



safe
routes
UTAH

Mapping Planning Guide



INTRODUCTION

There is growing concern in Utah and nationally about the safety of children who walk or bike to school. With increased traffic congestion around schools, students who choose to walk or bike have limited safe routes, which often discourages this healthy activity.

To assist in addressing this public safety and health issue, the Utah Department of Transportation (UDOT) assists schools with their legal responsibility to create a **Safe Routes Plan**, which includes a safe routing map and accompanying text description. Under Utah law, every elementary, middle and junior high school is responsible for developing and implementing a Safe Routes Plan, and high schools are encouraged to do the same.

This Safe Routes Plan Planning Guide focuses specifically on the steps for schools and communities to build and implement a Safe Routes Plan.

Accompanying software tutorial videos are available for specific instructions about how to create a safe routing map and using the **Safe Routes for Schools Mapping Software**.



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SAFE ROUTES PLAN OVERVIEW

A Safe Routes Plan consists of a safe routes map and text description outlining the safest routes for students to walk and bike to school. **The goal of a Safe Routes Plan is to increase the number of students walking and biking safely to school.**

UDOT is confident that any school that properly identifies and then educates students and parents about the safest route(s) with a Safe Routes Plan will help reduce and work to eliminate vehicular incidents involving child pedestrians and cyclists near and on school property. A Safe Routes Plan can also encourage students and parents to walk and bike to school as a healthy alternative to driving.

Additionally, without a Safe Routes Plan in place, schools and local jurisdictions are not eligible for federal funding to make infrastructure changes that could make traveling to school safer for students.

To assist schools in creating and implementing Safe Routes Plans, UDOT has developed this Planning Guide and free Safe Routes for Schools mapping software. Together these resources provide school principals and community councils with instructions to create and distribute a Safe Routes Plan that is easy to use and understand.

There are several essential steps in creating a Safe Routes Plan. Creating a Safe Routes Plan generally requires a few weeks, but the process may be completed more quickly according to the organization and ability of the individuals involved.

The following table outlines the important steps to creating a Safe Routes Plan, each step is described in detail within this Planning Guide.



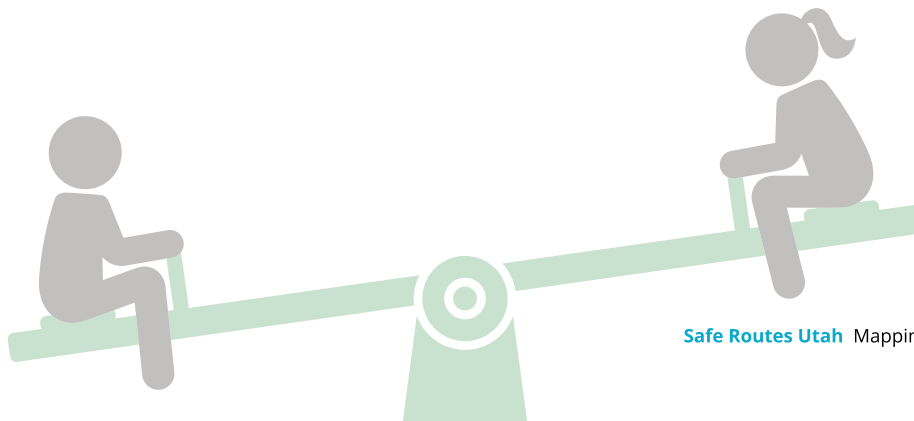
1a. Safe Routes Plan Process

1. Identify a Safe Routes Team.
2. Take an inventory of the school's walking area (typically a one- to two-mile radius of the school).
3. Create a safe routing map (see Software Tutorial Videos).
4. Once map is complete, create your Safe Routes Plan, [click here](#).
5. Seek input/feedback from outside resources.
6. Submit the Safe Routes Plan (safe routing map and text description) to the school district.
 - The school district submits the Safe Routes Plan to relevant jurisdictions.
7. Distribute the Safe Routes Plan to students, parents and school employees (preferably at the beginning of each school year).

