CONDITIONAL USE / SITE PLAN REVIEW APPLICATION

Racine County, Wisconsin

Owner: __Losacco, LLC__

Applicant/Agent: __Asphalt Contractors, Inc.__

Town: __Burlington__

Zoning district(s): __M-4__ *(proposed)*

TO THE RACINE COUNTY ECONOMIC DEVELOPMENT & LAND USE PLANNING COMMITTEE:

The undersigned requests a conditional use / site plan review permit to *(specify use, project, structure, size, etc.)*

To establish & operate a non-metallic mineral extraction (sand & gravel) operation including earthmoving, crushing, washing, stockpiling, transportation & reclamation

AT *(site address)*: __7148 McHenry Street, Burlington, WI__

Subdivision: _____

Lot(s): _____

Block: _____

Parcel # __002-02-19-07-010-000, 002-02-19-18-015-000__

Section(s) __7, 18__   T _2_ N   R _19_ E

If served by municipal sewer, check here: _____   Sanitary permit #: _____

Attached are:

- ✗ zoning permit application
- ✗ 12 SETS: drawn-to-scale site plan that is based on a survey (10 of the 12 should be sized or folded to 8.5" x 11")
- ✗ letter of agent status

- ✗ hearing/review fee (Fees are non-refundable, & re-publication/amendment fees will be charged where applicable.)
- ✗ 3 SETS: landscaping/lighting plan *Reclamation Plan*
- ✗ 12 SETS: report/cover letter & operations plan
- ✗ abutting property owners' names & mailing addresses
- ✗ other

print name: __Asphalt Contractors, Inc.__

e-mail address: __aci@mia.net__

address: __1701 Main Street__

telephone #: __262-878-4678__

__Union Grove, WI 53182__

signed: _R. Kordus._

STAFF USE ONLY:

BASED ON CURRENT MAPPING, check applicable statement(s) below & underline or circle the word "all" or "partially".

N/A The *property* is all / partially located in the ____N/A____ shoreland area.
N/A The *project* is all / partially located in the ____N/A____ shoreland area.
✗ The *property* is all / (partially) located in the __Spring valley creek__ floodplain.
N/A The *project* is all / partially located in the ____N/A____ floodplain.
X The *property* is all / (partially) located in the wetland.
N/A The *project* is all / partially located in the wetland.

RECEIVED

JUN 29 2020

The applicant is subject to the following Racine County Ordinance provisions (specify article/section):

Art VI Div. 10 M-4 Quarrying District · Section 20-1778 Mineral Extraction · Ch 20 Zoning & Ch 12.5 Non-metallic Mining Reclamation

Shoreland contract: yes _____   no _✗_

Public hearing date: _August 17, 2020_

Site plan review meeting date: _N/A_

Submittal received by: _SMW_

Date petition filed: _6/29/2020_

cash   or check # _53471_

amount received: $ _475.00_

05/14/2003/crh

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APPLICATION FOR ZONING PERMIT
RACINE COUNTY, WISCONSIN (Rev. 11/20)

PERMIT NO. _____

DATE PERMIT ISSUED _____

OWNER Losacco, LLC
Mailing Address 7148 McHenry Street

Burlington	WI	53105
City	State	Zip

Phone (H) 262-539-2592 (W) _____

Parcel Id. # 002-02-19-18-015-000,
002-02-19-07-010-000

APPLICANT Asphalt Contractors, Inc.
Mailing Address 1701 Main Street

Burlington	WI	53105
City	State	Zip

Phone (H) 262-878-4678 (W) _____

Site Address 7148 McHenry Street, Burlington, WI 53105

Municipality **Town of Burlington** Section(s) **7,18** Town **2** North, Range **19** East

Lot — Block — Subdivision Name _____ CSM # _____

Proposed Construction/Use _To establish & operate a nonmetallic mineral extraction (sand & gravel) operation including; earthmoving, crushing, washing, stockpiling, transportation & reclamation_

