SLR Consulting (Canada) Ltd.
100 Stone Road West, Suite 201, Guelph, ON N1G 5L3

October 15, 2024

Flato Development Inc.
3621 Highway 7 East, Suite 503
Markham, ON L3R 5Z6

SLR Project No.: 209.30125.00002

Revision: 0

RE: Land Use Compatibility Opinion
Dundalk South Development

SLR Consulting (Canada) Ltd. (SLR) was retained by Flato Eco Park Dundalk Inc. (Flato) to provide an opinion related to the land use compatibility between residential uses and employment uses that form a part of the property that is referred to as Dundalk South (the Project site) located in Southgate and Melancthon, Ontario.

The Project site is bound by Highway 10 in the northeast and is located approximately 1.4 kilometres (km) northeast of Main Street East and approximately 1.4 km north of Ida Street. The Project site is currently used for agricultural purposes and situated off Highway 10, in Dundalk, Ontario. The total area of the Site is 60.2 hectares (ha).

Introduction

Flato is advancing a Draft Plan of Subdivision application to the Township of Southgate related to the development of the Project site. The Draft Plan of Subdivision is provided in **Attachment A.** Blocks 214, 215, 216 and 217 contemplate employment uses.

Flato is considering that Block 215 be used by a facility that converts tissues from large format into small format rolls. Block 216 is proposed to be used for the construction of a warehouse to support management of “Flato Home” retail products[1]. Blocks 214 and 217 may be used for a variety of employment uses. Compatibility with these uses are considered below in Section 3.0.

SLR has been requested to assess available information related to the proposed employment uses and provide an opinion related to the potential industrial classification of the uses based on the Ontario Ministry of Environment, Conservation and Parks (MECP) D-Series Guidelines.

D-Series of Guidelines

The D-series of guidelines were developed by the MECP in 1995 as a means to assess Recommended Minimum Separation Distances and other control measures for land use planning proposals in an effort to prevent or minimize ‘adverse effects’ from the encroachment of incompatible land uses where a facility either exists or is proposed.

[1] Flato Home - Bedroom, Bathroom, Kitchen, Living and Decor Products

D-series guidelines address sources including sewage treatment (Guideline D-2), gas and oil pipelines (Guideline D-3), landfills (Guideline D-4), water services (Guideline D-5) and industries (Guideline D-6).[2]

For this opinion, the applicable guideline is Guideline D-6 - Compatibility between Industrial Facilities and Sensitive Land Uses.

Sensitive Land Use is defined in the D-Series Guidelines as:

“A building, 'amenity area' or outdoor space where routine or normal activities occurring at reasonably expected times would experience 1 or more 'adverse effect(s)' from contaminant discharges generated by a nearby 'facility'. The 'sensitive land use' may be a part of the natural or built environment. Depending upon the particular 'facility' involved, a sensitive land use and associated activities may include one or a combination of:

I. residences or facilities where people sleep (e.g. single and multi-unit dwellings, nursing homes, hospitals, trailer parks, camping grounds, etc.). These uses are considered to be sensitive 24 hours/day.

II. a permanent structure for non-facility related use, particularly of an institutional nature (e.g. schools, churches, community centres, day care centres).

III. certain outdoor recreational uses deemed by a municipality or other level of government to be sensitive (e.g. trailer park, picnic area, etc.).

IV. certain agricultural operations (e.g. cattle raising, mink farming, cash crops and orchards).

V. bird/wildlife habitats or sanctuaries.”

Adverse effect is a term defined in the Environmental Protection Act and “means one or more of

- impairment of the quality of the natural environment for any use that can be made of it,
- injury or damage to property or to plant or animal life,
- harm or material discomfort to any person,
- an adverse effect on the health of any person,
- impairment of the safety of any person,
- rendering any property or plant or animal life unfit for human use,
- loss of enjoyment of normal use of property, and
- interference with the normal conduct of business”.
- Guideline D-6 Requirements

The guideline specifically addresses issues of air quality, odour, dust, noise, and litter. To minimize the potential to cause an adverse effect, Areas of Influence and Recommended Minimum Separation Distances are included within the guidelines. The Areas of Influence and Recommended Minimum Separation Distances from the guidelines are provided in the table below.

