

Fire Paramedic Service • Service d'incendie et de soins médicaux d'urgence

May 17, 2013

Mr. Colin Craig Prairie Director Canadian Taxpayers Federation 1881 Portage Avenue Winnipeg, MB R3J 3X7

Core Fire Hall Access Study - FIPPA Request

Dear Mr. Craig:

In response to your request for access to the Core Fire Hall Access Study, the Winnipeg Fire Paramedic Service has reviewed and reconsidered its initial position with respect to the release of this Study and has decided to release some portions of it – specifically, all but one (1) paragraph of Chapter 1 and the entirety of Chapters 2 to 5, inclusive. Chapters 6 through 8 continue to be withheld.

If you have any questions, I can be reached at 204-986-6380.

Sincerely,

William Clark

A/Deputy Chief, Fire Operations

WC/mo

Encl.

cc: Suzanne Vouriot, Investigator, Manitoba Ombudsman

Harold Dick, City of Winnipeg Legal Services



CORE FIRE HALL ACCESS MANAGEMENT STUDY

Prepared for:

Public Works Department City of Winnipeg 101-1155 Pacific Avenue Winnipeg, MB_R3E 3P1

Prepared by:

Stantec Consulting 100-1355 Taylor Avenue Winnipeg, MB R3M 3Y9

CORE FIRE HALL ACCESS MANAGEMENT STUDY

Table of Contents

INTRODUCTION	1.1
SITE CONTEXT	2.3 2.4 2.4
PROPOSED DEVELOPMENT CORE FIRE HALL PROPOSED ACCESS 3.2.1 Outbound Emergency Traffic 3.2.2 Inbound Emergency Traffic 3.2.3 Employee/Delivery Access	3.8 3.8 3.9 3.9
EXISTING TRAFFIC CONDITIONS EXISTING TRAFFIC VOLUMES PEAK HOUR TRAFFIC VOLUME 4.2.1 Peak Hour Factor 4.2.2 Traffic Volume Expansion 4.2.3 Traffic Volume Balancing 4.2.4 Design Year Traffic Volume	4.11 4.11 4.11 4.12 4.12
DEVELOPMENT TRIP GENERATION TRIP GENERATION TRIP DIRECTIONAL DISTRIBUTION DESIGN YEAR TRAFFIC VOLUMES	5.16 5.16 5.17
ACCESS ANALYSIS ORIGINAL PROPOSED SITE ACCESS ACCESS MODIFICATIONS ACCESS RECOMMENDATIONS	6.19 6.20
TRAFFIC ANALYSIS ANALYSIS BACKGROUND	7.25 7.25
	BACKGROUND STUDY OBJECTIVES SITE CONTEXT PROJECT STUDY AREA EXISTING TRANSPORTATION SYSTEMS 2.2.1 STUDY AREA ROADWAYS 2.2.2 STUDY AREA ROADWAYS 2.2.3 PRIMARY RAMPS AND APPROACHES PROPOSED DEVELOPMENT CORE FIRE HALL PROPOSED ACCESS 3.2.1 Outbound Emergency Traffic 3.2.2 Inbound Emergency Traffic 3.2.3 Employee/Delivery Access EXISTING TRAFFIC CONDITIONS EXISTING TRAFFIC VOLUMES PEAK HOUR TRAFFIC VOLUME 4.2.1 Peak Hour Factor 4.2.2 Traffic Volume Expansion 4.2.3 Traffic Volume Balancing 4.2.4 Design Year Traffic Volume DEVELOPMENT TRIP GENERATION TRIP DIRECTIONAL DISTRIBUTION DESIGN YEAR TRAFFIC VOLUMES ACCESS ANALYSIS ORIGINAL PROPOSED SITE ACCESS ACCESS MODIFICATIONS ACCESS RECOMMENDATIONS TRAFFIC ANALYSIS ANALYSIS BACKGROUND 7.1.1 Vehicle Delay Based Intersection Analysis (Highway Capacity Manual

CORE FIRE HALL ACCESS MANAGEMENT STUDY

Tal		Contents	
	7.2.1	Traffic Analysis Assumptions	7.26
	7.2.2	Traffic Control Assumptions	7.27
	7.2.3	Traffic Simulation	7.27
7.3	PM PEA	K TRAFFIC ANALYSIS RESULTS	7.27
	7.3.1	Portage Avenue at Queen Street	7.28
	7.3.2	Portage Avenue at St. James Street	7.29
	7.3.3	Loop Ramp at Rear Access Signal	7.31
7.4		C ANALYSIS SUMMARY	
8.0	CONCLU	JSIONS & RECOMMENDATIONS	8.34
8 1	STUDY	CONCLUSIONS	8.34
		RECOMMENDATIONS	

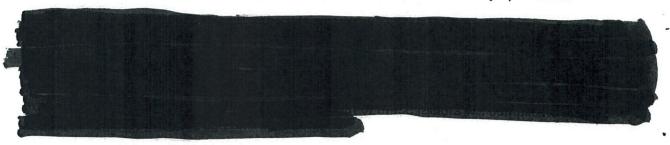
CORE FIRE HALL ACCESS MANAGEMENT STUDY INTRODUCTION
April 29, 2011

1.0 INTRODUCTION

1.1 BACKGROUND

The Core Fire Hall Development is a proposed fire and emergency response station located at the intersection of Portage Avenue and Century Street in the Polo Park area of Winnipeg. The proposed location of the development is within an interchange loop on the northwest corner of the junction.

