

1.0 Introduction

1.1 BACKGROUND

In recent years the City of Red Deer has been approached by a number of businesses along Gaetz Avenue regarding the purchase of service roads fronting their properties for redevelopment and inclusion into their lands. In many instances the City agreed to sell land where the service roads were determined not to be required. The benefits were improvements to business access and better function of the cross street intersections with Gaetz Avenue.

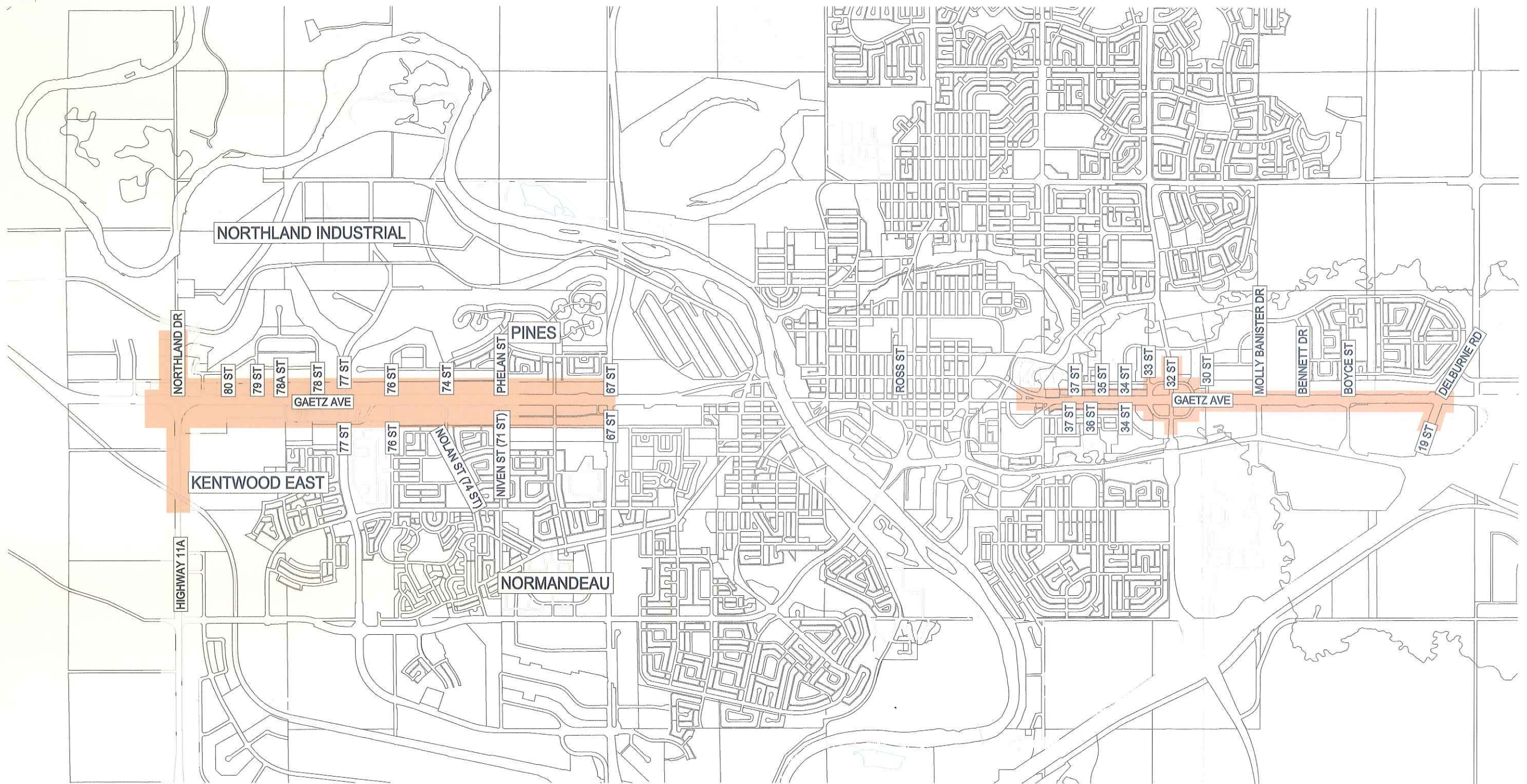
City Council and business owners are concerned that no standards are in place that would improve the function and aesthetic appearance of Gaetz Avenue. In December of 2003, City Council resolved to delay any further sale of land abutting Gaetz Avenue until a Redevelopment Study was completed. The Study would provide a guideline for future improvements to the Gaetz Avenue corridor and a basis for implementing Land-Use-Bylaw with respect to building and signage setbacks.

