hr	7.98	1.31	1.97	0.47	0.51	-	DASHED	GREEN	CULVERT	CreekCrossing
DCUL0014	1.27	24 hr	5.198	7.11	8.53	7.33	19.76	-	RED	RED	CULVERT	CreekCrossing
DCUL0015	0.35	24 hr	3.104	0.66	1.39	0	0	-	GREEN	GREEN	CULVERT	CreekCrossing
DCUL0016	1.11	24 hr	3.824	1.68	2.01	0.81	8.51	-	RED	RED	CULVERT	CreekCrossing
DCUL0017	1.22	24 hr	3.447	1.26	1.76	0.36	3.96	-	RED	RED	CULVERT	CreekCrossing
DCUL0018	1.81	24 hr	2.517	2.19	1.75	0.95	8.13	-	RED	RED	CULVERT	CreekCrossing
DCUL0019	1.29	24 hr	4.518	2.44	2.93	1.73	9.6	-	RED	RED	CULVERT	CreekCrossing
DCUL0020	1.7	24 hr	2.445	3.43	3.09	2.19	19.94	-	RED	RED	CULVERT	CreekCrossing
DCUL0021	0.68	24 hr	9.714	2.85	3.42	2.22	7.09	-	DASHED	RED	CULVERT	CreekCrossing
DCUL0022	0.8	24 hr	7.551	2.03	2.44	1.24	3.45	-	DASHED	RED	CULVERT	CreekCrossing
DCUL0023	0.93	24 hr	8.8	1.99	1.79	0.89	5.79	-	DASHED	RED	CULVERT	CreekCrossing
DCUL0024_1	2.89	24 hr	3.798	2.92	3.5	2.3	17.49	-	RED	RED	CULVERT	CreekCrossing
DCUL0024_2	2.92	24 hr	3.872	2.38	2.93	1.66	13.68	-	RED	RED	CULVERT	CreekCrossing
DCUL0041	4.68	24 hr	1.855	38.18	22.91	22.31	1.15	-	RED	RED	CULVERT	RoadCrossing
DCUL0045	4.39	24 hr	6.293	74.73	44.84	44.24	9.78	-	RED	RED	CULVERT	Driveway
DCUL0046	2.54	24 hr	0.765	2.40	1.44	0.84	21.85	-	RED	RED	CULVERT	RoadCrossing
DCUL0132	12.36	24 hr	1.643	1.63	1.63	0.63	4.08	-	RED	RED	CULVERT	Driveway
DCUL0133	18.44	24 hr	1.611	1.45	1.45	0.45	4.07	-	RED	RED	CULVERT	Driveway
DCUL0134	18.92	24 hr	1.564	1.31	1.31	0.31	4.13	-	RED	RED	CULVERT	Driveway
DCUL0162	29.03	24 hr	0.393	4.22	1.9	1.45	24.52	-	RED	RED	CULVERT	RoadCrossing
DCUL0168	23.29	24 hr	2.878	2.01	1.61	0.81	3.8	-	RED	RED	CULVERT	RoadCrossing
DCUL0184	0.99	24 hr	0.71	2.25	1.69	0.94	14.98	-	DASHED	RED	CULVERT	Driveway
DCUL0186	2.41	24 hr	8.835	1.78	3.2	1.4	15.45	-	RED	RED	CULVERT	CreekCrossing
DCUL0187	0.41	24 hr	0.665	0.91	0.73	0	0	-	YELLOW	GREEN	CULVERT	CreekCrossing
DCUL0188	0.86	24 hr	0.379	1.08	0.65	0.05	1.56	-	DASHED	GREEN	CULVERT	CreekCrossing
DCUL0193	0.44	24 hr	0.347	0.66	0.53	0	0	-	GREEN	GREEN	CULVERT	RoadCrossing_WILDLIFE_CULVERTS
DCUL0203	0.27	24 hr	0.637	1.50	0.9	0.3	0.28	-	DASHED	RED	CULVERT	RoadCrossing
DCUL0205	0.59	24 hr	2.013	2.10	1.89	0.99	3	-	DASHED	RED	CULVERT	Driveway
DCUL0218	1.22	24 hr	1.495	2.10	2.1	1.1	11.99	-	RED	RED	CULVERT	RoadCrossing
DCUL0231	0.64	24 hr	1.564	1.71	1.54	0.64	4.9	-	DASHED	RED	CULVERT	Driveway
DCUL0234	1.95	24 hr	3.192	1.89	2.27	1.07	5.64	-	RED	RED	CULVERT	CreekCrossing
DCUL0235	0.47	24 hr	13.454	3.34	4.08	2.86	8.71	-	DASHED	RED	CULVERT	CreekCrossing
DCUL0236	2.29	24 hr	5.148	8.38	8.38	7.38	3.92	-	RED	RED	CULVERT	CreekCrossing
DCUL0237	3.14	24 hr	12.99	51.32	38.49	37.74	24.26	-	RED	RED	CULVERT	CreekCrossing
DCUL0238	0.58	24 hr	4.936	2.10	2.83	1.48	5.7	-	DASHED	RED	CULVERT	CreekCrossing
DCUL0240	0.64	24 hr	39.775	2.75	4.68	2.98	18.39	-	DASHED	RED	CULVERT	CreekCrossing
DCUL0253	1.49	24 hr	0.178	4.70	1.41	1.11	0.23	-	ORANGE	RED	CULVERT	RoadCrossing
DCUL0347	28.53	24 hr	0.386	1.58	0.95	0.35	0.86	-	RED	RED	CULVERT	RoadCrossing
DCUL0348	0.51	24 hr	1.159	1.24	1.12	0.22	0.22	-	YELLOW	RED	CULVERT	Driveway
DCUL0351	1.75	24 hr	2.323	3.22	2.9	2	8.54	-	RED	RED	CULVERT	RoadCrossing
DCUL0357	0.95	24 hr	0.815	2.47	1.48	0.88	5.11	-	DASHED	RED	CULVERT	RoadCrossing
DCUL0368	0.96	24 hr	2.919	1.53	1.84	0.64	5.23	-	DASHED	RED	CULVERT	CreekCrossing
DCUL0369	60.76	24 hr	0.683	5.48	2.74	2.24	28.63	-	RED	RED	CULVERT	RoadCrossing
DCUL0420	3.36	24 hr	2.531	560.80	336.48	335.88	3.62	-	RED	RED	CULVERT	RoadCrossing
DCUL0438	0.25	24 hr	0.599	1.57	0.94	0.34	0.4	-	DASHED	GREEN	CULVERT	RoadCrossing
DCUL0535	0.35	24 hr	1.314	1.09	1.09	0.09	2.58	-	DASHED	RED	CULVERT	Driveway
DCUL0536	0.33	24 hr	1.523	1.59	1.43	0.53	4.81	-	DASHED	RED	CULVERT	Driveway
DCUL0581	0.74	24 hr	5.642	1.13	2.03	0.23	4.75	-	DASHED	RED	CULVERT	CreekCrossing
DCUL0582	0.21	24 hr	1.481	1.06	1.9	0.1	1	-	DASHED	GREEN	CULVERT	CreekCrossing
DCUL0583	0.34	24 hr	1.921	1.24	2.05	0.4	5.75	-	DASHED	RED	CULVERT	CreekCrossing

Pipe Performance Ranking

- Green = No Capacity Issues
- Yellow = Between 80% - 100% Capacity and pipe crown surcharging < 30cm
- Orange = Greater than 100% Capacity but no significant pipe crown surcharging
- Red = > 100% Capacity and pipe crown surcharging > 30cm and > 15 minutes
- Dashed Red = Surcharging of pipe crown > 30cm and > 15 minutes that may be due to backwater

Ground/Road Flooding Ranking

Storm Trunk Sewers:

- Green = Ground/Road Flooding = 0 minutes
- Red = Ground/Road Flooding > 0 minutes possible

Culverts:

- Green = No Ground/Road Flooding occurring
- Red = Ground/Road Flooding occurring

Storm System Assessment:

Future 100-Year Design Storm (with 32% Climate Change increase) - Future Land Use - Existing Sewers/Culverts

