Meeting Minutes

MEETING DATE: December 7, 2018 (1:00 PM)

ATTENDEES:
Michael Aguilar (DPW-TW) - LEAD
Marco A. Estrada (PRSI)
Matt Pound (Escondido Material)
Suzanne Seivright (CalCIMA)
April Andrews (DPW – Recycling)
Frank Arebalo (DPM – Roads)
Bill Morgan (DPW)
Brandon Milar (CalAPA)
Chris Iaccio (Cemex)
Joshua Lahmann (City of San Diego)
Christopher Hudson (City of San Diego)

PUBLIC COMMENTS IN ACCORDANCE WITH BROWN ACT:
• No Public Comments

OVERVIEW:
• Meeting began with participants’ self-introductions. Michael Aguilar provided overview of the Alternative Pavements Subcommittee as a place to discuss types of alternative pavements; how they would affect the county road systems; and how they could improve the County of San Diego’s (County) pavement rehabilitation program. Discussion was passed back and forth around the table and everyone provided his/her own perspective on the subject.

THE COUNTY’S CURRENT PAVING PRACTICES:
• Pavement life can be increased through preservation treatments, rehabilitation or reconstruction processes.
• The County maintains over 1,900 centerline miles of roads.
• Current pavement practices include grind and pave (inlay); RHMA; HMA with RAP included; Slurry Seal (Type 2, Type 3, Cape Seal, and Rubberized); micro-surfacing (not typical); Cold In-Place Recycling (CIPR) (Pilot project, used as a base course).
• Many asphalt road surfacing is thin (less than 4”); odd sections have been created over the years that include concrete pavement on old highways, paved over concrete slabs, fabrics, lots of overlays etc.
• Short-term focus is on raising the Pavement Condition Index (PCI) as quickly and efficiently as possible.

OPEN DISCUSSION ORGANIZED BY TOPIC:

Cold-In-Place-Recycling (CIPR)
• CIPR reuses all materials in place, leads to a 40:1 reduction in trucking traffic during the operation
• CIPR can be expensive when there’s not enough material on-site to recycle, some projects end up importing aggregate
• County Traffic Engineer has raised concerns regarding CIPR because of the long equipment train and its potential to impact traffic on our narrow roads

**Fibers in Asphalt**

• Fibers used as an additive to conventional asphalt, similar to adding crumb rubber modifier or polymers; same type of fibers used in traditional concrete; fibers are thinner than a hair and coated in wax
• Typically costs approximately $9 per ton of asphalt, but can be used with higher % RAP mix to offset cost adjustment for customer
• Fibers provide higher tensile strength, combat pumping or reflective cracking; may replace need for pavement fabric which can’t be recycled and must be hand picked out of material when surface is removed; able to use in a wearing course
• Used by Arizona DOT; pilot project by City of Escondido in front of Escondido City Hall; City of San Diego mentioned that they will do a fiber additive HMA pilot project in the San Ysidro area (approximately one mile)

**Full Depth Reclamation**

• Reconstruction alternative to removing and replacing pavement with new materials; used for pavement and foundations that are beyond rehabilitation; process existing materials in place to create pavement foundation and wearing course
• Full depth reclamation process addresses unsuitable conditions in place; minimizes extra excavation and import and export of materials; potential benefits in cost and reduced impact on community and environment; 40:1 reduction in construction related traffic (reduces import and export trucks)
• Existing guidelines for engineering and construction are in Caltrans specs
• The County typically does not use full depth reclamation due to existing structural sections
• City of San Diego is interested in full depth reclamation, but challenging because overlays and slurry’s are cheaper; city streets have shallow utilities in many locations that interfere with full depth reclamation; high cost of exporting clay
• Gravel factor assignment can be used to eliminate or reduce courses
• The County spends a lot on chemically stabilizing unpaved roads to combat dust and increase structural support; PCI rating is not assigned to unpaved roads

**Recycled Demolition Material**

• Scarce availability in the region for new aggregate material and what to do with existing demolition materials other than take to a landfill
• Outlet for aggregate base is shrinking as more projects are rehabilitating existing pavement rather than constructing full depth structural sections
• Solutions are needed to reduce demand for new aggregate material
• Utilizing existing materials will benefit long term; focus on alternative recycling solutions; generate county and/or city stipulations requiring the use of a certain percentage of recycled materials

**Pavement Condition Index (PCI) Score**

• County’s initiative is to increase PCI from the low 60’s to 70’s in 5 years (by 2022); limited consideration for life cycle analysis until recently
• Need a rehabilitation program that considers reconstruction rather than maintenance for low PCI roads
• Need criteria for deciding between short term vs. long term solutions

Alternative Concrete Pavements
• Consider conventional concrete pavement, concrete overlay, roller compacted concrete
• Roller compacted concrete is most similar to asphalt (low slump); used in City of Roseville; can be expensive up front but lasts longer
• The traffic volumes on county roads lends itself to asphalt
• Industry representative provided hand-out to the subcommittee regarding concrete alternatives

ACTION ITEMS
• Michael Aguilar will create a list of recommendations for this group to review, the list will be shared at December 17, 2019, at the Building Better Roads Working Group meeting.