

## 129,000 Pound Evaluation of ID-6: MP0.000 to 9.858 <br> ID-8: MP 2.331 to 25.549 <br> ID-9: MP 0.000 to 13.522 <br> (Case \#202006ID6)

## Executive Summary

Bennett Lumber Products, Inc. is requesting sections of Idaho Highway 6 (ID-6), Idaho Highway 8 (ID-8) and all of Idaho Highwy 9 (ID-9) be designated as 129,000 Pound route(s) (Map 1) for the transportation of lumber and wood chips from mills in Princeton, ID, to a number of destinations in Idaho and Washington. Bennett Lumber is projecting up to 1,000 loads annually.

These highways are predominantly two-lane rural arterial routes passing through agricultural, U.S. Forest Service lands and small rural communities. The highways pass through a mix of flat and rolling terrain with no dedicated passing or climbing lanes. The routes are currently coded as "Blue Routes" and as such all trucks must adhere to the 5.5-foot off-track and 95 foot overall vehicle length criteria.

ITD Bridge Asset Management has reviewed the thirteen (13) bridges pertaining to this request and has determined they will safely support the 129,000-pound truck load. Pavement condition range from good to very poor. The Commercial Average Annual Daily Traffic (CAADT) constitutes between $4.72 \%$ and $12.35 \%$ of the Average Annual Daily Traffic (AADT). These highways have no Non-Interstate High Accident Intersection Locations (HAL) and no HAL Clusters. Department of Motor Vehicles, Highway Safety, Bridge Asset Management and District 2 all recommend proceeding with this request.

MAP 1. Case \#202006ID6


## 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 routes falls under one of the above categories and meets all length and off-tracking requirements for that route. More specifically, the requested section of ID-6 from milepost 0.00 to milepost 9.858 is designated as a blue route and as such all trucks must adhere to the 5.5-foot offtrack and 95 foot overall vehicle length criteria. The requested section of ID-9 from milepost 0.00 to milepost 13.522 is designated as a blue route and as such all trucks must adhere to the 5.5-foot offtrack and 95 foot overall vehicle length criteria. And the requested section of ID-8 from milepost 2.331 to milepost 25.549 is designated as a blue route and as such all trucks must adhere to the 5.5-foot offtrack 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 thirteen (13) bridges pertaining to this request and has determined they 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 each of the bridges, see the Bridge Data chart below.

Table 1. ID-6, Bridge Data

| ROUTE | FROM: | US-95/ID-6 Jct |
| :--- | :--- | :---: |
|  | MILE POST: | 0.000 |
|  | TO: | ID-6/ID-9 Jct |
|  | MILE POST: | 9.858 |


| HIGHWAY <br> NUMBER | MILE <br> POST | BRIDE KEY | RATING (Ibs) |
| :---: | :---: | :---: | :---: |
| ID-6 | 3.45 | 18821 | 244,000 |

Table 1. ID-8, Bridge Data

| ROUTE | FROM: | ID-8/US-95 |
| :--- | :--- | :---: |
|  | MILE POST: | 2.331 |
|  | TO: | ID-8/ID-9 Jct |
|  | MILE POST: | 25.549 |


| HIGHWAY <br> NUMBER | MILE <br> POST | BRIDE KEY | RATING (Ibs) |
| :---: | :---: | :---: | :---: |
| ID-8 | 23.78 | 10245 | 228,000 |
| ID-8 | 16.99 | 10243 | $3,118,000$ |
| ID-8 | 15.01 | 10240 | $1,080,000$ |
| ID-8 | 14.06 | 10235 | 348,000 |
| ID-8 | 10.59 | 10226 | 938,000 |
| ID-8 | 4.98 | 10221 | 280,000 |
| ID-8 | 2.81 | 10215 | 258,000 |

