Meeting Goals

- Open discussion on the things that are going well and how to improve
- Please discuss this agenda with others participating in NRRA in your state and get their feedback for discussion
- Each item was discussed (Black Font) and the additional comments are shown in (Red Font)

Agenda/NOTES

General Notes Overall

• MnDOT to develop a budget plan for the rest of the pooled fund. This will account for funding from years 4 and 5 and new partners. This will be in a separate email.

1. Welcome/Introductions

- a. Introductions
 - i. North Dakota also join in the meeting future state membership
- b. Round Robin / Announcements
- c. Overview of overall needs / concerns each state wants to cover

2. Overall Team Activities / Effectiveness

- a. Technical Teams Contracts ongoing see second page
- b. New team Development
 - i. Intelligent Construction Technologies
 - ii. How close does this relate to the tech transfer team?
 - iii. Scope and topics being developed Glenn noted the need for the new team to boost its effectiveness and push for innovation by having an unique team working on this area. Glenn is working on developing the topics. States (2)/associates (1) will be asked to submit names for members on this new team. Website will be developed to assist this team in June.
- c. Tech Transfer Team discussion on ideas to boost effectiveness
 - i. E-ticketing Write-up Each team member liked the idea to pursue this topic.
 MnDOT will work for get a consultant onboard to assist in this effort.
- d. Executive Team
- e. Marketing newsletters research pays off website

3. Budget

- a. Details on page 3
- b. MnDOT has determined that ~373K are still available for NRRA efforts
 - i. MnDOT will develop a plan for review and voting from the EC team. Not all members present at the meeting today.
- c. Review/discuss splits between research-tech transfer-marketing
- d. Rigid Team request ~150K for RCC pavements in Missouri
 - i. This was reduced down to ~\$60K for sensor purchase and MnDOT sensor staff travel to MO to help with the installations. Rigid team should update the work plan proposal. Will be included in the future spending plan for a vote. Included in the funding plan attached. Members present liked the investment.
- e. Seed money for new team?
 - i. Will be included in the future spending plan for a vote

4. Pooled Fund / Membership

- a. Additional States joining
- b. Fees required from states (money vs participation from others) Associates express interest in the value of participation over money
- c. Discuss Funding for years 4-5 of this pooled fund
 - i. This area was discussed and will be included in the future spending plan for a vote. Glenn will propose that States who receive more SPR dollars than Minnesota will continue to provide 150K for years 4 and 5 (all the current states) but states who want to join in years 4 and 5 (receive more SPR than Minnesota the cost is 150K but less SPR will cost will be 75K/year). Glenn Engstrom sent an email request to the team on May 29, 2018.
 - ii. States are asked to let other non-NRRA states know about the opportunities (market) NRRA membership for future years.
- d. Next Pooled Fund

5. Associate Engagement Efforts

a. MnDOT is developing a Liaison List of MnDOT staff to be assigned to each associate member to ensure they have a voice and active member to work with. The list will be shared in the near future

6. Call for Future Innovation

- a. Call for new ideas (New construction and maintenance)
- b. The NRRA website will be updated to allow entry of new ideas for the team and MnROAD staff to use for future activities. Right now MnROAD has 15+ test sections that have the research complete or the cells are expected to start showing lots of distress in the future. This is something that will also help the associate members to help promote new innovative products.

