

The Quarters Downtown – Transforming Edmonton’s Downtown Core

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ABSTRACT

The Quarters Downtown is an urban redevelopment initiative located in Edmonton, Alberta on the east side of the downtown core. The Quarters Downtown has been in the development and planning stages since 2005 and the focal point of the development is a four block custom streetscape known as the Armature. The streetscape has public realm space for pedestrians, bike lanes for cyclists, transit facilities (bus and future light rail) crossing perpendicular and it accommodates vehicles but at the lowest priority. This corridor is also a link for the communities from the north to access the river valley to the south. It is scheduled to be completed fall 2015.

The Quarters Downtown area was Edmonton's first commercial district. This area has had various types of development over the last 100 years and now consists of a significant number of unused buildings, lots and surface parking lots. Through the design and construction of the Armature the private, public and transportation spaces are integrated. Within the public realm, low impact drainage is included with the use of soil cells and other custom street furnishings are included to assist in making the Armature a place to gather and meet.

The design of the Armature considers pedestrians first with the use of flush curbs, minimization of crossing distances for pedestrians and a design of the roadway to minimize the amount of vehicle traffic. Cyclists are accommodated through bike lanes and transit crosses the Armature making it easy to access the area without a vehicle. The development of the Armature will be the focal point of the Quarters community and has already attracted a world class hotel and other mixed-use developments are in the planning stages including an artist center with residences above.

INTRODUCTION

The Quarters Downtown is the redevelopment of an area of approximately 40 hectares directly east of Edmonton's downtown core. The area dates back over 100 years and over time many of the buildings were removed and the land now is used as surface parking lots. With the use of a Community Revitalization Levy (CRL) the City of Edmonton is working on infrastructure improvements to redevelop the Quarters Downtown area.

As part of the redevelopment, a key focal point called the Armature is being constructed on 96 Street. The Armature is a custom streetscape that accommodates multiple modes of transportation including pedestrians, cyclists, transit crossings and private vehicles and in that order of hierarchy. Each mode of transportation was considered within the design of the street scape for safety and mobility. The public realm space within the Armature also includes underground soil cells for the trees and other plantings, custom streetlights, bicycle racks, benches and other street furniture.

THE QUARTERS AREA

The Quarters Downtown is comprised of 18 city blocks bounded by 97 Street on the west, 92 St on the east, 103A Avenue on the north and Rowland Road and 101 Avenue on the south as shown in Figure 1. This area of Edmonton dates back over 100 years and was one of the original neighbourhoods. At that time the corner of Jasper Ave and 97 Street was the center of the business district. After the opening of the Provincial Legislature and a bridge on the west side of the current downtown, commercial activities and development moved to the west. Gradually the properties in the Quarters area lost value and many residents and businesses left the area. As buildings grew older, many were neglected and eventually torn down. Many of the empty lots that were created are now being used as surface parking lots. The area also grew a negative public perception because of the crime, prostitution and vandalism that was occurring in the area.



Figure 1 The Quarters Downtown Area (EIDOS, 2011)

With the Quarters situated immediately east of downtown it is a good candidate for successful redevelopment and future growth. To the west of the Quarters there is the Arts District which contains many large office towers, City Hall and the LRT (Light Rail Transit) Churchill Station. To the south there is the City’s Convention Centre and the North Saskatchewan River and to the north and west are residential areas. The 2005 census indicated that there are approximately 2,400 residents in the area with two thirds living in single person households and a 90 percent rental rate. Apartment buildings make up 80 percent of the dwelling structures and houses account for 15 percent (COE 2008).

FUNDING REDEVELOPMENT

The infrastructure redevelopment of the Quarters Downtown area is funded through a Community Revitalization Levy (CRL). A CRL is a method of funding a project to improve a specific area that is approved by the Province of Alberta (COE 2015a). The City borrows the money to construct the infrastructure improvements to allow redevelopment to occur. For Phase I of the Quarters these improvements total \$56 million including separation and increased capacity of sewer systems and the construction of the Armature. The Armature is the area along 96 St from Jasper Ave to 103A Ave which is the focus of this paper. The construction of the infrastructure improvements are done to support and spur on future development in the area. As the area develops, taxes are assessed based on the value of the development. Any additional revenues received from the additional development will pay back the money that was borrowed. The CRL will be in place for 20 years.

