Agenda - Council - July 21, 2010

Report - Standing Policy Committee on Infrastructure Renewal and Public Works - July 13, 2010

Item No. 1 Amendments to Secondary Dyke By-law No. 7600/2000
eFile PD

STANDING COMMITTEE RECOMMENDATION:

On July 14, 2010, the Executive Policy Committee concurred in the recommendation of the Standing Policy Committee on Infrastructure Renewal and Public Works and submits the following to Council:

1. That the By-law to amend the Secondary Dyke By-law No. 7600/2000, shown as Schedule A to the report of the Winnipeg Public Service dated June 3, 2010, be enacted..

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

Report - Standing Policy Committee on Infrastructure Renewal and Public Works - July 13, 2010

DECISION MAKING HISTORY:

EXECUTIVE POLICY COMMITTEE RECOMMENDATION:

On July 14, 2010, the Executive Policy Committee concurred in the recommendation of the Standing Policy Committee on Infrastructure Renewal and Public Works and submitted the matter to Council.

STANDING COMMITTEE RECOMMENDATION:

On July 13, 2010, 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

Issue: **AMENDMENTS TO SECONDARY DYKE BY-LAW**

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

AUTHORIZATION

Author	Department Head	CFO	CAO
M. A. Shkolny, P. Eng Manager of Engineering	B. D. MacBride, P. Eng. Director, Water and Waste Department	n/a	G Laubenstein

RECOMMENDATIONS

That Council enact the draft amending By-law (attached as Schedule A) which will amend the Secondary Dyke By-law.

REASON FOR THE REPORT

The actions taken by the City to address the threat of flooding in the spring of 2009 highlighted the need to update and improve the Secondary Dyke By-law, including updated drawings of secondary dykes and to provide greater clarity concerning the responsibility of property owners protected by secondary dykes to take immediate actions to construct sandbag dykes and take other measures to protect their property and others when directed to do so by a designated City employee.

IMPLICATIONS OF THE RECOMMENDATIONS

The attached draft amending By-law:

- Includes schedules that show secondary dykes on Glenwood Crescent and updates the location of secondary dykes on Scotia Avenue where new permanent dykes have been built in the past few years. As Glenwood is a new corridor, a mailout is planned to all affected residents. Also, all corridor information (in GIS format) will be provided to the Planning, Property and Development Department to aid in the permitting process.
- Gives designated employees greater authority to require property owners to take specified actions to protect their property and their neighbours' properties from flooding. Rather than having to publish newspaper notices requiring all owners/occupants of properties with secondary dykes to take specific actions to prepare for flooding threats, the draft By-law amendments will allow designated employees to require specific

property owners/occupants to take specific actions such as clearing the snow from the secondary dyke to permit construction of a temporary sandbag dyke, accepting delivery of sandbags, building a sandbag dyke, monitoring for seepage and permitting access to the secondary dyke.

- Varies the notice requirements set out in the Charter. It will deem a notice to have been received 24 hours after it has been delivered to the appropriate address. This is designed to ensure that directions from designated employees result in prompt action.
- Clarifies the duty to remove a sandbag dyke after the threat of flooding has receded so as to minimize the weight on the riverbanks.
- Updates the list of Public Service officials who can sit on a panel to hear urgent appeals of decisions or orders issued by designated employees. The list now includes the Deputy CAOs, the Director of Corporate Support Services and the Director of Winnipeg Transit.
- In keeping with general policy, the fees imposed for a development permit on a secondary dyke corridor (or a renewal of a permit) will no longer be set out in the By-law but will be established by Council resolution. These fees will be contained in the Fees and Charges Manual. This report is not recommending any change to the amount of these fees.

HISTORY

The Secondary Dyke By-law was enacted in 2000 to make clear the responsibilities of property owners on whose property a secondary dyke is located. The By-law prohibited construction and the planting of trees on secondary dyke corridors and required owners and occupants to keep corridors free and clear of permanent structures and trees unless a permit had been issued authorizing the obstruction. The By-law also imposed a general duty on property owners to ensure that the secondary dyke on their property was effective as a flood control work.

The By-law also allowed the Director to publish formal newspaper notices to require all owners of properties with secondary dykes throughout the City to take specific actions with respect to their dykes in preparation for flooding – like removing snow from dykes in anticipation of sand-bagging, constructing sandbag dykes, monitoring for seepage and removing the sandbag dykes after the threat of flooding had receded. However, in taking preventative measures to address the potential for flooding in 2009, the Water and Waste Department found this approach to be far too cumbersome and not practical. It became clear that a more timely approach was needed that could respond quickly to specific needs on specific properties as well as rapidly changing circumstances.

FINANCIAL IMPACT

Financial Impact Statement Date: May 27, 2010

Project Name:
AMENDMENTS TO SECONDARY DYKE BY-LAW

COMMENTS:

There is no financial impact to this recommendation.

"Original signed by L.Szkwarek, C.G.A."

Lucy Szkwarek, C.G.A.
Acting Manager of Finance & Administration

js
27-May-10

CONSULTATION

In preparing this report there was consultation with Legal Services Department and Public Works Department

SUBMITTED BY

Water and Waste Department
Engineering Division
Prepared by: Grant Mohr, P. Eng.
Date: June 3, 2010
File No. 020-08-09-17-00


Schedule A
Amendments to Seco



Schedule B complete
schedule of drwgs.pd

SCHEDULE A

THE CITY OF WINNIPEG

BY-LAW NO. .

A By-law of THE CITY OF WINNIPEG to amend the Secondary Dyke By-law No. 7600/2000.

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

Secondary Dyke By-law amended

1 *The Secondary Dyke By-law No. 7600/2000 is amended by this By-law.*

Definition replaced

2 *The definition* ***"primary dike"*** *and* ***"secondary dyke corridor"*** *are repealed and the following are substituted*:

"primary dyke" means a primary dyke or a primary line of defence designated as such on a map of the City of Winnipeg's dykes contained in the most recent annual report required to be made to the Minister by the Dyking Commissioner by *The Dyking Authority Act*;

"secondary dyke corridor" means those areas identified as such on one or more of the maps attached as Schedules A to E to this By-law;

Section 5 replaced

3 *Section 5 is repealed and the following is substituted:*

REGULATION OF DEVELOPMENT WITHIN CORRIDOR

5. No person shall construct or erect a structure or plant a tree within a secondary dyke corridor without a permit issued under section 6.

Subsection 6(1) amended

4 *Subsection 6(1) is amended by striking out* "payment of the fee at the time of application as prescribed in Schedule "B"" *and substituting* "upon payment, at the time of application, of the fee established by Council".

Clause 7(b) amended

5 *Clause 7(b) is amended by striking out* "upon payment for the fee prescribed in Schedule "B"" *and substituting* "upon payment of the fee established by Council".

Subsection 8(2) replaced

6 *Subsection 8(2) is repealed and the following is substituted:*

DUTY TO COMPLY WITH DIRECTIONS OF DESIGNATED EMPLOYEE

8(2) Without restricting the general nature of subsection 8(1), the obligation placed by that subsection on the owner or occupant of property on which a secondary dyke corridor or secondary dyke is located includes the obligation at his or her own expense to comply with directions provided by a designated employee under subsection 8(3).

