Non-Conformance & Non-Performance
Definitions

- **NonConformance (NC)**: pertains to the physical material or work not meeting specifications.

- **NonPerformance of QMP (NP)**: pertains to insufficient actions executed under the requirements of QMP specifications.
NC & NP Background

- Tracking statewide material NonConformance and NonPerformance of QMP

- Internal tool for quality assurance evaluations, for identifying trouble areas in need of improvement, and for ensuring consistency and fairness in addressing NC/NP issues within the regions and statewide.
NC & NP Trends

Reported NC & NP Occurrences

Number of Issues

<table>
<thead>
<tr>
<th>Year</th>
<th>NC Total</th>
<th>NP Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>233</td>
<td>233</td>
</tr>
<tr>
<td>2017</td>
<td>249</td>
<td>252</td>
</tr>
<tr>
<td>2018</td>
<td>362</td>
<td>368</td>
</tr>
</tbody>
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Chart Area
NC Examples - QMP Materials

- **Base Aggregate**
  - NC gradation
  - Low fractured faces
  - High plasticity or liquid Limit

- **Concrete**
  - High/Low air
  - High/low slump
  - Low strength
  - NC gradation

- **HMA**
  - High/low Air Voids
  - Low VMA
  - Low TSR
  - NC asphalt binder
  - Low Density (or high for SMA pavements)
NC Examples Non-QMP Materials

- Backfill
  - NC gradation, plasticity, or liquid limit

- Geosynthetics—Geotextile Fabrics or Geogrids
  - Low grab tensile strength, low puncture strength, etc.

- Document indicates wrong ASTM/AASHTO standard
  - PMCs should detect these and reject the material.

- Product not on a department APL
  - PMCs should detect and not allow material to be incorporated into the work
Primary NC Issues

- Concrete Masonry
  - High Slump

- Concrete Pavement
  - Low Air
  - High slump

- Aggregates
  - NC Gradation
Disposition of NonConforming Material

- The disposition of NonConforming materials is the engineer’s decision and should be based on sound engineering judgment.

- When engineers are faced with these difficult decisions, they should consult with subject-matter experts for guidance.
NonPerformance of QMP Examples

- Missed Sample(s) / Test(s)
- Wrong sample or test location (non-random)
- Improper documentation and/or reporting
- Insufficient WisDOT notification
- Non-certified sampler / tester
- Unqualified laboratory or equipment
- Improper sampling or testing method
Primary NP of QMP is Missed Tests

- Various Reasons for missed Tests
  - Not familiar with the QMP specification
  - Improper tracking of quantities
  - Inaccurate estimate of quantities
  - Mix design change without notification.
QMP Disincentives

- NC and NP pay adjustments are administered by project staff.
- Project staff must run all NC & NP disincentives through the regional materials engineer for regional consistency and statewide uniformity.
Communication is Key