Stantec Consulting Ltd. has been retained by Shindico Realty Inc. on behalf of Winnipeg Fire Paramedic Service to conduct an Access Management and Traffic Impact Study for the proposed Core Fire Hall. The primary goal of the study is to assess the impact of the proposed development and associated site accesses on traffic safety and roadway operations.



1.2 STUDY OBJECTIVES

The purpose of this Access Management Study is to evaluate the impact of the project on the surrounding traffic network. The principal objectives of the study include:

- Review existing transportations systems and weekday peak hour traffic conditions in the study area;
- Estimate the magnitude and characteristics of new traffic activity generated by the proposed development during the weekday PM peak hour;
- Assign the development generated traffic to the adjacent street system at proposed access points;
- Evaluate pre and post-development traffic control, levels of service and turn lane storage requirements for all intersections and site accesses;
- Identify any changes to existing or proposed access, intersection or roadway geometry and/or traffic control improvements required to properly accommodate pre and postdevelopment traffic volumes and mitigate unacceptable impacts;
- Review on-site circulation patterns and access as they impact the public right-of-way and traffic operations within the area.

CORE FIRE HALL ACCESS MANAGEMENT STUDY INTRODUCTION April 29, 2011

- Review traffic safety concerns present with proposed development access;
- Present recommendations for access management, traffic control requirements, and traffic safety improvements.

2.0 SITE CONTEXT

2.1 PROJECT STUDY AREA

A vicinity map illustrated in Figure 2.2 shows the location of the proposed Core Fire Hall development within Winnipeg, Manitoba. The project study area is illustrated in Figure 2.2.

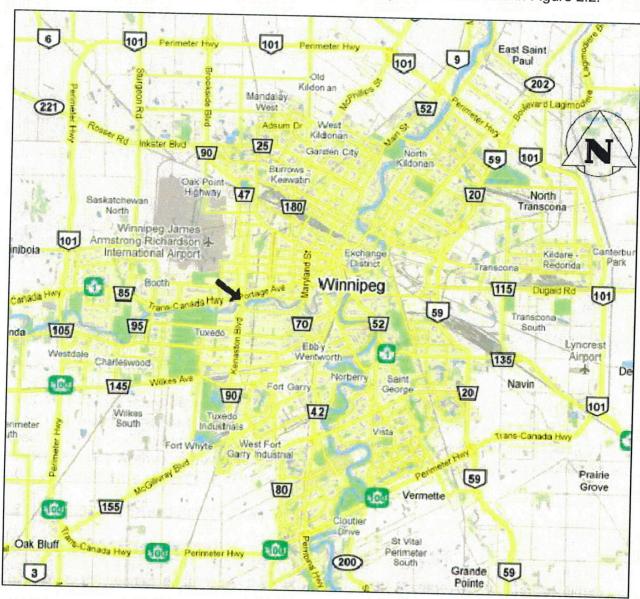


Figure 2.1: Core Fire Hall Vicinity Map

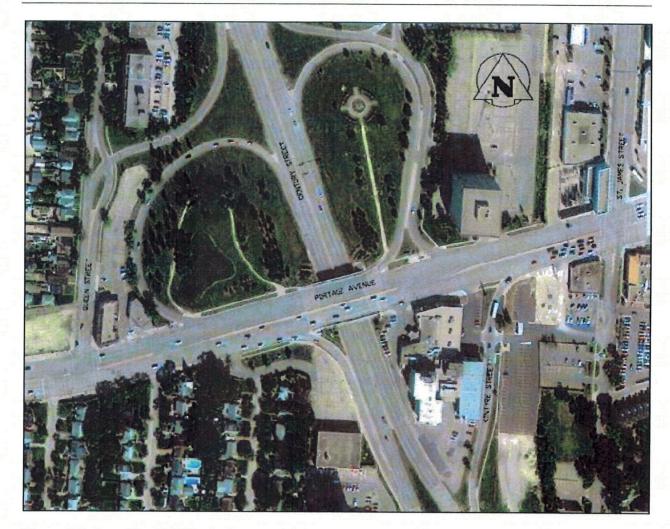


Figure 2.2: Core Fire Hall Study Area

The Core Fire Hall would be located in the northwest loop of the Portage Avenue at Century Street Interchange. The study area is bounded by St. James Street to the east and Queen Street to the west along Portage Avenue; the southbound to westbound ramp from Century Street to Portage Avenue and by Portage Avenue to the south. The distance from Queen Street to St. James Street is approximately 445m.

