

WORK BREAKDOWN STRUCTURE		Cost	Cost	Cost	Cost	Variance from Parkway West NPS 36 to: Bram West NPS 36 Option, Bram West NPS 42 Option & Parkway West (New Location) NPS 42
Summary Roll-up	Description	Parkway West (Old Location) (NPS 36) Original Application (12/21/12)	Bram West Interconnect (NPS 36) Submission (06/07/13)	Bram West Interconnect (NPS 42) Update No. 2 (04/15/13)	Parkway West (New Location) (NPS 42) Update No. 6 (07/22/13)	
Project Engineering, Development, Execution and Administrative/General						
	Project Development					All Options: Reallocated costs from development accounts to other accounts Bram West Options: Increase due to extended execution time period New Pkwy W NPS 42: Ramping up execution team earlier in order to start detailed engineering soon to maintain ISD
	Project Execution					All Options: Increase due to extended execution time period
	Administrative and General					All Options: Change in capital costs and updated insurance rates
	Insurance					Bram West Options: Reduction in scope (Parkway West to Bram West) New Pkwy W NPS 42: Additional scope to new Parkway West location (approx 1.5km)
	Engineering					
Total Project Engineering, Development, Execution and Administrative/General						
Mainline						
Parkway West or Bram West to Albion						
	Land and Easements					Bram West Options: Reduction in scope (Parkway West to Bram West) New Pkwy W NPS 42: Additional scope to new Parkway West location (approx 1.5km)
	Pipe & Coating					Bram West NPS 36: Reduction in scope (Parkway West to Bram West) Bram West NPS 42: Increase in pipe diameter and WT offset by reduction in scope (Parkway West to Bram West) New Pkwy W NPS 42: Increase in pipe diameter, WT and length to new Parkway West location
	Valves					Bram West NPS 36: Reduction in scope (Parkway West to Bram West) Bram West NPS 42: Increase in pipe diameter and WT offset by reduction in scope (Parkway West to Bram West) New Pkwy W NPS 42: Increase in pipe diameter, WT and length to new Parkway West location
	Induction Bends					Bram West NPS 36: Reduction in scope (Parkway West to Bram West) Bram West NPS 42: Increase in pipe diameter and WT offset by reduction in scope (Parkway West to Bram West) New Pkwy W NPS 42: Increase in pipe diameter, WT and length to new Parkway West location
	Fittings, Flanges, Other					Bram West NPS 36: Reduction in scope (Parkway West to Bram West) Bram West NPS 42: Increase in pipe diameter and WT offset by reduction in scope (Parkway West to Bram West) New Pkwy W NPS 42: Increase in pipe diameter, WT and length to new Parkway West location
	Construction, Testing, Surveys, and Construction Management					Bram West NPS 36: Reduction in scope (Parkway West to Bram West) Bram West NPS 42: Increase in pipe diameter and WT requires more equipment and less productivity New Pkwy W NPS 42: Increase in pipe diameter and WT requires more equipment and less productivity; additional length required to new Parkway W site
	Commissioning & Start-Up					NPS 36: Reduction in scope (Parkway West to Bram West) NPS 42: Increase in pipe diameter
Keele/CNR to Don Valley Junction						
	Land and Easements					No change
	Pipe & Coating					No change
	Valves					No change
	Induction Bends					No change
	Fittings, Flanges, Other					Bram West Options: No change New Pkwy W NPS 42: Slight increase in updated estimate due to requirement to construct and build hydrostatic test heads previous estimates assumed rentals would be available
	Construction, Testing, Surveys, and Construction Management					Minor impact due to construction schedule timing and scheduling
	Commissioning & Start-Up					No change
Don Valley Junction to Sheppard Ave						
	Land and Easements					No change
	Pipe & Coating					No change
	Valves					No change
	Induction Bends					No change
	Fittings, Flanges, Other					Bram West Options: No change New Pkwy W NPS 42: Slight increase in updated estimate due to requirement to construct and build hydrostatic test heads previous estimates assumed rentals would be available
	Construction, Testing, Surveys, and Construction Management					Minor impact due to construction schedule timing and scheduling
	Commissioning & Start-Up					No change
Total Mainline						
Facilities						
Parkway West Meter Station or Bram West Interconnect						
	Land and Easements					N/A
	Meter Runs					Removed meters at Parkway West from scope of project
	Regulation Runs					N/A
	Heating					N/A
	Odorization					N/A
