



# COMMUNITY DEVELOPMENT DEPARTMENT

45175 Ten Mile Road  
Novi, MI 48375  
(248) 347-0415 Phone  
(248) 735-5600 Facsimile  
[www.cityofnovi.org](http://www.cityofnovi.org)

## ZONING BOARD OF APPEALS STAFF REPORT

FOR: City of Novi Zoning Board of Appeals

ZONING BOARD APPEALS DATE: January 8, 2019

REGARDING: 45145 West 12 Mile Road, #50-22-15-126-015 (PZ18-0057)

BY: Larry Butler, Deputy Director Community Development

### I. GENERAL INFORMATION:

#### Applicant

Somnio Global LLC

#### Variance Type

Use

#### Property Characteristics

Zoning District: Office Service Technology  
Location: East of Taft Road and South of Twelve Mile Road  
Parcel #: 50-22-15-126-015

#### Request

The applicant is requesting a variance from the City of Nov Ordinance Section 4.68(2) to allow an exterior bulk Nitrogen Storage tank required for research. Limited warehousing or storage of products used in research is allowed by code. This property is zoned Office Service Technology (OST).

### II. STAFF COMMENTS:

*The Nitrogen storage tank has been previously allowed under temporary use permits.*

### III. RECOMMENDATION:

The Zoning Board of Appeals may take one of the following actions:

1. I move that we **grant** the variance in Case No. **PZ18-0057**, sought by \_\_\_\_\_, for \_\_\_\_\_ because Petitioner has shown practical difficulty requiring \_\_\_\_\_.
  - (a) Without the variance Petitioner will be unreasonably prevented or limited with respect to use of the property because \_\_\_\_\_.
  - (b) The property is unique because \_\_\_\_\_.
  - (c) Petitioner did not create the condition because \_\_\_\_\_.

- \_\_\_\_\_.
- (d) The relief granted will not unreasonably interfere with adjacent or surrounding properties because\_\_\_\_\_.
  - (e) The relief if consistent with the spirit and intent of the ordinance because\_\_\_\_\_.
  - (f) The variance granted is subject to:
    - 1. \_\_\_\_\_.
    - 2. \_\_\_\_\_.
    - 3. \_\_\_\_\_.
    - 4. \_\_\_\_\_.

2. I move that we **deny** the variance in Case No. **PZ18-0057**, sought by \_\_\_\_\_, for \_\_\_\_\_ because Petitioner has not shown practical difficulty requiring \_\_\_\_\_.

- (a) The circumstances and features of the property including \_\_\_\_\_ are not unique because they exist generally throughout the City.
- (b) The circumstances and features of the property relating to the variance request are self-created because\_\_\_\_\_.
- (c) The failure to grant relief will result in mere inconvenience or inability to attain higher economic or financial return based on Petitioners statements that \_\_\_\_\_.
- (d) The variance would result in interference with the adjacent and surrounding properties by\_\_\_\_\_.
- (e) Granting the variance would be inconsistent with the spirit and intent of the ordinance to\_\_\_\_\_.

Should you have any further questions with regards to the matter please feel free to contact me at (248) 347-0417.

Larry Butler  
Deputy Director Community Development  
City of Novi



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## ZONING BOARD OF APPEALS APPLICATION

