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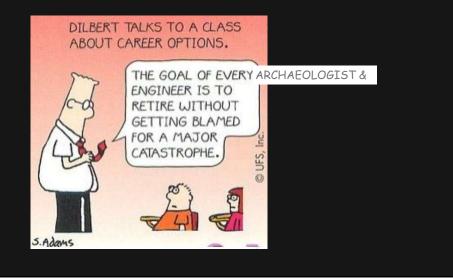
## Why does MDOT do archaeology?

• Section 106 of the National Historic Preservation Act (Federal)

Federal Agencies or Non-federal Agencies receiving Funding or Federal Permits must take into account the effects of their projects on archaeological sites

- Section 4(f) (Federal Department of Transportation)
- Native American Graves Protection and Repatriation Act (Federal)
- Natural Resources and Environmental Protection Act (Michigan) Act 451 of 1994, Part 761 Aboriginal Records and Antiquities

# What do engineers and archaeologists have in common?



## What information do I need to clear a project?



1) What are the worst case limits of ground disturbing construction?

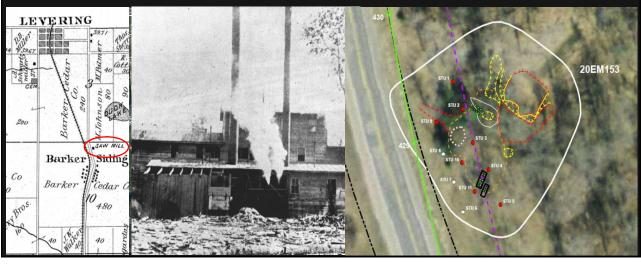
2) What are the horizontal and vertical extents of disturbance?





3) Will ground disturbing construction will extend into areas not disturbed by previous construction inside or outside the existing ROW?

How much ground disturbance will require survey? It depends on the archaeological sensitivity of the area that will be disturbed



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#### What types of projects require field work most often?

- New road projects
- Bridge replacements
- Off-Corridor work areas

   (wetland replacements, parking/stagi areas, trails, dewatering areas)
- Projects near cemeteries
- Capacity improvements and reconstructions

(Turn lanes, widenings, roundabouts curve re-alignments and reconstructs)



## NEPA review priorities and mitigation measures





- Clear project without mitigation
- Work with the MDOT Project Manager to limit ground disturbance
- Avoid impacts to known sites and sensitive areas
- Survey only when necessary
- Monitor during construction

## How much do archaeological investigations cost?



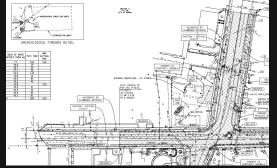
- Small Survey 4 k to 12 k
- Medium Survey 12 k to 30 k
- Large Survey >30 k
- National Register Evaluation per Site ca. 15 k to 150 k
- Data Recovery Excavation per Site ca. 150 k to 1.5 million

(Costs include background research, fieldwork, analysis, report)

## NEPA review in practice

- Only 56 (2.3%) of over 2400 projects required archaeological investigations
- Survey found archaeological sites for 37 (1.5%) of those 56 projects
- Only 2 projects (0.08%) required large scale date recovery excavations





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## How to avoid a major catastrophe together? M-20 Bridge Replacement Project (aka "Center of the Universe")

