CITY OF FORT SASKATCHEWAN
AGENDA

Regular Council Meeting
Tuesday, October 27, 2015 – 6:00 P.M.
Council Chambers – City Hall

6:00 P.M.	1.	**Call to Order**	Mayor Katchur
	2.	**Approval of Minutes of October 13, 2015 Regular Council Meeting**	(attachment)
	3.	**Delegations**	
(10 min.)	3.1	City Utility Bills	Trina Scott (attachment)
		Those individuals in attendance at the meeting will be provided with an opportunity to address Council regarding an item on the agenda, with the exception of those items for which a Public Hearing is required or has been held. Each individual will be allowed a maximum of five (5) minutes.	
	4.	**Presentation**	
(15 min.)	4.1	Fort Air Partnership Update	Nadine Blaney, Executive Director, Fort Air Partnership (attachment)
(10 min.)	4.2	Life in the Heartland Update	Vanessa Goodman, Chair, Life in the Heartland (attachment)
	5.	**Unfinished Business**	
	6.	**New Business**	
	6.1	Local Transit Pilot Project – Final Report	Ian Gray (attachment)
	7.	**Bylaws**	
	8.	**Notice of Motion**	
	9.	**Adjournment**	

CITY OF FORT SASKATCHEWAN
MINUTES
REGULAR COUNCIL
Tuesday, October 13, 2015 - 6:00 PM
Council Chambers – City Hall

Present:
Members of Council:
Mayor Gale Katchur
Councillor Birgit Blizzard
Councillor Frank Garritsen
Councillor Stew Hennig
Councillor Arjun Randhawa
Councillor Ed Sperling

Administration:
Kelly Kloss, City Manager
Troy Fleming, General Manager, Infrastructure & Community Services
Brenda Rauckman, General Manager, Corporate & Protective Services
Brenda Molter, Director, Legislative Services
Wendy Kinsella, Director, Communications and Marketing
Reade Beaudoin, Digital Media Coordinator
Sheryl Exley, Recording Secretary

Absent:
Councillor Sheldon Bossert

1. Call to Order

Mayor Katchur called the regular Council Meeting of October 13, 2015 to order at 6:00 p.m.

2. Approval of Minutes of September 8, 2015 Regular Council Meeting

R167-15 MOVED BY Councillor Blizzard that the minutes of the September 8, 2015 regular Council Meeting be adopted as presented.

In Favour: Gale Katchur, Frank Garritsen, Stew Hennig, Arjun Randhawa, Birgit Blizzard, Ed Sperling

Absent: Sheldon Bossert

CARRIED UNANIMOUSLY

3. Delegations

None.

4. Unfinished Business

None.

5. New Business

5.1 Family & Community Support Services Board Appointment

R168-15 MOVED BY Councillor Garritsen that Council approve the appointment of Brandon Harel-Watson to the Family & Community Support Services Board for the balance of a two-year term commencing October 14, 2015 and expiring on December 31, 2016.

In Favour: Gale Katchur, Frank Garritsen, Stew Hennig, Arjun Randhawa, Birgit Blizzard, Ed Sperling

Absent: Sheldon Bossert

CARRIED UNANIMOUSLY

6. Bylaws

6.1 Bylaw C21-15 - Subdivision & Development Appeal Board Bylaw - 3 readings

R169-15 MOVED BY Councillor Sperling that Council give first reading to Bylaw C21-15 for the City of Fort Saskatchewan Subdivision and Development Appeal Board.

In Favour: Gale Katchur, Frank Garritsen, Stew Hennig, Arjun Randhawa, Birgit Blizzard, Ed Sperling

Absent: Sheldon Bossert

CARRIED UNANIMOUSLY

R170-15 MOVED BY Councillor Sperling that Council give second reading to Bylaw C21-15 for the City of Fort Saskatchewan Subdivision and Development Appeal Board.

In Favour: Gale Katchur, Frank Garritsen, Stew Hennig, Arjun Randhawa, Birgit Blizzard, Ed Sperling

Absent: Sheldon Bossert

CARRIED UNANIMOUSLY

R171-15 MOVED BY Councillor Sperling that Council provide unanimous consent to proceed with third and final reading of Bylaw C21-15 for the Subdivision and Development Appeal Board for the City of Fort Saskatchewan.

In Favour: Gale Katchur, Frank Garritsen, Stew Hennig, Arjun Randhawa, Birgit Blizzard, Ed Sperling

Absent: Sheldon Bossert

CARRIED UNANIMOUSLY

R172-15 MOVED BY Councillor Sperling that Council give third reading to Bylaw C21-15 for the City of Fort Saskatchewan Subdivision and Development Appeal Board.

In Favour: Gale Katchur, Frank Garritsen, Stew Hennig, Arjun Randhawa, Birgit Blizzard, Ed Sperling

Absent: Sheldon Bossert

CARRIED UNANIMOUSLY

7. Notice of Motion

None.

8. Adjournment

R173-15 MOVED BY Councillor Hennig that the regular Council Meeting of October 13, 2015 adjourn at 6:13 p.m.

In Favour: Gale Katchur, Frank Garritsen, Stew Hennig, Arjun Randhawa, Birgit Blizzard, Ed Sperling

Absent: Sheldon Bossert

CARRIED UNANIMOUSLY

_____
Mayor

_____
Director, Legislative Services

CITY OF FORT SASKATCHEWAN

RECEIVED
OCT 21 2015
Leg. Services

Council Meeting Presentation and Delegation Request

Completed requests to make a formal presentation must be received by 12:00 noon on the Wednesday immediately prior to the scheduled meeting.

Topic of Discussion	
Date of Council Meeting	~~OCTOBER 13 2015~~ OCTOBER 27, 2015
Name of Presenter(s)	TRINA SCOTT
Organization Represented	CITIZENS OF FORT SASKATCHEWAN
Topic	WATER UTILITY BILLS
Is your Presentation for:	☐ Information Only ☑ Request of Council
Time Required (Please specify if your presentation will exceed 10 minutes.)	10 MINUTES
If applicable, Action Being Requested of Council (You can attach a separate letter to explain your request in greater detail.)	* FOR COUNCIL TO INITIATE AN INVESTIGATION INTO WATER UTILITY ANOMOLIES. * FOR COUNCIL TO BEGIN MONTHLY BILLING * TO HALT DISCONNECTIONS UNTIL THE MATTER IS DEALT WITH.
Please List Specific Points/Concerns	1. OUTRAGEOUS WATER BILLS AS ANOMOLIES BEING BLAMED ON LEAKS, THEFT, OR USAGE 2. TENANTS BEING UNABLE TO ADDRESS THEIR OWN ACCOUNTS.
Contact Information	
Contact Person:	TRINA SCOTT
Mailing Address:	[redacted]
Daytime Telephone Number:	[redacted]
Alternate Telephone Number:	[redacted]
E-mail Address:	[redacted]

Completed forms should be submitted to the following: Legislative Services

CITY OF FORT SASKATCHEWAN

Fort Air Partnership Update

Purpose:

Ms. Nadine Blaney, Executive Director, Fort Air Partnership (FAP) will be in attendance to provide an update to members of Council and Administration on FAP's activities and network changes.

Action Required:

That Ms. Nadine Blaney be thanked for her presentation.

Attachment:

Appendix A – FAP's PowerPoint Presentation.

File No.:

Prepared by:	Sheryl Exley Legislative Officer	Date: October 21, 2015
Approved by:	Brenda Molter Director, Legislative Services	Date: October 22, 2015
Approved by:	Brenda Rauckman General Manager, Corporate & Protective Services	Date: October 22, 2015
Reviewed by:	Kelly Kloss City Manager	Date: October 22, 2015
Submitted to:	City Council	Date: October 27, 2015

FORT AIR PARTNERSHIP

We Monitor the Air You Breathe

Presentation to Fort Saskatchewan City Council

Nadine Blaney, FAP Executive Director

October 27, 2015

Who We Are

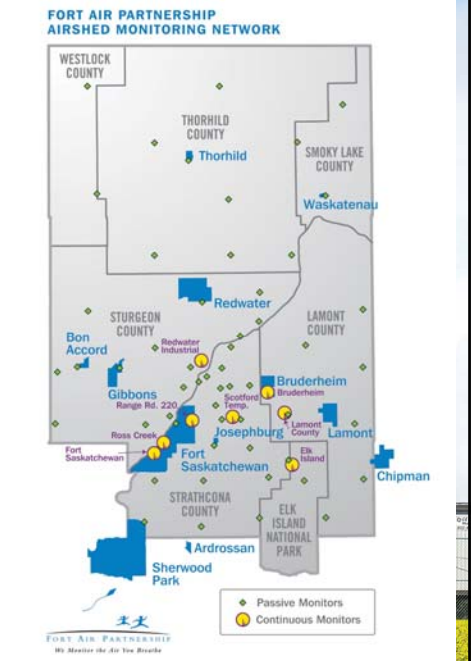
- Independent, transparent, non-profit, multi-stakeholder group. Established in 1997.
- Board composed of public, industry and government representatives
- Funded by industry, province and municipalities
- Mission: *Operate a regional network to monitor and report on credible and comprehensive ambient air quality information.*

Network

Boundary: 4500 km^2

Monitoring Sites:

- 8 continuous (expanding to include 9 Stations and possibly a Portable in 2016)
- 55 passive sites



What We Enable

- Everyone has access to the same data.
- Everyone hears the same messaging about air quality.
- Decisions are made collectively using the same data.
- Discussions include all interested stakeholder parties.
- Decisions are made by consensus. This allows implementation of decisions not possible if groups work in silos.

Monitoring Plan Implementation Update

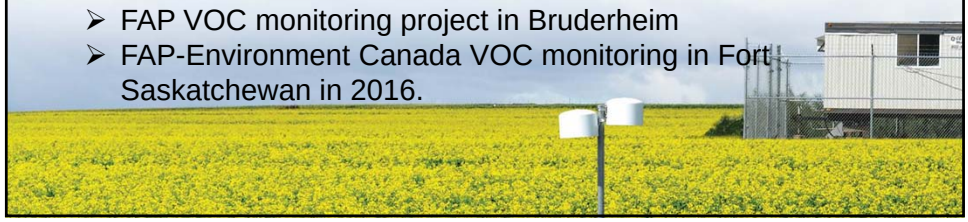
A. Gibbons Monitoring Station
B. Portable Monitoring Station
C. Redwater Site Selection Project
D. Upgrade Particulate Matter$_{2.5}$ ($PM_{2.5}$) technology
E. Volatile Organic Compounds (VOCs) Monitoring Project

Current Activities: Alberta Airsheds Council

- Alberta Airsheds Council represents all nine Airsheds in Alberta
  - FAP is a leading member of the Council
  - At request of AEMERA, AAC is developing an air monitoring system for the entire province.
    - Includes building a sustainable funding formula and filling monitoring gaps.
  - AAC is also working collaboratively with the Clean Air Strategic Alliance (CASA).
  - Currently developing MOUs with both AEMERA and CASA.

Current Issue: Study claiming high benzene levels in Industrial Heartland

- University of California-Irvine research three day study found high levels of benzene in the Industrial Heartland in July 2012.
- Facts:
  - FAP monitors benzene 24/7 at one station. Exceedances of provincial one-hour standard were as follows:
    - 2010 - 0
    - 2011 - 2
    - 2012 - 1
    - 2013 - 0
    - 2014 - 5
    - 2015 - 2 to-date
  - FAP VOC monitoring project in Bruderheim
  - FAP-Environment Canada VOC monitoring in Fort Saskatchewan in 2016.



Current Issue: Claims that Air Quality in Alberta is worse than the rest of Canada

- Canadian Ambient Air Quality Standards report on ozone and particulate matter ($PM_{2.5}$) suggests bad air quality in Red Deer and elsewhere in Alberta.
- Facts:
  - CAAQS report used data collected by Airsheds.
  - CAAQS is a federal standard and reports against annual and 24 hour standards using three year averages. This is meant to inform long term management strategies for a region.
  - FAP reports against on one hour and 24 hour provincial standards and provides data to calculate the Air Quality Health Index – which informs people what they are being exposed to in real time.

FAP Particulate Matter Exceedances

	2014		2013		2012		2011		2010	
	1-hr	24-hr	1-hr	24-hr	1-hr	24-hr	1-hr	24-hr	1-hr	24-hr
Bruderheim	1	5	3	5	19	4	22	6	50	13
Elk Island	0	1	0	0	0	0	3	1	19	4
Fort Saskatchewan	9	3	8	4	3	3	10	5	43	7
Lamont County	2	2	0	1	3	0	3	0	37	10
Redwater Industrial	1	1	4	1	3	0	9	2	34	5
Total	13	12	15	11	28	7	47	14	183	39

Air Quality Health Index: 2014 results

Station Name	AQHI Hours Monitored (out of 8784)	Low Risk	Moderate Risk	High Risk	Very High Risk
		%	%	%	%
Bruderheim	8443	95.45	4.50	0.05	0
Elk Island	8244	98.51	1.49	0	0
Fort Saskatchewan	8377	93.48	6.87	0.12	.04
Lamont County	8404	96.80	3.11	0.10	0

Air Quality Health Index: 2014 results

	FAP Air Monitoring Station – High or Very High AQHI readings					
Dates	**Bruder-heim**	**Elk Island**	**Fort Sask.**	**Lamont County**	**Total Hours**	**Probable Cause**
Feb 10				1	1	Temperature inversion
Feb 26			1		1	Temperature inversion
July 11	2			3	5	Forest fire smoke
Nov 13-14	2		6	4	11	Temperature inversion
Dec 27			4		4	Temperature inversion
Total Hours	4	0	10	8	22	

Current Activities: Capital Region Fine Particulate Matter Response Plan

- FAP involved in developing and implementing Capital Region Fine Particulate Matter Response Plan, along with two other Airsheds, industry, municipalities and the provincial government.
- Goal: Reduce and maintain ambient fine particulate matter below the Canadian Ambient Air Quality Standards Exceedance Level at all monitoring stations within the Capital Region.
- This will be done by managing emissions that contribute to the formation of fine particulate matter. The response plan includes actions for both government and stakeholders.


www.fortair.org
Contact: Nadine Blaney, FAP Executive Director
E-mail: Nadine.Blaney@fortairmail.org
Phone: 780-289-6631

CITY OF FORT SASKATCHEWAN

Life in the Heartland Update

Purpose:

Ms. Vanessa Goodman, Chair, Life in the Heartland will be in attendance to provide an update to members of Council and Administration on Life in the Heartland and its recent resident survey.

Action Required:

That Ms. Vanessa Goodman be thanked for her presentation.

Attachment:

1. Appendix A – Life in the Heartland's PowerPoint Presentation.
2. Appendix B – Municipal Presentation Summary

File No.:

Prepared by:	Sheryl Exley Legislative Officer	Date: October 21, 2015
Approved by:	Brenda Molter Director, Legislative Services	Date: October 22, 2015
Approved by:	Brenda Rauckman General Manager, Corporate & Protective Services	Date: October 22, 2015
Reviewed by:	Kelly Kloss City Manager	Date: October 22, 2015
Submitted to:	City Council	Date: October 27, 2015

Life IN THE HEARTLAND

Communicating with Community

Life in the Heartland Update & Survey Results

Fort Saskatchewan
2015

Life IN THE HEARTLAND

Communicating with Community

Overview

- Launched in 2009
- Funded by five partner organizations
- Goal: Provide a coordinated approach to improve access to information, resources, and contacts about industrial operations and development.

Alberta's Industrial Heartland

Land Trust Society

Fort Air Partnership

NORTHEAST REGION caer

NCIA Northeast Capital Industrial Association

Life IN THE HEARTLAND

Communicating with Community

Over the past 6 years, we've been communicating with the community about:

- industrial development & operations
- environmental monitoring & management
- transportation
- emergency response….and more

Life IN THE HEARTLAND

Communicating with Community

Heartland Area Survey

- Formal telephone survey of 400 people
- Conducted in June 2015
- Goal: Examine awareness & perceptions of industry-related topics
- Results were compared to similar survey conducted in 2011

Life IN THE HEARTLAND

Communicating with Community

Sources of Information

2011	2015
1. Newspaper	1. Local newspaper (85%)
2. Television news	2. Edmonton radio/TV (68%)
3. Family/friends	3. Local radio (53%)
4. Internet	4. Word of mouth (47%)
	5. Edmonton newspaper (44%)
	6. Enewsletters/websites (43%)
	7. Open houses/events (39%)
	8. Social media (30%)

* Ranked in order of importance

Life IN THE HEARTLAND

Communicating with Community

Important Issues Facing Region

2011	2015
1. Health care	1. Air quality
2. Power lines	2. Traffic issues
3. Infrastructure/roads	3. Infrastructure
4. Education	4. Environmental concerns
5. Unemployment	5. Too much development
6. Snow removal	6. Refineries/plants

* Ranked in order of importance

Life IN THE HEARTLAND

Communicating with Community

Interest in Industrial Development

2011 → **2015**

68% follow very or somewhat closely

72% follow very or somewhat closely

Fort Saskatchewan:
72% follow very or somewhat closely

Life IN THE HEARTLAND

Communicating with Community

Interest in Specific Topics

2011 → **2015**

1. Air quality
2. Water quality
3. Transportation & roads
4. Land use planning

1. Safety/emergency response (75%)
2. Air quality (74%)
3. Water quality (73%)
4. Land use planning (67%)

* Ranked in order of interest

Life IN THE HEARTLAND

Communicating with Community

Management of Specific Topics

Overall	Fort Sask
	* Indicated >% than overall
1. Safety/emergency resp	1. Safety/emergency resp*
2. Water quality/quantity	2. Water quality/quantity*
3. Industrial noise	3. Industrial noise*
4. Industrial light	4. Industrial light*
5. Air quality	5. Air quality
WORST: Transportation	WORST: Transportation*

Life IN THE HEARTLAND

Communicating with Community

Knowledge of Life in the Heartland

2011	2015
Heard of Life in the Heartland	
30% overall	33% overall 39% of Fort Saskatchewan
Know our Role	
0% knew role	28% knew role 26% of Fort Saskatchewan

Life IN THE HEARTLAND

Communicating with Community

How can WE help YOU?

Frequency	Resource
Continuous	Facebook, Twitter, Website
1x/month	Heartland 101
3x/year	Newsletter
2x/year	Community Information Evening
1-2x/year	Advertising series

Life IN THE HEARTLAND

Communicating with Community

Contact

Vanessa Goodman, Chair

info@lifeintheheartland.com
lifeintheheartland.com

/LifeintheHeartland
@LifeinHeartland

#ABHeartland

Alberta's Industrial Heartland | Alberta's Industrial Heartland Land Trust Society | Fort Air Partnership | Northeast Region CAER | NCIA Northeast Capital Industrial Association

Life IN THE HEARTLAND
www.lifeintheheartland.com

Appendix B

Communicating with Community

KEEPING YOUR COMMUNITY INFORMED

***Life in the Heartland** is a partnership of five organizations improving access to information and resources for local communities in and around Alberta's Industrial Heartland.*

ABOUT US

- Launched in 2009
- Funded by the 5 partner organizations
- Communicate through events, media, online, and presentations
- Topics include industrial development, environmental monitoring & management, safety, transportation, land use planning

WE CONNECT WITH

- Local residents
- Local organizations
- Government (local municipal & MLAs)
- Media
- Industry

PEOPLE ARE CURIOUS

72%	75%	70%	85%	34%
Follow **industrial activity** close or somewhat close	Are interested in **safety & emergency response** (top ranked topic)	Recall **seeing/hearing information** in the past year about environment & development	Rank **local newspaper** as very or somewhat important source of information (top ranked source)	Have attended a **Community Information Evening** (second ranked resource behind local newspapers)

PEOPLE HAVE OPINIONS

Best Managed	Worst Managed	Air Quality	In an Emergency	Life in the Heartland
Safety & emergency response had the most Excellent or Good rankings	**Transportation** had the most Poor or Somewhat Poor rankings	The majority of people (58%) rated **air quality** in the region as Excellent or Good	People rely on **local media, alert systems, and their local municipality** for information	28% knew the **role of Life in the Heartland**, compared to 0% in the 2011 survey

CONTACT US

Stay up to date by following us on social media, attending our Community Information Evenings, subscribing to our 3x per year newsletter, or checking out our website.

www.lifeintheheartland.com
info@lifeintheheartland.com

Twitter: @LifeinHeartland
Facebook: Life in the Heartland

Alberta's Industrial Heartland · Alberta's Industrial Heartland Land Trust Society · Fort Air Partnership · NCIA Northeast Capital Industrial Association · Northeast Region CAER

Oct-2015

CITY OF FORT SASKATCHEWAN

Local Transit Pilot Project – Final Report

Motion:

That Council receive the Transit Pilot Project Report as information and for consideration during the 2016 budget deliberations.

Purpose:

To provide Council with an analysis of the Local Transit Pilot Project and provide local transit service options for Council's consideration.

Background:

The City of Fort Saskatchewan has been providing commuter transit services to residents for several years as a way to help provide a public transit link from Fort Saskatchewan to Edmonton. During the 2014 budget deliberations, Council supported improvements to the Fort Saskatchewan Transit System by testing the feasibility of a local transit service.

A Transit Pilot Project was initiated in April, 2014 and included a focused commuter route from the Dow Centennial Centre to Edmonton's Clareview LRT Station, a separate local route that would support the commuter route, a Student Upass companion program, and extended operating hours.

The Pilot Program is scheduled to be complete on December 31, 2015.

In August, 2015 WSP/Parsons Brinckerhoff was contracted to undertake a review of the Pilot Project and prepare a report for Council's consideration. The key objective was to review the current local transit pilot and provide service options for Council's consideration. Several factors were examined in great detail including the factors affecting how a service should be designed for the City, possible service level modifications, and a detailed look at costs.

The Review has identified three primary options for Council's consideration:

- Commuter service only (no FTS)
- Expanded commuter service only (no FTS)
- Modified existing local transit and commuter service

Each option comes with its own advantages and disadvantages, service and cost implications. Based on Council's direction, Administration will finalize a budget that will provide all associated costs for Council's consideration during the 2016 budget process. Implementation schedules will be highly dependent on which option is chosen by Council. Should Council choose to retain a local transit service in addition to the commuter service, Administration will report back by the end of March 2016 with an implementation plan.

At this point, Administration's recommendation is to continue to contract with City of Edmonton ETS for the commuter service. We are not able to utilize ETS or any other transit provider for a localized transit service due to insurance issues.

Plans/Standards/Legislation:

Goal 1.10 – Position for Growth: Review the results from the transit pilot and implement a program based on the findings.

Financial Implications:

The attached report provides options and a portion of the financial impact for those various options, however not all cost implications to the City are included. At the October 27, 2015 Council meeting the Director of Infrastructure Management will outline the additional costs and resources needed to realize the operating projections in addition to those outlined by the consultants.

Internal Impacts:

Subject to Council's service level selection, Administration will bring forward more detailed resource requirements.

Alternatives:

1. That Council receive the Transit Pilot Project Report as information and for consideration during the 2016 budget deliberations.
2. That Council advise how they wish to proceed.

Recommendation:

That Council receive the Transit Pilot Project Report as information and consideration during the 2016 budget deliberations.

Attachment:

Appendix A - Fort Saskatchewan Transit – Pilot Project Review Final Report.

File No.:

Prepared by:	Ian Gray Director	Date:	October 21, 2015
Approved by:	Troy Fleming General Manager, Infrastructure & Community Services	Date:	October 22, 2015
Reviewed by:	Kelly Kloss City Manager	Date:	October 23, 2015
Submitted to:	City Council	Date:	October 27, 2015

Appendix A

CITY OF FORT SASKATCHEWAN

Fort Saskatchewan Transit – Pilot Review

Draft Report

WSP | PARSONS BRINCKERHOFF

October 22, 2015

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Executive Summary

I. Introduction

To help the City of Fort Saskatchewan (the City) meet the growing travel needs of the community effectively and sustainably, a study was initiated in 2011 to examine Fort Saskatchewan's transit feasibility with respect to various routing, fare structures, local services and revenue implications.

Based on the favourable findings of the 2011 study, the City endorsed a transit pilot that started in April 2014 and is scheduled to end in December 2015. Eighteen months into the Fort Saskatchewan Transit (FST) pilot, the City retained WSP|Parsons Brinckerhoff (WSP|PB) to undertake a review of its success and to devise a transit blueprint for the future.

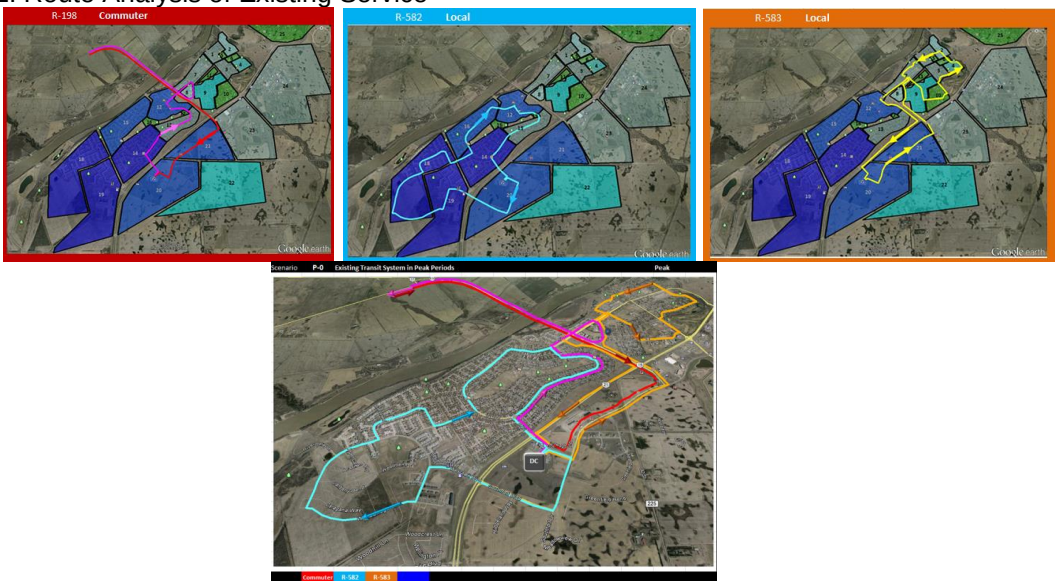
This transit pilot review seeks to establish whether the City could utilize its assets and human capital in a more productive fashion to better satisfy the needs of transit users in the City as it continues to grow. Additionally, the review seeks to confirm that Fort Saskatchewan Transit is conducting itself in a prudent manner that demonstrates to taxpaying non-riders that the agency is both effective and efficient at providing service. The transit pilot review examines how local services, including specialized transit, are being delivered as well as a high-level review of the commuter service to the Clareview LRT station in Edmonton provided by Edmonton Transit System (ETS).

II. Approach

WSP|PB undertook the transit pilot review with a perspective that solutions must be implementable and recommendations actionable. Understanding that transit service operates in a political environment, WSP|PB continually worked with the City to carve out solutions that will be bankable and favourable to its stakeholders. The recommendations found in this report are immediately implementable and will result in a sustainable service delivery strategy. The transit pilot review examined all of Fort Saskatchewan's local service in addition to the commuter service operated by ETS.

A level of service analysis of the existing route network was completed using WSP|PB's proprietary transit analysis tool that examines origins and destinations and segregates the City into zones. Our tool analyzes various elements of the transit network for both peak (rush hour) and off-peak (non-rush hour) times of day. To produce our findings, existing route data was overlaid on the City's population and land use zones (Exhibit 1). In addition, various travel time and travel speed data were assessed between each of the zones based on the current transit routes and schedules to establish whether average travel speeds are acceptable.

Exhibit 1: Route Analysis of Existing Service



The outputs from our level of service analysis are depicted in Figure 20 to Figure 23.

Four Major Destinations in Fort Saskatchewan

Our analysis revealed there are four major destinations in Fort Saskatchewan:

- D-1 : Edmonton (Clareview LRT)
- D-2 : Fort Saskatchewan - Downtown
- D-3 : North Commercial Area (Fort Mall)
- D-4 : North-East Commercial Area (Cornerstone, Southpointe, Medical Clinic and Hospital)

Travel Speeds and Times Were Calculated

Travel speeds and times were calculated between each zone in Fort Saskatchewan to the four major destinations identified in Fort Saskatchewan. Travel speeds measure the average trip speed from each zone to reach the major destination by transit. Average travel speed and time includes the time required to access transit (walking to a bus stop for example) and the ride itself. This represents the level of access provided by the transit system.

II. Review of Existing Services

Travel time is a key component in any level of service analysis. Potential riders will look at travel times when making decisions on taking transit and therefore dictates the demand and usage of the system. The analysis of the existing transit service has highlighted a few issues that are unnecessarily prolonging transit travel times for riders.

