WEB-BASED INTERACTIVE STREET DESIGN DIALOG TOOL

March Active Transportation Committee
March 13, 2013

WEB BASED INTERACTIVE DESIGN TOOL

CONCEPT:

MOVE EXISTING BEST PRACTICES, TO AN ACCESSIBLE, INTERACTIVE, DOCUMENTED DESIGN TOOL TO ENCOURAGE BETTER DESIGN AND MORE PRODUCTIVE DIALOG.

USER INPUTS-

1. CURRENT STREET ATTRIBUTE DASHBOARD

1) Type
Arterial
Collector

2) Lanes
4
5
6
7

3) Lane Width
10
11
12

4) Center Turn Lane Width

5) AADT

6) ROW Width

7) Paved Shoulder Width

8) Transit
None
Bus
BRT Exclusive
TRAX
Street Car

9) Curb and Gutter
No
2ft

10) Sidewalk/Park strip
No
4ft
5ft
6ft

11) Parking
No
Angled
Parallel

12) Design Speed

13) Grade

USER INPUTS –

2. FUTURE CORRIDOR ATTRIBUTE DASHBOARD

1) Design year traffic
4-lane roadways up to 20,000 ADT, and that ADTs in the 15,000 range are a slam dunk for a Road Diet

2) Lane Reduction (diet)
Yes
No

3) ROW
Acquisition
No acquisition

4) Median
Yes
No

5) Origins & Destinations
Low
Med
High

6) Density
High
Med
Low

7) School(s)
Yes
no

USER INPUTS -

3. COMPLETE STREETS PRIORITIES DASHBOARD

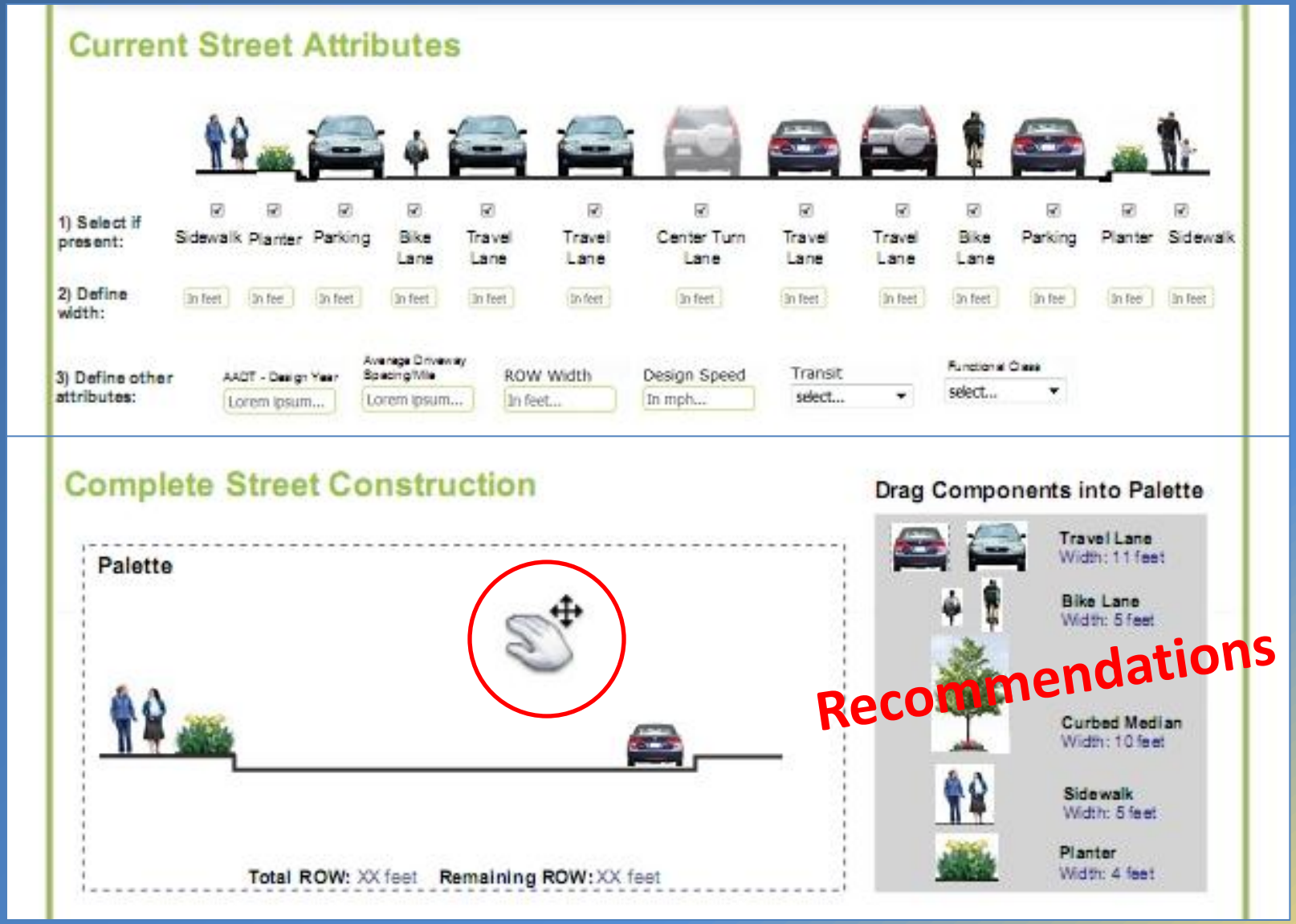
(2.1) Future Corridor (Rank CS Attributes)

