

10/31/2023

RE: Hyde Park City – Cold Weather Paving Plan

2017 APWA Manual of Standard Specifications identifies the following requirements:

Section 32 12 16.13 Part 1.6

WEATHER

- A. Temperature:
 - 1. April 15 to October 15: Place pavement when air temperature in the shade and the roadway surface temperature are above 50 deg F. The ENGINEER determines may provide written approval if it is acceptable to place outside of this temperature limit.
 - 2. Before April 15 and after October 15: Provide a Cold Weather Paving Plan. ENGINEER must accept the plan before proceeding. Include the following details.
 - a. Haul details.
 - b. Placement details.
 - c. Compaction aids used in production.
 - d. Coordination procedure for acceptance and testing.
- B. Moisture: Do not place on frozen base, during adverse climatic conditions such as precipitation, or when roadway surfaces are wet or icy.

APPROVED COLD WEATHER PAVING STANDARDS FOR HYDE PARK RIGHTS OF WAY:

1. City Requirements

- a. Unless specified below, all current Hyde Park construction standards shall apply.
- b. All standard subgrade/subbase compaction and proof rolling is completed per current City specifications
- c. Cold weather paving shall not start without a city engineer or designee on site confirming that all conditions of the Cold Weather Paving Plan have been and are being followed and provides in writing (or email) to the Contractor an approval to commence.
- d. 72 hour notice prior to planned paving shall be given to the city.
- e. Specific standard for pavements placed outside of the City right of way (driveways, parking lots, etc) shall follow the Cold Weather Paving Standards as identified herein.
- f. **After October 15th and before April 15th**, when the ambient temperature is 45 degrees F. and rising and expected to reach and remain above 50 degrees F. (as determined by the city engineer or designee) for the duration of the daily paving activities, the city engineer or designee may approve paving activities to proceed as normal without any special requirements.

- g. **After October 15th and before April 15th** when the following conditions are met (as determined by the city engineer or designee), cold weather paving may be completed under the conditions identified in items 2 through 4 below as agreed to by the Contractor.
- i. When the ambient temperature is 35 degrees F and rising,
 - ii. Ambient temperature is expected to reach and remain above 40 degrees F.,
 - iii. The roadbase is not frozen,
 - iv. And the roadbase temperature is at least 32 degrees F. as determined by the city engineer or designee.
 - v. The climatic conditions are not adverse, such as precipitation or when roadway surface is wet or icy.

2. Haul Details

- a. Minimum Asphalt Temperature in the haul truck at the jobsite (as measured by the city engineer or designee just prior to loading into the paving machine hopper):
 - i. 280 degrees F for asphalt lifts of 2 inches to 3 inches;
 - ii. 265 degrees F for asphalt lifts greater than 3 inches.
- b. Trucks not meeting requirements shall be rejected.

3. Placement Details

- a. Placement shall conclude once the ambient temperature falls below 35 degrees F. as determined by the city engineer or designee.
- b. Ambient temperatures shall be determined by the city engineer or designee based on real time data from the closest station on the USU Environmental Observatory Website at <https://caas.usu.edu/weather/>. The city engineer or designee may elect to use an alternate temperature measurement method if the temperature at the USU site does not appear to accurately reflect current conditions at the jobsite.
- c. Asphalt shall be placed by means of haul trucks dumping directly into a paving machine hopper which shall be performed in continuous succession. Truck delays from the time one truck empties to the time the next truck is onsite shall be no greater than 10 minutes.

4. Compaction Adis used in Production

- a. A certified materials testing company representative paid for by the contractor shall be present onsite at all times during asphalt paving operations.
- b. A rolling pattern shall be established with the first few trucks of asphalt to achieve the highest densities possible. The rolling pattern shall be developed by the materials testing technician and the roller operators using a nuclear density gauge device and the best available theoretical or actual maximum density of the mix design.
- c. Final rolling and compaction to the minimum degree specified shall be completed before the mat temperature drops below one hundred and eighty (180) degrees F, when measured one-half (½) inch below the surface or mat.

- d. Rollers shall be operated by competent and experienced personnel. The number and weight of the rollers shall be sufficient to compact the asphalt concrete to the minimum degree specified while the mix is still in a workable condition and as otherwise specified herein.
- e. If any single nuclear density compliance test is less than 92% relative density once the mat has cooled below 180 degrees, two additional tests shall be taken each 30 feet away along the same paving lane. If the average of the three tests are lower than 92%, this shall result in the conclusion of asphalt paving for the day and paving shall not resume until a remedy is identified by the contractor and agreed to by the city Engineer.
- f. If asphalt activities are concluded due to low nuclear density compliance testing results, the remaining asphalt that has been placed shall be compacted and tested by means of nuclear density testing. All areas of contiguous failing tests shall be sawcut and removed prior to constructing additional asphalt improvements.

By signing below, the Asphalt Contractor, Project Owner, and Hyde Park City agree to the conditions stated above as the Cold Weather Paving Plan.

Contractor's Representative

Date

Owner's Representative

Date

City Engineer

Date