- Connectivity within the City is often worse than connections to Edmonton. For 3 of the zones, travel times to the City's downtown take longer than to connect to Edmonton. In

general, the city-wide average for travelling downtown is 41 minutes. This is an unacceptable travel time given the size of Fort Saskatchewan.

- → The most populated areas in Fort Saskatchewan have poor connections to Edmonton. The most populated residential zones are located in the southwest (Westpark Drive area). Zones 14, 18, and 19 represent 39% of the City's population (depicted in dark blue). However, 2 of the 3 zones have poor connections to both Edmonton (65-69 minutes, at 20-25km/h) and the City's downtown (53-57 minutes, at 6.3-6.6km/h).
- → Uncoordinated transfers add more time to transit trips. Buses arrive and depart at separate times from the Dow Centennial Centre. Transfers on the local routes sometimes require a 7 minute layover. This is unnecessary added travel time and too long given the size of the City. There are no commuter transfers, which are further inhibited by a lack of communication between FST and ETS services.

Our goal in devising transit routing options will be to increase travel speeds for the majority of the population to decrease travel times. This will be accomplished by creating more direct and faster routes for the most populated areas in the city. Greater coverage will also be necessary to serve the major destinations for City residents.

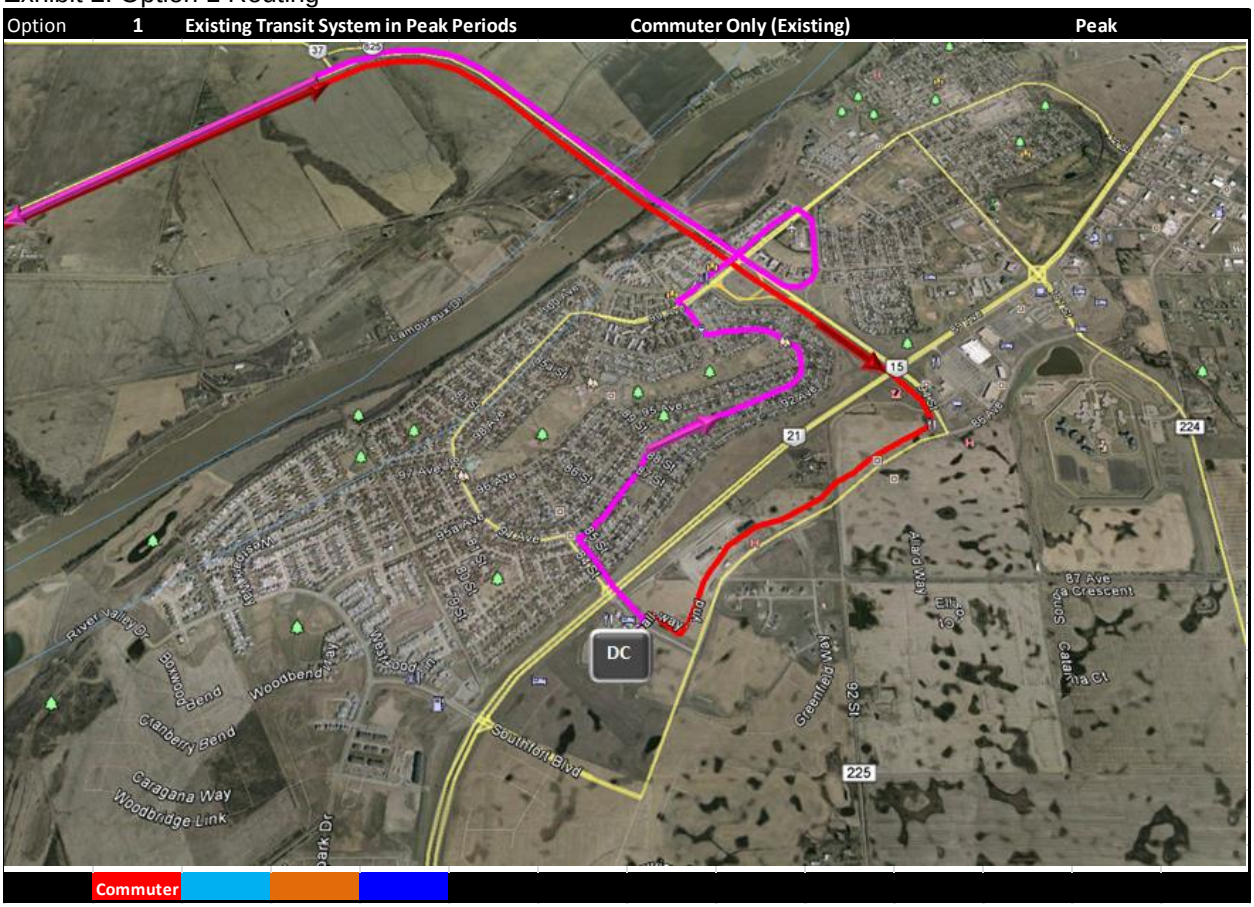
III. Summary of Recommendations

WSP|PB's analyzed three potential transit options for the City:

- → Commuter Service Only (no local FST)
- → Expanded Commuter Service Only (no local FST)
- → Modified Existing Local Transit and Commuter Service

Option 1 – ETS Commuter Route Only

Exhibit 2: Option 1 Routing



The first option examined eliminates local FST service and relies solely on the ETS commuter service to service local stops based on its existing alignment. This option would only provide commuter service during peak-periods. There would be no non-peak service.

Annual Direct Cost	Annual Revenue	R/C Ratio	Net Cost	Ridership
$591,500	$98,583	16.7%	$492,917	39,000

Summary of Option 1

Advantages

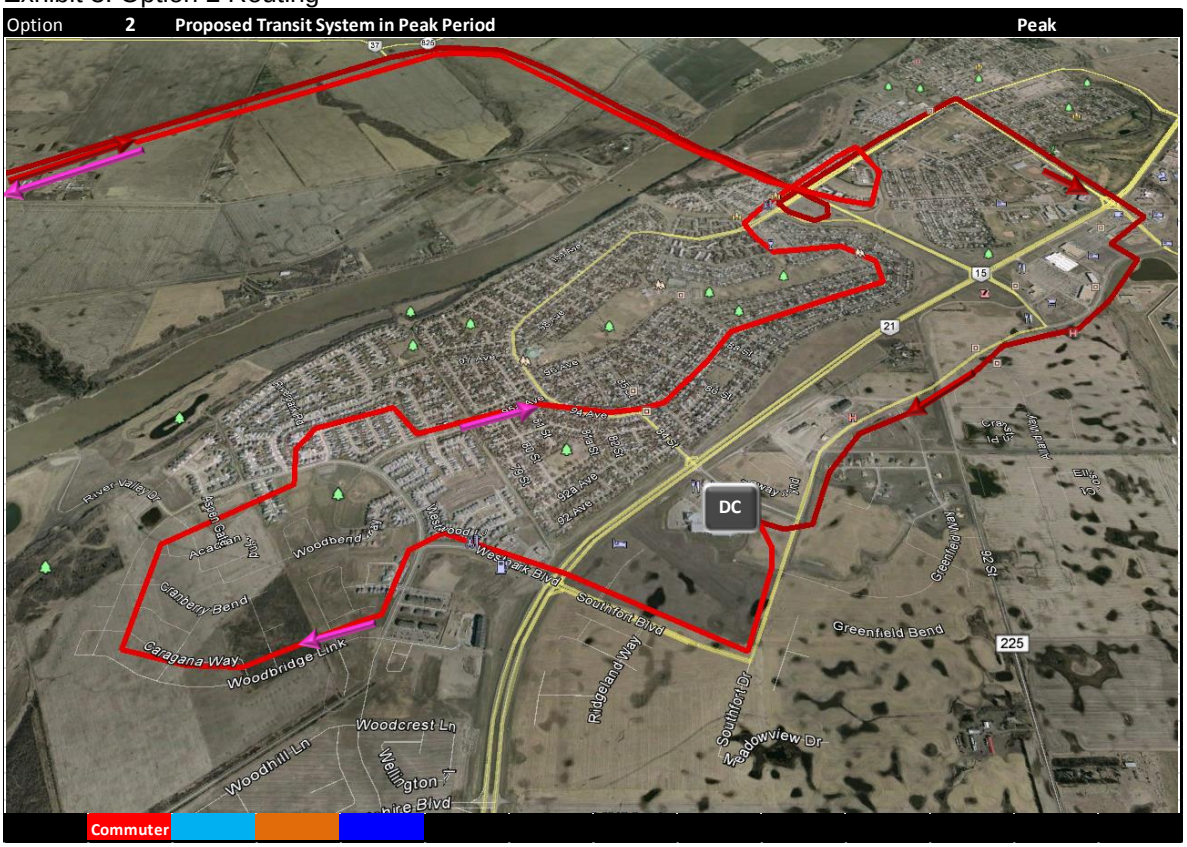
- One seat ride from Fort Saskatchewan to Edmonton
- Estimated cost per hour: $350 - the cheapest option.

Disadvantages

- FST service is no longer available to make local trips or connections with ETS service.
- Total transit travel times to Edmonton increases to a city-wide average of 79 minutes.
- The most populated areas in the City will not be served by the local stops along the ETS route.
- Ridership will be negatively impacted by the loss of local service.

Option 2 – Extended ETS Commuter Route

Exhibit 3: Option 2 Routing



Similar to Option 1, Option 2 is solely a commuter-only service. However; instead of following the existing alignment of Route 198, an extended route is proposed to service the most populous northwest section of the City. This alternate alignment provides extended local coverage of Route 198 to compensate from the removal of local FST service.

Annual Direct Cost	Annual Revenue	R/C Ratio	Net Cost	Ridership
$787,150	$123,396	15.7%	$663,754	48,910

Summary of Option 2

Advantages

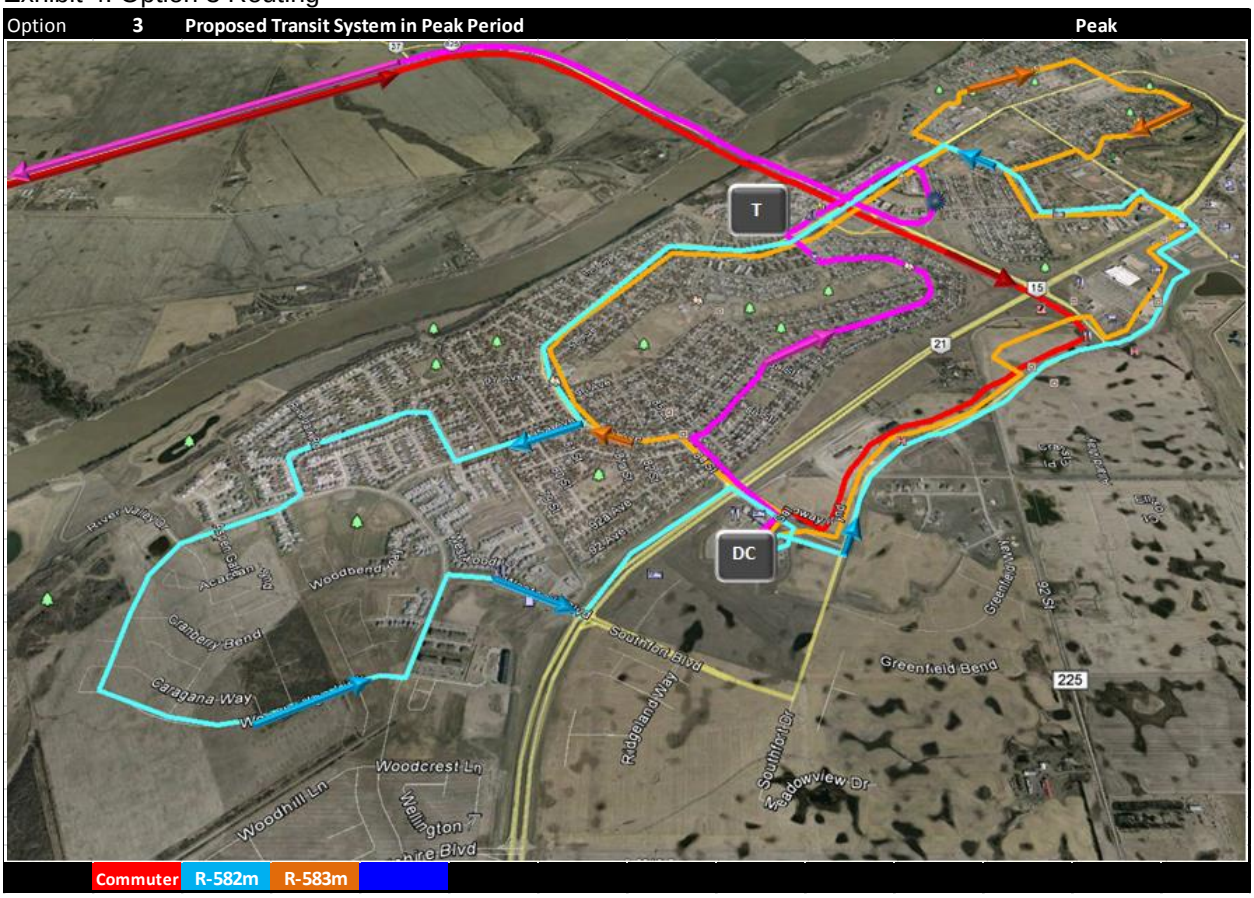
- Expanded ETS routing within City-boundary
- One seat ride from Fort Saskatchewan to Edmonton
- Faster city-wide travel speeds (51 minutes to Edmonton)
- More populated areas of the City receive more direct service to Edmonton. May attract more riders with faster speeds to Edmonton
- Estimated cost per hour: $467 – the second cheapest option.

Disadvantages

- Eliminates local FST service
- ETS will require more revenue service hours
  - This translates to an overall higher operating cost for the City

Option 3 –Modified Existing Local Transit and Commuter Service

Exhibit 4: Option 3 Routing



Option 3 maintains the current commuter service with modified alignments to augment the local service.

In this option, route 582 would be restructured to provide a counter-clockwise service through both the north and south areas of the City. Major deviations from the current alignment include increased coverage north of 94th street with service through Sherridon and along Southfort Drive. This route would directly service major retail areas (Cornerstone and Southpointe) as well as the hospital to provide direct service to these popular destinations. The reversed direction of the route (clockwise to counter-clockwise) provides more direct (faster) service for the densely populated southern zones of the City to the Dow Centre compared to the existing route structure.

Route 583 would be restructured to provide a clockwise direction with extended alignment south of 94th Street. This new alignment also provides direct service to major retail and the hospital. The overlapping of the two local routes creates more direct access to/from major destinations for a greater proportion of residents, as well as two-way service, an important factor for building ridership on the system.

Annual Direct Cost	Annual Revenue	R/C Ratio	Net Cost	Ridership
$1,153,100	$211,153	18.3%	$941,947	86,870

Summary of Option 3

Advantages

- Coverage extended to major retail centres and hospital
- New local routes overlap providing 2-way service
- Travel Times:
  - Average of 27 minutes to Downtown
  - Average of 48 minutes to Edmonton
  - Average of 24 minutes to Cornerstone and Hospital
- Potential to divert specialized transit trips from Special Transport Services Society (STSS)
- Estimated cost per hour: $530 - equals current cost

Disadvantages

- Not a one-seat ride from Fort Saskatchewan to Edmonton
  - Riders will need to transfer between FST to ETS bus

IV. Preferred Option

A summary of the projected annual costs and revenues for the options is provided in Exhibit 5. While Option 3 has the highest annual cost, it also has the highest potential to achieve the greatest cost-recovery and greatest increase in ridership.

Exhibit 5: Summary of Cost and Revenue Projections

	Existing Service	Option 1	Option 2	Option 3
Ridership	65,000	39,000	48,910	86,870
Annual Cost	$1,153,100	$591,500	$787,150	$1,153,100
Annual Revenue	$160,153	$98,583	$123,396	$211,153
R/C Ratio	13.9%	16.7%	15.7%	18.3%
Net Cost	$992,947	$492,917	$663,754	$941,947

Option 3 is recommended by the study team. Option 3 offers modified local routes with direct routing to major destinations and faster commute times. It is the preferred option as it maintains the presence of local transit service in Fort Saskatchewan at the same costs of the existing service ($530/hour) and generates higher cost recovery and ridership with simple route modifications. The modified routing will generate greater ridership from 250 to 334 per day. Increased revenues from the ridership boost will increase the cost recovery ratio up 4.4% to18.3%. Average travel speed is one of the main attractors for riders to the service.

Based on the foregoing evaluation criteria, option 3 offers the greatest potential for an effective, efficient and sustainable local transit service.

V. Other Recommendations

Adopt New Fare Structure

WSP|PB recommends that the City adopt a new fare structure. FST's current fare structure does not provide discounts for prepaid fare media consistent with industry best practice.

Exhibit 6: Proposed Fare Structure

Fare Product	Price	Old Price	Local	Clareview	Edmonton
Edmonton Integrated Fares					
Adult Integrated Monthly Pass	175.00	185.00	x	x	x
Student/Senior Integrated Monthly Pass	110.00	116.00	x	x	x
Commuter Fares					
Commuter Monthly Pass	90.00	96.00	x	x	
Student/Senior Commuter Monthly Pass	35.00	35.00	x	x	
Commuter Fare	5.00	3.50	x	x	
Commuter Tickets (10)	40.00	33.50	x	x	
Commuter Local Fare Add-On	2.00	-		x	
Local Fares					
Adult Fare	2.25	2.00	x		
Adult Tickets (10)	20.00	20.00	x		
Monthly Pass	50.00	-	x		
Senior Fare	1.50	1.00	x		
Senior Tickets (10)	12.00	10.00	x		
Student/Senior Monthly Pass	20.00	-	x		
Children under 12	FREE	FREE	x		
Specialized Transportation Fares					
Local	6.00	6.00	x		
Edmonton	22.00	22.00	x	x	x
Specialized Rider on Local Transit	$1.00	$1.00	x		

Marketing and Branding

WSP|PB recommends that the City allocate a budget for transit marketing and branding. For transit agencies the size of FST, a **minimum** of 5% should be allocated annually to marketing. This amount is consistent with industry average.

Additionally, WSP|PB recommends that the City develop a modern brand for transit to raise its profile within the community. The current paint schemes of FST's vehicles are not distinguishable and blend into the background of other privately-operated transport shuttles within the City. Similarly, FST's bus stop signage is not readily distinguishable as it often blends into the background.

Operations and Maintenance (O&M) Contract Needs to be Strengthened

WSP|PB believes that the current form of O&M contract does not adequately protect the City and should be enhanced to include performance requirements, revenue service hours and service standards. Further, the City should delineate expectations for maintenance and vehicle cleanliness regardless of ownership. We further recommend that the future form of contract be

solely for operations and maintenance, while the City retains control of vehicle purchase and ownership.

We recommend that the City utilize a non-binding Request for Information (RFI) process prior to release of a formal Request for Proposal (RFP) to generate interest and competition from firms outside of the City– this is a successful strategy that has been employed elsewhere. Last, WSP|PB recommends that the City hire a third-party firm with the appropriate expertise to write the new O&M contract for the City and support the City through the procurement process to achieve best Value-for-Money for the residents of Fort Saskatchewan.

Work with Developers

In order for transit to be successful, it must serve key destinations within the City. WSP|PB believes the current route structure does not adequately serve key destinations and riders potentially face long walks to their ultimate decisions. This is particularly true in the case of the Cornerstone shopping development where riders would have to potentially walk 500-metres to access shopping amenities.

In discussions with the City's developers, there was an indication that they are supportive of having transit service their footprints and would potentially be willing to pay for transit infrastructure (bus shelters, concrete bus pads, etc.). We believe the City should exploit these opportunities.

"Right-Size" the Fleet

FST's current high-floor fleet does not adequately respond to the needs of its potential ridership base. Individuals such as seniors, disabled individuals with mobility aids or parents with strollers are unable to access transit because of the need to traverse stairs to access FST's buses.

To widen the demographic that transit appeals to, the City needs to "right-size" its fleet selection. FST's choice vehicle should be both accessible and low-floor (no stairs to traverse). Additionally, WSP|PB recommends that the City choose a vehicle with lower operating and maintenance costs than its current fleet composition. It is WSP|PB's experience that the choice of vehicle heavily drives operating and maintenance cost.

City-Owned Fleet Drives Greatest Value

WSP|PB recommends that the City own its fleet as it provides the overall lowest total cost of ownership. Where O&M contractors provide a vehicle for service it is typical that the total cost of the vehicle is amortized over the duration of the contract term. Additionally, the O&M contract may price additional costs into the contract such as the higher cost of private sector financing, risk that their contract may be terminated early and/or additional margin for procuring the vehicles.

From WSP|PB's experience rewriting contracts for other peer agencies, City-ownership of the fleet has the greatest opportunity to reduce the hourly rate for FST. Depending on choice of vehicle, cost of vehicle ownership payback could occur as early as within the first two years.

Establish Transit Supportive Climate

In order for FST to succeed, the City must dedicate adequate resources to the start-up and ongoing management of the local transit service. WSP|PB advocates for proactive oversight of O&M contracts to ensure O&M contracts are obliging to the terms and conditions of the contract. To this end, WSP|PB suggests that one full-time equivalent (FTE) be dedicated to starting up the service from 2016 to 2017. After the service is established, half of an FTE is sufficient to oversee and administer the O&M contract.

Additionally, the City must dedicate stable, predictable funding for capital replacement and growth of the FST system.

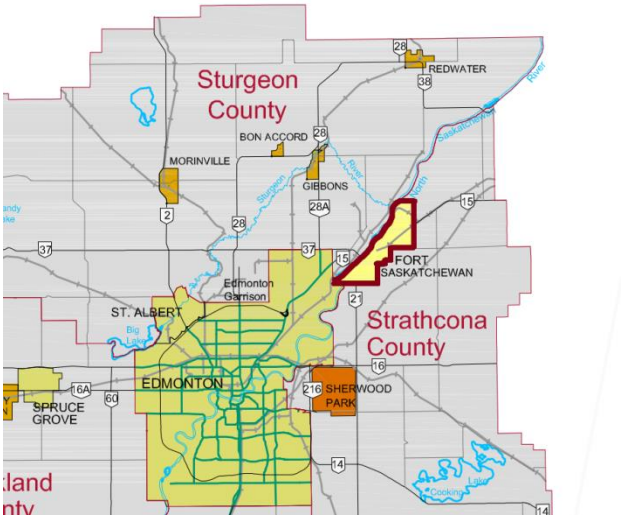
Last, future land-use planning in the City needs to be supportive of transit. Historically, the City's residential developments have been predominantly back-fenced on major collector roads (example: Westpark Drive). Back-fenced communities are problematic for transit because residents have no easy way to access transit and may need to endure long walks to the nearest bus stop making transit unattractive. In other communities across Canada, "Transit First" initiatives have become popular for their potential to have transit installed into new developments prior to new residents moving in. WSP|PB recommends that the City establish transit-supportive policies and guidelines to ensure that new residential development is front-facing along major collector roads.

1. Introduction

1.1 Background

The City of Fort Saskatchewan (the City) is located 25km north of Edmonton and is part of the Edmonton census metropolitan area bordering Sturgeon County, Strathcona County and Edmonton. As one of Alberta's fastest growing cities, Fort Saskatchewan has a population of more than 24,000 people with an average annual growth rate of 6.7% over the last 9 years[1]. The city has a strong industrial sector located on the high-load corridor and is the gateway to Alberta's Industrial Heartland.

Figure 1: Regional Context of Fort Saskatchewan



Prior to the Fort Saskatchewan Transit Pilot, conventional transit service was being operated by the Edmonton Transit System (ETS). Since 2005, the City has paid ETS to operate Route 198, a commuter service that takes riders to the Clareview LRT station in Edmonton. Specialized door-to-door transit is provided through Minivan and Handivan services for residents with mobility challenges. Eligibility is determined by the Special Transportation Services Society (STSS), a volunteer organization that oversees the operation of the City's taxi voucher subsidy program.

1.2 Transit Pilot

To help the City meet the growing travel needs of the community effectively and sustainably, a study was initiated in 2011 to examine Fort Saskatchewan's transit feasibility with respect to various routing, fare structures, local services and revenue implications. The study was conducted by WSP (formerly known as GENIVAR) and consulted with the community and stakeholders on existing services, needs and opportunities, service standards, routes and services, service delivery options and financial implications.

City council approved a pilot transit project for the 2014 budget at a cost of $400,000. The Fort Saskatchewan Transit (FST) pilot project launched in April 2014 and offers residents new ways

[1] 2015 Municipal Census and 2006 Statistics Canada Community Profile

to get around their community in a sustainable manner and boost ridership to and from Edmonton. The two new local routes circuit the City to provide service to Dow Centennial Centre, downtown, Westpark, Pineview, Southfort, Bridgeview, and Sherridon. Local FST service runs Monday to Friday during the morning peak and afternoon. Both of these routes offer a connection with Route 198. The introduction of the two local routes resulted in changes to Route 198 routing and schedule making the commuter link 20 minutes faster due to less local coverage required[2]. Route 198 remains a peak hour commuter service operated by ETS to and from the Clareview LRT station in Edmonton with limited local service.

1.3 Objectives

Eighteen months into the Fort Saskatchewan Transit (FST) pilot, the City retained WSP|Parsons Brinckerhoff (WSP|PB) to undertake a review of its success and to devise a transit blueprint for the future.

The objectives of this transit update are:

- Improve transit efficiencies in an innovative manner.
- Identify and implement industry best practice.
- Explore an effective service delivery model.
- Improve overall ridership.
- Maximize cost recovery.
- Create a more financially sustainable service.

This review sought to establish whether Fort Saskatchewan could utilize its assets and human capital in a more productive fashion to better satisfy the transit needs of residents as the City continues to grow. Additionally, the review sought to ensure the City is judiciously investing taxpayers' money for effective and efficient transit service. The guiding principles for the transit update study are to ensure Fort Saskatchewan is delivering effective and efficient transit service.

Transit service effectiveness is defined as the following:

- Meets the transportation needs of the public.
- Serves destinations that promote economic activity and contribute to quality of life.
- Promotes community environmental objectives.
- Improves mobility and increasing capacity of the transportation network.
- Serves those populations that depend upon transit.

Efficiency is measured by delivering services at the lowest possible cost to both riders and non-riders that supports transit service with their tax dollars. Efficiency is also ensuring a cost-efficient, sustainable service.

WSP|PB's analysis sought to verify whether existing operations are effective and efficient. From there, recommendations were presented where transit service could be improved while maintaining consistency with the theme and goals of the update study.

[2] http://www.fortsaskatchewanrecord.com/2014/04/17/new-transit-system-launching

1.4 Approach

WSP|PB conducted the transit pilot review with a prudent fiscal approach in order to find implementable solutions and actionable recommendations. Understanding that transit service operates in a political environment, WSP|PB continually worked with Fort Saskatchewan to carve out solutions that will be bankable and favourable to stakeholders. The recommendations found in this report are all implementable with a sustainable service delivery strategy and actionable outcomes.
The transit update reviewed all of Fort Saskatchewan's local service in addition to the commuter service operated by ETS. Broadly, the transit update included the following:

- **Analysis of existing local and commuter operations:** Analyzing current route structures, ridership, fare collection, infrastructure and specialized services.
- **Market analysis:** reviewing the demand for transit and identifying major trip generators.
- **Levels of Service**: analyzing the efficiency of the transit system for adequacy of frequency and connectivity.
- **Service standard and peer benchmarking review**: Identify service standards for the City and compare current service standards against established goals and peer agencies of a similar size.
- **Review of provincial and federal grants:** Investigate grants and funding available for transit to ease fiscal constraints of service operations.
- **Service delivery options**: Identification of proposed service modifications/updates and preferred options for the local services, commuter services, and infrastructure requirements.
- **Cost-benefit analysis:** determine the costs and benefits of the different service delivery options and recommendation of the preferred option(s).

The recommendations found in this report are all implementable with a sustainable service delivery strategy and actionable outcomes. This was accomplished through stakeholder outreach to hear what riders, non-riders, Fort Saskatchewan City staff, major developers and other stakeholders had to say about the provision of transit service.