School community councils and school administrators should not limit themselves exclusively to the safety guidelines included in this Planning Guide. Consideration of other elements that are specific to the individual school and community is encouraged.

While a Safe Routes Plan may be created any time during the year, it must be submitted to the school district annually. Schools should check with their district or specific deadlines and details, as deadlines for each school district may vary. However, UDOT does not have a required date, the only requirement is that the safe route plan for each school should be submitted and approved annually.

It is important to note this is **NOT** a one-time process. Schools and community councils are required to review and update the Safe Routes Plan at least once per year using the method outlined in this Planning Guide.



2. Safe Routes Committee

2a. Identifying a School Community Council Safe Routes Team

Under Utah law, every school is required to have a community council composed of school employees and parents/guardians. Community councils may and should include:

- School faculty, such as the principal
- Local law enforcement
- City or county engineering employees
- City or county public works department employees
- Representation from the school's PTA or PTO
- Interested parents/guardians
- Interested school employees
- Student leaders

One of the responsibilities of the school community is to develop a Safe Routes Plan outlining the safest walking and biking routes to school. It is recommended that a Safe Routes team be formed to accomplish this important requirement.

There are many ways to accomplish this task. One community council may divide responsibilities among its members. Another may assign a parent or school employee who is especially motivated to do the majority of the work, with minor input from other members. One community council may meet weekly from start to finish; another may only meet two or three times. Whatever the community council's preferred style or strategy, the important thing is that a Safe Routes Plan be created, approved and distributed to parents and students, and re-visited and revised annually.



3. Creating the Safe Routes Plan

3a. Conducting an Inventory

To create an effective Safe Routes Plan, the Safe Routes team must be familiar with the school's walking area. This familiarity comes through performing an inventory of the roadways within this walking area. The inventory identifies key traffic elements in the area such as signals, stop signs, crosswalks, potential obstacles, railroad crossings and missing or damaged sidewalks. Safe Routes team members conducting the inventory should also observe traffic patterns.

The inventory is used to create a safe routing map to identify the safest routes to and from the school. It also gives Safe Routes team members and/or school community councils a firsthand look at the current walking environment and traffic patterns.

It is recommended that the inventory process be completed more than once and by more than one person, to ensure that all the critical elements are included.

When identifying the safest walking and biking route(s) for students, it is important to take into account different traffic patterns in the school's walking area. For example, vehicle traffic may be heavier in the morning than in the afternoon. The Safe Routes team should consider both vehicle and pedestrian traffic patterns during times children are traveling to and from school, rather than when students are in class or at home. It is also important to consider the number of students who are traveling in each area.

The principal should be familiar with which streets and neighborhoods are within walking distance of the school and inform Safe Routes team members what areas need to be included in the inventory (typically those within a one- to two-mile radius of the school). Locations such as hazardous areas, bus loading zones or routes for students who live outside of walking distance do not need to be inventoried for the safe routing map, but could be identified and noted in the administrator notes section of the mapping software for reference.

As schools review the inventory and determine which route is safest for students to travel, there are two additional items that should be considered:

- (1) on-site issues and
- (2) students with special needs.



On-Site Issues

In addition to charting the path students should travel along roads and through neighborhoods, Safe Routes teams should recognize that student pick-up and drop-off areas at the school could be among the greatest hazards for students. As schools develop a Safe Routes Plan, it is critical to identify the preferred access points and circulation patterns for students who walk, bike, ride the bus or are dropped off by vehicles.

In addition to detailing the safest route(s) for walking and biking to school, a Safe Routes Plan can also designate the preferred location for drop-off zones, bus loading/unloading zones and parking lots, as well as the walking route from each of those locations to the school entry points. Each school should customize its map with these optional areas based on the needs of its student body.

