



Environmental

Geotechnical

Building Sciences

Construction Quality  
Verification

**Telephone**

(866) 217.7900  
(705) 742.7900

**Facsimile**

(705) 742.7907

**Website**

[cambium-inc.com](http://cambium-inc.com)

**Mailing Address**

P.O. Box 325,  
Peterborough, Ontario  
Canada, K9J 6Z3

**Locations**

Peterborough  
Kingston  
Barrie  
Oshawa

**Laboratory**

Peterborough



March 9, 2023

Paul McMahon  
153 Ninth Line Road,  
Douro-Dummer, ON

Attn: Paul McMahon  
Sent via email: [paulmcmahon@xplornet.com](mailto:paulmcmahon@xplornet.com)

**Re: Environmental Management Plan at 153 Ninth Line Road, Douro-Dummer, Ontario**  
**Cambium Reference: 12683-001**

---

Dear Paul McMahon,

Cambium Inc. (Cambium) is pleased to provide Paul McMahon (the Client) with the following Environmental Management Plan (EMP) for the proposed construction of an accessory storage structure at 153 Ninth Line Road, Douro-Dummer, Ontario (Figure 1; the Site). This EMP was prepared as part of an Otonabee Region Conservation Authority (ORCA) permit submission for the proposed development. The EMP includes details on the following plans to satisfy ORCA permit requirements:

- Work Sequencing Plan
- Erosion and Sediment Control Plan
- Planting Plan
- Monitoring Plan
- Construction Plan
- Site Plan

## BACKGROUND

The Client is proposing to construct an accessory storage building adjacent to the existing buildings at 153 Douro Ninth Line, Douro-Dummer, Peterborough County, Ontario (Appendix A). The proposed work is located approximately 40 m south of the existing dwelling and accessory structures. An Environmental Impact Study (EIS) was completed by Cambium in 2022. The EIS demonstrated that the



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proposed activities were outside of the adjacent wetland area and that potential negative impacts can be appropriately mitigated. A Site Plan has been developed that incorporates the appropriate setbacks, as per recommendations in the EIS (Figure 2). This EMP provides additional details recommended within the EIS, as well as to address requests by ORCA to support the application.

## WORK SEQUENCING PLAN

The intent of the Work Sequencing Plan (WSP) is to ensure construction activities conform to the recommendations provided in the Environmental Impact Study (Cambium, 2022). The WSP was developed to mitigate against potential impacts to the adjacent natural heritage features, including wetland and wildlife habitat.

In order to mitigate for disturbances to grassland birds, construction activities are to be completed outside of the breeding bird season, which extends from April 1 to August 30 of any given year. Assuming that the proposed development area is disturbed (cleared of vegetation) prior to April 1, interactions with grassland birds are not expected and construction within the construction area can continue throughout this period.

Prior to any mobilization or ground disturbances, associated erosion and sediment control (ESC) shall be properly installed as per the design in Figure 3.

## EROSION AND SEDIMENT CONTROL PLAN

Prior to any mobilization or ground disturbances, associated erosion and sediment control (ESC) shall be properly installed as per the design in Figure 3. Once ESC is installed, an inspection should be completed to ensure that ESC are installed correctly. Mobilization and construction activities may occur after the ESC inspection is complete. ESC measures shall remain in place until soil is stabilized with vegetation growth. All ESC is to be removed once sufficient (>80%) vegetation growth is established and/or after construction is complete.

Sediment fencing shall be properly installed around the perimeter of the construction area, with double-walled sediment fencing installed along the south,



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east, and north Site boundaries (Figure 3). The double-walled sediment fencing shall be placed 0.5 m from each other and is designed to add additional protection to adjacent wetland areas.

A mud mat, consisting of 50 – 100 mm aggregate should be installed at the entrance/exit to the construction area to collect sediment from equipment entering and leaving the Site.

Long-term ESC are described in the Planting Plan, detailed herein.

Ontario Provincial Standard Drawings for the proposed ESC are described in Appendix B.

## PLANTING PLAN

### Current Site Conditions

According to the EIS, the area in which the proposed construction is to occur consists of an open pasture community, with active cattle disturbances observed throughout (Cambium, 2022). The area is adjacent to constructed agricultural ponds to the northeast and a wetland area to the east. The wetland is provided a 10 m setback as per the EIS, in which development is not to occur.

### Planting Plan

The goal of this Planting Plan is to establish natural vegetative growth after construction to stabilize the soils and improve the ecological function of setback area between the wetland and the development area. Improvements made within the setback area will also provide additional habitat for wildlife. The Planting Plan follows the recommendations made within the EIS and additional best management practices to mitigate for potential erosion and sediment concerns (Cambium, 2022).

A 10 m wetland setback is recommended for the adjacent to unevaluated wetland, as shown in Figure 2. To supplement the function of the 10 m setback, Cambium recommends that additional enhancement measures be incorporated in the site plans. At minimum, Cambium recommends enhancement plantings at a 1:1 ratio to provide additional mitigation measures to the wetland community



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(0.07 ha total). This replanting should be completed within the 10 m wetland buffer and should be completed directly adjacent to the proposed building footprint, as shown in Figure 2. Species to be considered include Red-osier Dogwood (*Cornus sericea*), White Elm (*Ulmus americana*), Willow species (*Salix spp.*), Spotted Jewelweed (*Impatiens capensis*), and Swamp Milkweed (*Asclepias incarnata*).

Cambium also recommends an Eastern White Cedar hedgerow to be established along the southern fence line of the developable area (Figure 2). The hedgerow will provide additional protection from development and future activities for the wetland feature and will also provide a barrier for any potential future development within the 10 m wetland setback.

Areas that were disturbed within the developable area should be stabilized with vegetation immediately after construction. Cambium recommends seeding the area with an appropriate grass mixture such as the Ontario Seed Company Rural Ontario Roadside Mix, or if the area is to be maintained as a lawn, appropriate sod or grass seed installation should occur. Application rates should be applied as per manufacturers specifications. Vegetation growth must be greater than 80% in order to be considered stabilized and ESC measures should remain until 80% vegetation growth is observed.

## Site Preparation

Prior to mobilization or vegetation clearing, ESC measures will be installed. During the installation of ESC measures and planting activities, there is the potential for soil compaction due to heavy equipment access to the area. Soil compaction can prevent the establishment of vegetation by impeding root growth. Compaction can also reduce the infiltration of water, increasing the potential for erosion and sedimentation. As such, it is recommended that heavy equipment traffic be limited within the planting area to the extent possible. Further, the soil surfaces within the areas designated for revegetation should be made rough and loose where possible. This can be accomplished by ploughing the planting area. This method will provide soil depths of at least 25 cm that are generally tolerable for most tree species (OMAFRA, 2008).



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## MONITORING PLAN

It is recommended that an adaptive monitoring plan be implemented to ensure the ESC measures and Planting Plan are effective. Monitoring should be completed by a qualified professional.

ESC measures should be inspected after installation to ensure that proper installation occurred as per the ESC Plan (Figure 3). ESC measures should be inspected by the Client at a minimum of weekly intervals and after significant precipitation events (>12 mm within 24 hours). ESC measures that are observed to be in disrepair should be repaired within 24 hours. All ESC measures should be maintained throughout the duration of the project to ensure efficacy.

The replanting area should be monitored once a year for two growing seasons after installation to ensure plantings have established and to determine the need for replacement plantings, if necessary. An 80% survival rate for planted trees and shrubs should be obtained. Replacement plantings should be completed after two years to bring the total number of living plants to 80%, ensuring survival is spread between trees and shrubs. Given the local seed source available from adjacent wetland areas, it is anticipated that other native species will establish on their own within the buffer.

The buffer enhancement area should also be monitored for the presence of invasive species to prevent competition with the intentional plantings. Should invasive species be found, recommendations regarding methods for removal and management will be provided. Monitoring results should be reported to ORCA at the end of each of the two growing seasons.

## Plant Material Suppliers

Below is a list of potential suppliers – these are provided as guidance only and other sources of native stock can be used. This list is not in priority or preference basis.

### Trees and Shrubs:

- Richardson's Pineneedle Farms: Pontypool, ON: 705.277.9993



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- Kobes Nursery: Bowmanville, ON: 905.263.8814
- Uxbridge Nurseries: Brooklin, ON: 905.655.3379

Seed Mixtures:

- Ontario Seed Company: Kitchener, ON: 226.210.3704

Note: Seed mixture species composition and pricing can be viewed online at:  
[www.oscseeds.com](http://www.oscseeds.com) (Search via OSC Product Number).

## SUMMARY OF RECOMMENDATIONS

1. Construction activities are to be completed outside of the breeding bird season, which extends from April 1 to August 30 of any given year. Assuming that the proposed development area is disturbed (cleared of vegetation) prior to April 1, interactions with grassland birds are not expected and construction within the construction area can continue throughout this period.
2. Prior to any mobilization or ground disturbances, associated erosion and sediment control (ESC) shall be properly installed as per the design in Figure 3.
3. ESC measures should be inspected after installation to ensure that proper installation occurred as per the ESC Plan (Figure 3). ESC measures should be inspected by the Client at a minimum of weekly intervals and after significant precipitation events (>12 mm within 24 hours).
4. All ESC is to be removed once sufficient (>80%) vegetation growth is established and/or after construction is complete.
5. Cambium recommends enhancement plantings at a 1:1 ratio to provide additional mitigation measures to the wetland setback area (0.07 ha total). This replanting should be completed within the 10 m wetland buffer and should be completed directly adjacent to the proposed building footprint, as shown in Figure 2.



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6. Cambium also recommends an Eastern White Cedar hedgerow to be established along the southern fence line of the developable area (Figure 2).
7. Areas that were disturbed within the developable area should be stabilized with vegetation immediately after construction. Cambium recommends seeding the area with an appropriate grass mixture such as the Ontario Seed Company Rural Ontario Roadside Mix, or if the area is to be maintained as a lawn, appropriate sod or grass seed installation should occur.
8. It is recommended that heavy equipment traffic be limited within the planting area to the extent possible. Further, the soil surfaces within the areas designated for revegetation should be made rough and loose where possible. This can be accomplished by ploughing the planting area. This method will provide soil depths of at least 25 cm that are generally tolerable for most tree species (OMAFRA, 2008).
9. The replanting area should be monitored once a year for two growing seasons after installation to ensure plantings have established and to determine the need for replacement plantings, if necessary. An 80% survival rate for planted trees and shrubs should be obtained. Replacement plantings should be completed after two years to bring the total number of living plants to 80%, ensuring survival is spread between trees and shrubs. The buffer enhancement area should also be monitored for the presence of invasive species to prevent competition with the intentional plantings. Should invasive species be found, recommendations regarding methods for removal and management will be provided. Monitoring results should be reported to ORCA at the end of each of the two growing seasons.

## CLOSING

Cambium trusts that this Environmental Management Plan meets ORCA's requirements for the associated permitting required to complete the proposed



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March 9, 2023

development. Should any of the involved parties have any questions or require clarification on any aspect of this submission, please do not hesitate to contact the undersigned at (705) 742-7900.

