500 SPECIFIC ENCROACHMENT PERMITS

This chapter describes specific encroachment permits with their codes and discusses their requirements.

Sect.		
501.3A	**AD**	Advertising Displays
501.3B		Arcades
501.3C		Awnings
501.3D		Marquees
501.3E		Memorial/Historical Plaques & Blue Star Memorial Markers
501.4	**AH**	Adopt-A-Hwy
501.5	**AP**	Art Program
501.6	**AS**	Airspace Development
501.7	**BR**	Banners/Decorations/Signs
501.8	**BS**	Bus Shelters & Benches
501.9	**CC**	City & Co. Issued Permits
501.10	**CD**	Commercial Development
501.11	**CN**	Chain Installer
501.12	**CS**	Sidewalks
501.13	**CU**	Commercial Use Newspaper Vending Mach. Roadside Rest/Vend. Mach. Demo & Exper. Proj.
502.1	**DD**	Major Drainage Facilities
502.2	**DM**	Minor Drainage Facilities
501.14	**DP**	Double Permit

Sect.		
503	**Filming Permits**	
503.3A	**FI**	Intermittent Traffic Control
503.3B	**FL**	Traffic Control
503.3C	**FO**	No Moving Traffic
503.3D	**FR**	Film Rider
503.3E	**FS**	Special
504	**FN**	Fence
505.1	**GC**	Cable Crossing
505.2	**GV**	Seismic Vibrator
506	**Landscape Permits**	
506.4A	**LC**	Conventional Hwy
506. 4B	**LF**	Freeways
506.4C	**LM**	Maintenance
506.4D	**LT**	Tree Trim/Removal
507	**MB Mail Box**	
508	**MC Miscellaneous**	
508.1		Contractor's Yard & Plant
508.2		Fire Hydrant Markers
508.3		Fire Protection Signing
508.4		Guide Signs
508.5		Grading
508.6		Mowing Grass
508.7		Material Removal
508.8		Parking Meters
612.2		SAFE Telephones
508.9		Structures
508.10		Survey Monuments
509	**OA**	Visibility Imp. Req.

Sect.		
510.1	**RC**	Comm. Driveway
511.1	**RD**	Rider Initiated by Caltrans
510.2	**RM**	Reconstruct Driveway
510.3	**RP**	Road Approach
510.4	**RS**	Single Family Driveways
511.2	**RT**	Rider for Time Extension
511.3	**RW**	Rider to Modify Work
512	**RX**	RR Grade Cross. Maint.
513	**SC**	Early Entry
514	**SE**	Special Events
515	**SN**	Signal & Lighting
516	**SV**	**Survey Permits**
516.2		Accident Reconstruction
516.3		Archaeological Surveys
516.4		Land Surveys
516.5		Literature Distribution
516.6		Monitoring Wells
516.7		Research Projects
516.8		Soil Survey
516.9		Traffic Counts
516.10		Trenching & Shoring
517	**TK**	Traffic Control, Signals, & Signs
518	**TN**	Tunnel Under Road
519	**WL**	Wall

The first section of this chapter discusses general types of permits. Subsequent sections describe categories of permits that are complex and often include several permit codes.

BIENNIALS

District review (Hydraulics, Traffic Operations, etc.) is required for a new biennial permit. The District Permit Engineer may elect to re-issue the permit without the district review if all Caltrans' requirements are satisfied and field conditions have not changed from the original biennial permit, for the same permittee.

Many permits may be issued as a two-year permit (biennial) as indicated in the appropriate sections of this chapter and the next chapter. A summary of these permits is as follows:

AH Adopt-A-Hwy
BR Banners
SV Engineering
Property Surveys

BS	Bus Shelters & Benches		Research Projects Funded by FHWA
GC	Cable Crossing (Geophysical)		Soil Surveys
GV	Seismic Vibrator (Geophysical)		Traffic Counts
LM	Landscape Maintenance	**RX**	Railroad Grade Crossing Maintenance
LT	Tree Trimming & Removal	**TK**	Planned Sobriety Checkpoints
MC	Mowing Grass by Adjacent Property Owners Grading	**UB**	Utility Maintenance
OA	Visibility Improvement Request	**UE**	Annual Utility

Specific permit types for utility facility installation, maintenance, and relocation are described in Chapter 6.