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NOV 13 2018

CITY OF NOVI  
COMMUNITY DEVELOPMENT

APPLICATION MUST BE FILLED OUT COMPLETELY

<b>I. PROPERTY INFORMATION (Address of subject ZBA Case)</b>			
PROJECT NAME / SUBDIVISION Somnio Global, LLC			
ADDRESS 45145 West 12 Mile Road		LOT/SIUTE/SPACE #	
SIDWELL # 50-22- 15 - 126 - 015		May be obtain from Assessing Department (248) 347-0485	
CROSS ROADS OF PROPERTY 12 Mile Road and Caberel Drive			
IS THE PROPERTY WITHIN A HOMEOWNER'S ASSOCIATION JURISDICTION? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		REQUEST IS FOR: <input type="checkbox"/> RESIDENTIAL <input checked="" type="checkbox"/> COMMERCIAL <input type="checkbox"/> VACANT PROPERTY <input type="checkbox"/> SIGNAGE	
DOES YOUR APPEAL RESULT FROM A NOTICE OF VIOLATION OR CITATION ISSUED? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			
<b>II. APPLICANT INFORMATION</b>			
<b>A. APPLICANT</b>		EMAIL ADDRESS sannear@somnioglobal.com	CELL PHONE NO. 248 567 9616
NAME Steve Annear		TELEPHONE NO. 248 574 5508	
ORGANIZATION/COMPANY Somnio Global, LLC		FAX NO. 734 864 5744	
ADDRESS 45145 West 12 Mile Road	CITY Novi	STATE Mi	ZIP CODE 48377
<b>B. PROPERTY OWNER</b> <input type="checkbox"/> CHECK HERE IF APPLICANT IS ALSO THE PROPERTY OWNER			
Identify the person or organization that owns the subject property:		EMAIL ADDRESS sannear@somnioglobal.com	CELL PHONE NO. 248 567 9616
NAME Steve Annear		TELEPHONE NO. 248 574 5508	
ORGANIZATION/COMPANY Somnio Domus, LLC		FAX NO. 734 864 5744	
ADDRESS 45145 West 12 Mile Road	CITY Novi	STATE Mi	ZIP CODE 48377
<b>III. ZONING INFORMATION</b>			
<b>A. ZONING DISTRICT</b>			
<input type="checkbox"/> R-A <input type="checkbox"/> R-1 <input type="checkbox"/> R-2 <input type="checkbox"/> R-3 <input type="checkbox"/> R-4 <input type="checkbox"/> RM-1 <input type="checkbox"/> RM-2 <input type="checkbox"/> MH <input type="checkbox"/> I-1 <input type="checkbox"/> I-2 <input type="checkbox"/> RC <input type="checkbox"/> TC <input type="checkbox"/> TC-1 <input type="checkbox"/> OTHER <u>OST</u>			
<b>B. VARIANCE REQUESTED</b>			
INDICATE ORDINANCE SECTION (S) AND VARIANCE REQUESTED:			
1. Section _____ Variance requested _____			
2. Section _____ Variance requested _____			
3. Section _____ Variance requested _____			
4. Section _____ Variance requested _____			
<b>IV. FEES AND DRAWINGS</b>			
<b>A. FEES</b>			
<input type="checkbox"/> Single Family Residential (Existing) \$200 <input type="checkbox"/> (With Violation) \$250 <input type="checkbox"/> Single Family Residential (New) \$250 <input type="checkbox"/> Multiple/Commercial/Industrial \$300 <input type="checkbox"/> (With Violation) \$400 <input type="checkbox"/> Signs \$300 <input type="checkbox"/> (With Violation) \$400 <input type="checkbox"/> House Moves \$300 <input type="checkbox"/> Special Meetings (At discretion of Board) \$600			
<b>B. DRAWINGS 1-COPY &amp; 1 DIGITAL COPY SUBMITTED AS A PDF</b>			
<ul style="list-style-type: none"> <li>• Dimensioned Drawings and Plans</li> <li>• Site/Plot Plan</li> <li>• Existing or proposed buildings or addition on the property</li> <li>• Number &amp; location of all on-site parking, if applicable</li> <li>• Existing &amp; proposed distance to adjacent property lines</li> <li>• Location of existing &amp; proposed signs, if applicable</li> <li>• Floor plans &amp; elevations</li> <li>• Any other information relevant to the Variance application</li> </ul>			



# ZONING BOARD OF APPEALS APPLICATION

## V. VARIANCE

### A. VARIANCE (S) REQUESTED

DIMENSIONAL     USE     SIGN

There is a five-(5) hold period before work/action can be taken on variance approvals.

### B. SIGN CASES (ONLY)

Your signature on this application indicates that you agree to install a **Mock-Up Sign** ten-(10) days before the schedule ZBA meeting. Failure to install a mock-up sign may result in your case not being heard by the Board, postponed to the next schedule ZBA meeting, or cancelled. A mock-up sign is **NOT** to be actual sign. Upon approval, the mock-up sign must be removed within five-(5) days of the meeting. If the case is denied, the applicant is responsible for all costs involved in the removal of the mock-up or actual sign (if erected under violation) within five-(5) days of the meeting.

### C. ORDINANCE

#### City of Novi Ordinance, Section 3107 – Miscellaneous

No order of the Board permitting the erection of a building shall be valid for a period longer than one-(1) year, unless a building permit for such erection or alteration is obtained within such period and such erection or alteration is started and proceeds to completion in accordance with the terms of such permit.

No order of the Board permitting a use of a building or premises shall be valid for a period longer than one-hundred and eighty-(180) days unless such use is establish within such a period; provided, however, where such use permitted is dependent upon the erection or alteration or a building such order shall continue in force and effect if a building permit for such erection or alteration is obtained within one-(1) year and such erection or alteration is started and proceeds to completion in accordance with the terms of such permit.

