Bicycle & Pedestrian Master Plans
Overview

- Why Plan?
- Types of Pedestrians
- Types of Bicyclists
- Elements of a Good Plan
- Combined or Separate Plans
- Equity Planning
Having a vision for how a community will incorporate active transportation is the first step in seeing it implemented. It acts as a blueprint and direction to improve walking and bicycling facilities in a community. Having a vision solidified in a plan will allow for the city and citizenry to move forward on seeing a network of bike paths, pedestrian facilities, and access to a wide range of transportation options.

Planning will also allow for implementation that incorporates elements of the plan as development happens. Ultimately this is less expensive than attempting to retrofit areas to have good facilities or access points. The plan will also allow for a coordination between scheduled road projects or new developments, streamlining the process for the city and seeing that improvements get done in a coordinated way.
Even vehicles that include an auto trip must begin and end with an element of walking, making “everyone” a pedestrian.

Pedestrians are a diverse group, they are children, adults carrying packages, people with pets, the elderly, and people who need walking assistance. Planning for this diversity of users can be a challenge.

Obviously, it should be noted that walkers move slower than those who bike or other modes of transportation. Even within pedestrians there are varying speeds as you can see in the graphic above.
A study done in Portland showed that within the population that might consider biking, or those who already bike, the population could be broken down into 4 general categories. These percentages represent roughly what studies have shown to be their level of interest or participation in cycling. It is important to know how these types of classifications or categories might break down within your own community.

To increase levels of cycling, the plan needs to address the needs of those who are interested in bicycling but still have reservations, the largest population block at 60%. To get this population on a bicycle will also serve those who are enthused and confident riders as well as those who are fearless. And by planning for this “interested but concerned” group, there is the greatest “bang for the buck” in facilities planning.
Steps in Creating Master Plan

1. Before the Plan
   - Stakeholder engagement and vision
   - Consensus around goals & objectives
   - Data collection
2. Developing Master Plan
   - Dialogue & education with community
   - Preparing draft plan & setting priorities
3. Implementing the Plan
   - Adopt plan
   - Annual work plan & continued outreach

These steps are adapted from the handout available from The National Center for Bicycling and Walking and Active Living Resource Center “Creating a Roadmap for producing and implementing a Bicycle Master Plan” by Peter Lagerway.

Since Master Plans will vary depending on community needs, this resource looks at what the steps have been for implementing a successful plan. Creating a plan begins early with developing stakeholder buy in for the need of a plan, and is anticipated to take 6 months to a year to develop. This step is thought to be one of the more difficult steps as it requires consensus on goals, budget, objectives, content and timing of the plan. The authors of the document stress that collaboration is key to any successful Master Plan and this first phase is beginning to create these partnerships with stakeholders and creating avenues for community participation, such as through a Citizen Advisory Committee. In this phase, the community will decide if they will work with a consultant.

The second phase is focused on actually developing the Master Plan with a recommended timeline of 9-18 months. This phase relies heavily on the partnerships created in the first phase. This phase will have multiple community engagement opportunities and work on preparing a draft plan that includes a description of existing conditions, and lays out the priorities of the plan (including how these were reached), the network that will be developed, any encouragement activities, and a strategy for implementation (which will be discussed next). These drafts will be reviewed internally and by the Citizen Advisory Committee, and the draft should support the agreed upon goals and objectives of the plan. The draft should also include a discussion on priorities for the short and long term implementation plan.
These are the elements that will be present in the Master Plan itself, the step 2 (Developing the Master Plan) from the previous slide.

1. Vision for the future
2. Existing Condition Analysis
3. Input from Community and Stakeholders
4. Policies
5. System Facilities and Design
6. Final Plan Recommendations
7. Implementation & Funding Strategies
8. Appendices
Strategic vision possesses real power in setting directions, motivating action, and guiding decisions. It should reflect community values and aspirations and be built upon achievable facts.

The final vision should be easily communicated, remembered, and understood. At the same time, it needs to be future oriented and measurable as the community and staff works to achieve that goal. Not only is this goal a practical component of the Master Plan, but it should act as a source of inspiration to continue working towards that goal.
This is a clear vision that includes a specific, measurable goal and the “how” to reach the goal.
An analysis of existing conditions is important to lay the groundwork for where the city needs to go with the Master Plan. The existing conditions analysis will help make recommendations for needed actions. Some common metrics in an existing condition analysis are collision data and a survey of existing programs within the city and region. Communities need to evaluate data desired and time and funding available.

This is a good opportunity to also identify underserved and high risk areas.

For more on metrics, refer to the Module on Data Collection & Research (#7).
The City of Bellevue began development of a new bicycle and pedestrian master plan in 2009. In order to assess current conditions, the city staff looked at conducting an internal assessment and reached out the community to see how the existing network was working in practice.

The staff assessment included trips to the field to evaluate existing roadway widths; location of sidewalks and other objects that may occur within or adjacent to the road right-of-way and may restrict improvements; existing posted speed for motor vehicles; and, adjacent land uses. By creating GIS maps with overlays of crash data, vehicular volumes, and types of land uses, the city could get a snapshot of high priority areas that may need to be prioritized in the plan.

The community engagement strategy to understand current network conditions included many online and in-person strategies. Online interactive maps, and flickr photo streams to upload photos of problem areas or make comments on facilities were utilized. More traditional workshops and photo visualization for before and after were also utilized.
Community engagement will help determine constraints and opportunities within the community of users (or potential users). It is an incredible opportunity to take advantage of users’ knowledge and get a better understanding of on-the-ground conditions. This is also an important step to build stakeholder support for a particular program as discussed in the “Steps in Master Plan”. The community can work with the practitioners to help brainstorm potential solutions to problems the community has identified.