Bronze, Silver, Gold

1. Bicycle (Bronze, Silver, Gold)
2. Pedestrian (Bronze, Silver Gold)
3. Transit (Bronze, Silver ,Gold)
4. Freight (Bronze, Silver, Gold)
5. Parking (Bronze, Silver, Gold)

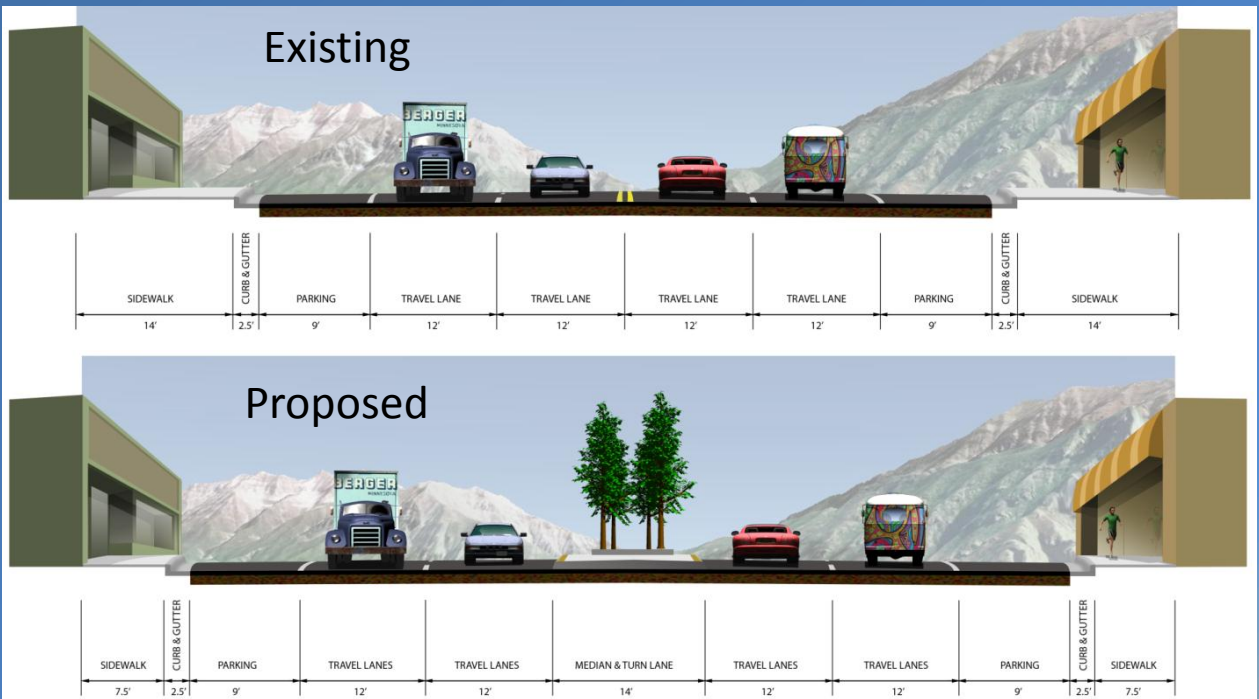
RESULTS -

A. DRAG AND DROP DESIGN TOOL



RESULTS -

B. CROSS-SECTIONS AND REFERENCES



- AASHTO Guidelines
- NACTO Guidelines
- MUTCD Guidelines
- Parking Standards
- ADA Standards
- Links for further information

RESULTS -

C. SAMPLE PICTURES

http://metroanalytics.com/wfrc_v12

PROOFS OF CONCEPT -

http://codeforamerica.github.com/streetmix/

http://metroanalytics.com/wfrc_v12/

http://www.walkinginfo.org/pedsafe/crash_matrix.cfm?GRP_NBR=5&CM_MAIN_GRP=D#5D

WEB BASED INTERACTIVE DESIGN TOOL

OBJECTIVES :

- ✓ Very simple to use
- ✓ Design options in ‘Real-time’
- ✓ Quickly evaluate right of way impacts
- ✓ Facilitate dialog - engineers, planners, public, & others
- ✓ Tie engineering standards to visioning
- ✓ Make “best design” practices more useable
- ✓ Encourage use ITE Context Sensitive Solutions Recommendations

WEB BASED INTERACTIVE DESIGN TOOL

OBJECTIVES :

- ✓ On-location visualizations through Google Earth
  - Cross-sectional View
  - Plan View
- ✓ Wiki based libraries
  - *design elements*,
  - standard cross-section, and
  - emergency response libraries
- ✓ Encourage cities to share street design ideas/practices
- ✓ Provide sketch level street design cost estimates
- ✓ Enhance opportunities for on-line citizen participation

TWO PHASE PROPOSAL :

FIRST PHASE

- Regional/Local Public funds
- Minimum investment $42,000 -- $52,000 Target
- Cross-section Builder, Google Earth Plan View, Linked Design elements and Engineering Standards
- We would like to fund this in a way that allows everyone in Utah to use it.

TWO PHASE PROPOSAL :

SECOND PHASE

- National grant or private funding
- Additional $45,000 to $80,000
- 3-D x-section, detailed intersections, robust library, construction costs, etc.