



Vant Spyker + Schulz Proposed Warehouse / Storage Functional Servicing Report

**120 Pillsbury Drive
Midland ON
22-6506**

September 30, 2024

Submitted By:

Quantum Engineering Inc.
97 Copeland Creek Drive
Tiny, ON L9M 0M2
T (705) 549-1791
F (866) 516-9827

Distribution List

Hard Copies	PDF	Email	Organization Name
0	1	Yes	Town of Midland
0	1	Yes	Eric Vant Spyker + Lindsay Schultz

Record of Revisions

Revision	Date	Description
1.0	December 2023	Initial Submission to Town
1.1	February 2024	Pre-Consultation Resubmission to Town
1.2	September 2024	Site Plan Approval Submission to Town

Prepared By:

Reviewed By:

Katrina Lalonde, P.Eng.

David W. Lalonde, P. Eng.



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1.0 Introduction

Quantum Engineering Inc. (Quantum) has been retained by Eric Vant Spyker and Lindsay Schultz (1793925 Ontario Inc.) to provide engineering services related to the proposed Vant Spyker + Schultz warehouse and professional office development. The proposed development is to be located at 120 Pillsbury Drive in the Town of Midland and consists of a private business facility complete with one-storey warehouse areas and a two-storey professional office area within a single building.

This Functional Servicing Report (FSR) will review and summarize the impact of the proposed development on the existing applicable infrastructure. This FSR has been prepared in support of an application for Site Plan Approval from the Town of Midland for the proposed Vant Spyker + Schultz development at 120 Pillsbury Drive and is submitted for Town approval of the proposed development on the subject property.

2.0 Project Description

The proposed development is to consist of a private business facility complete with a one-storey approximately 1,964 ft² warehouse area with a height of 18 feet; a one-storey approximately 1,004 ft² warehouse area complete with powder room and mechanical room at a height of 15 feet; and a two-storey approximately 2,794 ft² professional office area.

As per the applicable Zoning By-law, thirteen parking spaces including one barrier free space will be provided on the subject property.

There will be one two-way traffic driveway from Pillsbury Drive to provide access to the parking area. The proposed site plan is shown on Drawing C1.

3.0 Site Description

The subject lands occupy a 0.68 ha "L" shaped parcel located on the west side of Pillsbury Drive, approximately 280 m north of the intersection with William Street. The site is currently undeveloped and is mostly forested. The site exhibits a steep topography with a total site relief of approximately 15m to 18m. The proposed development is to be located within the lower, relatively moderate sloped, eastern half of the site.

Site location can be seen below in Figure 1.



Figure 1: Site Location

4.0 Building Height

The proposed building will have a height of approximately 9.5m. The proposed building height meets the requirement for maximum building height of 11.0m as noted in the Town of Midland Zoning By-Law for the subject property.

5.0 Transportation and Traffic

There is an existing road system located adjacent to and in close vicinity to the proposed development. Traffic volumes for this specific site development have not been determined; however, it is anticipated that the additional traffic from this proposed development will be minimal and not significantly change the existing traffic volumes currently generated on Pillsbury Drive. As such, it is expected that the existing road system will be sufficient to accommodate the proposed development.

6.0 On-Site Parking

According to the Town of Midland Zoning By-law, the parking requirement for a warehouse is one parking space per 100 m² of area. The total warehouse area for the proposed development is approximately 2,968 ft² (275.7 m²), which equates to a requirement for three parking spaces. The parking requirement for an office is one parking space per 30 m² of area. The total office area for the proposed development is approximately 2794 ft² (259.6 m²), which equates to a requirement for nine parking spaces. Additionally, one barrier free parking space and one loading space is required as per the Town of Midland Zoning By-law. It should be noted that the dimensions for the proposed loading space do not conform with the requirements of the Town of Midland Zoning By-law. As per pre-consultation with the Town of Midland Engineering department, a minor variance application will be submitted to request a deviation in the overall loading space dimensions for this property.