EMAIL used for VOTING - sent June 7, 2018

Voting Needed

- 1. Future Membership Funding (Agree or Not)
 - Current NRRA states asked to request and provide funding for years 4 (FY-19) and 5 (FY-20) at 150K/year
 - Current NRRA states asked to market other states to join NRRA. Funding depends if you get more or less SPR funds than MnDOT. If above cost is 150K/year if below 75K/year. See attached SPR list from 2018.
 - Additional funds expected to the budget
 - o Six (\$150k/year) States add \$1,800,000
 - Two (\$75K / year) new States add \$300,000
- 2. Spending Plan (Agree or Not can disagree with parts of the spending plan)
 - Remaining Budget Expected (2,474K Available)
 - o Years 1-3 funds = 373K
 - Years 4-5 funds = 2,100K
 - Spending Plan (next 2 years)
 - o This will be fully developed by the individual teams this is an overall view
 - o Totals Below = 2,160K
 - PCC Funding for Missouri = 60K
 - Monitoring MnROAD field data MnDOT labor years 4-5 \$400K
 - Possible Tech Transfer Implementation of NCHRP products in the states \$500K
 - Develop a team (Tech Trans) to review and suggest ideas to implement the national work on a local level
 - Intelligent Construction Technology Funding (new team budget)- \$500K
 - 4 new Topics for the original 4 technical teams \$700K (~180K team)
 - Leaves 314K for future needs

NRRA Contracts

Geo

Geo

PM

PM

SRF Consulting under contract							
NRRA Team	Title						
Flex	Tack Coats						
Flex	Longitudinal Joint Construction						
TIEX	Performance						
Rigid	Design and Performance of Concrete						
Mgiu	Unbonded Overlays						
Rigid	Repair of Joint Associated Distress						
Mgiu	Pavements						

NRRA Short Term Technology Transfer Topics

	erm Research						
NRRA	Title	Contractor					
Team							
	HMA Overlay of PCC						
Flex Rigid	& Methods in	University of New Hampshire					
	Enhancing	Offiversity of New Hampshire					
	Compaction						
	Cold Central Plant	American Engineering and Testing					
	Recycling	American Engineering and Testing					
	Fiber Reinforced	University of Minnesota Duluth					
	Concrete Pavements	Offiversity of Millinesota Bulutif					
	Early Opening	University of Bittshurgh					
	Strength to Traffic	University of Pittsburgh					
	Optimizing the PCC	Iowa State					
	Mix Components						
Geo	Recycled Aggregates						
	and Larger Subbase	Iowa State					
	Materials						
PM	Maintaining Poor	CDF Consulting					
	Pavements	SRF Consulting					
	Partial Depth Repair	Braun Intertec					

• Tech Transfer Contract Priorities / status

Larger Subbase Materials

Subgrade Design for New and

Reconstructed
Surface Characteristics of Diamond

Ground PCC Surfaces

Pavement preservation approaches

for lightly surfaced roadways

- a. Flex Tack Coats / Flex Longitudinal Joint (final drafts)
- b. PM Diamond Grinding / GeoTech Subbase Materials (starting)
- c. Topics for Future each needs more information (start in 1-2 months)
- d. GeoTech Subgrade Design for New and Reconstructed
- e. Rigid Design and Performance of Concrete Unbonded Overlays
- f. Rigid Repair of Joint Associated Distress Pavements
- g. PM Pavement preservation approaches lightly surfaced roadways
- h. Attached is an updated priority list developed after the meeting SRF will use this to communicate their needs to the technical teams.

Budget Attachment

This is for reference only – actual totals will be shared in the future once MnDOT finalizes the accounting system needed for SPR funded projects. This system will show each items for the dollars budgeted, encumbered, spent.

