


Green Alleys, Clean Water
The Dubuque Project


2013 NE Post-Construction
Stormwater Workshop

March 21, 2013
Jon Dienst, P.E.



Agenda

- Why are we doing this?
- Existing conditions
- Examples we looked at
- Recent projects completed
- Our SRF sponsored project
- The grand plan



Why Are We Doing This?

- We need to reduce runoff in the City
- Sustainable Dubuque Initiative
- It's the right thing to do



Why Are We Doing This?

- We need to reduce runoff in the City

Bee Branch/ Couler Creek



Why Are We Doing This?

- We need to reduce runoff in the City



Why Are We Doing This?

Presidential Disaster Declarations



1999

2002

2004

Why Are We Doing This?

SUSTAINABLE DUBUQUE
viable • livable • equitable

Presidential Disaster Declarations



2006 2008 2010

Why Are We Doing This?

SUSTAINABLE DUBUQUE
viable • livable • equitable



2011 Presidential Disaster Declarations

Why Are We Doing This?

SUSTAINABLE DUBUQUE
viable • livable • equitable

- Sustainable Dubuque Initiative



Council Priority Since 2006



Why Are We Doing This?

SUSTAINABLE DUBUQUE
viable • livable • equitable

- We are a river town



Why Are We Doing This?

SUSTAINABLE DUBUQUE
viable • livable • equitable

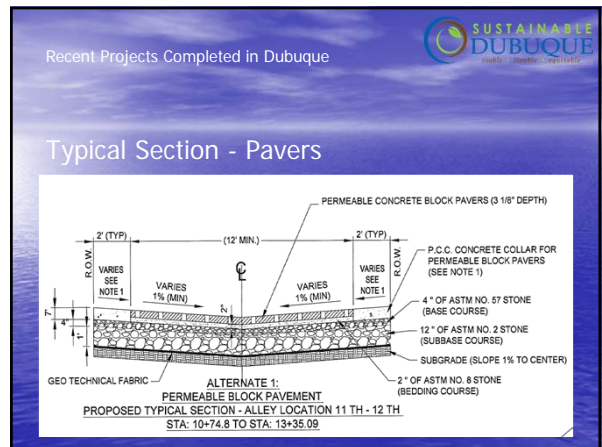
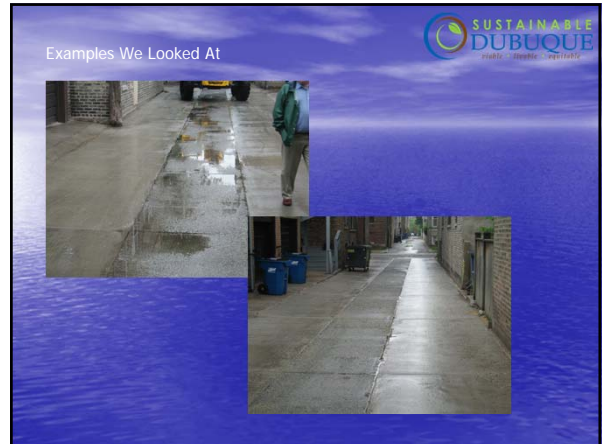
- It's the right thing to do




Existing Conditions

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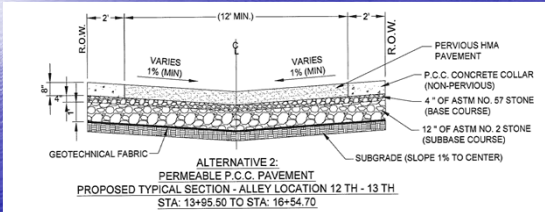




Recent Projects Completed in Dubuque



Typical Section – HMA and PCC



PERVIOUS HMA PAVEMENT
 P.C.C. CONCRETE COLLAR (NON-PERVIOUS)
 4" OF ASTM NO. 57 STONE (BASE COURSE)
 12" OF ASTM NO. 2 STONE (SUBBASE COURSE)
 SUBGRADE (SLOPE 1% TO CENTER)

ALTERNATIVE 2:
 PERMEABLE P.C.C. PAVEMENT
 PROPOSED TYPICAL SECTION - ALLEY LOCATION 12 TH - 13 TH
 STA: 13+85.50 TO STA: 16+54.70


