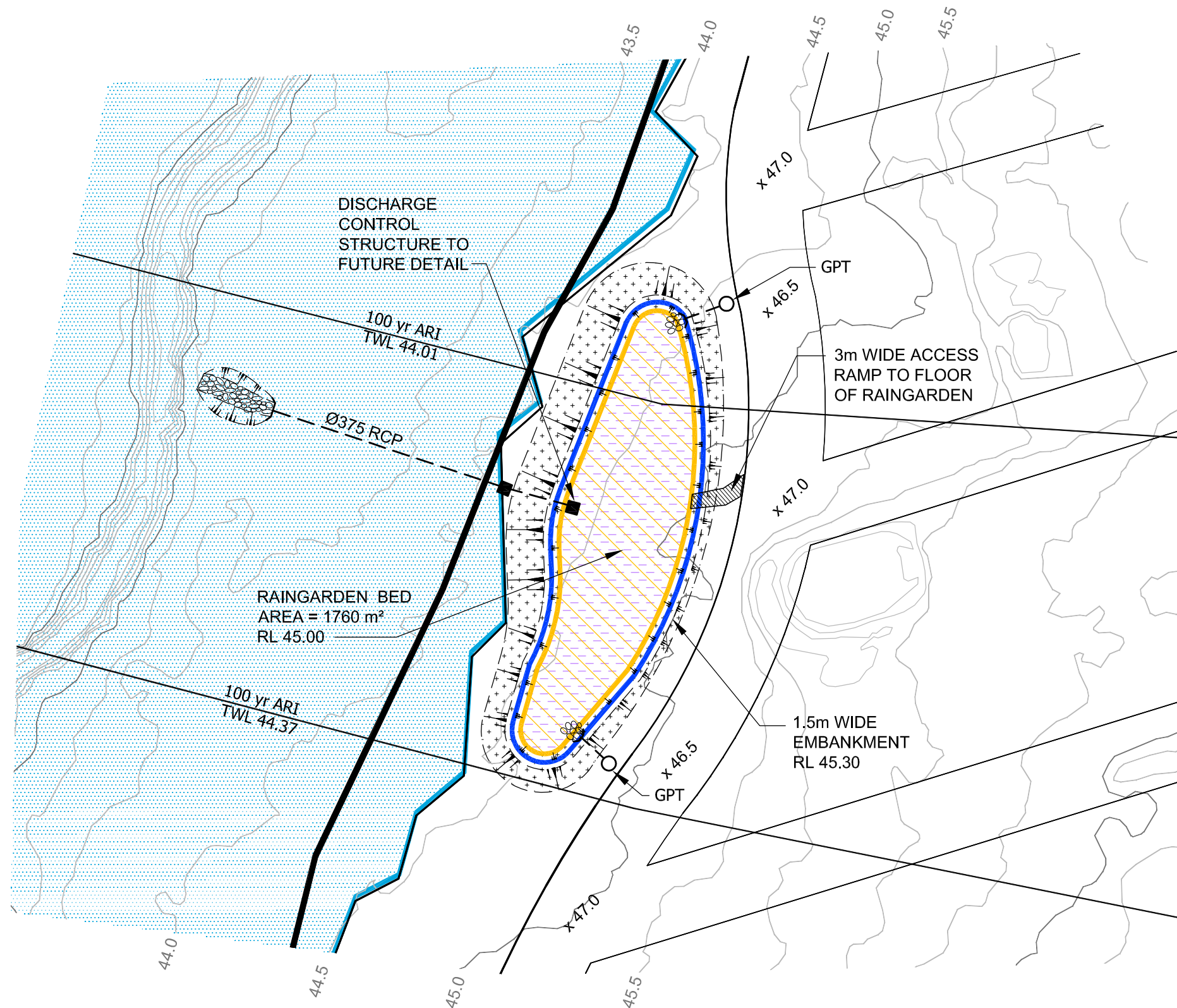
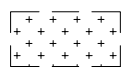




RAINGARDEN 6

RAINGARDEN BED AREA = 1760m²
EDL 45.30
RAINGARDEN BED RL 45.00

-  EXTENT OF CUT - 1100m³ (Approx) INCLUDING RAINGARDEN
-  EXTENT OF FILL - 970m³ (Approx)
-  APPROXIMATE EXTENT OF PROPOSED RAINGARDEN

100 yr ARI TWL 43.02 HEC-RAS SECTION AND 100 YEAR ARI FLOOD LEVEL (ULTIMATE SITE CONDITIONS)

ALL BATTERS TO BE MAXIMUM 6:1

 APPROXIMATE EXTENT OF 100 YEAR ARI FLOODING (ULTIMATE SITE CONDITIONS)

CONTOURS DENOTE EXISTING GROUND LEVELS

x 50.0 DENOTES INDICATIVE DESIGN ROAD LEVEL

ROUSE HILL AREA 20 PRECINCT WATER CYCLE MANAGEMENT STRATEGY RAINGARDEN CONCEPT DESIGNS - RAINGARDEN 6

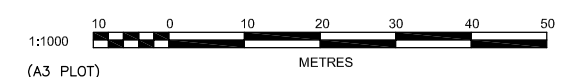
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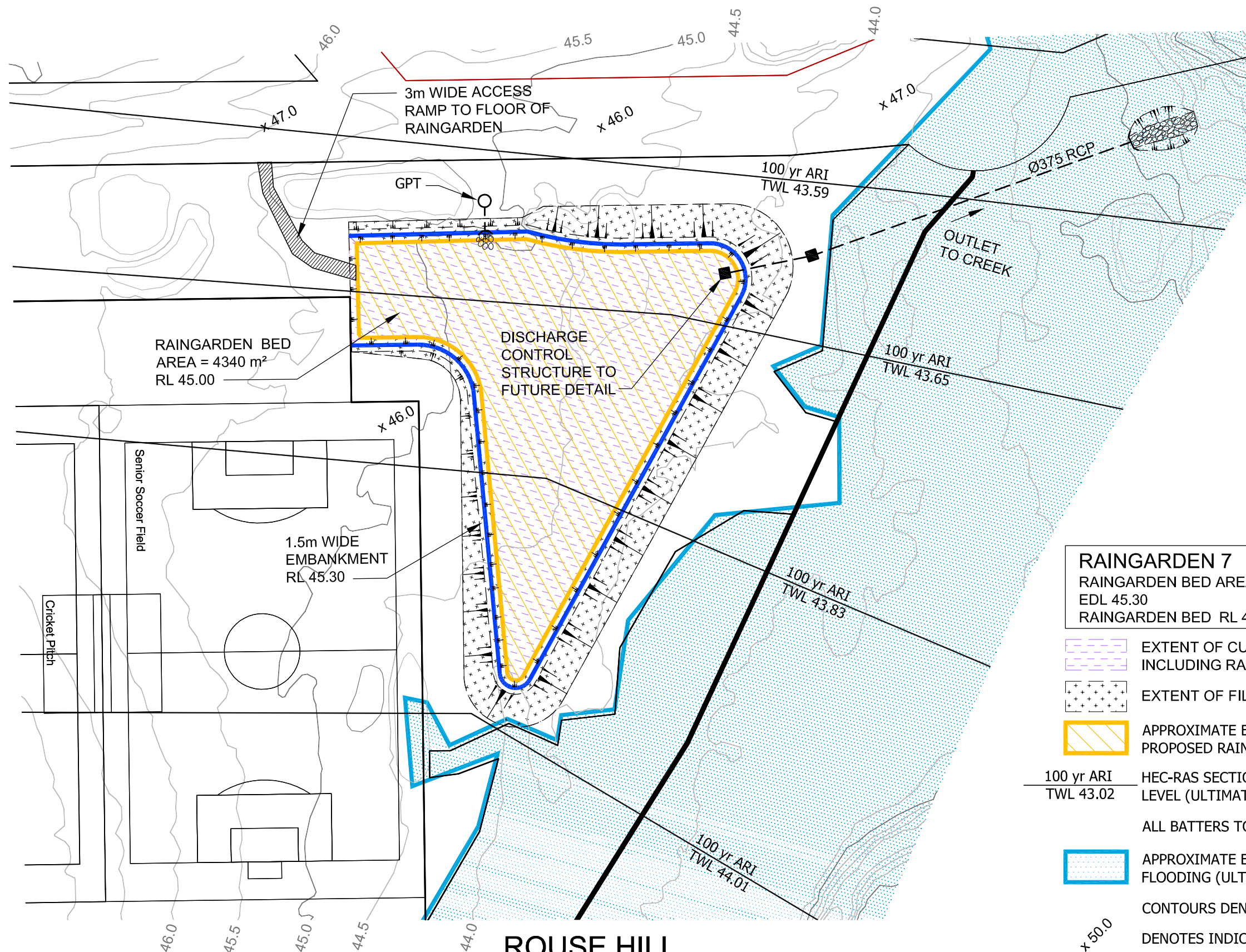
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RAINGARDEN 6





