



Advisory Committee: Minutes of Regular Meeting – November 18, 2014

IN ATTENDANCE:

Gilbert A. Herrera, Chair – **Present**
Jeri Brooks – Absent, with notice
Frances Castaneda Dyess – **Present**
Kathryn Easterly – Absent, with notice
Scott Elmer – **President**
Vernita Harris – **Present**
Bert Keller – **Present**
Jeff Ross – **Present**
Edward Taravella – **Present**
Council Member Oliver Pennington, Ex-Officio – Absent

1. Call to Order / Welcome

Chairman Gilbert Herrera called the meeting of the ReBuild Houston Advisory Committee (RHAC) to order at 10:35 a.m. and thanked all in attendance. Council Member Stephen Costello was also in attendance.

2. Approval of the Minutes

Motion to approve the October 28, 2014 meeting minutes was made by Mr. Scott Elmer and seconded by Mr. Bert Keller. Mr. Jeff Ross abstained from voting. Motion carried.

3. Pavement Condition Data Sets & Improvements

Chairman Gilbert Herrera asked for all in attendance to introduce themselves.

Mr. Dale Rudick introduced the presenter for this month's educational session, Ms. Diane Lowery-Binnie (Assistant Director of Street & Drainage Division – Street & Bridge Maintenance Branch); as well as introducing Mr. Mark Loethen (Deputy Director, Planning & Development Division).

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Ms. Lowery-Binnie began the presentation by discussing the Infrastructure Maintenance Management Program (IMMP) prior to 2010. The IMMP program relied heavily on human judgment for a Pavement Condition Rating (PCR). A PCR score was generated by quantifying cracking and assessing the overall ride condition visually by an individual person. To assess the road surface, an individual would travel the street and photograph it. The range identified in the IMMP data was subjective and varied depending on the person evaluating the road. Scores ranged from 0 – 100 and this visually inspected process would attempt to identify rutting, cracking, flushing, faulting, joint seal and more. Challenges to this sort of visual inspection include subjectivity, timeliness, score consistency, need for resources, limited use and safety.

Ms. Lowery-Binnie went on to discuss the process by which streets are now evaluated (post 2010) and the use of the Street Surface Assessment Vehicle (SSAV). The SSAV was acquired by the City in August 2008 for \$1.2 million to collect data, images and video of the pavement in the area where it is traveling. The SSAV was beta-tested in 2009 and fully implemented in May 2010. This city-wide method of assessment relies on technology and software to create a more consistent, objective PCR score. The starting value (or score) is 100 points. There are three reductions which will bring the PCR to its final score. The scoring reductions follow the International Roughness Index (IRI) which measures in inches per mile and may be rated for up to 30 points; rutting deductions may receive up to 15 points; and cracking deductions may receive up to 25 points. The scoring standards for deductions are set according to the American Association of State Highway & Transportation Officials (AASHTO).

Ms. Lowery-Binnie stated that typically, pavement will decay in a pattern known as a Pavement Decay Curve which indicates a high rating of up to 100 (a new street) and a low of 0 (street needing a total reconstruction). The City of Houston aspires to be at or above the 75% line, in which streets would require only preventative treatments (i.e. pavement seals – fog seal, scrub seal).

Chairman Herrera asked to hear how many of the 16,000 lane miles of road maintained by the Department of Public Works & Engineering (PWE) fall below the 75% goal line. Ms. Lowery-Binnie stated that approximately 35% of Houston streets fall below the 75% line on the Pavement Decay Curve based on current PCR scores. Mr. Rudick stated that we must keep in mind that city streets have been underfunded for decades. He also noted that all streets with patches automatically fall to the bottom of this curve. Mr. Jeff Ross stated that he believes that this is a highly subjective means to gage road decay because what one person considers an 'Excellent' street, another person may consider it to be a 'Fair' street. It is also his belief that this subjectivity in how we gage road decay is at the heart of communication issues that ReBuild Houston is facing with the public.

