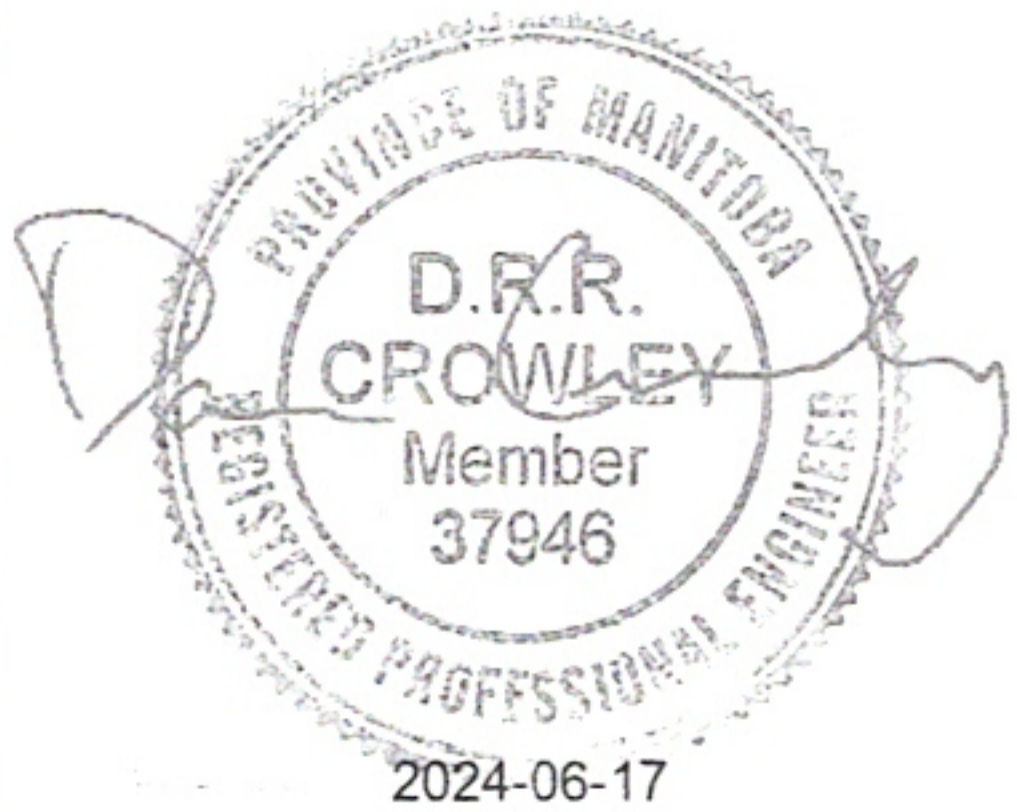


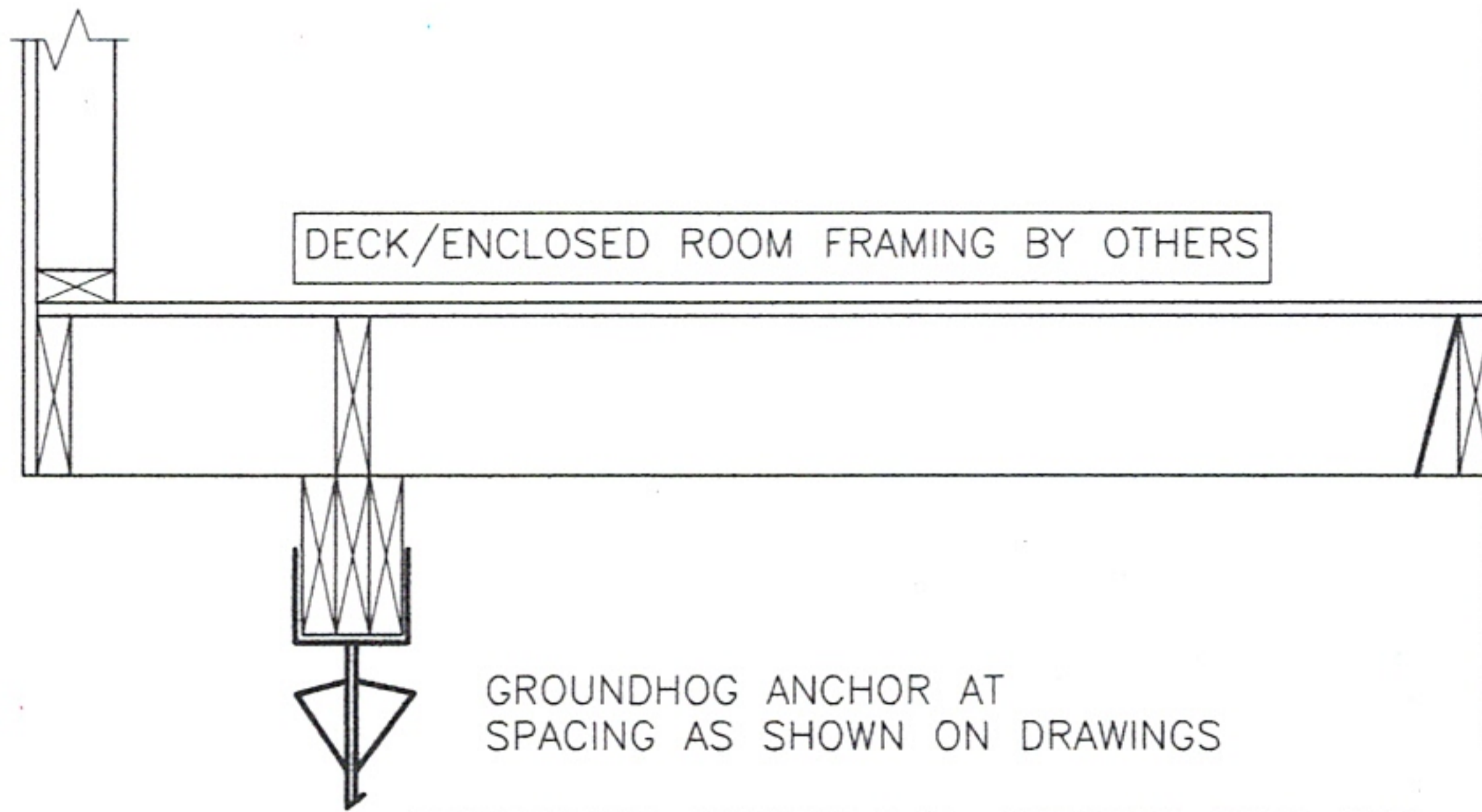
GROUNDHOG ANCHOR AND SUPPORT SYSTEMS			
RECOMMENDED DESIGN LOADS			
ANCHOR TYPE MODEL NO.	SHAFT LENGTH	FLIGHT AUGER DIAM.	ALLOWABLE LOAD (LBS)
12/12	12'-0"	12"	5000
8/12	8'-0"	12"	5000
8/9	8'-0"	9"	3000
6/8	6'-0"	8"	2000