RAINGARDEN 7
 RAINGARDEN BED AREA = 4340m²
 EDL 45.30
 RAINGARDEN BED RL 45.00

EXTENT OF CUT - 2170m³ (Approx)
 INCLUDING RAINGARDEN

EXTENT OF FILL - 1970m³ (Approx)

APPROXIMATE EXTENT OF
 PROPOSED RAINGARDEN

100 yr ARI TWL 43.02 HEC-RAS SECTION AND 100 YEAR ARI FLOOD
 LEVEL (ULTIMATE SITE CONDITIONS)

ALL BATTERS TO BE MAXIMUM 6:1

APPROXIMATE EXTENT OF 100 YEAR ARI
 FLOODING (ULTIMATE SITE CONDITIONS)

CONTOURS DENOTE EXISTING GROUND LEVELS

DENOTES INDICATIVE DESIGN ROAD LEVEL

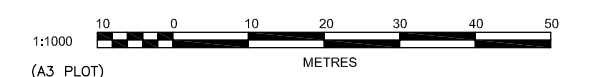
ROUSE HILL AREA 20 PRECINCT WATER CYCLE MANAGEMENT STRATEGY RAINGARDEN CONCEPT DESIGNS - RAINGARDEN 7

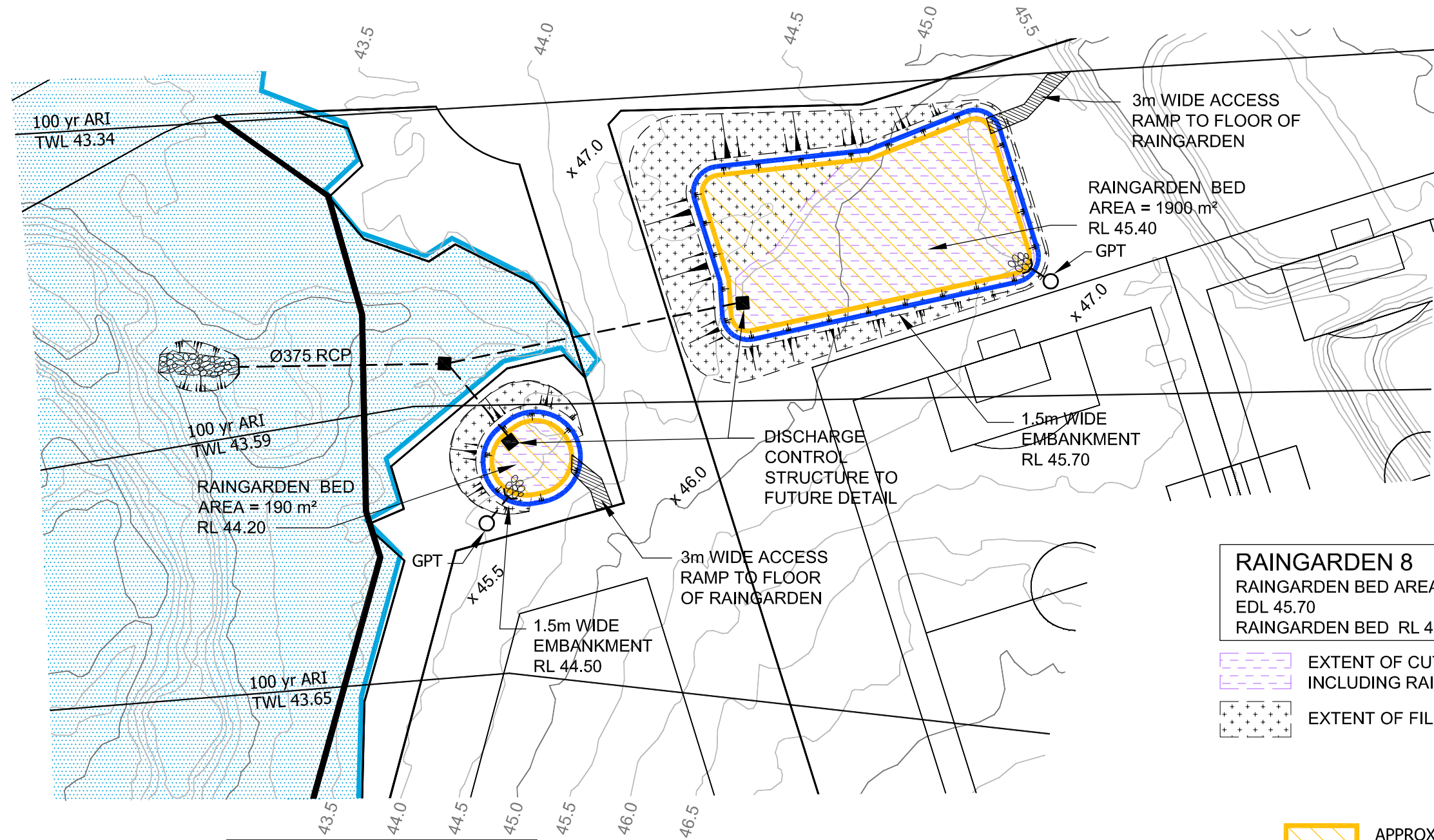
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RAINGARDEN 9
 RAINGARDEN BED AREA = 190m²
 EDL 44.20
 RAINGARDEN BED RL 44.50

EXTENT OF CUT - 150m³ (Approx)
 INCLUDING RAINGARDEN
 EXTENT OF FILL - 240m³ (Approx)

RAINGARDEN 8
 RAINGARDEN BED AREA = 1900m²
 EDL 45.70
 RAINGARDEN BED RL 45.40

EXTENT OF CUT - 1120m³ (Approx)
 INCLUDING RAINGARDEN
 EXTENT OF FILL - 1180m³ (Approx)



APPROXIMATE EXTENT OF
 PROPOSED RAINGARDEN

100 yr ARI
 TWL 43.02

HEC-RAS SECTION AND 100 YEAR ARI FLOOD
 LEVEL (ULTIMATE SITE CONDITIONS)

ALL BATTERS TO BE MAXIMUM 6:1



APPROXIMATE EXTENT OF 100 YEAR ARI
 FLOODING (ULTIMATE SITE CONDITIONS)

