



## Wayfinding Analysis and Recommendations

September 2010

**corbindesign**  
People get lost. We fix that.™

109 East Front Suite 304  
Traverse City, MI 49684



Kimley-Horn  
and Associates, Inc.

801 Cherry Street, Unit 11  
Suite 950  
Fort Worth, TX 76102-6811

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The City of Frisco, TX (Frisco) has hired Kimley-Horn and Jeffry Corbin Design, Inc (Corbin Design) to develop a comprehensive vehicular and pedestrian wayfinding and signage system for the City. The wayfinding system will be developed primarily for the first-time visitor.

Their contract with Frisco is to complete Tasks 1 and 2 of a typical four step process. Task 1 entails an analysis of current conditions and recommendations for moving forward. Task 2 services include the design of the exterior signage standards, creating a preliminary sign location plan and statement of probable costs. The remaining tasks which Kimley-Horn and Corbin Design are not under contract for are Task 3, the creation of the Sign Message Schedule and Sign Location Plan together with related site work needed to develop those documents, and Task 4, the bidding and implementation of the wayfinding signage package. Kimley-Horn and Corbin Design will work with the City of Frisco toward a common goal of implementation of a wayfinding system for the City.

A successful citywide wayfinding system begins with clear terminology and mapping that is the basis for all

wayfinding tools, whether electronic, printed or signage. The end result is a consistent visual system incorporating clear nomenclature and easily understood maps.

In light of Frisco's history of unparalleled growth and development, it seems timely to evaluate the experiences of new visitors (and residents), and explore how those experiences could be improved. First-time impressions only happen once. Frisco is a family-focused town, friendly and forward-thinking. Its wayfinding system needs to mirror those values.

The recommendations outlined in this report are a result of review of the 2006 Frisco Comprehensive Master Plan, the City Parks Master Plan, 2008 Visitor Industry Research Study, discussions with stakeholders and Core Team members, together with extensive on-site inspection from July 20-22nd, 2010.

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### **Frisco Core Team**

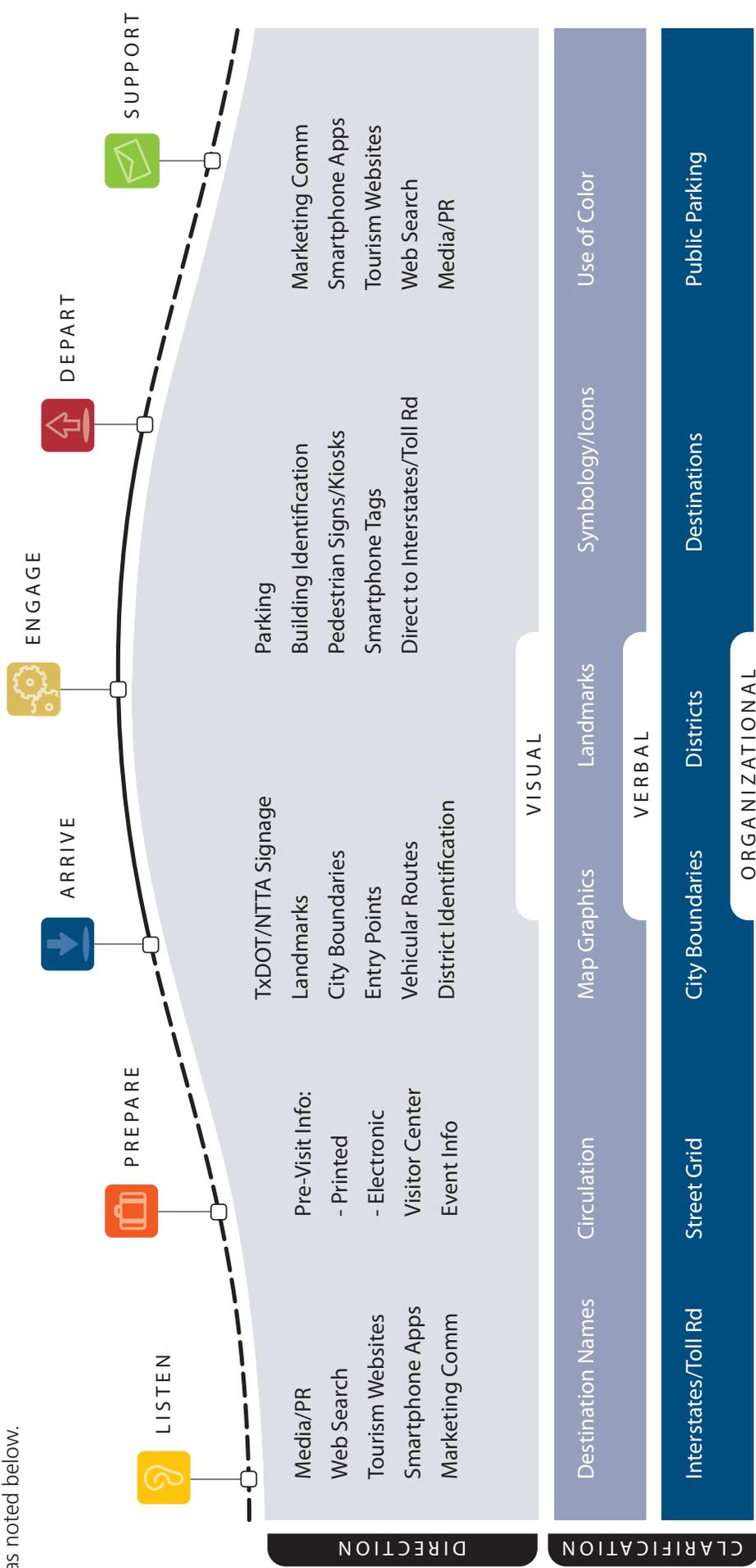
Ben Brezina, Project Manager, Assistant to the City Manager  
Brian Moen P.E., Assistant Director of Engineering Services, Transportation  
Paul Knippel P.E., Director of Engineering Services  
Henry Hill, Deputy City Manager  
Marla Roe, Executive Director, Convention & Visitors Bureau  
Tony Felker, President/CEO Frisco Chamber of Commerce  
Jim Gandy, President, Frisco Economic Development Corporation  
Richard Oldham, City Arts Manager  
John Lettelleir, Director of Development Services

### **Corbin Team**

C. Brian Shamburger P.E., PTOE, Lead, Kimley-Horn and Associates, Inc.  
Robert Brengman, Vice-President, Lead Designer  
Jeff Frank, Senior Designer  
Mary Lou Piehl, Project Manager

# Journey Map

The foundation of the wayfinding system begins with the organizational structure of Frisco, translated into how we speak about boundaries, routes and destinations. That information is reflected in the visual elements of the wayfinding system, as noted below.



