

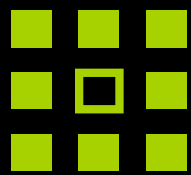


Vehicle Miles Traveled by Urbanized Area

The Green Council – Alexandria VA

DeWayne Carver, AICP

Richard Hall, P.E.



HPE

Hall Planning & Engineering, Inc.



CONGRESS
FOR THE
NEW
URBANISM

CNU Florida

CONGRESS FOR THE NEW URBANISM
FLORIDA CHAPTER



Save the Date! 4th Annual Meeting
January 23-25, 2008 - Winter Park, FL
Global Climate Change: Florida Solutions



The First State of the Carbon Cycle Report (SOCCR)

*The North American Carbon
Budget and Implications for
the Global Carbon Cycle*

U.S. Climate Change Science Program
Synthesis and Assessment Product 2.2

November 2007

State of the Carbon Cycle Report (SOCCR)

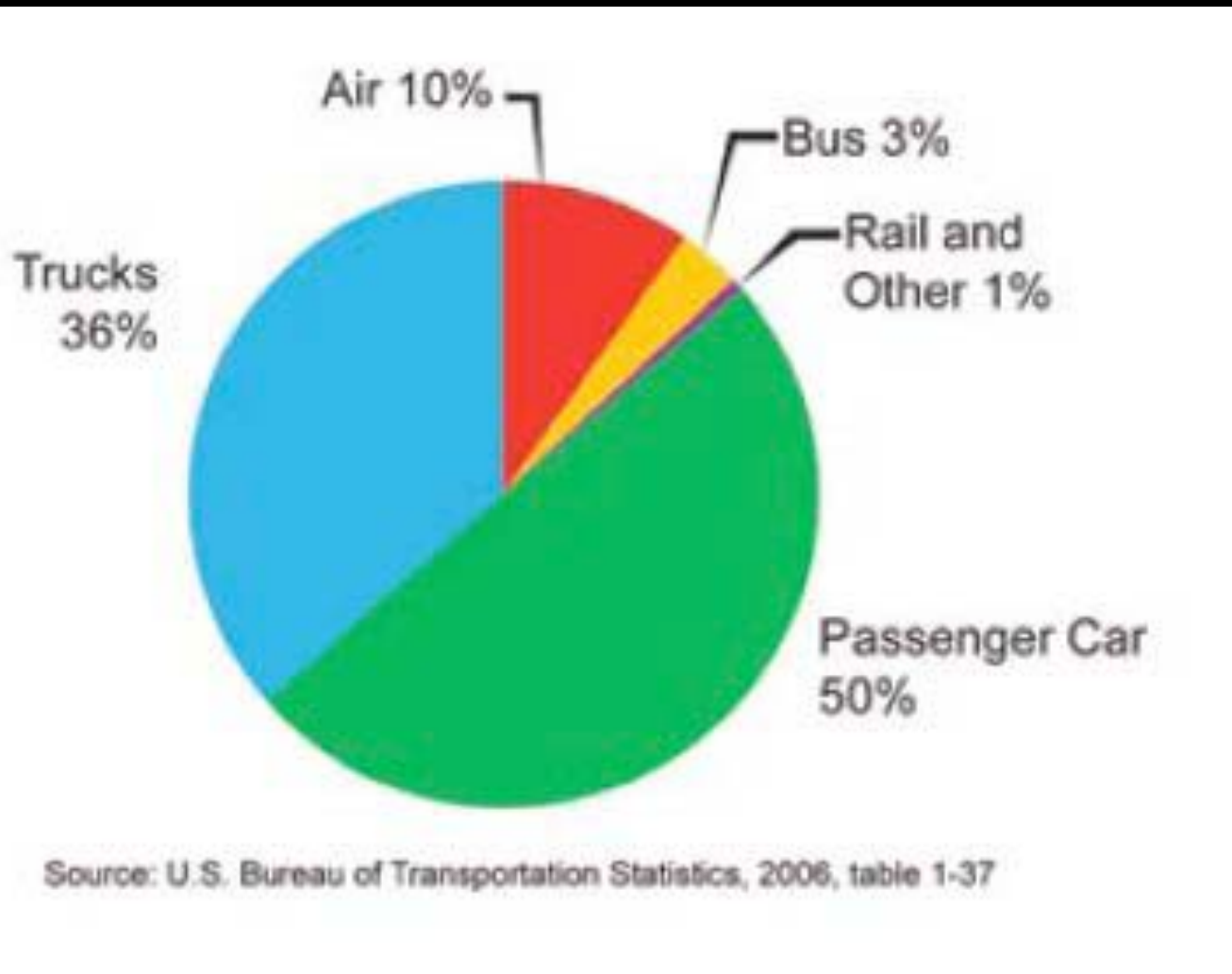
- **27 % of global CO₂ emissions from N. America**
- **2 billion metric tons (BMT) N. America in 2003**
- **85 % from U.S.**
- **31 % is transportation [42% commercial/power]**
- **transportation is largest end user**
- **land sink absorbs only 30% of CO₂**

options to reduce CO₂ emissions per report (SOCCR)

- **efficiency improvement**
- **fuel switching**
- **technologies such as carbon capture**
- **geological storage**

- **only brief mention of compact urban structure as a solution**

U.S. passenger travel by mode



JAPA Autumn 2007

- “Is Compact Growth Good for Air Quality?” juried article
- Modeled air quality based on density
- Found cities with denser urban growth had greater reduction in gases

Comment on JAPA Article

- Growth in VMT will wipe out gains from revised fuel economy stds
- VMT forecast to grow by 2% annually over next 25 years (US DOE)



BOSTON
(1980)

USA



Boston

**Daily VMT=
20.3 miles/capita**

**Freeway miles
per 1,000 pop =
72.3**

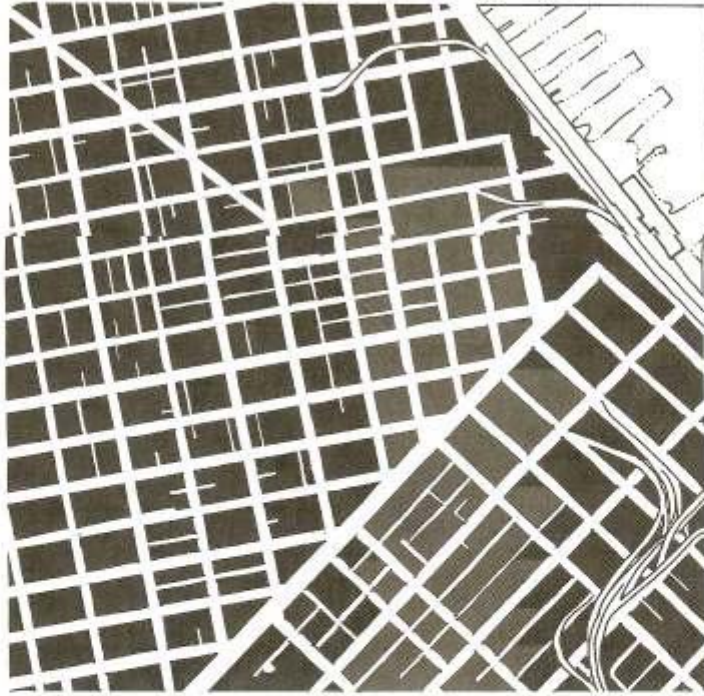
0

1 Mile

Atlanta

**Daily VMT=
33.8 miles/capita**

**Freeway miles
per 1,000 pop =
102.9**



SAN FRANCISCO
(Alameda Co.)