Mr. Rudick commented that the ReBuild Houston initiative will improve all city streets, but due to past underfunding, it is going to take time. Mr. Loethen stated that it is a matter of discovering a balance in annual funding to keep road conditions from getting worse. Council Member Stephen Costello stated that road condition expectations would be a good conversation to have with the community.

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Ms. Lowery-Binnie briefly covered the infrastructure planning process and stated that the process is as follows: identify needs; prioritize needs; develop solutions; and refer candidate projects. She also indicated that need prioritization compares how far 'need' is from the established City standard (SWEET tool). Additionally, she informed the Committee that prioritized needs preface the performance of any pre-engineering (solutions) and that pre-engineering will quantify a 'candidate project' by utilizing a benefit/cost ratio.

Ms. Lowery-Binnie noted that there are several future opportunities the City of Houston can take advantage of including: examining other municipalities/jurisdictions, data refinements, evaluating roads over time and looking at what the City has done in the past in contrast to what is currently done. Ms. Lowery-Binnie stated that PWE is continually searching for ways to improve.

4. Timeline for January Release of FY16 – 25 “5+5 Year Plan”

Mr. Rudick provided an overview of the coming months:

- Currently preparing for the CIP Town Hall Meetings (in February and March)
- January 2015: Release of an internal staff draft document for proposed FY 2016 – 2025 '5+5 Year Plan'
- February 2015: Posting of Draft FY 2016 – 2025 '5+5 Year Plan" on ReBuild Houston website prior to District Town Hall meetings
- April 2015: Submittal of Draft FY 2016 – 2020 Five-Year CIP to the administration
- April – May 2015: RHAC recommendations for changes to the *CIP Process Manual*

5. Executive Report

Mr. Rudick made reference to the 'Hold Dates' sheet in the meeting packet for the 2015 ReBuild Houston Advisory Committee meeting dates. He also stated that there will be no December 2014 ReBuild Houston Advisory Committee meeting.

6. Old Business/New Business

Chairman Herrera requested that Ms. Castaneda Dyess and Ms. Harris speak with Mr. Rudick after the meeting regarding their individual organizational meeting requests on ReBuild Houston.

7. Public Comments - None

8. Adjourn: Meeting adjourned at 11:50 a.m.

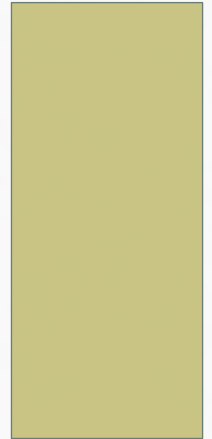
Attachments:

- Pavement Condition Data Sets & Improvements PowerPoint presentation
- 2015 ReBuild Houston Advisory Committee Meeting Hold Dates



PAVEMENT CONDITION DATA SETS & IMPROVEMENTS

NOVEMBER 18, 2014





Quick Review of the Past



Pre 2010

Infrastructure Maintenance Management Program (IMMP) - Manual system based on street distress identification and subjective quantification and severity level.

- Rutting
- Raveling
- Alligator Cracking
- Transverse Cracking
- Longitudinal Cracking
- Joint Seal Present
- Patching
- Flushing
- Surface Deterioration
- Faulting
- Slab cracking*
- Slab Replacements*
- Ride Condition

(*concrete only)



Challenges of IMMMP



- Subjectivity
- Need for resources
- Time consuming
- Limited use
- Score consistency
- Safety



