

Mactaggart Neighbourhood Area Structure Plan

Office Consolidation September 2023

Prepared by:

*Planning and Policy Services Branch
Planning and Development Department
City of Edmonton*

Bylaw 13976 was adopted by Council in April 2005. In September 2023, this document was consolidated by virtue of the incorporation of the following bylaw:

- Bylaw 13976 Approved April 26, 2005 (to adopt the Mactaggart Neighbourhood Area Structure Plan)
- Bylaw 14209 Approved February 22, 2006. (Amendment to the maps and statistics to include two additional park sites)
- Bylaw 16156 Approved July 16, 2012 (Amendment to extend the Plan boundaries to include surplus TUC parcels, designating the surplus parcels for residential and commercial uses and redesignating an existing residential site for commercial use)
- Bylaw 18568 Approved November 5, 2018 (Administrative amendment to adjust the land use in neighbourhood plans to align with the proposed boundary changes to the North Saskatchewan River Valley Area Redevelopment Plan (NSRV ARP) and North Saskatchewan River Valley and Ravine System Overlay)
- Bylaw 20607 Approved October 3, 2023 (Updating figures and population statistics to allow for higher density residential development)

Editor's Note:

This is an office consolidation edition of the Mactaggart Neighbourhood Area Structure Plan, Bylaw 13976, as approved by City Council on April 26, 2005.

This edition contains all amendments and additions to Bylaw 13976. For the sake of clarity, new maps and a standardized format were utilized in this Plan. All names of City departments have been standardized to reflect their present titles. Private owners' names have been removed in accordance with the Freedom of Information and Protection of Privacy Act. Furthermore, all reasonable attempts were made to accurately reflect the original Bylaws. All text changes are noted in the right margin and are italicized where applicable.

This office consolidation is intended for convenience only. In case of uncertainty, the reader is advised to consult the original Bylaws, available at the office of the City Clerk.

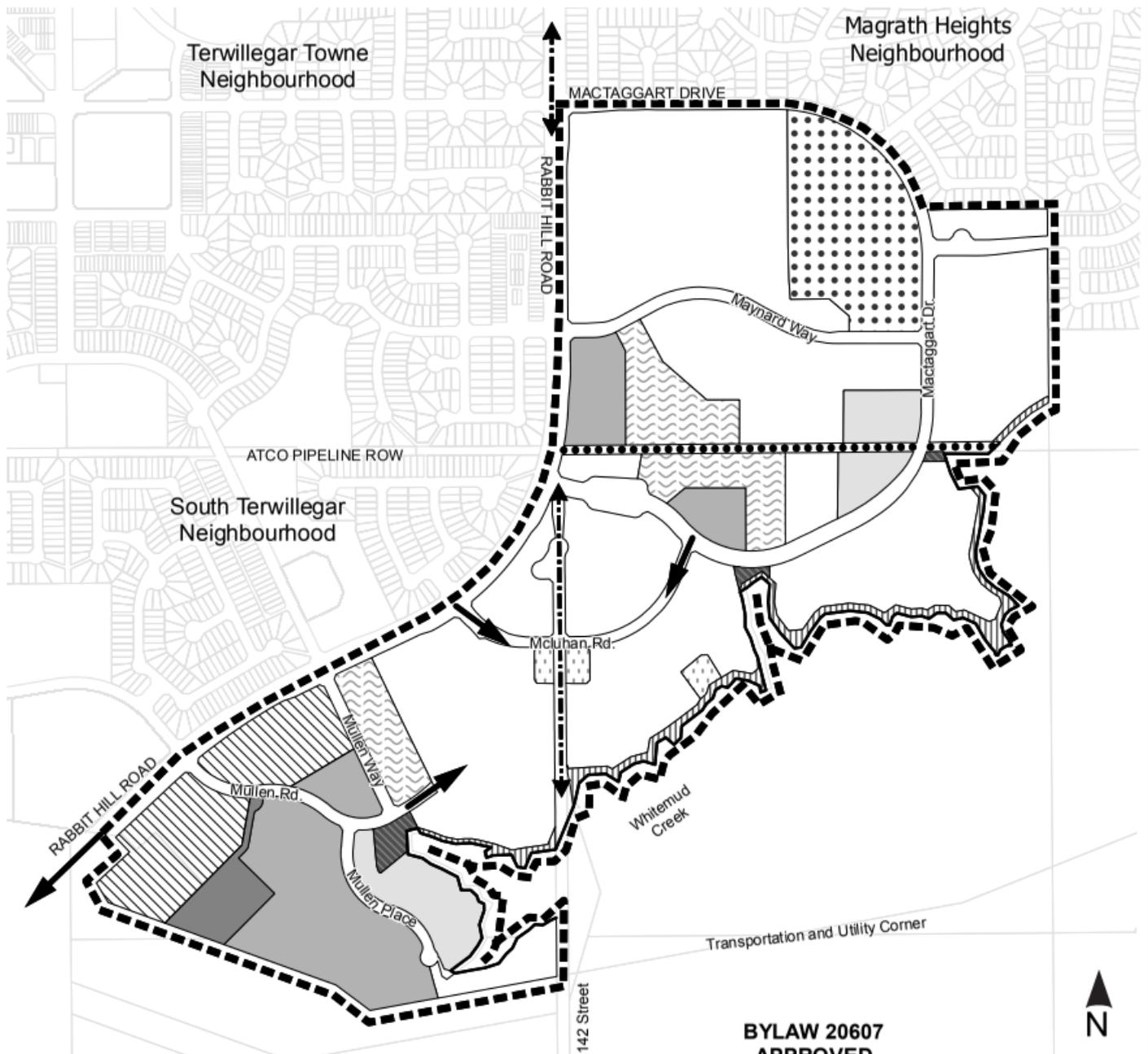
City of Edmonton
Planning and Development Department

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**BYLAW 20607
APPROVED
MACTAGGART
Neighbourhood Area
Structure Plan
(as amended)**



- | | |
|----------------------------|-----------------------------|
| Low Density Residential | Viewpoint Park |
| Row Housing | Stormwater Facility |
| Medium Density Residential | Whitemud Creek |
| High Density Residential | Major Trail |
| Commercial | Top of Bank Walkway/Roadway |
| School/Park-Open Space | TUC Trail |
| Dispersed Park | Boundary of NASP |

NOTE: In case of contradiction between the land use concept and other figures in the plan, the concept takes precedence.

Bylaw 20607, Approved October 3, 2023

**MACTAGGART NEIGHBOURHOOD AREA STRUCTURE PLAN
APPROVED LAND USE AND POPULATION STATISTICS
BYLAW 20607**

	Area (ha)	% of GDA
Gross Area	101.9	
Gas & Pipeline ROW	1.0	
Gross Developable Area (GDA)	100.9	100.00
Stormwater Management Facilities	5.9	5.8
Park	7.8	7.7
Walkways	0.7	0.7
Circulation	22.6	22.4
Net Developable Area	63.9	63.3
Commercial	6.4	6.4
Total Net Residential	57.5	57.0

	Area	Dwelling Units/ha	Units	Persons/ Unit	Population
Low Density Residential	43.2	22	951	2.8	2,662
Row Housing	3.9	45	176	2.8	493
Medium Density Residential	8.7	90	783	1.8	1409
High Density Residential	1.5	225	338	1.5	507
Total Residential	57.3		2,248		5,072

Density: 39.2 units / net residential ha
Housing Mix 42% Low Density Residential; 8% Row Housing; 35% Medium Density Residential; 15% High Density Residential

STUDENT GENERATION STATISTICS	Public	Separate	Total
Grades K-8	713	218	931
Grades 9-12	254	85	339
Totals	967	303	1,270

1.0 Introduction

1.1 Purpose

The purpose of this Neighbourhood Area Structure Plan (NASP) is to establish a general land use framework for the development and servicing of the lands identified within the boundaries of the Mactaggart Neighbourhood. Mactaggart is one of seven neighbourhoods located in Terwillegar Heights, a suburban community in southwest Edmonton. More specifically, Mactaggart is situated east of Rabbit Hill Road, south of Mactaggart Drive and west of Whitemud Creek (see **Figure 1 — Location Map**).

The proximity of the plan area to the Whitemud Creek ravine and Anthony Henday Drive presents an opportunity to maximize the community's biophysical, social and infrastructure assets to create a neighbourhood that is well integrated into the surrounding landscape and urban pattern of the Terwillegar Heights community.

Reflecting a diversity of statutory and non-statutory influences, the Neighbourhood Plan will implement the development concept and land use pattern established for the neighbourhood, including the type, density and distribution of various land uses, transportation modes, servicing schemes and sequence of development.

The Mactaggart Neighbourhood Area Structure Plan has been prepared in general conformance with the Municipal Development Plan, the Terwillegar Heights SCDB, and other relevant municipal policies and design principles further described in Chapter 3.

To strengthen the neighbourhood plan concept, a minor deviation from the Terwillegar Heights SCDB will be handled through an amendment to the Design Brief for consideration concurrently with this Neighbourhood Plan.

This plan will be used as a tool to guide the future development and subdivision of lands in an orderly and effective manner. Over time, it is envisaged that the implementation of these policies and principles will result in a healthy, sustainable and dynamic neighbourhood where people would like to reside.

1.2 Plan Boundary

Mactaggart is located at the southernmost tip of the Terwillegar Heights community, adjacent to the Transportation and Utility Corridor and the Whitemud Creek. *The neighbourhood covers an area of approximately 101.9 hectares and consists of a number of parcels ranging in size from 1.3 ha to 32 ha.*

Bylaw 16156
July 16, 2012

As illustrated on **Figure 2 - Context Map**, the neighbourhood is bounded on the:

- a) **west** by the planned future alignment of Rabbit Hill Road (142 Street) and the adjacent neighbourhood of South Terwillegar;
- b) **north and east** by the southern boundary of the Magrath Heights NASP plan area;
- c) **southwest** by the Transportation and Utility Corridor (TUC); and on the
- d) **southeast** by the ravines of Whitemud Creek, a tributary of the North Saskatchewan River.