REDEVELOPMENT PLAN

Significant efforts went into building a redevelopment plan for the Quarters Downtown area. An urban design plan and vision was developed and approved by City Council in September 2006. The Vision was to build a community that was comprised of five distinct areas that were built around a unique linear park - the Armature. The Armature would be a defining element for the community. The local streets would be limited to traffic making them more inviting for pedestrians and cyclists. The long City blocks would be broken into smaller ones allowing for easier movement of people through the area and establishing more inviting places. The community would become alive with a mix of parks, shops, services and housing with a wide range of cultures, incomes and ages. The Seven Guiding Principles for the Quarters are summarized in Table 1 (COE 2008).

Table1 Quarters Downtown Seven Guiding Principles

Development Principle	
1	Incorporate sustainable neighbourhood design principles in the Quarters.
2	Use the form of architecture and open spaces to create a distinctive image for the Quarters.
3	Improve circulation in and around the Quarters by strengthening connections to downtown, the river and adjacent neighbourhoods, and creating a variety of street types for the safe movement of pedestrians, cyclists, and vehicles.
4	Provide open space in the form of parks and plazas that will be physically and useable throughout the year.
5	Develop a strong community composed of a diversity of people and uses, that is respectful and safe.
6	Invest economically in the Quarters, developing public amenities and a variety of housing types and styles.
7	Take advantage of the assets of the Quarters

MOBILITY IN THE QUARTERS

Focusing on principle three the circulation and movement of pedestrians, cyclists and vehicles is a key principle of the Quarters. The hierarchy of transport accommodation in the Quarters is pedestrians, followed by cyclists, transit and private vehicles have the lowest priority. The Armature is the focal point within the Quarters Downtown and is expected to draw new development and businesses into the area which in turn will bring people.

Existing Conditions

The original cross section of 96 St consisted of sidewalk widths ranging from 3.1 – 3.7m and consisted of a two-way undivided, four-lane roadway and connected to two arterial roadways, Jasper Avenue to the south and 103A Avenue to the north.

Private Vehicles

The future plan for the Quarters area is to limit traffic to local traffic within the inner roadways and to push commuter traffic to the surrounding arterial roadways. To achieve this goal the east/west through connection from 95 Street to 97 Street along 103 Avenue is being closed just east of 96 Street. The portion of road right-of-way that is being closed will turn into park space for the community. Along 96 St two-way vehicle traffic will only be maintained on two blocks (between 102 Avenue to 102A Avenue and 103 Avenue to 103A Avenue) of the four blocks. Vehicle travel will be restricted to only south bound travel between the other two blocks (101A Avenue to 102 Avenue and 102A Avenue to 103 Avenue). Parking is discouraged along the Armature however it is accommodated along the west side of the Armature and along the east side from 103 Avenue to 103A Avenue. Refer to Figure 2 and 3 for the roadway alignment changes in the Quarters Downtown.

Pedestrians

With pedestrians having the highest priority along the Armature one of the goals is to slow vehicles down. This goal is partially achieved through the geometric design of 96 Street. Travel lane widths are reduced to 3.45m. Corner radii are reduced to 5m from the typical 6m to minimize crossing distances for pedestrians. This smaller radius will make it more difficult for larger vehicles to maneuver these corners. The design vehicle used for the Quarters was a garbage truck. Mid block crossings are also provided on each block (ISL 2013).

To further promote pedestrian movement and increase the public realm area of the Armature the curb on the west side of the roadway is eliminated and the curb is flush with the roadway, see Figure 4. This allows for a seamless transition from the pedestrian realm to the roadway. At mid-block crossings bollards are installed to highlight the curb extending out into the roadway. The City of Edmonton has a jay walking bylaw which will be modified to allow pedestrians to freely cross 96 Street at any location.

There are two major intersections which pedestrians movements across the avenues are controlled with signals. The first is at 102 Avenue and 96 Street which is a full signal that will also be used to control traffic with the future LRT movements. The second is at 102A Avenue and 96 Street where a pedestrian actuated flashing signal will be installed on both corners.

