Project Name: **Southwest Transitway - (Stage 2) and Pembina Highway Underpass**

Dept ID: 420755
Department: **Transit**
Project: 4230010514

Capital Priority Rating: 3 - 4
Service: Public Transit
OurWinnipeg: Environment

AUTHORIZATION	Previous Budgets	2014 Estimate	FORECAST 2015	2016	2017	2018	2019	2020	2021	2022	Eight-Year Forecast Total	Nine-Year Total
Project Costs ($000's)	-	590,000	-	-	-	-	-	-	-	-	-	590,000
Financed by:												
SW Rapid Transit Stage 2 Reserve		4,200									-	4,200
P3 Canada		140,000									-	140,000
Provincial Grant		218,650									-	218,650
2010 Provincial Grant for Roads*		6,350									-	6,350
Public Private Partnership** (City)		220,800									-	220,800
Rapid Transit Stage 2 Reserve								22,050	22,150	22,265	66,465	66,465
P3 Annual Service / Financing Payments*** (Prov)								(2,300)	(2,345)	(2,390)	(7,035)	(7,035)
P3 Annual Service / Financing Payments*** (City)								(19,750)	(19,805)	(19,875)	(59,430)	(59,430)

CASH FLOW	2014	2015	2016	2017	2018	2019	2020	2021	2022	Beyond 2022	Total
Project Costs ($000's)	2,000	19,550	16,250	-	82,900	248,500	22,050	22,150	22,265	653,109	1,088,774
Financed by:											
Rapid Transit Stage 2 Reserve (Note 1)	1,000	3,200					22,050	22,150	22,265	653,109	723,774
P3 Canada						140,000				-	140,000
Provincial Grant****	1,000	16,350	16,250		82,900	108,500				-	225,000

NET OPERATING IMPACT ($000's)	2014	2015	2016	2017	2018	2019	2020	2021	2022
Operating costs									
External debt and finance charges									
Transfer to Rapid Transit Stage 2 Reserve (Note 1)							19,750	19,805	19,875
Total Direct Costs	-	-	-	-	-	-	19,750	19,805	19,875
Less: Incremental Revenue/Recovery							19,750	19,805	19,875
Net Cost/(Benefit)	-	-	-	-	-	-	-	-	-

Note 1: The source of funding for these amounts are to be identified in the 2015 budget process and could include the allocation of cash to capital funding, property tax increase, transit fare increase or a combination of the above options.

This project is combining two projects and having them procured as a single P3 project arrangement. The Southwest Transitway (Stage 2) will increase the length of the Transitway by an additional 7.6km -- Jubilee Avenue south to the University of Manitoba. It will serve various residential, commercial, industrial, recreational and educational centres in southwest Winnipeg. The project will include the construction of several grade separations, multiple Transitway stations, and an extension to the existing active transportation path built as part of the Stage 1 Transitway project. Combined with the construction of the Transitway extension is the widening of Pembina Highway Underpass by one northbound lane, rehabilitation of the underpass and also include active transportation components.

Upon completion of Stage 2, rapid transit service will operate the full length of the 11.2 km corridor between downtown and all destinations in the southwest part of the city, including the University of Manitoba and the new Stadium. The completion of the corridor will provide significant opportunities for transit-oriented development in lands adjacent to the rapid transit stations.

The urban travel demand in southwest Winnipeg is expected to substantially increase as approved and new developments are built in southwest Winnipeg. As specified in the adopted Transportation Master Plan, rapid transit is required in this sector of the city to enable the overall urban transportation system to accommodate the growth in travel. This project will significantly improve the competitiveness of public transit by allowing transit vehicles to bypass traffic congestion in the Pembina Highway corridor, improving the speed, reliability, and comfort of the many transit routes that serve southwest Winnipeg.

Overall Project Funding (using Class 3 Cost Estimate)

City	225,000	38%
Province	225,000	38%
Federal	140,000	24%
	590,000	

Budget includes the following assumptions/provisions:

- 4 year project construction period, early 2016 to end of 2019
- Upfront Costs includes land, procurement costs, City contract administration (temporary staff), external advisors, and engineers, etc.
- Southwest Rapid Transit Stage 2 Reserve will be utilized to interim finance upfront costs as required.
- Province will agree to include upfront costs as eligible project costs.

* The 2010 Provincial Grant for Roads was previously allocated to the Pembina Highway Underpass project.