1.3 Land Ownership

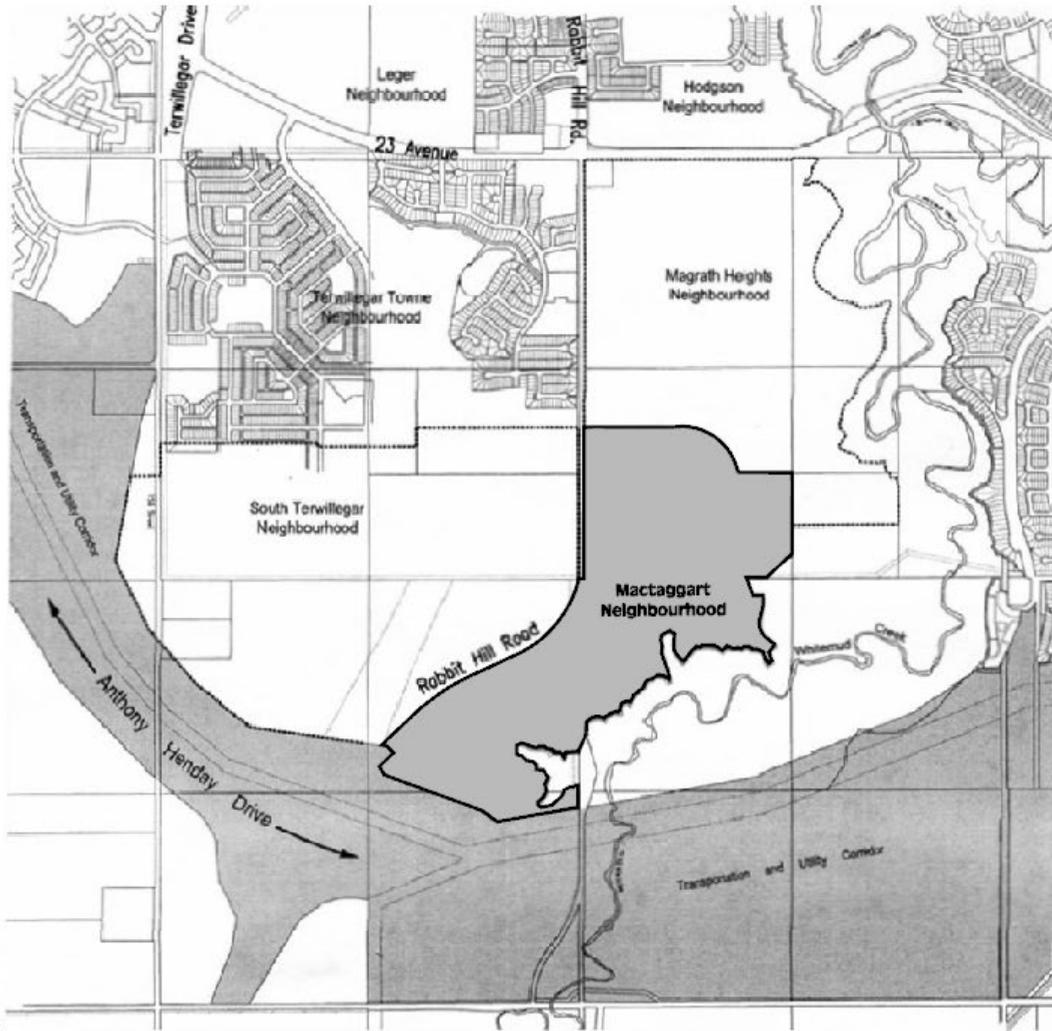
This Plan was prepared on behalf of the four *private developers* within the plan area.

Amended by Editor

The distribution of land ownership within the plan area is shown on **Figure 3 - Land Ownership** and summarized quantitatively on **Table 1**.

Table 1 — Land Ownership (As amended by Editor)

Land Owner	Legal Description	Area
1. <i>Private Developer</i>	Portion of North Half of SW 1 /4 36-51-25-4	9.59 hectares
2. <i>Private Developer</i>	Portion of South Half of SW 1 /4 36-51-25-4	31.91 hectares
3. <i>Private Developer</i>	Block 4, Plan 8922220	24.28 hectares
4. <i>Private Developer</i>	Portions of East Half of Section 26-51-25-4	31.49 hectares
5. City of Edmonton	Government Road Allowance	1.32 hectares
Total Plan Area		98.59 hectares



**Mactaggart
Neighbourhood Area
Structure Plan**



**Figure 2
Context Map**

█ Mactaggart
Plan Area Location

NOT TO SCALE



Bylaw 16156, Approved July 16, 2012

Figure **2.0**
Title **CONTEXT MAP**

**Mactaggart
Neighbourhood Area
Structure Plan**

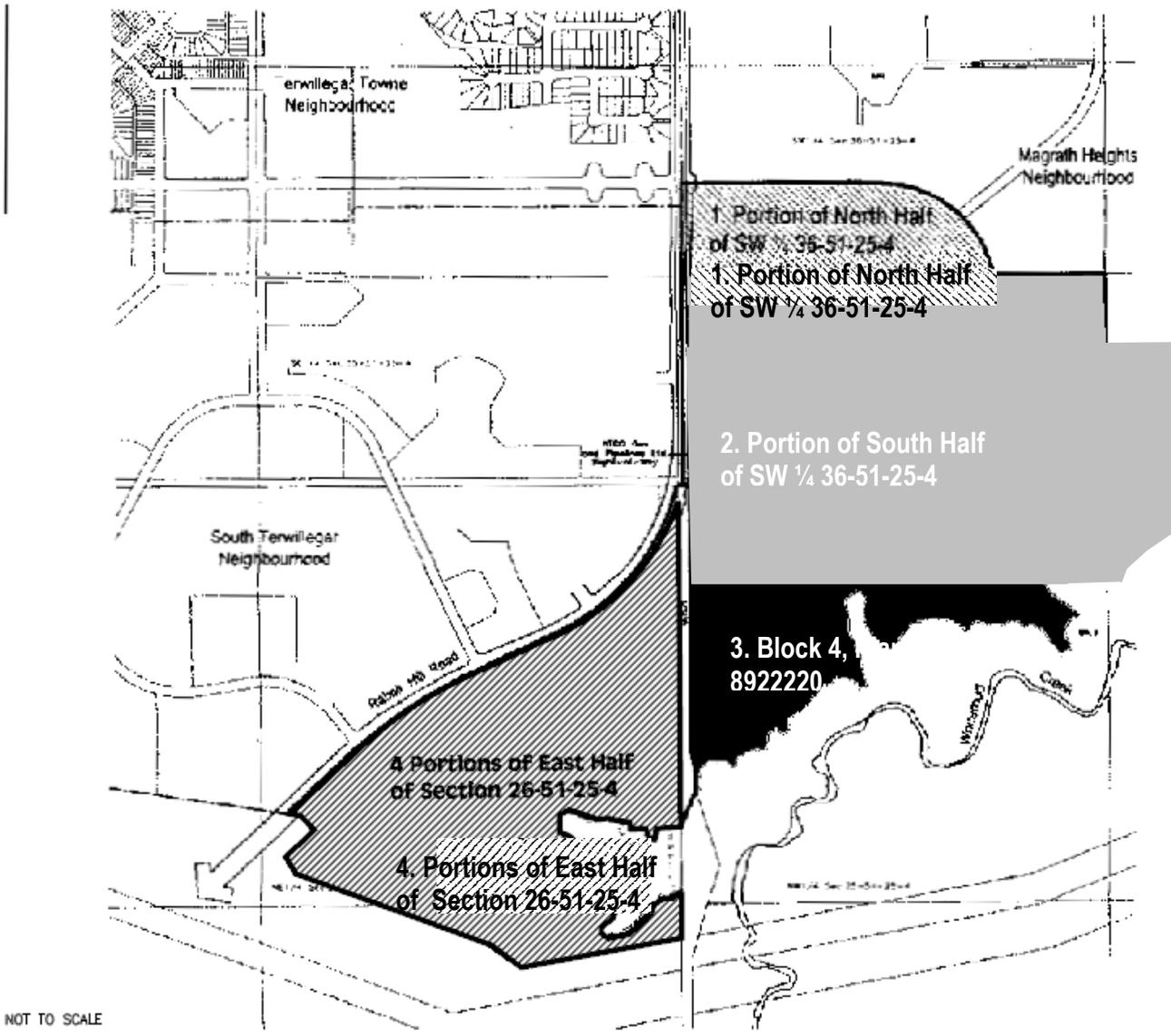


Figure 3

**Land
Ownership**

NOT TO SCALE



Bylaw 16156, Approved July 16, 2012

Figure **3.0**
Title **LAND OWNERSHIP**

2.0 Site Context and Development Considerations

2.1 Topography

The topography of the plan area consists of a relatively flat tableland that slopes from a high point at the north edge to a low point at the southernmost extremity of the area. As depicted by the contours in **Figure 4 – Topography**, elevations on the tableland range from approximately 697.5 metres in the north to approximately 685.0 metres in the south. Bordering the southeastern edge of the Plan area are the relatively steep banks of the Whitemud Creek with three natural drainage channels penetrating the tableland along the west edge of the ravine.

2.2 Soils

The existing soils within the plan area consist of a mixture of moderately to well-drained Orthic Black and Gleyed Black Chernozemic soils which lie upon a base of Glaciolacustrine clay, sand, gravel materials and bedrock. The soil conditions should provide a satisfactory base for urban development.

2.3 Surface Drainage

Surface drainage within the plan area reflects the influence of the topography highlighted in **Figure 4**. In general the drainage pattern follows the gentle slope of the tableland east toward Whitemud Creek ravine, and south towards the naturally defined drainage channels which penetrate the tableland along the edge of the ravine. The topography and direction of flow will have some implications for the design of engineering services.

2.4 Vegetation and Natural Area

With the exception of a few hedgerows that exist near the north-south Government Road Allowance and the former farmstead on the property owned by *a private developer (portions of east half of section 26-51-25-4)*, the upland is devoid of any significant vegetation, having been cleared for agricultural purposes during decades of cultivation. Mature and healthy trees within the hedgerows may present some opportunity for integration with adjacent residential use, or as a shelterbelt for pedestrian walkways.

Amended by Editor

On the eastern edge of the neighbourhood, the slopes and ravines of the Whitemud Creek are vegetated with native plant species and classified as a Significant Natural Area. This bio-diversity of this plant habitat will be protected from urban development through the designation of the area as Environmental Reserve and applying the (A)-Metropolitan Recreation Zone in accordance with the North Saskatchewan River Valley ARP and the Top of Bank Policy.



**Mactaggart
Neighbourhood Area
Structure Plan**



Figure 4

Topography

-  0.5m Contour Interval
-  High Point
-  Low Point
-  Natural Drainage

NOT TO SCALE



Bylaw 16156, Approved July 16, 2012

Figure **4.0**
Title **TOPOGRAPHY**

2.5 Existing Land Use

As noted earlier, the majority of lands with the neighbourhood are used for agricultural purposes. This activity will be phased out as development proceeds. The cluster of older structures comprising the remnants of the farmstead located near the south end of the plan area, and shown on **Figure 5-Existing Surface Features**, will be demolished and the area will be assessed to ensure its suitability for urban development.

The neighbourhood has two other significant features, a major pipeline Right-of-Way and a Government Road Allowance (portion of 142 Street arterial). These right-of-ways pose no major constraints development. Opportunities for neighbourhood use are discussed in detail below.

2.6 Existing Roadways

South of the Pipeline R.O.W is a portion of 142 Street, a Government Road Allowance (GRA) that provided access to the farms in the area. The GRA will be retained and used as roadway, public walkway or park space, where feasible or practical. Unused portions of the GRA will be closed and incorporated into future subdivisions within the plan area.

Amended by Editor

The GRA south of the neighbourhood has been closed to through traffic to facilitate development of Anthony Henday Drive within the TUC.

2.7 Pipeline Facilities

As shown on **Figure 5-Existing Surface Features**, the neighbourhood is traversed east to west by a 15 m wide high pressure gas pipeline R.O.W. operated by *a private corporation*. According to *the owner*, the transmission facility is expected to remain in its present location indefinitely. The pipeline R.O.W. will be used as a major open space landscaped corridor providing pedestrian connections within the neighbourhood and to other parts of the Terwillegar Heights community.

Amended by Editor

These improvements will be incorporated into the future pattern of subdivision within the plan area in accordance with City of Edmonton policies, and the number of roadway crossings of the pipeline will be minimized. Other existing pipeline facilities within the plan area that are considered minor service lines will be abandoned or relocated as part of the future development process.

