R.M. of Edenwold No. 158

Email: rm158@sasktel.net
Phone: (306) 771-2522
Fax: (306) 771-2631

Building Permit Application

Civic Address:	Subdivision:	Permit Number:
Legal Land Description: Lot _____Block _____Plan_____ Quarter_____ Section_____Township _____Range_____W2M		

Owner:	Address:_____ City/Town _____Postal Code_____	Telephone: Cell:
Building Contractor:	Address:_____ City/Town _____Postal Code_____	Telephone: Cell:

Floor Area:

Ground Floor:	Second Floor:	Basement:	Accessory/Other:
_____ft² or m² (circle one)	_____ft² or m² (circle one)	_____ft² or m² (circle one)	_____ft² or m² (circle one)

Building:

Estimated Value of Construction:	Length:	Width:	Height:
	_____ ft or m (circle one)	_____ ft or m (circle one)	_____ ft or m (circle one)

Read Through and **Initial After Each Statement:**

I have submitted a site plan indicating the location of all property lines, all existing and proposed buildings, the distances between all property lines and the closest wall of the nearest building, the location of all existing and proposed roads and a north arrow to establish the orientation of the site plan. _____

I hereby agree to comply with the Building Bylaw of the municipality and acknowledge that is my responsibility to ensure compliance with the municipal building bylaw, provincial legislation, and the National Building Code of Canada, regardless of any review of drawings or inspections that may or may not be carried out by the inspector._____

It is expressly understood that the municipality requires building inspections to be called for at various stages of construction, as outlined in the building bylaw, and that it is my responsibility to contact the municipal building inspector at the required intervals of construction will result in deductions from the occupancy deposit, in part or in whole, additional inspection fees, the issuance of stop work order, and/ or other action outlined in the municipal building bylaw. _____

I understand that this permit expires six months from the date of issue if work is not commenced within that period, or two years from the date on which the permit was issued; and any deviation, omission or revision to the approved application requires approval of Council, or its authorized representatives._____

I understand that additional inspection fees may be charged for extra inspections, non-scheduled inspections and re-inspections._____

_____	_____	_____
Date of Application	Owner of Authorized Agent (print)	Owner/Agent (sign)

Please plan on applying for a building permit 4 to 6 weeks before construction is set to begin to allow time for our Building Official to review the application.

R.M. of Edenwold No. 158

Building Permit #_____

Permission is hereby granted to _____ to_____ a building to be used as a _____ on civic address or location_____
Lot_____, Block_____, Plan_____ in accordance with the application dated_____. This permit expires six months from the date of issue if work is not commenced within that period, unless otherwise authorized by the local authority or its representative.

This Building Permit is approved subject to the following conditions:

- Must meet all building standards, inspections and regulation.
- All new required approached must be approved by the RM prior to any construction.
-Must meet safe building elevation 0.5 metres above 1:500 flood freeboard elevations.

_____
_____
_____
_____

Culvert/Drainage Deposit	$_____
Landscape Deposit	$_____
Occupancy Deposit	$_____
Development Fee	$_____
Building Permit Fee	$_____
Water Meter/Backflow Valve	$_____
Other	$_____
Other	$_____
Total	$_____

General Receipt#_____

_____
Approval Date

_____
Signature of Authorized Municipal Official

Please plan on applying for a building permit 4 to 6 weeks before construction is set to begin to allow time for our Building Official to review the application.

Professional Building Inspections, Inc.

5 Gregory Avenue East – Unit 5
Box 517 Stn. Main
White City, SK S4L 5B1
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Website: www.pro-inspections.ca

Commercial - Plan Review Checklist

Building Permit Applications for:
Commercial • Industrial • Institutional • Multi-Unit or Large Residential

NBC 2015 - National Building Code of Canada / **NECB 2017** - National Energy Code of Canada for Buildings

NBC Part 9: (Group C, D, E, F2, F3 buildings up to 600 m² in horizontal area and 3 storeys or less in building height)

NBC Part 3: (Group C, D, E, F2, F3 buildings over 600 m² or more than 3 storeys, as well as all Group A, B, F1 occupancies)

Sealed designs by an Architect or Engineer licensed to practice in Saskatchewan are required for:

- ☐ **NBC 3.2.2. classified** buildings and their systems (including Architectural, Structural, Mechanical, and Electrical).
- ☐ **NBC Part 4** structural designs for:
  - ☐ post frame (i.e. pole buildings), beam and plank, plank frame wall, and log construction (NBC A-9.23.1.1.)
  - ☐ tall wall construction (if exceeds the prescriptive requirements of NBC Table 9.23.10.1.)
  - ☐ foundations (i.e. concrete with rebar, PWF, piles & grade beams, screw piles, bldgs more than 1 storey, etc.)
  - ☐ roof truss designs (NBC 4.1. for snow, wind and earthquake loads)
  - ☐ floor truss designs and LVL designs for supporting loads.
- ☐ **NECB** for all:
  ☐ Part 3 buildings ☐ Group F2 occupancies ☐ Group D, E, F3 occupancies over 300 m² in area ☐ By choice