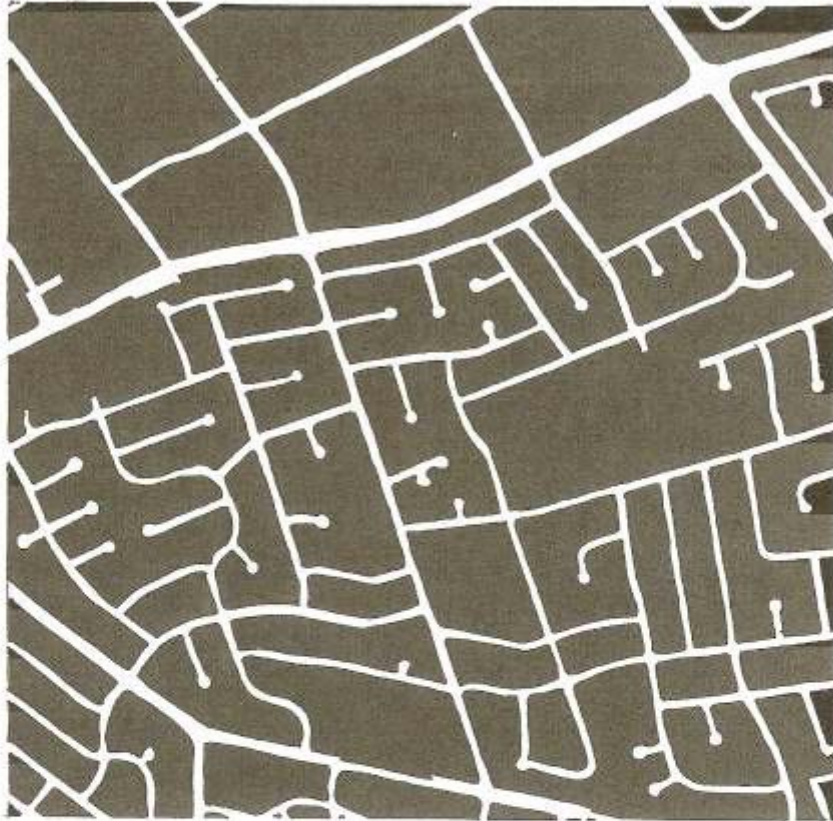
U S A



San Francisco

**Daily VMT/capita =
22.4**

**Freeway miles
per 1,000 pop =
82.0**



WALNUT CREEK
(residential area)



USA



San Francisco

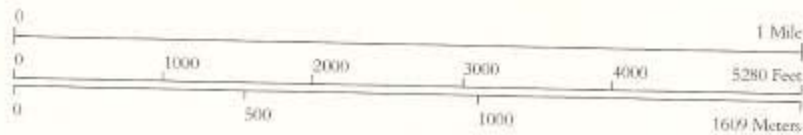
**Daily VMT/capita =
22.4**

**Freeway miles
per 1,000 pop =
82.0**



LOS ANGELES
(downtown)