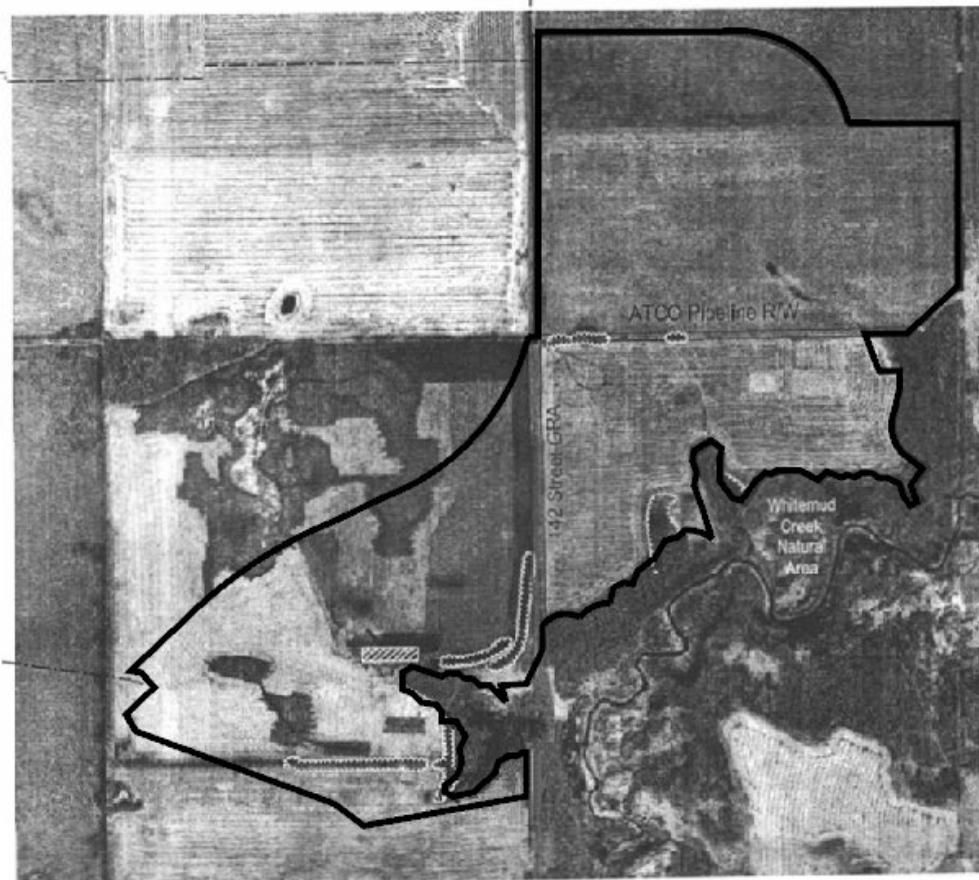
A review of information provided by the Energy and Utilities Board indicate that there are no active or suspended oil wells within the boundaries of the Mactaggart neighbourhood.



**Mactaggart
Neighbourhood Area
Structure Plan**

Figure 5

**Existing
Surface
Features**



-  Treed Area
-  Abandoned Farm Buildings

NOT TO SCALE



Bylaw 16156, Approved July 16, 2012

Figure **5.0**

Title **EXISTING SURFACE FEATURES**

2.8 Geotechnical Considerations

Historical data on the area has revealed that coal deposits were mined to some extent along the north banks of the Whitemud Creek several decades ago. To ensure developments on the tableland will not be affected by this past activity, two detailed geotechnical investigations were undertaken by Thurber Engineering Ltd. in 2002 entitled:

- a) "Development Setback Assessment and Geotechnical Assessment of Impact of Former Coal Mines" for *Block 4, Plan 8922220* dated November 20, 2002; and Amended by Editor
- b) "Geotechnical Assessment of Impact of Former Coal Mines" for *portions of the east half of section 26-51-25-4*, dated July 12, 2002. Amended by Editor
Amended by Editor

Based on the assessment for *Block 4, Plan 8922220*, the Report, in summary, recommends that:

- Site development guidelines to be considered when future subdivisions are proposed adjacent to the ravine bank to manage surface drainage.
- A development setback distance from the top-of-bank line of 20 metres is recommended for the southern slope, and 10 metres is recommended for the eastern slope.
- The setback areas between the top-of-bank line and development line should consist of natural vegetation. Where the natural vegetation has been removed, revegetation should be encouraged to protect the setback area and slope. The vegetation should be native to the area with species chosen which have deep root systems that do not require extensive watering. Irrigation should only be allowed during initial growth but not after establishment of the vegetation.
- Residential subdivision development over the underground mine workings is considered feasible.

Similarly, the geotechnical report prepared regarding the *portions of the east half of section 26-51-25-4* concludes that:

Amended by Editor

- Residential subdivision development over the underground mine workings on those lands is considered feasible.

Additional geotechnical information for any of the areas affected by the former coal mines may be required at the zoning and/or subdivision stages to ensure that slope stability will not be affected by urban development.

This will be determined in consultation with the Transportation and Streets and the Planning and Development Departments.

2.9 Historic and Archaeological Resource

In December 2003, a Phase 1 - Historical Overview of the Mactaggart neighbourhood (called Terwillegar East at that time) was prepared by Terrance H. Gibson from Alberta Western Heritage Inc. on behalf of a *private developer*. The conclusions and recommendations of this report noted that the eastern portion of the Mactaggart neighbourhood required further archaeological assessment prior to any ground disturbance taking place. The report identified two areas of potential concern adjacent to the plan area, within the Whitemud Creek Ravine area.

Amended by Editor

As a follow up to that recommendation, a Historical Resources Impact Assessment was also completed by Stantec Consulting in 2004. The Report identified two areas within the adjacent Environmental Reserve in the Whitemud Creek Ravine that were former campsites and may require further HRIA testing if there is impact from the proposed ravine trail system.

Alberta Community Development (ACD) has advised that clearance has been granted for the development of the Mactaggart plan area under the Historical Resources Act. ACD also advises that, pursuant to Section 31 of the Historical Resources Act, development proponents and their representatives are required to report the discovery of any archeological, historic period or paleontological resources which may be encountered during construction.

2.10 Environmental Site Assessments

Four separate Phase I Environmental Site Assessments were undertaken by Stantec Consulting Ltd. for the plan area. The four reports covered the following areas:

- Report #1, August 2003 (NE 26-51-25-4, SE 26-51-25-4)
- Report #2, November 2001 (a portion of the south half of SW 36-51-25-4) — update April 2004
- Report #3, June 2003, (Plan 8922220, Block 4)
- Report #4, February 2004, (a portion of the north half of 36-51-25-4)

Amended by Editor

These reports have been submitted under separate cover. Given the largely agricultural history of the land, there are no significant outstanding concerns for the lands in the plan area. However, there were two areas located near the farmstead in the southeast portion of the area covered by Report #1, that were identified as potential areas of environmental concern. Further investigation and updates will be completed prior to the zoning and subdivision stages of development.

3.0 Policy Context and Design Considerations

The Mactaggart NASP has been prepared having regard not only to physiographic influences but also to statutory plans, policies and design principles that govern land development in the City of Edmonton, including the Edmonton Municipal Development Plan (MDP), Terwillegar Heights Servicing Concept Design Brief (SCDB), the City of Edmonton Suburban Neighbourhood Design Principles and other relevant municipal planning policies.

The following sub-sections summarize the salient policies and design principles that influence the development of Mactaggart as a sustainable neighbourhood. Applicants seeking amendments to the neighbourhood plan or applying for rezoning, subdivisions or development permits are required to consult the actual documents for specific guidance on detailed requirements as they apply to particular properties.

3.1 The Municipal Development Plan

Plan Edmonton - The City of Edmonton's Municipal Development Plan (MDP) provides a policy framework to guide the City's growth and economic development to sustain Edmonton's quality of life and resource for the benefit of its citizens. To manage land use and development in the suburbs, the MDP designates this community as a suburban area suitable for urban development.

The MDP also emphasizes that new growth in suburban areas will be accommodated in a fiscally responsible manner; be cost effective in the use of land, infrastructure and services by promoting compact and contiguous development, among other strategies.

The Mactaggart NASP supports Plan Edmonton's strategies for managing suburban growth by accommodating development in an orderly, serviced and cost-effective manner; by providing for a range of housing types and densities, and by providing adequate recreational facilities, public open spaces and natural areas to create liveable communities in the suburbs.

3.2 Terwillegar Heights SCDB

The Terwillegar Heights SCDB provides general guidelines to facilitate development of neighbourhoods within the SCDB plan area. The following summary highlights how these guidelines have been applied in the Mactaggart NASP:

The SCDB recommends that:

- ***"A variety of housing types at various densities should be provided to meet the needs of diverse residents and to achieve a balanced and integrated social structure."***

The Mactaggart NASP proposes a variety of housing types at various densities including single and semi-detached housing, row housing, stacked row housing and low rise apartments distributed to take advantage of neighbourhood amenities such as the Stormwater lakes, pipeline right-of way and the commercial area.

- ***"Additional Employment Opportunities should be planned to offer a range of options."***

The southern portion of the Mactaggart NASP incorporates a Neighbourhood Commercial Centre which will provide local employment opportunities ranging from local to community level services. Possible uses include convenience stores, gas bars, grocery stores, doctor or dentist offices and postal outlets. Home business activities are also possible under the Zoning Bylaw in all applicable residential areas.

- ***"Transportation alternatives should foster improved opportunities for non-motorized means of travel within the study area."***

The neighbourhood has been planned to encourage both walking and cycling, It includes a series of linked walkways allowing for pedestrian traffic to access the school site and other facilities from within as well as from the adjacent neighbourhoods. A major pedestrian linkage will be provided in the east/west pipeline right-of-way. There is also an extensive network of bicycle and pedestrian walkways linking to the surrounding neighbourhoods, and the Top-of-Bank roadway/walkway.

- ***"An activity focus for the neighbourhood should offer a range of functions, services, and activities that will bring local residents into the specialized area."***

A commercial/medium density residential complex bordering a storm water lake is proposed at the south entrance to the neighbourhood. The medium density residential uses will provide a local population base that will reinforce the focal point functions of commercial uses in the activity centre.

- ***"The natural topography and environment should be protected and enhanced for both environmental and marketing reasons."***

The Mactaggart neighbourhood is designed to take advantage of its proximity to the Whitemud Creek and its ravines by ensuring that developments are setback adequately from the escarpment, by designating the ravines and natural areas as Environmental Reserve and by providing view point parks and low impact pedestrian linkages to ecologically sensitive areas

- ***"A variety of urban design features should be incorporated into the plan to create a more human scale living environment."***

The design of the commercial, civic and medium density developments will be designed to reflect a more human scaled architecture with adequate setbacks, orientation, landscaping and pedestrian scaled lighting, signage and street furniture.

Neighbourhood parks, pedestrian linkages and bicycle routes will be incorporated into the pattern of development to assist in the creation of a more human scale living environment.

3.3. North Saskatchewan River Valley Area Redevelopment Plan

The Mactaggart NASP area is bounded on the east by the Whitemud Creek Ravine, which is part of the North Saskatchewan River Valley and Ravine system. The Mactaggart NASP will ensure that the policies of the North Saskatchewan River Valley ARP, particularly with respect to adjacent use, linkages, the Top of Bank Policy and the recommendations of required geotechnical assessment for the interface between the Mactaggart neighbourhood and the River Valley ARP area, are adhered to.