CONTOURS DENOTE EXISTING GROUND LEVELS
 DENOTES INDICATIVE DESIGN ROAD LEVEL

+ 50.0

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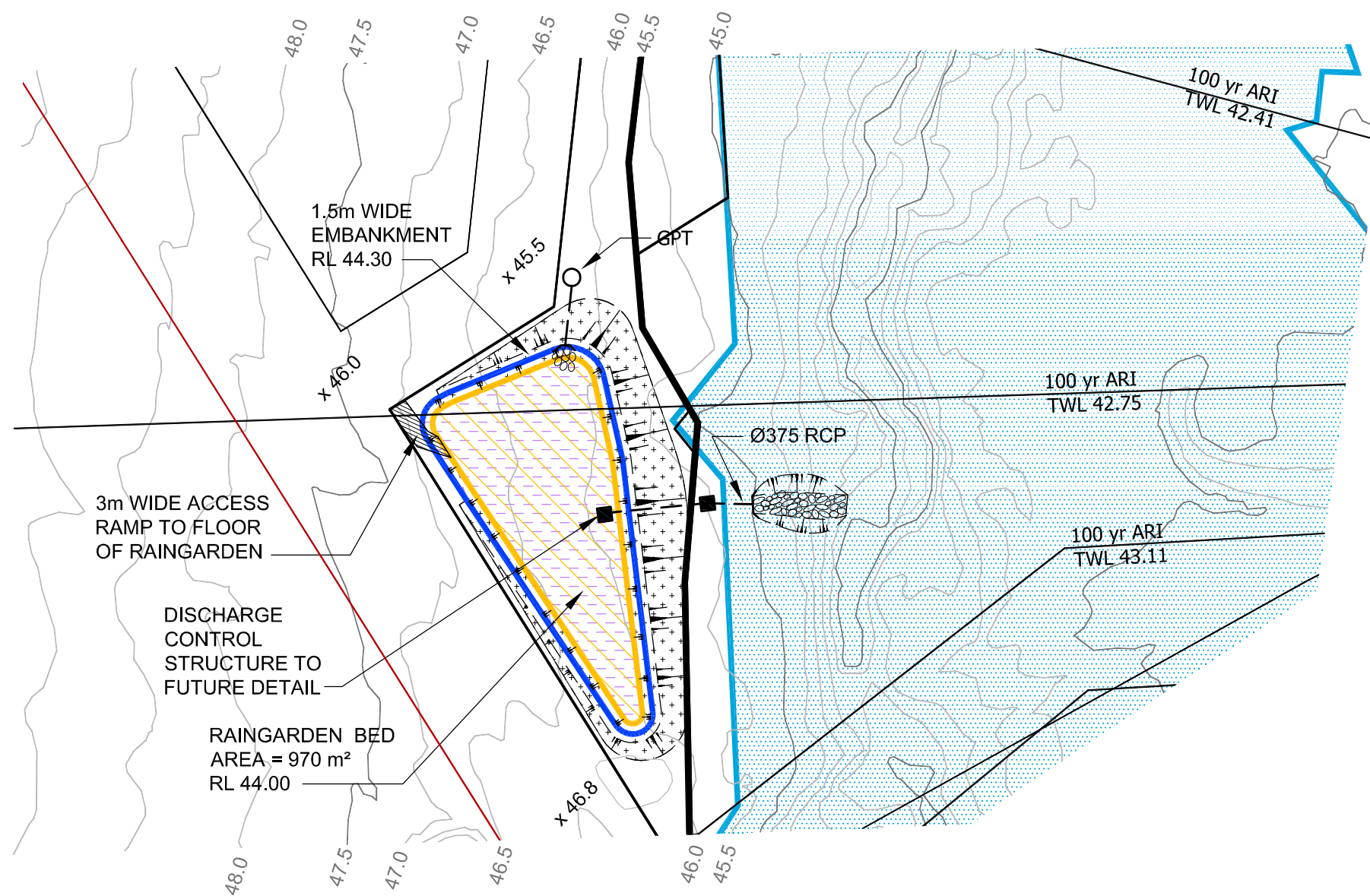
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**ROUSE HILL
 AREA 20 PRECINCT
 WATER CYCLE MANAGEMENT STRATEGY
 RAINGARDEN CONCEPT DESIGNS - RAINGARDENS 8 & 9**

RAINGARDENS 8 & 9





RAINGARDEN 10
RAINGARDEN BED AREA = 970m²
EDL 44.30
RAINGARDEN BED RL 44.00

- EXTENT OF CUT - 780m³ (Approx) INCLUDING RAINGARDEN
- EXTENT OF FILL - 500m³ (Approx)
- APPROXIMATE EXTENT OF PROPOSED RAINGARDEN

100 yr ARI TWL 43.02 HEC-RAS SECTION AND 100 YEAR ARI FLOOD LEVEL (ULTIMATE SITE CONDITIONS)

ALL BATTERS TO BE MAXIMUM 6:1

APPROXIMATE EXTENT OF 100 YEAR ARI FLOODING (ULTIMATE SITE CONDITIONS)

CONTOURS DENOTE EXISTING GROUND LEVELS
DENOTES INDICATIVE DESIGN ROAD LEVEL

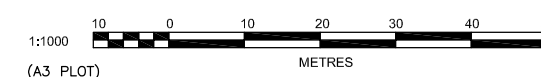
ROUSE HILL AREA 20 PRECINCT WATER CYCLE MANAGEMENT STRATEGY RAINGARDEN CONCEPT DESIGNS - RAINGARDEN 10

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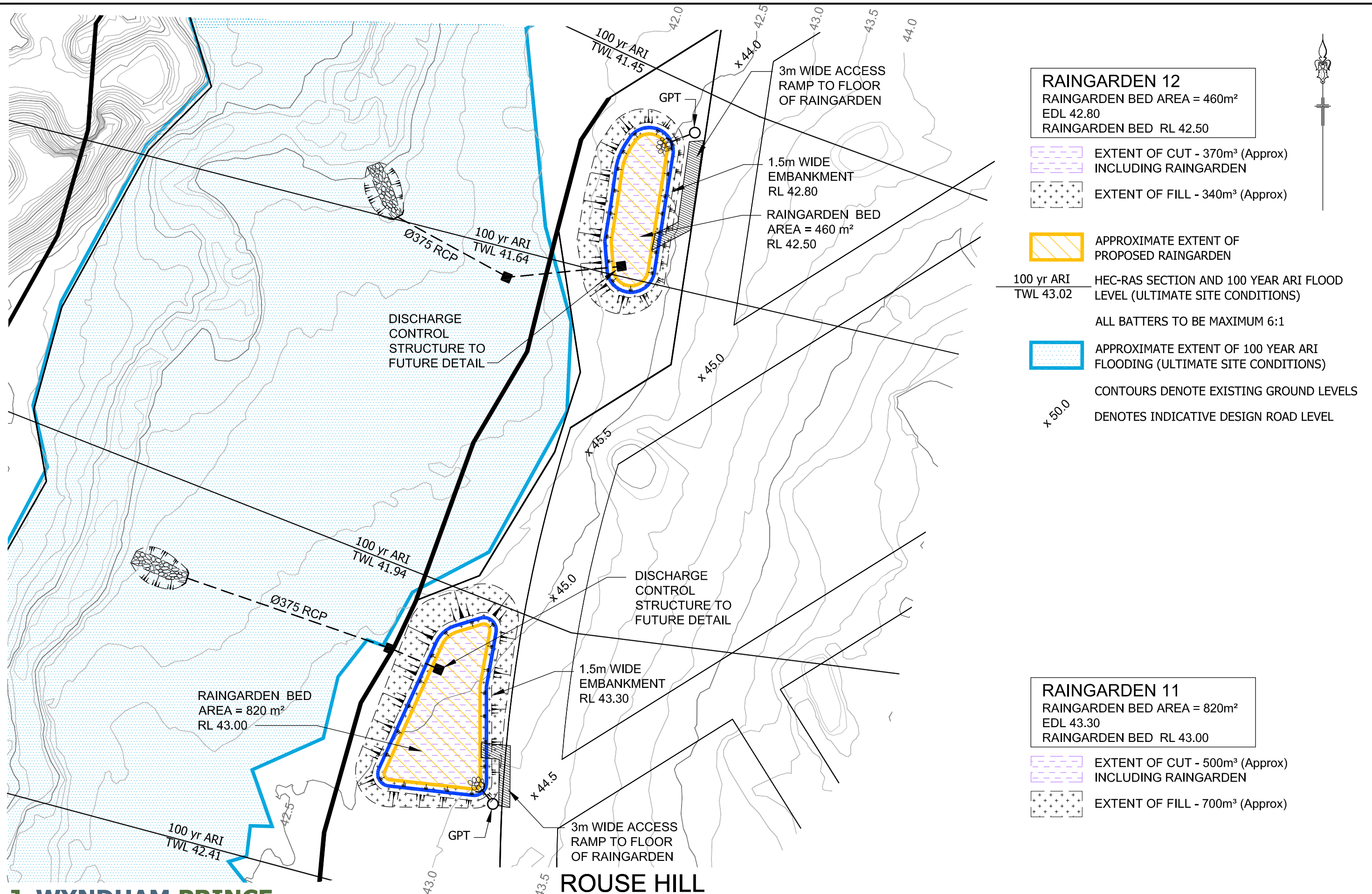
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RAINGARDEN 10



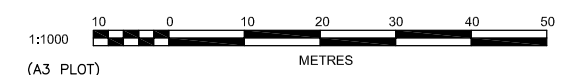
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RAINGARDENS 11 & 12



PRELIMINARY COST ESTIMATE**PROJECT: Rouse Hill Area 20 - Section 94 Raingardens****CLIENT: Department of Planning****JWP Job Number: 8622****RAINGARDEN 1**

