

2.0 Existing Conditions

The typical existing Gaetz Avenue cross section is a four-lane divided arterial roadway with parallel service roads that provide access to commercial and industrial business as well as to residential areas along Gaetz Avenue. Historically, Gaetz Avenue was designed and functioned as a major thoroughfare for motorists in Central Alberta. The evolution to city traffic patterns is no longer supported by the existing condition of Gaetz Avenue. A recent transportation study has demonstrated that a large portion of the vehicles using Gaetz Avenue have destinations related to commerce and employment. Issues pertaining to access to business, overall safety, and efficiency of intersections have been identified.

2.1 SETBACKS AND LAND USE

Currently the City of Red Deer utilizes Land use bylaws to define the land use associated with different commercial zoning areas. Land use along the Gaetz Avenue corridor predominantly has C2 and C4 designations. Current land use bylaws form the constraints to which developers must adhere when developing these parcels of land.

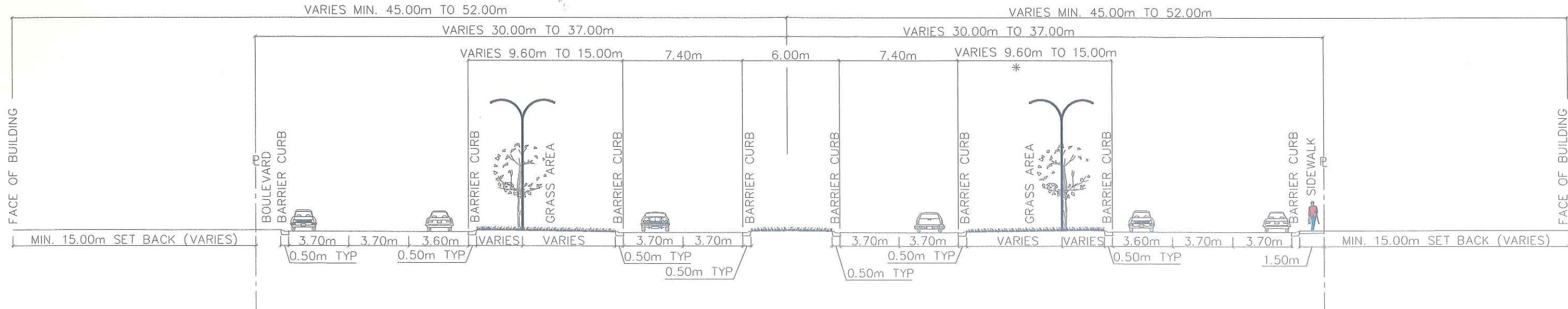
The City of Red Deer Land Use Bylaw defines the C2 and C4 zoning as follows:

➤ C2 – Commercial (Regional and District Shopping Center) District

This type of land use provides criteria for the development of lands used for district and regional shopping centers. This bylaw facilitates the development of district and regional trade centers having services, offices, and dwelling units as secondary functions. Permitted usage ranges from restaurants and commercial service facilities to merchandise and sales excluding all motor vehicle, machinery and fuel businesses. This bylaw also provides for the use of business signs such as fascia, awning, free standing and projecting signs. The current minimum setback from the property line for buildings is 9.0 meters with a total landscape area of 15% of the site area. This bylaw also provides for permitted usage subject to Area Structure Plan or an Area Redevelopment Plan.

➤ C4 – Commercial (Major Arterial) District

The C4 commercial zoning provides criteria to facilitate the location of trade and service outlets related to automotive transportation, commercial recreation and service facilities, restaurants, as well as service and repair of goods traded in the C4 district. This bylaw provides for the use of signs such as those found in the C2 zoning bylaw with the inclusion of painted wall signs, roof signs, and existing billboards which have location restrictions. The current minimum setback of the building to the property line is 15.0 meters with a total landscaped area requirement of 40% of the minimum front yard. If the landscaping is required elsewhere on the site then landscaping for 15% of the site area may be allowed.



