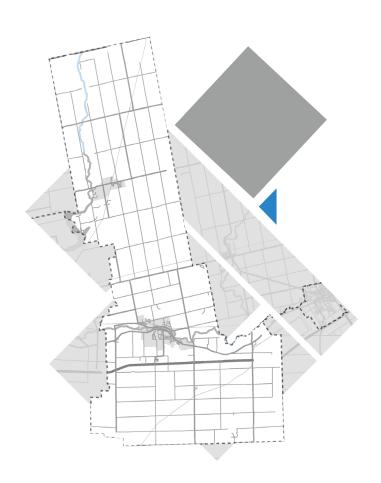


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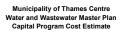
APPENDIX D

CAPITAL PROGRAM PROJECT SHEETS COST ESTIMATES











PROJECT NO.:

1 PROJECT NAME:

W-D-SUP-01

PROJECT NAME: Maxmize Dorchester WTF Supply
PROJECT DESCRIPTION: Maximize Well Capacity at Existing WTF

CAPITAL BUDGET YEAR:

VERSION: DATE UPDATED: UPDATED BY:

Class adjusts Construction Contingency and expected accuracy
Project Complexity
Med
Complexity adjusts Construction Contingency, and expected accuracy
Accuracy Range:
Area Condition:
Suburban

Area Condition:

Class 4
Class 4
Class adjusts Construction Contingency, and expected accuracy

Complexity adjusts Construction Contingency, and expected accuracy

Field must be manually populated

Field auto-filled based on project details

6 PROPOSED CAPACITY 20 L/s

		Pump	Existing (L/s)	Future (L/s)
CLASS EA REQUIREMENTS:	A	1	16.7	20
CONSTRUCTION ASSUMPTION:	Other	2	0	20
		3	42.6	42.6
		4		
		5		

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET							
COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS
Construction Cost							
Number of Pumps (including well casing upgrades)			Pumps	2	\$200,000	\$400,000	Pump replacement and upgrades
Electrical and Process			Lump Sum		\$100,000	\$100,000	
Additional Construction Costs	25%		ea.			\$125,000	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
Provisional & Allowance	10%		ea.			\$62,500	Provisional Labour and Materials in addition to base
	1070		ou.			\$62,666	construction cost
Sub-Total Construction Base Costs						\$688,000	
July 10tal Collottablish Back Could						\$000,000	
Geotechnical / Hydrogeological / Materials	20.0%					\$ 100,000	
	20.070						
Geotechnical Sub-Total Cost						\$100,000	
Property Requirements	1.5%					\$ -	
Property Requirements Sub-Total			l.	l.	I.	\$0	
Consultant Engineering/Design	15%					\$ 103,200	includes planning, pre-design, detailed design, training, CA, commissioning
Engineering/Design Sub-Total						\$103,200	
			1	1	I		T
In House Labour/Engineering/Wages/CA	3%					\$ 20,600	
In-house Labour/Wages Sub-Total						\$20,600	
			1	1	<u> </u>		Construction Contingency is dependent on Cost Estimate
Project Contingency	15%					\$137,000	Class and Project Complexity
Project Contingency Sub-Total						\$137,000	
Non-Refundable HST	1.76%					646 400	
	1./6%					\$18,100	
Non-Refundable HST Sub-Total						\$18,100	
Total (2019 Dollars)						\$1,067,000	Rounded to nearest \$1,000
Other Estimate						,,,,,,,,,,	
Chosen Estimate						£4.007.000	2019 Estimate
Chosen Estimate						\$1,067,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$21,340		
Design	Design fees, Town fees for design, contract admin	13%	\$138,710		
Construction	Town fees, base costs and project contingency	85%	\$906,950		
TOTAL		\$1,067,000			





W-D-SUP-02

New Dorchester Groundwater Supply PROJECT NAME:

Includes cost of new Dorchester groundwater supply and consolidation of sources at Dorchester WTF for treatment. Includes new well houses, raw watermains, and treatment. Excludes pump capacity upgrades cost to the Dorchester WTF High Lift Pumps PROJECT DESCRIPTION:

CLASS EA REQUIREMENTS:

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	TOTAL
Study	Feasibility study, EA	\$750,000
Design	Design fees, Town fees for design, contract admin	\$500,000
Construction	Town fees, base costs and project contingency	\$5M - \$15M



PROJECT NO.:

1 PROJECT NAME:

W-D-BPS-01

PROJECT DESCRIPTION: Upgrade I

Dorchester HLP Upgrades
Upgrade Dorchester HLPs to supply elevated tank and distribution system from reservoirs

CAPITAL BUDGET YEAR:

VERSION: DATE UPDATED: UPDATED BY:

Class 4 Class adjusts Construction Contingency and expected accuracy
Project Complexity Med Complexity adjusts Construction Contingency, and expected accuracy
Accuracy Range:
Area Condition:
Suburban
Area Condition uplifts unit cost and restoration

= Field has drop down
= Field must be manually populated
= Field auto-filled based on project details

7 PROPOSED CAPACITY 90 L/s

		Pump	Existing (L/s)	Future (L/s)
CLASS EA REQUIREMENTS:	Α	1	90	90 L/s
CONSTRUCTION ASSUMPTION:	Other	2	90	90 L/s
		3		
		4		
		5		

COST ESTIMATION SPREADSHEET

	COST ESTIMATION SPREADSHEET							
	COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS
	Construction Cost							
	Number of Pumps			Pumps	2	\$200,000	\$400,000	Pump replacement and upgrades
	Electrical and Process			Lump Sum		\$100,000	\$100,000	
	Additional Construction Costs	25%		ea.			\$125,000	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
	Dravisianal 9 Allawana	400/					****	Provisional Labour and Materials in addition to base
	Provisional & Allowance	10%		ea.			\$62,500	construction cost
	0.h T. 0 0						2000 000	
	Sub-Total Construction Base Costs						\$688,000	
				,				
	Geotechnical / Hydrogeological / Materials	20.0%					\$ 100,000	
	Geotechnical Sub-Total Cost						\$100,000	
	Property Requirements	1.5%					\$ -	
	Property Requirements Sub-Total						\$0	
	Consultant Engineering/Design	15%					\$ 103,200	includes planning, pre-design, detailed design, training, CA, commissioning
	Engineering/Design Sub-Total						\$103,200	Commissioning
	Engineering/Design Sub-Total						\$103,200	
	In House Labour/Engineering/Wages/CA	3%					\$ 20,600	
	in House Labour/Engineering/Wages/CA	3%					\$ 20,600	
	In-house Labour/Wages Sub-Total						\$20,600	
				1				Construction Contingency is dependent on Cost Estimate
	Project Contingency	15%					\$137,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
	Project Contingency Sub-Total						\$137,000	
	No. Defendable HOT	. ====					***	
	Non-Refundable HST	1.76%					\$18,100	
	Non-Refundable HST Sub-Total						\$18,100	
	Total (2019 Dollars)						\$1.067,000	Rounded to nearest \$1,000
	Other Estimate						, , , , ,	
	Chosen Estimate						¢4.067.000	2019 Estimate
	Onosen Estimate						\$1,067,000	2013 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$21,340		
Design	Design fees, Town fees for design, contract admin	13%	\$138,710		
Construction	Town fees, base costs and project contingency	85%	\$906,950		
TOTAL		\$1,067,000			





PROJECT NO.:

1 PROJECT NAME:
PROJECT DESCRIPTION:

W-D-WM-01

Dorchester Watermain - Spine Trunk Upgrade on Dorchester Rd. (South of Byron Ave.) 450m of existing 250mm DI watermain (built in 1976) to be replaced by 300mm PVC watermain

CAPITAL BUDGET YEAR:
VERSION:
DATE UPDATED:
UPDATED BY:

Class Estimate Type: Class 4 Class adjusts Construction Contingency and expected accuracy
Project Complexity High Complexity adjusts Construction Contingency, and expected accuracy
Accuracy Range: 50%
Area Condition: Suburban Area Condition uplifts unit cost and restoration

= Field has drop down
= Field must be manually populated
= Field auto-filled based on project details

6	PROPOSED DIAM	METER:	300 mm	
	TOTAL LENGTH:		450 m	
0		Tunnelled	0 m	0%
		Open Cut	450 m	100%

CLASS EA REQUIREMENTS:	A+
CONSTRUCTION ASSUMPTION:	Watermain

COST ESTIMATION SPREADSHEET

	COST ESTIMATION SPREADSHEET							
	COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS
	Construction Cost							
	Pipe Construction - Open Cut			m	450 m	\$777	\$349,483	Existing road ROW
	Pipe Construction - Tunneling			m	0 m	\$1,300	\$0	
	Pipe Construction Uplift (Based on Area Conditions)	20%					\$69,897	
	Minor Creek Crossings			ea.	0	\$38,000	\$0	
	Major Creek Crossings			ea.	0	\$207,000	\$0	
•	Road Crossings			ea.	0	\$90,000	\$0	
	Major Road / Rail Crossings			ea.	0	\$207,000	\$0	
	Utility Crossings			ea.	0	\$90,000	\$0	
	Valve and Chamber			ea.	3	\$6,000	\$18,000	2 valves minimum
	Additional Construction Costs	20%		ea.			\$87,476	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
	Provisional & Allowance	10%		ea.			\$52,486	Provisional Labour and Materials in addition to base construction cost
	Sub-Total Construction Base Costs						\$577,000	
				I		1		
	Geotechnical / Hydrogeological / Materials	2.0%					\$11,500	
	Geotechnical Sub-Total Cost						\$11,500	
	Property Requirements	2.0%					\$ 11,500	
	Property Requirements Sub-Total						\$11,500	
	Consultant Engineering/Design	15%					\$ 86,600	includes planning, pre-design, detailed design, training, CA, commissioning
	Engineering/Design Sub-Total						\$86,600	-
	In House Labour/Engineering/Wages/CA	8%					\$ 46,200	
		0.0						
	In-house Labour/Wages Sub-Total						\$46,200	
	Project Contingency	25%					\$183,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
	Project Contingency Sub-Total						\$183,000	
				1				
	Non-Refundable HST	1.76%					\$15,300	
	Non-Refundable HST Sub-Total						\$15,300	
	Total (2019 Dollars)						\$931,000	Rounded to nearest \$1,000
	Other Estimate							
	Chosen Estimate						\$931,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$18,620		
Design	Design fees, Town fees for design, contract admin	13%	\$121,030		
Construction	Town fees, base costs and project contingency	85%	\$791,350		
TOTAL			\$931,000		





PROJECT NO.:

1 PROJECT NAME:
PROJECT DESCRIPTION:

W-D-WM-02

Dorchester Watermain - Spine Trunk Upgrade on Dorchester Rd. (River Bank)
190m of existing 250mm DI watermain (built in 1976 - 1987) to be replaced by 300mm PVC watermain

CAPITAL BUDGET YEAR: VERSION: DATE UPDATED:

UPDATED BY:

Class 4
Class adjusts Construction Contingency and expected accuracy
Project Complexity
Accuracy Range:
Area Condition:

Class 4
Class adjusts Construction Contingency, and expected accuracy
Complexity adjusts Construction Contingency, and expected accuracy
Accuracy Range:

Suburban

Area Condition uplifts unit cost and restoration

= Field has drop down
= Field must be manually populated
= Field auto-filled based on project details

6	PROPOSED DI	AMETER:	300 mm	
	TOTAL LENGTH:		190 m	
7		Tunnelled	0 m	0%
	Open Cut		190 m	100%

CLASS EA REQUIREMENTS:	A+
CONSTRUCTION ASSUMPTION:	Watermain

COST ESTIMATION SPREADSHEET

	COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS
- [Construction Cost							
Ī	Pipe Construction - Open Cut			m	190 m	\$777	\$147,559	Existing road ROW
Ī	Pipe Construction - Tunneling			m	0 m	\$1,300	\$0	
Ī	Pipe Construction Uplift (Based on Area Conditions)	20%					\$29,512	
l	Minor Creek Crossings			ea.	0	\$38,000	\$0	
1	Major Creek Crossings			ea.	0	\$207,000	\$0	
8	Road Crossings			ea.	0	\$90,000	\$0	
	Major Road / Rail Crossings			ea.	0	\$207,000	\$0	
	Utility Crossings			ea.	0	\$90,000	\$0	
	Valve and Chamber			ea.	2	\$6,000	\$12,000	2 valves minimum
	Additional Construction Costs	20%		ea.			\$37,814	Includes Mod/Demob, connections, inspection, hydrants, signage, traffic management, bonding, insurance
	Provisional & Allowance	10%		ea.			\$22,689	Provisional Labour and Materials in addition to base construction cost
	Sub-Total Construction Base Costs						\$250,000	
	Geotechnical / Hydrogeological / Materials	2.0%					\$5,000	
	Geotechnical Sub-Total Cost						\$5,000	
-	Property Requirements	2.0%					\$ 5,000	
	Property Requirements Sub-Total			l			\$5,000	
F	1			1		1		for the day of the second or the second of the second of the second or t
	Consultant Engineering/Design	15%					\$ 37,500	includes planning, pre-design, detailed design, training, CA, commissioning
	Engineering/Design Sub-Total						\$37,500	
-	n House Labour/Engineering/Wages/CA	8%					\$ 20,000	
	n-house Labour/Wages Sub-Total						\$20,000	
-	Project Contingency	25%					\$79,000	Construction Contingency is dependent on Cost Estimate
-		2376						Class and Project Complexity
	Project Contingency Sub-Total						\$79,000	
	Non-Refundable HST	1.76%					\$6,600	
	Non-Refundable HST Sub-Total		_				\$6,600	
ļ	Fotal (2019 Dollars)						\$403,000	Rounded to nearest \$1,000
	Other Estimate							
	Chosen Estimate						\$403,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$8,060		
Design	Design fees, Town fees for design, contract admin	13%	\$52,390		
Construction	Town fees, base costs and project contingency	85%	\$342,550		
TOTAL					





PROJECT NO.: PROJECT NAME: PROJECT DESCRIPTION: W-D-WM-03

Dorchester Watermain - Spine Trunk Upgrade on Catherine St. and Minnie Rd. (North Section) 390m of existing 250mm DI and PVC watermain (built in 1990 - 1992) to be replaced by 300mm PVC watermain following Catherine St. + Minnie St. alignment

CAPITAL BUDGET YEAR: VERSION: DATE UPDATED: UPDATED BY:

0	Class Estimate Type:	Class 4	Class adjusts C
8	Project Complexity	High	Complexity adju
4	Accuracy Range:	50%	
6	Area Condition:	Suburban	Area Condition

Construction Contingency and expected accuracy ists Construction Contingency, and expected accuracy

uplifts unit cost and restoration

= Field has drop down
= Field must be manually populated
= Field auto-filled based on project details

6	PROPOSED DIAM	METER:	300 mm	
	TOTAL LENGTH:		390 m	
0	Tunnelled		100 m	26%
		Open Cut	290 m	74%

CLASS EA REQUIREMENTS:	A+
CONSTRUCTION ASSUMPTION:	Watermain

COST ESTIMATION SPREADSHEET

	COST ESTIMATION SPREADSHEET							
	COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS
	Construction Cost							
	Pipe Construction - Open Cut			Е	290 m	\$777	\$225,222	Existing road ROW
	Pipe Construction - Tunneling			m	100 m	\$1,300	\$130,000	
	Pipe Construction Uplift (Based on Area Conditions)	20%					\$45,044	
	Minor Creek Crossings			ea.	0	\$38,000	\$0	
	Major Creek Crossings			ea.	0	\$207,000	\$0	
3	Road Crossings			ea.	0	\$90,000	\$0	
	Major Road / Rail Crossings			ea.	1	\$207,000	\$207,000	
	Utility Crossings			ea.	0	\$90,000	\$0	
	Valve and Chamber			ea.	4	\$6,000	\$24,000	2 valves minimum
	Additional Construction Costs	20%		ea.			\$126,253	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
	Provisional & Allowance	10%		ea.			\$75,752	Provisional Labour and Materials in addition to base construction cost
	Sub-Total Construction Base Costs						\$833,000	
						1		
	Geotechnical / Hydrogeological / Materials	2.0%					\$16,700	
	Geotechnical Sub-Total Cost						\$16,700	
	Property Requirements	2.0%					\$ 16,700	
	Property Requirements Sub-Total						\$16,700	
	Consultant Engineering/Design	15%					\$ 125,000	includes planning, pre-design, detailed design, training, CA, commissioning
	Engineering/Design Sub-Total						\$125,000	
	In House Labour/Engineering/Wages/CA	8%					\$ 66,600	
	In-house Labour/Wages Sub-Total						\$66,600	
				<u> </u>	<u>-</u>	1		Construction Contingency is dependent on Cost Estimate
	Project Contingency	25%					\$265,000	Class and Project Complexity
	Project Contingency Sub-Total						\$265,000	
	Non-Refundable HST	1.76%					\$22,100	
	Non-Refundable HST Sub-Total					L.	\$22,100	
	Total (2019 Dollars)						\$1.345,000	Rounded to nearest \$1,000
	Other Estimate						7 -,,	
	Chosen Estimate						\$1,345,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$26,900		
Design	Design fees, Town fees for design, contract admin	13%	\$174,850		
Construction	Town fees, base costs and project contingency	85%	\$1,143,250		
TOTAL					





PROJECT NO.:

W-D-WM-04

PROJECT NAME: Dorchester Watermain - North St. Upgrade PROJECT DESCRIPTION:

360m of existing 150mm CI watermain (built in 1956) on North Street and Minnie Street to be replaced by 200mm PVC watermain.

CAPITAL BUDGET YEAR: VERSION: DATE UPDATED: UPDATED BY:

Class Estimate Type: Class 4 Class adjusts Construction Contingency and expected accuracy Project Complexity Complexity adjusts Construction Contingency, and expected accuracy Accuracy Range: 40% Area Condition: Suburban Area Condition uplifts unit cost and restoration

= Field has drop down
= Field must be manually populated
= Field auto-filled based on project details

ı	6	PROPOSED DIAM	METER:	200 mm	
ı		TOTAL LENGTH:		360 m	
ı	0		Tunnelled	0 m	0%
ı			Open Cut	360 m	100%
1					

CLASS EA REQUIREMENTS:	A+
CONSTRUCTION ASSUMPTION:	Watermain

COST ESTIMATION SPREADSHEET								
	COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS
	Construction Cost							
	Pipe Construction - Open Cut			m	360 m	\$773	\$278,294	Existing road ROW
	Pipe Construction - Tunneling			m	0 m	\$1,300	\$0	
	Pipe Construction Uplift (Based on Area Conditions)	20%					\$55,659	
	Minor Creek Crossings			ea.	0	\$30,000	\$0	
	Major Creek Crossings			ea.	0	\$199,000	\$0	
•	Road Crossings			ea.	0	\$82,000	\$0	
	Major Road / Rail Crossings			ea.	0	\$199,000	\$0	
	Utility Crossings			ea.	0	\$82,000	\$0	
	Valve and Chamber			ea.	2	\$2,000	\$4,000	2 valves minimum
	Additional Construction Costs	15%		ea.			\$50,693	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
	Provisional & Allowance	10%		ea.			\$38,865	Provisional Labour and Materials in addition to base construction cost
	Sub-Total Construction Base Costs						\$428,000	
	Geotechnical / Hydrogeological / Materials	1.0%					\$4,300	
	Geotechnical Sub-Total Cost						\$4,300	
	Property Requirements	1.5%					\$ 6,400	
	Property Requirements Sub-Total						\$6,400	
	Consultant Engineering/Design	15%					\$ 64,200	includes planning, pre-design, detailed design, training, CA, commissioning
	Engineering/Design Sub-Total						\$64,200	J
						1		
	In House Labour/Engineering/Wages/CA	8%					\$ 34,200	
	In-house Labour/Wages Sub-Total						\$34,200	
	Project Contingency	15%					\$81,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
	Project Contingency Sub-Total						\$81,000	
	Non-Refundable HST	1.76%					\$10,300	
	Non-Refundable HST Sub-Total					l	\$10,300	
	Total (2019 Dollars)						\$628,000	Rounded to nearest \$1,000
	Other Estimate							
	Chosen Estimate						\$628,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$12,560		
Design	Design fees, Town fees for design, contract admin		\$81,640		
Construction	onstruction Town fees, base costs and project contingency		\$533,800		
TOTAL		\$628,000			





PROJECT NO.:

PROJECT NAM

W-D-WM-05

PROJECT NAME: Dorchester Watermain - Northeast Loop
PROJECT DESCRIPTION: Total of 710m of proposed PVC watermain

Total of 710m of proposed PVC watermain on North Street and Village Gate Dr. to complete loop, including 590m of 200mm proposed PVC watermain on North St. and 130m of 150mm proposed PVC watermain on Village Gate Dr.

CAPITAL BUDGET YEAR: VERSION: DATE UPDATED: UPDATED BY:

Class adjusts Construction Contingency and expected accuracy

Complexity adjusts Construction Contingency, and expected accuracy

Area Condition uplifts unit cost and restoration

= Field has drop down
= Field must be manually populated
= Field auto-filled based on project details

| PROPOSED DIAMETER: 200 mm | TOTAL LENGTH: 590 m | 0% | Open Cut 590 m | 100% |

CLASS EA REQUIREMENTS:	A
CONSTRUCTION ASSUMPTION:	Watermain

COST ESTIMATION SPREADSHEET

	COST ESTIMATION SPREADSHEET							
	COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS
	Construction Cost							
	Pipe Construction - Open Cut			m	590 m	\$773	\$456,092	Existing road ROW
	Pipe Construction - Tunneling			m	0 m	\$1,300	\$0	
	Pipe Construction Uplift (Based on Area Conditions)	20%					\$91,218	
	Minor Creek Crossings			ea.	0	\$30,000	\$0	
	Major Creek Crossings			ea.	0	\$199,000	\$0	
3	Road Crossings			ea.	0	\$82,000	\$0	
	Major Road / Rail Crossings			ea.	0	\$199,000	\$0	
	Utility Crossings			ea.	0	\$82,000	\$0	
	Valve and Chamber			ea.	2	\$2,000	\$4,000	2 valves minimum
	Additional Construction Costs	15%		ea.			\$82,697	Includes Mod/Demob, connections, inspection, hydrants, signage, traffic management, bonding, insurance
	Provisional & Allowance	10%		ea.			\$63,401	Provisional Labour and Materials in addition to base construction cost
	Sub-Total Construction Base Costs						\$697,000	
	Can Fording Control and the Control						\$037,000	
	Geotechnical / Hydrogeological / Materials	1.0%					\$7,000	
	Geotechnical Sub-Total Cost						\$7,000	
	Property Requirements	1.5%					\$ 10,500	
	Property Requirements Sub-Total						\$10,500	
	Consultant Engineering/Design	15%					\$ 104,600	includes planning, pre-design, detailed design, training, CA, commissioning
	Engineering/Design Sub-Total						\$104,600	
	In House Labour/Engineering/Wages/CA	8%					\$ 55,800	
	In-house Labour/Wages Sub-Total						\$55,800	
	Project Contingency	15%					\$131,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
	Project Contingency Sub-Total						\$131,000	Class and Project Complexity
	Non-Refundable HST	1.76%					\$16,700	
	Non-Refundable HST Sub-Total						\$16,700	
	Total (2019 Dollars)						\$1,023,000	Rounded to nearest \$1,000
	Other Estimate							
	Chosen Estimate						\$1,023,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$20,460		
Design	Design fees, Town fees for design, contract admin		\$132,990		
Construction	Town fees, base costs and project contingency	85%	\$869,550		
TOTAL			\$1,023,000		





PROJECT NO.: PROJECT NAME: PROJECT DESCRIPTION: W-D-WM-06

Dorchester Watermain - Marion St. Upgrade

0%

100%

Total of 320m of 200mm watermain on Marion Street, including 100m of existing 150mm PVC watermain to be replaced by 200mm PVC watermain and 220m of proposed 200mm PVC watermain.

CAPITAL BUDGET YEAR: VERSION: DATE UPDATED: UPDATED BY:

Class Estimate Type: Class 4 Project Complexity Accuracy Range: 40% Area Condition: Suburban Area Condition uplifts unit cost and restoration

Tunnelled

Class adjusts Construction Contingency and expected accuracy Complexity adjusts Construction Contingency, and expected accuracy = Field has drop down = Field must be manually populated = Field auto-filled based on project details

PROPOSED DIAMETER: 200 mm TOTAL LENGTH: 320 m

0 m

320 m

CLASS EA REQUIREMENTS:	A+
CONSTRUCTION ASSUMPTION:	Watermain
	l e e e e e e e e e e e e e e e e e e e

COST ESTIMATION SPREADSHEET								
	COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS
	Construction Cost							
	Pipe Construction - Open Cut			m	320 m	\$773	\$247,372	Existing road ROW
	Pipe Construction - Tunneling			m	0 m	\$1,300	\$0	
	Pipe Construction Uplift (Based on Area Conditions)	20%					\$49,474	
	Minor Creek Crossings			ea.	0	\$30,000	\$0	
	Major Creek Crossings			ea.	0	\$199,000	\$0	
•	Road Crossings			ea.	0	\$82,000	\$0	
	Major Road / Rail Crossings			ea.	0	\$199,000	\$0	
	Utility Crossings			ea.	0	\$82,000	\$0	
	Valve and Chamber			ea.	1	\$2,000	\$2,000	2 valves minimum
	Additional Construction Costs	15%		ea.			\$44,827	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
	Provisional & Allowance	10%		ea.			\$34,367	Provisional Labour and Materials in addition to base construction cost
	Sub-Total Construction Base Costs						\$378,000	
	Geotechnical / Hydrogeological / Materials	1.0%					\$3,800	
	Geotechnical Sub-Total Cost						\$3,800	
	Property Requirements	1.5%					\$ 5,700	
	Property Requirements Sub-Total						\$5,700	
	Consultant Engineering/Design	15%					\$ 56,700	includes planning, pre-design, detailed design, training, CA, commissioning
	Engineering/Design Sub-Total						\$56,700	Commissioning
	In House Labour/Engineering/Wages/CA	8%					\$ 30,200	
	In-house Labour/Wages Sub-Total						\$30,200	
	Project Contingency	15%					\$71,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
	Project Contingency Sub-Total						\$71,000	
	Non-Refundable HST	1.76%					\$9,100	
	Non-Refundable HST Sub-Total							
	Total (2019 Dollars)						\$555,000	Rounded to nearest \$1,000
	Other Estimate							
	Chosen Estimate						\$555,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$11,100		
Design	Design fees, Town fees for design, contract admin		\$72,150		
Construction	Town fees, base costs and project contingency	85%	\$471,750		
TOTAL			\$555,000		





W-D-WM-07 PROJECT NO.:

PROJECT NAME: PROJECT DESCRIPTION: Dorchester Watermain - West Trunk at the Development 25

Newly proposed West Trunk - 660m of proposed 300mm PVC watermain at Development 25.

CAPITAL BUDGET YEAR: VERSION: DATE UPDATED:

UPDATED BY:

Class Estimate Type: Class 4 Class adjusts Construction Contingency and expected accuracy Project Complexity Complexity adjusts Construction Contingency, and expected accuracy Accuracy Range: 40% Area Condition: Rural Area Condition uplifts unit cost and restoration

	= Field has drop down
	= Field must be manually populated
	= Field auto-filled based on project details

6	PROPOSED DIAM	METER:	300 mm	
	TOTAL LENGTH:		660 m	
0		Tunnelled	0 m	0%
		Open Cut	660 m	100%

CLASS EA REQUIREMENTS:	A
CONSTRUCTION ASSUMPTION:	Watermain

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET								
	COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS
	Construction Cost							
	Pipe Construction - Open Cut			Е	660 m	\$777	\$512,575	Existing road ROW
	Pipe Construction - Tunneling			m	0 m	\$1,300	\$0	
	Pipe Construction Uplift (Based on Area Conditions)	0%					\$0	
	Minor Creek Crossings			ea.	1	\$38,000	\$38,000	
	Major Creek Crossings			ea.	0	\$207,000	\$0	
3	Road Crossings			ea.	0	\$90,000	\$0	
	Major Road / Rail Crossings			ea.	0	\$207,000	\$0	
	Utility Crossings			ea.	0	\$90,000	\$0	
	Valve and Chamber			ea.	4	\$6,000	\$24,000	2 valves minimum
	Additional Construction Costs	15%		ea.			\$86,186	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
	Provisional & Allowance	10%		ea.			\$66,076	Provisional Labour and Materials in addition to base construction cost
	Sub-Total Construction Base Costs						\$727,000	
						1		
	Geotechnical / Hydrogeological / Materials	1.0%					\$7,300	
	Geotechnical Sub-Total Cost						\$7,300	
	Property Requirements	1.5%					\$ 10,900	
	Property Requirements Sub-Total						\$10,900	
	Consultant Engineering/Design	15%					\$ 109,100	includes planning, pre-design, detailed design, training, CA, commissioning
	Engineering/Design Sub-Total						\$109,100	
	In House Labour/Engineering/Wages/CA	8%					\$ 58,200	
	In-house Labour/Wages Sub-Total						\$58,200	
								Construction Contingency is dependent on Cost Estimate
	Project Contingency	15%					\$137,000	Class and Project Complexity
	Project Contingency Sub-Total						\$137,000	
	Non-Refundable HST	1.76%					\$17,400	
	Non-Refundable HST Sub-Total							
	Total (2019 Dollars)						\$1,067,000	Rounded to nearest \$1,000
	Other Estimate							
	Chosen Estimate						\$1,067,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$21,340		
Design	Design fees, Town fees for design, contract admin	13%	\$138,710		
Construction	Town fees, base costs and project contingency	85%	\$906,950		
TOTAL		\$1,067,000			





PROJECT NO.:

1 PROJECT NAME:

PROJECT DESCRIPTION:

W-D-WM-08-Alt1

Dorchester Watermain - West Trunk at the Development 22

Newly proposed West Trunk - 620m of proposed 300mm PVC watermain at Development 22.

CAPITAL BUDGET YEAR: VERSION: DATE UPDATED:

UPDATED BY:

Class Estimate Type: Class 4 Class adjusts Construction Contingency and expected accuracy
 Project Complexity Med Complexity adjusts Construction Contingency, and expected accuracy
 Accuracy Range: 40%
 Area Condition: Rural Area Condition uplifts unit cost and restoration

= Field has drop down
= Field must be manually populated
= Field auto-filled based on project details

6	PROPOSED DIAM	METER:	300 mm	
	TOTAL LENGTH:		620 m	
0		Tunnelled	0 m	0%
	_	Open Cut	620 m	100%

CLASS EA REQUIREMENTS:	Α
CONSTRUCTION ASSUMPTION:	Watermain

COST ESTIMATION SPREADSHEET

	COST ESTIMATION SPREADSHEET							
	COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS
	Construction Cost							
	Pipe Construction - Open Cut			m	620 m	\$777	\$481,510	Existing road ROW
	Pipe Construction - Tunneling			m	0 m	\$1,300	\$0	
	Pipe Construction Uplift (Based on Area Conditions)	0%					\$0	
	Minor Creek Crossings			ea.	1	\$38,000	\$38,000	
	Major Creek Crossings			ea.	0	\$207,000	\$0	
•	Road Crossings			ea.	0	\$90,000	\$0	
	Major Road / Rail Crossings			ea.	0	\$207,000	\$0	
	Utility Crossings			ea.	0	\$90,000	\$0	
	Valve and Chamber			ea.	4	\$6,000	\$24,000	2 valves minimum
	Additional Construction Costs	15%		ea.			\$81,526	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
	Provisional & Allowance	10%		ea.			\$62,504	Provisional Labour and Materials in addition to base construction cost
	Sub-Total Construction Base Costs						\$688,000	
	Geotechnical / Hydrogeological / Materials	1.0%					\$6,900	
	Geotechnical Sub-Total Cost						\$6,900	
	Property Requirements	1.5%					\$ 10,300	
	Property Requirements Sub-Total						\$10,300	
	Consultant Engineering/Design	15%					\$ 103,200	includes planning, pre-design, detailed design, training, CA, commissioning
	Engineering/Design Sub-Total						\$103,200	
						1		
	In House Labour/Engineering/Wages/CA	8%					\$ 55,000	
	In-house Labour/Wages Sub-Total						\$55,000	
	Project Contingency	15%					\$130,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
	Project Contingency Sub-Total						\$130,000	
	Non-Refundable HST	1.76%					\$16,500	
	Non-Refundable HST Sub-Total							
	Total (2019 Dollars)						\$1,010,000	Rounded to nearest \$1,000
	Other Estimate						7 1,2 1 2,000	
	Chosen Estimate						\$1,010,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$20,200		
Design	Design fees, Town fees for design, contract admin	13%	\$131,300		
Construction	Town fees, base costs and project contingency	85%	\$858,500		
TOTAL		\$1,010,000			





PROJECT NO.: PROJECT NAME: W-D-WM-09-Alt1

Dorchester Watermain - West Trunk river crossing at Development 22. PROJECT DESCRIPTION: Newly proposed West Trunk - 140m of proposed 300mm PVC watermain river crossing.

Area Condition uplifts unit cost and restoration

CAPITAL BUDGET YEAR: VERSION: DATE UPDATED: UPDATED BY:

Class Estimate Type: Class 4 Class adjusts Construction Contingency and expected accuracy Project Complexity Complexity adjusts Construction Contingency, and expected accuracy Accuracy Range: Area Condition:

Rural

= Field has drop down = Field must be manually populated = Field auto-filled based on project details

6	PROPOSED DIAM	IETER:	300 mm	
	TOTAL LENGTH:		140 m	
7		Tunnelled	40 m	29%
	_	Open Cut	100 m	71%
			•	

CLASS EA REQUIREMENTS:	В
CONSTRUCTION ASSUMPTION:	Watermain

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET								
	COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS
	Construction Cost							
	Pipe Construction - Open Cut			m	100 m	\$777	\$77,663	Existing road ROW
	Pipe Construction - Tunneling			m	40 m	\$1,300	\$52,000	
	Pipe Construction Uplift (Based on Area Conditions)	0%					\$0	
	Minor Creek Crossings			ea.	1	\$38,000	\$38,000	
	Major Creek Crossings			ea.	0	\$207,000	\$0	
3	Road Crossings			ea.	0	\$90,000	\$0	
	Major Road / Rail Crossings			ea.	0	\$207,000	\$0	
	Utility Crossings			ea.	0	\$90,000	\$0	
	Valve and Chamber			ea.	4	\$6,000	\$24,000	Assumed chambers at key intersections and crossings
	Additional Construction Costs	15%		ea.			\$28,749	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
	Provisional & Allowance	10%		ea.			\$22,041	Provisional Labour and Materials in addition to base construction cost
	Sub-Total Construction Base Costs						\$242,000	
	Geotechnical / Hydrogeological / Materials	1.0%					\$2,400	
	Geotechnical Sub-Total Cost						\$2,400	
				1		1		
	Property Requirements	1.5%					\$ 3,600	
	Property Requirements Sub-Total						\$3,600	
	Consultant Engineering/Design	15%					\$ 36,300	includes planning, pre-design, detailed design, training, CA,
	Engineering/Design Sub-Total						\$36,300	commissioning
	Lingineering/Design out-Total						\$30,300	
	In House Labour/Engineering/Wages/CA	8%					\$ 19,400	
	In-house Labour/Wages Sub-Total						\$19,400	
				ı	ı			
	Project Contingency	15%					\$46,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
	Project Contingency Sub-Total						\$46,000	
				1				<u></u>
	Non-Refundable HST	1.76%					\$5,800	
	Non-Refundable HST Sub-Total						\$5,800	
	Total (2019 Dollars)						\$356,000	Rounded to nearest \$1,000
	Other Estimate						, , , , , ,	
	Chosen Estimate						\$356,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$7,120		
Design	Design fees, Town fees for design, contract admin	13%	\$46,280		
Construction	Town fees, base costs and project contingency	85%	\$302,600		
TOTAL		\$356,000			





PROJECT NO.:

1 PROJECT NAME:

PROJECT DESCRIPTION:

W-D-WM-10-Alt1

Dorchester Watermain - West Trunk at Development 22.

Newly proposed West Trunk - 270m of proposed 300mm PVC watermain at Development 22.

CAPITAL BUDGET YEAR: VERSION: DATE UPDATED:

UPDATED BY:

Class Estimate Type: Class 4 Class adjusts Construction Contingency and expected accuracy
 Project Complexity Low Complexity adjusts Construction Contingency, and expected accuracy
 Accuracy Range: 30%
 Area Condition: Rural Area Condition uplifts unit cost and restoration

ſ	= Field has drop down
ſ	= Field must be manually populated
ſ	= Field auto-filled based on project details

6	PROPOSED DIAM	METER:	300 mm			
	TOTAL LENGTH:		270 m			
0		Tunnelled	40 m	15%		
	_	Open Cut	230 m	85%		

CLASS EA REQUIREMENTS:	Α
CONSTRUCTION ASSUMPTION:	Watermain

COST ESTIMATION SPREADSHEET

	COST ESTIMATION SPREADSHEET							
	COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS
	Construction Cost							
	Pipe Construction - Open Cut			m	230 m	\$777	\$178,625	Existing road ROW
	Pipe Construction - Tunneling			m	40 m	\$1,300	\$52,000	
	Pipe Construction Uplift (Based on Area Conditions)	0%					\$0	
	Minor Creek Crossings			ea.	0	\$38,000	\$0	
	Major Creek Crossings			ea.	0	\$207,000	\$0	
)	Road Crossings			ea.	0	\$90,000	\$0	
	Major Road / Rail Crossings			ea.	0	\$207,000	\$0	
	Utility Crossings			ea.	0	\$90,000	\$0	
	Valve and Chamber			ea.	2	\$6,000	\$12,000	Assumed chambers at key intersections and crossings
	Additional Construction Costs	10%		ea.			\$24,262	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
	Provisional & Allowance	10%		ea.			\$26,689	Provisional Labour and Materials in addition to base construction cost
	Sub-Total Construction Base Costs						\$294,000	
	Geotechnical / Hydrogeological / Materials	0.5%					\$1,500	
	Geotechnical Sub-Total Cost						\$1,500	
	Property Requirements	1.0%					\$ 2,900	
	Property Requirements Sub-Total						\$2,900	
	Consultant Engineering/Design	15%					\$ 44,100	includes planning, pre-design, detailed design, training, CA, commissioning
	Engineering/Design Sub-Total						\$44,100	
	In House Labour/Engineering/Wages/CA	8%					\$ 23,500	
	In-house Labour/Wages Sub-Total						\$23,500	
	Project Contingency	10%					\$37,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
	Project Contingency Sub-Total						\$37,000	
	Non-Refundable HST	1.76%					\$6,700	
	Non-Refundable HST Sub-Total						\$6,700	
	Total (2019 Dollars)						\$410,000	Rounded to nearest \$1,000
	Other Estimate						, , , , ,	
	Chosen Estimate						\$410,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$8,200		
Design	Design fees, Town fees for design, contract admin	13%	\$53,300		
Construction	Town fees, base costs and project contingency	85%	\$348,500		
TOTAL		\$410,000			





PROJECT NO.:

1 PROJECT NAME:

PROJECT DESCRIPTION:

W-D-WM-08-Alt2

Dorchester Watermain - West Trunk at the Development 22

Newly proposed West Trunk - 490m of proposed 300mm PVC watermain at Development 22.

CAPITAL BUDGET YEAR:
VERSION:
DATE UPDATED:
UPDATED BY:

Class Estimate Type: Class 4 Class adjusts Construction Contingency and expected accuracy
 Project Complexity Med Complexity adjusts Construction Contingency, and expected accuracy
 Accuracy Range: 40%
 Area Condition: Rural Area Condition uplifts unit cost and restoration

= Field has drop down
= Field must be manually populated
= Field auto-filled based on project details

ı	6	PROPOSED DIAM	IETER:	300 mm	
ı		TOTAL LENGTH:		490 m	
ı	7		Tunnelled	0 m	0%
ı			Open Cut	490 m	100%
•					

CLASS EA REQUIREMENTS:	A
CONSTRUCTION ASSUMPTION:	Watermain

COST ESTIMATION SPREADSHEET

	COST ESTIMATION SPREADSHEET							
	COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS
	Construction Cost							
	Pipe Construction - Open Cut			m	490 m	\$777	\$380,548	Existing road ROW
	Pipe Construction - Tunneling			m	0 m	\$1,300	\$0	
	Pipe Construction Uplift (Based on Area Conditions)	0%					\$0	
	Minor Creek Crossings			ea.	1	\$38,000	\$38,000	
	Major Creek Crossings			ea.	0	\$207,000	\$0	
•	Road Crossings			ea.	0	\$90,000	\$0	
	Major Road / Rail Crossings			ea.	0	\$207,000	\$0	
	Utility Crossings			ea.	0	\$90,000	\$0	
	Valve and Chamber			ea.	4	\$6,000	\$24,000	2 valves minimum
	Additional Construction Costs	15%		ea.			\$66,382	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
	Provisional & Allowance	10%		ea.			\$50,893	Provisional Labour and Materials in addition to base construction cost
	Sub-Total Construction Base Costs						\$560,000	
	Geotechnical / Hydrogeological / Materials	1.0%					\$5,600	
	Geotechnical Sub-Total Cost						\$5,600	
	Property Requirements	1.5%					\$ 8,400	
	Property Requirements Sub-Total						\$8,400	
	Consultant Engineering/Design	15%					\$ 84,000	includes planning, pre-design, detailed design, training, CA, commissioning
	Engineering/Design Sub-Total						\$84,000	Commissioning
	In House Labour/Engineering/Wages/CA	8%					\$ 44,800	
	In-house Labour/Wages Sub-Total						\$44,800	
	Project Contingency	15%					\$105,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
	Project Contingency Sub-Total						\$105,000	
	Non-Refundable HST	1.76%					\$13,400	
	Non-Refundable HST Sub-Total						\$13,400	
	Total (2019 Dollars)						\$821,000	Rounded to nearest \$1,000
	Other Estimate							
	Chosen Estimate						\$821,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$16,420		
Design	Design fees, Town fees for design, contract admin	13%	\$106,730		
Construction	Town fees, base costs and project contingency	85%	\$697,850		
TOTAL		\$821,000			





PROJECT NO.: PROJECT NAME:

PROJECT DESCRIPTION:

W-D-WM-09-Alt2

Dorchester Watermain - West Trunk river crossing at Development 22.