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surcharge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DCUL0589	1.1	24 hr	0.706	5.32	2.66	2.16	1.16	-	RED	RED	CULVERT	RoadCrossing
DCUL0590	0.87	24 hr	0.107	1.37	0.41	0.11	14.35	-	DASHED	RED	CULVERT	Driveway
DCUL0591	1.86	24 hr	0.523	2.13	1.28	0.68	2.2	-	RED	RED	CULVERT	RoadCrossing
DCUL0593	5.34	24 hr	2.344	100.68	50.34	49.84	6.13	-	RED	RED	CULVERT	RoadCrossing
DCUL0598	0.3	24 hr	0.304	0.44	0.44	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0612_1	0.84	24 hr	6.095	1.59	2.87	1.07	8.07	-	DASHED	RED	CULVERT	RoadCrossing
DCUL0612_2	0.85	24 hr	6.163	1.48	2.67	0.87	5.21	-	DASHED	RED	CULVERT	RoadCrossing
DCUL0613	1.41	24 hr	0.884	2.35	1.76	1.01	13.9	-	RED	RED	CULVERT	RoadCrossing
DCUL0617	1.17	24 hr	1.132	1.21	1.21	0.21	4.67	-	ORANGE	RED	CULVERT	CreekCrossing
DCUL0618	2.56	24 hr	0.172	1.71	0.77	0.32	18.35	-	RED	RED	CULVERT	CreekCrossing
DCUL0623	0.63	24 hr	6.739	1.15	2.54	0.34	5.82	-	DASHED	GREEN	CULVERT	MOTI
DCUL0624	2.28	24 hr	41.447	2.56	7.16	4.36	15.11	-	RED	GREEN	CULVERT	CreekCrossing
DCUL0633	2.67	24 hr	0.224	3.48	1.39	0.99	5.98	-	RED	RED	CULVERT	PRIVATE
DCUL0634	2.22	24 hr	0.235	2.73	1.09	0.69	6.05	-	RED	GREEN	CULVERT	PRIVATE
DCUL0639	1.83	24 hr	0.157	11.53	3.46	3.16	28.18	-	RED	GREEN	CULVERT	MOTI
DCUL0654	1.09	24 hr	0.552	1.65	1.44	0.39	4.19	-	RED	RED	CULVERT	RoadCrossing
DCUL0657	2.63	24 hr	1.263	94.38	49.55	49.025	2.62	-	RED	RED	CULVERT	Driveway
DCUL0659	1.77	24 hr	0.762	96.27	50.54	50.015	0.67	-	RED	RED	CULVERT	Driveway
DCUL0673	3.66	24 hr	1.942	3.23	1.94	1.34	16.37	-	RED	RED	CULVERT	RoadCrossing
DCUL0698	0.69	24 hr	0.123	25.07	15.04	14.44	0.22	-	DASHED	RED	CULVERT	RoadCrossing
DCUL0699	0.19	24 hr	3.696	0.40	1.2	0	0	-	GREEN	GREEN	CULVERT	RoadCrossing
DCUL0733	0.16	24 hr	0.214	0.69	1.45	0	0	-	GREEN	RED	MAIN_TRUNK	
DCUL0751	0.24	24 hr	0.703	0.51	0.61	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0752	0.29	24 hr	0.556	0.59	0.59	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0753	0.53	24 hr	0.82	0.59	0.82	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0754	0.75	24 hr	0.147	0.66	0.66	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0755	0.86	24 hr	0.684	0.81	0.81	0	0	-	YELLOW	GREEN	CULVERT	MOTI
DCUL0756	0.46	24 hr	0.196	0.47	0.47	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0757	0.43	24 hr	0.333	0.60	0.6	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0758	0.21	24 hr	0.179	0.36	0.32	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0759	0.35	24 hr	0.301	0.46	0.46	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0760	0.12	24 hr	0.079	0.24	0.22	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0761	0.02	24 hr	0.007	0.13	0.13	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0762	0	1 hr	0	0.00	0	0	0	-	GREEN	GREEN	CULVERT	MOTI
DCUL0763	0	24 hr	0.001	0.06	0.06	0	0	-	GREEN	GREEN	CULVERT	MOTI
DITC-0729	1.31	24 hr	1.202	17.88	10.73	10.13	1.55	1.48	RED	RED	MAIN_TRUNK	
DITC-0729_2	1.26	24 hr	1.169	6.08	3.65	3.05	6.1	3.65	RED	RED	MAIN_TRUNK	
DMAIN-10-0001	2.21	24 hr	0.872	3.40	2.04	1.437	3.15	0	RED	GREEN	MAIN_TRUNK	
DMAIN-10-0002-1	1.47	24 hr	0.52	4.13	2.48	1.88	3.22	0	RED	GREEN	MAIN_TRUNK	
DMAIN-10-0002-2	3.31	24 hr	0.8	3.85	2.31	1.71	3.3	0	RED	GREEN	MAIN_TRUNK	
DMAIN-10-0003	1.77	24 hr	0.508	4.70	2.82	2.22	3.21	2.26	RED	RED	MAIN_TRUNK	
DMAIN-10-0004	2.74	24 hr	0.63	9.73	4.38	3.93	5.59	2.99	RED	RED	MAIN_TRUNK	
DMAIN-10-0005	1.08	24 hr	0.59	9.69	4.36	3.91	3.51	2.95	RED	RED	MAIN_TRUNK	
DMAIN-10-0006	1.01	24 hr	0.615	9.27	4.17	3.72	2.97	2.21	RED	RED	MAIN_TRUNK	
DMAIN-10-0007	1.45	24 hr	0.526	12.62	5.68	5.23	2.92	2.47	RED	RED	MAIN_TRUNK	
DMAIN-10-0008	1.27	24 hr	0.353	13.16	5.92	5.47	2.88	2.79	RED	RED	MAIN_TRUNK	
DMAIN-10-0009	1.3	24 hr	0.418	13.09	5.89	5.44	2.79	2.69	RED	RED	MAIN_TRUNK	
DMAIN-1-0001_1	0.88	24 hr	2.461	0.75	0.9	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-1-0001_2	0.88	24 hr	2.464	0.80	0.96	0	0	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-1-0003	1.49	24 hr	1.671	3.65	2.92	2.12	1.07	0.62	RED	RED	MAIN_TRUNK	
DMAIN-1-0004	1.45	24 hr	1.485	6.91	5.53	4.73	1.09	0.81	RED	RED	MAIN_TRUNK	
DMAIN-10-0041	0.4	24 hr	0.858	1.82	1.09	0.49	2.92	2.84	DASHED	RED	MAIN_TRUNK	
DMAIN-1-0012	1.78	24 hr	0.989	7.33	5.86	5.06	1.11	1.01	RED	RED	MAIN_TRUNK	
DMAIN-1-0013	2.27	24 hr	0.994	8.01	6.41	5.61	1.16	1.09	RED	RED	MAIN_TRUNK	
DMAIN-1-0014	1.09	24 hr	0.667	10.48	6.29	5.69	1.1	1.03	RED	RED	MAIN_TRUNK	

Storm System Assessment:

Future 100-Year Design Storm (with 32% Climate Change increase) - Future Land Use - Existing Sewers/Culverts

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-11-0001	1.38	24 hr	0.987	5.87	2.96	2.436	1.76	0.32	RED	RED	MAIN_TRUNK	
DMAIN-11-0002	2.72	24 hr	0.629	23.29	10.48	10.03	3.11	1.65	RED	RED	MAIN_TRUNK	
DMAIN-11-0003	1.52	24 hr	0.703	15.84	7.13	6.68	1.75	1.74	RED	RED	MAIN_TRUNK	
DMAIN-11-0004	1.31	24 hr	1.046	17.00	7.65	7.2	1.33	0.96	RED	RED	MAIN_TRUNK	
DMAIN-12-0001	1.54	24 hr	0.192	10.83	3.25	2.95	0.67	0.64	RED	RED	MAIN_TRUNK	
DMAIN-12-0002	1.47	24 hr	0.242	15.50	4.65	4.35	0.66	0	RED	GREEN	MAIN_TRUNK	
DMAIN-13-0001	2.86	24 hr	2.22	5.20	3.9	3.15	1.32	1	RED	RED	MAIN_TRUNK	
DMAIN-13-0002	2.84	24 hr	1.931	6.21	4.66	3.91	1.06	0.92	RED	RED	MAIN_TRUNK	
DMAIN-13-0003	1.42	24 hr	1.404	6.61	4.96	4.21	0.91	0.81	RED	RED	MAIN_TRUNK	
DMAIN-13-0004_1	0.64	24 hr	1.876	5.76	4.32	3.57	0.8	0.74	DASHED	RED	MAIN_TRUNK	
DMAIN-13-0004_2	0.79	24 hr	1.691	4.82	4.82	3.82	0.82	0.75	DASHED	RED	MAIN_TRUNK	
DMAIN-13-0005	3.19	24 hr	1.538	6.76	5.07	4.32	0.8	0.72	RED	RED	MAIN_TRUNK	
DMAIN-14-0001	3.42	24 hr	4.626	1.47	2.64	0.84	9.08	0	RED	GREEN	MAIN_TRUNK	
DMAIN-14-0002	1.17	24 hr	3.856	1.43	2.14	0.64	7.67	0	RED	GREEN	MAIN_TRUNK	
DMAIN-14-0003	0.99	24 hr	3.481	1.33	1.8	0.45	4.56	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-14-0004	2.67	24 hr	3.445	2.19	2.96	1.61	7.88	0.66	RED	RED	MAIN_TRUNK	
DMAIN-14-0005	2.12	24 hr	2.807	3.40	4.59	3.24	11.03	3.43	RED	RED	MAIN_TRUNK	
DMAIN-14-0006	2.24	24 hr	2.267	3.90	4.68	3.48	12.31	4.8	RED	RED	MAIN_TRUNK	
DMAIN-14-0007	1.99	24 hr	2.259	4.82	5.78	4.58	12.79	7.41	RED	RED	MAIN_TRUNK	
DMAIN-14-0008	1.22	24 hr	1.949	4.57	5.48	4.28	12	8.19	RED	RED	MAIN_TRUNK	
DMAIN-14-0009	1.12	24 hr	1.626	5.23	5.49	4.44	12.23	8.18	RED	RED	MAIN_TRUNK	
DMAIN-14-0010	1.27	24 hr	1.59	5.56	5.84	4.79	11.8	8.81	RED	RED	MAIN_TRUNK	
DMAIN-14-0012	2.38	24 hr	1.545	5.73	6.02	4.97	11.86	9.32	RED	RED	MAIN_TRUNK	
DMAIN-14-0013	1.47	24 hr	1.51	6.33	6.65	5.6	11.84	9.81	RED	RED	MAIN_TRUNK	
DMAIN-14-0014	1.97	24 hr	1.242	6.51	6.84	5.79	11.89	10.01	RED	RED	MAIN_TRUNK	
DMAIN-14-0015	2.98	24 hr	0.97	6.66	6.99	5.94	12.11	10.17	RED	RED	MAIN_TRUNK	
DMAIN-14-0016	1.7	24 hr	0.949	8.31	7.48	6.58	13.94	10.86	RED	RED	MAIN_TRUNK	
DMAIN-14-0018	1.3	24 hr	0.77	6.90	7.24	6.19	11.75	11.19	RED	RED	MAIN_TRUNK	
DMAIN-14-0019	0.78	24 hr	0.212	9.57	5.74	5.14	11.12	9.94	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0020	0.84	24 hr	0.128	10.33	4.65	4.2	9.82	9.1	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0023	0.85	24 hr	0.921	3.04	2.28	1.53	12.24	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-14-0024	2.33	24 hr	0.906	5.57	3.34	2.74	12.11	3.83	RED	RED	MAIN_TRUNK	
DMAIN-14-0025	2.22	24 hr	0.91	6.83	4.1	3.5	11.64	5.03	RED	RED	MAIN_TRUNK	
DMAIN-14-0026	2.52	24 hr	0.708	13.41	7.04	6.515	11.24	6.32	RED	RED	MAIN_TRUNK	
DMAIN-14-0027	2.25	24 hr	0.691	15.45	8.11	7.585	10.77	7.06	RED	RED	MAIN_TRUNK	
DMAIN-14-0028	3.26	24 hr	0.716	18.38	9.65	9.125	10.8	7.14	RED	RED	MAIN_TRUNK	
DMAIN-14-0029	3.19	24 hr	0.728	22.30	11.71	11.185	10.03	8.19	RED	RED	MAIN_TRUNK	
DMAIN-14-0030	5.8	24 hr	0.705	39.49	17.77	17.32	10.99	8.61	RED	RED	MAIN_TRUNK	
DMAIN-14-0033	3.48	24 hr	0.24	25.04	9.39	9.015	11.69	6.56	RED	RED	MAIN_TRUNK	
DMAIN-14-0051	3.59	24 hr	0.365	13.89	6.25	5.8	23.29	13.89	RED	RED	MAIN_TRUNK	
DMAIN-14-0052	3.42	24 hr	0.331	19.11	8.6	8.15	23.4	18.45	RED	RED	MAIN_TRUNK	
DMAIN-14-0053	3.32	24 hr	0.326	21.49	9.67	9.22	23.36	19.36	RED	RED	MAIN_TRUNK	
DMAIN-14-0058	4.2	24 hr	0.216	22.96	10.33	9.88	23.27	19.46	RED	RED	MAIN_TRUNK	
DMAIN-14-0059	2.3	24 hr	0.184	25.73	11.58	11.13	22.86	19.36	RED	RED	MAIN_TRUNK	
DMAIN-14-0062	1.64	24 hr	0.127	25.02	11.26	10.81	21.04	18.3	RED	RED	MAIN_TRUNK	
DMAIN-14-0063	1.12	24 hr	0.124	24.67	11.1	10.65	20.72	17.31	RED	RED	MAIN_TRUNK	
DMAIN-14-0070	1.54	24 hr	0.538	7.38	4.43	3.83	6.56	1.94	RED	RED	MAIN_TRUNK	
DMAIN-14-0071	1.56	24 hr	0.264	8.02	4.96	4.209	5.65	3.3	RED	RED	MAIN_TRUNK	
DMAIN-14-0083	0.04	24 hr	0.022	8.22	3.7	3.25	10.92	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-14-0084	0.06	24 hr	0.01	7.73	3.48	3.03	9.17	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-14-0085	0	1 hr	0	0.00	0	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0086	0	1 hr	0	0.00	0	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0087	0	1 hr	0	0.00	0	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0097	0.43	24 hr	0.298	9.80	4.41	3.96	11.23	7.53	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0098	1.83	24 hr	0.296	11.89	5.35	4.9	10.85	6.68	RED	RED	MAIN_TRUNK	

