# Rutgers University President's House – A Case Study

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# Outline

- McCormicks Vision
- Barchi's Problem
- Orientation
- Previous Noise Study
- Our Input
  - Noise levels with OBSI
- Recommendations
- Minimal Action Still Too Loud
- Future Recommendations

# McCormick's Vison

- Unify Medical School (UMDNJ) with Rutgers
- Define Rutgers as a research university (used to be teaching/research mix
- Grow overall size (resulted in infrastructure improvements)



## Barchi's Problem



- Upset about his living situation
- Problem was created before his time
- It is too loud!

#### **Rutgers Main Campuses**



## Location, Location, Location



## **Previous Noise Study**



"During the investigation it was found that the projected noise levels at the residence would be less that 64 dBA Leq(h)."

## Previous Noise Study

- Measured old road and assumed traffic level for new (no modeling/TNM)
- Did not look at change in elevation of roadway
- Did not consider different traffic type changing from a local road to a state highway
- Did not consider the 25 mph speed increase
- Did not return to site after highway was built
- Did not consider pavement type at all



# Now we get involved (8 years later)

- Provided no access to the area near the house
- Not funded
- Did a quick site evaluation and OBSI near the house
- Made recommendations
- Passed data along to DOT as well as RU President









## 107.0 dBA Overall Level

# 107.3 dBA Overall Level

#### Asphalt vs. Concrete Section 1

1/3 Octave Band Spectral-Asphalt



## Recommendations



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**Pavement Resource Program** 

- We compiled the results in a paper
- Explained OBSI noise levels for different pavements and surface types
- Proposed further noise study (need Leq(h))
- Sent to DOT as well as RU President

## 100.9 dBA Overall Level

# Asphalt difference overalls and spectrum

1/3 Octave Band Spectral-Asphalt



## Asphalt Vs. Concrete



**OBSI Overall Intensity** 

#### Recommendations

- Need to work with Bridge Engineers in NJ to push for the removal of the transverse tining spec
  - Will not consider grinding for bride decks

 Pushing for full scale noise study to help facilities with potential design of noise wall for University President



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