APPENDIX B

South Placer Fire Protection District
6900 Eureka Road, Granite Bay CA. 95746 (916) 791-7059

The following are general requirements of the South Placer Fire Protection District for major and minor residential subdivision sites. These comments are for site plans only. Plans submitted for approval shall reflect all requirements that apply. All of the following comments shall be printed on a comment sheet attached to the plans submitted for approval. Prior to final approval, all applicable fees must be paid.

Subdivision Site Infrastructure

Bridges

Bridges designed for major ingress/egress roads serving subdivisions or used as part of a fire apparatus access road shall be constructed and designed to meet standard, AASHTO HB-17. Bridges shall be no narrower than the driving portion of the road serving each end. The bridge or culvert crossing shall be designed for a live load of a minimum of 75,000 pounds gross vehicle weight. Vehicle load limits shall be posted at both entrances to bridges and culvert crossings.

Dead End Roadways

The maximum length of a dead-end road shall not exceed cumulative lengths, regardless of the number of parcels served.

- Parcels proposed less than 1 acre 800 feet.
- Parcels proposed 1 acre to 4.99 acres 1320 feet.
- Parcels proposed 5 acres to 19.99 acres 2640 feet.
- Parcels proposed 20 acres or larger 5280 feet

Each dead-end road shall have a turnaround constructed at its terminus. (See Attached Details)

Driveways

Driveways for access to one and two family dwellings, shall conform to the following criteria as applicable:

1. Driveways serving one parcel with no more than five structures shall be a minimum of twelve (12) feet in width. The chief may require up to a twenty (20) foot wide driveway when more than five structures exist.
2. Roadways serving more than one parcel, but less than five parcels, shall be a minimum twenty (20) feet in width. Roadways serving five parcels or more shall be no less than 24 feet in width.
3. Vertical clearance shall be a minimum of fifteen (15) feet.
4. When the driveway exceeds 150 feet in length, provide a turnout at the midpoint. For driveways not exceeding 400 feet in length, the turnout may be omitted if full sight distance is maintained. If the driveway exceeds 800 feet in length, turnouts shall be no more than 400 feet apart.
5. When a driveway exceeds 300 feet in length, a turnaround shall be provided no greater than 50 feet from the structure.
6. The driveway must be provided with an all-weather surface capable of supporting a 75,000 lb. vehicle loading. When the road grade exceeds ten (10) percent, the road shall be surfaced with asphalt or concrete.

Gated Entrances & Egress Roadways

Gate entrances shall be at least two feet wider than the width of the traffic lane serving that gate. All gates providing access from a road to a driveway or private road shall be located at least 30 feet from the roadway and open to allow a vehicle to stop without obstructing traffic on that road. Gates shall be accessible to the fire district by approved electric key switch; strobe entry, person gate and standard key pad access code. Gates shall allow automatic egress for community members in the event of an emergency. Gates shall be provided with an emergency power source that will open the gates in the event of a power failure. During a power emergency, gates shall automatically open and remain open during the period when the primary source of power is not available.

Electronically opened gates located across fire apparatus access roads shall be provided with an approved strobe switch access system that interfaces with the TOMAR Model 780-1228-PRE or 3M OPTICOM traffic preemption optical signal emitter provided on District emergency vehicles. An acceptance test of the emergency vehicle strobe switch system shall be witnessed by the fire department prior to final approval. Gates shall be coded to allow a minimum of fifteen (15) minutes of open access time when activated by the strobe entry device.

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All electronically opened perimeter access gates located across fire apparatus access roads shall be provided with a vehicle detection loop on the out-bound drive aisle from the site. The vehicle detection loop shall be placed a minimum of ten-feet from the gate to permit fire apparatus to activate the detection loop without interference from the gate. The vehicle detection loop shall be provided with a 30-second delay prior to closing the gate.