Storm System Assessment:

Future 100-Year Design Storm (with 32% Climate Change increase) - Future Land Use - Existing Sewers/Culverts

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surcharge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-14-0099	2.19	24 hr	0.272	14.44	6.5	6.05	10.61	7.58	RED	RED	MAIN_TRUNK	
DMAIN-14-0100	1.2	24 hr	0.263	14.73	6.63	6.18	9.62	7.2	RED	RED	MAIN_TRUNK	
DMAIN-14-0102	215.02	24 hr	0.373	63.47	19.04	18.74	25.49	7.96	RED	RED	MAIN_TRUNK	
DMAIN-14-0102A	44.49	24 hr	0.296	23.57	7.07	6.77	10.56	7.45	RED	RED	MAIN_TRUNK	
DMAIN-14-0106	2.35	24 hr	0.397	10.30	6.18	5.58	11.45	10.62	RED	RED	MAIN_TRUNK	
DMAIN-14-0107	1.78	24 hr	0.342	10.68	6.41	5.807	11.01	10.75	RED	RED	MAIN_TRUNK	
DMAIN-14-0108	0.54	24 hr	0.119	9.88	5.93	5.33	10.42	10.36	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0109	0.56	24 hr	0.291	14.31	6.44	5.99	12.36	9.99	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0110	1.5	24 hr	0.226	14.33	6.45	6	12.29	10.06	RED	RED	MAIN_TRUNK	
DMAIN-14-0111	0.82	24 hr	0.134	14.22	6.4	5.95	11.89	10.37	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0112	1.78	24 hr	0.158	14.31	6.44	5.99	11.86	10.47	RED	RED	MAIN_TRUNK	
DMAIN-14-0113	0.66	24 hr	0.096	13.00	5.85	5.4	11.27	10.02	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0114	1.82	24 hr	0.067	35.60	8.9	8.65	12.21	10.94	RED	RED	MAIN_TRUNK	
DMAIN-14-0121	0.61	24 hr	0.065	15.63	4.69	4.39	10.62	10.38	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0122	0.85	24 hr	0.028	15.50	3.1	2.9	8.88	8.86	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0127	1.13	24 hr	0.073	21.73	6.8	6.22	12.08	10.99	RED	RED	MAIN_TRUNK	
DMAIN-14-0128	1.65	24 hr	0.138	17.97	6.74	6.365	11.83	11.44	RED	RED	MAIN_TRUNK	
DMAIN-14-0129	1.4	24 hr	0.124	17.87	6.7	6.325	11.78	11.38	RED	RED	MAIN_TRUNK	
DMAIN-14-0130	0.37	24 hr	0.109	20.20	6.06	5.76	11.55	11.46	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0133	0.33	24 hr	0.108	18.13	6.8	6.425	12.77	10.99	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0134	2.22	24 hr	0.235	20.47	9.21	8.76	15.59	12.85	RED	RED	MAIN_TRUNK	
DMAIN-14-0135	1.79	24 hr	0.191	23.69	10.66	10.21	14.68	13.66	RED	RED	MAIN_TRUNK	
DMAIN-14-0136	2.07	24 hr	0.134	24.04	10.82	10.37	14.67	12.35	RED	RED	MAIN_TRUNK	
DMAIN-14-0137	4.49	24 hr	0.317	24.49	11.02	10.57	14.57	13.92	RED	RED	MAIN_TRUNK	
DMAIN-14-0140	1.24	24 hr	0.792	9.53	7.15	6.4	11.64	11.27	RED	RED	MAIN_TRUNK	
DMAIN-14-0141	5.48	24 hr	0.775	17.12	10.27	9.67	20.28	11.83	RED	RED	MAIN_TRUNK	
DMAIN-14-0142	32.02	24 hr	0.884	23.20	13.92	13.32	26.94	14.3	RED	RED	MAIN_TRUNK	
DMAIN-14-0143	2.14	24 hr	0.481	25.30	15.18	14.58	20.27	16.57	RED	RED	MAIN_TRUNK	
DMAIN-14-0173	0.41	24 hr	0.361	9.67	5.86	5.2	11.45	9.24	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0187	0.54	24 hr	0.94	7.99	7.19	6.29	12.2	10.95	DASHED	RED	MAIN_TRUNK	
DMAIN-14-0188	2.06	24 hr	1.634	5.29	5.55	4.5	12.41	8.17	RED	RED	MAIN_TRUNK	
DMAIN-14-0190	0	1 hr	0	0.00	0	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-14-0198	1.92	24 hr	0.202	14.31	6.44	5.99	12.07	10.3	RED	RED	MAIN_TRUNK	
DMAIN-14-0202	0.46	24 hr	0.07	10.24	4.61	4.16	9.7	9.66	DASHED	RED	MAIN_TRUNK	
DMAIN-15-0001	5.34	24 hr	3.891	5.55	5.83	4.78	7.12	1.61	RED	RED	MAIN_TRUNK	
DMAIN-15-0002	1.68	24 hr	3.401	7.01	7.36	6.31	4.9	3.65	RED	RED	MAIN_TRUNK	
DMAIN-15-0004	1.88	24 hr	2.196	15.48	11.61	10.86	5.33	4.51	RED	RED	MAIN_TRUNK	
DMAIN-15-0005-1	0.74	24 hr	1.708	11.15	8.36	7.61	3.82	2.74	DASHED	RED	MAIN_TRUNK	
DMAIN-15-0005-2	0.49	24 hr	2.049	11.65	8.74	7.99	3.86	3.01	DASHED	RED	MAIN_TRUNK	
DMAIN-15-0006	2.28	24 hr	1.641	11.41	8.56	7.81	3.83	2.75	RED	RED	MAIN_TRUNK	
DMAIN-15-0007	2.48	24 hr	1.404	12.53	9.4	8.65	5.87	3.13	RED	RED	MAIN_TRUNK	
DMAIN-15-0008	2.34	24 hr	1.608	12.77	9.58	8.83	5.93	3.28	RED	RED	MAIN_TRUNK	
DMAIN-15-0009	1.79	24 hr	1.117	13.69	10.27	9.52	5.53	3.7	RED	RED	MAIN_TRUNK	
DMAIN-15-0010	2.91	24 hr	0.898	22.93	10.32	9.87	6.81	3.76	RED	RED	MAIN_TRUNK	
DMAIN-15-0011	3.74	24 hr	0.738	24.49	11.02	10.57	7.17	4.26	RED	RED	MAIN_TRUNK	
DMAIN-15-0012	2.8	24 hr	0.507	28.40	12.78	12.33	7.46	5.67	RED	RED	MAIN_TRUNK	
DMAIN-15-0013	1.35	24 hr	0.312	28.38	12.77	12.32	6.4	6	RED	RED	MAIN_TRUNK	
DMAIN-15-0014	2.28	24 hr	0.493	28.29	12.73	12.28	6.19	5.43	RED	RED	MAIN_TRUNK	
DMAIN-15-0057	2.73	24 hr	0.908	17.28	10.37	9.77	5.25	3.81	RED	RED	MAIN_TRUNK	
DMAIN-15-0117	2.45	24 hr	3.149	14.61	10.96	10.21	5.65	4.29	RED	RED	MAIN_TRUNK	
DMAIN-15-0125	2.11	24 hr	2.009	17.03	12.77	12.02	5.35	3.73	RED	RED	MAIN_TRUNK	
DMAIN-16-0001	0.83	24 hr	0.908	1.60	0.96	0.36	0.14	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-16-0002	0.85	24 hr	0.532	1.93	1.16	0.56	0.14	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-16-0003	1.08	24 hr	0.508	3.01	1.13	0.755	0.16	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-16-0004_1	1.15	24 hr	0.462	15.63	4.69	4.39	5.18	1.77	RED	RED	MAIN_TRUNK	

Storm System Assessment:

Future 100-Year Design Storm (with 32% Climate Change increase) - Future Land Use - Existing Sewers/Culverts