Recommendations for On-site Issues

- All basic modes of transportation (walking, biking, school buses and cars) should be physically separated as much as possible from each other.
- Students who are being dropped off by vehicles should be loaded and unloaded on the right side of the vehicle, next to a curb, sidewalk or shoulder.
- Parents dropping children off should not be permitted to back up their vehicles.
- Students should access personal vehicles in designated loading zones only; schools should discourage loading on adjacent streets or off school property.
- Bus-loading zones should be located in areas that do not require buses to travel in reverse at any time.
- Traffic cones can be used to minimize pedestrian/vehicle conflicts in vehicle drop-off zones.
- If bus and/or vehicle loading zones are insufficient to safely load and unload students, the arrival and departure times of students could be staggered.
- School staff and student safety patrols should be used to help direct students and vehicles to appropriate areas; these persons can help enforce restricted actions, maintain safe traffic flow, encourage safety and educate students and parents.

Students With Special Needs

Safe routes to school for special needs students should be considered. Permanent and even temporary disabilities can make getting to school on foot or on a bike much more difficult. Solutions for individuals with disabilities and special needs will vary for each school. The Safe Routes team should consider currently enrolled, future and potential students with special needs when developing and updating the school's Safe Routes Plan.



Inventory Checklist

The Safe Routes team can use the following checklist to take inventory of its school's walking area. The checklist outlines which key elements to record when taking an inventory, and includes brief explanations for each term.

The Safe Routes team should mark all of the items from the checklist on a map showing the school's walking area (typically the area within a one- to two-mile radius of the school) in a way that is easy to understand. This map can be printed online using the Safe Routes for Schools mapping software. Safe Routes teams planning to create the final safe routing map using the Safe Routes for Schools mapping software may want to use symbols similar to those in the online mapping program to mark these elements on the hard copy (to see these symbols, see the Software User Guide). Colored pencils or markers may make this task easier.

The Safe Routes team should be as accurate as possible when marking the placement of each element on the map. A stop sign for east-west traffic will be in a different location on the map than a stop sign for north-south traffic. As an inventory is conducted, the Safe Routes team should mark only those areas that are within the school's walking area. A Software User Guide is available to help create these maps once an inventory is complete.

While taking an inventory, the Safe Routes team should use their best judgment. There may be areas where improvements are needed. Although not included on the safe routing map, Safe Routes teams can note these areas in planning and seek the appropriate agency, funding sources and processes to improve the safety of the walking and biking route.

Required Map Elements



School

Mark school position on the map.



Crossing guards

Mark where adult crossing guards are currently assigned.



Traffic signals

Mark where traffic signals are located and which intersections they affect.



Stop/Yield signs

(single, three-way, four-way)

Mark where stop and yield signs are located and which intersections they affect.



Crosswalks

Mark where marked crosswalks are located.



Suggested Map Elements



School bus loading zones

Mark the location of bus loading zones on school property.



Student drop-off/pick-up zones

Mark the location of drop-off zones. The Safe Routes for Schools mapping software includes an icon to identify this zone. Flow of on-site traffic and drop-off/pick-up zones can be described in detail in the text description.



Other hazards

Take note of additional hazards that may affect walking or biking to school, such as canals or steep hills. Use your best judgment in identifying hazards that are not included on the checklist but that are significant to your area. In the Safe Routes for Schools mapping software, use the hazard symbol to identify these areas and detail the hazard in the text description.

Additional Suggested Plan Elements

Missing/Damaged sidewalks

Note the condition of the sidewalks where most students will be walking or biking. Take note of roads without sidewalks, damaged or broken sidewalks, missing sidewalk curb ramps, parking stripes and curbs. Their location and physical condition can be considered in determining the safest route(s).