2. Market Analysis - Population and Employment

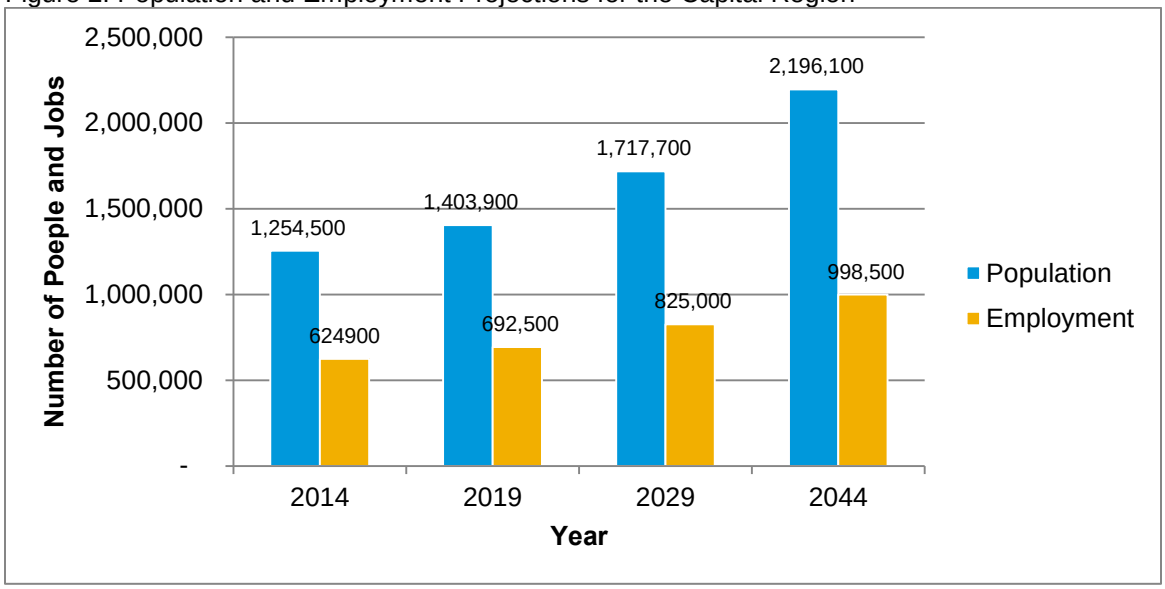
2.1 Capital Region

Figure 2 shows population and employment projections for the Capital Region based on the Capital Region Population and Employment Projections report released in 2013.

Based on the projections from the high scenario, the Capital Region is predicted to increase to 1.4 million people and 693,000 jobs by 2019, an increase of 12 and 8 percent from 2014 figures respectively.

Population in the Capital Region is projected to grow 76 percent from 1.25 million in 2014 to 2.20 million in 2044. Total employment in the Region is projected to grow by approximately 56 percent over the next 30 years, from 639,000 in 2014 to 999,000 by 2044. In the long term, population and employment projections demonstrate a continued growth trend, representing a 1.9 and 1.5 percent average annual change respectively.

Figure 2: Population and Employment Projections for the Capital Region



Source: Capital Region Population and Employment Projections, Stokes Economic Consulting (September 2013), High Scenario

Following the 2014 municipal census, population figures and projections have been updated. The table below summarizes the changes. With these changes the annual growth changes for population now stands are 2.7 percent from 2014 to 2044.

Table 1: Capital Region Adjusted Population Projections

Municipality	Population Projections			
	2014	Adjusted 2014	2044	Adjusted 2044
Capital Region	1,234,100	1,254,500	2,196,100	2,235,100

Source: Consolidated CRB-Accepted Population and Employment Projections, 2014-2044, Capital Region Board (May 2015)

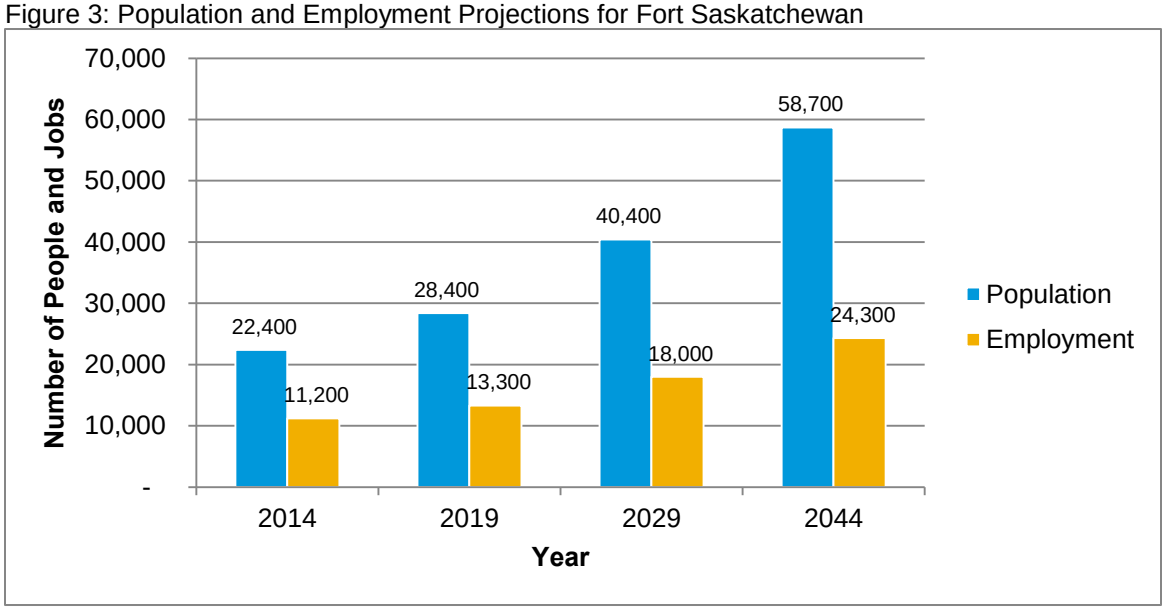
2.2 City of Fort Saskatchewan

The Capital Region Population and Employment Projects report forecasted the projected growth in population and employment for the City both in the short and long term and is illustrated in Figure 3.

Based on the projections from the high scenario, Fort Saskatchewan is predicted to increase to 28,000 people and 13,000 jobs by 2019, an increase of 27 and 16 percent from 2014 figures respectively.

Long-range projections predict a population of 59,000 and employment of 24,000 in 2044, approximately 162 percent and 91 percent growth compared to 2014 figures. This indicates a significant increase in population and jobs overall for the City, with an annual growth rate of 3.3 and 2.6 percent respectively.

Figure 3: Population and Employment Projections for Fort Saskatchewan



Source: Capital Region Population and Employment Projections, Stokes Economic Consulting (September 2013), High Scenario

Following the 2014 municipal census, population figures and projections have been updated. The table below summarizes the changes. With these changes the annual growth changes for population now stands are 3.7 percent from 2014 to 2044.

Table 2: Fort Saskatchewan Adjusted Population Projection

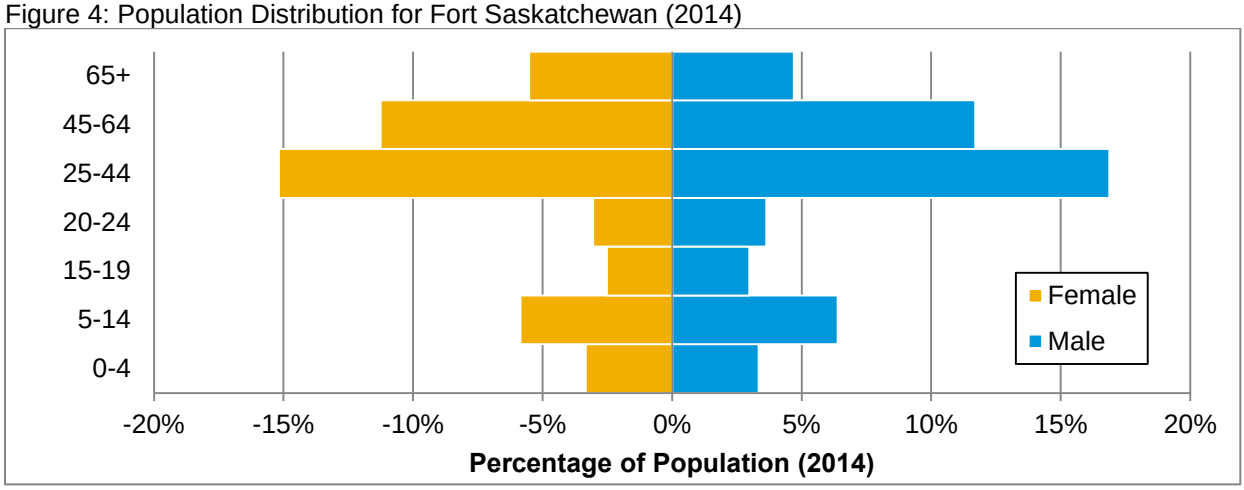
	Population Projections			
Municipality	**2014**	**Adjusted 2014**	**2044**	**Adjusted 2044**
Capital Region	21,100	22,800	58,700	63,500

Source: Consolidated CRB-Accepted Population and Employment Projections, 2014-2044, Capital Region Board (May 2015)

Figure 4 illustrates the age distribution of Fort Saskatchewan residents in 2014 based on the City of Fort Saskatchewan 2014 Municipal Census Report. While the age cohorts are not demonstrated in equal intervals, WSP observes that there are a significant number of people between the ages of 45 to 64. If the age distribution trends continue, the more senior portion of that cohort will approach retirement age within 5 years. A larger proportion of seniors in the

overall City population may influence change in travel behaviour. For example, there may be increased demand for local service in Fort Saskatchewan rather than intermunicipal services to Edmonton, as well as for accessible and specialized transit services for persons with mobility restrictions.

Figure 4: Population Distribution for Fort Saskatchewan (2014)



Source: 2014 Municipal Census

For analysis purposes, the study area was divided into 25 zones based on land use (residential, commercial or industrial), urban morphology and physical barriers. The zones were defined with 2 key principles:

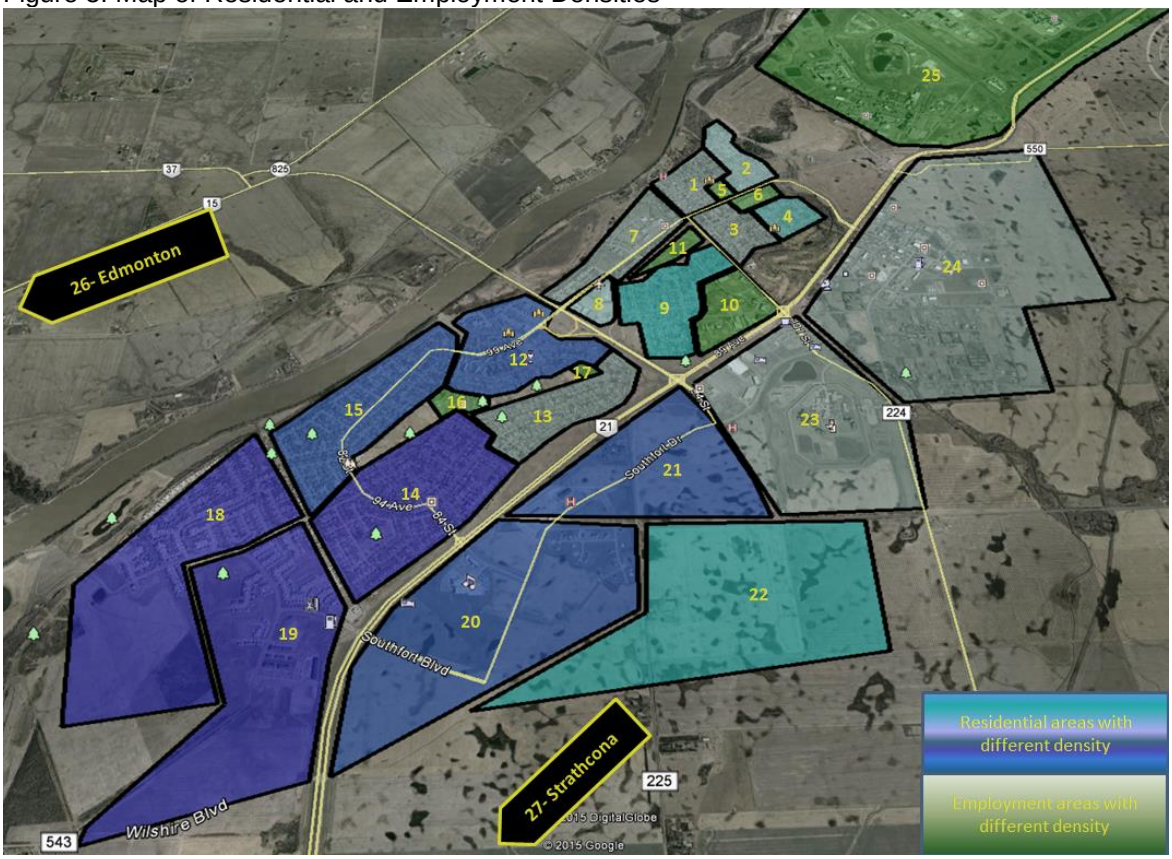
- Maintain consistency with Municipal census boundaries
- Maintain zone typology in terms of land use and purpose

Table 3 summarizes the populations for each of the defined analysis zones. Figure 5 shows the geographical distribution of the City's residential and employment densities of these population areas. Residential zones are in blue with denser zones in darker blue. Employment zones are green and mixed use or industrial zones are grey. The denser residential neighbourhoods are located in the Southern portion of the City. The largest employment area is the industrial area in the North of the City.

Table 3: Defined Analysis Zones

Aggregated Zones	Population	Aggregated Zones	Population
1	605	**14**	2,258
2	403	**15**	1,893
3	685	**16**	0
4	394	**17**	0
5	0	**18**	3,200
6	0	**19**	3,330
7	860	**20**	1,786
8	167	**21**	1,833
9	1,183	**22**	1,048
10	0	**23**	489
11	0	**24**	116
12	1,698	**25**	0
13	860	**Total**	22,808

Figure 5: Map of Residential and Employment Densities



2.3 Commuting Patterns

According to the 2011 National Household Survey on Commuting Flow, a large number of Fort Saskatchewan residents work within their City limits (3,090 persons). The number of Fort Saskatchewan residents who travel to locations work outside of the City for work (4,760 persons) is larger than the number of residents of other municipalities who travel to Fort Saskatchewan for work (2,745 persons).

The major commuting flows for Fort Saskatchewan residents to other areas for work include: Edmonton and Strathcona County. Similarly, the major external commuting flows for workers employed in Fort Saskatchewan are also Edmonton and Strathcona County. Refer to Table 4 and Table 5 for changes in commuting flows.

Table 4: Commuting Flows for Fort Saskatchewan Residents

Place of Work	2006	2011
Fort Saskatchewan, CY	3,185	3,090
Edmonton, CY	2,025	2,330
Strathcona County, SM	1,005	1,405
Parkland County, MD	25	275
Sturgeon County, MD	260	215
Wood Buffalo, SM	75	205

St. Albert, CY	40	90
Leduc County, MD	50	80
Lamont, T	65	50
Redwater, T	35	50
Calgary, CY	-	20
Bruderheim, T	50	20
Drayton Valley, T	-	20

Source: 2011 National Household Survey, Commuting Flow

Figure 6 illustrates the commuting flows based on the more recent 2014 Fort Saskatchewan Municipal Census. It highlights the proportion of the population who travel outside of the City for work.

Figure 6: Map of Commuting Flows for Fort Saskatchewan Residents

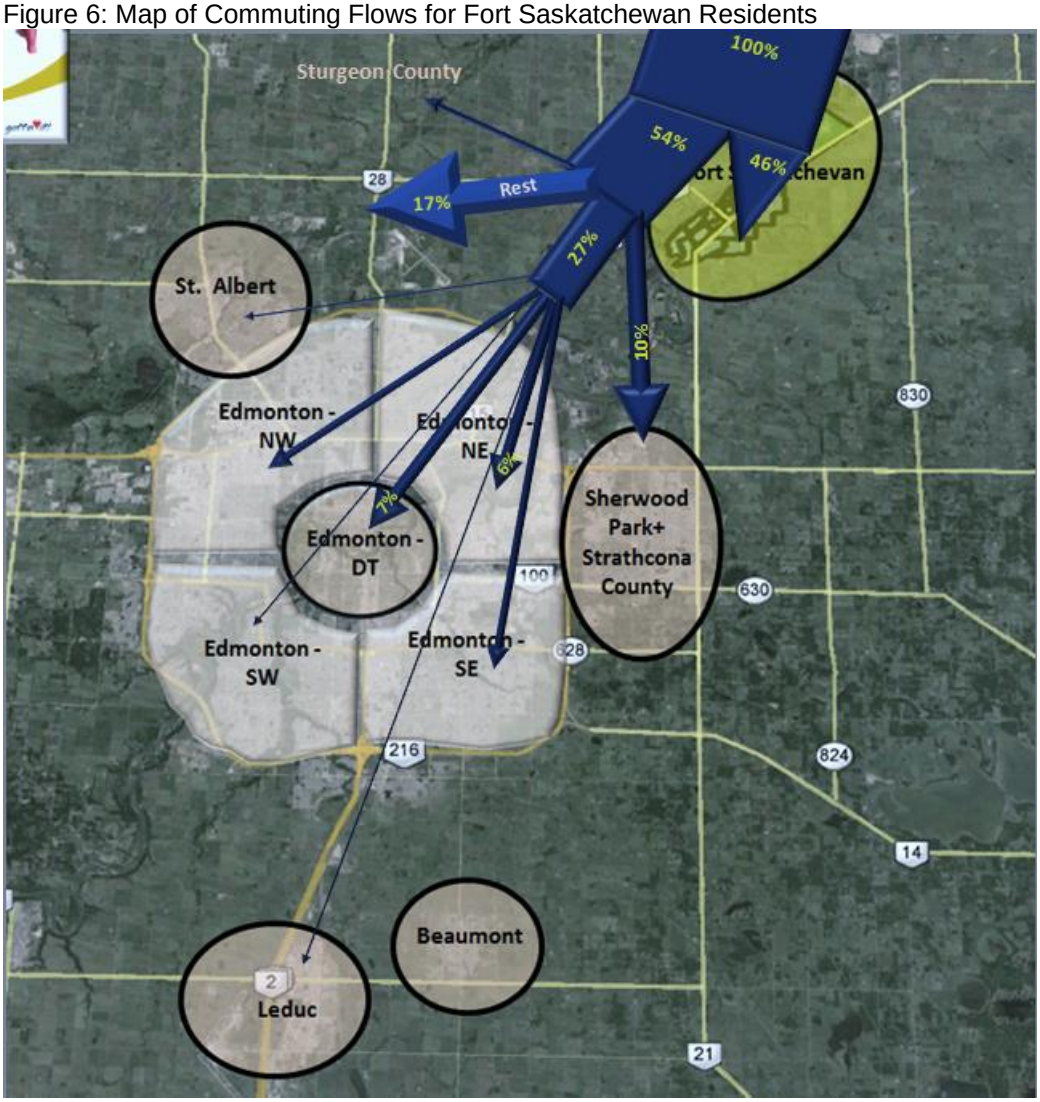


Table 5: Commuting Flows for Fort Saskatchewan Workers

Place of Residence	2006	2011
Fort Saskatchewan, CY	3,185	3,090

Edmonton, CY	1,505	1,030
Strathcona County, SM	1,035	905
Sturgeon County, MD	385	305
Lamont County, MD	180	140
St. Albert, CY	115	125
Gibbons, T	90	75
Lamont, T	130	60
Bruderheim, T	140	55
Spruce Grove, CY	-	25
Morinville, T	25	25

Source: 2011 National Household Survey, Commuting Flow

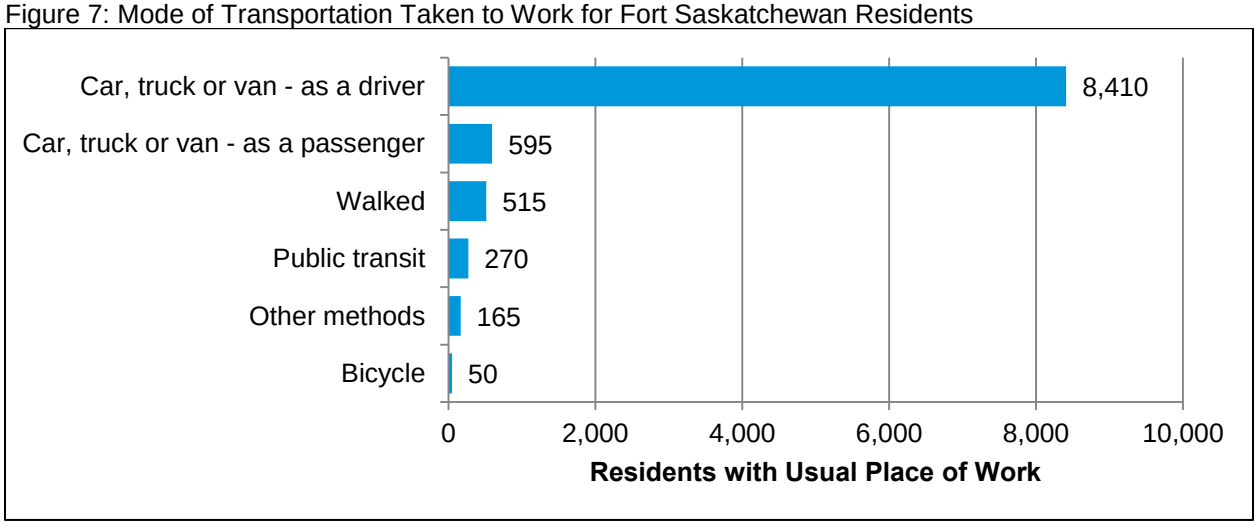
The current commuting flows highlight some demographic shifts over a 5-year period. In general, the number of fort Saskatchewan residents working in the City has decreased and residents leaving the City to work in other municipalities have increased. Fort Saskatchewan is also seeing a decrease in the number of employees commuting in from other municipalities.

2.4 Mode of Transportation to Work

According to 2011 National Household Survey data, 84 percent of Fort Saskatchewan residents drive a car, truck or van to their place of employment. An additional six percent travel as passengers of a car, truck or van for an overall total of 90 percent of Fort Saskatchewan residents travelling by car, truck or van to work. This combined percentage is comparable to St. Albert (90 percent) and Strathcona County (92 percent) but much higher than Edmonton (79 percent).

Public transit as a mode of transportation to work makes up only 2.7 percent of residents with a usual place of work, an increase of 1.7 percent from 2006. This percentage is lower than St Albert (six percent), Strathcona County (4 percent), and Edmonton (15 percent). Modes of transportation taken to work in Fort Saskatchewan are shown in Figure 7.

Figure 7: Mode of Transportation Taken to Work for Fort Saskatchewan Residents



Source: 2006 Community Profiles

2.5 Major Trip Generators

2.5.1 Places of Employment

Table 6: Major Places of Employment

Employer	# of Employees	Location
Fort Saskatchewan City Hall	400	10005 - 102 Street
Fort Saskatchewan Correctional Centre	250	7802 - 101 Street
Fort Saskatchewan Community Hospital	200	9401 - 86 Avenue

2.5.2 Schools

Table 7: Number of High School Students

	# of Students	Registered on the Bus*
EIPS Fort Schools	2949	1305
High School	513	256
Catholic	379	303

* Lives greater than 2.4km from school

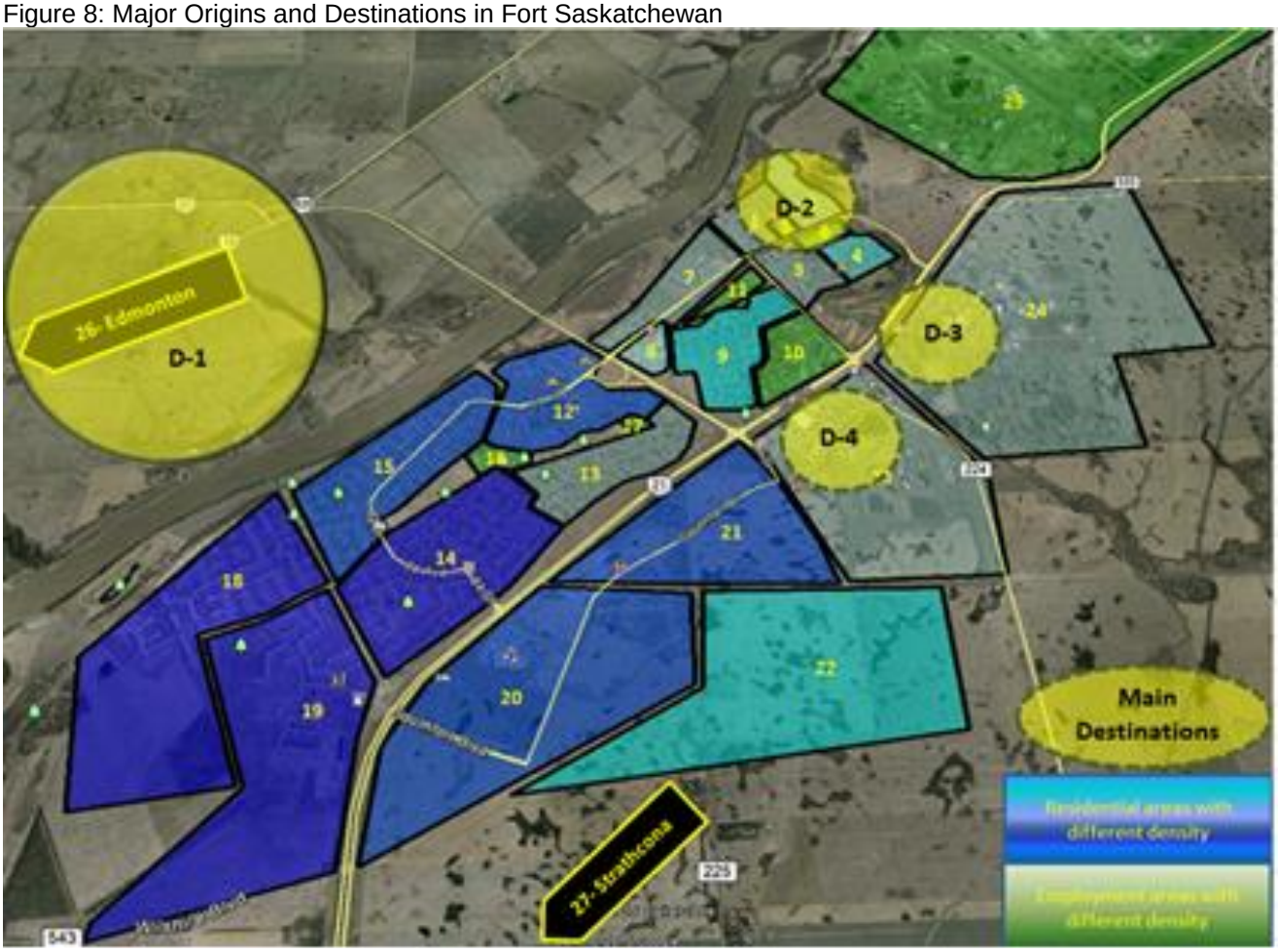
2.5.3 Major Origins and Destinations

By cross-analyzing the population and employment densities with the commuting patterns of residents and employees, significant travel connections were identified by neighbourhood. These significant neighbourhood connections are important in understanding routing to best serve population in order to build transit ridership. The analysis found that significant travel connections are made between most Fort Saskatchewan residential neighbourhoods to Edmonton and Strathcona. Other significant neighbourhood connections include the City's residential neighbourhoods to the downtown area (Area 1, Figure 5). The north eastern employment areas have significant connections for travel originating in Strathcona.

Through all our market analysis we have been able to identify major origins and destinations in Fort Saskatchewan (Figure 8). The major destinations for Fort Saskatchewan residents are:

- → Edmonton (D-1)
- → Downtown (D-2)
- → North Commercial Area (D-3)
- → North-East Commercial Area (D-4)

Figure 8: Major Origins and Destinations in Fort Saskatchewan



2.6 Strategies to Improve Ridership

Most residents currently rely on driving their personal vehicle as their primary mode fo transportation, particularly for internal City trips. An effective transit system must provide alternative transportation options to everyone in the community, reduce traffic congestion and defer capital investments on road infrastructure as well as reduce greenhouse gas emissions and therefore support the City's strategic direction of environmental, social, economic sustainability.

Seniors, youth and people who have no access to other transportation alternatives rely on transportation modes such as transit for their day-to-day activities and particular consideration should be given to these market segments for future transit development in the community.

3. Overview of Existing Services

This section provides a review of the existing transit services in Fort Saskatchewan. Conventional transit includes local routes 582 and 583, currently still in a pilot phase operated by Fort Saskatchewan Transit and a commuter route,198, operated by ETS. An overview of the specialized transit service is provided in addition to the fare schedule for all the services.

3.1 Route Structure

Routes 582 and 583 have been providing local transit service around Fort Saskatchewan since the inauguration of the transit pilot project in April 2014. Route 582 is a unidirectional loop starting and ending at the Dow Centennial Centre that mainly serves southern Fort Saskatchewan with connections to Route 583 and the Route 198 commuter bus. The route takes approximated 23 minutes from beginning to end. Route 583 is also a unidirectional loop starting and ending at the Dow Centennial Centre that mainly serves the northern part of the city also offering local and commuter connections. This route takes 26 minutes to start to finish. The two routes have a synchronized schedule to connect at the Dow Centennial Centre and to meet the Route 198 commuter bus. Local service is operated weekdays from 5:25am to 8:28pm.