** P3 Cost paid for by City (100%) over 30 years

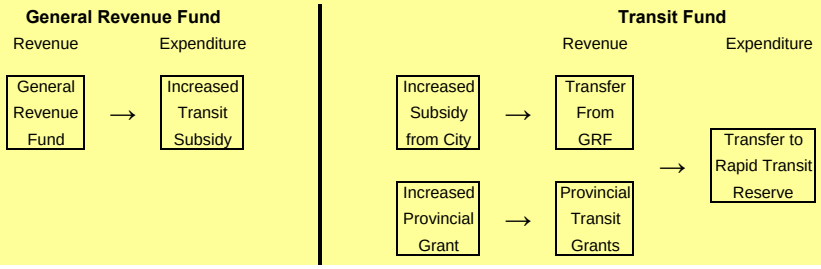
*** P3 Annual Service / Financing Payment is comprised of both P3 Construction Cost repayment and Maintenance costs both over 30 years. Transit related maintenance costs are paid for by City 50% and Province 50%

**** Provincial Grant cash flow includes contributions towards progress payments of $82.9 million each in Quarter 1 2018, and Quarter 1 2019. Remaining balance will be paid at Substantial Completion in Quarter 4 2019.

***** Previous Budgets for related projects include: $1.3 million from the Pembina Highway Underpass project, $1 million from P3 Consulting and Project Development, and a portion of $4.2 million approved for Rapid Transit Planning and Design.

- As this is a Utility project, it will not impact the tax supported P3 cap.
- Cash flow makes assumption on timing of Provincial funding which has not been confirmed.
- Increased operating costs related to bus operations would not commence until 2020 and are not presented. These costs would follow the Transit Funding Agreement with the Province of Manitoba for 50/50 cost sharing.

Operating Budget



Appendix 2

Proposed Changes to Debt Strategy

On June 22, 2011, Council adopted a Debt Strategy report for tax supported, utilities and total City borrowing. Increasing the City's long term debt obligations via a P3 model will impact the Council-approved Debt Strategy. This project will entail a P3 debt obligation in the amount of approximately $221 million, which will increase the City's forecasted long-term debt position.

Transit is not wholly dependent on tax-supported revenue (the tax supported grant represents approximately 28% of Transit's 2014 budget). As a result, this report is recommending that Transit be moved from the Tax-supported category to a Utilities & Other category in the Debt Strategy.

The impact of this debt financing requires an amendment to the debt per capita thresholds as noted in the table below. The debt strategy is currently under review and a further report is being prepared to revise the debt strategy for the next 5 to 6 years.

	Existing Thresholds		**Proposed Thresholds**		**Forecasted Peak**	
Debt Strategy Ratios	**Self-supporting Utilities**	**Total City**	**Utilities & Other**	**Total City**	**Utilities & Other**	**Total City**
Net debt as a % of revenue	220%	85%	No change		138.4%	76.9%
Debt servicing as a % of revenue	20%	11%	No change		12.4%	7.0%
Debt per capita	$ 950	$ 2,050	$ 1,300	$ 2,400	$1,085	$ 2,047
Note: The forecasted peak includes the P3 obligation associated with the Southwest Transitway - (Stage 2) and Pembina Highway Underpass Project.						

No Changes to P3 Cap

On December 15, 2009, Council adopted the following recommendation: "That annual lease/service payments and debt servicing costs for tax supported public private partnerships be funded annually up to a maximum of 30% of the cash to capital contribution and the federal gas tax." This cap relates to "tax supported" P3s, and as a result, does not apply to this project.

Appendix 3

Project Benefits - Capital Integration

Reduction in Traffic Congestion

According to the TMP, a 50% increase in traffic during the morning rush hour is anticipated by 2031. This will result in “choke points” where travel demand will significantly exceed capacity. By having the Southwest Transitway provide an attractive alternative to driving, a resulting decrease in the growth of traffic volumes along the route can significantly reduce future congestion levels. Improvements to travel times are expected to accrue to both drivers and rapid transit users as transit vehicles will operate on a dedicated route separated from the major arterial road.

Increased Transit Ridership

Stage 2 will increase the length of the transitway from 3.6 kilometres to 11.2 kilometres and permit buses to bypass significant traffic congestion on Pembina Highway, as well as into and out of the University of Manitoba. With the improvements in speed and reliability for the existing rapid transit routes, combined with population growth, ridership along existing rapid transit routes is expected to grow by an additional 12% to 15% over the initial years following construction.

Increased transit ridership (modal split) is supportive of the Key Direction within the Transportation Master Plan which states that “Expansion of Winnipeg’s transit network and services will enhance transit as a mode choice if it provides good coverage and a basic level of service to all areas of the City and an effective network of rapid transit.”

