



NORTH CAROLINA

Department of Transportation



Considerations for Establishing Contract Time

Ken Kennedy, PE - Contract Time Engineer

February 7 & 8, 2017

Topic Outline

- Typical Project Requirements
- Strategic Letting
- Seasonal / Temperature Restrictions
- Traffic Restrictions
- 3rd Party Considerations / Interests



Typical Project Requirements

- Guidelines use the following rates for Resurfacing & Surfacing projects:

• Base Course (Widening or Leveling)	100 to 400 Tons/Day
• Intermediate Course	500 to 1,000 Tons/Day
• Surface Course	500 to 1,000 Tons/Day
• AST	5,000 to 10,000 SY/Day
- Factors to consider when selecting an appropriate rate include, but are not limited to, plant location, type of roadway/facility, length of project, lane closure restrictions, asphalt mix's temperature requirements, milling requirements, and/or other projects located in the area.

Typical Project Requirements

- Typically use sixteen (16) Working Days per Month.
- The Number of Working Days per Month may be accelerated for a variety of reasons, including but not limited to, a high Road User Cost, Project Commitments to schools, other neighboring projects, and/or a requested Completion Date.
- A project's schedule should not be accelerated more than twenty (20) Working Days per Month.

Strategic Letting

- Strategic Letting is purposely letting one or more projects during a specific time of year.
- Advantages include, but are not limited to, avoiding a special event or holiday, preventing a Division (or an area) from being saturated with construction, balance the letting over the course of a fiscal year for bidding purposes, to allow Contractors the opportunity to bid on more projects, completion of route(s) in preparation of special events or other projects.



Strategic Letting

- Typical resurfacing projects should be completed in a single Construction Season.
- Earliest Date of Availability for a Raleigh-Let project is typically forty-one (41) calendar days after the Letting. DOA may be accelerated depending on a project's need for bonds, good-faith effort, emergency status, etc.



Strategic Letting



- Example: Bladen County (Division 6) has allocated funds for three (3) Resurfacing Packages to be completed during a single Construction Season. Each package is estimated at \$1.5 million; each includes similar number of maps with the same amount & type of work, and each should take approx. three (3) months to complete.
- Why should all of the packages not be in the same February Letting (earliest DOA would be the beginning of April)?

Strategic Letting



- Factors: Per the NCDOT-GIS, there are no asphalt plants located in Bladen County (data from 2013). However, there are plants in neighboring counties. So if each package was let at the same time, then materials & hauling cost would increase.
- What happens if you bid on and win all of the packages? Will your forces be stretched too thin? Will you meet your Completion Date for each package?

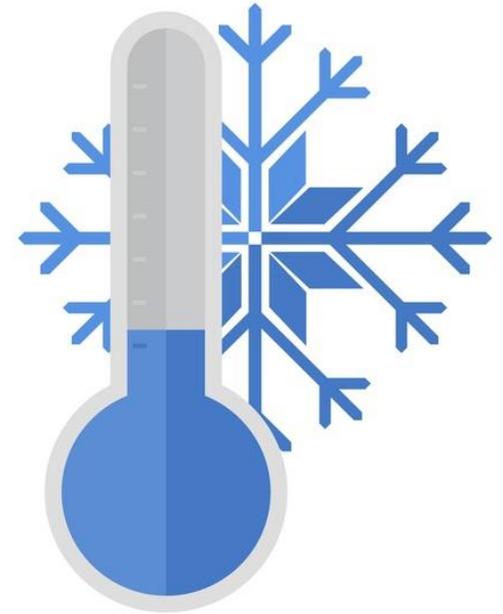
Strategic Letting



- What if you bid on only a single package and do not win it? Will your equipment become idle?
- So by using Strategic Letting, the Department may place one package in February, another in April and the last in June. Every Contractor will have a chance to bid on each package. The February package should be complete before the June package's DOA (in late July), and the June package should be completed by the end of the construction season.

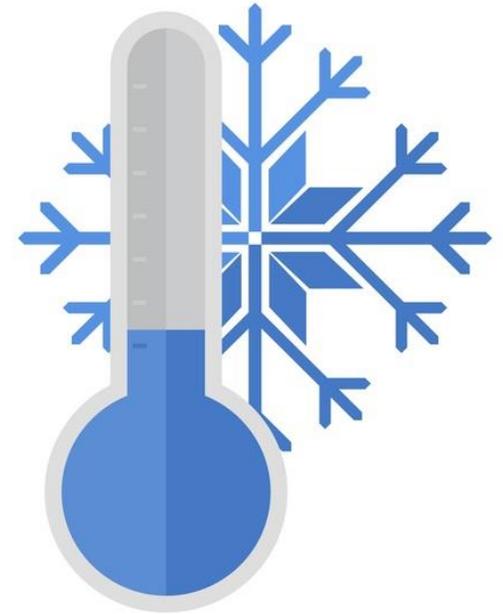
Seasonal / Temperature Restrictions

- The SPECS outline Asphalt Pavement Limitations as follows:
- ACBC & ACIC 35°F
- ACSC (S4.75A, SF9.5A, S9.5B) 40°F
- ACSC (S9.5C, D, S12.5C & D) 50°F
- AST 50°F
- OGFC (FC-1) 50°F
- OGFC & Ultra-Thin 60°F



