Agenda - Executive Policy Committee – December 5, 2012

Report - Standing Policy Committee on Infrastructure Renewal and Public Works – November 26, 2012

Item No. 3 Traffic Regulations for the Waverley West Arterial Roads Project (WWARP)

STANDING COMMITTEE RECOMMENDATION:

On November 26, 2012, the Standing Policy Committee on Infrastructure Renewal and Public Works concurred in the recommendation of the Winnipeg Public Service and submits the following to Council:

1. That the following roadways, be approved, as Full Time Truck Routes (Schedule 1 of the City of Winnipeg Traffic By-law No. 1573/77),:

    A. northbound and southbound Kenaston Boulevard from Bishop Grandin Boulevard to PTH 100

        i. Further to a. the subject roadway be designated as Route 90 in accordance with Section 42. of the City of Winnipeg Traffic By-law No. 1573/77

    B. Waverley Street from Tim Sale Drive / Pine Hills Road to Kenaston Boulevard

    C. Bison Drive from northbound Kenaston Boulevard to southbound Kenaston Boulevard

2. That the following roadways, be approved, as Regional Streets (Schedule E of the City of Winnipeg Streets By-law No. 1481/77):

    A. northbound and southbound Kenaston Boulevard from Bishop Grandin Boulevard to PTH 100

    B. Waverley Street from Tim Sale Drive / Pine Hills Road to Kenaston Boulevard

    C. Bison Drive from northbound Kenaston Boulevard to southbound Kenaston Boulevard

3. That the Proper Officers of the City be authorized to do all things necessary to implement the intent of the foregoing.

Agenda - Executive Policy Committee – December 5, 2012

Report - Standing Policy Committee on Infrastructure Renewal and Public Works – November 26, 2012

DECISION MAKING HISTORY:

STANDING COMMITTEE RECOMMENDATION:

On November 26, 2012, the Standing Policy Committee on Infrastructure Renewal and Public Works concurred in the recommendation of the Winnipeg Public Service and submitted the matter to the Executive Policy Committee and Council.

ADMINISTRATIVE REPORT

Title: **Traffic Regulations for the Waverley West Arterial Roads Project (WWARP)**

Critical Path: **Standing Policy Committee on Infrastructure Renewal and Public Works → Executive Policy Committee → Council**

AUTHORIZATION

Author	Department Head	CFO	CAO
L. Escobar, P.Eng., PTOE	B.W. Sacher, P. Eng.	M. Ruta, CFO	D. Joshi, COO

RECOMMENDATIONS

1. Traffic Control Signals:

That the Standing Policy Committee on Infrastructure Renewal and Public Works approve the installation of traffic control signals at the following locations:

a. northbound Kenaston Boulevard and North Town Road
b. southbound Kenaston Boulevard and North Town Road
c. northbound Kenaston Boulevard and Bison Drive
d. southbound Kenaston Boulevard and Bison Drive
e. northbound Kenaston Boulevard and South Town Road
f. southbound Kenaston Boulevard and South Town Road
g. Kenaston Boulevard and Waverley Street

2. Modified Speed Limits:

That the Standing Policy Committee on Infrastructure Renewal and Public Works authorize the Winnipeg Public Service to apply to the Highway Traffic Board of the Province of Manitoba to enact the following modified speed limits:

a. 80 km/h on northbound and southbound Kenaston Boulevard from Bishop Grandin Boulevard to Provincial Trunk Highway (PTH) 100
b. 60 km/h on Waverley Street from Tim Sale Drive / Pine Hills Road to Kenaston Boulevard
c. 60 km/h on Bison Drive from northbound Kenaston Boulevard to the most westerly terminus of Bison Drive

3. Truck Routes:

That Council approve the following roadways as Full Time Truck Routes (Schedule 1 of the City of Winnipeg Traffic By-law 1573/77):

a. northbound and southbound Kenaston Boulevard from Bishop Grandin Boulevard to PTH 100
    i. Further to a. the subject roadway be designated as Route 90 in accordance with Section 42. of the City of Winnipeg Traffic By-law 1573/77
b. Waverley Street from Tim Sale Drive / Pine Hills Road to Kenaston Boulevard
c. Bison Drive from northbound Kenaston Boulevard to southbound Kenaston Boulevard

4. Regional Streets:

That Council approve the following roadways as Regional Streets (Schedule E of the City of Winnipeg Streets By-law 1481/77):

a. northbound and southbound Kenaston Boulevard from Bishop Grandin Boulevard to PTH 100
b. Waverley Street from Tim Sale Drive / Pine Hills Road to Kenaston Boulevard
c. Bison Drive from northbound Kenaston Boulevard to southbound Kenaston Boulevard

REASON FOR THE REPORT

1. The installation of traffic control signals requires approval of the Standing Policy Committee on Infrastructure Renewal and Public Works, being the City's Traffic Authority pursuant to Section 13. (d) of *the City Organization By-law 7100/97.*
2. When a speed limit change on a City street is being requested or a speed limit is proposed on a newly constructed street, it is the practice of the Public Works Department to provide the Standing Policy Committee on Infrastructure Renewal and Public Works with an evaluation of such a request/proposal. With such information, the Committee is better able to decide whether the Public Works Department should be authorized to apply to The Highway Traffic Board of Manitoba.
3. The designation of a roadway as a truck route requires a by-law amendment and must be approved by Council.
4. The designation of a roadway as a Regional Street requires a by-law amendment and must be approved by Council.

IMPLICATIONS OF THE RECOMMENDATIONS

The estimated costs of the seven traffic control signal installations complete with wireless communication systems and two new solar powered hazard flashers is $1,470,000.00. The developer is responsible for the full cost for the traffic control signal installations and all related works as stipulated in Development Agreements AG 1/06, AG 22/07 and AG 4/10.

The required annual operation and maintenance cost associated with the new installations are estimated to be $6,000.00 per location (seven in total) per year. The operating costs are anticipated to begin in 2014. These monies are expected to be absorbed in the Traffic Signals Branch operating budget.

The estimated cost of the speed limit, truck route and other signage is $8,000.00.

HISTORY

Waverley West is an area of land approximately 3,000 acres in size located in southwest Winnipeg. The development of Waverley West began in 2003 with the preparation of several background studies including market analyses, cost-benefit analyses, regional reviews, and preliminary transportation and traffic impact studies. An amendment to Plan Winnipeg was initiated with supporting documents compiled in the background research. The amendment to identify Waverley West as a Neighbourhood Policy Area was approved in early 2005. Following the approval to amend Plan Winnipeg, an Area Structure Plan was initiated for the entire Waverley West area to address broad planning issues such as transportation, general land use, and servicing. Using the Area Structure Plan as a framework, the individual Neighbourhood Area Structure Plans followed.

On December 6, 2006, Council concurred in the recommendation of the Standing Policy Committee on Property and Development regarding Item No. 2 – Subdivision and Rezoning - lands west of Waverley Street to Kenaston Boulevard between Bishop Grandin Boulevard and Cadboro Road (File DASZ 1/2006). The developer was required to enter into a Development Agreement (AG 1/06) with the City. A clause in AG 1/06 requires that the Developer shall, at no expense to the City, construct and/or pay on demand the full cost of the installation of traffic control signals and all related works on Kenaston Boulevard at and in the vicinity of its

intersection with Collector "A"; and on Kenaston Boulevard at and in the vicinity of its intersection with Bison Drive (see Clauses **13. b)** and **14. b)** of *Appendix "A": Excerpt of DASZ 1/2006*).

