### CORPORATION OF THE TOWNSHIP OF EDWARDSBURGH CARDINAL

### BY-LAW NO. 2024-45

### "BEING A BY-LAW TO AUTHORIZE THE EXECUTION OF A SITE PLAN CONTROL AGREEMENT WITH 2506418 ONTARIO INC."

**WHEREAS** the Council of the Corporation of the Township of Edwardsburgh Cardinal deems it advisable to enter into a Site Plan Control Agreement with 2506418 Ontario Inc. respecting development of a property described as:

PT LT A PL 90 EDWARDSBURGH PARTS 1, 2, 3, & 4 ON 15R11896; S/T AN EASEMENT OVER PART 3 & 4 ON 15R-11896 AS IN PR28293; TOWNSHIP OF EDWARDSBURGH/CARDINAL PIN: 68155-0878

WHEREAS Authority is granted under Section 41 of the Planning Act, RSO 1990, c.P. 13, as amended to the Council of the Corporation of the Township of Edwardsburgh Cardinal to enter into and amend such agreements; and

**NOW THEREFORE BE IT RESOLVED THAT** the Council of the Corporation of the Township of Edwardsburgh Cardinal enacts as follows:

1. That the Mayor and Clerk are hereby authorized to execute an agreement with 2506418 Ontario Inc. and that a signed copy of said agreement is attached hereto as Schedule "A".

2. That this by-law shall come into force and effect upon passing.

Read a first and second time in open Council this 26 day of August, 2024.

Read a third and final time, passed, signed and sealed in open Council this 26 day of August, 2024.

Tory Deschamps (Aug 29, 2024 00:09 EDT)

Mayor

( rich ebecca

Clerk

# SPCA Bylaw - Purplefarms

Final Audit Report

2024-08-29

Created:	2024-08-28
By:	Rebecca Crich (rcrich@twpec.ca)
Status:	Signed
Transaction ID:	CBJCHBCAABAAL59Rtu23fXBuYr8JJgzBZdLUenF7T647

### "SPCA Bylaw - Purplefarms" History

- Document created by Rebecca Crich (rcrich@twpec.ca) 2024-08-28 - 3:56:45 PM GMT
- Document emailed to Tory Deschamps (mayor@twpec.ca) for signature 2024-08-28 - 3:56:56 PM GMT
- Email viewed by Tory Deschamps (mayor@twpec.ca) 2024-08-29 - 4:09:22 AM GMT
- Document e-signed by Tory Deschamps (mayor@twpec.ca) Signature Date: 2024-08-29 - 4:09:34 AM GMT - Time Source: server
- Document emailed to Rebecca Crich (rcrich@twpec.ca) for signature 2024-08-29 - 4:09:35 AM GMT
- Email viewed by Rebecca Crich (rcrich@twpec.ca) 2024-08-29 - 1:05:25 PM GMT
- Document e-signed by Rebecca Crich (rcrich@twpec.ca) Signature Date: 2024-08-29 - 1:05:31 PM GMT - Time Source: server
- Agreement completed. 2024-08-29 - 1:05:31 PM GMT

### THE CORPORATION OF THE TOWNSHIP OF EDWARDSBURGH/CARDINAL SITE PLAN CONTROL AGREEMENT

THIS AGREEMENT made in triplicate this 28 day of August , 2024

BETWEEN: 2506418 ONTARIO INC.

Hereinafter called the "Owner" of the first part

AND: THE CORPORATION OF THE TOWNSHIP OF EDWARDSBURGH/CARDINAL

Hereinafter called the "Township" of the second part

WHEREAS the Owner has applied to the Township in accordance with the Site Plan Control provisions of Bylaw No. 2023-47, to permit the development of the lands described in Schedule "A" attached hereto;

AND WHEREAS the Owner has agreed with the Township to undertake, furnish and perform the works, material, matter and things required to be done, furnished and performed in the manner hereafter described in connection with the proposed use of the land and in conformity with the Zoning Bylaw;

NOW THEREFORE THIS AGREEMENT WITNESSETH THAT in consideration of other good and valuable consideration and the sum of two dollars (\$2.00) of lawful money of Canada now paid by the Owner to the Municipality, the receipt of which is hereby acknowledged, the Parties hereby agree as follows:

### 1. Land to Which this Agreement Applies

This is an agreement made pursuant to the provisions of Section 41 of the Planning Act, RSO 1990. as amended, and applies to the lands described in Schedule "A" to this agreement.

### 2. Statutes, Bylaws, Licenses, Permits and Regulations

The Owner undertakes and agrees that prior to the commencement of any development, redevelopment, site alteration, construction or other works, the Owner shall obtain all necessary permits and approvals required by the

Government of Canada, the Province of Ontario or any agency thereof, the Township and any other affected agency. The Owner undertakes and agrees to comply with the requirements of all relevant municipal bylaws, provincial and federal statutes and regulations, permits, approvals or licenses in addition to the terms of this agreement.

### 3. Schedules

The Owner hereby agrees that prior written approval by the Township and/or an amendment to a Schedule shall be required for any departure, change or modification from the Schedules.

The following list of schedules attached hereto are deemed to be and form part of this Agreement:

- 3.1 Schedule "A" -Legal Description of the Land to which this Agreement applies.
- 3.2 Schedule "B" -Site Plan
- 3.3 Schedule "C" -Stormwater Management Report
- 3.4 Schedule "D" Special Conditions

### 4. Registration of Agreement and Commencement of Work

The Owner covenants that he/she/they shall not commence any development or site alteration whatsoever until this Agreement is registered on title against the land at the expense of the Owner.

The Owner agrees to commence development of the site not later than September 29<sup>th</sup>, 2025.

### 5. Completion Date

The owner agrees to complete the work required under this Agreement not later than September 29<sup>th</sup>, 2026.

### 6. Default

In the event the Owner defaults in the performance of an obligation under this agreement or for reasons of public safety as determined by the Chief Building Official under the Building Code Act of Ontario or the Fire Marshall under the Fire Protection & Prevention Act of Ontario, the Township may, at the expense of the Owner, enter upon the lands and do all such matters and things as may be

required to comply with any Order of the Chief Building Official or Assistant to the Fire Marshall (local Fire Chief). Such actual costs incurred by the Township plus an overhead charge of 15%, shall be deemed to be recoverable from the Owner by invoice and may be recovered in like manner as municipal taxes pursuant to the Municipal Act.