[2] https://www.ontario.ca/page/environmental-land-use-planning-guides

Table 1: Guideline D-6 - Potential Areas of Influence and Recommended Minimum Separation Distances for Industrial Land Uses

Industry Classification	Area of Influence	Recommended Minimum Separation Distance
Class I – Light Industrial	70 m	20 m
Class II – Medium Industrial	300 m	70 m
Class III – Heavy Industrial	1000 m	300 m

Industrial categorization criteria are supplied in Guideline D-6, and are shown in the following table:

Table 2: Guideline D-6 - Industrial Categorization Criteria

Category	Outputs	Scale	Process	Operations / Intensity	Possible Examples
Class I Light Industry	• Noise: Sound not audible off-property • Dust: Infrequent and not intense • Odour: Infrequent and not intense • Vibration: No ground-borne vibration on plant property	• No outside storage • Small-scale plant or scale is irrelevant in relation to all other criteria for this Class	• Self-contained plant or building which produces/ stores a packaged product • Low probability of fugitive emissions	• Daytime operations only • Infrequent movement of products and/ or heavy trucks	• Electronics manufacturing and repair • Furniture repair and refinishing • Beverage bottling • Auto parts supply • Packaging and crafting services • Distribution of dairy products • Laundry and linen supply

Category	Outputs	Scale	Process	Operations / Intensity	Possible Examples
Class II Medium Industry	• Noise: Sound occasionally heard off-property • Dust: Frequent and occasionally intense • Odour: Frequent and occasionally intense • Vibration: Possible ground-borne vibration, but cannot be perceived off-property	• Outside storage permitted • Medium level of production allowed	• Open process • Periodic outputs of minor annoyance • Low probability of fugitive emissions	• Shift operations permitted • Frequent movements of products and/ or heavy trucks with the majority of movements during daytime hours	• Magazine printing • Paint spray booths • Metal command • Electrical production • Manufacturing of dairy products • Dry cleaning services • Feed packing plants
Class III Heavy Industry	• Noise: Sound frequently audible off property • Dust: Persistent and/ or intense • Odour: Persistent and/ or intense • Vibration: Ground-borne vibration can frequently be perceived off-property	• Outside storage of raw and finished products • Large production levels	• Open process • Frequent outputs of major annoyances • High probability of fugitive emissions	• Continuous movement of products and employees • Daily shift operations permitted	• Paint and varnish manufacturing • Organic chemical manufacturing • Breweries • Solvent recovery plants • Soaps and detergent manufacturing • Metal refining and manufacturing

Air Quality Assessment of Potential Employment Uses

Flato Home Warehouse Facility

The proposed Flato Home Warehouse facility is proposed for Block 216. The facility is anticipated to serve as a distribution facility for Flato Home retail products.

Based on in-house SLR knowledge, the facility has the potential for the following air and noise emission sources:

- Heating Ventilation and Air Conditioning (HVAC) equipment;
- Loading/unloading activities; and
- Vehicle idling and movements (including trucks/trailers).

Based on the size and nature of the anticipated warehousing facility operations the facility may be considered a Class I Light Industry with a 70 m Potential Area of Influence and a 20 m Minimum Recommended Separation Distance.

To facilitate compatibility with the adjacent sensitive uses it is recommended that a 20 m Minimum Recommended Separation Distance be maintained between the residential uses and Block 216.

The 20 m Minimum Recommended Separation Distance is accounted for in the Draft Plan of Subdivision and identified as Block 222 on **Attachment A**.

Tissue Conversion Facility

A Tissue Conversion facility is proposed to be located on Block 215. SLR was provided with a basic process flow document and an overview of the Tissue Conversion operations. The information provided is included in **Attachment B**.

The information provided in **Attachment B** does not provide insight into the potential emission sources. SLR have been advised that the Tissue Conversion facility will not be managing any paper pulp or “raw” paper products. Further, that the materials come finished on rolls and the process involves “rerolling” and cutting the paper into smaller rolls. If there is no management of raw paper pulp, the potential for odour from the facility operations is considered to be low.

SLR was advised that there is no similar facility located in Ontario and that no architectural plans are available for review at this time. SLR understands that a similar facility is currently operating in Fornaci di Barga LU, Italy (Via W. Chapman, 1, 55051 Fornaci di Barga LU, Italy).

Based on the above and SLR in house expertise, the following sources of air and noise emissions can be anticipated from the facility:

- Dust collection for the roll cutting system;
- Potential vibration from the rolling, re-winding, cutting and embossing processes;
- HVAC equipment;
- Humidity control equipment given that paper is susceptible to damage from humidity;
- Outdoor storage;

- Transportation of raw materials and finished product; and
- Potential 24/7 operations.

Based on a review of aerial imagery, the Italian facility, and the above overview of the Tissue Conversion operations, the facility is classified as a Class II Medium Industry under the MECP D-Series Guidelines with a 300 m Potential Area of Influence and a 70 m Recommended Minimum Separation Distance where the separation distances are measured property boundary to property boundary.

This opinion will need to be confirmed based on actual facility architectural plans including mechanical plans at a later date.