On November 21, 2007, Council concurred in the recommendation of the Standing Policy Committee on Property and Development regarding Item No. 6 – Subdivision and Rezoning - Lands west of Waverley Street to Kenaston Boulevard between Lee Boulevard and Perimeter Highway (File DASZ 22/2007). The developer was required to enter into a Development Agreement (AG 22/07) with the City. A clause in AG 22/07 requires that the Developer shall, at no expense to the City, construct and/or pay on demand the full cost of the installation of traffic control signals and all related works on Kenaston Boulevard at and in the vicinity of its intersection with Waverley Street (see Clause **12. b)** of *Appendix "B": Excerpt of DASZ 22/2007*).

On July 21, 2010, Council concurred in the recommendation of the Standing Policy Committee on Property and Development regarding Item No. 14 – Subdivision and Rezoning – Northeast Kenaston Boulevard / Bison Drive / Southtown Road – Bridgwater Development (File DASZ 4/2010). The developer was required to enter into a Development Agreement (AG 4/10) with the City. A clause in AG 4/10 requires that the Developer shall, at no expense to the City, construct and/or pay on demand the full cost of the installation of traffic control signals and all related works on Kenaston Boulevard at and in the vicinity of its four intersections with the Collector Streets; and on Kenaston Boulevard at and in the vicinity of its two intersections with Bison Drive (see Clauses **42. b)** and **43. b)** of *Appendix "C": Excerpt of DASZ 4/2010*).

On September 13, 2009, $54.7 million was announced as part of the joint Federal-Provincial-City funding agreement for the Waverley West Arterial Roads Project (WWARP), which was included in the 2010 and 2011 adopted Capital Budgets. The constructing staging of the WWARP is such that certain roadways will be substantially complete and open to traffic at different times (see *Appendix "D": Waverley West Arterial Roads Project Timeline*).

The recommendations contained herein are intended to ensure that the necessary **1.** traffic control signal approvals, **2.** modified speed limit approvals, **3.** truck route designations, and **4.** Regional Street designations are in place prior to the opening of the facilities (see *Appendix "E": WWARP Proposed Traffic Regulations*):

1. The WWARP results in the creation of seven new at-grade intersections:

- northbound Kenaston Boulevard and North Town Road,
- southbound Kenaston Boulevard and North Town Road,
- northbound Kenaston Boulevard and Bison Drive,
- southbound Kenaston Boulevard and Bison Drive,
- northbound Kenaston Boulevard and South Town Road,
- southbound Kenaston Boulevard and South Town Road, and
- Kenaston Boulevard and Waverley Street.

In consideration of the number of lanes and the volume of traffic that is expected to travel through these intersections, traffic signal control is warranted and recommended.

2. The proposed speed limits are appropriate given the design speeds and classifications for the subject roadways. The proposed speed limits will also be consistent with the speed limits on the existing arterial roadways in the area, including the 80 km/h speed limit on the

existing Kenaston Boulevard and the 60 km/h speed limit on the existing Waverley Street between a point 340 metres north of Sandusky Drive and Tim Sale Drive / Pine Hills Road.

3. Regional Streets are generally designated as Truck Routes, since they are streets that are constructed to a higher standard of pavement structure and roadway width, and are therefore able to carry large trucks on a regular basis. In the planning of an urban area, to the extent feasible, a grid of arterial streets and Truck Routes are made available that are typically separated by no more than 1.6 kilometres in order to:

- minimize the need to construct streets to a higher standard, such as thicker pavement and wider roadways, that are required to carry large trucks on a regular basis;
- ensure that there are a reasonable number of Truck Routes available for "through" truck traffic, thereby minimizing the need for trucks to be driven through the more concentrated residentially developed segments of the City. This is in accordance with the Truck Route provisions of the City of Winnipeg *Traffic By-law No. 1573/77*, where trucks are limited to using the shortest route between their point of destination/origin and a designated Truck Route; and
- ensure that trucks destined to/from a commercial or residential development do not have to travel more than approximately 0.8 kilometres on a residential street.

Such a practice of establishing a grid of reasonably spaced designated Truck Routes minimizes truck traffic on local streets that would otherwise seek the shortest routing to an origin/destination if Truck Routes were not made available.

The existing Kenaston Boulevard forms a part of Route 90, a major north-south thoroughfare from the north City Limit to its existing terminus at Bishop Grandin Boulevard (Route 165). It follows that the Kenaston Boulevard extension be designated as Route 90 thereby providing a continuous north-south transportation corridor from PTH 101 to PTH 100. Section **42.** of the City of Winnipeg Traffic By-law 1573/77 states that where “Route” Signs are installed and maintained on a street or section of street, the street or section of street shall be deemed to be a Truck Route within the terms of the by-law.

4. On February 29, 1984 Council adopted a set of criteria to be used to determine which street sections make up the City of Winnipeg Regional Street System. The proposed Regional Streets conform to the Council adopted criteria.

Recommendations **1.** thru **4.** are consistent with the Waverley West Area Structure Plan (By-law 10/2006; adopted by Council on July 26, 2006). The applicable section pertaining to the Regional Transportation Network can be found attached in *Appendix “F”: Excerpt of By-law 10/2006 – Waverley West Area Structure Plan*. The proposed By-law amendments can be found attached in *Appendix “G”: Draft By-law Amendments*.

FINANCIAL IMPACT

Financial Impact Statement

Date: October 12, 2012

Project Name:

First Year of Program **2012**

TRAFFIC REGULATIONS FOR THE WAVERLEY WEST ARTERIAL ROADS PROJECT (WWARP)

	2012	2013	2014	2015	2016
Capital					
Capital Expenditures Required	$ 8,480	$ -	$ -	$ -	$ -
Less: Existing Budgeted Costs	8,480	-	-	-	-
Additional Capital Budget Required	$ -	$ -	$ -	$ -	$ -
Funding Sources:					
Debt - Internal	$ -	$ -	$ -	$ -	$ -
Debt - External	-	-	-	-	-
Grants (Enter Description Here)	-	-	-	-	-
Reserves, Equity, Surplus	-	-	-	-	-
Other - Enter Description Here	-	-	-	-	-
Total Funding	$ -	$ -	$ -	$ -	$ -
Total Additional Capital Budget Required	$ -				
Total Additional Debt Required	$ -				
Current Expenditures/Revenues					
Direct Costs	$ -	$ 1,470,000	$ 42,000	$ 42,000	$ 42,000
Less: Incremental Revenue/Recovery	480	1,470,000	-	-	-
Net Cost/(Benefit)	$ (480)	$ -	$ 42,000	$ 42,000	$ 42,000
Less: Existing Budget Amounts	(480)	-	42,000	42,000	42,000
Net Budget Adjustment Required	$ -	$ -	$ -	$ -	$ -

Additional Comments: The $8,000 plus applicable overheads for the installation of the Road way signs will be charged to the Waverley West Arterial Road Capital project (1803000110) in 2012.

The seven traffic signal installations totalling $1,470,000 will be recovered from the Developers in the area as per the various Developer Agreements. The estimated annual maintenance costs of $6,000 for each of the seven traffic signals is the responsibility of the City of Winnipeg. These Incremental costs are expected to be absorbed in the Traffic Signals Branch operating budget.

The 2012 recoveries represent Transportation Administration, Interest and Administrative Overheads.