A Functional Study for the widening of Gaetz Avenue between 68 Street and Highway 11A that includes improvements to the adjacent service roads along this section of roadway has recently been completed. The City has been awarded partial funding from the Cities Special Transportation Grant Program for the improvements defined in the Functional Study. The detailed design for this section of Gaetz Avenue is currently active. The Redevelopment Study would incorporate the findings of the functional study for the north portion of Gaetz Avenue. Figure 1.1 identifies the boundaries of the Redevelopment Study. The final Gaetz Avenue Redevelopment Study document will be presented to City council for acceptance.

1.2 STUDY OBJECTIVES

The purpose of the Redevelopment Study is to provide the basic guidelines for the "long term" 115,000 population improvements along Gaetz Avenue including:

- Widening Gaetz Avenue to six lanes to increase the capacity for current and future traffic volumes.
- Improving the operational efficiency and safety of intersections by reconfiguring or closing existing service roads to reduce the traffic conflicts between cross road intersections and main intersections, creating new right in / right out accesses to adjacent businesses, and developing service road bulbs to improve turning movements for large vehicles.
- Providing well defined pedestrian and bicycle paths as well as incorporating provisions for pedestrian and bicycle traffic into intersection improvements.

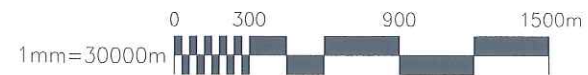


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Legend

Notes



Client/Project

THE CITY OF RED DEER
GAETZ AVENUE REDEVELOPMENT
STUDY

Figure No.

1.1

Title

Study Location



Stantec



- Developing right-of-way requirements and associated building and signage setback requirements.
- Incorporating a landscaping concept thus establishing Gaetz Avenue as an aesthetically pleasing corridor.

