New Deck Curing Procedures



Northbound Structure built 2016

Capitol Int.-
Cedar Int.
Project



Southbound Structure built 2017

- **Outline**
- Before Placement
- After Placement
- Curing Sequence
- Crack Assessment

- Before Concrete Placement
- During Concrete Placement
- Curing Sequence
- Crack Assessment

This is new to Contractors

- Outline
- **Before Placement**
- After Placement
- Curing Sequence
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Go over specs..

- At Preconstruction Meeting
- Again, in detail, at the Pre-Placement Meeting
- Identify which Contractor personnel will be on site to monitor temps/add plastic and blankets
- MDT also needs an inspector on site until the blankets go down.

Deck Cure Worksheet

- Outline
- **Before Placement**
- After Placement
- Curing Sequence
- Crack Assessment

Find it on the MDT website under construction worksheets or email me.

We want to track certain data about the placements

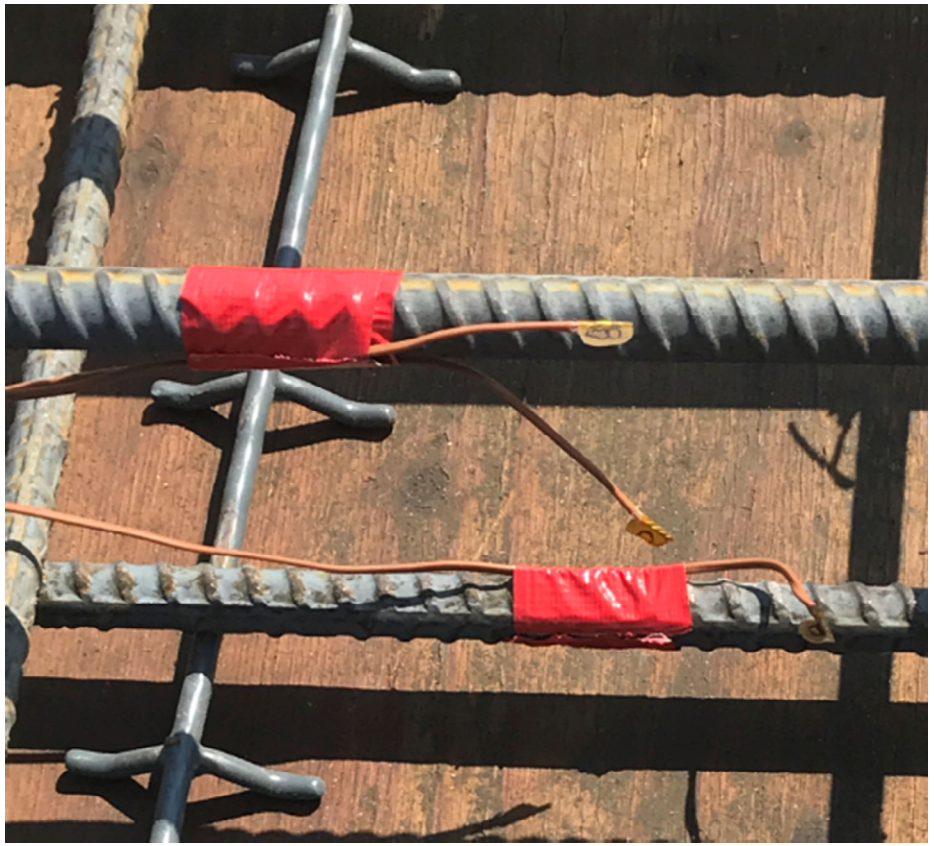
You will need the worksheet during placement and during cure phase.

Temperature Probes

- Outline
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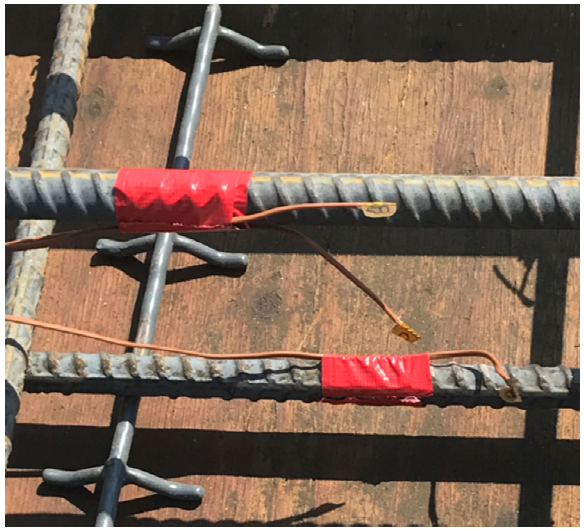
In 3 locations per concrete placement, place 4 probes:

- 2’ above deck
- Top Mat
- Middle
- Bottom Mat



Temperature Probes

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Get familiar with the probes beforehand.