"Original Signed by D. Stewart, CA"
D. Stewart, CA
Manager of Finance & Administration

CONSULTATION

In preparing this report there was consultation with:
Legal Services
Planning, Property and Development

SUBMITTED BY

Department:	Public Works
Division:	Transportation Division
Prepared by:	T. Jangula, C.E.T., Traffic Analyst
	S. Chapman, P. Eng., Traffic Management Engineer
Date:	December 3, 2012
File No.:	OB-01, 02, 05; R-05, 09, 12, 13

Attachment(s): Appendix "A": Excerpt of DASZ 1/2006
Appendix "B": Excerpt of DASZ 22/2007
Appendix "C": Excerpt of DASZ 4/2010
Appendix "D": Waverley West Arterial Roads Project Timeline
Appendix "E": WWARP Proposed Traffic Regulations
Appendix "F": Excerpt of By-law 10/2006 – Waverley West Area Structure Plan
Appendix "G": Draft By-law Amendments

APPENDIX "A": EXCERPT OF DASZ 1/2006

By-Law No. _____

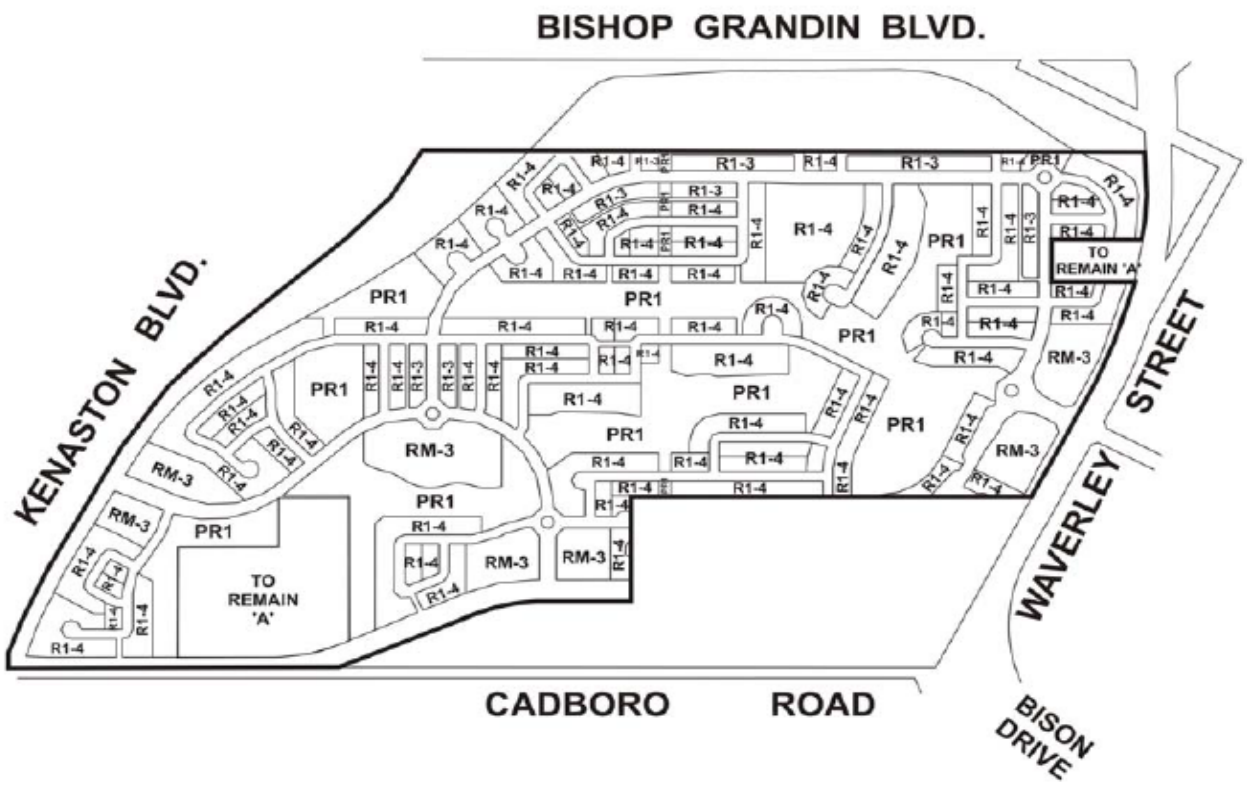
File No. **DASZ 1/06**

Atlas Sheet No.

AL21
RIEL
COMMUNITY

Explanation

An application for the approval of the plan of subdivision shown outlined below and for a proposed zoning change to By-law No. 6400/94 by rezoning the land located on the lands bounded by Bishop Grandin Blvd., Kenaston Blvd. and Waverley Street from an "A.5" AGRICULTURAL DISTRICT to an "R1-3" RESIDENTIAL DISTRICT, an "R1-4" RESIDENTIAL DISTRICT, an "RM-3" MULTIPLE-FAMILY DISTRICT and a "PR1" PARK AND RECREATION DISTRICT as shown outlined below.



THIRD READING : _____ EFFECTIVE DATE : _____

ZONING AGREEMENT : YES ☐ NO ☐ CAVEAT No. _____

b) a 1.5m in width by 100mm in thickness portland cement concrete sidewalk;
c) street lighting in the west boulevard;
d) landscaping in the west boulevard;

all as determined by the Director of Public Works.

13. The Developer shall, at no expense to the City, construct and/or pay on demand the full cost of the following temporary and permanent works on Kenaston Boulevard at and in the vicinity of its intersection with Collector "A":

a) auxiliary lanes, transitions, median opening modifications, channelization and all related works;
b) traffic control signals and all related works including, but not necessarily limited to pedestrian and vehicular actuation and interconnection to adjacent traffic control signals and audible pedestrian signals;

all as determined by and to the satisfaction of the Director of Public Works.

14. The Developer shall, at no expense to the City, construct and/or pay on demand the full cost of the following temporary and permanent works on Kenaston Boulevard at and in the vicinity of its intersection with Bison Drive:

a) auxiliary lanes, transitions, median opening modifications, channelization and all related works;
b) traffic control signals and all related works including, but not necessarily limited to pedestrian and vehicular actuation and interconnection to adjacent traffic control signals and audible pedestrian signals;

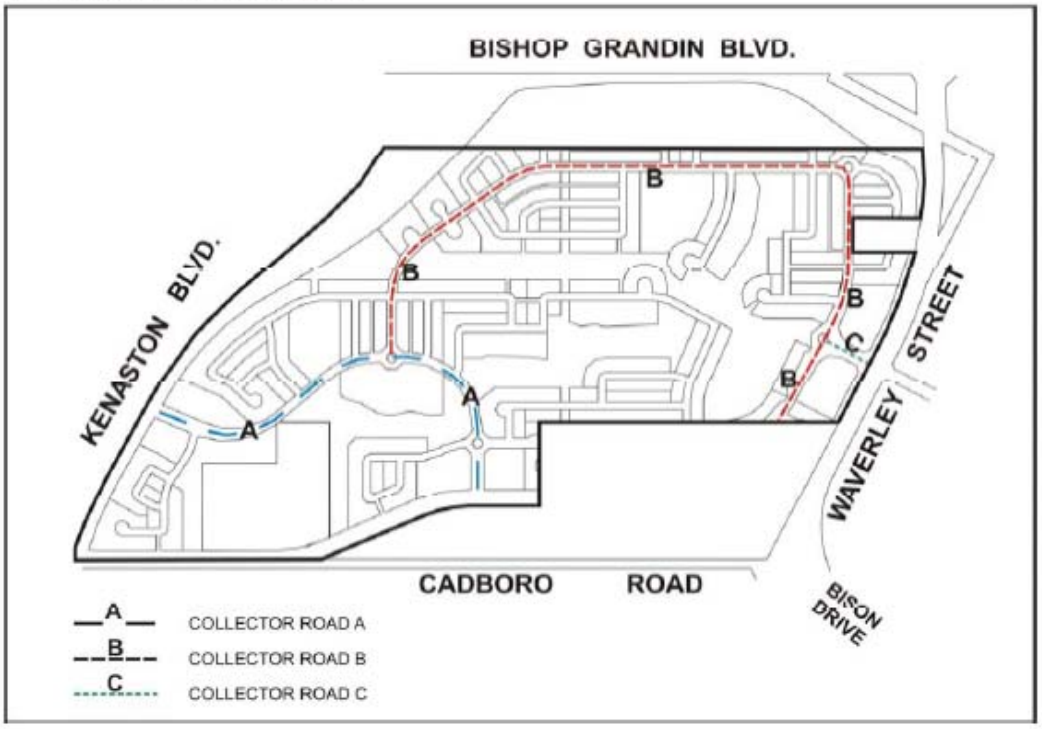
all as determined by and to the satisfaction of the Director of Public Works.