To facilitate compatibility with the adjacent sensitive uses it is recommended that a 70 m Minimum Recommended Separation Distance be maintained between the residential uses and Block 215.

The 70 m Minimum Recommended Separation Distance is accounted for in the Draft Plan of Subdivision and is accounted for within Block 219 as identified on **Attachment A**. In addition to maintaining the 70 Minimum Recommended Separation Distance Warehouse use on Block 216 will serve as an additional buffer for the Tissue Conversion facility.

Other Potential Employment Uses

In addition to the above noted facilities, SLR understands that other potential employment uses are contemplated for the Industrial Blocks 214 and 217. Therefore, SLR completed a review of Ontario Regulation 162/22 and the associated permitted employment uses from the Township Zoning By-law Section 22: General Industrial Zone (M1). The uses have been classified in accordance with the MECP D-6 Guidelines.

Table 3: D-6 Classification of Township of Southgate Zoning By-law Section 22

Land Use	Type of Operation	Industry Class	Area of Influence Distance (m)	Recommended Minimum Separation Distance (m)
Bulk Supply Outlet	Classification depends on intensity. MECP Permits required for emissions to atmosphere.	I or II	70 or 300	20 or 70
Bulk Sales Establishment	Classification depends on intensity. MECP Permits required for emissions to atmosphere.	I or II	70 or 300	20 or 70
Contractor’s Yard	Classification depends on intensity. MECP Permits required for emissions to atmosphere.	I or II	70 or 300	20 or 70
Custom Workshop	Classification depends on intensity. MECP Permits required for emissions to atmosphere.	I or II	70 or 300	20 or 70

Land Use	Type of Operation	Industry Class	Area of Influence Distance (m)	Recommended Minimum Separation Distance (m)
Haulage Business	Classification depends on intensity. MECP Permits required for emissions to atmosphere.	I or II	70 or 300	20 or 70
Light or Dry Industry	Classification depends on intensity. MECP Permits required for emissions to atmosphere.	I or II	70 or 300	20 or 70
Manufacturing Plant	Classification depends on intensity. MECP Permits required for emissions to atmosphere.	I, II or III	70, 300, 1000	20, 70, 300
Transport Terminal	Classification depends on intensity. MECP Permits required for emissions to atmosphere.	I or II	70 or 300	20 or 70
Storage Industry	Typically Class I	I	70	20
Dry Cleaning Establishment	Classification depends on intensity. MECP Permits required for emissions to atmosphere.	I or II	70 or 300	20 or 70
Warehouse	Classification depends on intensity. MECP Permits required for emissions to atmosphere.	I or II	70 or 300	20 or 70
Public Garage	Typically Class I	I	70	20
Self-storage/mini storage	Typically Class I	I	70	20
Motor Vehicle Washing Establishment	Typically Class I	I	70	20
Animal Hospital	Typically Class I if completed with outdoor dog runs	I	70	20

Based on the above employment characteristics, the majority of the possible uses are considered to be Class I Light Industries under MECP Guideline D-6, with a 70 m Potential Area of Influence and a Recommended Minimum Separation Distance of 20 m. Depending on the intensity of the employment uses, Class II Medium Industries may also occur. Under MECP Guideline D-6, Class II Medium Industries have a 300 m Area of Influence and a Recommended Minimum Separation Distance of 70 m. A Class III Heavy Industry may be limited to operate on the lands based a Recommended Minimum Separation Distance of 300 m from residential land uses.

In Ontario, facilities that emit significant amounts of contaminants to the environment are required to obtain and maintain an Environmental Compliance Approval ("ECA") from the MECP or submit an Environmental Activity and Sector Registry ("EASR"). Facilities with an ECA/EASR are required to meet the MECP guidelines for air quality, noise and vibration emissions at their property line.

To facilitate compatibility with the adjacent sensitive uses it is recommended that a 70 m Minimum Recommended Separation Distance be maintained between the residential uses and Blocks 214 and 217.

The 70 m Minimum Recommended Separation Distance from the residential uses on Street G is accounted for in the Draft Plan of Subdivision and identified on **Attachment A**. The stormwater management area, Block 219, will provide 95.2 m between the Apartment uses in Block 210 and the employment Block 217. The 95.2 m exceeds the Minimum Recommended Separation Distance of 70 m.

Conclusions and Recommendations

Based on the above, potential employment uses on Blocks 214, 215, 216 and 217 are anticipated to be compatible with the proposed sensitive land uses. However, it is recommended that land use compatibility assessments be completed as industrial operations are advanced on the blocks to confirm this finding, considering the 70 m setback is a minimum setback for a Class II industry.