Table 1. ID-9, Bridge Data

| ROUTE | FROM: | ID-9/ID-8 Jct |
| :--- | :--- | :---: |
|  | MILE POST: | 0.000 |
|  | TO: | ID-6/ID-9 Jct |
|  | MILE POST: | 9.858 |


| HIGHWAY <br> NUMBER | MILE <br> POST | BRIDE KEY | RATING (Ibs) |
| :---: | :---: | :---: | :---: |
| ID-9 | 13.19 | 10295 | 160,000 |
| ID-9 | 8.84 | 10290 | 252,000 |
| ID-9 | 5.91 | 10280 | 198,000 |
| ID-9 | 2.92 | 10275 | 240,000 |
| ID-9 | 2.03 | 10270 | 214,000 |

*The bridge(s) 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 2 Evaluation

District 2 recommends the following road sections be designated as routes that are legal for a single trailer not exceeding 48 feet and a doubles configuration not exceeding 61 feet and 75 feet overall (doubles configurations can exceed one or the other and still be legal). Permit rquired if exceeding these
dimensions and must not exceed 5.50 feet of off-track and 95 feet overall length including load overhang. Total gross weight not to exceed 129,000 pounds.

Idaho Highway 6 (ID-6)
Roadway Characteristics
ID-6 is a two lane rural arterial route passing through agricultural, U.S. Forest Service lands and small, rural communities. The route is predominatly flat with no dedicated passing or climbing lanes. ID-6 traverses the cities of Potlatch and Princeton. The speed limit on ID-6 varies from 25 mph to 55 mph .

Roadway Geometry
Table 1. ID-6 Roadway Geometry

| MILEPOSTS | THROUGH LANES | TURN LANES | SHOULDER | PARKING <br> LANE |
| :---: | :---: | :---: | :---: | :---: |
|  | $1-1$ each direction | Yes | Paved | No |
|  | $12 '$ |  | Paved | No |
| 0.03 TO 9.858 | $1-1$ each direction | No |  |  |
|  | 12 |  |  |  |

## Pavement Condition

ID-6 is asphalt paved and is rated in good condition.
Table 2. ID-6 TAMS Visual Survey Data

| MILEPOSTS | PAVEMENT <br> TYPE | DEFICIENT <br> (YES/NO) | CONDITION <br> STATE |
| :---: | :---: | :---: | :---: |
| $0.00-2.400$ | Flexible | No | Good |
| $2.400-5.000$ | Flexible | No | Good |
| $5.000-8.000$ | Flexible | No | Good |
| $8.000-9.900$ | Flexible | No | Good |

Traffic Volumes
The speed limit of these highway sections vary between 25 mph and 55 mph .
Table 3. ID-6 Traffic Volumes

| MILEPOSTS | AADT | CAADT | \% <br> TRUCKS |
| :---: | :---: | :---: | :---: |
| $0.000-1.515$ | 4,300 | 290 | 4.72 |
| $1.515-2.247$ | 3,500 | 300 | 6.00 |
| $2.247-5.200$ | 2,500 | 280 | 7.84 |
| $5.200-9.858$ | 1,700 | 300 | 12.35 |

## State Highway 8 (ID-8)

## Roadway Characteristics

ID-8 is a two lane rural arterial passing through agricultural and wooded properties and small rural communities. The route is predominatly rolling terrain with no dedicated passing or climbing lanes. ID-8 traverses the cities of Moscow, Troy and Deary. The speed limit on ID-8 varies from 25 mph to 55 mph .

Table 4. ID-8 Roadway Geometry

| MILEPOSTS | THROUGH LANES | TURN LANES | SHOULDER | PARKING LANE |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} 2.331 \text { TO } 3.293 \\ \text { (MOSCOW) } \end{gathered}$ | 1 each direction | 1 | Curbed | No |
|  | 12' | Center |  |  |
| 3.293 TO 14.20 | 1 each direction | Yes | Yes | No |
|  | 12' | Turnbays at major intersections | Paved | No |
| 14.20 TO 14.57 <br> (TROY) | 4-2 each direction | No | No | Yes |
|  | 12' |  |  | 10 |
| 14.57 TO 25.549 | 2-1 each direction | No | Paved | No |
|  | 11' |  |  |  |
| 25.549 | 3-1 each direction | Yes | Paved | No |
|  | 12' | Left Turnbay to ID-9 |  |  |

## Pavement Condition

ID-8 is asphalt paved with a short section of concrete on ID-8 in Moscow. ID-8 is mostly good with some fair to poor areas.