15. The Developer shall, pay to the City in cash, on demand, the cost of constructing in portland cement concrete pavement, an eastbound left turn storage lane, upstream transition and median opening on Bison Drive at its intersection with Collector "A": as determined by the Director of Public Works.

16. The Developer shall, pay to the City in cash, the cost of the installation of traffic control signals and all related works including, but not necessarily limited to pedestrian and vehicular actuation and interconnection to adjacent traffic control signals and audible pedestrian signals at the intersection of Bison Drive with Collector "A" as determined by the Director of Public Works.

17. The City shall endeavour to collect a proportionate share of the cost of arterial street pavement including land costs, traffic control signals and related items and also a proportionate share of the cost of internal collector street pavement financed or

SCHEDULE A
COLLECTOR ROADS



APPENDIX "B": EXCERPT OF DASZ 22/2007

By–Law No. _____

File No. **DASZ 22/07**

Atlas Sheet No.

N

AO21
RIEL
COMMUNITY

Explanation

An application for the approval of the plan of subdivision shown outlined below and for a proposed zoning change to By-law No. 6400/94 by rezoning the land located west of Waverley Street between Lee Boulevard and the Perimeter Highway from an "A" AGRICULTURAL DISTRICT to a "PR1" PARKS AND RECREATION DISTRICT, an "R1-3.5" RESIDENTIAL DISTRICT an "RM-2" and "RM-4" MULTIPLE-FAMILY DISTRICTS and a "C2" COMMERCIAL DISTRICT as shown outlined below.



THIRD READING : _____ EFFECTIVE DATE : _____

ZONING AGREEMENT : YES ☐ NO ☐ CAVEAT No. _____

8. The Developer shall, at no expense to the City, be responsible to control and to initiate the clean-up of litter and refuse from the contractors and builders for this development, both on-site and off-site, during the installation of services and construction of houses, until completion of all construction. The clean up of litter and refuse shall be done on a regular basis as determined by the Director of Public Works. This shall include initiating action and assuming all costs in remedying the situation to the satisfaction of the Director of Public Works.

9. The Developer shall, at no expense to the City, ensure that construction traffic uses routes as determined by the Director of Public Works. The Developer shall maintain, at no expense to the City, the access routes in a clean dust free condition, free of dropped and tracked-on mud, and shall undertake regular cleaning of streets until building construction, including landscaping is complete, all as determined by and to the satisfaction of the Director of Public Works.

10. a) The Developer is to provide two means of vehicular access to each stage of development within the Planned Area at all times, to the satisfaction of the Director of Public Works. This may require the construction of temporary streets and the provision of right-of-way or easements therefore.

    b) The Developer is to construct cul-de-sac vehicular turnarounds at the terminus of each temporarily dead-ended street and provide any necessary right-of-way or easements therefore, all as determined by and to the satisfaction of the Director of Public Works.

11. a) The Developer shall, pay to the City in cash, on demand, the cost of constructing in portland cement concrete pavement, an eastbound and/or westbound left turn storage lanes, upstream transitions and median openings on Waverley Street at its three intersections with the collector streets as determined by the Director Public Works.

    b) The Developer shall, pay to the City in cash, the cost of the installation of traffic control signals and all related works including, but not necessarily limited to pedestrian and vehicular actuation and interconnection to adjacent traffic control signals and audible pedestrian signals at the three intersections of Waverley Street with the collector streets as determined by the Director of Public Works.

12. The Developer shall, at no expense to the City, construct and/or pay on demand the full cost of the following works on Kenaston Boulevard at and in the vicinity of its intersection with Waverley Street:

    a) auxiliary lanes, transitions, median opening, channelizaton and all related works;

b) traffic control signals and all related works including, but not necessarily limited to pedestrian and vehicular actuation and interconnection to adjacent traffic control signals and audible pedestrian signals; all as determined by and to the satisfaction of the Director of Public Works.

13. The Developer shall, at no expense to the City, abandon sections of the existing Waverley Street which will no longer be used as public street or pathway, as development proceeds, including, but not necessarily limited to removal of the existing roadway, regrading of the former roadway, seeding/sodding, etc. all when and as determined by and to the satisfaction of the Director of Public Works.

14. The Developer shall install signs at the entrances to the subdivision, upon which is displayed a plan of the subdivision showing thereon the locations of all proposed sidewalks, bicycle paths, community mail boxes, parks land drainage retention facilities, school sites, commercial sites and multiple family sites, collector and arterial streets, Kenaston Boulevard, the perimeter Highway and future Perimeter Highway interchange.

15. The Developer shall, at no expense to the City, construct within the rear yards of all one and two family lots abutting Waverley Street/realigned Waverley Street a uniform fence 2.0m in height, to the satisfaction of the Director of Public Works. The Developer is to permit the City to file a caveat against the title of each of these proposed lots abutting Waverley Street and Kenaston Boulevard requiring the owner(s) to maintain and/or repair or replace the fence as originally constructed, to the satisfaction of the Director of Public Works.

16. a) The Developer shall dedicate more than 8% of the land within the proposed subdivision as public open space. The Developer shall, at no expense to the City, landscape portions of the public open space and construct paths within the public open space in accordance with plans and specifications approved by the Director of Public Works.

b) The Developer shall dedicate land to the City required to accommodate regional land drainage facilities as determined by the Director of Water and Waste in accordance with the City's Development Agreements Parameters.

17. The Developer shall grant an option to the City for $1.00 which option shall be fully assignable to the Pembina Trails School Division, to purchase a site approximately 5 acres for possible school purposes which option shall include but not be limited to the following terms and conditions:

i) The option shall be for ten (10) years,

ii) The land cost shall be based on the City's standard value for acquisition of land for public use as determined and set from time to time by the City*,

APPENDIX "C": EXCERPT OF DASZ 4/2010

By-Law No. _____

File No. **DASZ 4/10**

Atlas Sheet No.

AK20
RIEL
COMMUNITY

Explanation

An application for the approval of the plan of subdivision shown outlined below and for a proposed zoning change to By-law No. 200/2006 by rezoning the land located on the northeast side of Kenaston Boulevard at Bison Drive & Southtown Road from an "A" AGRICULTURAL DISTRICT to an "R1-M", RESIDENTIAL SINGLE-FAMILY DISTRICT, "RMF-S" & "RMF-L" RESIDENTIAL MULTI-FAMILY DISTRICTS, "PR1" PARKS AND RECREATION 1 (Neighbourhood) DISTRICT, "PR2" PARKS AND RECREATION 2 (Community) DISTRICT, "C2" COMMERCIAL COMMUNITY DISTRICT, "C3" COMMERCIAL CORRIDOR DISTRICT, "CMU" COMMERCIAL MIXED USE DISTRICT and "MMU" MANUFACTURING MIXED USE DISTRICT as shown outlined below.



THIRD READING : _____ EFFECTIVE DATE : _____

ZONING AGREEMENT : YES ☐ NO ☐ CAVEAT No. _____

The Director of Public Works will appoint a Representative to who will oversee the Works and be responsible for the approving any changes proposed by the Developer. The Developer shall ensure that the Representative is afforded full access.

