

Airport Pavement Layout for PCI Inspections

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Pavement Layout

- First time inspection
- Procedures for Office
- Procedures for Field
- Cautions

Pavement Section Priorities

1. Use
2. Construction History
3. Maintenance History
4. Traffic
5. Condition

Office Procedures

- **Auto Cad Drawing base plan**
- **Construction history**
- **Operations history**

Field Procedures

- Check Construction
- Identify traffic sections
- Adjust for conditions – add sections
- Verify distances

Simple layout



Simple

- New Runway – 1000 m by 15 m
 - 3 sections two touchdown and middle
- New Taxiway – 60 m by 15 m
 - 1 section
- Apron
 - Traffic Channelization

Moderate layout



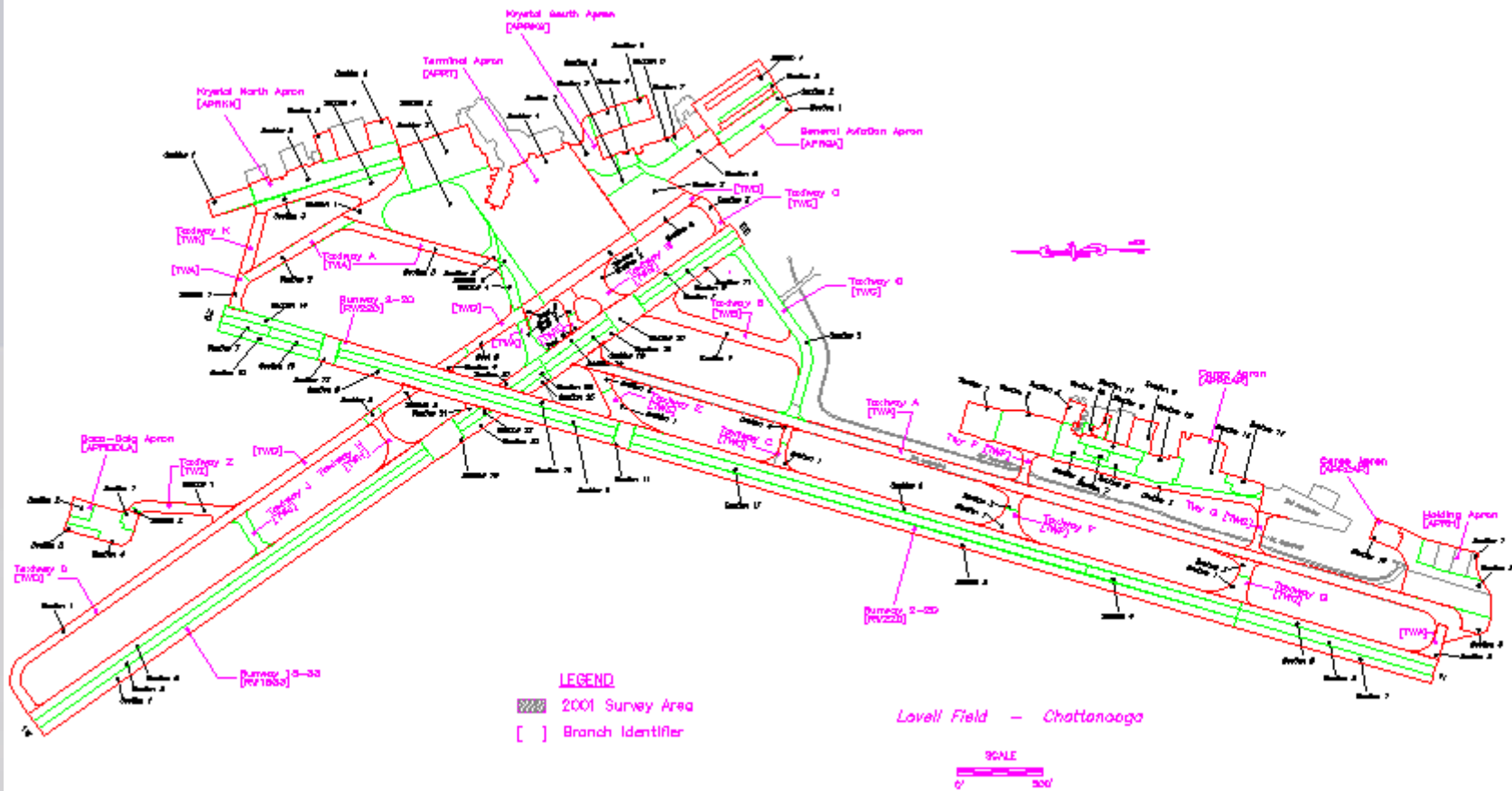
Typical ALP



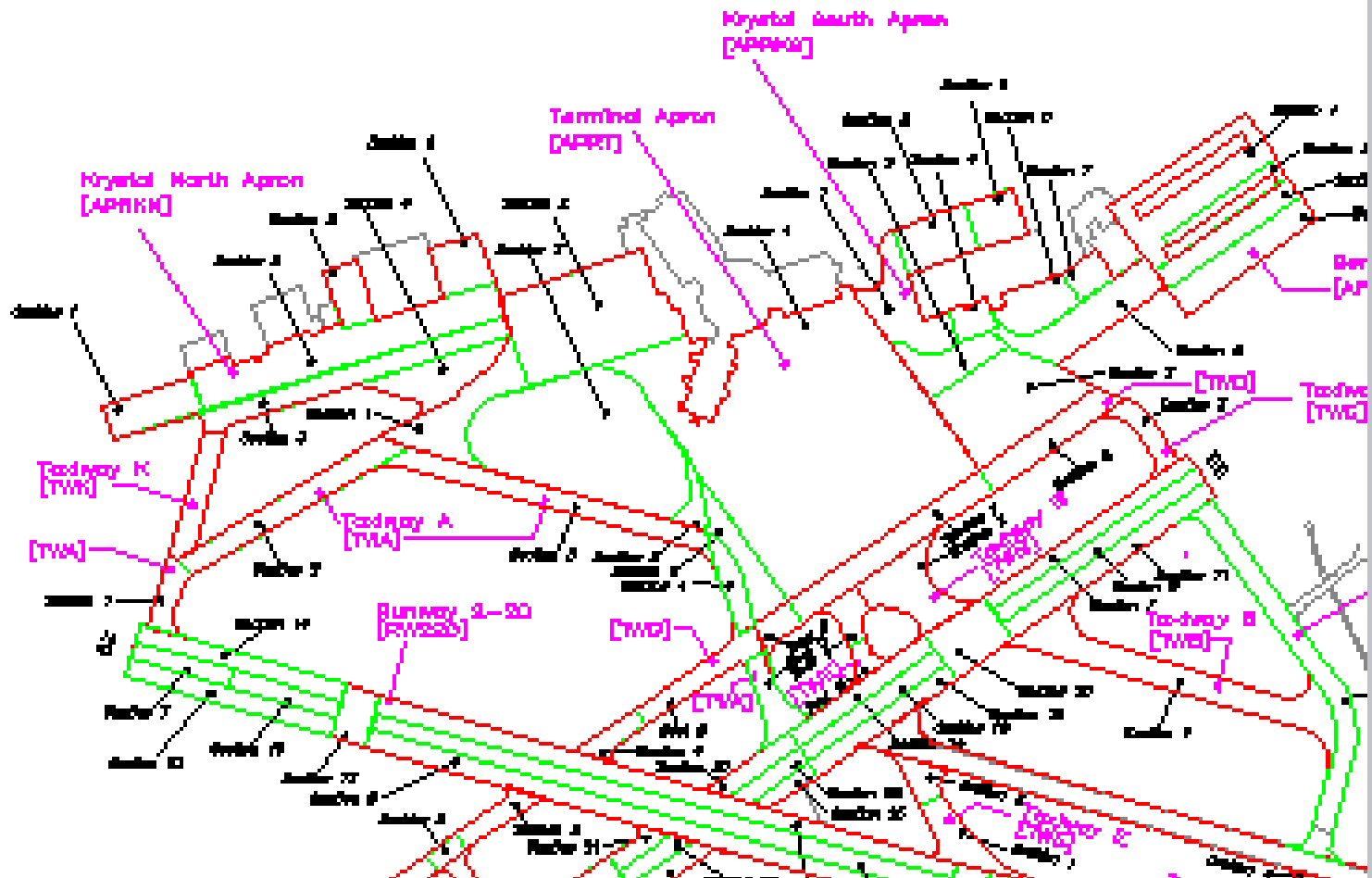
Moderate layout

- Runway 3000 m by 45 m
 - 16 sections
 - 3 sections wide at 15 m each
 - Touchdown areas
 - Intersections
 - Runway extension
 - Runway overlay

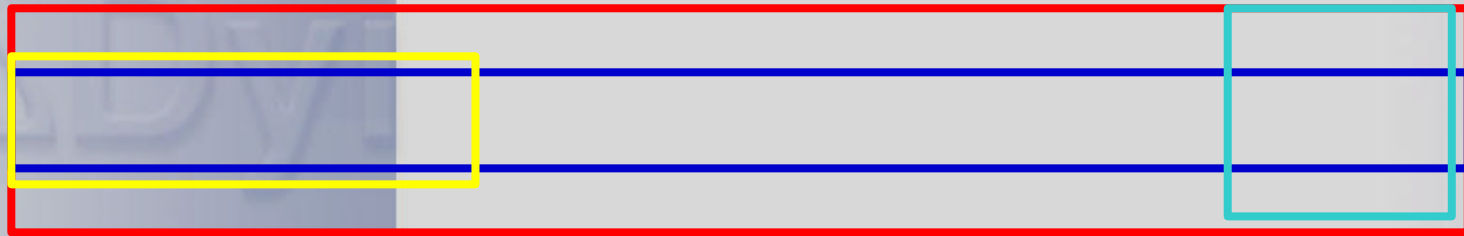
PMS Layer



PMS Layer (Zoom)