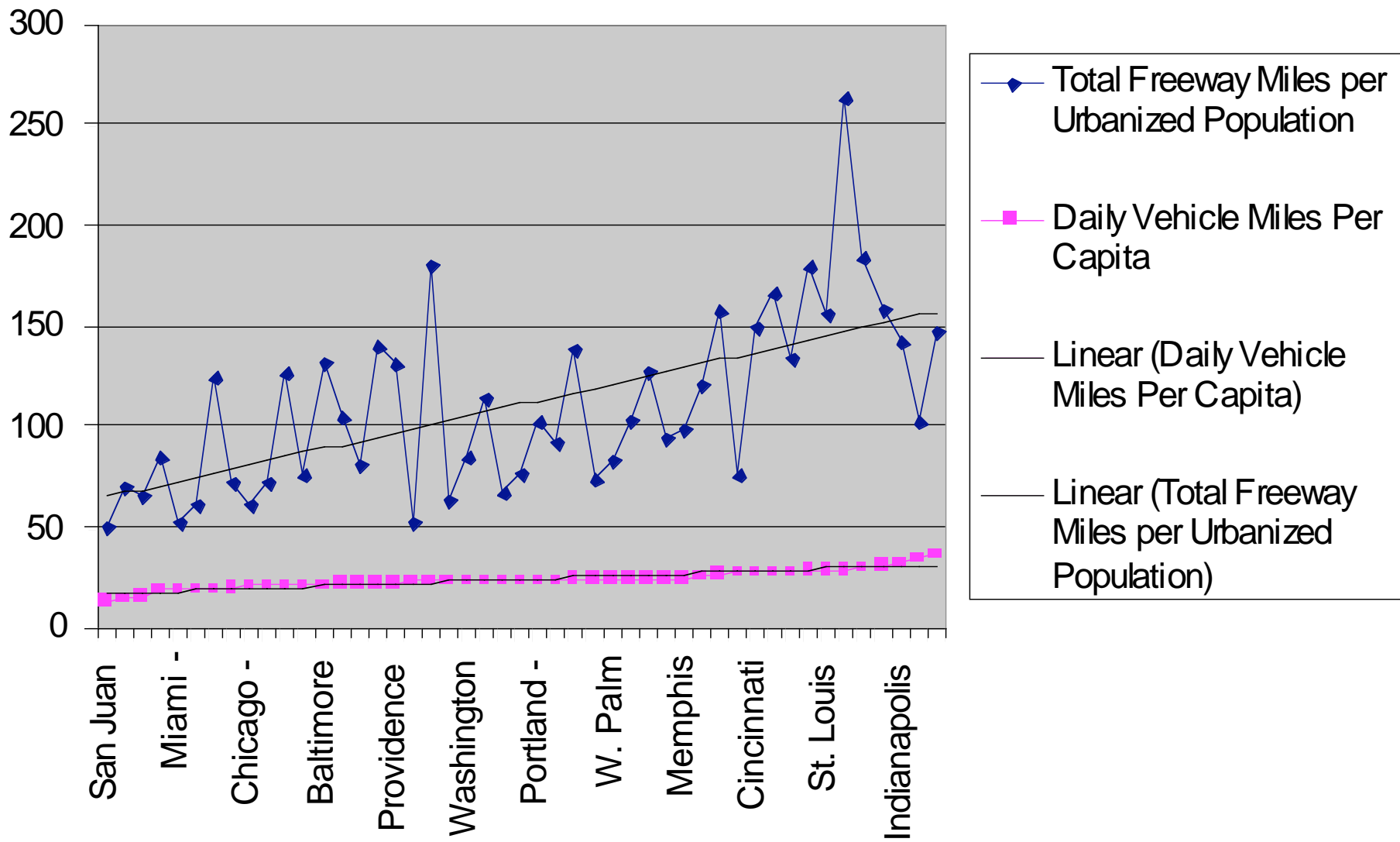
USA



LA

**Daily VMT/capita =
22.7**

**Freeway miles
per 1,000 pop =
52.7**



Draft, 3/28/2007

Urban *Advantage*

Steve Price, 510 486-0427
www.urban-advantage.com

Fairfax, VA
Fairfax Boulevard



Fairfax, VA
Fairfax Boulevard



Fairfax, VA
Fairfax Boulevard



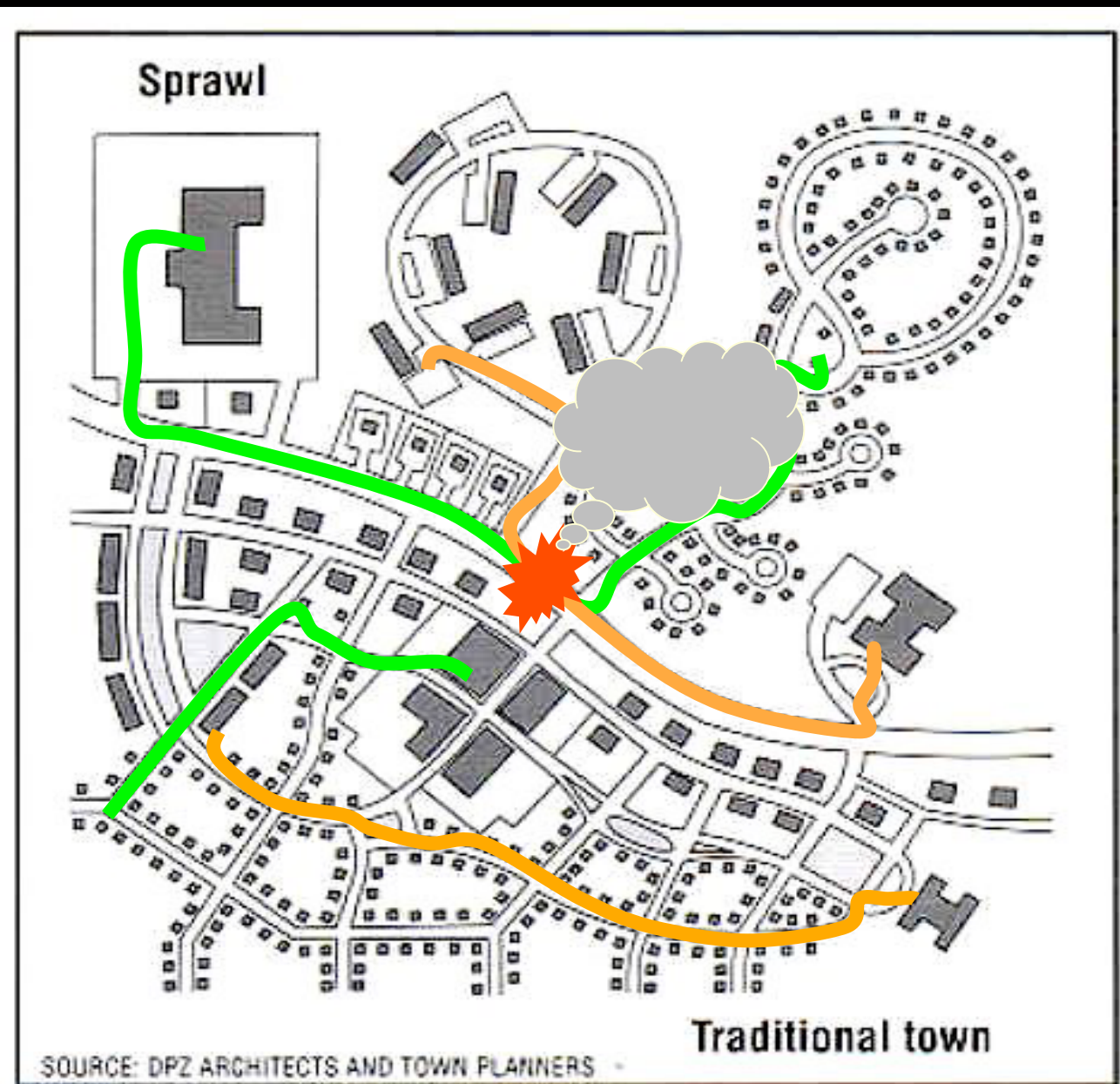
TND

**Traditional
Neighborhood
Development**

CSD

**Conventional
Suburban
Development**

MPO work



A POLICY
on
GEOMETRIC DESIGN
of
HIGHWAYS
and
STREETS

1990



ASSOCIATION OF STATE
TRANSPORTATION OFFICIALS



A POLICY ON GEOMETRIC DESIGN OF



HIGHWAYS AND STREETS

2001



FOURTH EDITION

AMERICAN ASSOCIATION OF STATE HIGHWAY
AND TRANSPORTATION OFFICIALS

“The first step in the (roadway) design process is to define the function that the facility is to serve.” AASHTO