Best regards,

**Cambium Inc.**

Myles Latter, B.A. Hons., Dipl., C.E.T.,  
CAN-CISEC  
Project Coordinator

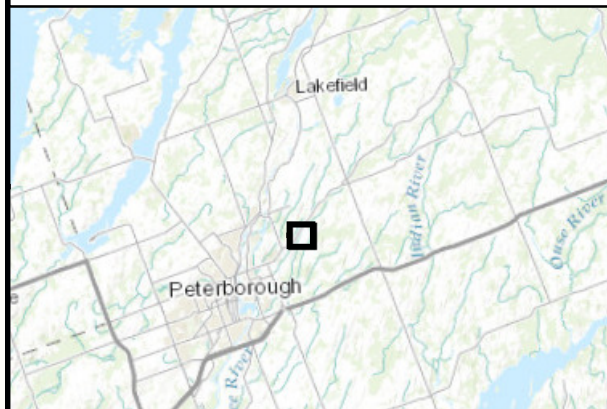
Camden Jerney, B.Sc., CAN-CISEC  
Project Manager/Senior Ecologist

MOL/cj

P:\12600 to 12699\12683-001 Starfra Feeds - NHE - 153 Douro Ninth Line, Douro-Dummer\Deliverables\EMP\2023-03-09 LTR EMP - 153 Ninth Line, Douro-Dummer.docx



# REGIONAL LOCATION



## ENVIRONMENTAL MANAGEMENT PLAN

STARFRA FEEDS  
153 Douro Ninth Line  
Douro-Dummer, Ontario

### LEGEND

- Major Road
- Water Area
- Site (approximate 0.3 ha.)

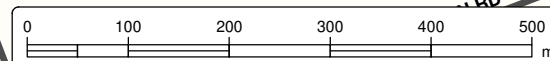
**Notes:**  
 - Base mapping features are © Queen's Printer of Ontario, 2019 (this does not constitute an endorsement by the Ministry of Natural Resources and Forestry or the Ontario Government).  
 - Distances on this plan are in metres and can be converted to feet by dividing by 0.3048.  
 - Cambium Inc. makes every effort to ensure this map is free from errors but cannot be held responsible for any damages due to error or omissions. This map should not be used for navigation or legal purposes. It is intended for general reference use only.

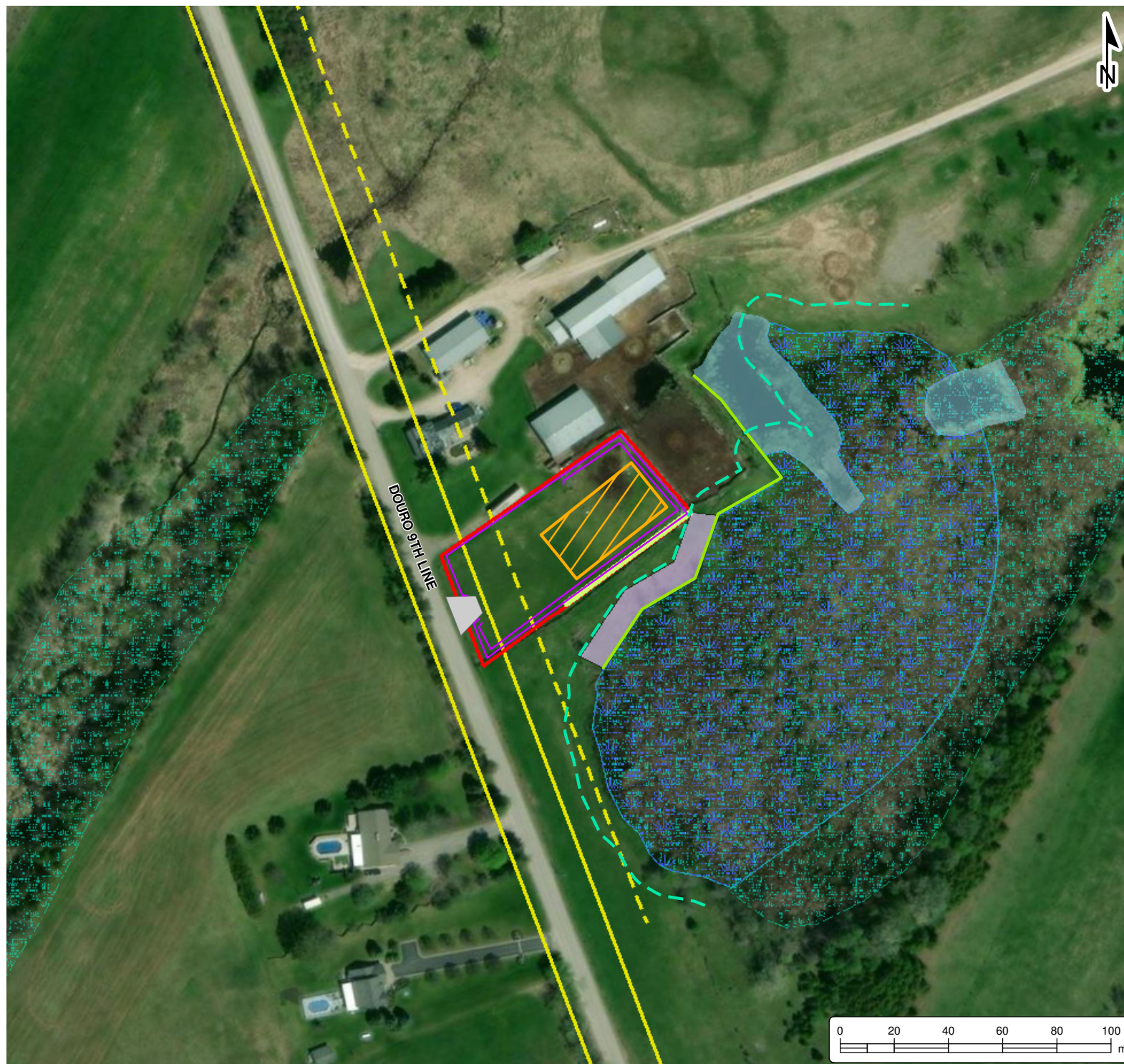


194 Sophia Street  
Peterborough, Ontario, K9H 1E5  
Tel: (705) 742.7900 Fax: (705) 742.7907  
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### SITE LOCATION

Project No.:	12683-001	Date:	February 2023
Scale:	1:7,500	Rev.:	
Created by:	DJL	Projection:	NAD 1983 UTM Zone 17N
Checked by:	MOL	Figure:	<b>1</b>





# ENVIRONMENTAL MANAGEMENT PLAN

## STARFRA FEEDS

153 Douro Ninth Line  
Douro-Dummer, Ontario

### LEGEND

- 14m Right of Way Setback
- Proposed 10m Wetland Setback
- Sediment Fence
- Verified Wetland Boundary
- Pond
- Unevaluated Wetland
- Wetland
- MTO Right of Way
- Mud Mat (50mm - 100 mm aggregate)
- Restoration Area
- Cedar Hedgerow
- Proposed Building Footprint
- Site (0.33 ha) (approximate)

### Notes:

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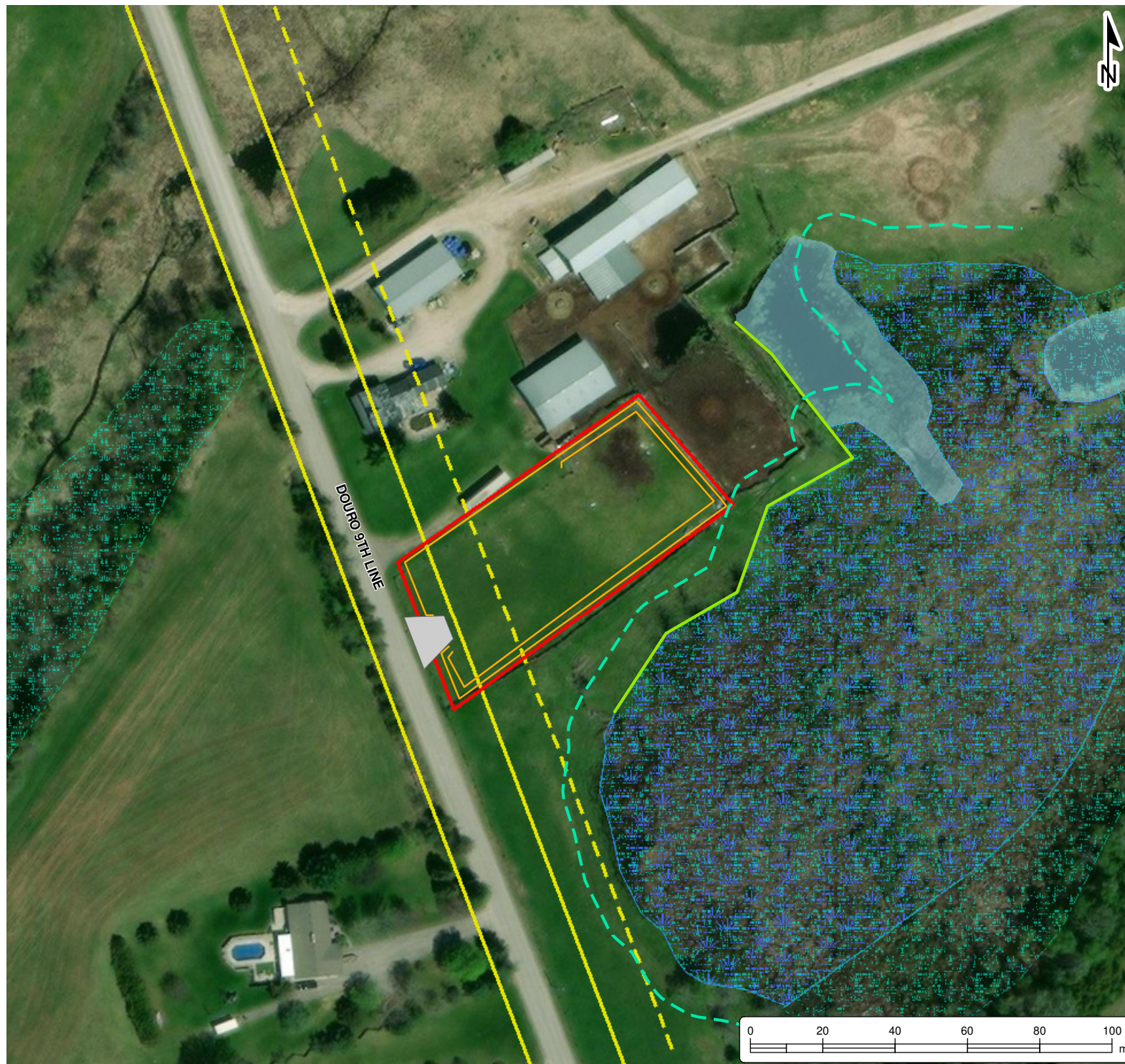


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### SITE PLAN

Project No.:	12683-001	Date:	February 2023
Scale:	1:2,000	Rev.:	
Created by:	DJL	Checked by:	MOL
Figure:			<b>2</b>





# ENVIRONMENTAL MANAGEMENT PLAN

STARFRA FEEDS  
153 Douro Ninth Line  
Douro-Dummer, Ontario

## LEGEND

- 14m Right of Way Setback
- Proposed 10m Wetland Setback
- Sediment Fence
- Verified Wetland Boundary
- Pond
- Unevaluated Wetland
- Wetland
- MTO Right of Way
- Mud Mat (50mm - 100 mm aggregate)
- Site (0.33 ha) (approximate)