NO.	ITEM	QTY.	UNIT	RATE Exc GST\$	AMOUNT Exc GST\$
1	RAINGARDEN 1				
	Establishment (5%)	1	Item	\$40,000.00	\$40,000.00
	Clearing (Allowance Only)	1	Item	\$5,000.00	\$5,000.00
	Strip & stockpile topsoil	2,950	sq.m.	\$1.50	\$4,425.00
	Respread topsoil	1,500	sq.m.	\$2.50	\$3,750.00
	Earthworks - Excavate and Dispose of Unsound Material		cu.m.	\$200.00	
	Earthworks - Cut to Fill On Site	770	cu.m.	\$5.00	\$3,850.00
	Earthworks - Import material		cu.m.	\$30.00	
	Earthworks - Cut to Dispose off Site (incl. disposal fees)	80	cu.m.	\$75.00	\$6,000.00
	Trim and Compact	1,500	sq.m.	\$1.00	\$1,500.00
	Planting (incl maintenance for 2 years)	1,420	sq.m.	\$9.50	\$13,490.00
	Reinforced Turfing on Weir and Spillway (incl 2 yr maint)	400	sq.m.	\$25.00	\$10,000.00
	Soil & Water Management (Allowance Only)	1	item	\$10,000.00	\$10,000.00
				SUBTOTAL	\$99,000.00
2	WATER QUALITY TREATMENT DEVICES				
	Raingarden (incl. media bed & subsoil drainage)	1,420	sq.m.	\$180.00	\$255,600.00
	Raingarden Planting	1,420	sq.m.	\$45.00	\$63,900.00
	GPT device and Associated Drainage Infrastructure	2	item	\$70,000.00	\$140,000.00
				SUBTOTAL	\$460,000.00
3	DRAINAGE / STRUCTURES				
	Raingarden Outlet Structure	1	each	\$2,000.00	\$2,000.00
	375mm dia RCP Raingarden Outlet Pipe to Creek	80	lin.m.	\$130.00	\$10,400.00
	Downstream Pit	1	each	\$2,000.00	\$2,000.00
	Outlet Headwall Structure into Creek	1	each	\$2,000.00	\$2,000.00
	Hardstand Maintenance Access to Raingarden	75	sq.m.	\$250.00	\$18,750.00
	Rock Erosion Protection	150	sq.m.	\$250.00	\$37,500.00
				SUBTOTAL	\$73,000.00
TOTAL FOR ITEMS 1, 2 & 3					\$632,000.00
4	PLANT & CONTINGENCIES				
	15% Plant & Contingency		item		\$95,000.00
				SUBTOTAL WITH 15% CONTINGENCY	\$727,000.00
5	ADMINISTRATION AND MANAGEMENT COSTS				
	Consultancy and Project Management Fees (6%)		item		\$44,000.00
	Government Agency Approvals (DSC, RTA, DECCW, etc - Allowance Only)		item		\$10,000.00
	Council DA Fees and planFIRST Levy		item		\$2,583.00
	PCA Fees (Allowance Only)		item		\$10,000.00
				SUBTOTAL	\$67,000.00
TOTAL					\$794,000.00

PRELIMINARY COST ESTIMATE

PROJECT: Rouse Hill Area 20 - Section 94 Raingardens

CLIENT: Department of Planning

JWP Job Number: 8622

RAINGARDEN 2

NO.	ITEM	QTY.	UNIT	RATE Exc GST\$	AMOUNT Exc GST\$
1	RAINGARDEN 2				
	Establishment (5%)	1	Item	\$45,000.00	\$45,000.00
	Clearing (Allowance Only)	1	Item	\$25,000.00	\$25,000.00
	Strip & stockpile topsoil	4,500	sq.m.	\$1.50	\$6,750.00
	Respread topsoil	2,830	sq.m.	\$2.50	\$7,075.00
	Earthworks - Excavate and Dispose of Unsound Material		cu.m.	\$200.00	
	Earthworks - Cut to Fill On Site	1,030	cu.m.	\$5.00	\$5,150.00
	Earthworks - Import material		cu.m.	\$30.00	
	Earthworks - Cut to Dispose off Site (incl. disposal fees)	140	cu.m.	\$75.00	\$10,500.00
	Trim and Compact	2,830	sq.m.	\$1.00	\$2,830.00
	Planting (incl maintenance for 2 years)	1,670	sq.m.	\$9.50	\$15,865.00
	Reinforced Turfing on Weir and Spillway (incl 2 yr maint)	750	sq.m.	\$25.00	\$18,750.00
	Soil & Water Management (Allowance Only)	1	item	\$10,000.00	\$10,000.00
				SUBTOTAL	\$147,000.00
2	WATER QUALITY TREATMENT DEVICES				
	Raingarden (incl. media bed & subsoil drainage)	1,670	sq.m.	\$180.00	\$300,600.00
	Raingarden Planting	1,670	sq.m.	\$45.00	\$75,150.00
	GPT device and Associated Drainage Infrastructure	2	item	\$70,000.00	\$140,000.00
				SUBTOTAL	\$516,000.00
3	DRAINAGE / STRUCTURES				
	Raingarden Outlet Structure	1	each	\$2,000.00	\$2,000.00
	375mm dia RCP Raingarden Outlet Pipe to Creek	50	lin.m.	\$130.00	\$6,500.00
	Downstream Pit	1	each	\$2,000.00	\$2,000.00
	Outlet Headwall Structure into Creek	1	each	\$2,000.00	\$2,000.00
	Hardstand Maintenance Access to Raingarden	75	sq.m.	\$250.00	\$18,750.00
	Rock Erosion Protection	60	sq.m.	\$250.00	\$15,000.00
				SUBTOTAL	\$47,000.00
TOTAL FOR ITEMS 1, 2 & 3					\$710,000.00
4	PLANT & CONTINGENCIES				
	15% Plant & Contingency		item		\$107,000.00
				SUBTOTAL WITH 15% CONTINGENCY	\$817,000.00
5	ADMINISTRATION AND MANAGEMENT COSTS				
	Consultancy and Project Management Fees (6%)		item		\$50,000.00
	Government Agency Approvals (DSC, RTA, DECCW, etc - Allowance Only)		item		\$10,000.00
	Council DA Fees and planFIRST Levy		item		\$2,788.00
	PCA Fees (Allowance Only)		item		\$10,000.00
				SUBTOTAL	\$73,000.00
TOTAL					\$890,000.00

PRELIMINARY COST ESTIMATE

PROJECT: Rouse Hill Area 20 - Section 94 Raingardens

CLIENT: Department of Planning

JWP Job Number: 8622

RAINGARDEN 3

NO.	ITEM	QTY.	UNIT	RATE Exc GST\$	AMOUNT Exc GST\$
1	RAINGARDEN 3				
	Establishment (5%)	1	Item	\$30,000.00	\$30,000.00
	Clearing (Allowance Only)	1	Item	\$5,000.00	\$5,000.00
	Strip & stockpile topsoil	2,590	sq.m.	\$1.50	\$3,885.00
	Respread topsoil	1,340	sq.m.	\$2.50	\$3,350.00
	Earthworks - Excavate and Dispose of Unsound Material		cu.m.	\$200.00	
	Earthworks - Cut to Fill On Site	760	cu.m.	\$5.00	\$3,800.00
	Earthworks - Import material		cu.m.	\$30.00	
	Earthworks - Cut to Dispose off Site (incl. disposal fees)	120	cu.m.	\$75.00	\$9,000.00
	Trim and Compact	1,340	sq.m.	\$1.00	\$1,340.00
	Planting (incl maintenance for 2 years)	940	sq.m.	\$9.50	\$8,930.00
	Reinforced Turfing on Weir and Spillway (incl 2 yr maint)	400	sq.m.	\$25.00	\$10,000.00
	Soil & Water Management (Allowance Only)	1	item	\$10,000.00	\$10,000.00
				SUBTOTAL	\$86,000.00
2	WATER QUALITY TREATMENT DEVICES				
	Raingarden (incl. media bed & subsoil drainage)	1,250	sq.m.	\$180.00	\$225,000.00
	Raingarden Planting	1,250	sq.m.	\$45.00	\$56,250.00
	GPT device and Associated Drainage Infrastructure	1	item	\$70,000.00	\$70,000.00
				SUBTOTAL	\$352,000.00
3	DRAINAGE / STRUCTURES				
	Raingarden Outlet Structure	1	each	\$2,000.00	\$2,000.00
	375mm dia RCP Raingarden Outlet Pipe to Creek	70	lin.m.	\$130.00	\$9,100.00
	Downstream Pit	1	each	\$2,000.00	\$2,000.00
	Outlet Headwall Structure into Creek	1	each	\$2,000.00	\$2,000.00
	Hardstand Maintenance Access to Raingarden	75	sq.m.	\$250.00	\$18,750.00
	Rock Erosion Protection	60	sq.m.	\$250.00	\$15,000.00
				SUBTOTAL	\$49,000.00
TOTAL FOR ITEMS 1, 2 & 3					\$487,000.00
4	PLANT & CONTINGENCIES				
	15% Plant & Contingency		item		\$74,000.00
				SUBTOTAL WITH 15% CONTINGENCY	\$561,000.00
5	ADMINISTRATION AND MANAGEMENT COSTS				
	Consultancy and Project Management Fees (6%)		item		\$34,000.00
	Government Agency Approvals (DSC, RTA, DECCW, etc - Allowance Only)		item		\$10,000.00
	Council DA Fees and planFIRST Levy		item		\$2,205.00
	PCA Fees (Allowance Only)		item		\$10,000.00
				SUBTOTAL	\$57,000.00
TOTAL					\$618,000.00