Statement of Limitations

This report has been prepared by SLR Consulting (Canada) Ltd. (SLR) for Flato Developments Inc. (Client) in accordance with the scope of work and all other terms and conditions of the agreement between such parties. SLR acknowledges and agrees that the Client may provide this report to government agencies, interest holders, and/or Indigenous communities as part of project planning or regulatory approval processes. Copying or distribution of this report, in whole or in part, for any other purpose other than as aforementioned is not permitted without the prior written consent of SLR.

Any findings, conclusions, recommendations, or designs provided in this report are based on conditions and criteria that existed at the time work was completed and the assumptions and qualifications set forth herein.

This report may contain data or information provided by third party sources on which SLR is entitled to rely without verification and SLR does not warranty the accuracy of any such data or information.

Nothing in this report constitutes a legal opinion nor does SLR make any representation as to compliance with any laws, rules, regulations, or policies established by federal, provincial territorial, or local government bodies, other than as specifically set forth in this report. Revisions to legislative or regulatory standards referred to in this report may be expected over time and, as a result, modifications to the findings, conclusions, or recommendations may be necessary.

Closure

Should you have any questions on the above information, please do not hesitate to contact us.

Regards,

SLR Consulting (Canada) Ltd.

LICENSED PROFESSIONAL ENGINEER
D. L. FREEMAN
90385659
2024-10-15
PROVINCE OF ONTARIO

Diane Freeman, P.Eng., FEC, FCAE
Principal, Air Quality
dfreeman@slrconsulting.com

Nigel Taylor, M.Sc., EP
Service Line Director Environmental Sciences Division
ntaylor@slrconsulting.com