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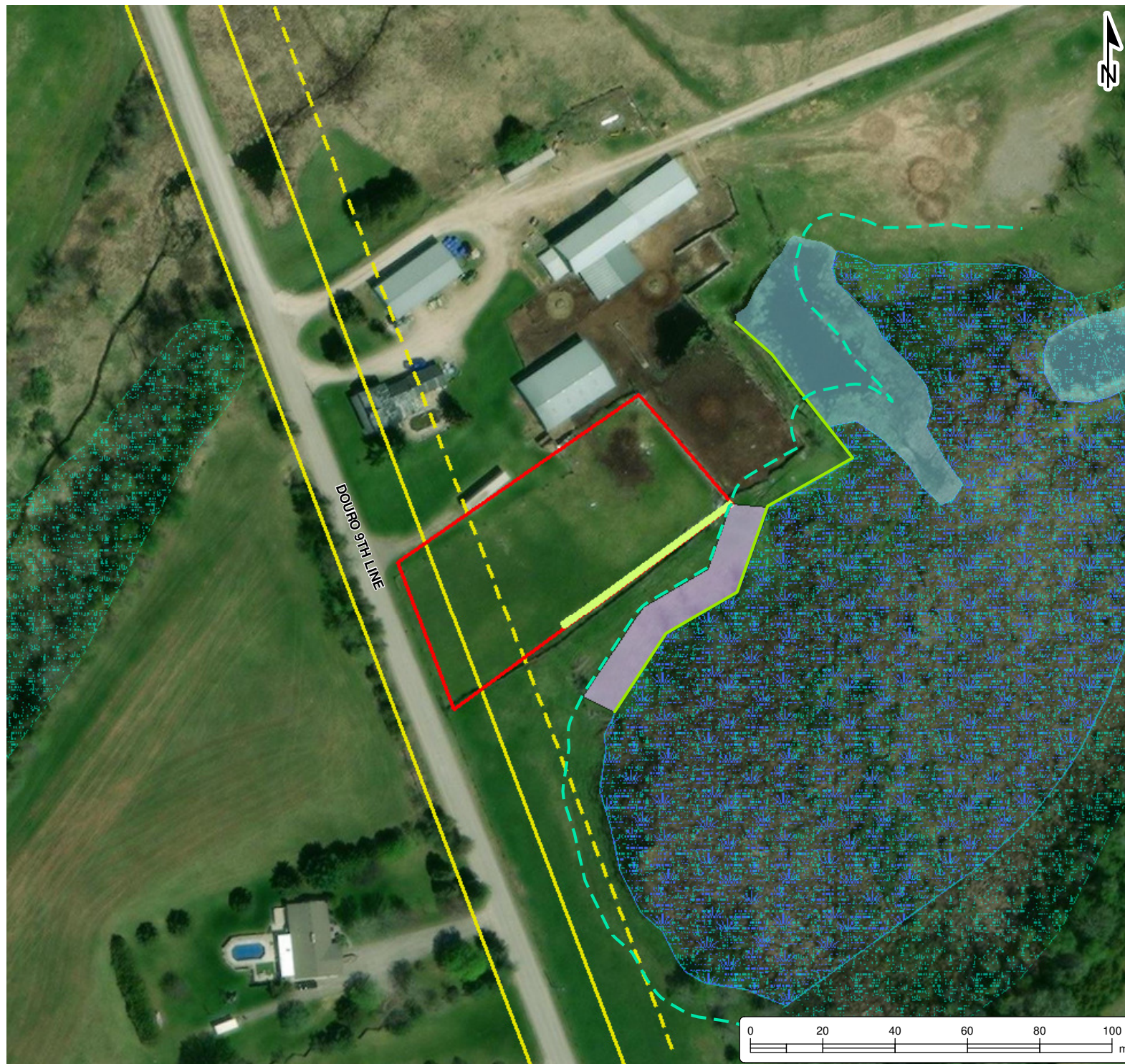


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## EROSION AND SEDIMENT CONTROL PLAN

Project No.:	12683-001	Date:	February 2023
Scale:	1:1,500	Rev.:	
Created by:	DJL	Projection:	NAD 1983 UTM Zone 17N
Checked by:	MOL	Figure:	<b>3</b>





# ENVIRONMENTAL MANAGEMENT PLAN

STARFRA FEEDS  
153 Douro Ninth Line  
Douro-Dummer, Ontario

## LEGEND

- 14m Right of Way Setback
- Proposed 10m Wetland Setback
- Verified Wetland Boundary
- Pond
- Unevaluated Wetland
- Wetland
- MTO Right of Way
- Restoration Area
- Cedar Hedgerow
- Site (0.33 ha) (approximate)

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## PLANTING PLAN

Project No.: 12683-001	Date: February 2023
Scale: 1:1,500	Rev.: NAD 1983 UTM Zone 17N
Created by: DJL	Checked by: MOL
Figure: <b>4</b>	



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March 9, 2023

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# Appendix A

## Construction Plan

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 Professional Engineers  
Ontario

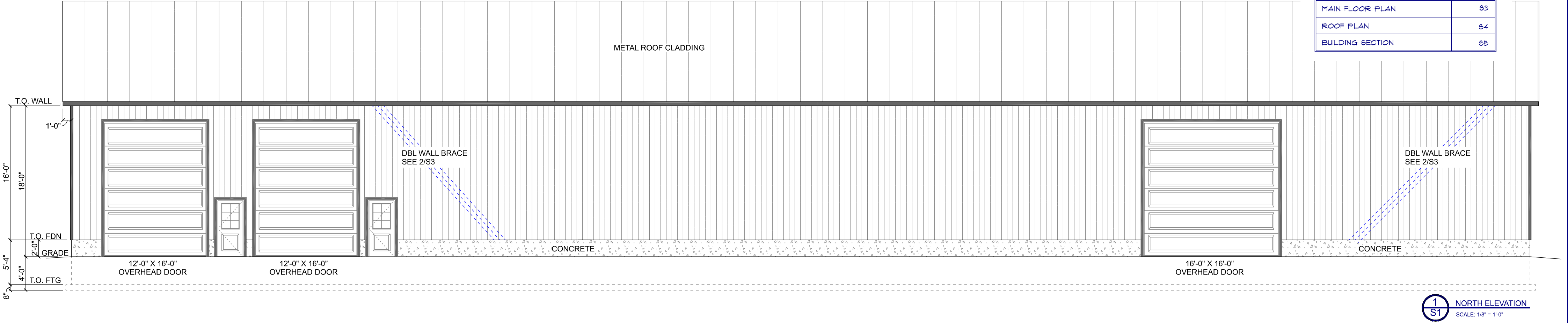
**APGO**



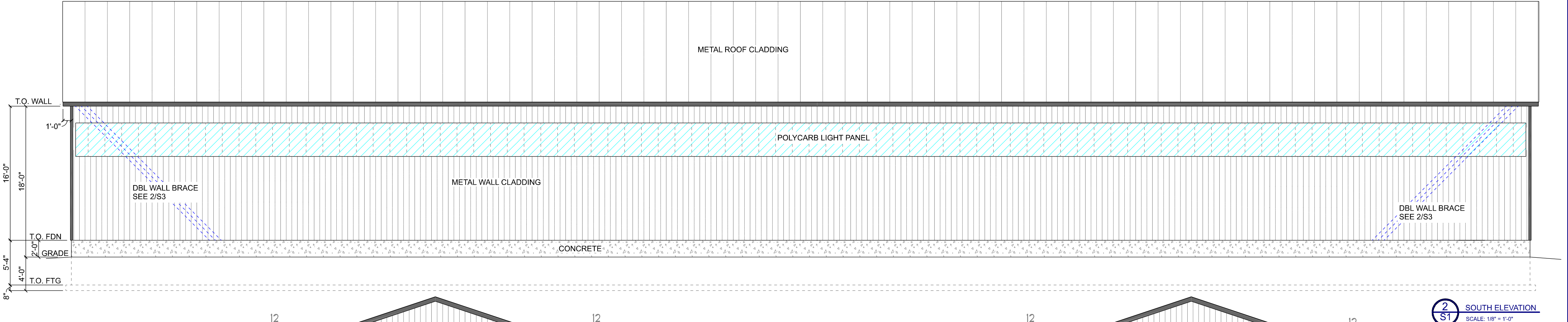


70'-0" X 174'-0" FARM STORAGE BUILDING for PAUL McMAHON

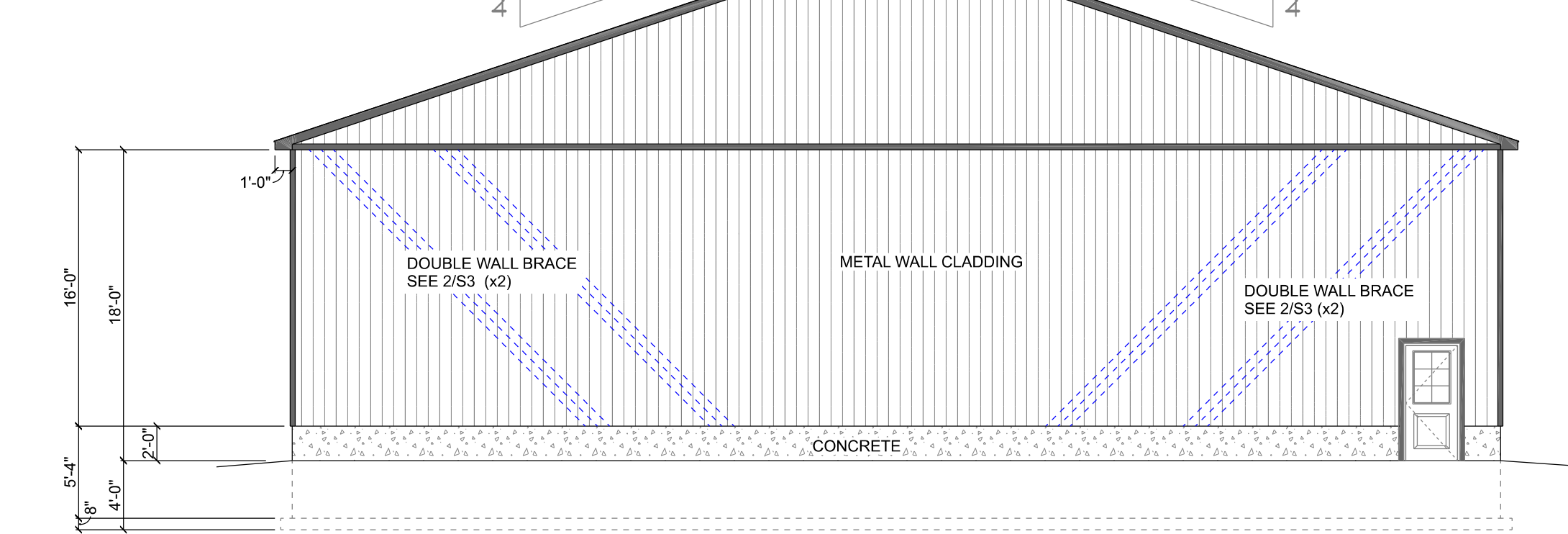
DRAWING NAME	PAGE
COVER PAGE, ALL ELEVATIONS	81
FOUNDATION PLAN	82
MAIN FLOOR PLAN	83
ROOF PLAN	84
BUILDING SECTION	85