Download/install free software (see special provision)

Practice collecting data, changing batteries, etc.

- Outline
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- **During Placement**
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During Placement

- Fogging
- Burlap
- No plastic sheeting yet



- Outline
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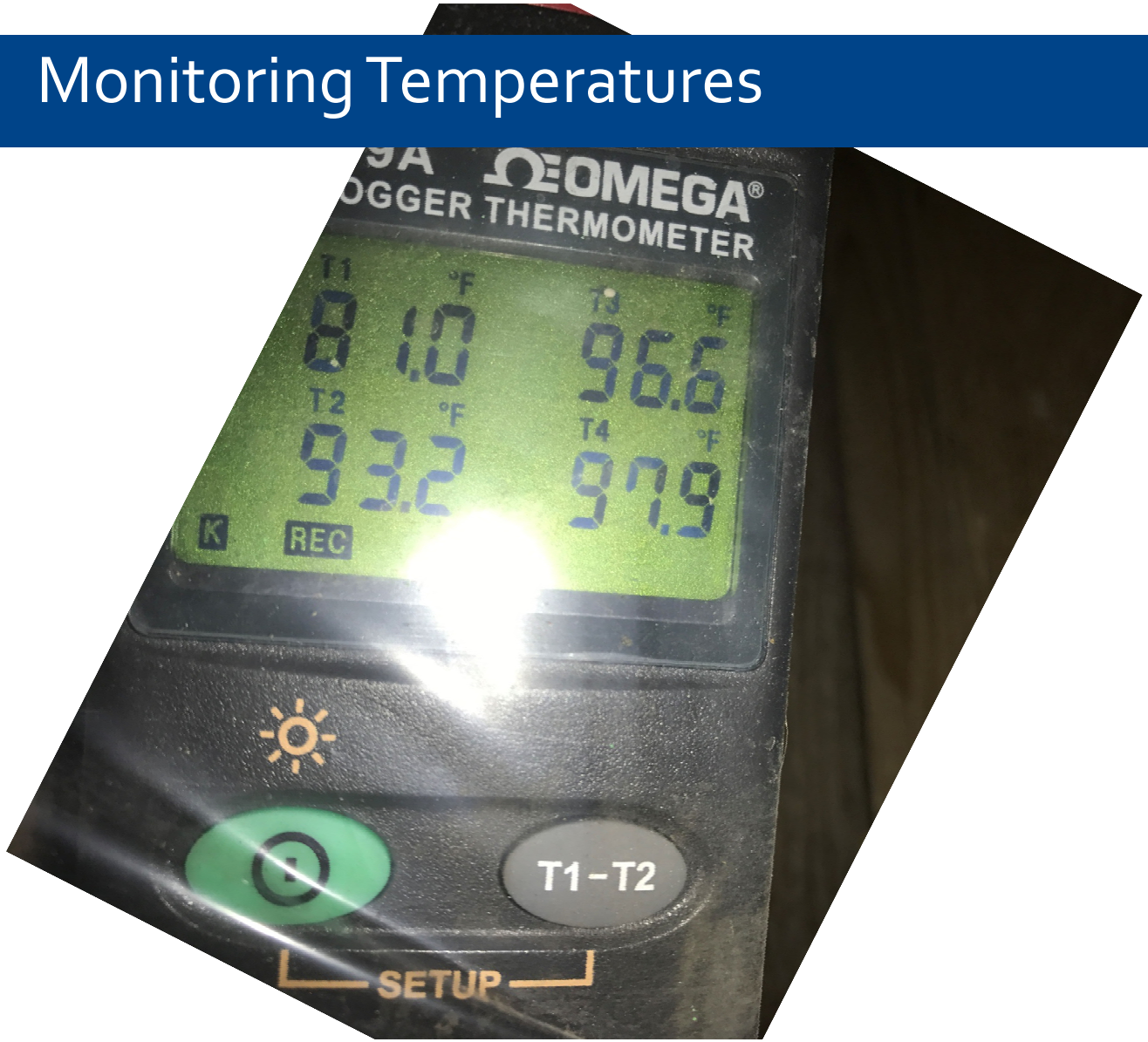
Fogging the burlap is continued to keep concrete cool.