Attachments A and B

Attachment A – Development Concept Plan

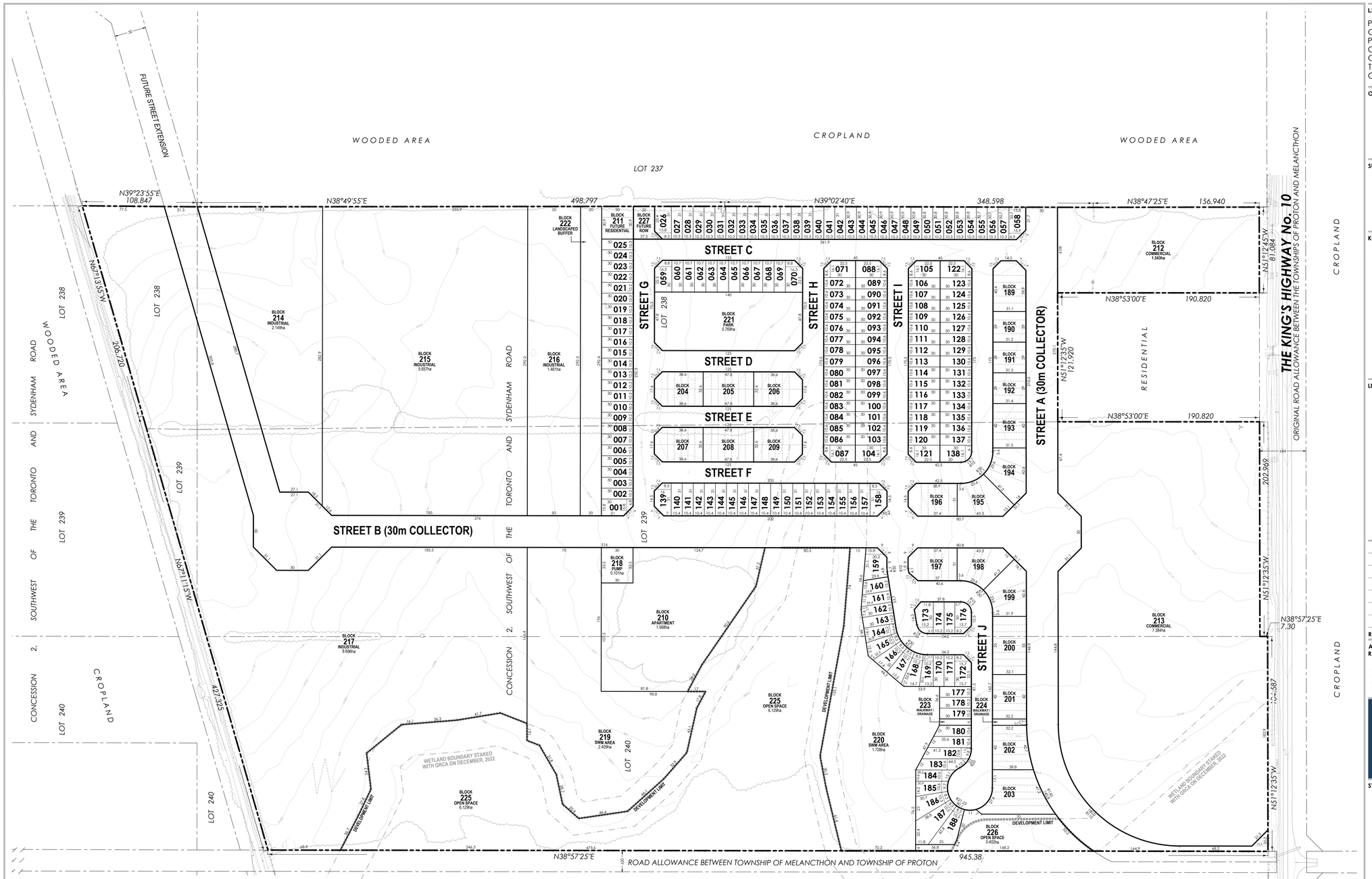
Air Quality Opinion

Dundalk South Development

Flato Development Inc.

SLR Project No.: 209.30125.00002

October 15, 2024



LAND USE SUMMARY

LAND USE	LOT / BLOCK #	UNITS	AREA (ha)
SINGLE DETACHED - 10.1m LOTS	001-158, 163-188	184	6.244
SINGLE DETACHED - WIDE SHALLOW LOTS	159-162	4	0.152
LIVE-WORK TOWNHOUSE - 6.5m UNITS	189-203	78	2.098
BACK-TO-BACK TOWNHOUSE - 6.4m UNITS	204-209	76	0.890
APARTMENT (88 uph)	210	138	1.568
FUTURE RESIDENTIAL - 10.1m LOTS	211	3	0.093
COMMERCIAL	212-213		8.927
INDUSTRIAL	214-217		17.964
SEWAGE PUMPING STATION	218		0.101
STORMWATER MANAGEMENT AREA	219-220		4.138
PARK (Residential Park Area - 3.5%)	221		0.769
20m LANDSCAPED BUFFER	222		0.585
6m WALKWAY / DRAINAGE	223, 224		0.037
OPEN SPACE	225-226		6.532
FUTURE RIGHT OF WAY	227		0.065
RIGHT OF WAY	A, B, C, D, E, F G, H, I, J		10.057
TOTALS		483	60.218

LEGAL DESCRIPTION

PART OF LOTS 238, 239 AND 240
CONCESSION 1, SWTSR AND
PART OF LOTS 238 AND 239
CONCESSION 2, SWTSR
GEOGRAPHIC TOWNSHIP OF PROTON
TOWNSHIP OF SOUTHGATE
COUNTY OF GREY

OWNER'S CERTIFICATE

I HEREBY AUTHORIZE MACNAUGHTON HERMSEN BRITTON CLARKSON PLANNING LIMITED TO SUBMIT THIS PLAN FOR APPROVAL.

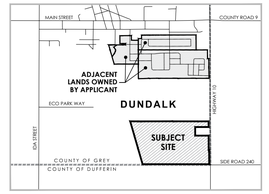
DATE: _____ _____

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT THE BOUNDARIES OF THE LAND TO BE SUBDIVIDED ON THIS PLAN AND THEIR RELATIONSHIP TO THE ADJACENT LANDS ARE ACCURATELY AND CORRECTLY SHOWN.

DATE: _____ _____

KEY PLAN



SUBJECT SITE
ADJACENT LANDS OWNED BY APPLICANT

NORTH

0 0.4 0.8 1.2 1.6
KILOMETRES

LEGEND

- PROJECT BOUNDARY LINE
- RIGHT OF WAY LINE
- BLOCK LINE
- LOT LINE
- PARCEL FABRIC

REVISION No.	DATE	ISSUED / REVISION	BY

ADDITIONAL INFORMATION REQUIRED UNDER SECTION 51(17) OF THE PLANNING ACT R.S.O. 1990 C.P.13 AS AMENDED

A. AS SHOWN
B. AS SHOWN
C. AS SHOWN
D. AS SHOWN
E. AS SHOWN
F. AS SHOWN
G. AS SHOWN
H. MUNICIPAL WATER SUPPLY
I. SILT LOAM
J. AS SHOWN
K. ALL SERVICES AS REQUIRED (WATER, SANITARY, STORMWATER, HYDRO)
L. AS SHOWN

MHBC PLANNING URBAN DESIGN & LANDSCAPE ARCHITECTURE
113 COLLIER STREET, BARRIE, ON, L4M 1H2 | P: 705.728.0045 | WWW.MHBCPLAN.COM