### 7. Facilities and Work to be Provided and Maintained

The Owner covenants and agrees to provide and maintain, at his/her/their sole expense each and every facility, work or other matter illustrated on the Schedules to the satisfaction of the Township, acting in a commercially reasonable manner, and to engage qualified professionals, where required, to design and carry forth any of the work undertaken under this Agreement. This shall include the restoration of any faulty workmanship or materials.

### 8. Certificate of Compliance

Upon the satisfactory completion of all matters and things to be provided and maintained by the Owner pursuant to this Agreement, the Owner shall be entitled to obtain a Certificate of Compliance from the Township confirming that all provisions of this Agreement have been complied with in full to the date of such Certificate.

### 9. Notice to Parties

Any Notice by any party to this agreement to another shall be given in writing and mailed or delivered to the Party:

9.1 In the case of the Municipality:

To the Clerk of the Township of Edwardsburgh/Cardinal 18 Centre Street P.O. Box 129 Spencerville, ON KOE 1XO

9.2 In the case of the Owner(s):

2506418 Ontario Inc. c/o Mitchell Alswiti 9 Newport Drive Johnstown ON K0E 1T1

### 10. Severability

The terms of this agreement are severable, and the unenforceability of any part hereof shall not render the whole unenforceable. No forbearance or failure by the Township to strictly enforce any term or covenant herein shall prevent the Township from insisting upon strict compliance by the Owner subsequent to such forbearance or failure to strictly enforce its terms. The terms of this agreement may not be altered except by a subsequent agreement in writing between the parties.

### 11. Successors and Assigns

This Agreement shall ensure to the benefit of and be binding upon the respective heirs, personal representatives, successors and assigns of each of the parties hereto.

### 12. Force and Effect

This Agreement comes into force after it has been executed by all parties hereto and registered against the title to the lands described in Schedule "A".

**IN WITNESS WHEREOF** the Parties have hereunto set their hands and seals, corporate parties over the hand(s) of their duly authorized signing officers in that regard.

OWNER/AUTHORIZED AGENT

Mitchell Alswiti (Aug 28, 2024 12:11 EDT)

Owner I have the authority to bind the corporation.

CORPORATION OF THE TOWNSHIP OF EDWARDSBURGH/CARDINAL

Tory Deschamps (Aug 29, 2024 00:11 EDT) Mayor

Crich ebenna

Clerk We have the authority to bind the corporation.

### SCHEDULE "A"

### Site Plan Control Agreement

### DESCRIPTION OF THE PROPERTY

### PT LT A PL 90 EDWARDSBURGH PARTS 1, 2, 3, & 4 ON 15R11896; S/T AN EASEMENT OVER PART 3 & 4 ON 15R-11896 AS IN PR28293; TOWNSHIP OF EDWARDSBURGH/CARDINAL

PIN: 68155-0878

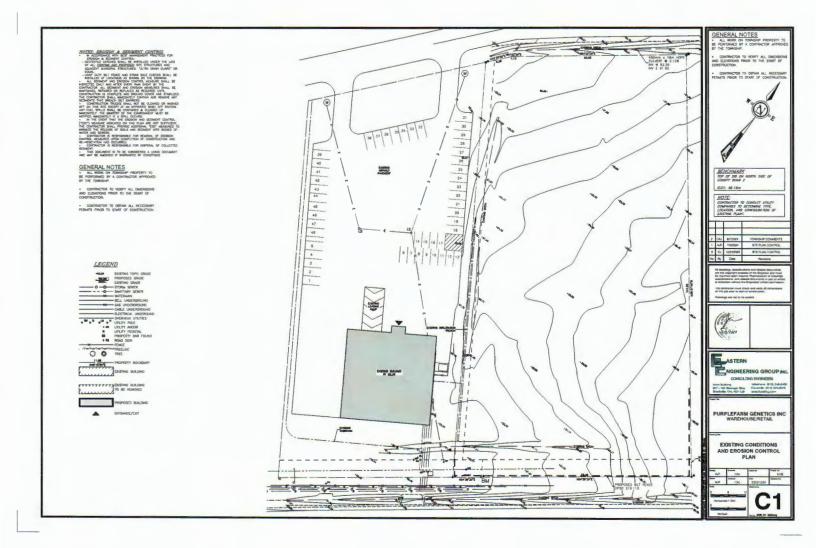
### SCHEDULE "B"