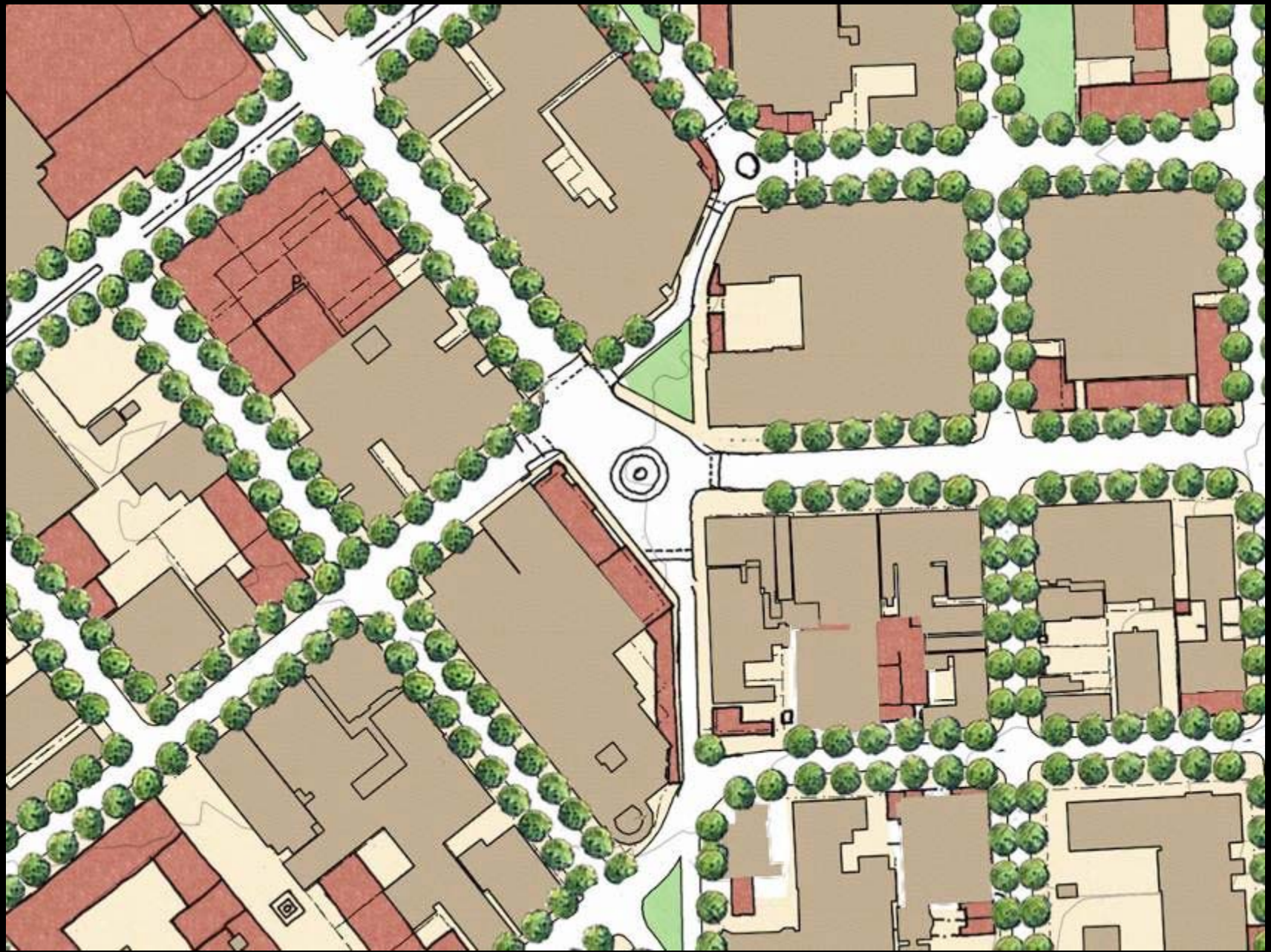
street network



Scott

Dexter

court square



East 1926





ORIGINAL ELECTRIC
STREET CAR

DATE OF THIS CAR
CIRCA 1897

North 1917



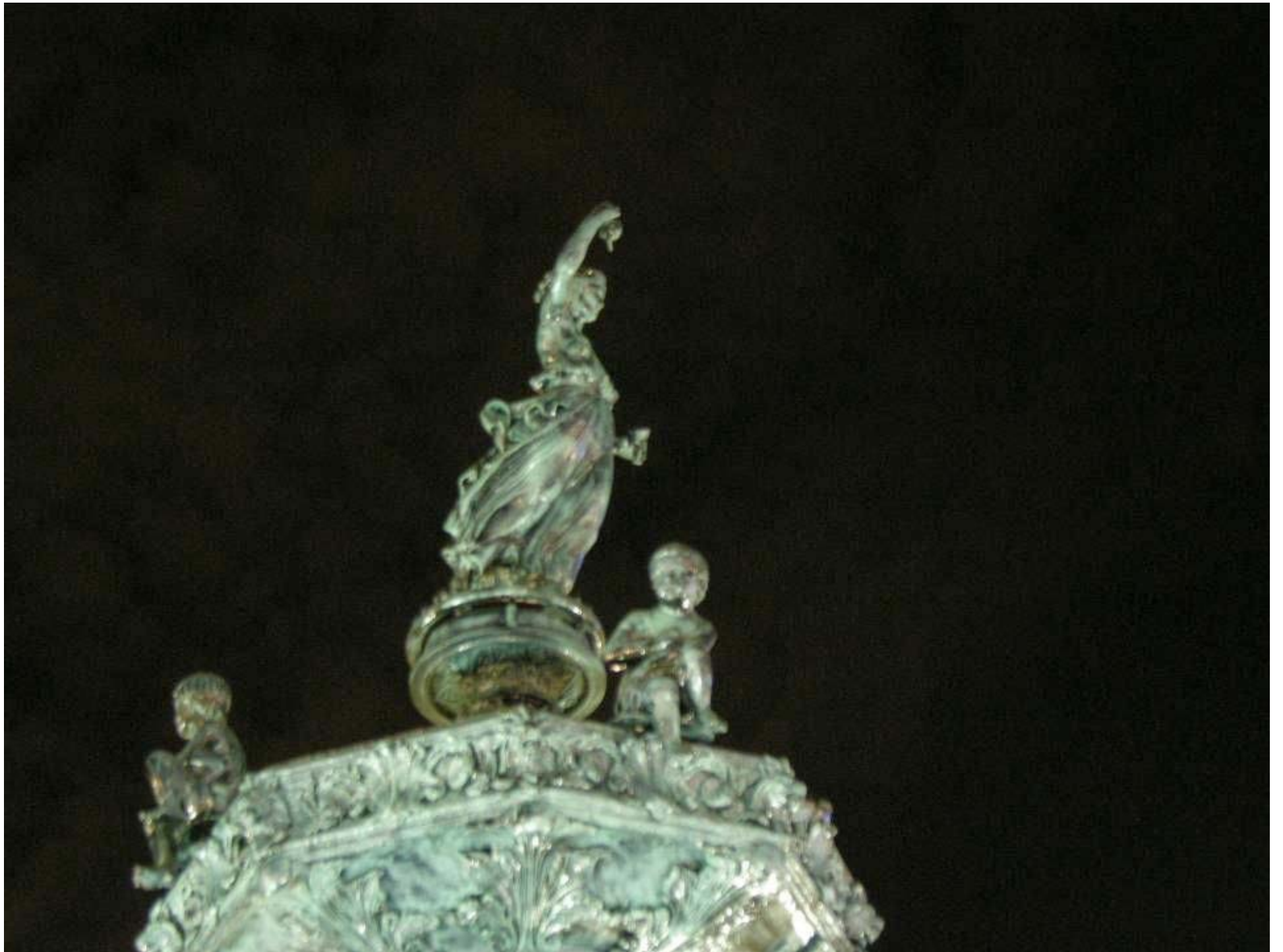