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-16-0004_2	2.87	24 hr	0.45	22.37	6.71	6.41	5.18	4.31	RED	RED	MAIN_TRUNK	
DMAIN-16-0005	2.26	24 hr	0.494	16.84	7.58	7.13	13.82	5.12	RED	RED	MAIN_TRUNK	
DMAIN-16-0006	1.27	24 hr	0.363	14.65	7.69	7.165	8.07	5.18	RED	RED	MAIN_TRUNK	
DMAIN-16-0007	1.19	24 hr	0.272	17.53	7.89	7.44	5.78	5.19	RED	RED	MAIN_TRUNK	
DMAIN-16-0008	1.11	24 hr	0.204	17.51	7.88	7.43	5.65	5.05	RED	RED	MAIN_TRUNK	
DMAIN-16-0009	2.06	24 hr	0.342	17.40	7.83	7.38	5.57	5.06	RED	RED	MAIN_TRUNK	
DMAIN-16-0055	1.31	24 hr	0.866	1.98	1.19	0.59	0.16	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-17-0001	2.51	24 hr	1.095	16.03	9.62	9.02	7.9	6.41	RED	RED	MAIN_TRUNK	
DMAIN-17-0004	1.34	24 hr	1.278	12.67	9.5	8.75	6.31	4.39	RED	RED	MAIN_TRUNK	
DMAIN-17-0005	2.1	24 hr	1.606	12.96	9.72	8.97	6.07	4.74	RED	RED	MAIN_TRUNK	
DMAIN-17-0007	3.05	24 hr	1.088	18.96	11.38	10.777	6.24	5.16	RED	RED	MAIN_TRUNK	
DMAIN-17-0008	2.65	24 hr	0.972	19.93	12.2	11.36	6.17	5.42	RED	RED	MAIN_TRUNK	
DMAIN-17-0009	4.03	24 hr	1.753	22.65	13.59	12.99	6.09	5.42	RED	RED	MAIN_TRUNK	
DMAIN-17-0018	2.27	24 hr	1.115	16.23	9.74	9.14	7.87	6.31	RED	RED	MAIN_TRUNK	
DMAIN-17-0069	59.28	24 hr	1.348	27.49	12.61	11.92	6.64	5.48	RED	RED	MAIN_TRUNK	
DMAIN-17-0076	1.04	24 hr	1.108	12.65	9.49	8.74	6.46	5.33	RED	RED	MAIN_TRUNK	
DMAIN-18-0001	1.85	24 hr	1.687	3.76	2.82	2.07	18.81	5.6	RED	RED	MAIN_TRUNK	
DMAIN-18-0003	1.57	24 hr	1.574	4.92	3.69	2.94	13.91	1.62	RED	RED	MAIN_TRUNK	
DMAIN-18-0004	0.69	24 hr	1.705	4.25	3.19	2.44	5.64	2.71	DASHED	RED	MAIN_TRUNK	
DMAIN-18-0008	1.48	24 hr	1.502	4.87	3.65	2.9	4.45	2.84	RED	RED	MAIN_TRUNK	
DMAIN-18-0009	1.97	24 hr	1.467	7.25	5.44	4.69	3.4	2.54	RED	RED	MAIN_TRUNK	
DMAIN-18-0010	2.11	24 hr	0.941	17.56	9.22	8.695	3.73	3.35	RED	RED	MAIN_TRUNK	
DMAIN-18-0011	1.55	24 hr	0.575	21.38	9.62	9.17	3.5	3.24	RED	RED	MAIN_TRUNK	
DMAIN-18-0012	1.07	24 hr	0.505	21.69	9.76	9.31	3.37	3.23	RED	RED	MAIN_TRUNK	
DMAIN-18-0014	1.09	24 hr	0.729	15.13	6.81	6.36	1.9	1.58	RED	RED	MAIN_TRUNK	
DMAIN-18-0052	1.33	24 hr	2.268	3.67	2.75	2	19.67	7.04	RED	RED	MAIN_TRUNK	
DMAIN-18-0061	1.25	24 hr	0.493	20.27	9.12	8.67	3.23	2.55	RED	RED	MAIN_TRUNK	
DMAIN-2-0001	21.44	24 hr	1.486	13.71	10.28	9.53	5.56	3.14	RED	RED	MAIN_TRUNK	
DMAIN-20-0018	1.67	24 hr	0.991	16.14	10.26	9.083	1.55	1.55	RED	RED	MAIN_TRUNK	
DMAIN-20-0029	2.24	24 hr	1.215	9.01	6.76	6.01	1.58	1.4	RED	RED	MAIN_TRUNK	
DMAIN-2-0003	2.73	24 hr	2.608	7.27	7.27	6.27	5.8	5.66	RED	RED	MAIN_TRUNK	
DMAIN-20-0030	2.06	24 hr	1.295	7.64	5.77	4.978	1.55	1.23	RED	RED	MAIN_TRUNK	
DMAIN-20-0033	2.26	24 hr	1.368	7.40	5.55	4.8	1.57	1.04	RED	RED	MAIN_TRUNK	
DMAIN-20-0034	1.22	24 hr	1.545	7.57	4.54	3.94	1.41	1.17	RED	RED	MAIN_TRUNK	
DMAIN-2-0004	3.28	24 hr	1.391	14.41	10.81	10.06	6.39	5.14	RED	RED	MAIN_TRUNK	
DMAIN-20-0047	0.46	24 hr	1.545	1.63	1.22	0.47	1.49	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-2-0010	0.97	24 hr	0.381	9.00	5.4	4.8	14.6	5.13	DASHED	RED	MAIN_TRUNK	
DMAIN-2-0011	0.45	24 hr	0.167	8.23	4.94	4.34	5.77	5.43	DASHED	RED	MAIN_TRUNK	
DMAIN-2-0012	2.77	24 hr	0.748	32.50	19.5	18.9	6.37	5.37	RED	RED	MAIN_TRUNK	
DMAIN-2-0013	4.17	24 hr	0.65	39.18	23.51	22.91	8.8	6.11	RED	RED	MAIN_TRUNK	
DMAIN-2-0044	2.86	24 hr	2.136	5.05	5.3	4.25	5.83	4.83	RED	RED	MAIN_TRUNK	
DMAIN-2-0047	0.76	24 hr	2.092	12.39	9.91	9.11	3.36	2.98	DASHED	RED	MAIN_TRUNK	
DMAIN-2-0049	2.83	24 hr	0.748	17.28	10.37	9.77	3.36	2.93	RED	RED	MAIN_TRUNK	
DMAIN-2-0050	2.61	24 hr	1.248	20.15	12.09	11.49	3.27	2.91	RED	RED	MAIN_TRUNK	
DMAIN-2-0059	1.22	24 hr	2.145	5.09	5.47	4.29	5.76	4.92	RED	RED	MAIN_TRUNK	
DMAIN-2-0064	1.99	24 hr	2.477	5.23	6.28	5.08	5.65	5.64	RED	RED	MAIN_TRUNK	
DMAIN-2-0065	1.29	24 hr	2.221	3.78	3.97	2.92	5.64	3.89	RED	RED	MAIN_TRUNK	
DMAIN-2-0066	1.94	24 hr	1.3	8.87	6.65	5.9	3.3	2.35	RED	RED	MAIN_TRUNK	
DMAIN-2-0067	3.28	24 hr	1.391	14.41	10.81	10.06	6.39	5.14	RED	RED	MAIN_TRUNK	
DMAIN-2-0068	10.56	24 hr	2.357	12.35	9.88	9.08	3.32	3.1	RED	RED	MAIN_TRUNK	
DMAIN-2-0070	0.83	24 hr	0.303	8.75	5.25	4.65	7.88	5.4	DASHED	RED	MAIN_TRUNK	
DMAIN-2-0072	0.65	24 hr	0.225	8.58	5.15	4.55	6.48	5.57	DASHED	RED	MAIN_TRUNK	
DMAIN-2-0073	0.4	24 hr	0.149	8.52	5.11	4.51	6.3	5.61	DASHED	RED	MAIN_TRUNK	
DMAIN-2-0074	1.81	24 hr	0.248	8.22	4.93	4.33	5.77	4.91	RED	RED	MAIN_TRUNK	
DMAIN-2-0083	3.4	24 hr	3.51	20.50	18.45	17.55	5.92	4.36	RED	RED	MAIN_TRUNK	

Storm System Assessment:

Future 100-Year Design Storm (with 32% Climate Change increase) - Future Land Use - Existing Sewers/Culverts