Information Required for the Plan Review (NBC Part 9 and Part 3 Buildings):

- ☐ **Building Code Analysis Form** or Building Code Analysis Summary within the body of the designs.
  - ☐ Sufficient information for the project is required for:
    - ☐ intended use (occupancy classification(s),
    - ☐ spatial separation and limiting distance details for proposed building or addition to the property lines (and from the proposed building or addition to any nearby buildings on the same property),
    - ☐ occupant loads,
    - ☐ egress and exiting details,
    - ☐ fire resistance ratings between assemblies,
    - ☐ fire and life safety requirements,
    - ☐ sound transmission ratings, etc.

- ☐ **Site Plan** (for **proposed building, addition or alteration**). Please note:
  - ☐ property (lot) shape and dimensions,
  - ☐ North direction,
  - ☐ project dimensions and correct placement on the lot (also show existing building details for additions),
  - ☐ street locations and names,
  - ☐ distance to the property lines on all sides of the proposed project,
  - ☐ adjacent property details (what borders each property line (i.e. road, easement, neighbour, park, etc.),
  - ☐ distance to other buildings on the same property, indicating:
  - ☐ location and dimensions (length, width, height, and number of storeys) of each existing building,
  - ☐ construction type of each existing building (i.e. combustible or noncombustible.), and
  - ☐ current use of each existing building on site (i.e. occupancy classification),
  - ☐ access routes for firefighting vehicles, and
  - ☐ fire hydrant location, noting its distance to the proposed building.

- ☐ **Energy Code Forms** (for heated **buildings, additions and major alterations** for correct climate zone).
  - ☐ Required form(s) based on compliance option and Code edition used: **NBC 9.36.** (1 form) / **NECB** (3 forms).
  - ☐ Calculations or modelling report prepared by a competent person (NBC 9.36 only) or professional designer (NECB) must be submitted with the required forms.
  - ☐ Visit **www.pro-inspections.ca/energy-codes** for required forms and details.

Development Permit Application Guide

Pursuant to the current RM of Edenwold Zoning Bylaw

100 HUTCHENCE ROAD, EMERALD PARK, SASKATCHEWAN, S4L 1C6 • PH: 306-347-2965 • FAX: 306-347-2970

This guide is designed to assist applicants in the development permit process. Please review this document, development permit checklist and application form and contact the Planning and Development department at 306-347-2965 or ss.planning.rm158@sasktel.net if you have any questions or require assistance.