3.4 Smart Choices

In March 2004, City Council approved a set of "Smart Choices" recommendations that forms the key principles to build vibrant, sustainable communities. "Smart Choices" encourages transit- oriented developments, neighbourhood re-investment, residential infill, urban design, commercial redevelopment, consultation and education, and a walkable community. Two of the eight initiatives have a strong influence in the design of Mactaggart. These include:

Recommendation 2: *Design a Walkable Community* -Provide pedestrian routes, linkages and multi-use trails in the suburbs and prepare pedestrian and urban design guidelines to ensure the built environment reflects a pedestrian supportive community.

Recommendation 8: *Provide Urban Design Guidelines* - Employ urban design principles and guidelines to create aesthetically pleasing and functional urban spaces at the neighbourhood level.

The Mactaggart NASP has established a comprehensive walkway and open space system that encourages connectivity throughout the plan area. Pedestrian linkages, including the Top-of-Bank roadway/trail will be constructed with the adjacent stages of development. All neighbourhood focal points will be connected through the pedestrian linkage system.

3.5 Stormwater Management Guidelines

The Mactaggart NASP has strategically placed its' Storm Water Management Facilities for both functional use and aesthetic benefits. The location, design and

construction of the stormwater management facilities shall be in general conformance to the City of Edmonton's Stormwater Management Guidelines.

3.6 Top-of the Bank Public Roadway Policy

Developments adjacent to the Whitemud Creek will be developed in accordance with the Top-of-the-Bank Public Roadway Policy. Top-of-bank roadways, walkways and trails will be built according to the recommendations and requirements of Hydrogeological and Geotechnical Investigations.

3.7 Crime Prevention Through Environmental Design (CPTED)

Appropriate design, organization of the physical environment and involvement of the community can help to reduce crime and improve the quality of the environment. In the development of Mactaggart, decisions relating to transportation design, street pattern, access, noise barriers, public open spaces, parks, the pipeline corridor, multi-use trails and walkways, and the built environment shall use CPTED principles to create a safe and secure neighbourhood.

3.8 Suburban Neighbourhood Design Principles

The City of Edmonton's Suburban Neighbourhood Design Principles describe a variety of design principles intended to encourage flexibility and innovation in the design and servicing of new neighbourhoods. A number of these principles have been used to plan and design the Mactaggart NASP.

These include:

- **Design Principle 1** - *Design neighbourhoods with the intent of sharing common infrastructure and neighbourhood facilities among neighbourhoods.*
- **Design Principle 2** - *Design and locate school and neighbourhood facilities to provide inter-neighbourhood focal points.*
- **Design Principle 3** - *Design arterial and collector roads peripheral to the neighbourhood.*
- **Design Principle 4** - *Design streets to cater to their intended use, while providing ease of access throughout the neighbourhood for pedestrians, bicyclists and vehicles.*
- **Design Principle 5** - *Provide convenient pedestrian and bicycle access throughout the neighbourhood and especially between destination points within and outside the neighbourhood.*
- **Design Principle 6** - *Provide Transit Services to the edges of new*

neighbourhoods using the arterial and collector roadway systems.

- **Design Principle 7** - *Locate school/park facilities such that they can be consolidated, serviced and available early in the development of a neighbourhood or catchment area*
- **Design Principle 9** - *Explore opportunities to provide smaller, dispersed open space and parks in a neighbourhood to provide for localized needs while meeting the recreational needs of residents in the catchment area.*
- **Design Principle 11** - *Create a linked open space system connecting storm water management facilities, utility rights-of-way, natural areas and drainage courses, and school and parks open spaces.*
- **Design Principle 12** - *Locate multi family uses toward the edge of new neighbourhoods and close to the community and neighbourhood focal points.*
- **Design Principle 13** - *Use Stormwater management techniques which provide an alternative to manmade lakes and dry ponds prevalent in Edmonton.*
- **Design Principle 15** - *Provide opportunity for the intensification of housing forms, alternative site designs and building orientation.*
- **Design Principle 16** - *Use current population projections and student generation formula to plan facilities for the neighbourhood.*

4.0 Development Goals, Objectives & Design Principles

4.1 Development Goals

The **overall goal** is to establish a sustainable, liveable neighbourhood where residents can live, work, play and learn in a safe, well planned, healthy, pedestrian friendly environment with services and community facilities and amenities accessible to all residents.

4.2 Design Objectives:

To achieve this goal, developments within the neighbourhood will be challenged to meet the following **design objectives**:

1. *To design a distinct, pedestrian oriented, compact neighbourhood that contains a mix of land uses.*
2. *To establish a neighbourhood commercial centre that acts as a focus for community activities and social interaction.*
3. *To provide interconnected parks and open space system accessible to all segments of the population.*
4. *To provide a balanced transportation system with an emphasis on walking, biking and use of transit.*
5. *To provide a diversity of housing, human scaled architecture and memorable urban spaces.*
6. *To preserve and enhance the natural environment and public open spaces.*
7. *To provide efficient, contiguous and environmental friendly infrastructure.*

4.3 Design Principles

The Neighbourhood Plan is based on **seven key principles** that will continue to guide decisions related to the physical planning and servicing of development within the community to ensure that the goals and objectives of the Terwillegar Heights SCDB are realized. These principles include:

4.3.1 A Liveable Residential Environment

- Establish a compact development pattern that promotes a strong sense of neighbourhood identity through the creation of well designed subdivisions that encourage neighborliness, street life and walking through building design, site planning and pedestrian-friendly streets and linkages.
- Promote high quality architectural and building standards that are aesthetically pleasing and contribute to the image of a quality neighbourhood.
- Provide for a variety of housing types to accommodate various age groups, income levels, lifestyles, market preferences and City intensification policies.
- Allow for appropriate integration between different land uses through the use of appropriate urban design guidelines.
- Make pedestrianization the hallmark in the design and layout of the neighbourhood and provide direct and safe linkages to the community focal points.
- Maintain a sufficient overall residential density in the neighbourhood to assist in supporting the provision and viability of the neighbourhood commercial facilities and amenities and municipal services.
- Locate medium to higher density concentrations of residential developments around the neighbourhood commercial centre or nodes to take advantage of the retail facilities, amenities and transit facilities associated with such focal points.
- Orient smaller medium density residential parcels towards the edges of the neighborhood, along collector and arterial roadways, near commercial uses or open space amenities and features such as neighbourhood parks, storm water retention ponds or utility corridors to act as a transitional use, buffer or take advantage of the amenity's particular attributes.
- In the low density residential areas, provide the opportunity for innovation in subdivision and lotting pattern, laned subdivisions, live-work opportunities, a greener environment and a high degree of accessibility, connectivity and linkages to enhance social interaction and liveability.

4.3.2 An Accessible Mixed Use Commercial Centre

- Provide a neighbourhood commercial centre that serves the needs of the community as well as those of the surrounding neighbourhoods.
- Locate commercial and local employment uses adjacent to Rabbit Hill Road and the neighbourhood collector to take advantage of the proximity to Anthony Henday Drive. and to avoid excessive traffic cutting through the neighbourhood.
- Design the commercial centre as the neighbourhoods' main focal point and gathering place that is accessible to residents of Mactaggart as well as South Terwillegar.

- Ensure that the impacts of the commercial development on adjacent land uses are minimized through site planning, zoning requirements and enhanced landscaping.
- Ensure commercial, institutional and civic architecture acknowledge the surrounding residential urban form and character with enhanced landscaping reflective of their unique location in the neighbourhood.
- Provide safe, convenient and landscaped pedestrian and bicycle linkages to the commercial centre, bus/transit stop and places of community interest.
- Create a pedestrian oriented shopping environment with retail frontage along the arterial and collector streets and parking contained within the site to provide a visually stimulating environment.

4.3.3 Enhanced Parks, Open Spaces and Institutions

- Provide a system of linked open space, including parks, stormwater ponds schools sites, natural areas and pathways/corridors for active and passive recreation.
- Maximize the design potential of stormwater ponds to improve the residential environment.
- Incorporate low impact public access to Whitemud Ravine for residents of the plan area in accordance with the Top of Bank Public Roadway policy to be implemented at the subdivision stage.
- Design the school and park site as the secondary focal point intended to serve the Mactaggart and neighboring catchment areas.
- Allow for the provision of a variety of dispersed parks to serve as active or passive recreational amenity for residents of identifiable neighbourhood cells through the dedication of municipal reserves or acquisition.
- Enhance pedestrian and bicycle connections to allow residents to safely and easily access public recreational facilities, community league and school sites and regional or community trails.

4.3.4 A Balanced Transportation System

- Establish a balanced transportation and circulation system that will provide a well connected, safe, and efficient transportation network to address pedestrian, bicycle and vehicular transportation needs of residents within and adjacent to the neighbourhood.
- Minimize walking distances to places of interest by creating an interconnected street pattern and providing walkways, trails and corridors where roadway connections are not practical.
- Provide adequate pedestrian and bicycle paths and linkages to access transit services, institutional, commercial and employment areas.

- Provide opportunities for a Top-of-Bank walkway adjacent to the Whitemud Creek ravine if a Top-of-Bank roadway is not feasible to act as a buffer to urban development.

4.3.5 Human scale Architecture and Enhanced Landscaping

- Encourage innovative building design, site layouts and urban design elements to create interesting structures and urban spaces
- Massing, setbacks and character of residential and commercial developments shall encourage buildings that do not dominate the street frontage, foster diversity in design and fit within the context of the neighbourhood cell.
- Create and/or enhance views and vistas through the development of view point parks, view corridors, or vistas terminated with important buildings or landmarks.
- Encourage high quality landscaping along all arterials and entryways into the neighbourhood to provide visual interest, celebrate neighbourhood entrances and act as a buffer or transition to incompatible uses.

4.3.6 Preservation of the Natural Environment.

- Preserve the integrity and ecological habitats of the Whitemud Creek ravine.
- Provide low impact pedestrian linkages to the natural amenities of Whitemud Creek ravine.
- Restore degraded landscapes to improve bio diversity and add to the richness of the neighbourhood.
- Apply the Top-of-Bank policy to reduce the impact of urban development on the Whitemud Creek and its ravines.
- Design subdivision layouts, infrastructure servicing and buildings to reduce the impact on the environment.

4.3.7 Efficient Servicing

- All development shall be serviced with storm, sanitary and water that follows best practices in engineering and meets municipal standards;
- Encourage compact land use patterns, intensification and shared infrastructure to reduce servicing costs and improve servicing efficiency.
- Utility rights- of-way, easements and other instruments will be provided to accommodate services and shallow utilities, as determined by utility agencies and City Departments;
- Utility rights- of-way, easements and road rights -of -way may be required to be pre-dedicated across undeveloped land to facilitate orderly and sequential development of urban land.