encum	bered	d, spe	ent.										
NRRA Fundi	ling Sumi	mary											
NIDDA Income	o (All Cou	reac)				Plann	ng	Spen	ding				
NRRA Income (All Sources)			<u> </u>		Budgeted	Avalible	Budgeted	Budgeted				_	
Funding Group			Description	Total Funding	(below)	(to use)	Spent	Remaining		Comment			
States (S				SPR - Pooled Funds (6 States)	\$ 2,450,000	2,388,848	61,152			C	A short	\$100K in 2017	
Parnership (As	ssociates)	MnDC		os (46 members - but on different schedules - assumed dollar amount for now)	\$ 216,000	54,000	162,000					1 6/00/0040	
Partnership (W	visconsin)			Wisconsin Partnership (State Funding used instead of SPR) Total	\$ 150,000 \$ 2,816,000	\$ 2,442,848	150,000 \$ 373,152	ė -	\$ -	Agr	eement	ends 6/30/2019	_
MnDOT Fu	unds			Regular MnDOT STIP (construction)	\$ 3,132,681	3,132,681	373,132	, .	,				
MnDOT Fo				Regular MnDOT Operations Funds	\$ 96,689	96,689	-						
Funding group: unique charge a				Total Grand Totals		\$ 3,229,370 \$ 5,672,218	\$ -	\$ - \$ -	\$ - \$ -				-
trackin				Grand Totals	3 0,043,370	3,072,210	373,132	, .	,				_
				NRRA Funding (SPR+Associates+WI) Splits by NRRA Focus Areas		Plann		Spen					
				SPR (Pooled Fund) Split Summary	Avalible (by percent)	Budgeted (below)	Avalible (to use)	Budgeted Spent	Budgeted Remaining	Comment			
				Marketing - 5%	140,800	130,000	10,800						
				Technology Transfer - 30% Research - 65%	844,800 1,830,400	370,000 1,942,848	474,800 (112,448)						_
				Total	2,816,000	2,442,848	373,152	-	-				$\overline{}$
NRRA Spend			Destant			F. and an		SF		nt Budget Fu		MnDOT	
NRRA Focus Areas	Effort Type	Item (Letter.#)	Project Charge	General Outcome / Deliverable	Vendors	Funding Budget	Approved Date	Budget	Spent	Partners Budget	Spent		Spen
5% (M)	Labor	M1.1	TPF15341A		MnDOT	125,000	Jan 17	125,000	- Fein	-			-
Marketing	Purchase	M1.2	Partnership	Promotional Items / Printing Costs	MnDOT PO	5,000	Jan 17	-		5,000			
	Purchase Contract	T1.1 T1.2	TPF15341 TPF15341	Agency travel / meals / meeting room costs Communication (Written, Newsletter, video, Website)	MNDOT PO TBD	115,000 40,000	Jan 17 Jan 17	115,000 40,000		-		-	+-:
	Contract	T1.3.1	TPF15341	Tech transfer write-ups (Consultant) - Topics Below	SRF	160,000	Jan 17	100,000					
					Remaining \$		Jan 17	60,000					
	Labor	T1.3.2 T1.3.3	TPF1534B	Tech transfer write-ups (MnDOT Labor) - Topics Below Tack Coats	MnDOT	30,000	May 17	30,000					1
30%	<u>.S</u>	T1.3.4	+	Longitudinal Joint Construction Performance	-								
Tech Transfer	Top (s	T1.3.5	See above	Design and Performance of Concrete Unbonded Overlays	Labor to do these								
(T)	of Practice To (Deliverables)	T1.3.6	Paid by	Repair of Joint Associated Distress Pavements	State of Practice	Dollars see T1.3.1	These are the top two topics from each team established in 2016. More subjects will be do after the completion on these intial topics. MnDOT and the contractor funding will be used						
	Pra	T1.3.7	T1.3.8 T1.3.1 T1.3.9 T1.3.2 T1.3.10	Larger Subbase Materials Subgrade Design for New and Reconstructed	topics are listed in T1.3.1 (consultant)	and T1.3.2	arter the complet		se State of Pract				usea to
	State of Practice Topics (Deliverables)	T1.3.9		Surface Characteristics of Diamond Ground PCC Surfaces	and T1.3.2 (MnDOT)								
	Sta			Pavement preservation approaches for lightly surfaced roadways									