Hydrants
Hydrants shall be wet barrel type with two 2-½ inch discharges and one 4-½ inch discharge, with individual valves for each discharge. (RICH 960 or equivalent). Two-way blue reflective pavement markers shall be placed in the roadway (eight inches from the center line on the hydrant side) at each hydrant location. The area around the hydrant will be kept clear of obstructions including fences, trees and shrubs so as to provide for clear access to the hydrant from the roadway. The center of the lowest discharge shall be a minimum of 18 inches and a maximum of 28 inches off the ground. Hydrant setback location shall meet the appropriate water agency standards, but shall not be greater than 6' from the face of curb or edge of pavement if no curb is present. Water supply and hydrants to be provided previous to any building construction. Final acceptance of the water supply system shall be granted only after testing and inspection by the fire district. (See Attached Details)

Hydrant Spacing
Hydrants shall be spaced a maximum of 500 feet apart.

One- or Two-Family Residential Developments
Developments of one- or two-family dwellings where the number of dwelling unites exceeds 30 shall be provided with two separate and approved fire apparatus access roads as required by dead end road requirements.

Remoteness
Where two access roads are required, they shall be placed a distance apart equal to not less than one half of the length of the maximum overall diagonal dimension of the property or area to be served, measured in a straight line between accesses.

Roadway and Driveway Width
Roadways serving five parcels or more shall meet Placer County standards but shall be no less than 24 feet in width. Roadway width shall mean driving surface to face of curb or flow line of rolled curb. Emergency access/egress roadways shall meet Placer County standards but shall be no less than 20 feet in width. Emergency access/egress roadways shall be marked with approved signs stating 'EMERGENCY FIRE ROAD'. All roadways and access roads shall be completed before any building construction.

Emergency Vehicle Access and occupant emergency egress/evacuation roads:
Use - Access for emergency vehicles during an emergency and emergency egress/evacuation for residents during an emergency.
Size - Roadways shall have an unobstructed width of not less than 20 feet and an unobstructed vertical clearance of not less than 15 feet.

Roadway Grades
Fire Apparatus access roads and response routes shall not exceed 10 percent in grade.

Exception: Grades steeper than 10 percent as approved by the fire chief when the road is surfaced with asphalt or concrete.

The grade for all private lanes and driveways over 16% shall be approved by the Fire Marshal.
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In order to accommodate grades in excess of sixteen (16) percent, the access road shall be designed to have a finished surface of grooved concrete or rough asphalt to hold a 45,000 lb. traction load. The concrete grooves shall be ¼ inch wide by ¼ inch deep and ¾ inch on center. The road design shall be certified by a registered engineer and approved by the chief.

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Parking Restrictions
When provisions for parallel parking are included in the width of a street or roadway, a minimum eight (8) foot width shall be allocated for the parking space.

No parking is permitted on streets narrower than 32 feet in width, cul-de-sac radius of 42' feet or hammerhead turn around 24 feet in width and 80 feet in length. Parking on one side is permitted on a roadway that is at least 32 but less than 40 feet in width. Parking on two sides is permitted on a roadway 40 feet or more in width. Width is measured from face of curb or flow line of rolled curb. When the roadway width restricts parking, 'NO PARKING' signs shall be posted every 200 ft. (See Attached Details)

Roadway Radius
The inside turning radius for an access road shall be 30 feet or greater. The outside turning radius for an access road shall be 50 feet or greater. (See Attached Details)

Roadway Surface
Facilities, buildings or portions of buildings hereafter constructed shall be accessible to fire department apparatus by way of an approved fire apparatus access road with an asphalt, concrete, or other all-weather driving surface capable of supporting the imposed loads of fire apparatus weighing at least 75,000 pounds

Roadway Turnarounds
Turnarounds are required on driveways and dead end roads as specified. Cul-de-sac's radius shall be 42 feet of driving surface. Radius is measured from face of curb or flow line of rolled curb. If a hammerhead/T is used, the top of the (T) shall be a minimum of 80 feet in length. (See Attached Details)

