Project:	Date:		
ADMIRAL	10/06/2025		
	Designed by:	Checked by:	Approved By:
	TG & JH	DML	DML
Report Details:	Company::		
Type: Junctions Storm Phase: D18 Phase	Lally Chartered Engineers		

Name	Junction Type	Easting (m)	Northing (m)	Cover Elevation (m)	Depth (m)	Invert Elevation (m)	Chamber Shape	Diameter (m)
MH5.11	Manhole	645343.061	738948.889	96.500	2.195	94.305	Circular	1.500
MH5.10	Manhole	645327.147	738958.659	97.000	2.183	94.817	Circular	1.200
MH5.9	Manhole	645265.915	738955.756	97.200	1.974	95.226	Circular	1.200
MH5.7	Manhole	645190.487	738951.318	97.500	1.770	95.730	Circular	1.200
MH5.6	Manhole	645151.056	738962.412	98.100	1.637	96.463	Circular	1.200
MH5.8	Manhole	645152.122	738933.972	97.500	1.425	96.075	Circular	1.200
MH5.2	Manhole	645119.445	739025.292	99.000	1.516	97.484	Circular	1.200
MH5.3	Manhole	645111.235	739006.894	99.000	1.717	97.283	Circular	1.200
MH5.4	Manhole	645116.913	738985.366	99.000	1.940	97.060	Circular	1.200
MH5.5	Manhole	645127.882	738969.257	98.700	1.835	96.865	Circular	1.200
MH5.1	Manhole	645130.321	739037.802	99.000	1.350	97.650	Circular	1.200
MH5.13	Manhole	645375.499	738951.378	95.300	1.300	94.000	Circular	1.200
MH5.12	Manhole	645355.274	738948.929	95.500	1.276	94.224	Circular	1.500

Name	Lock
MH5.11	None
MH5.10	None
MH5.9	None
MH5.7	None
MH5.6	None
MH5.8	None
MH5.2	None
MH5.3	None
MH5.4	None
MH5.5	None
MH5.1	None
MH5.13	None
MH5.12	None

Project:	Date:		
ADMIRAL	10/06/2025		
	Designed by:	Checked by:	Approved By:
	TG & JH	DML	DML
Report Details:	Company::		
Type: Junctions Storm Phase: D18 Phase	Lally Chartered Engineers		

Inlets

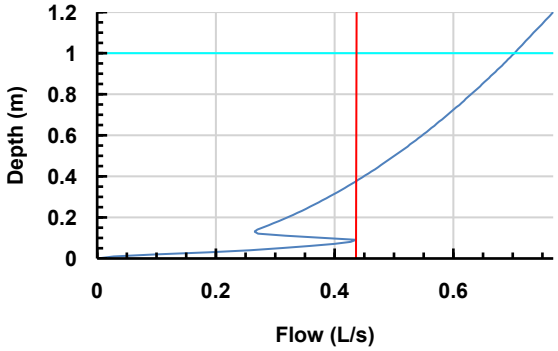
Junction	Inlet Name	Incoming Item(s)	Bypass Destination	Capacity Type
MH5.11	Inlet	Catchment Area (37)	(None)	No Restriction
	Inlet (1)	P5.1.008	(None)	No Restriction
MH5.10	Inlet	Catchment Area (38)	(None)	No Restriction
	Inlet (1)	P5.1.007	(None)	No Restriction
	Inlet (2)	Catchment Area (39)	(None)	No Restriction
MH5.9	Inlet	Catchment Area (40) P5.1.006	(None)	No Restriction
	Inlet (1)	Catchment Area (42)	(None)	No Restriction
	Inlet (2)	Catchment Area (43)	(None)	No Restriction
MH5.7	Inlet (3)	P5.2.000	(None)	No Restriction
	Inlet (4)	P5.1.005	(None)	No Restriction
MH5.6	Inlet (1)	P5.1.004	(None)	No Restriction
MH5.8	Inlet	Catchment Area (44)	(None)	No Restriction
MH5.2	Inlet	Catchment Area	(None)	No Restriction
	Inlet (1)	P5.1.000	(None)	No Restriction
MH5.3	Inlet	Catchment Area (1)	(None)	No Restriction
	Inlet (1)	P5.1.001	(None)	No Restriction
	Inlet (2)	Catchment Area (6)	(None)	No Restriction
	Inlet (3)	Catchment Area (5)	(None)	No Restriction
MH5.4	Inlet (1)	P5.1.002	(None)	No Restriction
	Inlet (2)	Catchment Area (7)	(None)	No Restriction
	Inlet (3)	Catchment Area (8)	(None)	No Restriction
	Inlet (4)	Catchment Area (2)	(None)	No Restriction
MH5.5	Inlet (1)	P5.1.003	(None)	No Restriction
	Inlet (2)	Catchment Area (3)	(None)	No Restriction
	Inlet (3)	Catchment Area (4)	(None)	No Restriction
MH5.1	Inlet	Catchment Area (9)	(None)	No Restriction
MH5.13	Inlet	P5.1.011	(None)	No Restriction
MH5.12	Inlet	P5.1.009	(None)	No Restriction

Project:	Date:		
ADMIRAL	10/06/2025		
	Designed by:	Checked by:	Approved By:
	TG & JH	DML	DML
Report Details:	Company::		
Type: Junctions Storm Phase: D18 Phase	Lally Chartered Engineers		