STAMP	DATE	OCT. 9, 2024
	FILE No.	15184AS
	SCALE	1:1,800 (ARCH D)
	DRAWN BY	M.M.
	CHECKED BY	K.C.
	OTHER	

PROJECT

FLATO SOUTHEAST (ECO PARK)

FLATO ECO PARK DUNDALK INC.
3621 HIGHWAY 7 EAST, SUITE 503
MARKHAM, ON L3R 0G6
P:(905) 479-9292 F:(905) 429-9165
WWW.FLATOGROUP.COM

NORTH

FILE NAME DRAFT PLAN OF SUBDIVISION

DWG No. 1 of 1

SCALE BAR

0 9 18 27 36 45 37.5 90 135 180m

MEASUREMENTS SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048

N:\Southgate\Flato - Eco Park - 15184AS\Drawings\Draft Plan\CAD\15184AS - Draft Plan - 2024-10-09.dwg

Attachment B - Proposed Tissue Conversion Facility

Air Quality Opinion

Dundalk South Development

Flato Development Inc.

SLR Project No.: 209.30125.00002

October 15, 2024

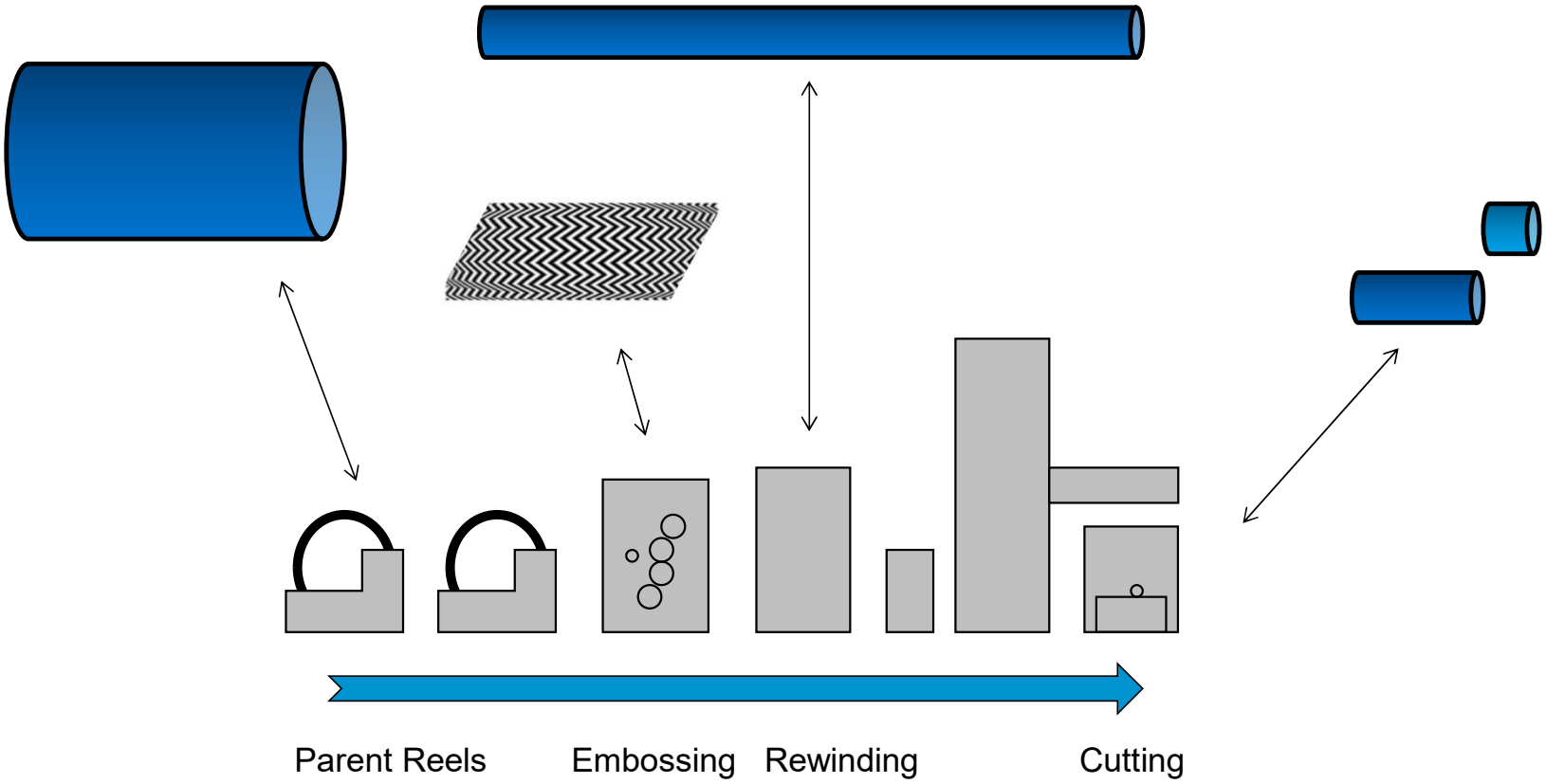
Tissue Converting in a Glance

Paper Converting Machine Company

barrywehmiller bw betterworld

Tissue Converting

Process



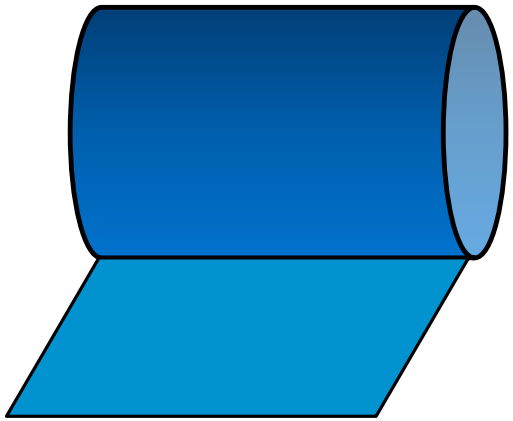
Tissue Converting

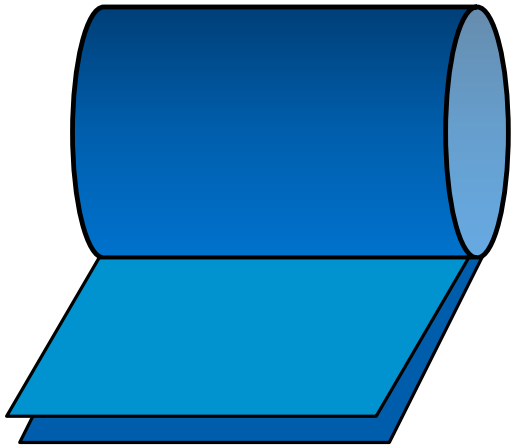
In order to make Toilet rolls or Towels you need to start with Parent Rolls / Jumbo Rolls / Mother Reels from a paper machine.

Typically you need to specify

Diameter e.g.	1.6m	1.8m	2.5m
Paper width e.g.	2.56m	2.62m	2.7m
Number of plies e.g.	1 ply	2 ply	3 ply
Gramm age e.g.	16 gsm	18gsm	23 gsm
Paper Type i.e.	Recycled	Virgin	

When selecting type you need to understand availability, cost, ease of transportation, storage, how easy it is to convert to final product, etc.