501 GENERAL TYPES OF PERMITS

The types of encroachment permits described above generally have only one permit code. They cover a wide range of authorized activities and the scope of permitted activities may vary from routine to complex. Many of the activities covered by these permit types do not require preparation of a Permit Engineering Evaluation Report (Section 202.2).

Permits covering several project locations or districts are called blanket permits. Generally, they are issued for utility facility service connections and routine maintenance as described in Chapter 6. However, blanket permits issued for other permit types are discussed in appropriate sections of this chapter.

501.1 Litter, Vegetation, and Roadside Cleanup Consent Letter

A Consent Letter for litter, vegetation, and roadside cleanup may be issued by the Maintenance Regional Manager for **one-day** activities of a type that do not meet the requirements of Caltrans' Adopt-A-Highway Program. The Consent Letter (Appendix D) is issued to an individual or group for a one-time cleanup effort. It contains all provisions that apply to work along the highway at the location specified by the applicant and approved by the Maintenance Regional Manager.

501.2 Salvage Operations

The local Highway Maintenance Superintendent issues salvage permits. Appendix D includes the salvage permit form.

Individual salvage permits are required for each specific return to an accident scene by an owner or authorized agent to remove wrecked vehicles or their loads.

Salvage permits are not required when the life or safety of vehicle occupants is involved, to recover victims, to remove wrecked vehicles or their loads that are blocking the roadway, or when a law enforcement officer orders removal from alongside the highway.

In addition, a transportation permit issued by Transportation Permits Regional office is required for overlength or overweight tows.

501.3 Advertising Displays, Arcades, Awnings, Marquees, Memorial/Historical Plaques and Blue Star Memorial Markers, Permit Code AD

AD permits authorize installation and maintenance of on-premise advertising displays, marquees, awnings, arcades, memorial/historical plaques and Blue Star Memorial markers. The following sections describe the general requirements that apply to all AD permits and the specific conditions that apply to each type of installation.

501.3A Advertising Displays

AD permits are allowed only for on-premise installations (as defined in Section 5272 of the Outdoor Advertising Act) that are located only in areas defined as a "business district" in Section 235 of the Vehicle Code. Requests for variances require approval by the Chief, Highway Outdoor Advertising Program in addition to district approval. Maintenance agreements or more restrictive city regulations take precedence over this section.

An AD permit shall not be issued if the proposed installation creates a hazardous condition because of a curb, gutter, cross slope etc., or if the encroachment is an integral structural portion of a building (including: roof eaves, new bay window, and cantilevered upper floors).

A structure advertising the business conducted on the premises may overhang the right of way if it meets all the conditions specified in Table 5.1

Contact the Headquarters Chief of Outdoor Advertising Program when questions arise as to whether or not a display conforms to Caltrans' Outdoor Advertising Regulations.

Table 5.1
Allowing a Structure to Overhang the Right Of Way

A structure may overhang State right of way if it satisfies **all** of these conditions:

1. Conforms to local building code.
2. Structurally adequate.
3. Supporting structure is outside the right of way. This includes freestanding or attached to the building it serves (except in special cases where arcades are permitted).
4. Overhang may not extend closer than 24" (610 mm) horizontally from the curb face. Exceptions are in historical districts where overhangs are permissible to the curb face. Curbs or other physical barriers should protect sign structures.
5. Minimum vertical clearance from the sidewalk shall be 12' (3.65 m). A minimum 8' (2.43 m) clearance is acceptable when local codes are satisfied.
6. No flashing, rotating or intermittent lights shall be allowed except approved public service information signs. Signs containing red, yellow, or green lights shall not be permitted where they interfere with perception of traffic signals.
7. Wording on the sign may identify only the owner, the goods sold or manufactured on the premises, or the services rendered.
8. Displays shall not interfere with or hide traffic signals or traffic signs.
9. Any future change in wording or location of a sign requires a separate permit.

501.3B Arcades

Arcades are quasi-permanent, awning-type structures that cover sidewalk areas. They generally are supported by buildings and, when permitted, by freestanding posts on the sidewalks.

Arcades shall not be a structural part of the building roof trusses. They also shall not interfere with traffic signals and signs, nor have structural posts that reduce horizontal sidewalk clearance to less than 4' (1.21 m).

501.3C Awnings

An awning is a temporary removable or retractable shelter supported entirely from the exterior wall of a building. Awnings may identify only the owner or place of business.