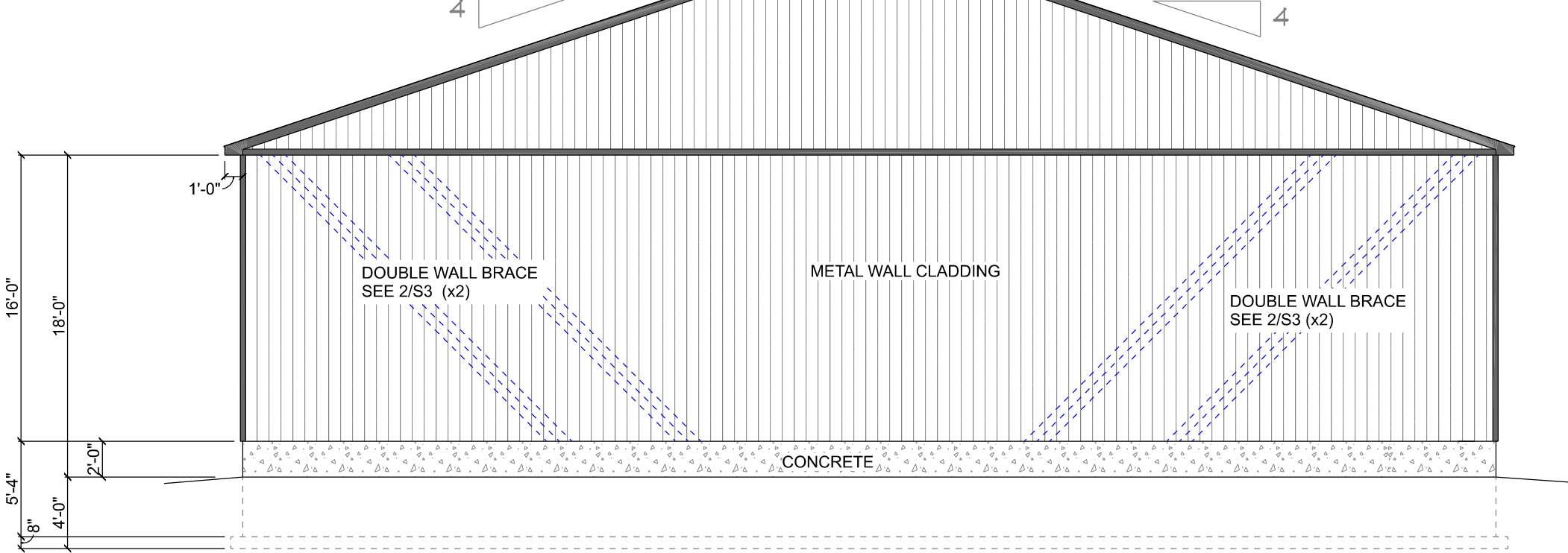
1 NORTH ELEVATION  
SCALE: 1/8" = 1'-0"



2 SOUTH ELEVATION  
SCALE: 1/8" = 1'-0"



3 WEST ELEVATION  
SCALE: 1/8" = 1'-0"



4 EAST ELEVATION  
SCALE: 1/8" = 1'-0"

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	FEB 4, 2022	ISSUED FOR CLIENT REVIEW
	AUG 25, 2022	ISSUED FOR PERMIT
	OCT 17, 2022	DOOR LOCATION CHANGES

44681 Gough Road, RR 2 Gorrie, Ontario  
N0G 1X0 Phone: 1-877-366-4650  
DESIGNER INFORMATION:  
Peter Dyck 103 800  
ALL CONSTRUCTION IS TO CONFORM TO THE  
ONTARIO BUILDING CODE, LATEST EDITION

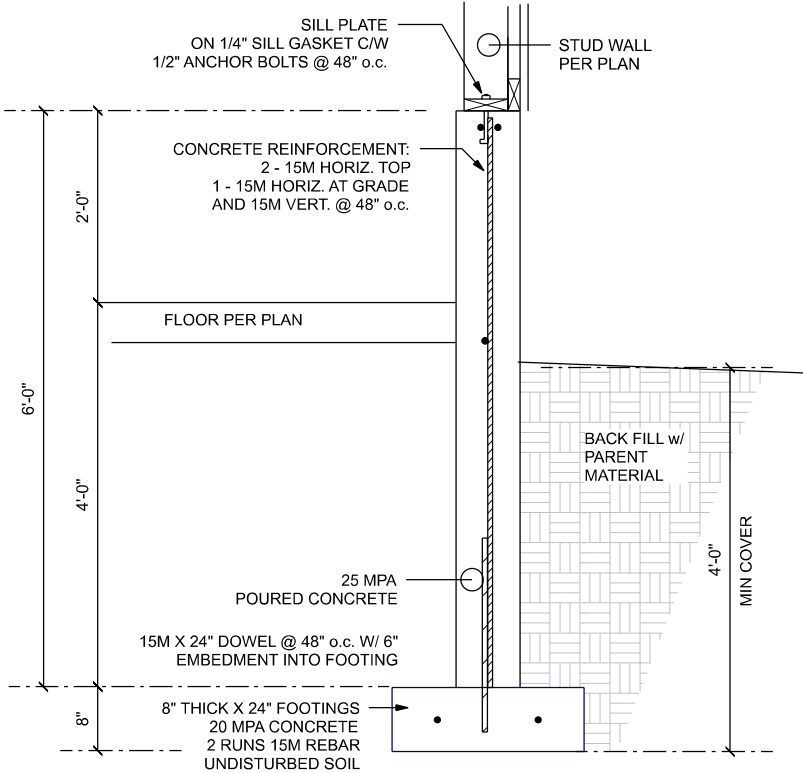
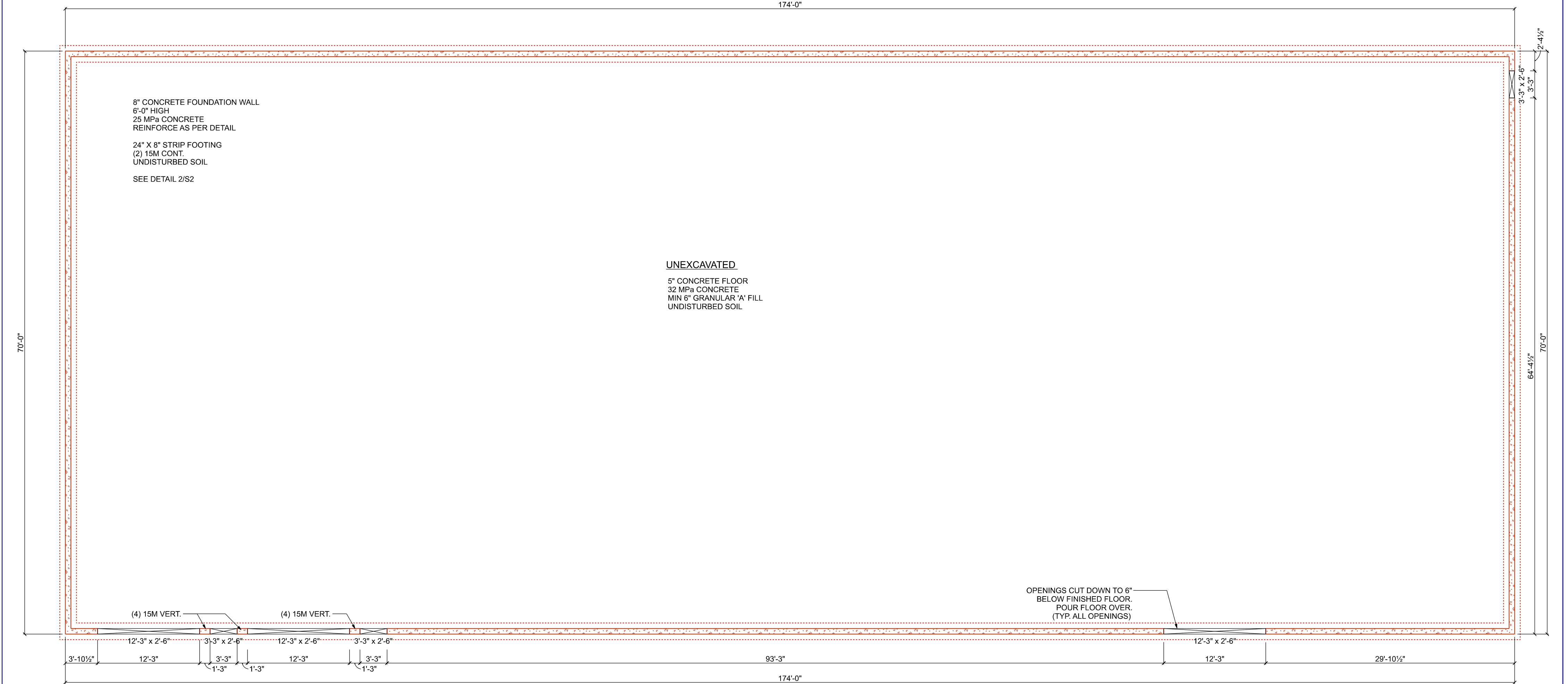
THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS BEFORE CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED IMMEDIATELY. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR PROCEED IN UNCERTAINTY.

S. DESROCHES  
100222482  
October 17 2022  
PROVINCE OF ONTARIO

PROJECT # 22-09-061  
  
WADDELL  
ENGINEERING LTD.  
119 PINEBUSH RD. CAMBRIDGE ON  
PH. 519-267-6789  
FAX. 1-866-388-9659  
INFO@WADDELLENG.COM

Client	STARFRA FEEDS	Drawing	ALL ELEVATIONS
Project Title	70'-0" X 174'-0" FARM STORAGE BUILDING	Scale	1/8" = 1'-0"
	129 9th LINE DOURO, ON	Date	FEB. 4, 2022
		Drawn By	R. WARKENTIN
		Proj. #	2686

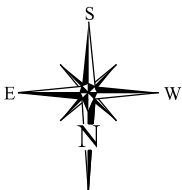
S1



2 FOUNDATION DETAIL  
SCALE: 1/2" = 1'-0"

1 FOUNDATION PLAN  
SCALE: 1/8" = 1'-0"

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FEB 4, 2022	ISSUED FOR CLIENT REVIEW
AUG 25, 2022	ISSUED FOR PERMIT
OCT 17, 2022	DOOR LOCATION CHANGES