2.2 EXISTING TRANSPORTATION SYSTEMS

2.2.1 STUDY AREA ROADWAYS

The primary transportation facilities in the study area include Portage Avenue, Century Street, Queen Street, and St. James Street:

 Portage Avenue – Portage Avenue is an eight-lane roadway that runs east/west in the study area. There are four travel lanes in each direction. The speed limit is 60km/h within the study area.

CORE FIRE HALL ACCESS MANAGEMENT STUDY SITE CONTEXT April 29, 2011

- Century Street Century Street is a six-lane roadway that runs north/south in the study area. There are three travel lanes in each direction. Century Street travels under Portage Avenue. The speed limit is 70km/h within the study area.
- Queen Street Queen Street is a two-lane roadway that runs north/south in the study area. Queen Street terminates at Portage Avenue in a "T" intersection. The speed limit is 50km/h.
- St. James Street St. James Street runs north/south in the study area. St. James Street is a five-lane roadway north of Portage Avenue, with two travel lanes in each direction and a centre two-way left turn lane. South of Portage Avenue it is a two-lane roadway. The speed limit of St. James Street north and south of Portage Avenue are 60km/h and 50km/h, respectively.

2.2.2 STUDY AREA INTERSECTIONS

Portage Avenue at Queen Street – This is a T-intersection under traffic signal control
with a cycle length of 120 seconds. It is located approximately 159m west of the
proposed south approach for the Fire Hall. The westbound leg of Portage Avenue has
four through lanes with one shared through and right turn lane. The eastbound leg of
Portage Avenue has four through lanes with one shared through and left turn lane.
Although unmarked, southbound traffic on Queen Street operates with separate
southbound left and southbound right turn lanes. During the AM peak, eastbound to
northbound left turns from Portage Avenue are prohibited.

The intersection is offset to the west approximately 24 m to allow signalized access from northbound Riverbend Crescent, a two-lane local street running south from Portage Avenue with a speed limit of 50 km/h. Left and right turns are allowed from Riverbend Crescent with no through movements.

• Portage Avenue at St. James Street – This intersection is approximately 291m east of proposed south approach for the Fire Hall and is traffic signal controlled with a cycle length of 120 seconds. The westbound leg of Portage Avenue has four through lanes, a diamond lane controlled by a bus priority signal, and a separate right turn lane. The eastbound leg of Portage Avenue has four through lanes with one shared through and right turn lane. Eastbound and westbound left turns from Portage Avenue are prohibited at this intersection. The southbound to eastbound left turn at the intersection has a leading left turn indication.

The study area intersection lane configurations are shown in Figure 2.3.

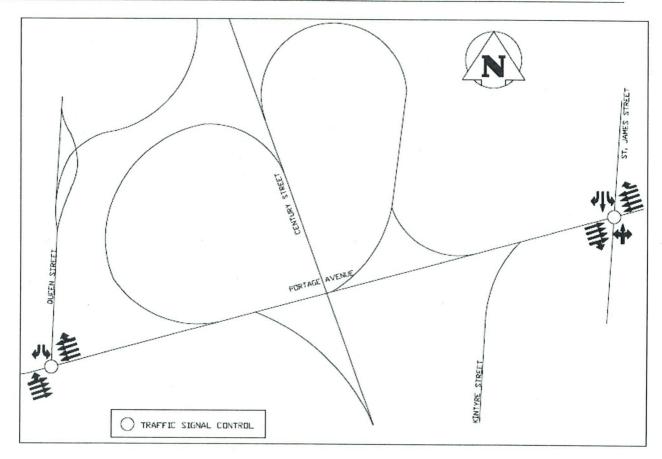


Figure 2.3: Intersection Lane Configurations

2.2.3 PRIMARY RAMPS AND APPROACHES

The study area between Queen Street and St. James Street includes the interchange at Portage Avenue and Century Street, of which contains the ramps listed below (all dimensions refer to Queen Street):

- Southbound Century Street to Portage Avenue via Queen Street off-ramp. This ramp intersects Queen Street approximately 150 m north of Portage Avenue. Ramp traffic has the right-of-way and northbound/southbound traffic on Queen Street at this location is under stop control. Field observations indicate the average running speed on this ramp is approximately 56 km/h.
- Westbound to southbound off-ramp from Portage Avenue to Century Street located approximately 96m east. Field observations indicate the average running speed on this ramp is approximately 43km/h. Note, the separation between this ramp and the southbound century street to Queen Street ramp is approximately 6.0 m.

CORE FIRE HALL ACCESS MANAGEMENT STUDY SITE CONTEXT April 29, 2011

- Eastbound to southbound off-ramp from Portage Avenue to Century Street located approximately 175m east.
- Northbound to westbound on-ramp from Century Street to Portage Avenue located approximately 249m east.
- Westbound to northbound off-ramp from Portage Avenue to Century Street located approximately 302m east.
- Northbound to eastbound off-ramp from Century Street to Portage Avenue via Kintyre Street located approximately 354m east.