Table 5. ID-8 TAMS Visual Survey Data

| MILEPOSTS | PAVEMENT <br> TYPE | DEFICIENT <br> (YES/NO) | CONDITION <br> STATE |
| :---: | :---: | :---: | :---: |
| $2.331-2.700$ | Flexible | No | Good |
| $2.700-3.293$ | Rigid | No | Good |
| $3.293-5.050$ | Flexible | No | Fair |
| $5.050-8.000$ | Flexible | Yes | Poor |
| $8.000-10.630$ | Flexible | Yes | Poor |
| $10.630-13.000$ | Flexible | No | Fair |
| $13.000-14.255$ | Flexible | No | Fair |
| $14.255-14.572$ | Flexible | No | Good |
| $14.572-17.520$ | Flexible | No | Good |
| $17.520-20.000$ | Flexible | No | Good |
| $20.000-21.845$ | Flexible | No | Good |
| $21.845-24.000$ | Flexible | No | Good |
| $24.000-27.000$ | Flexible | No | Good |

## Traffic Volumes

The speed limit of these highway sections vary between 25 mph and 55 mph .

Table 6. ID-8 Traffic Volumes

| MILEPOSTS | AADT | CAADT | \% <br> TRUCKS |
| :---: | :---: | :---: | :---: |
| $2.331-2.626$ | 15,500 | 860 | 3.88 |
| $2.626-2.842$ | 14,000 | 660 | 3.30 |
| $2.842-3.069$ | 12,000 | 550 | 3.21 |
| $3.069-3.383$ | 9,800 | 450 | 3.21 |
| $3.383-4.138$ | 5,500 | 290 | 3.69 |
| $4.138-4.415$ | 5,700 | 280 | 3.44 |
| $4.415-4.925$ | 4,500 | 280 | 4.36 |
| $4.925-5.145$ | 4,900 | 280 | 4.00 |
| $5.145-5.800$ | 4,900 | 280 | 4.00 |
| $5.800-7.942$ | 4,500 | 190 | 2.96 |
| $7.942-8.800$ | 3,600 | 190 | 3.69 |
| $8.800-9.312$ | 3,300 | 190 | 4.03 |
| $9.312-11.409$ | 3,300 | 180 | 3.82 |
| $11.409-11.587$ | 3,000 | 180 | 4.20 |
| $11.587-14.488$ | 3,000 | 180 | 4.20 |
| $14.488-14.572$ | 2,200 | 180 | 5.73 |
| $14.572-15.271$ | 1,800 | 180 | 7.00 |
| $15.271-16.120$ | 1,600 | 150 | 6.56 |
| $16.120-16.980$ | 1,600 | 150 | 6.56 |
| $16.980-18.498$ | 1,500 | 150 | 7.00 |
| $18.498-19.158$ | 1,400 | 150 | 7.50 |
| $19.158-21.173$ | 1,400 | 150 | 7.50 |
| $21.173-22.146$ | 1,400 | 150 | 7.50 |
| $22.146-23.848$ | 1,200 | 150 | 8.75 |
| $23.848-25.549$ | 1,500 | 150 | 7.00 |

Idaho Highway 9 (ID-9)
Roadway Characteristics
ID-9 is a two lane, rural arterial passing through agricultural and wooded properties and is predominatly rolling terrain with no dedicated passing or climbing lanes. There is a railroad underpass at MP 8.85 with a height clearance of $17{ }^{\prime} 0$ ". There is a signed, at-grade railroad crossing at MP 13.50. There are no cities on this section of ID-9. The speed limit varies from 40 mph to 55 mph .

Table 7. ID-9 Roadway Geometry

| MILEPOSTS | THROUGH LANES | TURN LANES | SHOULDER | PARKING <br> LANE |
| :---: | :---: | :---: | :---: | :---: |
| 0.00 TO 13.522 | $2-1$ each direction | No | Paved | No |
|  | $12^{\prime}$ |  | $3^{\prime}$ |  |

## Pavement Condition

ID-9 is asphalt paved and is rated in good condition.