1. PRIOR TO DEVELOPMENT PERMIT APPLICATION

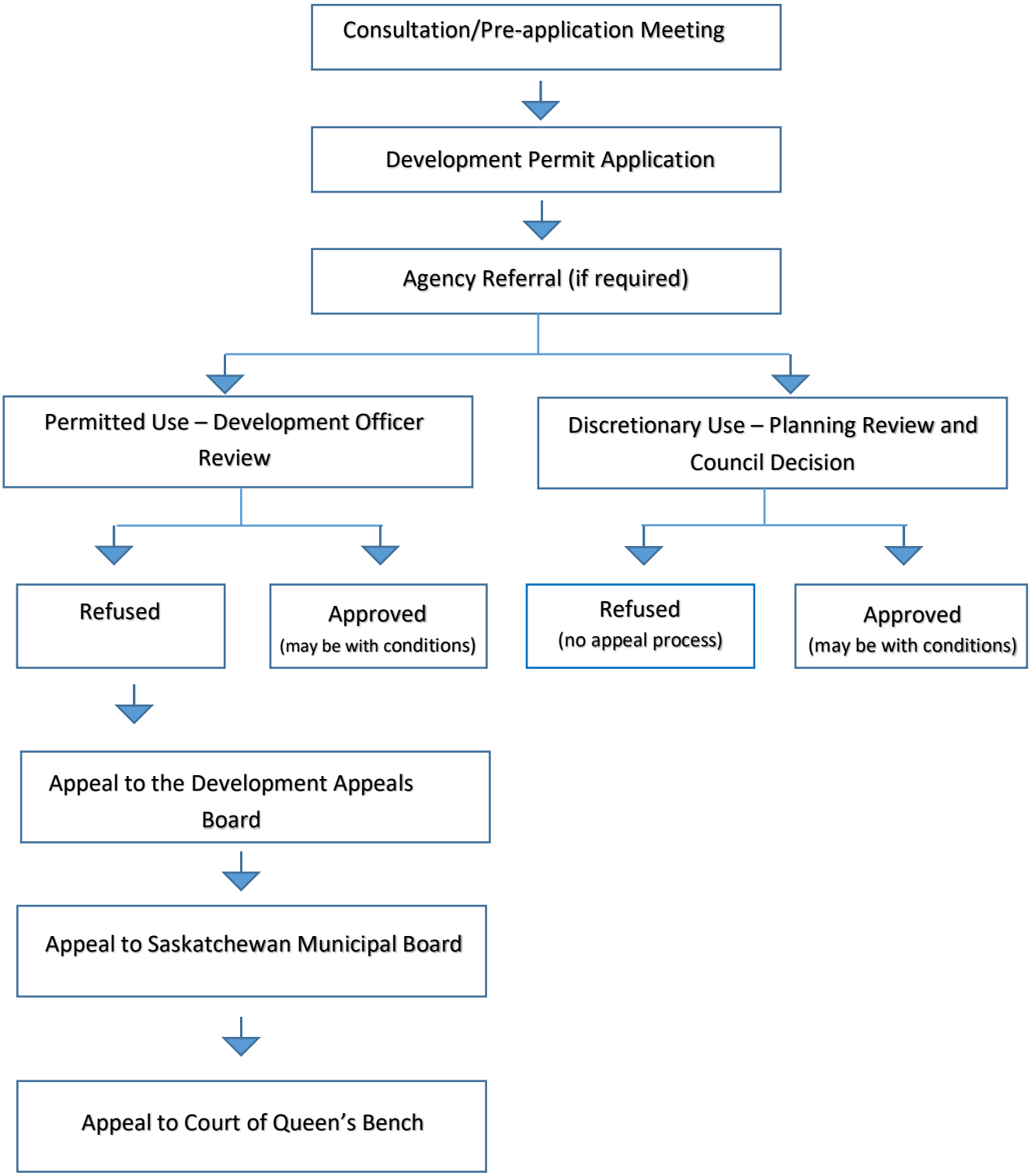
- A pre-application meeting is not mandatory; however, it is recommended that you call the Planning and Development department to discuss your development.
- The applicant/owner is advised to contact Sask1stCall at to locate any natural gas, power, water and telephone lines on the property prior to undertaking any excavation work. Sask1stCall is accessible by phone 1-866-828-4888.

2. APPLICATION REQUIREMENTS

- Use the development permit checklist to ensure that all required information is provided
- The application must be completed in full, signed by the registered landowner(s), and the application fee must be paid before it will be accepted for processing.
- A detailed site plan, as outlined in the Development Permit Checklist (please see attached example). This site plan should be drawn to scale if possible.
- If applicable, a copy of the building plans showing elevations. For modular and mobile homes, floor plans are sufficient.
- The RM of Edenwold may require any information that it deems necessary to review the application.
- The RM of Edenwold may refuse to accept or process an application if the required information has not been supplied, or if the quality of the information is inadequate to properly evaluate the application.

Development Permit Process

100 HUTCHENCE ROAD, EMERALD PARK, SASKATCHEWAN, S4L 1C6 • PH: 306-347-2965 • FAX: 306-347-2970



Development Permit Application

100 HUTCHENCE ROAD, EMERALD PARK, SASKATCHEWAN, S4L 1C6 • PH: 306-347-2965 • FAX: 306-347-2970

DP #	**BP #**
1. To be filled out by the Applicant (Owner):	
Name:	Month Day Year
Street Address:	City/Town Postal Code:
Email:	Phone: - Cell: -
2. Contractor (if applicable):	
Name:	Company Name:
Street Address:	City/Town Postal Code:
Email:	Phone: - Cell: -
3. Legal Land Location for proposed development:	
Civic Address:	Lot: Block: Plan: Ext:
Subdivision:	Quarter: Section: Township: Range: W2M
Registered Plan #:	Certificate of Title #:
4. Existing Use of Land:	Current Zoning:

Agriculture ☐ Residential ☐ Other (Please describe)

Country Residential ☐ Industrial ☐

Commercial ☐

Provide a detailed description of proposed use of land and/or buildings:

Development Permit Application

100 HUTCHENCE ROAD, EMERALD PARK, SASKATCHEWAN, S4L 1C6 • PH: 306-347-2965 • FAX: 306-347-2970

5. Site Servicing:
Parcel access provided by:

Grid Road	Highway	Main Farm Access	Other
Water Supply provided by:	Municipal Waterline	Private Well	Other
Sewage Disposal provided by:	Existing (please specify type of system)	Proposed (please specify type of system)	
Drainage provided by:	Existing (please specify)	Proposed (please specify)	