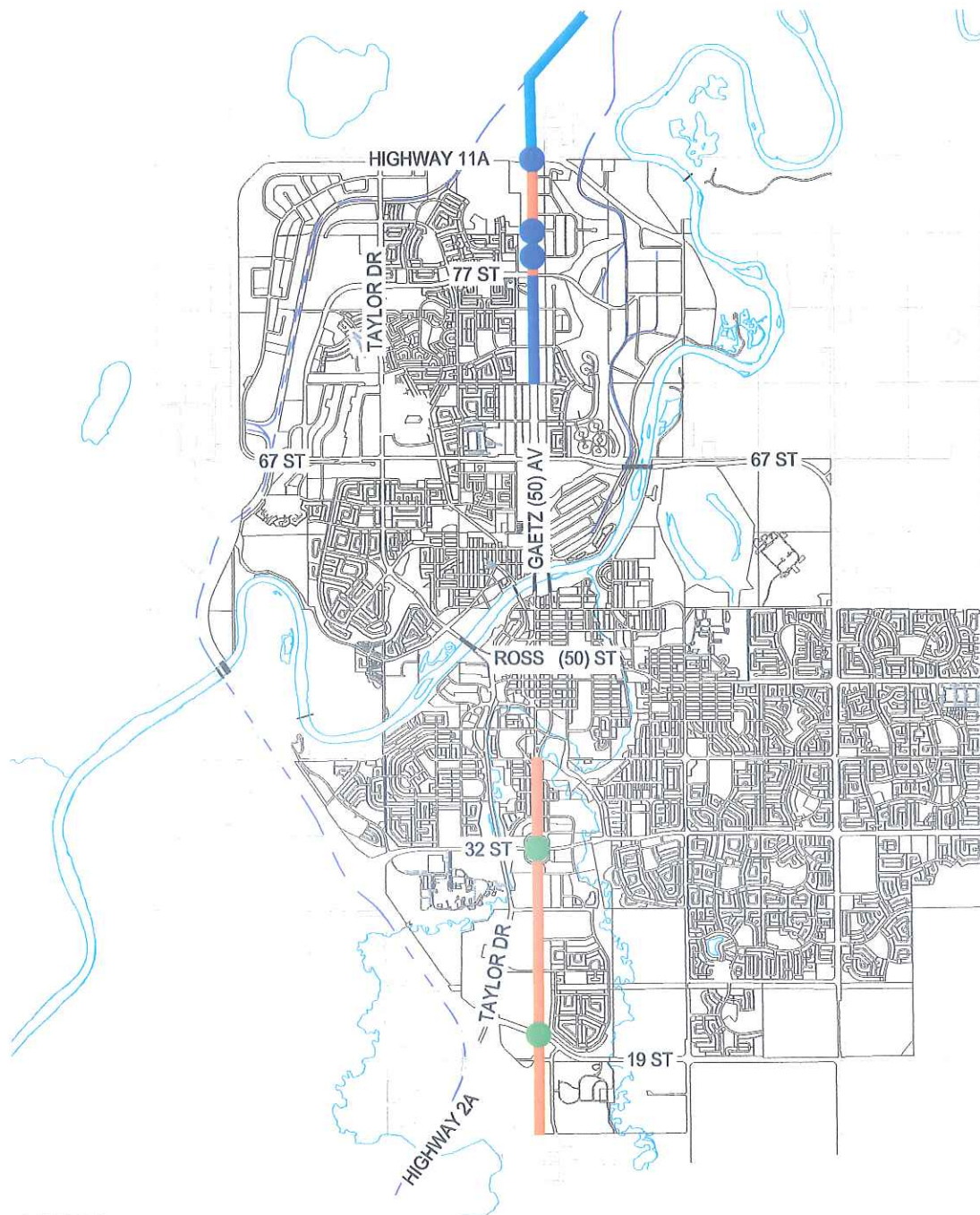
1.3 TIMING FOR GAETZ AVENUE WIDENING

The 1996 Red Deer Transportation Plan determined that the Gaetz Avenue corridor would require widening from four to six lanes. Figure 1.2 outlines the timing requirements for widening of Gaetz Avenue to 6 lanes. The plan requires widening of 71 Street to 77 Street within the next 5 years along with intersection improvements at Highway 11A, 78A Street 78 Street, 80 Street, 32 Street and 19 Street. Widening of the south portion of Gaetz Avenue from 19 Street to 34 Street and the widening of Gaetz north from 77 Street to Highway 11A will be required in the 6 to 10 year period. The widening of the south portion of Gaetz Avenue from 34 Street to the 37 Street would occur beyond the 115,000 population - 15 to 20 years.

1.4 PROJECT DESCRIPTION

The Gaetz Avenue Redevelopment Study encompasses the following main components.

- Review of Existing Data - A detailed review has been conducted of relevant information from past studies including the 1996 Transportation Plan, The Gaetz Avenue Widening and Highway 11A Intersection Upgrade Functional Planning Study, 2003 / 2004 Transportation Update Plan and the recent Transit Study. In addition to these, City traffic data, micro simulations of Gaetz and 32 Street, other recent studies, and all available relevant information pertaining to the project area have been reviewed. Site conditions, record drawings, legal plans, preliminary design, geotechnical reports, past construction information and preliminary survey information have also been referenced.
- Preparation of Base Plan - A comprehensive base plan has been prepared incorporating property lines, land ownership information, right-of-way requirements, building and sign locations, curb lines, utilities, surface features, and aerial photography.
- Public Consultation - Due to the nature and its importance to the City of Red Deer as a major corridor entrance to the City, the impact on local businesses and public access, public consultation has been a key component. In addition to individual meetings the project included meetings with property owners along Gaetz Avenue on a block-by-block basis in order to identify land issues and develop ways to best accommodate changes to access and landscaping. The open house provided the opportunity for participation from all members of the public. The consultation benefited the stakeholders by providing communication of the project objectives, schedule of redevelopment, and personal engagement in discussion that lead to the resolution of issues.
- Setback Survey - The existing setback conditions have been documented from field investigations. The fieldwork included the survey of existing features such as entryway



LEGEND

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|  Roadway Improvement - 2005
(City of Red Deer Jurisdiction) |  Roadway Improvement - 6-10 Years
(City of Red Deer Jurisdiction) |
|  Intersection Improvement 2005 |  Roadway Improvement 6-10 Years
(Alberta Transportation Jurisdiction) |
|  Intersection Improvement 1-5 Years | |

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Client/Project

THE CITY OF RED DEER
GAETZ AVENUE REDEVELOPMENT
STUDY

Figure No.

1.2

Title

Gaetz Avenue Widening
Staging



Stantec



locations, building frontages, street furniture, and signage. Road plan drawings, utility drawings and air photos were utilized for the documentation of existing conditions.