Outlets

Junction	Outlet Name	Outgoing Connection	Outlet Type
MH5.11	Outlet	P5.1.009	Free Discharge
MH5.10	Outlet	P5.1.008	Free Discharge
MH5.9	Outlet	P5.1.007	Free Discharge
MH5.7	Outlet	P5.1.006	Free Discharge
MH5.6	Outlet	P5.1.005	Free Discharge
MH5.8	Outlet	P5.2.000	Free Discharge
MH5.2	Outlet	P5.1.001	Free Discharge
MH5.3	Outlet	P5.1.002	Free Discharge
MH5.4	Outlet	P5.1.003	Free Discharge
MH5.5	Outlet	P5.1.004	Free Discharge
MH5.1	Outlet	P5.1.000	Free Discharge
MH5.13	Outlet	(None)	Hydro-Brake®

Invert Elevation (m)	94.000
Design Depth (m)	1.000
Design Flow (L/s)	0.7
Objective	Minimize Upstream Storage Requirements
Application	Surface Water Only
Sump Available	☐
Unit Reference	CHE-0038-7000-1000-7000



MH5.12	Outlet	P5.1.010	Free Discharge

Project:	Date:		
ADMIRAL	10/06/2025		
	Designed by:	Checked by:	Approved By:
	TG & JH	DML	DML
Report Details:	Company::		
Type: Stormwater Controls Storm Phase: D18 Phase	Lally Chartered Engineers		

Cellular Storage

Type : Cellular Storage

Dimensions

Exceedance Elevation (m)	95.300
Depth (m)	1.000
Base Elevation (m)	94.000
Number of Crates Long	19
Number of Crates Wide	10
Number of Crates High	1
Porosity (%)	96
Crate Length (m)	0.8
Crate Width (m)	0.8
Crate Height (m)	1
Total Volume (m³)	117.036

Inlets

Inlet (1)

Inlet Type	Point Inflow
Incoming Item(s)	P5.1.010
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	P5.1.011
Outlet Type	Orifice

Diameter (m)	0.150
Coefficient of Discharge	0.600
Invert Elevation (m)	94.000

Project:	Date:		
ADMIRAL	10/06/2025		
	Designed by:	Checked by:	Approved By:
	TG & JH	DML	DML
Report Details:	Company::		
Type: Connections Storm Phase: D18 Phase	Lally Chartered Engineers		

Name	Length (m)	Connection Type	Slope (1:x)	Manning's n	Colebrook-White Roughness (mm)	Diameter / Base Width (mm)	Upstream Cover Elevation (m)	Upstream Invert Elevation (m)
P5.1.006	75.559	Pipe	150.000		0.6	300	97.500	95.730
P5.1.007	61.300	Pipe	150.000		0.6	300	97.200	95.226
P5.1.008	18.675	Pipe	150.000		0.6	300	97.000	94.817
P5.1.000	16.577	Pipe	100.000		0.6	150	99.000	97.650
P5.1.001	20.147	Pipe	100.000		0.6	150	99.000	97.484
P5.1.002	22.264	Pipe	100.000		0.6	150	99.000	97.283
P5.1.003	19.488	Pipe	100.000		0.6	225	99.000	97.060
P5.1.004	24.164	Pipe	60.000		0.6	225	98.700	96.865
P5.2.000	42.105	Pipe	121.976		0.6	225	97.500	96.075
P5.1.005	40.962	Pipe	55.906		0.6	225	98.100	96.463
P5.1.011	3.375	No Delay						
P5.1.009	12.212	Pipe	150.769		0.6	375	96.500	94.305
P5.1.010	6.126	Pipe	200.000		0.6	375	95.500	94.224

Name	Downstream Cover Elevation (m)	Downstream Invert Elevation (m)	Part Family	Lock	Flow Restriction (L/s)	Culvert Type	Culvert Entrance
P5.1.006	97.200	95.226		None		(None)	(None)
P5.1.007	97.000	94.817		None		(None)	(None)
P5.1.008	96.500	94.693		Elevations		(None)	(None)
P5.1.000	99.000	97.484		None		(None)	(None)
P5.1.001	99.000	97.283		None		(None)	(None)
P5.1.002	99.000	97.060		None		(None)	(None)
P5.1.003	98.700	96.865		None		(None)	(None)
P5.1.004	98.100	96.463		None		(None)	(None)
P5.2.000	97.500	95.730		None		(None)	(None)
P5.1.005	97.500	95.730		None		(None)	(None)
P5.1.011							
P5.1.009	95.500	94.224		None		(None)	(None)
P5.1.010	95.300	94.193		Elevations		(None)	(None)

Project: ADMIRAL	Date: 10/06/2025		
	Designed by: TG & JH	Checked by: DML	Approved By: DML
Report Details: Type: Manhole Schedule Storm Phase: D18 Phase	Company:: Lally Chartered Engineers		

Name	Cover Elevation (m) Invert Elevation (m)	Manhole Size (m)	Connection Details				Type
Coordinates (m)	Depth (m)		Incoming Connections	Connection Type	Connection Invert (m)	Connection Size (mm)	Junction Type
			Outgoing Connections				Cover
MH5.11	96.500 94.305	Diameter / Length: 1.500	{1} P5.1.008	Pipe	94.693	Diam/Width:300	Manhole
E:645343.061 N:738948.889	2.195		{a} P5.1.009	Pipe	94.305	Diam/Width:375	Not Applicable
MH5.10	97.000 94.817	Diameter / Length: 1.200	{1} P5.1.007	Pipe	94.817	Diam/Width:300	Manhole
E:645327.147 N:738958.659	2.183		{a} P5.1.008	Pipe	94.817	Diam/Width:300	Not Applicable
MH5.9	97.200 95.226	Diameter / Length: 1.200	{1} P5.1.006	Pipe	95.226	Diam/Width:300	Manhole
E:645265.915 N:738955.756	1.974		{a} P5.1.007	Pipe	95.226	Diam/Width:300	Not Applicable
MH5.7	97.500 95.730	Diameter / Length: 1.200	{1} P5.2.000 {2} P5.1.005	Pipe Pipe	95.730 95.730	Diam/Width:225 Diam/Width:225	Manhole
E:645190.487 N:738951.318	1.770		{a} P5.1.006	Pipe	95.730	Diam/Width:300	Not Applicable