Notes:

1. Ultimate loads were based on a vertical applied load that created a 0.1 inch displacement.  
National Testing Laboratories Limited, report date June 07, 2010.
2. Piles have been tested according to the requirements of ASTM D1143.
3. Piles comply to the requirements of:
  - a. Clause 4.2.3.8 (1)
  - b. Sentence 4.2.3.10 (1)
  - c. Sentence 4.2.4.1 (1)
  - d. Sentence 9.4.1.1 (1)(c)(i)  
of the Manitoba Building Code (2024)
4. Safety factor applied to ultimate load=2.
5. Test soil type was firm to stiff clay – (1500 psf bearing capacity)
6. Loads values will have to be revised for different soil conditions.  
Engineer to be contacted if site soil conditions are not firm to stiff clay or dense sand  
Engineer shall be retained to calculate the loads being applied.
7. Site specific field modifications to be undertaken by registered installers of Groundhog Anchors only.

CERTIFICATION APPLICABLE FOR JUNE 2024 – JUNE 2025

<b>WOLFROM</b> ENGINEERING LTD CONSULTING ENGINEERS 345 WARDLAW AVENUE WINNIPEG, CANADA R3L 0L5 (204)452-0041 FAX: 284-8680 E-Mail: info@wolfromeng.com	DATE	
	JUNE 16, 2024	
SCALE	AS NOTED	
JOB TITLE  DESIGN CRITERIA GROUNDHOG ANCHOR AND SUPPORT SYSTEMS NEW ORDER ENTERPRISES	FILE NO.	W24193
	DRAWING NO.	



GROUNDHOG ANCHOR AT  
SPACING AS SHOWN ON DRAWINGS

GROUNDHOG ANCHOR 8/9-CAPACITY 3000 LBS  
GROUNDHOG ANCHOR 12/12 AND 8/12 CAPACITY 5000 LBS  
GROUNDHOG ANCHOR 6/8 CAPACITY 2000 LBS


**General Notes:**

This sketches and drawings are not site specific.  
Soil conditions may vary from site to site. Building  
authorities will require site specific drawings.  
The Engineer has not been retained to provide drawings or supervision.

GROUNDHOG ANCHOR TO BE INSTALLED IN FIRM TO STIFF CLAY OR DENSE SAND

NOTE:  
FRAMING SHOWN ON SECTION IS A GENERAL ASSEMBLY ONLY AND IS NOT MEANT FOR  
CONSTRUCTION. REFER TO LOCAL BUILDING CODES OR DRAWINGS FOR FRAMING SPECS AND  
GROUNDHOG SPACING.

CERTIFICATION APPLICABLE FOR JUNE 2024 – JUNE 2025

<b>WOLFROM</b> ENGINEERING LTD CONSULTING ENGINEERS 345 WARDLAW AVENUE WINNIPEG, CANADA R3L 0L5 (204)452-0041 FAX: 284-8680 E-Mail: info@wolfromeng.com	DATE JUNE 16, 2024	SEAL  2024-06-17
	SCALE AS NOTED	
JOB TITLE  TYPICAL CROSS SECTION GROUNDHOG ANCHOR AND SUPPORT SYSTEMS NEW ORDER ENTERPRISES	FILE NO. W24193	
	DRAWING NO. SK-2	