Residential Sprinkler Systems
All proposed one and two family homes will require a residential sprinkler fire system and Fire Marshal site plan review. This standard is pursuant to the 2016 California Residential Code, Section R313 and 2016 California Fire Code. The design and installation shall meet both the latest edition of NFPA Standard 13-D and South Placer Fire District Amendments. Rooms with ceiling heights over 24 feet or more than 600 square feet may require a 3 or 4 head calculation based on the number of heads that may activate during a fire (NFPA 13D, 2016 Edition, Section 10.2.4 and A10.2.4) One pilot head will be required in all attic areas, usually installed near the HVAC if installed in the attic space.

Alarms in Group R3 Occupancies. Automatic sprinkler systems in R-3 occupancies shall be equipped with a water flow switch, an exterior horn-strobe located on the address side of the structure, and interconnection to the smoke detector alarm circuit.

Fire Flow Requirements - Residential

Fire Area *(square feet)*	**Fire Flow** *(gallons per minute)*
0 - 3,600	**1,500**
3,601 - 4,800	1,750
4,801 - 6,200	2,000
6,201 - 7,700	2,250
7,701 - 9,400	2,500
9,401 - 11,300	2,750
11,301 - 13,400	3,000
13,401 - 15,600	3,250

Fire flow may be reduced up to 50% when provided with an an approved automatic sprinkler system

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Water Supply
On site water supply for firefighting shall be as follows for one and two family dwellings: For new subdivisions when more than four parcels are created the minimum fire flow, through approved fire hydrants, shall be 1,500 gallons per minute at 20 pounds residual pressure. Fire-flow and flow duration for dwellings having a fire-flow calculation area in excess of 3600 square feet (344.5 sq. m.) shall not be less than that specified in Table B105.1(2).
All proposed water supplies shall come from a reliable source such as a fixed underground water distribution system or a static water system equaling or exceeding the National Fire Protection Association (NFPA) Standard 1142, “Standard on Water Supplies for Suburban and Rural Fire Fighting”. On site water supply for firefighting is not required for lot splits or minor subdivisions of 4 or less.

Exception: A reduction in required fire flow of up to 50 percent, as approved by the fire chief, is allowed when the building is provided with an approved automatic fire sprinkler system.

Subdivision CC&R’s
A final copy of the codes, covenants, and restrictions shall be submitted to this office before final acceptance of the subdivision. The CC&R’s shall contain the following as they apply:

No Parking Areas
There shall be no parking of vehicles on any roadways where parking is prohibited. The fire department may enforce no parking regulations by issuing citations. The fire department as well as the homeowners association may enforce no parking regulations by imposing fines and or towing any vehicle at the owner’s expense. At the request of the fire department, the homeowner’s association shall be responsible to tow any vehicle parked in no parking areas. At the request of the fire department, the homeowner’s association shall maintain red curbs and “no parking signs”. Areas designated as “No Parking” may be not changed nor may this regulation be changed without the approval of the fire department.

Dry and Dead Vegetation Abatement
Open areas and vacant lots shall be maintained in a fire safe condition. The homeowners association shall be responsible to remove dead and dry vegetation at least 100 feet from all non-fire resistive structures. This includes all homes, outbuildings and wooden fences. This regulation may not be changed without the approval of the fire department.

Fire Hydrants
Areas around fire hydrants shall remain clear. The homeowners association shall be responsible to remove vegetation, fences or any other obstruction that is around or in front of any fire hydrants within the subdivision. Blue reflective markers shall be maintained. The homeowners association shall be responsible to maintain all blue reflective markers at fire hydrant locations within the subdivision. This regulation may not be changed without the approval of the fire department. (See Attached Details)

Final Plans Accepted
The final plans shall be approved only when stamped and/or signed by authorized South Placer Fire Protection District personnel.