3.2 Ridership

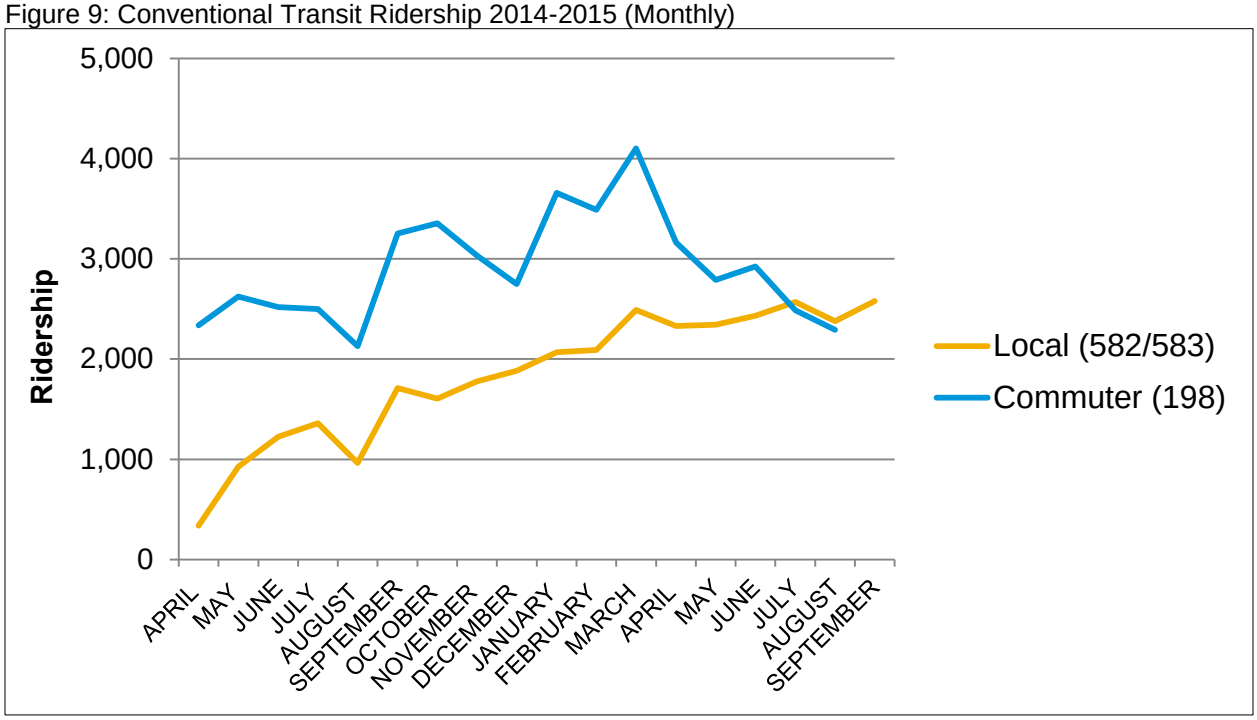
The ridership for conventional transit in Fort Saskatchewan is shown in Table 8. The transit pilot for local service began in April of 2014. Already in 2015, transit ridership has significantly increased over 2014 figures. When comparing the monthly average ridership for each year, 2015 average ridership has increased 80 percent over 2014. It is important to note that ridership on local routes shows a consistent upward trend since the inception of the transit pilot commenced while the City has not materially changed the service during this time (Figure 9).

When comparing average monthly ridership, commuter trips on Route 198 have increased 14 percent over 2014 figures. Ridership on Route 198 tends to fluctuate more on a monthly basis.

Table 8: Fort Saskatchewan Conventional Transit Ridership

		Boardings			
Route		2014 (April-Dec)	2014 Monthly Avg.	2015 (Jan-Sept)	2015 Monthly Avg.
582/583	Fort Saskatchewan North/South	11,789*	1,310	21,277	2,364
198	Fort Saskatchewan to Clareview Station	24,497	2,722	24,902	3,113
Total		**36,286**		**46,179**	

Figure 9: Conventional Transit Ridership 2014-2015 (Monthly)



3.3 Infrastructure

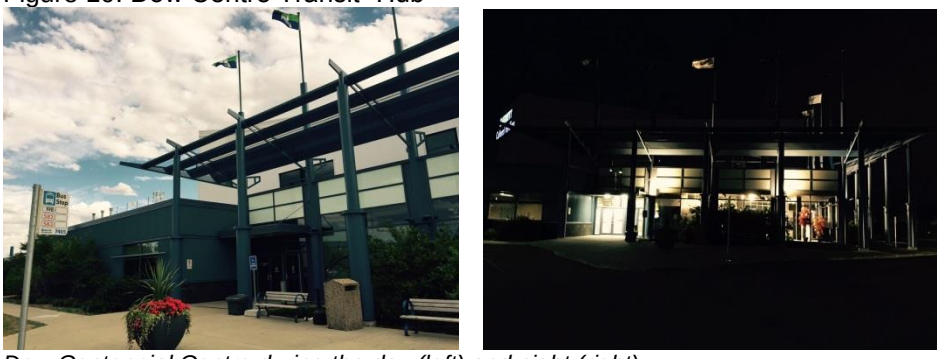
The existing transit infrastructure is sufficient for the purposes of an introductory transit pilot. Most of the FST bus stops are located at or near intersections allowing access onto the adjoining streets. Bus signs along existing transit routes consist of a pole with a bus stop sign attached and are positioned in grassed boulevards throughout the residential subdivisions.

However; advancing transit service in the City will require infrastructure upgrades. Most stops, for example, lack an accompanying concrete pad leading from the adjacent sidewalk to the curb which would allow easier access, particularly in inclement weather and would allow an accessible low-floor, ramp-equipped vehicle to be able to deploy its ramp safely.

The Dow Centre as a transit hub is not ideal due to the geography of Fort Saskatchewan. Additionally, the site does not offer bus shelters for riders and has poor lighting conditions, an important consideration because the first transit run begins at 5:25am (Figure 10). This is not an ideal environment for riders to wait for a bus in terms of safety and comfort.

The transit signage for FST is poor. The signs are hard to see and blend into the background. The signs contact information is also out of date.

Figure 10: Dow Centre Transit "Hub"



Dow Centennial Centre during the day (left) and night (right)

From the surveys and discussions with riders and operators, several stop-related issues were identified as noted below:

- The stop #77177 outside Cornerstone requires passengers to traverse a slope to get to the stop from the store. This is unsafe particularly in the winter months. This stop should be relocated.
- Stop #7997 has many seniors boarding/alighting with groceries but there are many parents parked along the street around 3:00pm for the school.
- Stop #7970 (84th St. and 92 Ave.) and stop #7869 (108 St. and 98 Ave.) are rarely used.
- Bus shelters should be added at stops #7694, #77177, #7932, and #7781.
- A bus shelter and pick up/drop off facilities are needed at the DOW Centre with better lighting.
- Benches are needed at the Walmart stop.

In general, passenger amenities, where provided, (i.e. shelters, benches etc.) are relatively well maintained and in good condition.

Riders also noted that the FST buses are clean and comfortable, however the high floor equipment currently used by the contractor presents an accessibility challenge to riders with small children using strollers, seniors and others with mobility issues.

Transit infrastructure is an important customer interface for providing comfortable and attractive amenities to build ridership going forward.

3.4 Fare Collection

FST buses are currently equipped with mechanical non-registering fare boxes which are owned by the City and installed on the Fort buses (owned by the contractor). Fares are deposited on entry to the buses and the vaults are removed on a regular basis and exchanged for a fresh vault during the refuelling process which is conducted at the City maintenance garage.

Fares collected on the commuter service are deposited in the fare box on the ETS buses on entry and recorded by the ETS operators for audit purposes for each route run. At the end of each month the City is provided an accounting of the fares collected on the service and the amount credited against the operating cost of the service.

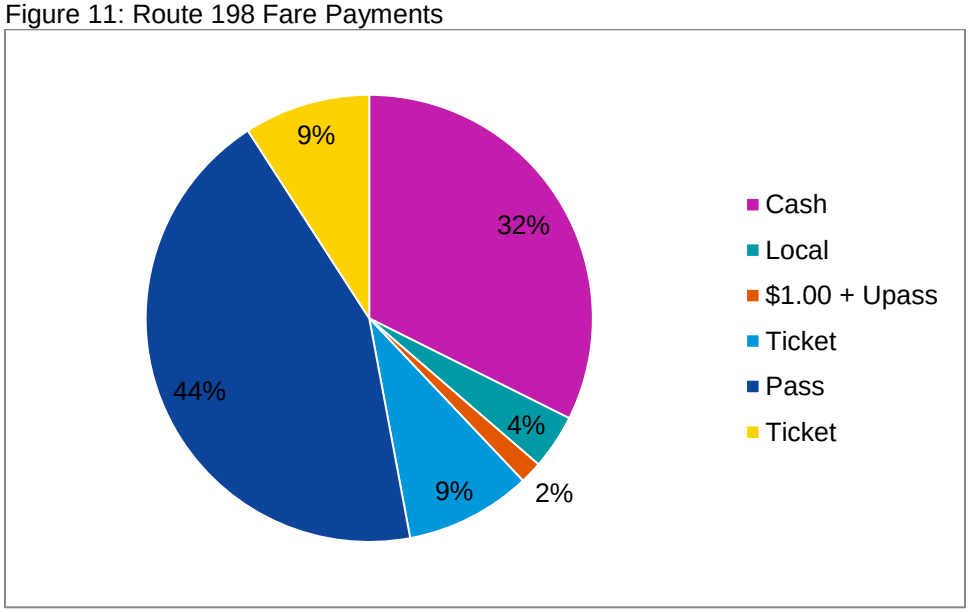
As some users of the service purchase integrated passes (allowing access to the commuter service and the ETS system the City provides ETS payment for their portion of the integrated service pass.

Table 9: Fare Structure for Existing Transit Service

	Local		Commuter Service			Integrated
	Cash	Tickets (10)	Cash	Tickets (10)	Monthly Pass	Monthly Pass (Local, Commuter & ETS)
Adult	$2.00	$20.00	$3.50	$33.50	$96.00	$185.00
Student	$1.00	$10.00	$1.00	$10.00	$35.00	$116.00
Senior	$1.00	$10.00	$3.50	-	$35.00	$116.00
Post-Secondary (U-Pass)	Free	-	-	-	$125.00*	-
Children <12	Free	-	-	-	-	-

* 4-month pass Jan-April; May-Aug; Sept-Dec

Figure 11: Route 198 Fare Payments



The fare structure needs alignment with industry best practice going forward. Currently there are no discounts offered for prepaid fare media. For example, seniors pay $1.00 for a ride regardless of paying by cash or with prepaid tickets. Additionally, FST lacks a local monthly pass, an opportunity for a steady revenue stream and ridership. Due to the cost of providing each specialized transit trip, there should be a fare incentive to divert the specialized transit trips only conventional transit.

3.5 Operations Contract Review

The City has engaged in a contract with a local taxi provider (Fort Saskatchewan Taxi) to operate the local transit services during the transit pilot. This O&M contractor is responsible for the provision of the buses, drivers, insurance, repairs, cleaning and maintenance. Fuel and

consumables are provided by the City at the City maintenance yard. A cursory inspection of the contractor-owned buses on the route and at the contractor's facility suggest that they are clean throughout and well maintained with adequate spares for backup.

Contracted service is an excellent way to provide efficient and cost-effective bus transit service, particularly in Fort Saskatchewan where transit is still in a pilot phase and the City may not want to invest in long-term capital assets.

Overall however the present form of contract is vague, lacking details to address many performance factors. The points below summarize areas of concern regarding the contract currently in place:

- There are no wireless devices in use during transit operations as described in item 4.
- The contract lacks any sort of service standards and guidelines to describe proper performance and obligations for which the contractor must adhere too as noted in item 7.
- Item 15 requires regular reporting as required by the City. There are no details to the types of report required and schedule of when reports should be received.
- The contract lacks specific determinates of what triggers a default as described in item 16.
- The notice of termination for convenience of forty-eight hours as specified in item 26 is short and may create issues with continuity of service delivery.
- Schedule "A" Services and Fees does not have a cost breakdown identifying the cost model of components, there is no justification for why the price is set at $90.00 per hour per bus and makes it difficult to assess efficiencies in operation.

In general, Value-for-Money of the current form of contract is questionable. WSP|PB's believes the hourly cost is relatively high considering what is provided in return.

3.6 Fleet

The current fleet used to operate local FST service is limiting ridership because the vehicles are not conducive to accommodating a variety of riders. They are high-floor vehicles not accessible for disabled persons with mobility aids or parents with strollers. This also makes it difficult for elderly citizens to board. These vehicles do not promote a "barrier-free" lifestyle. The absence of accessible vehicles will drive the demand for expensive specialized transit trips. With an average cost of $34 per specialized transit trip, it is advantageous to be able to accommodate many eligible riders (seniors and people with disabilities) on conventional transit service.

3.7 Commuter Transit Service

Route 198 is contracted from ETS and provides peak hour commuter transit service at 30-minute headways between the Dow Centennial Centre and the Clareview LRT station in Edmonton. The current commuter service and the local transit operation are designed to meet at the Dow Center in both the AM and PM peaks allowing a smooth transition between services for patrons of the public transit service. The present routing of the commuter service commences in the morning at the ETS Clareview Station and proceeds along Hwy 15 to the intersection of Hwy's 15 and 21 where 15 turns into a local road (94th St.) and proceeds southerly along Southfort Drive to 84th Street, turning East to the Dow Centre where it connects to the two local FST services. On departing the Dow Centre, Route 198 proceeds easterly along 84th Street to 94 Avenue turning northerly along 94th to 92nd Street, 97th Avenue and 90th

Street. The bus then heads easterly to 99th Avenue and northerly to the interchanger with Hwy15 and back along Hwy15 to Clareview Station. Route 198 is not exclusively an express bus, as it also serves nine bus stops in Southfort and the Pineview subdivisions along the route.

3.8 Specialized Transit Service

Fort Saskatchewan has two programs to help meet the transportation needs of individuals with mobility challenges. The taxi voucher subsidy program and the Minivan and Handivan service attend to the needs of Fort Saskatchewan residents with mobility challenges by providing an affordable and accessible means of getting around the City.

3.8.1 Taxi Voucher Subsidy Program

The taxi voucher subsidy program provides subsidized taxi rides to senior citizens over 65, those with physical handicaps, and those with mental disabilities. The program is operated by the Special Transportation Services Society (STSS), a group of community volunteers. The STSS has arranged a contractual agreement with Driving Miss Daisy, a company that provides non-medical services for seniors and those with disabilities or special needs. Subsidized vouchers are available for both in-city service and out-of-city service. Out-of-city voucher are only permitted for approved activities such as medical appointments, hospital visits and vocational training.

The STSS sets the criteria for eligibility into the program. Eligible riders must be a resident of Fort Saskatchewan, either over the age of 65 or have a disability (physical or mental), and have support to receive service from a medical practitioner.

Once accepted into the program, customers are allotted up to 25 taxi vouchers per month with a limit of 3 out-of-town trips per week. The City subsidizes each taxi trip, paying the outstanding costs of the taxi fare. The program accommodates the majority of specialized transit trips with an annual ridership of 5,007 in 2014. This number has decreased by 24% from the previous year's ridership of 6,582. Ridership from the program over the past five year is shown in Table 10.

Table 10: STSS Service User Statistics for Driving Miss Daisy Taxi Program

	2010	2011	2012	2013	2014
In-city use	4950	5005	5749	5415	4201
Out-of-city use	1739	1336	1194	1167	806
Total	**6689**	**6341**	**6943**	**6582**	**5007**

3.8.2 Minivan and Handivan Service

Door-to-door accessible transit service is also provided through Fort Saskatchewan's Minivan and Handivan service. This shared service provides trips within City limits Monday to Friday, 8 am to 5 pm. Trips outside of Fort Saskatchewan will be granted for medical purposes only on Tuesdays and Thursdays. Twenty-four hour notice is required for all trips and subscription bookings are available. The service is operated by City-owned wheelchair accessible vehicles. This service is only available to customers who have mobility challenges and are unable to use the taxi voucher subsidy program. Eligibility is managed by the STSS who requires the completion of a registration form and verification by a qualified medical practitioner. Ridership on Minivan and Handivan service was 400 in 2014.

3.8.3 Specialized Transit Service Recommendations

At this point it is hard to predict what the impact will be on the existing Specialized Transit Services in Fort Saskatchewan. If the regular transit service continues but using low floor (accessible) vehicles, then those registrants on the existing paratransit service will have another transportation option to consider but without the restrictions that are currently associated with specialized services. From a municipal perspective, facilitating registrants off the paratransit services on to conventional services is a net cost savings to the City as door-to-door specialized transit trips are costly for the City to provide (approximately $34 per ride).

4. Stakeholder Outreach

Engaging transit's stakeholders allow an inclusive decision-making process. The transit update study engaged stakeholders with a broad spectrum of interests including riders, non-riders, major developers, employers, and City staff. This outreach was necessary to understand the needs and desires of those who have an interest in Fort Saskatchewan Transit. It ensured those who live, work and visit Fort Saskatchewan, particularly those who rely on transit service, were given opportunities to provide input to the review process. The outreach used a multifaceted approach to reach different audiences or market segments. This process included the following functions:

- Staff interviews and surveys
- Public outreach
- Rider and non-rider surveys
- Peer reviews
- Developer interviews
- Presentations

These outreach functions and their findings are further described in the following sections.

4.1 Staff Interviews and Surveys

Interviews with Fort Saskatchewan staff were conducted to gather input into planning, operational, and administrative process. These personnel have tremendous insights into service operations, issues, and how functions can be improved for a more efficient and effective organization. Various City staff was interviewed from across the following areas:

- Transportation services
- Marketing and communications
- Economic development
- Planning
- Operators
- Taxi operations
- Special Transportation Service Society (STSS)

To supplement the interviews, surveys were also distributed to the bus operators and other front line staff, those who carry out the day-to-day operations of Fort Saskatchewan Transit.

The interviews and surveys provided diverse issues and concerns about operating transit in the growing city. Insights provided invaluable contributions to the transit update study. Some of the interview highlights are summarized below:

- Fort Saskatchewan has no marketing program to promote or monitor transit usage.
- Fort Saskatchewan's hospital, medical centres, and the major shopping centres are not directly served by transit.
- The industrial area, Ross Creek, United Safety, 86 Ave & 101St are not being served. Customers would also like service to Sherwood Park.
- The system right now primarily serves route 198, while local service around the City is secondary.
- There is a coordination issue between FST and ETS whereby there is no ability to for operators to communicate delays on either Route 198 to FST.
- School would be good place to promote service. Students are beginning to ride service more.
- Cornerstone and Southpointe shopping areas the most active areas in the City.
- Downtown area is currently undergoing a long term redevelopment.
- Weekend service, more routes, and more bus stops could increase the use of the system.
- Routes 198 and 583 are more likely to run late.
- Customer complaints stem from too few routes and ETS scheduling.
- Customer compliments are due to good drivers and clean buses.
- Better transit infrastructure needed at the DOW Centennial Centre.
- Dow Centre, Walmart, City Hall, Legion, are population destination points.

4.2 Public Outreach

Public outreach was necessary to gauge what residents think of the new service and how they have used it as a part of their daily routines. Input was derived in two methods. First, the project team completed bus ride-alongs on routes 582, 583 and 198 to engage with riders firsthand. Regular passengers of the FST service provided feedback on the service stating they were satisfied with the services provided. Input was also received regarding the underutilization of some bus shelters. They would be more valuable assets in other locations.

The second public engagement method was an online survey targeted towards both riders and non-riders alike. The survey was administered through SurveyMonkey®, an online survey tool. Flyers containing information on how to access the survey were distributed during the bus ride-alongs and posted in various locations across the system. The survey was also advertised on the Fort Saskatchewan Transit website along with a direct link to the survey. The full survey can be found in Appendix A.

Approximately 70 people completed the survey, of which 62 percent stated they use FST and 38 percent stated they did not. Approximately 64 percent of respondents identified themselves as female and 27 percent male.

Of those who stated they use FST, approximately 71 percent are female, 27 percent between the ages of 18-29, and 42% between the ages 30-49. Most users ride FST often, with 61 percent stating they use the service more than 5 times per week.

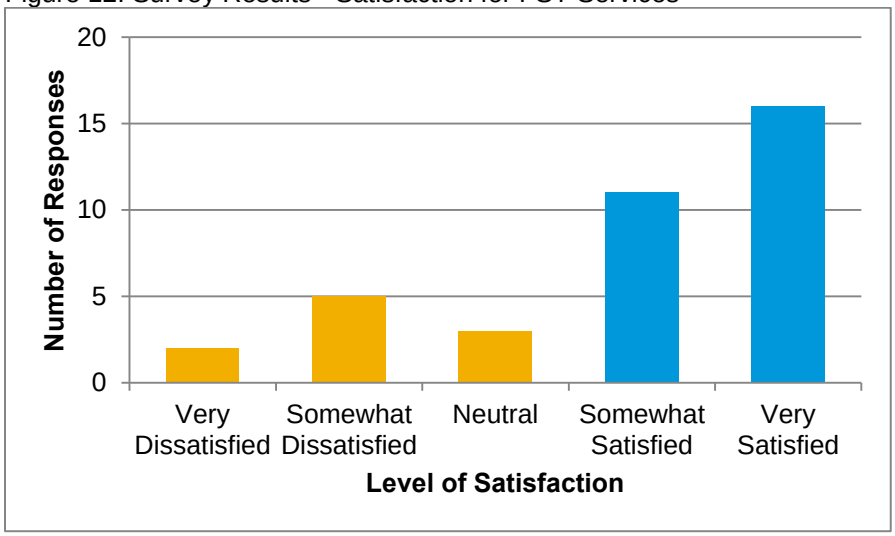
47 percent of respondents typically use route 582, 42 percent route 583 and 76 percent Route 198. About 24 percent of respondents stated they typically only use local routes (582, 583). The top three purposes stated for using FST are:

- Commuting to work (61 percent)
- Connecting with ETS (45 percent)
- Social activities (34 percent)

The most popular method of payment among respondents was cash, followed by an integrated monthly pass and tickets.

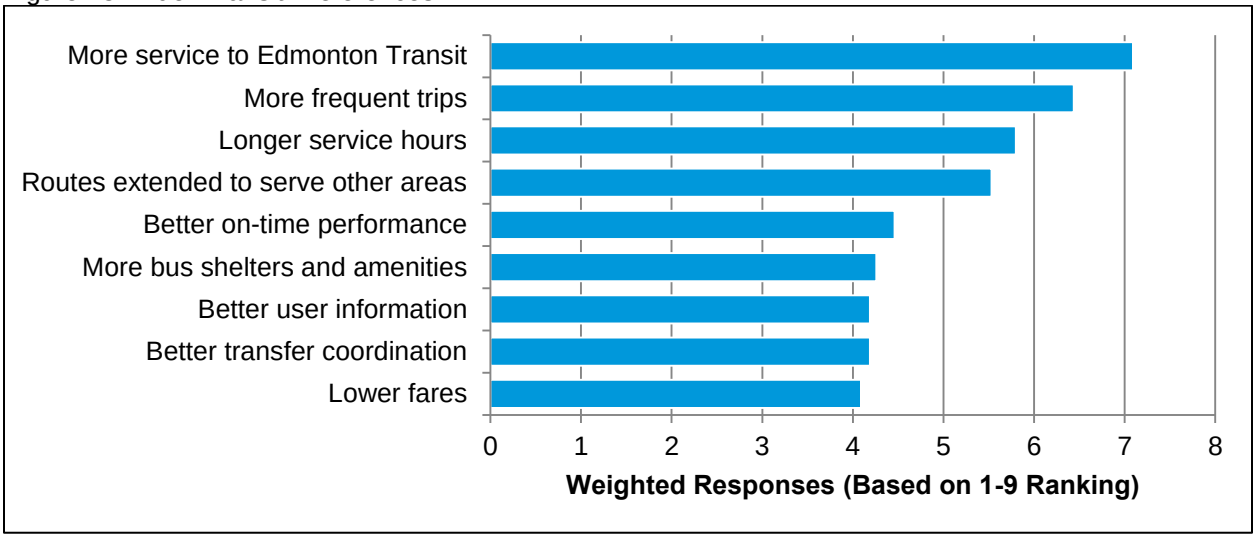
In terms of rider satisfaction with FST services, 73 percent of respondents are satisfied with the services they use, with approximately 43 percent of respondents are very satisfied with these services (Figure 12). Reasons for the dissatisfaction for services were mainly around issues of scheduling and bus frequency for both FST and EST services.

Figure 12: Survey Results - Satisfaction for FST Services



When asked about what features of public transit are most important to them, more service to Edmonton Transit, higher frequency, and longer service hours were the top three ranked responses for the current riders (Figure 13). These should be key considerations to encourage greater ridership and cost recovery.

Figure 13: Rider Transit Preferences



Of those that state they do not use FST, approximately 54 percent are female, 21 percent between the ages of 18-29, 50 percent between the ages of 30-49, and 18 percent between the ages 50-64. The top responses for why non-riders did not use FST services were:

- Routes and schedules don't cover my needs
- Too expensive
- I don't like any form of public transit

When asked about what features of public transit are most important to them, better on-time performance, better user information, and extended routes were the top three ranked responses for the non-riders, suggesting areas of improvement to grow ridership.

Figure 14: Non-Rider Transit Preferences

Most non-users of FST have stated they prefer to travel by car (67 percent) and are familiar with the services offered by FST (72 percent). Nevertheless, 56 percent of non-riders stated they believe public transit service is necessary and reduces traffic congestion.

4.3 Development Community

The project team interviewed the majority of local developers in the City. All are supportive of transit directly serving their properties. Developers see transit as a necessity and key to prosperous city-building. Some had indicated they would be prepared to financially support new transit infrastructure such as bus shelters, benches, and other passenger amenities at their properties. All expressed interest in working with FST for mutual benefit.

4.4 Conclusion

In summary of what we heard from both existing riders and non-riders is that there is a clear demand for transit service in Fort Saskatchewan. Transit already serves as an important life-line for many riders. There has been a demonstrated continuous growth in ridership since the transit pilot inauguration with no service improvement and a status-quo level of financial investment. The transit pilot sets a good foundation for the City to build a sustainable transit system.

With that, however, the current transit network leaves some unmet transit needs in the City and many opportunities for improvement. Transit should serve significant travel destinations, yet FST does not currently serve many desired destinations in the city, such as major shopping, medical, and employment destinations. Current routes are also circuitous and go against the direction of travel, creating longer travel times and are not helpful for shifting the modal split of residents. For example, during off-peak periods, it currently takes 58 minutes to travel from Westpark Drive to Downtown on FST (6 kilometres in distance)– an able bodied individual could walk this distance faster than taking FST.

Weekend service and extended hours are desired by many transit riders. Some residents may be willing to pay more for better transit service, that is, faster trips, high frequency, and greater reliability.

The operating cost of $90 per hour paid to the O&M contractor is high for the services provided. Additionally, the City if billed for 28.5 hours of service, however only 24 hours of FST revenue service is provided. It is likely that the City is paying for deadheading and vehicle servicing as additional revenue hours, not embedded within the hourly cost as is standard practice in the industry.

5. Peer Benchmarking Review

This section uses statistical data to compare the operations of Fort Saskatchewan's transit services with comparable systems across Canada. Industry scans can help to identify differences between municipal operations and also build a foundation for later identification of key performance measures and benchmarking against other transit operations.

The development of this industry scan proved to be challenging as few transit systems operate within a similar context (e.g. geographic context, population size) to Fort Saskatchewan. WSP|PB identified five municipalities that provide transit services that are, to a certain degree, similar to Fort Saskatchewan based on population, suburban form, and relationship within a larger metropolitan area. The five municipalities are Airdrie, Leduc, Spruce Grove, and St. Albert, and Strathcona. Other peer agencies were included in the Agency Benchmarking table

(Table 11) including some outside of Alberta for reference. The context and services of these transit agencies are summarized in Appendix B.

5.1 Peer Benchmarking

Leduc and Spruce Grove are similar to Fort Saskatchewan, particularly considering population size and relative distance to downtown Edmonton. Transit services to Leduc and Fort Saskatchewan have the benefit of connecting to the Edmonton LRT system at the City's periphery. At $3.50 Fort Saskatchewan has a more competitive cash fare than the Leduc service (at $5.00), given that both services only connect at LRT stations where passengers are then required to pay an additional fare to use ETS services. At the same time, the route to Spruce Grove provides direct service to Edmonton's central business district at a competitive $6.00. All three municipalities provide peak period service only. Airdrie, similar to Spruce Grove, provides bus services direct to downtown Calgary for $9.00.