Tissue Converting

Rewinding Logs

Consumer Logs tend to be from 100 mm to 160 mm diameter

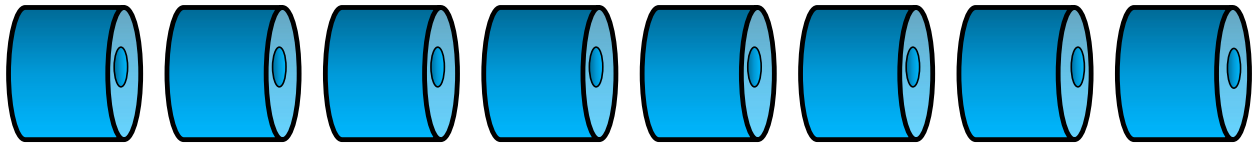
Industrial or Away From Home logs can be from 120 mm to 350 mm
or even up to 450 mm diameter.

The choice of rewinding platform supplied is determined by the above

Tissue Converting

Finished Products

Consumer products can be made by cutting the log into either Bathroom Tissue dimensions or Towel dimensions. With the correct paper and embossing designs one rewinding line can make both products.



OR

Production

Estimated Output Example

Lets take a

- 320 sheet Toilet Roll (BRT) product
- 120 mm Perforation length of each sheet
- 107 mm Cut length on the logsaw (width of the roll)
- 2640 mm Parent roll web width (the width of paper supplied)

So 320 sheets x 120 mm perf = 38.4 m of paper on each roll

With a line running at 450 meters per minute this would be 450 mpm / 38.4 m = 11.7 logs per minute

Now lets take a parent roll width of 2640 mm and a toilet roll width of 107 mm
2640 / 107 = 24 rolls (2568 mm) with 72 mm total trim (waste on end of log – part of the process).

Now 24 rolls per log x 11.7 = 280.8 rolls made per minute

For the logsaw calculation we need to use 24 rolls + (1 Trim Cut + 1 Aircut) = 26 cuts needed for every log
26 cuts per log x 11.7 lpm = 304.2 cpm needed (from the logsaw).