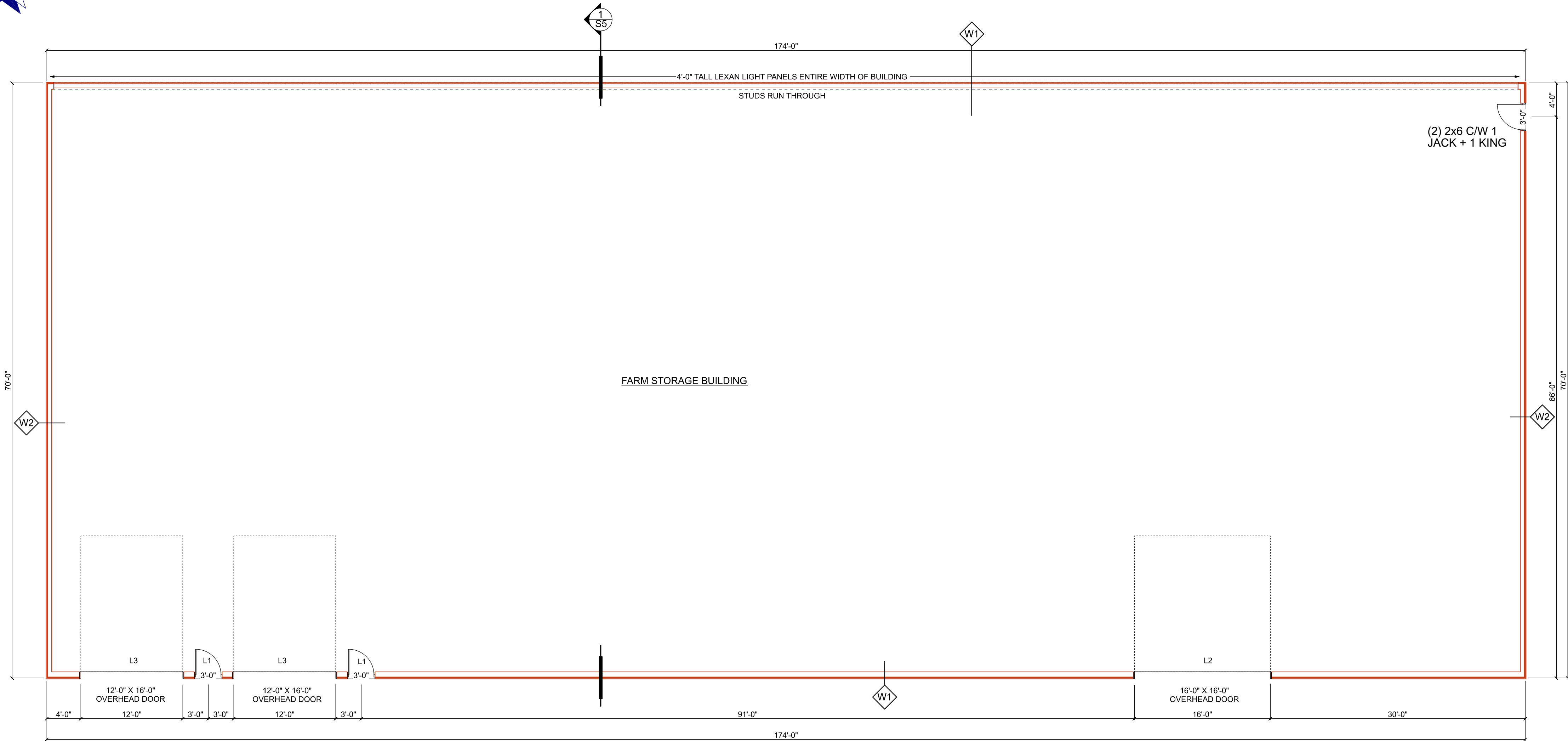
44681 Gough Road, RR 2 Gorrie, Ontario  
N0G 1X0 Phone: 1-877-366-4650  
DESIGNER INFORMATION:  
Peter Dyck 103 800

ALL CONSTRUCTION IS TO CONFORM TO THE  
ONTARIO BUILDING CODE, LATEST EDITION

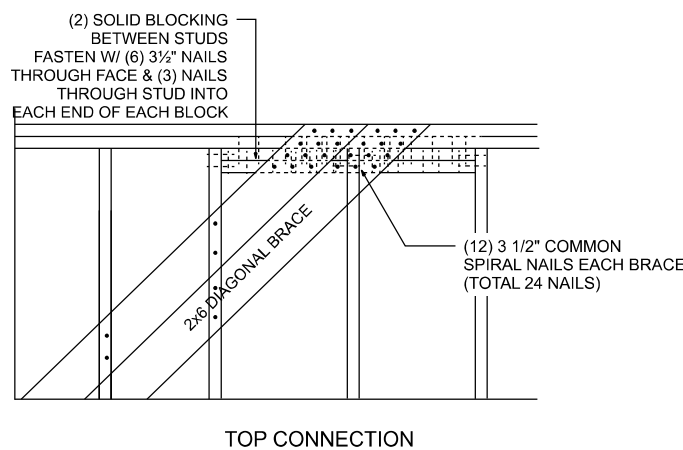
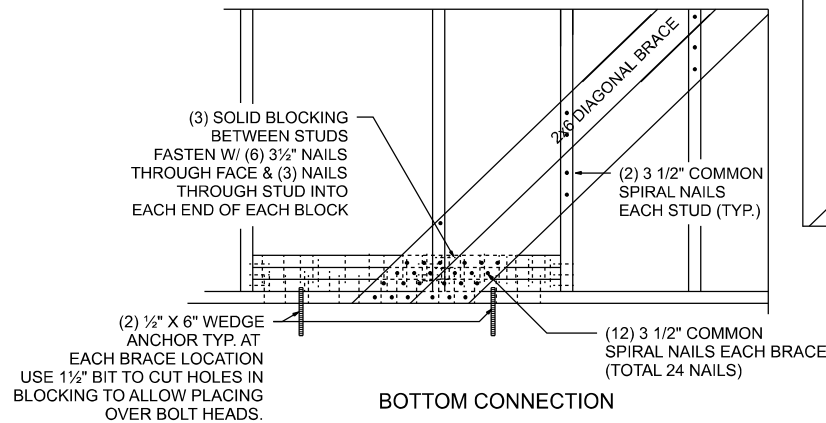
THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS BEFORE CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED IMMEDIATELY. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR PROCEED IN UNCERTAINTY.



Client	STARFRA FEEDS		Drawing	FOUNDATION PLAN	
Project Title	70'-0" X 174'-0" FARM STORAGE BUILDING		Scale	1/8" = 1'-0"	S2
Date	FEB. 4, 2022		Drawn By	R. WARKENTIN	
Proj. #	2686				
	129 9th LINE DOURO, ON				



NOTES:  
1. 2x6 BRACE IS TO BE CONTINUOUS AND END AT STUD CONNECTION TO PLATE.  
2. DO NOT NOTCH BRACES INTO STUDS.  
3. INSTALL BRACES AT APPROXIMATELY 45 deg ANGLES.  
4. MIN. NAIL SPACING 1-1/4".



2 S3 DOUBLE WALL BRACE DETAILS  
SCALE: 1/8" = 1'-0"

FRAMED WALL SCHEDULE:

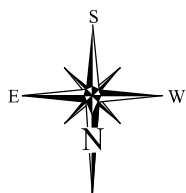
- W1 2X8 EXTERIOR FRAMED WALL:  
29 ga. METAL CLADDING  
2X4 STRAPPING @ 24" O.C.  
2X8 STUDS @ 24" O.C.  
BLOCKING @ 48" O.C.  
BRACING AS PER ELEVATIONS
- W2 2X6 EXTERIOR FRAMED WALL:  
29 ga. METAL CLADDING  
2X4 STRAPPING @ 24" O.C.  
2X6 STUDS @ 24" O.C.  
BLOCKING @ 48" O.C.  
BRACING AS PER ELEVATIONS

LINTEL SCHEDULE:

- L1 = (3) 2X10 LINTEL C/W  
1 STUD BEARING & 1 STUD KING
- L2 = W8X18 STEEL BEAM C/W  
3 STUDS BEARING & 2 STUDS KING  
SEE DETAIL 2/S5
- L3 = W10X22 STEEL BEAM C/W  
3 STUDS BEARING & 3 STUDS KING  
SEE DETAIL 2/S5

1 S3 MAIN FLOOR PLAN  
SCALE: 1/8" = 1'-0"

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FEB 4, 2022	ISSUED FOR CLIENT REVIEW
AUG 25, 2022	ISSUED FOR PERMIT
OCT 17, 2022	DOOR LOCATION CHANGES



44681 Gough Road, RR 2 Gorrie, Ontario  
N0G 1X0 Phone: 1-877-366-4650  
DESIGNER INFORMATION:  
Peter Dyck 103 800

ALL CONSTRUCTION IS TO CONFORM TO THE ONTARIO BUILDING CODE, LATEST EDITION

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS BEFORE CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED IMMEDIATELY. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR PROCEED IN UNCERTAINTY.



Client  
**STARFRA FEEDS**

Project Title  
**70'-0" X 174'-0"  
FARM STORAGE BUILDING**

129 9th LINE  
DOURO, ON

Drawing  
**MAIN FLOOR PLAN**

Scale  
1/8" = 1'-0"