Newly proposed West Trunk - 210m of proposed 300mm PVC watermain river crossing.

VERSION: DATE UPDATED: UPDATED BY:

Class Estimate Type: Class 4 Project Complexity Accuracy Range: 40%

Class adjusts Construction Contingency and expected accuracy omplexity adjusts Construction Contingency, and expected accuracy = Field has drop down = Field must be manually populated = Field auto-filled based on project details

CAPITAL BUDGET YEAR:

6 Area Condition: Rural

Area Condition uplifts unit cost and restoration

				_
6	PROPOSED DIAM	METER:	300 mm	
	TOTAL LENGTH:		210 m	
0		Tunnelled	40 m	19%
		Open Cut	170 m	81%

CLASS EA REQUIREMENTS:	В
CONSTRUCTION ASSUMPTION:	Watermain

COST ESTIMATION SPREADSHEET

	COST ESTIMATION SPREADSHEET							
	COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS
	Construction Cost							
	Pipe Construction - Open Cut			m	170 m	\$777	\$132,027	Existing road ROW
	Pipe Construction - Tunneling			m	40 m	\$1,300	\$52,000	
	Pipe Construction Uplift (Based on Area Conditions)	0%					\$0	
	Minor Creek Crossings			ea.	1	\$38,000	\$38,000	
	Major Creek Crossings			ea.	0	\$207,000	\$0	
•	Road Crossings			ea.	0	\$90,000	\$0	
	Major Road / Rail Crossings			ea.	0	\$207,000	\$0	
	Utility Crossings			ea.	0	\$90,000	\$0	
	Valve and Chamber			ea.	4	\$6,000	\$24,000	Assumed chambers at key intersections and crossings
	Additional Construction Costs	15%		ea.			\$36,904	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
	Provisional & Allowance	10%		ea.			\$28,293	Provisional Labour and Materials in addition to base construction cost
	Sub-Total Construction Base Costs						\$311,000	
	Geotechnical / Hydrogeological / Materials	1.0%					\$3,100	
	Geotechnical Sub-Total Cost						\$3,100	
	Property Requirements	1.5%					\$ 4,700	
	Property Requirements Sub-Total						\$4,700	
	Consultant Engineering/Design	15%					\$ 46,700	includes planning, pre-design, detailed design, training, CA, commissioning
	Engineering/Design Sub-Total						\$46,700	Commoderning
				ı		1		
	In House Labour/Engineering/Wages/CA	8%					\$ 24,900	
	In-house Labour/Wages Sub-Total						\$24,900	
	Project Contingency	15%					\$59,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
	Project Contingency Sub-Total						\$59,000	
	Non-Refundable HST	1.76%					\$7,500	
	Non-Refundable HST Sub-Total							
	Total (2019 Dollars)						\$457,000	Rounded to nearest \$1,000
	Other Estimate							
	Chosen Estimate						\$457,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$9,140		
Design	Design fees, Town fees for design, contract admin	13%	\$59,410		
Construction	Town fees, base costs and project contingency	85%	\$388,450		
TOTAL		\$457,000			





PROJECT NO.:

1 PROJECT NAME:

PROJECT DESCRIPTION:

W-D-WM-10-Alt2

Dorchester Watermain - West Trunk at Development 22.

Newly proposed West Trunk - 290m of proposed 300mm PVC watermain at Development 22.

CAPITAL BUDGET YEAR: VERSION: DATE UPDATED:

UPDATED BY:

Class Estimate Type: Class 4 Class adjusts Construction Contingency and expected accuracy
Project Complexity Low Complexity adjusts Construction Contingency, and expected accuracy
Accuracy Range: 30%
Area Condition: Rural Area Condition uplifts unit cost and restoration

= Field has drop down
= Field must be manually populated
= Field auto-filled based on project details

6	PROPOSED DIAM	METER:	300 mm	
	TOTAL LENGTH:		290 m	
0		Tunnelled	40 m	14%
		Open Cut	250 m	86%

CLASS EA REQUIREMENTS:	A
CONSTRUCTION ASSUMPTION:	Watermain

COST ESTIMATION SPREADSHEET

	COST ESTIMATION SPREADSHEET							
	COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS
	Construction Cost							
	Pipe Construction - Open Cut			m	250 m	\$777	\$194,157	Existing road ROW
	Pipe Construction - Tunneling			m	40 m	\$1,300	\$52,000	
	Pipe Construction Uplift (Based on Area Conditions)	0%					\$0	
	Minor Creek Crossings			ea.	0	\$38,000	\$0	
	Major Creek Crossings			ea.	0	\$207,000	\$0	
•	Road Crossings			ea.	0	\$90,000	\$0	
	Major Road / Rail Crossings			ea.	0	\$207,000	\$0	
	Utility Crossings			ea.	0	\$90,000	\$0	
	Valve and Chamber			ea.	2	\$6,000	\$12,000	Assumed chambers at key intersections and crossings
	Additional Construction Costs	10%		ea.			\$25,816	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
	Provisional & Allowance	10%		ea.			\$28,397	Provisional Labour and Materials in addition to base construction cost
	Sub-Total Construction Base Costs						\$312,000	
	Geotechnical / Hydrogeological / Materials	0.5%					\$1,600	
	Geotechnical Sub-Total Cost						\$1,600	
	Property Requirements	1.0%					\$ 3,100	
	Property Requirements Sub-Total						\$3,100	
	Consultant Engineering/Design	15%					\$ 46,800	includes planning, pre-design, detailed design, training, CA, commissioning
	Engineering/Design Sub-Total						\$46,800	Commissioning
						1		
	In House Labour/Engineering/Wages/CA	8%					\$ 25,000	
	In-house Labour/Wages Sub-Total						\$25,000	
	Project Contingency	10%					\$39,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
	Project Contingency Sub-Total						\$39,000	
	Non-Refundable HST	1.76%					\$7,100	
	Non-Refundable HST Sub-Total	\$7,100						
	Total (2019 Dollars)						\$435,000	Rounded to nearest \$1,000
	Other Estimate							
	Chosen Estimate						\$435,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$8,700		
Design	Design fees, Town fees for design, contract admin	13%	\$56,550		
Construction	Town fees, base costs and project contingency	85%	\$369,750		
TOTAL		\$435,000			





PROJECT NO.:

1 PROJECT NAME:

PROJECT DESCRIPTION:

W-D-WM-11

Dorchester Watermain - West Trunk on Christie Dr.

Newly proposed West Trunk - Total of 980m of 300mm PVC watermain along Christie Dr. including 870m of proposed 300mm PVC watermain and 110m of existing 150mm PVC watermain to be replaced by 300mm PVC watermain

CAPITAL BUDGET YEAR: VERSION: DATE UPDATED: UPDATED BY:

Class adjusts Construction Contingency and expected accuracy

Complexity adjusts Construction Contingency, and expected accuracy

Area Condition uplifts unit cost and restoration

= Field has drop down
= Field must be manually populated
= Field auto-filled based on project details

| PROPOSED DIAMETER: 300 mm | TOTAL LENGTH: 980 m | 0% | Open Cut 980 m | 100% |

CLASS EA REQUIREMENTS:	A
CONSTRUCTION ASSUMPTION:	Watermain

COST ESTIMATION SPREADSHEET

							COST ESTIMATION SPREADSHEET									
	COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS								
c	Construction Cost															
F	Pipe Construction - Open Cut			m	980 m	\$777	\$761,096	Existing road ROW								
F	Pipe Construction - Tunneling			m	0 m	\$1,300	\$0									
F	Pipe Construction Uplift (Based on Area Conditions)	20%					\$152,219									
N	Minor Creek Crossings			ea.	0	\$38,000	\$0									
N	Major Creek Crossings			ea.	0	\$207,000	\$0									
) F	Road Crossings			ea.	0	\$90,000	\$0									
N	Major Road / Rail Crossings			ea.	0	\$207,000	\$0									
ι	Jtility Crossings			ea.	0	\$90,000	\$0									
٧	/alve and Chamber			ea.	2	\$6,000	\$12,000	2 valves minimum								
A	Additional Construction Costs	15%		ea.			\$138,797	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance								
F	Provisional & Allowance	10%		ea.			\$106,411	Provisional Labour and Materials in addition to base construction cost								
s	Sub-Total Construction Base Costs						\$1,171,000									
c	Geotechnical / Hydrogeological / Materials	1.0%					\$11,700									
G	Geotechnical Sub-Total Cost						\$11,700									
F						1 1										
	Property Requirements	1.5%					\$ 17,600									
F	Property Requirements Sub-Total						\$17,600									
c	Consultant Engineering/Design	15%					\$ 175,700	includes planning, pre-design, detailed design, training, CA, commissioning								
E	Engineering/Design Sub-Total						\$175,700									
ŀ						I I										
<u>"</u>	n House Labour/Engineering/Wages/CA	8%					\$ 93,700									
li	n-house Labour/Wages Sub-Total						\$93,700									
F	Project Contingency	15%					\$220,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity								
F	Project Contingency Sub-Total						\$220,000	, , ,								
	Non-Refundable HST	1.76%					\$28,100									
N	Non-Refundable HST Sub-Total						\$28,100									
E																
Т	Total (2019 Dollars)						\$1,718,000	Rounded to nearest \$1,000								
c	Other Estimate															
C	Chosen Estimate						\$1,718,000	2019 Estimate								

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$34,360		
Design	Design fees, Town fees for design, contract admin	13%	\$223,340		
Construction	Town fees, base costs and project contingency	85%	\$1,460,300		
TOTAL		\$1,718,000			





PROJECT NO.:

1 PROJECT NAME:

PROJECT DESCRIPTION:

W-D-WM-12

Dorchester Watermain - West Trunk on Harris Rd. and Hamilton Rd.

Newly proposed West Trunk - 1080m of proposed 300mm PVC watermain along Harris Rd. and Hamilton Rd.

CAPITAL BUDGET YEAR:
VERSION:
DATE UPDATED:
UPDATED BY:

Class adjusts Construction Contingency and expected accuracy

Complexity adjusts Construction Contingency, and expected accuracy

Area Condition uplifts unit cost and restoration

= Field has drop down
= Field must be manually populated
= Field auto-filled based on project details

6	PROPOSED DIAM	METER:	300 mm	
	TOTAL LENGTH:		910 m	
0		Tunnelled	0 m	0%
		Open Cut	910 m	100%

CLASS EA REQUIREMENTS:	A
CONSTRUCTION ASSUMPTION:	Watermain

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET								
	COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS
	Construction Cost							
	Pipe Construction - Open Cut			m	910 m	\$777	\$706,732	Existing road ROW
	Pipe Construction - Tunneling			m	0 m	\$1,300	\$0	
	Pipe Construction Uplift (Based on Area Conditions)	0%					\$0	
	Minor Creek Crossings			ea.	1	\$38,000	\$38,000	
	Major Creek Crossings			ea.	0	\$207,000	\$0	
3	Road Crossings			ea.	0	\$90,000	\$0	
	Major Road / Rail Crossings			ea.	0	\$207,000	\$0	
	Utility Crossings			ea.	0	\$90,000	\$0	
	Valve and Chamber			ea.	4	\$6,000	\$24,000	2 valves minimum
	Additional Construction Costs	20%		ea.			\$153,746	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
	Provisional & Allowance	10%		ea.			\$92,248	Provisional Labour and Materials in addition to base construction cost
	Sub-Total Construction Base Costs						\$1,015,000	
	Geotechnical / Hydrogeological / Materials	2.0%					\$20,300	
	Geotechnical Sub-Total Cost	\$20,300						
						l .		
	Property Requirements	2.0%					\$ 20,300	
	Property Requirements Sub-Total						\$20,300	
	Operation to Final and a series of Paraties	450/					\$ 152,300	includes planning, pre-design, detailed design, training, CA,
	Consultant Engineering/Design	15%					\$ 152,300	commissioning
	Engineering/Design Sub-Total						\$152,300	
	In House Labour/Engineering/Wages/CA	8%					\$ 81,200	
	In-house Labour/Wages Sub-Total						\$81,200	
	-							
	Project Contingency	25%					\$322,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
	Project Contingency Sub-Total						\$322,000	
							· · · · · · · · · · · · · · · · · · ·	
	Non-Refundable HST	1.76%					\$26,900	
	Non-Refundable HST Sub-Total						\$26,900	
	Total (2019 Dollars)						\$1,638,000	Rounded to nearest \$1,000
	Other Estimate							
	Chosen Estimate						\$1,638,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$32,760		
Design	Design fees, Town fees for design, contract admin	13%	\$212,940		
Construction	Town fees, base costs and project contingency	85%	\$1,392,300		
TOTAL		\$1,638,000			





PROJECT NO.: PROJECT NAME:

Dorchester Watermain - West Trunk at Mill Ct. Loop

PROJECT DESCRIPTION:

Newly proposed West Trunk - 800m of proposed 200mm PVC watermain on Mill Ct to complete loop

W-D-WM-13

CAPITAL BUDGET YEAR: VERSION: DATE UPDATED: UPDATED BY:

Class Estimate Type: = Field has drop down Class 4 Class adjusts Construction Contingency and expected accuracy Project Complexity High complexity adjusts Construction Contingency, and expected accuracy = Field must be manually populated Accuracy Range: 50% = Field auto-filled based on project details Area Condition: Rural Area Condition uplifts unit cost and restoration

ı	6	PROPOSED DIAM	200 mm		
ı		TOTAL LENGTH:		800 m	
ı	7		Tunnelled	0 m	0%
ı		Open Cut		800 m	100%

CLASS EA REQUIREMENTS:	A+
CONSTRUCTION ASSUMPTION:	Watermain

COST ESTIMATION SPREADSHEET								
	COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS
	Construction Cost							
	Pipe Construction - Open Cut			m	800 m	\$773	\$618,430	Existing road ROW
	Pipe Construction - Tunneling			m	0 m	\$1,300	\$0	
	Pipe Construction Uplift (Based on Area Conditions)	0%					\$0	
	Minor Creek Crossings			ea.	1	\$30,000	\$30,000	
	Major Creek Crossings			ea.	0	\$199,000	\$0	
•	Road Crossings			ea.	0	\$82,000	\$0	
	Major Road / Rail Crossings			ea.	0	\$199,000	\$0	
	Utility Crossings			ea.	0	\$82,000	\$0	
	Valve and Chamber			ea.	3	\$2,000		2 valves minimum Includes Mod/Demob,connections, inspection, hydrants,
	Additional Construction Costs	20%		ea.			\$130,886	signage, traffic management, bonding, insurance
	Provisional & Allowance	10%		ea.			\$78,532	Provisional Labour and Materials in addition to base construction cost
	Sub-Total Construction Base Costs						\$864,000	
	Geotechnical / Hydrogeological / Materials	2.0%					\$17,300	
	Geotechnical Sub-Total Cost						\$17,300	
	Property Requirements	2.0%					\$ 17,300	
	Property Requirements Sub-Total						\$17,300	
	Consultant Engineering/Design	15%					\$ 129,600	includes planning, pre-design, detailed design, training, CA, commissioning
	Engineering/Design Sub-Total						\$129,600	
	In House Labour/Engineering/Wages/CA	8%					\$ 69,100	
	In-house Labour/Wages Sub-Total						\$69,100	
	Project Contingency	25%					\$274,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
	Project Contingency Sub-Total						\$274,000	
	Non-Refundable HST	1.76%					\$22,900	
	Non-Refundable HST Sub-Total					L	\$22,900	
	Total (2019 Dollars)						\$1,394,000	Rounded to nearest \$1,000
	Other Estimate							
	Chosen Estimate						\$1,394,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$27,880		
Design	Design fees, Town fees for design, contract admin	13%	\$181,220		
Construction	Town fees, base costs and project contingency	85%	\$1,184,900		
TOTAL		\$1,394,000			





PROJECT NO.: PROJECT NAME: PROJECT DESCRIPTION: W-D-WM-14

Dorchester Watermain - Catherine St. East Section Upgrade

1020m of existing 250mm DI watermain (built in 1983) to be replaced by 300mm PVC watermain on Catherine St.

CAPITAL BUDGET YEAR: VERSION: DATE UPDATED: UPDATED BY:

Class Estimate Type: Class 4 Project Complexity High Accuracy Range: 50% Area Condition: Suburban

Class adjusts Construction Contingency and expected accuracy Complexity adjusts Construction Contingency, and expected accuracy

Area Condition uplifts unit cost and restoration

= Field has drop down
= Field must be manually populated
= Field auto-filled based on project detail

ı	6	PROPOSED DIAM	METER:	300 mm	
ı		TOTAL LENGTH:		1020 m	
ı	0		Tunnelled	0 m	0%
ı			Open Cut	1020 m	100%

CLASS EA REQUIREMENTS:	A+
CONSTRUCTION ASSUMPTION:	Watermain

COST ESTIMATION SPREADSHEET

	COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS
	Construction Cost							
	Pipe Construction - Open Cut			m	1020 m	\$777	\$792,161	Existing road ROW
	Pipe Construction - Tunneling			m	0 m	\$1,300	\$0	
	Pipe Construction Uplift (Based on Area Conditions)	20%					\$158,432	
	Minor Creek Crossings			ea.	0	\$38,000	\$0	
	Major Creek Crossings			ea.	0	\$207,000	\$0	
•	Road Crossings			ea.	0	\$90,000	\$0	
	Major Road / Rail Crossings			ea.	0	\$207,000	\$0	
	Utility Crossings			ea.	0	\$90,000	\$0	
	Valve and Chamber			ea.	5	\$6,000	\$30,000	2 valves minimum
	Additional Construction Costs	20%		ea.			\$196,119	Includes Mod/Demob, connections, inspection, hydrants, signage, traffic management, bonding, insurance
	Provisional & Allowance	10%		ea.			\$117,671	Provisional Labour and Materials in addition to base construction cost
	Sub-Total Construction Base Costs						\$1,294,000	
						,		
	Geotechnical / Hydrogeological / Materials	2.0%					\$25,900	
	Geotechnical Sub-Total Cost						\$25,900	
	Property Requirements	2.0%					\$ 25,900	
	Property Requirements Sub-Total						\$25,900	
						1		includes planning, pre-design, detailed design, training, CA,
	Consultant Engineering/Design	15%					\$ 194,100	commissioning
	Engineering/Design Sub-Total						\$194,100	
	In House Labour/Engineering/Wages/CA	8%					\$ 103,500	
	In-house Labour/Wages Sub-Total						\$103,500	
								Construction Contingency is dependent on Cost Estimate
	Project Contingency	25%					\$411,000	Class and Project Complexity
	Project Contingency Sub-Total						\$411,000	
	Non-Refundable HST	1.76%					\$34,300	
	Non-Refundable HST Sub-Total						\$34,300	
	Total (2019 Dollars)						\$2,089,000	Rounded to nearest \$1,000
	Other Estimate							
	Chosen Estimate						\$2,089,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$41,780		
Design	Design fees, Town fees for design, contract admin	13%	\$271,570		
Construction	Town fees, base costs and project contingency	85%	\$1,775,650		
TOTAL		\$2,089,000			





PROJECT NO.:

PROJECT NAME:

PROJECT DESCRIPTION:

W-D-WM-15

Dorchester Watermain - Catherine St. West Section Upgrade

1390m of existing 200mm PVC watermain (built in 1973 - 2013) to be replaced by 300mm PVC watermain on Catherine St.

CAPITAL BUDGET YEAR: VERSION: DATE UPDATED:

UPDATED BY:

Class adjusts Construction Contingency and expected accuracy

Complexity adjusts Construction Contingency, and expected accuracy

Area Condition uplifts unit cost and restoration

= Field has drop down
= Field must be manually populated
= Field auto-filled based on project detail

6	PROPOSED DIAM	METER:	300 mm	
	TOTAL LENGTH:		1390 m	
0	Tunnelled		0 m	0%
Open Cut		1390 m	100%	

CLASS EA REQUIREMENTS:	A+
CONSTRUCTION ASSUMPTION:	Watermain

COST ESTIMATION SPREADSHEET

,	COST ESTIMATION SPREADSHEET							
	COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS
	Construction Cost							
	Pipe Construction - Open Cut			m	1390 m	\$777	\$1,079,514	Existing road ROW
	Pipe Construction - Tunneling			m	0 m	\$1,300	\$0	
	Pipe Construction Uplift (Based on Area Conditions)	20%					\$215,903	
	Minor Creek Crossings			ea.	1	\$38,000	\$38,000	
	Major Creek Crossings			ea.	0	\$207,000	\$0	
•	Road Crossings			ea.	0	\$90,000	\$0	
	Major Road / Rail Crossings			ea.	0	\$207,000	\$0	
	Utility Crossings			ea.	0	\$90,000	\$0	
	Valve and Chamber			ea.	7	\$6,000	\$42,000	2 valves minimum
	Additional Construction Costs	20%		ea.			\$275,083	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
	Provisional & Allowance	10%		ea.			\$165,050	Provisional Labour and Materials in addition to base construction cost
	Sub-Total Construction Base Costs						\$1,816,000	
	Geotechnical / Hydrogeological / Materials	2.0%					\$36,300	
	Geotechnical Sub-Total Cost						\$36,300	
	Property Requirements	2.0%					\$ 36,300	
	Property Requirements Sub-Total					L	\$36,300	
	Consultant Engineering/Design	15%					\$ 272,400	includes planning, pre-design, detailed design, training, CA, commissioning
	Engineering/Design Sub-Total						\$272,400	
	In House Labour/Engineering/Wages/CA	8%					\$ 145,300	
	In-house Labour/Wages Sub-Total						\$145,300	
					l	ı		Construction Contingency is dependent on Cost Estimate
	Project Contingency	25%					\$577,000	Class and Project Complexity
	Project Contingency Sub-Total						\$577,000	
	Non-Refundable HST	1.76%					\$48,200	
	Non-Refundable HST Sub-Total						\$48,200	
	Total (2019 Dollars)						\$2,932,000	Rounded to nearest \$1,000
	Other Estimate							
	Chosen Estimate						\$2,932,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$58,640		
Design	Design fees, Town fees for design, contract admin	13%	\$381,160		
Construction	Town fees, base costs and project contingency	85%	\$2,492,200		
TOTAL			\$2,932,000		





PROJECT NO.: PROJECT NAME: W-D-WM-16

Dorchester Watermain - Northwest Industrial Lands Upgrade PROJECT DESCRIPTION:

1260m of existing 200mm DI & PVC watermain (built in 1978 - 2013) to be replaced by 300mm PVC watermain

CAPITAL BUDGET YEAR: VERSION: DATE UPDATED:

UPDATED BY:

2 Class Estimate Type:
3 Project Complexity Class 4 Class adjusts Construction Contingency and expected accuracy Complexity adjusts Construction Contingency, and expected accuracy 4 Accuracy Range: 40% Area Condition: Suburban Area Condition uplifts unit cost and restoration

= Field has drop down
= Field must be manually populated
= Field auto-filled based on project details

ſ	6	PROPOSED DIAMETER:		300 mm	
ſ		TOTAL LENGTH:		1260 m	
١	7		Tunnelled	0 m	0%
١			Open Cut	1260 m	100%

CLASS EA REQUIREMENTS:	A+
CONSTRUCTION ASSUMPTION:	Watermain

COST ESTIMATION SPREADSHEET

-								
	COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS
(Construction Cost							
F	Pipe Construction - Open Cut			m	1260 m	\$777	\$978,552	Existing road ROW
F	Pipe Construction - Tunneling			m	0 m	\$1,300	\$0	
F	Pipe Construction Uplift (Based on Area Conditions)	20%					\$195,710	
1	Minor Creek Crossings			ea.	1	\$38,000	\$38,000	
1	Major Creek Crossings			ea.	0	\$207,000	\$0	
) F	Road Crossings			ea.	0	\$90,000	\$0	
1	Major Road / Rail Crossings			ea.	0	\$207,000	\$0	
ι	Utility Crossings			ea.	0	\$90,000	\$0	
١	Valve and Chamber			ea.	3	\$6,000	\$18,000	2 valves minimum
,	Additional Construction Costs	15%		ea.			\$184,539	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
F	Provisional & Allowance	10%		ea.			\$141,480	Provisional Labour and Materials in addition to base construction cost
\$	Sub-Total Construction Base Costs							
ľ								
(Geotechnical / Hydrogeological / Materials	1.0%					\$15,600	
(Geotechnical Sub-Total Cost						\$15,600	
F	1					1		
H	Property Requirements	1.5%					\$ 23,300	
ľ	Property Requirements Sub-Total						\$23,300	
(Consultant Engineering/Design	15%					\$ 233,400	includes planning, pre-design, detailed design, training, CA, commissioning
E	Engineering/Design Sub-Total						\$233,400	
L						1		
[n House Labour/Engineering/Wages/CA	8%					\$ 124,500	
ı	n-house Labour/Wages Sub-Total						\$124,500	
F	Project Contingency	15%					\$293,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
F	Project Contingency Sub-Total						\$293,000	State und Fraject Complexity
ļ	Non-Refundable HST	1.76%					\$37,300	
-		1.7070						
	Non-Refundable HST Sub-Total						\$37,300	
ŀ	Fotal (2019 Dollars)						\$2,283,000	Rounded to nearest \$1,000
0	Other Estimate							
ď	Chosen Estimate						\$2,283,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$45,660		
Design	Design fees, Town fees for design, contract admin	13%	\$296,790		
Construction	Town fees, base costs and project contingency	ingency 85% \$1,940,550			
TOTAL			\$2,283,000		





PROJECT NO.: W-D-WM-17

PROJECT NAME: Dorchester Watermain - Hamilton Rd. Extension
PROJECT DESCRIPTION: 350m of proposed 200mm PVC watermain along Hamilton Rd.

CAPITAL BUDGET YEAR: VERSION: DATE UPDATED: UPDATED BY:

0	Class Estimate Type:	Class 4	Class adjusts Construction Contingency and expected accuracy
8	Project Complexity	Med	Complexity adjusts Construction Contingency, and expected accur
4	Accuracy Range:	40%	
6	Area Condition:	Suburban	Area Condition uplifts unit cost and restoration

= Field has drop down
= Field must be manually populated
= Field auto-filled based on project details

	6	PROPOSED DIAMETER:		200 mm	
I		TOTAL LENGTH:		350 m	
١	7		Tunnelled	0 m	0%
l		_	Open Cut	350 m	100%

CLASS EA REQUIREMENTS:	A+
CONSTRUCTION ASSUMPTION:	Watermain

COST ESTIMATION SPREADSHEET

	COST ESTIMATION SPREADSHEET							
	COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS
	Construction Cost							
	Pipe Construction - Open Cut			m	350 m	\$773	\$270,563	Existing road ROW
	Pipe Construction - Tunneling			m	0 m	\$1,300	\$0	
	Pipe Construction Uplift (Based on Area Conditions)	20%					\$54,113	
	Minor Creek Crossings			ea.	0	\$30,000	\$0	
	Major Creek Crossings			ea.	0	\$199,000	\$0	
•	Road Crossings			ea.	0	\$82,000	\$0	
	Major Road / Rail Crossings			ea.	0	\$199,000	\$0	
	Utility Crossings			ea.	0	\$82,000	\$0	
	Valve and Chamber			ea.	2	\$2,000	\$4,000	2 valves minimum
	Additional Construction Costs	15%		ea.			\$49,301	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
	Provisional & Allowance	10%		ea.			\$37,798	Provisional Labour and Materials in addition to base construction cost
	Sub-Total Construction Base Costs						\$416,000	
	Geotechnical / Hydrogeological / Materials	1.0%					\$4,200	
	Geotechnical Sub-Total Cost						\$4,200	
					1	1		
	Property Requirements	1.5%					\$ 6,200	
	Property Requirements Sub-Total						\$6,200	
	Consultant Engineering/Design	15%					\$ 62,400	includes planning, pre-design, detailed design, training, CA, commissioning
	Engineering/Design Sub-Total						\$62,400	
					1	1 1		
	In House Labour/Engineering/Wages/CA	8%					\$ 33,300	
	In-house Labour/Wages Sub-Total						\$33,300	
	Project Contingency	15%					\$78,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
	Project Contingency Sub-Total						\$78,000	
	Non-Refundable HST	1.76%					\$10,000	
	Non-Refundable HST Sub-Total	1.7070					\$10,000	
	NON-INGIGINALISE FIGT GUD-TOLAI						\$ 10,000	
	Total (2019 Dollars)						\$610,000	Rounded to nearest \$1,000
	Other Estimate							
	Chosen Estimate						\$610,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$12,200		
Design	Design fees, Town fees for design, contract admin	13%	\$79,300		
Construction	Town fees, base costs and project contingency	85%	\$518,500		
OTAL					





PROJECT NO.: W-D-WM-18

PROJECT NAME: Dorchester Waterm.
PROJECT DESCRIPTION: 370m of proposed 20

Dorchester Watermain - Benefit to Existing System 370m of proposed 200mm PVC watermain along Mill Rd.

CAPITAL BUDGET YEAR: VERSION: DATE UPDATED:

UPDATED BY:

•	Class Estimate Type: Class	ss 4	Class adjusts Construction Contingency and expected accuracy	= Field has drop down
1	Project Complexity Med	t	Complexity adjusts Construction Contingency, and expected accuracy	= Field must be manually populated
	Accuracy Range: 40%	6		= Field auto-filled based on project details
	Area Condition: Subur	urhan	Δrea Condition unliffs unit cost and restoration	•

ı	6	PROPOSED DIAM	PROPOSED DIAMETER: 2		
ı		TOTAL LENGTH:		370 m	
ı	7		Tunnelled	0 m	0%
ı			Open Cut	370 m	100%

CLASS EA REQUIREMENTS:	A+
CONSTRUCTION ASSUMPTION:	Watermain

COST ESTIMATION SPREADSHEET

	COST ESTIMATION SPREADSHEET							
	COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS
	Construction Cost							
	Pipe Construction - Open Cut			m	370 m	\$773	\$286,024	Existing road ROW
	Pipe Construction - Tunneling			m	0 m	\$1,300	\$0	
	Pipe Construction Uplift (Based on Area Conditions)	20%					\$57,205	
	Minor Creek Crossings			ea.	0	\$30,000	\$0	
	Major Creek Crossings			ea.	0	\$199,000	\$0	
3	Road Crossings			ea.	0	\$82,000	\$0	
	Major Road / Rail Crossings			ea.	0	\$199,000	\$0	
	Utility Crossings			ea.	0	\$82,000	\$0	
	Valve and Chamber			ea.	2	\$2,000	\$4,000	2 valves minimum
	Additional Construction Costs	15%		ea.			\$52,084	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
	Provisional & Allowance	10%		ea.			\$39,931	Provisional Labour and Materials in addition to base construction cost
	Sub-Total Construction Base Costs						6420.000	
	Sub-Total Construction base Costs						\$439,000	
	Geotechnical / Hydrogeological / Materials	1.0%					\$4,400	
	Geotechnical Sub-Total Cost						\$4,400	
						ı		
	Property Requirements	1.5%					\$ 6,600	
	Property Requirements Sub-Total						\$6,600	
	Consultant Engineering/Design	15%					\$ 65,900	includes planning, pre-design, detailed design, training, CA, commissioning
	Engineering/Design Sub-Total						\$65,900	
	In House Labour/Engineering/Wages/CA	8%					\$ 35,100	
		070						
	In-house Labour/Wages Sub-Total						\$35,100	
	Project Contingency	15%					\$83,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
	Project Contingency Sub-Total						\$83,000	
	Non-Defendable HOT	4 700/					A16	
	Non-Refundable HST	1.76%					\$10,500	
	Non-Refundable HST Sub-Total						\$10,500	
	Total (2019 Dollars)						\$645,000	Rounded to nearest \$1,000
	Other Estimate							
	Chosen Estimate						\$645,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$12,900		
Design	Design fees, Town fees for design, contract admin	13%	\$83,850		
Construction	Town fees, base costs and project contingency	85%	\$548,250		
OTAL					





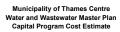
W-D-401-ST-01

PROJECT NAME:

Cost Benefit Study to Service 401 Corridor Lands
Cost-benefit study to evaluate servicing options for 401 Corridor Lands, will include recommendations for service pressures and available fire flow. PROJECT DESCRIPTION:

CLASS EA REQUIREMENTS:	-

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	TOTAL
Study	Feasibility study, EA	\$50,000





PROJECT NO.:

W-T-SUP-01

1 PROJECT NAME: PROJECT DESCRIPTION: Maximize Thorndale WTF Supply
Maximize Well Capacity at Existing WTF

CAPITAL BUDGET YEAR:

VERSION: DATE UPDATED: UPDATED BY:

0	PROPOSED CAPACITY	22 L/s
6		
•		

		Pump	Existing (L/s)	Future (L/s)
CLASS EA REQUIREMENTS:	Α	1	8.3	22
CONSTRUCTION ASSUMPTION:	Other	2	8.3	22
		3	8.3	8.3
		4		
		5		

COST ESTIMATION SPREADSHEET

COMPONENT RATE (%) STEAM TED CONTINUED COST PER UNIT COMMENTS		COST ESTIMATION SPREADSHEET							
Number of Pumps (including well coating sprackes)		COMPONENT			UNIT		COST PER UNIT	SUB-TOTAL	COMMENTS
		Construction Cost							
Additional Construction Costs		Number of Pumps (including well casing upgrades)			Pumps	2	\$200,000	\$400,000	Pump replacement and upgrades
Additional Construction Costs 25% es. \$125.000 includes MediDemote Acconnectors, respection, hydratric, signage, traffic management, blooding, insurance Provisional & Allowance 10% es. \$25.000 Provisional & Allowance 258.500 Provisional Labour and Materials in addition to base construction Base Costs \$568,000 Geotechnical Phydrogeological Materials 20.0% \$ 100,000 Geotechnical Sub-Total Cost \$100,000 Geotechnical Sub-Total Su		Electrical and Process			Lump Sum		\$100,000	\$100,000	
Additional Construction Costs 25% es. \$125.000 includes MediDemote Acconnectors, respection, hydratric, signage, traffic management, blooding, insurance Provisional & Allowance 10% es. \$25.000 Provisional & Allowance 258.500 Provisional Labour and Materials in addition to base construction Base Costs \$568,000 Geotechnical Phydrogeological Materials 20.0% \$ 100,000 Geotechnical Sub-Total Cost \$100,000 Geotechnical Sub-Total Su									
Additional Construction Costs 25% es. \$125.000 includes MediDemote Acconnectors, respection, hydratric, signage, traffic management, blooding, insurance Provisional & Allowance 10% es. \$25.000 Provisional & Allowance 258.500 Provisional Labour and Materials in addition to base construction Base Costs \$568,000 Geotechnical Phydrogeological Materials 20.0% \$ 100,000 Geotechnical Sub-Total Cost \$100,000 Geotechnical Sub-Total Su									
Additional Construction Costs 25% es. \$125.000 includes MediDemote Acconnectors, respection, hydratric, signage, traffic management, blooding, insurance Provisional & Allowance 10% es. \$25.000 Provisional & Allowance 258.500 Provisional Labour and Materials in addition to base construction Base Costs \$568,000 Geotechnical Phydrogeological Materials 20.0% \$ 100,000 Geotechnical Sub-Total Cost \$100,000 Geotechnical Sub-Total Su									
Provisional & Allowance 10% e.a. \$15,000 signage, traffic management, bonding, insurance Provisional & Allowance 10% e.a. \$2,500 provisional about and Alloration to base construction cost \$2,500 provisional about and Alloration to base construction cost \$2,500 provisional about and Alloration to base construction cost \$2,500 provisional about and Alloration to base construction cost \$2,500 provisional about and Alloration to base construction cost \$2,500 provisional about and Alloration to base construction cost \$2,500 provisional about construction cost construction cost construction cost construction cost cost construction cost cost construction cost cost cost cost cost cost cost cost	•								
Provisional & Allowance 10% e.a. \$15,000 signage, traffic management, bonding, insurance Provisional & Allowance 10% e.a. \$2,500 provisional about and Alloration to base construction cost \$2,500 provisional about and Alloration to base construction cost \$2,500 provisional about and Alloration to base construction cost \$2,500 provisional about and Alloration to base construction cost \$2,500 provisional about and Alloration to base construction cost \$2,500 provisional about and Alloration to base construction cost \$2,500 provisional about construction cost construction cost construction cost construction cost cost construction cost cost construction cost cost cost cost cost cost cost cost									
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Provisional & Allowance		Additional Construction Costs	25%		ea			\$125,000	
Soc. 200 Construction Ease Costs									
Geotechnical / Hydrogeological / Materials 20.0% \$ 100,000		Provisional & Allowance	10%		ea.			\$62,500	
Geotechnical / Hydrogeological / Materials 20.0% \$ 100,000									
Saciety Sequirements 1.0% Saciety Sequirements 1.0% Saciety Sequirements Sequi		Sub-Total Construction Base Costs						\$688,000	
Saciety Sequirements 1.0% Saciety Sequirements 1.0% Saciety Sequirements Sequi									
Property Requirements 1.0% \$ Property Requirements Sub-Total 50 Consultant Engineering/Design 15% \$ 103.200 includes planning, pre-design, detailed design, training, CA, commissioning Engineering/Design Sub-Total 5103.200 In House Labour/Engineering/Wages/CA 3% \$ 20.600 In-house Labour/Wages Sub-Total 520.600 Project Contingency 10% \$91.000 Construction Contingency is dependent on Cost Estimate Class and Project Complexity Project Contingency Sub-Total 517.300 Non-Refundable HST 1.76% \$17.300 Non-Refundable HST Sub-Total 51,000 Rounded to nearest \$1,000 Other Estimate		Geotechnical / Hydrogeological / Materials	20.0%					\$ 100,000	
Property Requirements Sub-Total Consultant Engineering/Design Includes planning, pre-design, detailed design, training, CA, commissioning Includes planning, pre-design, detailed design, training, CA, commissioning In House Labour/Engineering/Wages/CA In House Labour/Wages Sub-Total Project Contingency In House Labour/Wages Sub-Total In House Labour/Wages Sub-Total Project Contingency In House Labour/Wages Sub-Total In House Labour/Wages Sub-		Geotechnical Sub-Total Cost						\$100,000	
Property Requirements Sub-Total Consultant Engineering/Design Includes planning, pre-design, detailed design, training, CA, commissioning Includes planning, pre-design, detailed design, training, CA, commissioning In House Labour/Engineering/Wages/CA In House Labour/Wages Sub-Total Project Contingency In House Labour/Wages Sub-Total In House Labour/Wages Sub-Total Project Contingency In House Labour/Wages Sub-Total In House Labour/Wages Sub-					1		1		
Consultant Engineering/Design 15% \$ 103,200 includes planning, pre-design, detailed design, training, CA, commissioning \$103,200 In House Labour/Engineering/Wages/CA 3% \$ 20,600 In-house Labour/Wages Sub-Total \$ \$20,600 Project Contingency 10% \$ \$91,000 Construction Contingency is dependent on Cost Estimate Class and Project Complexity Project Contingency Sub-Total \$ \$17,300 Non-Refundable HST \$ \$1,730 Non-Refundable HST Sub-Total \$ \$17,300 Total (2019 Dollars) \$ \$1,020,000 Rounded to nearest \$1,000 Other Estimate		Property Requirements	1.0%					\$ -	
Engineering/Design Sub-Total In House Labour/Engineering/Wages/CA In House Labour/Wages Sub-Total Project Contingency Project Contingency Sub-Total Non-Refundable HST 1.76% Non-Refundable HST Sub-Total Total (2019 Dollars) \$ 103,200 commissioning \$ 20,600 \$ 20,600 \$ 20,600 \$ 91,000 Construction Contingency is dependent on Cost Estimate Class and Project Complexity \$ 91,000 \$ 17,300 S 17,300 Total (2019 Dollars) \$ 11,020,000 Rounded to nearest \$1,000 Other Estimate		Property Requirements Sub-Total						\$0	
Engineering/Design Sub-Total In House Labour/Engineering/Wages/CA In-house Labour/Wages Sub-Total Project Contingency 10% Project Contingency Sub-Total Non-Refundable HST 1.76% Non-Refundable HST Sub-Total Total (2019 Dollars) S103,200 \$ 20,600 \$ 20,600 Construction Contingency is dependent on Cost Estimate Class and Project Complexity \$ 991,000 Construction Contingency is dependent on Cost Estimate Class and Project Complexity Froject Contingency Sub-Total \$ 17,300 S17,300 Rounded to nearest \$1,000 Other Estimate		Consultant Engineering/Design	15%					\$ 103.200	includes planning, pre-design, detailed design, training, CA,
In House Labour/Engineering/Wages/CA 3% \$ 20,600 In-house Labour/Wages Sub-Total \$ \$20,600 Project Contingency 10% \$ \$91,000 Construction Contingency is dependent on Cost Estimate Class and Project Complexity Project Contingency Sub-Total \$ \$1,000 Construction Contingency is dependent on Cost Estimate Class and Project Complexity Non-Refundable HST \$ \$17,300 Construction Contingency is dependent on Cost Estimate Class and Project Complexity Non-Refundable HST \$ \$17,300 Construction Contingency is dependent on Cost Estimate Class and Project Complexity Non-Refundable HST \$ \$17,300 Construction Contingency is dependent on Cost Estimate Class and Project Complexity Non-Refundable HST \$ \$1,000 Construction Contingency is dependent on Cost Estimate Class and Project Complexity Non-Refundable HST \$ \$1,000 Construction Contingency is dependent on Cost Estimate Class and Project Complexity Non-Refundable HST \$ \$1,000 Construction Contingency is dependent on Cost Estimate Class and Project Complexity									
In-house LabourrWages Sub-Total Project Contingency 10% \$91,000 Construction Contingency is dependent on Cost Estimate Class and Project Complexity Project Contingency Sub-Total \$91,000 Non-Refundable HST 1.76% \$17,300 Non-Refundable HST Sub-Total \$17,300 Total (2019 Dollars) \$1,020,000 Rounded to nearest \$1,000								¥100,200	
In-house LabourrWages Sub-Total Project Contingency 10% \$91,000 Construction Contingency is dependent on Cost Estimate Class and Project Complexity Project Contingency Sub-Total \$91,000 Non-Refundable HST 1.76% \$17,300 Non-Refundable HST Sub-Total \$17,300 Total (2019 Dollars) \$1,020,000 Rounded to nearest \$1,000		In House Labour/Engineering M/Lagos/CA	20/					e 20.600	
Project Contingency 10% \$91.000 Construction Contingency is dependent on Cost Estimate Class and Project Complexity Project Contingency Sub-Total \$91,000 Non-Refundable HST 1.76% \$17,300 Non-Refundable HST Sub-Total \$17,300 Total (2019 Dollars) \$1,020,000 Rounded to nearest \$1,000		in Floure Eabour/Engineering/Wages/OA	3 /8					\$ 20,000	
Non-Refundable HST 1.76% \$17,300		In-house Labour/Wages Sub-Total						\$20,600	
Non-Refundable HST 1.76% \$17,300									Construction Contingency is dependent on Cost Estimate
Non-Refundable HST 1.76% \$17,300 Non-Refundable HST Sub-Total \$17,300 Total (2019 Dollars) \$1,020,000 Rounded to nearest \$1,000 Other Estimate \$1,020,000 Rounded to nearest \$1,000		Project Contingency	10%					\$91,000	
Non-Refundable HST Sub-Total \$17,300 Total (2019 Dollars) \$1,020,000 Rounded to nearest \$1,000 Other Estimate		Project Contingency Sub-Total						\$91,000	
Non-Refundable HST Sub-Total \$17,300 Total (2019 Dollars) \$1,020,000 Rounded to nearest \$1,000 Other Estimate		Non-Refundable HST	1.76%					\$17.300	
Total (2019 Dollars) \$1,020,000 Rounded to nearest \$1,000 Other Estimate									
Other Estimate Other Estimate								¥,000	
		Total (2019 Dollars)						\$1,020,000	Rounded to nearest \$1,000
Chosen Estimate \$1,020,000 2019 Estimate		Other Estimate							
		Chosen Estimate						\$1,020,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$20,400		
Design	Design fees, Town fees for design, contract admin	13%	\$132,600		
Construction	on Town fees, base costs and project contingency		\$867,000		
TOTAL		\$1,020,000			