New	**X**	Principal Bldg. ___	Size (___ x ___) (___ x ___) (___ x ___)		
Addition	___	Accessory ___	Area (sq ft) (_see attached plans_) (___)		
Alteration	___	Deck ___	# of Units/Stories ___ / ___	Building Ht.-Avg. (ft.) ___	
Conversion	___	Sign ___	Peak Ht. (ft.) ___	100-Yr. Floodplain Elev. ___	
Temporary	___	Other **NMM**	Eave Ht. (ft.) ___	Flood Protection Elev. ___	

Contractor Asphalt Contractors, Inc. **Est. Value w/Labor** $ _____ ZONING DISTRICT (proposed) M-4

Existing Nonconforming?	N/A	* **Yes** ___ No **X**	Yard Setbacks	Proposed	OK?
*Structure's Fair Mrkt Value $ ___		Cumulative % ___	Street-1st	___	
*>50% of Fair Market Value?	N/A	Yes ___ No ___	Street-2nd	___	
Structure in Shoreland? (per map)		Yes ___ No **X**	Side-1st	_see attached_	
Structure in Floodplain? (per map)		Yes ___ No **X**	Side-2nd	_plans_	
Structure in Wetland? (per map)		Yes ___ No **X**	Rear	___	
Substandard Lot?		Yes ___ No **X**	Shore	___	
Abutting Lot-Same Owner/Closely Related?	Yes ___ No **X**		Total Acc. Structures	___	
BOA Variance Needed?		Yes ___ No **X**	Date of Approval	___	
Conditional Use/Site Plan Needed?		Yes **X** No ___	Date of Approval	___	
Shoreland Contract Needed?		Yes ___ No **X**	Date of Approval	___	

Additional Zoning Permit Stipulations Listed on Back of this Form? Yes ___ No ___ (If "Yes," see back)

The applicant hereby acknowledges receipt of notice contained herein and certifies that submitted information/ attachments are true and correct to the best of the knowledge and belief of the signer, and that all construction/ use will be done in accordance with the Zoning Ordinance, applicable stipulations, and Wisconsin laws.

BOA/Conditional Use/Site Plan Pd: $ **475.00**
CC Date/Check/Cash # **53435**

R. Kordus Pres 6-29-2020
Signature of Owner /Applicant **Date**

Shoreland Contract Fee Pd: $ ___
CC Date/Check/Cash # ___

Robert Kordus
Print Name(s)

Zoning Permit Fee Pd: $ ___
CC Date/Check/Cash # ___

Notes (revisions, extensions, etc.)

RECEIVED

JUN 29 2020

Other: ___ Pd: $ ___

✓ ☐ if shoreland erosion review fee is included above Zoning Administrator _____ (Staff Initials)

RACINE COUNTY

Make checks payable to "Racine County Development Services" - **Note:** ALL FEES ARE NONREFUNDABLE (OVER)
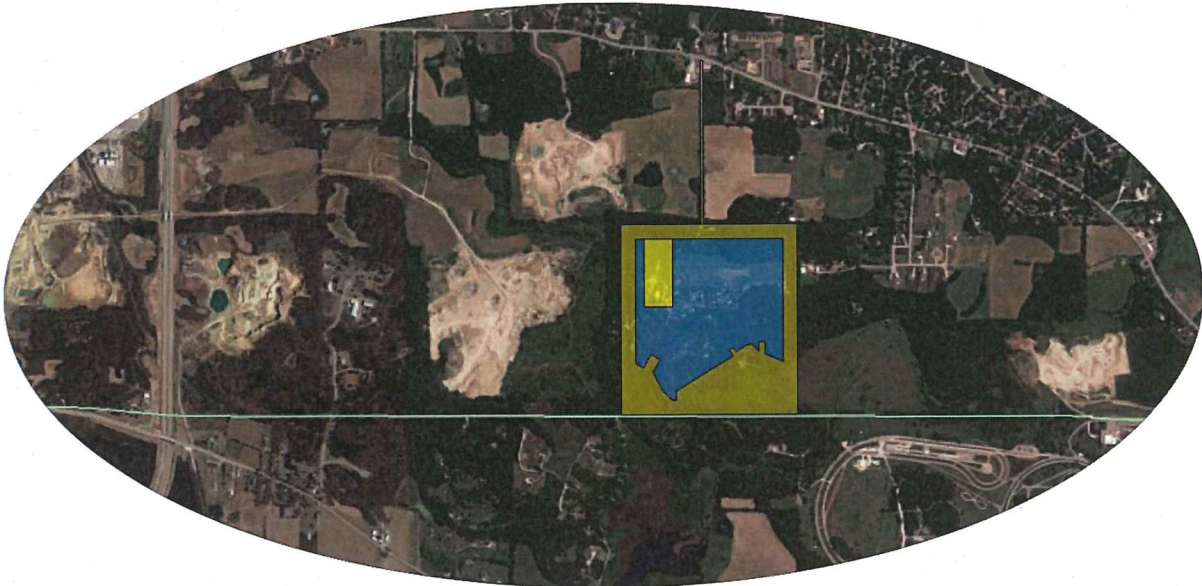
PIN 002-02-19 - 18 - 015-000
002-02-19 - 07 - 010-000