Quick Recap of the Present



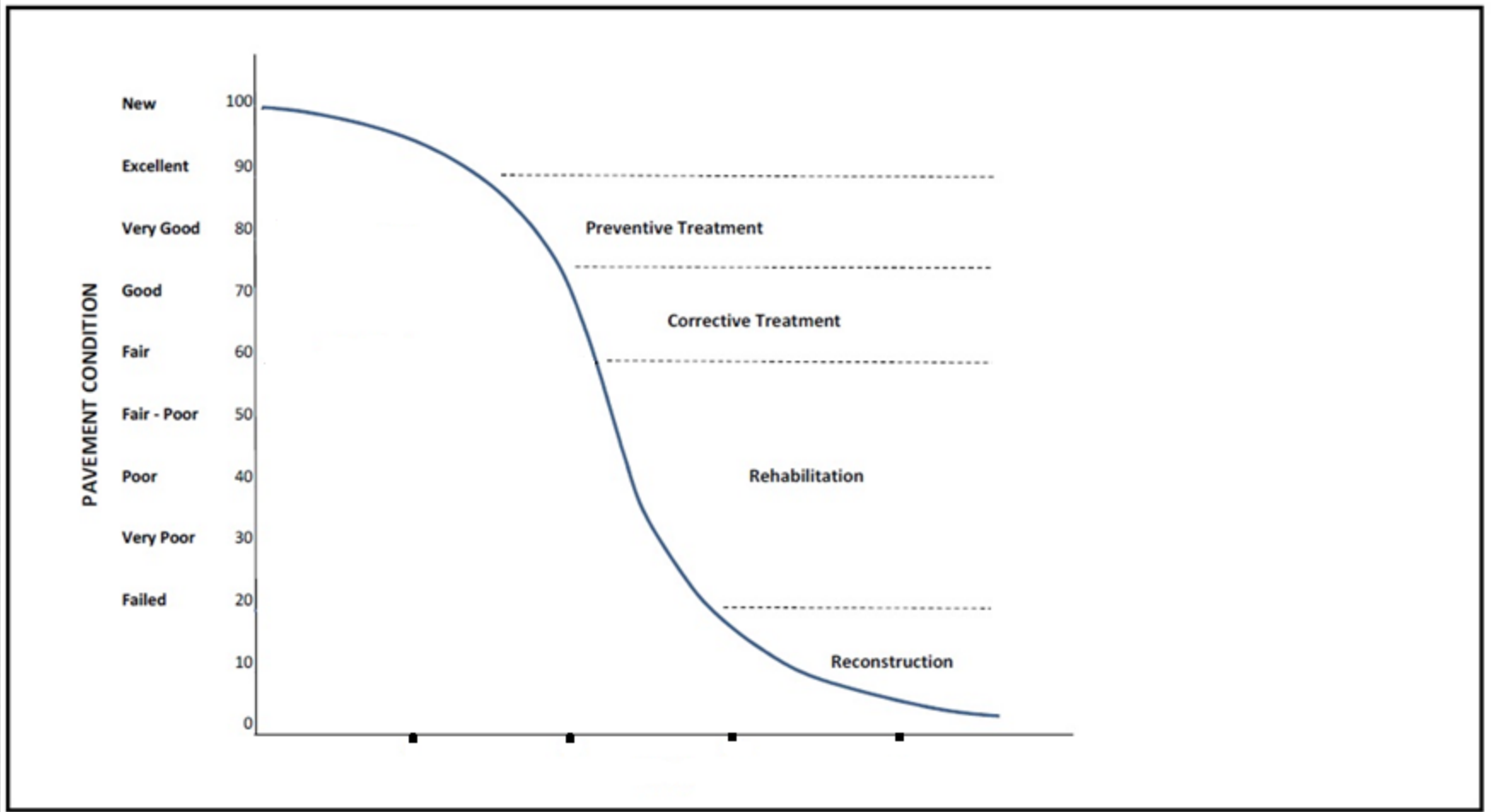
Post 2010

Street Surface Assessment Vehicle (SSAV)

- Assessment relies on machines & software to create a more consistent PCR score
- 100 is the starting value. 3 reductions bring PCR to its final number
 - IRI or 'roughness' deduction – up to 30 points
 - Rutting deduction – up to 15 points
 - Cracking deduction – up to 25 points
- Performed city-wide
- Standards for deduction are set according to AASHTO standards (American Assoc. of State Highway & Transportation Officials)



The data informs us where to begin looking



Source: American Association of State Highway and Transportation Officials (AASHTO)



How Do We Use This Data?



