**Medians & Refuge Island**
Refuge medians allow people crossing the street to have a chance to safely wait for traffic.

**Sidewalks**
Minimum sidewalk widths create space on the street for amenities and gathering.

**Mid-Block Crossings & Curb Extensions**
Sidewalk 'Bump-Outs' reduce the time needed to cross the street & increase safety.

**Traffic Safety and Speed Management**
Making motorists aware of the speed limit and intersection rules increases pedestrian safety.

**Pedestrian Signage**
Pedestrian signs help provide information/direction, and help celebrate the community brand.

**Bike Routes & Bike Racks**
Help direct pedestrian traffic across the street & protect corners from auto drive-over.

**High-Visibility Crosswalks**
Increasing awareness of places where people cross the street increases pedestrian safety.

**Benches, Outdoor Dining and Street Furnishings**
Places to sit and rest along the street provide comfort for pedestrians.

**Bus Shelters & Shuttle / Bus Service**
Bus and shuttle services are an important part of a Complete Street network.

**COMPLETE STREETS TOOLBOX**
2011
The Englewood Complete Streets Project is an initiative to take steps toward a community vision for mixed-use, pedestrian oriented development patterns in Englewood’s Downtown and Medical Center Districts.
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Implementation Matrix
Introduction

The Englewood Complete Streets Project is an initiative to take steps toward a community vision for mixed-use, pedestrian-oriented development patterns in Englewood’s Downtown and Medical Center Districts. The Downtown and Medical Center Districts are served by the Broadway and Old Hampden Avenue corridors. As the historical heart of Englewood’s Downtown Central Business District, Broadway is a prime candidate for pedestrian-oriented public improvement projects. The Old Hampden corridor, in addition to connecting the Medical District to Downtown, also serves as the front door to the Swedish Medical Center and Craig Hospital campus. Due to their major presence within the districts and service to the broader Englewood community, the Broadway historical main street corridor and the Old Hampden Avenue Corridor are the central focus of this study. However, the tools contained in this toolbox document are also applicable to secondary streets within the Downtown and Medical Center Districts. This document will serve as a working toolbox for both the Public Works and Community Development Departments as the City moves forward with traffic operational changes within the Downtown and Medical Center Districts in coming years.

This project is funded through a sub-grant of the Communities Putting Prevention to Work Initiative, a $10.5 million grant awarded to Tri-County Health Department from the Centers for Disease Control Prevention. The initial application of this document is focused on the Englewood Downtown and Medical Districts. In the future, this toolbox may be applicable to other locations in the city and could be considered for other street improvement projects throughout the City.

Project Background

Prior to this project, the City of Englewood hired the Britina Design Group Team to conduct a public streetscape design planning process for the Downtown and Medical Center Districts. The project developed conceptual streetscape designs for the Broadway and Old Hampden Avenue corridors and identified a sequence of steps necessary to plan, finance, design, and construct actual streetscape improvements based on stakeholder preferences. The results of the planning process are contained in the final plan document entitled Ready, Set, Action! An Urban Design Action Plan for the Englewood Downtown and Medical Districts.

The Englewood Complete Streets project was identified as a critical next step project in the Ready, Set, Action! planning process. The Complete Streets project differs from the original design charrette in its specific focus on a narrow subset of streetscape improvements that affect the nature and operation of the street network. Both motorized and pedestrian-oriented traffic movements were studied in greater detail by Fehr and Peers transportation consultants to form the basis of policy recommendations and infrastructure improvements to complete Englewood’s streets.

What is a ‘Complete Street’

A complete street allows safe access for all users of a road network. Pedestrians, bicyclists, motorists, and public transportation users of all ages and abilities are considered in the design and operation of a complete street. Because complete streets may exist in a variety of forms and locations, there is no prescription for their design. However, common features include:

- Sidewalks
- Bike Lanes
- Wide Shoulders
- Plenty of Crossing Opportunities
- Refuge Medians
- Bus Shelters & Crossings
- Special Bus Lanes
- Raised Crosswalks
- Audible Pedestrian Signals
- Sidewalk Bulb-outs
Context

Existing Conditions

Englewood’s fine-grained neighborhoods contribute to the community’s overall walkability and accommodate multi-modal travel. Broadway and Old Hampden are lively corridors with significant pedestrian activity. However, specific improvements along these corridors could help the streets become more complete and connected to Englewood’s neighborhoods.