Table 8. ID-9 TAMS Visual Survey Data

| MILEPOSTS | PAVEMENT <br> TYPE | DEFICIENT <br> (YES/NO) | CONDITION <br> STATE |
| :---: | :---: | :---: | :---: |
| $0.00-2.000$ | Flexible | No | Good |
| $2.000-3.360$ | Flexible | No | Good |
| $3.360-6.000$ | Flexible | No | Good |
| $6.000-7.260$ | Flexible | No | Good |
| $7.260-9.500$ | Flexible | No | Good |
| $9.500-11.500$ | Flexible | No | Good |
| $11.500-13.522$ | Flexible | No | Good |

Table 9. ID-9 Traffic Volumes

| MILEPOSTS | AADT | CAADT | \% <br> TRUCKS |
| :---: | :---: | :---: | :---: |
| $0.00-2.316$ | 1100 | 170 | 10.82 |
| $2.316-5.751$ | 1000 | 150 | 10.50 |
| $5.751-11.139$ | 1000 | 110 | 7.70 |
| $11.139-13.522$ | 1100 | 110 | 7.00 |

## Truck Ramps

No runaway truck ramps exist along these routes.

## Port of Entry (POE)

There are two P.O.E. rover sites on ID-6 at MP 2.8 and MP 9.75. There are no P.O.E rover sites on ID-8 or ID-9 within the requested route change.

## Safety Review

Crash Data

Idaho Highway 6
This segment has no Non-Interstate High Accident Intersection Locations (HAL) in the top 100 and no HAL Clusters.

Analyses of the 5-year accident data (2015-2019) shows there were a total of 53 crashes involving 65 units ( 0 fatalities and 18 Injuries) on ID-6 between US-95 and ID-9 (MP 0.0-9.858) of which only 1 of the crashes involved a tractor-trailer combination. Truck traffic is expected to be reduced.

Table 5. ID-6, HAL Segments

| ROUTE | STATEWIDE <br> RANK | MILE POST | LENGTH <br> (MILES) | COUNTY |
| :---: | :---: | :---: | :---: | :---: |
| None |  |  |  |  |

Idaho Highway 8

This segment has no Non-Interstate High Accident Intersection Locations (HAL) in the top 100 and four 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 134 crashes involving 187 units (1 fatalities and 62 Injuries) on ID 8 between US-95 and ID-9 (MP2.331-25.549) of which only 2 of the crashes involved a tractor-trailer combination resulting in 2 injuries. Truck traffic is expected to be reduced.

Table 5. ID-8, HAL Segments

| ROUTE | STATEWIDE <br> RANK | MILE POST | LENGTH <br> (MILES) | COUNTY |
| :---: | :---: | :---: | :---: | :---: |
| ID 8 | 153.5 | $8.442-8.80$ | 0.358 | Latah |
| ID 8 | 361 | $4.925-5.80$ | .875 | Latah |
| ID 8 | 412 | $5.80-7.30$ | 1.5 | Latah |
| ID 8 | 421 | $19.158-19.658$ | 0.5 | Latah |

## Idaho Highway 9

This segment has no Non-Interstate High Accident Intersection Locations (HAL) in the top 100 and no HAL Clusters.

Analyses of the 5-year accident data (2015-2019) shows there were a total of 27 crashes involving 29 units (1 fatality and 9 Injuries) on ID-9 between ID-6 and ID-8 (MP 0.0-13.522) of which none of the crashes involved a tractor-trailer combination. Truck traffic is expected to be reduced.

Table 5. ID-9, HAL Segments

| ROUTE | STATEWIDE <br> RANK | MILE POST | LENGTH <br> (MILES) | COUNTY |
| :---: | :---: | :---: | :---: | :---: |
| None |  |  |  |  |

## Climate Data

| PRECIPITATION | ANNUAL <br> AVERAGE |
| :---: | :---: |
| Rainfall | 27.04 " |
| Snowfall | $49.0^{\prime \prime}$ |
| Days w/ <br> Precipitation | 110 |
| Days w/ Sun | 255 |

## END EVALUATION