6. Surrounding land uses:

Are any of the following within 0.5 km of the proposed development?		**If yes, please provide best estimate of distance**
Intensive livestock operation	**Yes/No**	
Sewage lagoon or wastewater treatment facility	**Yes/No**	
Solid waste disposal facility or landfill	**Yes/No**	
Stream or large body of water	**Yes/No**	
Anhydrous ammonia facility	**Yes/No**	
Industrial	**Yes/No**	

7. Declaration by Applicant

I/We_____ hereby certify that I/we am/are the registered owner(s) of the lands and that the information given on this form and the site plan is full and complete and is, the best of my/our knowledge, a true statement of the facts relating to this application for development.

_____ _____
Date Signature

_____ _____
Date Signature

I/We, _____ hereby certify that I/we am/are the agent authorized to act on behalf of the registered owner(s) and hereby swear that all statements contained within this application are true, and I/we make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath, and by virtue of the Canada Evidence Act.

_____ _____
Date Signature

_____ _____
Date Signature

Receipt #

Development Permit Checklist

100 HUTCHENCE ROAD, EMERALD PARK, SASKATCHEWAN, S4L 1C6 • PH: 306-347-2965 • FAX: 306-347-2970

Please use the following checklist to ensure that your development permit application and site plan are complete. This checklist must be submitted with your permit application.

Completed by Applicant	Office Use Only	**Application Requirements**
☐	☐	Copy of Certificate of Title (from ISC)
☐	☐	Completed application form
☐	☐	Signatures of all registered owners or completed Letter of Authorization from Registered Owner on Title
☐	☐	Application fee
☐	☐	Letter of Intent describing the nature of the application and the **intended use** must accompany all applications
Basic site plan – Required for all permits (see sample site plan)		
☐	☐	North arrow
☐	☐	Drawing scale
☐	☐	Property lines of entire parcel and all adjacent public rights-of way
☐	☐	Legal land description and civic address, if assigned
☐	☐	Lot dimension and total area
☐	☐	Name of road(s) providing access to parcel, accesses, driveway and flare locations including setbacks to property lines and widths
☐	☐	Location and dimension of existing buildings (labelled as existing)
☐	☐	Location and dimensions of proposed building (labelled as proposed)
☐	☐	Setbacks to property lines and between buildings
☐	☐	Total building footprint and site coverage
☐	☐	Parking areas (with dimensions of parking stalls)
☐	☐	Location and size of loading space, if required
☐	☐	Indicate perimeter fencing with height and material
☐	☐	Location of outdoor storage & display areas
☐	☐	Access routes for firefighting
☐	☐	On-site existing and proposed sidewalks with dimensions
☐	☐	On-site lighting
☐	☐	Garbage enclosures
☐	☐	Indicate site-surfacing material and show all curbs, wheel stops, parking, fences and lighting
Hazard Lands		
☐	☐	Show location of and label type of hazard (slope, wetland, waterbody)
☐	☐	Show setbacks from any water body or water course measured from top of bank
☐	☐	Location of and setbacks from steep embankments measured from the top of bank
Easements, Rights-of-Way, Utilities and Facilities		
☐	☐	Show location of any known easements, rights-of-way, or public utility lines
☐	☐	Location of and setbacks from pipelines
Building Elevations and Floor plans		
☐	☐	Label plans with dimensions of building, including height
☐	☐	Exterior finishing materials, including color
☐	☐	Location and size of any proposed fascia signs

Development Permit Checklist

100 HUTCHENCE ROAD, EMERALD PARK, SASKATCHEWAN, S4L 1C6 • PH: 306-347-2965 • FAX: 306-347-2970

☐	☐	Layout of each floor, including bays/units, mezzanines, amenity spaces, balconies, mechanical rooms, etc.
☐	☐	Total number of units.
Documents that may be required with a Development Permit Application:		
☐	☐	Site grading plan
☐	☐	Landscaping plan
☐	☐	Soil testing/Geotechnical Report
☐	☐	Environmental Site Assessment
☐	☐	Transportation/Traffic Study
☐	☐	Confirmation of Roadside Development Permit from the Ministry of Highways
☐	☐	Title Search
☐	☐	Any other information deemed necessary to make a decision
Landscaping Plan, if required will show the following:		
☐	☐	Location of all existing and proposed plant materials, with a descriptive list identifying the common and botanical name, quantity and size at planting
☐	☐	Location and description or illustration of all existing or proposed physical features, including fences, flower beds, berm contours, outdoor furniture, decorative paving, and water features.
☐	☐	Location of any utility lines or right-of-ways
☐	☐	Location of site boundaries and adjacent land uses
☐	☐	Location of adjacent sidewalks, trails, driveway entrances and alleys
☐	☐	Location and name of adjacent streets
☐	☐	Footprint and dimensions for all buildings or structures
Signs		
☐	☐	Separate development permit application for proposed signs
☐	☐	Proposed sign types (freestanding, pylon, electronic, fascia, etc.)
☐	☐	Site plan showing location of proposed freestanding signs with setback to property lines
☐	☐	Dimension and height of all proposed signs
Fire Department		
☐	☐	Turning radius for fire apparatus
☐	☐	Location of fire hydrants and proximity to site

