Introduction

The purpose of this guide is to assist our customers in determining when they may need a gate permit, and for those that do need a permit, it is intended to be an aid in designing, permitting and obtaining necessary inspections. Applicants, who design, submit and request inspections in accordance with this guide should find the permitting process to be much easier. Alternatives to the design criteria contained in this guide may be submitted, but additional review time may be necessary to verify compliance with the applicable ordinances and ensure emergency vehicle access.

A number of the most commonly asked questions are addressed. For a complete reference of the applicable ordinances refer to the following three documents: Title 17B-Construction and Infrastructure Regulations-Road and Bridge Design and Construction Standards, the Manual on Design Guidelines and Specifications for Road and Bridge Construction in Pierce County as published by the County Engineer; and Title 17C-Construction and Infrastructure Regulations-Building and Fire Codes (Section 17C.60).

Definitions

Definitions utilized within this guide may be found in Appendix “A.”

Do I Need a Gate Permit?

A gate permit is required if a gate is constructed on or after January 1, 1992, under one of the following situations:

Driveways serving commercial or industrial uses: A permit is required for proposed gates across driveways or access routes to commercial or industrial uses.

Private Roads and Shared Accesses: A permit is required for proposed gates on private roads and shared accesses.

Driveway serving a single residential structure: A permit is required for a proposed gate across a residential driveway.
How to Apply For a Permit

Gate installation requires a gate permit. In some cases, where the access needs to be modified, such as an existing roadway that needs to be modified to accommodate a turnaround, a site development permit may also be required. A permit for the gate is a permit to install the gate and its related appurtenances. It is not a permit to perform road/access construction. A site development permit is a permit to perform access and storm drainage site development work. It is not a permit to construct a gate.

The need for a site development permit should be determined prior to submitting the gate permit. This can be accomplished by requesting a determination by a Development Engineering representative at the Development Center.

For a gate permit, your application should include all the items identified on the gate submittal requirement form (Appendix “D”). Make sure you attach the site plan and details. Bring the complete package to the Development Center located in the Pierce County Annex, 2401 South 35th Street, Tacoma.

Application Fee

Correct fees paid in accordance with current fee schedule as adopted by County Council. See Pals Web Page at www.piercecountywa.org/pals, County Code, Title 2, Chapter 2.05 Planning and Land Services Fees.

Gates Are Not Allowed

Gates are not allowed on public roads or alleyways.

Assumption and Parameters of the Design Guide

A number of guidelines and assumptions were used in the writing of this document that the reader should be aware of in order to fully understand the intent of the guide.

- Existing Ordinance was used to develop this guide.
- Field measured turn radius data of Pierce County Fire Department ladder trucks were used.
- Passenger vehicles have a turn radius per an AASHTO “P” design vehicle. This is used for the turnaround area.
- The emergency vehicle must be able to turn onto the gated road while remaining in its lane at the initiation of the turn. Future roadway projects may create a barrier between the lanes, such as a median, that would preclude the emergency vehicle from initiating a turn from another lane.
- The emergency vehicle must be able to complete any turns necessary to access the gated road and be established in its lane prior to passing through or by a center post, keypad island or median.
Elements of Gate Design

A gate design takes into consideration a number of characteristics that will serve the interest of a number of different users: the traveling public, the occupants served by the gate and emergency vehicles. Some items that a designer should consider in the planning, construction and operation of a gate include the following:

- Provides adequate protection for the residents/occupants served by the gate.
- Has acceptable esthetic appeal.
- Is designed, constructed and maintained to operate properly for the life of the gate.
- Allows vehicles, in particular emergency vehicles, to pass through the gate without difficulty.
- Allows vehicles, in particular emergency vehicles, to pass through the gate, maneuver around the access routes and return through the gate to exit the site.
- Provides vehicles that are denied access through the gate a safe and easy manner in which to turn around and exit the site.

**Minimum Design Requirements for Gates Providing Emergency Vehicle Access**

There are two design elements that must be achieved for any gate design that is submitted for application and approval:

1. An emergency vehicle must be able to turn off the cross road and pass through the gate and;
2. The emergency vehicle must be able to maneuver through the gate and turn around to exit the gate,

The design vehicle turn radius shall accommodate a Pierce County Fire Department vehicle. A copy of the turn radius is available from Development Engineering.