W-T-SUP-02

PROJECT NAME:

New Thorndale Groundwater Supply
Includes cost of new Dorchester groundwater supply and consolidation of sources at Thorndale
WTF for treatment. Includes new well houses, raw watermains, and treatment. Excludes pump
capacity upgrades cost to the Thorndale WTF High Lift Pumps PROJECT DESCRIPTION:

CLASS EA REQUIREMENTS:	С

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	TOTAL
Study	Feasibility study, EA	\$750,000
Design	Design fees, Town fees for design, contract admin	\$500,000
Construction	Town fees, base costs and project contingency	\$5M - \$15M





PROJECT NO.: W-T-RES-01

 PROJECT NAME: PROJECT DESCRIPTION:

Thorndale Reservoir Upgrade Twinning the existing 0.451 ML reservoir and 0.363 ML reservoir CAPITAL BUDGET YEAR: VERSION:

DATE UPDATED: UPDATED BY:

	Q	Class Estimate Type:	Class 4	Class adjusts Construction Contingency and expected accuracy		
ſ	Project Complexity Med		Med	Complexity adjusts Construction Contingency, and expected accuracy		
ſ	4	Accuracy Range:	40%			
Г	A	Area Condition:	Culturation	Asso Condition unlife unit east and restoration		



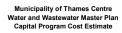
6	PROPOSED CAPACITY	0.5 ML
		-

CLASS EA REQUIREMENTS:	Α
CONSTRUCTION ASSUMPTION:	Other

COST ESTIMATION SPREADSHEET

	COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS
0	Construction Cost							
F	Facility Construction			ML	0.5 ML	\$900,000	\$405,900	utiliing existing reservoirs, not constructing new
Ī								
Ī								
Ī								
8								
/	Additional Construction Costs	15%		ea.			\$60,885	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
	Provisional & Allowance	10%					\$46,679	Provisional Labour and Materials in addition to base
Ľ	Provisional & Allowance	10%		ea.			\$46,679	construction cost
	Sub-Total Construction Base Costs						£542.000	
Ì	bub-rotal Construction base costs						\$513,000	
-				1		1		
(Geotechnical / Hydrogeological / Materials	1.0%					\$5,100	
ď	Geotechnical Sub-Total Cost						\$5,100	
Ē								
F	Property Requirements	1.5%					\$ 7,700	
F	Property Requirements Sub-Total					ı	\$7,700	
ŀ	.,.,						.,,	
(Consultant Engineering/Design	15%					\$ 77,000	includes planning, pre-design, detailed design, training, CA,
								commissioning
ľ	Engineering/Design Sub-Total						\$77,000	
l.								
Ľ	n House Labour/Engineering/Wages/CA	8%					\$ 41,000	
ı	n-house Labour/Wages Sub-Total						\$41,000	
Į								
F	Project Contingency	15%					\$97,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
F	Project Contingency Sub-Total						\$97,000	
ŀ								
Ī	Non-Refundable HST	1.76%					\$12,300	
,	Non-Refundable HST Sub-Total					\$12,300		
Ľ						φ12,300		
ļ	Fotal (2019 Dollars)						\$753,000	Rounded to nearest \$1,000
•	Other Estimate							
O	Chosen Estimate						\$753,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$15,060		
Design	Design fees, Town fees for design, contract admin	13%	\$97,890		
Construction	Town fees, base costs and project contingency	85%	\$640,050		
TOTAL		\$753,000			





PROJECT NO.: W-T-BPS-01

Thorndale HLP Upgrades
Upgrade Thorndale HLP to supply elevated tank and distribution system from reservoirs PROJECT NAME: PROJECT DESCRIPTION:

CAPITAL BUDGET YEAR:

VERSION: DATE UPDATED: UPDATED BY:

0	Class Estimate Type:	Class 4	Class adjusts Construction Contingency and expected accuracy	Field has drop down	
8	Project Complexity	Low	Complexity adjusts Construction Contingency, and expected accuracy	= Field must be manually populated	
4	Accuracy Range:	30%		= Field auto-filled based on project details	
_	A O d'd'		A ROLL MAN TO A ROLL OF THE RO	 •	

		<u></u>			Pump	Existing (L/s)	Future (L/s)
6 PROPOS	ED CAPACITY 20 L/s		CLASS EA REQUIREMENTS:	A	1	8.3	20
		<u> </u>	CONSTRUCTION ASSUMPTION:	Other	2	8.3	20
0			_		3		
					4		
					5		

	COST ESTIMATION SPREADSHEET							
	COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS
	Construction Cost							
	Number of Pumps (including well casing upgrades)			Pumps	2	\$200,000	\$400,000	Pump replacement and upgrades
	Electrical and Process			Lump Sum		\$100,000	\$100,000	
•								
								Includes Mod/Demob,connections, inspection, hydrants,
	Additional Construction Costs	25%		ea.			\$125,000	signage, traffic management, bonding, insurance
	Provisional & Allowance	10%		ea.			\$62,500	Provisional Labour and Materials in addition to base construction cost
				ļ				
	Sub-Total Construction Base Costs						\$688,000	
	Geotechnical / Hydrogeological / Materials	20.0%					\$ 100,000	
	Geotechnical Sub-Total Cost						\$100,000	
	Property Requirements	1.0%					\$ -	
	Property Requirements Sub-Total						\$0	
	Consultant Engineering/Design	15%					\$ 103,200	includes planning, pre-design, detailed design, training, CA, commissioning
	Engineering/Design Sub-Total						\$103,200	Ü
				ı		1		
	In House Labour/Engineering/Wages/CA	3%					\$ 20,600	
	In-house Labour/Wages Sub-Total						\$20,600	
	Product Continuous	100/					***	Construction Contingency is dependent on Cost Estimate
	Project Contingency	10%					\$91,000	Class and Project Complexity
	Project Contingency Sub-Total						\$91,000	
	Non-Refundable HST	1.76%					\$17,300	
	Non-Refundable HST Sub-Total						\$17,300	
	Total (2019 Dollars)						\$1 020 000	Rounded to nearest \$1,000
	Other Estimate						φ1,020,000	realized to hodiost ψ 1,000
	Chosen Estimate						\$1,020,000	2019 Estimate
	onoton Loumate						⇒ 1,020,000	2010 Commute

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$20,400		
Design	Design fees, Town fees for design, contract admin	13%	\$132,600		
Construction	Town fees, base costs and project contingency		\$867,000		
TOTAL		\$1,020,000			





PROJECT NO.:

PROJECT NAME: PROJECT DESCRIPTION: Thorndale Watermain - Thorndale Rd. Upgrade

350m of existing PVC watermain on Thorndale Rd. (built in 1987) to be replaced by 300mm PVC watermain

W-T-WM-01

CAPITAL BUDGET YEAR: VERSION: DATE UPDATED:

UPDATED BY:

Class Estimate Type: = Field has drop down Class 4 Class adjusts Construction Contingency and expected accuracy Project Complexity Complexity adjusts Construction Contingency, and expected accuracy = Field must be manually populated Accuracy Range: 40% = Field auto-filled based on project details Area Condition: Suburban Area Condition uplifts unit cost and restoration

6	PROPOSED DIAM	METER:	300 mm	
	TOTAL LENGTH:		350 m	
7		Tunnelled	0 m	0%
	_	Open Cut	350 m	100%

CLASS EA REQUIREMENTS:	A+
CONSTRUCTION ASSUMPTION:	Watermain

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET								
	COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS
	Construction Cost							
	Pipe Construction - Open Cut			Е	350 m	\$777	\$271,820	Existing road ROW
	Pipe Construction - Tunneling			m	0 m	\$1,300	\$0	
	Pipe Construction Uplift (Based on Area Conditions)	20%					\$54,364	
	Minor Creek Crossings			ea.	0	\$38,000	\$0	
	Major Creek Crossings			ea.	0	\$207,000	\$0	
3	Road Crossings			ea.	0	\$90,000	\$0	
	Major Road / Rail Crossings			ea.	0	\$207,000	\$0	
	Utility Crossings			ea.	1	\$90,000	\$90,000	
	Valve and Chamber			ea.	4	\$6,000	\$24,000	2 valves minimum
	Additional Construction Costs	15%		ea.			\$66,028	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
	Provisional & Allowance	10%		ea.			\$50,621	Provisional Labour and Materials in addition to base construction cost
	Sub-Total Construction Base Costs						\$557,000	
	Geotechnical / Hydrogeological / Materials	1.0%					\$5,600	
	Geotechnical Sub-Total Cost						\$5,600	
	Property Requirements	1.5%					\$ 8,400	
	Property Requirements Sub-Total						\$8,400	
								includes planning, pre-design, detailed design, training, CA,
	Consultant Engineering/Design	15%					\$ 83,600	commissioning
	Engineering/Design Sub-Total						\$83,600	
	In House Labour/Engineering/Wages/CA	8%					\$ 44,600	
	In-house Labour/Wages Sub-Total						\$44,600	
								Construction Contingency is dependent on Cost Estimate
	Project Contingency	15%					\$105,000	Class and Project Complexity
	Project Contingency Sub-Total						\$105,000	
	Non-Refundable HST	1.76%					\$13,400	
	Non-Refundable HST Sub-Total						\$13,400	
	Total (2019 Dollars)						\$818,000	Rounded to nearest \$1,000
	Other Estimate						45.5,000	
	Chosen Estimate						\$818,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$16,360		
Design	Design fees, Town fees for design, contract admin	13%	\$106,340		
Construction	Town fees, base costs and project contingency	85%	\$695,300		
TOTAL		\$818,000			





PROJECT NO.: W-T-WM-02

PROJECT NAME: Thorndale Watermain - South Trunk at Monteith Lands

PROJECT DESCRIPTION: 540m of proposed 300mm PVC watermain at Monteith Lands to complete south trunk.

CAPITAL BUDGET YEAR: VERSION: DATE UPDATED:

UPDATED BY:

Class Estimate Type: Class 4 Class adjusts Construction Contingency and expected accuracy
Project Complexity Low Complexity adjusts Construction Contingency, and expected accuracy
Accuracy Range: 30%
Area Condition: Rural Area Condition upliffs unit cost and restoration

	= Field has drop down
	= Field must be manually populated
	= Field auto-filled based on project details

6	PROPOSED DIAM	300 mm		
	TOTAL LENGTH:		540 m	
0		Tunnelled	0 m	0%
	_	Open Cut	540 m	100%

CLASS EA REQUIREMENTS:	A
CONSTRUCTION ASSUMPTION:	Watermain

COST ESTIMATION SPREADSHEET

	COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS
	Construction Cost							
	Pipe Construction - Open Cut			m	540 m	\$777	\$419,379	Existing road ROW
	Pipe Construction - Tunneling			m	0 m	\$1,300	\$0	
	Pipe Construction Uplift (Based on Area Conditions)	0%					\$0	
	Minor Creek Crossings			ea.	0	\$38,000	\$0	
	Major Creek Crossings			ea.	0	\$207,000	\$0	
•	Road Crossings			ea.	0	\$90,000	\$0	
	Major Road / Rail Crossings			ea.	0	\$207,000	\$0	
	Utility Crossings			ea.	1	\$90,000	\$90,000	
	Valve and Chamber			ea.	4	\$6,000	\$24,000	2 valves minimum
	Additional Construction Costs	10%		ea.			\$53,338	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
	Provisional & Allowance	10%		ea.			\$58,672	Provisional Labour and Materials in addition to base construction cost
	Sub-Total Construction Base Costs						\$645,000	
	Can Fortal Contraction Back Cotto						\$043,000	
	Geotechnical / Hydrogeological / Materials	0.5%					\$3,200	
	Geotechnical Sub-Total Cost						\$3,200	
	Property Requirements	1.0%					\$ 6,500	
	Property Requirements Sub-Total						\$6,500	
	Consultant Engineering/Design	15%					\$ 96,800	includes planning, pre-design, detailed design, training, CA,
	Engineering/Design Sub-Total						\$96,800	commissioning
	2.19.11001.119.2001.911.012.1012.1						\$30,000	
	In House Labour/Engineering/Wages/CA	8%					\$ 51,600	
	In-house Labour/Wages Sub-Total						\$51,600	
								Construction Contingency is dependent on Cost Estimate
	Project Contingency	10%					\$80,000	Class and Project Complexity
	Project Contingency Sub-Total						\$80,000	
	Non-Refundable HST	1.76%					\$14,600	
	Non-Refundable HST Sub-Total						\$14,600	
	Total (2019 Dollars)						\$898,000	Rounded to nearest \$1,000
	Other Estimate							
	Chosen Estimate						\$898,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$17,960		
Design	Design fees, Town fees for design, contract admin	13%	\$116,740		
Construction	Town fees, base costs and project contingency	85%	\$763,300		
TOTAL		\$898,000			





PROJECT NO.:

W-T-WM-03

PROJECT NAME: Thorndale Watermain - South Trunk Meadowbrook Ln. Upgrade
PROJECT DESCRIPTION: 440m of existing 150mm PVC watermain on Meadowbrook Ln. (built

440m of existing 150mm PVC watermain on Meadowbrook Ln.(built in 1990) to be replaced by 300mm PVC watermain

CAPITAL BUDGET YEAR: VERSION: DATE UPDATED:

UPDATED BY:

Class adjusts Construction Contingency and expected accuracy

Complexity adjusts Construction Contingency, and expected accuracy

Area Condition uplifts unit cost and restoration

= Field has drop down
= Field must be manually populated
= Field auto-filled based on project details

6	PROPOSED DIAM	METER:	300 mm	
	TOTAL LENGTH:		440 m	
0		Tunnelled	0 m	0%
	_	Open Cut	440 m	100%

CLASS EA REQUIREMENTS:	A+
CONSTRUCTION ASSUMPTION:	Watermain

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET								
	COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS
Ī	Construction Cost							
Ī	Pipe Construction - Open Cut			m	440 m	\$777	\$341,717	Existing road ROW
	Pipe Construction - Tunneling			m	0 m	\$1,300	\$0	
İ	Pipe Construction Uplift (Based on Area Conditions)	20%					\$68,343	
	Minor Creek Crossings			ea.	0	\$38,000	\$0	
Ī	Major Creek Crossings			ea.	0	\$207,000	\$0	
•	Road Crossings			ea.	0	\$90,000	\$0	
Ī	Major Road / Rail Crossings			ea.	0	\$207,000	\$0	
Ī	Utility Crossings			ea.	0	\$90,000	\$0	
	Valve and Chamber			ea.	3	\$6,000	\$18,000	2 valves minimum
	Additional Construction Costs	15%		ea.			\$64,209	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
	Provisional & Allowance	10%		ea.			\$49,227	Provisional Labour and Materials in addition to base construction cost
İ	Sub-Total Construction Base Costs						\$541,000	
ı								
ŀ	Geotechnical / Hydrogeological / Materials	1.0%					\$5,400	
	Geotechnical Sub-Total Cost						\$5,400	
ŀ						1		
-	Property Requirements	1.5%					\$ 8,100	
ļ	Property Requirements Sub-Total						\$8,100	
-	Consultant Engineering/Design	15%					\$ 81,200	includes planning, pre-design, detailed design, training, CA, commissioning
Į	Engineering/Design Sub-Total						\$81,200	
ļ								
ļ	n House Labour/Engineering/Wages/CA	8%					\$ 43,300	
	n-house Labour/Wages Sub-Total						\$43,300	
ŀ	Project Contingency	15%					\$102,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
İ	Project Contingency Sub-Total						\$102,000	
ŀ	Non-Refundable HST	1.76%				1	\$13,000	
ŀ	Non-Refundable HST Sub-Total	1.7070					\$13,000	
ļ	Non-Nervillable not Sub-10tal						\$13,000	
ŀ	Total (2019 Dollars)						\$794,000	Rounded to nearest \$1,000
Ī	Other Estimate							
	Chosen Estimate						\$794,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$15,880		
Design	Design fees, Town fees for design, contract admin	13%	\$103,220		
Construction	Town fees, base costs and project contingency	85%	\$674,900		
TOTAL					





PROJECT NO.:

W-T-WM-04

PROJECT NAME: Thorndale Watermain - South Trunk at Foxborough Subdivision
PROJECT DESCRIPTION: 280m of proposed 300mm PVC watermain at Foxborough Subdivision

280m of proposed 300mm PVC watermain at Foxborough Subdivision to complete south trunk.

VERSION:
DATE UPDATED:
UPDATED BY:

CAPITAL BUDGET YEAR:

Class adjusts Construction Contingency and expected accuracy

Complexity adjusts Construction Contingency, and expected accuracy

= Field has drop down
= Field must be manually populated
= Field auto-filled based on project details

Area Condition: Rural Area Condition uplifts unit cost and restoration

6	PROPOSED DIAM	IETER:	300 mm	
	TOTAL LENGTH:		280 m	
0		Tunnelled	0 m	0%
		Open Cut	280 m	100%

CLASS EA REQUIREMENTS:	A
CONSTRUCTION ASSUMPTION:	Watermain

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET								
	COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS
	Construction Cost							
	Pipe Construction - Open Cut			m	280 m	\$777	\$217,456	Existing road ROW
	Pipe Construction - Tunneling			m	0 m	\$1,300	\$0	
	Pipe Construction Uplift (Based on Area Conditions)	0%					\$0	
	Minor Creek Crossings			ea.	0	\$38,000	\$0	
	Major Creek Crossings			ea.	0	\$207,000	\$0	
3	Road Crossings			ea.	0	\$90,000	\$0	
	Major Road / Rail Crossings			ea.	0	\$207,000	\$0	
	Utility Crossings			ea.	0	\$90,000	\$0	
	Valve and Chamber			ea.	2	\$6,000	\$12,000	2 valves minimum
	Additional Construction Costs	10%		ea.			\$22,946	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
	Provisional & Allowance	10%		ea.			\$25,240	Provisional Labour and Materials in addition to base construction cost
						4070.000		
	Sub-Total Construction Base Costs						\$278,000	
				1		1		
	Geotechnical / Hydrogeological / Materials	0.5%					\$1,400	
	Geotechnical Sub-Total Cost						\$1,400	
	Property Requirements	1.0%					\$ 2,800	
	Property Requirements Sub-Total						\$2,800	
	Consultant Engineering/Design	15%					\$ 41,700	includes planning, pre-design, detailed design, training, CA, commissioning
	Engineering/Design Sub-Total						\$41,700	
	In House Labour/Engineering/Wages/CA	8%					\$ 22,200	
	In-house Labour/Wages Sub-Total						\$22,200	
	Project Contingency	10%					\$35,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
	Project Contingency Sub-Total						\$35,000	
	Non-Refundable HST	1.76%					\$6,300	
	Non-Refundable HST Sub-Total					•	\$6,300	
	Total (2019 Dollars)						\$387,000	Rounded to nearest \$1,000
	Other Estimate							
	Chosen Estimate						\$387,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$7,740		
Design	Design fees, Town fees for design, contract admin	13%	\$50,310		
Construction	Town fees, base costs and project contingency	85%	\$328,950		
TOTAL					





PROJECT NO.: W-T-WM-05

PROJECT NAME: Thorndale Watermain - South Trunk at Railway Crossing

PROJECT DESCRIPTION: 410m of proposed 300mm PVC watermain at railway crossing to complete south trunk.

CAPITAL BUDGET YEAR: VERSION: DATE UPDATED:

UPDATED BY:

Class Estimate Type: Class 4 Class adjusts Construction Contingency and expected accuracy = Field has drop down

Project Complexity High Complexity adjusts Construction Contingency, and expected accuracy = Field must be manually populated

Accuracy Range: 50%

Area Condition: Rural Area Condition uplifts unit cost and restoration

6	PROPOSED DIAM	IETER:	300 mm	
TOTAL LENGTH:		410 m		
7		Tunnelled	200 m	49%
		Open Cut	210 m	51%

CLASS EA REQUIREMENTS:	A+
CONSTRUCTION ASSUMPTION:	Watermain

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET								
	COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS
	Construction Cost							
	Pipe Construction - Open Cut			m	210 m	\$777	\$163,092	Existing road ROW
	Pipe Construction - Tunneling			m	200 m	\$1,300	\$260,000	
	Pipe Construction Uplift (Based on Area Conditions)	0%					\$0	
	Minor Creek Crossings			ea.	0	\$38,000	\$0	
	Major Creek Crossings			ea.	1	\$207,000	\$207,000	
3	Road Crossings			ea.	0	\$90,000	\$0	
	Major Road / Rail Crossings			ea.	1	\$207,000	\$207,000	
	Utility Crossings			ea.	0	\$90,000	\$0	
	Valve and Chamber			ea.	2	\$6,000	\$12,000	2 valves minimum
	Additional Construction Costs	20%		ea.			\$169,818	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
	Provisional & Allowance	10%		ea.			\$101,891	Provisional Labour and Materials in addition to base construction cost
	Sub-Total Construction Base Costs						\$1,121,000	
				•				
	Geotechnical / Hydrogeological / Materials	2.0%					\$22,400	
	Geotechnical Sub-Total Cost						\$22,400	
	Property Requirements	2.0%					\$ 22,400	
	· · · ·	2.076						
	Property Requirements Sub-Total						\$22,400	
	Consultant Engineering/Design	15%					\$ 168,200	includes planning, pre-design, detailed design, training, CA, commissioning
	Engineering/Design Sub-Total						\$168,200	
				ı		1		
	In House Labour/Engineering/Wages/CA	8%					\$ 89,700	
	In-house Labour/Wages Sub-Total						\$89,700	
						1		Construction Contingency is dependent on Cost Estimate
	Project Contingency	25%					\$356,000	Class and Project Complexity
	Project Contingency Sub-Total						\$356,000	
	Non-Refundable HST	1.76%					\$29,700	
	Non-Refundable HST Sub-Total						\$29,700	
	Total (2019 Dollars)						\$1,809,000	Rounded to nearest \$1,000
	Other Estimate							
	Chosen Estimate						\$1,809,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$36,180		
Design	Design fees, Town fees for design, contract admin	13%	\$235,170		
Construction	Town fees, base costs and project contingency	85%	\$1,537,650		
TOTAL					





PROJECT NO.: W-T-WM-06

PROJECT NAME: Thorndale W

Thorndale Watermain - South Trunk at Rosewood Subdivision

PROJECT DESCRIPTION: 390m of proposed 300mm PVC watermain at Rosewood Subdivision to complete south trunk.

CAPITAL BUDGET YEAR:
VERSION:
DATE UPDATED:
UPDATED BY:

Class Estimate Type: Class 4 Class adjusts Construction Contingency and expected accuracy
Project Complexity Low Complexity adjusts Construction Contingency, and expected accuracy
Accuracy Range: 30%
Area Condition: Rural Area Condition uplifts unit cost and restoration

	= Field has drop down
	= Field must be manually populated
	= Field auto-filled based on project details

ı	6	PROPOSED DIAM	METER:	300 mm	
ı		TOTAL LENGTH:		390 m	
ı	0		Tunnelled	0 m	0%
ı			Open Cut	390 m	100%

CLASS EA REQUIREMENTS:	A
CONSTRUCTION ASSUMPTION:	Watermain

COST ESTIMATION SPREADSHEET

	OST ESTIMATION SPREADSHEET							
	COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS
	nstruction Cost							
	Pipe Construction - Open Cut			m	390 m	\$777	\$302,885	Existing road ROW
	Pipe Construction - Tunneling			m	0 m	\$1,300	\$0	
	Pipe Construction Uplift (Based on Area Conditions)	0%					\$0	
_	Minor Creek Crossings			ea.	0	\$38,000	\$0	
	Major Creek Crossings			ea.	0	\$207,000	\$0	
	Road Crossings			ea.	0	\$90,000	\$0	
	Major Road / Rail Crossings			ea.	0	\$207,000	\$0	
	Utility Crossings			ea.	0	\$90,000	\$0	
	Valve and Chamber			ea.	3	\$6,000	\$18,000	2 valves minimum
	Additional Construction Costs	10%		ea.			\$32,089	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
	Provisional & Allowance	10%		ea.			\$35,297	Provisional Labour and Materials in addition to base construction cost
	Sub-Total Construction Base Costs						\$388,000	
	Geotechnical / Hydrogeological / Materials	0.5%					\$1,900	
	Geotechnical Sub-Total Cost						\$1,900	
	Property Requirements	1.0%					\$ 3,900	
	Property Requirements Sub-Total						\$3,900	
	Consultant Engineering/Design	15%					\$ 58,200	includes planning, pre-design, detailed design, training, CA, commissioning
	Engineering/Design Sub-Total						\$58,200	
					ı			
	In House Labour/Engineering/Wages/CA	8%					\$ 31,000	
	In-house Labour/Wages Sub-Total						\$31,000	
	Project Contingency	10%					\$48,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
Ė	Project Contingency Sub-Total						\$48,000	
	Non-Refundable HST	1.76%					\$8,800	
	Ion-Refundable HST Sub-Total						\$8,800	
	tal (2019 Dollars)					\$540,000	Rounded to nearest \$1,000	
	Other Estimate					7515,000		
	Chosen Estimate				\$540,000	2019 Estimate		

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$10,800		
Design	Design fees, Town fees for design, contract admin	13%	\$70,200		
Construction	Town fees, base costs and project contingency	85%	\$459,000		
TOTAL		\$540,000			





PROJECT NO.: W-T-WM-07

PROJECT NAME: PROJECT DESCRIPTION:

Thorndale Watermain - Subrunk at Rosewood
680m of proposed 300mm PVC watermain at Rosewood Subdivision.

CAPITAL BUDGET YEAR: VERSION: DATE UPDATED:

UPDATED BY:

ſ	0	Class Estimate Type:	Class 4	Class adjusts Construction Contingency and expected accuracy	= Field has drop down
ſ	3	Project Complexity	Low	Complexity adjusts Construction Contingency, and expected accuracy	= Field must be manually populated
ſ	4	Accuracy Range:	30%		= Field auto-filled based on project deta
ſ	A	Area Condition:	Rural	Area Condition unlifts unit cost and restoration	

ı	6 PROPOSED DIAMETER:			300 mm	
ı	TOTAL LENGTH:			680 m	
ı			Tunnelled	0 m	0%
ı			Open Cut	680 m	100%

CLASS EA REQUIREMENTS:	A
CONSTRUCTION ASSUMPTION:	Watermain

COST ESTIMATION SPREADSHEET

S 10,100 Commissioning S 106,100 Commissioning C 106,100 C									
Pipe Construction - Cyan Cold		COMPONENT			UNIT		COST PER UNIT	SUB-TOTAL	COMMENTS
Pipe Construction - Turneling	ı	Construction Cost							
Pipe Construction Uplift (Based on Area Conditions)	ı	Pipe Construction - Open Cut			m	680 m	\$777	\$528,107	Existing road ROW
Major Creek Crossings	ı	Pipe Construction - Tunneling			m	0 m	\$1,300	\$0	
Major Creek Crossings	ı	Pipe Construction Uplift (Based on Area Conditions)	0%					\$0	
Road Crossings		Minor Creek Crossings			ea.	1	\$38,000	\$38,000	
Major Road / Rail Crossings		Major Creek Crossings			ea.	0	\$207,000	\$0	
Daily Crossings	•	Road Crossings			ea.	0	\$90,000	\$0	
Valve and Chamber e.a. 3 \$6,000 \$18,000 2 valves minimum Additional Construction Costs 10% e.a. \$84,411 Includes Modifemeb, connections, inspection, hydrans, graphic staff, management, bording, insurance provisional & Allowance \$64,222 Provisional & Allowance in addition to base construction Base Costs \$707,000 Sibil-Total Construction Base Costs \$707,000 \$3,500 \$3,500 Geotechnical / Hydrogeological / Materials 0.5% \$3,500 \$7,100 Property Requirements 1.0% \$7,100 \$7,100 Property Requirements Sub-Total \$7,100 \$7,100 Consultant Engineering/Design 15% \$ 108,100 ************************************		Major Road / Rail Crossings			ea.	0	\$207,000	\$0	
Additional Construction Costs 10% e.a. \$58,411 Provisional & Allowance 10% e.a. \$58,425 Provisional & Allowance 10% e.a. \$58,425 Provisional & Allowance 10% e.a. \$58,425 Provisional & Allowance 5707,000 Sub-Total Construction Base Costs \$707,000 Geotechnical / Hydrogeological / Materials 0.5% \$3,500 Geotechnical Sub-Total Cost \$3,500 Geotechnical Sub-Total Cost \$7,100 Property Requirements 1.0% \$7,100 Property Requirements 1.0% \$7,100 Consultant Engineering/Design 1.5% \$106,100 Includes planning, pre-design, detailed design, training, Commissioning Engineering/Design Sub-Total 1.0% \$106,000 Engineering/Design Sub-Total 1.0% \$106,000 Commissioning Consultant Engineering/Wages Sub-Total 1.0% \$106,000 Consultant Engineering/Sub-Total 1.78% \$106,000 Consultant Engineering/Sub-Total \$106,000 Consultant Engineering/Sub-Total \$106,000 Consultant Engineering/Sub-Total \$106,000 Consultant Engineering/Sub-Total \$106,000 Consultant Engineering/Sub-Total \$106,000 Consultant Engineering/Sub-Total \$106,000 Consultant Engineering/Sub-Total \$106,000 Consultant Engineering/Sub-Total \$106,000 Consultant Engineering/Sub-Total \$106,000 Consultant Engineering/Sub-Total \$106,000 Consultant Engineering/Sub-Total Consultant Engineering/Sub-Total Consultant Engineering/Sub-Total Consultant Engineering/Sub-Total Consultant Engineering/Sub-Total Consultant Engineering/Sub-Total Consultant Engineering/Sub-Total Consultant Engineering/Sub-Total Consultant Engineering/Sub-Total Consultant Engineering/Sub-Total Consultant Engineering/Sub-Total Consultant Engineering/Sub-Total Consultant Engineering/Sub-Total C		Utility Crossings			ea.	0	\$90,000	\$0	
Notice 10% Ea. 10% E		Valve and Chamber			ea.	3	\$6,000	\$18,000	
Sub-Total Construction Base Costs		Additional Construction Costs	10%		ea.			\$58,411	signage, traffic management, bonding, insurance
Geotechnical / Hydrogeological / Materials		Provisional & Allowance	10%		ea.			\$64,252	
Geotechnical / Hydrogeological / Materials									
Reduction Sale		Sub-Total Construction Base Costs						\$707,000	
Sample S									
Property Requirements		Geotechnical / Hydrogeological / Materials	0.5%					\$3,500	
Property Requirements Sub-Total Consultant Engineering/Design 15%		Geotechnical Sub-Total Cost						\$3,500	
Property Requirements Sub-Total Consultant Engineering/Design 15%	ŀ						1		
Consultant Engineering/Design 15% \$ 106,100 commissioning Findering/Design Sub-Total \$ 106,100 commissioning Sub-Total \$ 106,100 commissioning Sub-Total \$ 106,100 commissioning Sub-Total \$ 106,100 commissioning Sub-Total \$ 106,000 commissioning		Property Requirements	1.0%					\$ 7,100	
Engineering/Design Sub-Total In House Labour/Engineering/Wages/CA In-house Labour/Wages Sub-Total Project Contingency 10% Project Contingency Sub-Total Non-Refundable HST 1.76% Non-Refundable HST Sub-Total Total (2019 Dollars) S 106,100 S 106,100 S 56,600 Construction Contingency is dependent on Cost Estimate Class and Project Complexity S 88,000 S 106,100 S 56,600 S 56,600 Construction Contingency is dependent on Cost Estimate Class and Project Complexity S 88,000 Non-Refundable HST S 16,000 Rounded to nearest \$1,000 Other Estimate		Property Requirements Sub-Total						\$7,100	
Engineering/Design Sub-Total In House Labour/Engineering/Wages/CA In-house Labour/Wages Sub-Total Project Contingency 10% Project Contingency Sub-Total Non-Refundable HST 1.76% Non-Refundable HST Sub-Total Total (2019 Dollars) Other Estimate	ŀ	Consultant Engineering/Design	450/						includes planning, pre-design, detailed design, training, CA,
In House Labour/Engineering/Wages/CA 8% \$ 56,600 In-house Labour/Wages Sub-Total \$ \$56,600 Project Contingency 10% \$88,000 Construction Contingency is dependent on Cost Estimate Class and Project Complexity Project Contingency Sub-Total \$88,000 Non-Refundable HST 1,76% \$16,000 Non-Refundable HST Sub-Total \$16,000 Total (2019 Dollars) \$984,000 Rounded to nearest \$1,000	ŀ		15%						commissioning
In-house Labour/Wages Sub-Total Project Contingency 10% \$88,000 Construction Contingency is dependent on Cost Estimate Class and Project Complexity Project Contingency Sub-Total \$88,000 Non-Refundable HST 1,76% \$16,000 Non-Refundable HST Sub-Total \$16,000 Total (2019 Dollars) \$984,000 Rounded to nearest \$1,000		Engineering/Design Sub-Total						\$106,100	
Project Contingency 10% \$88,000 Construction Contingency is dependent on Cost Estimate Class and Project Complexity Project Contingency Sub-Total \$88,000 Non-Refundable HST 1.76% \$16,000 Non-Refundable HST Sub-Total \$16,000 Total (2019 Dollars) \$984,000 Rounded to nearest \$1,000 Other Estimate	ŀ	In House Labour/Engineering/Wages/CA	8%					\$ 56,600	
Project Contingency 10% \$88,000 Construction Contingency is dependent on Cost Estimate Class and Project Complexity Project Contingency Sub-Total \$88,000 Non-Refundable HST 1.76% \$16,000 Non-Refundable HST Sub-Total \$16,000 Total (2019 Dollars) \$984,000 Rounded to nearest \$1,000 Other Estimate	ŀ	In house Labour/Mages Sub Total						\$56,600	
Non-Refundable HST 1.76% \$16,000	ŀ	m-nouse Labour Wages oub-rotal						\$30,000	
Project Contingency Sub-Total \$88,000 Non-Refundable HST 1.76% \$16,000 Non-Refundable HST Sub-Total \$16,000 Total (2019 Dollars) \$984,000 Rounded to nearest \$1,000 Other Estimate \$984,000 Rounded to nearest \$1,000		Project Contingency	10%					\$88,000	Construction Contingency is dependent on Cost Estimate
Non-Refundable HST Sub-Total \$16,000 Total (2019 Dollars) \$984,000 Rounded to nearest \$1,000 Other Estimate	İ	Project Contingency Sub-Total						\$88,000	, , , , ,
Non-Refundable HST Sub-Total \$16,000 Total (2019 Dollars) \$984,000 Rounded to nearest \$1,000 Other Estimate									
Total (2019 Dollars) \$984,000 Rounded to nearest \$1,000 Other Estimate		Non-Refundable HST	1.76%					\$16,000	
Other Estimate Other Estimate		Non-Refundable HST Sub-Total							
Other Estimate Other Estimate	Ī								
		Total (2019 Dollars)						\$984,000	Rounded to nearest \$1,000
Chosen Estimate \$984,000 2019 Estimate		Other Estimate							
		Chosen Estimate						\$984,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION		TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$19,680		
Design	esign Design fees, Town fees for design, contract admin		\$127,920		
Construction	Town fees, base costs and project contingency	85%	\$836,400		
TOTAL		\$984,000			





PROJECT NO.:

PROJECT NAME:

PROJECT DESCRIPTION:

W-T-WM-08

Thorndale Watermain Upgrade - Gerald Pkwy. Upgrade

590m of existing 200mm PVC watermain (built in 2010) on Gerald Pkwy, to be replaced by 300mm PVC watermain.