### D. APPEAL THE DETERMINATION OF THE BUILDING OFFICIAL

PLEASE TAKE NOTICE:

The undersigned hereby appeals the determination of the Building Official / Inspector or Ordinance made

CONSTRUCT NEW HOME/BUILDING     ADDITION TO EXISTING HOME/BUILDING     SIGNAGE  
 ACCESSORY BUILDING     USE     OTHER \_\_\_\_\_

## VI. APPLICANT & PROPERTY SIGNATURES

### A. APPLICANT

Applicant Signature

Date

10/18/2018

### B. PROPERTY OWNER

**If the applicant is not the owner, the property owner must read and sign below:**

The undersigned affirms and acknowledges that he, she or they are the owner(s) of the property described in this application, and is/are aware of the contents of this application and related enclosures.

Property Owner Signature

Date

10/18/2018

## VII. FOR OFFICIAL USE ONLY

### DECISION ON APPEAL:

GRANTED

DENIED

The Building Inspector is hereby directed to issue a permit to the Applicant upon the following and conditions:

Chairperson, Zoning Board of Appeals

Date

# Temporary Special Land Use Permit , TSLU17-0004

## Property Information

50-22-15-126-015      45145 TWELVE MILE RD      Subdivision:      SEC 15  
NOVI MI 48377      Lot:      Block:

## Name Information

Owner:      SOMNIO DOMUS, LLC      Phone:      (248) 574 5508  
Occupant:      HUSKY INJECTION MOLDING      Phone:  
Applicant:      SOMNIO DOMUS, LLC      Phone:      (248) 574 5508  
Contractor:      Phone:  
Licensee:      Phone:  
License Issued:  
License Expires:

## Permit Information

Date Issued:      07/22/2017      Date Expires:      07/22/2018      Status:      EXPIRED

### Work Description:

EXTERIOR NITROGEN STORAGE TANKS AND EQUIPMENT PER THE ATTACHED SITE PLAN AND PRAXAIR LAYOUT.

JULY 22, 2017- JULY 22, 2018

### Stipulations:

10/03/18 - according to the building clerks, a ZBA packet was picked up this date by Steve Annear 248-574-5508

10/03/18- email to Larry - ' need to inspect. No ZBA application was received as of this date.

\*08/31/18 - \* WAITNG FOR PROPERTY OWNER TO APPLY TO ZBA FOR PERMANENT VARIANCE per conversation with Larry Butler to owner

Mr. Annear installed nitrogen storage tanks in 2015 for research projects for Somnio Global. He is unsure how long the tanks will be needed, as he does not know how long they will be conducting the research. He has requested the land use permit for another year, and will reevaluate it necessity next year. In coordination with the Novi Zoning Code, section 7.6.3.a-k Somnio Global can keep their nitrogen storage tanks through July 22, 2018. The granting of the temporary exception or use shall in no way constitute a change in the basic uses permitted in the district nor on the property wherein the temporary exception or use is permitted, and shall not adversely affect the public health, safety, and welfare.

The temporary exemption or use shall be compatible with surrounding uses and shall not adversely affect the surrounding neighborhood or area by means or odor, noise, dust or other nuisance or detrimental condition.

The parking required by the temporary use will be provided on-site, through off-street parking unless adequate street parking is available in the immediate area.

Increased traffic caused by the temporary use shall not adversely affect the surrounding neighborhood or the City at large.

Permanent alterations to the site are prohibited.

Adequate fire protection and access for fire vehicles shall be provided as determined by the Fire Chief, or their design.

The site shall be completely cleared of all trash, debris, signs, sign supports, temporary structures, and electrical service within three (3) days following the date specified for termination of the temporary use.

The granting of the temporary exception or use shall be granted in writing stipulating all conditions as to time, nature of development permitted and arrangements for removing the use at the termination of said temporary permit.

All setbacks, land coverage, off-street parking, lighting and other requirements of the district shall be met; and

In classifying uses as not requiring capital improvement, the Building Official or their designee shall determine that they are either demountable structures related to the permitted use of land; recreation developments, such as but not limited to golf driving ranges and outdoor archery courts; or structures which do not require foundations, heating systems or sanitary connections.

The Building Official may impose reasonable conditions necessary to assure compliance with the standards in this subsection, to ensure that operation and maintenance of the permitted use mitigate potential adverse impacts on existing uses on adjoining properties and in the surrounding area, and to protect the public health, safety and general welfare. Conditions may address, but are not limited to, provisions for adequate parking, storage, and lighting; provisions for security, traffic safety, fire and life safety; conditions limiting hours of operation; provision for adequate sewage disposal; and any other health and safety concerns the Building Official may deem necessary to comply with the standards above. In addition, the Building Official may require the posting of a bond to ensure timely removal of structures and materials and restoration of the area.