501.3D Marquees

A marquee shall be supported entirely by the building. Any drainage from the marquee shall not fall on, or drain across, the sidewalk.

501.3E Memorial/Historical Plaques and Blue Star Memorial Markers

No-Fee permits may be issued for the placement of memorial plaques or markers within the right of way for commemorating persons, events, or historical places. The placement of plaques and markers within the right of way is administered under two programs: the Memorial/Historical Plaques Program and the Blue Star Memorial Highway Program.

Under the Memorial/Historical Plaques Program, placement of a memorial plaque must be authorized by the California Legislature through a concurrent resolution before an encroachment permit is issued.

The Blue Star Memorial Highway Program designates various State and national routes as Blue Star Memorial Highways in tribute to the men and women of the nation's armed forces. The program was established by the National Council of State Garden Clubs, Inc. It allows placement of markers and minimal planting (e.g. planting that is incidental to the markers) only on highways or highway segments designated by the California Legislature as Blue Star Memorial Highways.

The Office of State Landscape Architecture is responsible for coordinating Blue Star Memorial Highway activities within the Department and will answer inquiries regarding the program. Policies and procedures for the Blue Star Memorial Highway program are outlined in the Project Development Procedures Manual.

The permittee is responsible for the cost of all labor and materials involved in providing and installing plaques, markers, and landscaping. As a condition of the permit, the permittee must maintain the plaque or marker. If a plaque or marker is vandalized or accidentally damaged, the permittee is responsible for its restoration, replacement, or removal.

When someone other than the permittee performs the work, a fee exempt double permit is required.

An encroachment permit is **not** required for plaques or markers installed and maintained by Caltrans such as:

1. Objects, monuments or markers that mark registered historical places.

2. Signs or plaques at the boundaries of districts for which the California Legislature has designated names by concurrent resolution.

3. Signs and plaques marking memorial named highway facilities.
   Refer to Streets and Highways Code Section 101, Public Resources Code Section 5023 and 5024, and to the Traffic Manual Section 4 - 04.10 for information on these

markers. Requests to place markers covered by these sections should be directed to the District Director.

Another type of memorial is the roadside memorial, which consists of objects such as: white crosses, wreaths, flowers, personal items, etc. They commemorate the memory of loved ones that died while traveling on a particular State highway. Placement of roadside memorials is not allowed in the State's right of way unless required by specific legislation. As in the Memorial/Historical Plaques Program, legislative action must occur before an encroachment permit is issued.

501.4 Adopt-A-Highway, Adopt-A-Mission Bell
Permit Code AH

The fee exempt permit issued for the Adopt-A-Highway (AAH) Program allows participation by individuals, businesses, corporations, and organizations for roadside enhancement involving: litter removal, sweeping, rest area maintenance, seedling tree planting, wildflower planting, graffiti removal, and installation of Mission Bells in the State right of way. In recognition for their participation, signs are placed within the right of way identifying the volunteer group. Generally, the signs identify the contributor but not the product or services they sell.

Participants in the AAH Program may adopt segments of a highway and have the work performed through an agreement with volunteers or by contract with professionals. Certain highway segments may not be appropriate for volunteers because of high traffic volumes, steep slopes, poor visibility, etc. Such segments, however, may be suitable for entry by professional contractors.

When a contractor is hired, districts should issue a fee-exempt double permit to the party actually performing the work. The double permit shall include all applicable provisions including general provisions, any special provisions, liability insurance, etc. Bonding is not required. Permits may be written as a biennial.

AAH volunteers are required to follow procedures described in the Caltrans' Safety Manual. Any deviations from the Safety Manual that are allowed shall be in writing and in possession of the manager in charge of volunteers.

Standard Special Provisions (SSP's), which includes Safety Requirements (see Appendix K), emphasize the safety of inexperienced or youthful participants working in roadside areas with no Caltrans supervision. These SSP's shall be included in their entirety in all AAH Permits; any deviations must be reviewed and approved by Headquarters Permits. Any highway segment that does not allow the total use of these SSP's should not be included in the AAH Program.

A sample AAH Application for wildflower and tree planting, litter pickup, and graffiti cleaning, and Mission Bell adoption is shown in Appendix D**.**

For additional information on the Adopt-Highway Program refer to the Caltrans publication titled, "Catrans Adopt-A-Highway Program Guidelines and Coordinators Handbook."