CAPITAL BUDGET YEAR: VERSION: DATE UPDATED: UPDATED BY:

| Class Estimate Type: Class 4 |
| Project Complexity | Med |
| Accuracy Range: 40% |
| Area Condition: Suburban |

Class adjusts Construction Contingency and expected accuracy

Complexity adjusts Construction Contingency, and expected accuracy

Area Condition uplifts unit cost and restoration

= Field has drop down
= Field must be manually populated
= Field auto-filled based on project detail

6	PROPOSED DIAM	METER:	300 mm		
	TOTAL LENGTH:		590 m		
0		Tunnelled	0 m	0%	
		Open Cut	590 m	100%	

CLASS EA REQUIREMENTS:	A+
CONSTRUCTION ASSUMPTION:	Watermain

COST ESTIMATION SPREADSHEET

	COST ESTIMATION SPREADSHEET							
	COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS
	Construction Cost							
	Pipe Construction - Open Cut			m	590 m	\$777	\$458,211	Existing road ROW
	Pipe Construction - Tunneling			m	0 m	\$1,300	\$0	
	Pipe Construction Uplift (Based on Area Conditions)	20%					\$91,642	
	Minor Creek Crossings			ea.	0	\$38,000	\$0	
	Major Creek Crossings			ea.	0	\$207,000	\$0	
•	Road Crossings			ea.	0	\$90,000	\$0	
	Major Road / Rail Crossings			ea.	0	\$207,000	\$0	
	Utility Crossings			ea.	0	\$90,000	\$0	
	Valve and Chamber			ea.	2	\$6,000		2 valves minimum Includes Mod/Demob,connections, inspection, hydrants,
	Additional Construction Costs	15%		ea.			\$84,278	signage, traffic management, bonding, insurance
	Provisional & Allowance	10%		ea.			\$64,613	Provisional Labour and Materials in addition to base construction cost
	Sub-Total Construction Base Costs						\$711,000	
	Geotechnical / Hydrogeological / Materials	1.0%					\$7,100	
	Geotechnical Sub-Total Cost						\$7,100	
	Property Requirements	1.5%					\$ 10,700	
	Property Requirements Sub-Total					•	\$10,700	
	Consultant Engineering/Design	15%					\$ 106,700	includes planning, pre-design, detailed design, training, CA,
	Engineering/Design Sub-Total	1070					\$106,700	commissioning
	In House Labour/Engineering/Wages/CA	8%					\$ 56,900	
	In-house Labour/Wages Sub-Total						\$56,900	
	Project Contingency	15%					\$134,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
	Project Contingency Sub-Total						\$134,000	
	Non-Refundable HST	1.76%					\$17,100	
	Non-Refundable HST Sub-Total						\$17,100	
	Total (2019 Dollars)						\$1,044,000	Rounded to nearest \$1,000
	Other Estimate							
	Chosen Estimate						\$1,044,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION PE		TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$20,880		
Design	Design fees, Town fees for design, contract admin	13%	\$135,720		
Construction	Town fees, base costs and project contingency	85%	\$887,400		
TOTAL		\$1,044,000			





PROJECT NO.: W-T-WM-09

PROJECT NAME: Thorndale Watermain Upgrade - Industrial Lands Loop

PROJECT DESCRIPTION: 590m of 300mm watermain to connect Ideal Dr. and Gerald Pkwy. to complete loop

CAPITAL BUDGET YEAR: VERSION: DATE UPDATED:

UPDATED BY:

ĺ	0	Class Estimate Type:	Class 4	Class adjusts Construction Contingency and expected accuracy	
ĺ	Project Complexity Med		Med	Complexity adjusts Construction Contingency, and expected accuracy	
ĺ	4	Accuracy Range:	40%		
ſ	A	Area Condition:	Suburban	Area Condition uplifts unit cost and restoration	

= Field has drop down
= Field must be manually populated
= Field auto-filled based on project details

6 PROPOSED DIAMETER:			300 mm	
	TOTAL LENGTH:		590 m	
7		Tunnelled	0 m	0%
		Open Cut	590 m	100%

CLASS EA REQUIREMENTS:	A+
CONSTRUCTION ASSUMPTION:	Watermain

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET							
COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS
Construction Cost							
Pipe Construction - Open Cut			m	590 m	\$777	\$458,211	Existing road ROW
Pipe Construction - Tunneling			m	0 m	\$1,300	\$0	
Pipe Construction Uplift (Based on Area Conditions)	20%					\$91,642	
Minor Creek Crossings			ea.	0	\$38,000	\$0	
Major Creek Crossings			ea.	0	\$207,000	\$0	
Road Crossings			ea.	0	\$90,000	\$0	
Major Road / Rail Crossings			ea.	0	\$207,000	\$0	
Utility Crossings			ea.	0	\$90,000	\$0	
Valve and Chamber			ea.	1	\$6,000	\$6,000	2 valves minimum
Additional Construction Costs	15%		ea.			\$83,378	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
Provisional & Allowance	10%		ea.			\$63,923	Provisional Labour and Materials in addition to base construction cost
Sub-Total Construction Base Costs						\$703,000	
Geotechnical / Hydrogeological / Materials	1.0%					\$7,000	
Geotechnical Sub-Total Cost						\$7,000	
Property Requirements	1.5%					\$ 10,500	
. , ,	1.5%					, ,,,,,	
Property Requirements Sub-Total						\$10,500	
Consultant Engineering/Design	15%					\$ 105,500	includes planning, pre-design, detailed design, training, CA, commissioning
Engineering/Design Sub-Total						\$105,500	
				ı	1		
In House Labour/Engineering/Wages/CA	8%					\$ 56,200	
In-house Labour/Wages Sub-Total						\$56,200	
Project Contingency	15%					\$132,000	Construction Contingency is dependent on Cost Estimate
							Class and Project Complexity
Project Contingency Sub-Total						\$132,000	
Non-Refundable HST	1.76%					\$16,900	
Non-Refundable HST Sub-Total					I	\$16,900	
Total (2019 Dollars)						\$1,031,000	Rounded to nearest \$1,000
Other Estimate							
Chosen Estimate						\$1,031,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$20,620		
Design	Design fees, Town fees for design, contract admin	13%	\$134,030		
Construction	Town fees, base costs and project contingency	85%	\$876,350		
TOTAL		\$1,031,000			





PROJECT NO.:

W-T-WM-10

PROJECT NAME: Thorndale Watermain Upgrade - Industrial Lands Upgrade
PROJECT DESCRIPTION: 1020m of existing 200mm PVC watermain (built in 2010) on Th

1020m of existing 200mm PVC watermain (built in 2010) on Thorndale Rd. and Ideal Dr. to be replaced by 300mm PVC watermain.

CAPITAL BUDGET YEAR: VERSION: DATE UPDATED:

UPDATED BY:

2 Class Estimate Type: Clas

Class adjusts Construction Contingency and expected accuracy

Complexity adjusts Construction Contingency, and expected accuracy

Area Condition uplifts unit cost and restoration

= Field has drop down
= Field must be manually populated
= Field auto-filled based on project details

Project Complexity Med
 Accuracy Range: 40%
 Area Condition: Suburban

6	PROPOSED DIAM	IETER:	300 mm			
	TOTAL LENGTH:		1020 m			
Ø		Tunnelled	0 m	0%		
		Onen Cut	1020 m	100%		

CLASS EA REQUIREMENTS:	A+
CONSTRUCTION ASSUMPTION:	Watermain

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET							
COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS
Construction Cost							
Pipe Construction - Open Cut			m	1020 m	\$777	\$792,161	Existing road ROW
Pipe Construction - Tunneling			m	0 m	\$1,300	\$0	
Pipe Construction Uplift (Based on Area Conditions)	20%					\$158,432	
Minor Creek Crossings			ea.	0	\$38,000	\$0	
Major Creek Crossings			ea.	0	\$207,000	\$0	
Road Crossings			ea.	0	\$90,000	\$0	
Major Road / Rail Crossings			ea.	0	\$207,000	\$0	
Utility Crossings			ea.	0	\$90,000	\$0	
Valve and Chamber			ea.	3	\$6,000	\$18,000	2 valves minimum
Additional Construction Costs	15%		ea.			\$145,289	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
Provisional & Allowance	10%		ea.			\$111,388	Provisional Labour and Materials in addition to base construction cost
Sub-Total Construction Base Costs						\$1,225,000	
Geotechnical / Hydrogeological / Materials	1.0%					\$12,300	
Geotechnical Sub-Total Cost						\$12,300	
Property Requirements	1.5%					\$ 18,400	
Property Requirements Sub-Total						\$18,400	
Consultant Engineering/Design	15%					\$ 183,800	includes planning, pre-design, detailed design, training, CA, commissioning
Engineering/Design Sub-Total						\$183,800	
				ı	1		
In House Labour/Engineering/Wages/CA	8%					\$ 98,000	
In-house Labour/Wages Sub-Total						\$98,000	
Project Contingency	15%					\$231,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
Project Contingency Sub-Total						\$231,000	
Non-Refundable HST	1.76%					\$29,400	
Non-Refundable HST Sub-Total						\$29,400	
Total (2010 Pallars)						64 700 000	Rounded to nearest \$1,000
Total (2019 Dollars) Other Estimate						\$1,798,000	Inounided to neglest \$1,000
Chosen Estimate	\$1,798,000	2019 Estimate					

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$35,960		
Design	Design fees, Town fees for design, contract admin	13%	\$233,740		
Construction	Town fees, base costs and project contingency	85%	\$1,528,300		
TOTAL		\$1,798,000			



PROJECT NO.: WW-D-TP-01A

PROJECT NAME: **Dorchester Treatment Plant Upgrades**

PROJECT Treatment plant capacity upgrades required to accommodate

DESCRIPTION: all development flows in Dorchester

Class Estimate Type: Class 4 Class adjusts Construction Contingency and expected accuracy Project Complexity Med Complexity adjusts Construction Contingency, and expected accuracy PROJECT NO.: WW-D-TP-01A Accuracy Range: 40%

Area Condition: Area Condition uplifts unit cost and restoration Suburban

PROPOSED CAPACITY 2.11 MLD

CLASS EA REQUIREMENTS:	С
CONSTRUCTION ASSUMPTION:	Other

COST ESTIMATION SPREADSHEET							
COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS
Construction Cost							
Facility Construction			MLD	2 MLD	\$2,500,000	\$5,276,880	\$2.5M per MLD
Additional Construction Costs	450/					₾ 704 E20	Includes Mod/Demob, connections, inspection,
Additional Construction Costs	15%		ea.			\$791,532	hydrants, signage, traffic management, bonding, insurance
Provisional & Allowance	10%		ea.			\$606,841	Provisional Labour and Materials in addition to base
1 Tovisional & Allowance	10 /0		ca.			\$000,041	construction cost
Sub-Total Construction Base Costs						\$6,675,000	
Sub-Total Solistraction Base Costs						\$0,075,000	
Geotechnical / Hydrogeological / Materials	1.0%					\$66,800	
Geotechnical Sub-Total Cost		l		1		\$66,800	
Property Requirements	1.5%					\$ 100,100	
Property Requirements Sub-Total						\$100,100	
		1	1	T	1		includes planning pro design detailed design
Consultant Engineering/Design	15%					\$ 1,001,300	includes planning, pre-design, detailed design, training, CA, commissioning
Engineering/Design Sub-Total						\$1,001,300	<u> </u>
In House Labour/Engineering/Wages/CA	3%					\$ 200,300	
In-house Labour/Wages Sub-Total						\$200,300	
Project Contingency	15%					\$1,207,000	Construction Contingency is dependent on Cost
Froject Contingency	1076					\$1,207,000	Estimate Class and Project Complexity
Project Contingency Sub-Total						\$1,207,000	
				1			
Non-Refundable HST Sub-Total	1.76%			<u> </u>	<u> </u>	\$159,300 \$159,300	
Non-Kerundable H51 Sub-10tal						\$159,300	
Total (2019 Dollars)						\$9.410.000	Rounded to nearest \$1,000
Other Estimate						, , ,	• •
Chosen Estimate						\$9,410,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$188,200		
Design	Design fees, Town fees for design, contract admin	13%	\$1,223,300		
Construction	Town fees, base costs and project contingency	85%	\$7,998,500		
TOTAL		\$9,410,000			



PROJECT NO.: WW-D-TP-01B

PROJECT NAME: **Dorchester Treatment Plant Upgrades**

PROJECT Treatment plant capacity upgrades required to accommodate

DESCRIPTION: all development flows in Dorchester

Class Estimate Type: Class 4 Class adjusts Construction Contingency and expected accuracy Project Complexity Med Complexity adjusts Construction Contingency, and expected accuracy Accuracy Range: 40%

Area Condition: Area Condition uplifts unit cost and restoration Suburban

PROPOSED CAPACITY 3.22 MLD

CLASS EA REQUIREMENTS:	С
CONSTRUCTION ASSUMPTION:	Other

PROJECT NO.: WW-D-TP-01B

COST ESTIMATION SPREADSHEET							
COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS
Construction Cost							
Facility Construction			MLD	3 MLD	\$2,500,000	\$8,052,480	\$2.5M per MLD
							Includes Mod/Demob,connections, inspection,
Additional Construction Costs	15%		ea.			\$1,207,872	hydrants, signage, traffic management, bonding, insurance
							Provisional Labour and Materials in addition to base
Provisional & Allowance	10%		ea.			\$926,035	construction cost
Sub-Total Construction Base Costs						\$10,186,000	
		1		I	1	1	T
Geotechnical / Hydrogeological / Materials	1.0%					\$101,900	
Geotechnical Sub-Total Cost						\$101,900	
	1						<u></u>
Property Requirements	1.5%					\$ 152,800	
Property Requirements Sub-Total						\$152,800	
					1		includes planning, pre-design, detailed design,
Consultant Engineering/Design	12%					\$ 1,222,300	training, CA, commissioning
Engineering/Design Sub-Total						\$1,222,300	
	1						
In House Labour/Engineering/Wages/CA	3%					\$ 305,600	
In-house Labour/Wages Sub-Total						\$305,600	
Project Contingency	15%					\$1,795,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
Project Contingency Sub-Total						\$1,795,000	
Non-Refundable HST	1.76%		<u> </u>			\$236,900	
Non-Refundable HST Sub-Total						\$236,900	
Total (2019 Dollars)						\$14,004,000	Rounded to nearest \$1,000
Other Estimate						φ14,001,000	rounded to ficalest \$1,000
Chosen Estimate	_	_				\$14.001.000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$280,020		
Design	Design fees, Town fees for design, contract admin	13%	\$1,820,130		
Construction	Town fees, base costs and project contingency	85%	\$11,900,850		
TOTAL		\$14,001,000			



PROJECT NO.: WW-D-TP-01C

PROJECT NAME: **Dorchester Treatment Plant Upgrades**

PROJECT Treatment plant capacity upgrades required to accommodate

DESCRIPTION: all development flows in Dorchester

Class Estimate Type: Class 4 Class adjusts Construction Contingency and expected accuracy Project Complexity Med Complexity adjusts Construction Contingency, and expected accuracy Accuracy Range: 40%

Area Condition: Area Condition uplifts unit cost and restoration Suburban

PROPOSED CAPACITY 6.00 MLD

CLASS EA REQUIREMENTS:	С
CONSTRUCTION ASSUMPTION:	Other

PROJECT NO.: WW-D-TP-01C

COST ESTIMATION SPREADSHEET							
COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS
Construction Cost							
Facility Construction			MLD	6 MLD	\$2,500,000	\$14,996,880	\$2.5M per MLD
							Includes Mod/Demob,connections, inspection,
Additional Construction Costs	15%		ea.			\$2,249,532	hydrants, signage, traffic management, bonding,
							insurance Provisional Labour and Materials in addition to base
Provisional & Allowance	10%		ea.			\$1,724,641	construction cost
Sub-Total Construction Base Costs						\$18,971,000	
			1	T			T
Geotechnical / Hydrogeological / Materials	1.0%					\$189,700	
Geotechnical Sub-Total Cost	•		•			\$189,700	
Property Requirements	1.5%					\$ 284,600	
Property Requirements Sub-Total						\$284,600	
			1	T			includes planning, pre-design, detailed design,
Consultant Engineering/Design	12%					\$ 2,276,500	training, CA, commissioning
Engineering/Design Sub-Total						\$2,276,500	
In House Labour/Engineering/Wages/CA	3%					\$ 569,100	
In-house Labour/Wages Sub-Total						\$569,100	
	•	•	•	•	•	•	
Project Contingency	15%					\$3,344,000	Construction Contingency is dependent on Cost
, , ,							Estimate Class and Project Complexity
Project Contingency Sub-Total						\$3,344,000	
Non-Refundable HST	1.76%					\$441,200	
Non-Refundable HST Sub-Total						\$441,200	
Total (2010 Dollars)						\$0C 07C CCC	Rounded to nearest \$1,000
Total (2019 Dollars) Other Estimate						\$26,076,000	Rounded to hearest \$1,000
Chosen Estimate	_					\$26,076,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$521,520		
Design	Design fees, Town fees for design, contract admin	13%	\$3,389,880		
Construction	Town fees, base costs and project contingency	85%	\$22,164,600		
TOTAL		\$26,076,000			



PROJECT NO.: WW-D-SPS-01A

PROJECT NAME: North Dorchester New Development SPS

PROJECT New SPS needed to support New Development north of railway in North

DESCRIPTION:

Dorchester

Class Estimate Type:	Class 4
Project Complexity	Med
Accuracy Range:	40%
Area Condition:	Rural

Class adjusts Construction Contingency and expected accuracy Complexity adjusts Construction Contingency, and expected accuracy

gonia, adjacto construction containing one, and o

Area Condition uplifts unit cost and restoration

PROJECT NO.: WW-D-SPS-01A

PROPOSED CAPACITY	61 L/s	Additional capacity

CLASS EA REQUIREMENTS:	В	Pump	Existing (L/s)	Future (L/s)
CONSTRUCTION ASSUMPTION:	Other	1		61
	•	2		61
		3		
		4		

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET	RATE	RATE		ESTIMATED	COST PER		
COMPONENT	(%)	(\$)	UNIT	QUANTITY	UNIT	SUB-TOTAL	COMMENTS
Construction Cost							
Facility Construction			L/s	61 L/s	\$30,000	\$1,819,200	
							Includes Mod/Demob,connections, inspection,
Additional Construction Costs	15%		ea.			\$272,880	hydrants, signage, traffic management, bonding, insurance
Provisional & Allowance	10%		ea.			\$209,208	Provisional Labour and Materials in addition to
				<u>.</u>			base construction cost
Sub-Total Construction Base Costs						\$2,301,000	
Geotechnical / Hydrogeological / Materials	1.0%						
Geotechnical Sub-Total Cost						\$0	
Property Requirements	1.5%						
Property Requirements Sub-Total						\$0	
Consultant Engineering/Design	15%					\$ 345,200	includes planning, pre-design, detailed design, training, CA, commissioning
Engineering/Design Sub-Total						\$345,200	
In House Labour/Engineering/Wages/CA	3%					\$ 100,000	
In-house Labour/Wages Sub-Total						\$100,000	
			1				
Project Contingency	15%					\$412,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
Project Contingency Sub-Total						\$412,000	
Non-Refundable HST	1.76%					\$53,800	
Non-Refundable HST Sub-Total						\$53,800	
Total (2019 Dollars)						\$3,212,000	Rounded to nearest \$1,000
Other Estimate							
Chosen Estimate		_				\$3,212,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$64,240		
Design	Design fees, Town fees for design, contract admin	13%	\$417,560		
Construction	Town fees, base costs and project contingency	85%	\$2,730,200		
TOTAL		\$3,212,000			



PROJECT NO.: WW-D-SPS-01B

PROJECT NAME: North Dorchester New Development SPS

New SPS needed to support New Development north of railway in North **PROJECT**

DESCRIPTION:

Class Estimate Type:	Class 4
Project Complexity	Med
Accuracy Range:	40%
Area Condition:	Rural

Class adjusts Construction Contingency and expected accuracy Complexity adjusts Construction Contingency, and expected accuracy

Area Condition uplifts unit cost and restoration

PROJECT NO.: NAP

PROPOSED CAPACITY	90 L/s	Firm capacity	CLASS EA REQUIREMENTS:	В	Pump	Existing (L/s)	Future (L/s)
		- "	CONSTRUCTION ASSUMPTION:	Other	1		90
					2		90

COST ESTIMATION SPREADSHEET							
COMPONENT	RATE	RATE	UNIT	ESTIMATED	COST PER	SUB-TOTAL	COMMENTS
Construction Cost	(%)	(\$)		QUANTITY	UNIT		
Facility Construction			L/s	90 L/s	\$30,000	\$2,709,900	
Additional Construction Costs	15%		ea.			\$406,485	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
Provisional & Allowance	10%		ea.			\$311,639	Provisional Labour and Materials in addition to
Sub Tatal Compton tion Book Contr			•			00.400.000	
Sub-Total Construction Base Costs						\$3,428,000	
	4.00/						
Geotechnical / Hydrogeological / Materials	1.0%						
Geotechnical Sub-Total Cost						\$0	
Property Requirements	1.5%						
Property Requirements Sub-Total						\$0	
Consultant Engineering/Design	15%					\$ 514,200	includes planning, pre-design, detailed design, training, CA, commissioning
Engineering/Design Sub-Total						\$514,200	
In House Labour/Engineering/Wages/CA	3%					\$ 102,800	
In-house Labour/Wages Sub-Total						\$102,800	
Project Contingency	15%					\$607,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
Project Contingency Sub-Total						\$607,000	
Non-Refundable HST	1.76%					\$80,100	
Non-Refundable HST Sub-Total					\$80,100		
Total (2019 Dollars)						\$4,732,000	Rounded to nearest \$1,000
	Other Estimate						
Chosen Estimate						\$4,732,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$94,640		
Design	Design fees, Town fees for design, contract admin	13%	\$615,160		
Construction	Town fees, base costs and project contingency	85%	\$4,022,200		
TOTAL			\$4,732,000		



PROJECT NO.: WW-D-SPS-02

PROJECT NAME: North Dorchester Northwest SPS

PROJECT New SPS needed to support New Development and existing development DESCRIPTION:

New SPS needed to support New Development and existing development development and existing development and existing development and

Class Estimate Type: Class 4
Project Complexity Low
Accuracy Range: 30%
Area Condition: Suburban

Class adjusts Construction Contingency and expected accuracy Complexity adjusts Construction Contingency, and expected accuracy

Suburban Area Condition uplifts unit cost and restoration

PROJECT NO.: WW-D-SPS-02

PROPOSED CAPACITY 8 L/s Firm

Firm capacity
Increased capacity

CLASS EA REQUIREMENTS:	В	Pump	Existing (L/s)	Future (L/s)
CONSTRUCTION ASSUMPTION:	Other	1		8
		2		8

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET							
COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS
Construction Cost	•	-					
Facility Construction			L/s	8 L/s	\$40,000	\$328,800	
Additional Construction Costs	10%		ea.			\$32,880	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
Provisional & Allowance	10%		ea.			\$36,168	Provisional Labour and Materials in addition to
1 Tovisional & Allowance	1070		Ca.			ψ30, 100	base construction cost
Sub-Total Construction Base Costs						\$398,000	
out rotal collection base seems						4000,000	
Controlly in a lateral of the contro	0.50/						
Geotechnical / Hydrogeological / Materials	0.5%						
Geotechnical Sub-Total Cost						\$0	
Property Requirements	1.0%						
Property Requirements Sub-Total			L			\$0	
							includes planning, pre-design, detailed design,
Consultant Engineering/Design	15%					\$ 59,700	training, CA, commissioning
Engineering/Design Sub-Total						\$59,700	
		1	1				
In House Labour/Engineering/Wages/CA	3%					\$ 50,000	
In-house Labour/Wages Sub-Total						\$50,000	
							Construction Contingency is dependent on Cost
Project Contingency	10%					\$51,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
Project Contingency Sub-Total						\$51,000	
Non-Refundable HST	1.76%					\$9,000	
Non-Refundable HST Sub-Total						\$9,000	
Total (2019 Dollars)						\$568,000	Rounded to nearest \$1,000
Other Estimate							
Chosen Estimate						\$568,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$11,360		
Design	Design fees, Town fees for design, contract admin	13%	\$73,840		
Construction	Town fees, base costs and project contingency	85%	\$482,800		
TOTAL			\$568,000		



PROJECT NO.: WW-D-SPS-03

PROJECT NAME: North Dorchester Northeast SPS

New SPS needed to support existing development south of railway and east of Dorchester Road Bridge in North Dorchester **PROJECT**

DESCRIPTION:

Class Estimate Type:	Class 4
Project Complexity	Low
Accuracy Range:	30%
Area Condition:	Suburban

Class adjusts Construction Contingency and expected accuracy Complexity adjusts Construction Contingency, and expected accuracy

Suburban Area Condition uplifts unit cost and restoration

PROJECT NO.: WW-D-SPS-03

PROPOSED CAPACITY 1 L/s Additional capacity

CLASS EA REQUIREMENTS:	В	Pump	Existing (L/s)	Future (L/s)
CONSTRUCTION ASSUMPTION:	Other	1		1
		2		1

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET COMPONENT	RATE	RATE	UNIT	ESTIMATED	COST PER	SUB-TOTAL	COMMENTS
Construction Cost	(%)	(\$)	J	QUANTITY	UNIT	002 .0	
Facility Construction			L/s	1 L/s	\$40,000	\$42,000	
I domity conduction			270	1 2/0	ψ-10,000	Ψ12,000	
							la dudes Med/Describes agreeties in a setient
Additional Construction Costs	10%		ea.				Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
Provisional & Allowance	10%		ea.			\$4,620	Insurance Provisional Labour and Materials in addition to base construction cost
Sub-Total Construction Base Costs						\$51,000	
oub-rotal construction base costs						\$31,000	
Geotechnical / Hydrogeological / Materials	0.5%						
Geotechnical Sub-Total Cost		l	ı	ľ		\$0	
Property Requirements	1.0%						
Property Requirements Sub-Total						\$0	
Consultant Engineering/Design	15%					\$ 7,700	includes planning, pre-design, detailed design, training, CA, commissioning
Engineering/Design Sub-Total						\$7,700	
In House Labour/Engineering/Wages/CA	3%					\$ 50,000	
In-house Labour/Wages Sub-Total						\$50,000	
Project Contingency	10%					\$11,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
Project Contingency Sub-Total						\$11,000	
Non-Refundable HST	1.76%					\$1,200	
Non-Refundable HST Sub-Total						\$1,200	
Total (2019 Dollars)						\$121,000	Rounded to nearest \$1,000
Other Estimate							Sustainability Upgrades as per Niagara Region
Chosen Estimate						\$121,000	capital forecast 2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$2,420		
Design	Design fees, Town fees for design, contract admin	13%	\$15,730		
Construction	Town fees, base costs and project contingency	85%	\$102,850		
TOTAL		\$121,000			



WW-D-SPS-04 PROJECT NO.:

PROJECT NAME: South Dorchester SPS

New SPS needed to support existing development south of river and north of PS3 drainage area in South Dorchester **PROJECT**

DESCRIPTION:

Class Estimate Type: Project Complexity Class 4 High Accuracy Range: Area Condition: 50%

Class adjusts Construction Contingency and expected accuracy Complexity adjusts Construction Contingency, and expected accuracy

Suburban Area Condition uplifts unit cost and restoration

PROJECT NO.: WW-D-SPS-04

PROPOSED CAPACITY 12 L/s

CLASS EA REQUIREMENTS:	В	Pump	Existing (L/s)	Future (L/s)
CONSTRUCTION ASSUMPTION:	Other	1		12
•		2		12

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET	RATE	RATE		ESTIMATED	COST PER		
COMPONENT	(%)	(\$)	UNIT	QUANTITY	UNIT	SUB-TOTAL	COMMENTS
Construction Cost							
Facility Construction			L/s	12 L/s	\$40,000	\$482,400	
							Includes Mod/Demob,connections, inspection,
Additional Construction Costs	20%		ea.			\$96,480	hydrants, signage, traffic management, bonding, insurance
Provisional & Allowance	10%		ea.			\$57,888	Provisional Labour and Materials in addition to
		<u> </u>	<u> </u>	1			base construction cost
Sub-Total Construction Base Costs						\$637,000	
Geotechnical / Hydrogeological / Materials	2.0%						
Geotechnical Sub-Total Cost						\$0	
Property Requirements	2.0%						
Property Requirements Sub-Total			•	•		\$0	
Consultant Engineering/Design	15%					\$ 95,600	includes planning, pre-design, detailed design,
							training, CA, commissioning
Engineering/Design Sub-Total						\$95,600	
In House Labour/Engineering/Wages/CA	3%					\$ 50,000	
In-house Labour/Wages Sub-Total						\$50,000	
		1	1			ı	
Project Contingency	25%					\$196,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
Project Contingency Sub-Total						\$196,000	
Non-Refundable HST	1.76%					\$16,300	
Non-Refundable HST Sub-Total					\$16,300		
Total (2019 Dollars)						\$995,000	Rounded to nearest \$1,000
Other Estimate						\$555,000	
Chosen Estimate	_					\$995,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$19,900		
Design	Design fees, Town fees for design, contract admin	13%	\$129,350		
Construction	Town fees, base costs and project contingency	85%	\$845,750		
TOTAL			\$995,000		



PROJECT NO.: WW-D-SPS-05

PROJECT NAME: Southeast Dorchester SPS

PROJECT New SPS needed to support Development block east of Valleyview

DESCRIPTION: Crescent in South Dorchester

Class Estimate Type: Class 4
Project Complexity Low
Accuracy Range: 30%
Area Condition: Rural

Class adjusts Construction Contingency and expected accuracy Complexity adjusts Construction Contingency, and expected accuracy

Area Condition uplifts unit cost and restoration

PROJECT NO.: WW-D-SPS-05

PROPOSED CAPACITY 4 L/s

CLASS EA REQUIREMENTS:	В	Pump	Existing (L/s)	Future (L/s)
CONSTRUCTION ASSUMPTION:	Other	1		4
•	-	2		4
		3		

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET	RATE	RATE		ESTIMATED	COST PER		
COMPONENT	(%)	(\$)	UNIT	QUANTITY	UNIT	SUB-TOTAL	COMMENTS
Construction Cost							
Facility Construction			L/s	4 L/s	\$40,000	\$157,600	
Additional Construction Costs	10%		ea.			\$15,760	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
Provisional & Allowance	10%		ea.			\$17,336	Provisional Labour and Materials in addition to
1 Tovisional a 7 mowarioe	1070		ca.			ψ17,550	base construction cost
Sub-Total Construction Base Costs						\$191,000	
						Ψ101,000	
Geotechnical / Hydrogeological / Materials	0.5%						
	0.570						
Geotechnical Sub-Total Cost						\$0	
Property Requirements	1.0%						
Property Requirements Sub-Total						\$0	
Consultant Engineering/Design	15%					\$ 28,700	includes planning, pre-design, detailed design, training, CA, commissioning
Engineering/Design Sub-Total						\$28,700	
In House Labour/Engineering/Wages/CA	3%					\$ 50,000	
In-house Labour/Wages Sub-Total						\$50,000	
Project Contingency	10%					\$27,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
Project Contingency Sub-Total						\$27,000	
Non-Refundable HST	1.76%					\$4,300	
Non-Refundable HST Sub-Total						\$4,300	
						Ţ., 500	
Total (2019 Dollars)						\$301,000	Rounded to nearest \$1,000
Other Estimate							
Chosen Estimate						\$301,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$6,020		
Design	Design fees, Town fees for design, contract admin	13%	\$39,130		
Construction	Town fees, base costs and project contingency	85%	\$255,850		
TOTAL			\$301,000		



PROJECT NO.: WW-D-SPS-05

PROJECT NAME: Southeast Dorchester SPS

PROJECT New SPS needed to support Development block east of Valleyview

DESCRIPTION: Crescent in South Dorchester

 Class Estimate Type:
 Class 4

 Project Complexity
 Low

 Accuracy Range:
 30%

 Area Condition:
 Rural

Class adjusts Construction Contingency and expected accuracy Complexity adjusts Construction Contingency, and expected accuracy

Area Condition uplifts unit cost and restoration

PROJECT NO.: WW-D-SPS-05

PROPOSED CAPACITY 8 L/s

CLASS EA REQUIREMENTS:	В	Pump	Existing (L/s)	Future (L/s)
CONSTRUCTION ASSUMPTION:	Other	1		8
•		2		8
		3		

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET COMPONENT	RATE	RATE	UNIT	ESTIMATED	COST PER UNIT	SUB-TOTAL	COMMENTS
Construction Cost	(%)	(\$)		QUANTITY	UNII		
Facility Construction			L/s	8 L/s	\$40,000	\$310,000	
Additional Construction Costs	10%		ea.			\$31,000	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
Provisional & Allowance	10%		ea.			\$34,100	Provisional Labour and Materials in addition to base construction cost
Sub-Total Construction Base Costs						\$375,000	
						ψ57 0,000	
Geotechnical / Hydrogeological / Materials	0.5%						
Geotechnical Sub-Total Cost						\$0	
Property Requirements	1.0%						
Property Requirements Sub-Total			•			\$0	
Consultant Engineering/Design	15%					\$ 56,300	includes planning, pre-design, detailed design, training, CA, commissioning
Engineering/Design Sub-Total						\$56,300	
In House Labour/Engineering/Wages/CA	3%					\$ 50,000	
In-house Labour/Wages Sub-Total						\$50,000	
Project Contingency	10%					\$48,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
Project Contingency Sub-Total						\$48,000	
Non-Refundable HST	1.76%					\$8,400	
Non-Refundable HST Sub-Total			1			\$8,400	
Total (2019 Dollars)						\$538,000	Rounded to nearest \$1,000
Other Estimate							
Chosen Estimate						\$538,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$10,760		
Design	Design fees, Town fees for design, contract admin	13%	\$69,940		
Construction	Town fees, base costs and project contingency	85%	\$457,300		
TOTAL			\$538,000		



WW-D-SPS-06A PROJECT NO.:

PROJECT NAME: **Dorchester SPS Upgrades**

Pumping station capacity upgrades required to accommodate growth flows in Dorchester **PROJECT**

DESCRIPTION:

Class Estimate Type: Project Complexity Class 4 Class adjusts Construction Contingency and expected accuracy High Complexity adjusts Construction Contingency, and expected accuracy 50%

Accuracy Range: Area Condition: Suburban Area Condition uplifts unit cost and restoration PROJECT NO.: WW-D-SPS-06A

CLASS EA REQUIREMENTS:	В	Pump	Existing (L/s)	Future (L/s)
CONSTRUCTION ASSUMPTION:	Other	1	20.7	210
•	•	2	20.7	210

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET	RATE	RATE		ESTIMATED	COST PER		
COMPONENT	(%)	(\$)	UNIT	QUANTITY	UNIT	SUB-TOTAL	COMMENTS
Construction Cost							
Facility Construction			L/s	190 L/s	\$20,000	\$3,802,000	
							Includes Mod/Demob,connections, inspection,
Additional Construction Costs	20%		ea.			\$760,400	hydrants, signage, traffic management, bonding, insurance
Provisional & Allowance	10%		ea.			\$456,240	Provisional Labour and Materials in addition to
							base construction cost
Sub-Total Construction Base Costs						\$5,019,000	
Geotechnical / Hydrogeological / Materials	2.0%						
Geotechnical Sub-Total Cost						\$0	
Property Requirements	2.0%						
Property Requirements Sub-Total						\$0	
		l	ı			· I	includes planning are design detailed design
Consultant Engineering/Design	15%					\$ 752,900	includes planning, pre-design, detailed design, training, CA, commissioning
Engineering/Design Sub-Total						\$752,900	
In House Labour/Engineering/Wages/CA	3%					\$ 150,600	
In-house Labour/Wages Sub-Total						\$150,600	
Project Contingency	25%					\$1,481,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
Project Contingency Sub-Total						\$1,481,000	
Non-Refundable HST	1.76%					\$127,700	
Non-Refundable HST Sub-Total						\$127,700	
Total (2019 Dollars)						\$7.524.000	Rounded to pearent \$1,000
Total (2019 Dollars) Other Estimate						₹7,531,000	Rounded to nearest \$1,000
						AT TO 4 ASS	2010 = 1: 1
Chosen Estimate						\$7,531,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$150,620		
Design	Design fees, Town fees for design, contract admin	13%	\$979,030		
Construction	Town fees, base costs and project contingency	85%	\$6,401,350		
TOTAL		\$7,531,000			



WW-D-SPS-06B PROJECT NO.:

PROJECT NAME: **Dorchester SPS Upgrades**

Pumping station capacity upgrades required to accommodate growth flows in Dorchester **PROJECT**

DESCRIPTION:

Class 4 Class adjusts Construction Contingency and expected accuracy

Complexity adjusts Construction Contingency, and expected accuracy

Class Estimate Type: Project Complexity High Accuracy Range: Area Condition: 50% Suburban

Area Condition uplifts unit cost and restoration

PROJECT NO.: WW-D-SPS-06B

PROPOSED CAPACITY 254 L/s

Additional capacity

CLASS EA REQUIREMENTS:	В	Pump	Existing (L/s)	Future (L/s)*
CONSTRUCTION ASSUMPTION:	Other	1	21	274
•	•	2	21	274

COST ESTIMATION SPREADSHEET

COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS
Construction Cost	(70)	(Φ)		QUANTITY	UNIT		
Facility Construction			L/s	254 L/s	\$20,000	\$5,081,800	
Additional Construction Costs	20%		ea.			\$1,016,360	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
Provisional & Allowance	10%		ea.			\$609,816	Provisional Labour and Materials in addition to
				1		+++++++++++++++++++++++++++++++++++++++	base construction cost
Sub-Total Construction Base Costs						\$6,708,000	
Geotechnical / Hydrogeological / Materials	2.0%						
Geotechnical Sub-Total Cost						\$0	
Property Requirements	2.0%						
Property Requirements Sub-Total				•		\$0	
_ ,, ,				1			includes planning, pre-design, detailed design,
Consultant Engineering/Design	15%					\$ 1,006,200	training, CA, commissioning
Engineering/Design Sub-Total						\$1,006,200	
In House Labour/Engineering/Wages/CA	3%					\$ 201,200	
In-house Labour/Wages Sub-Total						\$201,200	
				1			Construction Contingency is dependent on Cost
Project Contingency	25%					\$1,979,000	Estimate Class and Project Complexity
Project Contingency Sub-Total						\$1,979,000	
Non-Refundable HST	1.76%					\$170,600	
Non-Refundable HST Sub-Total				_		\$170,600	
Total (2019 Dollars)						\$10.065.000	Rounded to nearest \$1,000
Other Estimate						¥10,000,000	Trounded to floatest \$1,000
						£40.00E.000	2040 Fatimata
Chosen Estimate						\$10,065,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS						
Study	Feasibility study, EA	2%	\$201,300								
Design	Design fees, Town fees for design, contract admin	13%	\$1,308,450								
Construction	Town fees, base costs and project contingency	85%	\$8,555,250								
TOTAL		\$10,065,000									



WW-D-SPS-06C PROJECT NO.:

PROJECT NAME: **Dorchester SPS Upgrades**

Pumping station capacity upgrades required to accommodate growth flows in Dorchester **PROJECT**

DESCRIPTION:

Class Estimate Type: Project Complexity Class 4 Class adjusts Construction Contingency and expected accuracy High Complexity adjusts Construction Contingency, and expected accuracy 50%

Accuracy Range: Area Condition: Area Condition uplifts unit cost and restoration Suburban

PROJECT NO.: NO.: NO.:

PROPOSED CAPACITY 411 L/s Additional capacity

CLASS EA REQUIREMENTS:	В	Pump	Existing (L/s)	Future (L/s)*
CONSTRUCTION ASSUMPTION:	Other	1	21	431
•	•	2	21	431

COST ESTIMATION SPREADSHEET

COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS
Construction Cost							
Facility Construction			L/s	411 L/s	\$15,000	\$6,160,200	
Additional Construction Costs	20%		ea.			\$1,232,040	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
Provisional & Allowance	10%		ea.			\$739,224	Provisional Labour and Materials in addition to base construction cost
Sub-Total Construction Base Costs						\$8,131,000	
Geotechnical / Hydrogeological / Materials	2.0%						
Geotechnical Sub-Total Cost						\$0	
Property Requirements	2.0%						
Property Requirements Sub-Total						\$0	
Consultant Engineering/Design	15%					\$ 1,219,700	includes planning, pre-design, detailed design, training, CA, commissioning
Engineering/Design Sub-Total						\$1,219,700	
In House Labour/Engineering/Wages/CA	3%					\$ 243,900	
In-house Labour/Wages Sub-Total						\$243,900	
Project Contingency	25%					\$2,399,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
Project Contingency Sub-Total						\$2,399,000	
Non-Refundable HST	1.76%					\$206,800	
Non-Refundable HST Sub-Total						\$206,800	
Total (2019 Dollars)						\$12,200,000	Rounded to nearest \$1,000
Other Estimate							
Chosen Estimate						\$12,200,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$244,000		
Design	Design fees, Town fees for design, contract admin	13%	\$1,586,000		
Construction	Town fees, base costs and project contingency	85%	\$10,370,000		
TOTAL			\$12,200,000		



PROJECT NO.: WW-D-SPS-07A

PROJECT NAME: PS3

PROJECT Pumping station capacity upgrades required to accommodate growth flows in Dorchester

DESCRIPTION:

Class Estimate Type: Class 4 Class adjusts Construction Contingency and expected accuracy
Project Complexity Med Complexity adjusts Construction Contingency, and expected accuracy

Accuracy Range: 40%
Area Condition: Suburban Area Condition uplifts unit cost and restoration

PROJECT NO.: WW-D-SPS-07A

PROPOSED CAPACITY 66 L/s

CLASS EA REQUIREMENTS:	В	Pump	Existing (L/s)	Future (L/s)
CONSTRUCTION ASSUMPTION:	Other	1	20.7	210
•	•	2	20.7	210