Railroad crossings

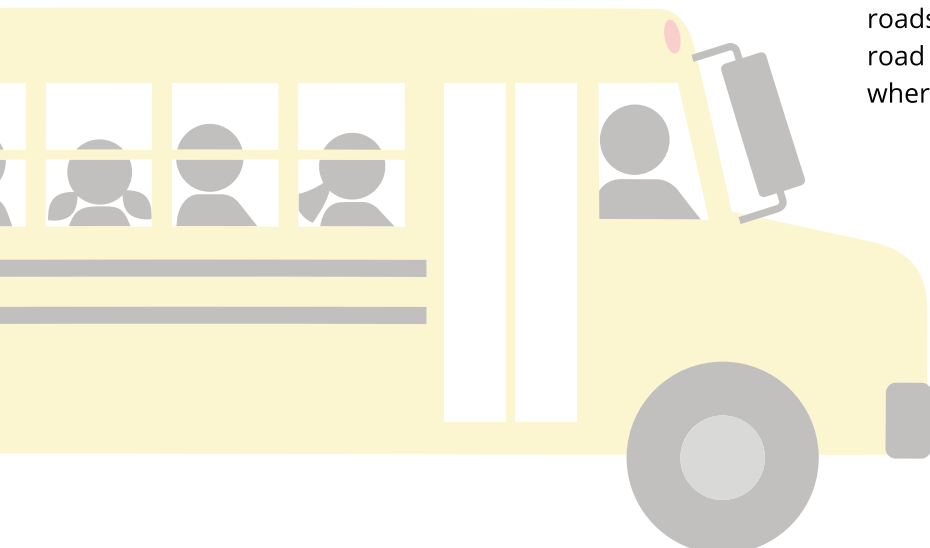
Mark where rail lines pass through a school's walking area.

Narrow school routes

Note areas where there is no continuous sidewalk and students may be forced to walk along road shoulders that are less than three feet wide. The Safe Routes for Schools mapping software includes a hazard icon to mark where these roads exist and the location of warning signs. Detail the narrow routes in the text description.

Traffic volume

It is not necessary to identify the traffic volume of every street in the school's walking area; however, keep in mind the volume of traffic where students are walking or biking. Observe traffic patterns on more than one day. When choosing between two roads, direct students to travel along the road with lower traffic volume and speed, where possible.



Example Inventory Checklist

Required Elements

School	<input type="checkbox"/>
Crossing guards	<input type="checkbox"/>
Crosswalks	<input type="checkbox"/>
Traffic signals	<input type="checkbox"/>
Stop/Yield signs	<input type="checkbox"/>

Suggested Elements

Student drop-off/Pick-up zones	<input type="checkbox"/>
School bus loading zones	<input type="checkbox"/>
Missing/Damaged sidewalks	<input type="checkbox"/>
Reduced speed school zones	<input type="checkbox"/>
Narrow school routes	<input type="checkbox"/>
Railroad crossings	<input type="checkbox"/>
Traffic volume	<input type="checkbox"/>
Other hazards (steep hills, canals, narrow shoulders, etc.)	<input type="checkbox"/>

Notes

3b. Identifying the Safest Routes

Once the required and suggested elements from the inventory are mapped, the Safe Routes team is ready to determine the safest walking and biking routes based on these elements. It is only necessary to identify a safe biking route when it differs from the safe walking route.

A Safe Routes Plan should identify the safest walking and biking route(s) to school. In some cases, avoiding hazards will result in walking/biking routes that are longer than a direct route. At the same time, students are likely to ignore a route that takes too much time. The Safe Routes team should use discretion to create a Safe Routes Plan that is both safe and manageable, to encourage student compliance.

The following are recommendations for identifying the safest route(s):