The Developer shall, at no expense to the City, correct all defects and deficiencies for a period of two years, or longer periods as may be specified in the Specifications for certain products or work, from the Date of Total Performance, to the satisfaction of the Director of Public Works, acting reasonably. The Developer shall, at no expense to the City, undertake engineering study and monitoring of identified defects and deficiencies when requested by, and to the satisfaction of, the Director of Public Works, acting reasonably.

The Developer shall submit as-built Plans, Specifications, Shop Drawings, and a Construction Report to the Director of Public Works upon completion of the works.

40. The Developer shall, at no expense to the City, construct the six proposed roundabouts at the six intersections of collector streets, all as determined by, and to the satisfaction of, the Director of Public Works.

41. The Developer shall pay its share of the cost of constructing Kenaston Boulevard from its intersection with Bishop Grandin Boulevard to the south limit of the Planned Area, in accordance with terms and conditions previously negotiated between the City and the Province, all as determined by, and to the satisfaction of, the Director of Public Works.

42. The Developer shall, at no expense to the City, construct and/or pay on demand the full cost of the following temporary and permanent works on Kenaston Boulevard at and in the vicinity of its four intersections with the Collector Streets

a) auxiliary lanes, transitions, median opening modifications, channelization, and all related works;
b) traffic-control signals and all related works including, but not limited to, pedestrian and vehicular actuation and interconnection to adjacent traffic-control signals and audible pedestrian signals;

all as determined by, and to the satisfaction of, the Director of Public Works.

43. The Developer shall, at no expense to the City, construct and/or pay on demand the full cost of the following temporary and permanent works on Kenaston Boulevard at and in the vicinity of its two intersections with Bison Drive:

a) auxiliary lanes, transitions, median-opening modifications, channelization, and all related works;

b) traffic-control signals and all related works including, but not limited to, pedestrian and vehicular actuation and interconnection to adjacent traffic-control signals and audible pedestrian signals;

all as determined by, and to the satisfaction of, the Director of Public Works.

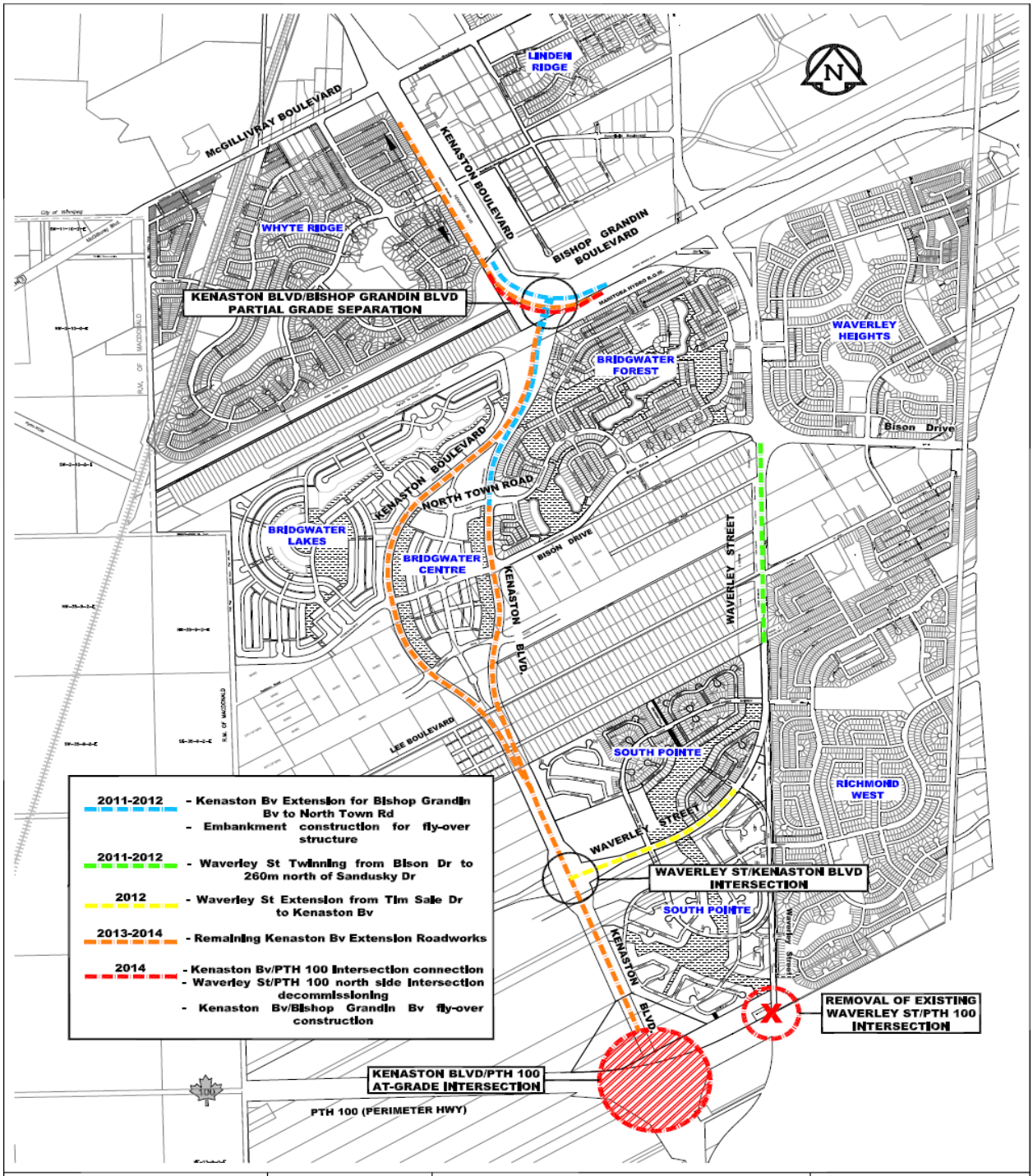
44. The Developer shall pay to the City, on demand, the cost of constructing, in portland cement concrete pavement, a southbound left- turn storage lane, upstream transition, and median opening on Brady Road, at its intersection with Bison Drive, as determined by the Director of Public Works.

45. The Developer shall pay to the City, on demand, 50% of the cost of the installation of traffic-control signals and all related works including, but not limited to pedestrian and vehicular actuation and interconnection to adjacent traffic-control signals and audible pedestrian signals at the intersection of Bison Drive with Brady Road, as determined by the Director of Public Works.

46. The Developer shall dedicate to the City as public reserve at least 8% of the land contained within the overall development area, landscape the dedicated land, and pay its share of the cost of services in streets abutting the dedicated land, in accordance with City policy, and as determined by, and to the satisfaction of, the Directors of Public Works and Property, Planning & Development. In calculating park dedication:

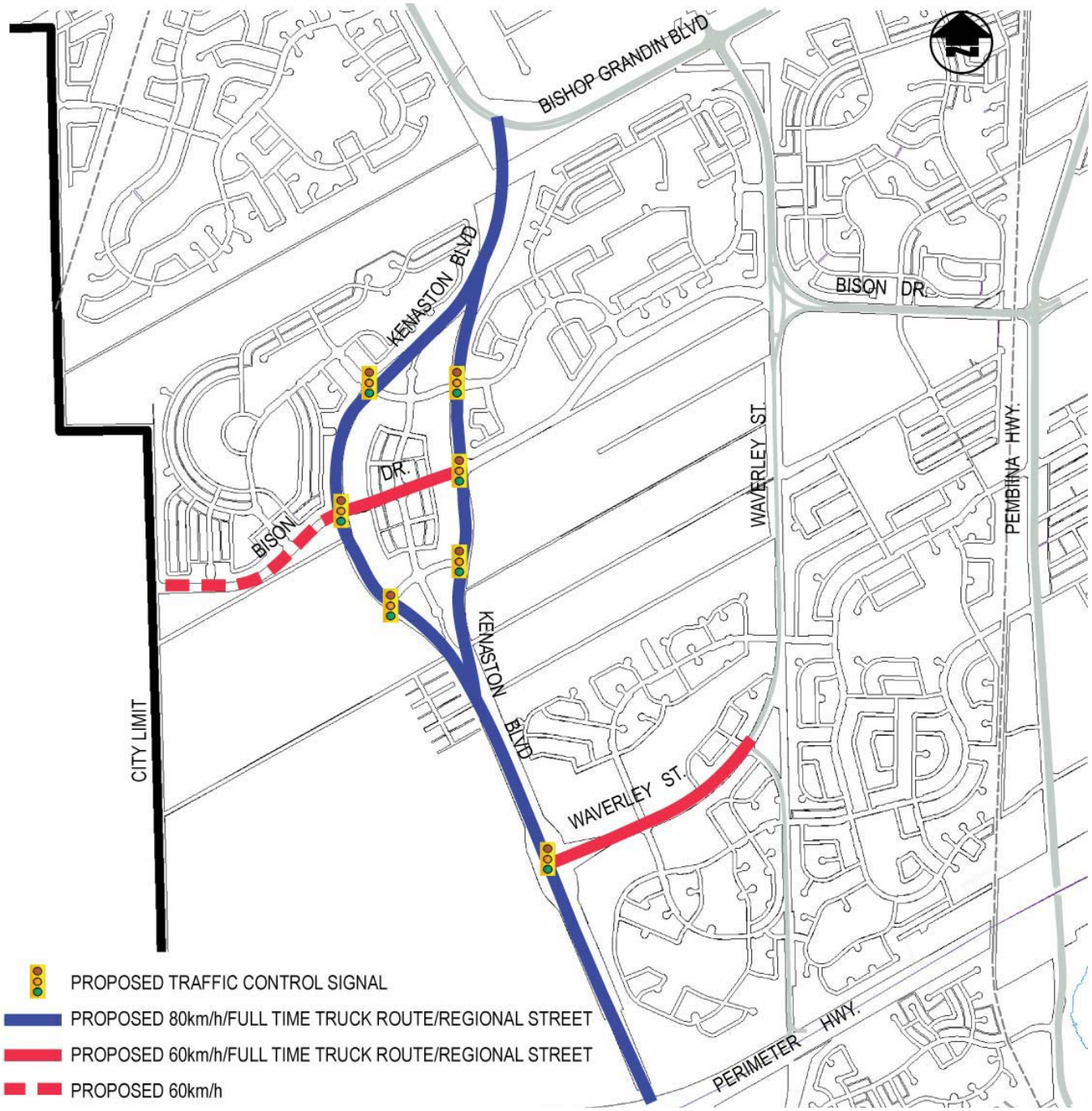
- In consideration of the narrowness of the corridors which limits multi-use opportunities, only 50% credit shall be given for the linear public reserves that parallel the retention ponds;
- In consideration of its limited functionality, only 75% credit shall be given for the public reserve designated as the "focal point";
- No credit shall be given for the excess parks frontages in either the Town Centre or the Northwest Neighbourhood.
- No credit for land dedication shall be given for any 6.25-m-wide rear-yard corridor;
- No credit shall be given for the proposed public open spaces between the retention ponds and Kenaston Boulevard;
- No credit shall be given for the proposed PR2 parcel identified as a proposed school site;
- In the event that the proposed school site is not used as a school site, the Developer shall dedicate, at no cost to the City, the PR2 parcel to the City as Public Reserve, and shall receive no credit for the dedication

APPENDIX "D": WAVERLEY WEST ARTERIAL ROADS PROJECT TIMELINE



MORRISON HERSHFIELD	Winnipeg	**WAVERLEY WEST ARTERIAL ROADS PROJECT TIMELINE**	SCALE N.T.S. DATE 12/04/10 FIGURE NO.

APPENDIX "E": WWARP PROPOSED TRAFFIC REGULATIONS



THE CITY OF WINNIPEG

BY-LAW NO. 10/2006

A By-law of THE CITY OF WINNIPEG to adopt a Secondary Plan for the Waverley West Neighbourhood.

THE CITY OF WINNIPEG, in Council assembled, hereby establishes the attached document entitled "Waverley West Area Structure Plan" as a secondary plan, as amended.

DONE AND PASSED in Council assembled, this 26th day of July A.D., 2006.

8.0 REGIONAL TRANSPORTATION NETWORK

8.1 Regional Roadway Network

Intent

To provide for a regional roadway network to service Waverley West that is functional, safe and efficient. The regional roadway network is a key element in the determination of neighbourhood plan area configurations.

The internal network defined in the ASP-WW includes the arterial and higher roadways within Waverley West, which are Kenaston Boulevard, Waverley Street, and Bison Drive. The general locations of these roadways and related intersections are illustrated in Map 3, and are summarized as follows.

Kenaston Boulevard: Kenaston Boulevard, which currently ties directly into Bishop Grandin Boulevard, will be extended south through Waverley West. Kenaston Boulevard will enter Waverley West at the north end as a four-lane divided roadway, split into a one-way couplet in the northern portion of Waverley West, transition back to a four-lane divided roadway through the southern portion of Waverley West and connect to the Perimeter Highway. The connection to the Perimeter Highway will be an at grade intersection until such time as a grade separated interchange is warranted. Right-of-way is anticipated to be reserved to allow for three travel lanes per direction. A Town Centre is planned for the land located within the Kenaston Boulevard one-way couplet. Kenaston will function as an expressway with an anticipated posted speed limit of 80 kilometres per hour, with a limited number of at-grade intersections and no direct access from adjacent private lands.

Waverley Street: Waverley Street, which currently runs in a north-south direction along the eastern edge of Waverley West and intersects with the Perimeter Highway, will be realigned to pass through the south end of Waverley West. The existing intersection at the Perimeter Highway will be closed, and Waverley Street will curve into Waverley West beginning at approximately Sandusky Drive and extend in the southwest/west direction to intersect with Kenaston Boulevard and eventually terminate at Brady Road. Waverley Street will function as a four-lane divided roadway through Waverley West. Waverley Street from Bishop Grandin Boulevard to Sandusky Drive is anticipated to have a posted speed limit of 70 kilometres per hour, while Waverley Street from Sandusky Drive to Brady Road is anticipated to have a posted speed limit of 60 kilometres per hour.

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Bison Drive: Bison Drive, which currently terminates at Waverley Street, will be extended southwest through Waverley West and eventually terminate at or near Brady Road. ~~Bison Drive is expected to overpass the one-way couplet portions of Kenaston Boulevard.~~ Bison Drive will function as a four-lane divided roadway, likely with a posted speed limit of 60 kilometres per hour through Waverley West.

Policies

8.1.1 The Waverley West area shall be provided with a hierarchical network of streets.

8.1.2 The conceptual arterial street network as illustrated on Map 3 shall not be amended without a Secondary Plan amendment.

8.1.3 Each Neighbourhood Area Structure Plan shall provide for and plan the relevant portions of the arterial street network as illustrated on Map 3.

8.1.4 Specific right-of-way requirements for the arterial and higher road network shall be further defined at the Neighbourhood Area Structure plan and development application processes.

8.1.5 Kenaston Boulevard shall function as an expressway with a limited number of at-grade intersections, and no direct access from adjacent private lands.

