

# Materials Testing Policy

- A. Asphalt Concrete (AC) Testing: The permit holder shall arrange for and pay all costs associated with ensuring that asphalt concrete placed meets Greenbook Section 302-5.6.2 (Density and Smoothness)  
The permit holder shall have a state certified lab pull a minimum of 1 sample per 500 tons of the material being placed each day paving operations are conducted. The material shall be tested for:
- Asphalt content CTM (California Test Method) 382
  - Sieve analysis of extracted aggregate ASTM D 5444
  - Lab compacted unit weight Hveem (PCF) CTM 304 & 308
- The asphalt concrete material placed in the field shall be compacted to 95 % of this density, compaction testing shall take place concurrently during the paving operation to ensure compliance.
- B. Concrete Testing: The permit holder shall arrange for and pay all costs associated with ensuring that concrete placed meets the following minimum requirements per the Greenbook:
- Tests for Portland Cement Concrete (Section 201-1.1.5)
    - Structures  
The permit holder shall have a state certified lab pull 4 samples (concrete cylinders) for each structure. The samples shall be tested for compressive strength (California test C39). No backfill until test results have been reviewed and accepted by the City of Ontario. A structure is defined as a storm drain junction structure, a storm drain catch basin, storm drain outlet structure, or any type of improvement that the inspector determines needs to be tested.
    - Concrete Paving  
The permit holder shall have a state certified lab pull 3 samples (concrete cylinders) for every 100 Yards of concrete paving. The samples shall be tested for compressive strength (California test C39).
  - No tests shall be required for curbs, gutters, sidewalk, etc.
- C. RCP Storm Drain Pipe: The permit holder shall provide a Certificate of Compliance from the pipe manufacturer per Section 207-2.9.1 of the Greenbook. Each section of pipe shall be visually inspected at the job site by the city inspector prior to installation. Section 207-7.2.8 of the Greenbook Lists the reason for rejection.
- D. Emulsion-Aggregate Slurry (EAS): The permit holder shall ensure that all slurry placed conforms to Greenbook Sections 203-5.4 through 203-5.5.4.
- E. Water and sewer pipe materials shall be tested in accordance with the City of Ontario "Water and Sewer Construction Specifications" document.
- F. Traffic signal, signing & striping and street lighting materials and testing shall be in accordance with City of Ontario Special Provisions.
- G. All material testing will be as directed by the City of Ontario.
- H. All material test submittals shall be delivered to the City Inspector/Project Manager for review and approval.
- I. Subgrade and Crushed Aggregate Base (CAB) Compaction Tests: City Inspector shall be provided subgrade and CAB compaction test results at least 2 days prior to placing CAB or AC base respectively. Subgrade and CAB must be compacted to a minimum of 95%, measured by either a nuclear density gauge or sand cone with at least one test every 200' maximum, staggered in each lane of travel.
- J. A shuttle buggy shall be used for asphalt cap paving in excess of 500 tons per day for all collector and arterial streets.