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET	RATE	RATE		ESTIMATED	COST PER		
COMPONENT	(%)	(\$)	UNIT	QUANTITY	UNIT	SUB-TOTAL	COMMENTS
Construction Cost							
Facility Construction			L/s	66 L/s	\$30,000	\$1,988,700	
							Includes Mod/Demob,connections, inspection,
Additional Construction Costs	15%		ea.				hydrants, signage, traffic management, bonding, insurance
Provisional & Allowance	10%		ea.			\$228,701	Provisional Labour and Materials in addition to base construction cost
				1			Dase Construction Cost
Sub-Total Construction Base Costs						\$2,516,000	
Geotechnical / Hydrogeological / Materials	1.0%						
Geotechnical Sub-Total Cost						\$0	
Property Requirements	1.5%						
Property Requirements Sub-Total						\$0	
		1	1	1			
Consultant Engineering/Design	15%					\$ 377,400	includes planning, pre-design, detailed design, training, CA, commissioning
Engineering/Design Sub-Total						\$377,400	
In House Labour/Engineering/Wages/CA	3%					\$ 100,000	
In-house Labour/Wages Sub-Total						\$100,000	
iii iidada Easaai/Wagaa Gas Total						\$100,000	
Project Contingency	15%						Construction Contingency is dependent on Cost Estimate Class and Project Complexity
Project Contingency Sub-Total						\$449,000	
Non-Refundable HST	1.76%					\$58,800	
Non-Refundable HST Sub-Total				_		\$58,800	
Total (2019 Dollars)						\$3 501 000	Rounded to nearest \$1,000
Other Estimate						ψ3,301,000	Touridad to fidulost \$1,000
Chosen Estimate				_		\$3 501 000	2019 Estimate
Chosen Estimate						\$3,3 01,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$70,020		
Design	Design fees, Town fees for design, contract admin	13%	\$455,130		
Construction	Town fees, base costs and project contingency	85%	\$2,975,850		
TOTAL			\$3,501,000		



PROJECT NO.: WW-D-SPS-07B

PROJECT NAME: PS3

PROJECT Pumping station capacity upgrades required to accommodate growth flows in Dorchester

DESCRIPTION:

ass 4 Class adjusts Construction Contingency and expected accuracy

Complexity adjusts Construction Contingency, and expected accuracy

Class Estimate Type: Class 4
Project Complexity Med
Accuracy Range: 40%
Area Condition: Suburban

Suburban Area Condition uplifts unit cost and restoration

PROJECT NO.: WW-D-SPS-07B

PROPOSED CAPACITY 102 L/s

CLASS EA REQUIREMENTS:	В	Pump	Existing (L/s)	Future (L/s)
CONSTRUCTION ASSUMPTION:	Other	1	20.7	210
•	•	2	20.7	210

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET	DATE	RATE		ECTIMATED	COST DED		
COMPONENT	RATE (%)	(\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS
Construction Cost	(22)	(, ,	•		-		
Facility Construction			L/s	102 L/s	\$30,000	\$3,068,700	
							Includes Mod/Demob,connections, inspection,
Additional Construction Costs	15%		ea.			\$460,305	hydrants, signage, traffic management, bonding, insurance
Provisional & Allowance	10%		ea.			\$352,901	Provisional Labour and Materials in addition to
		<u> </u>		<u>.</u>			base construction cost
Sub-Total Construction Base Costs						\$3,882,000	
Geotechnical / Hydrogeological / Materials	1.0%						
Geotechnical Sub-Total Cost						\$0	
Property Requirements	1.5%						
Property Requirements Sub-Total						\$0	
		ı	ı			· I	
Consultant Engineering/Design	15%					\$ 582,300	includes planning, pre-design, detailed design, training, CA, commissioning
Engineering/Design Sub-Total						\$582,300	
In House Labour/Engineering/Wages/CA	3%					\$ 116,500	
In-house Labour/Wages Sub-Total						\$116,500	
Project Contingency	15%					\$687,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
Project Contingency Sub-Total						\$687,000	
Non-Refundable HST	1.76%					\$90,700	
Non-Refundable HST Sub-Total			ı			\$90,700	
Total (2010 Dollare)						¢E 250 000	Pounded to pegreet \$1,000
Total (2019 Dollars) Other Estimate						\$5,359,000	Rounded to nearest \$1,000
						A	2010 = 1: 1
Chosen Estimate						\$5,359,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$107,180		
Design	Design fees, Town fees for design, contract admin	13%	\$696,670		
Construction	Town fees, base costs and project contingency	85%	\$4,555,150		
TOTAL		\$5,359,000			



WW-D-SPS-07C PROJECT NO.:

PROJECT NAME: **Dorchester SPS Upgrades**

Pumping station capacity upgrades required to accommodate growth flows in Dorchester **PROJECT**

DESCRIPTION:

Class Estimate Type: Project Complexity Class 4 Med Class adjusts Construction Contingency and expected accuracy Complexity adjusts Construction Contingency, and expected accuracy 40%

Accuracy Range: Area Condition: Suburban Area Condition uplifts unit cost and restoration PROJECT NO.: WW-D-SPS-07C

PROPOSED CAPACITY 156 L/s

CLASS EA REQUIREMENTS:	В	Pump	Existing (L/s)	Future (L/s)
CONSTRUCTION ASSUMPTION:	Other	1	20.7	210
•	•	2	20.7	210

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET COMPONENT	RATE	RATE	UNIT	ESTIMATED	COST PER	SUB-TOTAL	COMMENTS
Construction Cost	(%)	(\$)		QUANTITY	UNIT		
Facility Construction			L/s	156 L/s	\$25,000	\$3,890,250	
. domy consuded.			2.0	100 270	\$20,000	ψο,σσο, <u>Σ</u> σο	
Additional Construction Costs	15%		ea.				Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
Provisional & Allowance	10%		ea.			\$447,379	Provisional Labour and Materials in addition to base construction cost
Sub-Total Construction Base Costs						\$4,921,000	
Sub-Total Collett detion base costs						\$4,921,000	
				1			
Geotechnical / Hydrogeological / Materials	1.0%						
Geotechnical Sub-Total Cost						\$0	
Property Requirements	1.5%						
Property Requirements Sub-Total						\$0	
Consultant Engineering/Design	15%					\$ 738,200	includes planning, pre-design, detailed design,
Engineering/Design Sub-Total						\$738,200	training, CA, commissioning
						V. 55,255	
In House Labour/Engineering/Wages/CA	3%					\$ 147,600	
In-house Labour/Wages Sub-Total						\$147,600	
Project Contingency	15%					\$871,000	Construction Contingency is dependent on Cost
. Tojost contingency	1070					ψ07 1,000	Estimate Class and Project Complexity
Project Contingency Sub-Total						\$871,000	
Non-Refundable HST	1.76%					\$114,900	
Non-Refundable HST Sub-Total			•	•		\$114,900	
Total (2019 Dollars)						\$6,793,000	Rounded to nearest \$1,000
Other Estimate							
Chosen Estimate						\$6,793,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$135,860		
Design	Design fees, Town fees for design, contract admin	13%	\$883,090		
Construction	Town fees, base costs and project contingency	85%	\$5,774,050		
TOTAL			\$6,793,000		



PROJECT NO.: PROJECT NAME: WW-D-FM-01

North Dorchester New Development forcemain New forcemain needed to support new development SPS for development blocks North of CN rail in North Dorchester **PROJECT** DESCRIPTION:

Class Estimate Type: Project Complexity Class 4 High Accuracy Range: Area Condition: 50%

Class adjusts Construction Contingency and expected accuracy Complexity adjusts Construction Contingency, and expected accuracy

Suburban Area Condition uplifts unit cost and restoration

PROPOSED DIAMETER: 300 mm TOTAL LENGTH: 475 m Tunnelled 50 m 11% Open Cut 425 m 89%

CLASS EA REQUIREMENTS:	A+
CONSTRUCTION ASSUMPTION:	Forcemain

PROJECT NO.: WW-D-FM-01

COST ESTIMATION SPREADSHEET								
COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS	
Construction Cost								
Pipe Construction - Open Cut			m	425 m	\$627		New road ROW	
Pipe Construction - Tunneling			m	50 m	\$1,300	\$65,000		
Pipe Construction Uplift (Based on Area Conditions)	20%					\$53,314		
Minor Creek Crossings			ea.	0	\$37,000	\$0		
Major Creek Crossings			ea.	0	\$206,000	\$0		
Road Crossings			ea.	0	\$89,000	\$0		
Major Road / Rail Crossings			ea.	1	\$206,000		Railway Crossing	
Utility Crossings			ea.		\$89,000	\$0		
Additional Construction Costs	20%		ea.			\$118,177	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance Provisional Labour and Materials in addition to	
Provisional & Allowance	10%		ea.			\$70,906	base construction cost	
Sub-Total Construction Base Costs						\$780,000		
Geotechnical / Hydrogeological / Materials	2.0%					\$15,600		
Geotechnical Sub-Total Cost						\$15,600		
Property Requirements	2.0%					\$ 15,600		
Property Requirements Sub-Total	2.070					\$15,600		
Consultant Engineering/Design	15%					\$ 117,000	includes planning, pre-design, detailed design, training, CA, commissioning	
Engineering/Design Sub-Total						\$117,000		
In House Labour/Engineering/Wages/CA	3%					\$ 50,000		
In-house Labour/Wages Sub-Total						\$50,000		
Project Contingency	25%					\$245,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity	
Project Contingency Sub-Total						\$245,000		
Non-Refundable HST	1.76%					\$20,600		
Non-Refundable HST Sub-Total			ı			\$20,600		
Total (2019 Dollars)						\$1,244,000	Rounded to nearest \$1,000	
Other Estimate								
Chosen Estimate							2019 Estimate	

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	0%	\$0		
Design	Design fees, Town fees for design, contract admin	15%	\$186,600		
Construction	Town fees, base costs and project contingency	85%	\$1,057,400		
TOTAL			\$1,244,000		

PROJECT NO.: PROJECT NAME: WW-D-FM-02

Dorchester Road forcemain extension

New forcemain from Dorchester Road bridge forcemain to Dorchester road gravity sewers needed to support new development SPS for development blocks North of CN rail in North Dorchester **PROJECT** DESCRIPTION:

Class Estimate Type:	Class 4
Project Complexity	High
Accuracy Range:	50%

Class adjusts Construction Contingency and expected accuracy Complexity adjusts Construction Contingency, and expected accuracy

Area Condition: Suburban Area Condition uplifts unit cost and restoration

PROPOSED D	AMETER:	300 mm	
TOTAL LENGTH:		200 m	
	Tunnelled		0%
	Open Cut	200 m	100%

CLASS EA REQUIREMENTS:	A+
CONSTRUCTION ASSUMPTION:	Forcemain

PROJECT NO.: WW-D-FM-02

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET	RATE	RATE		ESTIMATED	COST PER		
COMPONENT	(%)	(\$)	UNIT	QUANTITY	UNIT	SUB-TOTAL	COMMENTS
Construction Cost	(14)	(+/					
Pipe Construction - Open Cut			m	200 m	\$627	\$125,444	Existing road ROW
Pipe Construction - Tunneling			m	0 m	\$1,300	\$0	
Pipe Construction Uplift (Based on Area Conditions)	20%					\$25,089	
Minor Creek Crossings			ea.	0	\$37,000	\$0	
Major Creek Crossings			ea.	0	\$206,000	\$0	
Road Crossings			ea.	0	\$89,000	\$0	
Major Road / Rail Crossings			ea.	0	\$206,000	\$0	
Utility Crossings			ea.	0	\$89,000	\$0	
Additional Construction Costs	20%		ea.				Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
Provisional & Allowance	10%		ea.			\$18,064	Provisional Labour and Materials in addition to base construction cost
Sub-Total Construction Base Costs						\$199,000	
						ψ100,000	
Geotechnical / Hydrogeological / Materials	2.0%					\$4,000	
Geotechnical Sub-Total Cost						\$4,000	
Property Requirements	2.0%					\$ 4,000	
Property Requirements Sub-Total			l	1		\$4,000	
repergraphic demonstration and communication						V 1,000	
Consultant Engineering/Design	15%					\$ 29,900	includes planning, pre-design, detailed design, training, CA, commissioning
Engineering/Design Sub-Total						\$29,900	
			1				
In House Labour/Engineering/Wages/CA	3%					\$ 50,000	
In-house Labour/Wages Sub-Total						\$50,000	
Project Contingency	25%					\$72,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
Project Contingency Sub-Total						\$72,000	, ,
Non-Refundable HST	1.76%					\$5,400	
Non-Refundable HST Sub-Total			ı			\$5,400	
Total (2019 Dollars)						\$364,000	Rounded to nearest \$1,000
Other Estimate							Detailed design estimate
Chosen Estimate						\$364,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	0%	\$0		
Design	Design fees, Town fees for design, contract admin	15%	\$54,600		
Construction	Town fees, base costs and project contingency	85%	\$309,400		
TOTAL			\$364,000		

PROJECT NO.: PROJECT NAME: WW-D-FM-03

Dorchester Road forcemain extension

New forcemain from Dorchester Road bridge forcemain to Byron Ave trunk sewers needed to support new development SPS for development blocks North of CN rail in North Dorchester **PROJECT** DESCRIPTION:

Class Estimate Type:	Class 4
Project Complexity	High
Accuracy Range:	50%

Class adjusts Construction Contingency and expected accuracy Complexity adjusts Construction Contingency, and expected accuracy

Suburban Area Condition uplifts unit cost and restoration Area Condition:

PROPOSED D	AMETER:	300 mm	
TOTAL LENGTH:		550 m	
	Tunnelled		0%
	Open Cut	550 m	100%

CLASS EA REQUIREMENTS:	A+
CONSTRUCTION ASSUMPTION:	Forcemain

PROJECT NO.: WW-D-FM-03

COST ESTIMATION SPREADSHEET

Commons	COST ESTIMATION SPREADSHEET	RATE	RATE		ESTIMATED	COST PER		
Destruction Cost	COMPONENT			UNIT			SUB-TOTAL	COMMENTS
Pipe Construction - Tunneling m	Construction Cost	(14)	(+/					
Pipe Construction Uplift (Based on Area Conditions)	Pipe Construction - Open Cut			m	550 m	\$627	\$344,972	Existing road ROW
20% Secretarions 20% Secretarions Secreta	Pipe Construction - Tunneling			m	0 m	\$1,300	\$0	
Major Creek Crossings	Pipe Construction Uplift (Based on Area Conditions)	20%					\$68,994	
Road Crossings	Minor Creek Crossings			ea.	0	\$37,000	\$0	
Major Road / Rail Crossings ea. 0 \$206,000 \$0	Major Creek Crossings			ea.	0			
Dility Crossings ea. 0 \$89,000 \$0	Road Crossings			ea.	0	\$89,000	\$0	
Additional Construction Costs 20% ea. \$2,793 Includes Mod/Demob.connections, inspection, water and second provisional & Allowance 10% ea. \$49,676 Provisional & Allowance 10% ea. \$49,676 Provisional & Allowance Provisional & Allowance 10% ea. \$49,676 Provisional Labour and Materials in addition to base construction Ease Costs \$346,000 Provisional & Allowance Provisional & Allowance Provisional & Allowance Provisional & Allowance Provisional & Allowance Provisional & Allowance Provisional & Allowance Provisional & Allowance Provisional & Allowance Provisional & Allowance Provisional & Allowance Provisional & Allowance Provisional & Base Costs Student Provisional Costs Student Provisional Costs Student Provisional Costs Student Provisional Costs Student Provisional Costs Student Provisional Costs Student Provisional Costs Student Provisional Costs Student Provisional Costs Student Provisional Costs Student Provisi	Major Road / Rail Crossings			ea.	0	\$206,000	\$0	
Saction Sact	Utility Crossings			ea.	0	\$89,000	\$0	
Saction Sact								
Sub-Total Construction Base Costs Stab. Total Construction Base Costs Stab. Total Construction Base Costs Stab. Total Cost Stab. Total Cost Stab. Total Consultant Engineering/Design 15% Stab. Total Stab. To	Additional Construction Costs	20%		ea.			\$82,793	hydrants, signage, traffic management, bonding,
Septechnical / Hydrogeological / Materials 2.0% \$10,900	Provisional & Allowance	10%		ea.			\$49,676	
Septechnical / Hydrogeological / Materials 2.0% \$10,900	Sub-Total Construction Base Costs						\$546,000	
Geotechnical Sub-Total Cost Property Requirements 2.0% Property Requirements \$10,900 Property Requirements Sub-Total Consultant Engineering/Design \$1,900 Engineering/Design Sub-Total \$1,900 Includes planning, pre-design, detailed design, training, CA, commissioning Engineering/Design Sub-Total \$1,900 Includes planning, pre-design, detailed design, training, CA, commissioning \$1,900 Engineering/Design Sub-Total \$1,000 Includes planning, pre-design, detailed design, training, CA, commissioning \$1,000 Engineering/Design Sub-Total \$1,000 Engineering/Wages/CA \$1,000 Engineering/Wag	Cub-Total Collect action Base Costs						\$340,000	
Property Requirements 2.0% \$ 10,900 Property Requirements Sub-Total \$10,900 Consultant Engineering/Design 15% \$81,900 Engineering/Design Sub-Total \$81,900 In House Labour/Engineering/Wages/CA 3% \$50,000 In-house Labour/Wages Sub-Total \$50,000 Project Contingency 25% \$175,000 Project Contingency Sub-Total \$175,000 Project Contingency Sub-Total \$175,000 Non-Refundable HST 1.76% \$14,500 Non-Refundable HST Sub-Total \$14,500 Total (2019 Dollars) \$889,000 Rounded to nearest \$1,000 Detailed design estimate	Geotechnical / Hydrogeological / Materials	2.0%					\$10,900	
Property Requirements 2.0% \$ 10,900 Property Requirements Sub-Total \$10,900 Consultant Engineering/Design 15% \$81,900 Engineering/Design Sub-Total \$81,900 In House Labour/Engineering/Wages/CA 3% \$50,000 In-house Labour/Wages Sub-Total \$50,000 Project Contingency 25% \$175,000 Project Contingency Sub-Total \$175,000 Project Contingency Sub-Total \$175,000 Non-Refundable HST 1.76% \$14,500 Non-Refundable HST Sub-Total \$14,500 Total (2019 Dollars) \$889,000 Rounded to nearest \$1,000 Detailed design estimate	Geotechnical Sub-Total Cost			l			\$10 900	
Property Requirements Sub-Total Consultant Engineering/Design 15% 81,900 Engineering/Design Sub-Total 81,900 In House Labour/Engineering/Wages/CA 3% In-house Labour/Wages Sub-Total Project Contingency 25% Project Contingency Sub-Total S10,900 Construction Contingency is dependent on Cost Estimate Class and Project Complexity Project Contingency Sub-Total S14,500 Non-Refundable HST 1.76% Non-Refundable HST Sub-Total S14,500 Total (2019 Dollars) S889,000 Rounded to nearest \$1,000 Detailed design estimate	Cooled mour out Total Cool						ψ10,000	
Consultant Engineering/Design 15% \$81,900 Includes planning, pre-design, detailed design, training, CA, commissioning \$81,900 In House Labour/Engineering/Wages/CA 3% \$50,000 In-house Labour/Wages Sub-Total \$50,000 Project Contingency 25% \$175,000 Construction Contingency is dependent on Cost Estimate Class and Project Complexity Project Contingency Sub-Total \$11,500 Non-Refundable HST 1.76% \$14,500 Non-Refundable HST Sub-Total \$14,500 Total (2019 Dollars) \$889,000 Rounded to nearest \$1,000 Detailed design estimate	Property Requirements	2.0%					\$ 10,900	
Consultant Engineering/Design 15% \$81,900 Includes planning, pre-design, detailed design, training, CA, commissioning \$81,900 In House Labour/Engineering/Wages/CA 3% \$50,000 In-house Labour/Wages Sub-Total \$50,000 Project Contingency 25% \$175,000 Construction Contingency is dependent on Cost Estimate Class and Project Complexity Project Contingency Sub-Total \$11,500 Non-Refundable HST 1.76% \$14,500 Non-Refundable HST Sub-Total \$14,500 Total (2019 Dollars) \$889,000 Rounded to nearest \$1,000 Detailed design estimate	Property Requirements Sub-Total			l			\$10 900	
Engineering/Design Sub-Total \$81,900	, reperty resignations can be can						V.0,000	
In House Labour/Engineering/Wages/CA 3% \$ 50,000 \$ 50,000 \$ 175,00	Consultant Engineering/Design	15%					\$ 81,900	
In-house Labour/Wages Sub-Total Project Contingency 25% S175,000 Construction Contingency is dependent on Cost Estimate Class and Project Complexity Project Contingency Sub-Total Non-Refundable HST 1.76% S14,500 Non-Refundable HST Sub-Total Total (2019 Dollars) S889,000 Rounded to nearest \$1,000 Detailed design estimate	Engineering/Design Sub-Total						\$81,900	
In-house Labour/Wages Sub-Total Project Contingency 25% S175,000 Construction Contingency is dependent on Cost Estimate Class and Project Complexity Project Contingency Sub-Total Non-Refundable HST 1.76% S14,500 Non-Refundable HST Sub-Total Total (2019 Dollars) S889,000 Rounded to nearest \$1,000 Detailed design estimate	In House Labour/Engineering/Wages/CA	30/					\$ 50,000	
Project Contingency 25% \$175,000 Construction Contingency is dependent on Cost Estimate Class and Project Complexity Project Contingency Sub-Total \$175,000 Sub-Total \$175,000 Sub-Total \$175,000 Sub-Total \$14,500 Sub-Total \$14,500 Sub-Total \$14,500 Sub-Total \$14,500 Sub-Total \$14,500 Sub-Total S	in riouse Eubour/Engineering, wages, s, t	370					Ψ 30,000	
Project Contingency Sub-Total \$175,000 Estimate Class and Project Complexity Project Contingency Sub-Total \$175,000 Non-Refundable HST 1.76% \$14,500 Non-Refundable HST Sub-Total \$14,500 Total (2019 Dollars) \$889,000 Rounded to nearest \$1,000 Other Estimate Detailed design estimate	In-house Labour/Wages Sub-Total						\$50,000	
Non-Refundable HST	Project Contingency	25%					\$175,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
Non-Refundable HST Sub-Total \$14,500 Total (2019 Dollars) \$889,000 Rounded to nearest \$1,000 Other Estimate Detailed design estimate	Project Contingency Sub-Total						\$175,000	
Total (2019 Dollars) \$889,000 Rounded to nearest \$1,000 Other Estimate Detailed design estimate	Non-Refundable HST	1.76%					\$14,500	
Other Estimate Detailed design estimate	Non-Refundable HST Sub-Total						\$14,500	
Other Estimate Detailed design estimate	Total (2019 Dollars)						\$889,000	Rounded to nearest \$1,000
	Other Estimate							Detailed design estimate
Shoon Loamate 3005.000 2013 Estillate	Chosen Estimate						\$889.000	,

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	0%	\$0		
Design	Design fees, Town fees for design, contract admin	15%	\$133,350		
Construction	Town fees, base costs and project contingency	85%	\$755,650		
TOTAL		\$889,000			



PROJECT NO.: PROJECT NAME: WW-D-FM-04

North Dorchester Northwest forcemain

New forcemain needed to support northwest development SPS for development blocks South of CN rail and West of Dorchester Road Bridge in North Dorchester **PROJECT** DESCRIPTION:

Class Estimate Type: Project Complexity Class 4 High Accuracy Range: Area Condition: 50%

Class adjusts Construction Contingency and expected accuracy Complexity adjusts Construction Contingency, and expected accuracy

Suburban Area Condition uplifts unit cost and restoration

PROPOSED D	AMETER:	150 mm	
TOTAL LENGT	H:	730 m	
Tunnelled		50 m	7%
	Open Cut	680 m	93%

CLASS EA REQUIREMENTS:	В
CONSTRUCTION ASSUMPTION:	Forcemain

PROJECT NO.: WW-D-FM-04

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET	RATE	RATE		ESTIMATED	COST PER		
COMPONENT	(%)	(\$)	UNIT	QUANTITY	UNIT	SUB-TOTAL	COMMENTS
Construction Cost	(14)	(+/					
Pipe Construction - Open Cut			m	680 m	\$551	\$374,781	New road and existing road ROW
Pipe Construction - Tunneling			m	50 m	\$1,300	\$65,000	
Pipe Construction Uplift (Based on Area Conditions)	20%					\$74,956	
Minor Creek Crossings			ea.	0	\$29,000	\$0	
Major Creek Crossings			ea.	0	\$198,000	\$0	
Road Crossings			ea.	0	\$81,000	\$0	
Major Road / Rail Crossings			ea.	1	\$198,000		Railway crossing
Utility Crossings			ea.	0	\$81,000	\$0	
Additional Construction Costs	20%		ea.			\$142,548	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
Provisional & Allowance	10%		ea.			\$85,529	Provisional Labour and Materials in addition to base construction cost
Sub-Total Construction Base Costs						\$941,000	
Geotechnical / Hydrogeological / Materials	2.0%					\$18,800	
Geotechnical Sub-Total Cost			L			\$18,800	
Property Requirements	2.0%					\$ 18,800	
Property Requirements Sub-Total			L			\$18,800	
Consultant Engineering/Design	15%					\$ 141,200	includes planning, pre-design, detailed design, training, CA, commissioning
Engineering/Design Sub-Total						\$141,200	
In House Labour/Engineering/Wages/CA	3%					\$ 50,000	
In-house Labour/Wages Sub-Total						\$50,000	
Project Contingency	25%					\$292,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
Project Contingency Sub-Total						\$292,000	
Non-Refundable HST	1.76%					\$24,800	
Non-Refundable HST Sub-Total						\$24,800	
Total (2019 Dollars)					\$1,487,000	Rounded to nearest \$1,000	
Other Estimate							
Chosen Estimate						\$1,487,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	0%	\$0		
Design	Design fees, Town fees for design, contract admin	15%	\$223,050		
Construction	Town fees, base costs and project contingency	85%	\$1,263,950		
TOTAL		\$1,487,000			



PROJECT NO.: PROJECT NAME: WW-D-FM-05

North Dorchester Northeast forcemain

New forcemain needed to support northeast SPS for existing development South of CN rail and East of Dorchester Road Bridge in North Dorchester **PROJECT**

DESCRIPTION:

Class Estimate Type: Project Complexity Class 4 Class adjusts Construction Contingency and expected accuracy High Complexity adjusts Construction Contingency, and expected accuracy Accuracy Range: Area Condition: 50%

Suburban Area Condition uplifts unit cost and restoration

PROPOSED DIA	METER:	150 mm	
TOTAL LENGTH	l:	500 m	
Т	unnelled	50 m	10%
C	pen Cut	450 m	90%

CLASS EA REQUIREMENTS:	В
CONSTRUCTION ASSUMPTION:	Forcemain

PROJECT NO.: WW-D-FM-05

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET	RATE	RATE		ESTIMATED	COST PER		
COMPONENT	(%)	(\$)	UNIT	QUANTITY	UNIT	SUB-TOTAL	COMMENTS
Construction Cost	(70)	(+/		Q0/			
Pipe Construction - Open Cut			m	450 m	\$551	\$248,017	
Pipe Construction - Tunneling			m	50 m	\$1,300	\$65,000	
Pipe Construction Uplift (Based on Area Conditions)	20%					\$49,603	
Minor Creek Crossings			ea.	0	\$29,000	\$0	
Major Creek Crossings			ea.	0	\$198,000	\$0	
Road Crossings			ea.	0	\$81,000	\$0	
Major Road / Rail Crossings			ea.	1	\$198,000	\$198,000	Railway crossing
Utility Crossings			ea.	0	\$81,000	\$0	
Additional Construction Costs	20%		ea.			\$112,124	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
Provisional & Allowance	10%		ea.			\$67,274	Provisional Labour and Materials in addition to base construction cost
Sub-Total Construction Base Costs						\$740,000	
Sub-Total Collstruction base Costs						\$740,000	
Geotechnical / Hydrogeological / Materials	2.0%					\$14,800	
Geotechnical Sub-Total Cost						\$14,800	
Property Requirements	2.0%					\$ 14,800	
Property Requirements Sub-Total						\$14,800	
Consultant Engineering/Design	15%					\$ 111,000	includes planning, pre-design, detailed design, training, CA, commissioning
Engineering/Design Sub-Total						\$111,000	
In House Labour/Engineering/Wages/CA	3%					\$ 50,000	
In-house Labour/Wages Sub-Total						\$50,000	
Desired Continues	050/		1			*****	Construction Contingency is dependent on Cost
Project Contingency	25%					\$233,000	Estimate Class and Project Complexity
Project Contingency Sub-Total						\$233,000	
Non-Refundable HST	1.76%					\$19,600	
Non-Refundable HST Sub-Total			•	•		\$19,600	
Total (2019 Dollars)					\$1,183,000	Rounded to nearest \$1,000	
Other Estimate							
Chosen Estimate						\$1 183 000	2019 Estimate
Chlosell Estimate-						φ 1, 105,000	Lo To Lotimato

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$23,660		
Design	Design fees, Town fees for design, contract admin	13%	\$153,790		
Construction	Town fees, base costs and project contingency	85%	\$1,005,550		
TOTAL		\$1,183,000			



PROJECT NO.: PROJECT NAME: WW-D-FM-06 South Dorchester forcemain

New forcemain needed to support south SPS for existing development South of river in Sorth Dorchester **PROJECT**

DESCRIPTION:

Class Estimate Type: Project Complexity Accuracy Range: Area Condition: Class 4 Class adjusts Construction Contingency and expected accuracy High Complexity adjusts Construction Contingency, and expected accuracy 50%

Suburban Area Condition uplifts unit cost and restoration

PROPOSED D	AMETER:	150 mm	
TOTAL LENGT	H:	1800 m	
Tunnelled			0%
	Open Cut	1800 m	100%

CLASS EA REQUIREMENTS:	В
CONSTRUCTION ASSUMPTION:	Forcemain

PROJECT NO.: WW-D-FM-06

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET	RATE	RATE		ESTIMATED	COST PER	OUR TOTAL	COMMENTO
COMPONENT	(%)	(\$)	UNIT	QUANTITY	UNIT	SUB-TOTAL	COMMENTS
Construction Cost							
Pipe Construction - Open Cut			m	1800 m	\$551	\$992,069	
Pipe Construction - Tunneling			m	0 m	\$1,300	\$0	
Pipe Construction Uplift (Based on Area Conditions)	20%					\$198,414	
Minor Creek Crossings			ea.	0	\$29.000	\$0	
Major Creek Crossings			ea.	0	\$198,000	\$0	
Road Crossings			ea.	0	\$81,000	\$0	
Major Road / Rail Crossings			ea.	0	\$198,000	\$0	
Utility Crossings			ea.	0	\$81,000	\$0	
-							
Additional Construction Costs	20%		ea.			\$238,096	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
Provisional & Allowance	10%		ea.			\$142,858	Provisional Labour and Materials in addition to base construction cost
Sub-Total Construction Base Costs						\$1,571,000	
Geotechnical / Hydrogeological / Materials	2.0%					\$31,400	
Geotechnical Sub-Total Cost						\$31,400	
Property Requirements	2.0%					\$ 31,400	
Property Requirements Sub-Total						\$31,400	
							includes planning, pre-design, detailed design,
Consultant Engineering/Design	15%					\$ 235,700	training, CA, commissioning
Engineering/Design Sub-Total						\$235,700	
In House Labour/Engineering/Wages/CA	3%					\$ 100,000	
In-house Labour/Wages Sub-Total						\$100,000	
Project Contingency	25%					\$492,000	Construction Contingency is dependent on Cost
Project Contingency Sub-Total						\$492,000	Estimate Class and Project Complexity
Non-Refundable HST	1.76%					\$41,600	
Non-Refundable HST Sub-Total					\$41,600		
Total (2019 Dollars)						\$2,503,000	Rounded to nearest \$1,000
Other Estimate							
Chosen Estimate						\$2,503,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	0%	\$0		
Design	Design fees, Town fees for design, contract admin	15%	\$375,450		
Construction	Town fees, base costs and project contingency	85%	\$2,127,550		
TOTAL		\$2,503,000			



PROJECT NO.: PROJECT NAME: WW-D-FM-07

Southeast Dorchester forcemain

New forcemain needed to support southeast SPS for existing development East of serviced developments and North of Hamilton Road in Sorth Dorchester **PROJECT** DESCRIPTION:

Class Estimate Type: Project Complexity Class 4 Med Accuracy Range: Area Condition: 40%

Class adjusts Construction Contingency and expected accuracy Complexity adjusts Construction Contingency, and expected accuracy

Suburban Area Condition uplifts unit cost and restoration

PROPOSED DIAMETER: 150 mm TOTAL LENGTH: 620 m Tunnelled Open Cut 620 m 100%

CLASS EA REQUIREMENTS:	В
CONSTRUCTION ASSUMPTION:	Forcemain

PROJECT NO.: WW-D-FM-07

COST ESTIMATION SPREADSHEET								
COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS	
Construction Cost		•	•	•	•	•	•	
Pipe Construction - Open Cut			m	620 m	\$551	\$341,713		
Pipe Construction - Tunneling			m	0 m	\$1,300	\$0		
Pipe Construction Uplift (Based on Area Conditions)	20%					\$68,343		
Minor Creek Crossings			ea.	0	\$29,000	\$0		
Major Creek Crossings			ea.	0	\$198,000	\$0		
Road Crossings			ea.	0	\$81,000	\$0		
Major Road / Rail Crossings			ea.	0	\$198,000	\$0		
Utility Crossings			ea.	0	\$81,000	\$0		
Additional Construction Costs	15%		ea.			\$61,508	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance	
Provisional & Allowance	10%		ea.			\$47,156	Provisional Labour and Materials in addition to base construction cost	
Sub-Total Construction Base Costs						\$519,000		
		Ι	l					
Geotechnical / Hydrogeological / Materials	1.0%					\$5,200		
Geotechnical Sub-Total Cost						\$5,200		
Property Requirements	1.5%					\$ 7,800		
Property Requirements Sub-Total						\$7,800		
Consultant Engineering/Design	15%					\$ 77,900	includes planning, pre-design, detailed design, training, CA, commissioning	
Engineering/Design Sub-Total						\$77,900		
In House Labour/Engineering/Wages/CA	3%					\$ 50,000		
In-house Labour/Wages Sub-Total						\$50,000		
Project Contingency	15%					\$99,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity	
Project Contingency Sub-Total						\$99,000		
Non-Refundable HST	1.76%					\$12,500		
Non-Refundable HST Sub-Total						\$12,500		
Total (2019 Dollars)						\$771,000	Rounded to nearest \$1,000	
Other Estimate								
Chosen Estimate							2016 Estimate	

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$15,420		
Design	Design fees, Town fees for design, contract admin	13%	\$100,230		
Construction	Town fees, base costs and project contingency	85%	\$655,350		
TOTAL		\$771,000			



PROJECT NO.: PROJECT NAME: WW-D-FM-08

Dorchester SPS forcemain

New forcemain needed to support Dorchester WWTP SPS for all existing and growth developments in Dorchester. **PROJECT**

DESCRIPTION:

Class Estimate Type: Project Complexity Class 4 High Accuracy Range: Area Condition: 50%

Class adjusts Construction Contingency and expected accuracy Complexity adjusts Construction Contingency, and expected accuracy

Area Condition uplifts unit cost and restoration Suburban

PROPOSED DIAMETER: 350 mm TOTAL LENGTH: 1250 m Tunnelled Open Cut 1250 m 100%

CLASS EA REQUIREMENTS:	В
CONSTRUCTION ASSUMPTION:	Forcemain

PROJECT NO.: WW-D-FM-08

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET	RATE	RATE		ESTIMATED	COST PER		
COMPONENT	(%)	(\$)	UNIT	QUANTITY	UNIT	SUB-TOTAL	COMMENTS
Construction Cost	(/						
Pipe Construction - Open Cut			m	1250 m	\$676	\$845,193	
Pipe Construction - Tunneling			m	0 m	\$1,300	\$0	
Pipe Construction Uplift (Based on Area Conditions)	20%					\$169,039	
Minor Creek Crossings			ea.	0	\$45,000	\$0	
Major Creek Crossings			ea.	0	\$214,000	\$0	
Road Crossings			ea.	0	\$97,000	\$0	
Major Road / Rail Crossings			ea.	0	\$214,000	\$0	
Utility Crossings			ea.	0	\$97,000	\$0	
Additional Construction Costs	20%		ea.			\$202,846	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
Provisional & Allowance	10%		ea.			\$121,708	Provisional Labour and Materials in addition to base construction cost
Sub-Total Construction Base Costs						\$1,339,000	
Cub-Total Construction Dase Ocsts						ψ1,555,000	
Geotechnical / Hydrogeological / Materials	2.0%					\$26,800	
Geotechnical Sub-Total Cost						\$26,800	
Property Requirements	2.0%					\$ 26,800	
Property Requirements Sub-Total	2.076						
Property Requirements Sub-Total						\$26,800	
Consultant Engineering/Design	15%					\$ 200,900	includes planning, pre-design, detailed design, training, CA, commissioning
Engineering/Design Sub-Total						\$200,900	
In House Labour/Engineering/Wages/CA	3%					\$ 100,000	
In-house Labour/Wages Sub-Total						\$100,000	
Project Contingency	25%					\$423,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
Project Contingency Sub-Total						\$423,000	
Non-Refundable HST	1.76%					\$35,500	
Non-Refundable HST Sub-Total						\$35,500	
Total (2019 Dollars)						\$2,152,000	Rounded to nearest \$1,000
Other Estimate						, ,	
Chosen Estimate						\$2,152,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$43,040		
Design	Design fees, Town fees for design, contract admin	13%	\$279,760		
Construction	Town fees, base costs and project contingency	85%	\$1,829,200		
TOTAL		\$2,152,000			



PROJECT NO.: PROJECT NAME: WW-D-FM-09 PS3 forcemain

Twinned forcemains needed to support PS3 for all development in Southeast Dorchester **PROJECT**

DESCRIPTION:

Class Estimate Type: Project Complexity Class 2 High Accuracy Range: Area Condition: 15%

Class adjusts Construction Contingency and expected accuracy Complexity adjusts Construction Contingency, and expected accuracy

Rural Area Condition uplifts unit cost and restoration

PROPOSED DIAMETER: 250 mm TOTAL LENGTH: 662 m 145 m Tunnelled 22% Open Cut 517 m

CLASS EA REQUIREMENTS:	В
CONSTRUCTION ASSUMPTION:	Forcemain

PROJECT NO.: WW-D-FM-09

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET	RATE	RATE		ESTIMATED	COST PER		
COMPONENT	(%)	(\$)	UNIT	QUANTITY	UNIT	SUB-TOTAL	COMMENTS
Construction Cost				-			
Pipe Construction - Open Cut			m	517 m	\$901	\$465,617	Twinned 250mm Forcemain (1.5x \$Unit Rate)
Pipe Construction - Tunneling			m	145 m	\$1,950	\$282,750	Twinned 250mm Forcemain (1.5x \$Unit Rate)
Pipe Construction Uplift (Based on Area Conditions)	0%					\$0	
Minor Creek Crossings			ea.	0	\$30,000	\$0	
Major Creek Crossings			ea.	1	\$199,000	\$199,000	Mill Pond Crossing
Road Crossings			ea.	0	\$82,000	\$0	
Major Road / Rail Crossings			ea.	0	\$199,000	\$0	
Utility Crossings			ea.	0	\$82,000	\$0	
Additional Construction Costs	20%		ea.			\$189,473	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
Provisional & Allowance	10%		ea.			\$113,684	Provisional Labour and Materials in addition to base construction cost
Sub-Total Construction Base Costs						\$1,251,000	
Geotechnical / Hydrogeological / Materials	2.0%					\$25,000	
Geotechnical Sub-Total Cost						\$25,000	
Property Requirements	2.0%					\$ 25,000	
Property Requirements Sub-Total						\$25,000	
Consultant Engineering/Design	15%					\$ 187,700	includes planning, pre-design, detailed design, training, CA, commissioning
Engineering/Design Sub-Total		\$0				\$187,700	
In House Labour/Engineering/Wages/CA	3%					\$ 100,000	
In-house Labour/Wages Sub-Total		\$0				\$100,000	
Project Contingency	10%					\$159,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
Project Contingency Sub-Total		\$0				\$159,000	
Non-Refundable HST	1.76%					\$29,000	
Non-Refundable HST Sub-Total						\$29,000	
Total (2019 Dollars)						\$1,777,000	Rounded to nearest \$1,000
Other Estimate							
Chosen Estimate							2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$35,540		
Design	Design fees, Town fees for design, contract admin	13%	\$231,010		
Construction	Town fees, base costs and project contingency	85%	\$1,510,450		
TOTAL		\$1,777,000			



PROJECT NO.: PROJECT NAME: WW-D-SS-01A

New Development SPS West Sewers

New sanitary sewer required for development blocks going to new Development SPS in North Dorchester. **PROJECT**

DESCRIPTION:

Class Estimate Type: Project Complexity Class 4 Low Accuracy Range: Area Condition: 30%

Class adjusts Construction Contingency and expected accuracy Complexity adjusts Construction Contingency, and expected accuracy