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-21-0001	3.43	24 hr	0.94	3.73	2.24	1.64	0.36	0	RED	GREEN	MAIN_TRUNK	
DMAIN-21-0002	14.66	24 hr	0.912	3.85	2.31	1.71	0.37	0	RED	GREEN	MAIN_TRUNK	
DMAIN-21-0003	2.17	24 hr	0.506	4.40	2.64	2.04	0.25	0.14	ORANGE	RED	MAIN_TRUNK	
DMAIN-22-0915	2.53	24 hr	0.627	19.87	8.94	8.49	2.02	0.95	RED	RED	MAIN_TRUNK	
DMAIN-22-0920	2.62	24 hr	0.434	11.04	4.97	4.52	18.5	6.01	RED	RED	MAIN_TRUNK	
DMAIN-22-0921	2.4	24 hr	0.403	6.56	2.95	2.5	21.45	6.38	RED	RED	MAIN_TRUNK	
DMAIN-22-0922	1.52	24 hr	0.141	14.21	5.33	4.955	13.62	1.67	RED	RED	MAIN_TRUNK	
DMAIN-22-0926	2.3	24 hr	0.554	7.96	3.58	3.13	4.33	1.96	RED	RED	MAIN_TRUNK	
DMAIN-22-0927	1.5	24 hr	0.557	9.07	4.08	3.63	2.4	1.75	RED	RED	MAIN_TRUNK	
DMAIN-22-0928	2.4	24 hr	0.542	5.60	2.52	2.07	6.43	1.97	RED	RED	MAIN_TRUNK	
DMAIN-23-0002	4.02	24 hr	2.304	6.48	4.86	4.11	3.31	1.82	RED	RED	MAIN_TRUNK	
DMAIN-23-0003	0.86	24 hr	0.969	6.12	3.67	3.07	1.12	0.69	DASHED	RED	MAIN_TRUNK	
DMAIN-23-0008	2.44	24 hr	1.527	9.61	7.21	6.46	2.38	2.35	RED	RED	MAIN_TRUNK	
DMAIN-23-0035	2.44	24 hr	1.518	6.61	4.96	4.207	3.06	1.8	RED	RED	MAIN_TRUNK	
DMAIN-30-0001	1.73	24 hr	3.325	4.56	4.1	3.2	8.06	3.4	RED	RED	MAIN_TRUNK	
DMAIN-30-0002	1.71	24 hr	3.323	4.91	4.42	3.52	6.17	3.39	RED	RED	MAIN_TRUNK	
DMAIN-30-0003	2.21	24 hr	3.296	8.12	7.31	6.41	6.25	5.46	RED	RED	MAIN_TRUNK	
DMAIN-30-0004	2.72	24 hr	2.466	12.20	9.15	8.4	6.74	5.51	RED	RED	MAIN_TRUNK	
DMAIN-30-0005	1.24	24 hr	2.43	13.37	10.03	9.28	5.61	4.07	RED	RED	MAIN_TRUNK	
DMAIN-30-0006	0.7	24 hr	2.374	6.11	4.58	3.83	2.48	1.45	DASHED	RED	MAIN_TRUNK	
DMAIN-30-0007	2.1	24 hr	2.316	9.68	7.26	6.51	5.05	2.14	RED	RED	MAIN_TRUNK	
DMAIN-30-0008	2.35	24 hr	2.36	12.96	9.72	8.97	5.22	3.9	RED	RED	MAIN_TRUNK	
DMAIN-30-0009	2.66	24 hr	2.639	16.65	12.49	11.74	5.3	4.72	RED	RED	MAIN_TRUNK	
DMAIN-30-0034	1.7	24 hr	0.907	12.25	7.35	6.75	6.19	5.32	RED	RED	MAIN_TRUNK	
DMAIN-30-0035	2.96	24 hr	0.856	13.93	8.36	7.76	6.1	4.98	RED	RED	MAIN_TRUNK	
DMAIN-30-0036	2	24 hr	1.005	15.00	9.13	8.4	5.53	5.46	RED	RED	MAIN_TRUNK	
DMAIN-30-0048	1.68	24 hr	1.605	16.96	12.72	11.97	5.25	4.88	RED	RED	MAIN_TRUNK	
DMAIN-30-0049	1.64	24 hr	2.147	16.71	12.53	11.78	5.1	4.93	RED	RED	MAIN_TRUNK	
DMAIN-30-0050	1.45	24 hr	1.16	16.73	12.55	11.8	4.92	4.7	RED	RED	MAIN_TRUNK	
DMAIN-30-0051	1.54	24 hr	0.775	22.28	13.37	12.77	4.94	4.36	RED	RED	MAIN_TRUNK	
DMAIN-30-0052	1.64	24 hr	0.773	23.67	14.2	13.6	4.93	4.4	RED	RED	MAIN_TRUNK	
DMAIN-30-0053	1.03	24 hr	0.744	23.28	13.97	13.37	4.77	4.05	RED	RED	MAIN_TRUNK	
DMAIN-30-0067	1.13	24 hr	0.754	22.50	13.5	12.9	4.36	3.8	RED	RED	MAIN_TRUNK	
DMAIN-30-0068	2.8	24 hr	1.937	27.90	16.74	16.14	4.23	3.92	RED	RED	MAIN_TRUNK	
DMAIN-3-0007	0.93	24 hr	1.052	13.38	8.03	7.43	3.57	2.65	DASHED	RED	MAIN_TRUNK	
DMAIN-3-0008	1.06	24 hr	1.209	12.70	7.62	7.02	3.26	2.75	RED	RED	MAIN_TRUNK	
DMAIN-3-0009	5.93	24 hr	1.458	20.80	12.48	11.88	3.44	3.04	RED	RED	MAIN_TRUNK	
DMAIN-30-0121	2.01	24 hr	1.358	6.40	3.84	3.24	4.32	2.65	RED	RED	MAIN_TRUNK	
DMAIN-30-0122	1.4	24 hr	1.361	8.82	5.29	4.69	3.45	2.31	RED	RED	MAIN_TRUNK	
DMAIN-30-0123	0.89	24 hr	1.62	5.87	3.52	2.92	1.55	1.32	DASHED	RED	MAIN_TRUNK	
DMAIN-30-0125	0.74	24 hr	1.137	2.95	1.77	1.17	0.96	0.01	DASHED	RED	MAIN_TRUNK	
DMAIN-30-0126	2.55	24 hr	1.087	3.47	2.08	1.48	4.04	0	RED	GREEN	MAIN_TRUNK	
DMAIN-30-0127	2.55	24 hr	1.086	5.18	3.11	2.51	4.27	0	RED	GREEN	MAIN_TRUNK	
DMAIN-30-0128	3.02	24 hr	1.084	6.85	4.11	3.51	4.45	0	RED	GREEN	MAIN_TRUNK	
DMAIN-30-0129	2.56	24 hr	1.078	9.33	5.6	5	4.45	1.82	RED	RED	MAIN_TRUNK	
DMAIN-30-0130	2.69	24 hr	1.053	13.60	8.16	7.56	4.47	4.03	RED	RED	MAIN_TRUNK	
DMAIN-3-0028	1.67	24 hr	0.702	19.07	8.58	8.13	4.8	3.31	RED	RED	MAIN_TRUNK	
DMAIN-3-0037	0.76	24 hr	0.559	1.89	0.85	0.4	1.82	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-3-0041	2.24	24 hr	0.559	4.80	2.16	1.71	3.67	0	RED	GREEN	MAIN_TRUNK	
DMAIN-3-0043	2.57	24 hr	0.555	27.70	8.31	8.01	5.89	3.59	RED	RED	MAIN_TRUNK	
DMAIN-30-1041	1.76	24 hr	3.38	3.29	2.96	2.06	3.41	0	RED	GREEN	MAIN_TRUNK	
DMAIN-31-0010	2.06	24 hr	2.909	4.46	4.01	3.11	8.39	0.98	RED	RED	MAIN_TRUNK	
DMAIN-31-0011	1.89	24 hr	1.723	6.15	4.61	3.86	8.95	2.6	RED	RED	MAIN_TRUNK	
DMAIN-31-0012	1.34	24 hr	1.643	6.63	4.97	4.22	7.57	2.91	RED	RED	MAIN_TRUNK	
DMAIN-31-0013	1.19	24 hr	1.648	7.12	5.34	4.59	5.57	2.93	RED	RED	MAIN_TRUNK	

Storm System Assessment:

Future 100-Year Design Storm (with 32% Climate Change increase) - Future Land Use - Existing Sewers/Culverts