8.1.6 The network of existing and proposed arterial and higher streets shall serve as a means of delineating the Neighbourhood PlanAreas within Waverley West (see also sections 4.2 and 13.1)

8.1.7 The City of Winnipeg shall have the ability to acquire additional right-of-way through standard dedication practices to accommodate the regional roadway network.

8.1.8 Phasing and Staging of roadway infrastructure shall be carried out generally in accordance with the Waverley West General Phasing Scheme (see also section 14.2), to be revised and updated at each subsequent Neighbourhood Plan process.

8.2 Grade Separated Locations

Intent

To identify where future grade-separated intersections and flyovers may be required within the Waverley West Plan Area.

The major arterial intersections within Waverley West have been investigated. Based on forecast future traffic volumes for full build-out scenarios of Waverley West, grade separations are necessary at the following locations within Waverley West to maintain the expressway function of Kenaston Boulevard as per City of Winnipeg policy (illustrated in Map 3):

INITIAL

- ~~***Northbound Kenaston Boulevard and Bison Drive:*** A flyover shall be necessary at the intersection of northbound Kenaston Boulevard and the future configuration of Bison Drive. Kenaston Boulevard should underpass Bison Drive at this location.~~

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- ~~***Southbound Kenaston Boulevard and Bison Drive:*** A flyover shall be necessary at the intersection of southbound Kenaston Boulevard and the future configuration of Bison Drive. Kenaston Boulevard should underpass Bison Drive at this location.~~

The major arterial intersections directly adjacent to Waverley West have been examined to determine where grade separations may be necessary in the future:

- ***Kenaston Boulevard and the Perimeter Highway:*** A grade-separated interchange is planned at the intersection of Kenaston Boulevard and the Perimeter Highway, to be funded by Manitoba Transportation & Government Services. A previous study completed by the Province of Manitoba (MTGS) has detailed the configuration of an interchange at this location.

Policies

8.2.1 Any future grade separated interchanges within Waverley West should be determined and defined through further study to be undertaken during the Neighbourhood Plan or development application processes.

INITIAL

~~**8.2.2** Required flyovers shall be cost shared on a 50-50 basis between the City of Winnipeg and the developer, as further defined in the Waverley West Financial Cost Share Model (see also section 14.3).~~

8.2.2 ~~**8.2.3**~~ Phasing and Staging of roadway infrastructure shall be carried out generally in accordance with the Waverley West General Phasing Scheme (see also section 14.2), to be revised and updated at each subsequent Neighbourhood Plan process.

8.3 Neighbourhood Connections

Intent

To establish and define the inter-neighbourhood and external neighbourhood connection points in order to prevent neighbourhoods from becoming isolated from each other and to allow shared access to community facilities and recreational assets.

Policies

8.3.1 The Neighbourhood Plan Areas located within Waverley West shall be directly linked through the internal collector street system and the arterial street system as generally illustrated on Map 3.

8.3.2 The internal connections between Waverley West Neighbourhood Plan Areas may accommodate transit routing for travel between neighbourhoods within Waverley West (see also Section 9.1.5).

8.3.3 The location of collector street connections to the arterial street network shall be defined through the Neighbourhood Area Structure Plan and development application processes.

8.3.4 External connections to neighbourhoods located east of Waverley Street shall be provided through the Waverley West collector street system, and shall be defined through the Neighbourhood Area Structure Plan and development application processes.

8.3.5 The arterial street intersections of Bison Drive and realigned Waverley Street with Brady Road may provide for future linkages to the adjacent Rural Municipality of Macdonald.

8.4 Access to the Town Centre

Intent

To provide efficient and convenient access into the Town Centre while preserving the integrity of the expressway role of Kenaston.

Policy

8.4.1 Direct vehicular entry to the Town Centre from Kenaston Boulevard may be accommodated at the south end of the northbound couplet, and at the north end of the southbound couplet.

8.4.2 Direct vehicular egress shall not be permitted at either of the general locations as noted in Policy 8.4.1.

8.4.3 Access to the Town Centre may be provided directly from Bison Drive within the Town Centre, and from the two east-west collector streets that are planned to intersect with Kenaston Boulevard within the Town Centre as generally illustrated in Map 3.

8.4.4 Alternative transportation modes shall be provided with sufficient access to the Town Centre (see also 10.1.1).

8.4.5 Access to the Town Centre shall be further defined through the Neighbourhood Area Structure Plan and development application processes for the Town Centre.

8.5 Movement of Goods and Services

Intent

To provide for the efficient and safe movement of goods and services through and to the Waverley West Plan Area, and to recognize the role of Kenaston Boulevard (Route 90) as a vital link in the Province's transportation network for international trade. The presence and requirement for arterial streets allows for the movement of goods to proceed through

the Plan Area without necessitating vehicles to cut through other lower category roadways. Planning for the arterial streets should consider possible noise mitigation strategies (see also Section 8.6).

Policy

8.5.1 The number of at grade intersections along Kenaston Boulevard within the Plan Area shall be as generally illustrated on Map 3.

8.5.2 The location of truck routes shall be defined by the City of Winnipeg through the City of Winnipeg Traffic By-law 1573/77.

8.6 Noise Attenuation and Buffering

Intent

To provide buffering of residential areas which are located adjacent to regional roadways, to the City of Winnipeg standards. The City has established a noise level guideline for outdoor sound level limits for residential areas adjacent to a regional transportation facility. Extended setback distance, berming or fencing (or any combinations thereof) are the most common forms of noise attenuation for residential developments.