Improved Transit Travel Times

The 2005 Rapid Transit Task Force’s “Made in Winnipeg” report cites reductions in travel of time of 16% in Vancouver and 29% in Los Angeles following the implementation of rapid transit routes, primarily attributable to higher travel speeds, on-street transit priority measures, dedicated busways, and fewer stops.

The Stage 1 of the Southwest Transitway yielded travel time savings of 4-8 minutes on trips between the centre of Downtown and the University of Manitoba, with greater time savings being realized during peak periods. Given the greater length of Stage 2, it is expected that 5-8 minutes of time savings will result from the construction of Stage 2, depending on the time of day.

Although difficult to quantify, substantial time savings will be realized for events at Investors Group Field (IGF). Under the current arrangement, buses departing must contend with fans leaving the stadium, as well as the significant amount of game-day traffic on the regular street system. The proposed design of Stage 2 would completely separate transit passengers and transit buses from the rest of the system, resulting in significant improvements in travel times. Buses would depart from IGF on a bus-only transitway through the Southwood Lands to connect with Pembina Highway and the rest of the Southwest Transitway.

Improved Transit Service and Schedule Reliability

Public workshop discussions conducted in January and February 2005 as part of the development of the “Made in Winnipeg” report revealed that the key weaknesses of Winnipeg’s transit service related to the frequency of buses, comfort of stops, and timing of buses.

In response to the report, a Transit Improvement Program implemented several initiatives to improve the speed, reliability, comfort, accessibility and convenience of on-street transit service in the Quality Corridors. However, the “Made in Winnipeg” report also identified that dedicated transitways provide the greatest opportunity for transit vehicles to achieve faster travel times and meet posted schedules, resulting from the limitation/removal of interference by other traffic. This results in the highest degree of service reliability within these corridors, especially when coupled with automatic vehicle location and real-time passenger information at stations.

The Stage 1 of the Southwest Transitway provides all these features, including high speeds, high reliability, attractive and comfortable stations, state-of-the-art buses, and real-time passenger information. High frequency service is provided throughout the day on all days of the week, ranging from 45 buses per hour per direction during weekday peak periods, and 7 to 8 buses per hour per direction during evenings. Due to the high operating speeds on a fully built-out transitway, increased frequencies can be operated with only a modest increase in fleet size to carry the additional ridership that is expected after the Stage 2 Project is completed.

With the extension of the transitway to Investors Group Field (IGF), event-day service will improve substantially as buses would no longer share the roadway with other traffic. Currently, over 30% of people who attend events at IGF use transit to travel to and from the stadium.

Transit-Oriented Development

The development of BRT corridors presents an opportunity for Transit-Oriented Development (TOD), which is consistent with OurWinnipeg. Winnipeg’s TOD Handbook, which guides and facilitates mixed-use, pedestrian-oriented infill development along rapid transit corridors and high-frequency transit corridors, defines TOD as follows: “Moderate to higher density compact mixed-use development, located within an easy five to ten minute (approximately 400m to 800m) walk of a major transit stop. TOD involves high quality urban development with a mix of residential, employment and shopping opportunities, designed in a pedestrian oriented manner without excluding the automobile. TOD can be new construction or redevelopment of one or more buildings whose design and orientation facilitate the use of convenient and sustainable modes of transportation, including public transit and Active Transportation.”

Forecasts of population and employment growth based on current development trends show that there will be continued pressure to grow outward. This will result in travel flows becoming more dispersed in the future, adding stresses to an already overburdened transportation system. Major employment developments and continued expansion of industrial areas in the outer areas will shift travel from traditional destinations such as Downtown. OurWinnipeg highlights a key goal of the City to be “[accommodating] a greater proportion of the City’s future growth within the existing built boundary. This would be accomplished through redevelopment and intensification in the City’s transit-supportive land use areas. Increasing transportation choice to and from these areas will be essential to encourage growth.” Creating infrastructure that supports TOD is therefore not only a key strategic priority of the City, but also represents a

significant opportunity to shape the City's growth over the future and to limit urban sprawl by encouraging compact urban development that is more easily serviced by transit.

Along the Stage 2 alignment, there are three areas identified in OurWinnipeg as major development sites, for which TOD plans are currently being developed: the Parker Lands, the Sugarbeet Lands, and the Southwood Lands. TOD development has already begun along Stage 1, with the Yards at Fort Rouge (under construction) and the Winter Club land opposite Harkness Station (proposed).