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surcharge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-31-0014	1.14	24 hr	1.308	7.08	5.31	4.56	4.48	2.6	RED	RED	MAIN_TRUNK	
DMAIN-31-0015	1.46	24 hr	1.005	7.76	5.82	5.07	7.24	3.65	RED	RED	MAIN_TRUNK	
DMAIN-31-0016	1.58	24 hr	1.095	8.27	6.2	5.45	7.34	3.6	RED	RED	MAIN_TRUNK	
DMAIN-31-0017	2.55	24 hr	0.81	15.30	9.18	8.58	12.43	7.24	RED	RED	MAIN_TRUNK	
DMAIN-31-0018	1.65	24 hr	0.733	20.43	12.26	11.658	11.38	10.52	RED	RED	MAIN_TRUNK	
DMAIN-31-0019	1.11	24 hr	0.619	20.58	12.35	11.75	11.21	9.9	RED	RED	MAIN_TRUNK	
DMAIN-31-0020	6.33	24 hr	0.613	24.27	14.56	13.96	21.62	10.42	RED	RED	MAIN_TRUNK	
DMAIN-31-0021	4.79	24 hr	2.257	33.30	19.98	19.38	9.64	9.56	RED	RED	MAIN_TRUNK	
DMAIN-31-0039	0.84	24 hr	4.467	1.35	1.89	0.49	0.11	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-31-0048_1	1.18	24 hr	3.946	1.59	2.23	0.83	0.13	0	ORANGE	GREEN	MAIN_TRUNK	
DMAIN-31-0048_2	1.33	24 hr	4.468	1.36	1.9	0.5	0.13	0.09	ORANGE	RED	MAIN_TRUNK	
DMAIN-31-0049	0.37	24 hr	2.21	0.49	0.59	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0053	4.53	24 hr	1.305	20.07	9.03	8.58	1.21	0.56	RED	RED	MAIN_TRUNK	
DMAIN-31-0074	1.26	24 hr	1.501	12.60	7.56	6.96	0.76	0.75	RED	RED	MAIN_TRUNK	
DMAIN-31-0077	1.17	24 hr	1.669	14.73	8.84	8.24	0.58	0.57	RED	RED	MAIN_TRUNK	
DMAIN-31-0118	11.32	24 hr	12.364	472.53	283.52	282.92	3.23	0	RED	GREEN	MAIN_TRUNK	
DMAIN-31-0193	3.26	24 hr	1.971	20.97	12.58	11.98	6.05	0.98	RED	RED	MAIN_TRUNK	
DMAIN-31-0224	0.53	24 hr	0.788	6.07	4.55	3.8	3.53	1.65	DASHED	RED	MAIN_TRUNK	
DMAIN-31-0227	0.22	24 hr	0.32	5.24	3.93	3.18	2.95	1.23	DASHED	RED	MAIN_TRUNK	
DMAIN-31-0228	1.21	24 hr	0.243	12.50	3.75	3.45	2.43	1.13	RED	RED	MAIN_TRUNK	
DMAIN-31-0230	1.61	24 hr	0.129	20.04	5.01	4.76	2.84	2.44	RED	RED	MAIN_TRUNK	
DMAIN-31-0231	1.21	24 hr	0.097	17.20	4.3	4.05	2.73	2.7	RED	RED	MAIN_TRUNK	
DMAIN-31-0232	0.8	24 hr	0.048	14.90	2.98	2.78	2.7	2.38	DASHED	RED	MAIN_TRUNK	
DMAIN-31-0258	1.71	24 hr	0.631	4.53	2.72	2.12	5.78	0	RED	GREEN	MAIN_TRUNK	
DMAIN-31-0259	3.1	24 hr	1.283	10.75	6.45	5.85	5.07	1.94	RED	RED	MAIN_TRUNK	
DMAIN-31-0260	2.89	24 hr	1.105	14.97	8.98	8.38	4.57	1.75	RED	RED	MAIN_TRUNK	
DMAIN-31-0265	2.24	24 hr	1.121	19.27	11.92	10.96	3.75	1.96	RED	RED	MAIN_TRUNK	
DMAIN-31-0286	0.65	24 hr	1.519	0.83	0.99	0	0	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-31-0289	0.56	24 hr	1.555	0.67	0.4	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-31-0289_2	1	24 hr	1.004	13.00	7.8	7.2	0.98	0.97	RED	RED	MAIN_TRUNK	
DMAIN-31-0290	1.72	24 hr	1.548	12.27	7.36	6.76	0.51	0.51	RED	RED	MAIN_TRUNK	
DMAIN-31-0304	5.03	24 hr	0.795	6.88	4.13	3.53	17.42	3.24	RED	RED	MAIN_TRUNK	
DMAIN-31-0305	2.28	24 hr	0.632	33.11	14.9	14.45	5.35	4.15	RED	RED	MAIN_TRUNK	
DMAIN-31-0312	2.38	24 hr	0.201	19.55	7.33	6.955	7.71	4.64	RED	RED	MAIN_TRUNK	
DMAIN-31-0321	0.47	24 hr	0.132	8.33	3.75	3.3	3.04	1.44	DASHED	RED	MAIN_TRUNK	
DMAIN-31-0348	1.31	24 hr	1.573	7.11	5.33	4.58	6.57	3.14	RED	RED	MAIN_TRUNK	
DMAIN-31-0360	63.48	24 hr	1.493	4.87	2.92	2.32	5.94	0	RED	GREEN	MAIN_TRUNK	
DMAIN-31-0368	3.58	24 hr	1.559	6.57	3.94	3.34	6.92	0	RED	GREEN	MAIN_TRUNK	
DMAIN-31-0369	1.17	24 hr	0.558	24.22	14.53	13.93	11.28	10.07	RED	RED	MAIN_TRUNK	
DMAIN-31-0374	8.58	24 hr	0.603	6.67	4	3.4	10.52	0.97	RED	RED	MAIN_TRUNK	
DMAIN-31-0375	3.08	24 hr	1.091	6.67	4	3.4	10.52	0.97	RED	RED	MAIN_TRUNK	
DMAIN-31-0376	1.74	24 hr	1.893	2.94	2.65	1.75	13.39	0	RED	GREEN	MAIN_TRUNK	
DMAIN-31-0381	1.09	24 hr	2.095	2.23	2.01	1.11	13.49	2.88	RED	RED	MAIN_TRUNK	
DMAIN-34-0002	0.68	24 hr	5.045	0.82	1.15	0	0	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-34-0003	1.88	24 hr	4.997	1.94	2.77	1.316	1.43	0.01	RED	RED	MAIN_TRUNK	
DMAIN-34-0005	2.17	24 hr	4.918	3.13	4.38	2.98	1.57	1.38	RED	RED	MAIN_TRUNK	
DMAIN-34-0006	0.85	24 hr	4.544	2.61	3.66	2.26	1.38	1.37	DASHED	RED	MAIN_TRUNK	
DMAIN-34-0007	1.14	24 hr	4.493	2.95	4.13	2.73	1.36	1.35	RED	RED	MAIN_TRUNK	
DMAIN-34-0008	1.04	24 hr	4.678	2.94	4.12	2.72	1.34	1.33	RED	RED	MAIN_TRUNK	
DMAIN-34-0010	0.41	24 hr	4.119	1.60	2.64	0.99	0.96	0.96	DASHED	RED	MAIN_TRUNK	
DMAIN-34-0012	1.19	24 hr	4.001	2.43	2.91	1.71	1.25	1.07	RED	RED	MAIN_TRUNK	
DMAIN-34-0015	0.89	24 hr	3.728	2.49	2.61	1.56	1.17	0.88	DASHED	RED	MAIN_TRUNK	
DMAIN-34-0022	3.47	24 hr	1.314	10.17	6.1	5.5	19.11	7.31	RED	RED	MAIN_TRUNK	
DMAIN-34-0023	2.57	24 hr	1.222	26.03	15.62	15.02	9.67	6.48	RED	RED	MAIN_TRUNK	
DMAIN-34-0024	1.39	24 hr	1.085	33.17	20.2	19.3	6.7	5.9	RED	RED	MAIN_TRUNK	

Storm System Assessment:

Future 100-Year Design Storm (with 32% Climate Change increase) - Future Land Use - Existing Sewers/Culverts

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-34-0046	0.45	24 hr	1.998	0.54	0.89	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0049	0.75	24 hr	1.935	0.61	1.01	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0051	2.9	24 hr	1.753	0.71	1.17	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0052	0.63	24 hr	1.267	0.75	1.13	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0053	15.69	24 hr	1.032	0.86	1.2	0	0.01	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-34-0054	0.19	24 hr	0.074	0.30	0.15	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0055	0.1	24 hr	0.024	0.22	0.11	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0056	0.04	24 hr	0.144	0.54	0.76	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0057	1.25	24 hr	0.119	3.40	1.75	0.72	0.64	0	RED	GREEN	MAIN_TRUNK	
DMAIN-34-0058	1.73	24 hr	0.944	2.33	1.75	1	0.85	0	RED	GREEN	MAIN_TRUNK	
DMAIN-34-0059	4.86	24 hr	1.049	16.87	7.59	7.14	2.14	0.74	RED	RED	MAIN_TRUNK	
DMAIN-34-0060	0.62	24 hr	0.376	9.22	4.15	3.7	0.68	0.68	DASHED	RED	MAIN_TRUNK	
DMAIN-34-0065	0.11	24 hr	0.364	0.52	0.73	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0068	0.05	24 hr	0.175	0.51	0.71	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0069	0.26	24 hr	0.167	0.53	0.63	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0070	0.35	24 hr	0.177	0.53	0.63	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-34-0136	2.96	24 hr	0.96	89.36	40.21	39.76	7.19	6.83	RED	RED	MAIN_TRUNK	
DMAIN-34-0159	0.64	24 hr	3.423	1.68	2.77	1.12	1.05	1.05	DASHED	RED	MAIN_TRUNK	
DMAIN-34-0161	0.85	24 hr	5.09	2.77	3.32	2.12	1.28	1.1	DASHED	RED	MAIN_TRUNK	
DMAIN-34-0162	0.61	24 hr	2.109	2.49	2.61	1.56	1.14	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-34-0163	0.82	24 hr	0.634	3.46	2.77	1.97	1.32	1.05	DASHED	RED	MAIN_TRUNK	
DMAIN-34-0164	0.87	24 hr	3.621	2.78	2.92	1.87	1.2	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-34-0174	0.43	24 hr	1.434	2.03	2.43	1.23	1.04	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-34-0176	0.69	24 hr	3.594	2.03	2.43	1.23	1.04	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-35-0019	1.11	24 hr	0.923	3.00	1.8	1.2	1.7	0.14	RED	RED	MAIN_TRUNK	
DMAIN-35-0022	1.08	24 hr	0.943	5.37	3.22	2.62	1.69	1.69	RED	RED	MAIN_TRUNK	
DMAIN-35-0023	1.38	24 hr	0.653	14.94	7.47	6.97	5.14	4.86	RED	RED	MAIN_TRUNK	
DMAIN-35-0024	3.53	24 hr	0.309	26.23	7.87	7.57	2.16	1.55	RED	RED	MAIN_TRUNK	
DMAIN-35-0034	1.08	24 hr	1.678	2.58	1.74	1.065	4.16	0.16	RED	RED	MAIN_TRUNK	
DMAIN-35-0035	2.83	24 hr	1.317	3.26	2.2	1.525	4.94	2.26	RED	RED	MAIN_TRUNK	
DMAIN-35-0057	0.81	24 hr	0.846	3.89	1.75	1.3	2.56	1.89	DASHED	RED	MAIN_TRUNK	
DMAIN-35-0059	1.51	24 hr	0.718	7.34	4.41	3.802	4.17	2.95	RED	RED	MAIN_TRUNK	
DMAIN-35-0063	1.47	24 hr	1.136	6.50	3.9	3.3	4.17	3.77	RED	RED	MAIN_TRUNK	
DMAIN-35-0066	1.76	24 hr	1.141	4.67	2.8	2.2	4.88	0.18	RED	RED	MAIN_TRUNK	
DMAIN-35-0067	1.22	24 hr	1.142	4.20	3.15	2.4	5.86	0	RED	GREEN	MAIN_TRUNK	
DMAIN-35-0069	2.43	24 hr	1.143	3.64	3.01	1.98	5.58	4.13	RED	RED	MAIN_TRUNK	
DMAIN-35-0070	1.72	24 hr	1.143	3.13	2.35	1.6	4.31	0	RED	GREEN	MAIN_TRUNK	
DMAIN-35-0080	1.96	24 hr	1.657	5.17	3.49	2.815	19.56	5.87	RED	RED	MAIN_TRUNK	
DMAIN-36-0001	1.45	24 hr	1.556	6.18	3.71	3.11	3.85	3.61	RED	RED	MAIN_TRUNK	
DMAIN-36-0002	1.3	24 hr	1.554	9.28	5.63	4.97	3.64	3.26	RED	RED	MAIN_TRUNK	
DMAIN-36-0003	0.88	24 hr	1.564	7.10	4.26	3.66	2.99	2.57	DASHED	RED	MAIN_TRUNK	
DMAIN-36-0004	1.43	24 hr	1.598	8.03	4.82	4.22	3.47	2.75	RED	RED	MAIN_TRUNK	
DMAIN-36-0005	1.76	24 hr	1.655	13.97	8.38	7.78	3.68	3.05	RED	RED	MAIN_TRUNK	
DMAIN-36-0006	1.59	24 hr	1.566	20.35	12.43	11.609	3.59	3.45	RED	RED	MAIN_TRUNK	
DMAIN-36-0007	2.16	24 hr	1.872	24.77	14.86	14.26	3.68	3.5	RED	RED	MAIN_TRUNK	
DMAIN-36-0008	2.07	24 hr	1.559	29.13	17.64	16.88	3.59	3.57	RED	RED	MAIN_TRUNK	
DMAIN-36-0009	2.61	24 hr	1.356	33.58	20.25	19.546	3.58	3.58	RED	RED	MAIN_TRUNK	
DMAIN-36-0046	4.31	24 hr	1.607	5.00	3.75	3	10.95	1.59	RED	RED	MAIN_TRUNK	
DMAIN-36-0047	2.62	24 hr	1.327	6.44	4.83	4.08	7.56	1.12	RED	RED	MAIN_TRUNK	
DMAIN-36-0048	2.47	24 hr	1.359	6.95	5.21	4.46	6.67	1.15	RED	RED	MAIN_TRUNK	
DMAIN-36-0049	10.2	24 hr	1.682	15.12	7.94	7.415	6.94	1.74	RED	RED	MAIN_TRUNK	
DMAIN-38-0200	2.58	24 hr	0.596	8.93	4.02	3.57	1.11	0.73	RED	RED	MAIN_TRUNK	
DMAIN-38-0201	4.1	24 hr	0.746	15.91	7.16	6.71	1.01	0.8	RED	RED	MAIN_TRUNK	
DMAIN-38-0300	2.05	24 hr	1.308	10.57	6.34	5.74	4.93	1.56	RED	RED	MAIN_TRUNK	
DMAIN-38-0301	1.94	24 hr	1.014	13.92	8.35	7.75	4.02	2.05	RED	RED	MAIN_TRUNK	