A total of twelve parking spaces have been provided along with one barrier free space and one loading space (reduced size). This quantity of parking spaces meets the requirement for minimum parking spaces as noted in the Town of Midland Zoning By-Law for the subject property.

7.0 Municipal Servicing

.1 Existing Services

Services for the proposed development will require connection to the existing municipal systems located adjacent to and within Pillsbury Drive. It is anticipated the municipal systems, including sanitary sewers and watermains as well as Town ditches, have sufficient capacity to service the needs of the project.

.2 Water Service

Based on GIS data provided by the Town of Midland, it is our understanding that there is an existing 250mm diameter Ductile Iron watermain located on Pillsbury Drive. For the proposed development, we anticipate connecting into the existing water stub with a 25mm diameter water service to supply water to the proposed warehouse / office building.

The Town of Midland Engineering Design Standard recommends the following daily design flows:

- Commercial = 2.5 L/day/m² of floor area
- School = 100 L/day/student
- Light Industrial = 35.0 m³/day/ha

Our office has assumed the average design flow for a commercial facility for the entire proposed development of 5,762 ft² (535.3 m²) resulting in a water servicing average design flow of approximately 1,338 L/day and a peak design flow of 6,021 L/day. The minimum required water service size of 25mm

diameter is anticipated to be adequate to accommodate the demand noted above.

Details related to the proposed water service have been provided on Drawing C1 of the Site Plan Approval Drawing Set, dated September 25, 2024.

.3 Sanitary Service

Based on GIS data provided by the Town of Midland, it is our understanding that there is an existing 450mm diameter Asbestos Cement (AC) sanitary sewer pipe on Pillsbury Drive. For the proposed development, we anticipate connecting into the existing sanitary maintenance hole on Pillsbury Drive via a 150mm diameter sanitary lateral, which in turn connects to a proposed 1200mm diameter sanitary maintenance hole located at the property line that is connected to the proposed building through a 150mm diameter sanitary lateral.

Similar to the water service design flow requirements, the Town of Midland Engineering Design Standard recommends the following daily design flows:

- Commercial = 2.5 L/day/m² of floor area
- School = 100 L/day/student
- Light Industrial = 35.0 m³/day/ha

Based on these design assumptions, it is anticipated that a 150mm sanitary service is more than adequate to accommodate the proposed development.

Details related to the proposed sanitary service have been provided on Drawing C1 of the Site Plan Approval Drawing Set, dated September 25, 2024.

8.0 Stormwater Management

In general, the stormwater management approach utilized for this site is to design stormwater facilities through the implementation of LID. It is proposed that the peak flow rates for up to the 100-year storm event will be contained and infiltrate through several on-site infiltration facilities. Stormwater overflow pipes connecting the on-site infiltration facilities to the Town's storm sewer system is proposed to be provided as an additional precaution for quantity control of stormwater run-off.

Complete details on the stormwater management design can be found in the Stormwater Management Report, prepared by our office in conjunction with this FSR.

9.0 Utilities

Based on existing development surrounding the proposed development site, it is anticipated that the applicable Enbridge Gas, Rogers Cable, and Bell Canada services will be available at/on Pillsbury Drive for connection of the proposed development.

It is also anticipated that the proposed development will be serviced via an overhead electrical service similar to the existing surrounding developments. It should be noted that an existing utility pole will be required to be relocated due to the proposed location of the driveway entrance. Consultation and coordination with Newmarket-Tay Power Distribution Ltd. is still to be completed for this property and will be conducted as part of the detailed design phase for the building.

Consultation with all the applicable above-noted utility companies will need to be updated and confirmed as part of our detailed design of the proposed development.

10.0 Conclusions

Based on our analysis completed as part of this FSR, it is our understanding that the proposed development of the proposed Vant Spyker + Schultz warehouse and office development, located at 120 Pillsbury Drive in the Town of Midland, is feasible and can be accommodated by the existing surrounding infrastructure.

