

MAINTENANCE PLANNING GUIDELINES												2/2014																																																	
ACTIVITY: Pipe Culvert Repairs (R319)						ACTION: Install Pipe Liners (LF)																																																							
MAJOR & MINOR																																																													
DEFINITION: The time and expenses incurred from removing and replacing pipe culverts. Includes time and expenses incurred for installing a new lining in an existing culvert and cleaning and repairing culverts.																																																													
PURPOSE: To install new pipe liners in existing pipe culverts.																																																													
SCHEDULING: As needed.						<table><tr><td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td></tr><tr><td>A</td><td>E</td><td>A</td><td>P</td><td>A</td><td>U</td><td>U</td><td>U</td><td>E</td><td>C</td><td>O</td><td>E</td></tr><tr><td>N</td><td>B</td><td>R</td><td>R</td><td>Y</td><td>N</td><td>L</td><td>G</td><td>P</td><td>T</td><td>V</td><td>C</td></tr><tr><td colspan="12"></td></tr></table>								J	F	M	A	M	J	J	A	S	O	N	D	A	E	A	P	A	U	U	U	E	C	O	E	N	B	R	R	Y	N	L	G	P	T	V	C												
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RECOMMENDED EQUIPMENT: <ul style="list-style-type: none"><li>Trucks</li><li>Backhoe</li><li>Loader</li><li>Mudjack or Concrete Mixer</li><li>Traffic Control Equipment; reference the (See EPG <a href="#">616.23 Traffic Control for Field Operations</a>)</li></ul>						RECOMMENDED PROCEDURE: <ol style="list-style-type: none"><li>Consult district Design on size and placement of pipe liner.</li><li>Contact Dig Rite and others to mark utilities.</li><li>Place traffic control devices as needed.</li><li>Clean out ditch, if necessary, to make room for liner.</li><li>Insert liner.</li><li>Form upstream and downstream ends and mudjack between liner and existing pipe.</li><li>Grade and reshape shoulder, as necessary.</li><li>Seed, mulch and place erosion control items as necessary</li><li>Clean work area.</li><li>Remove traffic control devices.</li></ol>																																																							
RECOMMENDED MATERIAL: <ul style="list-style-type: none"><li>Pipe Liner</li><li>Slurry Mix</li><li>Portland Cement</li><li>Agricultural Lime</li><li>Water</li></ul>																																																													
SAFETY: Refer to the <a href="#">Comprehensive Safety Program sharepoint portal</a> . Wear all appropriate PPE. Refer to the <a href="#">Risk Based Assessment</a> for additional information.																																																													
OTHER CONSIDERATIONS: Use appropriate size liner for application. Follow manufacturer’s instructions on installation.																																																													
REFERENCES: <a href="#">Missouri Standard Specifications for Highway Construction</a> Section 735.																																																													