Since 2011, Leduc's ridership has increased 75 percent from 33,000 trips to 58,000 trips. About 75% of the trips are served by Route 1, a commuter route to Edmonton. Alternatively, local ridership in Spruce Grove represents a small proportion of total service ridership. This is because transit service in the city is promoted as a commuter service between Spruce Grove and Edmonton.

For a more extensive peer group evaluation, WSP|PB extended the analysis to include other municipalities that have a similar population to Fort Saskatchewan. These municipalities include: Banff, AB; Cobourg, ON; Hinton, AB; Orangeville, ON; Port Hope, ON; Whitehorse, YK; and Yellowknife, NT. Refer to Appendix B for a summary of services offered by peer group agencies. Population numbers are based on 2011 census information from Statistics Canada or more recent municipal census data.

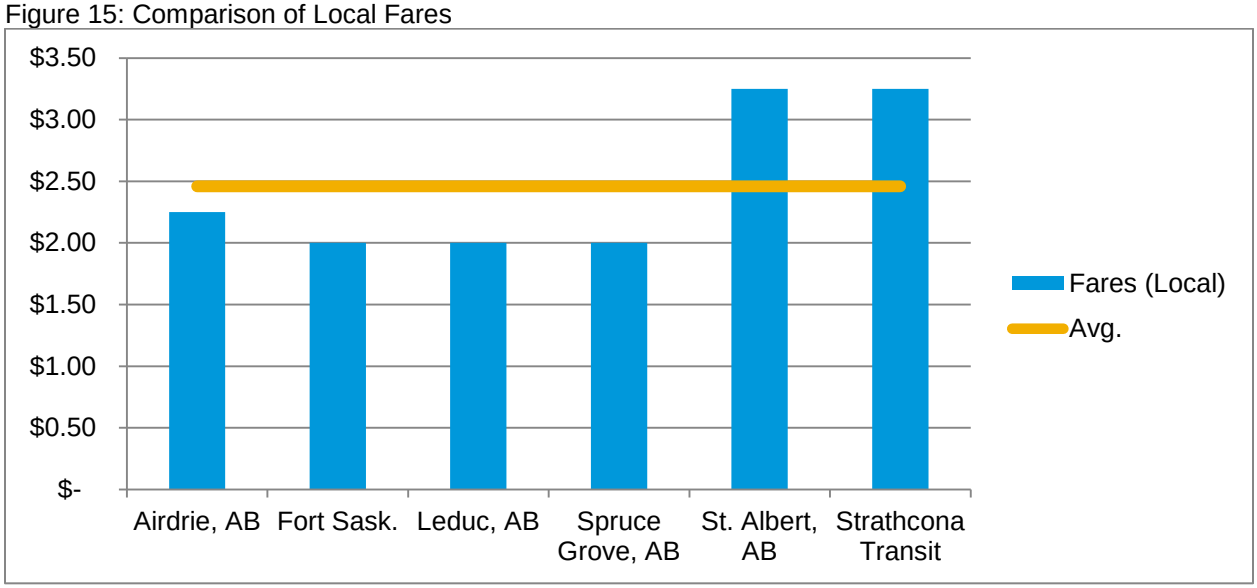
Table 11: Peer Agency Benchmarking

Agency	Population	Local Routes	Local Ridership	Commuter Ridership	Total Ridership	1-Way Cash Far
Fort Saskatchewan, AB	**24,040**	**2**	**11,789**	**24,497**	**36,286**	**L - $2.00 C - $3.50**
Strathcona Transit	92,500	11	290,000 (+500,000)	1,250,000	1,539,612	L - $3.25 C - $6.00
Airdrie, AB	54,891	6			186,635	L $2:00
Leduc, AB	29,304	4			58,269	L - $2.00 C - $5.00
Spruce Grove, AB	29,526	1	931	82,461	83,392	L - $2.00 C - $6.00
St. Albert, AB	63,255	25			1,196,495	L $2:00
Cobourg, ON	18,519	3			109,244	L $2:00
Hinton, AB	9,640				24,846	$3.00
Orangeville, ON	27,975	3			112,100	
Port Hope, ON	16,214	2			61,556	L $2:00
Whitehorse, YK	27,962	5			546,496	L $2:50
Yellowknife, NT	19,234	5			196 ,427	L $3:00

Source: 2014 CUTA Canadian Transit Fact Book

Figure 15 compares the local peer agencies' local fares. FST's local adult fare of $2.00 is similar to both Leduc and Spruce Grove but is still below the average of $2.50.

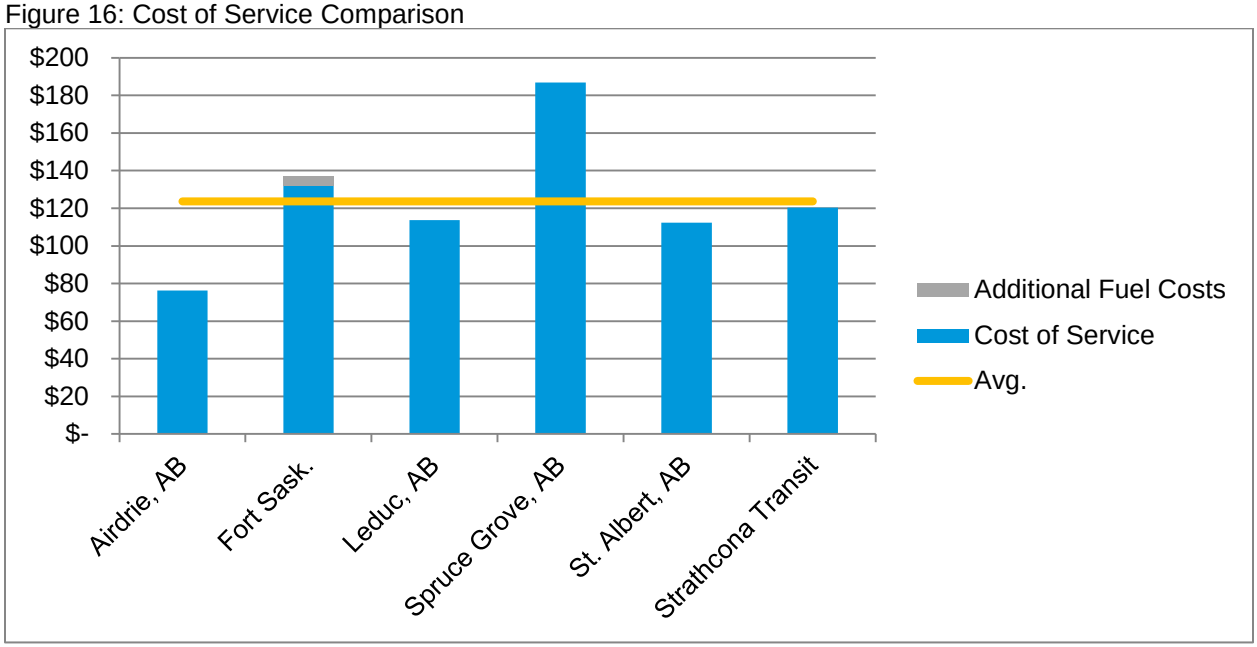
Figure 15: Comparison of Local Fares



5.2 Cost-Recovery

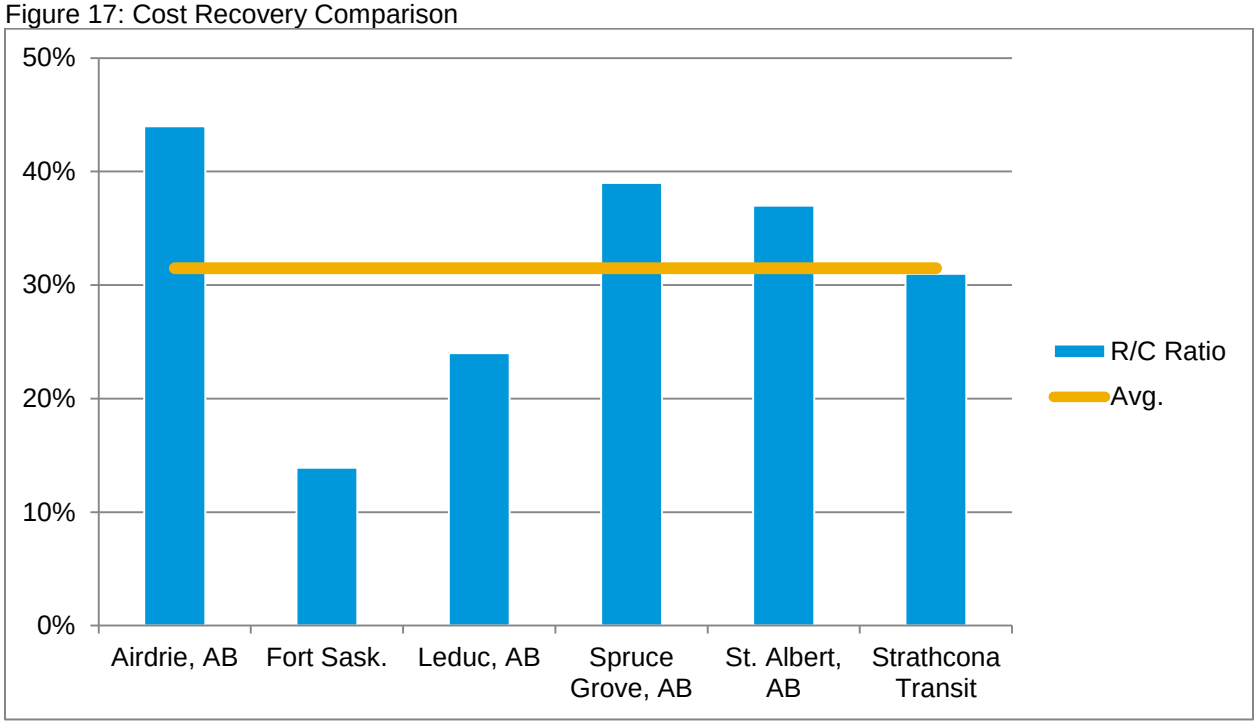
The cost of service for peer agencies uses the 2014 CUTA transit fact book figures for cost efficiency (Figure 16). This figure is calculated using total direct and axillary operating expenses over the total vehicle hours. The FST cost was calculated by averaging the hourly contracted costs for both local and commuter service. As the local service contract does not include the cost of fuel, the hourly rate of the fuel cost was added. FST's cost of service is $137.38 per hour and is above the peer average of $123.61.

Figure 16: Cost of Service Comparison



The cost recovery for peer agencies was derived from the 2014 CUTA fact book figures for total operating revenue and total direct operating expense (R/C ratio) (Figure 17). FST's cost recovery of 13.9% is well below the average of 31.5%.

Figure 17: Cost Recovery Comparison



6. Service Standards (Updated)

Service standards define the role of transit services in the community and ensure appreciated service levels and balanced resource requirements that are based on community driven objectives, as well as a consistent and fair process of continually adjusting and improving transit services to meet varied and changing customer needs (for example, assessing existing services, evaluating service changes and introducing new services).

Service standards define the conditions that require action when standards are not met, but allow flexibility to respond to varied customer needs and community expectations in an accountable, equitable and efficient manner.

Service standards typically comprise:

- Performance targets to measure and monitor the system
- Guidelines for designing services and implementing service changes
- Benchmarks for quality of service

The Capital Region Board (CRB) has developed the Capital Region Growth Plan (CRGP) to provide an integrated and strategic planning approach for future growth in the Capital Region, identifying key development patterns and infrastructure investments and co-ordinate decision-making in the Capital Region that will balance economic growth with healthy communities and the environment.

The CRB has conducted a study and developed recommendations for service standards for the delivery of inter-municipal service, which would apply to commuter connections from Fort Saskatchewan to Edmonton or Strathcona County (Sherwood Park or Industrial Heartland). As

noted in that report, the recommended service standards are a strategy for the long-term development of comprehensive and unified services in the Region, and while they are not necessarily targets for individual systems in the short-term, these goals have been considered in the development of recommended service standards for commuter connections.

Varying service route types require separate service standards. Fort Saskatchewan adopted the following route classifications:

- **Commuter Route** – Inter-municipal connections from Fort Saskatchewan to adjacent and other municipalities, primarily focused on employee and student commuters.
- **Local Route** – Serve local needs within the City of Fort Saskatchewan and fringe areas, as well as connecting services to commuter routes. These routes serve a variety of markets and are focused on local residential areas and connections to important local destinations. These routes should have a base level of service and service hours to meet transit demand in local neighbourhoods.
- **Specialized Services** – These services provide accessible door-to-door service throughout the community (and inter-municipally) for those residents with mobility or other challenges that prevent them from using other services. Whether or not the City chooses to integrate specialized services or continue to support a separately managed service, it is important that the City develop standards for these services and financially support the delivery of these services to those standards.

Where appropriate, specific service standards and performance measures are recommended for each route class.

6.1 Service Design Standards

The following service standards deal with route coverage, service hours, service levels (frequencies), route structure, route performance and vehicle loading, and are used for service design, evaluation of transit routes and to set the decision-making basis regarding service changes and improvements.

6.1.1 Span of Service and Service Frequency

A core service of hours ensures that customers have a clear commitment as to the provision of service. This commitment is an important element in the decision to use transit in the long term. If service levels vary too much, customers will have less faith in the system and have fewer propensities to choose transit. On the other hand, it is important not to set hours of service too wide in the standard, to ensure appreciating level of service effectiveness and efficiency.

Frequency of service is also an important standard and must be considered in conjunction with the hours of service. Frequency of service is often ranked inversely with service reliability in terms of customer service, that is, service reliability is a critical factor where service frequencies are low, but less important where service frequencies are very high.

It is also important to recognize that service frequencies are critical to attracting ridership, and that in lower demand areas service must be provided at an acceptable base level to be considered attractive to passengers.

There is considerable evidence to show that ridership levels are directly correlated with service levels, and that higher levels of service will drive additional ridership, though not immediately.

Generally services at levels less than 30 minutes (e.g. 45- or 60-minute service) are considered less attractive to passengers. The CRB recommendations for minimum service levels are 30-minutes in peak and 60-minutes in off-peak for inter-municipal services.

In these and in most standards, the benchmark for specialized services is to provide similar service to that of the local conventional service, providing the opportunity for equivalent service for those with specialized mobility requirements.

Current Standard

FST local routes currently run weekdays from 5:25 am to 8:28 pm. This span of service is sufficient as it provides coverage of morning and evening peak periods and provision of connections to all ETS runs. This service is adequate for most work and school commutes.

FST adheres to CRB recommendations for minimum service levels with 30-minutes during morning peak (5:25 am to 7:51 am) and afternoons/evenings (1:22 pm to 8:28), and 60- minute service during off-peak (7:55 am to 12:51 pm), which correlates with ETS service runs.

Recommended Standard

Table 12 shows the recommended combination of service hours and frequency. Periods where span or frequency are indicated as “based on demand” have no minimum service requirement at this time, but service should be provided where ridership and revenue would meet the minimum performance guidelines in those areas. This standard should be reviewed on an on-going to ensure consistency with current community objectives.

Table 12: Hours of Service and Service Frequency Standards

Period	**Service Span**			**Minimum Service Frequency**	
	Commuter Routes	**Local Routes**	**Specialized Service**	**Commuter Routes**	**Local Routes**
Weekdays					
AM Peak	5:00 am – 8:00 am	7:00 am – 9:00 am	Same as local	30 minutes, minimum 3 trips	60 minutes
Midday	8:00 am – 3:00 pm	9:00 am – 3:00 pm	Same as local	Minimum 1 round trip	120 minutes
PM Peak	3:00 pm – 7:00 pm	3:00 pm – 6:00 pm	Same as local	30 minutes, minimum 3 trips	60 minutes
Evening	7:00 pm – 10:00 pm	6:00 pm – 10:00 pm	Same as local	Minimum 1 peak direction trip	Based on demand
Saturday	Based on demand	Based on demand	Same as local	Based on demand	Based on demand
Sunday/Holiday	Based on demand	Based on demand	Same as local	Based on demand	Based on demand

Whether or not a particular local class route operates in any given period other than weekday daytime periods is subject to the ridership performance levels. A service in any of these periods should be considered in the following order:

- To meet service coverage requirement
- To meet route performance standard

This means that service may not be considered in some areas if 95 percent of the population of service areas are served and the service cannot meet the minimum route performance standard.

6.1.2 Service Coverage

A service policy of providing 400 m coverage to 95 percent of the population is typical of many municipalities. However, to allow service design flexibility in low demand areas such as industrial lands, and for low demand periods, while still meeting the objectives of the service coverage standards, the following standards are proposed for service coverage. Service coverage standards are recommended to be the same for all classes of service; the CRB report has no service recommendation for inter-municipal services.

Recommended Standard-Commuter and Local

Fort Saskatchewan Transit should consider revised routes to serve residents, places of work, secondary and post-secondary schools, major shopping centres and public facilities in the defined service area that are beyond the following distance from a transit route:

- 400 m walking distance for residential and commercial areas prior to 7:00 pm Monday through Friday.

The objective is to provide service to approximately 95 percent of the population for their travel needs by transit within the service area. An area may be excluded from consideration if transit needs of 95 percent of the population are met based on the proposed service coverage standards.

As a guideline to maximize transit service coverage and convenience in the community, services should be arranged to get closer to major generators and destinations. Staff and Council must also use the walk distance standard to assist in locating new facilities relative to existing routes. For example, the locations for proposed seniors residences or activity centres must consider the location of existing routes and services. This gives staff and Council an effective tool to avoid making costly and inconvenient detours to serve facilities or areas that are already within defined service areas.

6.1.3 Route Structure

Given the role different types of routes play in the system, route structure including alignments and connections of both mainline and feeder routes become very import to ensure passenger convenience and overall travel time for transit riders.

Overall travel time and number of transfers are important factors in the decision whether or not to use transit, and should be minimized. Routes need to directly connect major trip generators and destinations along main travel corridors, while feeder services should be designed to serve local activity centres and connect to mainline services.

CRB proposed standards specify that 95 percent of commuter passengers transferring to LRT should be accommodated with no more than one additional transfer in peak periods.

Recommended Standard

- **Commuter Routes** – Routes classed as commuter routes should connect the major trip generators and major transfer points in urban service areas following the most direct and/or fastest route.
- **Local Routes** – Routes classed as local routes should operate on main roads (arterials and collectors) in the service area. They will be oriented as much as possible to the main travel corridors, but will deviate to residential areas, schools, shopping centres, major employers or other major activity centres where ridership warrants.
- The route network should be designed to minimize transfer requirements for a one-way transit trip within the service area while ensuring appropriate service efficiency. Where transfers cannot be avoided, convenient and easy connections between routes should be designed to ensure attractive and customer friendly services.
- Ninety percent of transit trips to key destinations in the services should be accommodated with not more than one transfer.

6.2 Route Performance Standards

Route performance standards are required to determine at what level service should be provided. To establish thresholds for performance of routes, it should acknowledged that routes will vary in their performance, with some exhibiting superior performance and others exhibiting lower performance levels. To meet a variety of system objectives, top-performing routes must be allowed to support other lower performing routes, ensuring that:

- The average performance of all routes meets system objectives
- A minimum performance level is established and met by each route

WSP recommends that local route performance be assessed on the basis of total boardings per vehicle-hour to ensure a fair and simple process for route performance monitoring. For specialized service, this statistic is passengers per hour, since there should be no transfers in a system this size. The proposed standards in this area reflect the lower standard for service frequency. If service frequency standards are strengthened, similar changes should be made to the route performance standards.

For commuter services, which provide a more express type of service, the routes should be held to a higher standard, and the standard needs to reflect longer distance trips with fewer boarding and alighting opportunities. For this reason, commuter routes are based on percent of seating capacity, and can be assessed on a trip-by-trip basis, subject to the minimum service requirements.

Recommended Standard

For transit services in Fort Saskatchewan, the ridership levels identified in Table 13 must be met unless the route is required to meet the route coverage requirement. If these thresholds are not met, staff will be obliged to assess and recommend alternatives (e.g. restructured routes, adjusted service frequencies or span of service, etc.) that will improve the performance of the route, while ensuring that coverage standards are met.

Table 13: Route Performance Standards

	Weekday Base (7:00 am – 6:00 pm)	Other Service Periods

	Average	Minimum	Average	Minimum
Commuter Routes – percent of seating capacity	80	60	75	50
Local Routes – boardings per vehicle-hour	15	10	10	7
Specialized – passengers per vehicle-hour	4	2	3	2

6.3 Vehicle Loading Standards

The application of the vehicle loading standards depends on whether the objective is to limit standees to ensure good quality service, or limit vehicle crowding. If the goal is to limit standees, the typical 150 percent threshold remains appropriate, and consideration should be given to matching capacity of the vehicles to ridership levels on the route to avoid unnecessary increases in service levels. For local services, given the lower levels of service proposed in the standards, and the likelihood of using a smaller vehicle, a standard of no standees is recommended, unless a conventional transit bus is used.

The CRB service standards recommend standards based on the standing area configuration of the bus and service frequency. These elements have been considered in the commuter standards proposed here, and are based on the types of buses likely to be provided on commuter service and the proposed service level standards.

Recommended Standard

To ensure standing passengers on all transit vehicles have enough floor space for a comfortable ride and to limit overall crowding on the vehicle, maximum numbers of passengers on-board transit vehicles (measured at the peak point of the route over the peak 60-minute period) are established for each size of possible future transit vehicles in Fort Saskatchewan. Vehicle loading standards are shown in Table 14.

Table 14: Vehicle Loading Standards

	Weekday Base (7:00 am – 6:00 pm)		**Other Service Periods**	
	Average	Maximum	Average	Maximum
Commuter Routes	45	50	45	50
Local Routes – percent of seating capacity	100	125	75	100
Specialized – percent of seating capacity	NA	100	NA	100

6.3.1 On-Time Performance

On-time departures from a stop are defined as departure from zero minutes before to three minutes after the scheduled departure time. The minimum performance threshold for on-time performance is 90 percent of all trips.

6.4 Performance Measures

The following section outlines the recommended guidelines to guide the monitoring and development of services based on current performance and peer benchmarking. The recommended values in each of these areas reflect a desire to improve service levels and promote ridership growth.

The objective in establishing guidelines and monitoring performance in these areas is to improve year-over-year performance, recognizing short-term impacts of service increases.

6.4.1 Amount of Service

Vehicle hours per capita are an important measure of the amount of service provided. Vehicle-hours provided in different systems tend to increase exponentially with population size, so that vehicle hours per capita increase with population in a linear fashion. In practice, this means that for conventional services, small systems tend to provide service in the range of 0.50 to 0.75 vehicle hours per capita, while large systems typically provide in excess of 2.0 vehicle hours per capita. For systems similar in size to Fort Saskatchewan the typical range is 0.25 to 0.75 vehicle hours per capita.

Current Standard

The current performance (based on the existing commuter service) is less than 0.20 hours per capita, indicating room for improvement over time.

Recommended Standard

It is recommended that a minimum of 0.25 vehicle-hours per capita be established to guide the provision of services in the short-term.

6.4.2 Financial Monitoring

Financial performance is highly related to the role of transit in the community. Municipal government provides public services for a variety of reasons, including social, environmental and economic; all of which are benefits that transit brings to the community. Public transit plays an important role in the community to meet transportation needs and support sustainable economic, social and environmental development in the community.

For this reason, financial performance alone should not be used to assess system performance, particularly considering minimum requirements of service coverage and service levels. Also, the financial performance is significantly affected by inflation, particularly the changing fuel cost, which cannot be precisely predicted and will significantly reduce or eliminate evidence of progress in this measure. Therefore, financial measures are addressed in this document as an effective monitoring tool, but not recommended as a standard. Fort Saskatchewan should carefully monitor the financial measures in Table 15 with consideration of the price index.

In these standards, the target performance for specialized transit is reduced, based on a preferred scenario that reduces the fare for specialized services and increases the amount of service provided.

Table 15: Financial Measures

	Cost Recovery		Net Cost per Passenger		Cost per Hour	
	Current	Target	Current	Target	Current	Target
Commuter	.30	.50	8.00	4.75	$175	$175
Local	.139	.25	NA	4.00	$90	$90

6.5 Other Guidelines

6.5.1 Bus Stop Guidelines

From a simple on-street stop to a major transfer point and terminal facility, the key interface between transit services and transit riders occurs at transit stops. Each of these should be

properly designed and equipped to ensure the appropriate level of customer services and amenities, transit operational requirements and system marketing opportunities.

Bus stops should be placed at passenger generators and transfer points based on potential ridership and with safety considerations, as well as possible traffic conflicts. New bus stops should generally be located at least 200 m from the nearest bus stop unless site specific considerations require the need for closer spacing.

As general guidelines, bus shelters should be installed based on following priority factors:

- All terminals and major transfer points
- High boarding locations
- In front of hospitals and major medical facilities, senior citizen residences and other institutional facilities
- Locations with unique exposure to inclement weather

To promote passenger and operational safety, bus stops should not be located, and route designs should not require that vehicles stop:

- Directly at the bottom of hill
- On an incline greater than five percent

The basis for this guideline is to ensure that operators are able to stop safely on a decline or accelerate safely on an incline. Table 16 provides a basic hierarchy overview of passenger amenities at stops and related facilities.

Table 16: Amenities by Identify Bus Stop Type

Stop Type	Amenities
Basic Stop	• Basic stop on all routes • Convenient access • Visible sign • Restricted auto zone
Multi-Route Stop	• Transfer point • Major stop, higher demand location • Served by more than one route • Probable shelter location • Benches, garbage can • Route and schedule information
Major Transfer Point	• Point where multiple routes converge to facilitate convenient transfers • No provisions for schedule route layovers • Shelter location • Benches, garbage can • Route and schedule information
Terminal	• Major destination, combined with system access and transfer point • Formal pedestrian connections and access to destination facilities • Dedicated, sheltered platform area • Provisions for scheduled route layover • Full information services • Staffed information centre • Security

6.5.2 Service in New Areas

Services introduced in new areas not previously served should be guaranteed for a minimum 12 months of operation to ensure adequate time for travel patterns to adjust and for four-season ridership patterns to be accounted. At the end of the 12 months the service must meet the minimum performance thresholds required for its class of service.

Within this trial period, interim targets are set to ensure that a service that is clearly not capable of meeting the ultimate targets is identified as early as possible. Monitoring at three, six and nine months is conducted to ensure that the new service is trending towards the appropriate standard. Targets for these interim periods are set at 25 percent, 50 percent and 75 percent of the ultimate target, respectively. If the performance at the end of each period has not reached at least 75 percent of the target value, the route should be re-examined to identify potential changes to improve its performance. If the same standard is not met in the next period, the changes should be recommended.

6.5.3 Service in New Operating Periods

Changes that introduce service in new operating periods on an existing route or modify the existing service are subject to a similar evaluation as new routes, but over a shorter six-month period. If the service change is substantial, staff may recommend a longer trial period. For a six month trial, interim targets are established at two months and four months with target levels of 33 percent and 66 percent of the ultimate target.

7. Levels of Service

This section offers a diagnostic review for the existing conventional transit service for its adequacy of frequency and connectivity. A detailed review of the current conventional transit network was completed using available data. This data included:

- Route alignments, timetables
- Ridership data for ETS (Route 198) and Fort Saskatchewan Transit (Route 582/583)
- Driver comments on current issues, problematic routes and congested areas
- Fort Saskatchewan staff experience, notably on current issues, trends in complaints and City orientations
- Fare collection data
- Internet public survey
- Transit operator survey conducted to provide insight into ridership, major trip generators, current issues and areas of delay

This information assisted in providing background information for the analysis of the existing transit network. The following elements of the transit system were key considerations during our analysis:

Elements of the Transit System

- Transit walking access
- Waiting for buses
- Riding on-board
- Transfer

- Safety
- Service reliability
- Fares and passes

The main component of assessing the level of service of a transit system is connectivity. Connectivity is best measured by travel time between the all areas of a City, but especially the travel times between main travel links (i.e. populous residential zones and major destinations). The population of zones and major destinations are shown in Figure 8 in the Market Analysis section.

Travel time between major zones is an integrated parameter in assessing all elements of a passenger's transit trip.