Revitalisation of Downtown

Winnipeg's downtown area has seen significant revitalisation in recent years through developments including the Graham Transit Mall, MTS Centre, Manitoba Hydro Place, and Centrepoint. In addition, existing parking lots within the developing "Sports, Hospitality and Entertainment District" (SHED) are being converted into higher-value uses, such as SoPo Square, SkyCity Centre, and the expansion of the RBC Convention Centre.

In revitalising the downtown landscape, these developments result in a reduction to the availability of parking spaces in the area. A reliable rapid transit service operating via the Graham Transit Mall into the heart of Winnipeg's downtown area will provide a viable and less expensive alternative to commuters while enhancing citizens' access to the revitalised downtown area. The revitalisation of Winnipeg's downtown area is consistent with Key Strategic Goal One within the within the Transportation Master Plan, which envisions "a transportation system that is dynamically integrated with land use."

Reduction in Greenhouse Gas Emissions

According to the Institute for Transportation & Development Policy, vehicle emissions are the fastest growing source of greenhouse gas emissions worldwide, and currently represent 24% of greenhouse gas emissions from fossil sources. The implementation of a rapid transit system offers significant opportunities for reductions in greenhouse gas emissions as users shift from high-consumption private automobiles to public transit and active transportation travel modes. Operating efficiencies within a BRT system resulting from higher operating speeds can also allow fewer buses to serve a greater number of passengers.

Reductions in greenhouse gas emissions are consistent with Key Strategic Goal Six within the Transportation Master Plan, which envisions "a transportation system that reduces its greenhouse gas emissions footprint and meets or surpasses climate change and emissions reduction goals set by the City and the Province."

Local Economic Impacts

In addition to the transit-oriented development opportunities described above, the development of the Project would have numerous favourable effects to the local Winnipeg economy resulting from local materials and equipment purchases, construction/contractor involvement, and other spin-off activity stemming from the development. It is estimated that the construction of Stage 2 of the Southwest Transitway could result in up to 3100 person-years of employment, with an additional 800 person-years during the 30 year maintenance period.

Lastly, the facilitation of downtown accessibility and revitalization, improved travel times and schedule reliability, and improved traffic flow through a major arterial roadway, each contribute toward further growth and productivity within the City.

Appendix 4

P3 Model and Benefits

As defined by PPP Canada, a P3 is a long-term performance-based approach to procuring public infrastructure where the private sector assumes a major share of the risks in terms of financing and construction and ensuring effective performance of the infrastructure, from design and planning, to long-term maintenance.

In practical terms, this means that:

- Governments do not pay for the asset until it is built, or at least until major construction milestones are reached;
- A substantial portion of the cost is paid over the life of the asset and only if it is properly maintained and performs according to specifications; and
- The costs are known upfront and span the life-cycle of the asset, meaning that taxpayers are not on the financial hook for cost overruns, delays or any performance issues over the asset's life.

There are several different models of P3, depending on the amount of private sector involvement. These include:

- Design-Build (DB) - where the private sector designs and builds the project for a set cost, but is not involved in any other aspect of the project. In this case, milestone payments are made as the project progresses through the design and construction phases. Full and final payment is made when construction is complete.
- Design-Build-Finance (DBF) – where the private sector designs and builds the project for a set cost, and also finances the design and construction of the project. Payments are generally only made once the project is complete, and possibly during a set period after construction.
- Design-Build-Finance-Maintain (DBFM) – where the private sector designs and builds the project at a set cost, and also finances the design and construction. The private sector also agrees to maintain the infrastructure over a set concession period (generally 20-30 years), and then turn the infrastructure back over the city in as-new condition when the concession period ends.
- Design-Build-Finance-Operate-Maintain (DBFOM) – where the private sector designs and builds the project at a set cost, finances the design and construction, and then operates the asset. The private sector agrees to both operate and maintain the infrastructure over a set concession period (generally 20-30 years), and then turn the infrastructure back over the city in as-new condition when the concession period ends.

The model being considered for this project is a DBFM. According to PPP Canada's funding model, only DBFM and DBFOM offer the necessary transfer of risk to the private sector for the project to be eligible for funding.