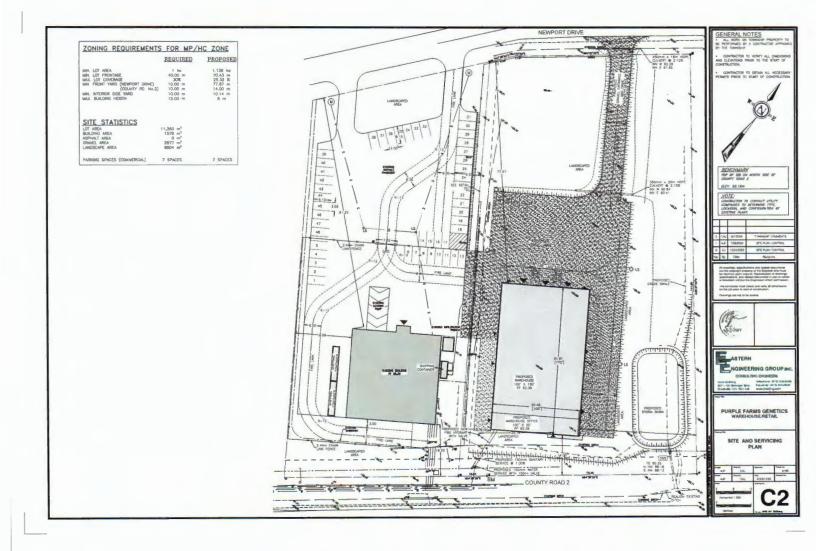
### Site Plan Control Agreement

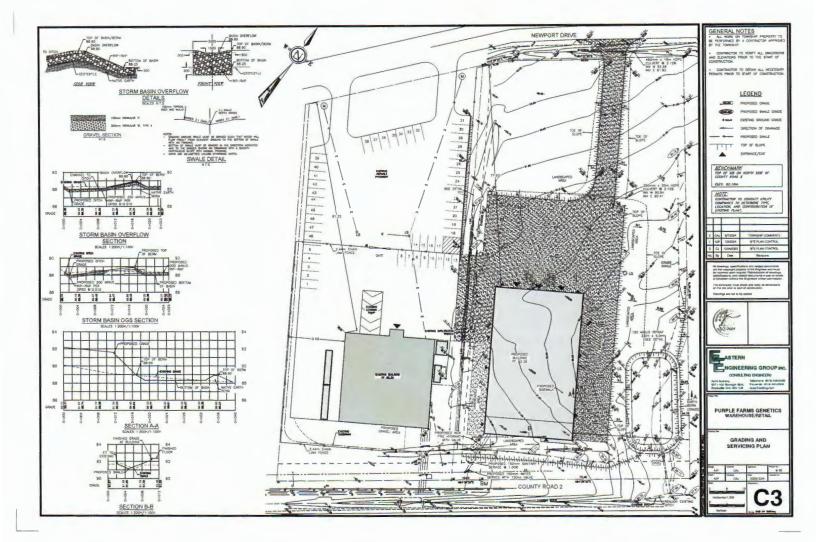
### SITE PLAN

EXHIBITS: The following Exhibits attached hereto shall form part of this Schedule:

Exhibit 1- C1 Existing Conditions and Erosion Plan Exhibit 2- C2 Site and Servicing Plan Exhibit 3- C3 Grading and Servicing Plan







### SCHEDULE "C"

### Site Plan Control Agreement

### STORMWATER MANAGEMENT REPORT

Prepared by Eastern Engineering dated December 2023 and revised August 7, 2024 PURPLEFARM GENETICS INC. 9 NEWPORT DRIVE EDWARDSBURGH-CARDINAL, ON

STORMWATER MANAGEMENT REPORT



### EASTERN ENGINEERING GROUP INC. APEX BUILDING 100 STROWGER BLVD, SUITE 207 BROCKVILLE, ON K6V 5J9

### **DECEMBER 2023**

	REVISION RECORD					
REV	DESCRIPTION	PI	REPARED BY	<b>REVIEWED BY</b>		
0	ISSUED FOR SITE PLAN APPLICATION	CJ	2023-12-24	CJ		
1	REISSUE FOR SPCA	CJ	2024-07-03	CJ		
2	REISSUE FOR SPCA	CJ	2024-08-07	CJ		



EEG PROJECT NO. 8165



This document entitled Stormwater Management Report was prepared by Eastern Engineering Group Inc. for the account of the Purplefarm Genetics Inc. (the "Client"). Any reliance on this document by any third party is strictly prohibited. The material in the report reflects Eastern Engineering Group's professional judgement in light of the scope, schedule and other limitations stated in the document and in the contract between Eastern Engineering Group and the Client. The opinions in the document are based on conditions and information existing at the time the document was prepared and published and do not take into account any subsequent changes. In preparing the document, Eastern Engineering Group did not verify information supplied to it by others. Any use which a third party makes of this document is the responsibility of such third party. Such third party agrees that Eastern Engineering Group shall not be responsible for costs or damages of any kind, if any, suffered by it or any other third party as a result of decisions made or actions take based on this document.

adi Prepared by (Signature)

**Colin A. Jardine, P. Eng** President, Eastern Engineering Group Director of Civil Engineering





### PURPLEFARM GENETICS INC. 9 NEWPORT DRIVE, EDWARDSBURGH-CARDINAL, ONTARIO

### STORMWATER MANAGEMENT REPORT

### PREPARED BY: EASTERN ENGINEERING GROUP INC. DECEMBER 2023 REV 2 JULY 2024

### PROJECT

Eastern Engineering Group Inc. was retained by Mr. Mitchell Alswiti of Purplefarm Genetics Inc to prepare civil engineering design including servicing, grading and stormwater management report for the proposed industrial project at 9 Newport Drive, Johnstown, in the Township of Edwardsburgh Cardinal. The project consists of construction of a new 1579 m<sup>2</sup> warehouse. Also included is a new gravel parking/loading area, new parking and stormwater management basin.

### **EXISTING CONDITIONS**

The site is currently undeveloped and will retain as much green space as possible for the new project. The new entrance will be to Newport Drive.

### PROPOSED LOT SERVICING

The new building will be connected to existing municipal water main and sanitary sewers which are currently on the north side of County Road 2. The water service be a new 150mm PVC service connected to the existing main with a new 150mm curb stop at property line. A new fire hydrant is proposed near the southwest corner of the new building. The water service to the building will be a min of 100mm but determined at the time of building design and sprinkler design. The new sanitary service will be connected to an existing manhole. The service will be 150mm PVC flowing by gravity.



EEG PROJECT NO. 8165



All connections would be designed to meet the Ontario Building Code and Township regulations for water and sanitary services.

The expected daily flows for the warehouse will be based on 3 loading bays and 3 washrooms. Using the Ontario Building Code this will equate to 3300 L/day. For a 10 hour shift this would be the equivalent of 0.092 L/s.

### STORM SERVICING AND STORMWATER MANAGEMENT

The existing site is undeveloped with bedrock near the surface of the majority of the site. The pre-development runoff coefficient for the site is 0.35. 4408 m<sup>2</sup> of the new property is being modified from existing to developed and that will be used for the stormwater management calculations. The post development runoff coefficient is calculated using the proposed building and gravel area for the area being modified.

The storm design will allow for surface water to flow easterly to a swale and stormwater basin at the southeast corner of the site. The basin is designed to store the 100 year storm event while releasing at the pre-development allowable flow. Quality control will be via an OGS unit placed on the south side of the storm basin. TSS removal will be aimed for the enhanced level of TSS removal of 80%.

County infrastructure has the capacity to handle the discharge and will not be negatively impacted by post-development flows.

### PRE-DEVELOPMENT FLOWS

The total allowable flow from the site is determined using the following criteria:

Cpre – 0.35 Area – 1.136 ha Using MTO IDF Curve lookup website, it was determined for this site, the following: I<sub>5year</sub> is 71.2 mm/hr



I<sub>100year</sub> is 118.6 mm/hr The document is attached in the appendix.