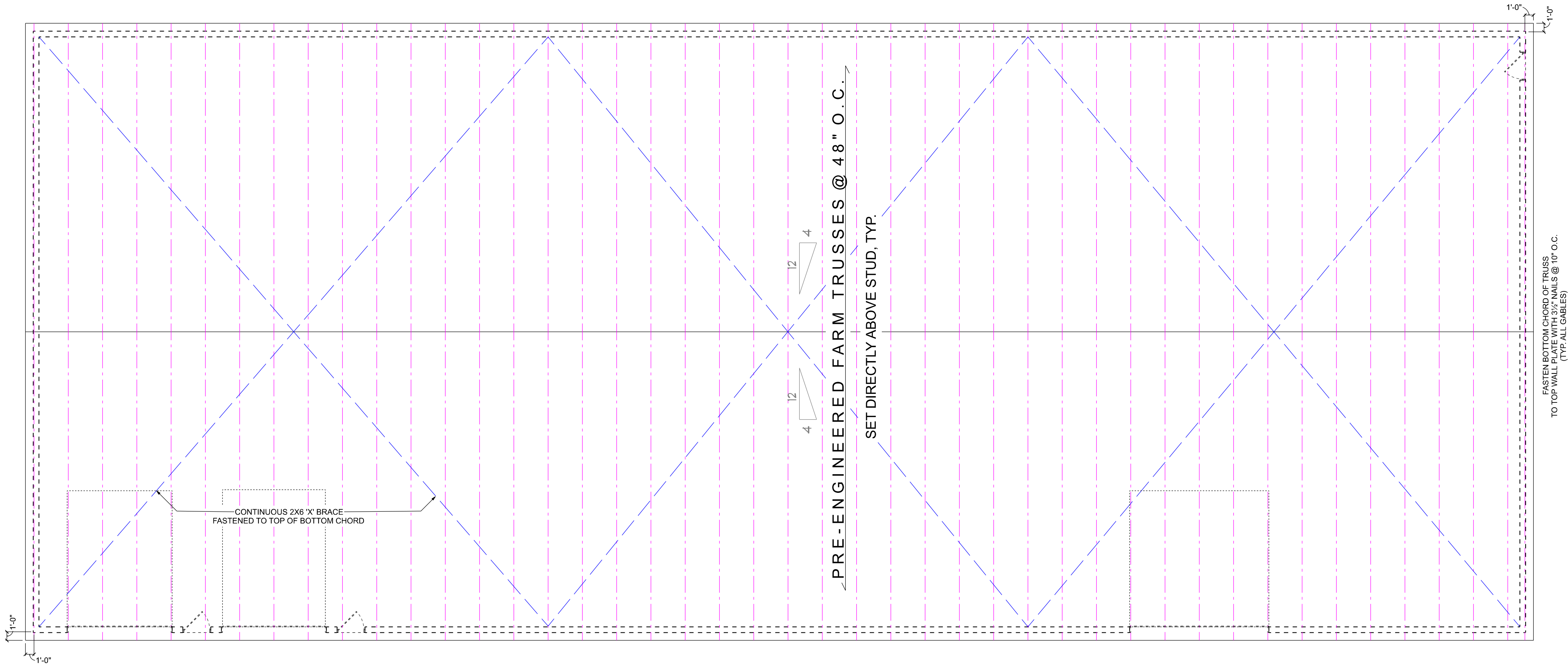
Date  
FEB. 4, 2022

Drawn By  
R. WARKENTIN

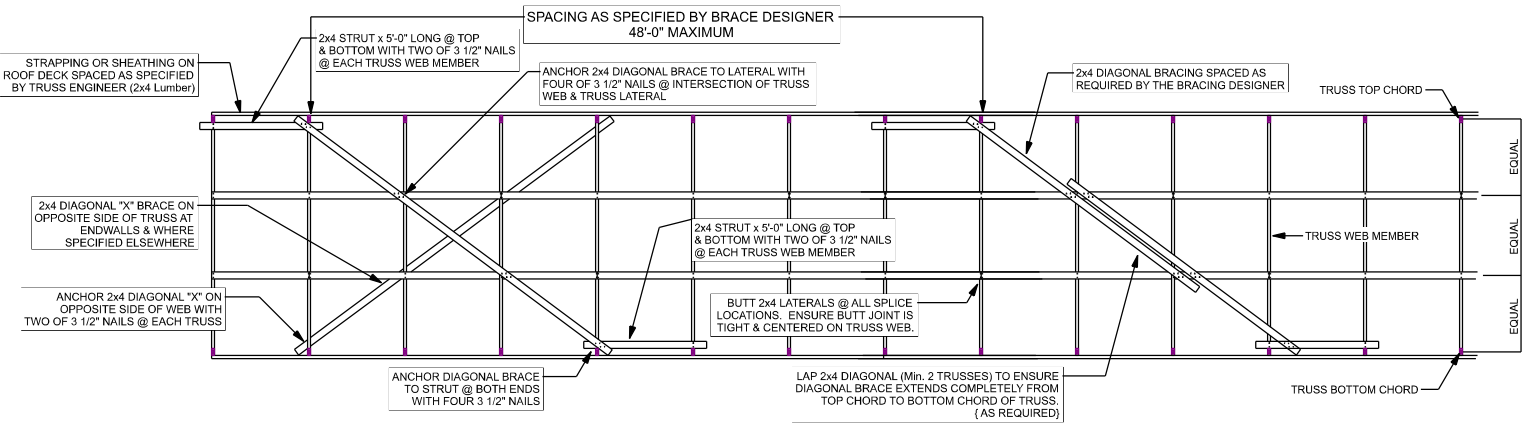
Proj. #  
2686

S3





1  
S4 ROOF PLAN  
SCALE: 1/8" = 1'-0"



NOTES FOR BRACING OF ROOF TRUSS(ES) :

- 1 --> CONTRACTOR AND OR OWNER TO NOTIFY MANUFACTURER OF ANY TRUSS DEFICIENCIES SUCH AS DAMAGED OR BROKEN TRUSSES, WARPING OF TRUSS MEMBERS, AND MISSING OR OFFSET TRUSS PLATES.
- 2 --> DIAGONAL BRACING MUST BE PROVIDED ON ALL WEB MEMBERS THAT REQUIRE LATERAL BRACING. DIAGONAL BRACING SHALL BE SPACED AS NOTED ON THE ATTACHED DRAWING(S), & X-BRACING SHALL BE PROVIDED @ ENDWALLS @ INTERVALS NOTED ON THE ROOF PLAN.
- 3 --> PERMANENT LATERAL BRACING TO BE INSTALLED ON WEB MEMBERS AS INDICATED ON THE ROOF PLAN AND MANUFACTURERS DRAWINGS.
- 4 --> PROVIDE DIAGONAL BRACING @ ALL DISCONTINUITIES IN LATERAL BRACING SUCH AS WHERE TRUSS TYPE CHANGES
- 5 --> THE TRUSS SUPPLIER SHALL DESIGN THE TRUSSES FOR THE BRACING NOTED. BRACING DETAILS WILL NOT BE MODIFIED UNLESS SPECIFIED BY THE BUILDING DESIGNER.

2  
S4 LATERAL 'X' BRACE DETAIL  
SCALE: 1/8" = 1'-0"

ROOF NOTES:

FIRE STOPS NOT REQUIRED OVER AREAS WITH NO CEILING.

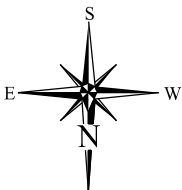
PROVIDE 'X' BRACING OF TRUSS LATERALS AS PER MFG SHOP DRAWINGS REVIEWED BY PROJECT ENGINEER (SEE DETAIL 2/S4)

EAVE & GABLE OVERHANGS AS SHOWN

LEGEND:

- - - - - = PRE-ENG. TRUSS
- - - - - = BOTTOM CHORD BRACING
- [ - - - - ] = BEARING WALL

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PROJECT #  
22-09-061

Client  
**STARFRA FEEDS**  
Project Title  
**70'-0" X 174'-0"  
FARM STORAGE BUILDING**  
129 9th LINE  
DOURO, ON

Drawing  
**ROOF PLAN**

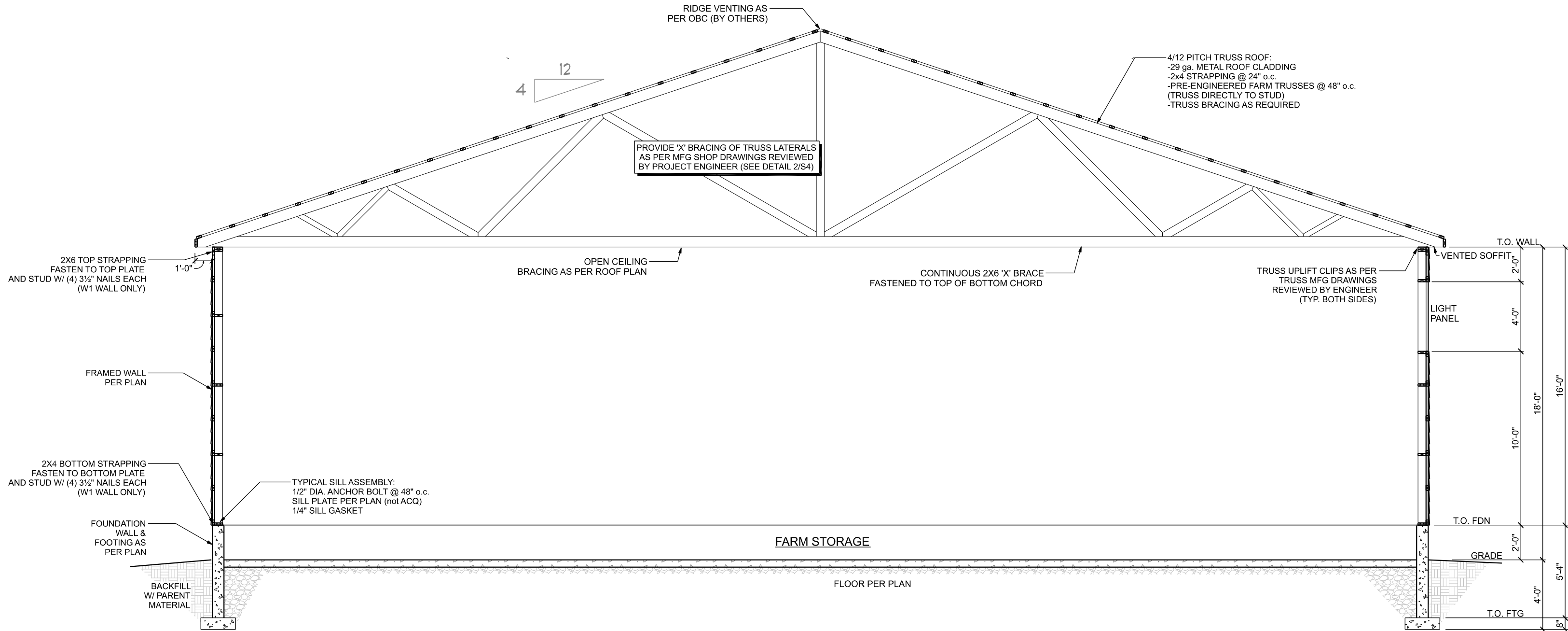
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1/8" = 1'-0"

Date  
FEB. 4, 2022

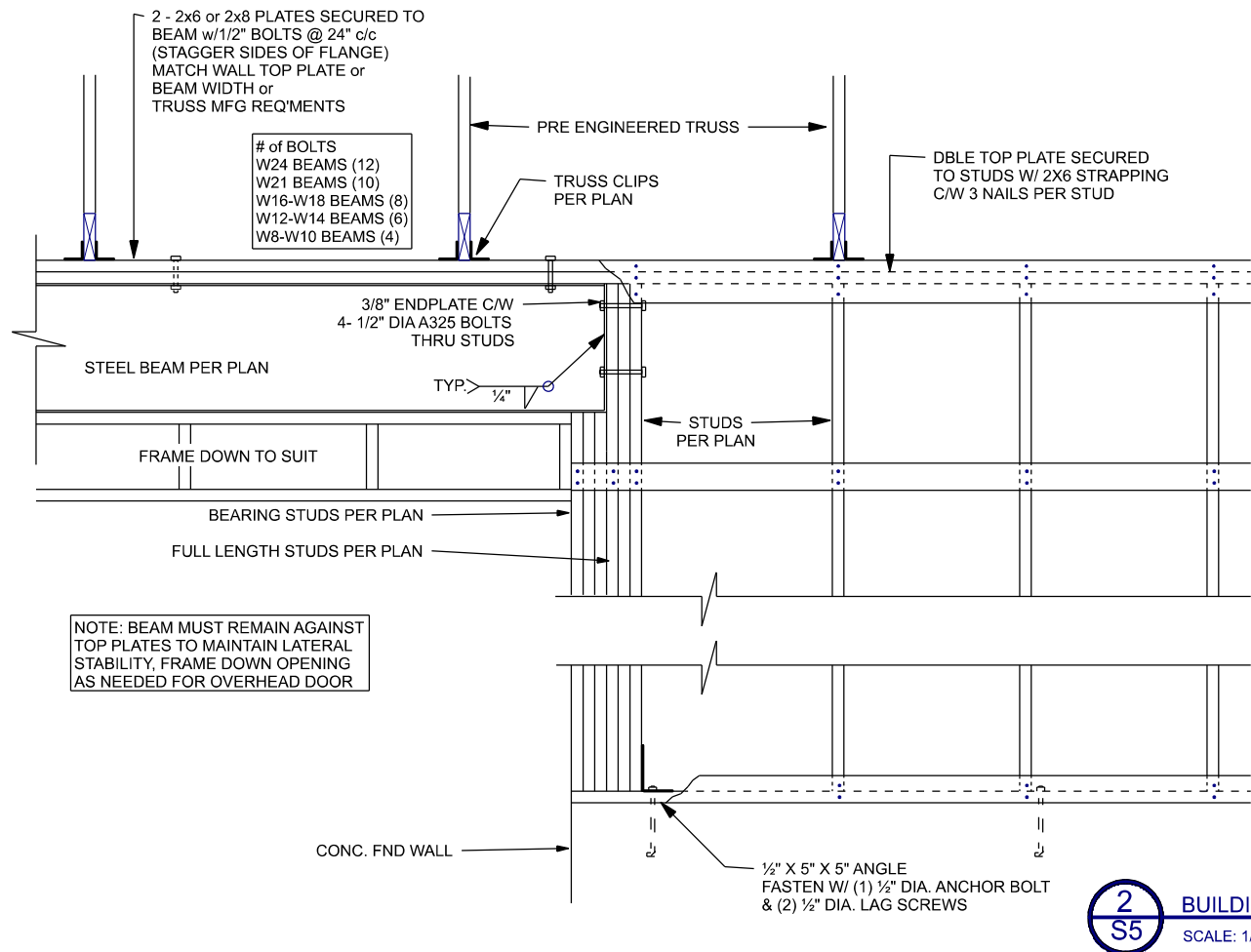
Drawn By  
R. WARKENTIN

Proj. #  
2686

S4



1 BUILDING SECTION  
SCALE: 3/16" = 1'-0"



2 BUILDING SECTION  
SCALE: 1/2" = 1'-0"

#### GENERAL ENGINEER'S NOTES:

- DESIGN AND CONSTRUCTION OF ALL WORK ON THIS PROJECT SHALL CONFORM TO LATEST EDITIONS OF THE FOLLOWING:
  - NATIONAL BUILDING CODE
  - ONTARIO BUILDING CODE
  - FARM BUILDING CODE
  - LOCAL REGULATIONS
  - OHSA REGULATIONS
- DRAWINGS ARE NOT TO BE SCALED.
- THE ENGINEER SHALL BE GIVEN 48 HR MIN. NOTICE (AT 519-267-6789) BY THE CONTRACTOR FOR REQUIRED INSPECTIONS OF THE FOUNDATION, REINFORCING STEEL, PLACEMENT AND FRAMING, IN ACCORDANCE WITH O.B.C. 1.2.2 [C]. ENGINEER SHALL BE CONTACTED PRIOR TO ALL CONCRETE POURS AND PRIOR TO INSTALLATION OF INTERIOR FINISHES AND CLADDING.
- THE CONTRACTOR SHALL CHECK AND VERIFY ALL SITE CONDITIONS AND MEASUREMENTS AND REPORT ANY DISCREPANCIES TO THE ENGINEER.
- NO CHANGES SHALL BE MADE WITHOUT THE ENGINEER'S APPROVAL.
- CONTRACTOR SHALL MAKE ADEQUATE PROVISIONS FOR TEMPORARY BRACING AND SHORING. CONSTRUCTION LOADS SHALL NOT EXCEED THE DESIGN LOADS NOTED ON DRAWINGS.
- SUBMIT SHOP DRAWINGS PRIOR TO FABRICATION FOR THE FOLLOWING:
  - ROOF TRUSSES (CERTIFIED BY P.ENG)

