

# 129,000 Pound Evaluation of SH-19 MP 0.000 to MP 34.638

(Case #202001SH19)

## **Executive Summary**

Idaho Milk Transport (IMT) is requesting a 129,000 pound route approval for State Highway 19 (SH-19) between mile post (MP) 0.000 to MP 4.827 and MP 34.195 to MP 34.638 near Homedale, ID.(SH-19 has a mile post over lap with Old US-95 at MP 4.827 [SH-19] and MP 34.195 [Old US-95]) Map 1. IMT is requesting this route to support transport of raw milk from regional daries to the Darigold Caldwell Plant. This request reduces annual truck trips from 431 to 365, a 15% reduction from trips conducted by 105,500 pound trucks. Department of Motor Vehicles, Office of Highway Safety and Bridge Assest Management all recommend proceeding with this request.

ID19: MP 0.000 4.827
& 34.195 to 34.638

Total Mileage is 5.25
Homedale, ID

WP 0.000

O1 02 03 04 03 06 07 08 09 11 12 13 14 15 16 17 18 19 21 22 23 24 25 24 27 23 34 44 45 40 4 45

MAP 1. SH-19

This section of SH-19 is relatively flat with minimal curvature and is coded a "Blue Route," where vehicles with 95 foot overall vehicle length and a 5.50-foot off-track. ITD Bridge Section confirms one (1) bridge on this route will safely support 129,000 pound vehicles. The requested roadway pavement condition has good to very poor surface conditions, and is deficient in cracking between MP 0.000 – 4.870 and 34.195 – 34.572. The Commercial Average Annual Daily Traffic (CAADT) constitutes approximately 8.78% of the Average Annual Daily Traffic (AADT). This segement of SH-19 has no Non-Interstate High Accident Intersection Locations (HAL) and no HAL Clusters. Analyses of the 5-year accident data (2014-2018) shows there was no accidents involving tractor-trailer combination.

## **Detailed Analysis**

**Department of Motor Vehicles (DMV) Review** 

All Idaho Transportation Department routes are currently categorized by their ability to handle various extra-length vehicle combinations and their off-tracking allowances. The categories used when considering allowing vehicle combinations to carry increased axle weights above 105,500 pounds and up to 129,000 pounds are:

- Blue routes at 95 foot overall vehicle length and a 5.50-foot off-track
- Red routes at 115 foot overall vehicle length and a 6.50-foot off-track

Off-tracking is the turning radius of the vehicle combination, which assists in keeping them safely in their lane of travel. Off-tracking occurs because the rear wheels of trailer trucks do not pivot, and therefore will not follow the same path as the front wheels. The greater the distance between the front wheels and the rear wheels of the vehicle, the greater the amount of off-track. DMV confirms that the requested route falls under one of the above categories and meets all length and off-tracking requirements for that route. Specifically, the requested section of SH-19 is designated as a blue route and as such all trucks must adhere to the 5.5-foot off-track and 95 foot overall vehicle length criteria.

## **Bridge Review**

Bridges on all publicly owned routes in Idaho, with the exception of those meeting specific criteria, are inspected every two years at a minimum to ensure they can safely accommodate vehicles. A variety of inspections may be performed including routine inspections, in-depth inspections, underwater inspections, and complex bridge inspections. All are done to track the current condition of a bridge and make repairs if needed.

When determining the truck-carrying capacity of a bridge, consideration is given to the types of vehicles that routinely use the bridge and the condition of the bridge. Load limits may be placed on a bridge if, through engineering analysis, it is determined the bridge cannot carry legal truck loads.

ITD Bridge Asset Management has reviewed the bridge pertaining to this request and has determined it will safely support the 129,000-pound truck load, provided the truck's axle configuration conforms to legal requirements. To review load rating data for this bridge, see the Bridge Data (Table 1) below.

Table 1. SH-19, Bridge Data

|       | FROM:      | SH-19 / Idaho/Oregon<br>Border |
|-------|------------|--------------------------------|
| Route | MILE POST: | 0.000                          |
|       | TO:        | US-95 / SH-19 Jct              |
|       | MILEPOST:  | 34.638                         |

| HIGHWAY | MILE  | BRIDE KEY | 121K RATING |
|---------|-------|-----------|-------------|
| NUMBER  | POST  |           | (lbs)       |
| SH-19   | 3.780 | 12171     | 244,000     |

<sup>\*</sup>The bridge is adequate if it has a rating value greater than 129,000 pounds or is designated as "OK EJ" (okay by engineering judgment).

#### **ITD District 3 Evaluation**

<u>District 3 recommends proceding contingent upon local highway jurisdiction's approval of 129K route(s) from SH19 to the pick up dairies.</u>

District 3 has evaluated the roadway characteristics, pavement condition, and traffic volumes in response to the request. 129K permits issued to this area would have to be monitored for destination. There is still the risk that any loads that are not traveling to or from the applicant location could run into issues as there is no turn around point before entering Oregon.