Runway layout



- Runway Section
- Traffic Section
- Loading Section
- Construction Section

Sample units – Typical Size

- AC 450 m² +- 180 m² or 5000 sq ft +- 2000 sq ft
- PCC 20 slabs +- 8 slabs

Sample Unit Layout

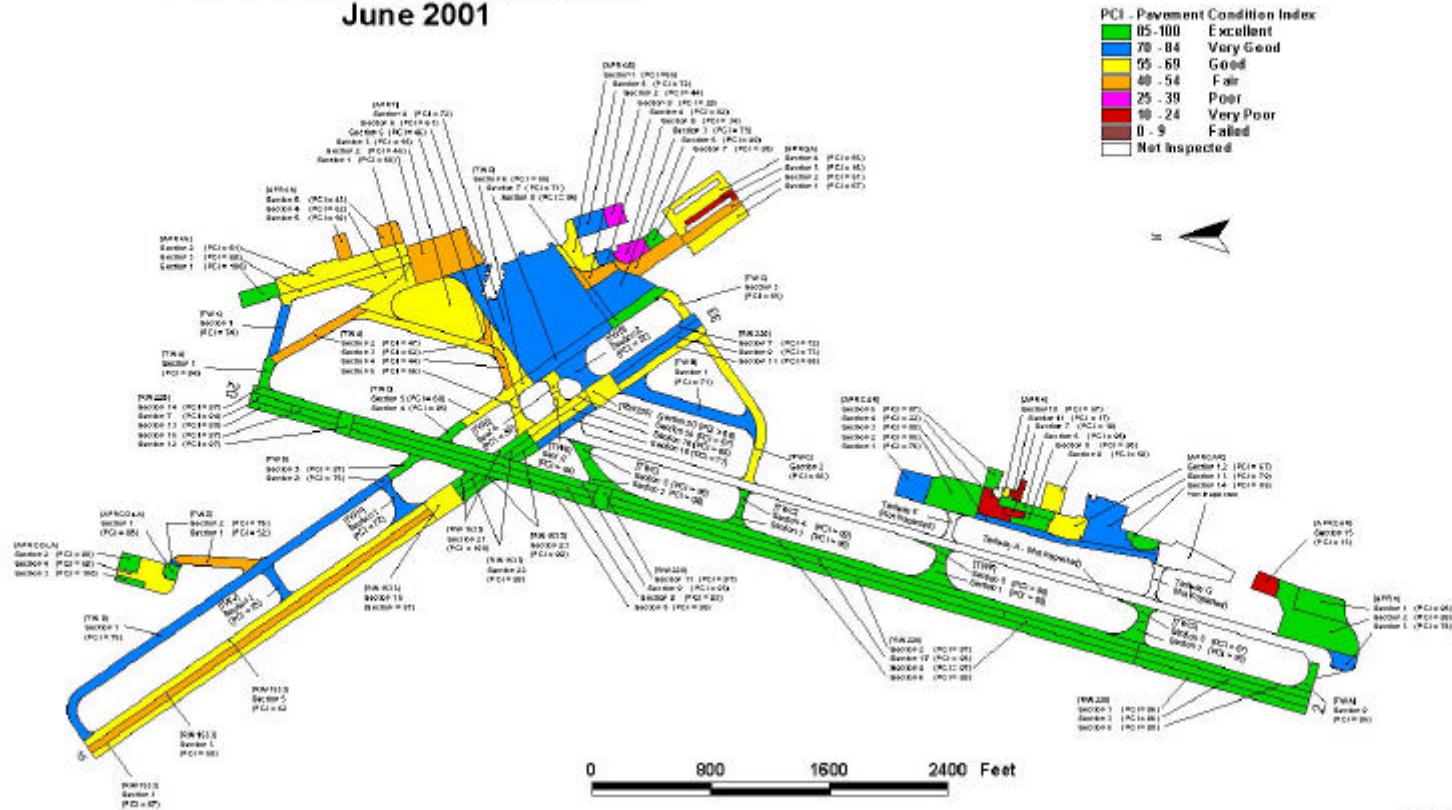
- How Many?
- $n = Ns^2 / ((e^2/4)(N-1) + s^2)$
- e is acceptable error typically +/-5 PCI points
- S is standard deviation of PCI within a section typically 10 for ac 15 for pcc
- N is total number of samples in section
- n is number of samples to be inspected for 95% CONFIDENCE

Cautions

- Sections are what you will manage
- Keep sections simple
- Check all dimensions
- Add sections for condition if required
- List to your radio

PCI Link to Data

Chattanooga Lovell Field
 PCI - Pavement Condition Index -
 June 2001



MAP 3



Thank You

Questions?