Subdivision Final Acceptance
Final acceptance of the project is subject to inspection and testing from the South Placer Fire Protection District. 72 hour notice required previous to inspection and testing.

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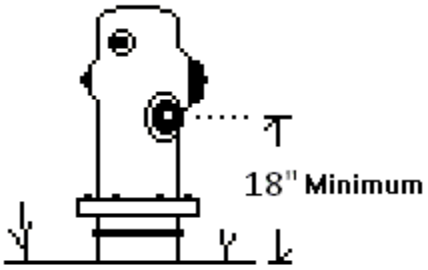
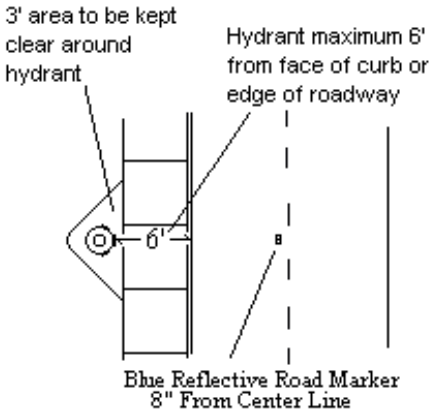
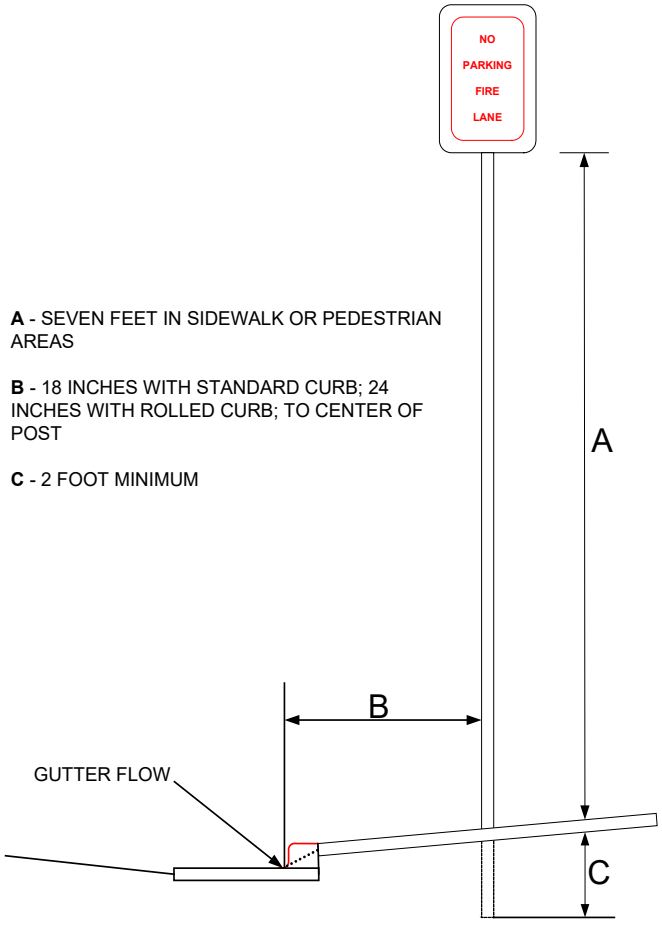
Attached Details Not Drawn To Scale:







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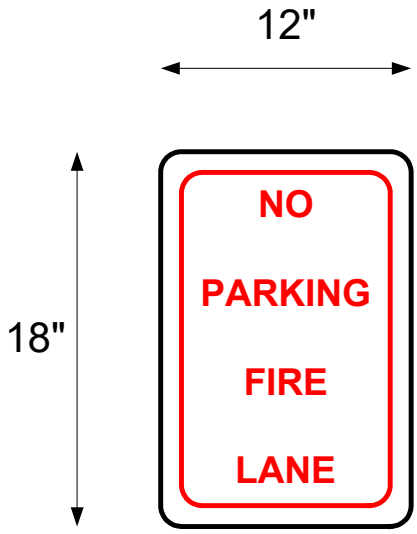