As the heart of the Downtown District, Broadway is home to many businesses. Visitors and residents can park once, either on-street or in locations behind businesses, and are within walking distance of several destinations on either side of Broadway. However, with approximately 30,000 vehicles traveling on Broadway near Hampden each day, the quality of the pedestrian environment and potential for complete street opportunities are not being realized. Old Hampden has less traffic with approximately 5,000 daily vehicles. This area also generates a high level of pedestrian activity due to the location of major hospital facilities along the corridor. While there are currently sidewalks along most Englewood streets, fences, shrubs, narrow sidewalks, or curbs obstruct pedestrians along parts of Old Hampden. Complete streets improvements along Old Hampden could make the district more safe and accessible for all users of the roadway.

This document provides additional guidance on designing for more complete streets, while maintain the current lane widths for motor vehicles and on-street parking configurations. The goal of this toolbox is to identify fiscally responsible projects that can improve mobility for all users, and fulfill previous planning effort’s goals for more non-motorized travel in the area.

In previous planning efforts specific locations have been addressed on a case-by-case basis. This toolbox is intended to provide more consistent guidance and build upon the previous improvements the city has made to enhance street function for all users.
Existing “Tool Box” Improvements as shown in the following sections
### Existing Policies

**Road Map Englewood: The 2003 Englewood Comprehensive Plan** contains the following goals and objectives that support complete streets policies:

### Section 8: Transportation Goals

<table>
<thead>
<tr>
<th>1. Enhance both the mobility and the accessibility of the transportation system</th>
<th>Objectives</th>
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</thead>
<tbody>
<tr>
<td>1. Enhance both the mobility and the accessibility of the transportation system</td>
<td>1. Recognize the limitations of increasing arterial road capacity by emphasizing capacity improvements to pedestrian, bicycle, and transit modes</td>
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<td></td>
<td>1.4. Maximize travel mode choice opportunities both within and between residential, commercial, recreational, and civic areas</td>
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<td>1.5. Build a transportation system that ensures universal access to historically underserved or disadvantaged groups including the elderly, children, the disabled, minorities, and low-income groups</td>
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<td>1.7. Improve directional signage for automobile traffic, pedestrians, and bicyclists</td>
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<tr>
<th>2. Improve environmental qualities adversely impacted by automobiles for both local residents and visitors to the community, while also accommodating commuters</th>
<th>Objectives</th>
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<tr>
<td>2. Improve environmental qualities adversely impacted by automobiles for both local residents and visitors to the community, while also accommodating commuters</td>
<td>2. Utilize a variety of traffic calming and speed reduction methods to slow traffic on collector routes and on adversely impacted local residential streets</td>
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<td>2.3. Pursue strategies to improve air quality and reduce fossil fuel usage</td>
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<tr>
<th>4. Promote a quality of life transportation philosophy that seeks to create an environmentally attractive, pedestrian-friendly community</th>
<th>Objectives</th>
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<tr>
<td>4. Promote a quality of life transportation philosophy that seeks to create an environmentally attractive, pedestrian-friendly community</td>
<td>4. Create continuous transit and non-motorized connections between City Center and downtown Englewood, as well as the surrounding residential and business community</td>
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<td></td>
<td>4.2. Improve bicycle facilities and infrastructure in strategic locations throughout the city</td>
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<td>4.3. Design safe, attractive, high volume pedestrian routes connecting public places that encourage the attention and presence of people at all hours of the day and night</td>
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<td></td>
<td>4.5. Promote Englewood as one community by achieving integration between individual neighborhoods as well as neighboring commercial districts through the design of a full transportation network</td>
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The 2010 Englewood Downtown and Medical District Small Area Plan includes the following goals and objectives in support of complete streets.