Tc is assumed to be 15 mins as the area of flow and flow path are being modified from north to south to flow east to west. The existing drainage flow is to the rear of the property whereas the proposed flow is to the west. Local Municipalities (Prescott, Brockville) have accepted an assumed Tc of 15 mins for small localized projects similar in size to this.

$$Q_{5pre} = 2.78 * A^*i^* C$$
  
= 2.78 \* 1.136 \* 71.2 \* 0.35  
= 78.70 L/s

The total allowable from the site is 78.70 L/s total.

The post development runoff coefficient is calculated as below. This was calculated with 1579 m<sup>2</sup> (building) @ 0.90 and 2877 m<sup>2</sup> (gravel) @ 0.6. and 6904 m<sup>2</sup> @ 0.3 Cpost = 1579\*0.9 + 2877\*0.6 + 6904\*.35 / 11360 = 0.490I<sub>5year</sub> is 71.2 mm/hr I<sub>100year</sub> is 118.6 mm/hr

### POST DEVELOPMENT FLOWS

The post development flows are calculated using Modified Rationale method for various times and rainfall intensities, to determine how much storage is required for each drainage area.

The post development runoff coefficient is 0.490 for 5 year event. The allowable release rate is controlled to 78.70 L/s.

5 Year Storage - A=1.136 ha, c=0.490 Q allowable 78.70 L/s

Tc	I	Q	Qallow	Net Runoff	Storage
(min.)	(mm/hr.)	(L/s)	(L/s)	(L/s)	(m <sup>3</sup> )



EEG PROJECT NO. 8165

5	153.4	232.6995	78.7	154.00	46.20
10	94.5	143.3514	78.7	64.65	38.79
15	71.2	108.0065	78.7	29.31	26.38
30	43.8	66.44	78.7	-12.26	0

Oallow Net Runoff Storage Tc 0 T  $(m^{3})$ (mn.) (mm/hr.) (L/s)(L/s)(L/s)405.96 121.79 255.6 484.6642 78.7 5 78.7 219.76 131.86 157.4 298.4591 10 131.57 224.8872 78.7 146.19 15 118.6 107.84 78.7 59.91 73.1 138.6109 30 23.86 78.7 6.63 45 85.32821 60

Therefore, based on Modified Rationale Method, the storage requirement for the site for 5 year is  $46.20 \text{ m}^3$  and for 100 year 131.86 m<sup>3</sup>.

### STORAGE PROVIDED

The storage will be provided in a stormwater basin controlled via outlet control device, in the south east corner of the site.

The average area of the basis is  $500.25 \text{ m}^2$  and the average depth of the structure is 0.565 deep with a slope of 0.5%. The basin is 30m long (N/S) and 14m wide (E/W) at the bottom of the basin.

The basin will hold approximately 286 m<sup>3</sup> of stormwater which is above the required amount of 58.16 m<sup>3</sup>. The basin is oversized for a possible future expansion of the site and buildings.

### **QUALITY CONTROL**

Quality control for the site will be provided with an OGS unit on the south outlet area of the basin. The unit will provide 80% TSS removal before outlet into the ditch on County Road 2. The specified unit is a CDS PMSU 2015\_4 unit.

Emergency overflow will be to the south.

### MAINTENANCE

The owner will have maintenance staff review the site periodically during routine maintenance. Catch basins will need to be cleaned out as required in the sumps.

The maintenance plans and forms must address the following:

- inspection frequency
- maintenance frequency
- data collection/ storage requirements (i.e. during inspections)
- detailed cleanout procedures (main element of the plans) including:
  - equipment needs
  - maintenance techniques
  - occupational health and safety
  - public safety
  - environmental management considerations
  - disposal requirements (of material removed)
  - access issues

### Routine Maintenance and Operation

Routine inspection and maintenance activities as shown in Table 4.5.6 are necessary for the continued operation of infiltration areas.

Table 4.5.6 Suggested routine inspection and maintenance activities

Activity	Schedule
Inspect for vegetation density (at least 80% coverage), damage by foot or vehicular traffic, channelization, accumulation of debris, trash and sediment, and structural damage to pretreatment devices.	After every major storm event (>25 mm), quarterly for the first two years, and twice annually thereafter.
Regular watering may be required during the first two years until vegetation is established;	As needed for first two years of operation.



EEG PROJECT NO. 8165



Remove trash and debris from pretreatment devices, the infiltration area surface and inlet and outlets.	At least twice annually. More frequently if desired for aesthetic reasons.
<ul> <li>Remove accumulated sediment from pretreatment devices, inlets and outlets;</li> <li>Trim trees and shrubs;</li> <li>Replace dead vegetation, remove invasive growth;</li> <li>Repair eroded or sparsely vegetated areas;</li> <li>Remove accumulated sediment on the bioretention area surface when dry and exceeds 25 mm depth (PDEP, 2006);</li> <li>If gullies are observed along the surface, regrading and revegetating may be required.</li> </ul>	Annually or as needed

Annual Inspection and Maintenance

The annual spring cleaning should consist of an inspection and corrective maintenance tasks described in Table 4.5.7

Inspection Item	Corrective Actions
Vegetation health, diversity and density	<ul> <li>Remove dead and diseased plants.</li> <li>Add reinforcement planting to maintain desired vegetation density.</li> <li>Prune woody matter.</li> <li>Check soil pH for specific vegetation.</li> <li>Add mulch to maintain 75 mm layer.</li> </ul>
Sediment build up and clogging at inlets	<ul> <li>Remove sand that may accumulate at the inlets or on the filter bed surface following snow melt.</li> <li>Examine drainage area for bare soil and stabilize. Apply erosion control such as silt fence until the area is stabilized.</li> <li>Check that pretreatment is properly functioning. For example, inspect grass filter strips for erosion or gullies. Reseed as necessary.</li> </ul>
Ponding for more than 48 hours	<ul> <li>Check underdrain for clogging and flush out.</li> <li>Apply core aeration or deep tilling</li> <li>Mix amendments into the soil</li> <li>Remove the top 75 mm of bioretention soil</li> <li>Replace bioretention soil</li> </ul>

Table 4.5.7 Suggested inspection items and corrective actions

The owner will have maintenance staff review the site periodically during routine maintenance.