**Turnaround Area**

A prescriptive option is shown that provides a passenger car the opportunity to turn around and re-enter the roadway system in the event they cannot pass through the gate. Figure 1 is a circular turnaround and maintains an unobstructed through-lane configuration for the ingress and egress lanes and allows the passenger vehicle to turn around without having to back up. Hammerhead turnarounds are also acceptable. Non prescriptive turnarounds require the design to be stamped by a Professional Engineer licensed in the State of Washington. Surfacing material shall be the same as the traveled way surfacing material.

**Keypads and Keypad Islands**

Keypads shall be located such that a driver does not have to cross an opposing lane of traffic to operate the keypad.

Keypad pedestals may be placed on islands that are located in the roadway section. Keypad islands shall not be located in the traveled way. The keypad and island must not interfere with emergency vehicles entering or exiting the site.

Mailbox kiosks shall not be located in the keypad island.
Figure 2 shows a cement concrete barrier curb and gutter. For asphalt curbs, use the flow line as the dimension point in lieu of the face of curb. For rolled concrete curbs, use the curb centerline as the dimension point.

See Table 1 for a summary of keypad design criteria.

<table>
<thead>
<tr>
<th>Design Element</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length of island</td>
<td>6 feet (measured face of curb to face of curb).</td>
</tr>
<tr>
<td>Width of island</td>
<td>3 feet (measured face of curb to face of curb).</td>
</tr>
<tr>
<td>Curb type</td>
<td>Cement concrete barrier curb.</td>
</tr>
<tr>
<td>Setback</td>
<td>Keypad shall be setback 1 foot from the face of curb.</td>
</tr>
<tr>
<td>Vegetation</td>
<td>Maximum height of vegetation above the top of curb shall be 24 inches.</td>
</tr>
<tr>
<td>Curve radius</td>
<td>Face of curb radius shall equal 1.5 feet.</td>
</tr>
</tbody>
</table>

**Gate Setbacks**

Gates are considered to be exempt from building setbacks to property lines and private roads. Gates shall be setback from road rights-of-ways and/or easements a minimum of sixty feet. Gates that are configured with a center post or center island shall be setback per all of the following criteria: (1) 60 feet from a road right-of-way and/or easement. (2) 100 feet from the centerline of a right-of-way or easement. (3) 100 feet from the face/flowline of a median (the median side closest to the proposed gate). (4) 100 feet from the lane divider separating opposing lanes of traffic.

Parcels that are adjacent to public road right-of-ways may be subject to setbacks measured from a **future right-of-way** (FROW). Contact the Development Engineering Technical support staff at 253-798-3150, 253-798-7135 or visit us online and use “About My Property” to determine if your parcel has a FROW need.

**Clear Width**

Minimum clear widths must be provided in accordance with Table 2 and Figure 4.

<table>
<thead>
<tr>
<th>Roadway or Access Classification</th>
<th>Minimum Clear Width between Hinge Posts (no center post)</th>
</tr>
</thead>
</table>

Table 2

Clear Widths
<table>
<thead>
<tr>
<th>Roadway or Access Classification</th>
<th>Minimum Clear Width between Hinge Posts (no center post)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shared Access Facility, Minor or Major Driveway Approach</td>
<td>24’</td>
</tr>
<tr>
<td>PC.A2.1 - Local Feeder</td>
<td>27’ or 33’ – 2 lanes with widened curb lanes.</td>
</tr>
<tr>
<td>PC.A2.2 - Local Feeder</td>
<td>27’ or 33’ – 2 lanes with widened curb lanes.</td>
</tr>
<tr>
<td>PC.A2.3 - Local Feeder</td>
<td>31’</td>
</tr>
<tr>
<td>PC.A2.4 - Local Feeder</td>
<td>32’</td>
</tr>
<tr>
<td>PC.A3.1 - Local Minor &amp; Cul-De-Sac</td>
<td>33’</td>
</tr>
<tr>
<td>PC.A3.2 - Local Minor &amp; Cul-De-Sac</td>
<td></td>
</tr>
<tr>
<td>PC.A3.3 - Local Minor &amp; Cul-De-Sac</td>
<td></td>
</tr>
<tr>
<td>PC.A3.4 - Local Minor &amp; Cul-De-Sac</td>
<td></td>
</tr>
<tr>
<td>PC.A3.5 - Local Minor &amp; Cul-De-Sac</td>
<td></td>
</tr>
<tr>
<td>PC.A3.6 - Local Minor &amp; Cul-De-Sac</td>
<td></td>
</tr>
<tr>
<td>PC.A4.1 - Arterial</td>
<td>24’ with 2 lanes or 44’ with 4 lanes</td>
</tr>
<tr>
<td>PC.A4.2 - Local Feeder or Minor</td>
<td>24’</td>
</tr>
<tr>
<td>PC.A4.3 - Local Cul-De-Sac</td>
<td></td>
</tr>
</tbody>
</table>

If a center column island is proposed the minimum clear width shall be one half of the distance shown in Table 2.

