Flexible Design for the 21st Century
Context Sensitive Solutions
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WSDOT Mission & Principles

• Safety
• Project Delivery
• Accountability and Management
• Communication
• Innovation, Best Business Practices, Efficiency, & Effectiveness
• Strategic Long-Term Investment Programs
• One DOT & Partnerships
• Environmentally Responsible
• Excellence & Integrity
Context Sensitive Solutions

Alignment with WSDOT Mission

• Inclusive
• Transportation Solutions Responsive to the Natural and Built Environment
• Multi-modal – All Users
• Cost effective

Executive Order on CSS - Policy
Funding

Washington State Gas Tax
  • Dedicated to Transportation
  • Cities & Counties Receive Portion
  • Legislature Approved Program

Federal Funds / Grants

Project Funding includes Design & Construction
Programming Projects

Preservation and Improvement

Preservation:
  • Pavement Rehabilitation P1, P2

Improvement:
  • Mobility I1
  • Safety I2
  • Economic I3
  • Environmental I4
Addressing Safety

Goal: Target 0 Fatal & Serious Accidents

Separate Safety Program (I2)

Other Programs Include Safety
Safety Program

HAL/HAC

- Locations of high number of accidents
- Prescriptive solutions

Results:

- 25% reduction fatal accidents/13 yr.
- Corrections to high severity locations

New Process: Collision Analysis Locations (CAL)

- Analyze cause / Focus solution
Design Process Goals

Comprehensive and Planned
Safe and Sustainable
Context – Built & Natural
Multimodal – Vehicle, Bikes, Pedestrian, Transit
Inclusive of Public, Governments, Agencies
Interdisciplinary Approach
Project Management: Scope, Schedule, & Budget
Factors to Consider

The Design Process

- Physical Character
- Safety
- Capacity
- Constructable
- Maintainable
- Multimodal Considerations
- Cultural, Historic and Scenic Resources
- Cost
- Public Input
- Environmental Quality
- Other
Design Process

- Safety Improvement Plan
- NEPA/SEPA
- Public Involvement
- Managing Project Delivery
- Value Engineering
- Cost/Risk Assessment
- Resource Analysis
- Mitigation/Permitting

Context Sensitive Solutions
Needs Assessment

Project Definition: Purpose and Need

- Connectivity of Wildlife Corridors
Design Guidance Structure

Matrix Driven Approach

• Define Design Elements to be Addressed
• Specific to Program
• FHWA Approved

Flexibility in Standards

• Range
• Recognize the Trade-offs within Design Flexibilities
Design Guidance
Early Project Planning

Comprehensive Approach

Coordinate Visual Elements
  • Design Standards
  • Standard Level of Treatment

Roadside Master Plan
  • Site Analysis
  • Functional Analysis
  • Roadside Restoration
Partnerships

Communicate Early and Throughout
Informed Consent (Bleiker/IPMP)

- Public
- Communities
- Government
- Tribes
- Elected Officials
- Agencies
**Funding Matrix**

<table>
<thead>
<tr>
<th>Design Elements</th>
<th>WSDOT Design Standards</th>
<th>Funding Group</th>
<th>Reference to Standards</th>
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<tbody>
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**Note:** Definitions for the improvement categories are listed on the following page.
Liabilities

Urban Corridors

- Improvement Projects - Moderate Speed
- Community Goals
- Balance Safety Goals and Community Goals for Aesthetic Treatment
Liabilities

Work Within Established Standards
Test New Concepts
  • Crash test
  • In-Service Agreements
Promote National Research
Documentation of Design Decisions
Testing Barrier Options

- Short Walls
- Re-directional Berm
Urban Corridors

Created Projects that Meet All Goals
New Direction

Moving Washington 2020
  • Add Capacity Strategically
  • Operate Efficiently
  • Manage demand

Collision Analysis Location (CAL)
  • Analyze Cause and Focus Solution
Emerging Issues

- Revenue Decline
- Climate Change
- ESA - Salmon Recovery
- Accommodation of Disabilities - ADA
Roadblocks

Revenue
  • State Constitution

Perception of CSS
  • It’s a Separate Process
  • “Special Treatment: Cost is No Issue”
  • Increase Project Scope/Cost
  • Designer’s Understanding of Flexibility
  • Integrating Through Program
QUESTIONS?

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