501.5 Art Program
Permit Code AP

Artists may place their artwork on Caltrans' property if the applicant receives approval from the city or county, the responsible local organization(s) representing the community affected by the artwork, and the Caltrans District Director. District Transportation Art Coordinators evaluate proposals and coordinate these activities. The Office of State Landscape Architecture is responsible for managing the program. The permittee is **not** charged for Caltrans' administrative costs, staff reviews, inspection, required traffic controls, or normal maintenance work associated with Caltrans' facility or right of way.

The encroachment permit normally is issued to the local agency. Surety bonds may not be required unless the District Transportation Art Coordinator so recommends.

An encroachment permit is processed after initial approvals are secured. As a minimum, the following conditions are incorporated into the permit:

1. Artwork located within State right of way is considered a gift to the people of California.
2. Caltrans reserves the right to reproduce the artwork for publicity purposes.
3. The artwork must not be in conflict with provisions of the Outdoor Advertising Act. No form of commercial advertising on State right of way, including logos, is allowed. Any identification of the donor or sponsor must have prior approval by Caltrans.
4. The permittee must maintain the integrity of the artwork until further notice. The permittee agrees to remove the artwork if ordered to do so by Caltrans.
5. The permittee shall abide by Caltrans' safety rules and regulations, including traffic control.

(See Project Development Procedures Manual for policy and procedures pertaining to transportation art.)

501.6 Airspace Development
Permit Code AS

Airspace Development Permits (AS) are issued in conjunction with and under the terms of an Airspace Lease Agreement or a Telecommunication Site License Agreement for the development of usable airspace parcels within the State highway rights of way. General requirements for AS Permits and specific conditions that apply to column protection, fencing, telecommunications, and FHWA approval, on Interstate Systems, associated with airspace development are described in the sections that follow.

Functional branches involved in the processing of Airspace Lease Agreement submittals shall charge their time to their own program overhead Expenditure Authorization (E.A.).

Functional branches involved in the processing of Telecommunication Site License Agreement submittals shall charge their time to their own program overhead E.A. with the special designation of "YWSHAREDRES."

Encroachment permits are required for all airspace leases when located within the operational highway right-of-way, including park and ride lots, when significant permanent improvements are proposed for the development of usable airspace parcels. An encroachment permit may not be necessary if the proposal is outside the operational right-of-way. The encroachment permit is utilized to protect the Department's investment during construction. The permittee is responsible for coordinating all inspection activities with the R/W Airspace Manager, including notification to others that may be affected by the improvements. When construction is completed and accepted by the department's R/W representative, the encroachment permit file is finalized and closed, and then the provisions of the Lease Agreement govern the lessee's operation.

501.6A General Requirements

When an encroachment permit is required, as in the case of permanent improvements, it is issued only **after** the execution of an Airspace Lease Agreement or a Telecommunication Site License Agreement. The District Airspace Manager submits the following documents to the District Permit Office as may be necessary for the issuance of the encroachment permit:

- Encroachment Permit Administrative Route Slip Special Projects (Form TR-0154) shall be completed by the District Airspace Manager stipulating that the package is complete
- Payment and Performance Bond
- Copy of liability insurance
- Copy of building permit by local jurisdiction
- Final construction plans, including planting and irrigation plans, approved by the District Airspace Review Committee (DARC) and FHWA
- A completed encroachment permit application

The Airspace Lessee shall provide the District Airspace Manager with 6 sets of plans and specifications for new construction of curbs, gutters, utilities, lighting, driveway approaches, paving, planting and irrigation systems, and new, modified, or rehabilitated buildings. The District Airspace Manager is responsible for circulating the plans and other documents for review and approval by the functional units.

During lease negotiations, the District Airspace Manager shall meet and confer with the District Encroachment Permit Engineer to confirm the requirements between the permit's General and Special Provisions and the Airspace Lease Agreement.

An encroachment permit may not be required when the Airspace Lease Agreement allows minor modifications to existing improvements (e.g., re-paving, change in direction of parking stall striping, change in directional signs, repairs or minor modifications to irrigation system, painting building exteriors, etc.), or when the site is located off the operational highway right-of-way, because the Airspace Lease Agreement governs these activities. The lessee is required to notify the District Airspace Manager any time construction activities are proposed on the site, and occur near structural columns.