<table>
<thead>
<tr>
<th>Transportation Goals</th>
<th>Objectives</th>
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<tbody>
<tr>
<td>1. Continue to support, operate, and improve the ART Shuttle</td>
<td>1-1. Explore extending hours of operation to include nights and weekends</td>
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<td>1-2. Re-evaluate the number of current stops provided to decrease waiting and travel time</td>
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<td>1-3. Explore route changes or additions to include Broadway, the eastern portion of Old Hampden Avenue, or other public facilities.</td>
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<tr>
<td>2. Explore potential improvements to the Downtown and Medical Center area street system.</td>
<td>2-1. Evaluate signalized intersections for the provision of green-arrow, left-hand turns</td>
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<td>2-2. Evaluate alternative lane configurations in order to reduce accidents</td>
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<td>2-4. Improve public directional signage.</td>
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<tr>
<td></td>
<td>2-5. Minimize traffic volumes on residential streets</td>
</tr>
<tr>
<td>Urban Design and Amenities Goals</td>
<td>Objectives</td>
</tr>
<tr>
<td>1. Enhance the Downtown and Medical Center urban streetscape.</td>
<td>1-1. Develop wider, safer, handicapped-accessible sidewalks, pedestrian paths, and pedestrian crossings throughout the area, and especially near hospitals and senior facilities</td>
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<td>1-5. Enhance streetscapes with urban design features including benches, lighting, planters, banners, street furniture, and bicycle racks</td>
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<tr>
<td></td>
<td>1-6. Develop wayfinding systems that serve both public and commercial interests.</td>
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<tr>
<td></td>
<td>1-7. Develop designs for all streetscape elements that enhance the existing residential and commercial character</td>
</tr>
<tr>
<td>2. Increase park, open space, and trail capacities and service levels, both within Downtown and the Medical Center and beyond.</td>
<td>2-1. Create pedestrian-friendly, tree-lined streets and pedestrian paths.</td>
</tr>
<tr>
<td></td>
<td>2-4. Develop an enhanced pedestrian-bicycle route and trail system connecting neighborhood parks, residential neighborhoods, and commercial areas.</td>
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Englewood’s Public Works Department has already made strides to provide infrastructure repairs to sidewalks and construction of multi-modal transportation facilities. With the approval of City Council, Public Works will construct “sidewalk missing links” and trail systems, while continuing to repair sub-standard sidewalks through the annual concrete utility program.
Approach

Public Outreach & Consensus-Gathering

As a key element of the Englewood Complete Streets project, the public outreach process was designed to ensure a community-wide dialogue to further the vision for the Downtown and Medical Districts. The alternative approach utilized a variety of means and venues to engage a broad range of community members, employees, residents, business owners, and as many users of the transportation network as possible. Workshops, social media, interviews, surveys, flyer distributions, and an interactive project website facilitated ongoing, open communication with the public throughout the project.

A major goal of this outreach was to connect people to the project via the project webpage and Facebook. At several locations and events, the project team collected input and distributed flyers which provided information about complete streets and directed the public to the Englewood Complete Streets website and Facebook page. The team connected with system users by talking with people at the Old Hampden/Pearl and Old Hampden/Clarkson intersections and went “door to door” visiting with 99 businesses in the study area. Other community members were reached at events including Englewood’s Thursday Night Summer Concert Series and the Eats and Beats Festival. The team collected feedback and distributed over 500 project flyers and continuously updated both the website and Facebook page throughout the project to keep the public informed and provide opportunities for feedback.

Workshops with interest groups, including the South Broadway Englewood Business Improvement District (BID) and Malley Senior Center Board helped identify current issues and opportunities. BID participants indicated interest in exploring mid-block crossings, high visibility crossings, traffic calming, and a new north-south shuttle service. Consultant and City staff followed up by taking a field trip to Longmont to learn more about mid-block crossings and to develop criteria for evaluating mid-block crossing treatments (see Mid-Block Crossing and Curb Extension Section). Malley Senior Center participants identified existing issues on Broadway and Old Hampden and identified potential improvements. They also shared opinions on a “Kit of Parts” of complete streets improvements using keypad polling. High visibility crosswalks, mid-block crossings, curb extensions, wide sidewalks, bus shelters & service, traffic speed reduction, directional curb ramps, and pedestrian signage were identified as very important improvements to complete streets in Englewood.

Following the Malley Center polling, the same questions were used in a survey that was posted on the website and Facebook. Respondents expressed similar opinions as the Malley Center group, but also indicated a desire for outdoor dining and benches to improve the overall look and feel of Englewood.