## Value of Wayfinding

In November 2008 the International Downtown Association submitted to the Obama transition team, wayfinding as one of its top 10 economic initiatives for America's downtowns. The following data on the return value of investing in wayfinding signage was compiled by the Society of Environmental Graphic Designers (SEGD) and local CVBs.:

### Increase in Tourism

- **Asheville, North Carolina Convention and Visitors Bureau**
  - Of 4,076 people surveyed:
  - 87% responded that they would explore further if signage and kiosks provided direction to additional attractions.
  - 11% stated they would definitely extend their trip by one additional overnight night stay, if new or additional destinations were discovered.
  - 70% stated they would consider extending their trip.
  - 11% of visitors = 85,241 additional overnight stays in 3 year period.

### Increase in Visitation

Wayfinding creates "repeat visitation" by increasing awareness of the depth of destinations.

- **Camden, New Jersey:**
  - 30% increase in visitation since installation of their wayfinding program.
- **Lancaster, Pennsylvania:**
  - 10% increase in visitation in the first year of their wayfinding program.
- **Norristown, Pennsylvania:**
  - 18% increase in visitation in the first year and 8% the following year.

### Benefit to Secondary Destinations

Secondary Destinations (those without sufficient visitors to warrant an appearance on vehicular guide signs) tend to see the greatest benefit. Many of the people who visit the secondary destinations were visitors who were going to see a major destination and then discovered the range of other destinations.



*"I just got back from Atlanta and found their wayfinding signage extremely helpful. Me and some friends ended up going to the beautiful botanical gardens which we would've never even known existed had we not been out for a walk and found it was close to where we were staying...thanks to a streetside map."*

*– blog on Jacksonville FL newspaper*

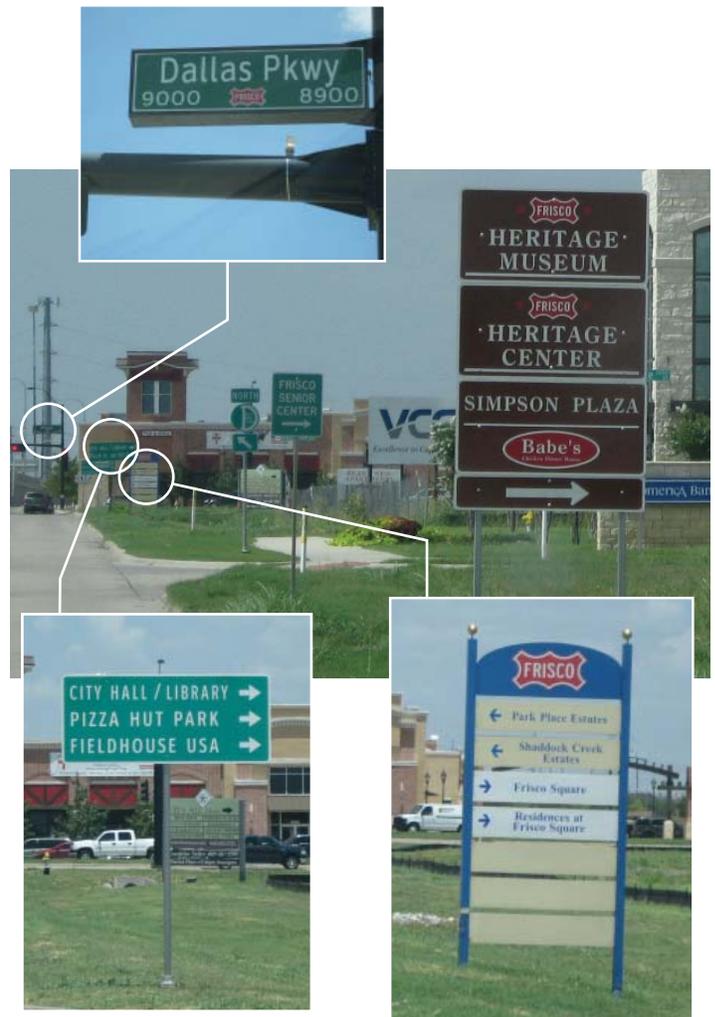
## Recommendations

### 1. Help brand and differentiate Frisco from surrounding communities through signage

Branding your community is the process of setting yourself apart from everyone else. The Frisco brand should be wide-spread throughout the community – your wayfinding system, gateways, websites, printed brochures and photo imagery should reflect the brand. The goal is to create a subconscious association with the brand so that visitors picture a place they would like to visit whenever they see the brand. While Frisco has adopted a City logo that has been used on some of the existing signs, the design of the new wayfinding system should convey the brand throughout the overall signage program.

The strategy for branding should include the following:

- Signage on DNT and primary roads before visitors reach the City (anticipatory value of signs)
- Signage directing to primary destinations along recommended routes (consistent look and feel of signs reassures visitors and provides security, encourages exploration of destinations they may not have known about before seeing name on sign, encourages travel along roads which they may be unfamiliar with)
- Wayfinding signage is placed along recommended routes to avoid oversigning, minimize visual congestion and to control cost. The photos below shows the multiple sign systems that can be installed when a master plan is absent.
- Develop unique signage design, different from traditional red/white/blue and lone star style of Texas communities



*“Stakeholders want the city to have a separate identity from its neighbors. That is, to be distinguishable from adjacent cities”*

*page. 51-54 of 2006 Comprehensive Master Plan]*

## 2. Define Frisco's Borders

Gateways are important first impression wayfinding tools that provide the first hint about the character and quality of the people and businesses within your community. They should create a sense of arrival and make the visitor want to stop. Consider them an investment with a tremendous potential for return. The diagram below shows recommended locations for primary and secondary gateways (the status of a gateway could change based on future growth).