PRELIMINARY COST ESTIMATE

PROJECT: Rouse Hill Area 20 - Section 94 Raingardens

CLIENT: Department of Planning

JWP Job Number: 8622

RAINGARDEN 4

NO.	ITEM	QTY.	UNIT	RATE Exc GST\$	AMOUNT Exc GST\$
1	RAINGARDEN 4				
	Establishment (5%)	1	Item	\$20,000.00	\$20,000.00
	Clearing (Allowance Only)	1	Item	\$25,000.00	\$25,000.00
	Strip & stockpile topsoil	1,400	sq.m.	\$1.50	\$2,100.00
	Respread topsoil	915	sq.m.	\$2.50	\$2,287.50
	Earthworks - Excavate and Dispose of Unsound Material		cu.m.	\$200.00	
	Earthworks - Cut to Fill On Site	380	cu.m.	\$5.00	\$1,900.00
	Earthworks - Import material		cu.m.	\$30.00	
	Earthworks - Cut to Dispose off Site (incl. disposal fees)	20	cu.m.	\$75.00	\$1,500.00
	Trim and Compact	915	sq.m.	\$1.00	\$915.00
	Planting (incl maintenance for 2 years)	465	sq.m.	\$9.50	\$4,417.50
	Reinforced Turfing on Weir and Spillway (incl 2 yr maint)	450	sq.m.	\$25.00	\$11,250.00
	Soil & Water Management (Allowance Only)	1	item	\$10,000.00	\$10,000.00
				SUBTOTAL	\$80,000.00
2	WATER QUALITY TREATMENT DEVICES				
	Raingarden (incl. media bed & subsoil drainage)	485	sq.m.	\$180.00	\$87,300.00
	Raingarden Planting	485	sq.m.	\$45.00	\$21,825.00
	GPT device and Associated Drainage Infrastructure	1	item	\$70,000.00	\$70,000.00
				SUBTOTAL	\$180,000.00
3	DRAINAGE / STRUCTURES				
	Raingarden Outlet Structure	1	each	\$2,000.00	\$2,000.00
	375mm dia RCP Raingarden Outlet Pipe to Creek	50	lin.m.	\$130.00	\$6,500.00
	Downstream Pit	1	each	\$2,000.00	\$2,000.00
	Outlet Headwall Structure into Creek	1	each	\$2,000.00	\$2,000.00
	Hardstand Maintenance Access to Raingarden	60	sq.m.	\$250.00	\$15,000.00
	Rock Erosion Protection	60	sq.m.	\$250.00	\$15,000.00
				SUBTOTAL	\$43,000.00
TOTAL FOR ITEMS 1, 2 & 3					\$303,000.00
4	PLANT & CONTINGENCIES				
	15% Plant & Contingency		item		\$46,000.00
				SUBTOTAL WITH 15% CONTINGENCY	\$349,000.00
5	ADMINISTRATION AND MANAGEMENT COSTS				
	Consultancy and Project Management Fees (6%)		item		\$21,000.00
	Government Agency Approvals (DSC, RTA, DECCW, etc - Allowance Only)		item		\$10,000.00
	Council DA Fees and planFIRST Levy		item		\$1,616.00
	PCA Fees (Allowance Only)		item		\$10,000.00
				SUBTOTAL	\$43,000.00
TOTAL					\$392,000.00

PRELIMINARY COST ESTIMATE**PROJECT: Rouse Hill Area 20 - Section 94 Raingardens****CLIENT: Department of Planning****JWP Job Number: 8622****RAINGARDEN 5**

NO.	ITEM	QTY.	UNIT	RATE	AMOUNT
				Exc GST\$	Exc GST\$
1	RAINGARDEN 5				
	Establishment (5%)	1	Item	\$20,000.00	\$20,000.00
	Clearing (Allowance Only)	1	Item	\$25,000.00	\$25,000.00
	Strip & stockpile topsoil	1,180	sq.m.	\$1.50	\$1,770.00
	Respread topsoil	780	sq.m.	\$2.50	\$1,950.00
	Earthworks - Excavate and Dispose of Unsound Material		cu.m.	\$200.00	
	Earthworks - Cut to Fill On Site	300	cu.m.	\$5.00	\$1,500.00
	Earthworks - Import material	50	cu.m.	\$30.00	\$1,500.00
	Earthworks - Cut to Dispose off Site (incl. disposal fees)		cu.m.	\$75.00	
	Trim and Compact	780	sq.m.	\$1.00	\$780.00
	Planting (incl maintenance for 2 years)	380	sq.m.	\$9.50	\$3,610.00
	Reinforced Turfing on Weir and Spillway (incl 2 yr maint)	400	sq.m.	\$25.00	\$10,000.00
	Soil & Water Management (Allowance Only)	1	item	\$10,000.00	\$10,000.00
				SUBTOTAL	\$77,000.00
2	WATER QUALITY TREATMENT DEVICES				
	Raingarden (incl. media bed & subsoil drainage)	400	sq.m.	\$180.00	\$72,000.00
	Raingarden Planting	400	sq.m.	\$45.00	\$18,000.00
	GPT device and Associated Drainage Infrastructure	1	item	\$70,000.00	\$70,000.00
				SUBTOTAL	\$160,000.00
3	DRAINAGE / STRUCTURES				
	Raingarden Outlet Structure	1	each	\$2,000.00	\$2,000.00
	375mm dia RCP Raingarden Outlet Pipe to Creek	60	lin.m.	\$130.00	\$7,800.00
	Downstream Pit	1	each	\$2,000.00	\$2,000.00
	Outlet Headwall Structure into Creek	1	each	\$2,000.00	\$2,000.00
	Hardstand Maintenance Access to Raingarden	60	sq.m.	\$250.00	\$15,000.00
	Rock Erosion Protection	60	sq.m.	\$250.00	\$15,000.00
				SUBTOTAL	\$44,000.00
				TOTAL FOR ITEMS 1, 2 & 3	\$281,000.00
4	PLANT & CONTINGENCIES				
	15% Plant & Contingency		item		\$43,000.00
				SUBTOTAL WITH 15% CONTINGENCY	\$324,000.00
5	ADMINISTRATION AND MANAGEMENT COSTS				
	Consultancy and Project Management Fees (6%)		item		\$20,000.00
	Government Agency Approvals (DSC, RTA, DECCW, etc - Allowance Only)		item		\$10,000.00
	Council DA Fees and planFIRST Levy		item		\$1,541.00
	PCA Fees (Allowance Only)		item		\$10,000.00
				SUBTOTAL	\$42,000.00
				TOTAL	\$366,000.00

PRELIMINARY COST ESTIMATE**PROJECT: Rouse Hill Area 20 - Section 94 Raingardens****CLIENT: Department of Planning****JWP Job Number: 8622****RAINGARDEN 6**