- **Only draw main walking and biking routes to avoid confusion over which route is safest.**
- **Don't create a safe route on every street.**
Students should be funneled to the safest routes as determined by their parents' best judgment. By funneling students who walk and bike from the geographic area onto one main route, you naturally create a safer route because no one is walking alone. This also reduces clutter on the map and makes the map easier to read and follow.
- **Draw toward the school.**
Start at the main streets and neighborhoods and work toward the school, identifying the best walking route from each neighborhood within the school walking area.
- **Avoid using shoulders for routes.**
Many communities have streets without sidewalks. In these cases, roadway shoulders must accommodate pedestrians. When alternative routes are not available, encourage students to walk on the outside edge of the roadway shoulder, facing traffic. A School Advance Warning sign stating that there will be a shoulder should identify the route.
- **Select the safest crossing locations.**
When children are required to cross streets on their way to school, safe routes should use established crossings to minimize hazards to students. When possible, choose crossings with good visibility, low traffic volume and low traffic speed. Crossings at intersections are preferred over mid-block crossings. The best crosswalks are those with crossing guards, and these should be labeled on the Administrator Map as part of the inventory.
- **Minimize the number of crossings.**
The risk of pedestrian/vehicular incidents increases when students are crossing streets. Fewer crossings mean less exposure to vehicles and a safer route to school.
- **Use low-speed and low-volume roads.**
When choosing between roads, and where possible and practical, avoid directing students along high-speed roads or roads with high traffic volume.
- **Travel in groups.**
Students should be encouraged to travel in groups for improved visibility, security and safety. Merge walking routes whenever possible. Select routes with sufficient sidewalk areas for students to travel together in groups.
- **Hazardous busing.**
A neighborhood receives hazardous busing because it has been determined that it is not safe for students to walk safely to school from and/or through that area. It is not necessary to create walking or biking routes for these areas.
- **Identify safest biking routes.**
If the safest route for cyclists is different from the safest route for pedestrians, a separate biking route should be identified on the map. If the routes are the same, identifying just the safest walking route is sufficient (explain in the text description that the biking route is the same or different).

Distribution & Educational Resources

4a. Distribution to Parents and Students

After the Safe Routes Plan has been reviewed and accepted by all involved parties— including the school, district, city, county and UDOT—it is the principal’s responsibility to distribute the approved Safe Routes Plan, comprised of a safe routing map and a text description, to every parent/guardian of the students enrolled in the school. Principals should identify which communication channels are most appropriate for distributing the Safe Routes Plan (e.g., hard copy, online, email). This should occur at the beginning of each school year and at other appropriate times (e.g., springtime) to remind students of the safest walking/biking routes.

Distributing the safe routing map and text description is one of the most critical steps in the Safe Routes Plan. Even the best-designed plan will not meet its objective if parents and students are not educated about which route they should travel to school.

Parents can view their school’s map at SafeRoutes-uplan.hub.arcgis.com. The map can also be posted on your school’s website or included in an email to parents.

4b. Educational Resources

Schools, community councils and parent organizations are encouraged to creatively incorporate the Safe Routes Plan into conversations and classroom activities to teach students how to walk and bike safely to school. Safe Routes offers a variety of free resources (available at SafeRoutes.Utah.gov) to help school administrators educate and encourage students to walk and bike to school safely, including:



[Beat the Street Assemblies](#)

The Safe Routes Utah Beat the Street assembly is a free, 30-minute program about walking and biking to school safely. It is available statewide with an assembly for grades 1st-3rd and one for grades 4th-6th. This dynamic, educational presentation teaches students about the importance of traffic signs, signal lights, crossing the road, and helmet use. We even bring swag for the kids that includes an activity book to reinforce the messages.





[Think Safety Assemblies](#)

When it comes to construction areas, the old adage “better safe than sorry” could not be more true. If your elementary school is in or near a construction zone, we would love to come and give our “Think Safety” assembly to your students. In this fun and interactive assembly, we teach the kids how to be safe around construction with a rousing relay race.



[Walk & Roll Challenge](#)

The Walk & Roll Challenge runs from September to May and rewards students K-8 monthly prizes for walking and biking to school. Students track the days that they walked or biked to school (walking or biking to the bus counts) and then submit them online by the end of each month. Prize winners are chosen the first week of the following month. The more frequently a student walks or bikes to school, the greater their chance of winning sweet prizes like scooters and bikes.



[Middle School Pedestrian Safety Lesson](#)

This lesson plan offers your students the opportunity to discuss and learn about pedestrian safety and enjoy hands-on activities emphasizing staying safe on the roads. This site is designed to be a resource that is flexible and can be modified to your class time or the needs of your students, we also send free swag!



[Safety Tips and Blog](#)

You can also find other safety tips and resources on our website, along with our blog posts that cover a variety of safety topics.

Those interested in scheduling an assembly to come to their school or for any other questions, contact Safe Routes Utah at contact@saferroutesutah.com.