How does the current visitor know they've reached Frisco? Make sure the gateways are in the right place, not necessarily at the City limits. They should be placed close to the action, where people feel like the community begins.

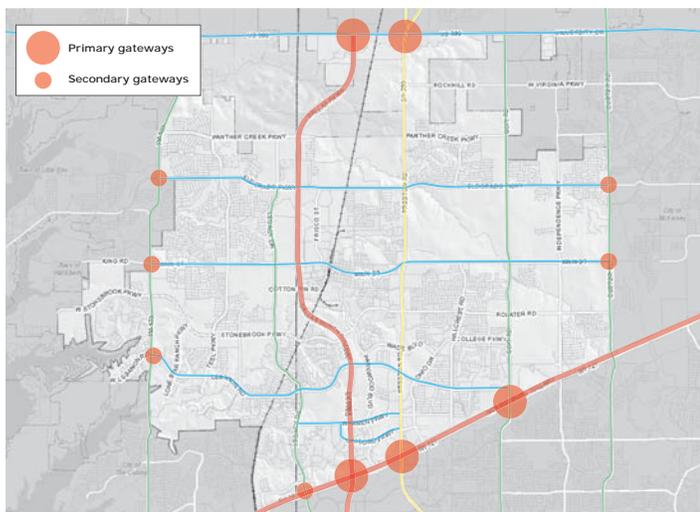
- Options exist for the gateway treatments. The first option, either pole mounted or monumental signs carrying "Welcome to Frisco" messages should be located at the primary and secondary entrances to the City (as denoted in the map below). This option is a standard element of a city wayfinding system.
- A "Vegas" type marque sign could be considered as long as a "welcome to Frisco" message is contained within the design.

- The third option includes placing public art alone at the gateways. This type of stand-alone public art is not optimal for a branding statement unless it incorporates a City identity element as the LAX example below illustrates. A stand-alone public art piece would serve as a useful landmark.
- A fourth option would be to integrate the wayfinding welcome signage together with public art at the primary gateway locations.

All of the options should include landscaping with color, illumination for day and night viewing, and a regular maintenance schedule to ensure a front door experience to incoming visitors.



*Public art as gateway*



*Traditional gateway sign*

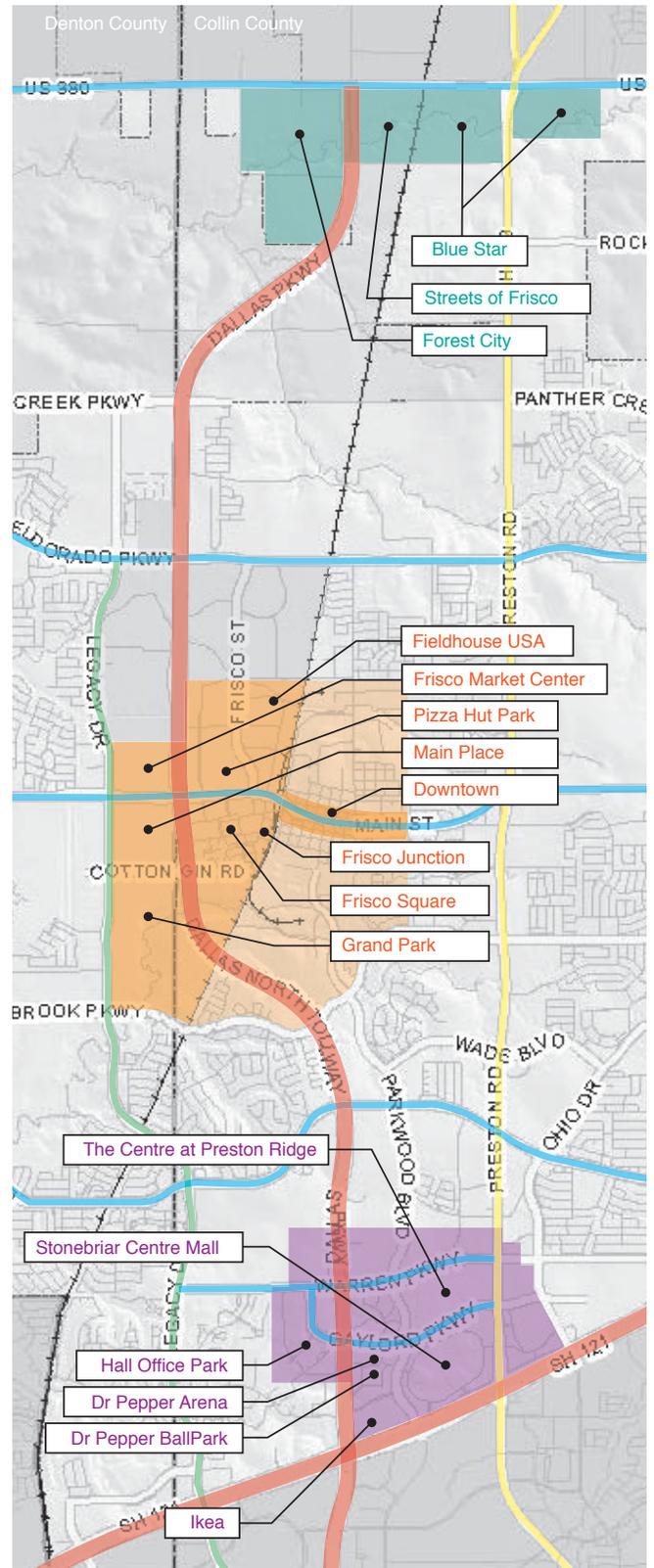
*"The City needs clear entranceways to announce when people enter/leave"*

*page .25 of 2006 Comprehensive Master Plan]*

### 3. Promote and Link Centers of Activity

It is important to understand the pattern of movement or spatial organization that characterizes a place in order to develop the best wayfinding logic. Districts are large sections of the City with their own individual identity. We see Frisco having the area divided into meaningful zones for use on signs and maps, with specific destinations clustered within the districts. We call this the progressive disclosure process that provides directions to large areas that contain many key destinations. When you arrive to the district, the destinations within the districts begin to be displayed on the directional signage.