It is requested that the Town of Midland confirm the existing watermains, sanitary sewers, storm sewers, traffic, and treatment systems have adequate capacity to service the proposed development.

We trust this FSR meets the requirements of the Town of Midland. Should you have any questions, feel free to contact our office.

Appendix A – Drawings

C1 – Site Plan

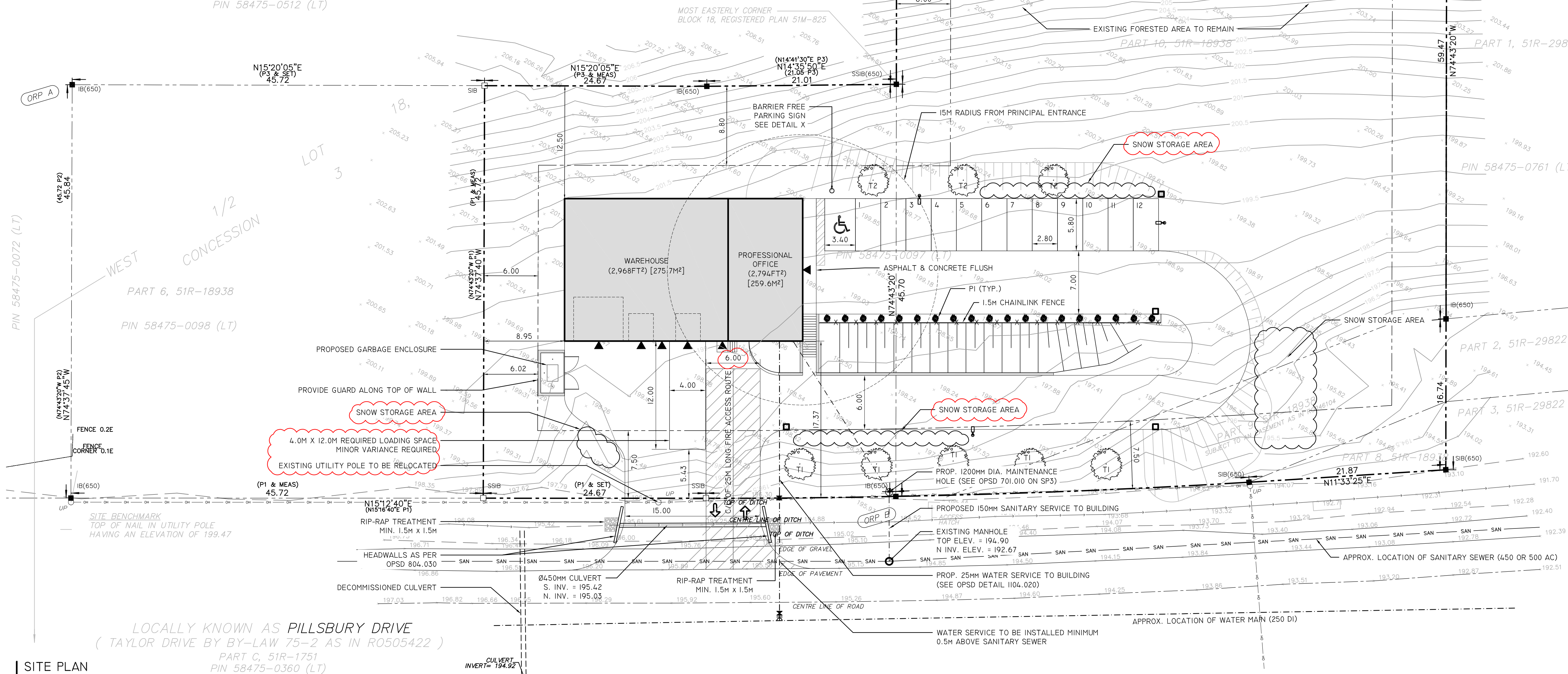
PLANTING SCHEDULE					
Label	Quantity	Common Name	Botanical Name	Size / Height	Form
P1	19	Maiden / Red Switch Grass	Panicum virgatum 'Gouldii' / 'Rubrum'	0.6m - 1.2m	Potted
T1	5	Paper Birch	Betula papyrifera	Full Specimen	Balled & Burlapped
T2	3	White Pine	Pinus strobus	Full Specimen	Balled & Burlapped