Recent Projects Completed in Dubuque




Watermain




Recent Projects Completed in Dubuque



Sanitary Sewer



Recent Projects Completed in Dubuque



Pervious Asphalt Specifics

- The asphalt mix can be complex. It may include cellulose fibers to reduce drawdown
- Installing the pavement is similar to what is always done
- The cost is slightly higher than normal asphalt mix


Recent Projects Completed in Dubuque




Recent Projects Completed in Dubuque

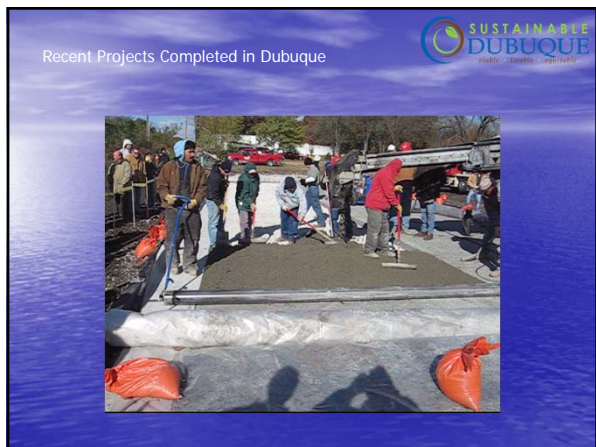



Recent Projects Completed in Dubuque

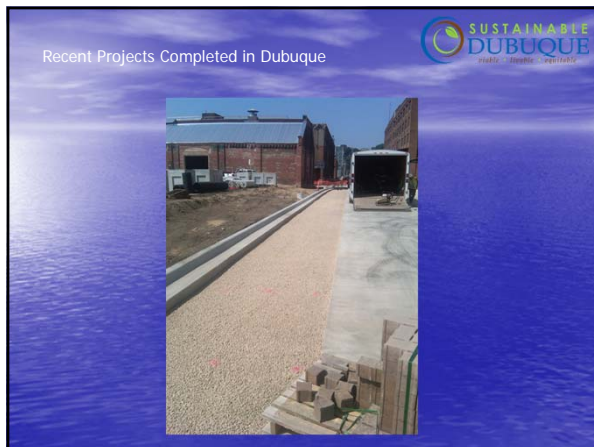


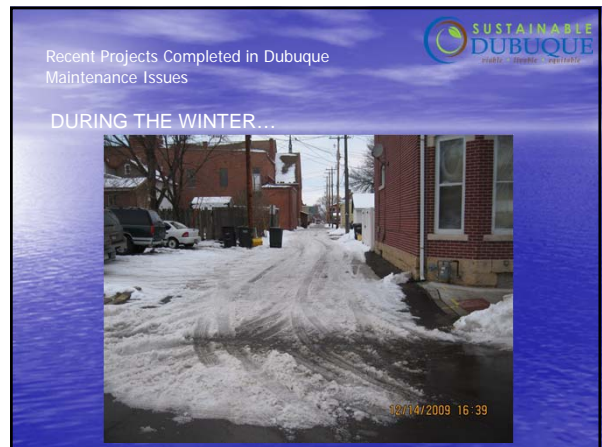
Pervious Concrete Specifics

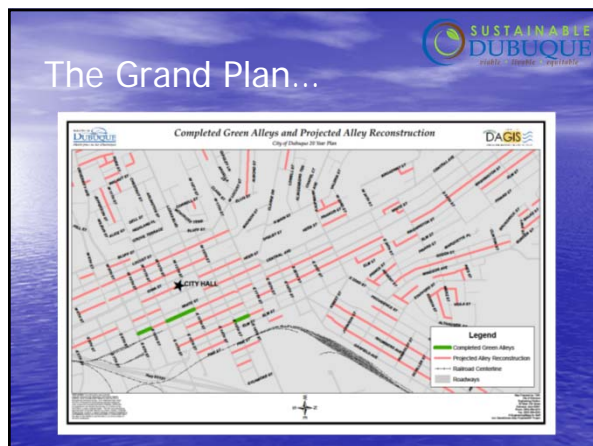
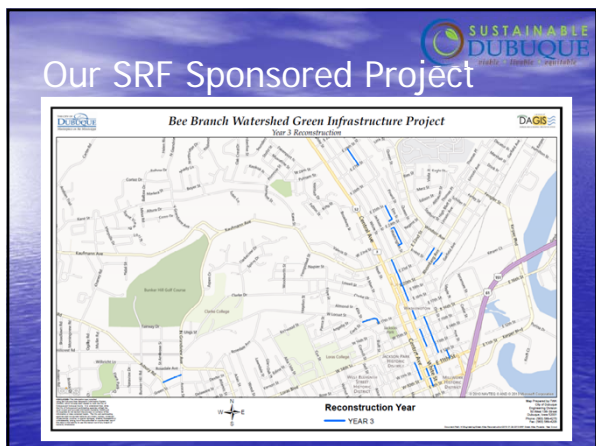
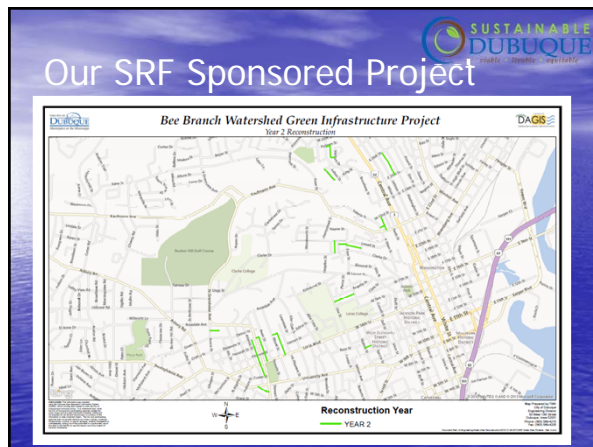
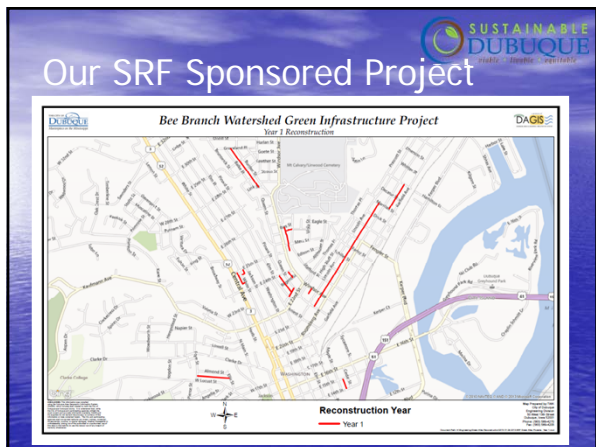