DIRECTIONS OF DESIGNATED EMPLOYEE

8(3) Where a designated employee has reason to believe that there is a significant risk of flooding in an area protected by secondary dykes, as he or she considers actions to be prudent in the circumstances, he or she may in writing or verbally direct an owner or occupant of property on which a secondary dyke corridor or secondary dyke is located to take specific actions at the owner's or occupant's expense to comply with his or her obligation under subsection 8(1), including any or all of the following measures:

(a) to remove snow and ice from the secondary dyke or secondary dyke corridor on his or her property;

(b) to remove any or all buildings, structures, trees and other obstacles, whether or not they have been authorized by section 4 or 6 of this By-law, from the secondary dyke or secondary dyke corridor on his or her property;

(c) to remove specific obstacles on the secondary dyke or secondary dyke corridor on his or her property;

(d) to accept of his or her property the delivery of sandbags or other material or items from the City of Winnipeg with which to construct a temporary dyke;

(e) to construct a temporary dyke on the secondary dyke or secondary dyke corridor on his or her property which temporary dyke may be required to be linked to temporary dykes constructed on adjacent properties and located as specified by a designated employee, using materials and a method of construction approved by a designated employee, and to a height and width specified by the designated employee;

(d) to monitor dikes for seepage and to pump out seepage as necessary;

(f) to maintain, repair or improve the temporary dyke after it has been constructed;

(g) to permit accessibility to the remainder of the secondary dyke or the secondary dyke corridor; and

(h) to take other reasonable measures to construct and maintain the temporary dyke as a barrier to flooding.

Section 9 replaced

7 *Section 9 is repealed and the following is substituted:*

DUTY TO REMOVE TEMPORARY DYKES

9 Within a reasonable period of time after the threat of flooding has receded and, in any event, when directed to do so by a designated employee, an owner or occupant of property on which a secondary dyke corridor or secondary dyke is located must remove and properly dispose of the sandbags and other elements of a temporary dyke that has been constructed on the secondary dyke or secondary dyke corridor.

Section 10 replaced

8 *Subsections 10(2) and 10(3) are repealed and the following is substituted:*

POWERS OF DESIGNATED EMPLOYEE

10(1) A designated employee may conduct inspections and take steps to administer and enforce this By-law or remedy a contravention of this By-law in accordance with *The City of Winnipeg Charter* and, for those purposes, has the powers of a designated employee under *The City of Winnipeg Charte*r. When flooding or the threat of flooding constitutes an emergency that affects the health or safety of people or affects property, a designated employee may take whatever actions and measures are necessary to meet the emergency and to eliminate or reduce its effects.

NOTICE REQUIREMENTS VARIED

10(2) Because of the impracticality of complying with subsection 117(1) of *The City of Winnipeg Charter* in the urgent situations typically associated with the need for owners and occupants to comply with section 8, the requirements for giving notice under subsection 117(2) of *The City of Winnipeg Charter* are hereby varied pursuant to section 119 of *The City of Winnipeg Charter*, as follows: A copy of a notice, order or document issued or given in order to enforce or administer section 8 of this By-law and which is delivered to the person's address determined in accordance with this By-law is deemed to have been received by the person 24 hours after it has been delivered.

Subsection 15(1) amended

9 *Subsection 15(1) is amended by striking out clauses (c), (d) and (g) and substituting the following in numerical order:*

(c) all of the Deputy Chief Administrative Officers;

(d) the Director of Corporate Support Services;

(g) the Director of Winnipeg Transit.

Section 18 replaced

10 *Section 18 is repealed and the following is substituted:*

SCHEDULE A FORMS PART OF BY-LAW

18 The following schedules, attached hereto, form part of this By-law.

Schedule A (two pages)	Kingston Row and Kingston Crescent
Schedule B (one page)	Lord Avenue
Schedule C (two pages)	Glenwood Crescent
Schedule D (three pages)	Scotia Street

Schedules A and B replaced

11 *Schedules A and B to the By-law are repealed and are replaced with Schedules A to D of this By-law.*

Schedules attached

12 *The following Schedules are attached hereto and form part of this By-law*

Schedule A (two pages)	*Kingston Row and Kingston Crescent*
Schedule B (one page)	*Lord Avenue*
Schedule C (two pages)	*Glenwood Crescent*
Schedule D (three pages)	*Scotia Street*

DONE AND PASSED, this day of , 2010.