5.0 The Development Concept

5.1 The Development Concept

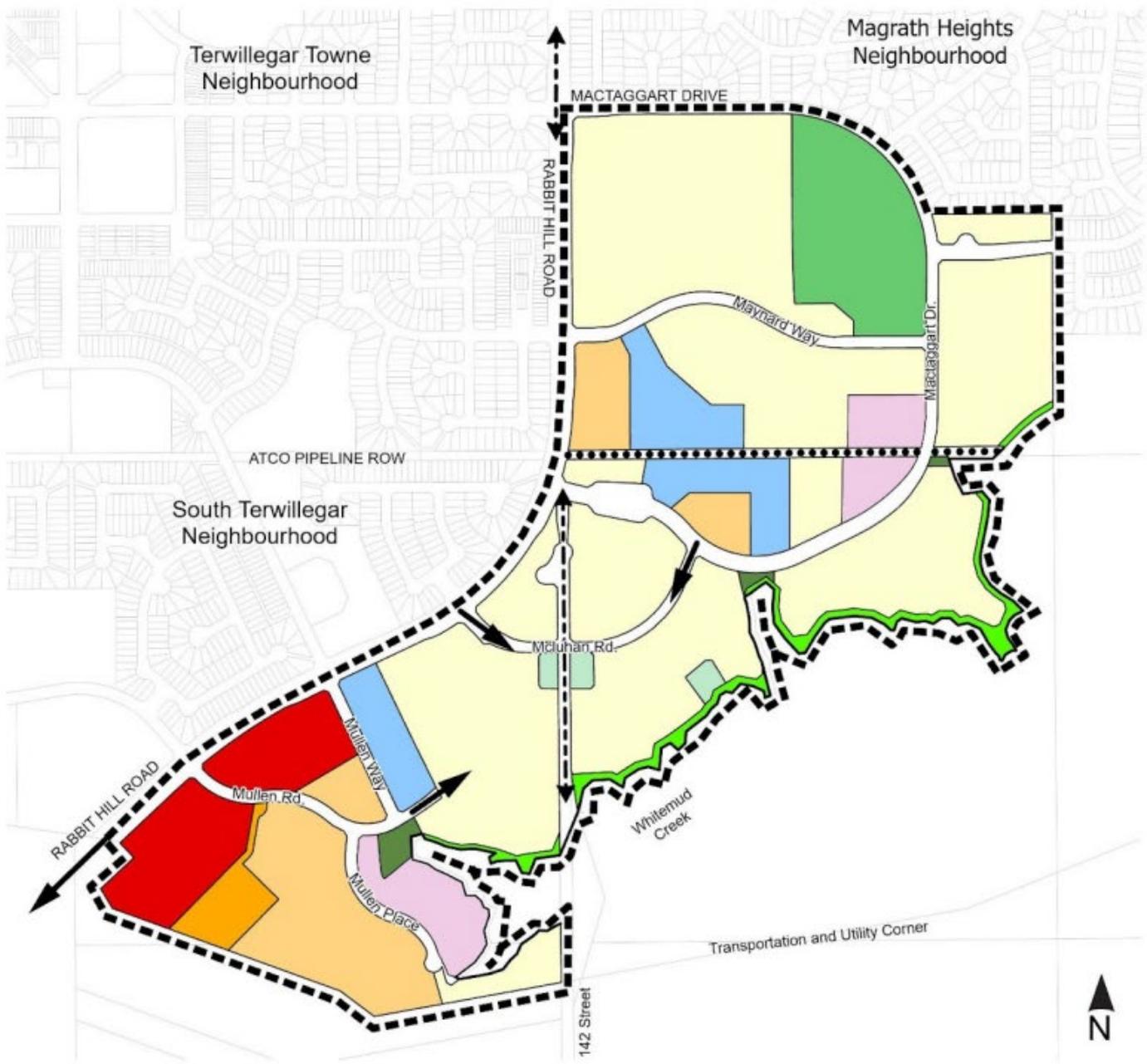
The Mactaggart Neighbourhood plan is designed as a comprehensively planned residential neighbourhood to take advantage of its unique location adjacent to the Whitemud Creek and its natural habitat, the major east-west pipeline corridor, its accessibility to Anthony Henday Drive and the supporting attributes of the developing communities of Terwillegar Heights. It incorporates, as far as practical, the design principles and guidelines outlined in the previous sections.

The Development Concept proposed for Mactaggart is illustrated on **Figure 6 - the Development Concept**. The Plan seeks to establish a predominantly residential neighbourhood with adequate amenities and services to serve a population of approximately 5300 persons. The neighbourhood is organized into distinct development cells with each incorporating a mix of land uses and road pattern influenced by location and specific policy design requirements.

A key element of the Concept is the creation of two major focal points located one at each end of the neighbourhood. The southern node will be designed to function as a commercial and employment activity centre, as well as a gathering place comprising of a mix of commercial, institutional and medium density residential uses. The northern node is located at the northeast corner of the plan area and will be designed as a life long learning centre to serve Mactaggart and adjacent neighbourhoods. This node will include a K-8 elementary school, neighbourhood park, community league facilities and related activities to cater to various age groups. These activity nodes will be linked by a system of pedestrian friendly streets and pathways, and to other neighbourhood amenities.

The Concept also illustrates a **compact, linear neighbourhood** which acknowledges the environmental and recreational benefits of the Whitemud Creek ravine and emphasizes the Smart Growth concept of **pedestrianization and integration of open spaces** and housing forms. The primary intent is to create an attractive, walkable pedestrian environment that offers a variety of housing choices in carefully planned subdivisions reflecting best practices and market preferences. The predominantly low density residential areas would be interspersed with pockets of medium density residential uses located near open space features such as planned stormwater retention ponds, natural areas or open space linkages.

The proposed circulation network and land use pattern work in tandem to define the basic framework for future land use planning and development within the neighbourhood. These are discussed in detail in the following sections.



- Low Density Residential
- Row Housing
- Medium Density Residential
- High Density Residential
- Commercial
- School/Park-Open Space
- Dispersed Park

- Viewpoint Park
- Stormwater Facility
- Whitemud Creek
- Major Trail
- Top of Bank Walkway/Roadway
- TUC Trail
- Boundary of NASP
- Access
- Pedestrian Linkage

**BYLAW 20607
AMENDMENT TO
MACTAGGART
Neighbourhood Area Structure
Plan
(as amended)**

**Figure 6 - Development
Concept**

NOTE: In case of contradiction between the land use concept and other figures in the plan, the concept takes precedence.

Bylaw 20607, Approved September 3, 2023

5.2 Land Use Distribution

Mactaggart is designed as a predominantly residential neighbourhood with commercial, institutional and civic uses distributed as illustrated in **Figure 6- the Development Concept**. A quantitative summary of the proposed land uses is presented in **Appendix 1**.

Approximately 57% of the land will be developed for residential uses. The balance of the neighbourhood is intended for civic and institutional uses (37%), including school, parks, stormwater ponds, roadways and the pipeline corridor. Commercial uses will occupy 6% of the plan area. When fully developed, the neighbourhood is expected to yield a population of 4829 persons at an overall density of 35.7 units per net residential hectare.

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5.2.1 Residential Land Use

The majority of the land within Mactaggart (approximately 57.5 ha.) is intended for residential uses, comprising of a mix of low density and medium density residential land uses, as shown in Figure 6.

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July 16, 2012

The design and layout of these residential areas will reflect a combination of market conditions, consumer preferences, site conditions and sustainable planning concepts. The intent is to create a compact residential environment that offers a variety of housing types to accommodate various age groups, income levels and lifestyles, and to promote a strong sense of neighbourhood identity and liveability. This will be accomplished through the creation of well designed subdivisions, site planning and building designs that encourage neighbourliness, quality design and opportunities for social interaction and integration.

Residential densities range from approximately 22 units/net residential hectare for LDR to 48 units/net residential hectare for MDR developments, although some stand alone MDR projects may develop at a higher density in keeping with the regulations of the Zoning Bylaw.

To achieve some degree of servicing efficiency and commercial viability, the overall density of the neighbourhood is projected at approximately 28 units per net residential hectare.

5.2.2 Low Density Residential (LDR)

As shown in **Figure 6, The Concept Plan**, a substantial portion of the neighbourhood is designated for low density residential development. Within these areas, LDR developments will consist primarily of single, semi-detached and duplex housing offering a diversity of lot sizes, configurations and housing types at a density ranging between 12 to 22 units per hectare.

The LDR areas are planned and designed to take advantage of neighbourhood facilities and amenities to enhance social interaction and liveability. Small neighbourhood cells or sub-areas of higher density residential uses will be located to take advantage of the three storm water lakes, the school site, neighbourhood parks and the Whitemud Creek ravine. Pedestrian linkages and sidewalks will connect these amenities to neighbourhood sub-areas to create a walkable community.

A variety of subdivision design, site planning, architectural and landscaping techniques will also be used to create a safe, aesthetically pleasing streetscape and an integrated residential environment. Individual lots are planned to maximize liveability and to create definable and accessible urban spaces. Where possible, lots will front onto collector roads with lane access to ensure garages do not dominate the streetscape. Moreover, residential lotting patterns and local street design will be used to celebrate or enhance axial views to schools, dispersed parks and natural amenities.

5.2.3 Medium Density Residential (MDR)

In keeping with the Terwillegar Heights SCDB's recommendation that neighbourhoods accommodate *"a variety of housing types at various densities to meet the needs of diverse residents"*, the Mactaggart NASP provides for a variety of Medium Density Residential housing forms, tenures and densities, including row housing, stacked row housing and low-rise apartments, in addition to the LDR uses discussed above.

The area, number of dwelling units and population attributed to MDR developments are detailed in **Appendix 1**.

As shown on **Figure 6- the Development Concept**, a substantial portion of the areas designated as medium density residential use is located at the south entrance to the Mactaggart neighbourhood, at the strategic intersection of the future Anthony Henday Drive and Rabbit Hill Road, and adjacent to the amenities provided by a stormwater lake and the Whitemud Creek Ravine.

The intent of this residential cluster is to establish a major neighbourhood focal point in conjunction with the commercial area and the abutting stormwater lake. A high standard of development and a sensitive transition to the surrounding uses

will be ensured through sensitive streetscape design and attention to transitional planning. The multi-family complex will contain row housing, stacked row housing and low-rise apartment housing, and may also include specialized forms of housing oriented toward seniors or retired persons. The boundary between this MDR area and the adjacent commercial areas will be appropriately demarcated through the use of fencing, landscaping, or local roadways. Pedestrian linkages will be designed into the site to provide access and connectivity with the neighbourhood's other focal points.

In accordance with the Suburban Neighbourhood Design Principles, several smaller MDR parcels have been located throughout the neighbourhood in close proximity to neighbourhood focal points and amenities. Locating these MDR parcels adjacent to neighbourhood parks, stormwater lakes, pipeline corridors and the commercial centre ensures maximum exposure and access to these features for many residents, and optimizes collector efficiency and use of transit. These sites will be integrated into the neighbourhood through the use of human scaled design, quality materials, landscaping and building setbacks, and limiting vehicular access to the collector and local road network. This integration may also involve the use of street oriented town housing to transition to LDR developments within the same sub-area or block face.

5.2.4 Commercial Land Use

A *6.4 hectare* Local Commercial Centre is located at the south entrance to the Mactaggart neighbourhood, just northeast of the intersection of the future Anthony Henday Drive and Rabbit Hill Road. The size and location of this commercial facility was selected to reduce the impact on the Local Employment Centre at 23 Avenue and Rabbit Hill Road in the Magrath neighbourhood, and to maximize the high level of convenience, transportation accessibility and visibility the area possesses with respect to the adjacent roadways.