- Names of Centers (Districts) should be neutral since areas are multi-use
- Names must allow for growth of area
- Use of Districts are beneficial to both primary and secondary destinations
- Colors and icons can help define the districts and should be studied during the design development phase of the wayfinding program (the shapes and color as shown below are for example only)
- All primary destinations outside of a district areas will be directed to by destination name



Following are examples of other city wayfinding systems that utilize a district based wayfinding logic:



*Springfield MO, MODOT wayfinding signs*



*Springfield MO, wayfinding signs*



*Kansas MO, MODOT wayfinding sign*



*Fox Cities, WI, wayfinding signs*



*Quad Cities, DOT wayfinding sign*



*Grand Rapids MI, wayfinding sign*

*When regional visitors were asked how familiar they were with things to see and do in Frisco, 79.9% responded "Not at all familiar".*

*2008 Visitor Industry Research, Frisco CVB, by Destination Analysts]*

# Recommendations (continued)

## 4. Provide consistent terminology across all communication platforms

The names of the destinations will be defined in this program. We'll want to ensure they're consistently communicated throughout the visitor's journey to avoid confusion. This includes destinations listed on signage, as well as printed materials, smart phones and Web sites.

- Create one single control source of information/mapping for consistent communications
- Use advantages of current technology to provide wayfinding – reflects Frisco's forward-thinking culture
- Bar code on static pedestrian maps

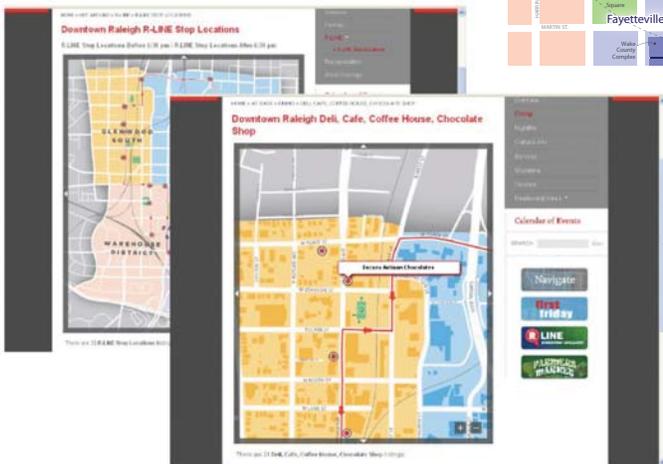
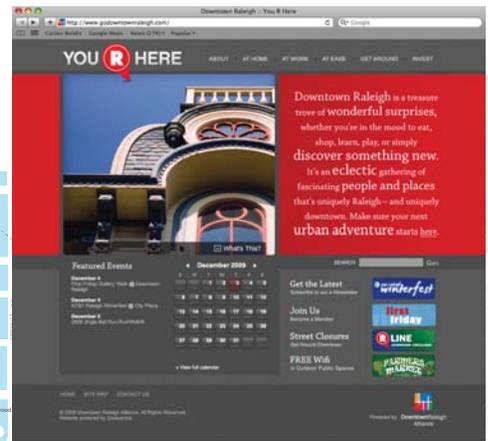
*"Consistent mapping is needed so I can send maps to hotels and event organizers for their use."*

CVB, Core Team Mtg, July 21, 2010

- Geocentric for smart phone apps
- Design mapping with dimensional landmarks and artwork for references



Map artwork developed by Corbin Design



Geocentric Raleigh application



## 5. Develop criteria for destination inclusion on signage

- Guidelines need to be established for the documentation and implementation phases of vehicular and pedestrian wayfinding system.
- Guidelines provide a precedent and provide logical framework for future signage requests.
- A standing Wayfinding Signage Committee should be established and meet on a regular basis to review existing messaging and consider new requests – we’re developing a living wayfinding system meant to grow with Frisco. Visitors need updated accurate information on the signs so they can trust the messaging. Again, it’s the first-time impression that Frisco is sending to visitors.
- The destination list is preliminary and a final list will be developed after the criteria is approved.

*“We need help with deciding what goes on the signs and developing criteria.”*

*City of Frisco, Core Team Mtg, July21, 2010]*

### **DESTINATION NAME**

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**Dr Pepper Ballpark**  
**Dr Pepper Arena**  
**Fieldhouse USA**  
**Frisco Athletic Center**  
**IKEA**  
**Pizza Hut Park**  
**Stonebriar Centre**  
Baylor Medical Center  
Beaver Bend Trail  
Caddo Trail  
Centennial Medical Center  
Central Park  
Chamber of Commerce  
College Parkway Trail  
Collin College  
Convention & Visitors Bureau  
Duke Bridges Office Park  
Frisco Commons Park  
Frisco Conference Center  
Frisco Discovery Center  
Frisco Fire Safety Town  
Frisco Square  
Grand Park (future)  
Griffin Park Trail  
Hall Office Park  
Harold Bacchus Community Park  
Heritage Museum  
Lakes Tennis Academy  
Memorial Stadium  
Municipal Center/City Hall Library  
Municipal Court  
Natatorium  
Old Downtown  
Plantation Golf Course  
Police Department  
Shawnee Trail Sports Complex Park  
Superdome  
Tachas Trail  
Tom Fazio Golf Course  
Trails of Frisco Golf Course  
Warren Sports Complex Park  
Stonebriar Country Club

## Recommendations (continued)

### 6. Provide pedestrian-oriented signage where appropriate.

The primary objective of pedestrian-oriented signage is to provide information to the visitors. Not only can they tell you where you are (“you are here”), but they can also tell you where to go (“you can get there from here”).

- Although primary travel through Frisco is by vehicles, placing pedestrian guide signs and pedestrian maps at parking ramps, Frisco Square, public parks, Frisco Conference Center, and venues such as Dr Pepper Ballpark, Safety Town and future urban environments will help acquaint visitors with all the opportunities offered in Frisco.
- The second side of pedestrian kiosks would include historical panels, interpretive panels describing the City’s public art pieces, event panels which list upcoming Frisco events, or dining/shopping locales.
- Frisco Square has developed signage guidelines and concepts for the Frisco Square area. If Frisco Square elects to implement pedestrian signage, the location of signage elements should be coordinated with the City wayfinding program to avoid duplication and unsupported locations. We recommend the City of Frisco adopt a map standard which would be used in all pedestrian map signage elements.