Prepared by: Eastern Engineering Group Inc. Colin A. Jardine, P. Eng August 7, 2024







APPENDIX OGS UNIT CDS PMSU 2015\_4







505 Hood Road Unit 26 Markham ON L3R 5V6 Tel: (905) 948-0000 Fax: (905) 948-0577 E-mail: info@echelonenvironmental.ca

### TRANSMITTAL

To: Colin Jardine, P.Eng	From: Patrick Graham		
Company: Eastern Engineering Group Inc.	Date: February 20, 2024		
Telephone: (613) 345-0400	Number of Pages (including this one): 10		
Reference: Purplefarm Genetics - CDS PMS	SU 2015_4		

Good morning Colin,

Please find the attached CDS Stormwater Unit submission package for the project:

### **Purplefarm Genetics, Johnstown ON**

Please review the pages and **indicate your approval by initialling each page** and returning **all** pages of this transmittal to 905-948-0577.

Thank you in advance and if you have any questions or comments, please do not hesitate to contact our office at 905-948-0000.

Best regards,

Patrick Graham Project Manager

Approved By:

Signature:

Date: \_\_\_\_

### CNN **ENGINEERED SOLUTIONS**

### CDS ESTIMATED NET ANNUAL SOLIDS LOAD REDUCTION BASED ON THE RATIONAL RAINFALL METHOD BASED ON A FINE PARTICLE SIZE DISTRIBUTION



6.5%

Project Name:	Purplefarm G	Senetics	Engineer: Eas	stern Engine	ering	
Location:	Johnstown, C	ON	Contact: Coli	in Jardine, P	.Eng	
OGS #:	1		Report Date: 20-F	Feb-24		
Area	0.396	ha	Rainfall Station #		216	
Weighted C CDS Model	0.57 2015-4		Particle Size Distr CDS Treatment C		FINE 20	I/s

Rainfall Intensity <sup>1</sup> (mm/hr)	Percent Rainfall Volume <sup>1</sup>	Cumulative Rainfall Volume	<u>Total</u> Flowrate (I/s)	<u>Treated</u> Flowrate (I/s)	<u>Operating</u> <u>Rate (%)</u>	Removal Efficiency (%)	Incremental Removal (%
1.0	10.8%	20.5%	0.6	0.6	3.2	98.0	10.6
1.5	8.9%	29.4%	0.9	0.9	4.7	97.5	8.7
2.0	9.3%	38.7%	1.3	1.3	6.3	97.0	9.0
2.5	6.9%	45.5%	1.6	1.6	7.9	96.6	6.6
3.0	6.0%	51.5%	1.9	1.9	9.5	96.1	5.7
3.5	3.7%	55.2%	2.2	2.2	11.1	95.7	3.5
4.0	5.1%	60.3%	2.5	2.5	12.7	95.2	4.9
4.5	3.8%	64.1%	2.8	2.8	14.2	94.8	3.6
5.0	3.9%	68.0%	3.1	3.1	15.8	94.3	3.7
6.0	5.8%	73.8%	3.8	3.8	19.0	93.4	5.4
7.0	4.1%	77.8%	4.4	4.4	22.1	92.5	3.8
8.0	3.3%	81.2%	5.0	5.0	25.3	91.6	3.0
9.0	3.6%	84.8%	5.6	5.6	28.5	90.7	3.3
10.0	2.0%	86.8%	6.3	6.3	31.6	89.8	1.8
15.0	7.7%	94.5%	9.4	9.4	47.4	85.3	6.5
20.0	2.6%	97.1%	12.5	12.5	63.3	80.7	2.1
25.0	0.8%	97.9%	15.7	15.7	79.1	76.2	0.6
30.0	0.9%	98.8%	18.8	18.8	94.9	71.7	0.6
35.0	0.3%	99.1%	21.9	19.8	100.0	63.4	0.2
40.0	0.4%	99.5%	25.1	19.8	100.0	55.5	0.2
45.0	0.0%	99.5%	28.2	19.8	100.0	49.3	0.0
50.0	0.5%	100.0%	31.4	19.8	100.0	44.4	0.2
							93.7

Removal Efficiency Adjustment<sup>2</sup> =

Predicted Net Annual Load Removal Efficiency = 87.2% 98.8%

Predicted Annual Rainfall Treated =

1 - Based on 39 years of hourly rainfall data from Canadian Station 6100971, Brockville ON

2 - Reduction due to use of 60-minute data for a site that has a time of concentration less than 30-minutes.

3 - CDS Efficiency based on testing conducted at the University of Central Florida

4 - CDS design flowrate and scaling based on standard manufacturer model & product specifications



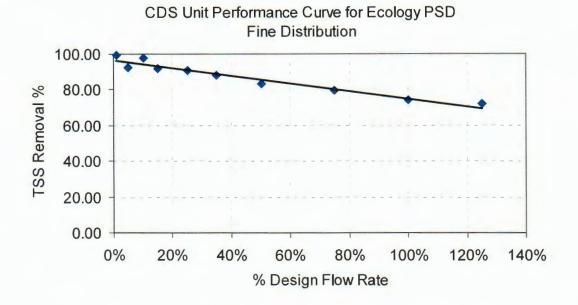
### **CDS Stormwater Treatment Unit Performance**

Particle Size	% of Particle
(µm)	Mass
< 20	20
20 - 40	10
40 - 60	10
60 - 130	20
130 - 400	20
400 - 2000	20

### Table 1. Fine Particle Size Distribution (PSD)

### Removal Efficiencies – CDS Unit Testing Under Various Flow Rates

The following performance curves are based on controlled tests using a full scale CDS Model PMSU20\_20 (2400 micron screen), 1.1-cfs (494-gpm) capacity treatment unit.