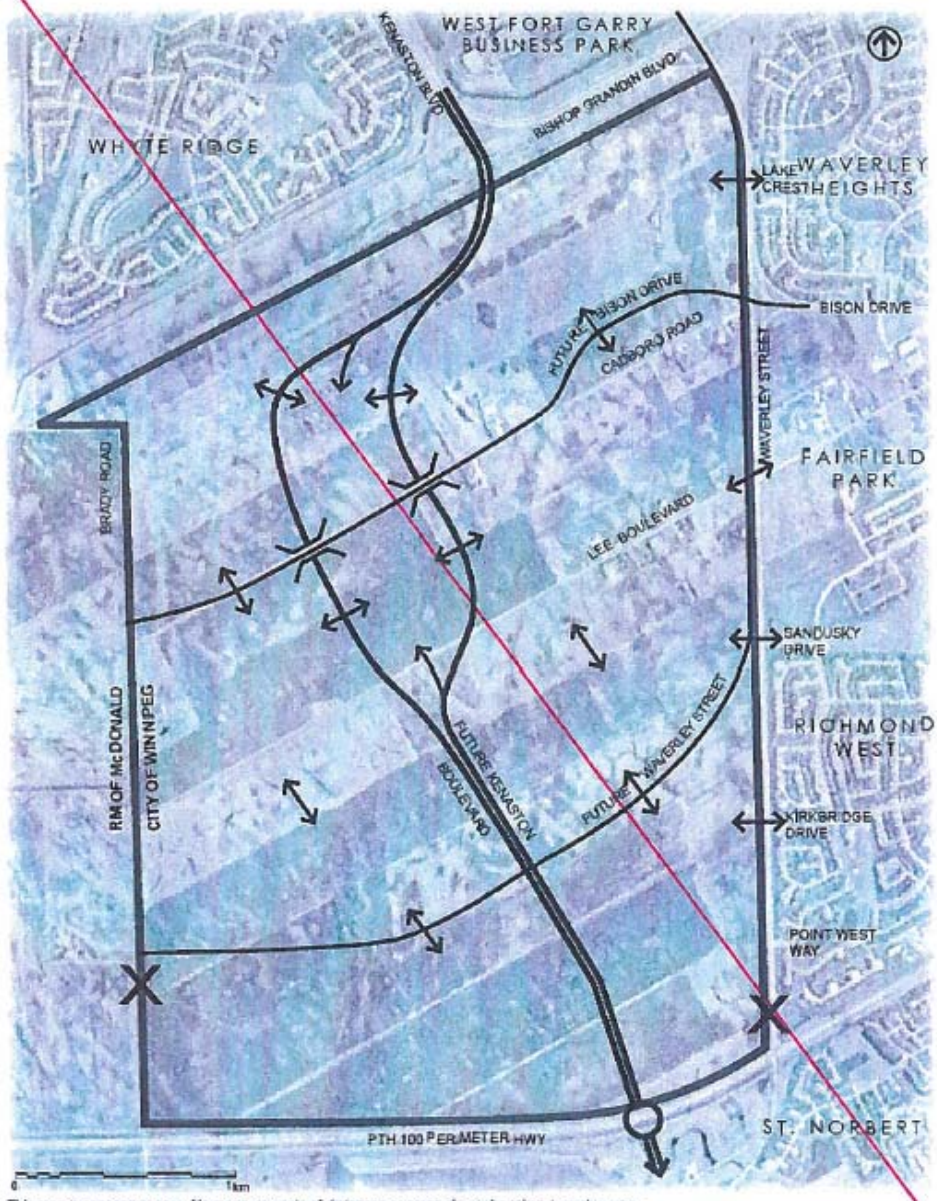
Policies

8.6.1 Any required noise prediction studies should be completed as part of the Neighbourhood Area Structure Plan and/or subdivision rezoning processes for planned residential areas that are adjacent to arterial and higher streets.

8.6.2 Noise prediction studies for arterial and higher streets, including Kenaston Boulevard, Waverley Street, Bison Drive, and the Perimeter Highway, should be based on estimated traffic volumes and vehicle mix, and should be forecasted and evaluated in relation to the standards noted in the *City of Winnipeg Motor Vehicle Noise Policies and Guidelines*.

8.6.3 If noise predictions studies indicate that noise levels will exceed the standards noted in the *City of Winnipeg Motor Vehicle Noise Policies and Guidelines* by five decibels or more, appropriate noise attenuation measures shall be implemented.

AREA STRUCTURE PLAN - WAVERLEY WEST



This map is conceptual only. No measurements of distances or areas should be taken from this map

Map 3: Waverley West Transportation Network

- Future Kenaston Boulevard
- Arterial Streets
- Neighbourhood Connections
- Potential Future Grade Separated Interchange
- Future Fly-over
- Future Closure

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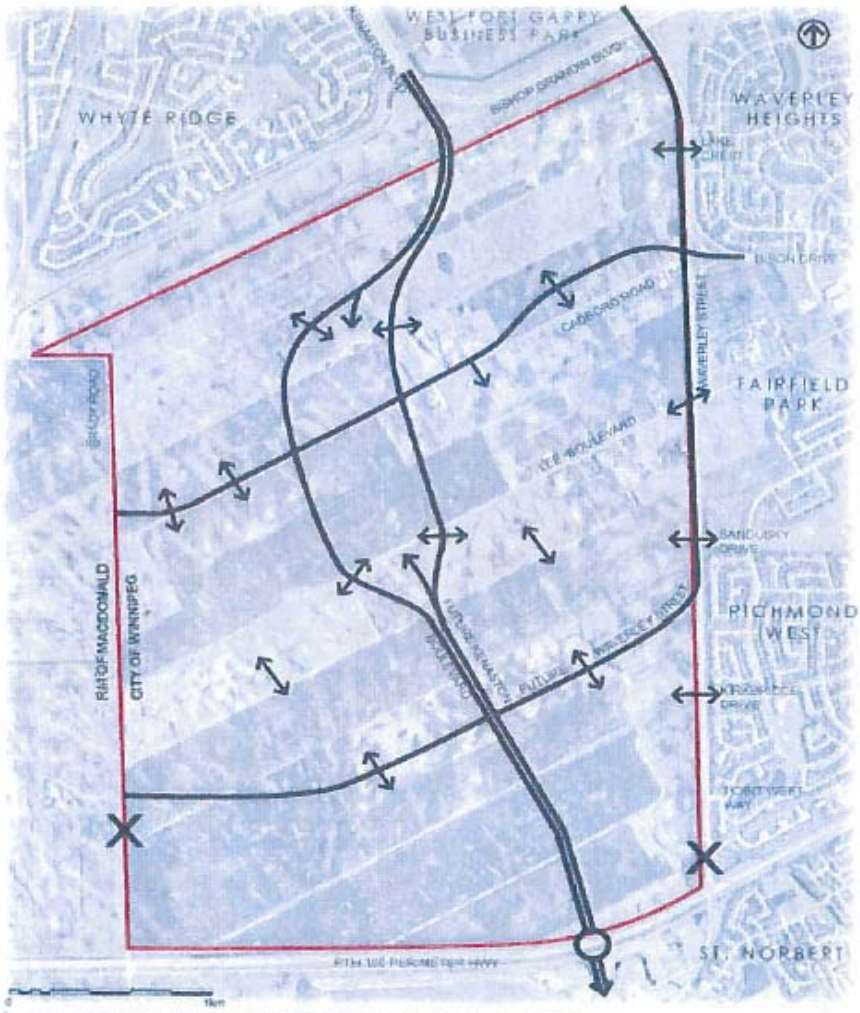
AREA STRUCTURE PLAN - WAVERLEY WEST



This map is an inceptual only. No measurements of distances or areas should be taken from this map.

Map 3: Waverley West Transportation Network

Future Kenaston Boulevard

Neighbourhood Connections

Arterial Streets

Future Closure

Potential Future Grade Separated Interchange

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APPENDIX "G": DRAFT BY-LAW AMENDMENTS

THE CITY OF WINNIPEG

BY-LAW NO.

A By-law of THE CITY OF WINNIPEG to amend *Schedule 1* of the *Traffic By-law 1573/77* and *Schedule E* of the *Streets By-law 1481/77*

THE CITY OF WINNIPEG, in Council assembled, enacts as follows:

Schedule 1 of Traffic By-law amended

1 Schedule 1 of the Traffic By-law No. 1573/77 is amended by

(a) striking out the following:

Kenaston Boulevard	Bishop Grandin Boulevard	St. James Bridge
and		
Waverley Street	Grant Avenue	Tim Sale Drive / Pine Hills Road

(b) and adding the following in alphabetical order:

Bison Drive	Kenaston Boulevard (northbound)	Kenaston Boulevard (southbound)
and		
Kenaston Boulevard	Provincial Trunk Highway No. 100	St. James Bridge
and		
Waverley Street	Grant Avenue	Kenaston Boulevard

Schedule E of Streets By-law amended

2 Schedule E of the Streets By-law No. 1481/77 is amended by

(a) striking out the following:

Bishop Grandin Boulevard	Waverley Street	Lagimodiere Blvd.
and		
Kenaston Boulevard	Scurfield Boulevard	St. James Bridge
and		
Route 90/165 Ext.	Scurfield Boulevard	Waverley Street
and		
Waverley Street	Grant Avenue	Tim Sale Drive / Pine Hills Road

(b) and adding the following in alphabetical order:

Bishop Grandin Boulevard	Kenaston Boulevard	Lagimodiere Boulevard
and		
Bison Drive	Kenaston Boulevard (northbound)	Kenaston Boulevard (southbound)
and		
Kenaston Boulevard	Provincial Trunk Highway No. 100	St. James Bridge
and		
Waverley Street	Grant Avenue	Kenaston Boulevard

DONE AND PASSED, this day of , 2012.

_____
Mayor

_____
City Clerk

Approved as to content:

_____
Director of Public Works

Approved as to form:

_____
For Director of Legal Services and
City Solicitor