Gate posts must be located behind the back of the curb section.

**Sidewalks and Walkways**

The full width of a sidewalk or paved walkway must be maintained around any gate appurtenance.

**Gate Height**

Gates or support posts that are higher than six feet are required to have project specific structural plans, details and calculations stamped by a Professional Engineer licensed by the State of Washington. The details and calculations need to address the size and specifications of gate panels, columns, support arms, welds, footings, concrete, anchor bolts and any other structural elements specific to the project. The height is measured per Figure 4.

**Traveled Way**

Gates must open to provide unobstructed access to all portions of the traveled way. Keypad islands shall not be located in the traveled way.
Rapid Entry Capabilities

Rapid entry requirements must be provided that are compatible with County Fire Districts and Fire Codes. Order forms for rapid-entry system components are available through the local Fire District serving the property. You can determine which fire district you are in by visiting the Pierce County website.

1. Go to Pierce County’s web site by entering www.co.pierce.wa.us.
2. Under the section titled, “County Directory,” click on “Planning & Land Services.”
3. From the PALS home page click on “Use Map Your Way to find zoning and other information.”
4. Enter your address in the right hand box.
5. Click on “Map It.”
6. Under the “Map Tools” section, “Step 1: Select a theme”: click the scroll button and select the “Fire Districts” theme.
7. On the map, click on the parcel. The Fire District number is shown under the “Fire District Report.”

You can also telephone the Development Center information line at 253-798-3739. Your parcel number or address is required to determine the Fire District. Appendix “A” has a list of the Fire Districts and a contact telephone number. See Table 3 for a summary of the rapid entry requirements:

<table>
<thead>
<tr>
<th>Rapid Entry Mechanism</th>
<th>Applicability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rapid entry key device (Knox™ key switch, box, padlock or approved equivalent)</td>
<td>Required</td>
</tr>
<tr>
<td>Electrically-activated gates shall default to the unlocked position on loss of power.</td>
<td></td>
</tr>
<tr>
<td>Emergency vehicle strobe detector or approved equivalent.</td>
<td>Required for gates that serve 10 or more dwelling units.</td>
</tr>
<tr>
<td>Exit loop detector circuit</td>
<td>Required if an emergency vehicle strobe detector is necessary.</td>
</tr>
<tr>
<td>Safety loop detector circuit</td>
<td>Required for electrically-activated gates</td>
</tr>
</tbody>
</table>

Rapid Entry Key Devices

Rapid entry key devices (Knox keyswitch, box or padlock, or approved equivalent) are required to be installed on all gates. An electrically operated gate shall be equipped with a Knox keyswitch. The switch shall open the gate(s) on activation of the switch and they shall remain open until reset. Manually operated gates shall be provided with an access key located in a Knox key box or a Knox padlock.

Knox devices shall be located on the keypad island per Figure 2 or on the right-hand side gate post, see Figure 3, if a keypad island is not proposed.
Note: Gates operated by electricity require an electrical permit from the appropriate local agency. A copy of the approved permit must be submitted to Development Engineering Inspection Support before calling for final inspection.

**Emergency Vehicle Strobe Detector**

An emergency vehicle strobe detector receiver is required for gates that serve ten or more dwelling units. Gates shall open on activation of the emergency vehicle strobe detector receiver and remain open for thirty minutes and then automatically close. The receiver shall be mounted eight feet above the roadway and located on the gate support post located on the right side of the gate as you are entering the gated area.

**Exit and Safety Loop System**

An exit loop and associated detector is required when an emergency vehicle strobe detector system is required. The exit loop detector shall automatically open the exit gate as an exiting vehicle approaches.