_____
Mayor

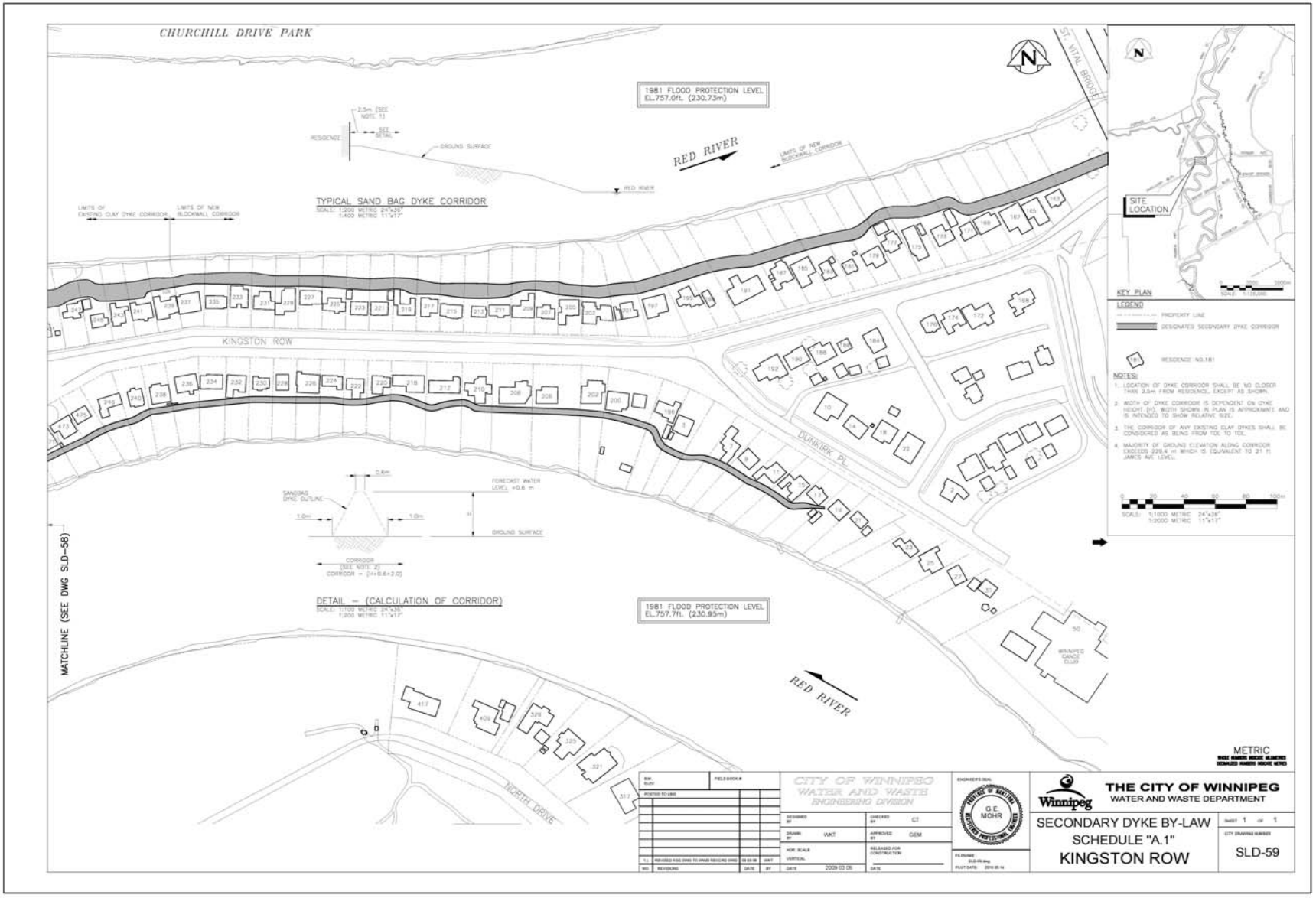
_____
City Clerk

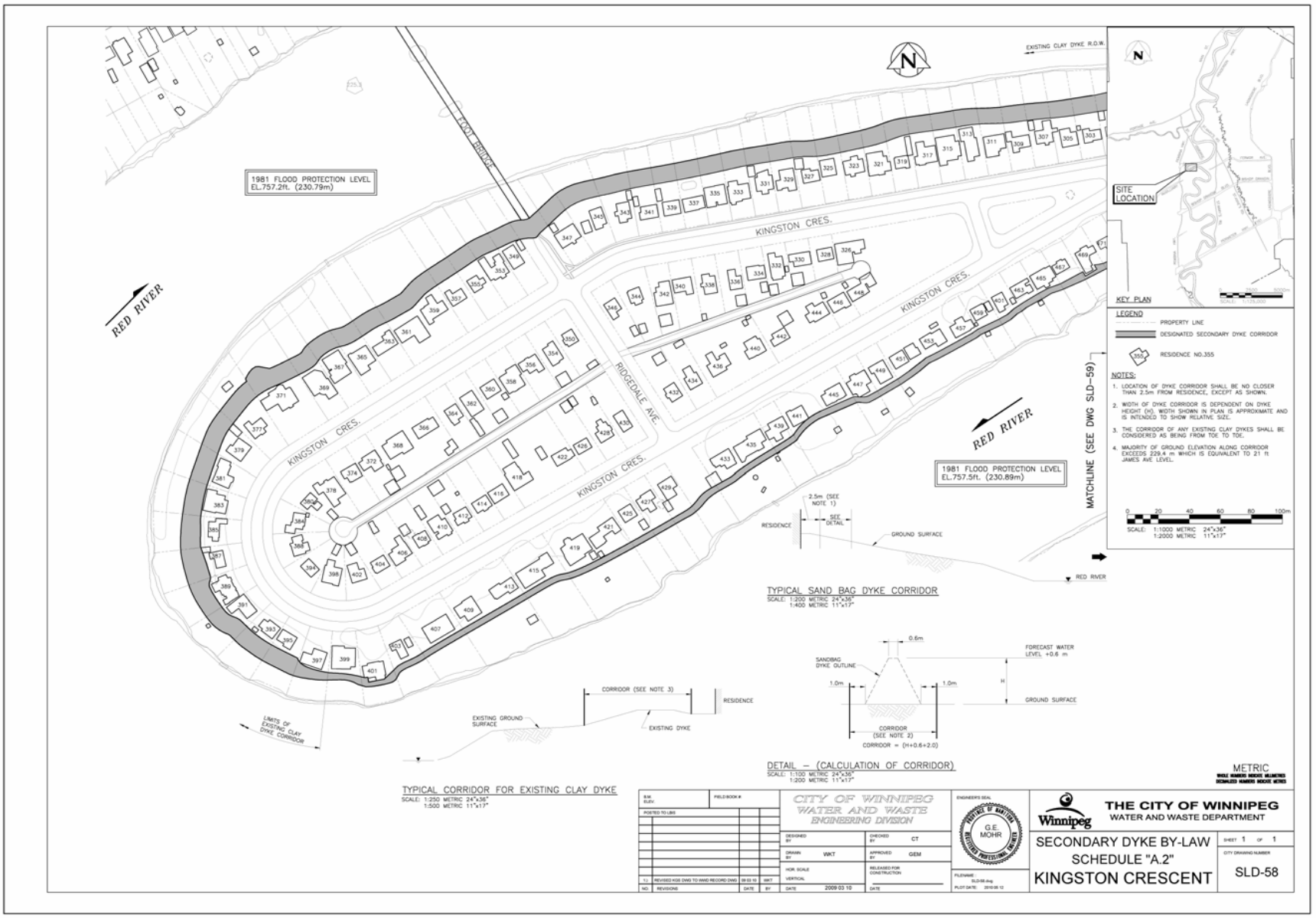
Approved as to content:

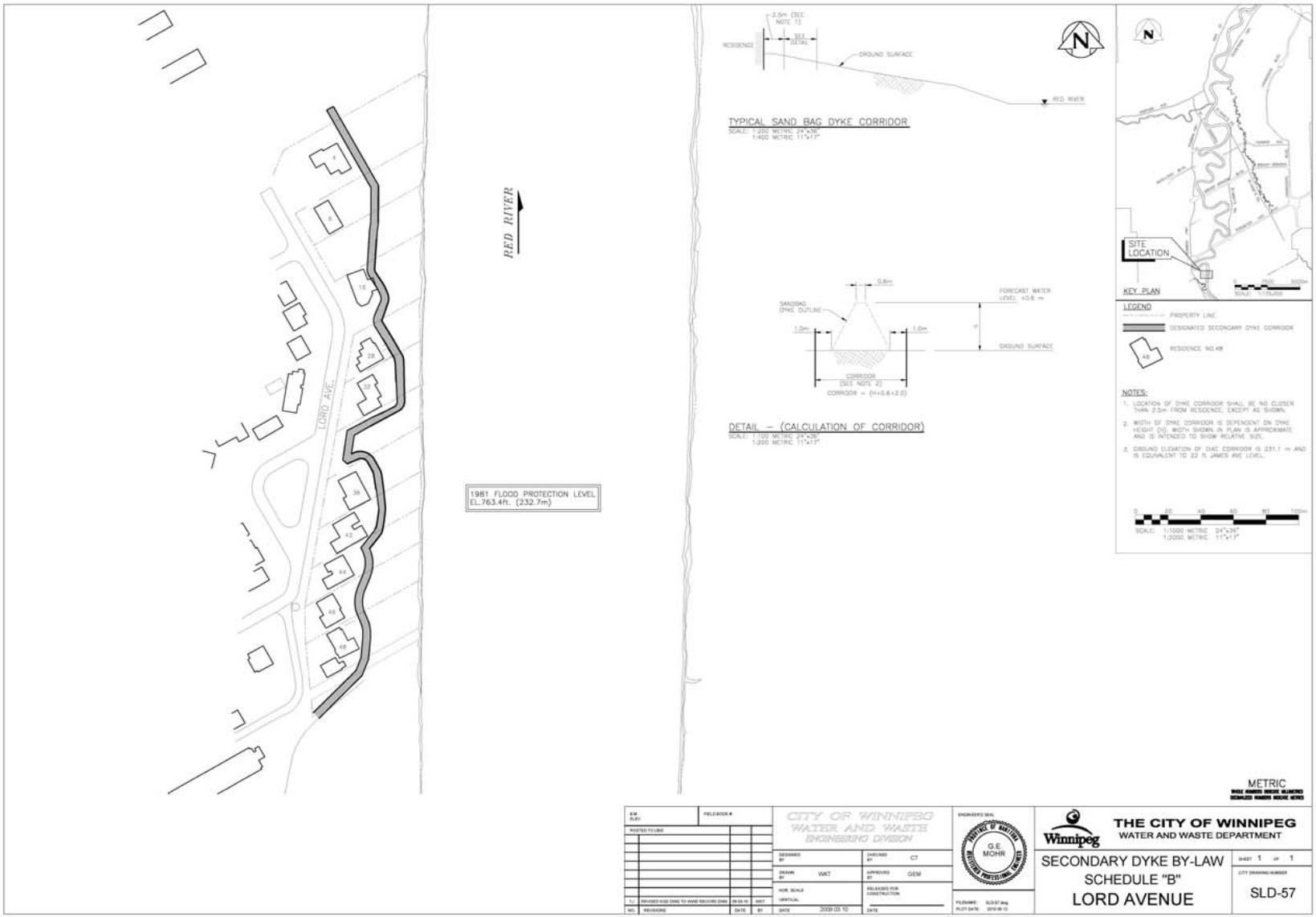
_____
Director of Water and Waste

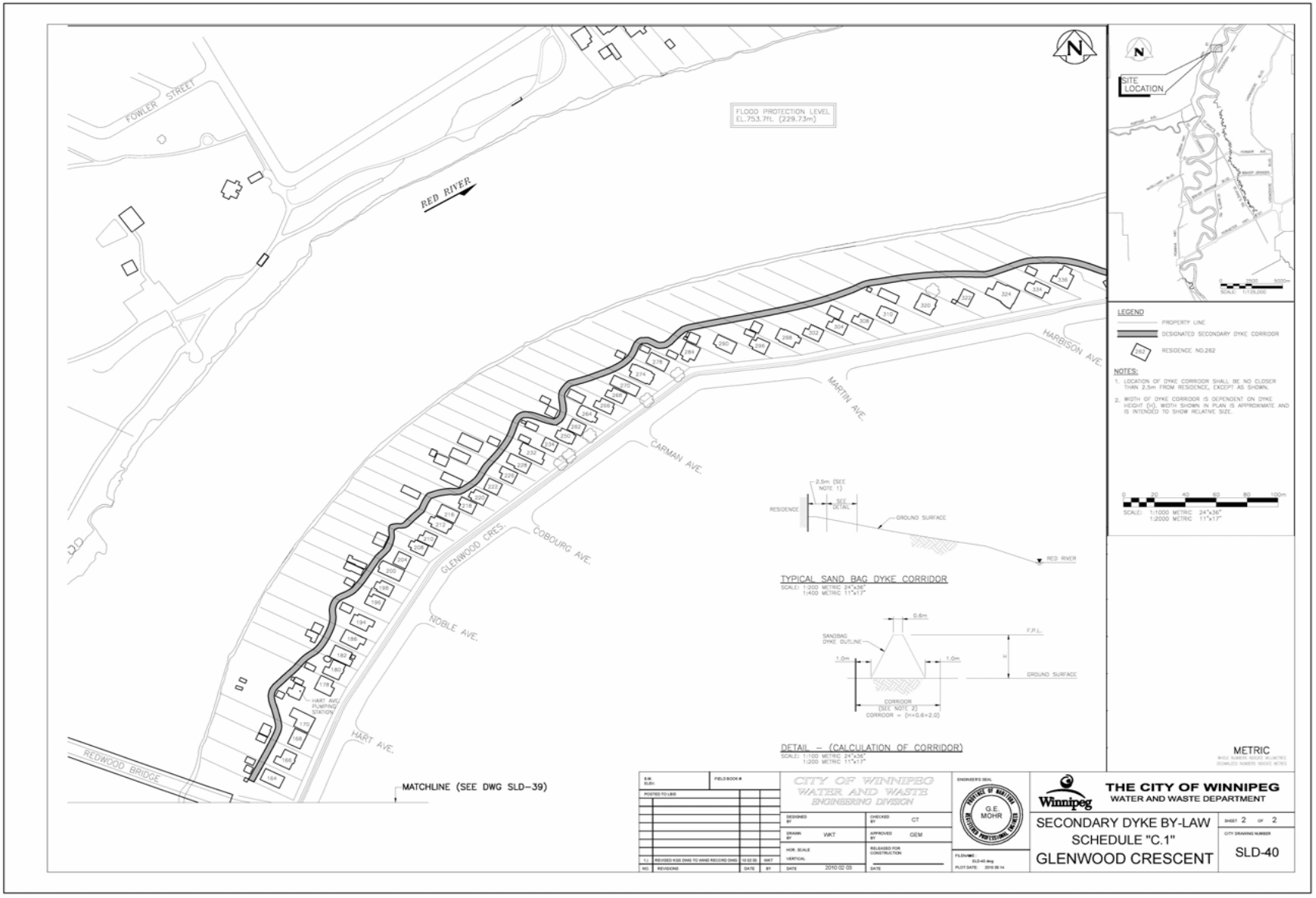
Approved as to form:

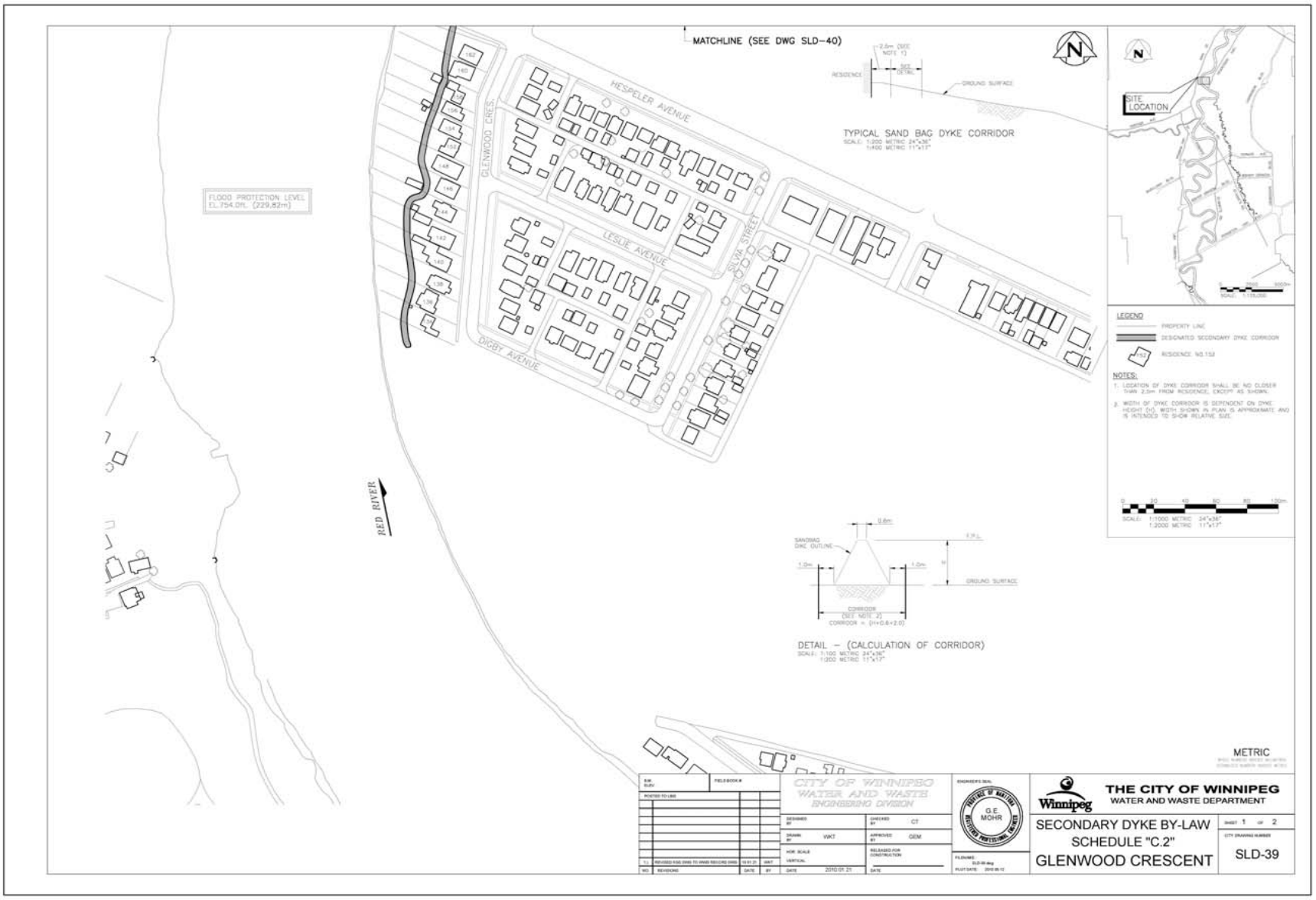
_____
For City Solicitor/Manager of
Legal Services

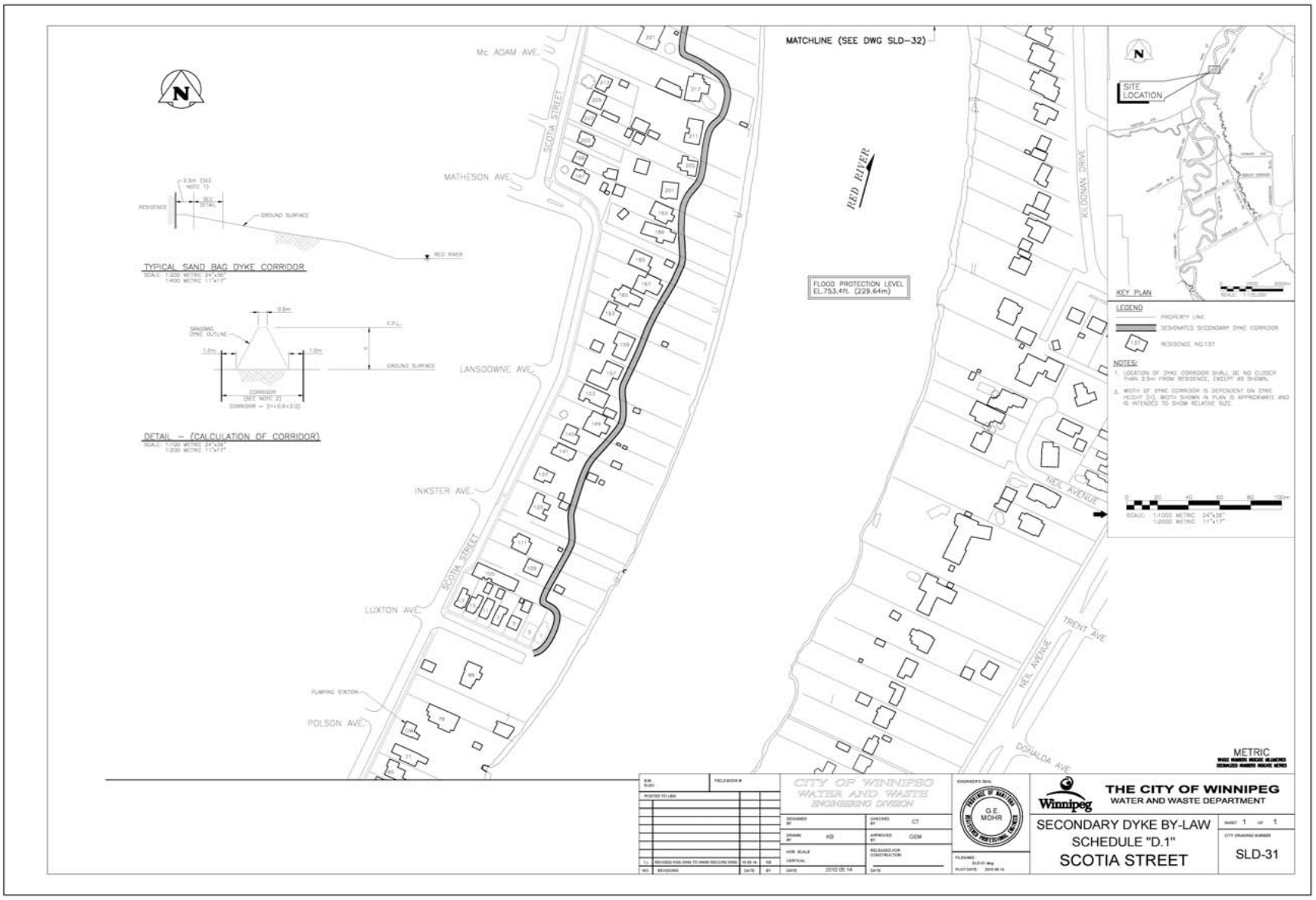

CHURCHILL DRIVE PARK
1981 FLOOD PROTECTION LEVEL
EL.757.0ft. (230.73m)
RED RIVER
TYPICAL SAND BAG DYKE CORRIDOR
KINGSTON ROW
DUNKIRK PL.
MATCHLINE (SEE DWG SLD-58)
DETAIL – (CALCULATION OF CORRIDOR)
1981 FLOOD PROTECTION LEVEL
EL.757.7ft. (230.95m)
RED RIVER
NORTH DRIVE
ST. VITAL BRIDGE
SITE LOCATION
KEY PLAN
LEGEND
NOTES:
METRIC
CITY OF WINNIPEG
WATER AND WASTE
ENGINEERING DIVISION
G.E. MOHR
THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
SECONDARY DYKE BY-LAW
SCHEDULE "A.1"
KINGSTON ROW
SLD-59

