

Alabama, Florida, Georgia, Kentucky, and Tennessee

SEAUPG State Update Central Survey



Asphalt Tonnage

Tons HMA placed statewide (private/public):

- 4 million tons

Tons HMA placed by DOT:

- Unsure





Asphalt Tonnage

Tons HMA placed statewide (private/public):

Tons HMA placed by DOT:

- FY 17/18 4,160,368.84 tons
- 1,288,521 tons structural mixes
- 2,871,847 tons friction courses





Asphalt Tonnage

Tons HMA placed statewide (private/public):

Tons HMA placed by DOT:

- 4,482,645 tons





Asphalt Tonnage

Tons HMA placed statewide (private/public):

Tons HMA placed by DOT:

- 2.41 million tons of HMA placed by industry.
- 1.36 million tons of WMA.





Asphalt Tonnage

Tons HMA placed statewide (private/public):

- 9.2 million tons (NAPA estimate)

Tons HMA placed by DOT:



- 2.5 million tons



2019 Forecast

What is the state of the DOT Funding for 2019?
Is the level of asphalt work set to increase / decrease / hold steady in 2019?



- Capacity and Resurfacing budgets ran over by \$20 million and \$24 million respectively.
 - Large capacity projects in Shelby, Conecuh, and Tuscaloosa Counties contributing to overages.

2018 Fiscal Year

What is the state of the DOT Funding for 2019?



Category	Budgeted	Remaining
IM	\$190.0M	-\$6.0M
Capacity	\$132.1M	-\$20.0M
Bridge	\$91.0M	\$0.0M
Resurf.	\$260.0M	-\$24.0M
Safety	\$53.1M	-\$0.1M

2019 Forecast

What is the state of the DOT Funding for 2019?



Category	Budgeted	Change
IM	\$174.0M	-\$16.0M
Capacity	\$104.8M	-\$27.3M
Bridge	\$92.0M	\$1.0M
Resurf.	\$264.0M	\$4.0M
Safety	\$54.2M	\$1.1M

2019 Forecast – Debt Servicing

- ATRIP debt service
\$246.2M paid and \$1.1B remaining
- RAMP debt service
\$11.6M paid and \$15.1M remaining
- CBD debt service
\$57.6M paid and \$1.07B remaining

\$315.4M PAID WITH \$2.18B REMAINING
AVERAGE PAYMENTS \$130M/YEAR

2019 Forecast



FLORIDA DEPARTMENT OF TRANSPORTATION WORK PROGRAM
TOTAL CONSTRUCTION
FY 2019 - 2023

Five Year Summary

Capacity Improvement	17,462.0	72%
Resurfacing	4,250.0	17%
Bridge	2,260.0	8%
Safety	658.0	3%

Annual Program Levels



Fiscal Year	Total Construction (\$M)
2019	\$5,274.1
2020	\$5,003.0
2021	\$4,273.9
2022	\$4,694.6
2023	\$5,040.8

2019 Forecast

What is the state of the DOT Funding for 2019?
Is the level of asphalt work set to increase / decrease / hold steady in 2019?



- Same outlook for 2019.

2019 Forecast

What is the state of the DOT Funding for 2019?



- Consistent with recent years
 - Approx. \$700-800 million from state road fund
- \$30 million allocated for Preventative Maintenance Program

2019 Forecast

Is the level of asphalt work set to increase / decrease / hold steady in 2019?

- Hold steady with continued rise of Preventative Maintenance Program

2019 Forecast

What is the state of the DOT Funding for 2019?
Is the level of asphalt work set to increase / decrease / hold steady in 2019?



- Resurfacing Program:
 - Approx. \$230 million




Asphalt Program Updates

Do you have any upcoming major specification changes?



- Looking to add Distributor Truck Calibration at the project level.

Asphalt Program Updates

Do you have any upcoming major specification changes?

- Implementation of ΔT_c
 - Our binder specification will be modified to mandate a maximum of 8% REOBs; ΔT_c requirement of $\geq -5.0^\circ C$ on 20 hour PAV aged material.

Asphalt Program Updates

Do you have any upcoming major specification changes?



- 400 – Smoothness Requirements for Bridge Approaches
- 413 – New tack coat materials and application rates
- 820 – New Format, New Materials and MSCR
- 828 – Change in Performance Testing
Eliminating APA, Including Hamburg, new mix design verification requirements.




Asphalt Program Updates

Do you have any upcoming major specification changes?



- Single, low gyration level (Ndes = 65) for all mixtures
- Looking at adjustments to Dust to Binder ratio, Minimum Asphalt Contents, and Design VMA
- Simplified & Improved methods for mix design approvals

Asphalt Program Updates



Do you have any upcoming major specification changes?

- Changing ride spec from HCIRI/PRI/Profile Index to IRI across the board
- Tougher restrictions for cold weather paving
 - No exceptions to temp for OGFC/Thin Lifts
 - More comprehensive plans req'd for dense mixes
- Pneumatic Roller method spec for non-surface mixes.



