

January 2016

EDC3 Action Plan










Federal Highway Administration-New Mexico Division
Marcus Wilner, Lead Coordinator






New Mexico Department of Transportation
Logan Patz, Denise Peralta, Lead Coordinators

Jan 25, 2016

**Federal Highway Administration - New Mexico Department of Transportation
Every Day Counts 3 (EDC3) Dashboard**

Initiative	page	Major Accomplishments	Status
e-Construction: Electronic Project Document Management Systems	3-4	Mandatory e-bidding initiated in Sept. 2015 through Bid Express; contracting community was trained on process.	
Ultra-High Performance Concrete Connections for Pre-Fabricated Bridge Elements	5-6	Initiative is tied to PBES (whenever PBES is used, UHPC is considered); UHPC mix is complete for prestressed bridge girders; CN E100100 – NM 186 over EBID Irrigation Canal- south of Las Cruces, NM to be constructed summer 2016.	
Locally Administered Federal-Aid Projects: Stakeholder Agreements (continuation from EDC2)	7-8	Three training sessions completed in 2015; T/LPA Handbook revisions being finalized (by Feb. 2016); additional training sessions planned for 2016.	
Road Diets (Roadway Configuration)	9-10	Identified locations of existing road diets; completed “Complete Streets” research; completed draft decision matrix, guidance document, and flow chart.	 
Smart Work Zones	11-12	Team has conducted outreach within NMDOT and LPAs and completed research on possible ITS components to be implemented; Louisiana/I-40 project is progressing and Rio Bravo/I-25 project is in design.	
Accelerated Bridge Construction: Geosynthetic Reinforced Soil - Integrated Bridge System (GRS-IBS) (continuation from EDC2)	N/A	Two GRS-IBS projects recently completed on NM 419.; Golder Associates provided geotechnical design and are developing as-built plans and summary of lessons learned.	

Status Key:

-  **Institutionalized:** The innovation is adopted by the State’s transportation community and used regularly on projects or within the program where appropriate.
-  **Assessment Stage:** Beyond testing/piloting the innovation. Assessing the performance and the process for carrying out the innovation and/or making adjustments to prepare for full deployment.
-  **Demonstration Stage:** Testing/piloting the innovation.
-  **Development Stage:** Collecting guidance and best practices, building support with partners and stakeholders, taking training, attending Peer-to-Peer workshops, and/or developing a process necessary for implementation of the innovation. Interested in pursuing the innovation or seeking additional information on how to implement it.
-  **Not Implementing:** Chose not to implement the innovation. Not interested in pursuing the innovation.

State DOT Team Co-Chair	FHWA Team Co-Chair	EDC Team Initiative Title (Tool or Technology)
Jesus Sandoval	Robert Bency	Development Phase-eConstruction
A – Team Members		B – Need/Application of Tool/Technology & Implementation Issues to Address
<ul style="list-style-type: none"> ○ District rep (perhaps Ken Murphy, Justin); District audit supervisor ○ IT (Eric Roybal) ○ Max Valerio (FHWA) ○ ACNM (?) ○ PDE (Richard Pena) ○ Dolores Gallegos/Sean Sandoval/LPA Group 		<p>NMDOT is interested in moving forward with Mandatory Electronic Bidding through Bid Express:</p> <ul style="list-style-type: none"> ● Notifying all Contractors prior to first letting with Mandatory E-Bidding ● Ensuring that all Contractors establish an account on Bid Express ● Ensuring that training is available to all Contractors ● Establishing a method to address Contractor questions regarding the let plans
C – Desired Outcome (2015-2016 Goals)		D – Performance Measures
<p>Notifying all Contractors prior to the first mandatory electronic bid letting. Ensure that training is available to all Contractors. Establish a method to address Contractor questions regarding the let plans. The first mandatory electronic bidding (E-Bidding) will be the July 17, 2015 Letting.</p>		<p>Method of Notification to Contractors and date. Determining if training is available and notifying Contractors. Establish protocol for addressing questions regarding the let plans. Date of the first letting with E-Bidding. Monitor the number of bidders for a minimum of 6 months to determine if there is a decrease.</p>