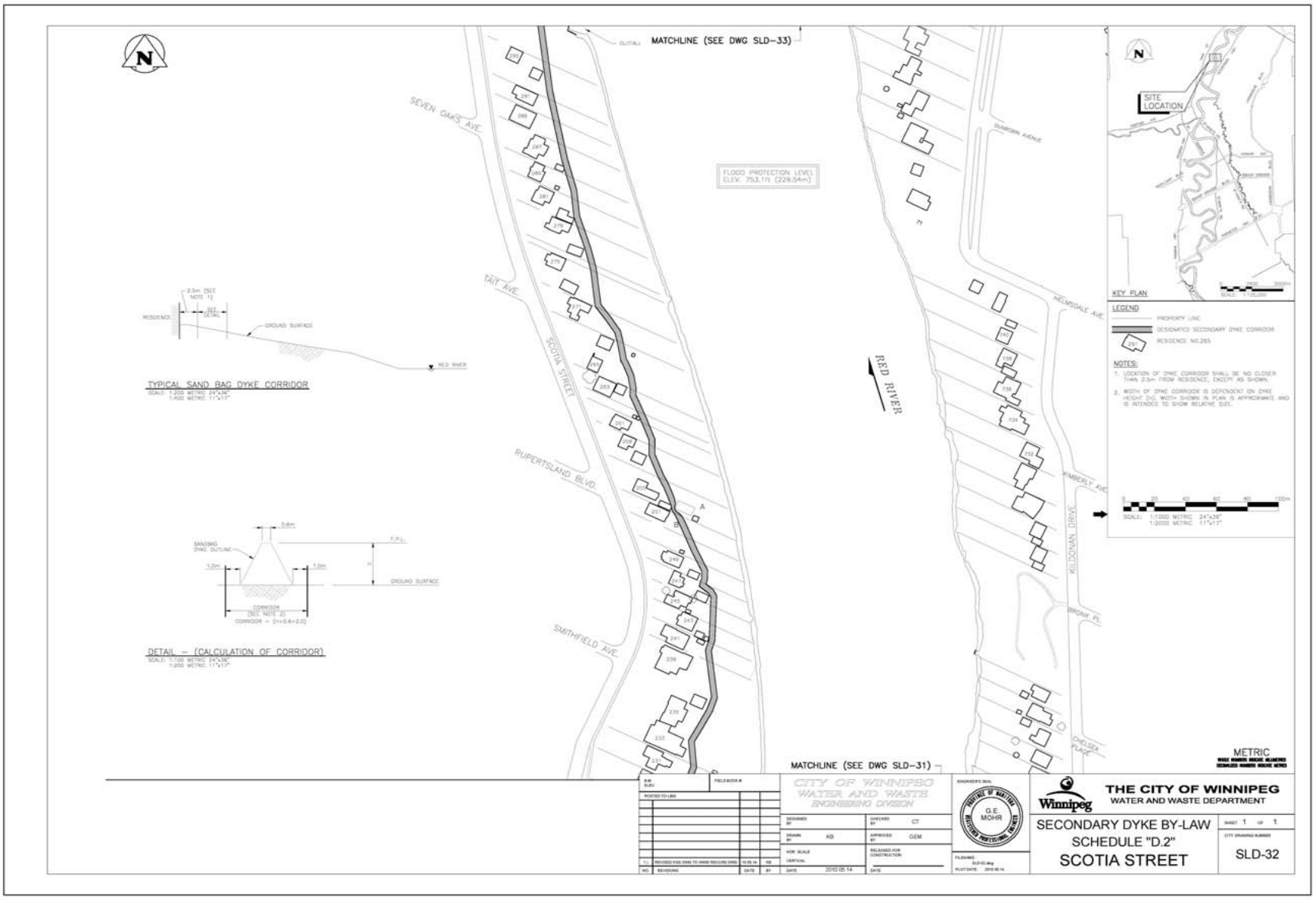

1981 FLOOD PROTECTION LEVEL
EL.757.2ft. (230.79m)
EXISTING CLAY DYKE R.O.W.
RED RIVER
KINGSTON CRES.
RIDGEDALE AVE.
1981 FLOOD PROTECTION LEVEL
EL.757.5ft. (230.89m)
MATCHLINE (SEE DWG SLD-59)
SITE LOCATION
KEY PLAN
LEGEND
PROPERTY LINE
DESIGNATED SECONDARY DYKE CORRIDOR
RESIDENCE NO.355
NOTES:
1. LOCATION OF DYKE CORRIDOR SHALL BE NO CLOSER THAN 2.5m FROM RESIDENCE, EXCEPT AS SHOWN.
2. WIDTH OF DYKE CORRIDOR IS DEPENDENT ON DYKE HEIGHT (H). WIDTH SHOWN IN PLAN IS APPROXIMATE AND IS INTENDED TO SHOW RELATIVE SIZE.
3. THE CORRIDOR OF ANY EXISTING CLAY DYKES SHALL BE CONSIDERED AS BEING FROM TOE TO TOE.
4. MAJORITY OF GROUND ELEVATION ALONG CORRIDOR EXCEEDS 229.4 m WHICH IS EQUIVALENT TO 21 ft JAMES AVE LEVEL.
SCALE: 1:1000 METRIC 24"x36"
1:2000 METRIC 11"x17"
2.5m (SEE NOTE 1)
RESIDENCE
SEE DETAIL
GROUND SURFACE
RED RIVER
TYPICAL SAND BAG DYKE CORRIDOR
SCALE: 1:200 METRIC 24"x36"
1:400 METRIC 11"x17"
0.6m
SANDBAG DYKE OUTLINE
FORECAST WATER LEVEL +0.6 m
1.0m
1.0m
H
GROUND SURFACE
CORRIDOR (SEE NOTE 2)
CORRIDOR = (H+0.6+2.0)
DETAIL – (CALCULATION OF CORRIDOR)
SCALE: 1:100 METRIC 24"x36"
1:200 METRIC 11"x17"
CORRIDOR (SEE NOTE 3)
RESIDENCE
EXISTING GROUND SURFACE
EXISTING DYKE
LIMITS OF EXISTING CLAY DYKE CORRIDOR
TYPICAL CORRIDOR FOR EXISTING CLAY DYKE
SCALE: 1:250 METRIC 24"x36"
1:500 METRIC 11"x17"
METRIC
CITY OF WINNIPEG
WATER AND WASTE
ENGINEERING DIVISION
DESIGNED BY
CHECKED BY CT
DRAWN BY WKT
APPROVED BY GEM
HOR. SCALE
VERTICAL
RELEASED FOR CONSTRUCTION
DATE 2009 03 10
1) REVISED KGE DWG TO AWG RECORD DWG 09 03 10 WKT
NO. REVISIONS DATE BY
ENGINEERS SEAL
PROVINCE OF MANITOBA
G.E. MOHR
REGISTERED PROFESSIONAL ENGINEER
FILENAME: SLD-58.dwg
PLOT DATE: 2010 06 12
Winnipeg
THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
SECONDARY DYKE BY-LAW
SCHEDULE "A.2"
KINGSTON CRESCENT
SHEET 1 OF 1
CITY DRAWING NUMBER
SLD-58