Project: ADMIRAL	Date: 10/06/2025		
	Designed by: TG & JH	Checked by: DML	Approved By: DML
Report Details: Type: Manhole Schedule Storm Phase: D18 Phase	Company:: Lally Chartered Engineers		

Name	Cover Elevation (m) Invert Elevation (m)	Manhole Size (m)	Connection Details				Type
Coordinates (m)	Depth (m)		Incoming Connections	Connection Type	Connection Invert (m)	Connection Size (mm)	Junction Type
			Outgoing Connections				Cover
MH5.6	98.100 96.463	Diameter / Length: 1.200	{1} P5.1.004	Pipe	96.463	Diam/Width:225	Manhole
E:645151.056 N:738962.412	1.637		{a} P5.1.005	Pipe	96.463	Diam/Width:225	Not Applicable
MH5.8	97.500 96.075	Diameter / Length: 1.200					Manhole
E:645152.122 N:738933.972	1.425		{a} P5.2.000	Pipe	96.075	Diam/Width:225	Not Applicable
MH5.2	99.000 97.484	Diameter / Length: 1.200	{1} P5.1.000	Pipe	97.484	Diam/Width:150	Manhole
E:645119.445 N:739025.292	1.516		{a} P5.1.001	Pipe	97.484	Diam/Width:150	Not Applicable
MH5.3	99.000 97.283	Diameter / Length: 1.200	{1} P5.1.001	Pipe	97.283	Diam/Width:150	Manhole
E:645111.235 N:739006.894	1.717		{a} P5.1.002	Pipe	97.283	Diam/Width:150	Not Applicable
MH5.4	99.000 97.060	Diameter / Length: 1.200	{1} P5.1.002	Pipe	97.060	Diam/Width:150	Manhole
E:645116.913 N:738985.366	1.940		{a} P5.1.003	Pipe	97.060	Diam/Width:225	Not Applicable

Project: ADMIRAL	Date: 10/06/2025		
	Designed by: TG & JH	Checked by: DML	Approved By: DML
Report Details: Type: Manhole Schedule Storm Phase: D18 Phase	Company:: Lally Chartered Engineers		

Name	Cover Elevation (m) Invert Elevation (m)	Manhole Size (m)	Connection Details				Type
Coordinates (m)	Depth (m)		Incoming Connections	Connection Type	Connection Invert (m)	Connection Size (mm)	Junction Type
			Outgoing Connections				Cover
MH5.5	98.700 96.865	Diameter / Length: 1.200	{1} P5.1.003	Pipe	96.865	Diam/Width:225	Manhole
E:645127.882 N:738969.257	1.835		{a} P5.1.004	Pipe	96.865	Diam/Width:225	Not Applicable
MH5.1	99.000 97.650	Diameter / Length: 1.200					Manhole
E:645130.321 N:739037.802	1.350		{a} P5.1.000	Pipe	97.650	Diam/Width:150	Not Applicable
MH5.13	95.300 94.000	Diameter / Length: 1.200	{1} P5.1.011	No Delay	Not Applicable	Not Applicable	Manhole
E:645375.499 N:738951.378	1.300						Not Applicable
MH5.12	95.500 94.224	Diameter / Length: 1.500	{1} P5.1.009	Pipe	94.224	Diam/Width:375	Manhole
E:645355.274 N:738948.929	1.276		{a} P5.1.010	Pipe	94.224	Diam/Width:375	Not Applicable

Project:	Date:		
ADMIRAL	10/06/2025		
	Designed by:	Checked by:	Approved By:
	TG & JH	DML	DML
Report Details:	Company::		
Type: Inflow Summary Storm Phase: D18 Phase	Lally Chartered Engineers		

Inflow Label	Connected To	Flow (L/s)	Runoff Method	Area (ha)	Percentage Impervious (%)	Urban Creep (%)	Adjusted Percentage Impervious (%)	Area Analyzed (ha)
Catchment Area	MH5.2		Time of Concentration	0.046	100	0	100	0.046
Catchment Area (1)	MH5.3		Time of Concentration	0.016	100	0	100	0.016
Catchment Area (2)	MH5.4		Time of Concentration	0.014	100	0	100	0.014
Catchment Area (3)	MH5.5		Time of Concentration	0.005	100	0	100	0.005
Catchment Area (4)	MH5.5		Time of Concentration	0.008	100	0	100	0.008
Catchment Area (5)	MH5.3		Time of Concentration	0.013	100	0	100	0.013
Catchment Area (6)	MH5.3		Time of Concentration	0.014	100	0	100	0.014
Catchment Area (7)	MH5.4		Time of Concentration	0.014	100	0	100	0.014
Catchment Area (8)	MH5.4		Time of Concentration	0.014	100	0	100	0.014
Catchment Area (9)	MH5.1		Time of Concentration	0.018	100	0	100	0.018
Catchment Area (37)	MH5.11		Time of Concentration	0.009	100	0	100	0.009
Catchment Area (38)	MH5.10		Time of Concentration	0.012	100	0	100	0.012
Catchment Area (39)	MH5.10		Time of Concentration	0.014	100	0	100	0.014
Catchment Area (40)	MH5.9		Time of Concentration	0.014	100	0	100	0.014
Catchment Area (42)	MH5.9		Time of Concentration	0.019	100	0	100	0.019
Catchment Area (43)	MH5.9		Time of Concentration	0.015	100	0	100	0.015
Catchment Area (44)	MH5.8		Time of Concentration	0.019	100	0	100	0.019
TOTAL		**0.0**		**0.266**				**0.266**

