



Managing Iowa's Interstate Needs through 2040

Iowa Interstate Investment Plan (I3P)

MPO/RPA Quarterly Meeting
September 25, 2019

Initiatives

- Performance Based Design
- Traffic System Maintenance and Operations (TSMO)
- Asset Management
- Project Management



Project Management

- On Time
- On Budget

But What Is The Budget?



Planning Efforts Highlight that Transportation Needs Exceed Funding

IOWADOT
I-80 Planning Study

INTERSTATE 80
PLANNING STUDY (PEL)

Guiding Principles
Office of Location and Environment | April 2016

IOWA IN MOTION 2045
STATE TRANSPORTATION PLAN

IOWA INTERSTATE CORRIDOR PLAN

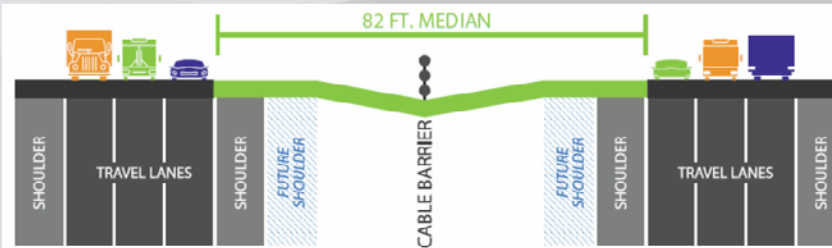
IOWA DEPARTMENT OF TRANSPORTATION
IOWA IN MOTION



I-80 PEL Study



Rural areas of I-80 Yellow bar area = 2018 to 2033



I-80 PEL Study

- Addresses funding options and viability

Paying for the I-80 Vision

The Vision will be constructed as funding is available. Given the limitations of current federal and State funding and the magnitude of the Vision's construction costs, it will take a number of years to fully implement the Vision. As a result, the Vision will be constructed in sections, or individual projects. On this pay-as-you-go basis, if the Vision was to be completed by around 2040, roughly three quarters of the department's Interstate funding would need to be dedicated to I-80 in the future.

With the option of tolling eliminated, the PEL concludes:

Based on current funding limitations, these assumptions are likely untenable in the long term

Interstate Plan Proposed



How Do We Ensure Progress?

Rehabilitation Needs vs. Capacity Needs

The intent is to contrast the timing of the rehabilitation needs against the timing of the capacity needs



What Is The Budget?



Available funding must play a role



Workshop Held To Address the Problem

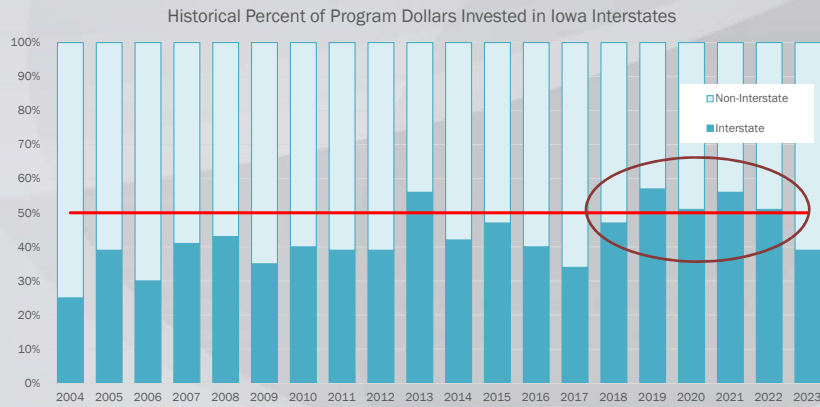


- About 70 participants
- 2 days of intense problem solving
- Planning, Design, Pavements, Structures, Safety, Traffic Management, Public Involvement, Data Analytics, Technology, Maintenance, Estimating, Programming, Construction
- 1296 years of experience