Safety loops and associated detectors are required when electrically activated gates are proposed. Safety loops shall prevent a gate from opening or closing when a vehicle is detected by the loop detector. Photo reactive and “wand” style sensors are not considered an acceptable alternative. They may be installed as a supplement to a loop system.

**Snow Clearance**

Swing type gates shall have a minimum of six inches of clearance between the bottom of gate and the traveled surface, through its entire operating arc, to ensure operation during snowy weather.

**Maintenance**

All required rapid entry devices including Knox key devise, emergency vehicle strobe detector, and exit and safety loop systems shall be maintained in an operable condition.

**When to Call for Inspection**

Gates or supports that are six feet or less in height require a successful fire district test and at least one Development Engineering inspection:

- The applicable fire district (see Appendix “B” for phone numbers) should be contacted to schedule an operational test when the gate and its related appurtenances have been completely installed and are operational. The applicant is responsible for having the Gate Operation Test form available on-site for the fire district to complete and for forwarding the results to Development Engineering Inspection Support. The Gate Operation Test form is attached to the permit and stamped/approved plans.
A final inspection can be scheduled with Development Engineering by the applicant when all of the following items have been completed: the gate and its related appurtenances have been completely installed; all site work (paving, curbs, shoulders, sidewalks, signage, etc.) is complete; the local fire district has completed operational testing; the completed Gate Operation Test form and if the gate is electric a copy of the approved electrical permit has been received by Development Engineering Inspection Support.

Gates or supports that exceed six feet in height require a fire district test and two Development Engineering inspections:

- The gate post footing/foundation inspection can be scheduled with Development Engineering after all excavation is complete, after forms are erected and reinforcing material is installed. **Concrete should not be poured until the inspector finds the form work and reinforcing acceptable.**
- Contact the applicable fire district (see Appendix “B” for phone numbers) to schedule an operational test when the gate and its related appurtenances have been completely installed and are operational. The applicant is responsible for having the Gate Operation Test form available on-site for the fire district to complete and for forwarding the results to Development Engineering Inspection Support. The Gate Operation Test form is attached to the permit and stamped/approved plans.
- A final inspection can be scheduled with Development Engineering by the applicant when all of the following items have been completed: the gate and its related appurtenances have been completely installed; all site work (paving, curbs, shoulders, sidewalks, signage, etc.) is complete; the local fire district has completed operational testing; the completed Gate Operation Test form and if the gate is electric a copy of the approved electrical permit has been received by Development Engineering Inspection Support.

**Requesting Development Engineering Inspections**

Inspections with the Development Engineering Section may be scheduled by telephone or over the Internet. Telephone request are made by calling Pierce County’s Permit and Application Status System (PASS) at 253-798-4900 or 253-798-7290. The gate permit number is needed to schedule inspections. The call will also have to be placed using a touch tone phone. Internet requests are made at [http://palsonline.co.pierce.wa.us/palsonline/permitsearch](http://palsonline.co.pierce.wa.us/palsonline/permitsearch). You must be a registered user of the site to schedule/cancel inspections.

**Development Engineering Inspection Results**

Development Engineering inspection results will be posted on site unless otherwise requested by the contractor. Inspection results can also be obtained by visiting the Pierce County web page at [http://palsonline.co.pierce.wa.us/palsonline/permitsearch](http://palsonline.co.pierce.wa.us/palsonline/permitsearch). Inspection results are usually available on the web by the next business day.
Appendix “A”

Definitions

Buffer: The space between the edge of the pavement or the back of the curb and the sidewalk.

Clear Width: The minimum distance between two gate supports and appurtenances when the gate is in an open position that an object could pass through. See Figure 4.

Driveway: An access facility between the driveway approach point on a roadway, shared access facility or emergency vehicle access and the abutting private property used by vehicular traffic.

Dwelling Unit: One or more rooms designed for or occupied by one family for living or sleeping purposes and containing kitchen, sleeping and sanitary facilities for use solely by one family.

Island: A defined area between traffic lanes for control of vehicle movements and/or pedestrian refuge.

Major Driveway Approach: An approach that is used to serve multi-family and commercial uses with an approach traffic volume of 1,500 or more vehicle trips per day or 150 or more vehicle trips per peak hour.

Minor Driveway Approach: An approach that is used to serve a shared access facility or multi-family and commercial uses with an approach traffic volume of up to 1,500 vehicle trips per day or up to 150 vehicle trips per peak hour.