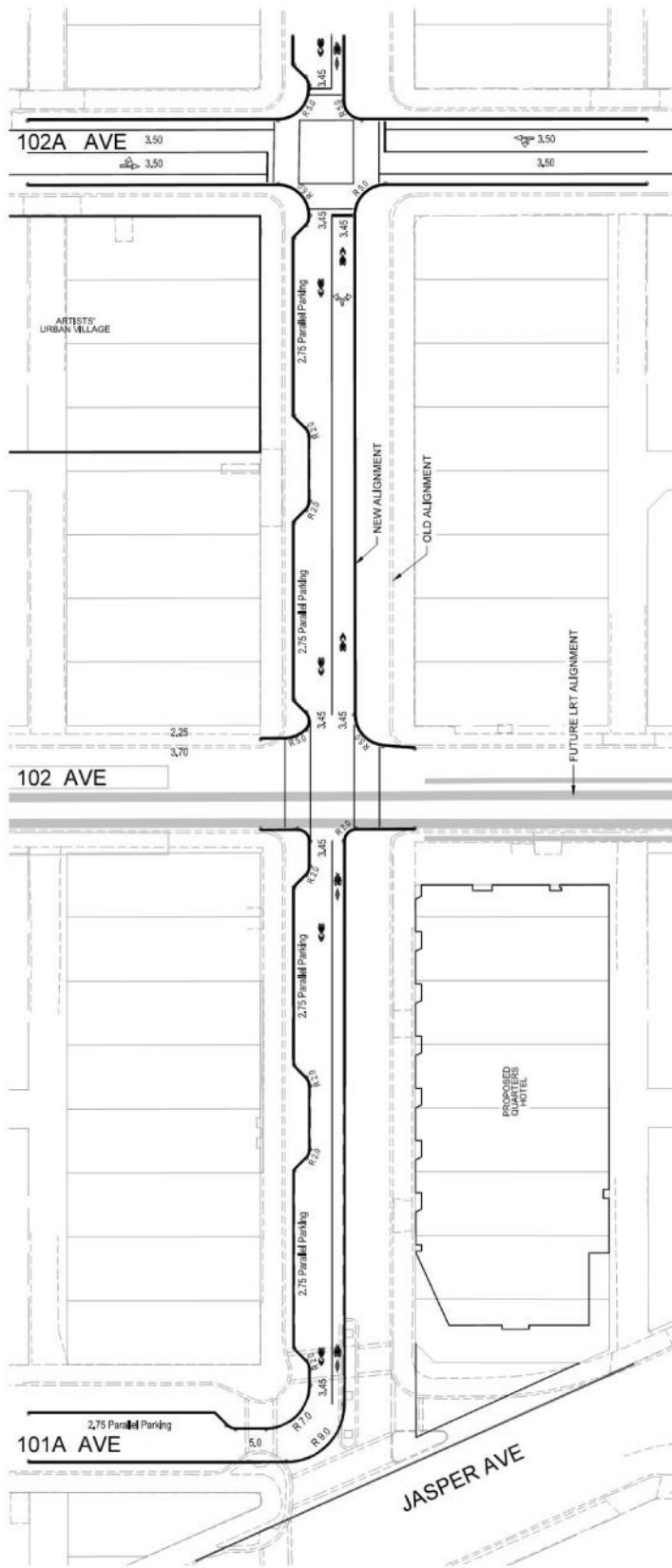


Figure 2: Alignment Changes 101A Ave to 102A Ave



Figure 4 Flush Curb on West Side of 96 Street

Cyclists

Cyclists were accommodated second after pedestrians in the Quarters. To maximize the public realm space it was decided that vehicles and bicycles would share facilities where possible. On the blocks where there is two way traffic the lanes will be shared and marked with sharrow. On the blocks where there is only one way south bound traffic a dedicated contra flow bike lane is provided. The bicycle lane accommodation can also be seen in Figures 2 and 3.

Recently further planning has been completed on 102A Ave and a separate cycle track is proposed on the south side of the roadway from 97 Street to 96 Street. This bike route will connect to the other routes that the City is planning to the west through downtown. A bike box will be included at the intersection of 96 Street to protect cyclists through the intersection. Figure 5 shows the contraflow bike lane from 101A Ave to 102 Ave.

Transit

Two modes of transit will be crossing the Armature but no transit will be provided along 96 Street. The first mode is standard bus service along 102A Avenue in both the east and westbound directions. Bus transit service will also be provided along the surrounding roadways of the Quarters. The future LRT along 102 Avenue is scheduled to begin construction late 2015 with completion in 2020. A LRT station is also proposed along on the south side of 102 Avenue just west of 96 St. These transit connections allow residents and others with a destination point of the Quarters to easily access to the area and other areas in the City. A sketch of the proposed at grade LRT station is included in Figure 6.