P3s can have several advantages over conventional procurement models, including:

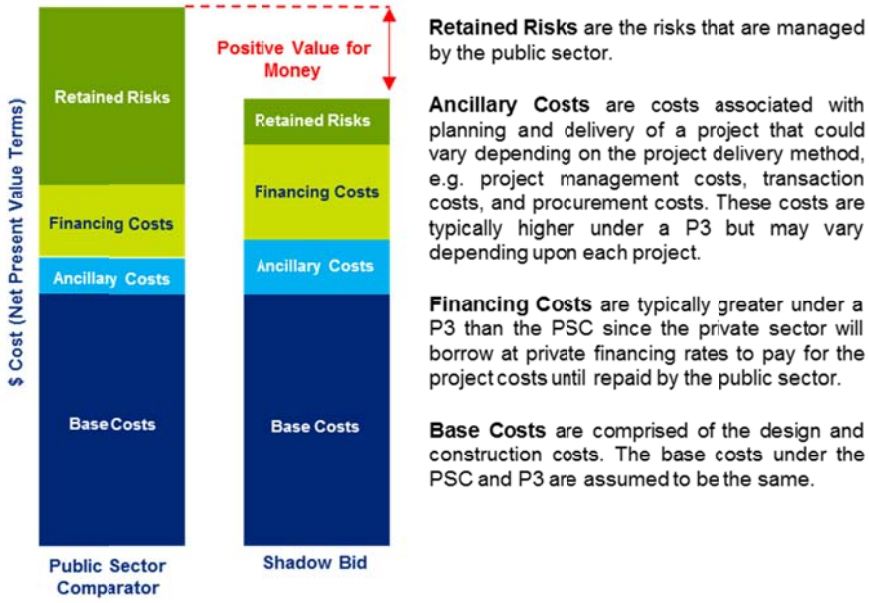
- the lifecycle of the infrastructure is considered (under a DBFM), ensuring the asset is maintained in top condition
- private sector capital is at risk throughout the project, ensuring the most efficient and cost-effective methods of project planning, construction, financing and maintenance

- innovative construction techniques

A key component of a P3 is the Value for Money (VFM) analysis. This analysis compares the P3 model to a conventional public sector procurement model to show the expected cost savings of using a P3. The VFM for this Project compared the following costs for both a P3 DBFM model, and a standard public sector comparator design-bid-build (PSC DBB) model:

- Ancillary Costs
- Risk Premium
- Financing Costs
- Retained Risk

Below is a graph showing the typical breakdown of costs and savings that provide value for money in a P3 project:



The model being recommended for this project is the DBFM. A DBFM offers the necessary risk transfer required for PPP Canada funding, but it excludes the operation of transit service by the private partner, something that was not considered a viable option for the City.

FUNDING SOURCES

Southwest Transitway (Stage 2) and Pembina Highway Underpass

Costs Estimates are in $ millions	already received & committed	2016	2017	2018	2019	Cash Component **Total**	Annual Payments **2020**
Federal Government (all Cash)							
- PPP Canada, Completion Payment					$140.0	**$140.0**	
Province of Manitoba (all Cash)						**$225.0**	
- Progress Payments (first quarter)				$82.9	$82.9		
- Upfront Cost & Completion Payment	$11.0	$16.3			$25.6		
- 2010 Provincial Grant for Roads	$6.3						
- 50% of P3 Op. & Maint. (30 years)							$2.3
City of Winnipeg (Annual Payments)							
- Cash to Project		$4.2				**$4.2**	
- P3 Lease Payments (Construction)							$16.5
- 50% of P3 Op. & Maint. (30 years)							$3.2

City of Winnipeg total P3 Lease Payment for 2020 is estimated to be $19.3 million

Operation and Maintenance P3 Payment increase with inflation.

Province expected to cost share Transit relatedOperation and Maintenance P3 Payments: 50% City, 50% Province

P3 Lease Payments are for 30 Years

Project's Construction Financing	
PPP Canada (Cash)	$140.0
Province of Manitoba (Cash)	$225.0
City of Winnipeg (Cash)	$4.2
P3 Private Sector Debt (City)	$220.8
Total P3 Construction Cost	**$590.0**

Appendix 6 - Proposed Staffing Plan

In order to properly execute the project, a complement of project staff is needed.

Temporary Positions at Winnipeg Transit

	Complement Inclusion Dates						
Position	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
Project Manager	√	√	√	√	√	√	√
Project Engineer	√	√	√	√	√	√	√
Lawyer	√	√	√				
Project Accountant	√	√	√	√	√	√	√
Transit Planner	√	√	√	√	√	√	√
Transit Scheduler				√	√	√	

All Temporary positions to be funded by the capital project.
Although the position of "Lawyer" is shown as being part of the project team at Winnipeg Transit, the actual position will reside within Legal Services.

Permanent Positions at Corporate Finance

P3 Coordinator	Commencing in 2014

This one permanent position will be funded through contributions from various P3 projects under its administrative oversight.