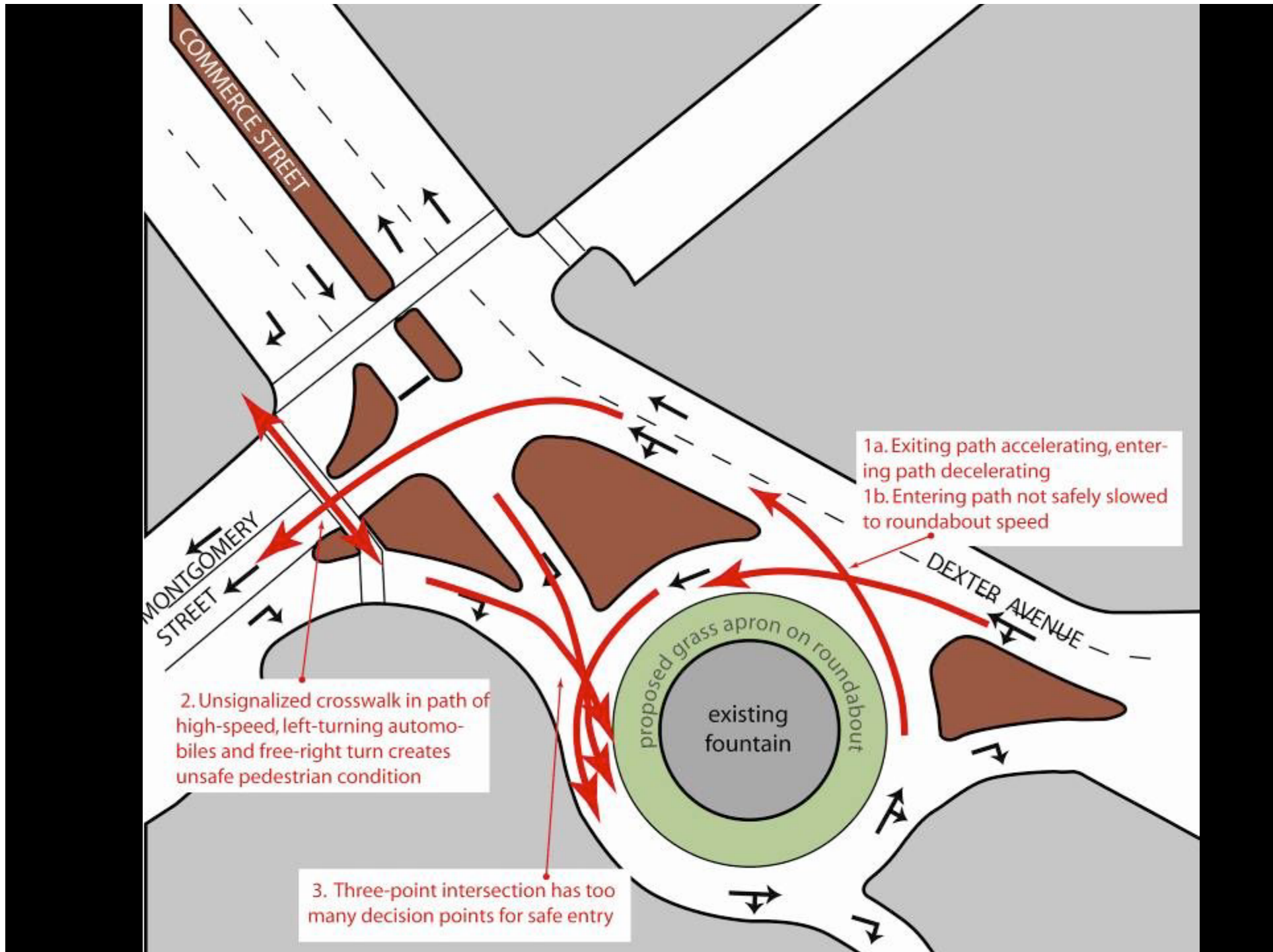
© 2006 Europa Technologies

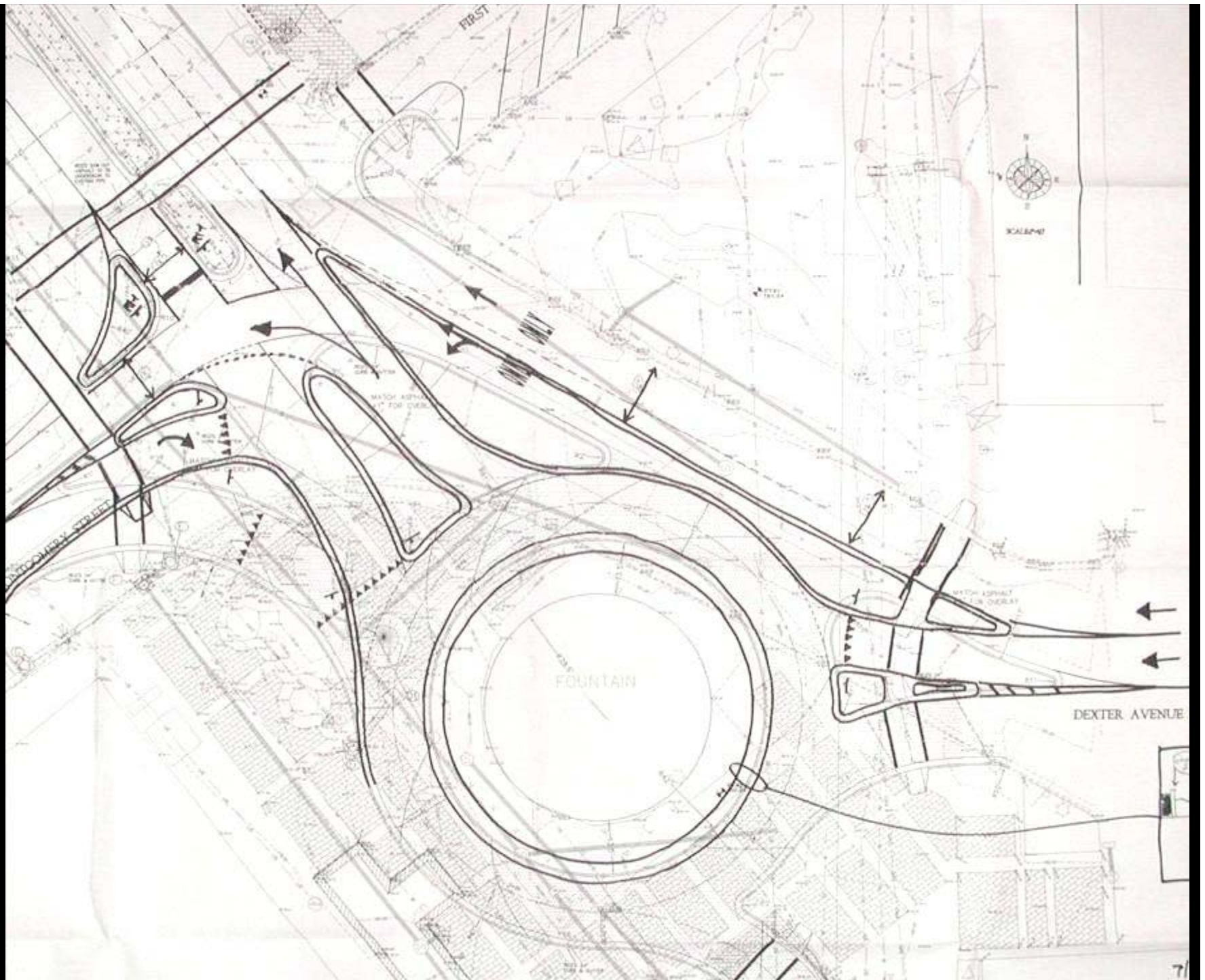
© 2006 Google

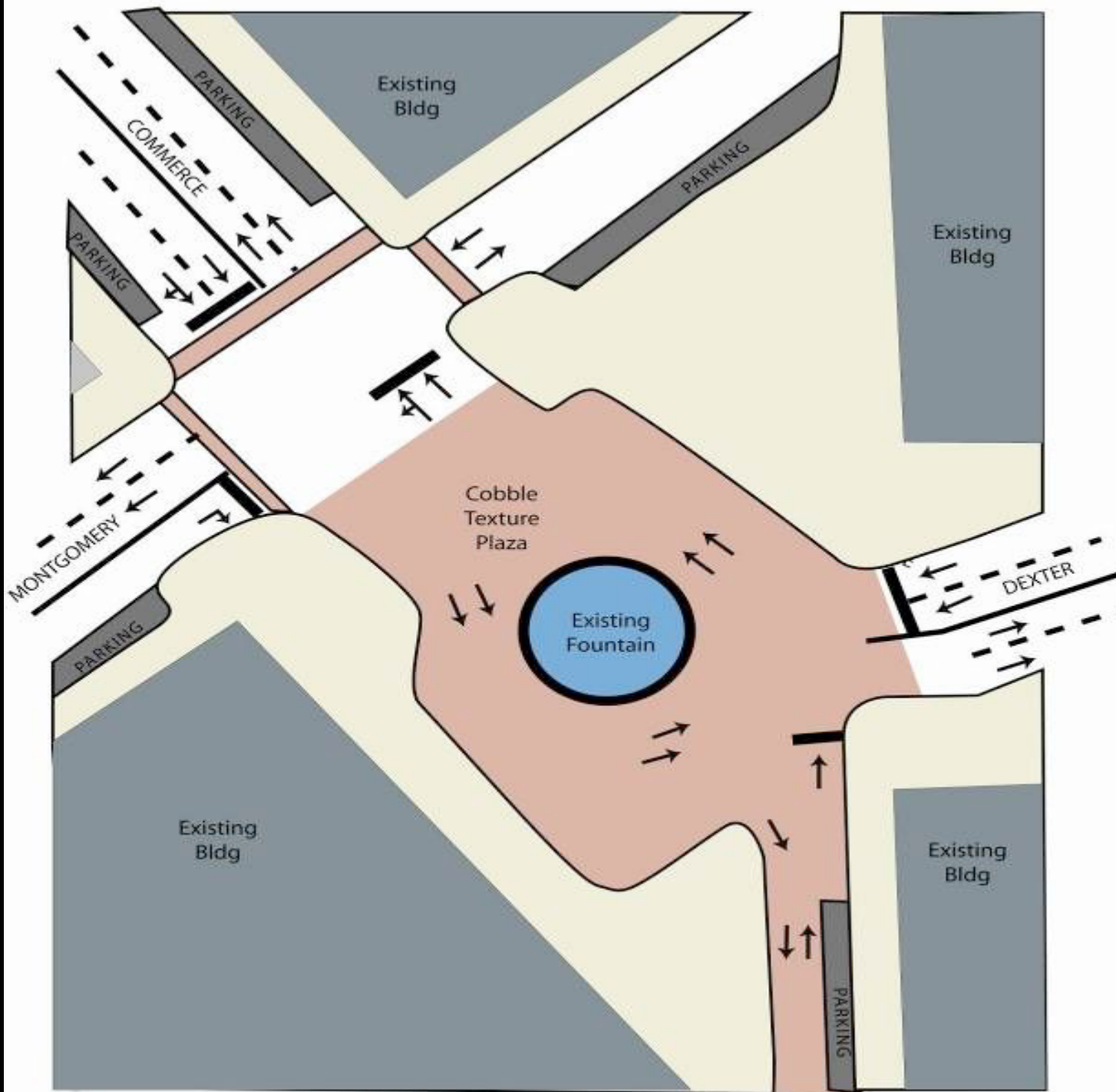
studying the past











1. Crosswalks should be 10'-12' wide