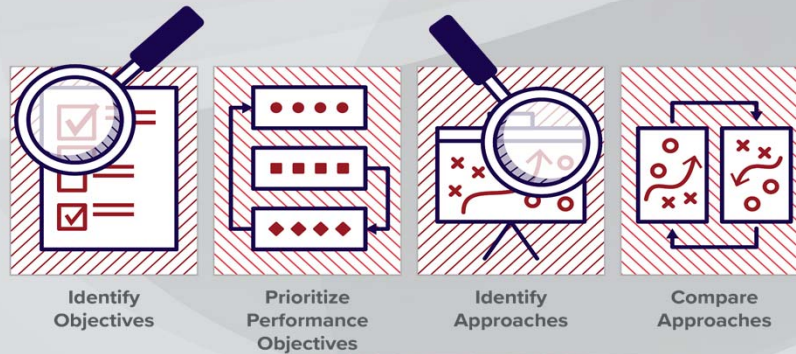
The Budget

- For purposes of the workshop, we needed to assume a maximum budget

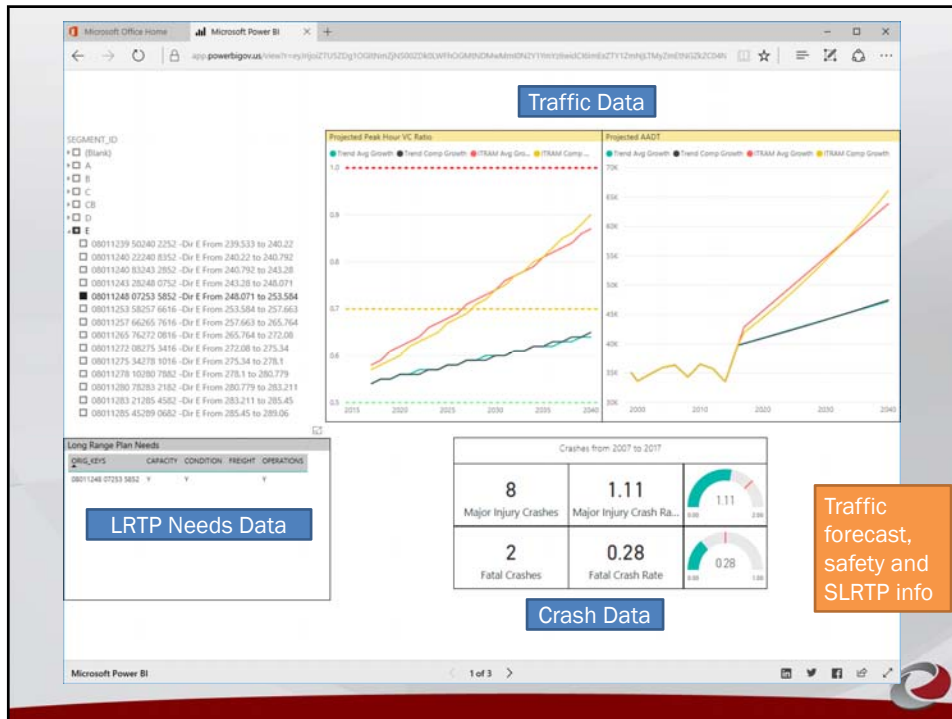


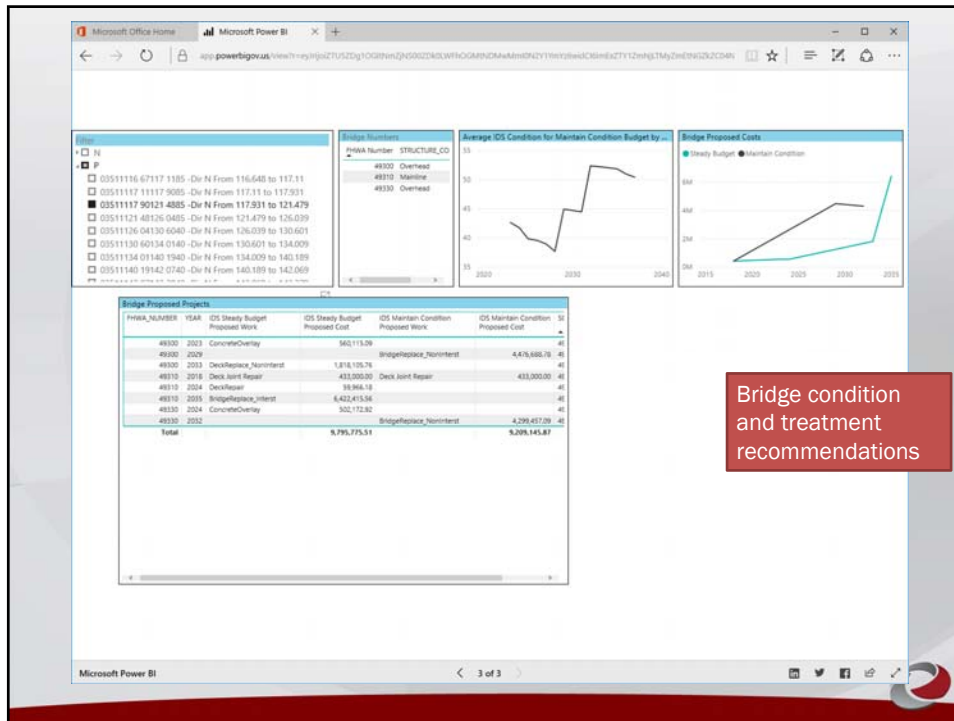
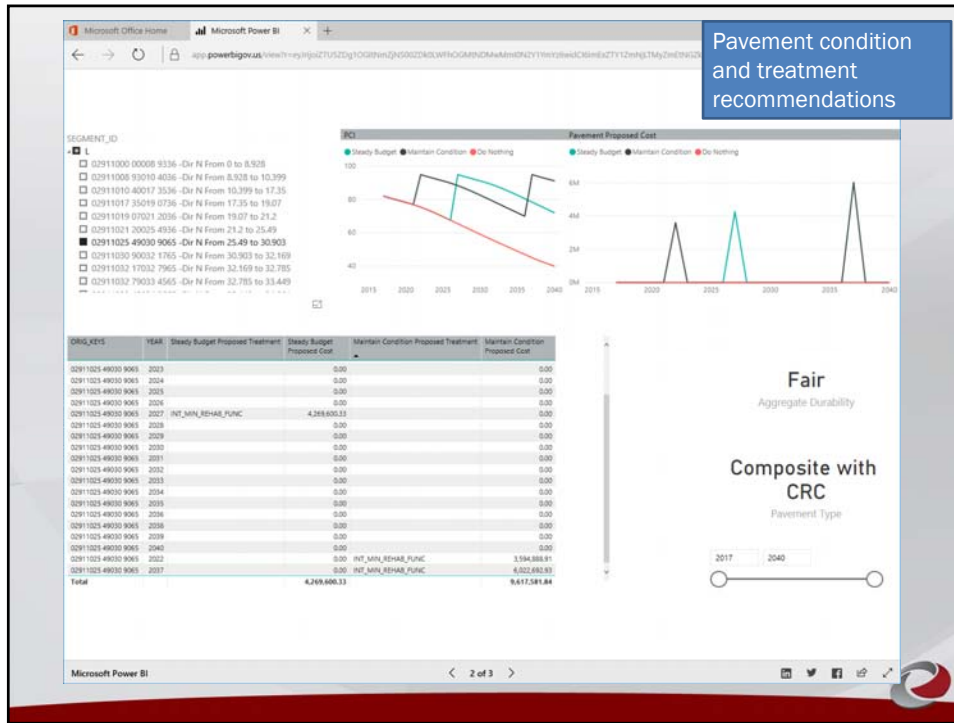
Workshop Flow

- The workshop focused comprehensively on the system
- The group was divided into 8 multidisciplinary tables
- Each table was assigned segments of the system and asked to make recommendations



Data for Workshop





Recommendations

- **Stewardship** - All of the participants recommended that the focus should be on preservation treatments to keep the system in its current state of good repair
 - \$80m of pavement stewardship was included each year
- **Widening Options** - Many segments of I-80 have significant pavement life remaining, so expansion in those areas will first consider widening the existing pavement rather than a complete rebuild
 - This requires us to hold to a schedule
- **Don't Add Capacity** - Some areas previously studied for expansion were not prioritized to be completed by 2040
- **Delay with Technology** - Expansion projects in urban corridors will be limited and focus on technology solutions and other management strategies. TSMO/ICM



