Larry Adams 7/28/2014 9:21 AM

To: Brewer City Council; Brewer City Manager; Councilor Beverly Uhlenhake; Councilor Joseph Ferris; Councilor Kevin O'Connell; Deputy Mayor Matthew Vachon; Mayor Jerry W. Goss; Eddington Board of Selectman and Town Manager; Carol Woodcock / U.S. Senator Susan Collins; Elizabeth Montgomery Schneider MacTaggart / U.S. Senator Angus King; Representative Arthur Verow - District #21; Representative David Johnson - District#20; Rosemary Winslow / U.S. Congressman Mike Michaud: Senator Edward Youngblood - District#31:

Cc: personal addresses redacted

Excerpts from an article posted on the BDN website:

http://bangordailynews.com/2014/07/27/news/state/head-on-collisions-increase-in-maine/

## Head-on collisions increase in Maine

By Kathryn Skelton, Sun Journal

Maine is on pace to experience 25 percent more head-on collisions— the deadliest type of car crashes—this year than last.

The first six months of 2014 saw 500 head-ons and 28 deaths, according to the Public Safety and Transportation departments. The figures don't include a Rumford couple killed just last week in Brewer.

Since 2006, the state has spent \$300,000 installing centerline rumble strips and another \$5.6 million stringing cable median barriers to thwart head-on collisions. The first warns drivers when they're crossing into the next lane and at risk of a head-on collision, and the second keeps them from barreling over the median into oncoming traffic.

For the full story, visit Sun Journal at <a href="http://www.sunjournal.com/news/lewiston-auburn-maine/2014/07/27/head-collisions-maine/1562520">http://www.sunjournal.com/news/lewiston-auburn-maine/2014/07/27/head-collisions-maine/1562520</a>

The only effective way of eliminating head-on collisions on a two-lane undivided highway is to keep the vehicles from crossing into the other traffic lane and the only way to effectively accomplish that is to install a centerline-cable-barrier.

 A centerline-cable-barrier has been sanctioned by the MaineDOT as part of the engineering of alternative 2B-2 to minimize head-on collisions, a promise made to Carol Woodcock (Office of Senator Collins) by Commissioner Bernhardt.

Centerline-cable-barriers are not the median barriers mentioned in this article; they are right up the middle of the travel lanes of a two-lane undivided highway.

The I-395/Route 9 Transportation Study started with the premise to design a four-lane divided highway using freeway design criteria from I-395 in Brewer to Route 9 at the Eddington/Clifton border. The connector would initially be built as a two-lane undivided highway within a right-of-way large enough to add the extra two lanes in the future as safety and traffic required. The design retrogressed (downgraded in standards) sometime by October 2011 to a two-lane highway using freeway design criteria within a right-of-way only large enough to support two lanes thus removing the future safety upgrade to a four-lane divided highway. I was told that the MaineDOT would save \$1.0 million by reducing ROW.

This downgraded design initiated research into four-lane highways terminating into two-lane highways and the safety concerns with two-lane highways and head-on collisions. Carol Woodcock, determined to make sure this connector would at least be safe, voiced her concerns directly to the FHWA and the MaineDOT per information gleaned from the following extensive report on two lane highways and head-on collisions in Maine: <a href="http://www.cti.uconn.edu/pdfs/ucnr15-5\_ivan\_final-report.pdf">http://www.cti.uconn.edu/pdfs/ucnr15-5\_ivan\_final-report.pdf</a>

- More than two out of three of all fatal crashes in Maine occur on rural collectors or arterials and roughly 95% of the rural highways miles are only two lanes wide. Head-on crashes on these roads account for less than 5% of the crashes, but they are responsible for almost half of all fatalities.http://www.cti.uconn.edu/pdfs/ucnr15-5\_ivan\_final-report.pdf (pg 35)
- In summary, there seems to be two major reasons why people get across the centerline and have head-on collisions: a) People are going too fast for the roadway conditions; or b) people are inattentive and get across the centerline more or less without noticing it. The number of the latter category of crashes could possibly be reduced significantly if centerline rumble-strips where installed. More or less all head-on collisions could be eliminated if median barriers were installed.http://www.cti.uconn.edu/pdfs/ucnr15-5\_ivan\_final-report.pdf (pg 35)
- Overall, the findings suggest that efforts to reduce the incidence of head-on crashes are best aimed at reducing unintentional crossings of the centerline, rather than improving information given to drivers about when it is safe to intentionally cross the centerline. In other words, improving passing sight distance and no-passing zone signage and pavement markings would not appear to have much potential for reducing the frequency of fatal head-on collisions. On the other hand, treatments such as installing centerline rumble strips or addition of a flush or raised median through horizontal curves show more promise for reducing this type of crash. However, the most effective treatment would probably be to install a continuous barrier along the centerline of two-lane roads, and to widen them up with an extra passing lane where appropriate. http://www.cti.uconn.edu/pdfs/ucnr15-5\_ivan\_final-report.pdf (pg 56)
- To get a large number of center-barriers installed in Maine is probably unrealistic no matter how effective they may be. As noted above, Maine has 5,544 miles of numbered routes and if installing centerline barriers costs \$68,000 per mile, 5,544 miles of roadway installations would cost around \$377 million. However, to have centerline barriers installed along some high-crash sections may be a realistic goal. Other sections could have continuous centerline rumble strips installed. For mobility reasons, two-lane roads with center barriers need passing lanes at regular intervals. An alternating passing lane and cable barriers can be provided within the footprint of a two-lane road with 10-foot wide shoulders if the shoulders are narrowed to about one foot each. http://www.cti.uconn.edu/pdfs/ucnr15-5\_ivan\_final-report.pdf (pg 58)

FOAA Documents indicate another downgraded design to <u>only</u> alternative 2B-2 will be advanced following the conclusion of the National Environmental Policy Act process. That design will be a two-lane highway with the design standard downgraded from freeway criteria to rolling criteria within a reduced 100 foot right-of-way. (Another cost-saving retrograde in standards and original criteria?)

There will be no passing lanes installed in conjunction with the centerline-cable-barriers on the 2B-2 alternative. Was the MaineDOT/FHWA decision not to integrate the recommended passing lanes simply another cost-savings measure? The combination of a downgraded rolling rural design within a decreased 100 foot ROW footprint and the centerline-cable-barrier without the addition of the recommended alternating passing lanes may cause traffic congestion and conflicting vehicle

movements on this connector that would substantially increase the potential for new safety concerns and hazards.

Why is the MaineDOT and the FHWA even considering the build of a new two-lane-only undivided highway, with any future upgradability deliberately removed from the project to reduce costs, at a time when the State of Maine is experiencing a peak of head-on collisions? Head-on collisions were the first of many safety issues raised with alternative 2B-2. Why has this connector been continuously downgraded, from freeway to rolling rural criteria with a reduced ROW from 200' to between 100'-125' possibly bringing high speed traffic even closer to our neighborhoods, just to reduce the cost? Have any of these downgrades in design criteria and the subsequent cost reductions increased the safety of this connector? Does COST really trump SAFETY?

Don't we have other demands for our critical transportation funds? "How do MaineDOT and FHWA intend to address the argument that the no-build alternative might save state and federal transportation funding that might be better served on other unmet needs in the state?" That's what the Corps of Engineers wondered in July 2012 and they didn't receive an answer either.