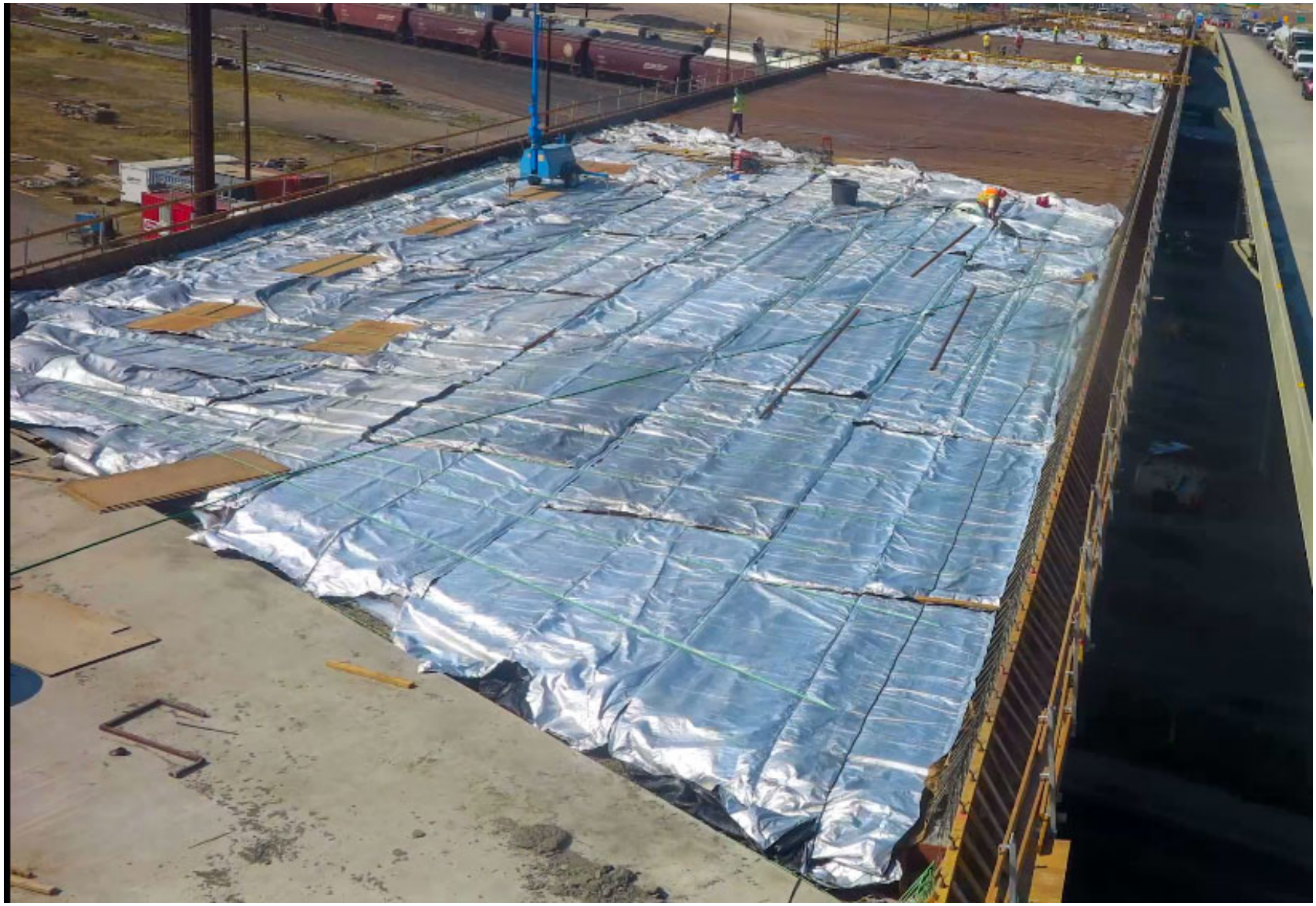
Soaker hoses placed when possible.

