

MAINTENANCE PLANNING GUIDELINES	2006
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ACTIVITY: Drainage (R316) <p style="text-align: center;">MAJOR & MINOR</p>	ACTION: Clean & Reshape Ditches <i>A. Earth Ditches</i>
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DEFINITION: The time and expenses incurred for the installation, repair and maintenance of roadway drainage ditches, structures, and all slide repairs. This includes installing and maintaining pavement drainage systems.

PURPOSE: To keep the roadbed dry and maintain stability and proper drainage while keeping culvert pipes open.

SCHEDULING: As needed.	<table border="1" style="margin: auto; border-collapse: collapse;"> <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 style="background-color: black; height: 10px;"> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></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"> • Motor Grader • Loader • Backhoe, Excavator, or Dragline • Dump Trucks • Broadcast Spreader • Eye Level &/or Transit • Traffic Control Equipment; (See EPG 616.23 Traffic Control for Field Operations) 	RECOMMENDED PROCEDURE: <ol style="list-style-type: none"> 1. Call Dig Rite and check for MoDOT utilities. 2. Place traffic control devices as needed. 3. Shape ditch and remove material as needed. 4. Clean loose material from roadway. 5. Set up erosion control as necessary. 6. Seed and mulch as necessary. 7. Remove traffic control devices.
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RECOMMENDED MATERIAL: <ul style="list-style-type: none"> • Seed • Mulch • Silt Fence, Straw Bales, Rock (for Berms), Triangular Silt Dyke, Coir Fiber Logs • Sod • Erosion Control Blankets 	
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SAFETY: Call before you dig to locate utilities (**1- 800-DIG-RITE**). Watch for traffic when operating equipment on the roadway. Wear all appropriate PPE. Refer to the [Safety Policies, Rules & Regulations – Employee Handbook](#).

OTHER CONSIDERATIONS: When excavating in lawn areas, adjacent property owners should be contacted prior to beginning work, if possible, to explain intent of operation.

REFERENCES: Missouri Standard Specifications for Highway Construction Sections [802](#), [803](#), [805](#), [806](#). Missouri Standard Plans, [806.10](#).

R316 – Clean & Reshape Earth Ditches (A. Earth Ditches)



(1) Downstream Culvert Ditch (Silted In)



(2) Digging out Culvert Ditch



(3) Digging out Culvert Ditch



(4) Digging out Culvert Ditch



(5) Graded Culvert Ditch



(6) Mulched & Seeded Ditch – Finished Product