<table>
<thead>
<tr>
<th>Table 1: Summary of Outreach Efforts</th>
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<tbody>
<tr>
<td>Website Hits</td>
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<tr>
<td>Facebook Likes</td>
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<tr>
<td>Old Hampden Avenue Street Canvassing</td>
</tr>
<tr>
<td>Door to Door Business Canvassing</td>
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<tr>
<td>Sounds of Summer Concert Canvassing</td>
</tr>
<tr>
<td>Eats and Beats Canvassing</td>
</tr>
</tbody>
</table>
Approach | Complete Streets Toolbox

Project “Street Team” meeting employees at study intersections during early morning and lunch hours

Project “Street Team” with visually impaired residents at Summer Concert

Project staff working with seniors at Malley Senior Center

Project “Street Team” going “door to door” on Old Hampden & Broadway

Project “Street Team” with parents at the “Eats and Beats” event
The following tools represent a ‘kit of parts’ that can be used to increase the function, safety and aesthetics of Englewood’s streets.
High-Visibility Crosswalks

Description
The ability to safely cross the street is one of the most important outcomes of an interconnected, walkable street network. For those traveling in automobiles, the ability to recognize areas where people may be crossing the street provides for longer reaction-times and reduced conflicts and crashes between people and cars. For people walking, biking and using alternative methods to car travel, knowing there are safe routes to cross intersections increases the ability to make longer and more regular non-auto trips.

In addition to increasing the safety of intersections and increasing the walkability of a street network, high-visibility crosswalks also help define important intersections and gateways throughout the community. As autos approach an obvious crosswalk, it provides a visual marker that signals an entrance or significant pedestrian connection within the community.

Considerations/Benefits
- High-visibility crosswalks improve driver-awareness in areas where there is high pedestrian demand (schools, parks, transit stops, and commercial districts)
- Delineating certain crosswalks with high-visibility materials helps to create preferred walkable ‘routes’ within the community that can be linked to Safe Routes for School and other walking/biking preferred networks
- Reinforcing preferred pedestrian crossings with high-visibility crosswalks helps funnel pedestrian activity to safer, signalized intersections and walking/biking routes
- MUTCD does not consider colored pavement within a marked crossing to be a traffic control device (unless it is retroreflective). CDOT has implemented red markings with retroreflective transverse crosswalk marking that are consistent with MUTCD (see below)

New High-Visibility Crosswalk Colorado & Colfax in Denver, CO
Mid-Block Crossings & Curb Extensions

Description
Mid-Block crossings and curb extensions both decrease the conflict areas where pedestrians and cars intersect. By extending the sidewalk area out into the edge of the auto travel lanes, curb extensions and mid-block crossings areas shorten the distance pedestrians need to walk to cross the street, while also making pedestrians more visible to auto traffic.

When creating a complete, walkable street network, areas with curb extensions and mid-block crossings reinforce preferred crossing locations and connections within the multi-modal network. These areas also provide nodes along the sidewalk network where there is more space for seating, displays, plantings, additional lighting/signage and other streetscape elements. In areas with narrow sidewalks or high volumes of traffic, these pedestrian nodes can provide needed zones for gathering, resting and overall pedestrian comfort.

Considerations/Benefits

- Mid-block crossings treatments should be evaluated using FHWA research on Safety Effects of Marked Versus Unmarked Crosswalks at Uncontrolled Locations Final Report and Recommended Guidelines, 2005. The potential effects on traffic signal progression should also be considered.
- By creating preferred areas for pedestrians to cross in the middle of a block, mid-block crossings create a finer and more interconnected multi-modal network
- Mid-block crossings provide an opportunity to make more direct connections to trails, important public spaces and community centers
- Mid-block crossings and curb extensions provide additional sidewalk width that can be used for streetscape elements that increase pedestrian comfort and community image-making (art, seating, lighting/signage, vegetation)
- In pedestrian shopping areas, mid-block crossings allow pedestrians to move more freely from one side of the street to the other
- Curb extensions shorten the distance of pedestrians crossing the street, while also providing some traffic calming as documented in the Institute of Transportation Engineer Journal “before and after studies in Westminster, CO.
- Curb extensions create more space for larger groups of pedestrians to wait comfortably to cross the street
- Curb extensions and mid-block crossings can be accented with other materials consistent with MUTCD.
Medians with Refuge Island

Description

Medians and refuge islands are raised spaces in the middle of the roadway where elevated pavement provides space for pedestrians to wait while crossing the street. Areas in the middle of the roadway that allow pedestrians and cyclists to pause and wait for a safe opportunity to cross auto traffic provide more multi-modal connections across multiple travel lanes, or roadways with high traffic volumes. Medians and refuge islands can also provide areas for community image-making and beautification.

