Class IV Bikeway Summit - Debrief Themes

DESIGN

- Currently auto-centric – need to accommodate other modes
- Site lines need to be highly visible to all
- Clear operating concepts are imperative
- What is the goal? "What is it intended to be?"
- Need sexy roadways/facilities to entice more people to use bicycles
- Ensure flexibility with range of parameters in guidance
- Aesthetics could impact use
- Define and use a clear design exception process
- Ensure clearly apparent bus stop locations with appropriate way finding
- Quiet systems can result in issues for hearing impaired
- Parking – where?? – bus loading, etc.
- Different costs – make funding available for different types
- Consider differing terrain
- Consider weather impacts to users
- Speed vs. funding
- Interaction of different users and modes
- Stress free experience
- Context sensitive solutions
- Connectivity (door to door) & consistency – balance with flexibility
- Transparency
- Class IV as alternative to reduce conflicts
- Don't shy away from difficult problems
- Accommodate a range of users
- Design areas where parking is allowed
- Consider accessible vehicles/ramps - need buffer area
- Concern for 2-way tracks, speed differentials
- Flexibility – allow for temporary placement, low cost revisions
- Accessibility, parking, passenger loading
- Design wider to accommodate growth
- Define width by users – passing
- Roadway should have users too
- Make users aware – signage
- Speeds differ -> describe transitions
- Look at cost of different designs
- All users interact – consider all, e.g. ADA ramp
- Driver education needed
- One color for bikeways
- Cyclist value momentum – efficiency
- Build on examples but try new – experiment
- Clarity on Class II vs IV
- Provisions for short term temporary access issues - moving vans, recycling, trash trucks
- Provisions for longer term temporary access issues - construction zones
- Not too complex
- Planning guidance with design guidance

DESIGN (Con't)

- Develop cost benefit analysis process
- Look at "How does this fit in network?"
- Don't reinvent the wheel
- Include non-technical information in guidance
- Ensure effective signage is developed and used
- Education!
- Space for parking and driveways
- Sidewalk treatments
- Maintenance – Design space for street sweepers / proper drainage

OPERATIONS

- Driveways – signage for appropriate usage
- Rural areas – how to interact without sidewalks
- Eliminate environmental process – more formula funds
- Education and enforcement – inform and communicate to community members
- Driver, user expectations
- Discuss tradeoffs between priorities and efficiencies
- Good sight lines
- 2-way Class IV – manage conflict zones – intersections and driveways. Address who has right of way. Determine when to use 1-way vs 2-way
- Rural settings – main roads – how best to leverage Class IV. (Maybe look at different use of guardrail)
- What other types of vehicle/users in Class IV? Don't limit type – limit the speed.
- Keep low stress to encourage users, new riders need clear signage and signals
- Sidewalks – constraint if in poor condition
- Use signal timing to keep vehicles/bikes going
- Access time – ensure people go the right way
- Look at other ways to direct traffic vs points of conflict/crashes
- Use low-maintenance materials – bike friendly/not slippery
- Seek to attract users in rural areas
- Educate kids, seniors, etc.
- Lower design speeds
- Use outreach to all users
- Ensure designers have some experience using bikeways
- Don't reinvent the wheel
- Signage - symbols better than words
- Clearly define user types
- Priorities - > shift to focus on all users with the right use of resources
- Freeway interchanges – consider ramp metering to help time crossings
- Look at existing solutions (Europe)
- Access in/out
- No "cycle tracks to nowhere"
- Utilize appropriate start and end points and signals
- Determine how best to navigate interchanges (diagonal?)
- Utilize appropriate signage that can be seen from a distance
- Re-evaluate continuously
- Equal priority to all users – don't limit capacity as solution

OPERATIONS (Con't)

- Accommodate sensitive groups
- Consider maintenance and sweeping
- Consider emergency vehicles – educate public on how to move
- Use vegetation to create canopy
- Adjust maintenance practices
- Consider bike signals as default
- Address driveways directly
- Optimize bike/pedestrian movements
- Indicate where to expect interactions (standard colors), vertical elements – make intuitive through design
- Use truncated domes
- High contrast, consistency for signing and striping are key
- Access to parking and bus stops – bike boarding islands – signage, bike signal
- Accessible signals
- Continuous boarding islands
- Ensure posts don't block car boarding access
- Develop signalization guidance for 2-way
- Consider overall continuity /connectivity
- Intuitive and clear delineation