Storm System Assessment:

Future 100-Year Design Storm (with 32% Climate Change increase) - Future Land Use - Existing Sewers/Culverts

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-38-0302	2.64	24 hr	0.502	19.93	8.97	8.52	3.33	2.13	RED	RED	MAIN_TRUNK	
DMAIN-38-0307	1.55	24 hr	0.531	18.84	8.48	8.03	2.18	1.87	RED	RED	MAIN_TRUNK	
DMAIN-38-0323	1.01	24 hr	0.536	11.49	5.17	4.72	1.06	0.98	RED	RED	MAIN_TRUNK	
DMAIN-38-0324	2.68	24 hr	1.119	10.53	5.53	5.005	1.24	0.95	RED	RED	MAIN_TRUNK	
DMAIN-38-0325	2.26	24 hr	1.071	6.13	3.22	2.695	1.28	0.62	RED	RED	MAIN_TRUNK	
DMAIN-38-0326	2.76	24 hr	0.891	13.07	6.86	6.335	1.18	1.01	RED	RED	MAIN_TRUNK	
DMAIN-38-0403	2.79	24 hr	0.502	6.64	2.99	2.54	7.52	0	RED	GREEN	MAIN_TRUNK	
DMAIN-38-0404	1.58	24 hr	0.287	6.11	2.75	2.3	4.58	0.27	RED	RED	MAIN_TRUNK	
DMAIN-38-0405	1.74	24 hr	0.273	7.16	3.22	2.77	4.63	0.49	RED	RED	MAIN_TRUNK	
DMAIN-38-0412	6.36	24 hr	1.461	2.39	2.15	1.25	7.29	2.46	RED	RED	MAIN_TRUNK	
DMAIN-38-0413	1.42	24 hr	1.52	2.18	1.96	1.06	7.35	0.07	RED	RED	MAIN_TRUNK	
DMAIN-38-0414	2.56	24 hr	1.651	2.04	1.84	0.94	7.78	0	RED	GREEN	MAIN_TRUNK	
DMAIN-38-0416_1	0.87	24 hr	0.939	2.46	3.28	1.31	7.19	2.75	DASHED	RED	MAIN_TRUNK	
DMAIN-38-0416_2	1.38	24 hr	1.453	2.46	2.21	1.31	7.22	2.99	RED	RED	MAIN_TRUNK	
DMAIN-38-0418	2.68	24 hr	1.252	7.11	4.8	4.125	7.86	1.51	RED	RED	MAIN_TRUNK	
DMAIN-38-0419	2.83	24 hr	1.477	9.02	5.41	4.81	7.61	4.29	RED	RED	MAIN_TRUNK	
DMAIN-38-0703	0.82	24 hr	0.877	4.15	3.11	2.36	32.63	6.33	DASHED	RED	MAIN_TRUNK	
DMAIN-38-0704	2.09	24 hr	0.846	7.93	4.76	4.16	11.01	6.95	RED	RED	MAIN_TRUNK	
DMAIN-38-0705	1.01	24 hr	0.823	8.00	4.8	4.2	7.25	5.77	RED	RED	MAIN_TRUNK	
DMAIN-38-0706	1.78	24 hr	0.811	10.62	6.37	5.77	7.54	6.14	RED	RED	MAIN_TRUNK	
DMAIN-38-0707	2.29	24 hr	0.874	14.52	8.71	8.11	7.99	6.94	RED	RED	MAIN_TRUNK	
DMAIN-38-0708	2.59	24 hr	1.102	17.30	10.38	9.78	7.82	7.23	RED	RED	MAIN_TRUNK	
DMAIN-38-0709	1.37	24 hr	0.564	18.15	10.89	10.29	7.65	5.47	RED	RED	MAIN_TRUNK	
DMAIN-38-0710	2.11	24 hr	0.637	27.84	12.53	12.08	7.61	6.21	RED	RED	MAIN_TRUNK	
DMAIN-38-0711	3.69	24 hr	0.383	34.53	12.95	12.575	7.73	7.38	RED	RED	MAIN_TRUNK	
DMAIN-38-0712	1.46	24 hr	0.191	35.73	13.4	13.025	7.61	7.2	RED	RED	MAIN_TRUNK	
DMAIN-38-1033	1.59	24 hr	0.564	8.28	4.97	4.37	70.44	39.46	RED	RED	MAIN_TRUNK	
DMAIN-38-2010	1.57	24 hr	0.873	7.55	4.53	3.93	70.84	12.9	RED	RED	MAIN_TRUNK	
DMAIN-38-2011	2.12	24 hr	0.861	6.75	4.05	3.45	71.06	29.75	RED	RED	MAIN_TRUNK	
DMAIN-38-2012	2.53	24 hr	0.463	11.42	5.14	4.69	70.76	2.62	RED	RED	MAIN_TRUNK	
DMAIN-38-2033	0.58	24 hr	1.041	3.64	3.28	2.38	51.27	1.48	DASHED	RED	MAIN_TRUNK	
DMAIN-38-2037	3.32	24 hr	0.464	36.37	13.64	13.265	7.58	6.95	RED	RED	MAIN_TRUNK	
DMAIN-38-2051	1.85	24 hr	0.283	6.56	2.95	2.5	4.59	0.29	RED	RED	MAIN_TRUNK	
DMAIN-38-2052	1.89	24 hr	0.289	6.53	2.94	2.49	4.37	0	RED	GREEN	MAIN_TRUNK	
DMAIN-38-2058	1.67	24 hr	1.111	3.37	3.26	1.598	8.13	2.66	RED	RED	MAIN_TRUNK	
DMAIN-38-2062	0.37	24 hr	0.798	1.04	0.94	0.04	0.2	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-38-2063	5.33	24 hr	0.438	1.48	1.11	0.36	8.01	0	RED	GREEN	MAIN_TRUNK	
DMAIN-38-2063_2	1.17	24 hr	1.215	1.31	1.18	0.28	2.08	0.78	ORANGE	RED	MAIN_TRUNK	
DMAIN-38-2067	1.75	24 hr	0.891	4.37	2.62	2.02	70.67	0.89	RED	RED	MAIN_TRUNK	
DMAIN-38-2068	1.71	24 hr	0.729	4.85	2.91	2.31	70.59	0.57	RED	RED	MAIN_TRUNK	
DMAIN-38-2069	1.8	24 hr	0.704	7.23	4.34	3.74	18.55	0.51	RED	RED	MAIN_TRUNK	
DMAIN-38-2081	0.99	24 hr	1.519	1.73	1.56	0.66	18.74	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-38-2082	0.78	24 hr	1.528	1.53	1.59	0.477	2.27	0.71	DASHED	RED	MAIN_TRUNK	
DMAIN-38-2083	0.82	24 hr	1.526	1.89	1.7	0.8	18.41	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-38-2092	0.67	24 hr	0.407	15.29	6.88	6.43	2.11	1.66	DASHED	RED	MAIN_TRUNK	
DMAIN-38-2093	1.98	24 hr	0.676	15.00	6.75	6.3	2.07	1.83	RED	RED	MAIN_TRUNK	
DMAIN-4-0001	1.14	24 hr	3.697	6.10	5.49	4.59	4.83	2.04	RED	RED	MAIN_TRUNK	
DMAIN-4-0002	3.39	24 hr	3.671	8.96	8.06	7.16	7.69	3.71	RED	RED	MAIN_TRUNK	
DMAIN-4-0003	1.36	24 hr	3.174	11.34	10.21	9.31	6.01	5.62	RED	RED	MAIN_TRUNK	
DMAIN-4-0004	1.67	24 hr	3.462	13.90	12.51	11.61	5.93	5.89	RED	RED	MAIN_TRUNK	
DMAIN-4-0007	1.03	24 hr	2.212	10.32	9.29	8.39	5.57	5.37	RED	RED	MAIN_TRUNK	
DMAIN-4-0009	1.94	24 hr	1.177	13.95	10.46	9.71	7.17	6.05	RED	RED	MAIN_TRUNK	
DMAIN-4-0011	13.56	24 hr	1.085	16.21	12.16	11.409	15.08	5.44	RED	RED	MAIN_TRUNK	
DMAIN-4-0012	2.47	24 hr	1.298	17.32	12.99	12.24	11.67	5.04	RED	RED	MAIN_TRUNK	
DMAIN-4-0013	1.76	24 hr	0.834	17.68	13.26	12.51	10.26	6.03	RED	RED	MAIN_TRUNK	

Storm System Assessment:

Future 100-Year Design Storm (with 32% Climate Change increase) - Future Land Use - Existing Sewers/Culverts