In regard to auto traffic, medians limit the ability of motorists to turn mid-block, which helps direct traffic flows and reduces turning movement conflicts. By directing auto traffic to preferred intersections, medians also help encourage uniform traffic flows and movements.

Considerations/Benefits

- Medians and refuge islands help direct the flow and movement of auto traffic, reducing potential turning-movement conflicts
- Medians and refuge islands allow for longer roadway crossing times for pedestrians, increasing the ability for older, younger and those with mobility challenges to safely cross the street
- Raised medians (or refuge areas) should be considered in curbed sections of multi-lane roadways in urban and suburban areas, particularly in areas where there are mixtures of a significant number of pedestrians, high volumes of traffic (more than 12,000 ADT) and intermediate or high travel speeds. Medians/refuge islands should be at least 4 feet wide (preferably 8 feet wide for accommodation of pedestrian comfort and safety) and of adequate length to allow the anticipated number of pedestrians to stand and wait for gaps in traffic before crossing the second half of the street, Federal Highway Administration Guidance Memorandum on Consideration and Implementation of Proven Safety Countermeasures, July 2008
- Other supporting guidance is found in the Federal Highway Administration Safety Program, State Best Practice Policy for Medians, June, 2011

- Medians and refuge islands provide safe areas for pedestrians to cross high-volume or multiple-lane roadways
- Medians and refuge islands can be used for community image-making and beautification – providing space for plantings, public art, signage and lighting
Sidewalks

Description

The width of a sidewalk has a direct relationship to its perceived attractiveness and ability to accommodate amenities important to a safe and desirable pedestrian network. Like roadway networks, sidewalks create frameworks for community movement and capacity, and having an interconnected system of wide sidewalks ensures that multi-modal choices are part of the overall transportation plan within the community.

Physically, having enough space on the sidewalk to comfortably walk side-by-side allows for families and groups to walk comfortably and safely together, which increases the potential use and capacity of the sidewalk. Additional sidewalk width also provides space for important pedestrian amenities (benches, lighting, trash), increased areas for planting and water infiltration, zones for public art and community image-making elements, and waiting/pull-off areas for public transportation.

Although wide sidewalk widths are especially important along the major community corridors and retail streets, having minimum sidewalk widths connecting to, and through, residential neighborhoods and mixed-use development areas ensures that pedestrians have a rich, robust and safe network reaching into all segments of the community.

Considerations/Benefits

- Minimum sidewalk widths that allow two adults for comfortably pass each other will ensure a comfortable, safe and attractive pedestrian zone
- Minimum sidewalk widths create standards for development and strengthen the overall community pedestrian network
- Delineating the types of sidewalk widths of different districts and pedestrian corridors helps to direct foot-traffic to preferred routes and community amenities
- Wider sidewalks provide space for important pedestrian amenities – benches, lighting, trash/recycling, transit stops
- Wider sidewalks provide areas for merchants and storefronts to have displays and outdoor seating/cafés spaces
- Wider sidewalks provide space for community events and festival displays
- Planted zones in wider sidewalks can reduce stormwater runoff, provide space to filter pollutants, room for shade trees and other ornamental landscaping

Examples of wide sidewalks in commercial areas are found along Girard near Broadway
Directional Curb Ramps

Description
Directional curb ramps are located at the apex edge of a corner sidewalk, and help to direct pedestrian travel to a preferred location, such as the crosswalk. By using ramps to take the sidewalk grade down to the roadway section, directional curb ramps provide an accessible route across intersections.

Colored paving, truncated domes and detectable pavement textures can add additional pedestrian safety elements to curb ramps, while also helping to make them more visible to motorists (in the case of colored or specialty paving).