NO.	ITEM	QTY.	UNIT	RATE Exc GST\$	AMOUNT Exc GST\$
1	RAINGARDEN 6				
	Establishment (5%)	1	Item	\$55,000.00	\$55,000.00
	Clearing (Allowance Only)	1	Item	\$200,000.00	\$200,000.00
	Strip & stockpile topsoil	3,700	sq.m.	\$1.50	\$5,550.00
	Respread topsoil	1,940	sq.m.	\$2.50	\$4,850.00
	Earthworks - Excavate and Dispose of Unsound Material		cu.m.	\$200.00	
	Earthworks - Cut to Fill On Site	970	cu.m.	\$5.00	\$4,850.00
	Earthworks - Import material		cu.m.	\$30.00	
	Earthworks - Cut to Dispose off Site (incl. disposal fees)	150	cu.m.	\$75.00	\$11,250.00
	Trim and Compact	1,940	sq.m.	\$1.00	\$1,940.00
	Planting (incl maintenance for 2 years)	1,040	sq.m.	\$9.50	\$9,880.00
	Reinforced Turfing on Weir and Spillway (incl 2 yr maint)	900	sq.m.	\$25.00	\$22,500.00
	Soil & Water Management (Allowance Only)	1	item	\$10,000.00	\$10,000.00
				SUBTOTAL	\$326,000.00
2	WATER QUALITY TREATMENT DEVICES				
	Raingarden (incl. media bed & subsoil drainage)	1,760	sq.m.	\$180.00	\$316,800.00
	Raingarden Planting	1,760	sq.m.	\$45.00	\$79,200.00
	GPT device and Associated Drainage Infrastructure	2	item	\$70,000.00	\$140,000.00
				SUBTOTAL	\$536,000.00
3	DRAINAGE / STRUCTURES				
	Raingarden Outlet Structure	1	each	\$2,000.00	\$2,000.00
	375mm dia RCP Raingarden Outlet Pipe to Creek	70	lin.m.	\$130.00	\$9,100.00
	Downstream Pit	1	each	\$2,000.00	\$2,000.00
	Outlet Headwall Structure into Creek	1	each	\$2,000.00	\$2,000.00
	Hardstand Maintenance Access to Raingarden	60	sq.m.	\$250.00	\$15,000.00
	Rock Erosion Protection	60	sq.m.	\$250.00	\$15,000.00
				SUBTOTAL	\$46,000.00
TOTAL FOR ITEMS 1, 2 & 3					\$908,000.00
4	PLANT & CONTINGENCIES				
	15% Plant & Contingency		item		\$137,000.00
				SUBTOTAL WITH 15% CONTINGENCY	\$1,045,000.00
5	ADMINISTRATION AND MANAGEMENT COSTS				
	Consultancy and Project Management Fees (6%)		item		\$63,000.00
	Government Agency Approvals (DSC, RTA, DECCW, etc - Allowance Only)		item		\$10,000.00
	Council DA Fees and planFIRST Levy		item		\$3,349.00
	PCA Fees (Allowance Only)		item		\$10,000.00
				SUBTOTAL	\$87,000.00
TOTAL					\$1,132,000.00

PRELIMINARY COST ESTIMATE**PROJECT: Rouse Hill Area 20 - Section 94 Raingardens****CLIENT: Department of Planning****JWP Job Number: 8622****RAINGARDEN 7**

NO.	ITEM	QTY.	UNIT	RATE Exc GST\$	AMOUNT Exc GST\$
1	RAINGARDEN 7				
	Establishment (5%)	1	Item	\$85,000.00	\$85,000.00
	Clearing (Allowance Only)	1	Item	\$100,000.00	\$100,000.00
	Strip & stockpile topsoil	7,430	sq.m.	\$1.50	\$11,145.00
	Respread topsoil	3,090	sq.m.	\$2.50	\$7,725.00
	Earthworks - Excavate and Dispose of Unsound Material		cu.m.	\$200.00	
	Earthworks - Cut to Fill On Site	1,970	cu.m.	\$5.00	\$9,850.00
	Earthworks - Import material		cu.m.	\$30.00	
	Earthworks - Cut to Dispose off Site (incl. disposal fees)	200	cu.m.	\$75.00	\$15,000.00
	Trim and Compact	3,090	sq.m.	\$1.00	\$3,090.00
	Planting (incl maintenance for 2 years)	1,690	sq.m.	\$9.50	\$16,055.00
	Reinforced Turfing on Weir and Spillway (incl 2 yr maint)	1,400	sq.m.	\$25.00	\$35,000.00
	Soil & Water Management (Allowance Only)	1	item	\$10,000.00	\$10,000.00
				SUBTOTAL	\$293,000.00
2	WATER QUALITY TREATMENT DEVICES				
	Raingarden (incl. media bed & subsoil drainage)	4,340	sq.m.	\$180.00	\$781,200.00
	Raingarden Planting	4,340	sq.m.	\$45.00	\$195,300.00
	GPT device and Associated Drainage Infrastructure	1	item	\$70,000.00	\$70,000.00
				SUBTOTAL	\$1,047,000.00
3	DRAINAGE / STRUCTURES				
	Raingarden Outlet Structure	1	each	\$2,000.00	\$2,000.00
	375mm dia RCP Raingarden Outlet Pipe to Creek	110	lin.m.	\$130.00	\$14,300.00
	Downstream Pit	1	each	\$2,000.00	\$2,000.00
	Outlet Headwall Structure into Creek	1	each	\$2,000.00	\$2,000.00
	Hardstand Maintenance Access to Raingarden	120	sq.m.	\$250.00	\$30,000.00
	Rock Erosion Protection	60	sq.m.	\$250.00	\$15,000.00
				SUBTOTAL	\$66,000.00
TOTAL FOR ITEMS 1, 2 & 3					\$1,406,000.00
4	PLANT & CONTINGENCIES				
	15% Plant & Contingency		item		\$211,000.00
				SUBTOTAL WITH 15% CONTINGENCY	\$1,617,000.00
5	ADMINISTRATION AND MANAGEMENT COSTS				
	Consultancy and Project Management Fees (6%)		item		\$98,000.00
	Government Agency Approvals (DSC, RTA, DECCW, etc - Allowance Only)		item		\$10,000.00
	Council DA Fees and planFIRST Levy		item		\$4,539.00
	PCA Fees (Allowance Only)		item		\$10,000.00
				SUBTOTAL	\$123,000.00
TOTAL					\$1,740,000.00

PRELIMINARY COST ESTIMATE

PROJECT: Rouse Hill Area 20 - Section 94 Raingardens

CLIENT: Department of Planning

JWP Job Number: 8622

RAINGARDEN 8

NO.	ITEM	QTY.	UNIT	RATE Exc GST\$	AMOUNT Exc GST\$
1	RAINGARDEN 8				
	Establishment (5%)	1	Item	\$45,000.00	\$45,000.00
	Clearing (Allowance Only)	1	Item	\$100,000.00	\$100,000.00
	Strip & stockpile topsoil	3,720	sq.m.	\$1.50	\$5,580.00
	Respread topsoil	1,820	sq.m.	\$2.50	\$4,550.00
	Earthworks - Excavate and Dispose of Unsound Material		cu.m.	\$200.00	
	Earthworks - Cut to Fill On Site	1,200	cu.m.	\$5.00	\$6,000.00
	Earthworks - Import material	100	cu.m.	\$30.00	\$3,000.00
	Earthworks - Cut to Dispose off Site (incl. disposal fees)		cu.m.	\$75.00	
	Trim and Compact	1,820	sq.m.	\$1.00	\$1,820.00
	Planting (incl maintenance for 2 years)	1,320	sq.m.	\$9.50	\$12,540.00
	Reinforced Turfing on Weir and Spillway (incl 2 yr maint)	500	sq.m.	\$25.00	\$12,500.00
	Soil & Water Management (Allowance Only)	1	item	\$10,000.00	\$10,000.00
				SUBTOTAL	\$201,000.00
2	WATER QUALITY TREATMENT DEVICES				
	Raingarden (incl. media bed & subsoil drainage)	1,900	sq.m.	\$180.00	\$342,000.00
	Raingarden Planting	1,900	sq.m.	\$45.00	\$85,500.00
	GPT device and Associated Drainage Infrastructure	1	item	\$70,000.00	\$70,000.00
				SUBTOTAL	\$498,000.00
3	DRAINAGE / STRUCTURES				
	Raingarden Outlet Structure	1	each	\$2,000.00	\$2,000.00
	375mm dia RCP Raingarden Outlet Pipe to Creek	100	lin.m.	\$130.00	\$13,000.00
	Downstream Pit	1	each	\$2,000.00	\$2,000.00
	Outlet Headwall Structure into Creek	1	each	\$2,000.00	\$2,000.00
	Hardstand Maintenance Access to Raingarden	60	sq.m.	\$250.00	\$15,000.00
	Rock Erosion Protection	60	sq.m.	\$250.00	\$15,000.00
				SUBTOTAL	\$49,000.00
TOTAL FOR ITEMS 1, 2 & 3					\$748,000.00
4	PLANT & CONTINGENCIES				
	15% Plant & Contingency		item		\$113,000.00
				SUBTOTAL WITH 15% CONTINGENCY	\$861,000.00
5	ADMINISTRATION AND MANAGEMENT COSTS				
	Consultancy and Project Management Fees (6%)		item		\$52,000.00
	Government Agency Approvals (DSC, RTA, DECCW, etc - Allowance Only)		item		\$10,000.00
	Council DA Fees and planFIRST Levy		item		\$2,889.00
	PCA Fees (Allowance Only)		item		\$10,000.00
				SUBTOTAL	\$75,000.00
TOTAL					\$936,000.00