IMPLEMENTATION

- FHWA- use as sample
- Comprehensive
- Review and flag existing guidance documents to avoid conflicts
- Use 'learning process' and allow for guidance to evolve
- Limit "shall" statements and use case studies
- Ensure ease of use by all groups
- Don't reinvent the wheel; use same look and feel as NACTO
- Terminology – use "protected bikeways"
- Leverage elected officials for marketing
- Consider DIB use
- Use Caltrans's broad reach and hold district-level training/outreach
- Use before and after studies to develop best practices and measure results; share best practices in a way that all can access and learn
- Update state bike map
- Develop minimum requirements for safety (some "shalls") with mostly "should" statements
- Make guidance shorter, simplified, and accessible by all
- Develop a multimedia approach, post videos online
- Use temporary layouts that can be adapted later
- Develop location selection criteria to ensure best use of resources
- Develop an evaluation matrix for each class of bikeway
- Do not make guidance standalone – coordinate
- Use an interim step before completing guidance
- Allow guidance to be flexible and allow innovation
- Ensure guidance considers the California context

IMPLEMENTATION (Con't)

- Include training and outreach in guidance development
- Audit existing laws and regulations
- Continue the conversation with stakeholders
- Have Caltrans become the leader for other states to follow
- Develop the "Hollywood" of manuals
- Create web version
- Use graphics and clear text
- Ensure guidance has sound basis in data
- Touch on all classes for continuity
- Require driver education
- Coordinate guidance with the vehicle code
- Align law enforcement with guidance and educate as needed
- Engage in a deep conversation with the public
- Conduct field workshops and peer exchange
- Amplify outreach efforts with law enforcement, users, motorists, media, etc
- Leverage case studies and demos
- Discuss whole bikeway system
- Develop standards for temporary implementation
- Develop training module for designers
- Mimic NACTO graphics
- Reintroduce chapter 1000
- Use plain English
- Mimic CROW format
- Include whole section on vulnerable users
- Develop library of experimental results (outside guidance)
- Design speeds based on a "real" model vs simulation
- Use new FHWA and NACTO
- Would like an interim document during development period
- Include schools in outreach
- Include descriptive narrative text, not only technical information
- Ensure authors have first-hand experience on bikeways
- Use positive and negative examples
- Instigate culture shift from roadway appliers to roadway designers
- Use one chapter vs spread out
- Use two draft format: Draft 1, review, Draft 2, review
- Have MUTCD be more prescriptive
- Use searchable PDF
- Include FAQ and technical support
- Holistic planning
- Include worksheets to estimate costs, consider life cycle costs
- Place guidance with that of traffic control devices
- Use simplified outline format

SYNTHESIS

- Get stakeholder feedback earlier
- Don't make guidance overly prescriptive, leave open for minimum requirements
- Ensure guidance is context sensitive
- Change terminology to bikeway
- Education necessary for enforcement
- Develop bike user handbook
- Use existing guides – don't reinvent wheel
- Use lessons learned
- Engage with other stakeholder groups
- Use interim guidance
- Understanding that this is overall a complicated, complex process
- Ensure guidance is flexible
- Make guidance simple, elegant and timely
- Utilize ramp meters
- Jug handle
- Use intuitive design
- Ensure equal consideration of bikes (equal to motor vehicles)
- Outreach to businesses where Class IV bikeways will be used
- Address / change funding to improve timeliness
- Acknowledge that not all roads are right for Class IV
- Increase funding
- Work with department of public works to move forward
- Enjoyed forum
- Partner with colleges
- Increase ATP funding
- Calculate ROI for sustainable communities
- Ensure system is integrated
- Need guidance to be comprehensive and complete
- Need to find way to most effectively implement
- Came out with better understanding of all issues
- Enjoyed that all voices were heard and overall positive tone of summit
- Enjoyed level of enthusiasm and high level of thought