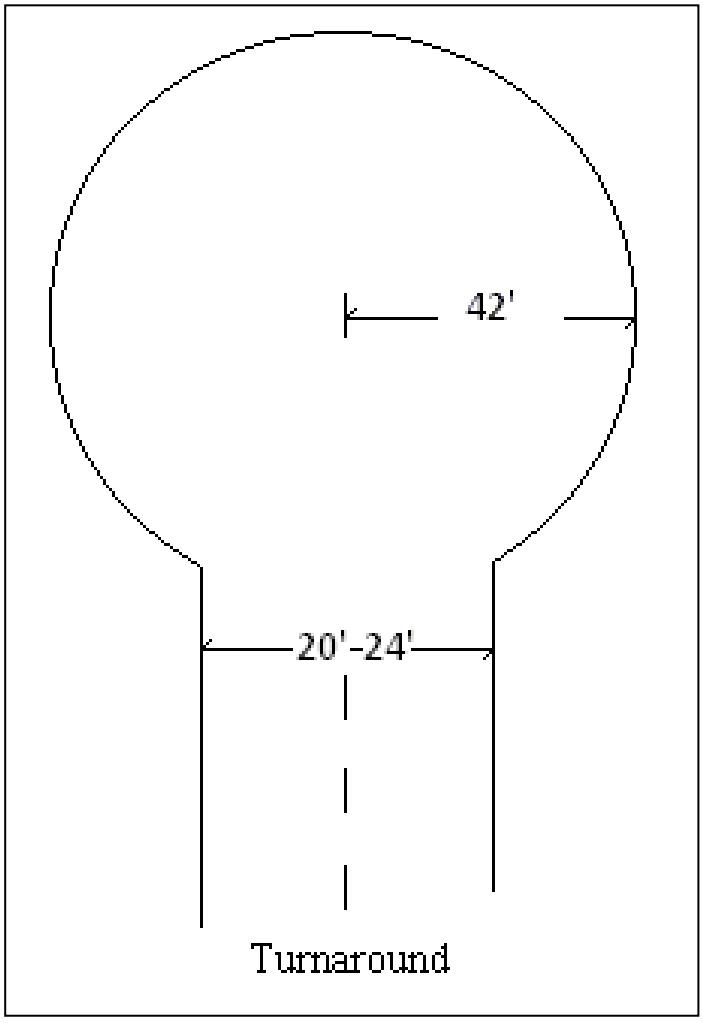

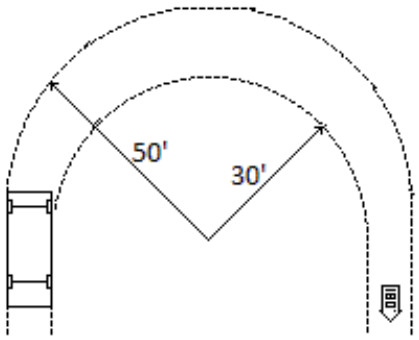

50' Outside; 30' Inside
Turning Radius

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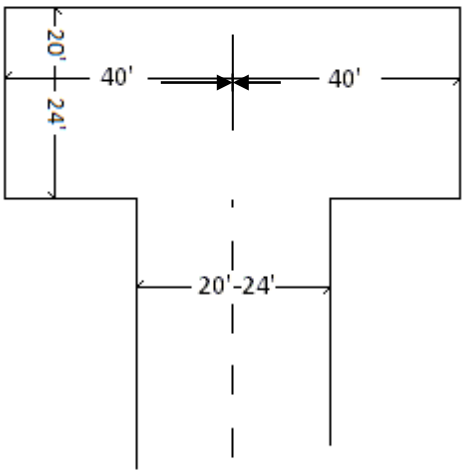
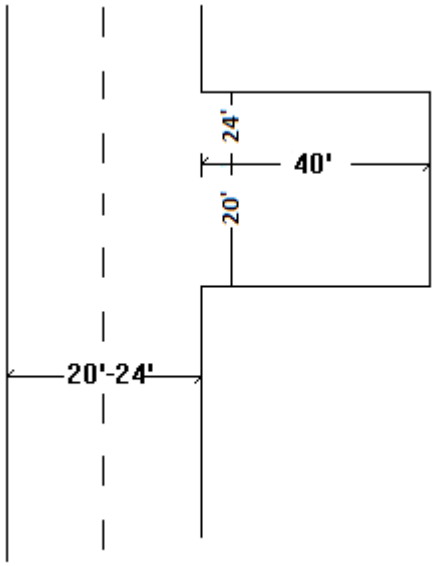