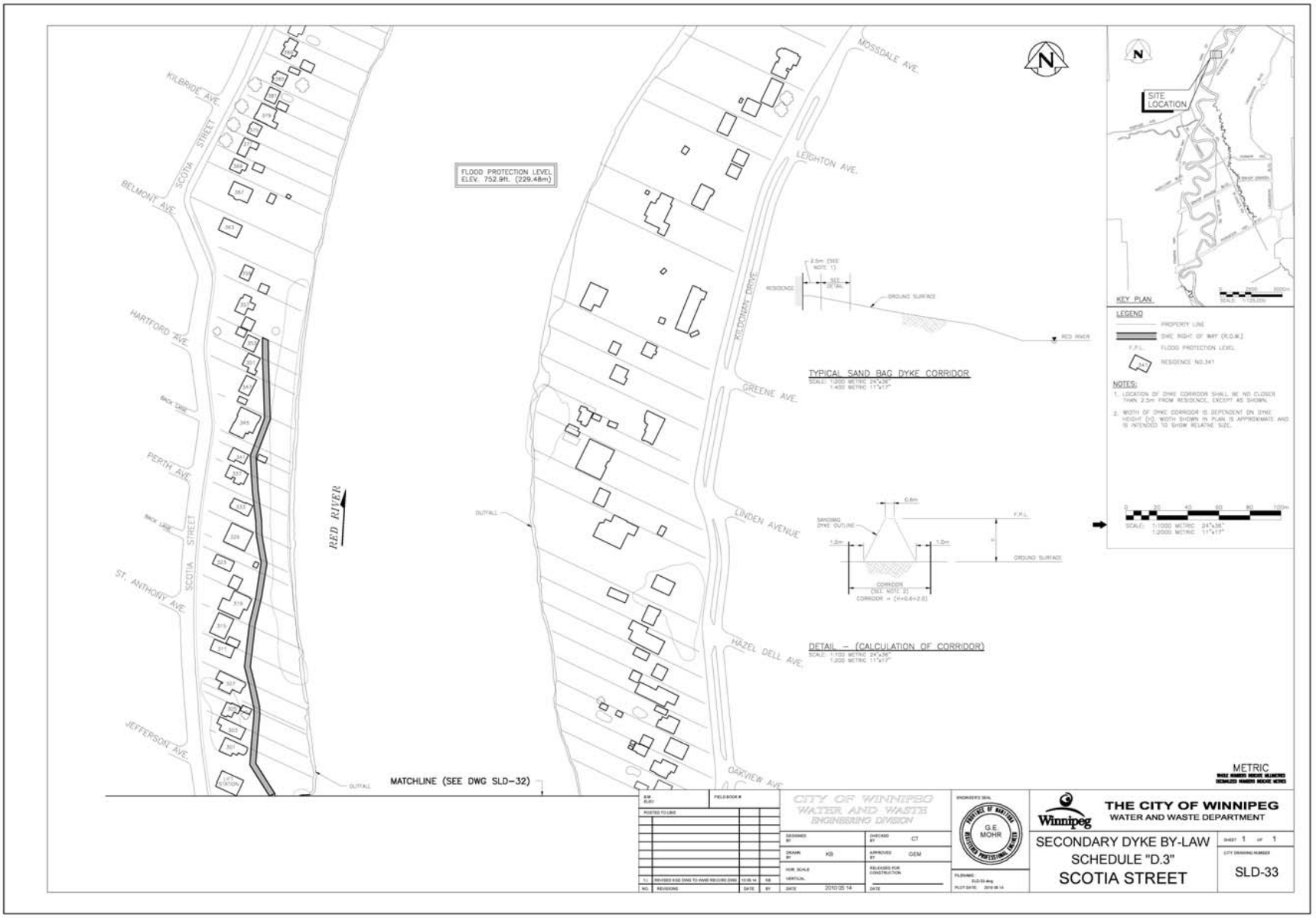

RED RIVER
LORD AVE.
1981 FLOOD PROTECTION LEVEL
EL. 763.4ft. (232.7m)
TYPICAL SAND BAG DYKE CORRIDOR
SCALE: 1:200 METRIC 24"x36"
1:400 METRIC 11"x17"
GROUND SURFACE
RED RIVER
DETAIL – (CALCULATION OF CORRIDOR)
SCALE: 1:100 METRIC 24"x36"
1:200 METRIC 11"x17"
FORECAST WATER LEVEL +0.6 m
GROUND SURFACE
SANDBAG DYKE OUTLINE
CORRIDOR (SEE NOTE 2)
KEY PLAN
SITE LOCATION
LEGEND
PROPERTY LINE
DESIGNATED SECONDARY DYKE CORRIDOR
RESIDENCE NO.XX
NOTES:
1. LOCATION OF DYKE CORRIDOR SHALL BE NO CLOSER THAN 2.5m FROM RESIDENCE, EXCEPT AS SHOWN.
2. WIDTH OF DYKE CORRIDOR IS DEPENDENT ON DYKE HEIGHT (H). WIDTH SHOWN IN PLAN IS APPROXIMATE AND IS INTENDED TO SHOW RELATIVE SIZE.
3. GROUND ELEVATION OF DIKE CORRIDOR IS 231.1 m AND IS EQUIVALENT TO 22 ft JAMES AVE LEVEL.
SCALE: 1:1000 METRIC 24"x36"
1:2000 METRIC 11"x17"
METRIC
CITY OF WINNIPEG
WATER AND WASTE
ENGINEERING DIVISION
G.E. MOHR
THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
SECONDARY DYKE BY-LAW
SCHEDULE "B"
LORD AVENUE
SLD-57


FOWLER STREET
RED RIVER
FLOOD PROTECTION LEVEL
EL. 753.7ft. (229.73m)
HARBISON AVE.
MARTIN AVE.
CARMAN AVE.
COBOURG AVE.
GLENWOOD CRES.
NOBLE AVE.
HART AVE.
HART AVE. PUMPING STATION
REDWOOD BRIDGE
MATCHLINE (SEE DWG SLD-39)
SITE LOCATION
LEGEND
PROPERTY LINE
DESIGNATED SECONDARY DYKE CORRIDOR
RESIDENCE NO.262
NOTES:
1. LOCATION OF DYKE CORRIDOR SHALL BE NO CLOSER THAN 2.5m FROM RESIDENCE, EXCEPT AS SHOWN.
2. WIDTH OF DYKE CORRIDOR IS DEPENDENT ON DYKE HEIGHT (H). WIDTH SHOWN IN PLAN IS APPROXIMATE AND IS INTENDED TO SHOW RELATIVE SIZE.
SCALE: 1:1000 METRIC 24"x36"
1:2000 METRIC 11"x17"
2.5m (SEE NOTE 1)
SEE DETAIL
RESIDENCE
GROUND SURFACE
RED RIVER
TYPICAL SAND BAG DYKE CORRIDOR
SCALE: 1:200 METRIC 24"x36"
1:400 METRIC 11"x17"
0.6m
SANDBAG DYKE OUTLINE
F.P.L.
1.0m
1.0m
H
GROUND SURFACE
CORRIDOR (SEE NOTE 2)
CORRIDOR = (H+0.6+2.0)
DETAIL – (CALCULATION OF CORRIDOR)
SCALE: 1:100 METRIC 24"x36"
1:200 METRIC 11"x17"
METRIC
CITY OF WINNIPEG
WATER AND WASTE
ENGINEERING DIVISION
G.E. MOHR
THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
SECONDARY DYKE BY-LAW
SCHEDULE "C.1"
GLENWOOD CRESCENT
SHEET 2 OF 2
SLD-40