Considerations/Benefits
- Improperly designed curb ramps can be a safety problem for all pedestrians and a barrier for pedestrians with mobility impairments based on the Institute of Transportation Engineers Toolbox on Intersection Safety and Design, 2004
- Directional ramps can help reduce snowplow damage at intersections, giving the plow a corner curb guide
- Directional curb ramps can direct wheelchair users away from traffic and
- Detectable warning textures (such as truncated domes) can be used to increase the safety and visibility of curb ramps
- The addition of two new ramps at locations that currently have one ramps, many require alternative snow removal techniques
- The design of directional curb ramps may introduce or reduce drainage maintenance in certain settings
Traffic Safety & Speed Management

Description
Making motorists aware of the rules affecting traffic flows and speeds helps ensure that safe conditions for drivers, pedestrians and bicyclists are supported and enforced. Traffic speeds have a significant impact on driver reaction times, and lower speeds ensure fewer accidents and pedestrian-auto conflicts. Red light enforcements also help reduce the impulse for drivers to speed through yellow-lights/red-lights. Pedestrian signals and high visibility crossing markings can help increase the level of protection and safety for pedestrians at crossing locations.

Considerations/Benefits
- Englewood has a long history of successful neighborhood based speed management programs. These are largely the success of collaborative efforts between neighborhood block captains, Englewood Police department, and Englewood public works
- Lower auto traffic speeds allow for greater driver reaction times and reduce the number of pedestrian-auto crashes
- Lower traffic speeds give pedestrians and bicyclists longer times to cross the street
- Lower traffic speeds alert motorists to areas of greater pedestrian traffic and street-crossings
- Red light enforcements have the potential to reduce illegal movements at traffic signals, which helps protect pedestrians and bicyclists crossing the street
- As documented by the Federal Highway Administration’s Bicycle and Safety Program, when the travel speed of motor vehicles increase, the injury and fatality rate of non-motorized users also increases. Over 80% of pedestrians die when hit by vehicles traveling at 40 mph or faster while less than 20% die when hit at 20 mph
Pedestrian Signage

Description
Helping to support the transparency and legibility of the pedestrian network and how it connects to community centers, destinations and the overall complete street network encourages walking and supports the pedestrian and multi-modal experience.

Pedestrian signage can serve several purposes: informational (events/locations), image-making and branding (who we are), and directional (how to get where). Creating a unique design palette for each type of signage will ensure that legibility and decision-making is simple and direct. Designing the network of signs to be graphically compelling will also emphasize the importance of the pedestrian network, and help brand and market the community.

In order to gear pedestrian signs to the walking experience, it can be helpful to measure and describe distances in walking times and/or distances. Arrow-type signs at bus-stops, intersections, major gateways and community centers can encourage “10 minute” and “15 minute” walking connections. Even for people traveling by auto, pedestrian-focused signage helps promote multi-modal awareness and keeps drivers alert to pedestrian routes and crossings. In addition to providing awareness of how to access the community on-foot, pedestrian signage can also tout the benefits of walking and foot-travel. Signage geared toward children, in particular, represents a unique opportunity to illustrate how walking from one destination to another burns so many calories, or reduces auto pollution by so many cars a year. Adult signage, too, can be utilized to ‘tell a story’ about community history, special locations, or other narrative messages – enabling pedestrian routes to be compellingly themed.

Considerations/Benefits
- Within the framework of needed pedestrian signage – informational, branding, directional – a palette of themed design elements will help encourage community members and visitors to walk between local trips
- Theming of critical pedestrian routes can help illustrate community history and important locations
- Ensuring that pedestrian routes are legibly signed will encourage their use and make the community more aware of the location of preferred walkways and roadway crossings
- Pedestrian signage can make drivers more aware of potential pedestrian movements and crossings

Transit & pedestrian wayfinding signage for ART Shuttle
Bus Shelters & Shuttle/Bus Service

Description
Bus and shuttle services are a critical component of a robust and successful multi-modal complete street network. In addition to reducing the environmental footprint of auto travel (one bus can take the place of many cars), buses and shuttles provide an inexpensive way for people to travel and access a community. For those who rely on bus and shuttle travel, the network of bus stops and bus routes determines which areas of the community are easily accessible and interconnected. Buses and shuttles also help connect resources within a community, and help encourage visitors and residents to use more of the multi-modal transportation network – using the bus/shuttle to travel longer distances, and then walking or biking the rest of the trip.