Area Condition uplifts unit cost and restoration Rural

PROPOSED DIAMETER: 250 mm TOTAL LENGTH: 420 m Tunnelled Open Cut 420 m 100%

CLASS EA REQUIREMENTS:	A+
CONSTRUCTION ASSUMPTION:	Sewer 5m

PROJECT NO.: WW-D-SS-01A

COST ESTIMATION SPREADSHEET								
COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS	
Construction Cost			•					
Pipe Construction - Open Cut			m	420 m	\$653	\$274,138		
Pipe Construction - Tunneling			m	0 m	\$1,300	\$0		
Pipe Construction Uplift (Based on Area Conditions)	0%					\$0		
Minor Creek Crossings			ea.	0	\$66,000	\$0		
Major Creek Crossings			ea.	0	\$235,000	\$0		
Road Crossings			ea.	0	\$118,000	\$0		
Major Road / Rail Crossings			ea.	0	\$235,000	\$0		
Utility Crossings			ea.	0	\$118,000	\$0		
Additional Construction Costs	10%		ea.			\$27,414	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance	
Provisional & Allowance	10%		ea.			\$30,155	Provisional Labour and Materials in addition to base construction cost	
Sub-Total Construction Base Costs						\$332,000		
Geotechnical / Hydrogeological / Materials	0.5%					\$1,700		
Geotechnical Sub-Total Cost						\$1,700		
Property Requirements	1.0%					\$ 3,300		
Property Requirements Sub-Total						\$3,300		
Consultant Engineering/Design	15%					\$ 49,800	includes planning, pre-design, detailed design, training, CA, commissioning	
Engineering/Design Sub-Total						\$49,800	training, CA, commissioning	
In House Labour/Engineering/Wages/CA	3%					\$ 50,000		
III House Labour/Engineering/Wages/CA	3%					\$ 50,000		
In-house Labour/Wages Sub-Total						\$50,000		
Project Contingency	10%					\$44,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity	
Project Contingency Sub-Total						\$44,000		
Non-Refundable HST	1.76%					\$7,600		
Non-Refundable HST Sub-Total						\$7,600		
Total (2019 Dollars)						\$488,000	Rounded to nearest \$1,000	
Other Estimate								
Chosen Estimate						\$488,000	2019 Estimate	

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$9,760		
Design	Design fees, Town fees for design, contract admin	13%	\$63,440		
Construction	Town fees, base costs and project contingency	85%	\$414,800		
TOTAL		\$488,000			



PROJECT NO.: PROJECT NAME: WW-D-SS-01B

New Development SPS West Sewers

New sanitary sewer required for development blocks going to new Development SPS in North Dorchester. **PROJECT**

DESCRIPTION:

Class Estimate Type: Project Complexity Class 4 Low Accuracy Range: Area Condition: 30%

Class adjusts Construction Contingency and expected accuracy Complexity adjusts Construction Contingency, and expected accuracy

Area Condition uplifts unit cost and restoration Rural

PROPOSED DIAMETER: 300 mm TOTAL LENGTH: 420 m Tunnelled Open Cut 420 m 100%

CLASS EA REQUIREMENTS:	A+
CONSTRUCTION ASSUMPTION:	Sewer 5m

PROJECT NO.: WW-D-SS-01B

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET	RATE	RATE		ESTIMATED	COST PER		
COMPONENT	(%)	(\$)	UNIT	QUANTITY	UNIT	SUB-TOTAL	COMMENTS
Construction Cost			•				
Pipe Construction - Open Cut			m	420 m	\$654	\$274,867	
Pipe Construction - Tunneling			m	0 m	\$1,300	\$0	
Pipe Construction Uplift (Based on Area Conditions)	0%					\$0	
Minor Creek Crossings			ea.	0	\$66,000	\$0	
Major Creek Crossings			ea.	0	\$235,000	\$0	
Road Crossings			ea.	0	\$118,000	\$0	
Major Road / Rail Crossings			ea.	0	\$235,000	\$0	
Utility Crossings			ea.	0	\$118,000	\$0	
Additional Construction Costs	10%		ea.			\$27,487	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
Provisional & Allowance	10%		ea.			\$30,235	Provisional Labour and Materials in addition to base construction cost
Sub-Total Construction Base Costs \$3					\$333,000		
Cub-rotal Construction Dasc Ocsts						ψ333,000	
Geotechnical / Hydrogeological / Materials	0.5%					\$1,700	
Geotechnical Sub-Total Cost						\$1,700	
Property Requirements	1.0%					\$ 3,300	
Property Requirements Sub-Total						\$3,300	
			1				includes planning, pre-design, detailed design,
Consultant Engineering/Design	15%					\$ 50,000	training, CA, commissioning
Engineering/Design Sub-Total						\$50,000	
In House Labour/Engineering/Wages/CA	3%					\$ 50,000	
In-house Labour/Wages Sub-Total						\$50,000	
Project Contingency	10%					\$44,000	Construction Contingency is dependent on Cost
, , ,	1070						Estimate Class and Project Complexity
Project Contingency Sub-Total						\$44,000	
Non-Refundable HST	1.76%					\$7,600	
Non-Refundable HST Sub-Total						\$7,600	
Total (2019 Dollars)						\$490,000	Rounded to nearest \$1,000
Other Estimate							
Chosen Estimate						\$490,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$9,800		
Design	Design fees, Town fees for design, contract admin	13%	\$63,700		
Construction	Town fees, base costs and project contingency	85%	\$416,500		
TOTAL		\$490,000			



PROJECT NO.: PROJECT NAME: WW-D-SS-02

New Development SPS East Sewers

New sanitary sewer required for development blocks going to new Development SPS in North Dorchester. **PROJECT**

DESCRIPTION:

Class Estimate Type: Project Complexity Class 4 Med Accuracy Range: Area Condition: 40%

Class adjusts Construction Contingency and expected accuracy Complexity adjusts Construction Contingency, and expected accuracy

Suburban Area Condition uplifts unit cost and restoration

PROPOSED DIA	METER:	250 mm	
TOTAL LENGTH	1 :	480 m	
1	Tunnelled		0%
Ī	Open Cut	480 m	100%

CLASS EA REQUIREMENTS:	A
CONSTRUCTION ASSUMPTION:	Sewer 5m

PROJECT NO.: WW-D-SS-02

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET	RATE	RATE		ESTIMATED	COST PER		
COMPONENT	(%)	(\$)	UNIT	QUANTITY	UNIT	SUB-TOTAL	COMMENTS
Construction Cost	(14)	(+/					
Pipe Construction - Open Cut			m	480 m	\$653	\$313,300	
Pipe Construction - Tunneling			m	0 m	\$1,300	\$0	
Pipe Construction Uplift (Based on Area Conditions)	20%					\$62,660	
Minor Creek Crossings			ea.	0	\$66,000	\$0	
Major Creek Crossings			ea.	0	\$235,000	\$0	
Road Crossings			ea.	0	\$118,000	\$0	
Major Road / Rail Crossings			ea.	0	\$235,000	\$0	
Utility Crossings			ea.	0	\$118,000	\$0	
Additional Construction Costs	15%		ea.			\$56,394	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
Provisional & Allowance	10%		ea.			\$43,235	Provisional Labour and Materials in addition to base construction cost
Sub-Total Construction Base Costs						\$476,000	
Geotechnical / Hydrogeological / Materials	1.0%					\$4,800	
Geotechnical Sub-Total Cost			•			\$4,800	
Property Requirements	1.5%					\$ 7,100	
Property Requirements Sub-Total						\$7,100	
Consultant Engineering/Design	15%					\$ 71,400	includes planning, pre-design, detailed design, training, CA, commissioning
Engineering/Design Sub-Total						\$71,400	
In House Labour/Engineering/Wages/CA	3%					\$ 50,000	
In-house Labour/Wages Sub-Total						\$50,000	
Project Contingency	15%					\$91,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
Project Contingency Sub-Total						\$91,000	
Non-Refundable HST	1.76%					\$11,400	
Non-Refundable HST Sub-Total						\$11,400	
Total (2019 Dollars)						\$712,000	Rounded to nearest \$1,000
Other Estimate							
Chosen Estimate						\$712,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$14,240		
Design	Design fees, Town fees for design, contract admin	13%	\$92,560		
Construction	Town fees, base costs and project contingency	85%	\$605,200		
TOTAL			\$712,000		



PROJECT NO.: PROJECT NAME: WW-D-SS-03 **PS3 West Sewers**

New sanitary sewer required for development blocks going to PS3 in Dorchester. **PROJECT**

DESCRIPTION:

Class Estimate Type: Project Complexity Accuracy Range: Area Condition: Class 4 Class adjusts Construction Contingency and expected accuracy High Complexity adjusts Construction Contingency, and expected accuracy 50% Rural

Area Condition uplifts unit cost and restoration

PROPOSED D	AMETER:	375 mm	
TOTAL LENGTH:		265 m	
Tunnelled			0%
	Open Cut	265 m	100%

CLASS EA REQUIREMENTS:	A+
CONSTRUCTION ASSUMPTION:	Sewer 10m

PROJECT NO.: WW-D-SS-03

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET	OST ESTIMATION SPREADSHEET								
COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS		
Construction Cost		•	•	•			•		
Pipe Construction - Open Cut			m	265 m	\$2,766	\$733,035			
Pipe Construction - Tunneling			m	0 m	\$6,300	\$0			
Pipe Construction Uplift (Based on Area Conditions)	0%					\$0			
Minor Creek Crossings			ea.	0	\$166,000	\$0			
Major Creek Crossings			ea.	0	\$985,000	\$0			
Road Crossings			ea.	0	\$418,000	\$0			
Major Road / Rail Crossings			ea.	0	\$985,000	\$0			
Utility Crossings			ea.	0	\$418,000	\$0			
Additional Construction Costs	20%		ea.			\$146,607	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance		
Provisional & Allowance	10%		ea.			\$87,964	Provisional Labour and Materials in addition to base construction cost		
Sub-Total Construction Base Costs					\$968,000				
		ı							
Geotechnical / Hydrogeological / Materials	2.0%					\$19,400			
Geotechnical Sub-Total Cost					\$19,400				
Property Requirements	2.0%					\$ 19,400			
Property Requirements Sub-Total						\$19,400			
Consultant Engineering/Design	15%					\$ 145,200	includes planning, pre-design, detailed design, training, CA, commissioning		
Engineering/Design Sub-Total						\$145,200			
In House Labour/Engineering/Wages/CA	3%					\$ 50,000			
In-house Labour/Wages Sub-Total						\$50,000			
Project Contingency	25%					\$301,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity		
Project Contingency Sub-Total						\$301,000			
Non-Refundable HST	1.76%					\$25,600			
Non-Refundable HST Sub-Total						\$25,600			
Total (2019 Dollars)					\$1,529,000	Rounded to nearest \$1,000			
Other Estimate						,,			
Chosen Estimate						\$1,529,000	2019 Estimate		

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$30,580		
Design	Design fees, Town fees for design, contract admin	13%	\$198,770		
Construction	Town fees, base costs and project contingency	85%	\$1,299,650		
TOTAL			\$1,529,000		



PROJECT NO.: PROJECT NAME: WW-D-SS-04 **PS3 West Sewers**

New sanitary sewer required for development blocks going to PS3 in Dorchester. **PROJECT**

DESCRIPTION:

Class Estimate Type: Project Complexity Accuracy Range: Area Condition: Class 4 Class adjusts Construction Contingency and expected accuracy High Complexity adjusts Construction Contingency, and expected accuracy 50%

Rural Area Condition uplifts unit cost and restoration

PROPOSED D	AMETER:	450 mm	
TOTAL LENGT	H:	45 m	
	Tunnelled		0%
	Open Cut	45 m	100%

CLASS EA REQUIREMENTS:	A+
CONSTRUCTION ASSUMPTION:	Sewer 5m

PROJECT NO.: WW-D-SS-04

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET	RATE	RATE		ESTIMATED	COST PER		
COMPONENT	(%)	(\$)	UNIT	QUANTITY	UNIT	SUB-TOTAL	COMMENTS
Construction Cost		· · · · · · · · · · · · · · · · · · ·		•			
Pipe Construction - Open Cut			m	45 m	\$707	\$31,796	
Pipe Construction - Tunneling			m	0 m	\$6,300	\$0	
Pipe Construction Uplift (Based on Area Conditions)	0%					\$0	
Minor Creek Crossings			ea.	0	\$196,000	\$0	
Major Creek Crossings			ea.	0	\$1,015,000	\$0	
Road Crossings			ea.	0	\$448,000	\$0	
Major Road / Rail Crossings			ea.	0	\$1,015,000	\$0	
Utility Crossings			ea.	0	\$448,000	\$0	
Additional Construction Costs	20%		ea.			\$6,359	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
Provisional & Allowance	10%		ea.			\$3,816	Provisional Labour and Materials in addition to base construction cost
Sub-Total Construction Base Costs						\$42,000	
Sub-Total Construction Base Costs						\$42,000	
Geotechnical / Hydrogeological / Materials	2.0%					\$800	
Geotechnical Sub-Total Cost						\$800	
Property Requirements	2.0%					\$ 800	
Property Requirements Sub-Total		l				\$800	
		1	1				includes planning, pre-design, detailed design,
Consultant Engineering/Design	15%					\$ 6,300	training, CA, commissioning
Engineering/Design Sub-Total						\$6,300	
In House Labour/Engineering/Wages/CA	3%					\$ 50,000	
In-house Labour/Wages Sub-Total						\$50,000	
Project Contingency	25%					\$25,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
Project Contingency Sub-Total						\$25,000	
		I	1				
Non-Refundable HST	1.76%					\$1,300	
Non-Refundable HST Sub-Total						\$1,300	
Total (2019 Dollars)						\$126,000	Rounded to nearest \$1,000
Other Estimate							
Chosen Estimate						\$126,0 <u>00</u>	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$2,520		
Design	Design fees, Town fees for design, contract admin	13%	\$16,380		
Construction	Town fees, base costs and project contingency	85%	\$107,100		
TOTAL		\$126,000			



PROJECT NO.: PROJECT NAME: WW-D-SS-05A-ALT-1

Christie Drive and new development sewer

New sanitary sewer required for development blocks going to PS3 in Dorchester. **PROJECT**

DESCRIPTION:

Class Estimate Type: Project Complexity Accuracy Range: Area Condition: Class 4 Class adjusts Construction Contingency and expected accuracy Med Complexity adjusts Construction Contingency, and expected accuracy 40%

Suburban Area Condition uplifts unit cost and restoration

PROPOSED D	AMETER:	250 mm	
TOTAL LENGTH:		370 m	
	Tunnelled		0%
	Open Cut		100%

CLASS EA REQUIREMENTS:	A+
CONSTRUCTION ASSUMPTION:	Sewer 5m

PROJECT NO.: NAT T 4

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET	RATE	RATE		ESTIMATED	COST PER		
COMPONENT	(%)	(\$)	UNIT	QUANTITY	UNIT	SUB-TOTAL	COMMENTS
Construction Cost							
Pipe Construction - Open Cut			m	370 m	\$653	\$241,502	
Pipe Construction - Tunneling			m	0 m	\$1,300	\$0	
Pipe Construction Uplift (Based on Area Conditions)	20%					\$48,300	
Minor Creek Crossings			ea.	0	\$66,000	\$0	
Major Creek Crossings			ea.	0	\$235,000	\$0	
Road Crossings			ea.	0	\$118,000	\$0	
Major Road / Rail Crossings			ea.	0	\$235,000	\$0	
Utility Crossings			ea.	0	\$118,000	\$0	
Additional Construction Costs	15%		ea.			\$43,470	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
Provisional & Allowance	10%		ea.			\$33,327	Provisional Labour and Materials in addition to base construction cost
Sub-Total Construction Base Costs						\$367,000	
Cab Potal Collect action Base Secto						ψοστ,σσσ	
Geotechnical / Hydrogeological / Materials	1.0%					\$3,700	
Geotechnical Sub-Total Cost				•		\$3,700	
Property Requirements	1.5%					\$ 5,500	
Property Requirements Sub-Total	1.570					\$5,500	
Troporty Requirements out Total						ψ0,000	
Consultant Engineering/Design	15%					\$ 55,100	includes planning, pre-design, detailed design, training, CA, commissioning
Engineering/Design Sub-Total						\$55,100	
In House Labour/Engineering/Wages/CA	3%					\$ 50,000	
In-house Labour/Wages Sub-Total						\$50,000	
Project Contingency	15%					\$72,000	Construction Contingency is dependent on Cost
Project Contingency	1370					\$12,000	Estimate Class and Project Complexity
Project Contingency Sub-Total						\$72,000	
Non-Refundable HST	1.76%					\$8,900	
Non-Refundable HST Sub-Total						\$8,900	
Total (2019 Dollars)						\$562,000	Rounded to nearest \$1,000
Other Estimate							
Chosen Estimate						\$562,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$11,240		
Design	Design fees, Town fees for design, contract admin	13%	\$73,060		
Construction	Town fees, base costs and project contingency	85%	\$477,700		
TOTAL		\$562,000			



PROJECT NO.: PROJECT NAME: WW-D-SS-05A-ALT-2

Christie Drive and new development sewer
New sanitary sewer required for development blocks going to PS3 in Dorchester. **PROJECT**

DESCRIPTION:

Class Estimate Type:	Class 4	Class adjusts Construction Contingency and expected accuracy
Project Complexity	Med	Complexity adjusts Construction Contingency, and expected accuracy
Accuracy Range:	40%	

Area Condition: Rural Area Condition uplifts unit cost and restoration

PROPOSED DI	AMETER:	250 mm	
TOTAL LENGT	H:	260 m	
	Tunnelled		0%
	Open Cut	260 m	100%

CLASS EA REQUIREMENTS:	A
CONSTRUCTION ASSUMPTION:	Sewer 5m

PROJECT NO.: WW-D-SS-USA-

COST ESTIMATION SPREADSHEET

OST ESTIMATION SPREADSHEET								
COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS	
Construction Cost			•					
Pipe Construction - Open Cut			m	260 m	\$653	\$169,704		
Pipe Construction - Tunneling			m	0 m	\$1,300	\$0		
Pipe Construction Uplift (Based on Area Conditions)	0%					\$0		
Minor Creek Crossings			ea.	0	\$66,000	\$0		
Major Creek Crossings			ea.	0	\$235,000	\$0		
Road Crossings			ea.	0	\$118,000	\$0		
Major Road / Rail Crossings			ea.	0	\$235,000	\$0		
Utility Crossings			ea.	0	\$118,000	\$0		
Additional Construction Costs	15%		ea.			\$25,456	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance	
Provisional & Allowance	10%		ea.			\$19,516	Provisional Labour and Materials in addition to base construction cost	
Sub-Total Construction Base Costs						\$215,000		
Geotechnical / Hydrogeological / Materials	1.0%					\$2,200		
Geotechnical Sub-Total Cost	1.0%					\$2,200 \$2,200		
Geoleciiiicai Gub-Totai Gost						\$2,200		
Property Requirements	1.5%					\$ 3,200		
Property Requirements Sub-Total						\$3,200		
Consultant Engineering/Design	15%					\$ 32,300	includes planning, pre-design, detailed design, training, CA, commissioning	
Engineering/Design Sub-Total						\$32,300		
In House Labour/Engineering/Wages/CA	3%					\$ 50,000		
In-house Labour/Wages Sub-Total						\$50,000		
Project Contingency	15%					\$45,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity	
Project Contingency Sub-Total						\$45,000		
Non-Refundable HST	1.76%					\$5,200		
Non-Refundable HST Sub-Total								
Total (2019 Dollars)						\$353,000	Rounded to nearest \$1,000	
Other Estimate								
Chosen Estimate						\$353,000	2019 Estimate	

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$7,060		
Design	Design fees, Town fees for design, contract admin	13%	\$45,890		
Construction	Town fees, base costs and project contingency	85%	\$300,050		
TOTAL			\$353,000		



PROJECT NO.: PROJECT NAME: WW-D-SS-05B-ALT-1

Christie Drive and new Development sewer

New sanitary sewer required for development blocks going to PS3 in Dorchester. **PROJECT**

DESCRIPTION:

Class Estimate Type: Project Complexity Accuracy Range: Area Condition: Class 4 Class adjusts Construction Contingency and expected accuracy Med Complexity adjusts Construction Contingency, and expected accuracy 40%

Suburban Area Condition uplifts unit cost and restoration

PROPOSED D	AMETER:	300 mm	
TOTAL LENGT	H:	370 m	
	Tunnelled	0 m	0%
	Open Cut	370 m	100%

CLASS EA REQUIREMENTS:	A+
CONSTRUCTION ASSUMPTION:	Sewer 5m

PROJECT NO.: NAT T 4

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET							
COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS
Construction Cost			-	•		-	•
Pipe Construction - Open Cut			m	370 m	\$654	\$242,145	Existing road ROW
Pipe Construction - Tunneling			m	0 m	\$1,300	\$0	
Pipe Construction Uplift (Based on Area Conditions)	20%					\$48,429	
Minor Creek Crossings			ea.	0	\$66,000	\$0	
Major Creek Crossings			ea.	0	\$235,000	\$0	
Road Crossings			ea.	0	\$118,000	\$0	
Major Road / Rail Crossings			ea.	0	\$235,000	\$0	
Utility Crossings			ea.	0	\$118,000	\$0	
Additional Construction Costs	15%		ea.				Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance Provisional Labour and Materials in addition to
Provisional & Allowance	10%		ea.			\$33,416	base construction cost
Sub-Total Construction Base Costs						\$368,000	
Geotechnical / Hydrogeological / Materials	1.0%					\$3,700	
Geotechnical Sub-Total Cost						\$3,700	
Property Requirements	1.5%					\$ 5,500	
Property Requirements Sub-Total						\$5,500	
Consultant Engineering/Design	15%					\$ 55,200	includes planning, pre-design, detailed design, training, CA, commissioning
Engineering/Design Sub-Total						\$55,200	
In House Labour/Engineering/Wages/CA	3%					\$ 50,000	
In-house Labour/Wages Sub-Total						\$50,000	
Project Contingency	15%					\$72,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
Project Contingency Sub-Total						\$72,000	
Non-Refundable HST	1.76%					\$8,900	
Non-Refundable HST Sub-Total						\$8,900	
Total (2019 Dollars)					\$563,000	Rounded to nearest \$1,000	
Other Estimate							
Chosen Estimate						\$563,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$11,260		
Design	Design fees, Town fees for design, contract admin	13%	\$73,190		
Construction	Town fees, base costs and project contingency	85%	\$478,550		
TOTAL		\$563,000			



PROJECT NO.: PROJECT NAME: WW-D-SS-05B-ALT-2

Christie Drive and new Development sewer

New sanitary sewer required for development blocks going to PS3 in Dorchester. **PROJECT**

DESCRIPTION:

Class Estimate Type:
Project Complexity Class 4 Class adjusts Construction Contingency and expected accuracy Med Complexity adjusts Construction Contingency, and expected accuracy Accuracy Range: Area Condition: 40%

Rural Area Condition uplifts unit cost and restoration

PROPOSED D	AMETER:	300 mm	
TOTAL LENGT	H:	260 m	
Tunnelled		0 m	0%
	Open Cut	260 m	100%

CLASS EA REQUIREMENTS:	A
CONSTRUCTION ASSUMPTION:	Sewer 5m

PROJECT NO.: NOTE 2

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET	RATE	RATE		ESTIMATED	COST PER		
COMPONENT	(%)	(\$)	UNIT	QUANTITY	UNIT	SUB-TOTAL	COMMENTS
Construction Cost	(14)	(+/					
Pipe Construction - Open Cut			m	260 m	\$654	\$170,156	Existing road ROW
Pipe Construction - Tunneling			m	0 m	\$1,300	\$0	
Pipe Construction Uplift (Based on Area Conditions)	0%					\$0	
Minor Creek Crossings			ea.	0	\$66,000	\$0	
Major Creek Crossings			ea.	0	\$235,000	\$0	
Road Crossings			ea.	0	\$118,000	\$0	
Major Road / Rail Crossings			ea.	0	\$235,000	\$0	
Utility Crossings			ea.	0	\$118,000	\$0	
Additional Construction Costs	15%		ea.			\$25,523	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
Provisional & Allowance	10%		ea.			\$19,568	Provisional Labour and Materials in addition to base construction cost
Sub-Total Construction Base Costs						\$215,000	
			1	1 1			
Geotechnical / Hydrogeological / Materials	1.0%					\$2,200	
Geotechnical Sub-Total Cost						\$2,200	
Property Requirements	1.5%					\$ 3,200	
Property Requirements Sub-Total						\$3,200	
Consultant Engineering/Design	15%					\$ 32,300	includes planning, pre-design, detailed design, training, CA, commissioning
Engineering/Design Sub-Total						\$32,300	
In House Labour/Engineering/Wages/CA	3%					\$ 50,000	
In-house Labour/Wages Sub-Total						\$50,000	
Project Contingency	15%					\$45,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
Project Contingency Sub-Total						\$45,000	
Non-Refundable HST	1.76%					\$5,200	
Non-Refundable HST Sub-Total						\$5,200	
Total (2019 Dollars)						\$353,000	Rounded to nearest \$1,000
Other Estimate							
Chosen Estimate						\$353,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$7,060		
Design	Design fees, Town fees for design, contract admin	13%	\$45,890		
Construction	Town fees, base costs and project contingency	85%	\$300,050		
TOTAL		\$353,000			



PROJECT NO.: PROJECT NAME: WW-D-SS-06A-ALT-1

Rath-Harris Municipal Drain Crossing
New sanitary sewer required for development blocks going to PS3 in Dorchester. **PROJECT**

DESCRIPTION:

Class Estimate Type: Project Complexity Accuracy Range: Area Condition: Class 4 Class adjusts Construction Contingency and expected accuracy High Complexity adjusts Construction Contingency, and expected accuracy 50% Rural Area Condition uplifts unit cost and restoration

PROJECT NO.: NO.: NO.: NO.: NO.: NO.:

PROPOSED D	IAMETER:	250 mm	
TOTAL LENGTH:		80 m	
	Tunnelled	50 m	63%
	Open Cut	30 m	38%

REQUIREMENTS: B
CTION ASSUMPTION: Sewer 5m
CTION ASSUMPTION: Sewer

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET							
COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS
Construction Cost		-				-	
Pipe Construction - Open Cut			m	30 m	\$653	\$19,581	Existing road ROW
Pipe Construction - Tunneling			m	50 m	\$1,300	\$65,000	
Pipe Construction Uplift (Based on Area	0%					\$0	
Conditions)	070					·	
Minor Creek Crossings			ea.	1	\$66,000		Rath-Harris Municipal Drain Crossing
Major Creek Crossings			ea.	0	\$235,000	\$0	
Road Crossings			ea.	0	\$118,000	\$0	
Major Road / Rail Crossings			ea.	0	\$235,000	\$0	
Utility Crossings			ea.	0	\$118,000	\$0	
Additional Construction Costs	20%		ea.			\$30,116	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
Provisional & Allowance	10%		ea.			\$18,070	Provisional Labour and Materials in addition to base construction cost
Sub-Total Construction Base Costs						\$199,000	
		I		1			
Geotechnical / Hydrogeological / Materials	2.0%					\$4,000	
Geotechnical Sub-Total Cost						\$4,000	
Property Requirements	2.0%					\$ 4,000	
Property Requirements Sub-Total						\$4,000	
Consultant Engineering/Design	15%					\$ 29,900	includes planning, pre-design, detailed design, training, CA, commissioning
Engineering/Design Sub-Total						\$29,900	, , , , , , , , , , , , , , , , , , ,
In House Labour/Engineering/Wages/CA	3%					\$ 50,000	
In-house Labour/Wages Sub-Total						\$50,000	
Project Contingency	25%					\$72,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
Project Contingency Sub-Total						\$72,000	
Non-Refundable HST	1.76%					\$5,400	
Non-Refundable HST Sub-Total						\$5,400	
Total (2019 Dollars)						\$364,000	Rounded to nearest \$1,000
Other Estimate							
Chosen Estimate						\$364,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$7,280		
Design	Design fees, Town fees for design, contract admin	13%	\$47,320		
Construction	Town fees, base costs and project contingency	85%	\$309,400		
TOTAL		\$364,000			



PROJECT NO.: PROJECT NAME: WW-D-SS-06A-ALT-2

Rath-Harris Municipal Drain Crossing
New sanitary sewer required for development blocks going to PS3 in Dorchester. **PROJECT**

DESCRIPTION:

Class Estimate Type: Project Complexity Accuracy Range: Area Condition: Class 4 Class adjusts Construction Contingency and expected accuracy High Complexity adjusts Construction Contingency, and expected accuracy 50%

Area Condition uplifts unit cost and restoration Rural

PROPOSED D	AMETER:	250 mm	
TOTAL LENGT	H:	135 m	
	Tunnelled	50 m	37%
	Open Cut	85 m	63%

CLASS EA REQUIREMENTS:	В
CONSTRUCTION ASSUMPTION:	Sewer 10m

PROJECT NO.: NO.: NO.: 2

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET							
COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS
Construction Cost	,		-	•		-	•
Pipe Construction - Open Cut			m	85 m	\$2,744	\$233,232	Existing road ROW
Pipe Construction - Tunneling			m	50 m	\$1,300	\$65,000	
Pipe Construction Uplift (Based on Area Conditions)	0%					\$0	
Minor Creek Crossings			ea.	1	\$66,000	\$66,000	Rath-Harris Municipal Drain Crossing
Major Creek Crossings			ea.	0	\$235,000	\$0	
Road Crossings			ea.	0	\$118,000	\$0	
Major Road / Rail Crossings			ea.	0	\$235,000	\$0	
Utility Crossings			ea.	0	\$118,000	\$0	
Additional Construction Costs	20%		ea.			\$72,846	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
Provisional & Allowance	10%		ea.			\$43,708	Provisional Labour and Materials in addition to base construction cost
Sub-Total Construction Base Costs						\$481,000	
Geotechnical / Hydrogeological / Materials	2.0%					#0.000	
, , ,	2.0%					\$9,600	
Geotechnical Sub-Total Cost						\$9,600	
Property Requirements	2.0%					\$ 9,600	
Property Requirements Sub-Total						\$9,600	
Consultant Engineering/Design	15%					\$ 72,200	includes planning, pre-design, detailed design, training, CA, commissioning
Engineering/Design Sub-Total						\$72,200	
In House Labour/Engineering/Wages/CA	3%					\$ 50,000	
In-house Labour/Wages Sub-Total						\$50,000	
Project Contingency	25%					\$156,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
Project Contingency Sub-Total						\$156,000	
Non-Refundable HST	1.76%					\$12,800	
Non-Refundable HST Sub-Total				•		\$12,800	
Total (2019 Dollars)						\$791,000	Rounded to nearest \$1,000
Other Estimate							
Chosen Estimate						\$791,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$15,820		
Design	Design fees, Town fees for design, contract admin	13%	\$102,830		
Construction	Town fees, base costs and project contingency	85%	\$672,350		
TOTAL		\$791,000			



PROJECT NO.: PROJECT NAME: WW-D-SS-06B-ALT-1

Rath-Harris Municipal Drain Crossing
New sanitary sewer required for development blocks going to PS3 in Dorchester. **PROJECT**

DESCRIPTION:

Class Estimate Type: Project Complexity Accuracy Range: Area Condition: Class 4 Class adjusts Construction Contingency and expected accuracy High Complexity adjusts Construction Contingency, and expected accuracy 50% Area Condition uplifts unit cost and restoration Rural

PROJECT NO.: NO.: NOTE 4

PROPOSED D	AMETER:	300 mm	
TOTAL LENGTH:		80 m	
	Tunnelled	50 m	63%
	Open Cut	30 m	38%

CLASS EA REQUIREMENTS:	В
CONSTRUCTION ASSUMPTION:	Sewer 10m

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET	COST ESTIMATION SPREADSHEET							
COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS	
Construction Cost		-	-	•		-	•	
Pipe Construction - Open Cut			m	30 m	\$2,746	\$82,369	Existing road ROW	
Pipe Construction - Tunneling			m	50 m	\$1,300	\$65,000		
Pipe Construction Uplift (Based on Area Conditions)	0%					\$0		
Minor Creek Crossings			ea.	0	\$66,000	\$0		
Major Creek Crossings			ea.	1	\$235,000	\$235,000	Rath-Harris Municipal Drain Crossing	
Road Crossings			ea.	0	\$118,000	\$0		
Major Road / Rail Crossings			ea.	0	\$235,000	\$0		
Utility Crossings			ea.	0	\$118,000	\$0		
Additional Construction Costs	20%		ea.			\$76,474	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance Provisional Labour and Materials in addition to	
Provisional & Allowance	10%		ea.			\$45,884	base construction cost	
Sub-Total Construction Base Costs						\$505,000		
Geotechnical / Hydrogeological / Materials	2.0%					\$10,100		
Geotechnical Sub-Total Cost						\$10,100		
Property Requirements	2.0%					\$ 10,100		
Property Requirements Sub-Total						\$10,100		
Consultant Engineering/Design	15%					\$ 75,800	includes planning, pre-design, detailed design, training, CA, commissioning	
Engineering/Design Sub-Total						\$75,800		
In House Labour/Engineering/Wages/CA	3%					\$ 50,000		
In-house Labour/Wages Sub-Total						\$50,000		
Project Contingency	25%					\$163,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity	
Project Contingency Sub-Total						\$163,000	, , ,	
Non-Refundable HST	1.76%					\$13,400		
Non-Refundable HST Sub-Total			1	1		\$13,400		
Total (2019 Dollars)						\$827,000	Rounded to nearest \$1,000	
Other Estimate								
Chosen Estimate						\$827,000	2019 Estimate	

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$16,540		
Design	Design fees, Town fees for design, contract admin	13%	\$107,510		
Construction	Town fees, base costs and project contingency	85%	\$702,950		
TOTAL		\$827,000			



PROJECT NO.: PROJECT NAME: WW-D-SS-06B-ALT-2

Rath-Harris Municipal Drain Crossing
New sanitary sewer required for development blocks going to PS3 in Dorchester. **PROJECT**

DESCRIPTION:

Class Estimate Type: Project Complexity Accuracy Range: Area Condition: Class 4 Class adjusts Construction Contingency and expected accuracy High Complexity adjusts Construction Contingency, and expected accuracy 50%

Area Condition uplifts unit cost and restoration Rural

PROPOSED DI	AMETER:	300 mm	
TOTAL LENGTH:		135 m	
	Tunnelled	50 m	37%
	Open Cut	85 m	63%

CLASS EA REQUIREMENTS:	В
CONSTRUCTION ASSUMPTION:	Sewer 10m

PROJECT NO.: NOTE 2

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET							
COMPONENT	RATE (%)	RATE (\$)	UNIT	QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS
Construction Cost	(70)	(Ψ)		QUARTITI	ONIT		
Pipe Construction - Open Cut			m	85 m	\$2,746	\$233,379	Existing road ROW
Pipe Construction - Tunneling			m	50 m	\$1,300	\$65,000	, and the second
Pipe Construction Uplift (Based on Area Conditions)	0%					\$0	
Minor Creek Crossings			ea.	0	\$66,000	\$0	
Major Creek Crossings			ea.	1	\$235,000	\$235,000	Rath-Harris Municipal Drain Crossing
Road Crossings			ea.	0	\$118,000	\$0	
Major Road / Rail Crossings			ea.	0	\$235,000	\$0	
Utility Crossings			ea.	0	\$118,000	\$0	
Additional Construction Costs	20%		ea.			\$106,676	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance Provisional Labour and Materials in addition to
Provisional & Allowance	10%		ea.			\$64,006	base construction cost
Sub-Total Construction Base Costs						\$704,000	
Sub-Total Construction base Costs						\$704,000	
Geotechnical / Hydrogeological / Materials	2.0%					\$14,100	
Geotechnical Sub-Total Cost			I.			\$14,100	
Property Requirements	2.0%					\$ 14,100	
Property Requirements Sub-Total						\$14,100	
Consultant Engineering/Design	15%					\$ 105,600	includes planning, pre-design, detailed design, training, CA, commissioning
Engineering/Design Sub-Total						\$105,600	
In House Labour/Engineering/Wages/CA	3%					\$ 50,000	
	370					Ψ 00,000	
In-house Labour/Wages Sub-Total						\$50,000	
Project Contingency	25%					\$222,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
Project Contingency Sub-Total						\$222,000	
Non-Refundable HST	1.76%					\$18,700	
Non-Refundable HST Sub-Total						\$18,700	
Total (2019 Dollars)						\$1,129,000	Rounded to nearest \$1,000
Other Estimate							
Chosen Estimate						\$1,129,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$22,580		
Design	Design fees, Town fees for design, contract admin	13%	\$146,770		
Construction	Town fees, base costs and project contingency	85%	\$959,650		
TOTAL		\$1,129,000			



PROJECT NO.: WW-D-SS-07A-ALT-1 PROJECT NAME: New development sewer

PROJECT NAME: New development sewer

New sanitary sewer required for development blocks going to PS3 in Dorchester.

DESCRIPTION:

Class Estimate Type:	Class 4	Class adjusts Construction Contingency and expected accuracy
Project Complexity	Med	Complexity adjusts Construction Contingency, and expected accuracy
Accuracy Range:	40%	
Area Condition:	Dural	Area Condition unlifts unit cost and restoration

Area Condition: Rural Area Condition uplifts unit cost and restoration

PROPOSED D	IAMETER:	250 mm	
TOTAL LENGT	TH:	390 m	
	Tunnelled		0%
	Open Cut		100%

CLASS EA REQUIREMENTS:	A+
CONSTRUCTION ASSUMPTION:	Sewer 10m

PROJECT NO.: WYWY-D-33-U/A-

COST ESTIMATION SPREADSHEET

COMPONENT	RATE	RATE	UNIT	ESTIMATED	COST PER	SUB-TOTAL	COMMENTS
	(%)	(\$)	0	QUANTITY	UNIT	OOD TOTAL	55
Construction Cost		1	1		***		Is a spow
Pipe Construction - Open Cut			m	390 m	\$2,744		Existing road ROW
Pipe Construction - Tunneling Pipe Construction Uplift (Based on Area			m	0 m	\$1,300	\$0	
Conditions)	0%					\$0	
Minor Creek Crossings			ea.	0	\$66,000	\$0	
Major Creek Crossings			ea.	0	\$235,000	\$0	
Road Crossings			ea.	0	\$118,000	\$0	
Major Road / Rail Crossings			ea.	0	\$235,000	\$0	
Utility Crossings			ea.	0	\$118,000	\$0	
Additional Construction Costs	15%		ea.			\$160,518	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
Provisional & Allowance	10%		ea.			\$123,064	Provisional Labour and Materials in addition to base construction cost
Sub-Total Construction Base Costs						\$1,354,000	
		1	ı				
Geotechnical / Hydrogeological / Materials	1.0%					\$13,500	
Geotechnical Sub-Total Cost						\$13,500	
Property Requirements	1.5%					\$ 20,300	
Property Requirements Sub-Total						\$20,300	
Consultant Engineering/Design	15%					\$ 203,100	includes planning, pre-design, detailed design, training, CA, commissioning
Engineering/Design Sub-Total						\$203,100	-
In House Labour/Engineering/Wages/CA	3%					\$ 100,000	
In-house Labour/Wages Sub-Total						\$100,000	
Project Contingency	15%					\$254,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
Project Contingency Sub-Total						\$254,000	, , ,
Non-Refundable HST	1.76%					\$32,500	
Non-Refundable HST Sub-Total		ı				\$32,500	
Total (2019 Dollars)					\$1,977,000	Rounded to nearest \$1,000	
Other Estimate							
Chosen Estimate						\$1,977,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$39,540		
Design	Design fees, Town fees for design, contract admin	13%	\$257,010		
Construction	Town fees, base costs and project contingency	85%	\$1,680,450		
TOTAL		\$1,977,000			



PROJECT NO.: WW-D-SS-07A-ALT-2
PROJECT NAME: New development sewer

PROJECT NAME: New development sewer
PROJECT New sanitary sewer required for development blocks going to PS3 in Dorchester.

DESCRIPTION:

Class Estimate Type:	Class 4
Project Complexity	Med
Accuracy Range:	40%
Area Condition:	Rural

Class adjusts Construction Contingency and expected accuracy Complexity adjusts Construction Contingency, and expected accuracy

ion: Rural Area Condition uplifts unit cost and restoration

PROPOSED DI	AMETER:	250 mm	
TOTAL LENGT	H:	260 m	
Tunnelled		0 m	0%
	Open Cut		100%

CLASS EA REQUIREMENTS:	A+
CONSTRUCTION ASSUMPTION:	Sewer 10m

PROJECT NO.: WWW-D-33-U/A-

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET							
COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS
Construction Cost		-	-	•		-	•
Pipe Construction - Open Cut			m	260 m	\$2,744	\$713,414	Existing road ROW
Pipe Construction - Tunneling			m	0 m	\$1,300	\$0	
Pipe Construction Uplift (Based on Area Conditions)	0%					\$0	
Minor Creek Crossings			ea.	0	\$66,000	\$0	
Major Creek Crossings			ea.	0	\$235,000	\$0	
Road Crossings			ea.	0	\$118,000	\$0	
Major Road / Rail Crossings			ea.	0	\$235,000	\$0	
Utility Crossings			ea.	0	\$118,000	\$0	
Additional Construction Costs	15%		ea.				Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance Provisional Labour and Materials in addition to
Provisional & Allowance	10%		ea.			\$82,043	base construction cost
Sub-Total Construction Base Costs						\$902,000	
Geotechnical / Hydrogeological / Materials	1.0%					\$9,000	
Geotechnical Sub-Total Cost						\$9,000	
Property Requirements	1.5%					\$ 13,500	
Property Requirements Sub-Total						\$13,500	
Consultant Engineering/Design	15%					\$ 135,300	includes planning, pre-design, detailed design, training, CA, commissioning
Engineering/Design Sub-Total						\$135,300	
In House Labour/Engineering/Wages/CA	3%					\$ 50,000	
In-house Labour/Wages Sub-Total						\$50,000	
Project Contingency	15%					\$166,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
Project Contingency Sub-Total						\$166,000	
Non-Refundable HST	1.76%					\$21,600	
Non-Refundable HST Sub-Total						\$21,600	
Total (2019 Dollars)						\$1,297,000	Rounded to nearest \$1,000
Other Estimate							
Chosen Estimate						\$1,297,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$25,940		
Design	Design fees, Town fees for design, contract admin	13%	\$168,610		
Construction	Town fees, base costs and project contingency	85%	\$1,102,450		
TOTAL		\$1,297,000			



PROJECT NO.: NO.: NO.: 11 T 4

PROJECT NO.: WW-D-SS-07B-ALT-1 PROJECT NAME: New development sewer

PROJECT NAME: New development sewer

PROJECT New sanitary sewer required for development blocks going to PS3 in Dorchester.