#### EGRESS FARM NOTES:

- MAXIMUM TRAVEL DISTANCE TO AN EXIT SHALL NOT EXCEED 45M (147 ft.)
- WINDOWS USED AS EXITS REQUIRE A MINIMUM OPENING OF 22" X 36"
- EXITS MUST BE ACCESSIBLE AT ALL TIMES AND BE CLEARLY VISIBLE

#### GENERAL CONSTRUCTION NOTES:

- DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALE DRAWINGS (DO NOT SCALE DRAWINGS)
- ALL DIMENSIONS MUST BE JOB SITE CHECKED BY CONTRACTOR AND VERIFIED. DISCREPANCIES MUST BE REPORTED BEFORE COMMENCING WORK.
- THE DESIGNER HAS NOT BEEN ENGAGED FOR CONSTRUCTION SUPERVISION AND ASSUMES NO RESPONSIBILITY FOR CONSTRUCTION COORDINATING WITH THESE PLANS, NOR RESPONSIBILITY FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK.
- INTERIOR DIMENSIONS TO BE CALCULATED FROM STUD TO STUD.
- EXTERIOR DIMENSIONS TO BE CALCULATED FROM OUTSIDE OF STRAPPING
- WINDOW SUPPLIERS TO SUPPLY R.S.O. FOR ALL WINDOWS AND DOORS.
- ALL LIGHTING AND ELECTRICAL WORK IS TO COMPLY WITH OBC 9.34.

#### EXCAVATION AND BACKFILL:

- FOOTINGS SHALL BEAR ON UNDISTURBED SOILS, ROCK OR COMPACTED GRANULAR FILL AND SHALL BE A MINIMUM OF 4'-0" BELOW FINISHED GROUND LEVEL.
- DRAWINGS HAVE BEEN MADE FOR SOIL CONDITIONS OF NO LESS THAN 3,000 PSF ALLOWABLE BEARING CAPACITY. SHOULD UNUSUALLY SOFT SOILS BE ENCOUNTERED AT TIME OF EXCAVATION THE PROJECT ENGINEER SHALL BE CONTACTED IMMEDIATELY.
- FOOTINGS SHALL BE KEPT FREE OF STANDING WATER AT TIME OF EXCAVATION.
- BACKFILL SHALL BE FREE DRAINING CLEAN GRANULAR FILL. PROVIDE NEGATIVE SLOPE AWAY FROM BUILDING.

#### FIRE SEPARATION (N.F.B.C. 3.1.1.2 - 1 STOREY BLDG.):

- |                                |                |
|--------------------------------|----------------|
| 1. PROPOSED ONE STORY BUILDING | 12 180 sq. ft. |
| TOTAL                          | 12 180 sq. ft. |
| (NO FIRE SEPARATIONS REQUIRED) |                |

VERIFY THAT THE STRUCTURE IS NOT WITHIN 96'-5" OF A PROPERTY LINE, PUBLIC THROUGHFARE OR A DWELLING LOCATED ON THE PROPERTY. CONTACT THE PROJECT ENGINEER IF THESE REQUIREMENTS CANNOT BE MET.

#### CONCRETE / FOUNDATION:

##### 1. MINIMUM CONCRETE STRENGTH

CONCRETE SPECIFICATIONS			
LOCATION	STRENGTH	W/C RATIO	AIR ENTRAINMENT
FOOTINGS	20 MPa	0.55	5% TO 8%
FOUNDATION WALLS	25 MPa	0.50	5% TO 8%
CONCRETE FLOORS	32 MPa	0.45	0%
MANURE STRG FLOOR	32 MPa	0.45	0%
MANURE STRG WALLS	32 MPa	0.45	5% TO 8%

- CONCRETE CODES: CONFORM TO CSA 23.1, 2.3 MANUAL OF STANDARD PRACTICE BY R.S.I.O. REBAR 400 MPa
- SLUMP: 4" SLUMP +/- 1"
- CONCRETE TESTING: BY CSA CERTIFIED CONCRETE TESTING LABORATORY.
- SLABS: SAW-CUT TO 1/4 OF SLAB DEPTH SPACING AT 30 TIMES SLAB DEPTH. CUT WITHIN 24 HRS OF SLAB PLACEMENT
- REINFORCING REBAR SPLICES SHALL BE OVERLAPPED AT LEAST 18". REBAR IN FOOTINGS SHALL HAVE A COVERAGE OF AT LEAST 3". ALL OTHER CONCRETE COVERAGE FOR STRUCTURAL REINFORCEMENT SHALL BE NOT LESS THAN 2".

#### DESIGN LOADS:

- DESIGN LOADS UNFACTORED U.N.O. AND DO NOT INCLUDE IMPORTANCE FACTOR
  - CLIMATIC DESIGN DATA (PETERBOROUGH)
    - Ss = 2.0 kPa
    - Sr = 0.4 kPa
    - q(1/10) = 0.32 kPa
  - ROOF (DEAD) = 0.4 kPa (NO CEILING)
  - 4/12 PITCH (SLIPPERY ROOF / NON-SOLAR)
  - SNOW LOAD = 1.34 kPa BALANCED
  - 1.50 kPa UNBALANCED
- THIS BUILDING IS DESIGNED FOR "LOW HUMAN OCCUPANCY"

#### OWNER/CONTRACTOR RESPONSIBILITIES FOR SITE REVIEW:

- THE ENGINEER SHALL BE CONTACTED BY THE OWNER OR CONTRACTOR TO PERFORM SITE REVIEWS OF CONSTRUCTION IN ACCORDANCE WITH O.B.C. 1.2.2.2. [C].
- ENGINEER SHALL BE CONTACTED PRIOR TO ALL CONCRETE POURS AND PRIOR TO INSTALLATION OF INTERIOR FINISHES AND CLADDING. ENGINEER WOULD PREFER 24 HOURS NOTICE.

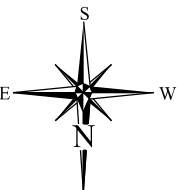
#### FRAMING NOTES:

- ALL DIMENSIONS, INCLUDING ROUGH OPENING SIZES, SHALL BE CONFIRMED BEFORE CONSTRUCTION. DIMENSION DISCREPANCIES SHALL BE REPORTED IMMEDIATELY.
- STUD WALLS SHALL BE ANCHORED TO FOUNDATION WITH 1/2" ANCHOR BOLTS @ 48" SPACINGS AND WITHIN 6" OF ENDS OR CORNERS.
- WIND-BRACING SHALL BE PROVIDED ON ALL EXTERIOR WALL CORNERS AS PER ELEVATION DETAILS OR PROVIDE STRUCTURAL SHEATHING AS SPECIFIED.
- THE CONTRACTOR SHALL ENSURE ANY TEMPORARY BRACINGS OF WALLS OR TRUSSES ARE ADEQUATE.
- ALL TRUSS BRACING SHALL BE IN ACCORDANCE WITH THE APPROVED ENGINEERED DRAWINGS OF THE TRUSS MANUFACTURER. DIAGONAL BRACING SHALL BE SPACED AS SPECIFIED BY THE PROJECT ENGINEER.
- SHOP DRAWINGS SHALL BE CERTIFIED BY A PROFESSIONAL ENGINEER WHERE REQUIRED AND REVIEWED BY THE CONTRACTOR FOR DIMENSIONAL CORRELATION WITH THE DRAWINGS AND FIELD CONDITIONS PRIOR TO SUBMITTING TO THE PROJECT ENGINEER.
- ALL WOOD SHALL BE No. 2 SPF OR BETTER.
- STUDS SHALL BE SECURED TO PLATES W/ (3) 3/4" NAILS.
- PRECAUTIONS SHALL BE TAKEN TO NOT OVERLOAD THE STRUCTURE DURING CONSTRUCTION.

#### STRUCTURAL STEEL:

- ALL STEEL SHALL BE DESIGNED, FABRICATED AND ERECTED IN CONFORMANCE TO CAN/CSA-S16-09 AND THE 2012 ONTARIO BUILDING CODE.
- ALL STEEL MEMBERS TO BE NEW MEMBERS.
- ALL ROLLED STRUCTURAL STEEL MEMBERS SHALL CONFORM TO CSA - G40.21 - 13 M300W
- WELDING SHALL CONFORM TO CSA - W59 - 03 LATEST EDITION. ELECTRODES SHALL BE E70XX OR BETTER.
- CONNECTION BOLTS SHALL BE ASTM A-325 HIGH STRENGTH BOLTS UNLESS NOTED.
- ALL BOLTED CONNECTIONS SHALL BE BEARING TYPE UNLESS NOTED OTHERWISE.
- ALL CONNECTIONS SHALL BE INSPECTED AS PER CAN / CSA - S16 - 09

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Client  
**STARFRA FEEDS**  
Project Title  
**70'-0" X 174'-0"  
FARM STORAGE BUILDING**  
129 9th LINE  
DOURO, ON

Drawing  
**BUILDING SECTION**

Scale  
1/8" = 1'-0"  
Date  
FEB. 4, 2022  
Drawn By  
R. WARKENTIN  
Proj. #  
2686

**S5**



Environmental

Geotechnical

Building Sciences

Construction Quality  
Verification

**Telephone**

(866) 217.7900

(705) 742.7900

**Facsimile**

(705) 742.7907

**Website**

[cambium-inc.com](http://cambium-inc.com)