Mineral Extraction
Burlington, Wisconsin

Vicinity Map

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CONTRACTORS INC

Grading-Paving-Sealing-Striping

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**ASPHALT
CONTRACTORS INC**

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Cover Page

Asphalt Contractors, Inc. is an asphalt maintenance, paving, and producing contractor with a home office located in Union Grove, WI and an asphalt plant in Burlington, WI. The company employs around 100 people on average, performing services such as asphalt production, paving, sealing, striping, grading, crushing, and maintenance.

We are proposing a mineral extraction process as depicted on the enclosed plans drawn by Cardinal Engineering. To produce asphalt, we need very specific type of aggregate. The aggregate resources in this area do not produce the gradations needed. With recent demand from construction projects in SE Wisconsin, the availability for aggregates is rapidly depleting.

This year we have been successful in providing low bids to the Towns of Burlington and Lafayette, Villages of Sturtevant, Fontana, and Twin Lakes, and the City of Delevan. To remain competitive and offer low bids we need a viable source of aggregate.

Initially, this project would be rezoned to allow mineral extraction. Asphalt Contractors is proposing an access road off County Highway P, with acceleration/deceleration lanes subject to the approval of Racine County. Traffic impact should be less than 1%. There would be no traffic on town roads other than travel for work being performed.

The project would proceed according to the enclosed phasing diagram. We also have included a restoration phasing diagram. The property will initially be rezoned to accommodate the mineral extraction process, but as the project is completed it will return to agricultural zoning.

There will be a scale house with bathroom facilities for truck drivers and employees. We will have a septic system that meets the requirements of Racine County. We have strategically located runoff ponds to collect site water. The entire site will have inward drainage and no water will be allowed to exit the mineral extraction area and enter streams, rivers, or lakes. The extraction process does not require blasting; therefore, none will be done. We will not import concrete or asphalt for crushing, those functions are already taking place at our Burlington Asphalt Plant.

We have recorded the exiting noise/decibel levels on site and in the surrounding area. It is our intention that the noise level at the neighboring properties be no more than the existing levels prior to the projects start.

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Groundwater Impact

Asphalt Contractors will not adversely affect the existing neighboring water supplies. All drainage will be inward drainage, no site water will run offsite. Asphalt Contractors' excavation will be above the water table. The water table is at an elevation of 804 ft. Asphalt Contractors will not be excavating in the water table per our submitted plans.

According to a study completed for the Minnesota Department of natural resources, gravel pit mining has minimal impacts on water aquifer levels and surrounding well levels in the areas. Gravel pit operations are considered a "clean" industry, which means that no chemicals or solvents are used throughout the excavation process; water quality in and around gravel mining pits is not normally an issue. Additionally, groundwater contamination that has occurred in certain situations were found to be caused entirely from human and animal waste. Aggregate extraction and processing is not a source of this type of contamination.