0 m

390 m

DESCRIPTION:

TOTAL LENGTH:

 Class Estimate Type:
 Class 4
 Class adjusts Construction Contingency and expected accuracy

 Project Complexity
 Med
 Complexity adjusts Construction Contingency, and expected accuracy

 Accuracy Range:
 40%

 Area Condition:
 Rural

 Area Condition uplifts unit cost and restoration

PROPOSED DIAMETER:	375 mm	CLAS

100%

 375 mm
 CLASS EA REQUIREMENTS:
 A+

 390 m
 CONSTRUCTION ASSUMPTION:
 Sewer 10m

COST ESTIMATION SPREADSHEET

Tunnelled

Open Cut

COMPONENT	RATE	RATE	UNIT	ESTIMATED	COST PER	SUB-TOTAL	COMMENTS
	(%)	(\$)	0	QUANTITY	UNIT	OOD TOTAL	55
Construction Cost		1	1		** ***		Is a spow
Pipe Construction - Open Cut			m	390 m	\$2,766		Existing road ROW
Pipe Construction - Tunneling Pipe Construction Uplift (Based on Area			m	0 m	\$6,300	\$0	
Conditions)	0%					\$0	
Minor Creek Crossings			ea.	0	\$166,000	\$0	
Major Creek Crossings			ea.	0	\$985,000	\$0	
Road Crossings			ea.	0	\$418,000	\$0	
Major Road / Rail Crossings			ea.	0	\$985,000	\$0	
Utility Crossings			ea.	0	\$418,000	\$0	
Additional Construction Costs	15%		ea.			\$161,821	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
Provisional & Allowance	10%		ea.			\$124,063	Provisional Labour and Materials in addition to base construction cost
Sub-Total Construction Base Costs						\$1,365,000	
			ı				
Geotechnical / Hydrogeological / Materials	1.0%					\$13,700	
Geotechnical Sub-Total Cost						\$13,700	
Property Requirements	1.5%					\$ 20,500	
Property Requirements Sub-Total						\$20,500	
Consultant Engineering/Design	15%					\$ 204,800	includes planning, pre-design, detailed design, training, CA, commissioning
Engineering/Design Sub-Total						\$204,800	
In House Labour/Engineering/Wages/CA	3%					\$ 100,000	
In-house Labour/Wages Sub-Total						\$100,000	
Project Contingency	15%					\$256,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
Project Contingency Sub-Total						\$256,000	
Non-Refundable HST	1.76%					\$32,700	
Non-Refundable HST Sub-Total						\$32,700	
Total (2019 Dollars)					\$1,993,000	Rounded to nearest \$1,000	
Other Estimate							
Chosen Estimate						\$1,993,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$39,860		
Design	Design fees, Town fees for design, contract admin	13%	\$259,090		
Construction Town fees, base costs and project contingency		85%	\$1,694,050		
TOTAL		\$1,993,000			



PROJECT NO.: PROJECT NAME: WW-D-SS-07B

New development sewer

New sanitary sewer required for development blocks going to PS3 in Dorchester. **PROJECT**

DESCRIPTION:

Class Estimate Type: Project Complexity Accuracy Range: Area Condition: Class 4 Class adjusts Construction Contingency and expected accuracy Med Complexity adjusts Construction Contingency, and expected accuracy 40%

Rural Area Condition uplifts unit cost and restoration

PROPOSED DIAMETER:	375 mm	
TOTAL LENGTH:	260 m	
Tunnelled	0 m	0%
Open Cut	260 m	100%

CLASS EA REQUIREMENTS:	A+
CONSTRUCTION ASSUMPTION:	Sewer 10m

PROJECT NO.: WW-D-SS-07B

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET	RATE	RATE		ECTIMATED	COST DED		
COMPONENT	(%)	(\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS
Construction Cost	(70)	(Ψ)		QUARTITI	Oitii		
Pipe Construction - Open Cut			m	260 m	\$2,766	\$719,204	Existing road ROW
Pipe Construction - Tunneling			m	0 m	\$6,300	\$0	
Pipe Construction Uplift (Based on Area Conditions)	0%					\$0	
Minor Creek Crossings			ea.	0	\$166,000	\$0	
Major Creek Crossings			ea.	0	\$985,000	\$0	
Road Crossings			ea.	0	\$418,000	\$0	
Major Road / Rail Crossings			ea.	0	\$985,000	\$0	
Utility Crossings			ea.	0	\$418,000	\$0	
Additional Construction Costs	15%		ea.			\$107,881	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance Provisional Labour and Materials in addition to
Provisional & Allowance	10%		ea.			\$82,708	base construction cost
Sub-Total Construction Base Costs						\$910,000	
			,				
Geotechnical / Hydrogeological / Materials	1.0%					\$9,100	
Geotechnical Sub-Total Cost						\$9,100	
Property Requirements	1.5%					\$ 13,700	
Property Requirements Sub-Total						\$13,700	
Consultant Engineering/Design	15%					\$ 136,500	includes planning, pre-design, detailed design,
Engineering/Design Sub-Total						\$136,500	training, CA, commissioning
Engineering/Design oub-Total						φ130,300	
In House Labour/Engineering/Wages/CA	3%					\$ 50,000	
In-house Labour/Wages Sub-Total						\$50,000	
Project Contingency	15%					\$168,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
Project Contingency Sub-Total						\$168,000	
Non-Refundable HST	1.76%					\$21,800	
Non-Refundable HST Sub-Total	0,0					\$21,800	
Total (2019 Dollars)						\$1,309,000	Rounded to nearest \$1,000
Other Estimate						. , ,	
Chosen Estimate						\$1,309,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$26,180		
Design	Design fees, Town fees for design, contract admin	13%	\$170,170		
Construction Town fees, base costs and project contingency		85%	\$1,112,650		
TOTAL		\$1,309,000			



PROJECT NO.: WW-D-SS-09
PROJECT NAME: Sewer East of PS3

PROJECT New sanitary sewer to accommodate growth flows east of PS3 in

DESCRIPTION: Dorchester

Class Estimate Type: Class 4
Project Complexity High
Accuracy Range: 50%
Area Condition: Rural

Class adjusts Construction Contingency and expected accuracy Complexity adjusts Construction Contingency, and expected accuracy

rea Condition: Rural Area Condition uplifts unit cost and restoration

PROPOSED DIAMETER: 250 mm

TOTAL LENGTH: 400 m

Tunnelled 100 m 25%

Open Cut 300 m 75%

CLASS EA REQUIREMENTS:	А
CONSTRUCTION ASSUMPTION:	Sewer 5m

PROJECT NO.: WW-D-SS-09

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET	RATE	RATE		ESTIMATED	COST PER		
COMPONENT	(%)	(\$)	UNIT	QUANTITY	UNIT	SUB-TOTAL	COMMENTS
Construction Cost	(/						
Pipe Construction - Open Cut			m	300 m	\$653	\$195,813	Existing road ROW
Pipe Construction - Tunneling			m	100 m	\$1,300	\$130,000	
Pipe Construction Uplift (Based on Area Conditions)	0%					\$0	
Minor Creek Crossings			ea.	0	\$66,000	\$0	
Major Creek Crossings			ea.	1	\$235,000	\$235,000	Mill Pond Crossing
Road Crossings			ea.	0	\$118,000	\$0	
Major Road / Rail Crossings			ea.	0	\$235,000	\$0	
Utility Crossings			ea.	0	\$118,000	\$0	
Additional Construction Costs	20%		ea.			\$112,163	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
Provisional & Allowance	10%		ea.			\$67,298	Provisional Labour and Materials in addition to base construction cost
Sub-Total Construction Base Costs						\$740,000	
Sub-Total Construction base Costs						\$740,000	
Geotechnical / Hydrogeological / Materials	2.0%					\$14,800	
Geotechnical Sub-Total Cost		<u>I</u>	L	<u> </u>		\$14,800	
	2.22/		ı				
Property Requirements	2.0%					\$ 14,800	
Property Requirements Sub-Total						\$14,800	
Consultant Engineering/Design	15%					\$ 111,000	includes planning, pre-design, detailed design, training, CA, commissioning
Engineering/Design Sub-Total						\$111,000	
In House Labour/Engineering/Wages/CA	3%					\$ 50,000	
In-house Labour/Wages Sub-Total						\$50,000	
Project Contingency	25%					\$233,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
Project Contingency Sub-Total						\$233,000	
Non-Refundable HST	1.76%					\$19,600	
Non-Refundable HST Sub-Total							
Total (2019 Dollars)						\$1,183,000	Rounded to nearest \$1,000
Other Estimate							
Chosen Estimate							2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$23,660		
Design	Design fees, Town fees for design, contract admin	13%	\$153,790		
Construction	Town fees, base costs and project contingency	85%	\$1,005,550		
TOTAL			\$1,183,000		



PROJECT NO.: WW-D-SS-10 PROJECT NAME: Sewer East of PS3

PROJECT New sanitary sewer to accommodate growth flows east of PS3 in

DESCRIPTION: Dorchester

Class Estimate Type: Class 4
Project Complexity High
Accuracy Range: 50%
Area Condition: Rural

Class adjusts Construction Contingency and expected accuracy Complexity adjusts Construction Contingency, and expected accuracy

rea Condition: Rural Area Condition uplifts unit cost and restoration

PROPOSED DIAMETER: 300 mm

TOTAL LENGTH: 30 m

Tunnelled 0%

Open Cut 30 m 100%

CLASS EA REQUIREMENTS:	А
CONSTRUCTION ASSUMPTION:	Sewer 5m

PROJECT NO.: WW-D-SS-10

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET	RATE	RATE		ESTIMATED	COST PER		
COMPONENT	(%)	(\$)	UNIT	QUANTITY	UNIT	SUB-TOTAL	COMMENTS
Construction Cost	<u> </u>						
Pipe Construction - Open Cut			m	30 m	\$654	\$19,633	Existing road ROW
Pipe Construction - Tunneling			m	0 m	\$1,300	\$0	
Pipe Construction Uplift (Based on Area Conditions)	0%					\$0	
Minor Creek Crossings			ea.	0	\$66,000	\$0	
Major Creek Crossings			ea.	0	\$235,000	\$0	
Road Crossings			ea.	0	\$118,000	\$0	
Major Road / Rail Crossings			ea.	0	\$235,000	\$0	
Utility Crossings			ea.	0	\$118,000	\$0	
Additional Construction Costs	20%		ea.			\$3,927	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
Provisional & Allowance	10%		ea.			\$2,356	Provisional Labour and Materials in addition to base construction cost
Sub-Total Construction Base Costs						\$26,000	
Sub-Total Construction base costs						\$20,000	
Geotechnical / Hydrogeological / Materials	2.0%					\$500	
Geotechnical Sub-Total Cost		•	•			\$500	
Property Requirements	2.0%					\$ 500	
Property Requirements Sub-Total						\$500	
		1					
Consultant Engineering/Design	15%					\$ 3,900	includes planning, pre-design, detailed design, training, CA, commissioning
Engineering/Design Sub-Total						\$3,900	
In House Labour/Engineering/Wages/CA	3%					\$ 50,000	
In-house Labour/Wages Sub-Total						\$50,000	
Project Contingency	25%					\$20,000	Construction Contingency is dependent on Cost
Project Contingency Sub-Total						\$20,000	Estimate Class and Project Complexity
1 Tojout Contingency Gub-Total						φ20,000	
Non-Refundable HST	1.76%					\$900	
Non-Refundable HST Sub-Total							
Total (2019 Dollars)						\$102,000	Rounded to nearest \$1,000
Other Estimate							
Chosen Estimate							2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$2,040		
Design	Design fees, Town fees for design, contract admin	13%	\$13,260		
Construction	Town fees, base costs and project contingency	85%	\$86,700		
TOTAL			\$102,000		



PROJECT NO.: PROJECT NAME: WW-D-SS-11A

Christie Drive and new Development sewer

New sanitary sewer required for development blocks going to PS3 in Dorchester. **PROJECT**

DESCRIPTION:

Class Estimate Type: Project Complexity Class 4 Class adjusts Construction Contingency and expected accuracy Med Complexity adjusts Construction Contingency, and expected accuracy Accuracy Range: Area Condition: 40%

Rural Area Condition uplifts unit cost and restoration

PROPOSED DI	AMETER:	250 mm	
TOTAL LENGT	H:	505 m	
	Tunnelled	0 m	0%
	Open Cut	505 m	100%

CLASS EA REQUIREMENTS:	А
CONSTRUCTION ASSUMPTION:	Sewer 5m

PROJECT NO.: WW-D-SS-11A

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET							
COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS
Construction Cost		-	-	•		•	•
Pipe Construction - Open Cut			m	505 m	\$653	\$329,618	Existing road ROW
Pipe Construction - Tunneling			m	0 m	\$1,300	\$0	
Pipe Construction Uplift (Based on Area Conditions)	0%					\$0	
Minor Creek Crossings			ea.	0	\$66,000	\$0	
Major Creek Crossings			ea.	0	\$235,000	\$0	
Road Crossings			ea.	0	\$118,000	\$0	
Major Road / Rail Crossings			ea.	0	\$235,000	\$0	
Utility Crossings			ea.	0	\$118,000	\$0	
Additional Construction Costs	15%		ea.				Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance Provisional Labour and Materials in addition to
Provisional & Allowance	10%		ea.			\$37,906	base construction cost
Sub-Total Construction Base Costs						\$417,000	
Geotechnical / Hydrogeological / Materials	1.0%					\$4,200	
Geotechnical Sub-Total Cost						\$4,200	
Property Requirements	1.5%					\$ 6,300	
Property Requirements Sub-Total						\$6,300	
Consultant Engineering/Design	15%					\$ 62,600	includes planning, pre-design, detailed design, training, CA, commissioning
Engineering/Design Sub-Total						\$62,600	
In House Labour/Engineering/Wages/CA	3%					\$ 50,000	
In-house Labour/Wages Sub-Total						\$50,000	
Project Contingency	15%					\$81,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
Project Contingency Sub-Total						\$81,000	
Non-Refundable HST	1.76%					\$10,100	
Non-Refundable HST Sub-Total						\$10,100	
Total (2019 Dollars)						\$631,000	Rounded to nearest \$1,000
Other Estimate							
Chosen Estimate			_			\$631,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$12,620		
Design	Design fees, Town fees for design, contract admin	13%	\$82,030		
Construction	Town fees, base costs and project contingency	85%	\$536,350		
TOTAL		\$631,000			



PROJECT NO.: PROJECT NAME: WW-D-SS-11B

Christie Drive and new Development sewer

New sanitary sewer required for development blocks going to PS3 in Dorchester. **PROJECT**

DESCRIPTION:

Class Estimate Type: Project Complexity Class 4 Class adjusts Construction Contingency and expected accuracy Med Complexity adjusts Construction Contingency, and expected accuracy Accuracy Range: Area Condition: 40%

Rural Area Condition uplifts unit cost and restoration

PROPOSED D	AMETER:	300 mm	
TOTAL LENGT	H:	505 m	
	Tunnelled		0%
	Open Cut	505 m	100%

CLASS EA REQUIREMENTS:	А
CONSTRUCTION ASSUMPTION:	Sewer 5m

PROJECT NO.: WW-D-SS-11B

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET	RATE	RATE		ESTIMATED	COST PER		
COMPONENT	(%)	(\$)	UNIT	QUANTITY	UNIT	SUB-TOTAL	COMMENTS
Construction Cost	(70)	(+/			0,		
Pipe Construction - Open Cut			m	505 m	\$654	\$330,495	Existing road ROW
Pipe Construction - Tunneling			m	0 m	\$1,300	\$0	
Pipe Construction Uplift (Based on Area Conditions)	0%					\$0	
Minor Creek Crossings			ea.	0	\$66,000	\$0	
Major Creek Crossings			ea.	0	\$235,000	\$0	
Road Crossings			ea.	0	\$118,000	\$0	
Major Road / Rail Crossings			ea.	0	\$235,000	\$0	
Utility Crossings			ea.	0	\$118,000	\$0	
Additional Construction Costs	15%		ea.			\$49,574	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
Provisional & Allowance	10%		ea.			\$38,007	Provisional Labour and Materials in addition to base construction cost
Sub-Total Construction Base Costs						\$418,000	
Sub-Total Construction base costs						\$410,000	
Geotechnical / Hydrogeological / Materials	1.0%					\$4,200	
Geotechnical Sub-Total Cost						\$4,200	
Property Requirements	1.5%					\$ 6,300	
Property Requirements Sub-Total	1.570					\$6,300	
reporty requirements can retail						40,000	
Consultant Engineering/Design	15%					\$ 62,700	includes planning, pre-design, detailed design, training, CA, commissioning
Engineering/Design Sub-Total						\$62,700	
In House Labour/Engineering/Wages/CA	3%					\$ 50,000	
In-house Labour/Wages Sub-Total						\$50,000	
Project Contingency	15%					\$81,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
Project Contingency Sub-Total						\$81,000	
Non-Refundable HST	1.76%					\$10,100	
Non-Refundable HST Sub-Total							
Total (2019 Dollars)						\$632,000	Rounded to nearest \$1,000
Other Estimate						Ψ002,000	Trounded to Housest \$1,000
Chosen Estimate						\$632,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$12,640		
Design	Design fees, Town fees for design, contract admin	13%	\$82,160		
Construction	Town fees, base costs and project contingency	85%	\$537,200		
TOTAL		\$632,000			



PROJECT NO.: WW-D-SS-12 PROJECT NAME: Clara Street sewer

PROJECT New sanitary sewer to accommodate growth Northeast of New

DESCRIPTION: development SPS in North Dorchester

Class Estimate Type: Class 4
Project Complexity Med
Accuracy Range: 40%
Area Condition: Suburban

Class adjusts Construction Contingency and expected accuracy Complexity adjusts Construction Contingency, and expected accuracy

rea Condition: Suburban Area Condition uplifts unit cost and restoration

PROPOSED DIAMETER: 200 mm

TOTAL LENGTH: 605 m

Tunnelled 0%

Open Cut 605 m 100%

CLASS EA REQUIREMENTS:	A+
CONSTRUCTION ASSUMPTION:	Sewer 5m

PROJECT NO.: WW-D-SS-12

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET	RATE	RATE		ESTIMATED	COST PER		
COMPONENT	(%)	(\$)	UNIT	QUANTITY	UNIT	SUB-TOTAL	COMMENTS
Construction Cost							
Pipe Construction - Open Cut			m	605 m	\$651	\$393,785	Existing road ROW
Pipe Construction - Tunneling			m	0 m	\$1,300	\$0	
Pipe Construction Uplift (Based on Area Conditions)	20%					\$78,757	
Minor Creek Crossings			ea.	0	\$66,000	\$0	
Major Creek Crossings			ea.	0	\$235,000	\$0	
Road Crossings			ea.	0	\$118,000	\$0	
Major Road / Rail Crossings			ea.	0	\$235,000	\$0	
Utility Crossings			ea.	0	\$118,000	\$0	
Additional Construction Costs	15%		ea.			\$70,881	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
Provisional & Allowance	10%		ea.			\$54,342	Provisional Labour and Materials in addition to base construction cost
Sub-Total Construction Base Costs						\$598.000	
Sub-Total Collett uction base Costs						\$330,000	
Geotechnical / Hydrogeological / Materials	1.0%					\$6,000	
Geotechnical Sub-Total Cost	I.	I.				\$6,000	
		1	ı				
Property Requirements	1.5%					\$ 9,000	
Property Requirements Sub-Total						\$9,000	
Consultant Engineering/Design	15%					\$ 89,700	includes planning, pre-design, detailed design, training, CA, commissioning
Engineering/Design Sub-Total						\$89,700	
In House Labour/Engineering/Wages/CA	3%					\$ 50,000	
In-house Labour/Wages Sub-Total						\$50,000	
-							
Project Contingency	15%					\$113,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
Project Contingency Sub-Total						\$113,000	
Non-Refundable HST	1.76%					\$14,400	
Non-Refundable HST Sub-Total						\$14,400	
Total (2019 Dollars)						\$880 000	Rounded to nearest \$1,000
Other Estimate						Ψ000,000	Tourist to Hourott #1,000
Chosen Estimate						\$990,000	2019 Estimate
Chosen Estimate							2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$17,600		
Design	Design fees, Town fees for design, contract admin	13%	\$114,400		
Construction	Town fees, base costs and project contingency	85%	\$748,000		
TOTAL			\$880,000		



PROJECT NO.: WW-D-SS-13
PROJECT NAME: Marion Street sewer

PROJECT New sanitary sewer to accommodate growth Northeast of New

DESCRIPTION: development SPS in North Dorchester

Class Estimate Type: Class 4
Project Complexity Med
Accuracy Range: 40%
Area Condition: Suburban

Class adjusts Construction Contingency and expected accuracy Complexity adjusts Construction Contingency, and expected accuracy

ndition: Suburban Area Condition uplifts unit cost and restoration

CLASS EA REQUIREMENTS:	A+
CONSTRUCTION ASSUMPTION:	Sewer 5m

PROJECT NO.: WW-D-SS-13

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET	OST ESTIMATION SPREADSHEET								
COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS		
Construction Cost	-	-	•				•		
Pipe Construction - Open Cut			m	210 m	\$651	\$136,686	Existing road ROW		
Pipe Construction - Tunneling			m	0 m	\$1,300	\$0			
Pipe Construction Uplift (Based on Area Conditions)	20%					\$27,337			
Minor Creek Crossings			ea.	0	\$66,000	\$0			
Major Creek Crossings			ea.	0	\$235,000	\$0			
Road Crossings			ea.	0	\$118,000	\$0			
Major Road / Rail Crossings			ea.	0	\$235,000	\$0			
Utility Crossings			ea.	0	\$118,000	\$0			
Additional Construction Costs	15%		ea.			\$24,603	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance		
Provisional & Allowance	10%		ea.			\$18,863	Provisional Labour and Materials in addition to base construction cost		
Sub-Total Construction Base Costs						\$207,000			
Geotechnical / Hydrogeological / Materials	1.0%					\$2,100			
Geotechnical Sub-Total Cost	1.070					\$2,100			
						. ,			
Property Requirements	1.5%					\$ 3,100			
Property Requirements Sub-Total						\$3,100			
Consultant Engineering/Design	15%					\$ 31,100	includes planning, pre-design, detailed design, training, CA, commissioning		
Engineering/Design Sub-Total						\$31,100			
In House Labour/Engineering/Wages/CA	3%					\$ 50,000			
In-house Labour/Wages Sub-Total						\$50,000			
Project Contingency	15%					\$44,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity		
Project Contingency Sub-Total						\$44,000			
Non-Refundable HST	1.76%					\$5,100			
Non-Refundable HST Sub-Total						\$5,100			
Total (2019 Dollars)						\$342,000	Rounded to nearest \$1,000		
Other Estimate	Other Estimate								
Chosen Estimate							2019 Estimate		

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$6,840		
Design	Design fees, Town fees for design, contract admin	13%	\$44,460		
Construction	Town fees, base costs and project contingency	85%	\$290,700		
TOTAL			\$342,000		



PROJECT NO.: PROJECT NAME: WW-D-SS-14

North Street to Clara Street sewer

PROJECT New sanitary sewer to accommodate growth Northeast of New

development SPS in North Dorchester DESCRIPTION:

Class Estimate Type: Project Complexity Class 4 Med Accuracy Range: Area Condition: 40%

Class adjusts Construction Contingency and expected accuracy Complexity adjusts Construction Contingency, and expected accuracy

Suburban Area Condition uplifts unit cost and restoration

PROPOSED DIAMETER: 200 mm TOTAL LENGTH: 450 m Tunnelled Open Cut 450 m 100%

CLASS EA REQUIREMENTS:	A
CONSTRUCTION ASSUMPTION:	Sewer 5m

PROJECT NO.: WW-D-SS-14

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET	RATE	RATE		ESTIMATED	COST PER		
COMPONENT	(%)	(\$)	UNIT	QUANTITY	UNIT	SUB-TOTAL	COMMENTS
Construction Cost				•			
Pipe Construction - Open Cut			m	450 m	\$651	\$292,898	Existing road ROW
Pipe Construction - Tunneling			m	0 m	\$1,300	\$0	
Pipe Construction Uplift (Based on Area Conditions)	20%					\$58,580	
Minor Creek Crossings			ea.	0	\$66,000	\$0	
Major Creek Crossings			ea.	0	\$235,000	\$0	
Road Crossings			ea.	0	\$118,000	\$0	
Major Road / Rail Crossings			ea.	0	\$235,000	\$0	
Utility Crossings			ea.	0	\$118,000	\$0	
Additional Construction Costs	15%		ea.			\$52,722	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
Provisional & Allowance	10%		ea.			\$40,420	Provisional Labour and Materials in addition to base construction cost
Sub-Total Construction Base Costs						\$445,000	
Sub-Total Construction base costs						\$ 445 ,000	
Geotechnical / Hydrogeological / Materials	1.0%					\$4,500	
Geotechnical Sub-Total Cost						\$4,500	
Property Requirements	1.5%					\$ 6,700	
Property Requirements Sub-Total	1.070					\$6,700	
4. 2						7-7,	
Consultant Engineering/Design	15%					\$ 66,800	includes planning, pre-design, detailed design, training, CA, commissioning
Engineering/Design Sub-Total						\$66,800	
In House Labour/Engineering/Wages/CA	3%					\$ 50,000	
In-house Labour/Wages Sub-Total						\$50,000	
D : 10 "	.=0.					***	Construction Contingency is dependent on Cost
Project Contingency	15%					\$86,000	Estimate Class and Project Complexity
Project Contingency Sub-Total						\$86,000	
Non-Refundable HST	1.76%					\$10,700	
Non-Refundable HST Sub-Total						\$10,700	
Total (2019 Dollars)						\$670,000	Rounded to nearest \$1,000
Other Estimate						42.2,000	
Chosen Estimate						\$670.000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$13,400		
Design	Design fees, Town fees for design, contract admin	13%	\$87,100		
Construction	Town fees, base costs and project contingency	85%	\$569,500		
TOTAL			\$670,000		



PROJECT NO.: WW-D-SS-15
PROJECT NAME: North Street Sewer

PROJECT New sanitary sewer to accommodate growth Northeast of New

DESCRIPTION: development SPS in North Dorchester

Class Estimate Type: Class 4
Project Complexity Med
Accuracy Range: 40%
Area Condition: Suburban

Class adjusts Construction Contingency and expected accuracy Complexity adjusts Construction Contingency, and expected accuracy

rea Condition: Suburban Area Condition uplifts unit cost and restoration

PROPOSED DIAMETER: 200 mm

TOTAL LENGTH: 325 m

Tunnelled 0%

Open Cut 325 m 100%

CLASS EA REQUIREMENTS:	Α
CONSTRUCTION ASSUMPTION:	Sewer 5m

PROJECT NO.: WW-D-SS-15

COST ESTIMATION SPREADSHEET

COMPONENT	RATE	RATE					
	(%)	(\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS
Construction Cost	(/						
Pipe Construction - Open Cut			m	325 m	\$651	\$211,537	Existing road ROW
Pipe Construction - Tunneling			m	0 m	\$1,300	\$0	
Pipe Construction Uplift (Based on Area Conditions)	20%					\$42,307	
Minor Creek Crossings			ea.	0	\$66,000	\$0	
Major Creek Crossings			ea.	0	\$235,000	\$0	
Road Crossings			ea.	0	\$118,000	\$0	
Major Road / Rail Crossings			ea.	0	\$235,000	\$0	
Utility Crossings			ea.	0	\$118,000	\$0	
Additional Construction Costs	15%		ea.			\$38,077	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
Provisional & Allowance	10%		ea.			\$29,192	Provisional Labour and Materials in addition to base construction cost
Sub-Total Construction Base Costs						\$321,000	
Sub-10tal Collstituction base costs						\$321,000	
Geotechnical / Hydrogeological / Materials	1.0%					\$3,200	
Geotechnical Sub-Total Cost		I.		<u> </u>		\$3,200	
Down and a Danish and and	4.50/						
Property Requirements	1.5%					\$ 4,800	
Property Requirements Sub-Total						\$4,800	
Consultant Engineering/Design	15%					\$ 48,200	includes planning, pre-design, detailed design, training, CA, commissioning
Engineering/Design Sub-Total						\$48,200	
n House Labour/Engineering/Wages/CA	3%					\$ 50,000	
n-house Labour/Wages Sub-Total						\$50,000	
Project Contingency	15%					\$64,000	Construction Contingency is dependent on Cost
Project Contingency Sub-Total						\$64,000	Estimate Class and Project Complexity
Froject Contingency Sub-Total						\$64,000	
Non-Refundable HST	1.76%					\$7,800	
Non-Refundable HST Sub-Total						\$7,800	
Total (2019 Dollars)						\$499,000	Rounded to nearest \$1,000
Other Estimate							
Chosen Estimate							2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$9,980		
Design	Design fees, Town fees for design, contract admin	13%	\$64,870		
Construction	Town fees, base costs and project contingency	85%	\$424,150		
TOTAL			\$499,000		



PROJECT NO.: PROJECT NAME: WW-D-SS-16

Richmond Street Sewer

PROJECT New sanitary sewer to accommodate growth Northeast of New

development SPS in North Dorchester DESCRIPTION:

Class Estimate Type: Project Complexity Class 4 Med Accuracy Range: Area Condition: 40%

Class adjusts Construction Contingency and expected accuracy Complexity adjusts Construction Contingency, and expected accuracy

Rural Area Condition uplifts unit cost and restoration

PROPOSED DIAMETER: 200 mm TOTAL LENGTH: 405 m Tunnelled Open Cut 405 m 100%

CLASS EA REQUIREMENTS:	А
CONSTRUCTION ASSUMPTION:	Sewer 5m

PROJECT NO.: WW-D-SS-16

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET	RATE	RATE		ESTIMATED	COST PER		
COMPONENT	(%)	(\$)	UNIT	QUANTITY	UNIT	SUB-TOTAL	COMMENTS
Construction Cost	<u> </u>		•	•			
Pipe Construction - Open Cut			m	405 m	\$651	\$263,608	Existing road ROW
Pipe Construction - Tunneling			m	0 m	\$1,300	\$0	
Pipe Construction Uplift (Based on Area Conditions)	0%					\$0	
Minor Creek Crossings			ea.	0	\$66,000	\$0	
Major Creek Crossings			ea.	0	\$235,000	\$0	
Road Crossings			ea.	0	\$118,000	\$0	
Major Road / Rail Crossings			ea.	0	\$235,000	\$0	
Utility Crossings			ea.	0	\$118,000	\$0	
Additional Construction Costs	15%		ea.			\$39,541	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
Provisional & Allowance	10%		ea.			\$30,315	Provisional Labour and Materials in addition to base construction cost
Sub-Total Construction Base Costs						\$333,000	
Sub-Total Construction base costs						\$333,000	
Geotechnical / Hydrogeological / Materials	1.0%					\$3,300	
Geotechnical Sub-Total Cost						\$3,300	
Property Requirements	1.5%					\$ 5,000	
Property Requirements Sub-Total	1.070					\$5,000	
roporty requirements can remi						40,000	
Consultant Engineering/Design	15%					\$ 50,000	includes planning, pre-design, detailed design, training, CA, commissioning
Engineering/Design Sub-Total						\$50,000	
In House Labour/Engineering/Wages/CA	3%					\$ 50,000	
In-house Labour/Wages Sub-Total						\$50,000	
Project Contingency	15%					\$66,000	Construction Contingency is dependent on Cost
Project Contingency Sub-Total						\$66,000	Estimate Class and Project Complexity
Non-Refundable HST	1.76%					\$8,000	
Non-Refundable HST Sub-Total						\$8,000	
Total (2019 Dollars)						\$515,000	Rounded to nearest \$1,000
Other Estimate							
Chosen Estimate							2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$10,300		
Design	Design fees, Town fees for design, contract admin	13%	\$66,950		
Construction	Town fees, base costs and project contingency	85%	\$437,750		
TOTAL			\$515,000		



PROJECT NO.: PROJECT NAME: WW-D-SS-17

Hamilton Road to Christie Drive sewer

New sanitary sewer to accommodate growth flows east of PS3 in **PROJECT**

DESCRIPTION:

Class Estimate Type: Project Complexity Class 4 Med Accuracy Range: Area Condition: 40%

Class adjusts Construction Contingency and expected accuracy Complexity adjusts Construction Contingency, and expected accuracy

Rural Area Condition uplifts unit cost and restoration

PROPOSED DIAMETER: 200 mm TOTAL LENGTH: 1250 m Tunnelled Open Cut 1250 m 100%

CLASS EA REQUIREMENTS:	A
CONSTRUCTION ASSUMPTION:	Sewer 5m

PROJECT NO.: WW-D-SS-17

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET	RATE	RATE		ESTIMATED	COST PER		
COMPONENT	(%)	(\$)	UNIT	QUANTITY	UNIT	SUB-TOTAL	COMMENTS
Construction Cost	(/						
Pipe Construction - Open Cut			m	1250 m	\$651	\$813,605	Existing road ROW
Pipe Construction - Tunneling			m	0 m	\$1,300	\$0	
Pipe Construction Uplift (Based on Area Conditions)	0%					\$0	
Minor Creek Crossings			ea.	0	\$66,000	\$0	
Major Creek Crossings			ea.	0	\$235,000	\$0	
Road Crossings			ea.	0	\$118,000	\$0	
Major Road / Rail Crossings			ea.	0	\$235,000	\$0	
Utility Crossings			ea.	0	\$118,000	\$0	
Additional Construction Costs	15%		ea.			\$122,041	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
Provisional & Allowance	10%		ea.			\$93,565	Provisional Labour and Materials in addition to base construction cost
Sub-Total Construction Base Costs						\$1,029,000	
Sub-Total Collection Base Costs						\$1,029,000	
Geotechnical / Hydrogeological / Materials	1.0%					\$10,300	
Geotechnical Sub-Total Cost						\$10,300	
Property Requirements	1.5%					\$ 15,400	
Property Requirements Sub-Total		Į.	I.			\$15,400	
Consultant Engineering/Design	15%					\$ 154,400	includes planning, pre-design, detailed design, training, CA, commissioning
Engineering/Design Sub-Total						\$154,400	<u> </u>
In House Labour/Engineering/Wages/CA	3%					\$ 100,000	
In-house Labour/Wages Sub-Total						\$100,000	
Project Contingency	15%					\$196,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
Project Contingency Sub-Total						\$196,000	
Non-Refundable HST	1.76%					\$24,700	
Non-Refundable HST Sub-Total						\$24,700	
Total (2019 Dollars)						\$1,530,000	Rounded to nearest \$1,000
Other Estimate							
Chosen Estimate						\$1,530,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$30,600		
Design	Design fees, Town fees for design, contract admin	13%	\$198,900		
Construction	Town fees, base costs and project contingency	85%	\$1,300,500		
TOTAL		\$1,530,000			



PROJECT NO.: PROJECT NAME: WW-D-SS-18

Sewers for Existing Unserviced (SPS-01B) New sanitary sewers to benefit existing unserviced within North Dorchester (WW-D-SPS-01B catchment) **PROJECT**

DESCRIPTION:

Class Estimate Type: Project Complexity Class 4 Med Accuracy Range: Area Condition: 40% Suburban

Class adjusts Construction Contingency and expected accuracy Complexity adjusts Construction Contingency, and expected accuracy

Area Condition uplifts unit cost and restoration

PROPOSED DIAMETER: 200 mm TOTAL LENGTH: 7500 m Tunnelled Open Cut 100%

CLASS EA REQUIREMENTS:	A+
CONSTRUCTION ASSUMPTION:	Sewer 5m

PROJECT NO.: WW-D-SS-18

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET	RATE	RATE		ESTIMATED	COST PER		
COMPONENT	(%)	(\$)	UNIT	QUANTITY	UNIT	SUB-TOTAL	COMMENTS
Construction Cost	(/	() /					
Pipe Construction - Open Cut			m	7500 m	\$651	\$4,881,632	Existing road ROW
Pipe Construction - Tunneling			m	0 m	\$1,300	\$0	
Pipe Construction Uplift (Based on Area Conditions)	20%					\$976,326	
Minor Creek Crossings			ea.	0	\$66,000	\$0	
Major Creek Crossings			ea.	0	\$235,000	\$0	
Road Crossings			ea.	0	\$118,000	\$0	
Major Road / Rail Crossings			ea.	0	\$235,000	\$0	
Utility Crossings			ea.	0	\$118,000	\$0	
Additional Construction Costs	15%		ea.			\$878,694	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
Provisional & Allowance	10%		ea.			\$673,665	Provisional Labour and Materials in addition to base construction cost
Sub-Total Construction Base Costs						\$7,410,000	
Geotechnical / Hydrogeological / Materials	1.0%					\$74,100	
Geotechnical Sub-Total Cost						\$74,100	
Property Requirements	1.5%					\$ 111,200	
Property Requirements Sub-Total			l	1		\$111,200	
Consultant Engineering/Design	15%					\$ 1,111,500	includes planning, pre-design, detailed design, training, CA, commissioning
Engineering/Design Sub-Total						\$1,111,500	
In House Labour/Engineering/Wages/CA	3%					\$ 222,300	
In-house Labour/Wages Sub-Total						\$222,300	
Project Contingency	15%					\$1,339,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
Project Contingency Sub-Total						\$1,339,000	
Non-Refundable HST	1.76%					\$176,800	
Non-Refundable HST Sub-Total						\$176,800	
Total (2019 Dollars)						\$10,445,000	Rounded to nearest \$1,000
Other Estimate							
Chosen Estimate :							2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$208,900		
Design	Design fees, Town fees for design, contract admin	13%	\$1,357,850		
Construction	Town fees, base costs and project contingency	85%	\$8,878,250		
TOTAL		\$10,445,000			



WW-D-SS-19

PROJECT NO.: PROJECT NAME: Sewers for Existing Unserviced (SPS-02)

New sanitary sewers to benefit existing unserviced within North Dorchester (WW-D-SPS-02 catchment) **PROJECT**

DESCRIPTION:

Class Estimate Type: Project Complexity Class 4 Med Accuracy Range: Area Condition: 40%

Class adjusts Construction Contingency and expected accuracy Complexity adjusts Construction Contingency, and expected accuracy

Suburban Area Condition uplifts unit cost and restoration

PROPOSED DIAMETER: 200 mm TOTAL LENGTH: 5640 m Tunnelled Open Cut 5640 m 100%

CLASS EA REQUIREMENTS:	A+
CONSTRUCTION ASSUMPTION:	Sewer 5m

PROJECT NO.: WW-D-SS-19

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET	RATE	RATE		ESTIMATED	COST PER	OUR TOTAL	COMMENTO
COMPONENT	(%)	(\$)	UNIT	QUANTITY	UNIT	SUB-TOTAL	COMMENTS
Construction Cost							
Pipe Construction - Open Cut			m	5640 m	\$651		Existing road ROW
Pipe Construction - Tunneling			m	0 m	\$1,300	\$0	
Pipe Construction Uplift (Based on Area Conditions)	20%					\$734,197	
Minor Creek Crossings			ea.	0	\$66,000	\$0	
Major Creek Crossings			ea.	0	\$235,000	\$0	
Road Crossings			ea.	0	\$118,000	\$0	
Major Road / Rail Crossings			ea.	0	\$235,000	\$0	
Utility Crossings			ea.	0	\$118,000	\$0	
Additional Construction Costs	15%		ea.			\$660,778	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
Provisional & Allowance	10%		ea.			\$506,596	Provisional Labour and Materials in addition to base construction cost
Sub-Total Construction Base Costs						\$5,573,000	
						+ -,,	
Geotechnical / Hydrogeological / Materials	1.0%					\$55,700	
Geotechnical Sub-Total Cost						\$55,700	
Property Requirements	1.5%					\$ 83,600	
Property Requirements Sub-Total			1			\$83,600	
Occasional Francisco di antico	450/						includes planning, pre-design, detailed design,
Consultant Engineering/Design	15%					\$ 836,000	training, CA, commissioning
Engineering/Design Sub-Total						\$836,000	
In House Labour/Engineering/Wages/CA	3%					\$ 167,200	
In-house Labour/Wages Sub-Total						\$167,200	
Project Contingency	15%					\$1,007,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
Project Contingency Sub-Total						\$1,007,000	
Non-Refundable HST	1.76%					\$133,000	
Non-Refundable HST Sub-Total						\$133,000	
Total (2019 Dollars)						\$7,856,000	Rounded to nearest \$1,000
Other Estimate							
Chosen Estimate							2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$157,120		
Design	Design fees, Town fees for design, contract admin	13%	\$1,021,280		
Construction	Town fees, base costs and project contingency	85%	\$6,677,600		
TOTAL		\$7,856,000			