Expectations vs Reality

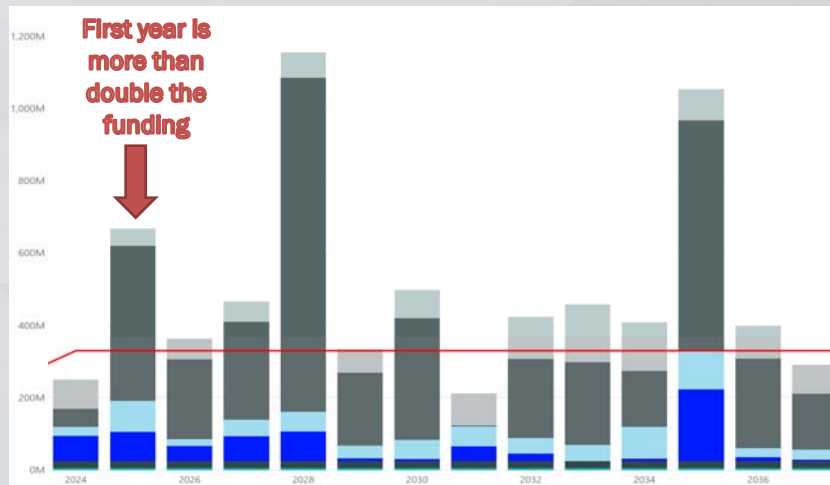
Expectations:

- We define the problem
- We give information
- We brainstorm
- We propose solutions
- We reiterate
- We solve the problem.....wait....

Reality



Where The Workshop Ended

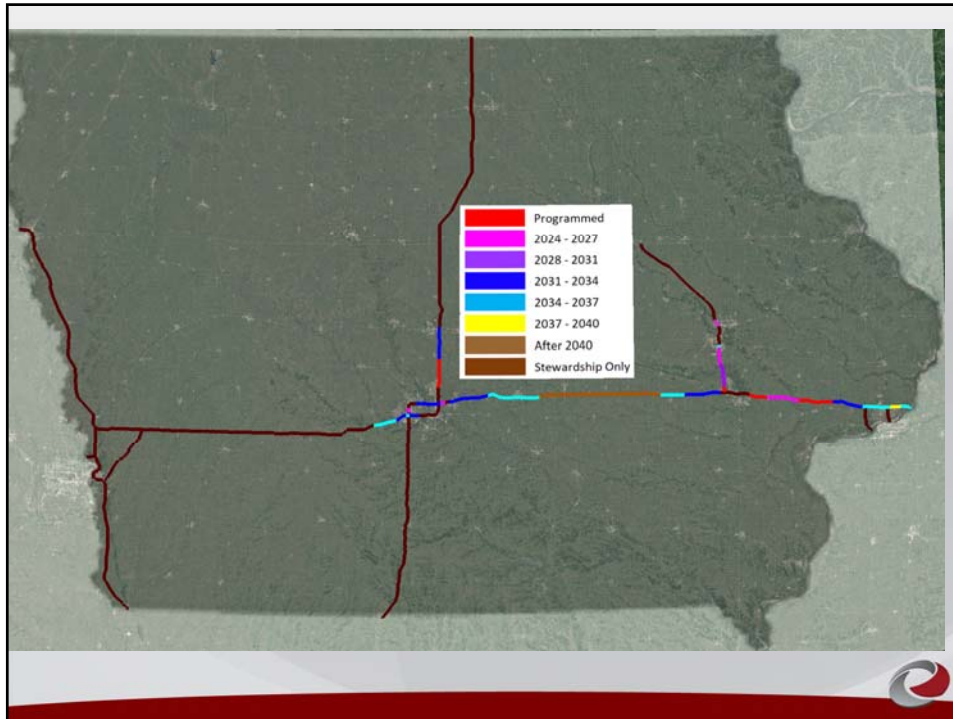
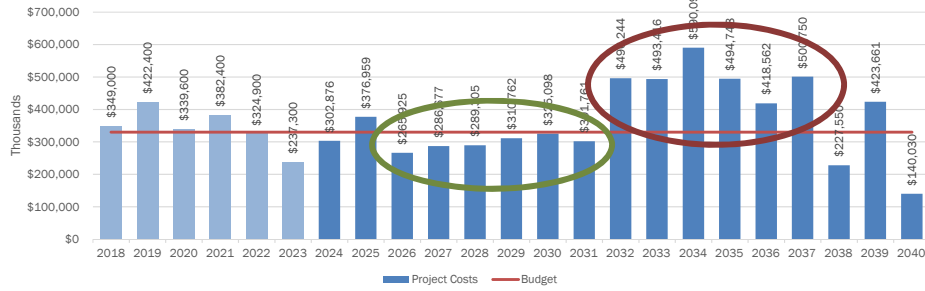