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Air Quality Impact

The United States Environmental Protection Agency (U.S. EPA) provides information pertaining to national ambient air quality standards (NAAQS) that all industries within the United States must comply with. These values are professionally reviewed and updated approximately every 6 years. A portion of the NAAQS table can be found below.

The primary quality standard refers to sensitive populations, such as those that are asthmatic, elderly, or young. As long as the air emissions are below the primary value, those that are most vulnerable to air particles are protected.

Particulate matter comes in many different forms and sizes. However, the U.S. EPA focuses on particles that are 2.5 microns and 10 microns in diameter. The 2.5-micron particles, which are smaller and more dangerous, are primarily made through combustion processes. The proposed gravel pit will **not** generate this type of particulate. The 10-micron particles are generated through stone crushing activities and will be the main focus of air quality control on site.

The Wisconsin Department of Natural Resources (WDNR) follows and enforces the U.S. EPA values for air quality standards. Our crusher, which is the main source of particle emission on site, is regulated through the WDNR and has obtained an operational permit. This permit states that crusher air emissions are below the primary standard.

		primary	1 year	12.0 μg/m^3	annual mean, averaged over 3 years
		secondary	1 year	15.0 μg/m^3	annual mean, averaged over 3 years
Particle Pollution (PM)	PM$_{2.5}$	primary and secondary	24 hours	35 μg/m^3	98th percentile, averaged over 3 years
	PM$_{10}$	primary and secondary	24 hours	150 μg/m^3	Not to be exceeded more than once per year on average over 3 years

NAAQS data provided by the United States Environmental Protection Agency.

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Traffic Impact

Volumetric traffic data provided by the Wisconsin Department of Transportation.

Traffic Impact Calculations

There will be minimal impact to traffic per the below calculations. The quarry will largely support Asphalt Contractors internal product needs and as such the truck traffic on Highway P already encompasses the current truck traffic of our business. ***Our truck traffic is already there and included on the counts.***

Operating Assumptions

Estimated Mineral Extraction: 150,000 tons a year

Season: April – November (8 months, 1 month = 4.25 weeks, 5 days/week)

Truck Load: 20 tons

$$\frac{8\ months}{year} \times \frac{4.25\ weeks}{month} \times \frac{5\ working\ days}{week} = \frac{170\ working\ days}{year}$$

$$\frac{150,000\ tons}{year} \div \frac{20\ tons}{truck} = \frac{7,500\ trucks}{year}$$

$$\frac{7,500\ trucks}{year} \div \frac{170\ working\ days}{year} = \frac{44\ trucks}{day}$$

Estimated Traffic Impacts by Direction

*** For our model, we will round up to 50 trucks. Scenarios are in order from Most to Least likely.*

Scenario 1:

All 50 Trucks North:

North: 0.6% of total daily traffic

South: 0.0% of total daily traffic

Note: If tonnage doubles, the maximum impact is 1.1% of total daily traffic

Scenario 2:

25 Trucks North and 25 Trucks South:

North: 0.3% of total daily traffic

South: 0.8% of total daily traffic

Note: If tonnage doubles, the maximum impact is 0.6% of total daily traffic North and 1.6% of total daily traffic South

Scenario 3:

All 50 Trucks South:

North: 0.0% of total daily traffic

South: 1.6% of total daily traffic

Note: If tonnage doubles, the maximum impact is 3.2% of total daily traffic

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Noise Impact

Asphalt Contractors' objective is to have no greater noise levels than those that currently exist. Per the values and chart listed below, our target distance between our neighbors and crushing equipment would not be less than 700 ft with no berm. We have selected a minimum distance of 700 ft between crushing equipment and neighbors to insure a 45 dB level. We are also installing berms as shown on the diagram to control any fugitive noise.