Letter of Authorization

100 HUTCHENCE ROAD, EMERALD PARK, SASKATCHEWAN, S4L 1C6 • PH: 306-347-2965 • FAX: 306-347-2970

I, (We) _____ being the owner(s) of

Lot _____ Block _____ Plan _____ Ext _____

Legal:

NW/NE/SE/SW Section _____ Township _____ Range _____ W2 Meridian give

_____ permission to

act on by (our) behalf in applying for a Development Permit for the above subject property.

_____
Signature

_____
Date

_____
Development Permit #

Professional Building Inspections, Inc.

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White City, SK S4L 5B1
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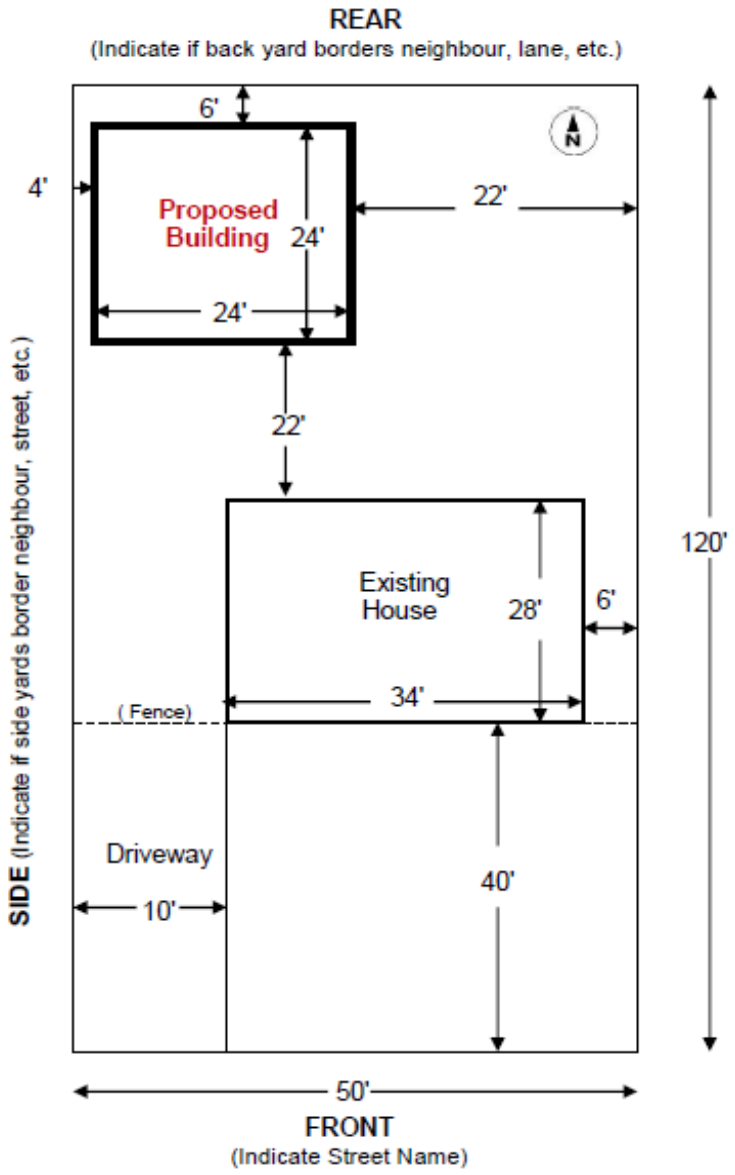
Email: office@pro-inspections.ca
Website: www.pro-inspections.ca

Residential – Sample Site Plan



- ☐ **Foundation Designs (Sealed):**
  - ☐ Site-specific structural foundation designs that are stamped and dated by a professional engineer licensed to practice in Saskatchewan. The designs should reference the Code edition use, as well as the:
    - ☐ project address or land location,
    - ☐ type and condition of the soil or rock, as well as groundwater conditions, and
    - ☐ Geotechnical Investigation report prepared by a qualified professional designer if required by municipal zoning or recommended by the structural engineer.