MATCHLINE (SEE DWG SLD-40)
HESPELER AVENUE
GLENWOOD CRES.
LESLIE AVENUE
SILVA STREET
DIGBY AVENUE
FLOOD PROTECTION LEVEL
EL.754.0ft. (229.82m)
RED RIVER
TYPICAL SAND BAG DYKE CORRIDOR
SCALE: 1:200 METRIC 24"x36"
1:400 METRIC 11"x17"
RESIDENCE
GROUND SURFACE
SITE LOCATION
LEGEND
PROPERTY LINE
DESIGNATED SECONDARY DYKE CORRIDOR
RESIDENCE NO.152
NOTES:
1. LOCATION OF DYKE CORRIDOR SHALL BE NO CLOSER THAN 2.0m FROM RESIDENCE, EXCEPT AS SHOWN.
2. WIDTH OF DYKE CORRIDOR IS DEPENDENT ON DYKE HEIGHT (H). WIDTH SHOWN IN PLAN IS APPROXIMATE AND IS INTENDED TO SHOW RELATIVE SIZE.
SCALE: 1:7000 METRIC 24"x36"
1:2000 METRIC 11"x17"
SANDBAG DIKE OUTLINE
CORRIDOR (SEE NOTE 2)
DETAIL – (CALCULATION OF CORRIDOR)
SCALE: 1:100 METRIC 24"x36"
1:200 METRIC 11"x17"
METRIC
CITY OF WINNIPEG
WATER AND WASTE
ENGINEERING DIVISION
G.E. MOHR
THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
SECONDARY DYKE BY-LAW
SCHEDULE "C.2"
GLENWOOD CRESCENT
SHEET 1 OF 2
SLD-39


MATCHLINE (SEE DWG SLD-32)
Mc ADAM AVE.
MATHESON AVE.
LANSDOWNE AVE.
INKSTER AVE.
LUXTON AVE.
POLSON AVE.
SCOTIA STREET
RED RIVER
KILDONAN DRIVE
NEIL AVENUE
TRENT AVE.
DOTALDA AVE.
PUMPING STATION
FLOOD PROTECTION LEVEL
EL. 753.4ft. (229.64m)
TYPICAL SAND BAG DYKE CORRIDOR
DETAIL – (CALCULATION OF CORRIDOR)
SITE LOCATION
KEY PLAN
LEGEND
PROPERTY LINE
DESIGNATED SECONDARY DYKE CORRIDOR
RESIDENCE NO.137
NOTES:
1. LOCATION OF DYKE CORRIDOR SHALL BE NO CLOSER THAN 2.5m FROM RESIDENCE, EXCEPT AS SHOWN.
2. WIDTH OF DYKE CORRIDOR IS DEPENDENT ON DYKE HEIGHT (H). WIDTH SHOWN IN PLAN IS APPROXIMATE AND IS INTENDED TO SHOW RELATIVE SIZE.
METRIC
CITY OF WINNIPEG
WATER AND WASTE
ENGINEERING DIVISION
G.E. MOHR
THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
SECONDARY DYKE BY-LAW
SCHEDULE "D.1"
SCOTIA STREET
SLD-31


MATCHLINE (SEE DWG SLD-33)
MATCHLINE (SEE DWG SLD-31)
SEVEN OAKS AVE.
TAIT AVE.
SCOTIA STREET
RUPERTSLAND BLVD.
SMITHFIELD AVE.
DUNDURN AVENUE
HELMSDALE AVE.
KIMBERLY AVE.
KILDONAN DRIVE
BRONX PL.
CHELSEA PLACE
RED RIVER
FLOOD PROTECTION LEVEL
ELEV. 753.1ft (229.54m)
SITE LOCATION
KEY PLAN
LEGEND
PROPERTY LINE
DESIGNATED SECONDARY DYKE CORRIDOR
RESIDENCE NO.255
NOTES:
1. LOCATION OF DYKE CORRIDOR SHALL BE NO CLOSER THAN 2.0m FROM RESIDENCE, EXCEPT AS SHOWN.
2. WIDTH OF DYKE CORRIDOR IS DEPENDENT ON DYKE HEIGHT (H). WIDTH SHOWN IN PLAN IS APPROXIMATE AND IS INTENDED TO SHOW RELATIVE SIZE.
SCALE: 1:1000 METRIC 24"x36"
1:2000 METRIC 11"x17"
TYPICAL SAND BAG DYKE CORRIDOR
SCALE: 1:200 METRIC 24"x36"
1:400 METRIC 11"x17"
GROUND SURFACE
RED RIVER
DETAIL – (CALCULATION OF CORRIDOR)
SCALE: 1:100 METRIC 24"x36"
1:200 METRIC 11"x17"
SANDBAG DYKE OUTLINE
F.P.L.
GROUND SURFACE
METRIC
CITY OF WINNIPEG
WATER AND WASTE
ENGINEERING DIVISION
G.E. MOHR
THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
SECONDARY DYKE BY-LAW
SCHEDULE "D.2"
SCOTIA STREET
SLD-32


FLOOD PROTECTION LEVEL
ELEV. 752.9ft. (229.48m)
KILBRIDE AVE.
BELMONT AVE.
HARTFORD AVE.
PERTH AVE.
ST. ANTHONY AVE.
JEFFERSON AVE.
SCOTIA STREET
RED RIVER
MOSSDALE AVE.
LEIGHTON AVE.
REDONDA DRIVE
GREENE AVE.
LINDEN AVENUE
HAZEL DELL AVE.
OAKVIEW AVE.
OUTFALL
MATCHLINE (SEE DWG SLD-32)
TYPICAL SAND BAG DYKE CORRIDOR
DETAIL – (CALCULATION OF CORRIDOR)
SITE LOCATION
KEY PLAN
LEGEND
PROPERTY LINE
DIKE RIGHT OF WAY (R.O.W.)
F.P.L. FLOOD PROTECTION LEVEL
RESIDENCE NO.341
NOTES:
1. LOCATION OF DYKE CORRIDOR SHALL BE NO CLOSER THAN 2.5m FROM RESIDENCE, EXCEPT AS SHOWN.
2. WIDTH OF DYKE CORRIDOR IS DEPENDENT ON DYKE HEIGHT (H). WIDTH SHOWN IN PLAN IS APPROXIMATE AND IS INTENDED TO SHOW RELATIVE SIZE.
METRIC
CITY OF WINNIPEG
WATER AND WASTE
ENGINEERING DIVISION
G.E. MOHR
THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
SECONDARY DYKE BY-LAW
SCHEDULE "D.3"
SCOTIA STREET
SLD-33