Reference Values	Experimental Values
Normal Conversation: ≈ 60 dB	Backup Alarm: ≈ 100 dB
Lawn Mower: ≈ 90 dB	Burlington Crusher: ≈ 92 dB
Loud Rock Concert: ≈ 120 dB	Milwaukee Crusher: ≈ 100 dB

The Milwaukee crusher sound level reading will be used for calculations to ensure that the "worst case scenario" is simulated. The target value that is to be obtained is 45 dB, which represents the ambient sound level within the Asphalt Contractors parking lot.

Using the inverse square law, it was determined that it would take 562 ft for the reduction of 100 dB to 45 dB. The graph below visually displays the distance to sound level relationship.

Distance vs. Sound Level

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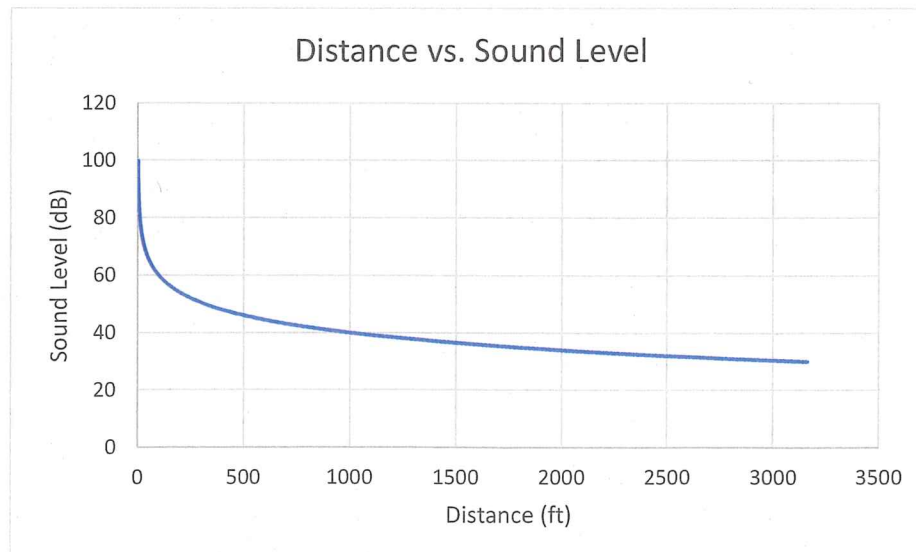
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Noise Impact Calculations

To ensure that our estimations for noise impact were free of human error, we used the estimation calculator software provided by Georgia State University.

Distance from crusher necessary to be at 45 dB is 562 ft.

If you measure a sound level I_1 = 100 dB
at distance
d_1 = 0.3048 m = 1 ft

$$\frac{I_2}{I_1} = \left[\frac{d_1}{d_2}\right]^2$$

then at distance
d_2 = 171.29760 m = 562.0000 ft

the inverse square law predicts a sound level
I_2 = 45.00527 dB

Noise level to the closest neighbor who is 867 ft away is 41.2 dB.
Note: Estimations are calculated at the house structure.

If you measure a sound level I_1 = 100 dB
at distance
d_1 = 0.3048 m = 1 ft

$$\frac{I_2}{I_1} = \left[\frac{d_1}{d_2}\right]^2$$

then at distance
d_2 = 264.2616 m = 867.0000 ft

the inverse square law predicts a sound level
I_2 = 41.239611 dB

Noise level to the second closest neighbor who is 976 ft away is 40.2 dB.
Note: Estimations are calculated at the house structure.

If you measure a sound level I_1 = 100 dB
at distance
d_1 = 0.3048 m = 1 ft

$$\frac{I_2}{I_1} = \left[\frac{d_1}{d_2}\right]^2$$

then at distance
d_2 = 297.4848 m = 976.0000 ft

the inverse square law predicts a sound level
I_2 = 40.211003 dB

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RACINE COUNTY

64.01 dB

43.9 dB

52.05 dB

41.05 dB

51.5 dB

40.9 dB

36.2 dB

58.7 dB

100 dB

61.1 dB

36.1 dB

38.1 dB

42.5 dB

3000 ft

N

Bohner Lake

Bohners L

● Existing sound levels ● Calculated Sound Level ● Crusher Locations

Google Earth

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