Project:	Date:		
ADMIRAL	10/06/2025		
	Designed by:	Checked by:	Approved By:
	TG & JH	DML	DML
Report Details:	Company::		
Type: Outfall Details Storm Phase: D18 Phase	Lally Chartered Engineers		

Outfalls

Outfall	Outfall Type	Gated	Fixed Surcharged Elevation (m)	Elevation Curve
MH5.13	Free Discharge			

Runoff Type	Dynamic
Output Interval (mins)	5
Time Step	Default
Urban Creep	Apply Global Value
Urban Creep Global Value (%)	0
Junction Flood Risk Margin (mm)	300
Perform No Discharge Analysis	☐

Rainfall TG: 1 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Inflow

Inflow	Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m^3)
Catchment Area	Rainfall TG: 1 years: +0 %: 15 mins: Summer	0.05	4.9	2.122
Catchment Area (1)	Rainfall TG: 1 years: +0 %: 15 mins: Summer	0.02	1.7	0.752
Catchment Area (2)	Rainfall TG: 1 years: +0 %: 15 mins: Summer	0.01	1.5	0.660
Catchment Area (3)	Rainfall TG: 1 years: +0 %: 15 mins: Summer	0.01	0.5	0.236
Catchment Area (4)	Rainfall TG: 1 years: +0 %: 15 mins: Summer	0.01	0.9	0.385
Catchment Area (5)	Rainfall TG: 1 years: +0 %: 15 mins: Summer	0.01	1.4	0.606
Catchment Area (6)	Rainfall TG: 1 years: +0 %: 15 mins: Summer	0.01	1.5	0.665
Catchment Area (7)	Rainfall TG: 1 years: +0 %: 15 mins: Summer	0.01	1.5	0.665
Catchment Area (8)	Rainfall TG: 1 years: +0 %: 15 mins: Summer	0.01	1.5	0.639
Catchment Area (9)	Rainfall TG: 1 years: +0 %: 15 mins: Summer	0.02	1.9	0.821
Catchment Area (37)	Rainfall TG: 1 years: +0 %: 15 mins: Summer	0.01	1.0	0.415
Catchment Area (38)	Rainfall TG: 1 years: +0 %: 15 mins: Summer	0.01	1.3	0.558
Catchment Area (39)	Rainfall TG: 1 years: +0 %: 15 mins: Winter	0.01	1.5	0.705
Catchment Area (40)	Rainfall TG: 1 years: +0 %: 15 mins: Summer	0.01	1.5	0.662
Catchment Area (42)	Rainfall TG: 1 years: +0 %: 15 mins: Summer	0.02	2.0	0.874

Catchment Area (43)	Rainfall TG: 1 years: +0 %: 15 mins: Summer	0.01	1.6	0.680
Catchment Area (44)	Rainfall TG: 1 years: +0 %: 15 mins: Summer	0.02	2.1	0.895

Rainfall TG: 30 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Inflow

Inflow	Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m^3)
Catchment Area	Rainfall TG: 30 years: +0 %: 15 mins: Summer	0.05	10.9	4.725
Catchment Area (1)	Rainfall TG: 30 years: +0 %: 15 mins: Summer	0.02	3.8	1.668
Catchment Area (2)	Rainfall TG: 30 years: +0 %: 15 mins: Summer	0.01	3.4	1.464
Catchment Area (3)	Rainfall TG: 30 years: +0 %: 15 mins: Summer	0.01	1.2	0.526
Catchment Area (4)	Rainfall TG: 30 years: +0 %: 15 mins: Summer	0.01	2.0	0.855
Catchment Area (5)	Rainfall TG: 30 years: +0 %: 15 mins: Summer	0.01	3.1	1.354
Catchment Area (6)	Rainfall TG: 30 years: +0 %: 15 mins: Summer	0.01	3.4	1.479
Catchment Area (7)	Rainfall TG: 30 years: +0 %: 15 mins: Summer	0.01	3.4	1.482
Catchment Area (8)	Rainfall TG: 30 years: +0 %: 15 mins: Summer	0.01	3.3	1.420
Catchment Area (9)	Rainfall TG: 30 years: +0 %: 15 mins: Summer	0.02	4.2	1.832
Catchment Area (37)	Rainfall TG: 30 years: +0 %: 15 mins: Summer	0.01	2.1	0.926
Catchment Area (38)	Rainfall TG: 30 years: +0 %: 15 mins: Summer	0.01	2.9	1.240
Catchment Area (39)	Rainfall TG: 30 years: +0 %: 15 mins: Winter	0.01	3.4	1.569
Catchment Area (40)	Rainfall TG: 30 years: +0 %: 15 mins: Summer	0.01	3.4	1.479
Catchment Area (42)	Rainfall TG: 30 years: +0 %: 15 mins: Summer	0.02	4.5	1.943