E – Implementation Plan Activities

Activity No.	Description of Activity	Target Completion Date	Status
1.	Mailing to all Contractors sent out.	Jan 2015	Completed.
2.	Determine if training is available to Contractors.	Jan 2015	Completed.
3.	Establish protocol for addressing questions regarding as-let plans and develop NTC.	Jan 2015	Completed.
4.	First mandatory electronic bidding letting	October, 2015	Scheduled.
5.	Monitor the number of bidders for a minimum of 6 months to determine if there is a decrease.	April 2016	Scheduled.

State DOT Team Co-Chair	FHWA Team Co-Chair	EDC Team Initiative Title (Tool or Technology)
Ray Trujillo	Thiet Nguyen	Ultra High Performance Concrete (UHPC)
A – Team Members		B – Need/Application of Tool/Technology & Implementation Issues to Address
<ul style="list-style-type: none"> ○ Dr. Brad Weldon, Dr. Craig Newton and Dr. David Jauregui, NMSU ○ NMDOT Bridge Bureau (Ben Najera, Robert Crossno) ○ Ken Wylie, Principal Materials Engineer at AMEC Foster Wheeler ○ Diego Gomez, NMDOT State Concrete Engineer ○ Luis Melgoza (FHWA) ○ Thiet Nguyen, FHWA Bridge Engineer 		<ol style="list-style-type: none"> 1. Design requirements for precast concrete connections. 2. Details for precast concrete connections. 3. Concrete specifications for UHPC.
C – Desired Outcome (2015 Goals)		D – Performance Measures
<p>Goal for 2015 is to finish development of UHPC mix and UHPC specification with NMSU. and to build a girder bridge with UHPC prestressed girders.</p>		<p>This Initiative is tied to the EDC Initiative on PBES. Anytime PBES is used, UHPC will be considered. The use of UHPC for precast connections is advantageous for reduction in rebar congestion and reduces the width of closure pours, which in turn will reduce construction time. PBES is now institutionalized, which could be the result of UHPC.</p>

E – Implementation Plan Activities

Activity No.	Description of Activity	Target Completion Date	Status
1	Complete UHPC mix design research project with NMSU.	February 2015	Completed.
2	Develop specification for UHPC mix to be used for precast connections.	August 2015	Completed July 2015
3	CN E100100 – NM 186 over Irrigation Canal in District 1. Use of UHPC for prestressed girder applications. This project will lead to the development of a UHPC mix and specification to be used for precast connections rather than using the proprietary UHPC mix (Ductal by Lafarge).	Finish design of bridge by July 27, 2015 (Production date)	Completed; waiting for construction to begin.

State DOT Team Co-Chair	FHWA Team Co-Chair	EDC Team Initiative Title (Tool or Technology)
Sean Sandoval	Jolena Palau	LPA Stakeholder Partnering
A – Team Members		B – Need/Application of Tool/Technology & Implementation Issues to Address
<ul style="list-style-type: none"> ○ Design Region Coordinators ○ District T/LPA Coordinators (Jill Mosher) ○ Planning/Environment ○ Construction Bureau CLE-LPA (Denise Peralta) ○ Lee Cabeza de Vaca (LTAP) ○ Derek Meier (ACEC-NM) ○ Ron Shutiva 		<ul style="list-style-type: none"> ○ Certification Program (LPA) ○ Certification Program (Consultants) ○ Process Trainings <ul style="list-style-type: none"> ○ NMDOT Staff ○ T/LPA Staff ○ Updated Handbook T/LPA program and LGRF
C – Desired Outcome (2013-2014 Goals)		D – Performance Measures
<ul style="list-style-type: none"> ○ Ensure T/LPA projects are following current baseline and ensure Federal funding is being obligated in timely fashion and meeting Federal requirements. ○ Establish a certification program to get approved by NMDOT leadership as well as FHWA Leadership. 		<p>Baseline measures will be established based on the Approved STIP for the current Federal Fiscal Year.(Oct 1) Baseline will be used to track/ monitor progress of projects on the baseline as well as projects that are added to STIP through the amendment process.</p>