MSCR Implementation

- What level of implementation for MSCR are you?
 - Possibly this year.
- Do you specify Binder by M320 or M332?
 - M320 and keeping the M320 designations for MSCR
- DSR testing temperature (by grade or climate)?
 - Climate
- Do you use the X1 Curve in the specification?
 - Most likely will use it.



MSCR Implementation

- What level of implementation for MSCR are you?
 - Full implementation for both modified and neat binders.



MSCR Implementation

- Do you specify Binder by M320 or M332?
 - Both AASHTO M320 and M332
- DSR testing temperature (by grade or climate)?
 - Both, depending on grade.
- Do you use the X1 Curve in the specification?
 - Yes, except for High Polymer (HiMA) binders.



MSCR Implementation

- What level of implementation for MSCR are you?
 - New Specification includes it.
- Do you specify Binder by M320 or M332?
 - Both
- DSR testing temperature (by grade or climate)?
 - Grade
- Do you use the X1 Curve in the specification?
 - Yes



MSCR Implementation

- What level of implementation for MSCR are you?
 - MSCR implementation for polymer-modified binders
- Do you have plans for further implementation?
 - Yes, for all binders



MSCR Implementation

- Do you specify Binder by M320 or M332?
 - M320
- DSR testing temperature (by grade or climate)?
 - By climate
- Do you use the X1 Curve in the specification?
 - No



MSCR Implementation

- What level of implementation for MSCR are you?
 - Adopted MSCR as our new "Plus Tests" replacing Elastic Recovery and Ring and Ball.
 - I.e. M320 requirements plus MSCR
- Do you have plans for further implementation?
 - No plans for further implementation



MSCR Implementation

- Do you specify Binder by M320 or M332?
 - M320
- DSR testing temperature (by grade or climate)?
 - Grade
- Do you use the X1 Curve in the specification?
 - Yes for PG76-22 & Flat 29% min. for PG70-22

Balanced Mix Design

- Have you or do you plan on a Balanced Mix Design Method?
 - Yes, would like to head that direction.
- If yes, where are you in implementation?
 - Still trying to determine which cracking test will work best with our mixes.

Balanced Mix Design

- Have you or do you plan on a Balanced Mix Design Method?
 - Not at this time.
- If yes, where are you in implementation?
 - We are interested observers.
- Which tests are you using/considering?
 - APA and Hamburg plus cracking tests when it all gets sorted out.




Balanced Mix Design

- Have you or do you plan on a Balanced Mix Design Method?
 - Working toward mix design improvements.
- If yes, where are you in implementation?
 - Still researching performance tests.
- Which tests are you using/considering?
 - IDEAL-CT being considered and studied, Hamburg just implemented, permeability required, moisture susceptibility currently required.



Balanced Mix Design

- Have you or do you plan on a Balanced Mix Design Method?
 - Yes
- If yes, where are you in implementation?
 - Planning stages with experimental projects in 2019
- Which tests are you using/considering?
 - IDEAL-CT & Hamburg Wheel Track Test




Balanced Mix Design

- Have you or do you plan on a Balanced Mix Design Method?
 - Yes, currently in development.
- If yes, where are you in implementation?
 - Internal research, attempting to catalog values for existing mixes.
- Which tests are you using/considering?
 - Hamburg, IDEAL-CT




2018/2019 Initiatives

- Did you have any new product/method initiative in 2018, if so what was learned?
 - Would like to do some 100% recycle mixes using the cold central plant process.




2018/2019 Initiatives

- Did you have any new product/method initiative in 2018, if so what was learned?
 - Cantabro testing for OGFC.
 - FTIR, e.g. does the binder contain polymer.
 - OGFC Mixtures containing more dust.
 - ΔTc
 - REOB Testing





2018/2019 Initiatives

- Did you have any new product/method initiative in 2018, if so what was learned?
 - Modifying current recognized RAP binder replacement credit from 75% to 60%.



2018/2019 Initiatives

- Did you have any new product/method initiative in 2018, if so what was learned?
 - Non-Tracking Tacks
 - Time Sensitive for laboratory testing
 - Questions about bond stress between surface and tack
 - 65 Gyration Mixtures (4 Trial Projects)
 - Thus far, durability comparable to conventional mixtures
 - More experimental use of fibers and rubber modified binders



2018/2019 Initiatives

- Did you have any new product/method initiative in 2018, if so what was learned?
 - 38 projects utilizing Intelligent Compaction






Additional Info

- Gas Tax
 - No additional revenue since 1992.
 - 2017: AL, LA, & MS – Rest have added funding.
- Every 1 cent covers about \$26 million in debt.
- Current gas tax allocates certain formula to cities and counties.
- 6 cents needed to cover debt and locals.
 - Would break even starting in 2020.



Additional Info

- Is there anything else that you would like to share?
 - Trackless tack. There are isolated issues, but contractors are learning how to handle and apply the material.

Additional Info

- Is there anything else that you would like to share?
 - Currently plan to fully implement Balance Mix Design practices by 2021

Additional Info

- Is there anything else that you would like to share?
 - Dynamic modulus and fatigue testing once our AMPT is operational again.
 - Catalog our mixes.