2. Extend plaza cobble texture into intersection

3. Street trees at edge of sidewalk

4. Eliminate splitter islands

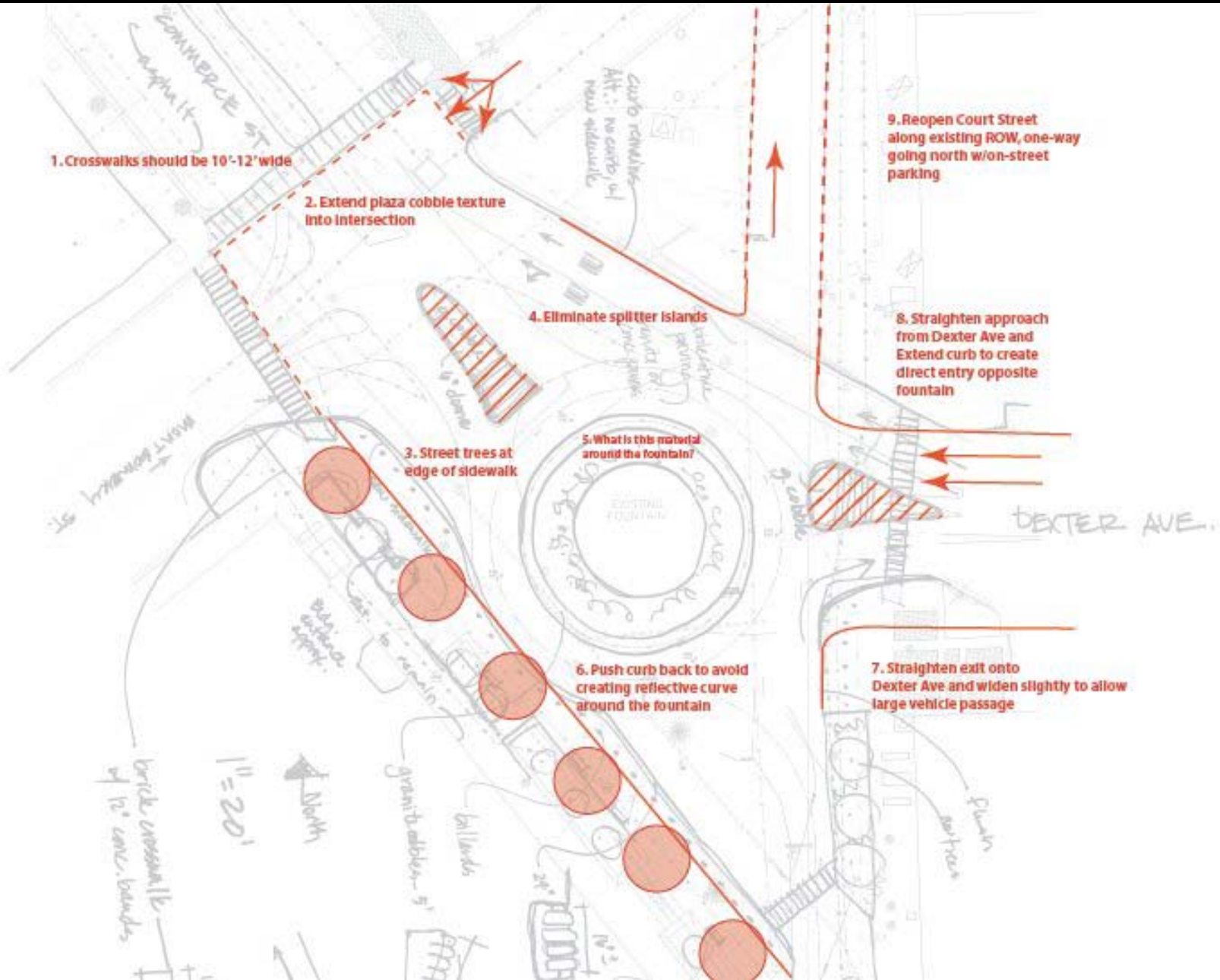
5. What is this material around the fountain?