WW-D-SS-20

PROJECT NO.: PROJECT NAME: Sewers for Existing Unserviced (SPS-03)

New sanitary sewers to benefit existing unserviced within North Dorchester (WW-D-SPS-03 catchment) **PROJECT**

DESCRIPTION:

Class Estimate Type: Project Complexity Class 4 Med Accuracy Range: Area Condition: 40%

Class adjusts Construction Contingency and expected accuracy Complexity adjusts Construction Contingency, and expected accuracy

Suburban Area Condition uplifts unit cost and restoration

PROPOSED DIAMETER: 200 mm TOTAL LENGTH: 1120 m Tunnelled Open Cut 1120 m 100%

CLASS EA REQUIREMENTS:	A+
CONSTRUCTION ASSUMPTION:	Sewer 5m

PROJECT NO.: WW-D-SS-20

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET	RATE	RATE		ESTIMATED	COST PER		
COMPONENT	(%)	(\$)	UNIT	QUANTITY	UNIT	SUB-TOTAL	COMMENTS
Construction Cost							
Pipe Construction - Open Cut			m	1120 m	\$651	\$728,990	Existing road ROW
Pipe Construction - Tunneling			m	0 m	\$1,300	\$0	
Pipe Construction Uplift (Based on Area Conditions)	20%					\$145,798	
Minor Creek Crossings			ea.	0	\$66,000	\$0	
Major Creek Crossings			ea.	0	\$235,000	\$0	
Road Crossings			ea.	0	\$118,000	\$0	
Major Road / Rail Crossings			ea.	0	\$235,000	\$0	
Utility Crossings			ea.	0	\$118,000	\$0	
Additional Construction Costs	15%		ea.			\$131,218	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
Provisional & Allowance	10%		ea.			\$100,601	Provisional Labour and Materials in addition to base construction cost
Sub-Total Construction Base Costs						\$1,107,000	
Cub-rotal Construction Dase Ocsts						ψ1,107,000	
Geotechnical / Hydrogeological / Materials	1.0%					\$11,100	
Geotechnical Sub-Total Cost						\$11,100	
Property Requirements	1.5%					\$ 16,600	
	1.5%						
Property Requirements Sub-Total						\$16,600	
Consultant Engineering/Design	15%					\$ 166,100	includes planning, pre-design, detailed design, training, CA, commissioning
Engineering/Design Sub-Total						\$166,100	
In House Labour/Engineering/Wages/CA	3%					\$ 100,000	
In-house Labour/Wages Sub-Total						\$100,000	
							Construction Contingency is dependent on Cost
Project Contingency	15%					\$210,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
Project Contingency Sub-Total						\$210,000	
Non-Refundable HST	1.76%					\$26,600	
Non-Refundable HST Sub-Total						\$26,600	
Total (2019 Dollars)						\$1,637,000	Rounded to nearest \$1,000
Other Estimate						7 1, 2 3 1, 2 3 0	
Chosen Estimate						\$1,637,000	2019 Estimate
Onosen Estimate-							

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$32,740		
Design	Design fees, Town fees for design, contract admin	13%	\$212,810		
Construction	Town fees, base costs and project contingency	85%	\$1,391,450		
TOTAL		\$1,637,000			



WW-D-SS-21

PROJECT NO.: PROJECT NAME: Sewers for Existing Unserviced (SPS-04)

New sanitary sewers to benefit existing unserviced within South Dorchester (WW-D-SPS-04 catchment) **PROJECT**

DESCRIPTION:

Class Estimate Type: Project Complexity Class 4 Med Accuracy Range: Area Condition: 40%

Class adjusts Construction Contingency and expected accuracy Complexity adjusts Construction Contingency, and expected accuracy

Suburban Area Condition uplifts unit cost and restoration

PROPOSED DIAMETER: 200 mm TOTAL LENGTH: 5300 m Tunnelled Open Cut 5300 m 100%

CLASS EA REQUIREMENTS:	A+
CONSTRUCTION ASSUMPTION:	Sewer 5m

PROJECT NO.: WW-D-SS-21

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET COMPONENT	RATE	RATE	LINUT	ESTIMATED	COST PER	SUB-TOTAL	COMMENTS
	(%)	(\$)	UNIT	QUANTITY	UNIT	SUB-TUTAL	COMMENTS
Construction Cost							
Pipe Construction - Open Cut			m	5300 m	\$651		Existing road ROW
Pipe Construction - Tunneling			m	0 m	\$1,300	\$0	
Pipe Construction Uplift (Based on Area	20%					\$689,937	
Conditions) Minor Creek Crossings			ea.	0	\$66.000	\$0	
Major Creek Crossings			ea.	0	\$235,000	\$0	
Road Crossings			ea.	0	\$118,000	\$0	
Major Road / Rail Crossings			ea.	0	\$235,000	\$0	
Utility Crossings			ea.	0	\$118,000	\$0	
oung or counge			ou.	Ü	ψ1.0,000	Ψ	
Additional Construction Costs	15%		ea.			\$620,944	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
Provisional & Allowance	10%		ea.			\$476,057	Provisional Labour and Materials in addition to base construction cost
Sub-Total Construction Base Costs						\$5,237,000	
						+ -,,	
Geotechnical / Hydrogeological / Materials	1.0%					\$52,400	
Geotechnical Sub-Total Cost						\$52,400	
Property Requirements	1.5%					\$ 78,600	
Property Requirements Sub-Total						\$78,600	
							includes planning, pre-design, detailed design,
Consultant Engineering/Design	15%					\$ 785,600	training, CA, commissioning
Engineering/Design Sub-Total						\$785,600	
In House Labour/Engineering/Wages/CA	3%					\$ 157,100	
In-house Labour/Wages Sub-Total						\$157,100	
Project Contingency	15%					\$947,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
Project Contingency Sub-Total						\$947,000	
Non-Refundable HST	1.76%					\$125,000	
Non-Refundable HST Sub-Total						\$125,000	
Total (2019 Dollars)						\$7,383,000	Rounded to nearest \$1,000
Other Estimate						. ,,	
Chosen Estimate						\$7,383,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$147,660		
Design	Design fees, Town fees for design, contract admin	13%	\$959,790		
Construction	Town fees, base costs and project contingency	85%	\$6,275,550		
TOTAL		\$7,383,000			



PROJECT NO.: PROJECT NAME: WW-D-SS-23

Sewers for Existing Unserviced (SPS-06B) New sanitary sewers to benefit existing unserviced within South Dorchester (WW-D-SPS-06B catchment) **PROJECT**

DESCRIPTION:

Class Estimate Type: Project Complexity Class 4 Med Accuracy Range: Area Condition: 40%

Class adjusts Construction Contingency and expected accuracy Complexity adjusts Construction Contingency, and expected accuracy

Suburban Area Condition uplifts unit cost and restoration

PROPOSED DIAMETER: 200 mm TOTAL LENGTH: 8200 m Tunnelled Open Cut 8200 m 100%

CLASS EA REQUIREMENTS:	A+
CONSTRUCTION ASSUMPTION:	Sewer 5m

PROJECT NO.: WW-D-SS-23

OST ESTIMATION SPREADSHEET							
COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS
Construction Cost	(/	(17					
Pipe Construction - Open Cut			m	8200 m	\$651	\$5,337,251	Existing road ROW
Pipe Construction - Tunneling			m	0 m	\$1,300	\$0	-
Pipe Construction Uplift (Based on Area Conditions)	20%					\$1,067,450	
Minor Creek Crossings			ea.	0	\$66,000	\$0	
Major Creek Crossings			ea.	0	\$235,000	\$0	
Road Crossings			ea.	0	\$118,000	\$0	
Major Road / Rail Crossings			ea.	0	\$235,000	\$0	
Utility Crossings			ea.	0	\$118,000	\$0	
oung crossings				, and the second	ψσ,σσσ	40	
Additional Construction Costs	15%		ea.			\$960,705	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
Provisional & Allowance	10%		ea.			\$736,541	Provisional Labour and Materials in addition to base construction cost
Sub-Total Construction Base Costs					\$8,102,000		
Geotechnical / Hydrogeological / Materials	1.0%					\$81,000	
Geotechnical Sub-Total Cost	1.070					\$81,000	
						¥41,000	
Property Requirements	1.5%					\$ 121,500	
Property Requirements Sub-Total						\$121,500	
Consultant Engineering/Design	15%					\$ 1,215,300	includes planning, pre-design, detailed design, training, CA, commissioning
Engineering/Design Sub-Total						\$1,215,300	
In House Labour/Engineering/Wages/CA	3%					\$ 243,100	
In-house Labour/Wages Sub-Total						\$243,100	
Project Contingency	15%					\$1,464,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
Project Contingency Sub-Total						\$1,464,000	
Non-Refundable HST	1.76%					\$193,300	
Non-Refundable HST Sub-Total						\$193,300	
Total (2019 Dollars)						\$11,420,000	Rounded to nearest \$1,000
Other Estimate						, ,,,,,,,,,	
Chosen Estimate						\$11,420,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$228,400		
Design	Design fees, Town fees for design, contract admin	13%	\$1,484,600		
Construction	Town fees, base costs and project contingency	85%	\$9,707,000		
TOTAL			\$11,420,000		



PROJECT NO.: PROJECT NAME: WW-D-SS-24

Sewers for Existing Unserviced (SPS-07B) New sanitary sewers to benefit existing unserviced within North Dorchester (WW-D-SPS-07B catchment) **PROJECT**

DESCRIPTION:

Class Estimate Type: Project Complexity Class 4 Med Accuracy Range: Area Condition: 40%

Class adjusts Construction Contingency and expected accuracy Complexity adjusts Construction Contingency, and expected accuracy

Suburban Area Condition uplifts unit cost and restoration

PROPOSED DIAMETER: 200 mm TOTAL LENGTH: 2250 m Tunnelled Open Cut 2250 m 100%

CLASS EA REQUIREMENTS:	A+
CONSTRUCTION ASSUMPTION:	Sewer 5m

PROJECT NO.: WW-D-SS-24

OST ESTIMATION SPREADSHEET							
COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS
Construction Cost	•	-	•				•
Pipe Construction - Open Cut			m	2250 m	\$651	\$1,464,489	Existing road ROW
Pipe Construction - Tunneling			m	0 m	\$1,300	\$0	
Pipe Construction Uplift (Based on Area Conditions)	20%					\$292,898	
Minor Creek Crossings			ea.	0	\$66,000	\$0	
Major Creek Crossings			ea.	0	\$235,000	\$0	
Road Crossings			ea.	0	\$118,000	\$0	
Major Road / Rail Crossings			ea.	0	\$235,000	\$0	
Utility Crossings			ea.	0	\$118,000	\$0	
Additional Construction Costs	15%		ea.			\$263,608	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
Provisional & Allowance	10%		ea.			\$202,100	Provisional Labour and Materials in addition to base construction cost
Sub-Total Construction Base Costs					\$2,223,000		
		Ι	l				
Geotechnical / Hydrogeological / Materials	1.0%					\$22,200	
Geotechnical Sub-Total Cost						\$22,200	
Property Requirements	1.5%					\$ 33,300	
Property Requirements Sub-Total						\$33,300	
Consultant Engineering/Design	15%					\$ 333,500	includes planning, pre-design, detailed design, training, CA, commissioning
Engineering/Design Sub-Total						\$333,500	
In House Labour/Engineering/Wages/CA	3%					\$ 100,000	
In-house Labour/Wages Sub-Total						\$100,000	
Project Contingency	15%					\$407,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
Project Contingency Sub-Total						\$407,000	
Non-Refundable HST	1.76%					\$53,100	
Non-Refundable HST Sub-Total		<u> </u>				\$53,100	
Total (2019 Dollars)						\$3,172,000	Rounded to nearest \$1,000
Other Estimate						, , , , , , , , , , , , , , , , , , , ,	
Chosen Estimate						\$3,172,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$63,440		
Design	Design fees, Town fees for design, contract admin	13%	\$412,360		
Construction	Town fees, base costs and project contingency	85%	\$2,696,200		
TOTAL			\$3,172,000		



PROJECT NO.: WW-D-401-ST-01

PROJECT NAME: Cost Benefit Study to Service 401 Corridor Lands

PROJECT DESCRIPTION: Cost-benefit study to evaluate servicing options for 401 Corridor Lands, will include

recommendations for gravity, sewage pumping station or siphon options.

CLASS EA REQUIREMENTS:	С
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PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	TOTAL
Study	Feasibility study, EA	\$50,000



PROJECT NO.: PROJECT NAME: WW-D-TP-01A

Thorndale Treatment Plant Upgrades (includes SPS)

PROJECT Treatment plant capacity upgrades required to accommodate all development flows in Thorndale DESCRIPTION:

Class Estimate Type: Class 4 Class adjusts Construction Contingency and expected accuracy Project Complexity Med Complexity adjusts Construction Contingency, and expected accuracy Accuracy Range: Area Condition: 40%

Suburban Area Condition uplifts unit cost and restoration

PROPOSED CAPACITY 0.30 MLD

CLASS EA REQUIREMENTS:	С
CONSTRUCTION ASSUMPTION:	Other

PROJECT NO.: WW-D-TP-01A

COST ESTIMATION SPREADSHEET

COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS
Construction Cost	(70)	(\$)		QUANTITY	UNIT		
Facility Construction			MLD	0 MLD	\$4,000,000	\$1,202,688	\$2.5M per MLD
							Includes Mod/Demob,connections, inspection,
Additional Construction Costs	15%		ea.				hydrants, signage, traffic management, bonding, insurance
Provisional & Allowance	10%		ea.			\$138,309	Provisional Labour and Materials in addition to base construction cost
Sub-Total Construction Base Costs						\$1,521,000	
	ı						
Geotechnical / Hydrogeological / Materials	1.0%					\$15,200	
Geotechnical Sub-Total Cost						\$15,200	
Property Requirements	1.5%					\$ 22,800	
Property Requirements Sub-Total						\$22,800	
Consultant Engineering/Design	15%					\$ 228,200	includes planning, pre-design, detailed design, training, CA, commissioning
Engineering/Design Sub-Total						\$228,200	
la Harra Laborri Francisco de Alberta (CA	201					400.000	
In House Labour/Engineering/Wages/CA	3%					\$ 100,000	
In-house Labour/Wages Sub-Total						\$100,000	
Project Contingency	15%					\$283,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
Project Contingency Sub-Total						\$283,000	
Non-Refundable HST	1.76%					\$36,400	
Non-Refundable HST Sub-Total						\$36,400	
Total (2019 Dollars)						\$2,207,000	Rounded to nearest \$1,000
Other Estimate							
Chosen Estimate						\$2,207,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$44,140		
Design	Design fees, Town fees for design, contract admin	13%	\$286,910		
Construction	Town fees, base costs and project contingency	85%	\$1,875,950		
TOTAL		\$2,207,000			



WW-D-TP-01B PROJECT NO.:

Thorndale Treatment Plant Upgrades (includes SPS) PROJECT NAME: PROJECT Treatment plant capacity upgrades required to accommodate DESCRIPTION: all development flows in Thorndale (includes Thorndale SPS

and forcemain)

1 MLD

Class Estimate Type: Class 4 Class adjusts Construction Contingency and expected accuracy Project Complexity Med Complexity adjusts Construction Contingency, and expected accuracy

Accuracy Range: 40%

Area Condition: Area Condition uplifts unit cost and restoration Suburban

> CLASS EA REQUIREMENTS: С

> > Other

PROJECT NO.: WW-D-TP-01B

CONSTRUCTION ASSUMPTION:

PROPOSED CAPACITY

COST ESTIMATION SPREADSHEET							
COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS
Construction Cost							
Facility Construction			MLD	1 MLD	\$4,000,000	\$4,033,152	\$2.5M per MLD
							Includes Mod/Demob,connections, inspection,
Additional Construction Costs	15%		ea.			\$604,973	hydrants, signage, traffic management, bonding,
							insurance Provisional Labour and Materials in addition to base
Provisional & Allowance	10%		ea.			\$463,812	construction cost
Sub-Total Construction Base Costs						\$5,102,000	
		1		T	1	1	T
Geotechnical / Hydrogeological / Materials	1.0%					\$51,000	
Geotechnical Sub-Total Cost						\$51,000	
	•			,			<u></u>
Property Requirements	1.5%		<u> </u>			\$ 76,500	
Property Requirements Sub-Total						\$76,500	
					1		includes planning, pre-design, detailed design,
Consultant Engineering/Design	15%					\$ 765,300	training, CA, commissioning
Engineering/Design Sub-Total						\$765,300	
	•			,			<u></u>
In House Labour/Engineering/Wages/CA	3%					\$ 153,100	
In-house Labour/Wages Sub-Total						\$153,100	
Project Contingency	15%					\$922,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
Project Contingency Sub-Total						\$922,000	
Non-Refundable HST	1.76%	<u> </u>	<u> </u>			\$121,700	
Non-Refundable HST Sub-Total						\$121,700	
Total (2019 Dollars)						\$7.102.000	Rounded to nearest \$1,000
Other Estimate						φ1,1 3 2,000	rounded to ficalest \$1,000
Chosen Estimate	_		_			\$7.192.000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$143,840		
Design	Design fees, Town fees for design, contract admin	13%	\$934,960		
Construction	Town fees, base costs and project contingency	85%	\$6,113,200		
TOTAL		\$7,192,000			



PROJECT NO.: WW-D-TP-01C

PROJECT NAME: Thorndale Treatment Plant Upgrades (includes SPS)
PROJECT Treatment plant capacity upgrades required to accommodate
DESCRIPTION: all development flows in Thorndale (includes Thorndale SPS)

and forcemain)

Class Estimate Type:	Class 4	Class adjusts Construction Contingency and expected accuracy					
Project Complexity	Med	Complexity adjusts Construction Contingency, and expected accuracy					
A	400/	1					

Accuracy Range: 40%

Area Condition: Suburban Area Condition uplifts unit cost and restoration

PROJECT NO.: WW-D-TP-01C

PROPOSED CAPACITY 2 MLD

CLASS EA REQUIREMENTS:	С
CONSTRUCTION ASSUMPTION:	Other

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET COMPONENT	RATE	RATE	UNIT	ESTIMATED	COST PER	SUB-TOTAL	COMMENTS
	(%)	(\$)	ONIT	QUANTITY	UNIT	30B-TOTAL	COMMENTO
Construction Cost			1			T	
Facility Construction			MLD	2 MLD	\$4,000,000	\$9,192,960	\$4M per MLD (includes SPS and FM upgrades)
Additional Construction Costs	15%		ea.			\$1,378,944	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
Provisional & Allowance	10%		ea.			\$1,057,190	Provisional Labour and Materials in addition to base construction cost
			I		II.	L	
Sub-Total Construction Base Costs						\$11,629,000	
				1	1	1	
Geotechnical / Hydrogeological / Materials	1.0%					\$116,300	
Geotechnical Sub-Total Cost						\$116,300	
Property Requirements	1.5%			1		\$ 174,400	
Property Requirements Sub-Total	1.070				<u>I</u>	\$174,400	
						•	
Consultant Engineering/Design	12%					\$ 1,395,500	includes planning, pre-design, detailed design, training, CA, commissioning
Engineering/Design Sub-Total						\$1,395,500	, ,
						ı	
In House Labour/Engineering/Wages/CA	3%					\$ 348,900	
In-house Labour/Wages Sub-Total						\$348,900	
				1	•		
Project Contingency	15%						Construction Contingency is dependent on Cost Estimate Class and Project Complexity
Project Contingency Sub-Total						\$2,050,000	
Non-Refundable HST	1.76%			<u> </u>	<u> </u>	\$270,400	
Non-Refundable HST Sub-Total						\$270,400	
Total (2019 Dollars)						\$15,985,000	Rounded to nearest \$1,000
Other Estimate							
Chosen Estimate						\$15,985,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$319,700		
Design	Design fees, Town fees for design, contract admin	13%	\$2,078,050		
Construction	Town fees, base costs and project contingency	85%	\$13,587,250		
TOTAL		\$15,985,000			



PROJECT NO.: PROJECT NAME:

WW-T-SS-01 Gerald Parkway sewer upgrades Sewer upgrades along Gerald Parkway to accommodate growth **PROJECT**

100%

flows in West Thorndale DESCRIPTION:

Class Estimate Type: Project Complexity Class 4 Med Accuracy Range: Area Condition: 40%

Class adjusts Construction Contingency and expected accuracy Complexity adjusts Construction Contingency, and expected accuracy

Suburban Area Condition uplifts unit cost and restoration

PROPOSED DIAMETER: 375 mm TOTAL LENGTH: 200 m

CLASS EA REQUIREMENTS:	A+
CONSTRUCTION ASSUMPTION:	Sewer 5m

PROJECT NO.: WW-T-SS-01

COST ESTIMATION SPREADSHEET

Tunnelled Open Cut

COST ESTIMATION SPREADSHEET	RATE	RATE		ESTIMATED	COST PER		
COMPONENT	(%)	(\$)	UNIT	QUANTITY	UNIT	SUB-TOTAL	COMMENTS
Construction Cost				•			
Pipe Construction - Open Cut			m	200 m	\$675	\$134,996	Existing road ROW
Pipe Construction - Tunneling			m	0 m	\$6,300	\$0	
Pipe Construction Uplift (Based on Area Conditions)	20%					\$26,999	
Minor Creek Crossings			ea.	0	\$166,000	\$0	
Major Creek Crossings			ea.	0	\$985,000	\$0	
Road Crossings			ea.	0	\$418,000	\$0	
Major Road / Rail Crossings			ea.	0	\$985,000	\$0	
Utility Crossings			ea.	0	\$418,000	\$0	
Additional Construction Costs	15%		ea.			\$24,299	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
Provisional & Allowance	10%		ea.			\$18,629	Provisional Labour and Materials in addition to base construction cost
Sub-Total Construction Base Costs						\$205,000	
Sub-Total Construction base costs						\$205,000	
Geotechnical / Hydrogeological / Materials	1.0%					\$2,100	
Geotechnical Sub-Total Cost		•				\$2,100	
Dranart / Daguiramenta	4.50/					¢ 0.400	
Property Requirements	1.5%					\$ 3,100	
Property Requirements Sub-Total						\$3,100	
Consultant Engineering/Design	15%					\$ 30,800	includes planning, pre-design, detailed design, training, CA, commissioning
Engineering/Design Sub-Total						\$30,800	
In House Labour/Engineering/Wages/CA	3%					\$ 50,000	
In-house Labour/Wages Sub-Total						\$50,000	
							Construction Contingency is dependent on Cost
Project Contingency	15%					\$44,000	Estimate Class and Project Complexity
Project Contingency Sub-Total						\$44,000	
Non-Refundable HST	1.76%					\$5,000	
Non-Refundable HST Sub-Total						\$5,000	
Total (2019 Dollars)						\$340,000	Rounded to nearest \$1,000
Other Estimate						, , , , , ,	
Chosen Estimate						\$340,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$6,800		
Design	Design fees, Town fees for design, contract admin	13%	\$44,200		
Construction	Town fees, base costs and project contingency	85%	\$289,000		
TOTAL			\$340,000		



PROJECT NO.: WW-T-SS-02 PROJECT NAME: King Street sewer

PROJECT King Street sewer from CN rail to Lions Lane to accommodate East

DESCRIPTION: Thorndale growth flows

Class Estimate Type: Class 4
Project Complexity Med
Accuracy Range: 40%
Area Condition: Suburban

Class adjusts Construction Contingency and expected accuracy Complexity adjusts Construction Contingency, and expected accuracy

a Condition: Suburban Area Condition uplifts unit cost and restoration

PROPOSED DIAMETER: 250 mm

TOTAL LENGTH: 375 m

Tunnelled 0%

Open Cut 375 m 100%

CLASS EA REQUIREMENTS:	A+
CONSTRUCTION ASSUMPTION:	Sewer 5m

PROJECT NO.: WW-T-SS-02

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET	RATE	RATE		ESTIMATED	COST PER		
COMPONENT	(%)	(\$)	UNIT	QUANTITY	UNIT	SUB-TOTAL	COMMENTS
Construction Cost				•			
Pipe Construction - Open Cut			m	375 m	\$653	\$244,766	Existing road ROW
Pipe Construction - Tunneling			m	0 m	\$1,300	\$0	
Pipe Construction Uplift (Based on Area Conditions)	20%					\$48,953	
Minor Creek Crossings			ea.	0	\$66,000	\$0	
Major Creek Crossings			ea.	0	\$235,000	\$0	
Road Crossings			ea.	0	\$118,000	\$0	
Major Road / Rail Crossings			ea.	0	\$235,000	\$0	
Utility Crossings			ea.	0	\$118,000	\$0	
Additional Construction Costs	15%		ea.			\$44,058	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
Provisional & Allowance	10%		ea.			\$33,778	Provisional Labour and Materials in addition to base construction cost
Sub-Total Construction Base Costs						\$372,000	
Sub-Total Collection Base Costs						\$372,000	
Geotechnical / Hydrogeological / Materials	1.0%					\$3,700	
Geotechnical Sub-Total Cost						\$3,700	
Property Requirements	1.5%					\$ 5,600	
Property Requirements Sub-Total						\$5,600	
			l	1 1			includes planning, pre-design, detailed design,
Consultant Engineering/Design	15%					\$ 55,800	training, CA, commissioning
Engineering/Design Sub-Total						\$55,800	
In House Labour/Engineering/Wages/CA	3%					\$ 50,000	
In-house Labour/Wages Sub-Total						\$50,000	
Project Contingency	15%					\$73,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
Project Contingency Sub-Total						\$73,000	
Non-Refundable HST	1.76%					\$9,000	
Non-Refundable HST Sub-Total	1.7070					\$9,000	
Towns and town						Ψ3,000	
Total (2019 Dollars)					\$569,000	Rounded to nearest \$1,000	
Other Estimate							
Chosen Estimate						\$569,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$11,380		
Design	Design fees, Town fees for design, contract admin	13%	\$73,970		
Construction	Town fees, base costs and project contingency	85%	\$483,650		
TOTAL			\$569,000		



PROJECT NO.: WW-T-SS-03
PROJECT NAME: King Street sewer

PROJECT King Street sewer from Lions Lane to Monteith Avenue to

DESCRIPTION: accommodate East Thorndale growth flows

Class Estimate Type: Class 4
Project Complexity Med
Accuracy Range: 40%
Area Condition: Suburban

Class adjusts Construction Contingency and expected accuracy Complexity adjusts Construction Contingency, and expected accuracy

rea Condition: Suburban Area Condition uplifts unit cost and restoration

PROPOSED DIAMETER: 250 mm

TOTAL LENGTH: 485 m

Tunnelled 0%

Open Cut 485 m 100%

CLASS EA REQUIREMENTS:	A+
CONSTRUCTION ASSUMPTION:	Sewer 5m

PROJECT NO.: WW-T-SS-03

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET	RATE	RATE		ESTIMATED	COST PER		
COMPONENT	(%)	(\$)	UNIT	QUANTITY	UNIT	SUB-TOTAL	COMMENTS
Construction Cost	(/	() /					
Pipe Construction - Open Cut			m	485 m	\$653	\$316,564	Existing road ROW
Pipe Construction - Tunneling			m	0 m	\$1,300	\$0	
Pipe Construction Uplift (Based on Area Conditions)	20%					\$63,313	
Minor Creek Crossings			ea.	0	\$66,000	\$0	
Major Creek Crossings			ea.	0	\$235,000	\$0	
Road Crossings			ea.	0	\$118,000	\$0	
Major Road / Rail Crossings			ea.	0	\$235,000	\$0	
Utility Crossings			ea.	0	\$118,000	\$0	
Additional Construction Costs	15%		ea.			\$56,981	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
Provisional & Allowance	10%		ea.			\$43,686	Provisional Labour and Materials in addition to base construction cost
Sub-Total Construction Base Costs						\$481,000	
Sub-rotal Construction base Costs						\$461,000	
Geotechnical / Hydrogeological / Materials	1.0%					\$4,800	
Geotechnical Sub-Total Cost						\$4,800	
Property Requirements	1.5%					\$ 7,200	
Property Requirements Sub-Total	1.070					\$7,200	
reporty requirements out retail							
Consultant Engineering/Design	15%					\$ 72,200	includes planning, pre-design, detailed design, training, CA, commissioning
Engineering/Design Sub-Total						\$72,200	
In House Labour/Engineering/Wages/CA	3%					\$ 50,000	
In-house Labour/Wages Sub-Total						\$50,000	
Period Confinence	450/					000.000	Construction Contingency is dependent on Cost
Project Contingency	15%					\$92,000	Estimate Class and Project Complexity
Project Contingency Sub-Total						\$92,000	
Non-Refundable HST	1.76%					\$11,600	
Non-Refundable HST Sub-Total						\$11,600	
Total (2019 Dollars)						\$719,000	Rounded to nearest \$1,000
Other Estimate						4,	
Chosen Estimate						\$719,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$14,380		
Design	Design fees, Town fees for design, contract admin	13%	\$93,470		
Construction	Town fees, base costs and project contingency	85%	\$611,150		
TOTAL			\$719,000		



PROJECT NO.: WW-T-SS-04
PROJECT NAME: King Street sewer

PROJECT King Street sewer from Wye Creek to existing sewers to

DESCRIPTION: accommodate existing development flows

Class Estimate Type: Class 4
Project Complexity Med
Accuracy Range: 40%
Area Condition: Suburban

Class adjusts Construction Contingency and expected accuracy Complexity adjusts Construction Contingency, and expected accuracy

rea Condition: Suburban Area Condition uplifts unit cost and restoration

PROPOSED DIAMETER: 200 mm

TOTAL LENGTH: 340 m

Tunnelled 0%

Open Cut 340 m 100%

CLASS EA REQUIREMENTS:	A+
CONSTRUCTION ASSUMPTION:	Sewer 5m

PROJECT NO.: WW-T-SS-04

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET	RATE	RATE		ESTIMATED	COST PER		
COMPONENT	(%)	(\$)	UNIT	QUANTITY	UNIT	SUB-TOTAL	COMMENTS
Construction Cost	<u> </u>		•	•			
Pipe Construction - Open Cut			m	340 m	\$651	\$221,301	Existing road ROW
Pipe Construction - Tunneling			m	0 m	\$1,300	\$0	
Pipe Construction Uplift (Based on Area Conditions)	20%					\$44,260	
Minor Creek Crossings			ea.	0	\$66,000	\$0	
Major Creek Crossings			ea.	0	\$235,000	\$0	
Road Crossings			ea.	0	\$118,000	\$0	
Major Road / Rail Crossings			ea.	0	\$235,000	\$0	
Utility Crossings			ea.	0	\$118,000	\$0	
Additional Construction Costs	15%		ea.			\$39,834	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
Provisional & Allowance	10%		ea.			\$30,539	Provisional Labour and Materials in addition to base construction cost
Sub-Total Construction Base Costs						\$336,000	
Sub-Total Collett uction Base Costs						\$330,000	
Geotechnical / Hydrogeological / Materials	1.0%					\$3,400	
Geotechnical Sub-Total Cost						\$3,400	
Property Requirements	1.5%					\$ 5,000	
Property Requirements Sub-Total			l			\$5,000	
		ı	1				
Consultant Engineering/Design	15%					\$ 50,400	includes planning, pre-design, detailed design, training, CA, commissioning
Engineering/Design Sub-Total						\$50,400	
In House Labour/Engineering/Wages/CA	3%					\$ 50,000	
In-house Labour/Wages Sub-Total						\$50,000	
Project Contingency	15%					\$67,000	Construction Contingency is dependent on Cost
Project Contingency Sub-Total						\$67,000	Estimate Class and Project Complexity
Non-Refundable HST	1.76%					\$8,100	
Non-Refundable HST Sub-Total						\$8,100	
Total (2019 Dollars)						\$520,000	Rounded to nearest \$1,000
Other Estimate							
Chosen Estimate						\$520,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$10,400		
Design	Design fees, Town fees for design, contract admin	13%	\$67,600		
Construction	Town fees, base costs and project contingency	85%	\$442,000		
TOTAL			\$520,000		



PROJECT NO.: WW-T-SS-05
PROJECT NAME: King Street sewer

PROJECT King Street sewer under Wye Creek to accommodate existing

DESCRIPTION: development flows

Class Estimate Type: Class 4
Project Complexity High
Accuracy Range: 50%
Area Condition: Suburban

Class adjusts Construction Contingency and expected accuracy Complexity adjusts Construction Contingency, and expected accuracy

rea Condition: Suburban Area Condition uplifts unit cost and restoration

PROPOSED DIAMETER: 200 mm

TOTAL LENGTH: 70 m 100%

| Tunnelled 70 m 100%
| Open Cut 0 m 0%

CLASS EA REQUIREMENTS:	В
CONSTRUCTION ASSUMPTION:	Sewer 5m

PROJECT NO.: WW-T-SS-05

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET								
COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS	
Construction Cost		-	•				•	
Pipe Construction - Open Cut			m	0 m	\$651	\$0	Existing road ROW	
Pipe Construction - Tunneling			m	70 m	\$1,300	\$91,000		
Pipe Construction Uplift (Based on Area Conditions)	20%					\$0		
Minor Creek Crossings			ea.	0	\$66,000	\$0		
Major Creek Crossings			ea.	1	\$235,000	\$235,000	Wye Creek	
Road Crossings			ea.	0	\$118,000	\$0		
Major Road / Rail Crossings			ea.	0	\$235,000	\$0		
Utility Crossings			ea.	0	\$118,000	\$0		
Additional Construction Costs	20%		ea.			\$65,200	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance	
Provisional & Allowance	10%		ea.			\$39,120	Provisional Labour and Materials in addition to base construction cost	
Sub-Total Construction Base Costs						\$430,000		
			l					
Geotechnical / Hydrogeological / Materials	2.0%					\$8,600		
Geotechnical Sub-Total Cost						\$8,600		
Property Requirements	2.0%					\$ 8,600		
Property Requirements Sub-Total						\$8,600		
Consultant Engineering/Design	15%					\$ 64,500	includes planning, pre-design, detailed design, training, CA, commissioning	
Engineering/Design Sub-Total						\$64,500		
In House Labour/Engineering/Wages/CA	3%					\$ 50,000		
In-house Labour/Wages Sub-Total						\$50,000		
Project Contingency	25%					\$140,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity	
Project Contingency Sub-Total						\$140,000		
Non-Refundable HST	1.76%					\$11,500		
Non-Refundable HST Sub-Total						\$11,500		
Total (2019 Dollars)					\$713,000	Rounded to nearest \$1,000		
Other Estimate						, , , , ,		
Chosen Estimate						\$713,000	2019 Estimate	

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$14,260		
Design	Design fees, Town fees for design, contract admin	13%	\$92,690		
Construction	Town fees, base costs and project contingency	85%	\$606,050		
TOTAL		\$713,000			



PROJECT NO.: WW-T-SS-06
PROJECT NAME: King Street sewer

PROJECT King Street sewer from Harrison Street to before Wye Creek to

DESCRIPTION: accommodate existing development flows

Class Estimate Type: Class 4
Project Complexity Med
Accuracy Range: 40%
Area Condition: Suburban

Class adjusts Construction Contingency and expected accuracy Complexity adjusts Construction Contingency, and expected accuracy

rea Condition: Suburban Area Condition uplifts unit cost and restoration

PROPOSED DIAMETER: 200 mm

TOTAL LENGTH: 130 m

Tunnelled 0 m 0%

Open Cut 130 m 100%

CLASS EA REQUIREMENTS:	A+
CONSTRUCTION ASSUMPTION:	Sewer 5m

PROJECT NO.: WW-T-SS-06

COST ESTIMATION SPREADSHEET

COST ESTIMATION SPREADSHEET	RATE	RATE		ESTIMATED	COST PER		
COMPONENT	(%)	(\$)	UNIT	QUANTITY	UNIT	SUB-TOTAL	COMMENTS
Construction Cost	(/						
Pipe Construction - Open Cut			m	130 m	\$651	\$84,615	Existing road ROW
Pipe Construction - Tunneling			m	0 m	\$1,300	\$0	
Pipe Construction Uplift (Based on Area Conditions)	20%					\$16,923	
Minor Creek Crossings			ea.	0	\$66,000	\$0	
Major Creek Crossings			ea.	0	\$235,000	\$0	
Road Crossings			ea.	0	\$118,000	\$0	
Major Road / Rail Crossings			ea.	0	\$235,000	\$0	
Utility Crossings			ea.	0	\$118,000	\$0	
Additional Construction Costs	15%		ea.			\$15,231	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding, insurance
Provisional & Allowance	10%		ea.			\$11,677	Provisional Labour and Materials in addition to base construction cost
Sub-Total Construction Base Costs						\$128,000	
Cub-rotal Construction Dasc Ocsts						Ψ120,000	
Geotechnical / Hydrogeological / Materials	1.0%					\$1,300	
Geotechnical Sub-Total Cost						\$1,300	
Property Requirements	1.5%					\$ 1,900	
Property Requirements Sub-Total			<u> </u>			\$1,900	
Consultant Engineering/Design	15%					\$ 19,200	includes planning, pre-design, detailed design, training, CA, commissioning
Engineering/Design Sub-Total						\$19,200	
In House Labour/Engineering/Wages/CA	3%					\$ 50,000	
In-house Labour/Wages Sub-Total						\$50,000	
Project Contingency	15%					\$30,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity
Project Contingency Sub-Total						\$30,000	
Non-Refundable HST	1.76%					\$3,200	
Non-Refundable HST Sub-Total	1.7070					\$3,200	
Total (2019 Dollars)						\$234,000	Rounded to nearest \$1,000
Other Estimate							
Chosen Estimate						\$234,000	2019 Estimate

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$4,680		
Design	Design fees, Town fees for design, contract admin	13%	\$30,420		
Construction	Town fees, base costs and project contingency	85%	\$198,900		
TOTAL			\$234,000		



WW-T-SS-07

PROJECT NO.: PROJECT NAME: Sewers for Existng Unserviced within Thorndale **PROJECT** New sanitary sewers to benefit existing unserviced within

Thorndale DESCRIPTION:

Class Estimate Type: Project Complexity Class 4 Med Accuracy Range: Area Condition: 40%

Class adjusts Construction Contingency and expected accuracy Complexity adjusts Construction Contingency, and expected accuracy

Suburban Area Condition uplifts unit cost and restoration

PROPOSED DIAMETER: 200 mm TOTAL LENGTH: 806 m Tunnelled Open Cut 806 m 100%

CLASS EA REQUIREMENTS:	A+
CONSTRUCTION ASSUMPTION:	Sewer 5m

PROJECT NO.: WW-T-SS-07

COST ESTIMATION SPREADSHEET									
COMPONENT	RATE (%)	RATE (\$)	UNIT	ESTIMATED QUANTITY	COST PER UNIT	SUB-TOTAL	COMMENTS		
Construction Cost				•		-			
Pipe Construction - Open Cut			m	806 m	\$651	\$524,613	Existing road ROW		
Pipe Construction - Tunneling			m	0 m	\$1,300	\$0			
Pipe Construction Uplift (Based on Area Conditions)	20%					\$104,923			
Minor Creek Crossings			ea.	0	\$66,000	\$0			
Major Creek Crossings			ea.	0	\$235,000	\$0			
Road Crossings			ea.	0	\$118,000	\$0			
Major Road / Rail Crossings			ea.	0	\$235,000	\$0			
Utility Crossings			ea.	0	\$118,000	\$0			
Additional Construction Costs	15%		ea.			\$94,430	Includes Mod/Demob,connections, inspection, hydrants, signage, traffic management, bonding insurance		
Provisional & Allowance	10%		ea.			\$72,397	Provisional Labour and Materials in addition to base construction cost		
Sub-Total Construction Base Costs					\$796,000				
0-4	4.00/					40.000			
Geotechnical / Hydrogeological / Materials Geotechnical Sub-Total Cost	1.0%					\$8,000			
Geotechnical Sub-Total Cost						\$8,000			
Property Requirements	1.5%					\$ 11,900			
Property Requirements Sub-Total						\$11,900			
Consultant Engineering/Design	15%					\$ 119,400	includes planning, pre-design, detailed design, training, CA, commissioning		
Engineering/Design Sub-Total						\$119,400			
In House Labour/Engineering/Wages/CA	3%					\$ 50,000			
In-house Labour/Wages Sub-Total						\$50,000			
Project Contingency	15%					\$148,000	Construction Contingency is dependent on Cost Estimate Class and Project Complexity		
Project Contingency Sub-Total						\$148,000			
Non-Refundable HST	1.76%					\$19,100			
Non-Refundable HST Sub-Total					\$19,100				
Total (2019 Dollars)					\$1,152,000	Rounded to nearest \$1,000			
Other Estimate									
Chosen Estimate					\$1,152,000	2019 Estimate			

PROJECT COMPONENT	PROJECT COMPONENT DESCRIPTION	PERCENTAGE	TOTAL	YEAR	COMMENTS
Study	Feasibility study, EA	2%	\$23,040		
Design	Design fees, Town fees for design, contract admin	13%	\$149,760		
Construction	Town fees, base costs and project contingency	85%	\$979,200		
TOTAL		\$1,152,000			