The usable airspace parcel shall not be occupied or used by the lessee until all proposed improvements are completed to the satisfaction of the department's Airspace Development

Program representative. If an encroachment permit is issued, a copy of the Progress Billing/Completion Notice is sent to the District Permit Office and a copy to the District Airspace Manager.

Upon completion of the work and acceptance by the Department, the permittee shall submit one set of film positive reproducible, either matte or clear, as-built plans to the District Permit Engineer, if an encroachment permit was issued. A full size, original quality as-built plan set shall be forwarded to Structures Maintenance.

501.6B Column Protection

Lessee's plans for column protection for Airspace Lease Agreements beneath a column-supported State structure are reviewed by Structures Maintenance. The department's representative shall ensure that the protection is placed and maintained during the authorized work or as required by Structures Maintenance.

501.6C Fencing

A standard 1.82 m (6') high chain link fence may be installed around the perimeter of the leased area with gate(s) as designated. Security may be enhanced by the installation of vertical brackets on the fence posts and attaching three strands of barbed wire to the brackets. The use of razor ribbon coils atop the fence is prohibited. An encroachment permit for new fencing is required, but not required for normal maintenance repair. The terms and conditions for maintenance are included in the Airspace Lease Agreement.

If the lessee presents plans and specifications for fencing made of materials other than chain link (e.g., masonry, wood, etc.), the District Airspace Manager will forward a copy of the DARC's comments and approval of the proposal, including comments by HQ Structures Maintenance, to the District Permit Engineer as part of the final encroachment permit package.

501.6D FHWA Approval on Interstate Systems

Airspace development plans require approval from FHWA on Interstate Systems before the encroachment permit can be issued. The District Airspace Manager is responsible for forwarding a copy of the FHWA approval to the District Permit Engineer at the time the approved plans and specifications are submitted for the issuance of the permit.

Encroachment permits for short term airspace uses such as: soil testing, Christmas tree lots, interim special event parking, donation collections, or highway contractor storage use may be issued without FHWA approval.

501.6E Encroachment Permit Application

The District Airspace Manager shall obtain a completed standard encroachment permit application from the proposed airspace lessee as part of the submittal package.

501.6F Telecommunications (Wireless)

A Site License Agreement (the equivalent to an Airspace Lease Agreement) and an encroachment permit are required to place wireless telecommunications facilities within any State highway rights of way before construction can begin. The plans and specifications shall contain a memorandum from the District Airspace Review Committee (DARC) that the proposed facility does not interfere with the Department's communications systems. The telecommunications carrier shall be in conformance with all other requirements for the issuance of an encroachment permit. If the installation of locked gates is necessary, approval shall be obtained from DARC.

Approval of wireless facilities and access to wireless facilities within controlled access rights of way is delegated to the DARC. Access to the wireless facility shall be made from outside the right of way.

- **Site Survey Permits (Pre-Construction)**

  Districts may issue an annual "SV" permit to each wireless service carrier for all conventional highways within the district. A deposit equivalent to ten (10) hours of the encroachment permit hourly rate shall be collected upon submittal. If the surveying is contracted to a surveying company, a double permit ("DP") will be required.

  Work within U.S. Forest Service property, other leased or prescriptive rights of way are not authorized under the department's encroachment permit, approval shall be obtained from that specific property owner by means of written permission or permit. A copy of authorization or issued permit shall also be forwarded to the District Airspace Manager.

- **Constructing Individual Wireless Sites**

  The District Airspace Manager is responsible for the review process of all Lease Agreement submittals. Preliminary and final proposals are reviewed through the DARC before coordinating a detailed plan review and obtaining approval. Deviations from siting guidelines require review from the Headquarters Division of Design, Chief.

- **Future Maintenance of Facilities**

  When facilities are located within the operational highway right-of-way an encroachment permit may be issued to each wireless service carrier for routine and emergency maintenance work on conventional and controlled access right-of-way within the district. The permittee shall not make additions to site facilities, change access locations, or allow attachments or modifications to their equipment that would result in use by other utility providers, as approved for construction under the Master License Agreement (MLA). Maintenance requirements in controlled access right-of-way that do not conform to the siting guidelines will require approval from the Headquarters Division of Design, Chief.