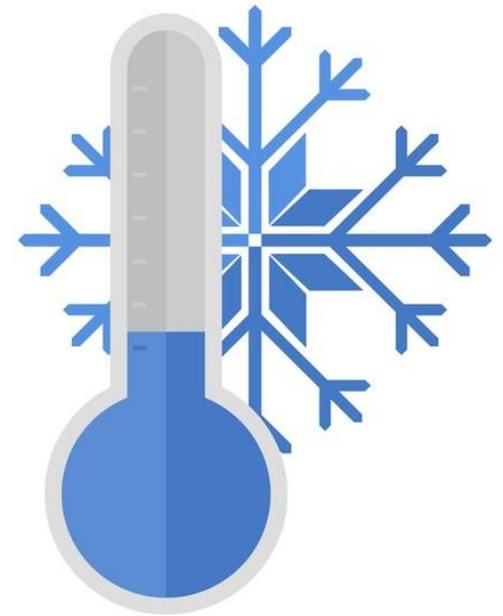
Seasonal / Temperature Restrictions

- OGFC & Ultra-Thin None to be placed between October 31st and April 1st
- AST None to be placed between October 15th and March 16th, except where overlaid w/ plant mix
- Surface Course (Final Layer) None between December 15th and March 16th (if greater than 1") or between November 15th and April 1st if less than 1"



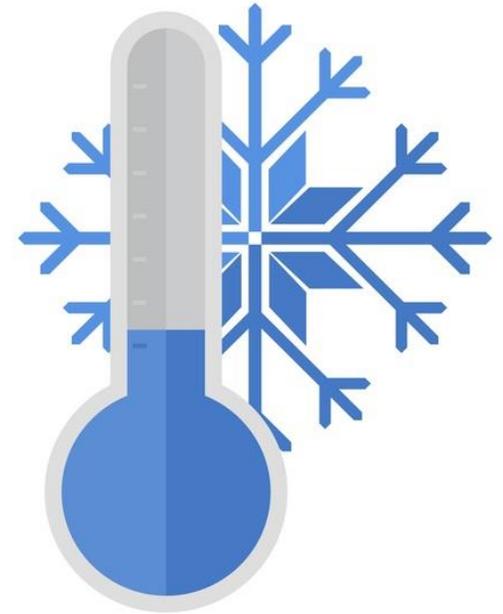
Seasonal / Temperature Restrictions

- Previous Example: Bladen County Resurfacing Packages in February, April, and June Lettings.
- Should a package with AST be in the February, April, and June Letting? A package with OGFC?
- Example: What if the same situation occurred in Madison County (Division 13), and each Package had S9.5D? Should the Lettings be staggered at February, April, and June?



Seasonal / Temperature Restrictions

- Pavement Marking Consideration: What type of PMs are required after the Final Surface Course? Does the PMs have Seasonal or Temperature Restrictions?
- For Thermoplastic, the area of the state you work in matters! The season's Completion Date ranges from November 15th until December 15th.
- Polyurea has a Temp. Restriction (40°F), but also has a fifteen (15) day waiting period, per Specs.



Traffic Restrictions

- Consider traffic's effect on work production.
- Due to traffic volume (AADT) on a typical Interstate, most work is completed at night.
- This is not always the case on US-Routes, NC-Routes, and/or secondary roads. Other restrictions may be considered, such as Peak Hour or Directional.



Traffic Restrictions



- Example: US-220 located on the north side of Greensboro. “Battleground” Avenue is a Multi-Lane Facility stretching from Wendover Avenue, past Bur-Mill Park, toward Summerfield.
- AADT = 29,000 to 38,000 near Wendover Ave.
- AADT = 20,000 to 27,000 near Bur-Mill Park
- AADT = 13,000 to 15,000 towards Summerfield
- AADTs based upon 2013 (SDV – NCDOT GIS)

Traffic Restrictions



- “Battleground” near Wendover Ave. is predominantly commercial. Night Work may be the better option for lane closure restrictions.
- “Battleground” near Bur-Mill Park is a mixture of commercial and residential. Peak Hour restrictions may be a good option.

Traffic Restrictions



- “Battleground” towards Summerfield is predominantly residential and similar to a commuter route. Directional restrictions may be a good option.
- Will heavier traffic volumes have an effect on production rates?

3rd Party Considerations / Interests

- Commercial Properties – How will the project impact local business?
- Festivals / Special Events – What impact will these have on the project?
- Misc. – How will the presence of churches impact your project? Hospitals?
Schools? Port Authority?

3rd Party Considerations / Interests

- Moratoria – What type of moratoria are present? How will moratoria affect the Contract Time? What work can be completed during the moratoria? Does any moratoria have a buffer zone?
- Permits – Will all permits be signed & in-hand prior to opening bids?
- Railroad – Has a Railroad Agreement been signed? Will railroad flaggers be able to work longer than forty (40) hours per week?

3rd Party Considerations / Interests

- Right-of-Way (ROW) – Has all of the ROW required for the project been acquired? Are there Delays of Entry? How long will it take for Delays of Entry to be resolved?
- Utility Relocation – Are there Utilities that will need to be relocated prior to the project's construction? Can Utilities' and the Contractor's work be completed concurrently? How long will Utility companies need to complete relocation? Has “piggybacking” operations been taken into account?

Q & A

- Ken Kennedy, PE
Contract Time Engineer
Contract Standards & Development
- (919) 707-6919
drkennedy1@ncdot.gov