## **Roadway Characteristics**

This section of road is a rural highway passing through the City of Homedale and agricultural areas. There is a milepost overlap on old US 95 making the route appear longer than it is, actuall distance is only 1.55 miles.

| Table 2. S | SH-19, Roadway | Geometry |
|------------|----------------|----------|
|------------|----------------|----------|

| MILE POST       | THROUGH LANES           | TWO-WAY LEFT TURN LANE<br>(TWLTL) | SHOULDER      | PARKING<br>LANE |
|-----------------|-------------------------|-----------------------------------|---------------|-----------------|
| 0.00 - 2.000    | 2 – 1 each direction    | No                                | Stabilized    | No              |
| 0.00 - 2.000    | 11'                     |                                   |               |                 |
| 2.00 4.560      | 2 – 1 each direction    | No                                | Stabilized    | No              |
| 2.00 – 4.560    | 11'                     |                                   | 2'            |                 |
| 4.560 4.927     | 2 - 1 each direction    | Yes                               | Paved / Curb  | Yes             |
| 4.560 – 4.827   | 12'                     | Left turn at intersection         | 8'            | Parrellel       |
| 24405 27572     | 2 – 1 each direction    | No                                | Curb/sidewalk | Yes             |
| 34.195 – 37.572 | 12'                     |                                   |               | Parrellel       |
| 24.570 24.620   | 2 - 1 each direction    | Yes                               | Stabilized    | No              |
| 34.572 – 34.638 | 1 free running right WB | Right turn by at JCT              | 6'            |                 |

#### **Pavement Condition**

The road is asphalt pavement. The surface of this section is considered to be good to very poor condition with a short section classified as good (Table 3)

Table 3. SH-19, TAMS Visual Survey Data

| MILE POST       | PAVEMENT<br>TYPE | DEFICIENT<br>(YES/NO) | CONDITION<br>STATE | CRACKING<br>INDEX | ROUGHNESS<br>INDEX | RUT<br>AVERAGE<br>(IN) |
|-----------------|------------------|-----------------------|--------------------|-------------------|--------------------|------------------------|
| 0.000 - 2.00    | Flexible         | Yes                   | Very Poor          | 0.0               | 3.9                | Cracking               |
| 2.000 - 4.560   | Flexible         | Yes                   | Very Poor          | 2.50              | 3.49               | Cracking               |
| 4.530 - 4.827   | Flexible         | Yes                   | Poor               | 1.9               | 2.47               | Cracking               |
| 34.195 – 34.572 | Flexible         | Yes                   | Poor               | 1.9               | 2.47               | Cracking               |
| 34.572 - 34.638 | Flexible         | No                    | Good               | 5                 | 2.08               | None                   |

#### **Traffic Volumes**

The speed limit of the highway varies between 25 and 55 mph.

Table 4. SH-19, Traffic Volumes

| MILE POST       | AADT | CAADT | %<br>TRUCKS |
|-----------------|------|-------|-------------|
| 0.000 - 2.000   | 675  | 140   | 21          |
| 2.000 - 4.560   | 1718 | 140   | 8           |
| 4.560 – 4.827   | 4430 | 200   | 4.5         |
| 34.195 – 34.572 | 5910 | 260   | 4.4         |
| 37.572 – 34.638 | 330  | 200   | 6           |

## **Truck Ramps**

Due to the flat nature of this segment, no runaway truck ramps exist.

### Port of Entry (POE)

There are no POE rover sites along this route.

## **Safety Review**

#### **Crash Data**

The route passes three (3) churches, one (1) park, and one (1) high school. There are 13 unprotected crosswalks and one (1) 4-way stop intersection before the junction of SH-19 and US-95. Through traffic on US-95 is not controlled, the speed limit on US 95 is 35 MPH. This segment of SH-19 has no Non-Interstate High Accident Intersection Locations (HAL) and no HAL Clusters. The locations are shown in the table below with their statewide ranking.

This SH-19 segment has no Non-Interstate High Accident Intersection Locations (HAL) and no HAL Clusters. The locations are shown in the table below with their statewide ranking.

Analyses of the 5-year accident data (2015-2019) shows there were a total of 32 crashes involving 30 units (1 fatality and 15 Injuries) on SH-19 between the Idaho/Oregon border and US-95 of which no accident involved a tractor-trailer combination. Implementation of 129,000 pound route is projected to reduce truck traffic on this route.

Table 5. SH-19, HAL Segments

| ROUTE | STATEWIDE<br>RANK | MILEPOST | LENGTH<br>(MILES) | COUNTY |
|-------|-------------------|----------|-------------------|--------|
| None  |                   |          |                   |        |

Table 6. SH-19, Climate Data

| PRECIPITATION            | ANNUAL<br>AVERAGE |
|--------------------------|-------------------|
| Rainfall                 | 10.4"             |
| Snowfall                 | 14.2"             |
| Days w/<br>Precipitation | 81.4              |
| Days w/ Sun              | 210               |

There are no recoreded road clousres due to weather conditions.

#### **END EVALUATION**