PRELIMINARY COST ESTIMATE

PROJECT: Rouse Hill Area 20 - Section 94 Raingardens

CLIENT: Department of Planning

JWP Job Number: 8622

RAINGARDEN 9

NO.	ITEM	QTY.	UNIT	RATE Exc GST\$	AMOUNT Exc GST\$
1	RAINGARDEN 9				
	Establishment (5%)	1	Item	\$15,000.00	\$15,000.00
	Clearing (Allowance Only)	1	Item	\$50,000.00	\$50,000.00
	Strip & stockpile topsoil	600	sq.m.	\$1.50	\$900.00
	Respread topsoil	410	sq.m.	\$2.50	\$1,025.00
	Earthworks - Excavate and Dispose of Unsound Material		cu.m.	\$200.00	
	Earthworks - Cut to Fill On Site	150	cu.m.	\$5.00	\$750.00
	Earthworks - Import material	100	cu.m.	\$30.00	\$3,000.00
	Earthworks - Cut to Dispose off Site (incl. disposal fees)		cu.m.	\$75.00	
	Trim and Compact	410	sq.m.	\$1.00	\$410.00
	Planting (incl maintenance for 2 years)	210	sq.m.	\$9.50	\$1,995.00
	Reinforced Turfing on Weir and Spillway (incl 2 yr maint)	200	sq.m.	\$25.00	\$5,000.00
	Soil & Water Management (Allowance Only)	1	item	\$10,000.00	\$10,000.00
				SUBTOTAL	\$89,000.00
2	WATER QUALITY TREATMENT DEVICES				
	Raingarden (incl. media bed & subsoil drainage)	190	sq.m.	\$180.00	\$34,200.00
	Raingarden Planting	190	sq.m.	\$45.00	\$8,550.00
	GPT device and Associated Drainage Infrastructure	1	item	\$70,000.00	\$70,000.00
				SUBTOTAL	\$113,000.00
3	DRAINAGE / STRUCTURES				
	Raingarden Outlet Structure	1	each	\$2,000.00	\$2,000.00
	375mm dia RCP Raingarden Outlet Pipe to Creek	20	lin.m.	\$130.00	\$2,600.00
	Downstream Pit		each	\$2,000.00	
	Outlet Headwall Structure into Creek		each	\$2,000.00	
	Hardstand Maintenance Access to Raingarden	50	sq.m.	\$250.00	\$12,500.00
	Rock Erosion Protection		sq.m.	\$250.00	
				SUBTOTAL	\$18,000.00
TOTAL FOR ITEMS 1, 2 & 3					\$220,000.00
4	PLANT & CONTINGENCIES				
	15% Plant & Contingency		item		\$33,000.00
				SUBTOTAL WITH 15% CONTINGENCY	\$253,000.00
5	ADMINISTRATION AND MANAGEMENT COSTS				
	Consultancy and Project Management Fees (6%)		item		\$16,000.00
	Government Agency Approvals (DSC, RTA, DECCW, etc - Allowance Only)		item		\$10,000.00
	Council DA Fees and planFIRST Levy		item		\$1,329.00
	PCA Fees (Allowance Only)		item		\$10,000.00
				SUBTOTAL	\$38,000.00
TOTAL					\$291,000.00

PRELIMINARY COST ESTIMATE

PROJECT: Rouse Hill Area 20 - Section 94 Raingardens

CLIENT: Department of Planning

JWP Job Number: 8622

RAINGARDEN 10

NO.	ITEM	QTY.	UNIT	RATE Exc GST\$	AMOUNT Exc GST\$
1	RAINGARDEN 10				
	Establishment (5%)	1	Item	\$25,000.00	\$25,000.00
	Clearing (Allowance Only)	1	Item	\$5,000.00	\$5,000.00
	Strip & stockpile topsoil	2,300	sq.m.	\$1.50	\$3,450.00
	Respread topsoil	1,330	sq.m.	\$2.50	\$3,325.00
	Earthworks - Excavate and Dispose of Unsound Material		cu.m.	\$200.00	
	Earthworks - Cut to Fill On Site	800	cu.m.	\$5.00	\$4,000.00
	Earthworks - Import material		cu.m.	\$30.00	
	Earthworks - Cut to Dispose off Site (incl. disposal fees)	300	cu.m.	\$75.00	\$22,500.00
	Trim and Compact	1,330	sq.m.	\$1.00	\$1,330.00
	Planting (incl maintenance for 2 years)	630	sq.m.	\$9.50	\$5,985.00
	Reinforced Turfing on Weir and Spillway (incl 2 yr maint)	700	sq.m.	\$25.00	\$17,500.00
	Soil & Water Management (Allowance Only)	1	item	\$10,000.00	\$10,000.00
				SUBTOTAL	\$99,000.00
2	WATER QUALITY TREATMENT DEVICES				
	Raingarden (incl. media bed & subsoil drainage)	970	sq.m.	\$180.00	\$174,600.00
	Raingarden Planting	970	sq.m.	\$45.00	\$43,650.00
	GPT device and Associated Drainage Infrastructure	1	item	\$70,000.00	\$70,000.00
				SUBTOTAL	\$289,000.00
3	DRAINAGE / STRUCTURES				
	Raingarden Outlet Structure	1	each	\$2,000.00	\$2,000.00
	375mm dia RCP Raingarden Outlet Pipe to Creek	30	lin.m.	\$130.00	\$3,900.00
	Downstream Pit	1	each	\$2,000.00	\$2,000.00
	Outlet Headwall Structure into Creek	1	each	\$2,000.00	\$2,000.00
	Hardstand Maintenance Access to Raingarden	50	sq.m.	\$250.00	\$12,500.00
	Rock Erosion Protection	60	sq.m.	\$250.00	\$15,000.00
				SUBTOTAL	\$38,000.00
TOTAL FOR ITEMS 1, 2 & 3					\$426,000.00
4	PLANT & CONTINGENCIES				
	15% Plant & Contingency		item		\$64,000.00
				SUBTOTAL WITH 15% CONTINGENCY	\$490,000.00
5	ADMINISTRATION AND MANAGEMENT COSTS				
	Consultancy and Project Management Fees (6%)		item		\$30,000.00
	Government Agency Approvals (DSC, RTA, DECCW, etc - Allowance Only)		item		\$10,000.00
	Council DA Fees and planFIRST Levy		item		\$2,036.00
	PCA Fees (Allowance Only)		item		\$10,000.00
				SUBTOTAL	\$53,000.00
TOTAL					\$543,000.00

PRELIMINARY COST ESTIMATE**PROJECT: Rouse Hill Area 20 - Section 94 Raingardens****CLIENT: Department of Planning****JWP Job Number: 8622****RAINGARDEN 11**