Private Road: A roadway facility in private ownership providing private access and used for travel of vehicles by the owner(s) or those having express or implied permission from the owner(s) but not by other persons. Private roads are generally located in a tract or easement.

Shared Access Facility: A privately owned drivable surface which serves four lots in the rural area and two lots in the urban area for access to single family and two family dwelling units.

Traveled Way: That portion of the roadway used for the movement of vehicles exclusive of the portion of the roadway width which is used or available for parking of vehicles. The traveled way does not include curbs and gutters. See Figure 5.

Turnaround: An area provided in front of a gate that will allow a driver of a passenger car (AASHTO “P”) to reverse the direction of travel in the event they cannot gain access through the gate.
### Appendix “B”

**Fire District Contacts**

<table>
<thead>
<tr>
<th>District No.</th>
<th>District Name</th>
<th>Office Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sumner</td>
<td>(253) 863-1800</td>
</tr>
<tr>
<td>2</td>
<td>Lakewood</td>
<td>(253) 582-4600</td>
</tr>
<tr>
<td>3</td>
<td>University Place</td>
<td>(253) 564-1623</td>
</tr>
<tr>
<td>5</td>
<td>Gig Harbor</td>
<td>(253) 851-3111</td>
</tr>
<tr>
<td>6</td>
<td>Central Pierce</td>
<td>(253) 538-6400</td>
</tr>
<tr>
<td>8</td>
<td>Edgewood</td>
<td>(253) 927-2313</td>
</tr>
<tr>
<td>10</td>
<td>Fife</td>
<td>(253) 591-5798</td>
</tr>
<tr>
<td>11</td>
<td>North Puyallup</td>
<td>(253) 845-6666</td>
</tr>
<tr>
<td>12</td>
<td>Buckley</td>
<td>(253) 863-1800</td>
</tr>
<tr>
<td>13</td>
<td>Brown’s Point</td>
<td>(253) 952-4776</td>
</tr>
<tr>
<td>14</td>
<td>Riverside</td>
<td>(253) 992-5644</td>
</tr>
<tr>
<td>15</td>
<td>South Pierce</td>
<td>(253) 847-4333</td>
</tr>
<tr>
<td>16</td>
<td>Key Peninsula</td>
<td>(253) 884-2222</td>
</tr>
<tr>
<td>17</td>
<td>Roy</td>
<td>(253) 843-2424</td>
</tr>
<tr>
<td>18</td>
<td>Orting</td>
<td>(360) 893-7857</td>
</tr>
<tr>
<td>20</td>
<td>South Prairie</td>
<td>(360) 863-1800</td>
</tr>
<tr>
<td>21</td>
<td>Graham</td>
<td>(253) 847-8811</td>
</tr>
<tr>
<td>22</td>
<td>East Pierce</td>
<td>(253) 862-8300</td>
</tr>
<tr>
<td>23</td>
<td>Pierce 23</td>
<td>(360) 569-2752</td>
</tr>
<tr>
<td>25</td>
<td>Crystal Mountain</td>
<td>(360) 663-2634</td>
</tr>
<tr>
<td>26</td>
<td>Greenwater</td>
<td>(360) 663-2522</td>
</tr>
<tr>
<td>27</td>
<td>Anderson Island</td>
<td>(253) 884-4040</td>
</tr>
</tbody>
</table>
Appendix “C”
Gate Submittal Requirements

Instructions
This application package is designed to aid you in preparing a gate application submittal. Provide 4 copies of all documents needed for a complete submittal. Incomplete submittals will not be accepted:

- **Information Sheet.** Complete all information requests.
- **Subdivision Documents.** For subdivisions of land, include a copy of the recorded short plat, large lot or formal plat. If a formal plat is in the preliminary plat stage, provide a copy of the approved preliminary plat. Provide all pages of the recording in their original size (do not reduce).

Plans

- **Vicinity Map.**
- **Site Plan.** Draw to scale (1”=10’), show north arrow, scale of drawing, Right-of-Way, property lines, roads, edges of paving, driveway, sidewalks, shoulders, buffers, medians, islands, buildings, easements, critical areas, 2-foot contours. Show the location of the strobe detector, keypad, safety and exit loops and Knox™ keyswitch. Provide dimension ties from gate to County Right-of-Way and edge of pavement. Show the gate in both the fully open and closed position. Use 22” x 34” sheet size.

