FRAC SAND MINING ROADWAY IMPACTS

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EXISTING ROADWAYS

- NORMAL & HISTORIC USE
- SAND LIFTS, GRAVEL BASE, SURFACE
- EXISTING ROADWAY GEOMETRY
- EXISTING TRAFFIC VOLUMES
- EXISTING TRUCK TRAFFIC
LAND USE CHANGE

- FRAC SAND MINING USUALLY REQUIRES A LAND USE CHANGE

- ZONING WILL CHANGE FROM AGRICULTURAL USE TO COMMERCIAL OR INDUSTRIAL USE

- TRAFFIC GENERATING ENTERPRISE WILL BE CONSTRUCTED
PROJECT COORDINATION

- TOWN BOARD/PLAN COMMISSION
- COUNTY ZONING DEPARTMENT
- COUNTY LAND CONSERVATION DEPT.
- COUNTY HIGHWAY DEPARTMENT
- WI DEPT. OF TRANSPORTATION
ROADWAY ACCESS

- ROADWAY ACCESS PERMIT PROCESS
- RESIDENTIAL, COMMERCIAL, INDUSTRIAL ACCESS ORDINANCES
- TOWN ROADWAY ACCESS PERMIT
- COUNTY HIGHWAY ACCESS PERMIT
- STATE HIGHWAY ACCESS PERMIT
TOOLS

- WI STATS CHAP 82 TOWN ROADS
- WI STATS CHAP 86 MISC HIGHWAY PROVISIONS
- WI STATS CHAP 348 VEHICLES - SIZE WEIGHT AND LOAD
- WI STATS CHAP 349 STATE AND LOCAL POWERS
- WISDOT FACILITIES DEVELOPMENT MANUAL (FDM)
82.03  **Duties of town board.** (1) Oversight of highways, superintendent of highways. (a) The town board shall have the care and supervision of all highways under the town's jurisdiction, including the highways specified in s. 83.06. The town board may appoint in writing a superintendent of highways to supervise, under the board's direction, the construction, repair, and maintenance of the highways and bridges under the town's jurisdiction. Where no superintendent of highways is appointed, it shall be the duty of the town board to perform all of the duties that are prescribed by law for the superintendent of highways to perform, including keeping the highways passable at all times.
86.02 Injury to highway. Any person who shall injure any highway by obstructing or diverting any creek or watercourse or sluiceway, or by dragging logs or timber thereon, or by any other act, shall be liable in treble damages, to be recovered by the political division chargeable with the maintenance of highway injured, and the amount recovered shall be credited to the highway maintenance fund.
348.16 Weight limitations on class "B" highways. (1) In this section: (b) "Class `B' highway" includes those county trunk highways, town highways and city and village streets, or portions thereof, which have been designated as class "B" highways by the local authorities pursuant to s. 349.15. (2) Except as provided in sub. (3) and s. 348.175 and subject to any modifications made by a city of the first class pursuant to s. 349.15 (3), no person, without a permit therefore, shall operate on a class "B" highway any vehicle or combination of vehicles imposing wheel, axle, group of axles, or gross weight on the highway exceeding 60 percent of the weights authorized in s. 348.15 (3). (3) Any motor vehicle whose operation is pickup or delivery, including operation for the purpose of moving or delivering supplies or commodities to or from any place of business or residence that has an entrance on a class "B" highway, may pick up or deliver on a class "B" highway without complying with the gross vehicle weight limitations imposed by sub. (2). **History:** 1981 c. 312; 2001 a. 16; 2009 a. 177.
348.17  **Special or seasonal weight limitations.**  (1)  No person, whether operating under a permit or otherwise, shall operate a vehicle in violation of special weight limitations imposed by state or local authorities on particular highways, highway structures or portions of highways when signs have been erected as required by s. 349.16 (2) giving notice of such weight limitations, except when the vehicle is being operated under a permit expressly authorizing such weight limitations to be exceeded.  (2)  Whenever the operator of a vehicle is ordered by the officer or agency in charge of maintenance or by a traffic officer to suspend operation of such vehicle because of the damage such vehicle is causing or likely to cause to the highway or the public investment therein, the operator shall forthwith comply with such order.
349.15 Authority to modify weight limitations and classify highways. (1) The limitations on size and weight imposed by ch. 348 are lawful throughout the state and local authorities may not alter such limitations except as otherwise provided in this chapter. (2) The county highway committee with respect to the county trunk highway system and the local authorities with respect to highways maintained by them may designate all or parts of such highways to be class "B" highways for the purpose of putting into effect the weight limitations set forth in s. 348.16, except that no portion of any such highway which is a state trunk highway or connecting highway may be so designated.
349.16 Authority to impose special or seasonal weight limitations. (1) The officer in charge of maintenance in case of highways maintained by a town, ..., may: (a) Impose special weight limitations on any such highway or portion thereof which, because of weakness of the roadbed due to deterioration or climatic conditions or other special or temporary condition, would likely be seriously damaged or destroyed in the absence of such special limitations; (b) Impose special weight limitations on bridges or culverts when in its judgment such bridge or culvert cannot safely sustain the maximum weights permitted by statute; (c) Order the owner or operator of any vehicle being operated on a highway to suspend operation if in its judgment such vehicle is causing or likely to cause injury to such highway or is visibly injuring the permanence thereof or the public investment therein, except when s. 84.20 is applicable or when the vehicle is being operated pursuant to a contract which provides that the governmental unit will be reimbursed for any damage done to the highway. Traffic officers also may order suspension of operation under the circumstances and subject to the limitations stated in this paragraph. (2) Imposition of the special weight limitations authorized by sub. (1) (a) shall be done by erecting signs on or along the highway on which it is desired to impose the limitation sufficient to give reasonable notice that a special weight limitation is in effect and the nature of that limitation. Imposition of the special weight limitations authorized by sub. (1) (b) shall be done by erecting signs before each end of the bridge or culvert to which the weight limitation applies sufficient to give reasonable notice that a special weight limitation is in effect and the nature of that limitation. All weight limitation signs and their erection shall comply with the rules of the department and shall be standard throughout the state.
Both Wisconsin’s Department of Transportation’s Facility Development Manual (FDM) and State Statutes give local governments the tools necessary to manage roadway impacts associated with the construction of traffic generating enterprises including that of Sand Mines. The FDM contains Procedure 7-35-10 which pertains to Traffic Impact Analyses (TIAs) which is an engineering study that compares before and after traffic conditions on a roadway network due to a proposed land change. The TIA identifies access points and roadway changes necessary due to the construction of a traffic generating enterprise and identifies the costs of engineering, real estate and construction and assigns those costs to the proposed enterprise.
What is very important to note is that application of the provisions found both in the FDM and applicable State Statutes need to be implemented by local governments for their intended purpose which is for all traffic generating enterprise impacts, including sand mines. Local governments should have a long established process for evaluating roadway and access impacts for all commercial and industrial developments. By having a long established local practice you’ll find that you will treat all commercial and industrial developments fairly. Being treated fairly is a significant concern to the Sand Mine Industry.
TRIAD of OPERATIONS