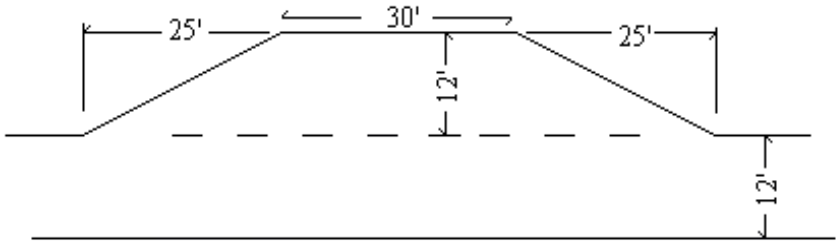


80' Hammerhead
Turnaround



Turnaround



Driveway Turnout

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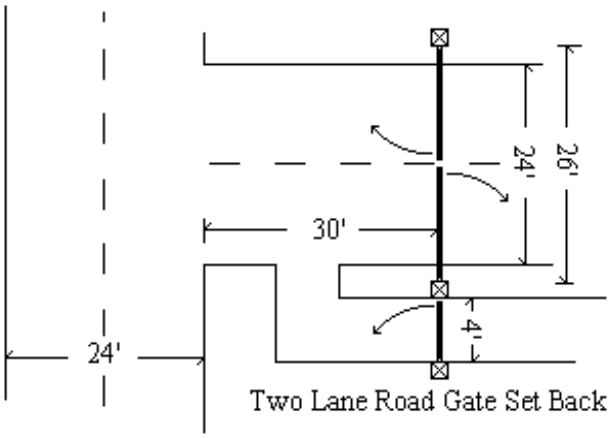
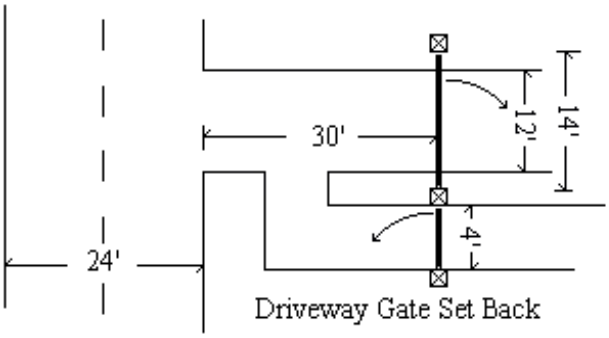
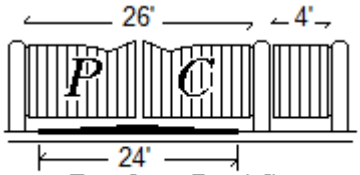