EXISTING CROSS SECTION



Legend

Notes

0 2.5 7.5 12.5m
1:250

2.2 CROSS SECTION

The right-of-way of Gaetz Avenue varies from 60 meters to 74 meters. The majority of the existing businesses bordering the Gaetz Avenue right-of-way meet the minimum setback distance of 15.0 meters for C4 zoning and 9.0 meters for C2 zoning.

A typical existing cross section of Gaetz Avenue is shown in Figure 2.1. The road currently has two 3.7 meter lanes both northbound and southbound. The grassed center median is approximately 6 meters wide with a barrier curb. Barrier curbs are also located along the outside edges of the roadway. The boulevard width varies from 9.6 meters to 10.7 meters at various locations on Gaetz Avenue and is grassed with trees varying in offset and species. The existing service road is 11.0 meters wide providing two 3.7 meter driving lanes and a 3.6 meter wide parking lane.

The cross section is dimensionally representative of instances where the service road remains in place and where it is removed. It is not intended that the cross sectional view as shown be consistent from one end of the corridor to the other. It will change in accordance with the sustaining of service roads and service road closures as shown on the plan.

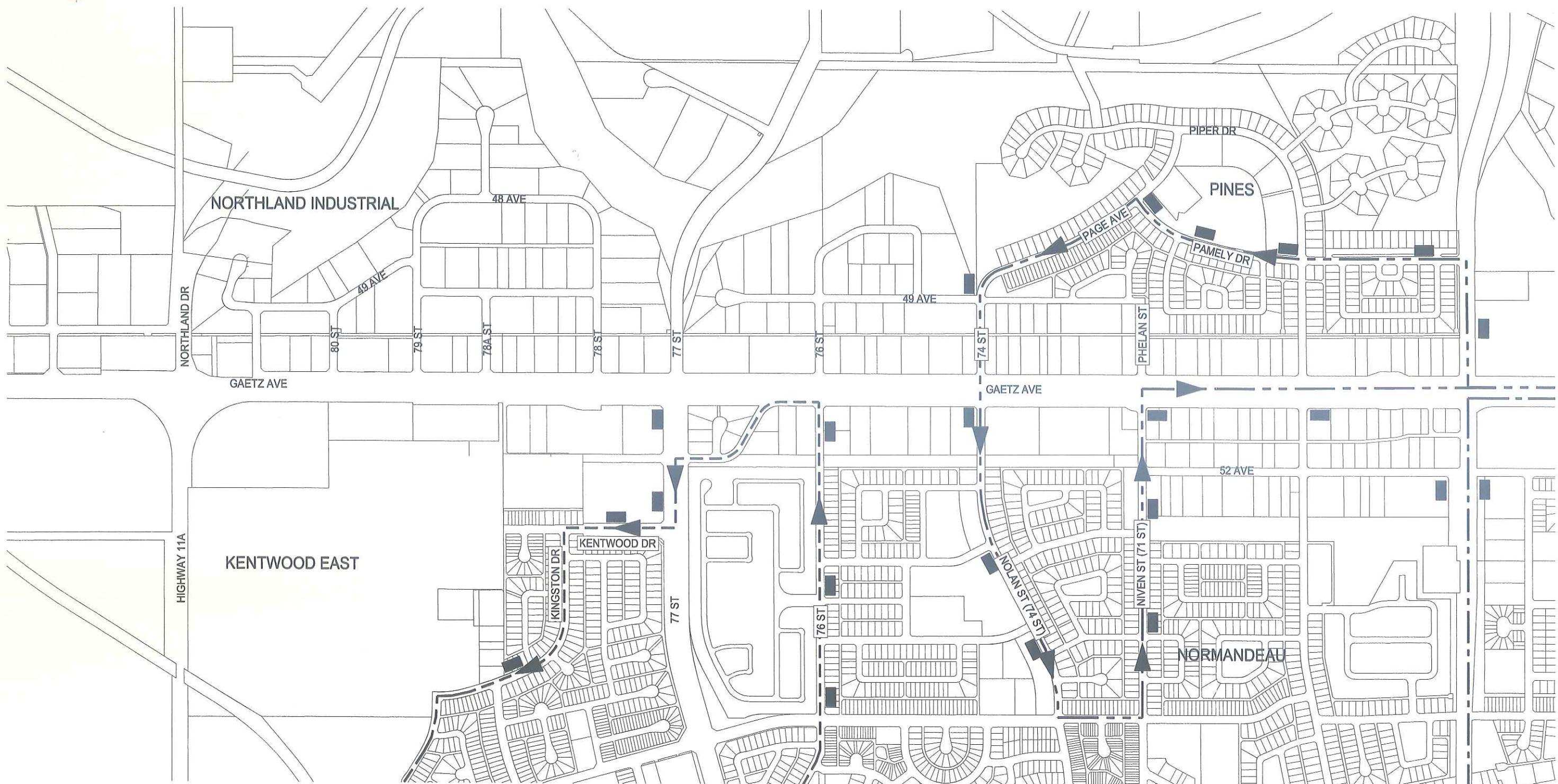
2.3 TRAFFIC PATTERNS

Gaetz Avenue is a major north/south corridor providing entrance and egress for the City. It serves as a main roadway for the movement of goods, services and patrons within the business districts along the corridor. The posted speed limit along the corridor is 60 km/h.

Intersections on Gaetz Avenue are predominantly controlled by traffic lights for movements on Gaetz Avenue as well as cross street traffic and provide separate left turn phases with protected/permissive signal phasing at some intersections. Separate right turn lanes are provided at some intersections. Right turn cutoffs exist at several intersection locations such as Gaetz Avenue and 67 Street, Gaetz Avenue / Delburne Road / 19 Street, West side of Gaetz Avenue at 22 Street, and Highway 11A.

Most service road intersections are un-signalized with vehicle movements controlled by a stop sign. Service road intersections are very close to the main intersections on Gaetz Avenue and as such are affected by vehicles queuing for eastbound and westbound approaches to the intersection. This short spacing only provides for a storage length of one or two vehicles. It is difficult for vehicles to make other turning movements from these intersections at the service roads as sight lines are poor and gaps required for vehicles to enter the intersection are few. This may be the most predominant issue with respect to efficiency and safety of traffic movements.

The City of Red Deer has reconfigured service road intersections in areas near 22 Street and Gaetz Avenue to provide a greater separation between the service road and Gaetz Avenue intersections and has significantly reduced vehicle congestion and conflicts. In other instances service roads have been removed to increase efficiency and address safety issues, such as at the intersection of Boyce Street and Gaetz Avenue.