Catchment Area (43)	Rainfall TG: 30 years: +0 %: 15 mins: Summer	0.01	3.5	1.515
Catchment Area (44)	Rainfall TG: 30 years: +0 %: 15 mins: Summer	0.02	4.6	1.987

Rainfall TG: 100 years: Increase Rainfall (%): +20: Critical Storm Per Item: Rank By: Max. Inflow

Inflow	Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m^3)
Catchment Area	Rainfall TG: 100 years: +20 %: 15 mins: Summer	0.05	16.9	7.354
Catchment Area (1)	Rainfall TG: 100 years: +20 %: 15 mins: Summer	0.02	6.0	2.590
Catchment Area (2)	Rainfall TG: 100 years: +20 %: 15 mins: Summer	0.01	5.3	2.279
Catchment Area (3)	Rainfall TG: 100 years: +20 %: 15 mins: Summer	0.01	1.9	0.819
Catchment Area (4)	Rainfall TG: 100 years: +20 %: 15 mins: Summer	0.01	3.1	1.331
Catchment Area (5)	Rainfall TG: 100 years: +20 %: 15 mins: Summer	0.01	4.8	2.102
Catchment Area (6)	Rainfall TG: 100 years: +20 %: 15 mins: Summer	0.01	5.3	2.309
Catchment Area (7)	Rainfall TG: 100 years: +20 %: 15 mins: Summer	0.01	5.3	2.309
Catchment Area (8)	Rainfall TG: 100 years: +20 %: 15 mins: Summer	0.01	5.1	2.213
Catchment Area (9)	Rainfall TG: 100 years: +20 %: 15 mins: Summer	0.02	6.6	2.856
Catchment Area (37)	Rainfall TG: 100 years: +20 %: 15 mins: Summer	0.01	3.3	1.438
Catchment Area (38)	Rainfall TG: 100 years: +20 %: 15 mins: Summer	0.01	4.4	1.929
Catchment Area (39)	Rainfall TG: 100 years: +20 %: 15 mins: Winter	0.01	5.3	2.440
Catchment Area (40)	Rainfall TG: 100 years: +20 %: 15 mins: Summer	0.01	5.3	2.300
Catchment Area (42)	Rainfall TG: 100 years: +20 %: 15 mins: Summer	0.02	7.0	3.020

Catchment Area (43)	Rainfall TG: 100 years: +20 %: 15 mins: Summer	0.01	5.4	2.357
Catchment Area (44)	Rainfall TG: 100 years: +20 %: 15 mins: Summer	0.02	7.1	3.095

Project: ADMIRAL	Date: 10/06/2025		
	Designed by: TG & JH	Checked by: DML	Approved By: DML
Report Details: Type: Junctions Summary Storm Phase: D18 Phase	Company:: Lally Chartered Engineers		

Rainfall TG: 1 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Depth

Junction	Storm Event	Cover Elevation (m)	Invert Elevation (m)	Max. Elevation (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
MH5.11	Rainfall TG: 1 years: +0 %: 15 mins: Summer	96.500	94.305	94.398	0.093	18.3	0.164	0.000	18.8	11.807	OK
MH5.10	Rainfall TG: 1 years: +0 %: 15 mins: Summer	97.000	94.817	94.912	0.094	15.9	0.107	0.000	18.1	11.436	OK
MH5.9	Rainfall TG: 1 years: +0 %: 30 mins: Summer	97.200	95.226	95.312	0.086	16.3	0.097	0.000	16.2	14.052	OK
MH5.7	Rainfall TG: 1 years: +0 %: 30 mins: Summer	97.500	95.730	95.806	0.076	13.0	0.086	0.000	12.9	11.145	OK
MH5.6	Rainfall TG: 1 years: +0 %: 15 mins: Summer	98.100	96.463	96.531	0.069	14.7	0.077	0.000	13.8	7.494	OK
MH5.8	Rainfall TG: 1 years: +0 %: 15 mins: Summer	97.500	96.075	96.105	0.030	2.1	0.034	0.000	1.9	0.906	OK
MH5.2	Rainfall TG: 1 years: +0 %: 15 mins: Summer	99.000	97.484	97.546	0.062	6.7	0.070	0.000	6.3	2.937	OK
MH5.3	Rainfall TG: 1 years: +0 %: 15 mins: Summer	99.000	97.283	97.369	0.086	11.0	0.097	0.000	10.3	4.952	OK
MH5.4	Rainfall TG: 1 years: +0 %: 15 mins: Summer	99.000	97.060	97.145	0.085	14.8	0.096	0.000	14.1	6.905	OK
MH5.5	Rainfall TG: 1 years: +0 %: 15 mins: Summer	98.700	96.865	96.940	0.075	15.5	0.085	0.000	14.7	7.512	OK
MH5.1	Rainfall TG: 1 years: +0 %: 15 mins: Summer	99.000	97.650	97.682	0.032	1.9	0.036	0.000	1.8	0.819	OK
MH5.13	Rainfall TG: 1 years: +0 %: 1440 mins: Winter	95.300	94.000	94.291	0.291	1.5	0.329	0.000	0.4	51.761	OK
MH5.12	Rainfall TG: 1 years: +0 %: 15 mins: Summer	95.500	94.224	94.326	0.102	18.8	0.180	0.000	19.6	11.733	OK

Project: ADMIRAL	Date: 10/06/2025		
	Designed by: TG & JH	Checked by: DML	Approved By: DML
Report Details: Type: Junctions Summary Storm Phase: D18 Phase	Company:: Lally Chartered Engineers		