E – Implementation Plan Activities

Activity No.	Description of Activity	Target Completion Date	Status
1	Baseline is established as per Approved STIP for the current FFY. Projects are tracked/monitored for progress.	Baseline: October 2015 Tracking progress now	Baseline was established as of October 2015. Project status is being tracked and monitored daily.
2	Using current baseline, ensure NMDOT deadlines are being met to allow for adequate time for contract execution and fund obligation.	Contract: March 15 Obligation: June15	During Quarterly T/LPA meetings we look at each project to make sure we are on track with deadlines.
3	Process Trainings: Bi-annual T/LPA trainings Will hold at 2 locations to be named in the future. Provide updates on the program and reach out to new staff at both the NMDOT and T/LPA.	Ongoing	First training was held in April 2015 in Las Cruces, New Mexico. Second Training held Nov 2015 in Albuquerque New Mexico. Schedule being developed for 2016 trainings.
4	Hold quarterly meetings with NMDOT District, NMDOT Region, and NMDOT CLE staff. Allow for communication of process and additional questions and concerns of the program.	Ongoing	Meetings held in February, June, and August. Discussed baseline and also process changes such as Deadlines and procedures. At each meeting we went over project statuses and worked on 2016 baseline. Audience: Region staff, District staff, and CLE's.
5	Update of 2014 T/LPA handbook. Take current handbook chapter by chapter and mirror to the current process in place. Also want to take a closer review with subject matter experts to get valuable feedback and allow time for public comment.	February 2016	Previous handbook was sent out to subject matter experts for comments. Team is working on addressing final comments and targets early 2016 to complete update.
6	Work with Executive Leadership from NMDOT and FHWA to establish a certification program for New Mexico T/LPA projects.		

State DOT Team Co-Chair	FHWA Team Co-Chair	EDC Team Initiative Title (Tool or Technology)
Bill Hutchinson (Environmental- CSS)	Luis Melgoza	Road Diets (Roadway Re-configuration)
A – Team Members		B – Need/Application of Tool/Technology & Implementation Issues to Address
<ul style="list-style-type: none"> ○ Afshin Jian (Traffic) ○ Richard Pena (North Region Design) ○ Rosa Kozub (Planning) ○ Sally Reeves (ADA Coordinator) ○ Max Valerio (FHWA) 		Provide guidance to the districts and regional design centers on when road diets are appropriate or needed. Traffic operations and safety are the deciding factors.
C – Desired Outcome (2014-2015 Goals)		D – Performance Measures
Improve operations, encourage multimodal, improve safety, promote livability		Level of service Crash reduction Reduction of vehicle speed Improved mobility and access Quality of life ADA access

E – Implementation Plan Activities			
Activity No.	Description of Activity	Target Completion Date	Status
1	Research other DOT's policies implementation evaluation with road diets	July 2015	On schedule
2	Decision-making tool/flowchart for determining road diet feasibility	September 2015	On schedule
3a	Educational outreach to the District Technical Support (TSA's) and Maintenance Assistant District Engineers (ADE's) to screen STIP projects for road diets	March 2016	
3b	Educational outreach to Project Development Engineers (PDE's) and designers on road diet design tools	June 2016	
3c	Educational outreach to RPO's & MPO's on decision-making tool/flowchart use	September 2016	

State DOT Team Co-Chair	FHWA Team Co-Chair	EDC Team Initiative Title (Tool or Technology)
Ken Murphy	Marilyn Valdez	Smarter Work Zones
A – Team Members		B – Need/Application of Tool/Technology & Implementation Issues to Address
<ul style="list-style-type: none"> ○ Nathan Masek - MRCOG ○ DPS rep ○ Luis Melgoza (FHWA) ○ Nancy Perea - District Traffic ADE ○ Dean Serna - NMDOT ROW/Utilities ○ Tim Brown, Charles Remkes- NMDOT ITS ○ Melissa Doshier - PIO ○ Priscilla Benavides - Design Regions ○ Have discussed City of Albuquerque, Bernalillo County, and District Engineering Support members 		<p>Minimize congestion and travel delay time Reduce accidents and incidents Improved public information and public involvement Minimize project time through cooperative planning</p>
C – Desired Outcome (2015-2016 Goals)		D – Performance Measures
List of discussed possible outcomes (Data Collection requirements) Bid Items Policy and criteria for project consideration (Design guidelines) Public Interest Finding for services Specifications (with payment criteria) and Performance Criteria (For payment on contracts and Baseline Data Needs)		TBD based on chosen outcomes to pursue (Possible travel time, delay, crash data (further discussion due to delay in data collection; check nmroads logs).)