Each of above elements is a function of different transit service standards and summarized in the table below:

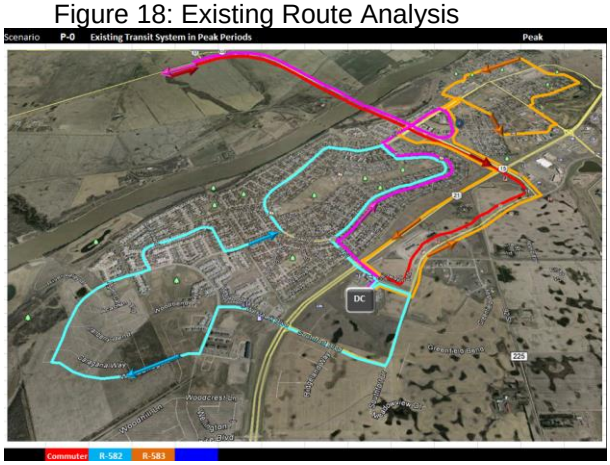
Table 17: Travel Time Factors

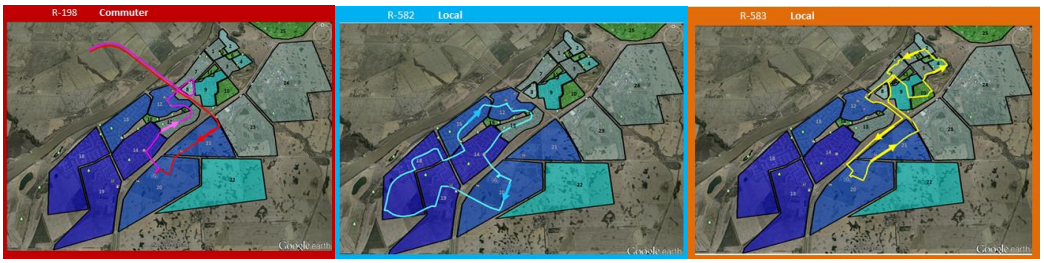
Travel Time Factors	Function of:
Transit access/egress	• Transit coverage
Waiting for buses	• Transit frequency • Service span
In-vehicle riding	• Route directness • Travel speed
Transfer between routes	• Transit route structure • Transfer convenience

7.1 Output Analysis

Current level of service analysis of the existing network was completed using WSP|PB's proprietary transit analysis tool. This tool analyzed various elements of the transit network for both peak and off-peak services. To produce the output tables, the existing route data was overlaid on the population and land-use zones (Figure 18). Various travel time and travel speed data was assessed between each of the zones based on the current transit routes and schedules.

Figure 18: Existing Route Analysis





The outputs from the level of service analysis are depicted in Figure 20 to Figure 23. Below is a description of the analysis and serves as a legend to the level of service output found in the following sections.

Travel Speeds & Travel Time

Travel speeds and times were calculated between each zone in Fort Saskatchewan to the 4 major destinations identified in the Market Analysis section. The major destinations are:

- D-1 : Edmonton (Clareview LRT)
- D-2 : Fort Saskatchewan - Downtown
- D-3 : North Commercial Area (Fort Mall)
- D-4 : North-East Commercial Area (Cornerstone, Southpointe, Medical Clinic and Hospital)

Travel speeds measure the average trip speed from each zone to reach the major destination by transit. This represents the level of access provided by the transit system. The speeds are color-coded based on the acceptable speeds for transit trips.

Green speeds are those greater than 30km/h and deemed acceptable transit speeds, albeit slower than the average speeds for personal automobile travel trips.

Red travel speeds mean there is no direct transit service to those destinations. The city-wide average for no service zones is 4km/h, based on the average walking speed.

In addition to travel speeds, travel times were also calculated. Travel times represent the average amount of time someone from each zone would need to complete a trip to each major destination. This time is inclusive of time needed for traveling to the bus stop, waiting for the bus, transfers and riding on-board.

Travel time is an important output for this analysis as it is a significant element potential passengers will use to decide whether or not to use public transit.

Connectivity

Our analysis measures connectivity from each Fort Saskatchewan zone to the four major destinations. City-wide travel time and speed averages are calculated based on a weighted average of each neighbourhood's population. This shows how well the city's transit routes are serving the City's population.

The breakdown of travel speeds (i.e. Figure 21) highlights how well the city's populations are being served to each destination. It describes what proportion of the city is impacted by each

level of service to the major destinations. For example, 92% of the population is able to access downtown during peak periods with transit speeds less than 20km/h, while 100% of the population does not have direct connections to the hospital.

Any travel speeds less than 30km/h are deemed to have unacceptable transit access. It is the point at which it is more advantageous for riders to use other forms of travel.

7.2 Peak Service Analysis

Below is a summary of the existing conventional transit peak service analysis from the outputs captured in Figure 20 and Figure 21.

- The city-wide travel speeds to major destinations are: 25.3km/h to Edmonton and 6.4km/h to downtown.
- Currently Cornerstone retail area and the hospital are not *directly* served by transit. Walmart is over 400 metres and the hospital 200 metres from the closest bus stop with unacceptable travel times from major neighbourhoods.
- 30% of the population have acceptable travel speeds to Edmonton.
- 0% of the population have acceptable travel speeds to the City's downtown.

7.3 Off-peak service analysis

Below is a summary of the existing conventional transit off-peak service analysis from the outputs captured in Figure 22 and Figure 23.

- The city-wide travel speeds to major destinations are 6.4km/h to downtown, only slightly faster than walking speeds.
- The transit system has poor access to Edmonton, Cornerstone, and the hospital during the off-peak.
- 0% of the population have acceptable travel speeds to the City's downtown.
- 95% of the population have travel speeds less than 20km/h to the City's downtown and 5% have no service to that area.

7.4 Conclusion

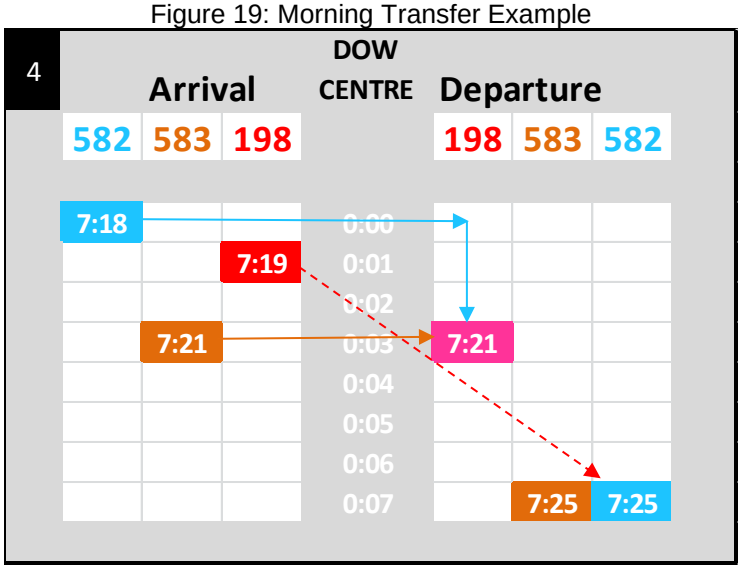
Travel time is a key component in the level of service analysis. Potential riders will look at travel times when making decisions on taking transit and typically dictates the demand and usage of the system. The analysis of the existing transit service has highlighted a few issues that are degrading the transit travel times for riders.

- Connectivity within the City is sometimes worse than connections to Edmonton. For 3 of the zones, travel times to the City's downtown take longer than to connect to Edmonton. In general, the city-wide average for travelling downtown is 41 minutes. This is an unacceptable travel time given the size of Fort Saskatchewan.
- The most populated areas in Fort Saskatchewan have poor connections to Edmonton. The most populated residential zones are located in South-western area. Zones 14, 18, and 19 represent 39% of the City's population (depicted in dark blue). However, 2 of the

3 zones have poor connections to both Edmonton (65-69 minutes, at 20-25km/h) and the City's downtown (53-57 minutes, at 6.3-6.6km/h).

→ Uncoordinated transfers add more time to transit trips (Figure 19). Buses arrive and depart at separate times from the Dow Centennial Centre. Transfers on the local routes sometimes require a 7 minute layover. This is unnecessary added travel time and too long given the size of the City. There are no commuter transfers, which are further inhibited by a lack of communication between FST and ETS services.

Figure 19: Morning Transfer Example



Our goal in devising transit routing options is to increase travel speeds for the majority of the population to decrease overall travel times. This is accomplished by creating more direct and faster routes for the most populated areas in the City. Greater coverage will also be necessary to serve the major destinations for City residents.

Figure 20: Existing Peak Service Analysis – Summary

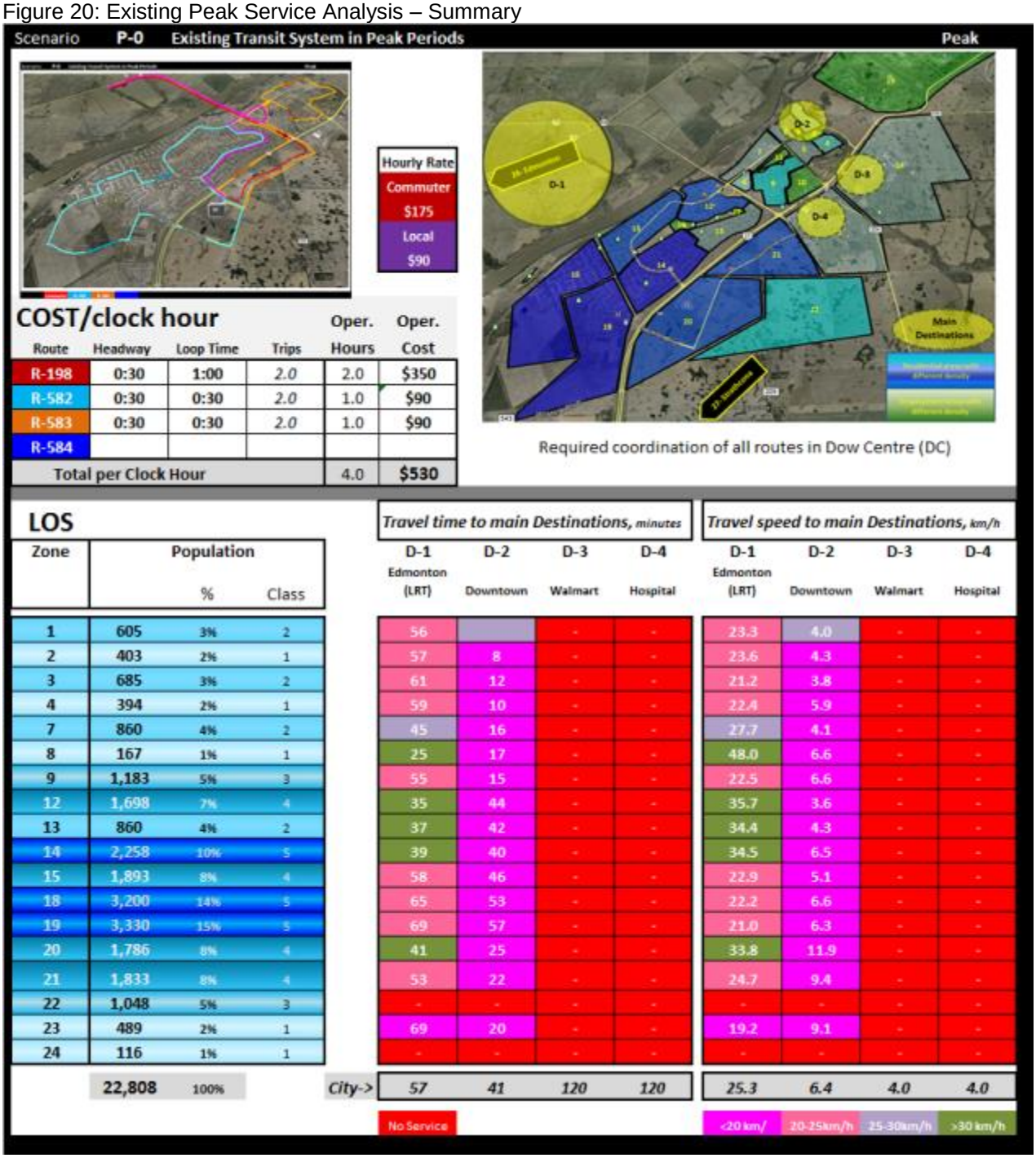


Figure 21: Existing Peak Service Analysis – Travel Speed Breakdown

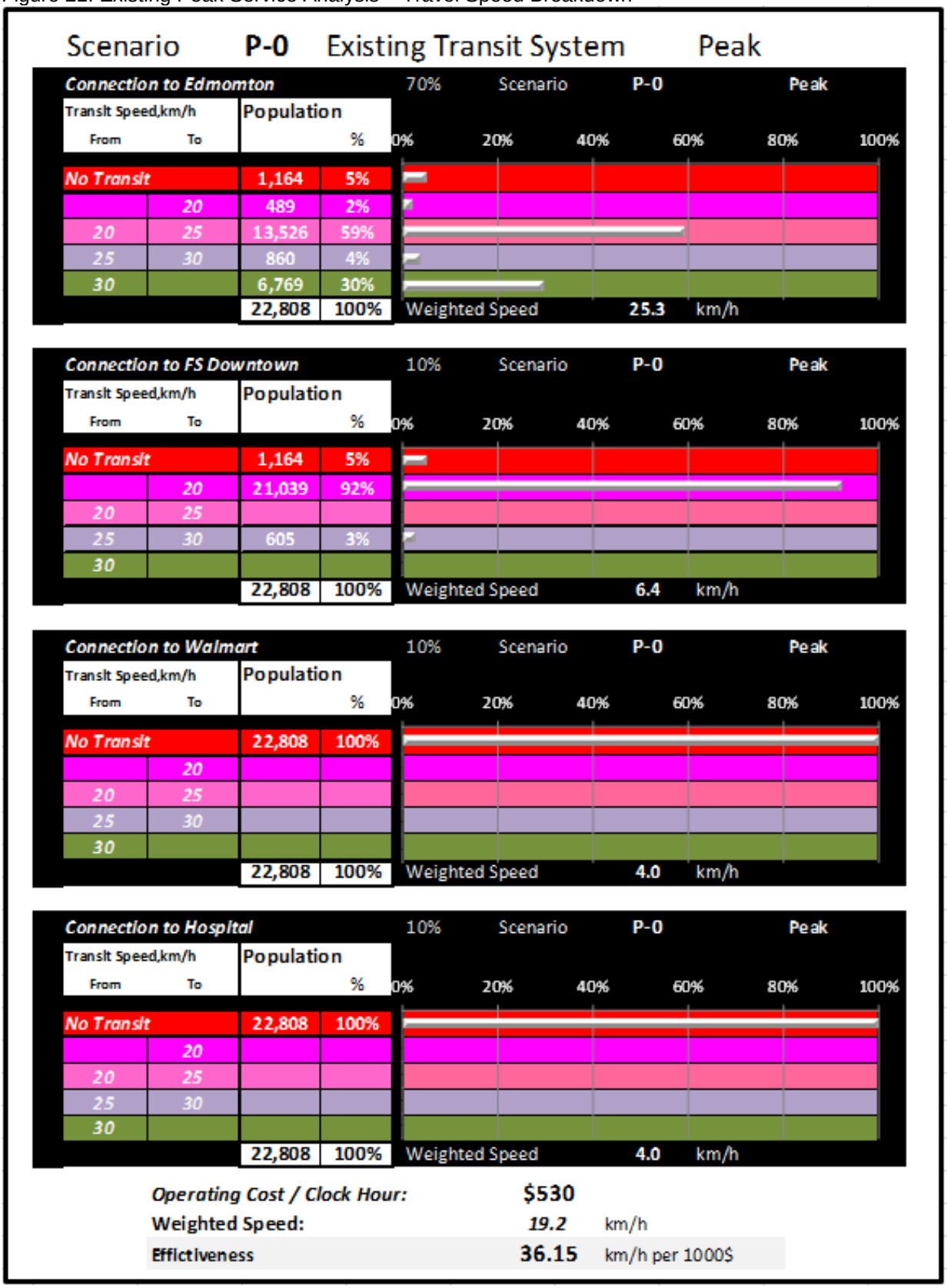


Figure 22: Existing Off-Peak Service Analysis – Summary

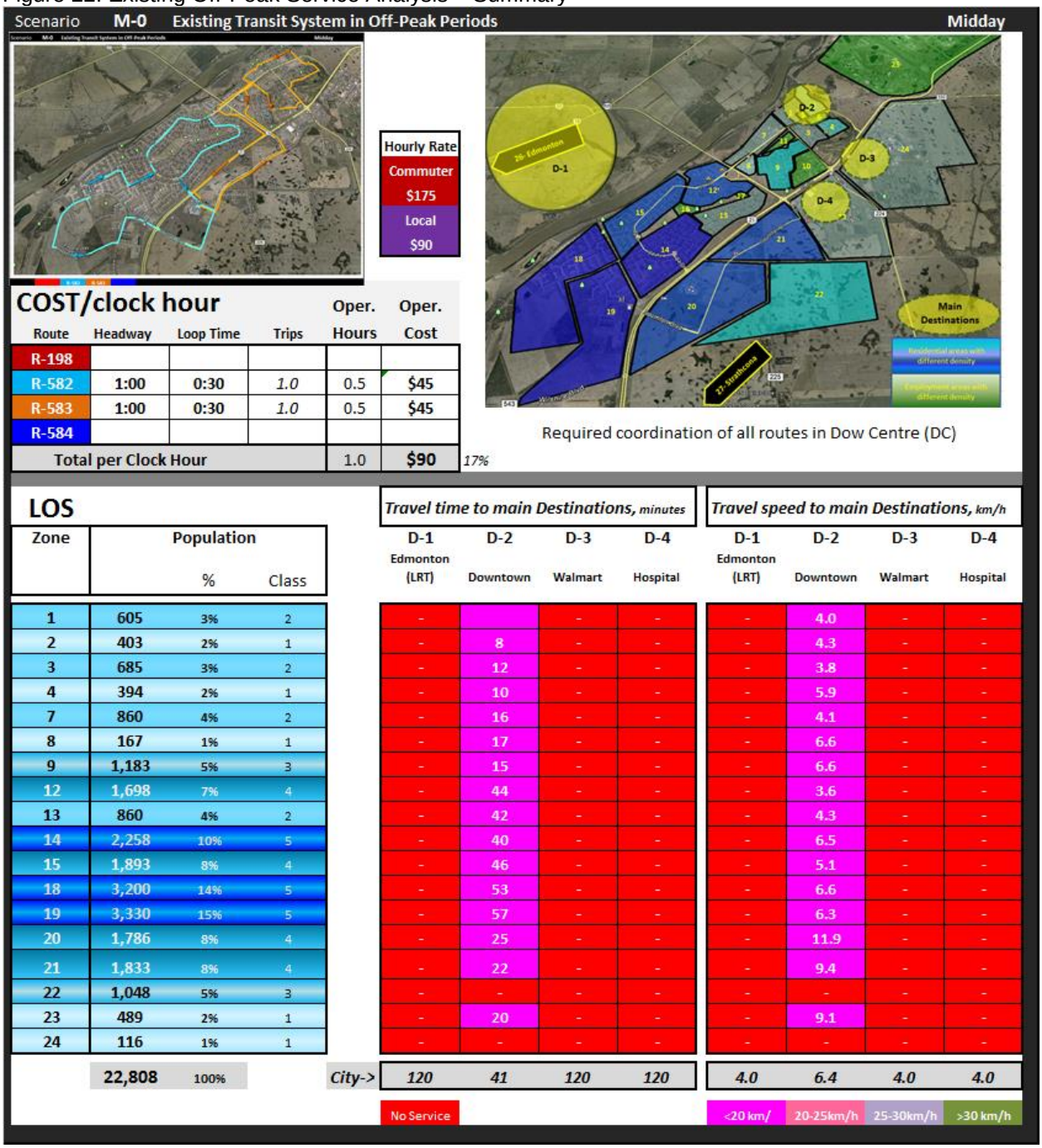


Figure 23: Existing Off-Peak Service Analysis – Travel Speed Breakdown

8. Proposed Service Modifications

Based on our analysis of existing travel demand, consultation results and ridership data, we have identified route modifications options available to Fort Saskatchewan Transit.

Key destinations for Fort Saskatchewan residents include (Figure 8):

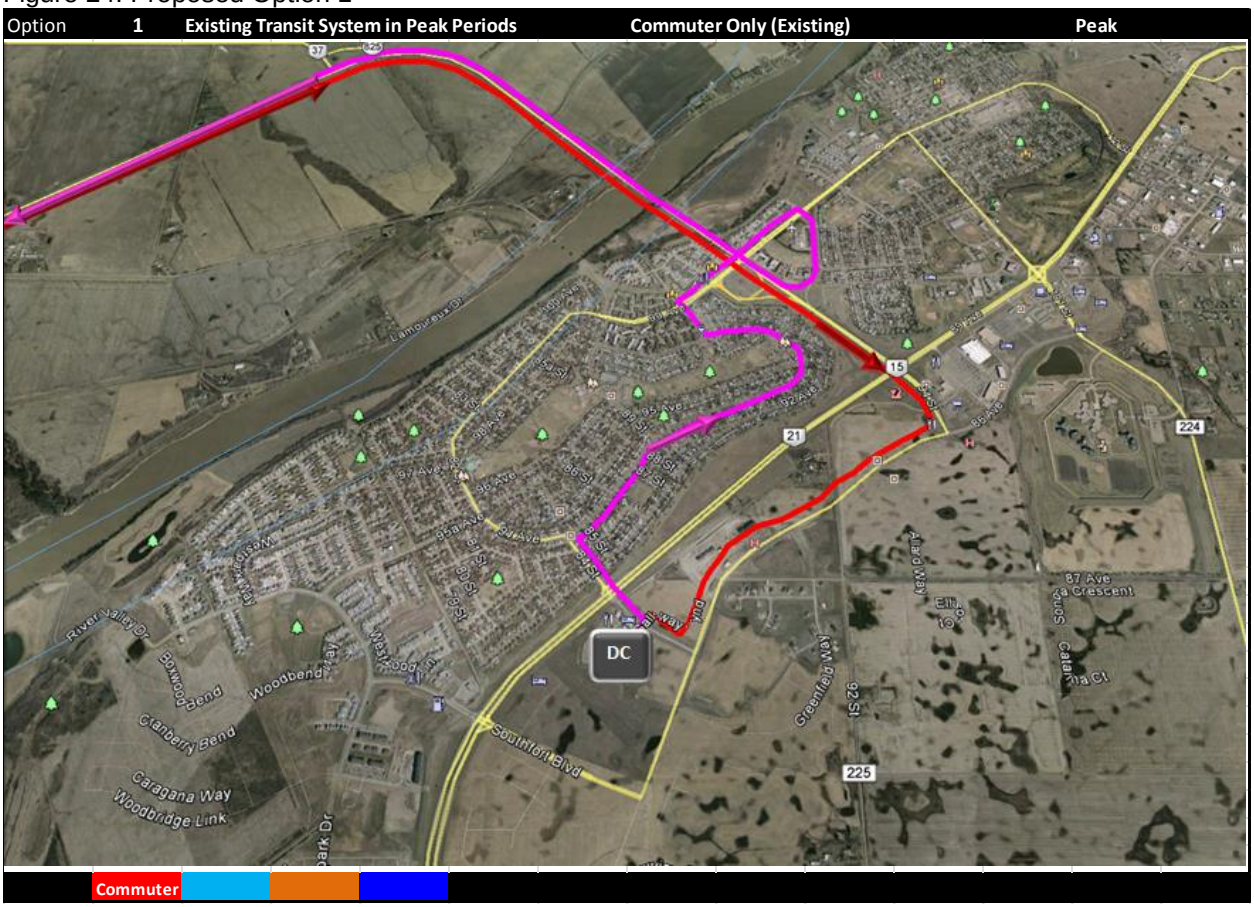
- D-1 : Edmonton (Clareview LRT)
- D-2 : Fort Saskatchewan - Downtown
- D-3 : North Commercial Area (Fort Mall)
- D-4 : North-East Commercial Area (Cornerstone, Southpointe, Medical Clinic and Hospital)

A number of service and routing options have been developed, and each varies based on factors such as number of routes provided, route alignment, and hours of service.

The following sections provide an overview of each option using WSP|PB's transit analysis tool. More detailed information for each of the service options is provided in Appendix C.

8.1 Option 1 – ETS Commuter Service Only

Figure 24: Proposed Option 1



The first option is to eliminate local FST service and only provide ETS commuter service to service local stops based on its existing alignment. Service is only provided during peak-periods.

Annual Direct Cost	Annual Revenue	R/C Ratio	Net Cost	Ridership
$591,500	$98,583	16.7%	$492,917	39,000

Summary of Option 1

Advantages

- One seat ride from Fort Saskatchewan to Edmonton
- Estimated hourly cost: $350 – cheapest of all three options.

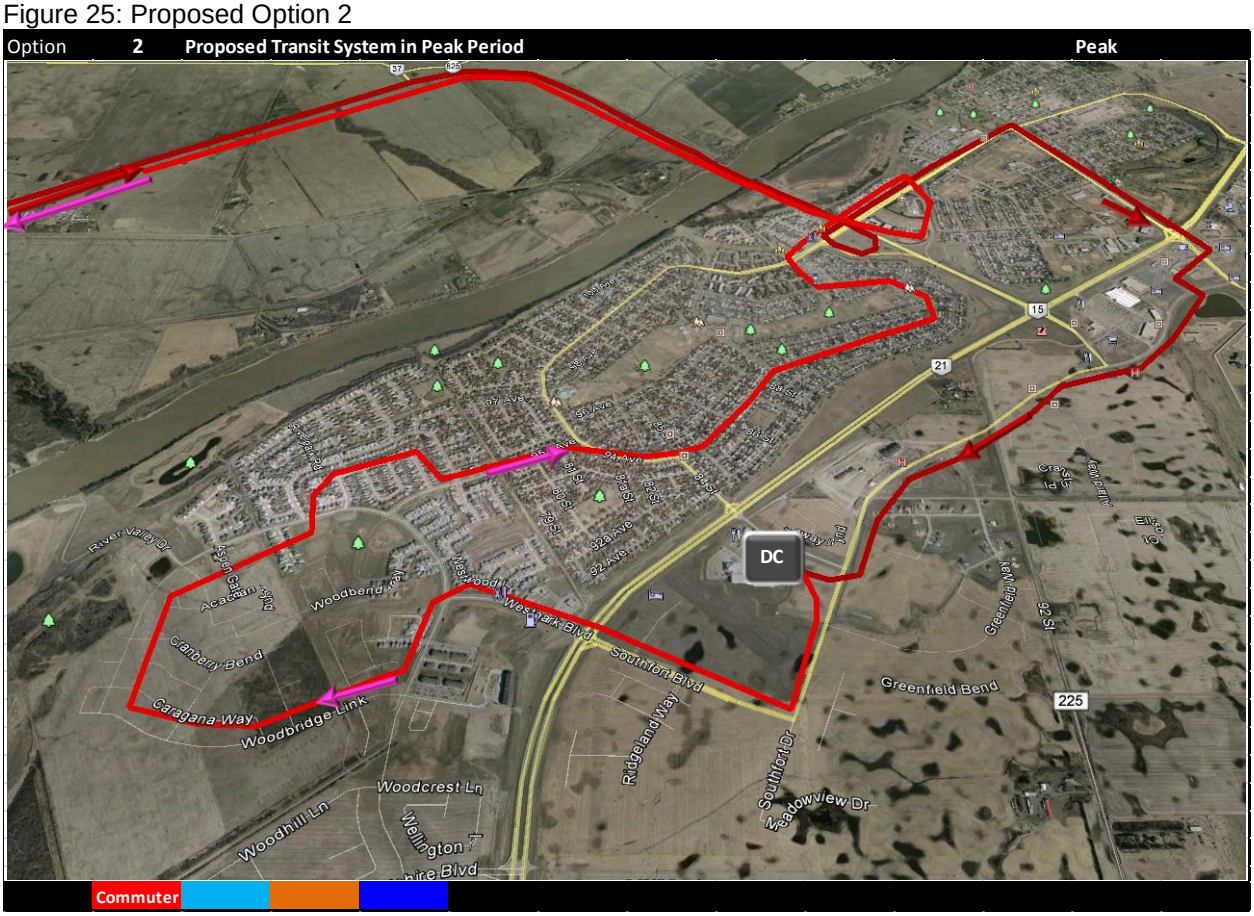
Disadvantages

- FST service is no longer available to make local trips or connections with ETS service.
- Total transit travel times to Edmonton now increased to a city-wide average of 79 minutes.

- → The most populated areas in the City will not be served by the local stops along the ETS route.
- → Ridership will be negatively impacted by the loss of local service.

8.2 Option 2 – Extended ETS Commuter Service Routing

Figure 25: Proposed Option 2



Option 2 is also a commuter-only option. However, instead of the existing alignment of Route 198, an extended route is proposed. This alternate alignment provides extended local coverage of Route 198 to compensate from the removal of local FST service. This option would only operate in peak-periods.

