ADA Compliance and Inventory in Montana

Sarah Nicolai, P.E.
Cody Salo, P.E.
Americans with Disabilities Act

- Prohibits discrimination on the basis of disability by public entities.

- All state-owned intersections/facilities must comply with:
  - Americans with Disabilities Act Accessibility Guidelines (ADAAG)
  - Public Rights-of-Way Accessibility Guidelines (PROWAG)
Purpose: Guide MDT efforts to provide an accessible transportation system program within the state of Montana.

Key Gap: Self-Evaluation (28 CFR 35.105)

MDT STATEWIDE ADA INVENTORY PROJECT
Project Strategy

Phased Approach

Phase I
  • Pre-screening locations
  • Estimating effort
  • Recruiting staff

Phase II
  • Training staff
  • Logistics and coordination
  • Data collection
  • QA/QC

Phase III
  • 2016 ADA Transition Plan
Phase I: Pre-screening

Map of Intersections Prior to Pre-screening

Started with ~12,400 intersections.

Removed ~9,500 intersections.

Each intersection viewed through Google Street View to determine if a site visit is needed.
Phase I: Pre-screening

- Initially conducted pre-screening only for “rural” areas
- Urban fringe often did not require a site visit

**Lesson Learned:** Conduct pre-screening for entire inventory area.

**Result:** Saved MDT time and money by eliminating the need for unnecessary site visits.
Phase I: Estimating/Recruiting

**Estimating**
- Iterative process based on regions by office and staff

**Recruiting**
- Interviewed 60+ candidates
- Hired 16 summer interns

**Internship Opportunity**

*Engineering Intern – Special Field Project*

DOWL is seeking ambitious engineering students to provide assistance to the Transportation Practice Area in our Billings, Bozeman, Butte, Great Falls, and Helena offices. These positions will conduct inventory of state-owned intersections and building facilities to identify compliance with the Americans with Disabilities Act (ADA). Preliminary screening will occur in an office setting. Field inventory will be conducted by two-person teams to collect data in both urban and rural locations throughout Montana.

We are seeking personable, energetic individuals to join our team. Qualified candidates should have a minimum of one year of college-level course work in pursuit of a degree in civil engineering or a related field.

Please see our web site for more details [www.dowl.com](http://www.dowl.com). Applications for the ADA Intern can be submitted online through the company careers webpage at [https://careers.dowl.com](https://careers.dowl.com).

DOWL is an equal opportunity and affirmative action employer. Minority, female, veteran, and disabled candidates are encouraged to apply.
Purpose

- Inventory and identify non-compliant features limiting accessibility.
  - **Facilities** – district, area, and headquarters office buildings and airports
  - **Intersections** – included curb ramps, sidewalks, cross walks, median crossings, and pedestrian activated signal systems.

- Create a baseline to measure progress towards overall compliance.

- Data used to prioritize future MDT projects.
3 Day Training Session

- TOPICS:
  - ADA EDUCATION
  - INVENTORY PROCEDURES
  - SAFETY
  - VEHICLE USE
  - WHEELCHAIR CHALLENGE

POP QUIZZES WERE GIVEN!
Safety Training

Considerations:

- Site Safety and Positioning
- Weather Conditions
- Interested Citizens/Strangers
- Personal Conduct
- Vehicle Safety
- Schedule/Check In-Check Out
- Unacceptable Behavior

GENERAL SAFETY PRECAUTIONS

- Work in teams of two at all times
- Always look out for each other
Phase II: Logistics

- Curb Ramp collection completed by 6 teams
- Maintenance Facilities, Offices and Airports completed by 2 teams
Phase II: Data Collection

Method

- MDT developed application through GIS
- Real-time data monitoring/syncing
- Utilized iPads with durable cases
Phase II: Data Collection

Curb Ramp Inventory
Phase II: Data Collection

MEASUREMENTS
Phase II: Data Collection

FACILITY INVENTORY

- Used feature codes
- Developed a site diagram for each facility
- Inventoried over 150 buildings, several airports

<table>
<thead>
<tr>
<th>CODE</th>
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<tr>
<td>PA</td>
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<td>Parking and Passenger Loading Zones</td>
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QUALITY CONTROL (QC)

- Reviewed each data collection record
- Deficient data was flagged for confirmation
- Each record had the reviewers ID

MOVING POINTS
Points were adjusted to actual locations.

Phase II: QA/QC

After data collection

After adjustment
QUALITY ASSURANCE (QA)

- QA included spot checks of select ramps
- Re-inventory of deficient curb ramp data
- Opportunistic collection methods

QUALITY LIMITATIONS

- Subjective parameters
- Individual variances
- Tolerances
  - 0.2% for grades
  - Nearest 1” for tape measurements
Lessons Learned

**WORST/LIMITING MEASUREMENTS**
Measure in several locations on ramps and landings to find worst case slope. Two measurements minimum.

**GPS TRACKING**
Collect coordinates with the iPad exposed to the southern sky for greater accuracy.

Collect coordinates away from ramp when in close proximity. Step to side of ramp before collecting point.

**TRAFFIC CONTROL**
Mark side street (minor route) curb ramps as “Stop Sign” and the main street (major route) as “No Control”.
Currently updating MDT’s ADA Transition Plan to reflect 2015 inventory efforts and MDT program evolution

- **LESSON LEARNED**: Focus on outcome-oriented methods. Program implementation is key!

- **RESULT**: Moving toward FHWA acceptance
Project Successes

Notable Statistics

- Completed inventory of **16,000+ curb ramps** and **150+ building facilities** in single field season

- **ADA Team** – 16 interns, 6 team leaders, 4 logistics personnel, 3 QA/QC assistants

- Approximately **56,000 vehicle miles** with **300 overnight stays**

- **No safety incidents!** 1 flat tire, 1 pair of lost keys, and hail damage to 1 vehicle.
Questions??