- **Development of Criteria** – Using the existing data, the geometric criteria, and data from traffic and safety analyses conducted, Stantec has developed design parameters and standards for all components of the study area. Requirements have been identified for right-of-way, roadway right-turn deceleration lanes, dual slotted left turn movements, channelization, pedestrian access and other intersection issues. The City of Red Deer Design Guidelines 2004, TAC standards, and special traffic analysis was used to develop a set of design criteria that meets the interests of traffic engineering, local business and the citizens of Red Deer.
- **Traffic Analysis** – Traffic analysis is used in order to determine the most appropriate application of the design criteria. Traffic analysis provides the statistical basis for the design decision and takes into account present and future city populations. Using the 2003 / 2004 Traffic Model and traffic count data as a base, traffic volume projections were developed for significant intersection movements. These traffic projections were used to determine the intersection level of service and required geometric upgrades for the Functional Plan.
- **Safety Review** – Dr. John Morrall, the project Safety Consultant, and Stantec have completed a preliminary safety review for the study area. Part of the review was comprised of reviewing reported collisions from the past three years. A field visit was completed by Dr. Morrall to identify existing operational and geometric safety concerns with respect to vehicle safety and vulnerable road users. Mitigation measures are identified in developing recommendations for safety improvements along Gaetz Avenue and localized service road intersections. The existing configuration of several service roads poses a primary concern for safety.
- **Redevelopment Plan** - Gaetz Avenue improvements have been outlined including service road closures, service road bulbing, intersection location and configuration, and horizontal alignments on a block-by-block basis, while addressing individual stakeholders and other users. Requirements for additional road right-of-way and limitations of available land to accommodate widening of Gaetz Avenue have been identified. Included in this are the requirements for roads, pedestrians, utilities and landscaping for both the north and south portions of the Gaetz Avenue corridor.
- **The building setback standard** considers consistency and appearance of the corridor and continuity throughout Gaetz Avenue. The setback standard has been determined based on road widening requirements, desired site lines and existing building locations. Where service roads will be removed from service, requirements for roadway geometry, walkways, utilities and landscaping features have been evaluated to determine whether the developmental setbacks can be adjusted relative to new property lines. Public transit stops and access, truck movements, and emergency vehicle access considerations are included.

In addition, above-ground infrastructure on boulevards, such as street furniture, trees, and vegetation, utility poles, signage, franchise equipment, (eg. Canada Post Boxes and newspaper boxes) have been accounted for. Space requirements for underground infrastructure have been evaluated. Evaluation of the spatial parameters of the corridor was based on traditional specifications but also examined non-traditional yet potentially feasible alternatives, such as opposing middle left turn lane and widened medians to accommodate more significant tree plantings. Discussions with the City of Red Deer and utility companies were an important part of the process in determining future considerations.

- **Landscape Plan** - Landscape architectural renderings have been prepared as a guideline for Parks and stakeholders to follow. An outline of landscaping treatments and streetscaping is also included. The landscape plan illustrates a strategy that will integrate new treatments with existing and will define a landscaping standard for the entire Gaetz Avenue corridor. The landscape design consists of a plan illustrating both Level 1 and Level 2 landscaping requirements and includes details such as tree spacing, plant species, densities, and seeding types. The typical elevation view illustrates the spatial relationships of landscaping features with respect to the roadway. The use of soil retainers has been used in limited situations to protect existing trees impacted by reduced clearances between roadways and tree root systems.
- **Pedestrian Requirements** - Requirements for pedestrian movements both adjacent to Gaetz Avenue and across intersections are identified. A review of the current pedestrian movements has identified problem areas and highlighted other locations requiring improvements. The functional design includes the location of walkways in accordance with City of Red Deer Design Guidelines.
- **Land Use and Access Requirements** - A review of the existing land use and access requirements was conducted on a block-by-block basis to identify alternative access options for businesses, and to assess the feasibility of various design alternatives with respect to the accesses.

1.5 OTHER STUDIES

To gain insight on the study area, a number of recent studies have been reviewed. For the purposes of preparing the report these studies enabled the designer to understand the influence of other areas on this Redevelopment Study. A list of the studies and the recommendations that have had influence on this study area are as follows:

2003/2004 Transportation Plan Update

The 2003/2004 Transportation Plan Update recommends that the north portion of Gaetz Avenue between 71 Street and 77 Street be upgraded within the next 1 to 5 years. Additional intersection upgrades for the section of Gaetz from 77 Street to Highway 11A have also been identified in the plan for this same time period. The Intersections of 32 Street and Gaetz and 19

Street and Gaetz are reported as requiring improvements within the next 1 to 5 years. Figure 1.2 illustrates the timing of the improvements as described above.

Kentwood Transportation Study

In 2002, Stantec Consulting Ltd. undertook a traffic study with respect to the proposed development of the Kentwood East Subdivision.

The proposed development site could be accessed from the south, east and north by Kentwood Drive, and 52 Avenue via 77 Street and Gaetz Avenue. Access to the proposed development from the west and the southwest would be Kennedy Drive via 77th Street.