*“Incorporate urban design elements such as benches, flowers...lamp posts and public art where walking is desired and encouraged.”*

*page.39, 2006 Frisco Master Plan]*



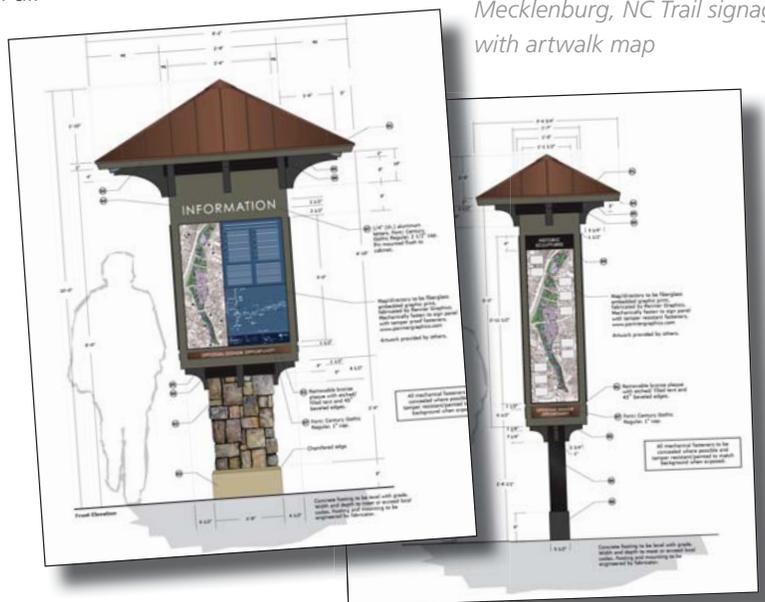
*Milwaukee RiverWalk  
Pedestrian Guide*



*post Los Angeles, CA*



*Ann Arbor MI,  
Pedestrian Kiosk*



*Mecklenburg, NC Trail signage  
with artwalk map*

## 7. Contribute to the Character of Frisco

The design of the wayfinding system should be attractive and should compliment the community's character.

- The architectural style of Frisco Square is transitional.
- Signage design needs to be unique for the area.
- Design must allow for City sign shop to update and maintain the system.
- The new design must comply with all agencies (TxDOT, NTTA, City of Frisco).
- The City logo is recognizable and carries equity. The system design should incorporate the Frisco City logo as a design element.

*"Transitional is the key architecture style of Frisco"*

*stakeholder meeting*



### Wayfinding Signage Committee

After the implementation of the wayfinding system, we recommend that a standing Wayfinding Signage Committee be formed to ensure the Wayfinding System's integrity over time. The Wayfinding Signage Committee should contain at least one member of the original wayfinding team responsible for implementing the system, along with representatives from a spectrum of organizations (business development groups, CVB, Chamber of Commerce, schools). The Wayfinding Signage Committee should meet on a regular basis to review applications for additions to the existing system, and evaluate whether any existing signage requires updating. It will be the Wayfinding Signage Committee's responsibility to oversee approved terminology and adherence to the wayfinding logic.

### Wayfinding System Maintenance

In the design phase, Corbin will recommend ways to reduce the physical cost of maintaining and updating the signage system. Signs will be designed with changeability and maintenance in mind (especially pedestrian signage which requires more frequent updating).

Another step to reduce future cost is to purchase extra blank signs at the time the project is bid. This backlog of signs can be stored until needed. Some cities have insured their wayfinding signage under their city's umbrella insurance policy to cover damage caused by automobiles or vandalism. Cities who have taken these steps have found the annual maintenance costs for the system are approximately 5% of the total system's initial fabrication and installation cost.



*Traverse City, MI Pedestrian Kiosk  
with replaceable merchant panel*

### Criteria for Inclusion on Wayfinding Signs

We offer these criteria\* for your consideration.

To appear on wayfinding signage, a destination should:

- Colleges and Universities
  - 5,000 full time enrollment per semester at signed location (up to 50% part-time students on a 2 for 1 basis may be used in meeting this criteria)
  - 500 off-street parking stalls
- Major Shopping Areas (Malls)
  - 650,000 minimum sq ft in area having a minimum of 2 anchor businesses, with a combined gross building area of no less than 150,000 sq ft
- Auditoriums/Convention Halls
  - Seating capacity 5,000
  - Parking stalls 500
- Museums/Zoos
  - Annual attendance of 200,000 people per mile of distance from freeway up to 5 miles plus 100,000 per mile for each additional mile over 5.

After the wayfinding program is implemented, Frisco should establish administrative process for handling ongoing maintenance: additional destinations, sign replacement, and responding to major changes such as the multi-use development area near North Dallas Tollway and University Drive/US 380. Potential destinations would file an application with the Wayfinding Signage Committee to participate in the sign program. The application will be reviewed in light of the criteria established above.

*\*NTTA Criteria for Signing Traffic Generators*

*This criteria is set for state-controlled roadways. On city/county controlled roads, City would be allowed to adjust these figures.*

A destination should be included if it meets all criteria and space currently exists on all signs needed to establish a complete route. Each destination will be responsible for 100% of the cost associated with the necessary sign modifications.

If space does not currently exist, the destination will be put on a waiting list for the next available space. When space opens, the destinations on the waiting list will be reviewed to determine which has the greatest need (based primarily on highest attendance, though other factors may come into play).

The decision of the Wayfinding Signage Committee will be final.

### Standard Terminology

It's important for everyone in Frisco to speak with one voice when providing directions. All points of direction for visitors need to share the same vocabulary for destinations, districts, street names, and preferred routes. We recommend that the Wayfinding Signage Committee evaluate and compile a list of all points of contact and determine the best approaches to educating the community with the preferred terminology. A partial list of points of contact includes Tourist information staff, hotel concierges, radio announcers, Visitor Centers, parking garage attendants, airport information staff, and even the general public.

During Corbin's review of current sign messaging, we learned that the messaging is inconsistent. For example, we found the following variations; George A. Purefoy Municipal Building/City Hall and Dr. Pepper Park Star Center/Dr. Pepper Arena.