	Other costs					Bram West Options: Removed all metering scope from Parkway West; Bram West New Pkwy W NPS 42: Site is shared with Parkway West Gate station - civil and electrical infrastructure allocated between both sites
	Construction and Construction Management					mechanical work New Pkwy W NPS 42: Site is shared with Parkway West Gate station - civil and electrical infrastructure allocated between Bram West Options: Commissioning included in mainline estimate for Bram West to Albion
	Commissioning & Start-Up					New Pkwy W NPS 42: Commissioning added back into Parkway West site
Parkway West Gate Station and Parkway Bypass Regulation						
	Land and Easements					No change
	Meter Runs					No change
	Regulation Runs					No change
	Heating					No change
	Odorization					half the cost would reside at Parkway West and half would reside at Albion New Pkwy W NPS 42: Assumption of half of cost of odourization due to split in Bram West Options unlikely; more likely full odourization skids will be required at Parkway W and at Albion - full cost of odourization skid included in New Parkway W NPS 42 estimate
	Other costs					Bram West Options: Civil and electrical infrastructure still required for site - all costs allocated to Gate Station New Pkwy W Option: Minor reduction as costs are allocated between the shared facility with Parkway West Initiation Point Bram West Options: Civil and electrical infrastructure still required for site - all costs allocated to Gate Station New Pkwy W Option: Costs are allocated at the shared facility between Parkway West Gate Station and Parkway West Initiation Point
	Construction and Construction Management					No change
	Commissioning & Start-Up					No change
Albion Rd Gate Station						
	Land and Easements					N/A
	Meter Runs					Bram West Options: No change New Pkwy W NPS 42: Additon custody transfer meters included in scope for path to maple
	Regulation Runs					No change
	Heating					No change
	Odorization					half the cost would reside at Parkway West and half would reside at Albion New Pkwy W NPS 42: Assumption of half of cost of odourization due to split in Bram West Options unlikely; more likely full odourization skids will be required at Parkway W and at Albion - full cost of odourization skid included in New Parkway W NPS 42 estimate
	Other costs					All Options: Increase due to added odourization scope and upgrades to metering All Options: increase due to added odourization scope and upgrades to metering
	Construction and Construction Management					Bram West Options: No Change New Pkwy W NPS 42: Additional commissioning required for additional meter station
	Commissioning & Start-Up					
Keele/CNR Feeder Station (Modifications)						
	Land and Easements					N/A
	Meter Runs					N/A
	Regulation Runs					N/A
	Heating					N/A
	Odorization					N/A
	Other costs					No Change
	Construction and Construction Management					All Options: Minor impact due to updated construction schedule and timing
	Commissioning & Start-Up					No Change
Buttonville/407 Meter and Regulation Station						
	Land and Easements					No Change
	Meter Runs					No Change
	Regulation Runs					No Change
	Heating					N/A
	Odorization					N/A
	Other costs					No Change
	Construction and Construction Management					All Options: Minor impact due to updated construction schedule and timing
	Commissioning & Start-Up					No Change
Jonesville/Eglinton Meter & Reg Station						
	Land and Easements					No Change
	Meter Runs					No Change
	Regulation Runs					No Change
	Heating					N/A
	Odorization					N/A
	Other costs					No Change
	Construction and Construction Management					All Options: Minor impact due to updated construction schedule and timing
	Commissioning & Start-Up					No Change
Total Facilities						
Base Project Cost		\$ 501,943,420	\$ 476,795,013	\$ 500,563,105	\$ 548,696,819	
Contingency		\$ 62,240,984	\$ 61,983,352	\$ 77,964,350	\$ 84,471,000	Bram West NPS 36: New risk item identified through ongoing consultation process (increased contingency from 12.4 % to 13.0%) Bram West and New Pkwy W NPS 42 Options: Reduced project definition surrounding NPS 42 option (procurement, working space, productivity)
Base Project Cost and Contingency		\$ 564,184,404	\$ 538,778,365	\$ 578,527,455	\$ 633,167,819	
Escalation		\$ 27,080,851	\$ 25,689,327	\$ 27,765,917	\$ 33,550,184	Bram West Options: No change in escalation (4.8%) New Pkwy W NPS 42: Updated escalation indices - escalation now 5.3%
Interest During Construction		\$ 11,597,123	\$ 16,422,098	\$ 17,427,559	\$ 19,796,321	All Options: Minor increase due to extended schedule
Grand Total		\$ 602,862,379	\$ 580,889,789	\$ 623,720,931	\$ 686,514,324	