- **To guide & expand maintenance programs**
 - Preventive Treatment
 - Pavement Seals (i.e. Fog Seal, Scrub Seal)
 - Corrective Treatment
 - Crack Sealing, Patching, Overlay, Single Concrete Panel Replacement
- **Primary factor for development & scheduling capital projects**
 - Rehabilitation
 - Overlay, Expanded Concrete Panel Replacement
 - Reconstruction



PCR data provides a common language



- ✓ Street Surface Assessment Van
 - Generates a Pavement Condition Rating (PCR)

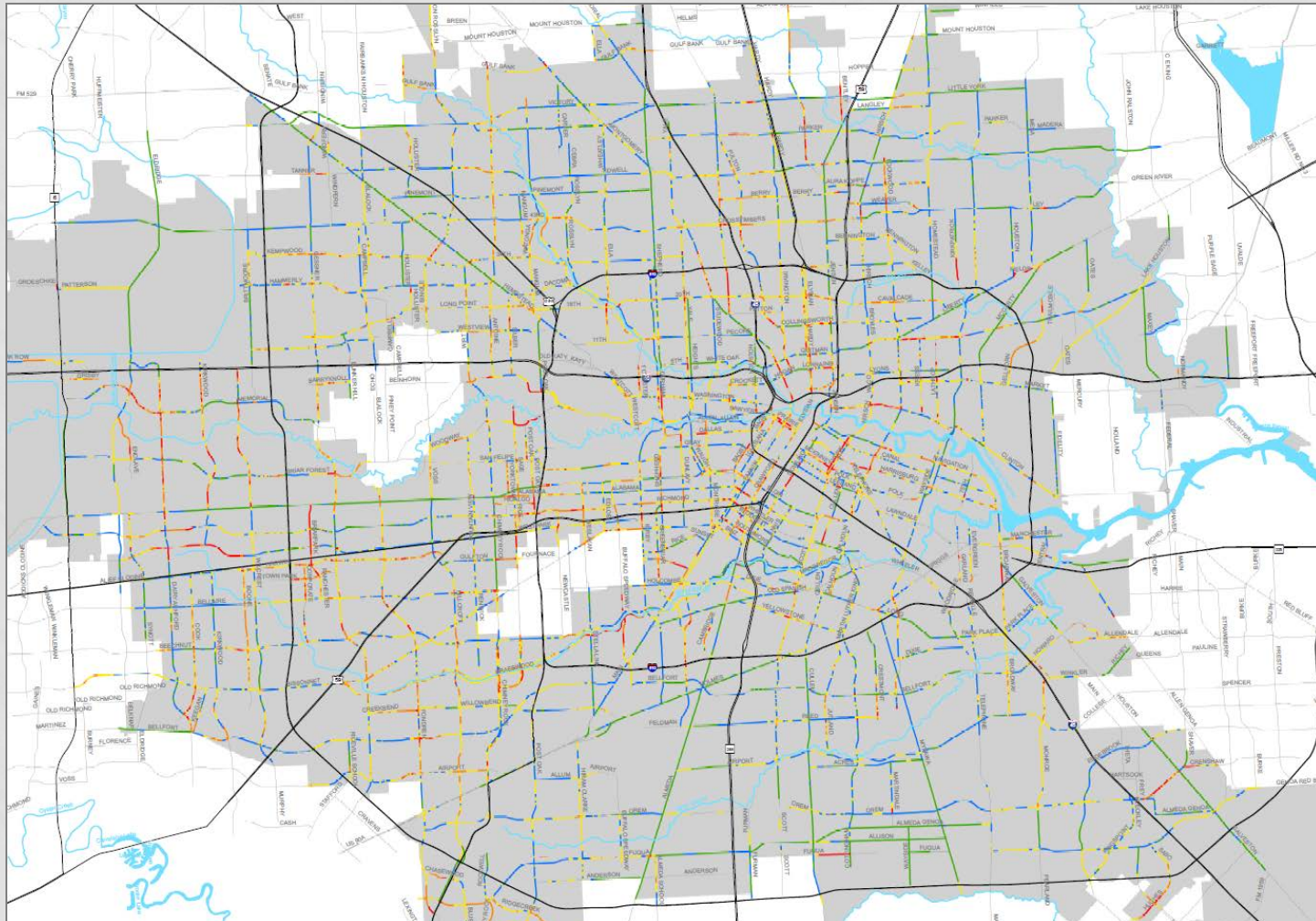
- ✓ Street Assessment – Visual inspection performed by trained Street Maintenance personnel based on ASTM standards & determined by PCR rating.
 - Used to determine if roadway condition falls within repair criteria/funding in Street Maintenance Operations.