E – Implementation Plan Activities			
Activity No.	Description of Activity	Target Completion Date	Status
1	Initial meeting and committee development.	January 2015	Completed.
2	Outreach to the planning sections both at NMDOT and LPAs, for better coordination of projects. (Outreach to first responders)	Ongoing	Being done through MRCOG ITS Subcommittee
3	Research the possible ITS components or strategies that could be implemented.(Tim Brown will research travel time data availability and needs) Google, Inrix, Bing, personalized point to point travel time; Research and industry practice show permanent infrastructure is becoming less prevalent.	Ongoing	Ongoing
4	Select projects that could benefit from initiative. I-25 and Rio Bravo; I-25 San Antonio to Jefferson; NM 528 Phase II; Louisiana/I-40 Ramps Check for possibility for Special Events CRD (Priscilla) will develop draft criteria/policy for team review)	Spring 2015	Louisiana/I-40 in progress; I-25/Rio Bravo in design
5	DRAFT Specification language/Bid items (Use documents from A301260 Coors/I-40) Needs to include protocol for projects to integrate with NMRoads.com, it used a “zipper merge” system but evaluation at this time will only be on a qualitative basis.	December 2015	Ongoing
6	Concept of Operations/System Engineering Analysis	January 2016	Planned

NEW MEXICO EDC3 – OPT OUT SUMMARY

New Mexico has agreed to pursue 5 initiatives under EDC3 (eConstruction, Ultra High Performance Concrete (UHCP), LPA Stakeholder Partnering, Road Diets (Roadway Re-configuration), and Smarter Work Zones); One initiative is considered “Institutionalized” and the only action under EDC3 will be to report on any successful practices as appropriate. We have opt-out of the remaining EDC3 initiatives and no further action or reporting is anticipated for these. See below:

Opt-out: The State is not interested in pursuing *[tool or technology]*

- *Improving the Quality of Environmental Documents (eNEPA)* – We evaluated this in EDC2 and determined to not pursue under EDC3 due to the fact that we have mostly CEs in New Mexico (no current EIS and only 4 EAs).
- *Regional Models of Cooperation* – New Mexico does not have regions with multiple MPOs and has a strong current structure with RPOs, MPOs, and quarterly meetings. The MPOs and State have already evaluated the innovation and decided it was not for them.
- *3D Modeling* – We do not have enough large complex projects in New Mexico to benefit; this was also evaluated under EDC2.
- *Improving DOT/Railroad Coordination* – This is not a significant issue in New Mexico, nor a priority at this time.
- *Data-Driven Safety Analysis* – We are already doing this in New Mexico for 50% of the program; the other 50% is handled by the Safety price agreements; Additionally, the State does not have sufficient crash and/or roadway data and is NOT looking to improve their data systems during the EDC-3 timeframe.

Institutionalized: *[Tool or technology]* is adopted by the State’s highway construction industry and used regularly on projects

Geosynthetic Reinforced Soil (GRS) – Integrated Bridge System (IBS) – this has been developed under EDC 1 and EDC2; several projects have been constructed; there is a process to assess whether GRS-IBS is appropriate for all NM bridges; thus this is considered mainstreamed in New Mexico and we will report on our successes/benefits. NMDOT currently has a statement in the Bridge Procedures and Design Guide that instructs bridge engineers to consider GRS-IBS for every bridge project and to coordinate with the NMDOT Geotechnical Section if GRS is appropriate.