PART OF THE
WEST 1/2 LOT 18
CONCESSION 3
(GEOGRAPHIC TOWNSHIP OF TAY)
TOWN OF MIDLAND
COUNTY OF SIMCOE

BLOCK 18
51M - 825
PIN 58475-0512 (LT)

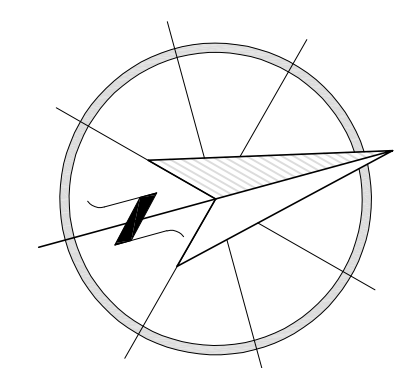


No.	DESCRIPTION	DATE
1	FOR PRE-CONSULT	APRIL 28, 2022
2	REVISION - TOWN COMMENTS	JULY 15, 2022
3	FOR CLIENT REVIEW	SEPT 6, 2023
4	FOR PLANNING / WATER BALANCE	NOV 1, 2023
5	FOR PLANNING / WATER BALANCE	NOV 20, 2023
6	FIRST SUBMISSION	DEC 22, 2023
7	FOR PRE-CONSULT	FEB 14, 2024
8	FOR MINOR VARIANCE	APRIL 2, 2024
9	FOR TOWN CONSULT	MAY 28, 2024
10	FOR TOWN CONSULT	JUNE 17, 2024
11	SITE PLAN SUBMISSION	SEPT 25, 2024



LEGEND:

- WATERMAIN / WATER SERVICE
- SANITARY SEWER
- SEWER SERVICE
- MAINTENANCE HOLE
- X-X-X- CHAIN LINK FENCE
- LT EXTERIOR WALL SCENCE LIGHTING
- ↑ DIRECTION OF TRAFFIC
- UTILITY POLE
- ⊕ VALVE & BOX
- ⊕ CHECK VALVE IN CHAMBER
- ⊕ TAPPING SLEEVE & VALVE BOX
- ⊕ TEE
- ⊕ FIRE HYDRANT C/W VALVE & BOX (AS PER OPSD I105.010)
- ▨ GRASSED AREA
- ▨ PAVED AREA
- ▨ FIRE ROUTE
- ▨ SLOPED LANDSCAPE



SITE PLAN
SCALE: 1:250

LOCALLY KNOWN AS PILLSBURY DRIVE
(TAYLOR DRIVE BY BY-LAW 75-2 AS IN R0505422)
PART C, 51R-1751
PIN 58475-0360 (LT)