**Mailing Address**

P.O. Box 325,  
Peterborough, Ontario  
Canada, K9J 6Z3

**Locations**

Peterborough  
Kingston  
Barrie  
Oshawa

**Laboratory**

Peterborough

March 9, 2023

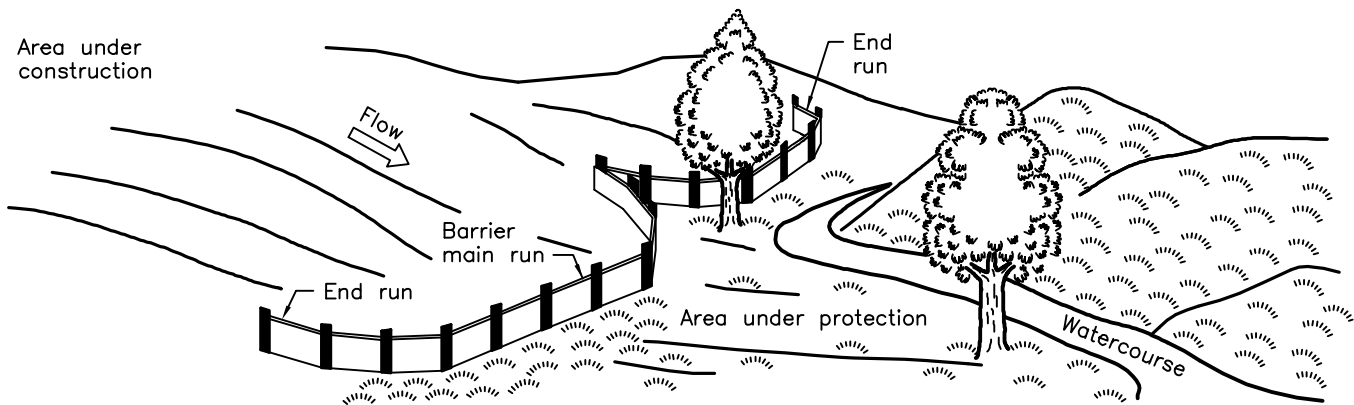


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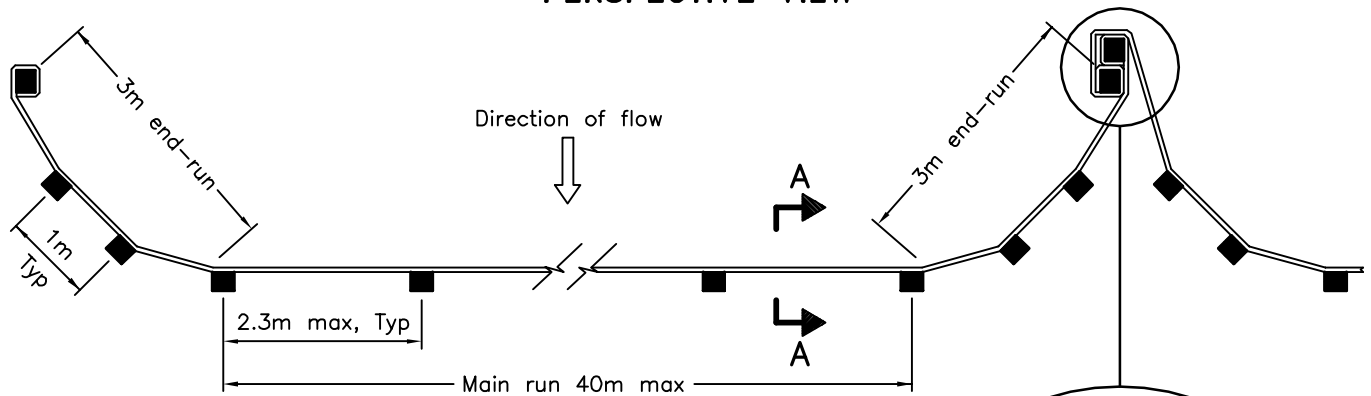
## Appendix B

# Ontario Provincial Standard Drawings

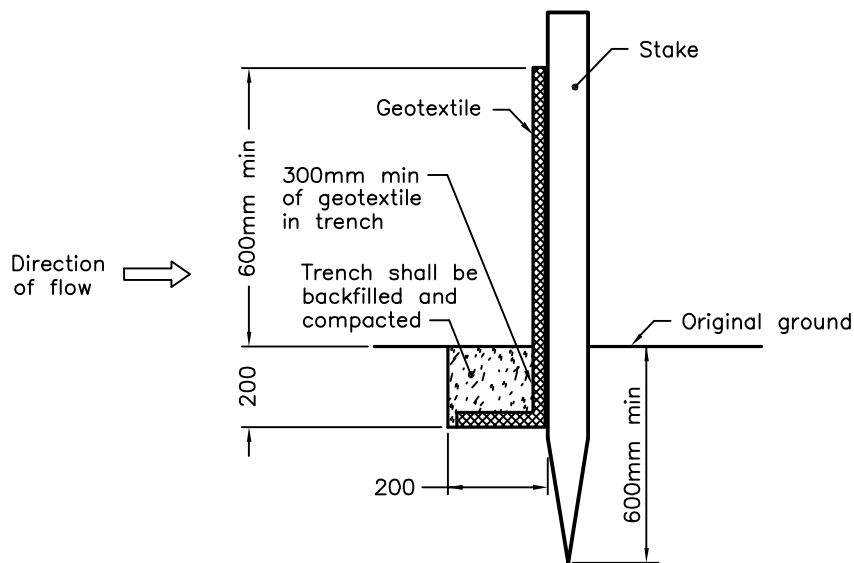
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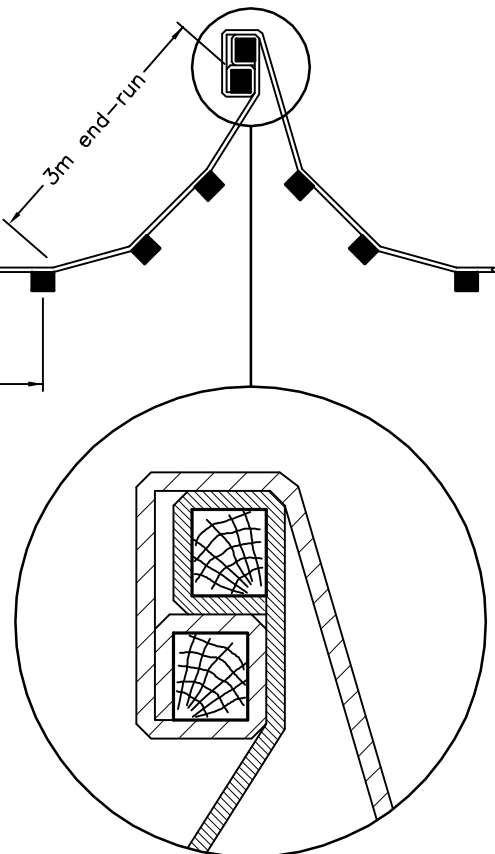
**PERSPECTIVE VIEW**



**PLAN**



**SECTION A-A**



**JOINT DETAIL**

**NOTE:**

A All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING

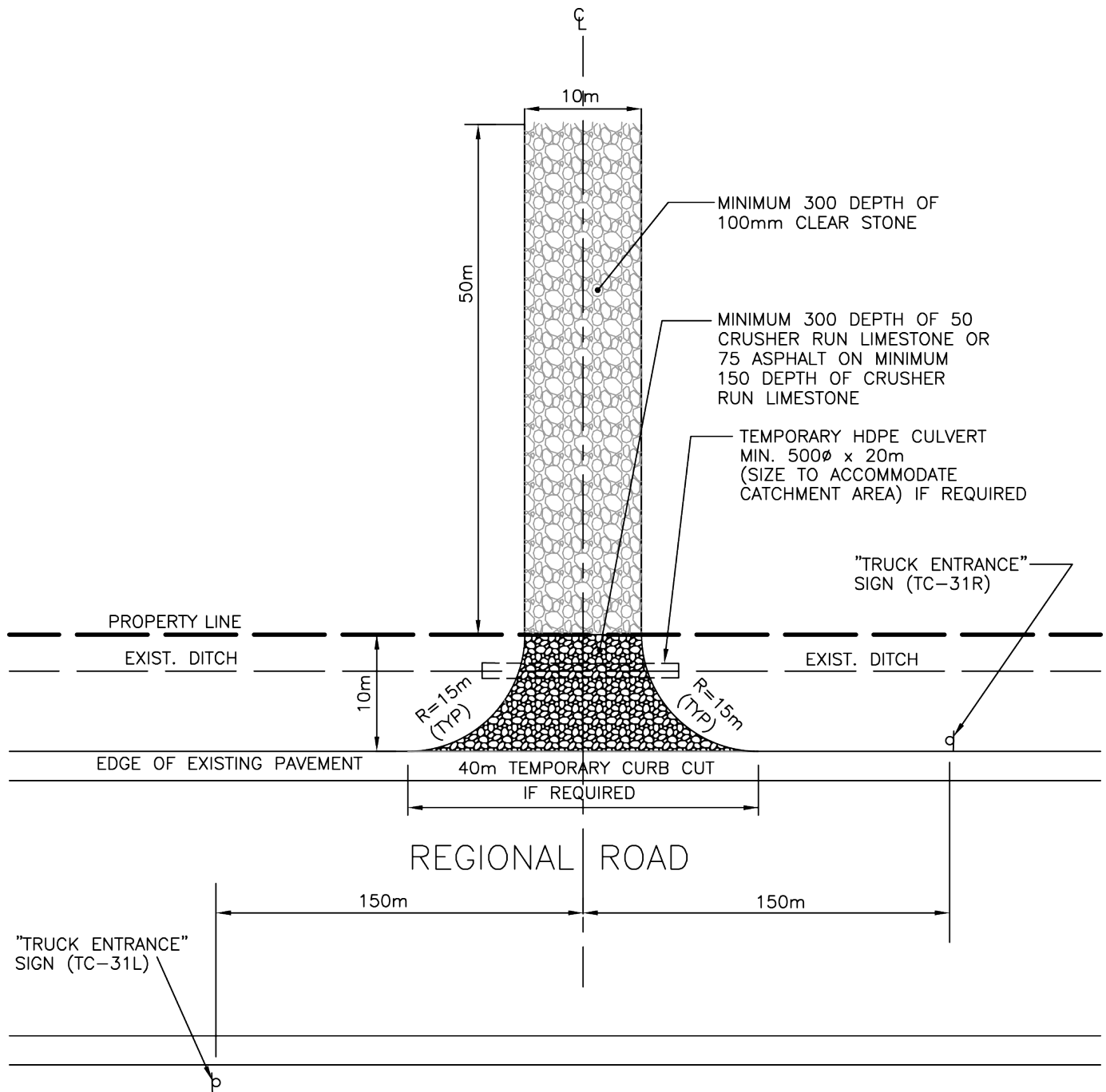
Nov 2015

Rev 2

**LIGHT-DUTY  
SILT FENCE BARRIER**



**OPSD 219.110**



#### NOTES

1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE NOTED.
2. TEMPORARY "TRUCK ENTRANCE" SIGNS(TC-31) SHALL BE INSTALLED ON THE SHOULDER, 150M IN ADVANCE OF THE ACCESS (NOTE: SEE DETAILS ON USE OF THESE SIGNS IN THE ONTARIO TRAFFIC MANUAL, BOOK 7.) THE APPLICANT WILL BE RESPONSIBLE FOR THE COST OF OBTAINING, ERECTING AND MAINTAINING THESE SIGNS.
3. TEMPORARY CONSTRUCTION ACCESS SHALL BE REMOVED FROM THE REGIONAL ROAD ALLOWANCE AND ALL DISTURBED AREAS SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION.



**York Region**

**Transportation  
Services**

### MUD MAT FOR TEMPORARY CONSTRUCTION ACCESS

DATE: MARCH 2015

SCALE N.T.S.

REV.

X

X

**DS-217**