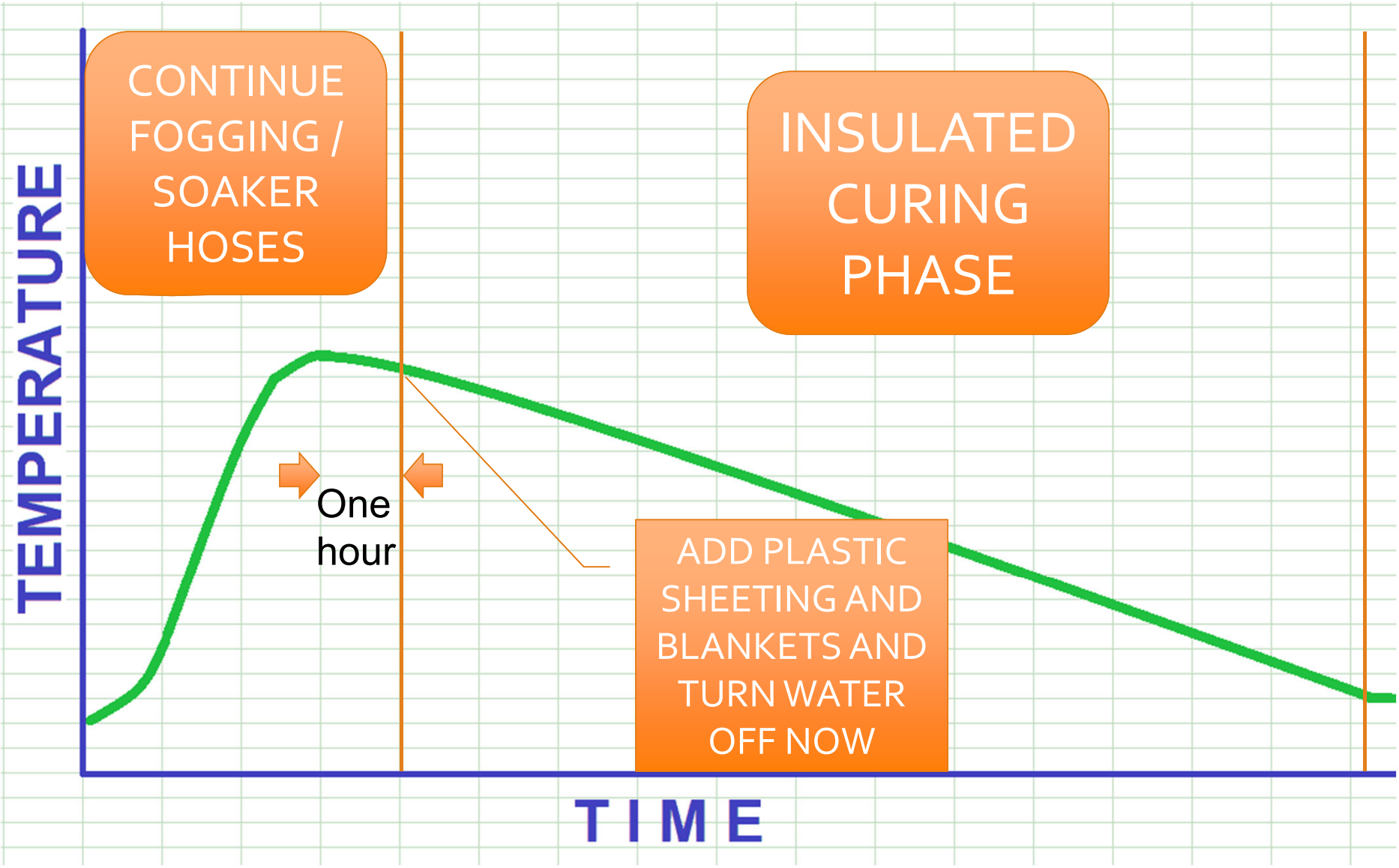
One hour after concrete temps peak, plastic sheeting and concrete blankets are placed(silver side up), water is turned off.

Monitoring Temperatures

- Outline
- Before Placement
- During Placement
- **Curing Sequence**
- Crack Assessment






CONTINUE FOGGING / SOAKER HOSES
INSULATED CURING PHASE
TEMPERATURE
One hour
ADD PLASTIC SHEETING AND BLANKETS AND TURN WATER OFF NOW
TIME

Remove Cure Materials When

- Outline
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- Concrete is within 5 degrees of outside air temp, *and*
- Temperatures within the deck are uniform (within 10 degrees), *and*
- At least 96 hours cure time



Crack Assessment

- Outline
- Before Placement
- During Placement
- Curing Sequence
- **Crack Assessment**

- Mark cracks with a keel (crayon) as the deck dries.
- Draw a diagram of the deck and show crack locations/spacing/widths.
- Send worksheet and map to Fred or Shane.





Questions?