- **Roadway Cross-Section/Gate Elevation.** Provide a cross sectional view of the roadway and gate. Include the width of the paving, curb section, shoulders, buffers and sidewalks as applicable and an elevation (front) view of the entire gate system. Include on Site Plan sheet or attach a separate 22” x 34” sheet.

  Dimension the maximum height and the width of each gate panel and support post. Note the materials used in the construction of the gate. Show the height and orientation of the strobe detector and Knox™ keyswitch if required.

  **Details.** Show appropriate details of the gatepost, including hinge points, swing direction, track attachments, latches and other accessory appurtenances. Show the location of the strobe detector, if one is required. For gates more than 6 feet in height, provide a detail of the gatepost footing. Include on Site Plan sheet or attach a separate 22” x 34” sheet.

- **Standard Notes.** Include the standard notes from Appendix “E” on the plan.
- **Catalog “Cut Sheets”.** Provide copies of manufacturer’s “cut sheets” for rapid-entry components (Knox™ key system, strobe detector), exit and safety loops, loop detector and gate operator components.

- **Structural Details.** Gates or supports that exceed 6 feet in height require site specific structural details and calculations stamped by a Professional Engineer licensed by the State of Washington.
### Appendix “D”

**GATE INFORMATION SHEET**

<table>
<thead>
<tr>
<th>Project Name:</th>
<th>Parcel No.:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope of work (check one):</td>
<td></td>
</tr>
<tr>
<td>[ ] New gate</td>
<td>[ ] Revision to permitted gate</td>
</tr>
</tbody>
</table>

**Name of road gate will be built across:**

**Name of closest cross street to gate:**

**Fire District Name:**

**Fire District No.:**

If gate is located in an easement, note recording number of easement: (Attach a copy of the recorded easement):

**Name of property owner:**

**Address of property owner:**

**Phone number of property owner:**

**Name of applicant (person):**

**Name of applicant’s company:**

**Mailing address of applicant:**

**Number of parcels accessed by gate:**

**Number of Single Family Residences, Duplexes and/or Accessory Dwelling Units (site built or mobile) accessed by the gate:**

**Number of apartment or condominium units accessed by gate:**
Appendix “E”

Standard Notes for Gates

Show the following standard notes on the plans. Delete any note that is not applicable to your specific project. In most cases notes 1 through 3 will apply to all gates, notes 4 through 7 will apply to electrically operated gates and note 8 will apply to a gate equipped with an emergency vehicle strobe detector.

All gates:

1. The property owner is responsible for maintaining the rapid entry devices in an operable condition.
2. Prior to requesting a Final Inspection from the Development Engineering Section the applicant shall submit a copy of the completed Gate Operation Test form and a copy of the electrical permit. The electrical permit shall be finalled and cover both line and low voltage systems.
3. All pivoting gates shall have a minimum of six inches of clearance between the bottom of gate and the traveled surface, through its entire operating arc.

Electrically operated gates:

4. The gate lock shall default to the unlocked position in the event of a loss of electrical power.
5. All gates shall open on activation of the Knox key switch and shall remain open until manually reset.
6. The safety loop detector circuit shall prevent the gates from closing on a vehicle in its path. An exit loop detector circuit or emergency vehicle strobe detector receiver shall automatically open the gate upon emergency vehicle approach to the exit gate from inside the complex.
7. Electrically operated gates require a permit for the installation of line and low voltage devices. Contact the appropriate permitting agency (state or utility company) for required permits. Pierce County does not issue electrical permits.

Emergency vehicle strobe detector equipped gates:

8. All gates shall open on activation of the emergency vehicle strobe detector and remain open for a minimum of thirty minutes and then automatically close.
NOTE: FOR A LOCAL-LOCAL INTERSECTION THE RADIUS IS 25 FEET.
FOR A LOCAL-ARTERIAL INTERSECTION THE RADIUS IS 25 TO 30 FEET.
FOR AN ARTERIAL-ARTERIAL INTERSECTION THE RADIUS IS 35 TO 45 FEET.

Figure 1
CIRCULAR TURNAROUND
Figure 2
KEYPAD ISLAND
Figure 3
STROBE DETECTOR & KNOX DEVICE
Figure 4
CLEAR WIDTH & HEIGHT
Figure 5
TRAVELED WAY