Applicants are responsible for all departmental costs associated with submittals.

501.6G Landscaping

Planting by a local entity or private developer within State highway rights of way is allowed through:

(1) the encroachment permit process,
(2) a departmental-administered contract that is funded partly or totally by others, or
(3) by leasing the planting area to the owner of the abutting property (see Project Development Procedures Manual, Landscape Architecture Chapter). The preferred method for handling participation by others is through an encroachment permit and a Cooperative Agreement with the local entity (see Cooperative Agreement Manual, Forms A-1 and A-3). In this case, an Airspace Lease Agreement is not required.

An Airspace Lease Agreement may be required with the encroachment permit if the proposed project is:

- determined to be unwarranted for highway planting,
- exceeds the allowable maximum cost per hectare (adjusted annually by the Office of State Landscape Architecture),
- and improvement to the property is to the benefit of the developer.

The Airspace Lease Agreement will require the lessee to provide a plant establishment period and plant maintenance, including all water and utility costs, during the term of the lease. The District Landscape Architect will make the determination when an Airspace Lease Agreement should be used in coordination with the District Airspace Manager.

501.6H Permanent Record

The encroachment permit is a permanent record of the privilege given to the lessee to encroach upon highway rights of way to construct, occupy, and use the constructed improvements.

501.7 Banners and Decorations
Permit Code BR

BR permits authorize the erection of banners, decorations, and temporary signing for events by nonprofit organizations over and within State **conventional** highway right of way.

Permanent overhead signs or arches may not be erected or suspended over any State highway. Banners or decorations are not authorized within freeway or expressway right of way. Temporary political signs placed within State highway right of way are prohibited by the Business and Professions Code, Section 5405.3, and shall be removed immediately.

Authorized banners and decorations over the roadway must have a clearance of at least 18' (5.48 m) and be suspended securely from permanent structures or poles. No temporary supports are allowed and use of State facilities is prohibited.

501.7A Non-Decorative Banners

Permits for Non-Decorative banners are issued to a local agency or a nonprofit organization sponsoring an event approved by the local agency. Banners displaying private advertisements are not allowed. An exception is when the advertisement is part of the event's official title (e.g. Kellogg's Napa Valley Marathon). Banners are not authorized on controlled access right of way nor shall they be attached to State facilities.

Districts may issue biennial permits to local agencies for installation of Non-Decorative banners at specific locations for recurring events. The local agency then authorizes each banner installation, notifies the State's representative, and provides traffic control.

The restrictions for Non-Decorative banners are listed in Table 5.2 and apply to both individual banner permits and annual/biennial permits to local agencies.

Table 5.2
Conditions for Installation of Banners in State Right of Way

1. The event must be approved by the local government directly affected by it.
2. Display is allowed only within the community that is staging the event, or immediately adjacent to the event location.
3. The banner must be made of substantial material, such as: cloth, canvas, or plastic.
4. The permit engineer shall determine the maximum number of banners allowed.
5. Rope shall be without knots.
6. Banners shall not contain private advertising (including logos) nor be of a political nature.
7. The lowest point of the banner shall be at least 18' (5.48 m) above the highway pavement.
8. Suspension or installation of banners is prohibited on State-owned traffic signal poles or other State-owned facilities.
9. Local police may provide traffic control while the banner is being installed or removed.
10. The display may be allowed two weeks before the event and may remain in place for the duration of the event. However, the total period of display should not exceed six weeks.

501.7B Decorative Banners

Decorative banner permits are issued to local agencies for beautification enhancement of their local streets. As a minimum, decorative banners shall:

1. Be used exclusively on conventional highways.
2. Not contain advertising whether in text or logo format. However, decorative text or brief text, and/or logos identifying the applicant local agencies, (e.g. cities and counties) are allowed.
3. Remain in place for periods up to two years--the normal biennial permit duration. However, at the end of the two years, the local agency may reapply.
4. Be applied for by the local agency.

By State statute, the flags of the United States of America and the State of California may be placed on sidewalks within State right of way. Encroachment permits are not required within city corporate boundaries; however, Caltrans should approve the method of installation and maintenance. In unincorporated county areas, no-fee permits are issued for flag installations after any needed traffic and maintenance reviews are completed. Applicants usually are local agencies and civic organizations, but individuals may make applications for flags displayed in the right of way immediately fronting their property.