Figure 5 Contra Flow Bike Lane

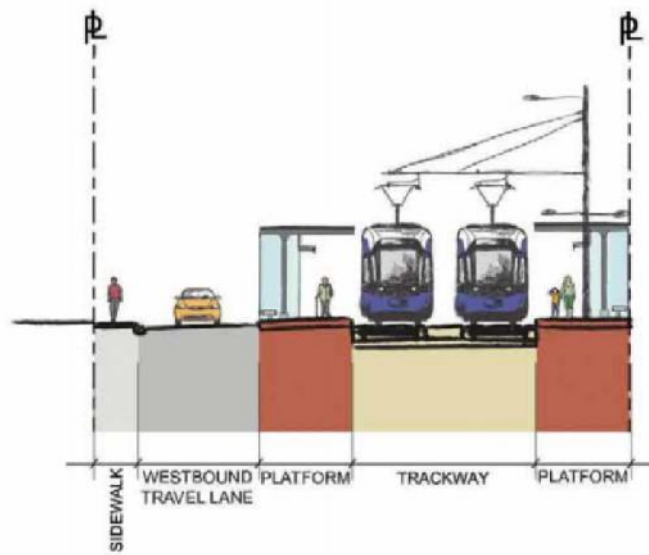


Figure 6 Quarters LRT Stop (COE 2015b)

Public Realm

The public realm is the area from the property line to the roadway which can be used as public space for pedestrian movement, plantings, street furnishings and may even be used by businesses such as restaurants. The width of the public realm ranges from 4.6m to 11.0m along 96 Street. The street furnishings along the Armature include custom benches with lighting, trash receptacles, newspaper corals, benches, bollards and custom art. A low impact drainage system with soil cells is located underneath the space to provide a large volume of growing area for tree roots and other plants. Water off the roadway is directed into these systems to minimize the overland flow going into the sewer system. Figure 7 shows the custom bench, bike rack and trash receptacle.