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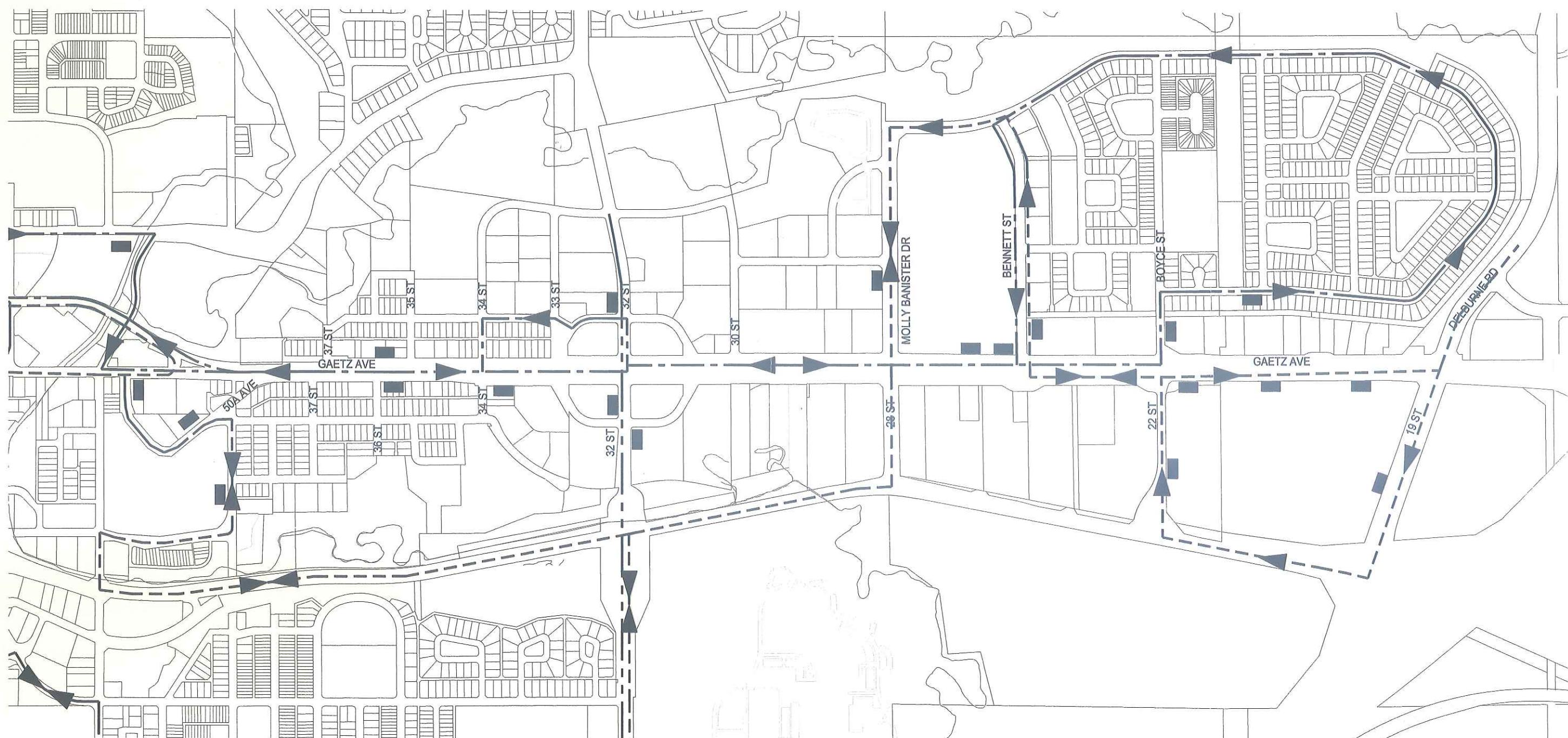
Legend
— EX. TRANSIT ROUTE A
- - EX. TRANSIT ROUTE B
- · - EX. TRANSIT ROUTE C
■ BUS STOPS

0 80 240 400m
1:8000

Notes

Client/Project
CITY OF RED DEER
GAETZ AVENUE REDEVELOPMENT
STUDY
Figure No.
2.2a
Title
North Transit Routes





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Legend
— EX. TRANSIT ROUTE D
— EX. TRANSIT ROUTE E
— EX. TRANSIT ROUTE F
■ BUS STOPS

0 100 300 500m
1:10000

Notes

Client/Project
CITY OF RED DEER
GAETZ AVENUE REDEVELOPMENT
STUDY

Figure No.
2.2b

Title
South Transit Routes

Traffic lights are well spaced and experience an acceptable level of service with the exception of 78 Street. The amount of southbound vehicle storage at the intersection of 77 Street and Gaetz Avenue is not sufficient to accommodate the volume of traffic on Gaetz Avenue. With the traffic added from the heavy left turn movement at 78 Street, vehicles turning left at 78 Street often have difficulty clearing the intersection due to the queue length on Gaetz Avenue.