- ☐ **Architectural Drawings:**
  - ☐ **Drawings must include sufficient project details**, such as:
    - ☐ floor plans for each storey,
    - ☐ exterior elevations,
    - ☐ cross sections,
    - ☐ exit locations,
    - ☐ window and door details (types, sizes and locations),
    - ☐ stair configurations,
    - ☐ barrier-free accessibility provisions,
    - ☐ mezzanine details (if applicable),
    - ☐ dimensions, location and size of all structural members in sufficient detail to enable the design to be examined,
    - ☐ firewall and/or fire separation details between assemblies, storeys, shafts and special rooms, including the location and rating of closures in fire separations,
    - ☐ provisions for fire fighting (firefighting vehicles, fire dept connections, fire suppression, water supply, etc.)
    - ☐ supplier specifications for pre-eng buildings (i.e. anchoring details, flame-spread ratings, live load details, etc.)
  - ☐ **Drawings must also indicate** the:
    - ☐ project address and owner's name.
    - ☐ name and address of the person responsible for the design,
    - ☐ edition of the NBC and standards to which the design conforms,
    - ☐ sufficient detail to enable the dead loads to be determined,
    - ☐ all effects and loads, other than dead loads, used for the design of structural members and exterior cladding.

- ☐ **Other:**
  - ☐ Heating, Ventilation and Air Conditioning (HVAC) designs in compliance with NBC Part 6.
  - ☐ Portable fire extinguisher types, sizes and locations (required).
  - ☐ CO/NO2 ventilation system details (for storage and repair garages).
  - ☐ Residential Mechanical Ventilation Design Summary (CSA F326) for dwellings
  - ☐ Emergency lighting locations.
  - ☐ Exit sign locations (if required).
  - ☐ Fire detection, suppression and alarm system details (if applicable).
  - ☐ Hydraulic calculations for sprinkler system design (if applicable).
  - ☐ Location of fire dampers, fire blocks, and/or fire stops (if applicable).

NBC Part 3 Buildings Must Also Submit:

- ☐ **Architectural Designs (Sealed):**
  - ☐ Architectural drawings that are stamped and dated by a professional designer licensed to practice in Saskatchewan and contains a proper building code analysis summary and energy code provisions.

- ☐ **Structural Designs (Sealed):**
  - ☐ Structural drawings in conformance with NBC Part 4 that are stamped and dated by a professional engineer licensed to practice in Saskatchewan.

- ☐ **Mechanical Designs (Sealed):**
  - ☐ Mechanical drawings in conformance with NBC Part 6 that are stamped and dated by a professional designer licensed to practice in Saskatchewan, including fire suppression and compliant energy code provisions.

- ☐ **Electrical Designs (Sealed):**
  - ☐ Electrical drawings in conformance with provincial regulations that are stamped and dated by a professional designer licensed to practice in Saskatchewan, including details for emergency lighting, exit signs and fire alarm system (if required), as well as compliant energy code provisions for lighting.

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Website: www.pro-inspections.ca

Property Owner

Please complete, print, sign, scan to PDF, and submit this form with your plan review documents.

Municipality: _____ **Permit #:** _____

Jobsite Address: _____

Owner's Name: _____ **Cell Ph:** _____

Contractor Name: _____ **Cell Ph:** _____

E-MAIL CONSENT FORM

Consent to the e-mail delivery of PBI reports and related documents pertaining to this building permit is given to the following individuals involved in the construction project:

Title (e.g. Owner, Contractor, Engineer)	**Individual's Name**	**E-mail Address**
Owner		

- *Please note that failure to receive an e-mailed report or related document does not release the property owner(s) from responsibility to comply in all regards with the building standards (Saskatchewan Uniform Building and Accessibility Standards Act and regulations, municipal building bylaws, and the National Building Code of Canada).*
- *I declare that **I am the owner of this property** and I will notify PBI if there are any changes to the e-mail contacts listed above who are permitted to receive reports.*

Owner Name: _____ **Signature:** _____ **Date:** _____

R.M. of Edenwold No 158
Email: rm158@sasktel.net
Phone: (306) 771-2522
Fax: (306) 347-2970

APPLICATION FOR COMMERCIAL/INDUSTRIAL WATER SERVICES

Date: _____ Building Permit: _____

Applicant: _____

Telephone No.: _____

Billing Address: _____

_____

Subdivision: _____

Lot: _____ Block: _____

I, _____ hereby make an application for water service. I hereby agree to adhere to the provisions of Water Utility Bylaw N0. 2014-17 with respect to said services.

_____
Signature of Applicant

If you require a water connection/meter/backflow larger than 25mm (1 inch) additional costs and approvals will be required. Please contact the Administration Office in writing with your request.