Rainfall TG: 30 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Depth

Junction	Storm Event	Cover Elevation (m)	Invert Elevation (m)	Max. Elevation (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
MH5.11	Rainfall TG: 30 years: +0 %: 1440 mins: Winter	96.500	94.305	94.597	0.292	3.2	0.515	0.000	3.1	105.808	OK
MH5.10	Rainfall TG: 30 years: +0 %: 30 mins: Summer	97.000	94.817	94.968	0.151	40.4	0.170	0.000	40.3	34.855	OK
MH5.9	Rainfall TG: 30 years: +0 %: 30 mins: Summer	97.200	95.226	95.361	0.135	36.4	0.152	0.000	36.4	31.398	OK
MH5.7	Rainfall TG: 30 years: +0 %: 15 mins: Summer	97.500	95.730	95.851	0.122	34.7	0.138	0.000	29.7	18.586	OK
MH5.6	Rainfall TG: 30 years: +0 %: 15 mins: Summer	98.100	96.463	96.569	0.106	31.6	0.120	0.000	30.5	16.738	OK
MH5.8	Rainfall TG: 30 years: +0 %: 15 mins: Summer	97.500	96.075	96.119	0.044	4.6	0.050	0.000	4.2	2.004	OK
MH5.2	Rainfall TG: 30 years: +0 %: 15 mins: Summer	99.000	97.484	97.601	0.117	15.0	0.132	0.000	11.3	6.549	OK
MH5.3	Rainfall TG: 30 years: +0 %: 15 mins: Summer	99.000	97.283	97.520	0.238	21.7	0.269	0.000	20.5	11.051	Surcharged
MH5.4	Rainfall TG: 30 years: +0 %: 15 mins: Summer	99.000	97.060	97.192	0.132	30.6	0.149	0.000	29.7	15.400	OK
MH5.5	Rainfall TG: 30 years: +0 %: 15 mins: Summer	98.700	96.865	96.981	0.116	32.9	0.131	0.000	31.6	16.763	OK
MH5.1	Rainfall TG: 30 years: +0 %: 15 mins: Summer	99.000	97.650	97.698	0.048	4.2	0.054	0.000	4.1	1.831	OK
MH5.13	Rainfall TG: 30 years: +0 %: 960 mins: Winter	95.300	94.000	94.606	0.606	2.6	0.685	0.000	0.6	49.153	OK
MH5.12	Rainfall TG: 30 years: +0 %: 1440 mins: Winter	95.500	94.224	94.595	0.371	3.1	0.656	0.000	3.0	107.448	OK

Project: ADMIRAL	Date: 10/06/2025		
	Designed by: TG & JH	Checked by: DML	Approved By: DML
Report Details: Type: Junctions Summary Storm Phase: D18 Phase	Company:: Lally Chartered Engineers		

Rainfall TG: 100 years: Increase Rainfall (%): +20: Critical Storm Per Item: Rank By: Max. Depth

Junction	Storm Event	Cover Elevation (m)	Invert Elevation (m)	Max. Elevation (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
MH5.11	Rainfall TG: 100 years: +20 %: 1440 mins: Winter	96.500	94.305	94.956	0.651	13.2	1.150	0.000	7.9	181.125	Surcharged
MH5.10	Rainfall TG: 100 years: +20 %: 30 mins: Summer	97.000	94.817	95.014	0.196	61.0	0.222	0.000	60.5	54.632	OK
MH5.9	Rainfall TG: 100 years: +20 %: 15 mins: Summer	97.200	95.226	95.401	0.174	61.7	0.197	0.000	52.7	36.548	OK
MH5.7	Rainfall TG: 100 years: +20 %: 15 mins: Summer	97.500	95.730	95.882	0.152	49.8	0.172	0.000	44.0	29.027	OK
MH5.6	Rainfall TG: 100 years: +20 %: 15 mins: Summer	98.100	96.463	96.595	0.132	44.9	0.150	0.000	43.1	26.088	OK
MH5.8	Rainfall TG: 100 years: +20 %: 15 mins: Summer	97.500	96.075	96.131	0.056	7.1	0.063	0.000	6.7	3.116	OK
MH5.2	Rainfall TG: 100 years: +20 %: 15 mins: Summer	99.000	97.484	97.948	0.464	18.8	0.524	0.000	14.8	10.213	Surcharged
MH5.3	Rainfall TG: 100 years: +20 %: 15 mins: Summer	99.000	97.283	97.797	0.514	30.8	0.581	0.000	27.1	17.211	Surcharged
MH5.4	Rainfall TG: 100 years: +20 %: 15 mins: Summer	99.000	97.060	97.228	0.168	42.8	0.190	0.000	41.6	23.988	OK
MH5.5	Rainfall TG: 100 years: +20 %: 15 mins: Summer	98.700	96.865	97.012	0.146	46.5	0.166	0.000	44.9	26.117	OK
MH5.1	Rainfall TG: 100 years: +20 %: 15 mins: Summer	99.000	97.650	97.953	0.303	6.6	0.342	0.000	6.7	2.866	Surcharged
MH5.13	Rainfall TG: 100 years: +20 %: 1440 mins: Winter	95.300	94.000	94.957	0.957	2.7	1.082	0.000	0.7	93.172	OK
MH5.12	Rainfall TG: 100 years: +20 %: 360 mins: Winter	95.500	94.224	95.026	0.802	26.7	1.417	0.000	50.5	144.266	Surcharged

Project: ADMIRAL	Date: 10/06/2025		
	Designed by: TG & JH	Checked by: DML	Approved By: DML
Report Details: Type: Stormwater Controls Summary Storm Phase: D18 Phase	Company:: Lally Chartered Engineers		