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As part of the neighbourhood's main focal point, this Centre is intended to accommodate a combination of commercial and business uses to serve the immediate needs of the plan area, as well as the needs of the surrounding neighbourhoods. The potential uses envisioned for the commercial area may include space for:

- a) local neighbourhood retail shopping activities including: convenience retail outlets; personal service shops; service stations or gas bars; and small-scale restaurants;
- b) some community level commercial activities such as specialized retail outlets including book stores, pharmacies or grocery facilities; home improvement or home furnishing outlets; or commercial recreation facilities;
- c) local employment activities such as doctors or dentists offices; and other business or professional offices; and
- d) some local and community public service activities such as postal outlets,

health clinics or branch libraries.

The potential combination of commercial, business and public service uses has been chosen to maximize the strategic geographic location of the area at the southern-most tip of the Terwillegar district, as the site presents a unique opportunity to provide for some community-oriented commercial uses.

The design of the commercial area (and node) should ensure that a pedestrian oriented shopping environment with retail frontage along the arterial and collector streets are provided to promote a visually stimulating environment within walking distance of a majority of the neighbourhood residents. Parking should be contained within the site to improve the appearance at the perimeter of the site. The commercial site will be thoughtfully integrated with the surrounding residential uses using urban design principles and initiatives to create a positive interface between uses. Fencing and landscaping will be used to transition between incompatible uses or nuisance activities and convenient and landscaped pedestrian and bicycle linkages will be provided to integrate the site into the neighbourhood.

The commercial area will likely be developed under the provisions of the (CSC) Shopping Centre Zone. Given the entrance location and the proximity of residential uses, it may be necessary to utilize a Direct Control Zone, if the conventional CSC Zone cannot accommodate the design objectives for this primary focal point.

5.2.5 School, Parks and Open Space

An integrated system of schools, parks and open space is proposed for the Mactaggart neighbourhood, as illustrated in **Figure 6- the Development Concept**. This system is comprised of the neighbourhood school/park site, several dispersed parks, stormwater management facilities, walkways, ravines and corridors, and open spaces associated with the private realm.

Forming part of the northern node, the largest open space element defined by the Development Concept is the school and park site situated at the northeast corner of the plan area. This location has been chosen with input and discussion from the Public School Board, the City of Edmonton Transportation and Streets, Planning and Development and Community Services Departments. The location will provide convenient access for future school and park users from the plan area, as well as those from neighbourhoods to the north and west.

The Future School Sites Study report was approved by City Council in July 2003. The study supports the concept of multi-use Community knowledge Campuses serving clusters of neighbourhoods, and includes a requirement for School / Community Knowledge Campus Needs Assessments to be conducted as part of the planning of new communities. A Terms of Reference for these Needs Assessments has not yet been finalized by the City Administration, but they are expected to include a more rigorous examination of future school needs and potential partnership opportunities than has been done in the past. Consequently this Needs

Assessment has not been done for this neighbourhood.

Anticipating the outcome of the School Study, Edmonton Public Schools in 2002 re-examined the student generation numbers in the Terwillegar Heights SCDB area and concluded that it will not require two previously planned school sites for Terwillegar Heights, including one in the Magrath Heights neighbourhood. Accordingly, the Mactaggart **school site** has been designed and sited to accommodate students living in both the Magrath Heights and Mactaggart neighbourhoods and the surrounding neighbourhoods. The proposed site provides for the possibility that a combined Elementary/Junior High School may be required in this portion of the Terwillegar District by the Edmonton Public School Board.

A neighbourhood park is also proposed to be developed within the school and park site to serve neighbourhood recreational requirements.

Other elements in the open space system include:

- the East-West Pipeline Right-of-Way — the 15.24 m wide right-of-way will be landscaped and constructed with a 3.0m wide asphalt trail, which will provide a pedestrian linkage between the stormwater management facilities and the Whitemud Ravine;
- portions of the Government Road Allowance, utilized for similar pedestrian linkage purposes;
- walkway connections linking sidewalks within the residential area to the ravine of Whitemud Creek and to the multi-use trail system within the Transportation Utility Corridor; and
- small dispersed parks located throughout the central portion of the neighbourhood to serve the local recreational needs of the surrounding residents.

Amended by Editor
(private owner’s name
removed)

The open space linkages provided within the plan area will interconnect with other open space and recreational areas within the Neighbourhood, and will also connect with similar continuous open space linkages planned along the Whitemud Creek ravines and stormwater management facilities in this and adjacent neighbourhoods.

6.0 Transportation

6.1 The Roadway Network

To meet the SCDB objective of a balanced transportation system, Mactaggart is designed to support a liveable environment that is more conducive to walking, biking and transit use.

The circulation system proposed to serve the land use pattern contemplated for the plan area is illustrated on **Figure 7 — Circulation**. It consists of an integrated, well-defined hierarchy of roadways and pedestrian linkages which include:

- a) the southward extension of the Rabbit Hill Road (142 Street), a limited access arterial which forms the western boundary of the plan area;
- b) a series of looped neighbourhood collector roadways, providing access eastward from Rabbit Hill Road into several development cells of the neighbourhood;
- c) local roadways within the neighbourhood required to serve the various land uses proposed in particular development cells or sub areas; and
- d) a variety of lanes, emergency accesses and walkways that improve access and pedestrian connectivity within the neighbourhood.

Rabbit Hill Road forms a major north-south arterial spine at the western edge of the neighbourhood, providing direct access to the established arterial roadway grid of the Terwillegar Heights and Riverbend communities and a connection with Anthony Henday Drive to the south. It also provides several access points into the neighbourhood at intersections that will be designed to the satisfaction of the Transportation and Streets Department.

A Traffic Impact Assessment conducted for this neighbourhood identified that full development of Terwillegar Heights will require additional upgrading on Rabbit Hill Road and 23 Avenue. Developers of land in Mactaggart will be required to participate in this construction under the Arterial Roadway Assessment program. The TIA also identified the need for the collectors shown on the roadway network.

Collector, connector, local neighbourhood roadways and the accesses to the commercial and multi family sites will be designed, developed and landscaped by the developer to the satisfaction of the Transportation and Streets, Community Services and the Planning and Development Departments at the subdivision stage.

Opportunity for a Top-of-Bank road and/or walkway will be provided adjacent to the Whitemud Creek ravine in accordance with the Top-of-Bank Policy to act as a buffer to urban development and provide access and recreational opportunities for residents of Mactaggart.

Public Transit will be extended into the Mactaggart neighbourhood in accordance with the City of Edmonton Transit System Guidelines and demands. Transit routes will be accommodated on the arterial and the looping collectors, providing service to the neighbourhood and direct access to the future school facility and commercial areas. Given the shape of the neighbourhood and the location of the collector roadways, access to transit is generally within the 400m walking distance of virtually all parts of the neighbourhood.

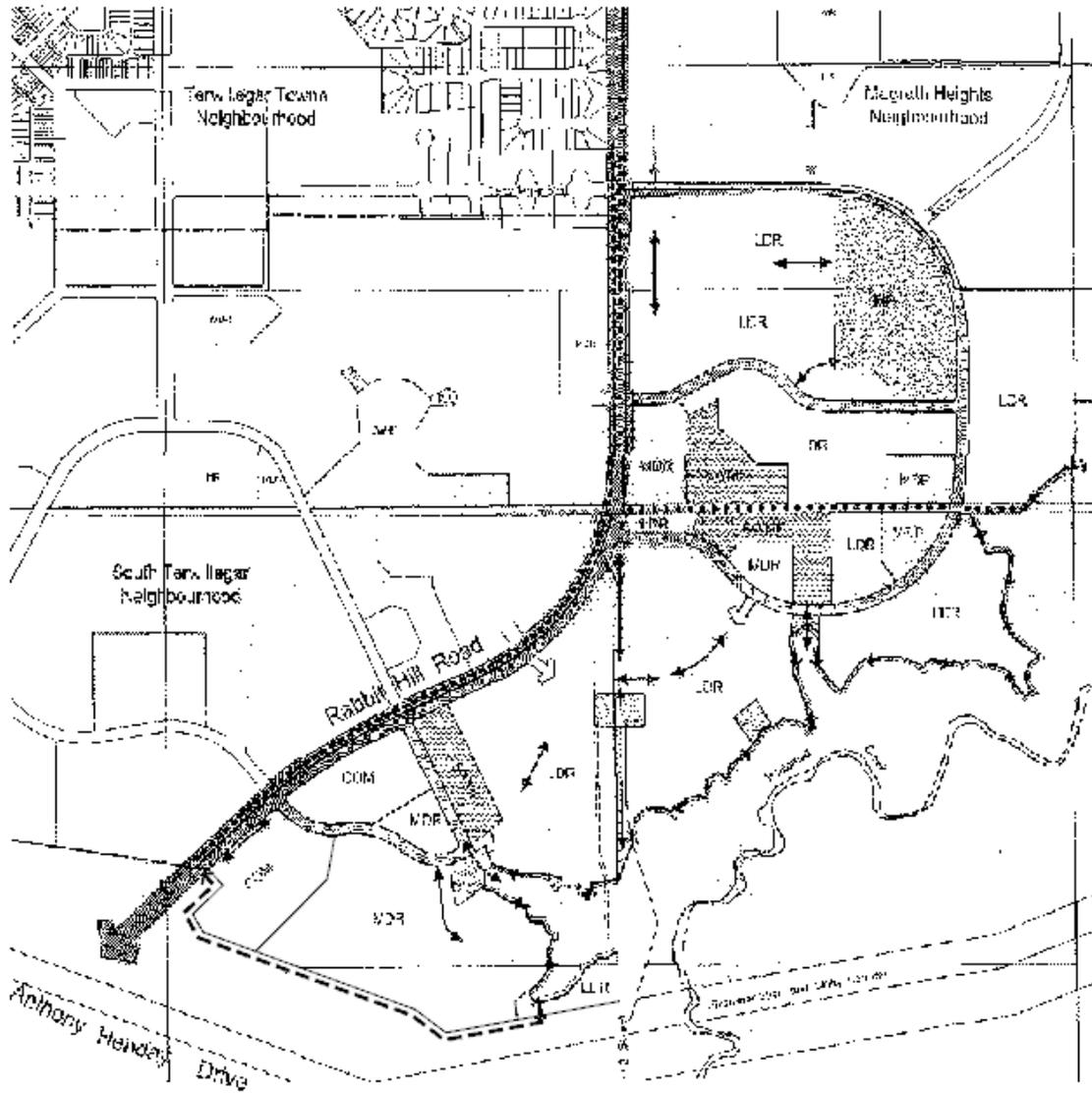
6.2 Pedestrian and Bicycle Circulation

A series of inter-connected pedestrian linkages and walkways, strategically placed, will be used to augment a pedestrian oriented, sustainable environment in the neighbourhood.

Pedestrian and bicycle circulation within and adjacent to the Neighbourhood will be accommodated using a combination of walkways and sidewalks developed in conjunction with the internal roadways that will be identified at the subdivision stage. This roadway related sidewalk system will be enhanced by the various pedestrian connections identified on **Figure 7 — Circulation** which provide opportunities for linkages between the sidewalk network and recreation opportunities presented by the Whitemud Creek ravine. Within the proposed commercial use areas, pedestrian oriented design will be incorporated to encourage the creation of a pedestrian friendly environment and accessibility from surrounding developments.

It is also anticipated that a series of low impact trails will be developed in the Whitemud Creek ravines in the future, with linkages provided along the top-of-bank road or walkway, where feasible. These trails and walkways will be identified at the subdivision stages of development.