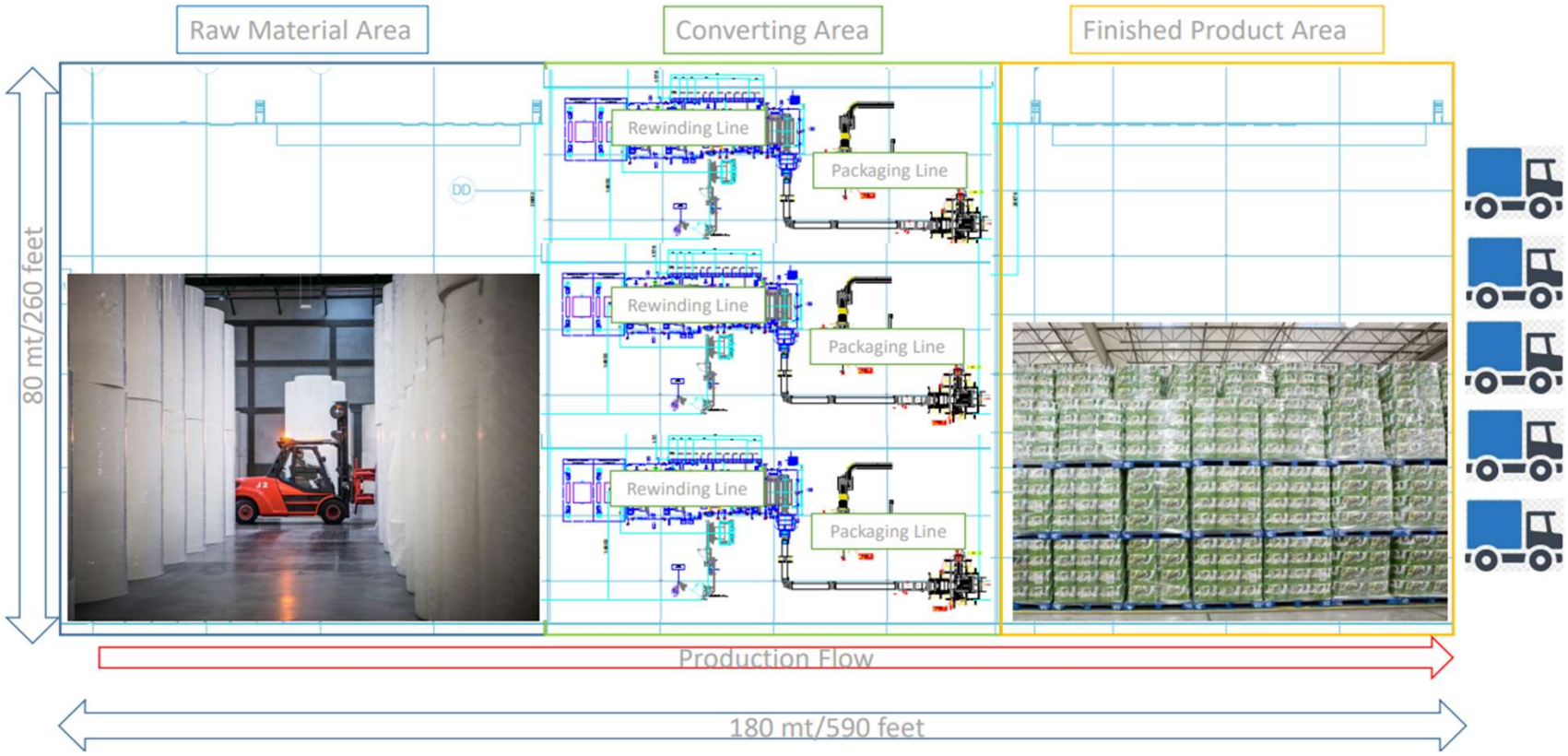
LS 200 maximum output = 200 cpm x 2 lanes = 400 cpm
whilst the Prolog LT maximum output = 240 cpm x 4 lanes = 960 cpm

So for this product with a line running at **450 mpm the LS 200 would be running at 152 cpm**

All manufacturing processes have an efficiency based on time to change parent rolls, web breakage, adjustments, etc so output at the end of the week would be in the region of 60% to 75% of these figures.
So 280.8 rpm x 60 minutes x 7 hours (shift) x 5 days = 589,680 rolls
at 60% efficiency = 353,808 rolls per week
at 75% efficiency = 442,260 rolls per week
Remember 2 shifts output = above x 2

Tissue Converting

Plant



ONE Global Team - Better Together

Paper Converting Machine Company | Winkler + Dünnebier | STAX Technologies TISSUE PACKAGING SOLUTIONS | HUDSON-SHARP | Northern Engraving and Machine

Paper Converting Machine Company

Thank You