Currently northbound vehicles approaching Gaetz Avenue from Highway 2 in the vicinity of 19 Street from a 110 km/hr speed zone have little time and distance to adjust to the urban arterial roadway configuration which has a speed limit of 60 km/hr.

Gaetz Avenue serves as a truck route for commercial, light, and heavy industrial areas of the City. Also, Gaetz Avenue provides a through route for residential areas accessing various areas of the City on a daily basis.

2.4 TRANSIT ROUTES

Currently bus routes cross Gaetz Avenue at Niven and 74 Streets and follow Gaetz Avenue from 76 Street to 77 Street. Bus access points are provided at regular intervals along Gaetz Avenue from 37 Street to 19 Street. Bus Shelters are located adjacent to the outside lane on both the northbound and southbound routes. Figures 2.2a and 2.2b show the existing bus routes on Gaetz Avenue.

2.5 PEDESTRIAN AND BICYCLE PATHWAYS

Trip destinations of pedestrians and cyclists are predominantly related to workers and customers accessing commercial developments and industrial areas. It is expected that bus stops may be a destination of choice by pedestrians. Typically pedestrians and cyclists do not use Gaetz Avenue for recreational use.

Intersections on North Gaetz Avenue such as 71, 74, 76, 77, and 78 Streets are enabled with pedestrian signals. South Gaetz Avenue pedestrians and cyclists can cross at 19, 22, Boyle Street, Bennett Street, Molly Banister Drive, 32, 34 and 36 Streets.

Sidewalks are located on the east side of Gaetz Avenue service roads between 71 and 74 Streets and end at the Taco Bell near 74 Street. No walkways exist on Gaetz Avenue or the service roads north of 74 Street. There is a 3-meter wide sidewalk on the south side of 77 Street west of Gaetz Avenue. There is an existing bike path/walkway on the west side of Gaetz Avenue from Boyce Street to 19 Street. Pedestrians walk on the boulevard, service roads, or adjacent to businesses when traveling parallel to Gaetz Avenue.

2.6 UTILITIES

The following general comments have been made with respect to the utility conflicts throughout the corridor.

Water main, storm, and sewer lines are generally not in conflict with surface improvements; however hydrants, valves, and manholes may need to be relocated or adjusted.

Local gas lines to various businesses exist either across or adjacent to Gaetz Avenue in various locations. Shallow bury on these lines may need adjustment depending on the final grades of the surface improvements.

Fiber optic and conventional communication utilities such as Telus and Shaw exist on boulevards adjacent to Gaetz Avenue. Concrete duct structures are used to protect these lines in certain locations where live loads of vehicles threaten the integrity of the utility; these may require reconstruction or relocation. Pedestals or manholes may have to be relocated in conjunction with surface improvements.

ATCO gas has both medium and high-pressure utility pipelines adjacent to Gaetz Avenue on the south side of the City between 19 and 37 Streets. The majority of the gas lines are relatively close to the surface. Surface grades of proposed improvements will be subject to a minimum depth of cover based on the nature of the utility over which it is built.

ATCO Pipeline has a major distribution line located east of Gaetz Avenue on the north side of the City. The location of proposed development and accesses may be influenced by the existence of this pipeline.

Electric Light and Power currently controls the traffic signals as well as the lighting and distribution of power along the Gaetz Avenue corridor. At most intersections, non-galvanized traffic light poles with fully actuated pedestrian and vehicular signals are in use. The lighting systems on Gaetz Avenue vary in offset from the existing curb and consist of both concrete and steel structures at a 90 meter stagger along the corridor. Overhead power lines exist between 32 Street and 22 Street in the south and Highway 11A and 79 Street in the north. Removal and reconstruction of the overhead lines will be very expensive and require a minimum of five years to plan and execute. The remainder of the power conduits are buried. The impact that the proposed widening has on the location of the overhead lines affects the future plans of Electric Light and Power. Power cubicles will have to be moved or protected depending on their location.