



**BP4: Specified Highway Remedial Measures**

<b>Reference:</b> <b>BP4 006</b>	<b>Title of Project:</b>	<b>Norway's RV32 Vision Zero Motorcycle Road</b>
<b>Version:</b> <b>1</b>	<b>Website:</b>	FEMA article: <a href="http://www.fema.ridersrights.org/?start_from=9&amp;ucat=&amp;archive=&amp;subaction=&amp;id=&amp;">http://www.fema.ridersrights.org/?start_from=9&amp;ucat=&amp;archive=&amp;subaction=&amp;id=&amp;</a>
<b>Brief Description of Project:</b>	<p>In May 2008 Norway opened what it described as a 'Vision Zero Motorcycle Road'. The route is approximately 15km long and measures were introduced to demonstrate the feasibility of producing a 'motorcycle friendly' road.</p> <p>Measures include the extensive re-modification of guard rail to include an under-run rail and 'soft' terminal arrangements to protect motorcyclists.</p> <div data-bbox="396 1104 919 1499" data-label="Image"> </div> <p>Lamp columns were moved away from the highway edge and behind the barrier where possible. Sign posts were replaced with 'lattix' type frangible constructions.</p> <p>Rocks were moved back from the highway edge, run-off areas were created and un-surfaced side roads were asphalted at junctions to restrict gravel wash off on to RV32.</p> <p>The route is pre-dominantly rural but some measures, such as removing sign clutter and floodlighting pedestrian crossings, could be applicable to urban locations.</p>	



The photographs above illustrate before modification on the left and after modification on the right.



The above photographs show how several sign poles have been replaced by one 'lattix' type frangible construction. However the telegraph pole appears to remain a hazard and there seems to be little data on the performance of a 'lattix' pole when struck by a human body.

<b>Monitoring Data:</b>	<b>Before</b>	<b>After</b>
	Not easily obtainable	Too recent to be valid
<b>Results:</b>	It is too early to draw conclusions but several of the measures installed address collision causation identified in previous studies.	
<b>Key Effective Conclusions:</b>	<p>The route appears essentially rural in character. Some of the measures used (guard rail under-run rails, surfacing of tracks joining the highway) are not applicable in an urban setting.</p> <p>RV32 has considerable value as a demonstration project for PTW 'friendly' highway treatments addressing rural casualties.</p>	
<b>Projects for Comparison:</b>	Measures described in IHIE (BP2 012), VMAC (BP2 004) and Norwegian (BP2 007) guidelines.	

**Justification:**

The route is essentially rural in nature and the majority of measures introduced are unlikely to be useful in a low-speed urban environment. A closer examination of before and valid after data is required to assess the impact of the measures used on RV32. The approach is unlikely to widely contribute to eSUM objectives but the approach may have potential to reduce casualties on those urban routes with separated carriageway and higher speeds.