Tumalo/Riverside Intersection

A Safety Discussion

Open House

Engineering Infrastructure & Planning Division

3-14-2013

Today's Design

- No bicycle infrastructure
- Facilitates cut-through traffic
- High Conflicts
- Poor arterial service
- People walking across the road note they have been cut off by people turning
- Idling emissions/pollution

Project's Design

- T-intersection

  Similar to the Riverside-Louisiana (Congress) intersection

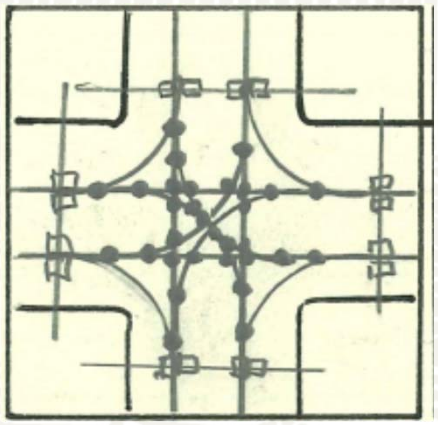
Riverside - Louisiana

Project Proposal

- T-intersection
- Slow speeds (20 to 25 mph)
- Arterial to arterial movements prioritized
- Dark colored concrete to differentiate the intersection
- Green bike lanes through the intersection
- Illumination for people crossing
- Narrow roadway crossing
- ADA accessible
- Pavement details that would prevent drivers from flattening out the curve
- Bike lane exit ramp to allow use of crosswalks

Fewer Conflicts

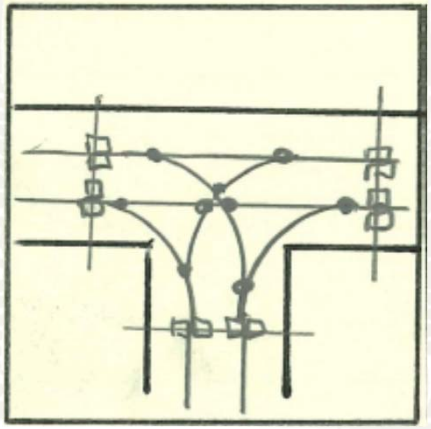
Typical 4-legged intersection



32 car to car conflicts

16 car to pedestrian crossing conflicts

Typical 3-legged intersection



9 car to car conflicts

12 car to pedestrian crossing conflicts

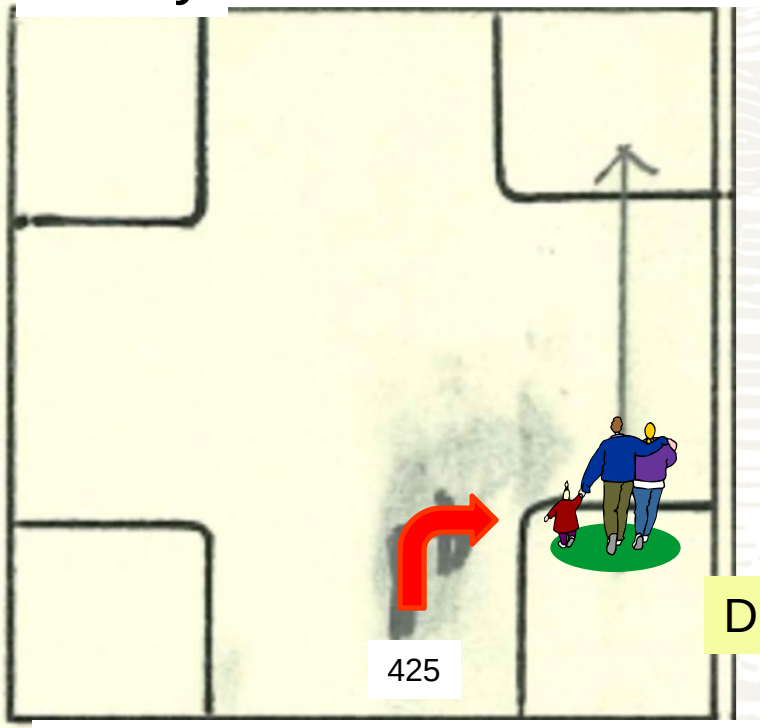
- Today Riverside-Tumalo intersection has even more conflicts than this illustrated Typical 4-legged intersection because the north leg has 2 travel lanes.

Pedestrian protection

Heaviest pedestrian crossing movement is from Drake Park towards Miller Landing Park

Heaviest car movement is southbound to westbound RIGHTS (425 cars per hour)