Annual Direct Cost	Annual Revenue	R/C Ratio	Net Cost	Ridership
$787,150	$123,396	15.7%	$663,754	48,910

Summary of Option 2

Advantages

- → Expanded ETS routing within City-boundary
- → One seat ride from Fort Saskatchewan to Edmonton
- → Faster city-wide travel speeds (51 minutes to Edmonton)

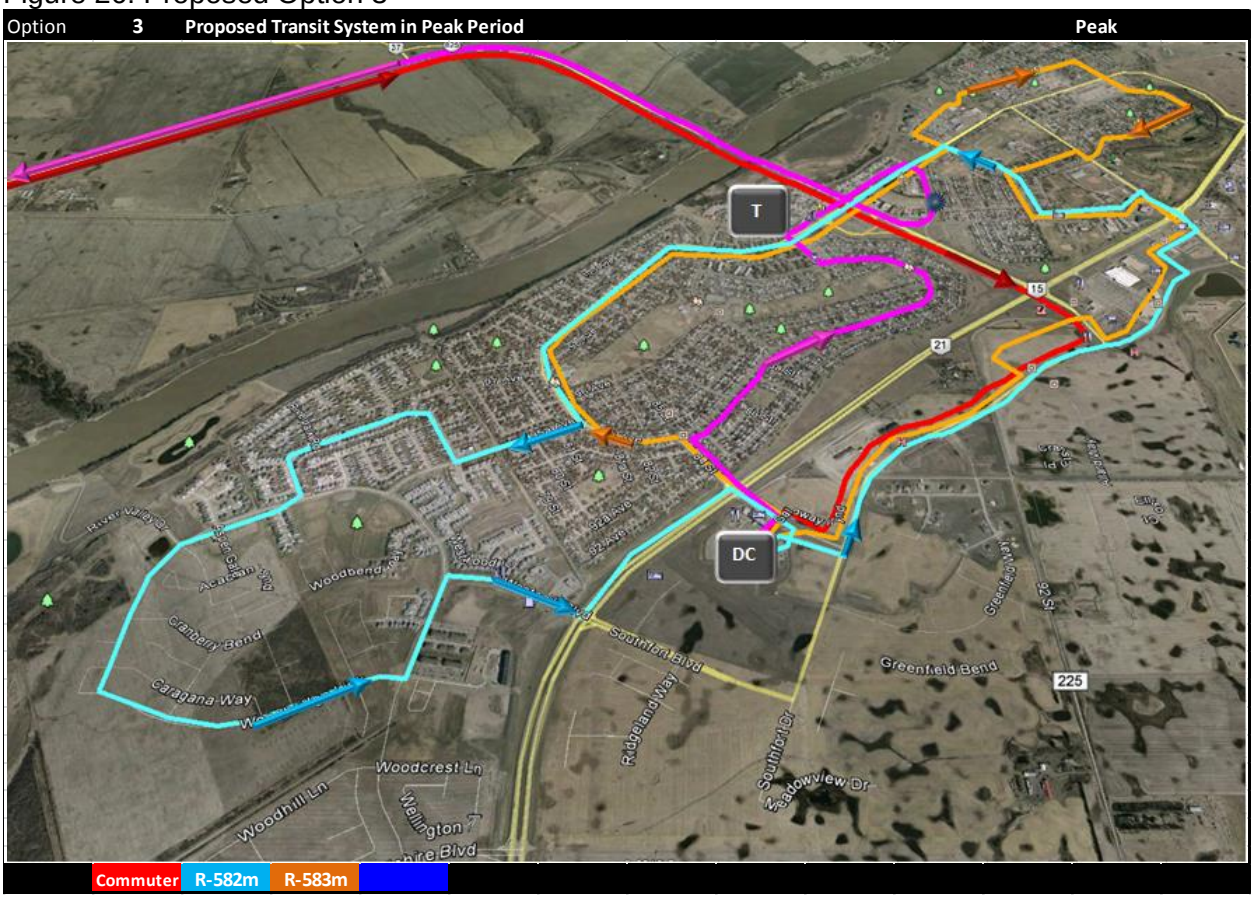
  - More populated areas of the City receive more direct service to Edmonton.
- Estimated cost per hour: $467 - second cheapest
- May attract more riders with faster speeds to Edmonton

Disadvantages

- Eliminates local FST service
- ETS will require more revenue service hours
  - This translates to an overall higher operating cost

8.3 Option 3 – Modified Existing Local Routes and ETS Commuter

Figure 26: Proposed Option 3



Option 3 maintains the current commuter service with modified alignments for the local service.

In this option, route 582 provides a counter-clockwise route through both the north and south areas of the City. Major deviations from the current alignment include increased coverage north of 94th Street with service through Sherridon and along Southfort Drive. This route will directly serve both Cornerstone and the hospital to provide direct service to these popular destinations. The changed direction of the route (clockwise to counter-clockwise) provides more direct (faster) service for the densely populated southern zones of the City to the Dow Centre.

Route 583 provides a clockwise route with extended alignment south of 94th Street. This new alignment also provides direct service to the hospital. The overlapping of the two local routes

creates more direct access to/from major destinations for a greater proportion of residents, an important factor for building ridership on the system.

Annual Direct Cost	Annual Revenue	R/C Ratio	Net Cost	Ridership
$1,153,100	$211,153	18.3%	$941,947	86,870

Summary of Option 3

Advantages

- Coverage extended to major retail centres and hospital
- New local routes overlap providing 2-way service

- Travel Times:
  - Average of 27 minutes to Downtown
  - Average of 48 minutes to Edmonton
  - Average of 24 minutes to Cornerstone and Hospital
- Potential to divert specialized transit trips from STSS
- Estimated cost per hour: $530 (equals current cost)

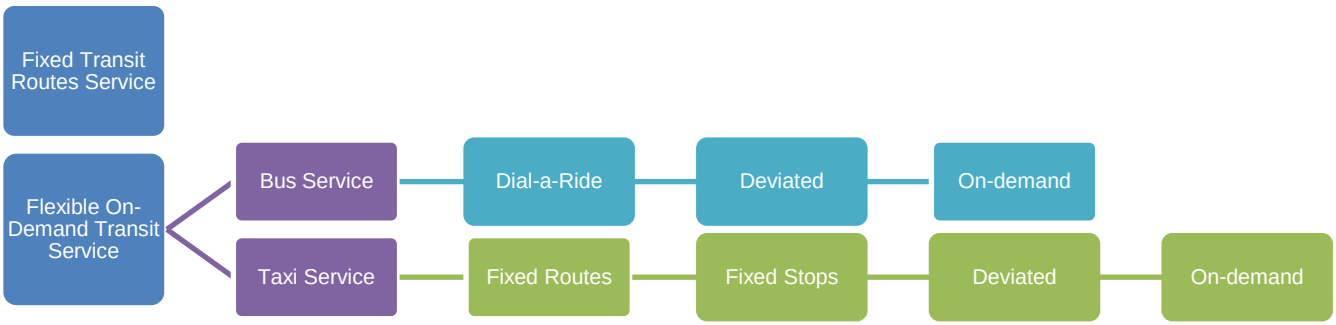
Disadvantages

- Not a one-seat ride from Fort Saskatchewan to Edmonton
  - Riders will need to transfer between FST to ETS bus

8.4 Other Service Delivery Options

WSP|PB analyzed various other models of service delivery to assess the most effective and efficient model for the provision of FST transit service. The existing model for FST service delivery follows fixed transit routes service. There are other flexible, on-demand transit service options that may be valuable to FST particularly as the system is building ridership and cost-recovery (Figure 27). This section analyzes these alternative delivery options and summarizes some of the benefits and disadvantages of each.

Figure 27: Alternative Service Delivery Options



Bus Service

Dial-a-ride: Dial-a-ride service on proposed fixed routes (buses are on duty – operation starts on request call by passengers)

- Potentially lower cost
- Flexibility to call for a ride when one is needed
- Compared to fixed-route, no cost advantage (main cost ingredient – driver's salary)
- Fixed route suggests commitment and "permanence"
- Limited capacity during peaks to meet demands of a commuter service

Route Deviated: Fixed routes with on-demand deviation (passengers can pre-book the service to /from their residence with distance/time restrictions – and additional fare)

- Pre-booked service
- Fixed-route that deviates off-route to pick up passengers
- Highest potential to divert specialized transit trips
- Requires scheduling software capital purchase
- Compared to fixed-route, no cost advantage
- Increased route run time may lead to missed connections
- Risk of increased operating cost and fleet requirements
- Some riders will experience additional travel time
- Increase of route run time – increased operating cost and fleet requirements
- Some riders will experience additional travel time
- High potential to divert specialized transit trips by picking up riders at their doors

On-Demand Transit Service: predetermined service

- Similar to route-deviated but is not pre-booked
- Fixed-route that deviates off-route to pick up passengers
- Highest potential to divert specialized transit trips
- Require scheduling software capital purchase
- Risk of an increased operating cost and fleet needs
- In a compact city where fixed route coverage is good (within 400 meters) no significant benefits from this type of service

Taxi Service

All taxi-based (taxi bus or TransCab): All these options are based on obtaining certain agreement between the municipality and taxi companies and on some level of subsidy being provided (taxi cabs might replace buses on fixed routes during certain day periods, can operate to/from pre-determined passenger-collection points or can function as an on-demand service)

- Potentially lower cost
- Difficulties finding drivers a challenge
- Would likely undermine entire taxi industry
- Limited capacity during peaks to meet demand of a commuter service

9. Cost-Benefit Analysis

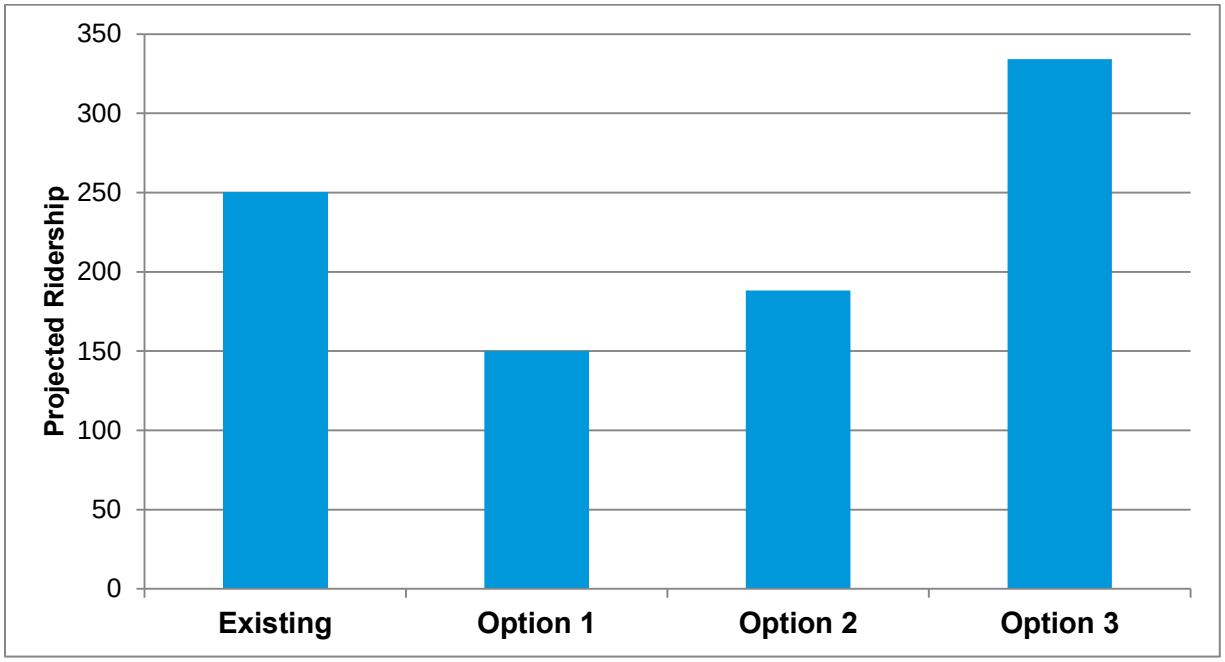
9.1 Comparison of Options

This section compares the three service options across projections of ridership, revenues, and operating costs.

9.1.1 Ridership projections

- Current daily Ridership is approximately 250 riders on both ETS and FS routes
- The projections are based on the function of ridership from the provided levels of service of each option
- The ridership was assessed for each option as a corridor (minimum and maximum impact "LEVEL OF SERVICE → RIDERSHIP")
- Option 3 generates the highest ridership due to its potential to offer the highest level of service at the local level

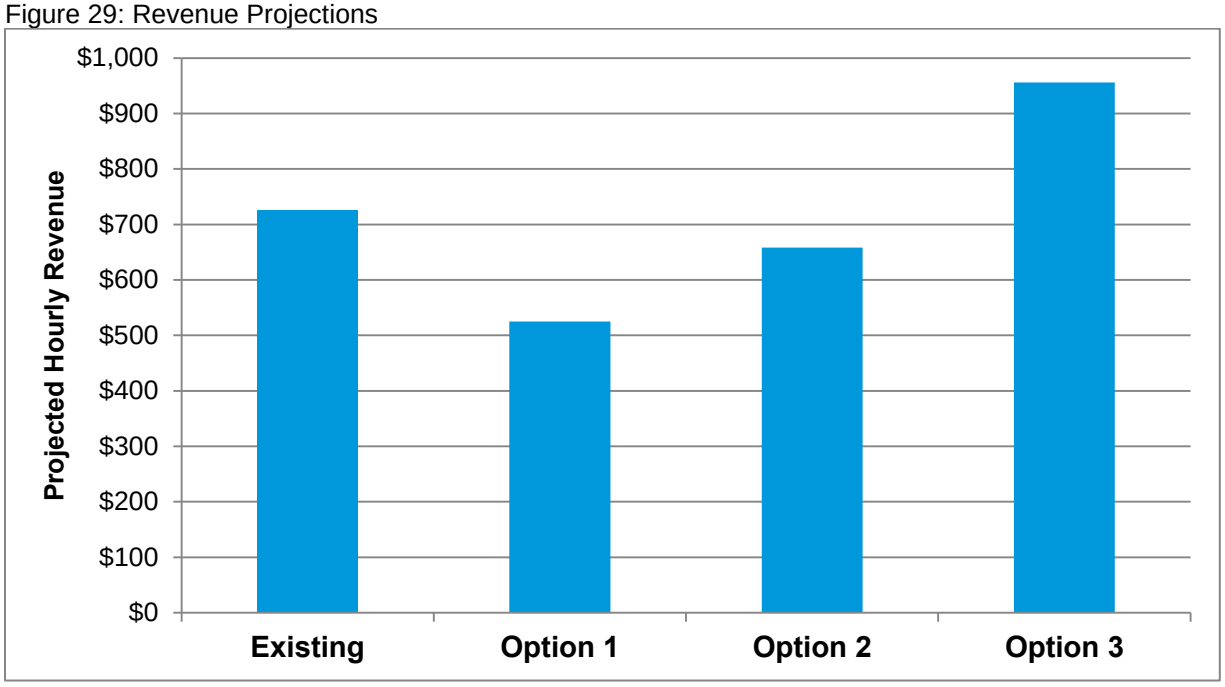
Figure 28: Ridership Projections



9.2 Revenue

Revenues projections were determined based on ridership projections from Figure 28 and the current fare structure. Option 3 has the highest revenue projections with increases of almost $200 a day compared to the revenues of the existing service.

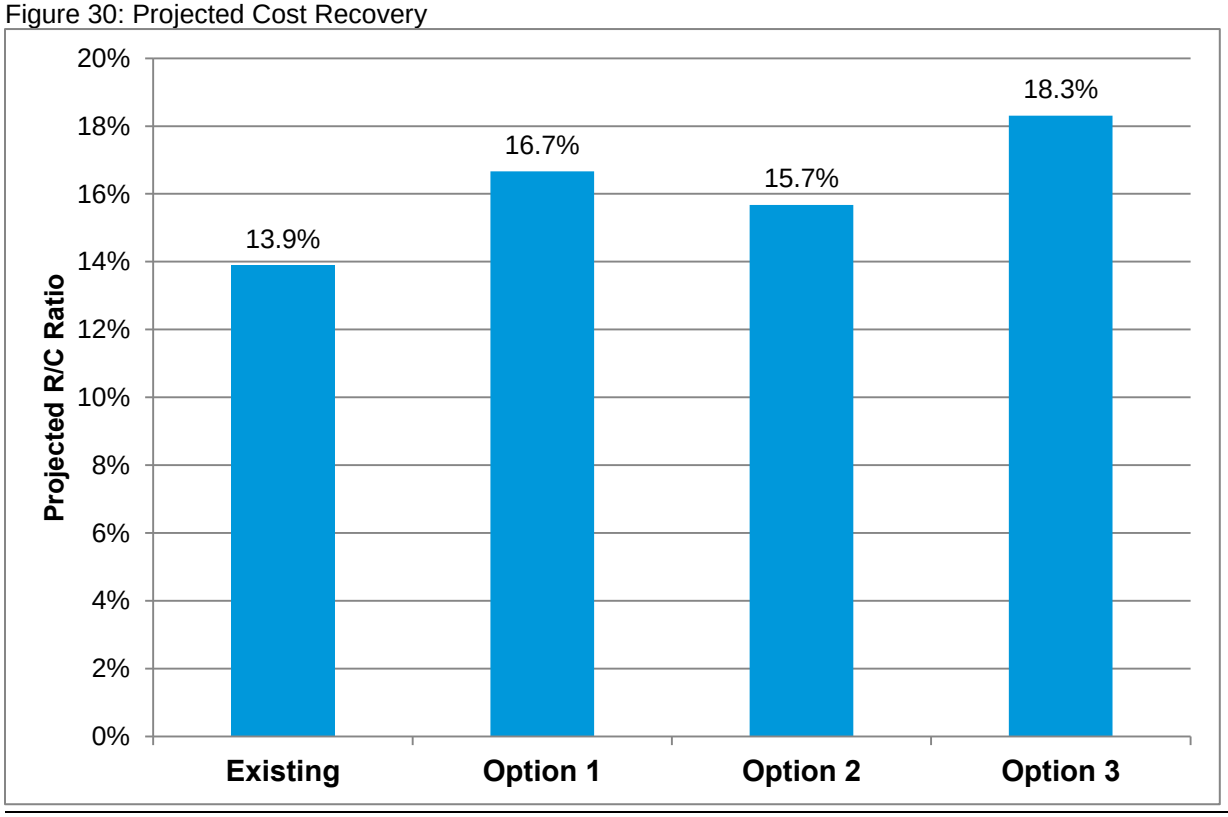
Figure 29: Revenue Projections



9.2.1 Cost Recovery

Cost recovery is a ratio of the revenues and costs of each option. Option 3 has a high cost-recovery ratio at 18.3%, a 4.4% improvement with no additional costs from the existing service. This is possible from the projected ridership increase as a function of improved route alignments and faster travel speeds for the local service.

Figure 30: Projected Cost Recovery



9.2.2 Summary

A summary of the projected annual costs and revenues for the options is provided in Table 18. While option 3 has the highest annual cost, it also has the highest potential to achieve the greatest cost-recovery and greatest increase in ridership.

Table 18: Summary of Cost and Revenue Projections

	Existing Service	Option 1	Option 2	Option 3
Ridership	65,000	39,000	48,910	86,870
Annual Cost	$1,153,100	$591,500	$787,150	$1,153,100
Annual Revenue	$160,153	$98,583	$123,396	$211,153
R/C Ratio	13.9%	16.7%	15.7%	18.3%
Net Cost	$992,947	$492,917	$663,754	$941,947

10. Preferred Option

Option 3 is recommended by the study team. Option 3 offers modified local routes with direct routing to major destinations and faster commute times. It is the preferred option as it maintains the presence of local transit service in Fort Saskatchewan at the same costs of the existing service ($530/hour) and generates higher cost recovery and ridership with simple route modifications. The modified routing will generate greater ridership from 250 to 334 per day. Revenues increase from the ridership boost increasing the cost recovery ratio up 4.4% to18.3%. Average travel speed is one of the main attractors for riders to the service. Table 19 summarizes the travel speeds to major destinations for all the options. Option 3 has the fastest travel speed and serves new destinations.

Based on the foregoing evaluation criteria, option 3 offers the greatest potential for an effective, efficient and sustainable local transit service.

Table 19: Summary of Travel Speeds

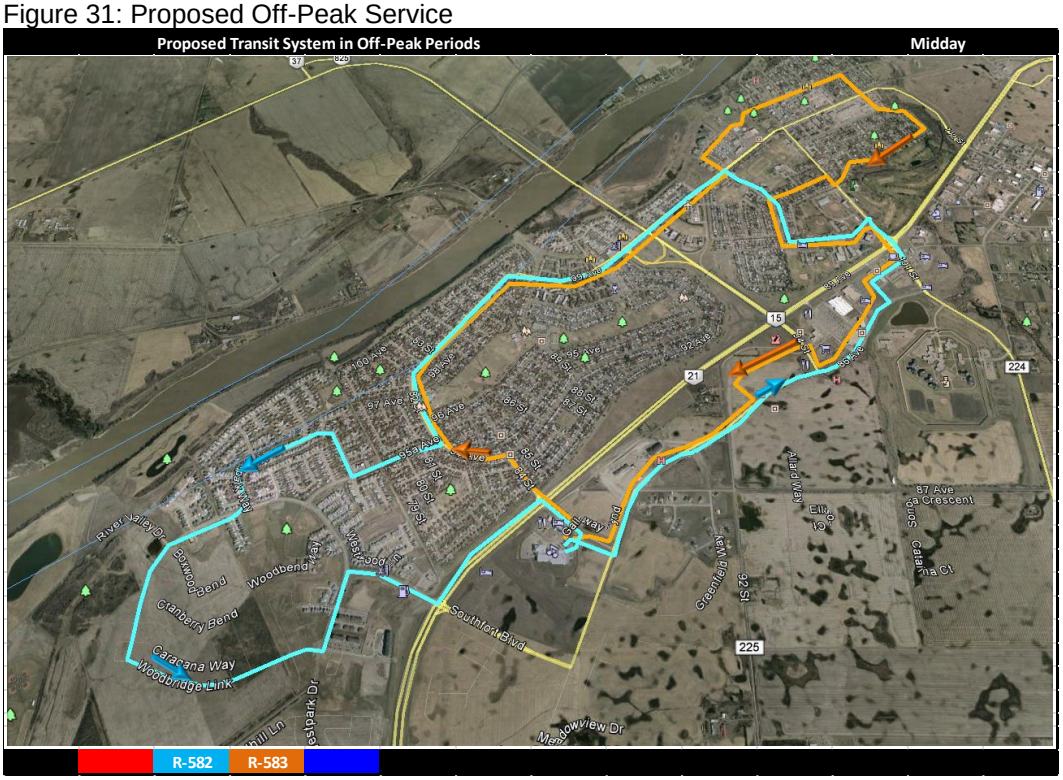
Average Travel Time to Major Destinations (in minutes)				
	Edmonton	Downtown	Cornerstone	Hospital
Existing	57	41		
Option 1	79			
Option 2	51			
Option 3	48	27	24	24

	Travel Speeds	Classification
	<20 km/h	Poor
	20-25km/h	Better
	25-30 km/h	Average
	>30 hm/h	Best
	No Service	N/A

Off-Peak Service

The recommended off-peak service would follow the same route alignments as during the peak service, without the commuter service. The off-peak service will be able to serve the two major destinations of the Cornerstone and the hospital more directly. With no coordinated transfer times at the Dow Centre for the commuter route, the local service has the opportunity to pull directly into the hospital and Cornerstone retail centre for direct door service.

Figure 31: Proposed Off-Peak Service



10.1 Infrastructure Requirements

All options will require the upgrading of vehicles to be accessible (with or without wheelchair positions). The bus stops should all be provided with concrete pads leading from the sidewalk to the curb and each stop identified by a pole with a stop sign identifying the scheduled arrival time at the individual stop and an active phone number for customer inquiries.

Some stops with higher passenger activity or in shopping centres should be provided with higher-order amenities such shelters (which if provided with an electrical supply can be a source of advertising income to the City.

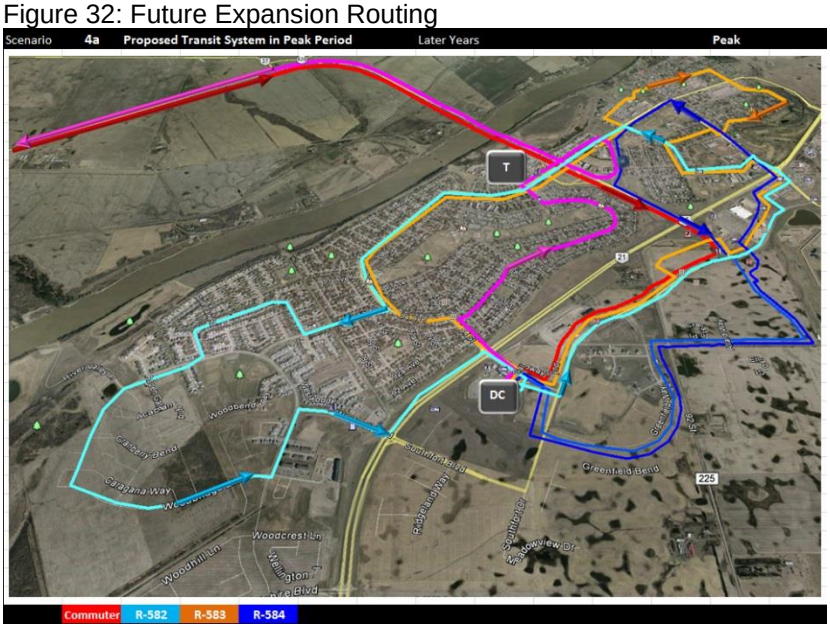
10.2 Growth Strategy

This section provides a brief conceptualization of future expansion of FST services based on the current growth and travel patterns in Fort Saskatchewan.

South City Expansion

Due to the current development in the southern areas of Fort Saskatchewan, future transit expansions should cover these areas as greater population, residential and employment densities arrive. A potential third local route can be implemented to connect the southern areas to the transit hub and major employment and retail areas (Figure 32). This routing should be development in conjunction with a potential South Transit Hub.

Figure 32: Future Expansion Routing



10.3 New Proposed Fare Structure

The current fare structure provides sufficient media and pricing for an introductory transit pilot. However, moving forward, the fare structure requires greater alignment with standard transit industry practices including discounts for prepaid fare media. Table 20 provides the proposed fare structure.

Table 20: Proposed Fare Structure

Fare Product	Price	Old Price	Local	Clareview	Edmonton
Edmonton Integrated Fares					
Adult Integrated Monthly Pass	175.00	185.00	x	x	X
Student/Senior Integrated Monthly Pass	110.00	116.00	x	x	X
Commuter Fares					
Commuter Monthly Pass	90.00	96.00	x	x	
Student/Senior Commuter Monthly Pass	35.00	35.00	x	x	
Commuter Fare	5.00	3.50.00	x	x	
Commuter Tickets (10)	40.00	33.50	x	x	
Commuter Local Fare Add-On	2.00	-		x	
Local Fares					
Adult Fare	2.25	2.00	x		
Adult Tickets (10)	20.00	20.00	x		
Monthly Pass	50.00	-			
Senior Fare	1.50	1.00	x		
Senior Tickets (10)	12.00	10.00	x		
Student/Senior Monthly Pass	20.00	-	x		
Children under 12	FREE	FREE	x		
Specialized Transportation Fares					
Local	6.00	6.00	x		
Edmonton	22.00	22.00	x	x	x
Specialized Rider on Local Transit	$1	$1	x		

Edmonton Fares

- Recommend lowering the integrated pass in order to increase ridership and offer a discount (as is standard with monthly passes). Given mandates, this may not be necessary, but just a suggestion.
- Note: Original price of integrated passes is full price of both ETS and FTS monthly passes combined. Other than convenience of having one pass for both systems, without a discount, it is questionable why riders would purchase the integrated pass in its current form and price.

Commuter Fares

- Recommend lowering the monthly pass in order to grow ridership.
- Recommend increasing commuter fare to draw commuters to pass.
- Add commuter local fare add-on – can pay the commuter fee with any local product (including free rides – children and specialized riders would pay $2.00)

Local Fares

- Adult Fare – should be increased to $2.25. This is in line with improved service and peer agencies.
- 10 Adult Tickets – should remain at $20, providing the discounted price of $2/ticket. Keeping the adult ticket price at the current fare should reduce public issues with the fare increase. Also, advance purchase tickets, by best practice, should be discounted.
- Recommend adding adult monthly pass at $50. Creates balance in fare products and offers alternative for frequent ridership. In line with peers and best practice.
- Senior/Student Local Fare – should be increased to $1.50. This is in line with improved service and peer agencies.
- 10 Senior/Student Tickets – should be increased to $12.00 to provide a discounted fare of $1.20. This is an increase from the $1 fare, but the monthly pass option provides an alternative that will provide a deep discount to regular riders.
- Senior/Student Monthly Pass - $20.00 – a new option providing unlimited local service. This product is intended to increase local ridership.

Specialized Transit

- Current fares could remain the same as they are likely based on contracted rates.
- Recommend a $1 ride (or possibly free) on local conventional transit for people who qualify for specialized transit. In order to implement this, FTS needs to distribute cards to patrons who qualify for specialized transit. Given the deeply discounted service, the eligibility process for specialized transit should be reviewed to ensure the appropriate individuals are matched with the appropriate type of service.