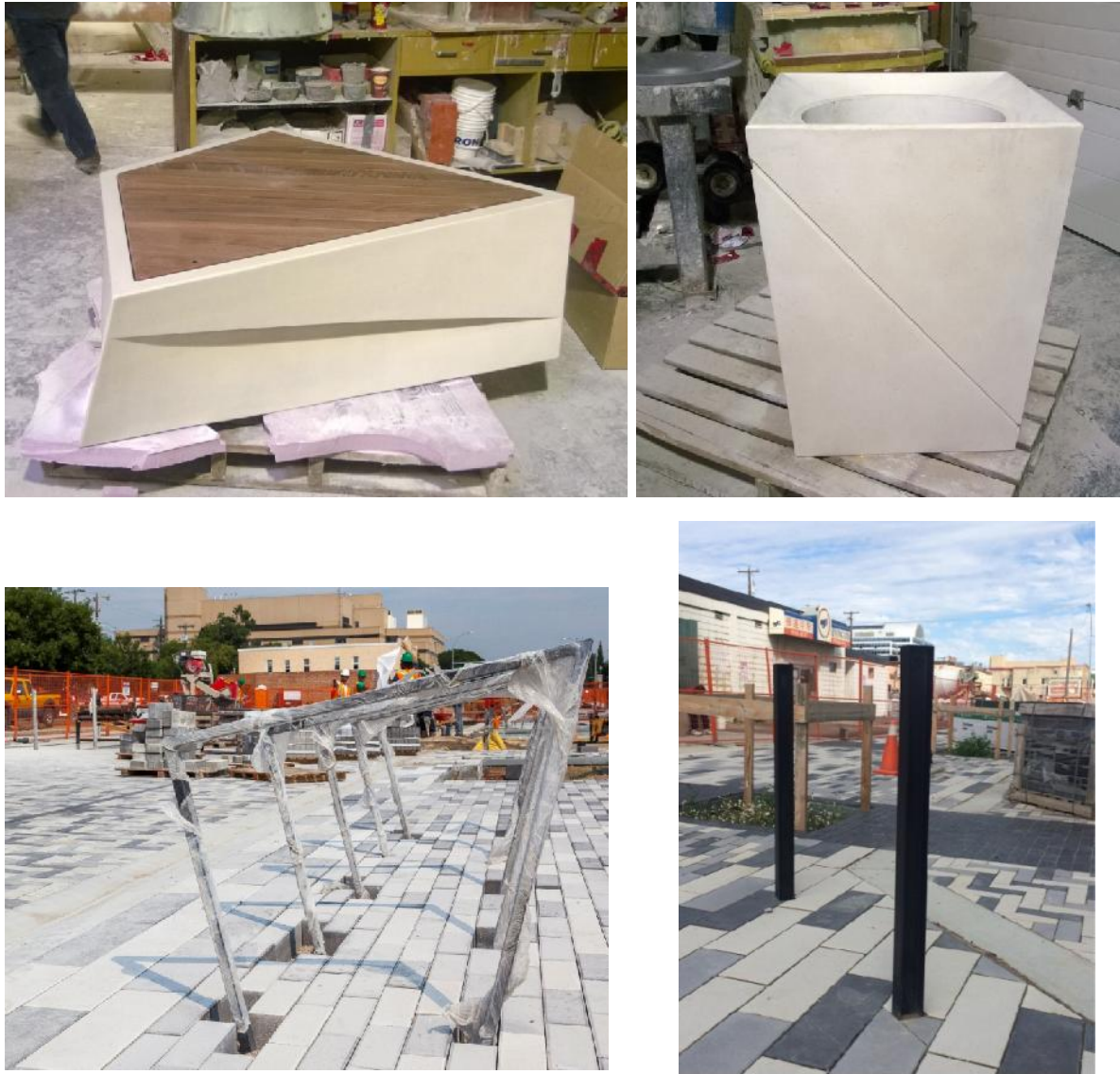


Figure 7 Custom Bench and Trash Receptacle

Also within this space are the proposed custom street and pedestrian light poles. The streetlights will illuminate the roadway for the traffic but also have a glow panel on the back that may be used for special events. The pedestrian lighting is specifically provided to illuminate the pedestrian walkways. Figure 8 is a cross section of 96 Street located north of Jasper Avenue at the hotel development and Figure 9 is a cross section of 96 Street located north of 103 Avenue. The custom light pole is shown in the cross section.

DEVELOPMENTS AND FUTURE PLANS

One of the goals of the Quarters is to establish sustainable development within the Quarters Neighbourhood. New developments that already have been established include a YMCA Daycare, 150 unit YMCA Affordable Housing Complex, YMCA Family Resource Centre, a community center and a 90 unit seniors affordable housing complex. Along the Armature a world class hotel is under construction and two other mixed-use developments including an artist center with residences above are in the planning stages. The hotel is located at the south end of the Armature and runs the entire length of the block from Jasper Avenue to 102 Avenue. The streetscape of the Armature will go right up to the hotel building and there will be a seamless transition from private to public property. A picture of the hotel under construction is included in Figure 10.

Phase two of the Quarters Downtown is in the planning phase. Currently combined sewer separation is being completed for the future streetscape on 102 A Avenue from 95 Street to 97 Street. A long term plan for the renewal and redevelopment of the remaining streets and avenues in the area is also currently being developed. Future plans such as breaking the grid and providing more connective paths through the neighbourhood will also be introduced in future stages. The future streetscape will not be as complex and custom as the Armature but a consistent feel and theme with the Quarter in which the street or avenue is included will be carried through.



Figure 10 Hotel Development

CONCLUSION

The Quarters Downtown is an urban redevelopment of a neighbourhood located just east of Edmonton's Downtown core. Through the streetscape design of the Armature design considerations were made for pedestrians, cyclists, transit and vehicles with pedestrians having the highest priority. The Armature is the focal point of the Quarters Downtown and with its construction and completion more developments are expected to be construction bringing more businesses and people to the Quarters Downtown.

REFERENCES

City of Edmonton (COE). 2008. *The Quarters Downtown Urban Design Plan*, The City of Edmonton Planning & Development Department, Special Projects Office.

City of Edmonton (COE). 2015a. *Community Revitalization Levy*. [Viewed: April 15, 2015] http://www.edmonton.ca/city_government/projects_redevelopment/community-revitalization-levy.aspx.

City of Edmonton (COE). 2015b. *Interactive Map Valley Line LRT*. [Viewed: April 15, 2015] http://www.edmonton.ca/transportation/PDF/S5A4_Corridor_and_Access_Plan_-_Area_4B.pdf

EIDOS Consultants Incorporated (EIDOS). 2011. *The Quarters Downtown Public Realm Improvement Strategy*.

ISL Engineering and Land Services (ISL). 2013. *The Quarters Downtown Preliminary Design Report*.