ADA Retrofit and Construction Management
Richfield, MN
Breckenridge, MN
Introduction & Outline

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City of Richfield

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Project Engineer
HR Green, Inc

§ Detailed Design vs. Construction

§ Case Studies

§ City of Richfield’s Transition Plan
How Detailed Should the Design Be?

§ Note on Plans “Install Pedestrian Ramp Here”

§ Intersection Detail that details every joint to the hundredth of a foot.

§ Something in the middle

KEYNOTES:

1. CONSTRUCT CONCRETE PEDESTRIAN RAMP. SEE ROAD DETAILS. INCLUDE TRUNCATED DOMES, TYPICAL ON ALL ROAD DESIGN PLAN & PROFILE DRAWINGS.
How Detailed Should the Design Be?

- MnDOT Standard Plans
  - Defines types of pedestrian ramps
  - Design details are given in ranges
Case Studies

§ Breckenridge, MN
   § T.H. 75 Mill & Overlay

§ Richfield, MN
   § 75th/76th Street Reconstruction
   § Pavement Management Program
Case Study
Breckenridge, MN

§ Small budget, part of a mill/overly project

§ Field visit with survey & engineer

§ Only survey “tough” intersections

§ Smart level & tape measure for “easy” intersections
Case Study
Breckenridge, MN
Case Study
Breckenridge, MN
Case Study
Breckenridge, MN

NOTES:
- STOP - 15 ft. GAP (104-00)
- TH/WM DIRECTIONAL RAMP 181.5 ft. APPROXIMATEALLY 15' 10" WIDE
- TEMP: 21.5 ft. PAVED - 162.5 ft. TOTAL = 184 ft.
- REMOVE (6 x 4.5) + (6 x 3) + (12 x 4) + (12 x 3) = 246 ft.

NOTES:
- TWO-WAY DIRECTIONAL RAMP
- REMOVE SIDEWALK = 191 SF
- REMOVE BIT PAVEMENT = 50 SF
- R/R 25 LF OF CURB
Case Study
Breckenridge, MN

§ Construction Plans

§ Intersection Details for “tough” intersections

§ Intersection Tabulations for “easy” intersections
  § Include MnDOT Standard Plans
Case Study
Breckenridge, MN
Case Study
Breckenridge, MN
Case Study
Breckenridge, MN

NOTES:

① 2.5% CROSS SLOPE. EXISTING DRIVEWAY WILL GOVERN LONGITUDINAL SLOPE.

② RUNNING SLOPE SHALL BE ≤ 8.3% AND CROSS SLOPE SHALL BE ≤ 2.0%

③ CONSTRUCT 4' X 4' MINIMUM LANDING AREAS AT A MAXIMUM SLOPE OF 2.0% IN ANY DIRECTION.

④ RUNNING SLOPE SHALL BE ≤ 5.0% AND CROSS SLOPE SHALL BE ≤ 2.0%. IF SLOPE GREATER THAN 5.0%, CONSTRUCT 4' X 4' LANDING.

⑤ EXISTING CONCRETE WALK HAS A RUNNING SLOPE ≤ 2.0% AND CROSS SLOPE ≤ 2.0% AND WILL SERVE AS A 4' X 4' LANDING.
Case Study
Breckenridge, MN

### Table: Ramps

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### Table: Restraint Systems

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### Diagram

- [Image of the diagram showing the case study and ramp details]
## Case Study
Breckenridge, MN

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Case Study
75th/76th Street
Richfield, MN

§ Full Reconstruction

§ Complete Streets Project

§ Included sidewalk, regional trail and bike lanes
Case Study
75th/76th Street
Richfield, MN
Case Study
75th/76th Street
Richfield, MN
Case Study
75th/76th Street
Richfield, MN

§ Construction Challenges

§ Joint between bituminous trail and concrete pedestrian ramp

§ Cross slope on bituminous trail
Case Study
75th/76th Street
Richfield, MN

§ Construction Challenges
§ Pedestrian ramp landings
Case Study
Pavement Management Program
Richfield, MN

§ Mill and Overlay/Sealcoat/Sidewalk Repairs

§ Construction Challenges
  § ADA rules keep changing
  § Funding
  § Tracking Inventory
  § Timeframe
Case Study
Pavement Management Program
Richfield, MN

Replacement

Shaving trip hazards
City of Richfield ADA Transition Plan

§ Priority for City Council

§ Replace Curb Ramps

§ Capital Improvement Projects
§ Pavement Management Program
§ Accessibility Improvement Requests

§ $20,000/year- Sidewalk/ADA

§ $1,000/ramp
§ 1200+ Ramps in Richfield
§ 267 Ramps Currently Un-Programmed
Since 2005, Richfield has spent $16,000 annually replacing ramps.

Current Program Outlook

- 85 miles of residential streets for surface maintenance (mill and overlay)
- Average of 2 miles/year completed
- 43 years to complete at current rate