- An interesting aspect of Sand Mines is that they may not be stand alone operations. You may find that frac sand mining may have three separate operations: the mine site, a processing facility and a transload facility. Those operations will also have several heavily loaded truck movements; from the mine site to the processing facility; from the processing facility to the transload facility and from the transload facility to the end user of the processed frac sand. Also at some point the return of empty trucks back to the mine site will need to be considered. Remember that millions of tons of frac sand may be removed, processed and transported annually at each of these operations and that with corporate investments in the millions at each location these sites will be in operation for a significant period of time, perhaps decades. Local governments will need to consider and evaluate existing roadway conditions for each of these movements and develop processes and roadway improvements that will stand the test of time.
EXISTING CONDITION

One of the most important aspects needed to prepare for the frac sand industry’s roadway impact is to know what the existing conditions are for the roadway that serves the potential mining site(s) operations. Contracting with an engineering consultant for a scientific analysis for existing conditions of roadway base and pavement will help in providing current loading calculations and by projecting frac sand volumes and trucking weights the consultant will be able to identify needed structural improvements for both base and pavement. Evaluations made through the TIA process will help in identifying other design engineering needs such as pavement width, land acquisition needs for right of way and turning movement considerations at access points. Local governments should be able to independently or through the use of engineering consultants estimate the cost of construction for these identified improvements.
ROAD USE AGREEMENTS

Once these costs have been fully identified local governments should be able to begin contractual negotiations for a roadway use agreement with the frac sand company (owner) as indicated above in Wis. State Statute 349.16. A good agreement will include recitals; identify terms and conditions; identify the roadway routes to be used; identify the owner and authorized representatives; identify the local government and authorized representatives; contain terms for payments of both roadway improvements and long term roadway maintenance; indicate cooperation and potential emergency actions; contain provisions for insurances, remedies and enforcement; contain severability clauses; discuss assignability; contain processes for modifications; and the process for termination.
QUESTIONS????

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