The general rule of thumb for community engagement is to do it early and often in the planning process. It should make an effort to reach diverse groups of stakeholders and potential users of the final bike or pedestrian plan.
There are many creative ways to engage communities for their input on a bike or pedestrian plan. For Portland’s community engagement they did a number of strategies to reach a diverse population in different geographies of the city and engage people in different ways, such as:

• Throughout the process we have sorted through advice from the community – both individuals and groups, from our working groups for the plan, from the City’s modal advisors – the Bicycle, Pedestrian and Freight committees, from our Steering Committee and Technical Advisory Committee, and from Portland’s Planning Commission.

• Bike tours and walking through different neighborhoods let residents point out areas of concern or try biking for the first time with a large, safe group.

• Pin the tail on the problem allowed people to identify where there were access problems by looking on a map of their neighborhood.

• Traditional open houses also allowed for the city to give out information and get feedback from interested residents.

• Went out to different neighborhood coalitions to get feedback

• It is often best to bring the meeting to the people instead of having them come to you.

• Social media and plan-specific websites with opportunities for direct feedback help get feedback from people who may be unable to attend meetings in person.
It’s important to have nonmotorized transportation elements integrated into your citywide policy. The policies identify strategies to reach the vision that was created and lay out the relationship between the Master Plan and other planning efforts affecting the city or region.

A recommendation may be to make policies for standardizing bicycle and pedestrian improvements through the regular activities of local, regional, and state governments. For example, some communities have made it standard transportation policy to include bicycle and pedestrian concerns during all transportation improvement studies and to provide bicycle facilities and sidewalks whenever streets are constructed or resurfaced.

From here, with an understanding of current policies, it will be possible to make policy recommendations that can be incorporated in updates of the above plans or included in the master plan.
Example: Chapel Hill first looked at the existing policies that had been created through disparate plans. This was a way for them to assess gaps in their current planning to help move forward. The Chapel Hill Plan then looked at the existing systems where the policies were not being upheld in order to make recommendations for priority actions and as a way to create a baseline measurement against goals. (See http://www.ci.chapel-hill.nc.us/index.aspx?page=553 for more info)

The plan also recommended new policies or ways the city should improve the bike and pedestrian plan.
The design of the system facilities should be laid out in the Master Plan. The facilities should incorporate both design elements and they types of facilities that should be present for implementation.

Prioritize facility types and locations based on community input, data analysis

(NACTO example--http://nacto.org/ for more info)
Portland’s Bicycle Master Plan lays out the network of the plan and the types of facilities for this network.
These final recommendations should connect to the vision and tie in goals and specific policy actions that will help reach that vision.

Clarity is important to the success of the recommendations and should be clearly tied to the research and existing conditions that have been established.
Oakland, California’s pedestrian plan makes recommendations for each of the plans overarching goals. Here is just one example of a recommendation they make to achieve the goal of pedestrian safety. The policy and actions are clearly defined and further supported by other action items and existing policies. (http://www2.oaklandnet.com/Government/o/PWA/o/EC/s/BicycleandPedestrianProgram/OAK024597)
7. Implementation & Funding

How and when the plan will be executed

- Next steps
- Short and long term goals
- Timeline & prioritization
- Identification of funding sources

The Master Plan must include steps on how the goals and design should be implemented. These guidelines will help set timelines and should lay out potential funding sources.
In the city of Denver's Pedestrian Master plan, they lay out potential funding sources for the different types of projects they may implement to meet their goals. This table represents the methods they currently use to fund projects, and potential sources in the future.
8. Appendices

Support and implement plan

- Maps of planned and current facilities
- In depth data & resources
- Summary of community engagement and input
- Design guidelines
Deciding on whether or not to do a Bike Master Plan, a Pedestrian Master Plan, or a combined Bicycle and Pedestrian Plan will depend on the context you are planning in.

Remember the very different types of populations that make up bicyclists and pedestrians. This diversity amongst the facilities you are planning for could make a combined plan more difficult to implement. However, every plan will need to have similar elements of community engagement, analysis of current conditions, and a strategy for funding. These overlapping areas can save significant resources in the planning process. If thoughtfully approached, a combined plan could work in many jurisdictions.

The scale of the Master Plan (city, region, state) will also be something to consider when determining the type of plan you will create. Finally, any plan should tie back to the original community vision for active transportation in the area.
Children, women, immigrants, seniors and other populations that have historically not bicycled in large numbers and have not been the focus of most bike and pedestrian plans. In the U.S., men’s cycling trips surpass women’s by at least 2:1. In the Netherlands, 27% of all trips are made by bike, and 55% of all riders are women. Some studies have suggested that seeing if infrastructure is appropriate to encourage more riders, you should look at the rate of women cyclists. Women tend to want more protected or “safe” bicycle facilities. Planning and encouraging this demographic in a bike plan could increase rates across the board. Planning for this population will meet the needs of other cyclists, even those other underrepresented groups like seniors. (“How to Get More Bicyclists on the Road,” Scientific American, 2009).

Not only are the populations underrepresented in community engagement efforts, but their neighborhoods are often underserved. The Community Cycling Center in Portland (www.communitycyclingcenter.com) also found that lower income neighborhoods had less access to facilities such as bicycle boulevards, bike lanes, or connected sidewalks.

As the Bicycle Master Plan for 2030 was being drafted in Portland, a working group requested a network gap analysis to see if equity issues needed to be incorporated. The results revealed that the network was weakest where the highest percentages of communities of color reside. The darker the area, the higher the disadvantaged population. Those blocks that are outlined in green are the areas with limited facilities and are “higher stress” environments for cyclists. As a result, facilities in these areas received higher priority in the implementation strategy. See http://www.portlandoregon.gov/transportation/article/264747 for more info on Equity Gap Analysis.
Questions & Discussion