The existing Neighborhood Structure Plan that has been approved for the Kentwood area includes a direct connection to Gaetz Avenue via Kingsgate Drive (80 Street). However, the 80 Street right-of-way is not readily available.

As a result, the roadway network options considered have been the extension of either Kentwood Drive or 52 Avenue to the north to connect to Kingsgate Drive. These options were also reviewed with and without the 80 Street connection to the service road (as the connection to the service road would allow the use of the un-signalized intersection at 78 Street and Gaetz Avenue).

Bicycle Master Plan

Reid Crowther & Partners Ltd. was commissioned in 2000 to prepare the City of Red Deer Bicycle Master Plan. The intent was to promote the awareness of the use of environmentally friendly forms of transportation in an urban setting. The study outlined the need for bicycle pathways leading to the existing trail system.

Intersection reconfiguration will accommodate bicycle users and walkways will be included in the design from 71 Street to 78 Street.

City of Red Deer Growth Study

The basis of this study was to assess the growth of the City of Red Deer and present a strategy to plan for continued growth into the 90,000 and 115,000 population horizons. Predictions of growth in the north section of the City include residential growth in the Kentwood subdivision and north of Highway 11A. It is expected that industrial growth will proceed at a slower pace advancing with the development of the road system.

Highway 2A Study

Alberta Transportation commissioned this study in 2003. Findings indicate a need for improvements on Highway 2A and at the intersection of Gaetz Avenue and Highway 11A. Issues such as the population growth in the north sections of the City, and industrial growth in the Edgar Industrial Center and the Blindman Industrial Park were also addressed.

Gaetz Avenue Widening and Highway 11A Functional Plan

This plan was completed in January of 2004 in response to the requirement for improvements identified in the 1996 Transportation Plan Update Plan. The report helped to secure partial funding from Cities Special Transportation Grant Program. The plan provides two design options for redevelopment of the service road configurations. One option is a long-term preferred geometric solution that meets all requirements for future intersection movements and vehicle storage. The other is an interim solution that represents a balance between improving the operating efficiency and land access constraints. A functional plan for the intersection of Highway 11A and Gaetz Avenue forms part of the report.

Trails and Pathways Master Plan

The plan is currently ongoing and is scheduled to be completed by July/Aug 2005. The walkways and pathways design defined in this Gaetz Avenue Redevelopment Study will be incorporated into the Trails and Pathways Master Plan. This report will also identify the pathway linkages crossing Gaetz Avenue that have been identified in the Redevelopment Study. Review and input in to the Redevelopment Study has been provided by the City of Red Deer Steering Committee assigned to the Trails and Pathways Master Plan project to ensure that proper coordination has taken place.

Transit Study

A Transit/Special Transportation Study was completed in December of 2004. The report identifies the most effective and efficient way of delivering public transportation services for the next 5 years and provides a framework for the future population horizons of 85,000 and 115,000. The report includes a needs assessment, Transportation Policies and Strategies, Special Transportation and Service policies and plans, Resource plans, Functional plans and provides an implementation plan. Significant to the Gaetz Avenue Redevelopment Study is the identification of Gaetz Avenue as a main transit corridor and the route for the eventual upgrade to rapid bus transit. The implications of bus stop locations and support features such as benches, shelters and signage are important to the Gaetz Avenue Redevelopment Study.

19 Street and Gaetz Avenue Functional Plan

This planning report was completed simultaneously with the Gaetz Avenue Redevelopment Study. The Functional Plan provides further details regarding the upgrades required for the intersection. The results of the plan are incorporated into the Gaetz Avenue Redevelopment Study.

32 Street and Gaetz Avenue Function Plan

This planning report was completed simultaneously with Gaetz Avenue Redevelopment Study. The Functional Plan provides further details regarding the upgrades required for the intersection. The results of the plan are incorporated into the Gaetz Avenue Redevelopment Study.

Southside Dodge/Chrysler Impact Assessment

This report, completed by ISL Infrastructure Systems Ltd. in March of 2003, focuses on the feasibility of a left turn bay access to the Southside Dodge/Chrysler site for traffic eastbound on 28 Street. The results of this study are an important consideration for this specific location within the context of the Gaetz Avenue Redevelopment Study

28 Street/Gaetz Avenue Canadian Tire Access Review

This report, completed Earth Tech in July of 2001, investigates the possibility of a left turn bay access to the now Rona and Canadian Tire commercial properties. The left turn bay would provide access by traffic westbound on 28 Street. The results of this study are an important consideration for this specific location within the context of the Gaetz Avenue Redevelopment Study.