- GENERAL NOTES:**
- CONTRACTOR TO CHECK ALL DIMENSIONS, SPECIFICATIONS, ETC., ON SITE AND IS RESPONSIBLE FOR REPORTING ANY DISCREPANCIES TO OUR OFFICE PRIOR TO CONSTRUCTION. CONTRACTOR TO DETERMINE & CONFIRM THE LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
 - ALL DRAWINGS, SPECIFICATIONS AND RELATED DOCUMENTS ARE THE COPYRIGHT PROPERTY OF QUANTUM ENGINEERING. THEY ARE TO REMAIN THE PROPERTY OF OUR OFFICE AND MUST BE RETURNED UPON REQUEST. THESE DRAWINGS ARE NOT TO BE USED IN ANY OTHER LOCATION WITHOUT THE WRITTEN APPROVAL FROM OUR OFFICE. REPRODUCTIONS OF THESE DOCUMENTS OR DRAWINGS IN WHOLE OR IN PART IS FORBIDDEN WITHOUT WRITTEN PERMISSION FROM OUR OFFICE.
 - ALL CONSTRUCTION & INFRASTRUCTURE SHALL CONFORM TO THE MOST RECENT EDITIONS OF ALL APPLICABLE CODES IN EFFECT AT THE PROJECT LOCATION. ALL WORKS TO BE IN ACCORDANCE WITH THE ONTARIO BUILDING CODE AS WELL AS TOWN OF MIDLAND SPECIFICATIONS.
 - OFFICIAL COPIES MUST BEAR AN ORIGINAL SIGNATURE AND SHOW THE ENGINEERS STAMP IN RED.
 - DO NOT SCALE DRAWINGS.
- BARRIER FREE PATH OF TRAVEL:**
- OBC 3.8.1.3.1 BARRIER FREE PATH OF TRAVEL SLOPE MAXIMUM 1:20; MINIMUM WIDTH 1.2M (3'-8")
 - MAXIMUM BEVEL 1:2
 - MAXIMUM 12M (Ø) CURB AT LEVEL CHANGES
 - MINIMUM LANDING AT TOP AND BOTTOM OF SLOPED PORTION 1.67M (66") SQUARE

- GRASSED AREA:**
- ALL DISTURBED AREAS ARE TO BE RESTORED TO ORIGINAL CONDITION AS REQUIRED.
 - GRASSED AREAS TO BE SODDED OVER A MINIMUM 150 MM OF TOPSOIL.
- UTILITIES:**
- BUILDINGS SERVICED MUNICIPAL WATER & SEWER, AND 240V HYDRO. HYDRO SERVICE LOCATION AND INSTALLATION REQUIREMENTS TO BE CONFIRMED WITH LOCAL AUTHORITY (MIDLAND PUC).
 - COMPACTION OF BACKFILL FOR UTILITY TRENCHES SHALL BE 95% SPDD, UNLESS OTHERWISE SPECIFIED BY LOCAL AUTHORITIES.
 - CONTRACTOR RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
- GARBAGE STORAGE:**
- ALL GARBAGE TO BE STORED IN DUMPSTER LOCATED IN DESIGNATED AREA.
- SNOW STORAGE:**
- ALL SNOW TO BE STORED ON SITE WITHIN DESIGNATED GREEN AREAS.
 - SNOW NOT TO BE PUSHED ONTO OR STORED ON PILLSBURY DRIVE, DESIGNATED PARKING SPACES OR BARRIER FREE SPACES AND PATHS OF TRAVEL.

- EXTERIOR LIGHTING:**
- ALL SECURITY LIGHTING TO BE SHIELDED SO THAT LIGHT DOES NOT INFRINGE ON FORESTED AREA, ADJACENT PROPERTIES & WILL BE DARK SKY FRIENDLY.
 - EXTERIOR SCENCE LIGHTING TO BE LITHONIA TWR LED WALL PACK LIGHTING, CATALOG NO. TWR1 LED P3 40K MVOLT DBDXTD M2, OR APPROVED EQUAL.
- DRIVEWAY:**
- PAVED AREA TO BE A MINIMUM OF 75MM HL3A ON A MINIMUM OF 250MM OF GRANULAR 'A' COMPACTED TO 98% SPDD.
 - DRIVEWAY CULVERT TO BE MINIMUM 400MM DIA. ALUMINIZED CORRUGATED STEEL OR DOUBLE WALLED SMOOTH INTERIOR HDPE PIPE.
 - ASPHALT & GRANULAR COURSES SHALL CONFORM TO ALL APPLICABLE ONTARIO PROVINCIAL STANDARDS.
- GRAVEL PAVING:**
- GRAVEL PARKING AREAS TO MEET LEVEL OF PERFORMANCE AS SPECIFIED: ORIGINAL GRADE (95% PROCTOR DENSITY), 150MM GRANULAR 'A' (100% PROCTOR DENSITY).
 - GRANULAR COURSES SHALL CONFORM TO ALL APPLICABLE ONTARIO PROVINCIAL STANDARDS.