Rainfall TG: 1 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Avg. Depth

Stormwater Control	Storm Event	Max. US Elevation (m)	Max. DS Elevation (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)	Status
Cellular Storage	Rainfall TG: 1 years: +0 %: 1440 mins: Winter	94.285	94.285	0.285	0.285	1.6	33.280	0.000	0.000	1.7	52.844	71.565	OK

Project: ADMIRAL	Date: 10/06/2025		
	Designed by: TG & JH	Checked by: DML	Approved By: DML
Report Details: Type: Stormwater Controls Summary Storm Phase: D18 Phase	Company:: Lally Chartered Engineers		

Rainfall TG: 30 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Avg. Depth

Stormwater Control	Storm Event	Max. US Elevation (m)	Max. DS Elevation (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)	Status
Cellular Storage	Rainfall TG: 30 years: +0 %: 1440 mins: Winter	94.595	94.595	0.595	0.595	3.0	69.423	0.000	0.000	2.4	93.907	40.682	OK

Project: ADMIRAL	Date: 10/06/2025		
	Designed by: TG & JH	Checked by: DML	Approved By: DML
Report Details: Type: Stormwater Controls Summary Storm Phase: D18 Phase	Company:: Lally Chartered Engineers		

Rainfall TG: 100 years: Increase Rainfall (%): +20: Critical Storm Per Item: Rank By: Max. Avg. Depth

Stormwater Control	Storm Event	Max. US Elevation (m)	Max. DS Elevation (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)	Status
Cellular Storage	Rainfall TG: 100 years: +20 %: 1440 mins: Winter	94.956	94.956	0.956	0.956	55.2	111.544	0.000	0.000	2.5	147.657	4.692	OK

Project: ADMIRAL	Date: 10/06/2025		
	Designed by: TG & JH	Checked by: DML	Approved By: DML
Report Details: Type: Connections Summary Storm Phase: D18 Phase	Company:: Lally Chartered Engineers		

Rainfall TG: 1 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Flow

Connection	Storm Event	Connection Type	From	To	Upstream Cover Elevation (m)	Max. US Water Elevation (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
P5.1.006	Rainfall TG: 1 years: +0 %: 30 mins: Summer	Pipe	MH5.7	MH5.9	97.500	95.806	0.081	11.145	0.8	0.14	12.9	OK
P5.1.007	Rainfall TG: 1 years: +0 %: 30 mins: Summer	Pipe	MH5.9	MH5.10	97.200	95.312	0.090	14.052	0.9	0.18	16.2	OK
P5.1.008	Rainfall TG: 1 years: +0 %: 15 mins: Summer	Pipe	MH5.10	MH5.11	97.000	94.912	0.092	11.436	1.0	0.2	18.1	OK
P5.1.000	Rainfall TG: 1 years: +0 %: 15 mins: Summer	Pipe	MH5.1	MH5.2	99.000	97.682	0.047	0.819	0.4	0.1	1.8	OK
P5.1.001	Rainfall TG: 1 years: +0 %: 15 mins: Summer	Pipe	MH5.2	MH5.3	99.000	97.546	0.074	2.937	0.7	0.36	6.3	OK
P5.1.002	Rainfall TG: 1 years: +0 %: 15 mins: Summer	Pipe	MH5.3	MH5.4	99.000	97.369	0.085	4.952	1.0	0.58	10.3	OK
P5.1.003	Rainfall TG: 1 years: +0 %: 15 mins: Summer	Pipe	MH5.4	MH5.5	99.000	97.145	0.080	6.905	1.1	0.27	14.1	OK
P5.1.004	Rainfall TG: 1 years: +0 %: 15 mins: Summer	Pipe	MH5.5	MH5.6	98.700	96.940	0.072	7.512	1.4	0.22	14.7	OK
P5.2.000	Rainfall TG: 1 years: +0 %: 15 mins: Summer	Pipe	MH5.8	MH5.7	97.500	96.105	0.052	0.906	0.4	0.04	1.9	OK
P5.1.005	Rainfall TG: 1 years: +0 %: 15 mins: Summer	Pipe	MH5.6	MH5.7	98.100	96.531	0.072	7.494	1.3	0.2	13.8	OK
P5.1.011	Rainfall TG: 1 years: +0 %: 1440 mins: Summer	No Delay	Cellular Storage	MH5.13		94.284	0.269	51.662	0.0		1.9	
P5.1.009	Rainfall TG: 1 years: +0 %: 15 mins: Summer	Pipe	MH5.11	MH5.12	96.500	94.398	0.097	11.807	0.8	0.12	18.8	OK
P5.1.010	Rainfall TG: 1 years: +0 %: 15 mins: Summer	Pipe	MH5.12	Cellular Storage	95.500	94.326	0.098	11.733	0.9	0.14	19.6	OK

Project: ADMIRAL	Date: 10/06/2025		
	Designed by: TG & JH	Checked by: DML	Approved By: DML
Report Details: Type: Connections Summary Storm Phase: D18 Phase	Company:: Lally Chartered Engineers		