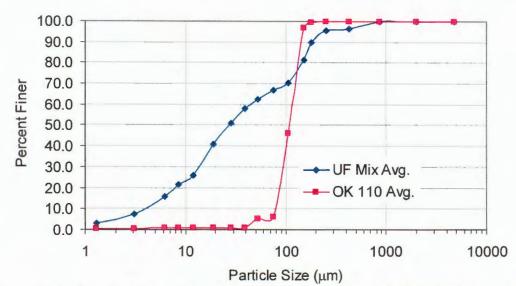


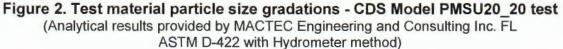




### **CDS Unit Performance Testing Protocol**

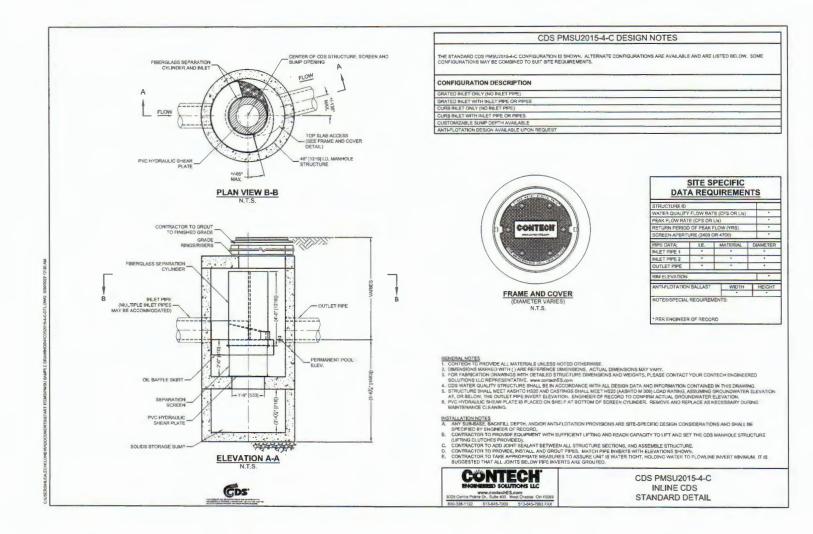
Tests were conducted using two types of sand – U.S. Silica OK-110 and UF sediment (a mixture of U.S. Silica sands). Particle size gradations for the two types of sand are illustrated in Figure 2.

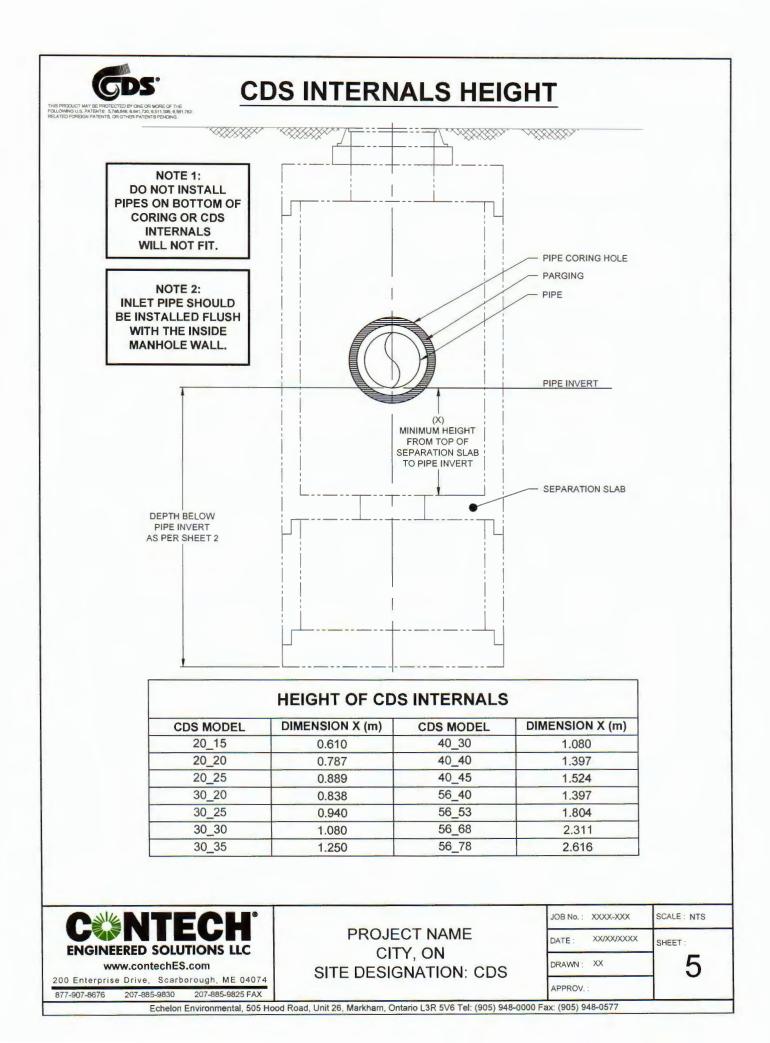




The influent concentration (mg/L) for the test was set at 200-mg/L and verified from slurry feeding. Effluent samples were taken at fixed time intervals during each test run at various flow rates. The composite effluent samples were sent to Test American Analytical Testing Lab, OR for TSS analysis (ASTM D3977-97).

TSS removal rates for the specified PSD ( $d_{50}$  of 90  $\mu$ m) under various flow rates were calculated from Figure 2 shows the removal efficiency as a function of operating flow rate. This removal efficiency curve as a function of percent flow rate can be applied to all CDS unit models.





### SECTION [\_\_\_\_] STORM WATER TREATMENT DEVICE

### PART 1 - GENERAL

#### 1.1 DESCRIPTION

A. Scope

The Contractor shall furnish all labor, equipment and materials necessary to install the storm water treatment device(s) (SWTD) and appurtenances specified in the Drawings and these specifications.

B. Related Sections - if applicable

Section ****:	Dewatering
Section ****:	Excavation Support and Protection
Section ****:	Excavation and Fill
Section ****:	Soil Stabilization

### 1.2 QUALITY ASSURANCES

#### A. Inspection

All components shall be subject to inspection by the engineer at the place of manufacture and/or installation. Any components that do not comply with the requirements of this specification may be subject to replacement or repair at the **Consultant's** discretion.

B. Warranty

The manufacturer shall guarantee the SWTD components against all manufacturer originated defects in materials or workmanship for a period of twelve (12) months from the date the components are delivered to the owner for installation. The manufacturer shall upon its determination repair, correct or replace any manufacturer originated defects advised in writing to the manufacturer within the referenced warranty period.

C. Manufacturer's Installation Certificate

The SWTD manufacturer shall submit a "Manufacturer's Installation Certificate" certifying that each SWTD has been installed in accordance with manufacturer's installation instructions.

### 1.3 SUBMITTALS

A. Shop Drawings

The contractor shall prepare and submit shop drawings in accordance with Section [\_\_\_\_\_] of the contract documents.

B. SWTD Sizing

The SWTD manufacturer shall submit a Sizing Report in accordance with the criteria set out in section 2.2.