- PARKING / LOADING:**
- ALL PARKING SPACES MUST CONFORM WITH MOST RECENT EDITIONS OF TOWN OF MIDLAND ZONING BY-LAWS.
 - 1 PARKING SPOT TO BE PROVIDED PER 30 M² OF GFA FOR PROFESSIONAL OFFICE AREA (9 SPOTS MINIMUM).
 - 1 PARKING SPOT TO BE PROVIDED PER 100 M² OF GFA FOR WAREHOUSE/STORAGE AREA (3 SPOTS MINIMUM).
 - MINIMUM 1 BARRIER FREE PARKING SPOT TO BE PROVIDED.
 - ALL LOADING PROVISIONS OUTLINED BY THE MOST RECENT TOWN OF MIDLAND ZONING BY-LAWS MUST BE MET.
- FENCING:**
- FENCING TO BE INSTALLED AS PER ONTARIO PROVINCIAL STANDARDS WITH TOP RAIL, KNUCKLED TOP EDGE FASTENERS, KNUCKLED BOTTOM EDGE AND NO. 9 GAUGE WIRE WESH.
 - CHAIN LINK FENCING TO BE 1.5M HIGH FOR COMMERCIAL/INDUSTRIAL PROPERTIES.

- WATER SERVICING/HYDRANT:**
- MINIMUM COVER FOR WATER SERVICES TO BE 1.8M.
 - WATER SERVICE PIPE SHALL BE 25MM DIA. TYPE "K" COPPER TUBING AND FITTINGS INCLUDING ELECTROCHEMICAL CORROSION PROTECTION WHERE CONNECTED TO DUCTILE IRON WATERMAINS.
 - MAIN STOPS AND SADDLES SHALL BE USED ON WATER SERVICE. MAIN STOP TO BE MUELLER AWWA C800. SADDLE TO BE ROCKWELL 371 & 572.
 - CURB STOP TO BE LOCATED AT PROPERTY LINE AND SHALL BE BALL STYLE WITH COMPRESSION CONNECTION.
 - SERVICES BOXES TO BE MUELLER AWWA C800. ALL SERVICE BOXES ARE TO BE INSTALLED FLUSH WITH THE FINISHED GRADE.
 - A MAXIMUM OF ONE COUPLING IS ACCEPTABLE ON A WATER SERVICE BETWEEN THE CURB STOP AND ENTERING THE BUILDING. COUPLINGS TO BE COPPER COMPRESSION COUPLINGS.
 - WATER METER TO BE SUPPLIED AND INSTALLED BY THE TOWN OF MIDLAND AT CONTRACTOR'S EXPENSE.
 - WATER SERVICE INSTALLATION AND PRESSURE TESTING TO BE COMPLETED IN ACCORDANCE WITH TOWN OF MIDLAND DESIGN STANDARDS.
 - HYDRANT SHALL MEET REQUIREMENTS OF AWWA C502.
 - HYDRANT TO BE CANADA VALVE CENTURY/PREMIERE MODEL, OPENING COUNTERCLOCKWISE, MEETING AWWA C502.
 - GATE VALVES TO BE MUELLER RESILIENT SEAT VALVES, MEETING AWWA C509 C/W BIBBY VALVE BOX TO BE INSTALLED FLUSH WITH THE FINISHED GRADE.
 - CHECK VALVES TO BE MUELLER SWING CHECK VALVES, MEETING AWWA C508 C/W BIBBY VALVE BOX TO BE INSTALLED FLUSH WITH THE FINISHED GRADE.