Part of the success of a bus/shuttle network is making it attractive, easy to use and marketable. As places to comfortably wait for the bus, shelters not only provide protection from the elements, they can also be amazing opportunities to brand, market and promote a community. Either through designing custom shelters, or adding art, signage and graphics to manufactured shelters, bus/shuttle stops can act as branding and messaging opportunities for the transportation network and the community.

Considerations/Benefits
- Bus/shuttle routes make connections between community centers and resources, and reduce dependence on auto travel
- People using buses reduce the number of cars on the road, which lowers the overall environmental footprint of the community
- Buses and shuttles provide support for those who cannot drive
- Buses and shuttles help encourage biking and walking between destinations (walk/bike to the bus, take the bus to a stop, walk/bike to several destinations from the bus stop)
- Bus shelters increase the comfort and usability of the bus/shuttle network
- Bus shelters provide opportunities for community branding and image-making
- Bus shelters draw attention to bus stops, making the community more aware of the bus/shuttle network

RTD Shelter at Pearl and Old Hampden
Supporting bicycling and bike travel is a critical component to creating a complete, multi-modal street network. Like walking, bicycling is a low environmental footprint ‘green’ travel method that helps reduce auto travel and environmental pollution.

In addition to providing environmental and health benefits, safe and accessible community bicycling networks also encourage longer people-powered trips. Bikes can travel faster than pedestrians, and they are able to utilize less energy to travel greater distances, making farther and longer trips more achievable. Bicycle networks also stretch across communities and municipalities, and a vigorous system of bike paths, roadway bike markings, and posted bike routes provides opportunities for visitors from other areas to shop, eat and visit.

Similar to roadway and pedestrian networks, bike routes benefit from a fine-grained network of connections and interrelationships that allow people to easily get where they need to go with ease and safety. It is also important to ensure that bike networks connect to other multi-modal transportation elements, like bus stops, recreational trails, and pedestrian corridors.

As a vehicle, bikes require several important infrastructure elements to make the network successful. Because bikers often use their bikes for shopping and local trips, having a network of available bike racks close to shopping destinations is important. Bike racks are also critical at bus stops, libraries, municipal buildings, and shopping destinations. Because bicyclists can often travel farther and faster than pedestrians, even neighborhood and ‘edge of town’ shopping districts are frequently utilized by bicyclists, and should be supported through connected bike routes and bike racks/lockers.

Considerations/Benefits
- A robust bicycle network ensures that both residents and visitors will have multi-modal access for local trips, visitor tourism/shopping, and safe routes to school and community destinations
- Bicycle travel allows for longer local people-powered trips
- Bicycle routes should be signed and clearly marked
- Bicycle routes should be linked to pedestrian, bus/shuttle and trail networks, as well as designed for Safe Routes to School
- Bicycle racks should be installed at transit stops, near major attractions, at schools, in neighborhoods, at parks, in shopping areas, and other important community destinations
- Bicycle racks are an opportunity for community image-making and bicycle use promotion. Incorporating public art into the design of bike racks and bike parking areas will encourage their use and visibility
Benches, Outdoor Dining and Street Furnishings

Description
Providing for a multi-modal transportation network involves supporting all aspects of people-powered movement, including the desire to rest, and the physical and social pleasure of being ‘on the street’. Meeting and greeting people, stopping to watch other pedestrians, and enjoying resting and being outside are some important social benefits of creating a walkable street network. In order to encourage the physical and social elements of moving by people-power, it is critical to create spaces on the sidewalk to rest and gather.

One of the most simple and important elements within a pedestrian network are benches and seating areas for people to pause and connect. In some areas, benches have an obvious and practical purpose — at bus stops, near civic buildings and community destinations, surrounding public plazas and gathering areas, near public art, or adjacent to bike route maps or information points. However, in addition to placing benches at critical destination points, it is also important to recognize the social benefits of creating open-ended places for people to gather. Creating inviting places along the street to make walking and socializing easier will help support a friendly and attractive community.

In addition to having inclusive places for anyone to sit, it is also important to provide outdoor spaces for private dining and entertainment establishments to seat their guests.