- ✓ Street Assessment forwarded to PWE engineers to evaluate for possible rehabilitation project, or further review under the ReBuild Houston 'Need Area' Process by the Infrastructure Planning Branch

- ✓ Infrastructure Planning Branch
 - PCR is essential criteria in SWEET Model

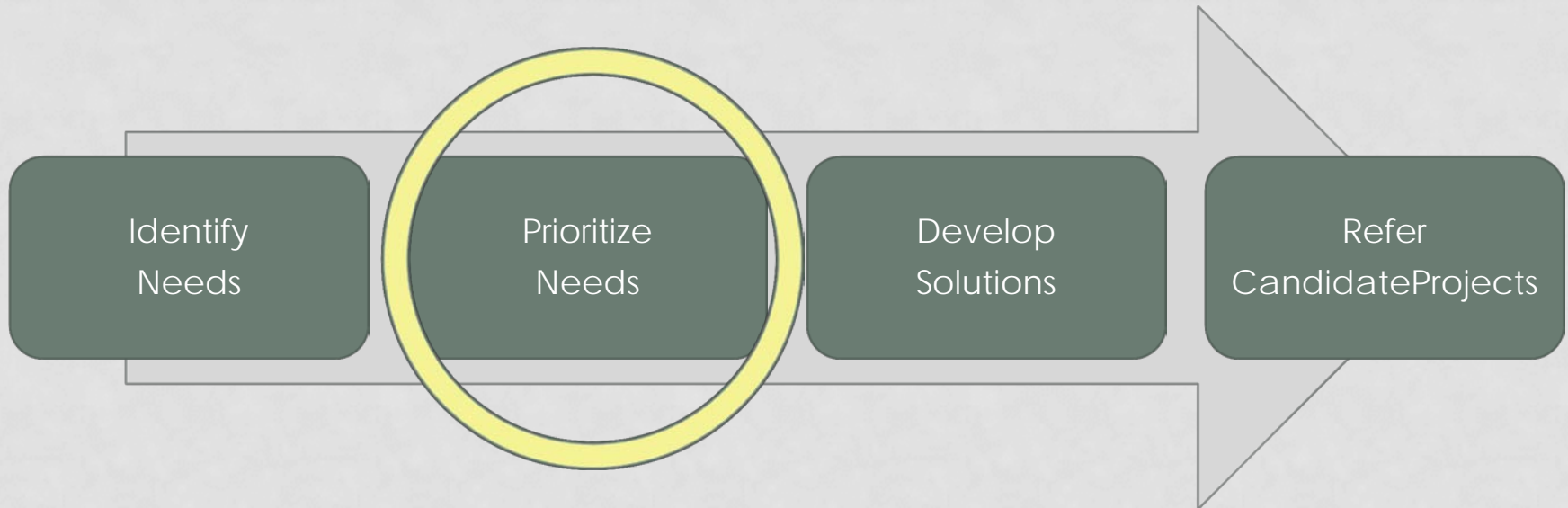