- SANITARY SERVICING:**
- MINIMUM SLOPE OF SANITARY SERVICE TO BE 2.0%.
 - SANITARY SERVICE SHALL BE LOCATED AT A MINIMUM DEPTH OF 2.0 M AT THE PROPERTY LINE, AND SUFFICIENT DEPTH FOR BASEMENT FLOOR DRAINS AND FROST COVER.
 - FILL BENEATH SANITARY SERVICES IS TO BE COMPACTED TO 98% SPDD.
 - SANITARY SERVICE SHALL BE PVC SDR 28 WITH RUBBER GASKET TYPE JOINTS CONFORMING TO CSA B-182.2.35.4, AND A MINIMUM DIAMETER OF 150 MM.
 - SANITARY SERVICES ARE TO BE INSTALLED AND TESTED IN ACCORDANCE WITH TOWN OF MIDLAND AND ONTARIO PROVINCIAL STANDARDS.
 - ALL MATERIALS TO BE IN CONFORMANCE WITH ONTARIO PROVINCIAL STANDARD SPECIFICATIONS.
- RESTRAINER COUPLINGS ARE REQUIRED ON ALL WATERMAIN FITTINGS.**
- #12 TWU STRANDED COPPER TRACER WIRE TO BE INSTALLED ALONG SPRINGLINE OF ALL NON-METALLIC WATERMAIN. TRACER WIRE TO BE WRAPPED AROUND EACH JOINT AND BROUGHT TO THE SURFACE AT EACH HYDRANT AND CONNECTED TO FLANGE BOLT. CONTINUOUS LENGTH OF WIRE MUST BE USED. INSTALLATION AND CONTINUITY TESTING TO BE COMPLETED AS PER TOWN OF MIDLAND STANDARDS.**

ZONING INFORMATION:

CURRENT ZONING DESIGNATION: INDUSTRIAL ZONE - MI
PROPOSED CHANGE TO ZONING: NO
CURRENT BUILDING CLASSIFICATION: N/A
PROPOSED BUILDING(S) CLASSIFICATION: F3 (LOW HAZARD INDUSTRIAL OCCUPANCY)
GROSS FLOOR AREA: PROPOSED 5,762 SQ. FT (535.3 M²)
PROFESSIONAL OFFICE = 259.6 M²
WAREHOUSE = 275.7 M²

ZONING REQUIREMENTS:

(AS PER TOWN OF MIDLAND INDUSTRIAL ZONE - MI)

MINIMUM LOT AREA: 4000M² (ACTUAL: 6745.8 M² APPROX.)
MINIMUM LOT FRONTAGE: 30 M
MAXIMUM LOT COVERAGE: 60% (PROPOSED: 6.1%)
MINIMUM YARD SETBACKS:
(A) FRONT: 7.5M
(B) REAR: 8.8M
(C) INTERIOR SIDE: 6.0M
(D) EXTERIOR SIDE: 7.5M
MAX. BUILDING HEIGHT: 11.0M

SURFACE AREAS:

TOTAL SITE AREA: 6745.8 M²
BUILDING FOUNDATION FOOTPRINT: 413.8 M²
BUILDING ROOF SURFACE AREA: 413.8 M²
TOTAL PAVED AREA: 1202.4 M²
TOTAL GRASSED AREA: 898 M²
TOTAL FORESTED AREA (EXISTING TO REMAIN): 4231.6 M²

NOTE: DISTANCES ON THIS PLAN ARE METRIC AND CAN BE CONVERTED TO IMPERIAL BY MULTIPLYING BY 3.28

QUANTUM ENGINEERING

97 CORTLAND CREEK DR
TAYLOR ONTARIO L9R 0P2
Phone: (705) 549-7791
Fax: (866) 516-9827
www.qeng.ca

PROJECT: **NEW COMMERCIAL FACILITY**

LOCATION: 120 PILLSBURY DR, MIDLAND, ONTARIO

FOR: SCHULTZ - VANT SPYKER

DRAWING: **SITE PLAN**

DATE: AUG. 2023	PROJECT NO: 6506	PAGE ID: CI
DRAWN BY: K.J.L.		
SCALE: SEE PLOT		