Considerations/Benefits
- Providing benches at both destinations and generally along sidewalk routes provides physical and social benefits to pedestrians
- Benches and outdoor gathering spaces enliven the street and make autos more aware of pedestrians
- Outdoor dining areas increase sales and revenues for community businesses and help the overall community tax base
- Placing benches in multiples and in relationship to each other encourages socialization and community-building, and helps to create pockets where people can gather along the street
- Benches support walking by allowing pedestrians to rest in comfort
- Benches at bus stops and along bike routes make them easier and more attractive to use
- Benches and outdoor dining areas increase the feeling of being able to walk safely along the street, by providing a sense that there are available ‘eyes on the street’ that can help if needed

Movable seating and tables at Englewood Eats and Beats
Implementation

This project provided a unique opportunity to identify complete street features and begin a dialogue about the best ways to implement those projects within the City of Englewood. The projects listed in the toolbox are consistent with previous planning efforts and work toward goals the city has identified for mobility.

This toolbox document has been designed to serve as an advisory document to existing and future transportation projects. Many of the projects shown in the toolbox can be cost-effectively implemented as funding becomes available to the City. Each of the projects in the toolbox will require special consideration given adjacent land uses, right of way constraints, and community support. It will also be necessary to complete more detailed design prior to recommending any of the toolbox facilities for implementation.

In upcoming years there may be opportunities to fund some of the toolbox improvements as part of the Broadway Business Improvement District or from private contributions from the medical district health providers. Results from outreach efforts associated with this project also indicate some support for sales tax increases to fund projects found in the toolbox. Likewise, survey respondents favored grants and public private partnerships as the primary funding source for toolbox projects.

The implementation goals of this toolbox document are:

- Identify a capital and maintenance financing strategy that is responsive to the market dynamics, political realities, fiscal constraints that exist in Englewood.
- Continue to engage stakeholders in downtown and medical districts in a participatory process that builds enthusiasm and ownership in complete streets.
- Identify private funding partnerships and organizational structure(s) that can ensure effective implementation and future sustainability of complete street improvements.

The use of financing products, as outlined in other planning efforts, will be a critical factor in building complete streets in Englewood. Some of the financing tools that should be considered include one or several of the following:

- Statutory Special districts (BIDs, DDAs, GIDs, SIDs, etc.)
- Special districts authorized by Englewood City Charter
- Community development tools
- Tax-sharing agreements
- Bonds
- Grants

Immediate Opportunities

Many of the facilities recommended in the toolbox will require new capital funding and a dedicated maintenance funding source. However, the facilities in this toolbox will be considered when on-going public works capital and maintenance projects are being conducted. This represents an opportunity to cost-effectively implement many of the facilities found in the toolbox, with marginal cost increases. Examples include:

- street restriping,
- asphalt overlays,
- traffic signal designs,
- utility upgrades, and
- on-going maintenance activities

Also, the Denver Regional Council of Governments’ (DRCOG) Transportation Improvements Program (TIP) has specific funding priority for projects that address complete street completions. In the next DRCOG budgeting cycle there will be opportunities to use this document in conjunction with our public outreach summary to apply for capital funding for toolbox projects.
## Implementation Matrix

<table>
<thead>
<tr>
<th>TOOLBOX ELEMENT</th>
<th>COST TO IMPLEMENT</th>
<th>COST TO MAINTAIN</th>
<th>ADDITIONAL ANALYSIS NEEDED</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Visibility Crosswalks</td>
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<td>![Cost Icon]</td>
<td>![Additional Analysis Icon]</td>
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<tr>
<td>Improve Walkways &amp; Biking</td>
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<td>![Cost Icon]</td>
<td>![Additional Analysis Icon]</td>
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<tr>
<td>Diverter &amp; Refuge Island</td>
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<td>![Additional Analysis Icon]</td>
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<tr>
<td>Sidewalks</td>
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<td>No Idling &amp; Waiting</td>
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<td>![Additional Analysis Icon]</td>
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<tr>
<td>Bike Lanes &amp; Bike Tactics</td>
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<td>![Cost Icon]</td>
<td>![Additional Analysis Icon]</td>
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<tr>
<td>Pedestrian Crossings &amp; Bike Tactics</td>
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<tr>
<td>Improve Roadway Design</td>
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