



# Integrated Corridor Management

INTELLIGENT TRANSPORTATION SYSTEMS IN THE PORTLAND METROPOLITAN REGION

**Collaboration between PDOT and ODOT means one crash won't wreck the whole region.**

## BENEFITS

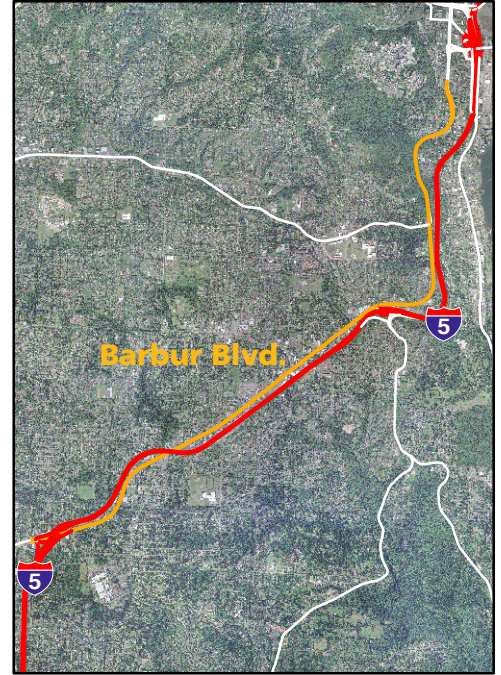
**Mobility:** Technologies promote and manage detours when incidents or breakdowns stop traffic.

**Safety:** Strategy speeds emergency response times, reduces risk of secondary crashes.

**Cost effectiveness:** Automated incident detection and pre-existing protocol save staff time.

When a crash or a breakdown brings traffic to a halt on a major road, congestion mounts quickly while emergency vehicles try to reach the scene. Some of this congestion can be mitigated by diverting traffic onto an alternate route, if one exists. However, diverting large volumes of traffic onto arterial streets can lead to secondary problems if the situation is not managed carefully. Compounding the complexity of the situation is the fact that different roads are managed by different agencies. In other words, there are both technical and institutional challenges to using parallel arterials to mitigate incident delay on the freeways.

PDOT and ODOT found an opportunity to implement the concept of "Integrated Corridor Management" south of downtown Portland, where I-5 and Barbur Boulevard run parallel, as shown in the map to the right. The system, which went live in 2003, utilizes in-pavement vehicle detectors to detect incidents, video cameras to observe the scene, and variable message signs to communicate with drivers. When an incident occurs, staff in ODOT's and PDOT's operations centers activate these devices so that drivers are encouraged to follow the alternate route.



*Because Barbur Boulevard and I-5 run alongside each other, they make ideal alternate routes when one is heavily congested.*

The combination of technologies can perform two different functions. On one hand, the system can help Barbur Boulevard cope with the significant increase in volume when traffic is diverted from I-5. On the other hand, the system can enhance the performance of the links between Barbur Boulevard and I-5.



*When Barbur Boulevard is used as a detour for traffic stuck on I-5, variable message signs can help direct traffic back to I-5 at the appropriate time.*

This project demonstrates two important lessons about intelligent transportation systems. First, the technology (detectors, cameras, message signs, signal systems) enable a valuable strategy, in this case integrated corridor management. Second, the value of the technology is enhanced by extensive coordination between ODOT and PDOT, which was achieved through the development of shared protocol for different incident scenarios.

For more information, visit [www.metro-region.org](http://www.metro-region.org)