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-4-0014	2.51	24 hr	0.618	22.68	13.61	13.01	10.4	6.92	RED	RED	MAIN_TRUNK	
DMAIN-4-0088	1.04	24 hr	0.947	13.40	8.04	7.44	5.44	5.29	RED	RED	MAIN_TRUNK	
DMAIN-4-0110	1.42	24 hr	0.56	13.27	7.96	7.36	5.44	5.31	RED	RED	MAIN_TRUNK	
DMAIN-4-0111	1.61	24 hr	0.496	13.43	8.06	7.46	5.74	5.27	RED	RED	MAIN_TRUNK	
DMAIN-4-0112	1.6	24 hr	0.467	13.78	8.27	7.67	5.75	5.32	RED	RED	MAIN_TRUNK	
DMAIN-4-0113	2.66	24 hr	0.69	14.98	8.99	8.39	5.78	5.56	RED	RED	MAIN_TRUNK	
DMAIN-4-0114	1.5	24 hr	0.256	14.95	8.97	8.37	5.78	5.34	RED	RED	MAIN_TRUNK	
DMAIN-4-0142	1.44	24 hr	0.449	22.20	13.32	12.72	8.09	7.1	RED	RED	MAIN_TRUNK	
DMAIN-4-0198	1.76	24 hr	0.469	14.38	8.63	8.03	5.77	5.64	RED	RED	MAIN_TRUNK	
DMAIN-4-0202	1.13	24 hr	1.204	12.32	9.24	8.49	5.62	5.22	RED	RED	MAIN_TRUNK	
DMAIN-43-0001	1.83	24 hr	1.903	6.85	4.11	3.51	10.75	3.3	RED	RED	MAIN_TRUNK	
DMAIN-43-0002	1.32	24 hr	1.625	13.28	7.97	7.37	2.39	2.31	RED	RED	MAIN_TRUNK	
DMAIN-43-0003	1.04	24 hr	1.609	13.37	8.02	7.42	2.33	2.29	RED	RED	MAIN_TRUNK	
DMAIN-43-0004	4.26	24 hr	1.745	24.98	14.99	14.39	5.44	2.65	RED	RED	MAIN_TRUNK	
DMAIN-43-0005	7.48	24 hr	2.175	71.73	37.66	37.135	11.33	3.64	RED	RED	MAIN_TRUNK	
DMAIN-45-0008	5.01	24 hr	1.444	22.48	11.8	11.275	4.9	1.4	RED	RED	MAIN_TRUNK	
DMAIN-45-0010	5.07	24 hr	1.361	7.79	4.09	3.564	4.83	1.1	RED	RED	MAIN_TRUNK	
DMAIN-45-0016	5.79	24 hr	0.386	15.44	5.79	5.415	3.17	0.75	RED	RED	MAIN_TRUNK	
DMAIN-45-0017	2.31	24 hr	0.467	7.07	3.18	2.73	2.94	0.77	RED	RED	MAIN_TRUNK	
DMAIN-45-0018	2.9	24 hr	0.476	5.20	2.34	1.89	11.79	1.02	RED	RED	MAIN_TRUNK	
DMAIN-45-0020	1.07	24 hr	0.155	9.63	2.89	2.59	1.13	0.77	RED	RED	MAIN_TRUNK	
DMAIN-50-0001	2.24	24 hr	1.912	10.97	6.58	5.98	20.29	0	RED	GREEN	MAIN_TRUNK	
DMAIN-50-0002	1.11	24 hr	1.849	11.97	7.18	6.58	4.33	0.96	RED	RED	MAIN_TRUNK	
DMAIN-50-0003	0.76	24 hr	0.808	7.73	4.06	3.535	1.26	0.87	DASHED	RED	MAIN_TRUNK	
DMAIN-50-0004	2.11	24 hr	0.912	11.66	6.12	5.595	1.33	1.17	RED	RED	MAIN_TRUNK	
DMAIN-50-0005	1.4	24 hr	1.228	13.07	8.09	6.335	1.15	1.06	RED	RED	MAIN_TRUNK	
DMAIN-50-0010	1.21	24 hr	0.561	31.89	11.96	11.585	4.15	4.07	RED	RED	MAIN_TRUNK	
DMAIN-50-0011	1.99	24 hr	0.698	49.17	18.44	18.065	4.17	4.15	RED	RED	MAIN_TRUNK	
DMAIN-5-0002	2.45	24 hr	1.282	16.59	8.71	8.185	4.8	3.43	RED	RED	MAIN_TRUNK	
DMAIN-5-0003	1.69	24 hr	1.477	24.24	12.73	12.202	3.5	2.69	RED	RED	MAIN_TRUNK	
DMAIN-5-0004	2.96	24 hr	2.544	22.43	13.46	12.86	3.43	2.67	RED	RED	MAIN_TRUNK	
DMAIN-50-0050	1.95	24 hr	1.338	18.42	9.67	9.145	4.36	3.79	RED	RED	MAIN_TRUNK	
DMAIN-50-0051	1.23	24 hr	0.744	19.16	10.75	9.535	4.08	3.96	RED	RED	MAIN_TRUNK	
DMAIN-50-0052	2.31	24 hr	1.007	21.50	11.29	10.765	17.25	3.74	RED	RED	MAIN_TRUNK	
DMAIN-50-0053	2.83	24 hr	1.465	25.31	13.29	12.765	4.13	3.09	RED	RED	MAIN_TRUNK	
DMAIN-5-0146	1.73	24 hr	1.243	14.80	7.77	7.245	4.5	3.17	RED	RED	MAIN_TRUNK	
DMAIN-5-0147	2.23	24 hr	1.234	6.67	3.5	2.975	6.75	3	RED	RED	MAIN_TRUNK	
DMAIN-52-0170	2.39	24 hr	2.432	9.25	6.94	6.19	1.13	0.28	RED	RED	MAIN_TRUNK	
DMAIN-52-0171	1.19	24 hr	2.584	6.05	4.54	3.79	0.28	0.01	RED	RED	MAIN_TRUNK	
DMAIN-52-0172	0.92	24 hr	2.633	0.76	0.57	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0173	0.57	24 hr	2.79	0.54	0.57	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0174	0.01	24 hr	0.016	0.08	0.04	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0175	0.02	24 hr	0.028	0.10	0.05	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0176	0.97	24 hr	2.997	0.80	0.91	0	0	0	YELLOW	GREEN	MAIN_TRUNK	
DMAIN-52-0180	1.26	24 hr	0.169	15.68	5.88	5.505	0.15	0.01	ORANGE	RED	MAIN_TRUNK	
DMAIN-52-0181	2.04	24 hr	0.482	10.53	4.74	4.29	0.23	0.06	ORANGE	RED	MAIN_TRUNK	
DMAIN-52-0182	0.74	24 hr	3.56	0.64	0.67	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0183	0.45	24 hr	3.573	0.68	0.71	0	0.01	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-52-0184	4.57	24 hr	3.573	1.97	2.07	1.02	1.07	0	RED	GREEN	MAIN_TRUNK	
DMAIN-52-0186	1.08	24 hr	1.51	7.73	4.06	3.535	0.98	0.28	RED	RED	MAIN_TRUNK	
DMAIN-52-0187	0.2	24 hr	1.469	2.40	1.8	1.05	0.71	0	DASHED	GREEN	MAIN_TRUNK	
DMAIN-6-0001	1.99	24 hr	0.989	20.44	9.2	8.75	7.58	6.81	RED	RED	MAIN_TRUNK	
DMAIN-6-0002	1.9	24 hr	1.046	32.87	14.79	14.34	7.39	7	RED	RED	MAIN_TRUNK	
DMAIN-6-0003	2.93	24 hr	1.561	36.29	16.33	15.88	7.34	7.16	RED	RED	MAIN_TRUNK	
DMAIN-6-0014	1.21	24 hr	0.354	36.31	16.34	15.89	7.19	6.97	RED	RED	MAIN_TRUNK	

Storm System Assessment:

Future 100-Year Design Storm (with 32% Climate Change increase) - Future Land Use - Existing Sewers/Culverts

Conduit Name	q/Q	Governing Duration	Max. Flow (m³/s)	d/D	Max. Depth (m)	Inlet Surge Height (m)	Hours Surcharged (hrs)	Theoretical Hours Flooded (hrs)	Pipe Performance Ranking	Ground/Road Flooding Ranking	Conduit Type	Culvert Type
DMAIN-6-0030	0.91	24 hr	0.44	26.75	16.05	15.45	7.16	6.73	DASHED	RED	MAIN_TRUNK	
DMAIN-7-0001	1.72	24 hr	1.751	7.10	4.26	3.66	4	3.49	RED	RED	MAIN_TRUNK	
DMAIN-7-0002	1.3	24 hr	1.757	9.95	5.97	5.37	3.48	3.43	RED	RED	MAIN_TRUNK	
DMAIN-7-0003	1.2	24 hr	1.629	12.48	7.49	6.89	3.31	3.12	RED	RED	MAIN_TRUNK	
DMAIN-7-0004	1.29	24 hr	1.864	12.72	7.63	7.03	3.27	3.23	RED	RED	MAIN_TRUNK	
DMAIN-7-0005	1.41	24 hr	1.134	16.08	8.44	7.915	3.24	3.1	RED	RED	MAIN_TRUNK	
DMAIN-7-0006	1.84	24 hr	1.129	33.43	17.55	17.025	3.43	3.33	RED	RED	MAIN_TRUNK	
DMAIN-7-0007	3	24 hr	1.722	48.48	25.45	24.925	3.43	3.28	RED	RED	MAIN_TRUNK	
DMAIN-8-0001	0.24	24 hr	0.267	0.37	0.22	0	0	0	GREEN	GREEN	MAIN_TRUNK	
DMAIN-8-0002	1.75	24 hr	0.261	33.32	8.33	8.08	5.4	5	RED	RED	MAIN_TRUNK	
DMAIN-8-0003	1.97	24 hr	0.292	60.00	15	14.75	5.31	4.69	RED	RED	MAIN_TRUNK	
DMAIN-9-0001	1.4	24 hr	0.39	11.40	4.4	3.899	1.5	1.47	RED	RED	MAIN_TRUNK	
DMAIN-9-0002	0.92	24 hr	0.418	9.01	3.38	3.005	1.14	1.12	DASHED	RED	MAIN_TRUNK	
DMAIN-9-0003	1.36	24 hr	0.517	11.39	4.27	3.895	1.08	0.78	RED	RED	MAIN_TRUNK	
DMAIN-9-0010	0.45	24 hr	0.188	9.84	3.69	3.315	0.98	0.86	DASHED	RED	MAIN_TRUNK	
DMAIN-9-0011	0.71	24 hr	0.132	7.01	2.63	2.255	0.86	0.75	DASHED	RED	MAIN_TRUNK	
DMAIN-9-0022	0.93	24 hr	0.187	5.60	2.1	1.725	0.83	0.01	DASHED	RED	MAIN_TRUNK	