Comment:

## Fee Information



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CITY OF NOVI  
COMMUNITY DEVELOPMENT

17<sup>th</sup> October, 2018

Zoning Board of Appeals  
City of Novi  
45175 Ten Mile Road  
Novi, MI 48375 USA

**Re: Somnio Global Application – Zoning Board of Appeals Application**

To whom it may concern,

Somnio Global, LLC ("Somnio") is an advanced scientific accelerator dedicated to commercializing innovative technologies with substantive social impact. Somnio develops technology in the areas of energy, environment, education and empathy and in 2012 the principals of the company purchased 45145 W. 12 Mile Road in Novi and located the Company's headquarters to the site. Since that time the facility has been equipped with office and administration space, research and testing facilities, analytical laboratories, and rapid prototyping equipment. The nature of Somnio's research is diverse and includes technologies for the purification of water, plasma coating systems, indoor air cleaning, Bio-Preservation, energy storage and advanced manufacturing systems.

Since locating to Novi, the company now employs 32 full time staff and has attracted over \$40m in investment, primarily from overseas investors. The Company is currently moving two of its technologies to market which will ensure the next level of growth for Somnio with an estimated 20-30 new jobs over the next 18 months. The Company is also in discussions with one of its licensees, Australian public company PuriflOH Ltd, for that company to establish its initial U.S. manufacturing operations on Somnio's site in Novi.

One of Somnio's key research areas involves a patented deposition technique known as Laser Assisted Cold Spray (LACS) which is a breakthrough method of bonding certain metals. The leading application for this technology is the light weighting of automotive brake rotors. The technology is highly promising, has attracted interest from Automotive manufacturers and the company aims to commercialize the technology in the next 2-3 years.

The LACS technology currently uses liquid nitrogen as the carrier gas in the process and for this reason the company installed a bulk nitrogen tank at the rear of the site to support the development of this particular invention. The tank has been subject to Temporary Special Land Use Permits as it was uncertain if the LACS technology would always require Nitrogen gas in the process. Having determined that this will now be the case for the next few years, the company is seeking a more permanent approval for the tanks.

We therefore seek your consideration of this application in respect to the following standards;

**Standard # 1: Cannot be Reasonably Used.**

The use of Nitrogen is a critical component of Somnio’s LACS research program. This program has been ongoing on the site for over 4 years and the Company forecasts that at least another 3-4 years of development work will be required to maximize the innovation. We expect that Nitrogen will remain the primary carrier gas, particularly for the brake rotor application, however this may change as the LACS system has much potential in other applications including as an improved method of electrical interconnections in electric vehicles.

The safest and most cost effective way for us to use Nitrogen gas is via the storage of bulk liquid nitrogen in a tank that is leased from our vendor Praxair. The liquid nitrogen is then aerated to become gaseous and the installation therefore includes both bulk tanks and aerators.

**Standard # 2: Circumstances or Physical Conditions.**

In collaboration with our vendor, Praxair, we installed the tanks and aerators in the rear (south side) of the facility. As per the enclosed photographs, the tanks cannot be seen from any neighboring property and the closest property border is some 40 yards to the south of the installation which is further bordered by the CSX rail line. The tanks are therefore bordered by the building itself and trees to the south and west.

The installation itself is managed and remotely monitored by our vendor Praxair, who ensure the functionality, safety, compliance and cleanliness of the system. The tank is refilled by a supply vehicle and therefore must be located outside of the build to ensure access.

**Standard # 3: Character of the Neighborhood.**

The whole of the Somnio facility cannot be seen from 12 Mile road as it is set back into the 24 acre site which itself is heavily wooded. The tanks were purposefully installed at the rear of the building and cannot be seen by any neighbors. In this respect, the tanks have no influence on the character of the neighborhood however on the site itself, can be seen as consistent with an OST zoning of a Research and Development company.

The following images demonstrate the location and surroundings of the tank installation. All are taken from the rear (south side) of the property.



Looking North West from the rear access road, shows the two aerators.

Looking West shows wooded southern and western boundaries



Looking North East. Shows fenced installation in rear of the property. Liquid Nitrogen tank is the in the foreground, flanked by the aerators.

Looking North to the back of the Somnio Facility.



**Standard #4: Not Self-Created.**

This application is by the tenant of the site, Somnio Global to enable that it continues its research program in what is a highly promising advanced manufacturing technology. While the property owner is a related party, the tanks have been installed and maintained by Somnio Global.