Today



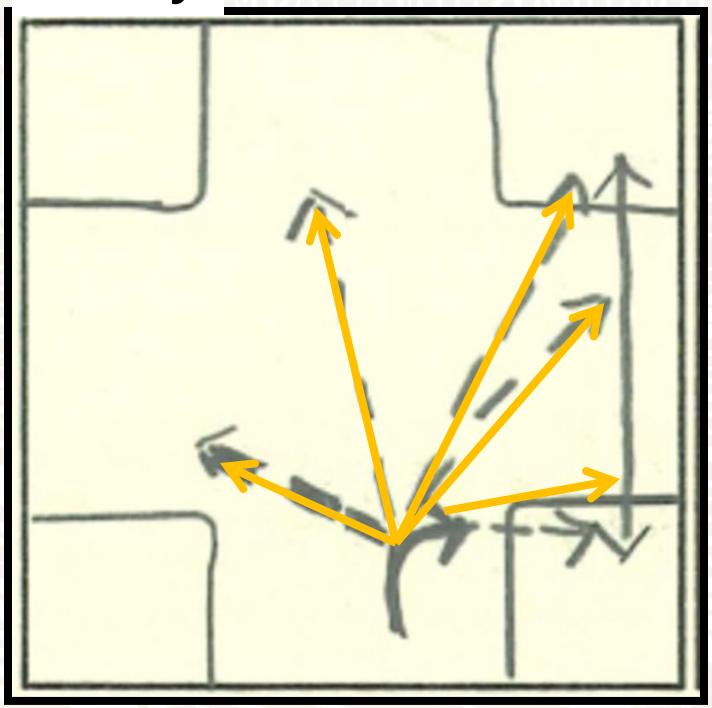
- Turns start behind the Pedestrian
- Pedestrian can't see it coming
- No eye contact possible

Project

- Perpendicular crossing
- Eye Contact!

Focus - Split v. Undivided

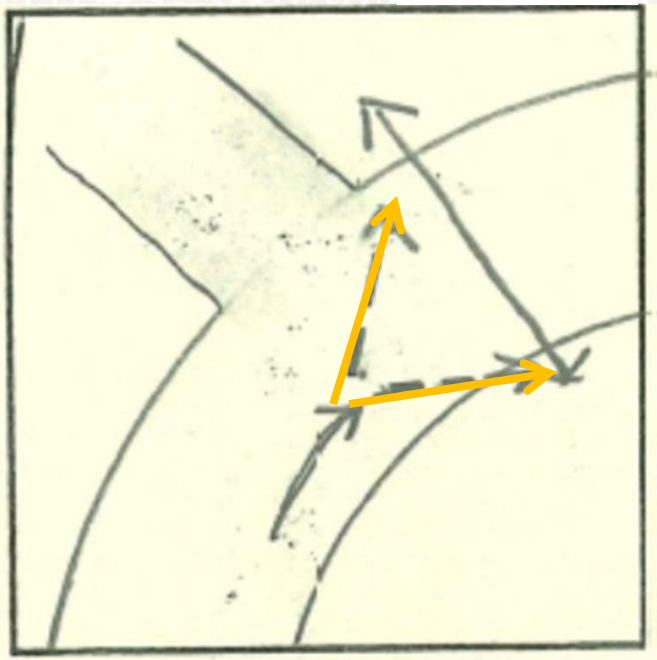
Today



Split Focus

- Who arrived?
- In what order?
- Is it my turn yet?
- Are there pedestrians?

Project

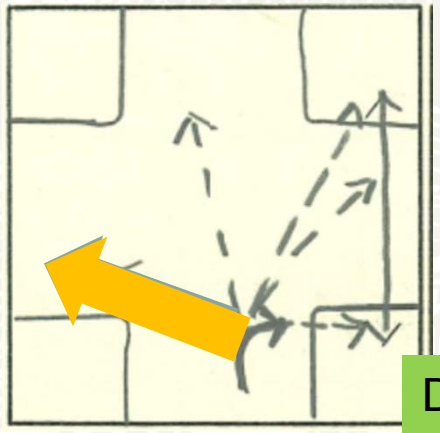


Undivided focus

- focus on person crossing the street

Focus – Orientation of focus

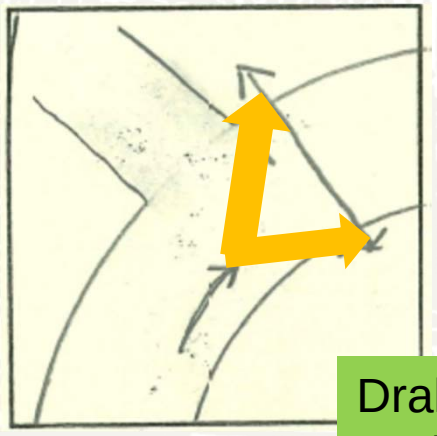
Today



Driver approaches intersection and looks left

- To the left (away from pedestrian)
- Can I make my right turn?

Project



Driver proceeds along the roadway

- Approaches crossing in a forward manner – facing the pedestrian

Other – Bike Operations & Safety

- Arterial bike traffic does not have stop signs
- Left turns for people on bikes:

  Two safe choices:

  - Take the lane
  - Exit ramp provided to use the cross-walk
- Bike lanes added to the intersection
- Matches Oregon Scenic Bikeway route

Other – motor vehicle operations

- Arterial traffic is maintained on the arterial
  - Better protects local residential streets from cut-through traffic
  - Sidestreet delay is estimated to be similar to that experienced by users of other local streets onto either Riverside or Galveston.
  - Sidestreet delay can reduce cut-through traffic
  - Reduced delay on the arterial can promote arterial use

Other – motor vehicle operations - continued

- Intersection configuration better matches traffic volumes
  - Fewer idling emissions/less pollution
  - Less noise

Matches Complete Streets Philosophy

- Multimodal
- Inclusive – a place for everyone
- Serves
  - All ages
  - All abilities
  - Along the street
  - Across the street

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