Requested Size of Connection to Municipal Water Main: _____

Requested Size of Water Meter/Back Flow Valve: _____

Water Connection Rate	$	(To be determined upon confirmation of size of connection)
Backflow Protection Valve	$	(To be determined upon confirmation of size of connection)
Water Meter/Hook Up Fee	$ _____	(To be determined upon confirmation of size of connection)
Total	$	(To be invoiced)

Meter #: _____ Fees Paid: _____

ID#: _____ Receipt No.: _____

Water service will be turned on by our Maintenance Personnel only. Theft of water where someone other than our Maintenance Personnel has turned on the water and breaches the provisions of the Water Utility Bylaw will be held liable and fined.

R.M. of Edenwold No 158
Email: rm158@sasktel.net
Phone: (306) 771-2522
Fax: (306) 347-2970

TRENCH INSPECTION REPORT

A trench inspection undertaken by our maintenance personnel is required prior to back fill and service connection to the central water distribution system. Please contact the Administration Office at 771-2522 to arrange a suitable time. Failure to arrange for a trench inspection may result in the service line having to be excavated for an inspection and/or fines.

Water service will be turned on by our Maintenance Personnel only. Theft of water where someone other than our Maintenance Personnel has turned on the water and breaches the provisions of the Public Utility Bylaw will be held liable and fined.

Date: _____ Time: _____

Service Address: _____

Lot: _____ Block: _____

Builder/Contractor Name: _____

Dirt Work Contractor: _____

Address: _____

_____

Contractor Telephone/Cell Number: _____

Trench Inspected By: _____

Comments: _____

_____

_____

_____ _____

R.M. Representative Contractor

Professional Building Inspections, Inc.

ENERGY EFFICIENCY COMPLIANCE FORM

Section 9.36. of the National Building Code of Canada (NBC)

This form clarifies the design option chosen for a new building, addition or major alteration to comply with NBC Section 9.36.

All calculations must be completed by a competent person* (or design professional if NECB 2017 is used) and be attached to this form to be considered complete and accepted for review.

* **Competent Person** means a person, firm or corporation who is knowledgeable and experienced in the application of NBC Section 9.36. for the design of buildings and/or building systems.

Project Address		**Application Number (Office Use):**	
Occupancy Class			
Floor Area (m^2)		**Climate Zone**	**7A**

Design Option:		
☐ **Prescriptive** Complete Section 'A'	☐ **Trade-Off** Complete Sections 'A & B'	☐ **Performance** Complete Section 'C'

Section A: Prescriptive

HRV / ERV: Yes ☐ No ☐

Conversions:	
R = 5.678 x RSI	**U = 1 / RSI**

Effective Thermal Resistance of Above Ground Opaque Building Assemblies (RSI)			
Assembly	**w/ HRV**	**w/o HRV**	**Proposed**
Ceilings below attics	8.67	10.43	
Cathedral / Flat roofs	5.02	5.02	
Walls & Rim joists	2.97	3.08	
Floors over unheated spaces	5.02		
Floors within garage	4.86		
Thermal Characteristics of Fenestration, Doors and Skylights (U)			
Assembly	**Efficiency**		**Proposed**
Windows & Doors	Maximum U-Value Minimum Energy Rating	1.60 *or* ≥ 25	
One door exception	Maximum U-Value	2.60	
Attic hatch	Minimum RSI_{eff}	2.60	
Skylights	Maximum U-Value	2.70	
Effective Thermal Resistance of Below-Grade or In-Contact-With-Ground Opaque Building Assemblies (RSI)			
Assembly	**w/ HRV**	**w/o HRV**	**Proposed**
Foundation Walls	2.98	3.46	
Slab On Grade With Integral Footing	2.84	3.72	
Unheated Floor Below Frost Line	uninsulated	uninsulated	
Unheated Floor Above Frost Line	1.96	1.96	
Heated Floors	2.84	2.84	

Section A: Prescriptive (Continued)

HVAC Equipment Performance Requirements				
Equipment	**Capacity KW**	**Standard**	**Min. Efficiency**	**Proposed**
Gas Fired Furnace (w or w/o A/C)	≤ 65.9	CSA P.2	AFUE≥ 92%	
	> 65.9 & ≤ 117.23	CAN/CSA-P.8	E_t ≥78.5%	
Electric Boiler	≤ 88	**(1)**		
Gas Fired Boiler	≤ 88	CSA P.2	AFUE ≥ 90%	
	> 88 & ≤ 117.23	AHRI BTS	E_t ≥ 83%	
Other				
Heat Loss / Gain Calculations	☐ Calculations were prepared in conformance with CSA F280			_____ BTU
Nomenclature	**AFUE**= annual fuel utilization efficiency, **E_t**= thermal efficiency			