I trust that this information adequately supports our application and if any further information is required, we will be happy to provide whatever is needed.

Yours Sincerely,

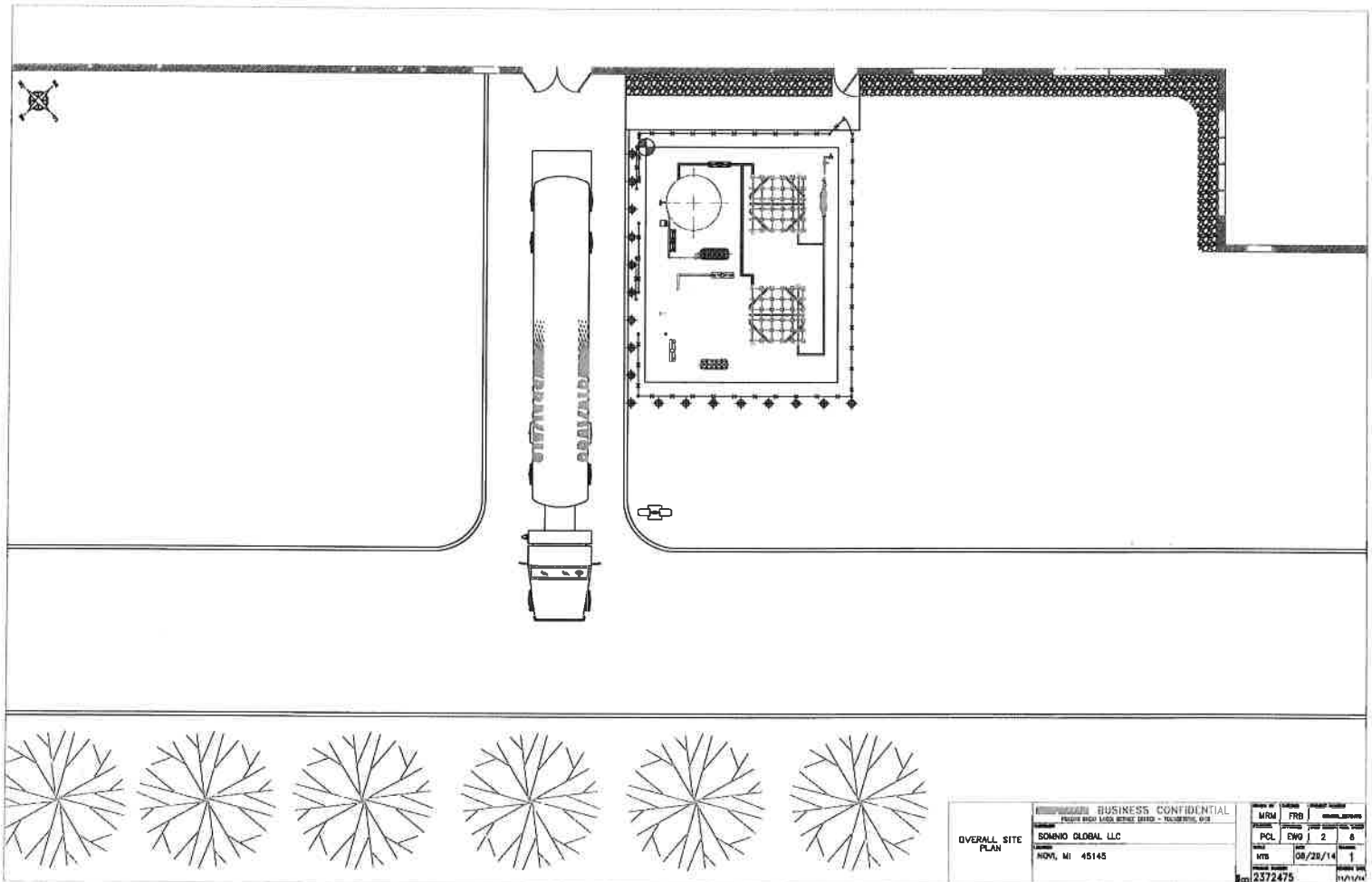
Steve Annear  
Vice President, Somnio Global

Ph (248) 567 9616  
sannear@somnioglobal.com

<https://somnioglobal.com>







BUSINESS CONFIDENTIAL		DATE	PROJECT NUMBER
SOMNO GLOBAL LLC		PCL	CHG   2   6
NOV, MI 45145		DATE	08/28/14
		DATE	1
		DATE	2372475