P3 Project Specification Development

**SHRP2 R07 Performance Specifications Showcase**

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ADOT’s SR 202 South Mountain Freeway Project

PUBLIC PRIVATE PARTNERSHIP IN DEVELOPMENT OF ROAD NETWORK
The Partnership

- **ADOT Responsibility**
  - Retains ownership
  - Sets performance standards
  - Oversight

- **CCNNECT 202 Partners (C202P) Responsibility**
  - Design – build – maintain (30 years)
  - Incentive to build quality
  - Financial penalties
    - If performance and quality standards not met
Project Location
SR 202 SMF Scope

- 22 new miles
- 4.5 miles of improvements (I-10)
- 40 bridges
- 13 interchanges
  - 1 double roundabout
  - 2 half-diverging diamond
- 11 miles of sound walls
- 6 miles shared-use path
- 5 multi-use crossings
- 1 system interchange
- 1 pedestrian bridge
• Constructing Ultimate Build-Out
• 8 Lanes
  – 3 general purpose and 1 HOV in each direction
• Median Barrier
Inter-relationship of Members

- Maintenance
- Design
- Construction
- Owner
Maintenance Influence

LANDSCAPING

DRAINAGE

PAVEMENT
Design Influence

HISTORICAL PERFORMANCE

MATERIAL SELECTION

HMA vs PCCP

TIMING AND SCOPE OF REHAB
Construction Influence

SELF-PERFORM vs SUBS

QUALITY METRICS

CONSTRUCTABILITY

OPTIMIZATION
Owner Influence

ARIZONA DEPARTMENT OF TRANSPORTATION
and
CONNECT 202 PARTNERS, LLC

TECHNICAL PROVISIONS

LONG-TERM PERFORMANCE

LOCAL STAKEHOLDERS

AESTHETIC CORRIDOR
Specification Sources
Key Spec Components

- Self performed vs. subcontractor performed
- Local sub and supplier familiarity
- Known Performance
- Incentives – Disincentives

40th St Drilled Shafts
Key Spec Components

- Percent Within Limits
  - PCCP
    - Ride Quality
    - Compressive Strength
    - Thickness
  - HMA
    - Ride Quality
    - Quality Attributes (Asphalt Content, Voids, etc.)
    - Thickness

Pecos Segment Box Culvert
Pavement Section

- Overall Thickness
- Pavement Lifts
- PWL Application
- Project Commitments

Schematic Pavement Section
HDPE Pipe

- Updated current specifications
- Pipe deflection – 5% after 30-days
- Remote inspection for all pipe over 10-feet deep

HDPE Pipe Placement (Contech)
Irrigation System

- Reviewed by Maintenance
- Standard is for line of sight
- Use fiber optic line
- Spec developed for controllers
QUESTIONS

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