Rainfall TG: 30 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Flow

Connection	Storm Event	Connection Type	From	To	Upstream Cover Elevation (m)	Max. US Water Elevation (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
P5.1.006	Rainfall TG: 30 years: +0 %: 15 mins: Summer	Pipe	MH5.7	MH5.9	97.500	95.851	0.127	18.586	1.0	0.33	29.7	OK
P5.1.007	Rainfall TG: 30 years: +0 %: 30 mins: Summer	Pipe	MH5.9	MH5.10	97.200	95.361	0.143	31.398	1.1	0.4	36.4	OK
P5.1.008	Rainfall TG: 30 years: +0 %: 30 mins: Summer	Pipe	MH5.10	MH5.11	97.000	94.968	0.145	34.855	1.2	0.44	40.3	OK
P5.1.000	Rainfall TG: 30 years: +0 %: 15 mins: Summer	Pipe	MH5.1	MH5.2	99.000	97.698	0.082	1.831	0.4	0.23	4.1	OK
P5.1.001	Rainfall TG: 30 years: +0 %: 15 mins: Winter	Pipe	MH5.2	MH5.3	99.000	97.584	0.150	6.552	0.7	0.69	12.2	OK
P5.1.002	Rainfall TG: 30 years: +0 %: 15 mins: Summer	Pipe	MH5.3	MH5.4	99.000	97.520	0.150	11.051	1.2	1.16	20.5	Surcharged
P5.1.003	Rainfall TG: 30 years: +0 %: 15 mins: Summer	Pipe	MH5.4	MH5.5	99.000	97.192	0.124	15.400	1.3	0.57	29.7	OK
P5.1.004	Rainfall TG: 30 years: +0 %: 15 mins: Summer	Pipe	MH5.5	MH5.6	98.700	96.981	0.111	16.763	1.6	0.47	31.6	OK
P5.2.000	Rainfall TG: 30 years: +0 %: 15 mins: Summer	Pipe	MH5.8	MH5.7	97.500	96.119	0.083	2.004	0.4	0.09	4.2	OK
P5.1.005	Rainfall TG: 30 years: +0 %: 15 mins: Summer	Pipe	MH5.6	MH5.7	98.100	96.569	0.114	16.738	1.5	0.44	30.5	OK
P5.1.011	Rainfall TG: 30 years: +0 %: 360 mins: Winter	No Delay	Cellular Storage	MH5.13		94.552	0.888	19.696	0.0		2.8	
P5.1.009	Rainfall TG: 30 years: +0 %: 30 mins: Summer	Pipe	MH5.11	MH5.12	96.500	94.453	0.151	36.074	1.0	0.26	41.6	OK
P5.1.010	Rainfall TG: 30 years: +0 %: 15 mins: Summer	Pipe	MH5.12	Cellular Storage	95.500	94.377	0.146	26.663	1.0	0.3	41.6	OK

Project: ADMIRAL	Date: 10/06/2025		
	Designed by: TG & JH	Checked by: DML	Approved By: DML
Report Details: Type: Connections Summary Storm Phase: D18 Phase	Company:: Lally Chartered Engineers		

Rainfall TG: 100 years: Increase Rainfall (%): +20: Critical Storm Per Item: Rank By: Max. Flow

Connection	Storm Event	Connection Type	From	To	Upstream Cover Elevation (m)	Max. US Water Elevation (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
P5.1.006	Rainfall TG: 100 years: +20 %: 15 mins: Summer	Pipe	MH5.7	MH5.9	97.500	95.882	0.163	29.027	1.1	0.49	44.0	OK
P5.1.007	Rainfall TG: 100 years: +20 %: 30 mins: Summer	Pipe	MH5.9	MH5.10	97.200	95.400	0.185	49.201	1.2	0.6	54.7	OK
P5.1.008	Rainfall TG: 100 years: +20 %: 30 mins: Summer	Pipe	MH5.10	MH5.11	97.000	95.014	0.187	54.632	1.3	0.67	60.5	OK
P5.1.000	Rainfall TG: 100 years: +20 %: 15 mins: Summer	Pipe	MH5.1	MH5.2	99.000	97.953	0.150	2.864	0.4	0.38	6.7	Surcharged
P5.1.001	Rainfall TG: 100 years: +20 %: 30 mins: Summer	Pipe	MH5.2	MH5.3	99.000	97.869	0.150	13.625	0.8	0.84	15.0	Surcharged
P5.1.002	Rainfall TG: 100 years: +20 %: 15 mins: Summer	Pipe	MH5.3	MH5.4	99.000	97.797	0.150	17.211	1.5	1.53	27.1	Surcharged
P5.1.003	Rainfall TG: 100 years: +20 %: 15 mins: Summer	Pipe	MH5.4	MH5.5	99.000	97.228	0.157	23.988	1.4	0.8	41.6	OK
P5.1.004	Rainfall TG: 100 years: +20 %: 15 mins: Summer	Pipe	MH5.5	MH5.6	98.700	97.012	0.139	26.117	1.7	0.67	44.9	OK
P5.2.000	Rainfall TG: 100 years: +20 %: 15 mins: Summer	Pipe	MH5.8	MH5.7	97.500	96.131	0.104	3.116	0.4	0.14	6.7	OK
P5.1.005	Rainfall TG: 100 years: +20 %: 15 mins: Summer	Pipe	MH5.6	MH5.7	98.100	96.595	0.142	26.088	1.6	0.62	43.1	OK
P5.1.011	Rainfall TG: 100 years: +20 %: 480 mins: Winter	No Delay	Cellular Storage	MH5.13		94.896	1.043	30.486	0.0		3.1	
P5.1.009	Rainfall TG: 100 years: +20 %: 120 mins: Summer	Pipe	MH5.11	MH5.12	96.500	94.679	0.375	84.850	1.0	0.4	65.4	OK
P5.1.010	Rainfall TG: 100 years: +20 %: 30 mins: Summer	Pipe	MH5.12	Cellular Storage	95.500	94.456	0.247	54.826	1.2	0.44	62.4	OK