C. Hydraulic Performance

The SWTD manufacturer shall submit a hydraulic report, stamped by a Professional Engineer licensed in the Province of Ontario, which verifies the system weir is sized correctly for the treatment flowrate and in addition, indicates the effect the SWTD has on the hydraulic grade line.

### PART 2.0 - PRODUCTS

#### 2.1 MATERIALS AND DESIGN

- A. Precast concrete components shall conform to applicable sections of CSA standards, CAN/CSA A257.1, A257.2, A257.3, A257.4, ASTM C507M and OPSS 1351 and the following:
  - 1. Concrete shall achieve a minimum 28-day compressive strength of 28 MPa;
  - 2. Unless otherwise noted, the precast concrete sections shall be designed to CHBDC loadings;
  - 3. Cement shall be Type (HE) Portland Cement conforming to (OPSS 1301);
  - 4. Aggregates shall conform to OPSS 1001 & OPSS 1002;
  - Reinforcing steel shall be deformed billet-steel bars, welded steel wire or deformed welded steel wire conforming to CSA A23.4-94 and ASTM A 185 respectively; and,
  - 6. Joints shall be sealed with fuel resistant joint sealing compound or gaskets.
- B. Internal Components and appurtenances shall conform to the following:
  - 1. Stainless Steel components shall be manufactured of Type 316 and 316L stainless steel conforming to ASTM F 1267-01;
  - 2. Hardware shall be manufactured of Type 316 stainless steel conforming to ASTM A 320;
  - 3. Fiberglass components shall be manufactured to ASTM D-4097;
  - 4. Concrete components shall be designed to withstand CHBDC loadings.

#### 2.2 PERFORMANCE

#### A. REMOVAL EFFICIENCIES

- 1. The SWTD shall be approved under the NJDEP testing and certification program.
- The SWTD shall be designed to meet Ministry of Environment Enhanced performance criteria based on the particle size distribution defined in Section 2.2 A.2.

3. The SWTD must be able to meet the total suspended solids removal requirements stated in this section based on the following particle size distribution at a minimum. Sizing with a particle size distribution that is finer through the full particle range is also acceptable.

Particle Size (µm)	% Finer
< 20	20
20-40	10
40-60	10
60-130	20
130-400	20
400-2000	20

SWTD performance must be based on laboratory or field testing data. Sizing of the SWTD based solely on theoretical modeling is not acceptable.

- 4. The SWTD shall be capable of capturing and retaining 100 percent of pollutants greater than or equal to 2.4 mm regardless of the pollutant's specific gravity (i.e.: floatable and neutrally buoyant materials) for flows up to 20 l/s. The SWTD shall be designed to retain all previously captured pollutants addressed by this subsection under all flow conditions.
- 4. The SWTD shall be capable of capturing and retaining total petroleum hydrocarbons. The SWTD shall be greater than 95 percent effective in controlling dry-weather accidental oil spills.

The SWTD shall be capable of utilizing sorbent media to enhance removal and retention of petroleum based pollutants.

### B. HYDRAULIC CAPACITY

- 1. The SWTD shall provide a rated-treatment capacity of 20 l/s. At its rated-treatment capacity, the device shall be capable of achieving greater than 65 percent removal efficiency of the particle size distribution provided in section 2.2.A.2.
- 2. The SWTD shall be equipped with an internal high flow bypass that is capable of conveying the maximum design flowrate from the treated drainage area with no flow going through the treatment portion of the unit.

### C. STORAGE CAPACITY

- The SWTD shall be designed with a sump chamber for the storage of captured sediments and other negatively buoyant pollutants in between maintenance cycles. The minimum storage capacity provided by the sump chamber shall be 0.838 m<sup>3</sup>. The sump chamber shall be physically separated from the treatment section of the SWTD such that accumulated grit does not reduce the treatment volume of the unit. SWTD that use the same chamber for treatment and grit storage are not acceptable. The minimum dimension providing access from grade to the sump chamber shall be 533mm in diameter.
- 2. The SWTD shall be designed to capture and retain Total Petroleum Hydrocarbons generated by wet-weather flow and dry-weather gross spills.

### 2.3 MANUFACTURER

The manufacturer of the SWTD shall be one that is regularly engaged in the engineering design and production of systems deployed for the treatment of storm water runoff for at least five (5) years and which have a history of successful production, acceptable to the Engineer. In accordance with the Drawings, the SWTD(s) shall be a Contech CDS<sup>®</sup> device as supplied by:

Echelon Environmental 505 Hood Road Markham, ON L3R 5B6 Tel: 905-948-0000

### PART 3 – EXECUTION

### 3.1 INSTALLATION

- 1. The SWTD shall be installed in accordance with the manufacturer's recommendations and related sections of the contract documents. The manufacturer shall provide the contractor installation instructions and offer onsite guidance during the important stages of the installation as identified by the manufacturer at no additional expense.
- 2. The contractor shall fill all voids associated with lifting provisions provided by the manufacturer. These voids shall be filled with non-shrinking grout providing a finished surface consistent with adjacent surfaces.

#### END OF SECTION

### SCHEDULE "D"

### Site Plan Control Agreement

### SPECIAL CONDITIONS

### 1. Location of Building Structures and Facilities

Building structures and facilities shall be located as per the Site Plans forming Schedule "B" to this Agreement.

#### 2. Drainage and Stormwater

Drainage and stormwater shall be managed as per Schedule "B" to this agreement, and as recommended by the stormwater management plan forming Schedule "C" to this agreement.

### 3. Servicing

The property must be serviced by municipal water and sewer services as per the plans forming Schedule "B" to this agreement and all water discharge to sanitary and storm sewers must be in accordance with the Township's Sewer Use Bylaw.

A water/wastewater permit shall be obtained from the Township prior to the installation of water and sewer services.

### 4. Site Access & Roads

The site shall be accessed as per the site plan forming Exhibit 2 of Schedule "B". A permit shall be obtained from the Township for any extension or relocation of the existing entranceway. No additional entranceways shall be established without the consent of the appropriate road authority.

A road cut permit from the United Counties of Leeds and Grenville is required before undertaking any work to the ditch.

### 5. Refuse Storage and Disposal

The property shall be maintained in a neat and tidy condition and all refuse shall be deposited in proper containers which are screened from view. The owner shall be responsible for the disposal of refuse from his/her/their property.

### 6. Snow Removal

Snow removal is the responsibility of the owner.