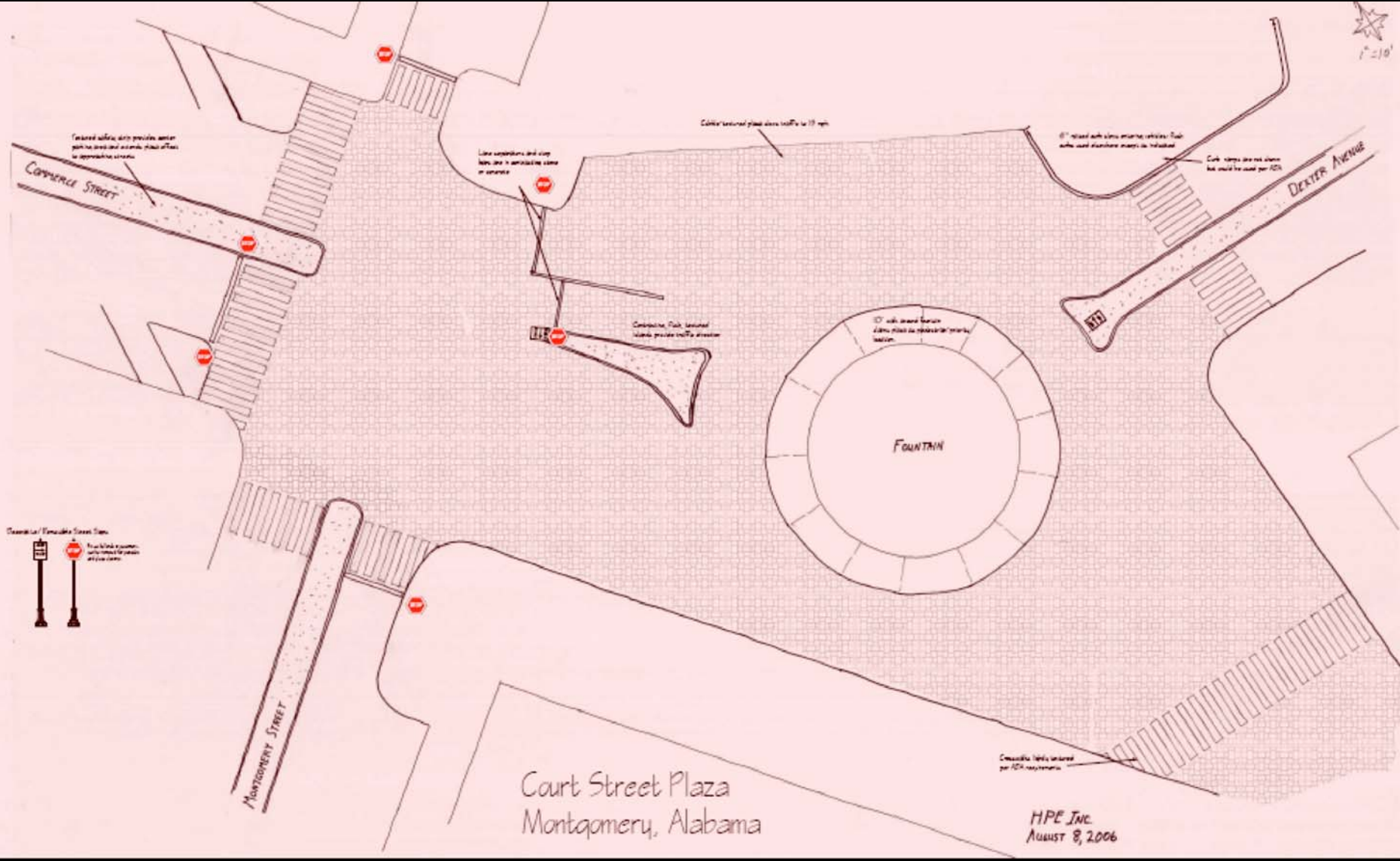
6. Push curb back to avoid creating reflective curve around the fountain

9. Reopen Court Street along existing ROW, one-way going north w/on-street parking

8. Straighten approach from Dexter Ave and extend curb to create direct entry opposite fountain

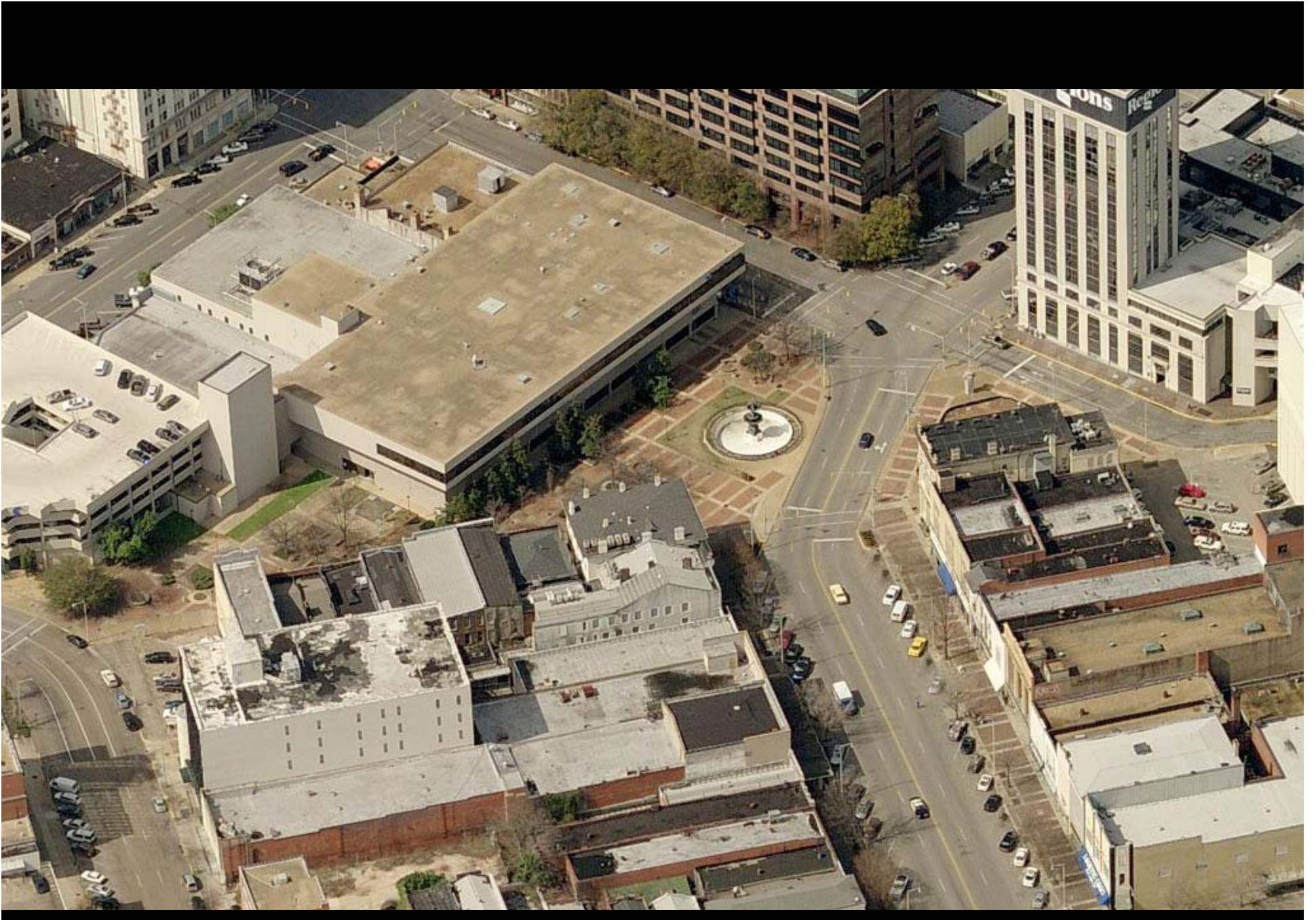
7. Straighten exit onto Dexter Ave and widen slightly to allow large vehicle passage