After the Workshop

- A lot to digest in two days
- QC of the concepts
- Refine cost estimates
- Additional reductions in the scope of work for projects
- Delayed projects until they matched the funding available

The Next Steps

Project Total vs Budget
Through Interstate Plan Year 2040



What do you do next?

Get as much into your cart
as you can!

So.... How do you do that?



This Fits With Our Other Goals

- Performance Based Design
 - System thinking rather than project thinking
 - Reducing low impact upgrades on one project will allow us to get more miles addressed to achieve the high value upgrades
 - Better Timing of Projects to Minimize Potential Waste
- TSMO
 - Which is more valuable traffic management or geometric improvements?
 - Does our process reflect this? It is starting to...DSM ICM Study
- Asset Management
 - it doesn't make the news, so how do we emphasize it?



Implementation

- Distributed **VERY** tight budgets across the projects. Ask project teams to suggest ways to reduce costs and request additional budget if necessary
- Meet with Bureau and District Engineers to:
 - Review any additional budget requests
 - Prioritize and schedule projects currently shown in 2031-2037
- Report updated schedule and priorities back to project teams
- Manage and deliver individual projects to meet the defined targets
- Develop dashboards to monitor progress and key assumptions
- Meet periodically with management to update the plan and convey the priorities back to project development staff



Feedback

Project Teams can make choices with understanding of larger implications to the system



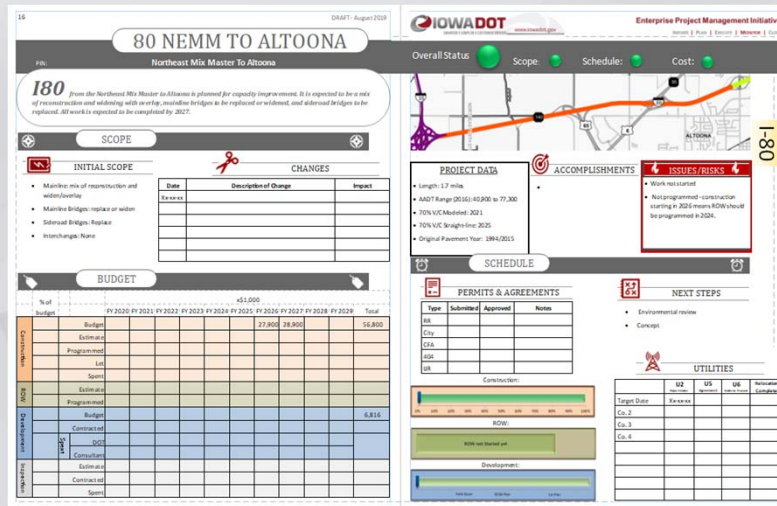
I3P Tools

I3P Project Status Report (Example Summary Sheet)

Item	Description	Quantity	Cost												
			2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Construction															
01	General Construction	1	100.00	100.00											
Planning															
02	Planning	1	10.00	10.00											
Other															
03	Other	1	5.00	5.00											
Grand Total															
Total			115.00	115.00											



I3P Project Status Report



MPO and RPA Coordination

- Highlight Partnership with ICM Project in the Des Moines Metro Area
- Minimum of Annual updates on I3P status at Quarterly meeting (or on request)
- Communicating Input - District Office and Project Management Bureau

Goals of the Final Plan

- Improve decision making
- Avoid scope creep
- Provide better communication of priorities
- Involve management in key financial choices
- Help staff see the larger benefits when projects are scaled back



Questions?

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Project Management Bureau