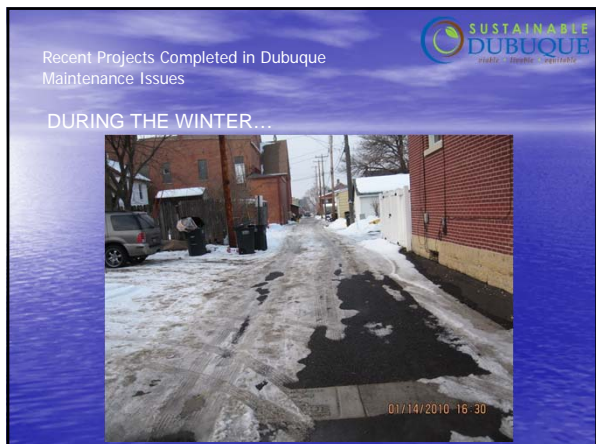
- The concrete mix has fines removed. Relatively easy to produce.
- Installing the pavement is different than most contractors are used to. Labor intensive. Curing procedure is vital.
- The cost is higher than normal concrete. Mainly due to labor involved.











 SUSTAINABLE DUBUQUE
PLAN. BUILD. PROGRESS.

Permeable Pavements in General

Why Pervious Alleys?

- Improved the appearance of the neighborhood
- Cleans the water
- Solves drainage issues
- Allows for a different funding sources
 - CDBG
 - Storm Water Utility
 - SRF

 SRF

 Stormwater Utility at Work



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THANK YOU!

For more information, visit
www.cityofdubuque.org

 THE CITY OF DUBUQUE
Masterpiece on the Mississippi

 Dubuque 2012