Court Street Plaza
Montgomery, Alabama

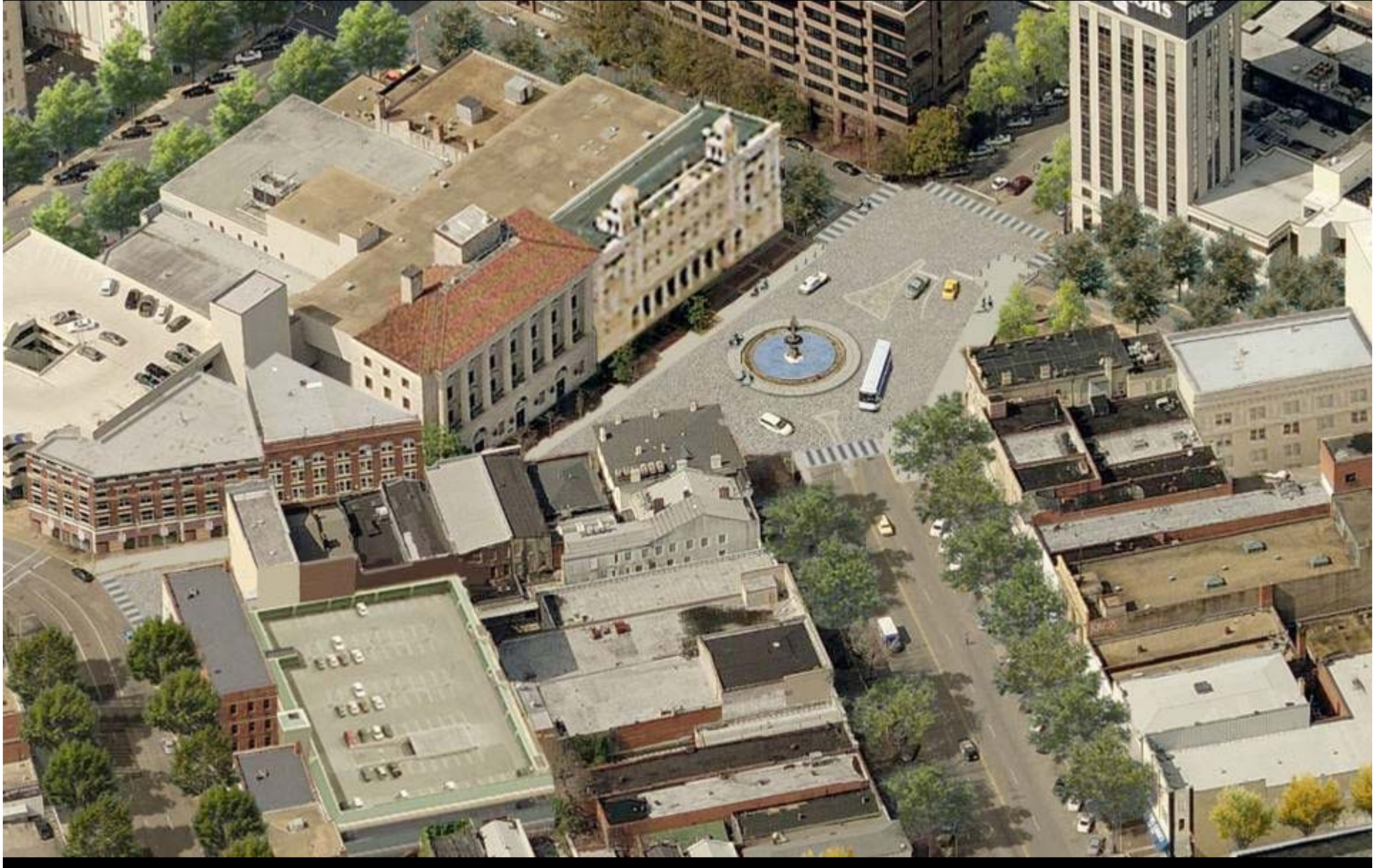
HPE INC.
AUGUST 8, 2006



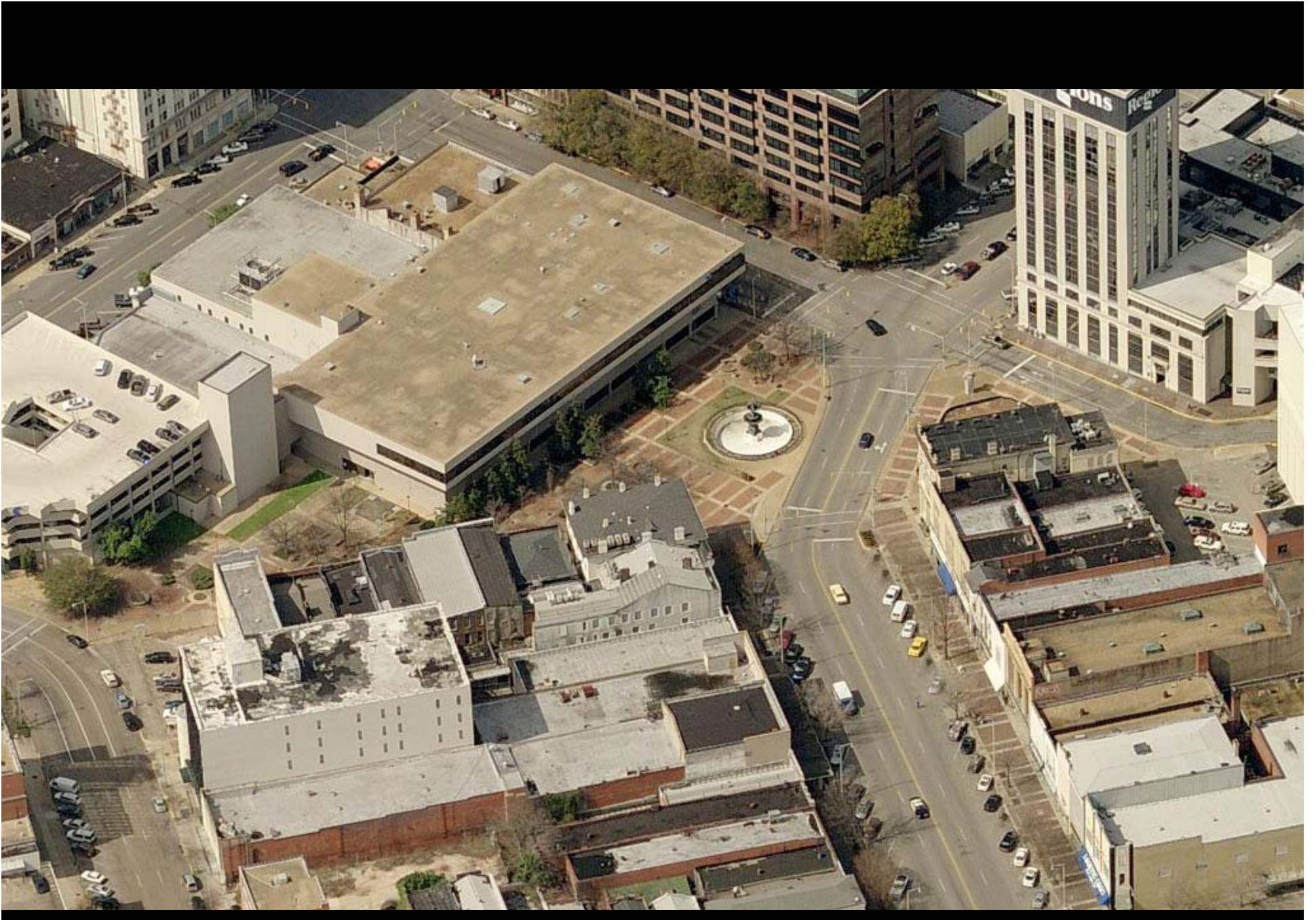
Dexter Avenue



Dexter Avenue



Dexter Avenue



Dexter Avenue













The Transect



T1

T2

T3

T4

T5

T6