NO.	ITEM	QTY.	UNIT	RATE	AMOUNT
				Exc GST\$	Exc GST\$
1	RAINGARDEN 11				
	Establishment (5%)	1	Item	\$25,000.00	\$25,000.00
	Clearing (Allowance Only)	1	Item	\$50,000.00	\$50,000.00
	Strip & stockpile topsoil	2,150	sq.m.	\$1.50	\$3,225.00
	Respread topsoil	1,330	sq.m.	\$2.50	\$3,325.00
	Earthworks - Excavate and Dispose of Unsound Material		cu.m.	\$200.00	
	Earthworks - Cut to Fill On Site	500	cu.m.	\$5.00	\$2,500.00
	Earthworks - Import material	200	cu.m.	\$30.00	\$6,000.00
	Earthworks - Cut to Dispose off Site (incl. disposal fees)		cu.m.	\$75.00	
	Trim and Compact	1,330	sq.m.	\$1.00	\$1,330.00
	Planting (incl maintenance for 2 years)	830	sq.m.	\$9.50	\$7,885.00
	Reinforced Turfing on Weir and Spillway (incl 2 yr maint)	500	sq.m.	\$25.00	\$12,500.00
	Soil & Water Management (Allowance Only)	1	item	\$10,000.00	\$10,000.00
				SUBTOTAL	\$122,000.00
2	WATER QUALITY TREATMENT DEVICES				
	Raingarden (incl. media bed & subsoil drainage)	820	sq.m.	\$180.00	\$147,600.00
	Raingarden Planting	820	sq.m.	\$45.00	\$36,900.00
	GPT device and Associated Drainage Infrastructure	1	item	\$70,000.00	\$70,000.00
				SUBTOTAL	\$255,000.00
3	DRAINAGE / STRUCTURES				
	Raingarden Outlet Structure	1	each	\$2,000.00	\$2,000.00
	375mm dia RCP Raingarden Outlet Pipe to Creek	75	lin.m.	\$130.00	\$9,750.00
	Downstream Pit	1	each	\$2,000.00	\$2,000.00
	Outlet Headwall Structure into Creek	1	each	\$2,000.00	\$2,000.00
	Hardstand Maintenance Access to Raingarden	75	sq.m.	\$250.00	\$18,750.00
	Rock Erosion Protection	60	sq.m.	\$250.00	\$15,000.00
				SUBTOTAL	\$50,000.00
				TOTAL FOR ITEMS 1, 2 & 3	\$427,000.00
4	PLANT & CONTINGENCIES				
	15% Plant & Contingency		item		\$65,000.00
				SUBTOTAL WITH 15% CONTINGENCY	\$492,000.00
5	ADMINISTRATION AND MANAGEMENT COSTS				
	Consultancy and Project Management Fees (6%)		item		\$30,000.00
	Government Agency Approvals (DSC, RTA, DECCW, etc - Allowance Only)		item		\$10,000.00
	Council DA Fees and planFIRST Levy		item		\$2,042.00
	PCA Fees (Allowance Only)		item		\$10,000.00
				SUBTOTAL	\$53,000.00
				TOTAL	\$545,000.00

PRELIMINARY COST ESTIMATE

PROJECT: Rouse Hill Area 20 - Section 94 Raingardens

CLIENT: Department of Planning

JWP Job Number: 8622

RAINGARDEN 12

NO.	ITEM	QTY.	UNIT	RATE Exc GST\$	AMOUNT Exc GST\$
1	RAINGARDEN 12				
	Establishment (5%)	1	Item	\$20,000.00	\$20,000.00
	Clearing (Allowance Only)	1	Item	\$30,000.00	\$30,000.00
	Strip & stockpile topsoil	1,340	sq.m.	\$1.50	\$2,010.00
	Respread topsoil	880	sq.m.	\$2.50	\$2,200.00
	Earthworks - Excavate and Dispose of Unsound Material		cu.m.	\$200.00	
	Earthworks - Cut to Fill On Site	340	cu.m.	\$5.00	\$1,700.00
	Earthworks - Import material		cu.m.	\$30.00	
	Earthworks - Cut to Dispose off Site (incl. disposal fees)	50	cu.m.	\$75.00	\$3,750.00
	Trim and Compact	880	sq.m.	\$1.00	\$880.00
	Planting (incl maintenance for 2 years)	430	sq.m.	\$9.50	\$4,085.00
	Reinforced Turfing on Weir and Spillway (incl 2 yr maint)	450	sq.m.	\$25.00	\$11,250.00
	Soil & Water Management (Allowance Only)	1	item	\$10,000.00	\$10,000.00
				SUBTOTAL	\$86,000.00
2	WATER QUALITY TREATMENT DEVICES				
	Raingarden (incl. media bed & subsoil drainage)	460	sq.m.	\$180.00	\$82,800.00
	Raingarden Planting	460	sq.m.	\$45.00	\$20,700.00
	GPT device and Associated Drainage Infrastructure	1	item	\$70,000.00	\$70,000.00
				SUBTOTAL	\$174,000.00
3	DRAINAGE / STRUCTURES				
	Raingarden Outlet Structure	1	each	\$2,000.00	\$2,000.00
	375mm dia RCP Raingarden Outlet Pipe to Creek	70	lin.m.	\$130.00	\$9,100.00
	Downstream Pit	1	each	\$2,000.00	\$2,000.00
	Outlet Headwall Structure into Creek	1	each	\$2,000.00	\$2,000.00
	Hardstand Maintenance Access to Raingarden	120	sq.m.	\$250.00	\$30,000.00
	Rock Erosion Protection	60	sq.m.	\$250.00	\$15,000.00
				SUBTOTAL	\$61,000.00
TOTAL FOR ITEMS 1, 2 & 3					\$321,000.00
4	PLANT & CONTINGENCIES				
	15% Plant & Contingency		item		\$49,000.00
				SUBTOTAL WITH 15% CONTINGENCY	\$370,000.00
5	ADMINISTRATION AND MANAGEMENT COSTS				
	Consultancy and Project Management Fees (6%)		item		\$23,000.00
	Government Agency Approvals (DSC, RTA, DECCW, etc - Allowance Only)		item		\$10,000.00
	Council DA Fees and planFIRST Levy		item		\$1,678.00
	PCA Fees (Allowance Only)		item		\$10,000.00
				SUBTOTAL	\$45,000.00
				TOTAL	\$415,000.00

PRELIMINARY COST ESTIMATE

PROJECT: Rouse Hill Area 20 - Section 94 Raingardens

CLIENT: Department of Planning

JWP Job Number: 8622

RAINGARDEN 13

NO.	ITEM	QTY.	UNIT	RATE Exc GST\$	AMOUNT Exc GST\$
1	RAINGARDEN 13				
	Establishment (5%)	1	Item	\$25,000.00	\$25,000.00
	Clearing (Allowance Only)	1	Item	\$10,000.00	\$10,000.00
	Strip & stockpile topsoil	2,250	sq.m.	\$1.50	\$3,375.00
	Respread topsoil	1,530	sq.m.	\$2.50	\$3,825.00
	Earthworks - Excavate and Dispose of Unsound Material	200	cu.m.	\$200.00	\$40,000.00
	Earthworks - Cut to Fill On Site	580	cu.m.	\$5.00	\$2,900.00
	Earthworks - Import material	50	cu.m.	\$30.00	\$1,500.00
	Earthworks - Cut to Dispose off Site (incl. disposal fees)		cu.m.	\$75.00	
	Trim and Compact	1,530	sq.m.	\$1.00	\$1,530.00
	Planting (incl maintenance for 2 years)	1,130	sq.m.	\$9.50	\$10,735.00
	Reinforced Turfing on Weir and Spillway (incl 2 yr maint)	400	sq.m.	\$25.00	\$10,000.00
	Soil & Water Management (Allowance Only)	1	item	\$10,000.00	\$10,000.00
				SUBTOTAL	\$119,000.00
2	WATER QUALITY TREATMENT DEVICES				
	Raingarden (incl. media bed & subsoil drainage)	720	sq.m.	\$180.00	\$129,600.00
	Raingarden Planting	720	sq.m.	\$45.00	\$32,400.00
	GPT device and Associated Drainage Infrastructure	1	item	\$70,000.00	\$70,000.00
				SUBTOTAL	\$232,000.00
3	DRAINAGE / STRUCTURES				
	Raingarden Outlet Structure	1	each	\$2,000.00	\$2,000.00
	375mm dia RCP Raingarden Outlet Pipe to Creek	80	lin.m.	\$130.00	\$10,400.00
	Downstream Pit	1	each	\$2,000.00	\$2,000.00
	Outlet Headwall Structure into Creek	1	each	\$2,000.00	\$2,000.00
	Hardstand Maintenance Access to Raingarden	80	sq.m.	\$250.00	\$20,000.00
	Rock Erosion Protection	60	sq.m.	\$250.00	\$15,000.00
				SUBTOTAL	\$52,000.00
TOTAL FOR ITEMS 1, 2 & 3					\$403,000.00
4	PLANT & CONTINGENCIES				
	15% Plant & Contingency		item		\$61,000.00
				SUBTOTAL WITH 15% CONTINGENCY	\$464,000.00
5	ADMINISTRATION AND MANAGEMENT COSTS				
	Consultancy and Project Management Fees (6%)		item		\$28,000.00
	Government Agency Approvals (DSC, RTA, DECCW, etc - Allowance Only)		item		\$10,000.00
	Council DA Fees and planFIRST Levy		item		\$1,958.00
	PCA Fees (Allowance Only)		item		\$10,000.00
				SUBTOTAL	\$50,000.00
TOTAL					\$514,000.00