



Expanded Shale, Clay and Slate Institute  
Rotary Kiln Structural Lightweight Aggregate

# I-80 Lightweight Aggregate Chip Seal Project (Summit County, Utah)



LWA Chips being applied over an existing LWA chip seal that was applied in 2004 on I-80 near Coalville, UT. Picture taken in August 2010.

<b>OWNER</b>	<b>UDOT</b>
<b>GENERAL CONTRACTOR</b>	<b>Staker &amp; Parson Companies</b>
<b>LIGHTWEIGHT SUPPLIER</b>	<b>Utelite Corporation Coalville, UT</b>
<b>PROJECT LOCATION</b>	<b>I-80, Summit County, UT</b>
<b>COMPLETION DATE</b>	<b>August 2010</b>

The Utah Department of Transportation (UDOT) used expanded shale lightweight aggregate to chip seal a portion of Interstate 80 between Coalville and Echo Jct., Utah in 2004 and again in 2010.



I-80 near Coalville, Utah exactly 1 year after being chip sealed with ESCS lightweight aggregate in 2010. Picture taken in August 2011.

This section of I-80 is located only 40 miles from Salt Lake City, and receives continual heavy truck traffic as well as frequent snowplowing during 5 months of the year. Despite these challenges, the asphalt pavement was still in good condition after the 2004 LWA chip seal before being re-chipped in 2010 for preventative maintenance.

Although chip sealing is the most economical way to maintain an asphalt surface, many state DOT's have gotten away from chip sealing interstate highways because of chips peeling or stripping off of the road and because of complaints arising from broken windshields.

UDOT's Type III "crusher processed rotary kiln lightweight expanded shale chips" were chosen for the project because they do not break windshields and do not peel or strip after being applied. This is because ESCS

lightweight aggregates are porous and do not contain clay or silica dust that prevents a firm bond with the emulsion.