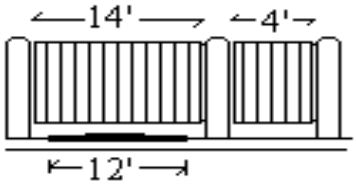
Two Lane Road Gate Set Back



Driveway Gate Set Back



Two Lane Road Gate



Driveway Gate

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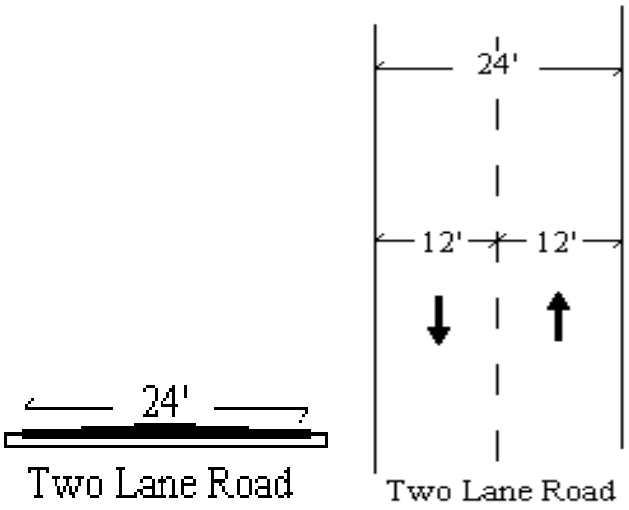
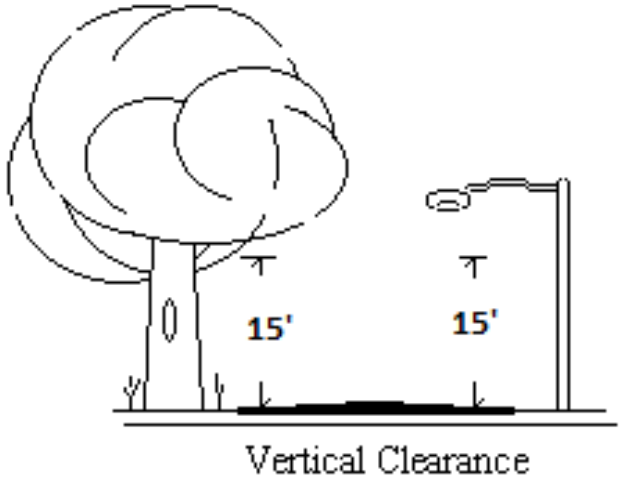
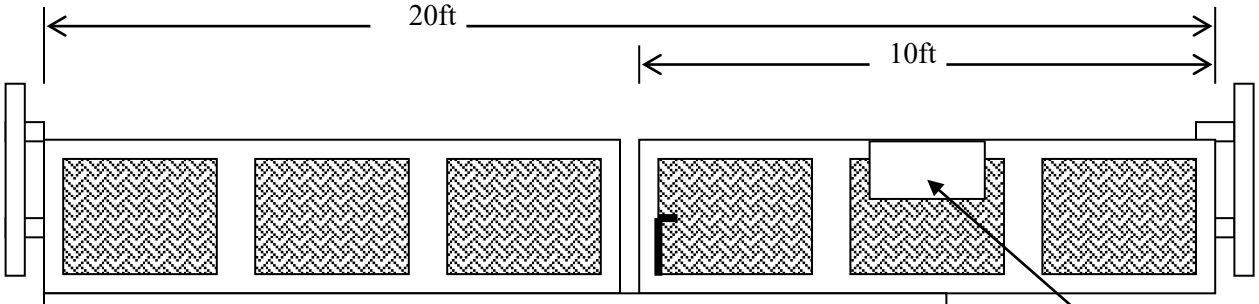




Unlocked gate for 20' Emergency vehicle access road



1. Slip pins and signs on right side as you approach from either side.
2. Gate shall gravity swing to full open position away from pin side of gate upon release of slip pin, but still be capable of swinging in either direction.
3. Slip pins shall be sized no more than one half outside diameter as receiver inside diameter. (Example ½" slip pin with 1" pipe receiver.)
4. Slip pins shall not penetrate receiver more than 2 inches.
5. Provide reflective striping on gate or on ground in front of gate.

Emergency access and escape road.
Emergency use only