CITYWIDE ASSESSMENT PAVEMENT CONDITION





INFRASTRUCTURE PLANNING PROCESS



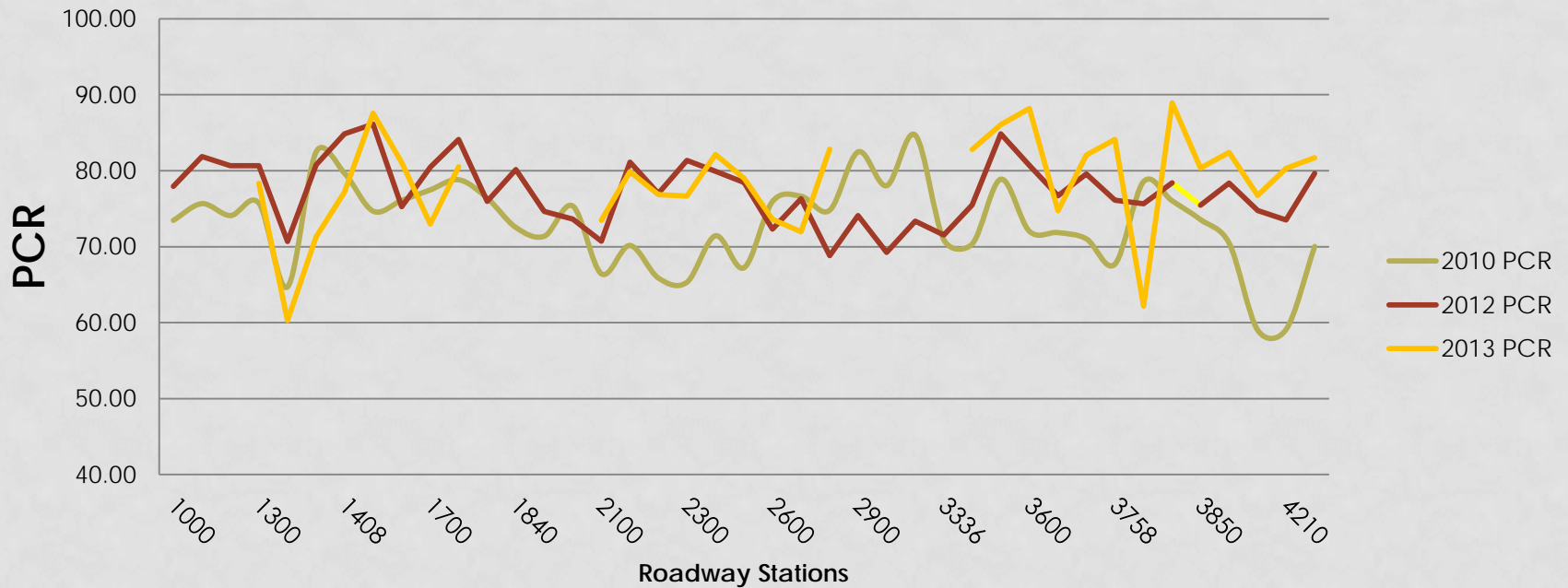
- Need Prioritization compares how far Need is from City standard (SWEET Tool)
- Prioritized Needs feed Pre-Engineering (Solutions)
- Pre-Engineering Quantifies Candidate Projects