### 7. Firefighting

The owner is responsible for the installation of a fire hydrant, as per the site And servicing plan forming Exhibit 2 of Schedule "B." The type and specifications of the hydrant shall be determined by the Fire Chief of the Township of Edwardsburgh Cardinal.

### 8. Lighting

Illuminated/lighted signage and lighting shall be designed, installed and maintained to:

- i) Prevent light spill over or glare onto the County road allowance; and
- ii) Prevent light from falling within the vision of motorists in such a manner as to create a traffic hazard; and
- iii) Not diminish or detract from the effectiveness of any traffic signal or similar safety or warning device,

as determined by the Director of Public Works of the United Counties of Leeds and Grenville or his/her designate. Digital/LED signs are not permitted.

# SPC\_Agreement 08192024\_Purplefarm

Final Audit Report

2024-08-29

Created:	2024-08-28	
Ву:	Rebecca Crich (rcrich@twpec.ca)	
Status:	Signed	
Transaction ID:	CBJCHBCAABAA-gZyTpkfthbhMvLpO0sJ706sb8yLwh	

### "SPC\_Agreement 08192024\_Purplefarm" History

- Document created by Rebecca Crich (rcrich@twpec.ca) 2024-08-28 - 3:59:04 PM GMT
- Document emailed to Mitchell Alswiti (mitchell@purplefarmgenetics.com) for signature 2024-08-28 - 3:59:29 PM GMT
- Email viewed by Mitchell Alswiti (mitchell@purplefarmgenetics.com) 2024-08-28 - 4:09:35 PM GMT
- Signer Mitchell Alswiti (mitchell@purplefarmgenetics.com) entered name at signing as Mitchell Alswiti 2024-08-28 4:11:49 PM GMT
- Document e-signed by Mitchell Alswiti (mitchell@purplefarmgenetics.com) Signature Date: 2024-08-28 - 4:11:51 PM GMT - Time Source: server
- Document emailed to Tory Deschamps (mayor@twpec.ca) for signature 2024-08-28 4:11:54 PM GMT
- Email viewed by Tory Deschamps (mayor@twpec.ca) 2024-08-29 - 4:11:09 AM GMT
- Document e-signed by Tory Deschamps (mayor@twpec.ca) Signature Date: 2024-08-29 - 4:11:26 AM GMT - Time Source: server
- Document emailed to Rebecca Crich (rcrich@twpec.ca) for signature 2024-08-29 4:11:28 AM GMT
- Email viewed by Rebecca Crich (rcrich@twpec.ca) 2024-08-29 - 1:06:49 PM GMT
- Document e-signed by Rebecca Crich (rcrich@twpec.ca) Signature Date: 2024-08-29 - 1:07:04 PM GMT - Time Source: server

### Adobe Acrobat Sign

Agreement completed.
 2024-08-29 - 1:07:04 PM GMT

### ACKNOWLEDGEMENT AND DIRECTION

TO:	Warren Leroy	
	(Insert lawyer's name)	
AND TO:	AULT & AULT	
	(Insert firm name)	
RE:	Bylaw 2024-45 Purple Farms Inc	("the transaction")
	(Insert brief description of transaction)	
This will confirm		

- I/We have reviewed the information set out in this Acknowledgement and Direction and in the documents described below (the "Documents"), and that this information is accurate;
- You, your agent or employee are authorized and directed to sign, deliver, and/or register electronically, on my/our behalf the Documents in the form attached.
- You are hereby authorized and directed to enter into an escrow closing arrangement substantially in the form attached hereto being a copy of the version of the Document Registration Agreement, which appears on the website of the Law Society of Ontario as the date of the Agreement of Purchase and sale herein. I/We hereby acknowledge the said Agreement has been reviewed by me/us and that I/We shall be bound by its terms;
- The effect of the Documents has been fully explained to me/us, and I/we understand that I/we are parties to and bound by the terms and provisions of the Documents to the same extent as if I/we had signed them; and
- I/we are in fact the parties named in the Documents and I/we have not misrepresented our identities to you.
- I,\_\_\_\_\_\_, am the spouse of \_\_\_\_\_\_, the (Transferor/Chargor), and hereby consent to the transaction described in the Acknowledgment and Direction. I authorize you to indicate my consent on all the Documents for which it is required.

### DESCRIPTION OF ELECTRONIC DOCUMENTS

The Document(s) described in the Acknowledgement and Direction are the document(s) selected below which are attached hereto as "Document in Preparation" and are:

A Transfer of the land described above.

A Charge of the land described above.

Other documents set out in Schedule "B" attached hereto.

Dated at Spencerville ON

, this

\_\_\_\_\_day of \_\_\_\_

September , 20 24 .

THE CORPORATION OF THE TOWNSHIP OF EDWARDSBURGH CARDINAL

champs (Oct 2, 2024 22:37 EDT) schamps, Mayor.

Cich

Rebecca Crich, Clerk.

We have the authority to bind the Corporation.

# Acknowledgement and Direction Report Purplefarms SPCA

Final Audit Report

2024-10-03

Created:	2024-09-25	
Ву:	Rebecca Crich (rcrich@twpec.ca)	
Status:	Signed	
Transaction ID:	CBJCHBCAABAA1SHpqENgBGz5XASoYPiBOyB3JDLa5SZW	

# "Acknowledgement and Direction Report Purplefarms SPCA" Hi story



- Document emailed to Tory Deschamps (mayor@twpec.ca) for signature 2024-09-25 - 4:59:40 PM GMT
- Email viewed by Tory Deschamps (mayor@twpec.ca) 2024-10-01 - 10:16:55 AM GMT
- Email viewed by Tory Deschamps (mayor@twpec.ca) 2024-10-03 - 2:37:30 AM GMT
- Document e-signed by Tory Deschamps (mayor@twpec.ca) Signature Date: 2024-10-03 - 2:37:58 AM GMT - Time Source: server
- Document emailed to Rebecca Crich (rcrich@twpec.ca) for signature 2024-10-03 2:37:59 AM GMT
- Email viewed by Rebecca Crich (rcrich@twpec.ca) 2024-10-03 - 12:56:30 PM GMT
- Document e-signed by Rebecca Crich (rcrich@twpec.ca) Signature Date: 2024-10-03 - 12:56:37 PM GMT - Time Source: server
- Agreement completed.
   2024-10-03 12:56:37 PM GMT

### 🚴 Adobe Acrobat Sign