10.4 Marketing and Branding

Some of the feedback received during the review found that many Fort Saskatchewan residents do not know the City has local transit service. To facilitate ridership growth, it is recommended that FST use effective marketing strategies and branding practices to support transit growth.

It is recommended that FST budget a minimum of 5% of operating costs towards marking (industry average). Additionally, branding is required to raising the profile of transit. For example, a bold paint scheme on the buses can differentiate the vehicles and raise awareness in the City. Additionally, the City's choice of vehicle could lend itself to differentiation if it is unique such as the Fiat ProMaster.

10.5 O&M Contract

WSP|PB believes that the current form of O&M contract does not adequately protect the City and should be enhanced to include performance requirements, revenue service hours and service standards. Further, the City should delineate expectations for maintenance and vehicle cleanliness regardless of ownership. WSP|PB suggests that the future form of contract be solely for operations and maintenance, while the City retains control of vehicle purchase and ownership.

WSP|PB advocates for non-binding Request for Information (RFI) process prior to release of a formal Request for Proposal (RFP) to generate interest and competition from firms outside of the City– this is a successful strategy that has been employed elsewhere.

Last, WSP|PB recommends that the City hire a third-party firm with the appropriate expertise to write the new O&M contract for City and support the City through the procurement process to achieve best Value-for-Money for the residents of Fort Saskatchewan.

10.6 Opportunities with the Development Industry

Outreach was also extended to the local development community pointed to areas of opportunity for transit improvements in the city. All major developers in the city were engaged and all are supportive of transit directly serving their properties. Developers see transit as a necessity and key to prosperous city-building.

Interviews heard that all the developers are willing to work with FST for mutual benefit. Some indicated they would be prepared to financially support the cost of new transit infrastructure such as bus shelters, benches and other passengers amenities located in their development. This is a great opportunity for FST to save capital costs for infrastructure upgrades and improvements to make the system more accessible. This in turn will help to defer costly specialized transit trips to conventional transit by providing reasonable amenities for those with disabilities.

10.7 Ideal Fleet Composition

The current fleet is not conducive to a variety of riders. The vehicles are not accessible for disabled persons with mobility aids or parents with strollers. To widen the rider demographic,

"right-sizing" the fleet is necessary with optimal vehicle choice. Current ridership does not warrant the use of full-size transit buses at this time, but low-floor accessible vehicles should be procured going forward.

City-owned vehicles will provide the lowest total cost of ownership. Where the O&M contractor provides the vehicles, the total cost of a vehicle is amortized over contract term plus the potential added margin for the contractor, higher private sector financing cost, and risk cost that contract may be terminated early.

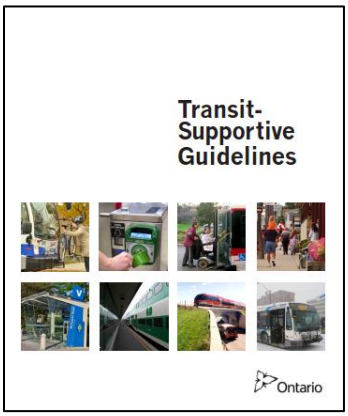
To reduce the hourly rate of total service cost, the City should maintain ownership of the vehicles while the O&M contractor remains responsible only for the operations and maintenance of the vehicles. This will create the opportunity for FST to align hourly costs within the peer group. We believe the cost of vehicle ownership could be paid back as early as within the first two years depending on vehicle choice.

10.8 Establish Transit-Supportive Climate

In order for FST to succeed, the City must dedicate adequate resources to the start-up and ongoing management of the local transit service. WSP|PB advocates for proactive oversight of O&M contracts to ensure O&M contracts are obliging to the terms and conditions of the contract. To this end, WSP|PB suggests that one full-time equivalent (FTE) be dedicated to starting up the service from 2016 to 2017. After the service is established, half of an FTE is sufficient to oversee and administer the O&M contract.

Additionally, the City must dedicate stable, predictable funding for capital replacement and growth of the FST system.

Last, future land-use planning in the City needs to supportive of transit. Historically, the City's residential developments have been predominantly back-fenced on major collector roads (example: Westpark Drive). Back-fenced communities are problematic for transit because residents have no easy way to access transit and may need to endure long walks to the nearest bus stop making transit unattractive. In other communities across Canada, "Transit First" initiatives have become popular for their potential have transit installed into new developments prior to new residents moving in. WSP|PB recommends that the City establish transit-supportive policies and guidelines to ensure that new residential development is front-facing along major collector roads at the very least.



10.9 Transit Funding Grants

GreenTRIP is the only designated transit funding in Alberta. At the time of this report, it was announced that the City was the successful recipient of approximately $3M for the creation of an expanded park and ride at the Dow Centre with passenger amenities for transit.

Municipal Sustainability Initiative (MSI) Building Canada and Gas Tax Fund (Federal) are other avenues to receive infrastructure funding though they are not specific to the transit industry.

11. Implementation Plan

WSP|PB has an implementation plan that provides the recommend timing for implementation of the recommendation in this report according to time horizon.

11.1 Immediate (Within next 3 months)

- Extend current Fort Taxi contract for 4 months (end April 30,2016)
- Rewrite O&M Contract
- RFI / RFP / Contract award to new O&M contractor
- Commence outreach to Developers
- Confirm routing/develop new transit schedules
- Develop vehicle specification, RFQ, purchase

11.2 Short Term: (3 months – 6 months)

- Develop marketing and branding plan
- Identify stops along routes and install new signage
- Accept delivery of new City-owned fleet
- New contract start – May 1, 2016
- Implement new fare structure

11.3 Mid Term (6-12 months)

- Develop infrastructure plan
  - Identify areas for upgraded amenities
- Develop and execute marketing and branding plan

11.4 Long term (Greater than 12 months)

- Install infrastructure
- Weekend service expansion pilot (early 2017)
- South Fort Saskatchewan Transit Expansion (2019-onwards)

11.5 Service Delivery Options

This section outlines the four service delivery options open to Fort Saskatchewan.

11.5.1 Service Delivery Options

Option 1 – Municipally Owned and Operated

This option would include the purchase, maintenance and operation of the transit vehicles by the City of Fort Saskatchewan. The City would be responsible for day-to-day delivery and management of the transit service.

Advantages: The City would have direct control over all aspects of the transit service, including communication with drivers, maintenance, training, supervision, and dispatch. Customer service and other communication issues would be simplified as handling complaints and other customer interaction would be provided by one organization. Providing the service in-house will also provide an opportunity for Fort Saskatchewan to build a transit "brand" for the City.

Disadvantages: A municipally owned and operated service will require a significant investment from the City. Costs include managerial expenses for the day-to-day management and administration of the transit service, purchase and maintenance of the vehicles, dispatch and scheduling functions, recruitment and training of transit drivers, marketing and customer service.

Evaluation: Due to the level of service required and the costs involved with owning and operating a municipal transit system, it is not recommended for Fort Saskatchewan to pursue this as a service delivery option at this time. As the existing system matures and both the City population and ridership grow, this may be a viable option in the future but not warranted at this time.

Option 2 - Contracted All Services to ETS

Building on the existing Route 198 arrangement, the City of Fort Saskatchewan could approach ETS to operate an expanded service that may include augmented commuter routes and the addition of local routes. As additional buses would be required to facilitate expanded Fort Saskatchewan services, discussions would need to take place between the City and ETS to ensure vehicle availability. In this scenario the City of Edmonton would own, operate and maintain the vehicles, as is currently the case.

Advantages: Route 198 services are provided via a contract arrangement between ETS and the City of Fort Saskatchewan. ETS has the necessary infrastructure to provide expanded services to Fort Saskatchewan, including dispatch and scheduling services, trained bus drivers, maintenance facilities, management and administrative service. Providing all services through one contractor can lead to improved customer service and coordination of services.

Disadvantages: ETS maintains high operating costs of approximately $175 per hour. This may be cost prohibitive for expanded services in Fort Saskatchewan.

Evaluation: Due to the high operating cost of contracting service from ETS, a service delivery model that contracts all service (including Fort Saskatchewan local routes) it is still not recommended.

Option 3 – ETS and Local Contractor Hybrid (Current Option)

ETS continues to provide commuter service as Route 198, and Fort Saskatchewan continues to contract to a local contractor.

Advantages: The commuter service stays the same as existing additional, Fort Saskatchewan would not be required to purchase additional equipment or be subject to operation, management, administration, maintenance, dispatch and scheduling costs for the commuter portion of the service.

For the local service, the contractor would provide trained bus operators, vehicle maintenance, dispatch, scheduling, and general day-to-day management and administration. The contractor would have experience in providing public transportation services and would provide additional back-up vehicles in the case of accidents or maintenance of the municipal vehicles. A contracted service will provide the City with known operating costs and likely have cheaper hourly rates.

Disadvantages: ETS maintains high operating costs for commuter service. Scheduling, transfer, customer service, and fare coordination between systems can be inconvenient for customers when services are delivered by separate operators.

Splitting services between two providers may lead to reduced customer service or delayed response times as customers.

Revised customer service standards that are satisfactory to the City may be negotiated as part of the contract terms with ETS and the local contractor, this arrangement may still confuse customer relations.

Currently, poor communications between ETS and FST on service delays.

Evaluation: This scenario is still recommended as a realistic option for transit services in Fort Saskatchewan that balances service improvements with affordability. Additional savings for the contracted local service may be found depending on who owns the vehicles.

Option 4 – All Services Provided by Local Contractor

In this scenario all services, including commuter services, would be provided by a local contractor.

Advantages: The contractor would provide trained bus operators, vehicle maintenance, dispatch, scheduling, and general day-to-day management and administration of the service. A private carrier would have experience providing public transportation services and could provide additional back-up vehicles in the case of accidents or maintenance. A contracted service will also provide the City with known operating costs and will have cheaper hourly rates than those offered by ETS.

Contracting services to a local private contractor may also lead to cost-efficiencies for Fort Saskatchewan as a result of the competitive open bid process.

Providing all services through one contractor can also improve customer service and coordination of local and commuter transit services.

Disadvantages: A contracted service would require increased contract management oversight by the City to ensure the service is operated according to the terms of the contract, and to promote and recommend and approve changes to the service.

Evaluation: This scenario may also be a realistic option for provision of transit services in Fort Saskatchewan that improves existing services at a more affordable rate. Additional savings for the contracted local service may be found depending on whether the City or the contractor owns the vehicles.

11.5.2 Vehicle Ownership Options

Transit services could be provided in vehicles that are owned by the contractor or by the City and the following discusses vehicle ownership options.

Option 1: Fort Saskatchewan Owned

In this scenario the City of Fort Saskatchewan would purchase the transit vehicles and tender for the maintenance and operation of the service from a O&M contractor.

Advantages:

- Reduced hourly operating cost, resulting from municipal ownership of the vehicles will provide savings over the lifetime of the vehicle
- City would make significant commitment to transit through vehicle ownership and this could serve as the baseline for municipal takeover of services in the future
- City may be eligible for capital funding to purchase vehicles
- City could begin to build a local transit “brand”

Disadvantages:

- Capital investment required for vehicle acquisition.

Option 2: Contractor-Owned

In this scenario the City tenders out operation of all aspects of transit services from a private contractor. This scenario would include additional costs for the contractor to provide, maintain and operate the transit vehicles.

Advantages:

- No capital investment required up-front.
- No long-term commitment to transit capital infrastructure.

Disadvantages:

- O&M contractor may embed higher cost of private sector borrowing, risk of contract cancellation or additional margin into the cost of the contract.

Appendix A – Public Engagement Survey Questionnaire

FST Public Engagement Survey

INTRODUCTION

Fort Saskatchewan Transit (FST) has retained a consulting firm, WSP | Parsons Brinckerhoff, to undertake a transit update study and is asking for feedback to help develop a new transit plan to make service more effective and efficient. The information you provide is entirely confidential. We value any and all input you can provide!

Questions about the survey or additional comments can be directed to: info@fortsask.ca

This survey is available in accessible alternate formats upon request.

Thank you for your participation.

WSP | Parsons Brinckerhoff

1) Do you currently live, work, or attend school in Fort Saskatchewan?

- ☐ Yes
- ☐ No

2) What is your gender?

- ☐ Male
- ☐ Female
- ☐ Prefer not to disclose

3) What is your age?

- ☐ Under 18 years old
- ☐ 18-29 years old
- ☐ 30-49 years old
- ☐ 50-64 years old
- ☐ 65 years and older

4) Do you currently use FST? (Within the past 30 days)

- ☐ Yes
- ☐ No

IF YES:

5) How often do you use FST?

- ☐ Often (more than five times per week)
- ☐ Frequently (more than once but fewer than five times per week)
- ☐ Occasionally (more than once but fewer than five times per month)
- ☐ Rarely (less than once a month)

6) What routes do you typically use? (Select all that apply)

- ☐ 582
- ☐ 583
- ☐ Edmonton commuter service

7) Please identify the location of where you typically start and end your trip?

Start _____
End _____

8) For what purposes do you use FST services? (Select all that apply)

- ☐ Commuting to work
- ☐ To connect with Edmonton Transit
- ☐ Shopping/errands
- ☐ Social activities
- ☐ Commuting to school/college/university
- ☐ Medical appointments
- ☐ I only use FST occasionally (less than once a month)
- ☐ Other_____

9) How do you typically pay your fare when riding FST?

- ☐ Cash
- ☐ Tickets
- ☐ Adult integrated monthly pass
- ☐ Adult commuter monthly pass
- ☐ Student/senior integrated monthly pass
- ☐ Student/senior commuter monthly pass

10) How satisfied are you with the FST services that you use?

- ☐ Very satisfied
- ☐ Somewhat Satisfied
- ☐ Neutral
- ☐ Somewhat dissatisfied
- ☐ Very Dissatisfied
  Reason for dissatisfied_____

11) Which features of public transit would you consider to be the most and least important? Please rank your preferences from 1 to 9 (1 being the most important and 9 the least important).

- ☐ More frequent trips
- ☐ Longer service hours
- ☐ Routes extended to serve other areas
- ☐ Better on-time performance
- ☐ Better transfer coordination
- ☐ Lower fares
- ☐ Better user information

- ☐ More bus shelters and amenities
- ☐ More service to Edmonton Transit

12) Would you be willing to pay a higher fare for better bus service (i.e. higher frequency, more reliability and better on-time performance)?

- ☐ Yes
- ☐ Maybe
- ☐ No

If yes, what fare would you pay for improved service:_____

13) How do you get information about FST services? (Select all that apply)

- ☐ Paper schedule
- ☐ Station notices
- ☐ Website
- ☐ Bus drivers
- ☐ Google Trip Planner
- ☐ Third party mobile application
- ☐ Facebook
- ☐ Twitter
- ☐ Other: _____

IF NO:

1. Please select your primary means of travel:

- ☐ Automobile (Driver)
- ☐ Automobile (Passenger)
- ☐ Bike
- ☐ Walk
- ☐ Taxi
- ☐ Other _____

2. Have you used FST in the past year?

- ☐ Yes
- ☐ No

3. What is the primary reason you don't ride FST regularly? (Select all that apply)

- ☐ Routes and schedules don't cover my needs.
- ☐ Service is not frequent enough.
- ☐ No stops near me.
- ☐ Too expensive.
- ☐ Not reliable.
- ☐ I feel unsafe.
- ☐ I don't like any form of public transit.
- ☐ Other _____

4. Which features of public transit would you consider to be the most and least important? Please rank your preferences from 1 to 9 (1 being the most important and 9 the least important). More frequent trips

- Longer service hours
- Routes extended to serve other areas
- Better on-time performance
- Better transfer coordination
- Lower fares
- Better user information
- More bus shelters and amenities
- More service to Edmonton Transit

5. Please check any of the following statements with which you agree:

- I am familiar with the service provided by FST.
- I do not use FST because I prefer to travel by car.
- There is no FST bus stop near my home.
- I believe public transit service reduces traffic congestion.
- Public transit service is necessary.

6. If convenient transit service (i.e. frequent, reliable, affordable) was available to where you live, work or go to school, how likely would you be to use it?

- Very unlikely
- Somewhat unlikely
- Neither likely or unlikely
- Somewhat likely
- Very likely

7. Would you be willing to pay a higher fare for better bus service (i.e. higher frequency, more reliability and better on-time performance)?

- Yes
- Maybe
- No

If yes, what fare would you pay for improved service:_____

BOTH
In addition to your previous responses, what else would you like to tell us about how transit service in Fort Saskatchewan could be improved?

_____
_____

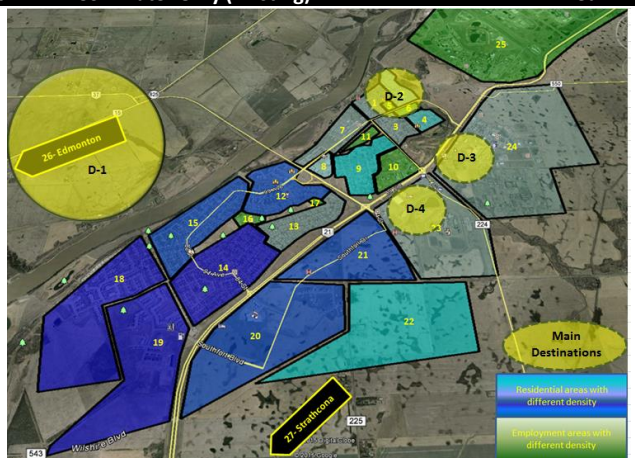
Appendix B – Summary of Peer Agency Services

Municipality	Pop-ulation	Geographic Context	Services Offered	Cash Fare	Service Span Weekday			Service Span Weekend	
					Peak	Mid-day	Eve	Sat	Sun
Fort Saskatchewan, AB	24,040	Suburban community within larger metropolitan area	• Commuter Services to Edmonton (Clareview) • Local Routes (Peak)	• Commuter Fare: $3.50 • Local Fare: $2.00					
Similar Peer Agencies									
Airdrie, AB	54,891	Suburban community within larger metropolitan area	• Commuter Services to Calgary (CBD) • Local Routes (Daytime) • Dial-A-Bus (Non Daytime)	• Commuter Fare: $5-9.00 • Local Fare: $2.25			Early Eve		
Leduc, AB	29,304	Suburban community within larger metropolitan area	• Commuter Services to Edmonton (Century Park)	• Commuter Fare: $5.00 • Local Fare: $2.00					
Spruce Grove, AB	29,526	Suburban community within larger metropolitan area	• Commuter Services to Edmonton (CBD, University of Alberta)	• Commuter Fare: $6.00 • Local Fare: $2.00					
St. Albert, AB	63,255	Suburban community within larger metropolitan area	• Commuter Services to Edmonton (CBD, University of Alberta, West Edmonton Mall)	• Commuter Fare: $6.00 • Local Fare: $3.25					
Strathcona			•	• Commuter Fare: $6 • Local Fare: $3.25					
Other Peer Agencies									
Cobourg, ON	18,519	Part of a cluster of smaller communities	• Local Services (Community Route)	• Local Fare: $2.00					
Hinton, AB	9,640	Small solitary community	• Local Routes (Community Route)	• Local Fare: $3.00			Early Eve		
Orangeville, ON	27,975	Solitary community within proximity to large metropolitan area	• Local Services (Community Route)	• Local Fare: $2.00					
Port Hope, ON	16,214	Part of a cluster of smaller communities	• Local Services (Community Route)	• Local Fare: $2.00					
Whitehorse, YK	27,678	Small solitary community	• Local Routes (Hub/Spoke)	• Local Fare: $2.50					
Yellowknife, NT	19,234	Small solitary community	• Local Routes (Hub/Spoke)	• Local Fare: $3.00					

Appendix C – Detailed Data of Proposed Options

Option 1 Proposed Transit System in Peak Periods Commuter Only (Existing) Peak

Hourly Rate	
Commuter	$175
Local	$90



COST/clock hour

Route	Headway	Loop Time	Trips	Oper. Hours	Oper. Cost
R-198	0:30	1:00	*2.0*	2.0	$350
R-582					
R-583					
R-584					
Total per Clock Hour				2.0	$350

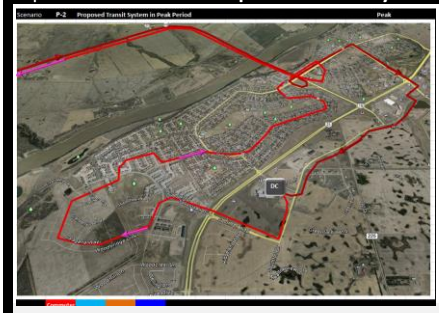
66%

LOS

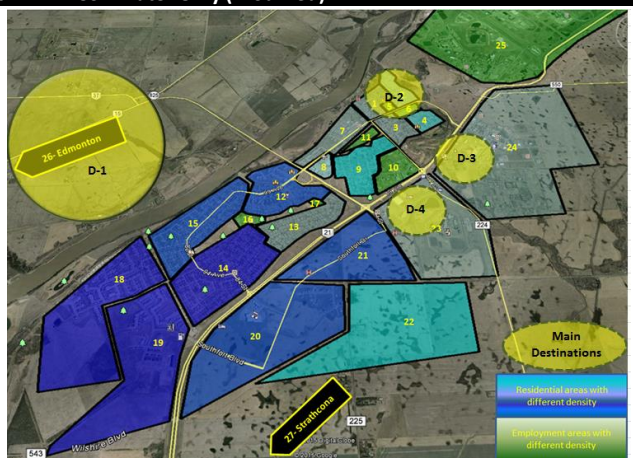
Zone	Population	%	Class	*Travel time to main Destinations, minutes* D-1 Edmonton (LRT)	D-2 Downtown	D-3 Walmart	D-4 Hospital	*Travel speed to main Destinations, km/h* D-1 Edmonton (LRT)	D-2 Downtown	D-3 Walmart	D-4 Hospital
1	605	3%	2	-		-	-	-	4.0	-	-
2	403	2%	1	-	-	-	-	-	-	-	-
3	685	3%	2	-	-	-	-	-	-	-	-
4	394	2%	1	-	-	-	-	-	-	-	-
7	860	4%	2	45	-	-	-	27.7	-	-	-
8	167	1%	1	25	-	-	-	48.0	-	-	-
9	1,183	5%	3	55	-	-	-	22.5	-	-	-
12	1,698	7%	4	35	-	-	-	35.7	-	-	-
13	860	4%	2	37	-	-	-	34.4	-	-	-
14	2,258	10%	5	39	-	-	-	34.5	-	-	-
15	1,893	8%	4	70	-	-	-	19.0	-	-	-
18	3,200	14%	5	-	-	-	-	-	-	-	-
19	3,330	15%	5	-	-	-	-	-	-	-	-
20	1,786	8%	4	41	-	-	-	33.8	-	-	-
21	1,833	8%	4	53	-	-	-	24.7	-	-	-
22	1,048	5%	3	-	-	-	-	-	-	-	-
23	489	2%	1	69	-	-	-	19.2	-	-	-
24	116	1%	1	-	-	-	-	-	-	-	-
	22,808	100%		*City->* 79	117	120	120	18.3	4.0	4.0	4.0

No Service | <20 km/ | 20-25km/h | 25-30km/h | >30 km/h

Option **2** **Proposed Transit System in Peak Periods** **Commuter Only (Modified)**



Hourly Rate	
Commuter	$175
Local	$90



COST/clock hour

Route	Headway	Loop Time	Trips	Oper. Hours	Oper. Cost
R-198	0:30	1:20	*2.0*	2.7	$467
R-582					
R-583					
R-584					
Total per Clock Hour				2.7	$467

88%

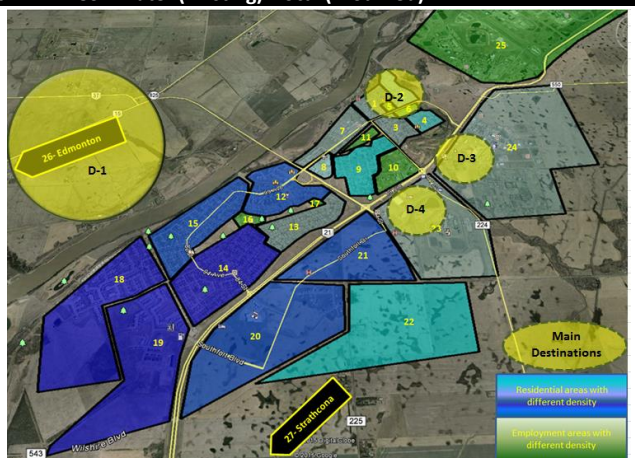
LOS

Zone	Population	%	Class	*Travel time to main Destinations, minutes* D-1 Edmonton (LRT)	D-2 Downtown	D-3 Walmart	D-4 Hospital	*Travel speed to main Destinations, km/h* D-1 Edmonton (LRT)	D-2 Downtown	D-3 Walmart	D-4 Hospital
1	605	3%	2	56		-	-	23.3	4.0	-	-
2	403	2%	1	57	-	-	-	23.6	-	-	-
3	685	3%	2	61	-	-	-	21.2	-	-	-
4	394	2%	1	59	-	-	-	22.4	-	-	-
7	860	4%	2	45	-	-	-	27.7	-	-	-
8	167	1%	1	25	-	-	-	48.0	-	-	-
9	1,183	5%	3	52	-	-	-	23.8	-	-	-
12	1,698	7%	4	35	-	-	-	35.7	-	-	-
13	860	4%	2	37	-	-	-	34.4	-	-	-
14	2,258	10%	5	39	-	-	-	34.5	-	-	-
15	1,893	8%	4	65	-	-	-	20.5	-	-	-
18	3,200	14%	5	40	-	-	-	36.0	-	-	-
19	3,330	15%	5	45	-	-	-	32.1	-	-	-
20	1,786	8%	4	47	-	-	-	29.5	-	-	-
21	1,833	8%	4	55	-	-	-	23.8	-	-	-
22	1,048	5%	3	-	-	-	-	-	-	-	-
23	489	2%	1	59	-	-	-	22.5	-	-	-
24	116	1%	1	64	-	-	-	21.8	-	-	-
	22,808	100%		*City->* 51	117	120	120	*28.5*	*4.0*	*4.0*	*4.0*

No Service | <20 km/ | 20-25km/h | 25-30km/h | >30 km/h

Option **3** **Proposed Transit System in Peak Periods** **Commuter (Existing)+Local (Modified)**

Hourly Rate	
Commuter	$175
Local	$90



Required coordination of all routes in Dow Centre (DC)

COST/clock hour

Route	Headway	Loop Time	Trips	Oper. Hours	Oper. Cost
R-198	0:30	1:00	*2.0*	2.0	$350
R-582	0:30	0:30	*2.0*	1.0	$90
R-583	0:30	0:30	*2.0*	1.0	$90
R-584					
Total per Clock Hour				4.0	$530

100%

LOS

Zone	Population	%	Class	*Travel time to main Destinations, minutes* D-1 Edmonton (LRT)	D-2 Downtown	D-3 Walmart	D-4 Hospital	*Travel speed to main Destinations, km/h* D-1 Edmonton (LRT)	D-2 Downtown	D-3 Walmart	D-4 Hospital
1	605	3%	2	56		13	18	23.3	4.0	11.8	10.0
2	403	2%	1	57	15	11	16	23.6	2.3	13.0	12.3
3	685	3%	2	61	20	15	20	21.2	2.3	8.0	6.8
4	394	2%	1	59	20	9	14	22.4	2.9	10.6	10.4
7	860	4%	2	45	5	17	22	27.7	12.9	10.4	6.8
8	167	1%	1	25	15	20	25	48.0	7.4	9.7	5.0
9	1,183	5%	3	55	15	6	11	22.5	6.6	25.9	9.1
12	1,698	7%	4	35	10	22	27	35.7	15.8	10.9	5.5
13	860	4%	2	37	20	28	33	34.4	9.0	8.2	3.5
14	2,258	10%	5	39	15	26	31	34.5	17.1	12.0	6.0
15	1,893	8%	4	35	13	26	31	38.0	17.9	12.1	6.7
18	3,200	14%	5	50	41	28	23	28.8	8.5	14.9	12.6
19	3,330	15%	5	45	36	23	18	32.1	9.9	17.5	14.9
20	1,786	8%	4	45	25	13	8	30.8	11.9	24.2	22.0
21	1,833	8%	4	45	22	9	4	29.1	9.4	23.6	19.7
22	1,048	5%	3	-	-	-	-	-	-	-	-
23	489	2%	1	40	20	5	1	33.1	9.1	28.0	
24	116	1%	1	35	15	1	5	39.8	10.2		28.0
	22,808	100%		*City->* 48	27	24	24	*29.7*	*10.6*	*15.3*	*10.9*

No Service

<20 km/ | 20-25km/h | 25-30km/h | >30 km/h