Sign Standards Manual

A successful wayfinding signage system accommodates growth and change. A Sign Standards Manual is an educational tool for ensuring consistent applications of wayfinding logic, terminology, and sign type use. An on-line sign Standards Manual residing on an internal Intranet site can be helpful for city staff that need to replace or order a new sign. Since the sign Standards Manual users may not be familiar with the underlying history and logic of the system,

the sign Standards Manual should contain more than signage designs. The content should include a brief overview of the wayfinding framework, approved terminology, each different sign type's function, sign location guidelines, criteria for appearing on vehicular signage, maintenance information, vendor contacts, a visual array of all sign types, and design intent drawings for all sign types.

University of Nebraska-Lincoln Wayfinding and Signage STANDARDS MANUAL 1/9/09

**Exterior Sign Type Descriptions**

**Boundary Marker**  
This sign type marks key campus edges. The consistent use of materials visually reinforces the campus boundaries, and illumination provides nighttime visibility. The brick used on this sign type differs between the City Campus and East Campus, to match the prevailing campus architecture and help differentiate the campuses.  
See Pages 10-11

**Gateway Identifier**  
This sign type helps identify key campus entry points and "celebrate the visitors' arrival." The consistent use of materials visually reinforces the entry points, and illumination provides nighttime visibility. As with the Boundary Marker sign type, the brick used differs between the City and prevailing East campuses, to match the campus architecture and help differentiate the campuses.  
See Pages 12-13

**Vehicular Guide - City**  
These sign types are placed at key off-campus intersections to indicate directions to major campus destinations, parking and roadways. The size, scale and location are selected for the most favorable viewing at given road speeds and setbacks.  
See Pages 14-16

**Vehicular Guide - Large**  
This larger version of the Vehicular Guide sign type is used on the campus perimeter and on major campus roads where greater visibility is needed due to higher traffic levels and vehicle speeds.  
See Page 17

**Vehicular Guide - Small**  
This smaller version of the Vehicular Guide sign type is used on secondary campus roads where less visibility is needed due to lower traffic levels and vehicle speeds.  
See Page 18

**Pedestrian Guide**  
This sign type is placed at key pedestrian intersection on campus walkways to guide to primary destinations in that vicinity.  
See Pages 19-20

**Pedestrian Map**  
This sign type is placed at key pedestrian locations on campus walkways to display a map of the campus that indicates the location of campus destinations via a numbered guide, and show the viewer's current location.  
See Page 21

**Interpretive Panel - Post-Mounted**  
This sign type is placed at various pedestrian locations on campus walkways to describe a point of interest, major alumnus or donor, through a combination of typography and imagery.  
See Page 22

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**Maintenance Information**

**Matthews Paint**  
Acrylic polyurethanes are often the coatings of choice in finishing projects when durability and performance are required. Matthews Acrylic Polyurethane, MAP®, is engineered to provide long term protection against weathering. Based on customer reports and past performance we have seen MAP® last 4 to 8 years in actual field exposure without noticeable loss of gloss or color.  
Service performance is determined by many factors: geographical location, orientation to the sun and severity of exposure, among many others. While we at Matthews expect our product to outperform any number of coatings, extreme exposure conditions could result in a shorter time frame for the coating's performance.  
**Finish Maintenance**  
The maintenance and care of a painted or clear coated polyurethane surface would utilize the basic polishes recommended for finishes exposed to the environment.  
It is recommended to wait at least 30 days after painting before any cleaning or polishing is attempted. A mild detergent and water solution with soft cloth toweling thorough clean water rinse. Application of polish (liquid sponge and buffed with a wet soft cloth covered with a soft flannel cloth. This is best accomplished in the cooler hours of the day avoiding direct sunlight if possible. Use of polish over satin finishes may result in an increase to the gloss level.  
Any questions should be directed to the manufacturer:  
**Matthews Paint**  
8201 100th Street  
Pleasant Prairie, WI 53158  
800.323.6593  
www.corporateportal.ppg.com/na/refinish/matthews/

**Pannier Graphics**  
Pannier fiberglass signs are very durable and require little maintenance. Periodic cleaning and removal of debris ensures good appearance and product life. Most commercial cleaning products may be used to remove dirt and debris. However, we recommend using the safest and most environmentally friendly cleaners before increasing the strength of a cleaner. Many household cleaners may be used safely, however, some may affect aluminum frames. Read all cleaning directions and recommendations carefully and always rinse thoroughly.  
**Steps**  
1. Wash the panel, frame and base with a mild liquid detergent such as Original Green or Palmolive or other dish soap to remove dirt and debris.  
2. If still soiled, spray area with a biodegradable green cleaning solution such as ZEP Green All Purpose Cleaner. Work across the panel and under the frame channels with a sponge and rinse thoroughly.  
3. For sticker removal, Pannier recommends Super Orange by Direct Chem. This product can be purchased from Zircon Industries (1-800-547-4328). Follow all product instructions carefully.  
4. For permanent marker, graffiti or paint removal (not for urethanes based paints), Pannier recommends Smooth Max and Max Wipes. These products can be purchased at Graffiti Solutions, Inc. (1-800-891-0091). Follow all product instructions carefully.  
5. Pannier recommends applying an additional coating of 3M Ultra Performance Paste Wax 09030 after cleaning. Follow all product instructions carefully.  
Any questions should be directed to the manufacturer:  
**Pannier Graphics**  
Jamie Mohler, Market Specialist  
345 Oak Road  
Gibsonia, PA 15044  
800.544.8428 ext. 210  
marketing@pannier.com  
www.panniergraphics.com

**Downtown Tulsa Wayfinding and Signage Design Standards Manual**  
Developed by corbindesign  
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T U L S A

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Excerpts from sample Standards Manuals

## Recommended Sign Types

**Welcome Signs** – pole-mounted or monument signs at the wayfinding area’s gateways. This sign type welcomes visitors to the wayfinding area, introduces visitors to the unique design of the wayfinding signs, and defines the project boundaries. Public artwork can be integrated into primary gateways.