This circulation system will be augmented by connections to major landscaped trails in the pipeline corridor and the TUC.



NOT TO SCALE

Mactaggart Neighbourhood Area Structure Plan



Figure 7
Circulation

- Arterial Roadway
- Collector/Corridor Roadway
- Road Access
- Pedestrian Routes
- Top-of-Bank Roadway/Walkway
- Multi-use Trail (proposed)
- Rabbit Hill Rd. Multi-use Trail
- TUC Multi-use Trail (proposed)



Bylaw 16156, Approved July 16, 2012

Figure **7.0**
Title **Circulation**

7.0 Engineering Services and Utilities

7.1 Provision of Utility Services

The provision of cost-effective municipal infrastructure and services is an important goal of Plan Edmonton as well as Terwillegar Heights SCDB. Mactaggart is engineered to provide a level of services that is affordable and efficient, meets City Standards, is safe and sustainable and incorporates emerging technologies to reduce servicing and maintenance costs. Details regarding the provision of these services are provided in the Neighbourhood Designs Report submitted under a separate cover. The following section provides an overview of the servicing schemes designed for the neighbourhood.

7.2. Sanitary Servicing

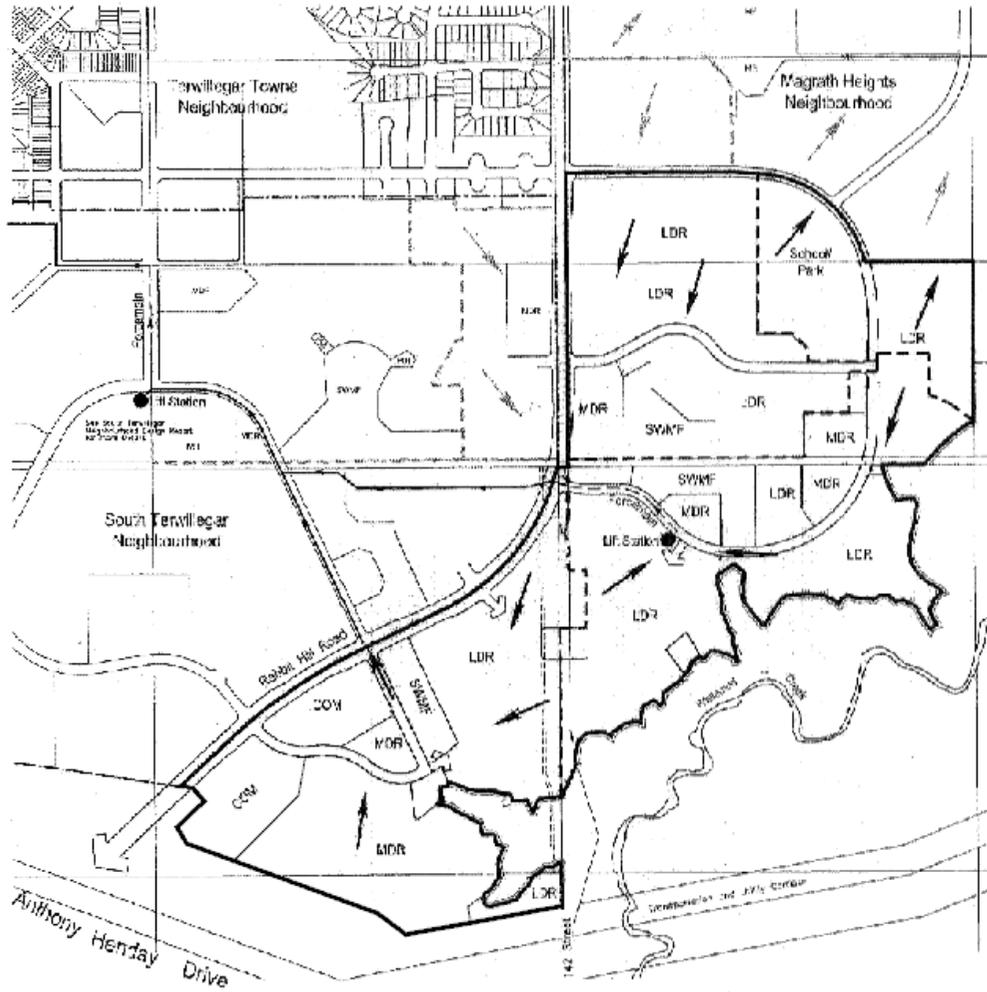
The Mactaggart neighbourhood will be serviced from extensions of existing or proposed sanitary trunks located in the developing neighbourhoods to the north and west. On-site servicing reflects a combination of conventional gravity system and a lift station approach, following to a large extent the internal road network found within the three catchment areas.

As shown on **Figure 8-Sanitary Services**, a portion of the plan area east of the existing 142 Street will connect into a lift station to be located in the south-eastern portion of this neighbourhood. A small sub area that also includes the school/park site in the north-east portion of the neighbourhood will be directed into the sanitary mains of the Magrath Neighbourhood. The area to the west of the existing 142 Street will connect into another lift station proposed within the South Terwillegar Neighbourhood.

Specific details regarding the sanitary sewerage drainage concepts for the plan area are provided in the Terwillegar East (Mactaggart and Magrath neighbourhoods) and South Terwillegar Neighbourhood Design Reports that have been approved in principle.

7.3 Stormwater Servicing

As shown in **Figure 6 - Development Concept** and **Figure 9 - Storm Drainage**, three stormwater management facilities are designated within the plan area to accommodate stormwater runoff generated by the proposed neighbourhood. These facilities have been located based on natural drainage patterns of the plan area. The proposed stormwater management facilities are designed to be "Naturalized Wetlands" that will connect into a shared outfall structure into Whitemud Creek. The outfall structure will be shared with the South Terwillegar area. These facilities will also serve as a recreational amenity and focal point for the



**Mactaggart
Neighbourhood Area
Structure Plan**



**Figure 8
Sanitary
Servicing**

- Lift Station
- - - - - Forcemain
- Sanitary Trunk
- Direction of Flow
- - - - - Sanitary Basin Boundary
- ▭ N/ASP Boundary
- - - - - Neighbourhood Boundary

NOT TO SCALE



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Figure **8.0**
Title **SANITARY SERVICING**

neighbourhood and shall be developed in accordance with the Stormwater Management Policy to the satisfaction of Asset management and Public Works Department.

The general locations for stormwater management facilities depicted on Figures 6 and 9 are intended to illustrate the general locations of the lakes. At the subdivision stage, the shape of individual facilities may be adjusted to accommodate abutting subdivision design or to ensure the capacity of the facility is maintained.

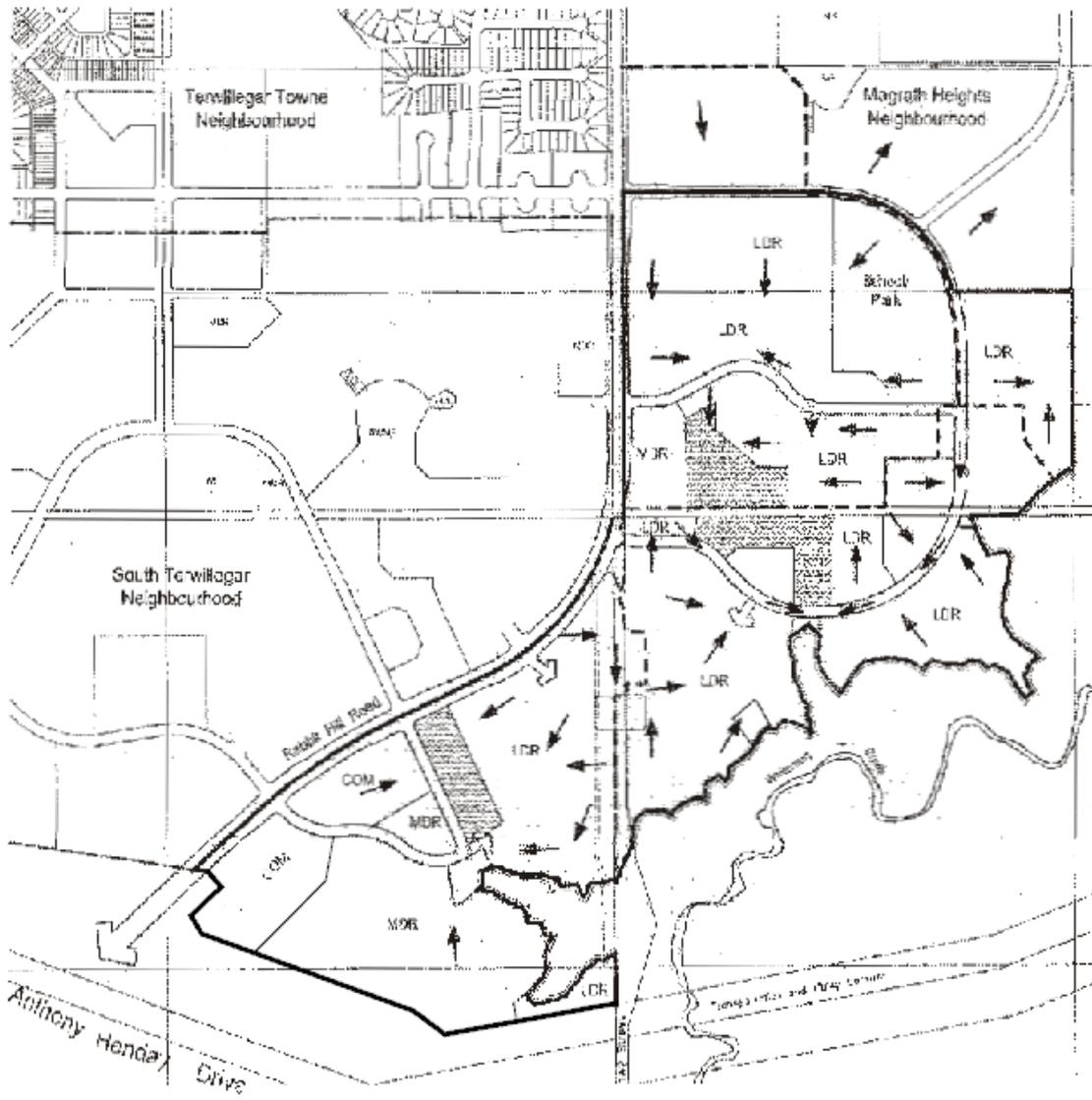
Additional details regarding the stormwater drainage concepts for Mactaggart and the stormwater outfall into the Whitemud Creek are provided in the South Terwillegar and the Terwillegar East Neighbourhood Design Reports.

7.4 Water Servicing

Water services for the neighbourhood will be extended from Magrath and South Terwillegar, as illustrated on **Figure 10 -Water Servicing**, as dictated by the pace of development. The network will be designed to provide peak hour flows and fire flows for institutions, low and medium density residential, and commercial uses. Looping of water supply lines will be provided in accordance with the requirements of EPCOR, and a Water Network Analysis to be submitted to EPCOR for review and approval prior to detailed design of the future water servicing network.

7.5 Shallow Utilities

Electric power, natural gas, and telecommunication infrastructure are all situated within close proximity to the plan area, and will be extended into Mactaggart as required to service the proposed development pattern.