Future Opportunities



Evaluate performance of road segments over time



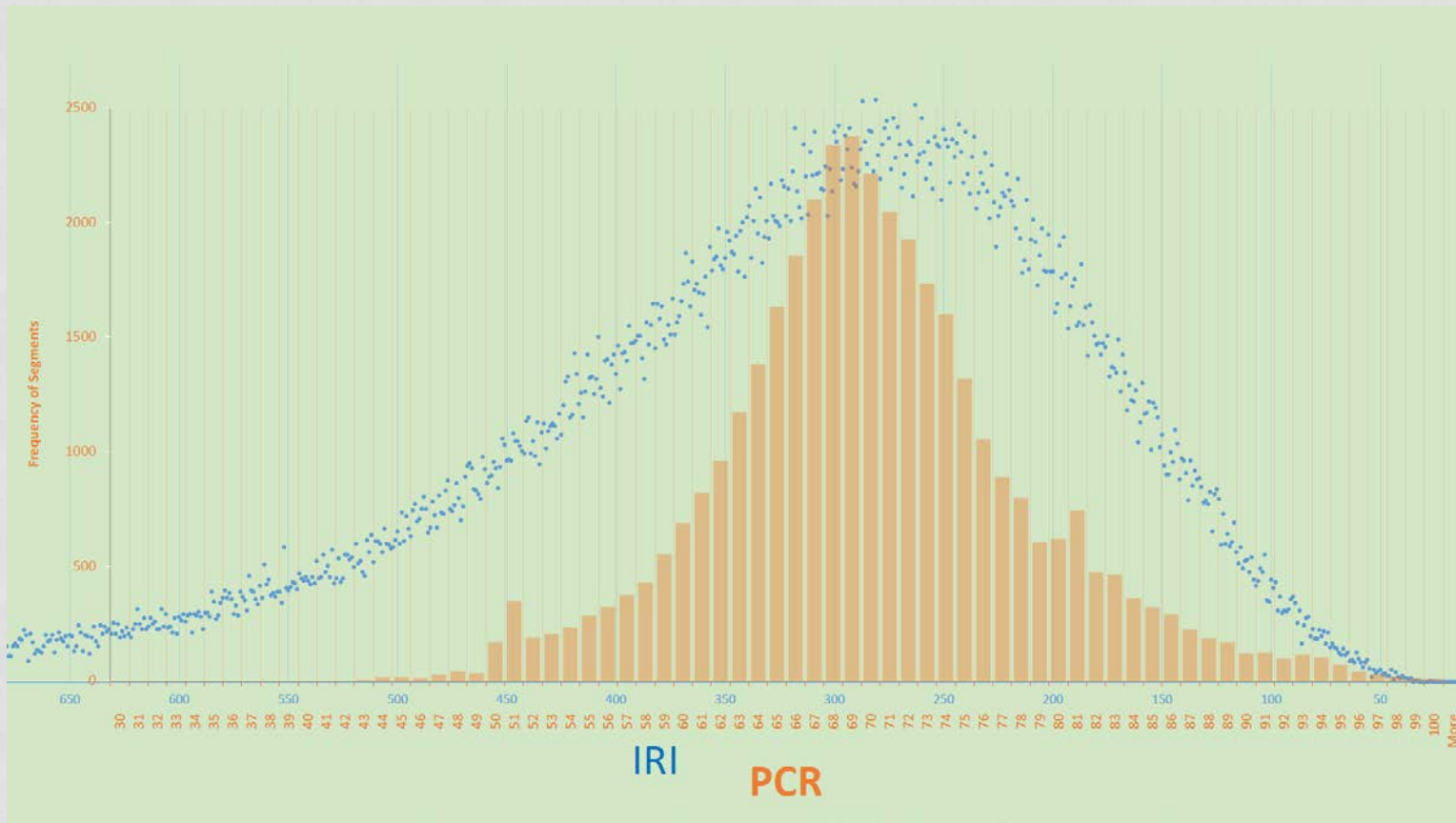


Future Opportunities



Evaluate performance using Changing Technologies.

- Data refinements.
- Reduction of limitations.





Future Opportunities



Evaluate long term roadway performance

- COH vs Other Municipalities/Jurisdictions
- COH vs COH



Questions ?



2015 ReBuild Houston Advisory Committee Meeting Hold Dates

Time:

10:30 a.m. – 1:00 p.m.

Dates:

January 27, 2015

February 24, 2015

March 24, 2015

April 28, 2015

May 26, 2015

June 23, 2015

July 28, 2015

August 25, 2015

September 22, 2015

October 27, 2015

November 17, 2015

December 15, 2015

Note: All meeting dates are subject to change.