	Purchase	T1.3.11	Dartnerchin	Partial Depth Repairs of Concrete Equipment	TBD	25,000	Jan 17			25,000		_	Τ.
	Purchase	R1.1	TPF15341	Sensor Purchase	MnDOT PO	159,130	Mar 17	159,130		23,000			Ė.
	Purchase	R1.2	TPF15341		MnDOT PO	4,000	May 17			4,000			
	Labor	R1.3	TPF1534C	Inspection (MnDOT) - MnDOT approved operating funds for any additional costs	MnDOT	81,149	Mar 17	50,400				30,749	, -
		R1.4 TPF1534D	over the initial budget - MnDOT fund from Dec 17 budget report MnROAD Staff - Construction, Sensors and Performance Monitoring										
	Lahor		TPF1534D	MnDOT approved operating funds for any additional costs - 120K approved by EC -	MnDOT	440.258	Mar 17	279,318				40,940	
				MnDOT fund from Dec 17 budget report		,	0 47	400.000					4
		R2.4 R1.5		Approved extra funding for monitoring PCC Sampling/Testing			Dec 17 May 17	120,000 20,000				-	
	Contract	R2.5	TPF15341	Additional Funding Approved (low initial estimate)	AET Consultant	75,000	July 17	55,000					
	Contract	R1.6	TPF15341	HMA Performance Testing (75K original Estimate)	TBD	75,000	May 17	75,000		-		-	-
	Contract	R1.7 R2.7	TPF15341	Partial Depth Repairs Construction (not in construction contract) Additional Funding Approved	Diamond Surfacing	80,000	May 17 July 17	40,000 40,000					
65% Research	Contract	R1.8	TPF15341	Compacted Concrete Pavement Construction (not in construction) - \$50K original	Not Done		May 17	-				-	
	Contract		11113341	Will not do - changed to \$0	NOC DOILE	-	Dec 17?						
(R)	Contract	R1.9	TPF15341	Diamond Grinding Construction (not in construction contract) - \$50K Will not do - changed to \$0	Not Done		May 17 Dec 17?						Η.
		R1.10	TPF15341	HMA Overlay and Rehab of Concrete and Methods of Enhancing Compaction	UNH		May 17	150,000					
	st	R1.11	TPF15341	Cold Central Plant Recycling	AET Consultant		May 17	100,000					
	roje	R1.12 R1.13	TPF15341	Fiber Reinforced Concrete Pavements Long Term Effects of Diamond Grinding - \$75k	UMD		May 17 May 17	150,000					
	ch P		TPF15341	Will not do - changed to \$0	Not Done		Dec 17						
	tract	R1.14	TPF15341	Conctete Early Opening Strength to Traffic	UofPitt	1,080,000	May 17	150,000					
	Long Term Research Projects (Contracted)	R1.15 R1.16	TPF15341	Optimizing the Concrete Mix Components for Contractors Compacted Concrete Pavements for Local Streets - \$80K	Iowa State		May 17 May 17	150,000					
	3 Ter		R1.17 TPF15341 Re	Will not do - changed to \$0	Not Done		Dec 17						
	Long			Recycled Aggregates in Aggregate Base and Larger Subbase Materials	Iowa State		May 17	225,000					
		R1.18 R1.19	TPF15341 TPF15341	Maintaining Poor Pavements Partial Depth Repair	SRF Braun Inertec		May 17 May 17	80,000 75,000					
		R1.19	TPF15341?	Uretk Funding - new number	Uretk	20,000	July 17	73,000		20,000			
FHWA Grant(G)	Contract	G1.1	MnDOT	Data - Website Interface	iEngineering	25,000	Nov 17					25,000	
, , , , ,				FHWA originally planned at \$25K but did not take place - MnDOT then funded Labor and purchasing as donation to the NRRA Effort - just like other states are		Will Track							4
MnDOT Funds	Many												1
MnDOT Funds (M)	Many Items	M1.1	T00547	donating - do we want/need to show this?	NA	Timesheets							
(M) Construction		M1.1 M1.2	MnDOT		C.S. McCrossan		May 17					3,132,681	
(M)	Items			donating - do we want/need to show this?		Timesheets	May 17	2.388.848		54,000		3,132,681 3,229,370	