Welcome Sign  
(Raleigh, North Carolina)

New posts with breakaway base are the preferred options for sign poles. In order for a pole to be considered for attaching a vehicular guide sign, the pole will need to be located in advance of the intersection. Poles located directly at intersections do not provide enough forewarning to drivers and should be excluded from consideration. When mounting to an existing pole is possible, load bearing evaluations will need to be performed for existing poles, in addition to gaining the permission of the pole owner.

**Pedestrian Guide Signs** – pole-mounted signs carrying primary destination names that have high annual attendance figures. These signs will be located where pedestrians circulate or congregate: at arenas, convention centers, parks, and any area where a large number of people need to be quickly dispersed. The sign messages are non-reflective vinyl and the cap height of the messaging is much smaller than vehicular messaging. These should be placed parallel to vehicular traffic facing them toward the sidewalks rather than toward traffic lanes.



Vehicular Guide  
(Tulsa, Oklahoma)



Pedestrian Guide  
(Traverse City, Michigan)

**Vehicular Guide Signs** – pole-mounted signs adjacent to the vehicular right-of-way, and always perpendicular to traffic along primary vehicular routes. These signs are usually mounted on the right-hand side of the street and are located far enough in advance of an intersection to give drivers sufficient time to change lanes to make a turn if necessary. There may be more than one type of vehicular guide sign, dependent on the speed of traffic in the wayfinding area. The sign message is reflective vinyl and typically includes three destinations.

**Supplemental Trailblazer** – small panel, typically attached to existing pole provides driver with supplemental information such as directions to nearest interstates. Sign message is reflective vinyl.



*Supplemental Trailblazers  
(Raleigh, North Carolina)*

**Parking Trailblazer** – small panel that can be attached to existing pole or on new pole and contains directional information to nearby public parking. Sign message is reflective vinyl.



*Parking Trailblazer (Tulsa, Oklahoma)*

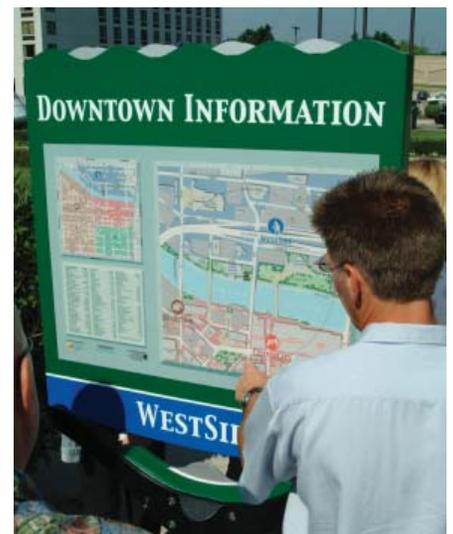


*Supplemental Trailblazers (Ann Arbor, MI)*

**Pedestrian Kiosk** – can be pole mounted or fastened to a wall, such as the interior lobby of a parking garage. This sign type contains an area map that is oriented towards the viewer and has a “You Are Here” locator and a complete destination listing. Frequently the perimeter of the map carries a letter/number grid system so individual destinations can be located. The list of destinations can be an independent panel for easier updating and maintenance.



*Pedestrian Kiosk  
Grand Rapids, MI*



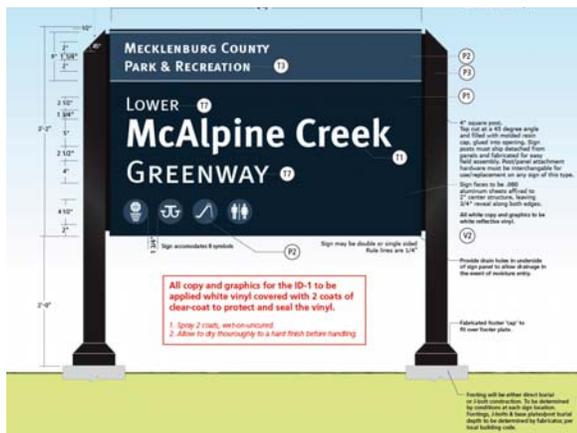
# Additional Signage Systems

**Parking Identifier** – pole-mounted or freestanding monument that carries name of parking garage or lot. They may also carry parking rate information on a separate panel that should be easily changeable. Sign message is reflective vinyl or internally illuminated.



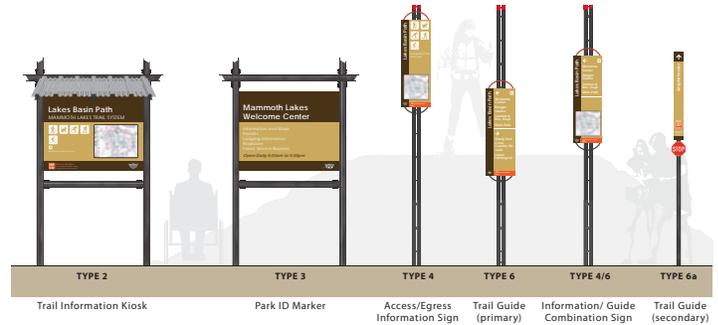
Parking Identifier and changeable rate panel (Grand Rapids, Michigan)

**Municipal Park Identification** – are freestanding signs located at entrance points to public parks and municipal facilities. Sign standards can be developed to coordinate this sign type with the wayfinding program to create a unified municipal signage program.



Park Identification Mecklenburg County, NC

**Hike/Bike Trail Signage** – is a series of pedestrian scaled signs that orient and direct users along a hiking or biking path. This series of signs includes trailhead signs to identify access and egress points, path guide signs to direct users to the primary destinations accessed from the trail and trailblazer signs to define and connect trails.



Trail Signage Mammoth Lakes CA

**Existing Street Identifiers** – the existing framework of street identifier signs using reflective lettering, lower and upper case messaging, standard DOT green vinyl sign face are satisfactory and do not need replacing. The call-out of the address numbers on the left side of the sign face is a helpful tool. The message on the sign panel uses the City's identity font, Trade Gothic LT.



Corbin Design has worked with many cities and regions that have successfully implemented wayfinding systems through various funding mechanisms. Following are examples of the various and innovative methods chosen by other cities and regions:

Funding for Kansas City's \$1.8 million vehicular and pedestrian wayfinding system comes from several sources, including nearly \$800,000 in federal highway department grants administered by MODOT and the Mid-America Regional Council, more than \$125,000 in seed money from the Downtown Council, and \$357,000 from a \$35 million voter-approved bond sale. The remainder of the project was expected to be funded from the same bond issue. The project covered the design, fabrication and installation of 400 signs.