Water Heater Performance Requirements				
Equipment	**Capacity KW**	**Standard**	**Min. Efficiency**	**Proposed**
Tank Storage (Electric)	≤ 12 kW (50 L to 270 L capacity)	CAN/CSA-C191	SL ≤ 35 + 0.20V (top inlet)	
			SL ≤ 40 + 0.20V (bottom inlet)	
	≤ 12 kW (>270 L and ≤ 454 L capacity)		SL ≤ (O.472V) - 38.5 (top inlet)	
			SL≤ (0.472V) - 33.5 (bottom inlet)	
	>12 kW (>75 L capacity)	ANSI Z21.10.3/CSA 4.3 & DOE 10 CFR, Part 431, Subpart G	S = 0.30 + 27 / V_m	
Tank Storage (Gas Fired)	< 22 kW	CAN/CSA-P.3	EF ≥ 0.67 — 0.0005V	
	≥ 22 kW	ANSI Z21.10.3/CSA 4.3	E_t ≥ 80% and standby loss≤rated Input/(800 + 16.57)(√V)	
Tankless (Gas Fired)	≤ 73.2 kW	CAN/CSA-P.7	EF ≥ 0.8	
	> 73.2 kW	ANSI Z21.10.3/CSA 4.3 and DOE 10CFR, Part 43l, Subpart G	E ≥ 80%	
Tankless (Electric)	No standard addresses the performance efficiency; however, their efficiency typically approaches 100%			
Other				
Nomenclature	**EF** = energy factor in %/h, **E_t** = thermal efficiency **S** = standby loss in %h, **SL** = standby loss in W, **V** = volume **V_m** = measured storage volume in US gallons			

(1) Must be equipped with automatic water temperature control. No standard addresses the performance efficiency; however, their efficiency typically approaches 100%.

Section B: Trade Off

All calculations must be completed by a competent person and attached to this form in order to be considered complete and accepted for review. The location and extent of assemblies used in the calculation shall be clearly identified on the drawings by hatch or note.

☐ **Opaque to Opaque** – One or more above-ground opaque building envelope assemblies are permitted to be less than required, provided one or more above-ground opaque building envelope assemblies are increased to more than required.

- Walls and joist type roofs must maintain minimum 55% of the required RSI_{eff}
- All other assemblies must maintain minimum 60% of the required RSI_{eff}
- The sum of the areas of all traded assemblies divided by their RSI_{eff} must be less than or equal to what it would have been if all assemblies had met NBC 9.36.2.6.

☐ **Transparent to Transparent** – One or more windows are permitted to be less than required, provided one or more windows are increased to be more than required.

- The traded windows must have the same orientation.
- The sum of the areas of all traded windows divided by their RSI_{eff} must be less than or equal to what it would have been if all windows had met NBC 9.36.2.7.

☐ **Opaque to Transparent** – This option is meant to allow reduced insulation for factory-constructed buildings with a low floor to ceiling height and a fenestration and door area to gross wall area ratio of 15% or less.

Section C: Performance

This option is available only to houses with or without secondary suites, and buildings that contain only dwelling units with common spaces that are less than 20% of the building's total floor area.

Full modelling summary reports for the reference and proposed house, completed by a competent person and generated from Hot 2000 v15 or an ANSI/ASHRAE 140 compliant software, is required to be submitted with this form in order to be considered complete and accepted for review.

Input Parameters		Reference Model	Proposed Model
Airtightness (air exchanges per hour @ 50 Pa)			
Heat Loss / Heat Gain			
HRV efficiency			
Thermal mass (MJ/m^{20}C)			
Ventilation rate (l/s)			
Fenestration and door to wall ratio (FDWR) – reference (%)			
Direction of front elevation (clearly circle one)		N NE E SE S SW W NW	N NE E SE S SW W NW
Area of windows and doors	Front elevation (m^2)		
	Rear elevation (m^2)		
	Left elevation (m^2)		
	Right elevation (m^2)		
	Total area of windows (m^2)		
	Total area of opaque doors (m^2)		
Energy use (GJ)			
Software Information			
Software Title		**Version**	
Is software Hot 2000 v15 or ANSI/ASHRAE 140 compliant?		☐ Yes ☐ No	

Declaration			
Firm Name		**Name**	
Address		**Phone**	
Address		**Email**	

I hereby certify that the calculations submitted were prepared in full accordance with the operation procedures of the software and:

- ☐ *Subsection 9.36.5. of NBC 2015,*
- ☐ *EnerGuide Rating System v15 w/ variance greater than or equal to 5% above the Reference Model (attach supporting documents)*
- ☐ *Alternative Solution – Specify: _____ (attach supporting documents)*

Date		**Signature**	