**Mactaggart
Neighbourhood Area
Structure Plan**



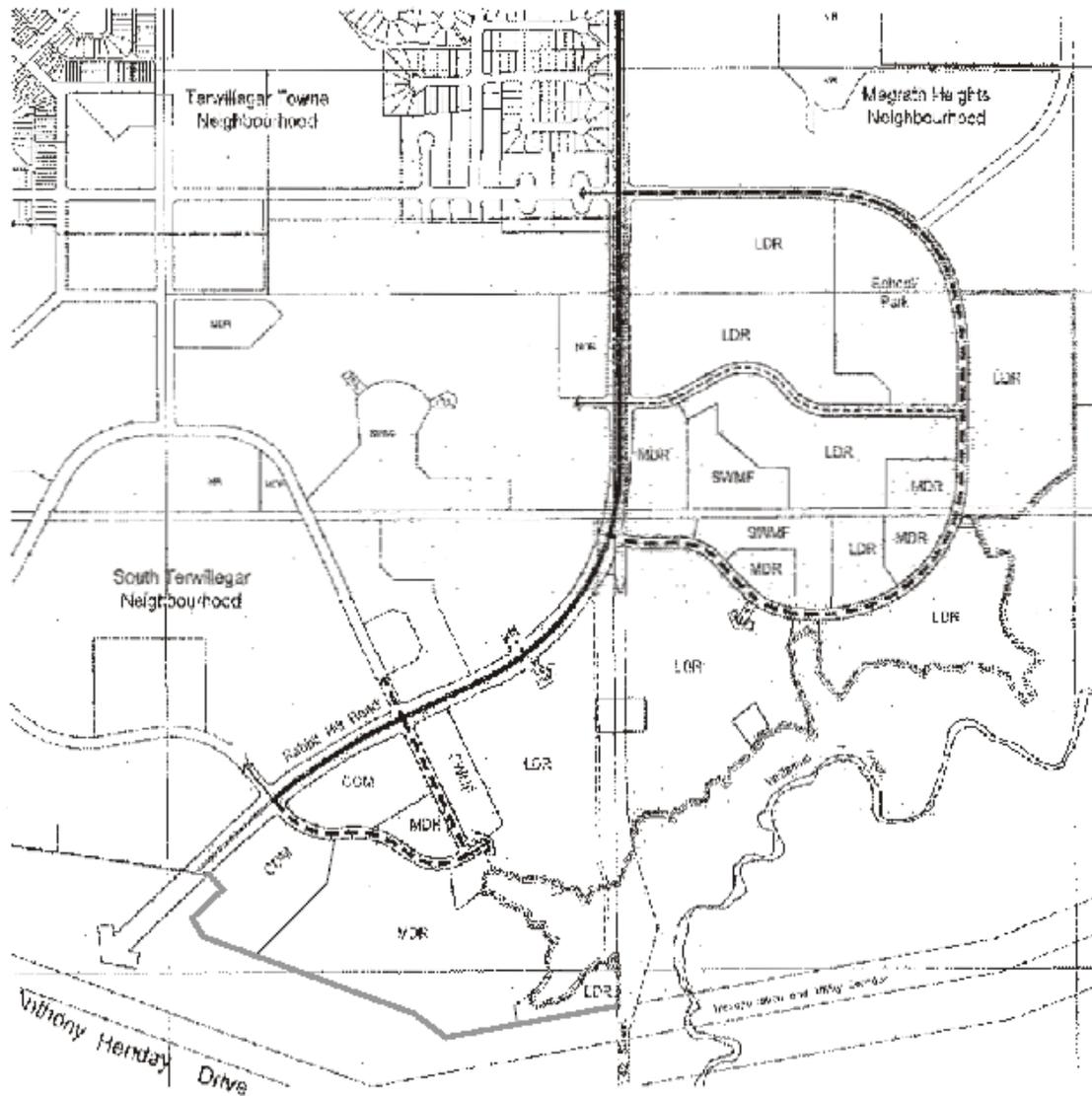
Figure 9

**Storm
Drainage**

-  Stormwater Management Facility
-  Conceptual Direction of Flow
-  Stormwater Boundary
-  NASP Boundary
-  Neighbourhood Boundary

NOT TO SCALE





**Maetaggart
Neighbourhood Area
Structure Plan**



Figure 10

**Water
Servicing**

- NASP Boundary
- Neighbourhood Boundary
- 450mm Water Mains
- 300mm Water Mains
- 250mm Water Mains
- 200mm Water Mains

NOT TO SCALE

Bylaw 16156, Approved July 16, 2012



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8.0 Plan Implementation

8.1 Staging

The staging of future development within the plan area will take place as owners of individual parcels of land initiate the development process with respect to their properties. A schematic sequence of the probable staging of development within the plan area is outlined on **Figure 11 – Development Staging**, which illustrates the geographic direction in which development is expected to take place.

Generally, infrastructure required to service development on any parcels within the plan area will require extension from established utility and transportation facilities developed within neighbourhoods to the north and west of the plan area. Factors such as market demand, the construction of the required stormwater outfall facility required near the south end of the plan area, as well as the requirement for a lift station for sanitary sewerage facilities developed east of Rabbit Hill Road, will be determinants in the ultimate staging sequence.

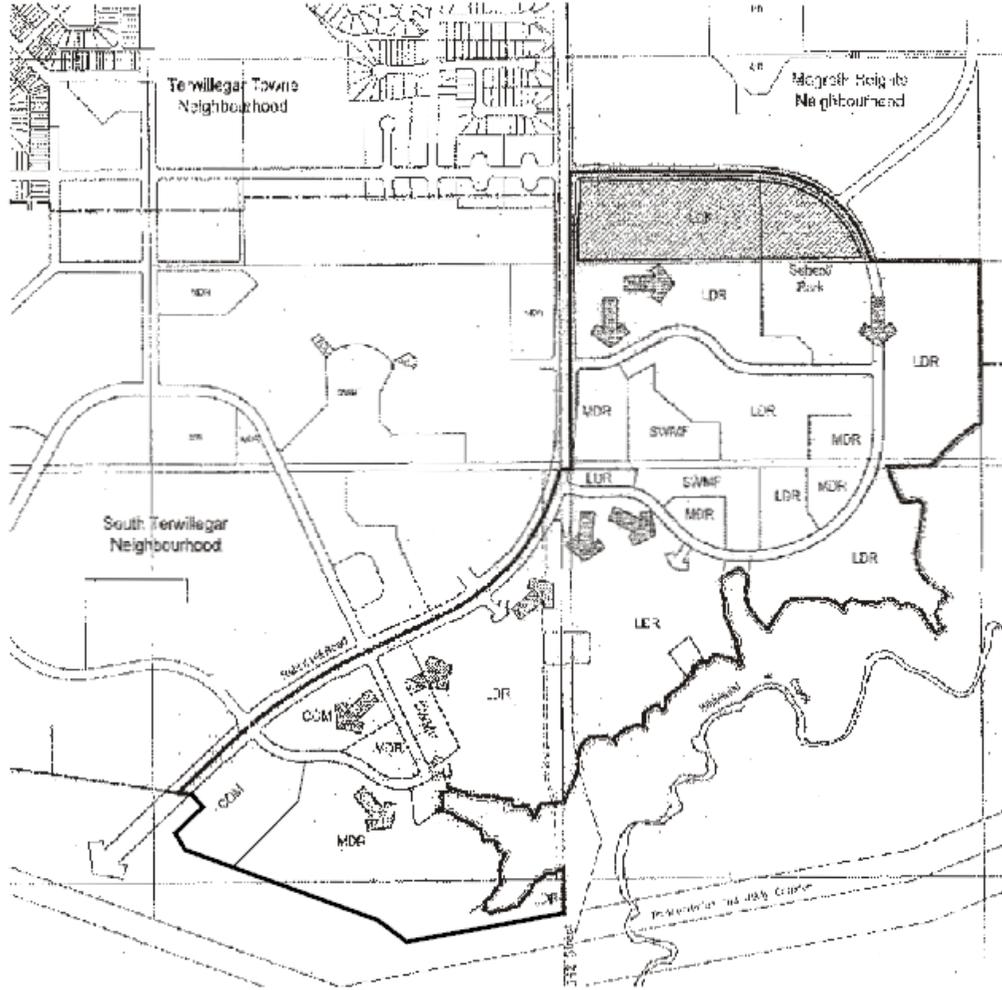
In general terms, all lands within the plan area are physically developable, and the owners of those lands will be able to initiate development within their own respective land holdings provided that acceptable municipal servicing and transportation facilities are developed. It would be logical to expect urban development to begin at Rabbit Hill Road, and proceed incrementally eastward toward Whitemud Creek in logical and serviceable development cells.

It is also possible that development of the Commercial Centre may precede residential development, or at least proceed concurrently, subject to the availability of engineering services.

8.2 Rezoning and Subdivision

Development of the Mactaggart neighbourhood will generally follow the staging sequence predicted in **Figure 11-Development Staging**. Development applications to rezone and subdivide properties in the neighbourhood should generally conform with the land use distribution depicted in the **Development Concept Map-6** and the goals and objectives of the NASP.

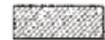
Where there is substantial deviation from the development intent of the NASP, an amendment to the neighbourhood with subsequent zoning changes will be required. Zoning amendments and subdivision approvals shall not result in gated communities, loss of pedestrian connectivity or negative impact on natural areas.



**Mactaggart
Neighbourhood Area
Structure Plan**



**Figure 11
Staging**

 First Stage of Development
 Direction of Development

NOT TO SCALE



Bylaw 16156, Approved July 16, 2012

Figure **11.0**
 Title **STAGING**

Given the size and location of the Local Commercial Centre, zoning for this area will be required to ensure compatibility and integration with the surrounding residential development and to enhance the visual quality of the development at the entrance to the Terwillegar Heights community. If conventional zoning cannot achieve the desired neighbourhood objectives, then a Direct Control Zoning may be required.

Redundant road allowance, particularly portions of the existing 142 Street GRA will need to be closed and rezoned for alternate uses as shown on the **Development Concept - Map 6**.

APPENDIX I

**MACTAGGART NEIGHBOURHOOD AREA STRUCTURE PLAN
APPROVED LAND USE AND POPULATION STATISTICS
BYLAW 20607**

	Area (ha)	% of GDA
Gross Area	101.9	
Gas & Pipeline ROW	1.0	
Gross Developable Area (GDA)	100.9	100.00
Stormwater Management Facilities	5.9	5.8
Park	7.8	7.7
Walkways	0.7	0.7
Circulation	22.6	22.4
Net Developable Area	63.9	63.3
Commercial	6.4	6.4
<hr/>		
Total Net Residential	57.5	57.0

	Area	Dwelling Units/ha	Units	Persons/ Unit	Population
Low Density Residential	43.2	22	951	2.8	2,662
Row Housing	3.9	45	176	2.8	493
Medium Density Residential	8.7	90	783	1.8	1409
High Density Residential	1.5	225	338	1.5	507
	<hr/>		<hr/>		<hr/>
Total Residential	57.3		2,248		5,072

Density: 39.2 units / net residential ha
 Housing Mix 42% Low Density Residential; 8% Row Housing; 35% Medium Density Residential; 15% High Density Residential

STUDENT GENERATION STATISTICS	Public	Separate	Total
Grades K-8	713	218	931
Grades 9-12	254	85	339
Totals	967	303	1,270