The Quad Cities of Illinois and Iowa program was funded partially by a grant from the riverboat casino (required by state law to grant a significant portion of its earnings to public projects in the state) as well as by each of the seven municipalities. Davenport and Moline were the first two cities to formally participate. That program has been recently implemented.

Rochester, NY implementation was paid for with Federal Transportation funds (an ISTEA "Ice Tea" grant that the city had previously procured). As such, the grant brought with it federal reviews and oversight of the design, which were proactively resolved.

Los Angeles, CA's LA Walks program was paid by the twelve participating Business Improvement Districts (BIDs) (similar to Downtown District Authorities (DDAs)... organizations that benefit from tax increment financing).

Oklahoma City, OK was funded with bond funds from their commercial development in and around the new baseball stadium, but they also designated some funds for wayfinding

after the Alfred P. Murrah Federal Building Memorial was put in place.

Kingsport, TN uses a "visitor enhancement" fund, established in 2007 to pay for a variety of tourism-related projects, with the money coming from a 2 percent increase to the city's hotel/motel tax.

Tulsa, OK employs a "third penny tax" for a variety of capital improvements, instituted in 1980.

St Louis Regional program, with the help of Corbin Design, recently developed an economic model for determining each destination's cost share for implementing their wayfinding system. That funding formula is based upon a system that assigns points for annual attendance, public/nonprofit status, number of employees and prominence within the wayfinding system. The funding formula is structured so that the result is that the taxable destinations with the higher attendance levels bear the highest cost ratio, as they gain the most from the system.

# Design Parameters

## Font

The font choice for vehicular sign messaging needs to have simple, clear lines and can be readily viewed in both daylight and the reflective conditions found at night. We recommend using Clearview Highway, a font family approved by the federal Department of Transportation. The font family was developed by independent researchers with the help of the Texas Transportation Institute and the Pennsylvania Transportation Institute, under the supervision of the Federal Highway Administration (FHWA).

Aa Bb Cc Dd Ee Ff Gg Hh Ii Jj Kk Ll Mm Nn Oo Pp  
Qq Rr Ss Tt Uu Vv Ww Xx Yy Zz 0123456789

Trade Gothic LT and Trade Gothic LT extra are the approved font for Frisco's identity. While the Clearview font is required for the guide messages (destination names with arrows), The Trade Gothic LT and Gothic LT extra fonts can be used on any identity signage.

## Cap Height

The cap height for messages on vehicular signs is determined by the chart below. The size requirements are documented in the Manual on Uniform Traffic Control Devices that is developed by the U.S. Department of Transportation/Federal Highway Administration. The cap heights mentioned below apply to roads under state or federal control.

SPEED (mph)	Minimum Legend Height	
	Other Word Messages	Destinations
30 - 55	all 6" UPPERCASE	6" UPPERCASE/ 4.5" lowercase
25 and lower	all 4" UPPERCASE	4" UPPERCASE/ 3" lowercase

## Color Contrast

The American with Disabilities Act (ADA) requires at least a 70% color contrast between the message and sign face for both day and nighttime visibility. White letters on a dark face sign face are easier to see.



## Sign Face Color Choice



When reflective sign face colors are required on sign faces, the sign face color choices are limited by the high intensity reflective sheeting colors available from manufacturers. A painted sign face offers more color options, but can typically only be used in pedestrian elements.

## Reflective Sign Messaging

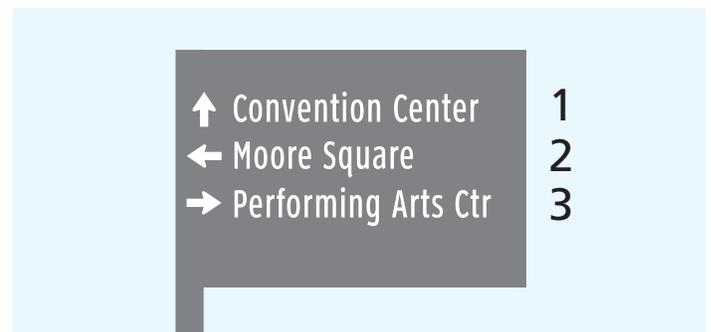
Vehicular guide signs, according to the MUTCD, must have reflective vinyl messaging for nighttime viewing.

## Number Of Messages

A vehicular guide sign can contain 3 messages per sign face, one destination per line. Approximately 1-19 letters per line is typical and includes spaces between words.

## Arrow Style and Arrow Sequence

A MUTCD approved arrow, aligned on the left side of panel is preferred. For the arrow sequence, Straight Ahead destinations are listed first, destinations requiring a Left Turn are listed next, and Right Turn destinations are listed last. Destinations within arrow groups are listed alphabetically.



## Sample Sequence of Encounter

A comprehensive vehicular wayfinding system is more than a collection of trailblazer signs to single destinations. A family of sign types will support primary destinations from several different routes. A comprehensive system is also beneficial to

secondary destinations that are in the vicinity or along the route to primary destinations. Those secondary destinations can tell their visitors to follow the signs of the primary destination.



See sign messaging on the next page

Sequence of Encounter for the Library in Frisco Square

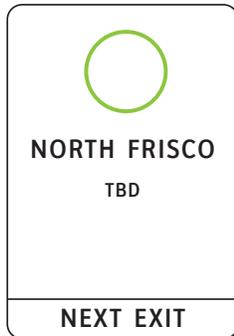
## Sample Sequence of Encounter (continued)

The following sign information templates for are based on naming convention option one. They do not reflect any actual design. Visual design concepts will be created during the design development phase (task 2).



1

NTTA/TxDOT System - Welcome Sign

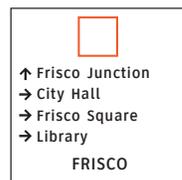


2

NTTA/TxDOT System - Exit Information

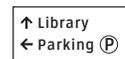
3

TxDOT System Guide (Exit Ramp)



4

Community Wayfinding System  
Primary Vehicular Guide



5

Community Wayfinding System  
Secondary Vehicular Guide