501.7C Holiday Decorations

Holiday decorations are permitted only on conventional highways—they are **not** allowed on freeways or expressways.

Decorations attached to vertical structures (other than State-owned facilities) such as power, telephone, or light poles are not to project beyond the curb line and shall be at least 14' (4.26 m) above the sidewalk. Decorations attached to vertical structures that project beyond the curb line or cross the highway shall have a minimum vertical clearance of 18' (5.48 m) above the highway pavement. Decorations shall not be attached to State-owned facilities.

Decorative red, yellow or green lights shall not be placed where it could interfere with the driver’s perception of traffic signals.

501.8 Bus Passenger Waiting Shelters and Benches
Permit Code BS

BS permits authorize the construction and maintenance of bus passenger waiting shelters and benches within the State right of way. The following sections describe the general requirements for bus shelters and the specific conditions that apply to advertising clearances, construction details, and telephones associated with bus shelters and benches.

501.8A General Requirements

Permits may be granted to local agencies or transportation districts to construct bus passenger waiting shelters or benches within the right of way at official bus stops on conventional highways. The shelter design must comply with local agency or transportation district standards.

Bus shelters or benches must not restrict sight distances.

501.8B Advertising

Generally, advertising within the right of way is prohibited by statute (Streets and Highways Code 721), for to allow it could be a gifting of public funds. Even if the Department received revenues for sign placement, such signs would soon clutter the highways, become a distraction to motorists and degrade any scenic value. However, advertising on bus shelters and benches is permissible provided advertising displays are not within 660' (201 m) of and visible from any federal-aid interstate or primary rural highway. Advertising displays within 660' (201 m) of, and visible from, any urban highway shall be consistent with federal laws and regulations (Business and Professions Code 5408.5).

Advertising displays shall be placed only at approved passenger loading areas, and must not extend beyond the exterior limits of the shelter or bench. Advertising shall not exceed two display panels per shelter or bench.

501.8C Clearance

Bus passenger shelters shall be located a minimum of 2' (0.60 m) behind the face of curb, with a minimum unobstructed sidewalk walkway width of 4' (1.21 m) around the shelter.

501.8D Construction Details

When necessary, the local agency or bus transit district reconstructs the highway shoulders at new bus stops to accept the continued vehicle loading. In addition to District Permit Engineer's recommendations for structural section design, the permittee must ensure that all pavement is saw-cut before removal and must replace, in kind, any pavement markings that are obliterated.

501.8E Telephones in Shelters

Coin-activated or credit-card-activated telephones may be placed in bus passenger shelters located on **conventional** State highways. Permits authorizing phone installations are issued to the local agency or transit district. A separate encroachment permit (double permit) must be issued to the installing company for telephone installation and maintenance.

Placing telephones in new transit shelters is authorized by the shelter permit. Permission to add a telephone to an existing shelter is provided in a rider to the original permit authorizing the shelter or in a new permit to the local agency or district.

Local agencies must adopt a parking ordinance restricting parking in front of newly established bus stops and submit it to the District Director for approval.

501.9 Permits Issued by Cities and Counties
Permit Code CC

Cities and counties may issue routine encroachment permits on **conventional** State highways when authorized by a written agreement with Caltrans (See Appendix B). This agreement shall be on file in the District Office and a copy forwarded to Headquarters Office of Encroachment Permits.

Cities and Counties may issue encroachment permits for the following **specific** activities without prior approval from Caltrans:

- **BR** Temporary Banners, Signs, Decorations – New or Repeat
- **CS** Curb, gutter, sidewalk (Removal or Repair of existing only)
- **FN** Fence Repair (Removal or Repair of existing only)
- **MB** Mail or Newspaper Delivery Boxes
- **RS** Driveway – Resurface, Reissue (for record purposes only)
- **SV** Land Survey – Conventional Highways only

Standard State permit forms shall be utilized. All work shall be in conformance with State policy and State design standards, unless local standards are more restrictive. Qualified and competent city or county personnel shall be assigned for review, inspection, and final acceptance.
The city or county is expected to collect sufficient fees from the permittee to cover the cost of permit issuance and costs for review and inspection at the current standard hourly rate. A copy of all city or county issued permits must be furnished immediately to Caltrans for permanent permit files. The city or county must send a completion notice, as-built plans, and other data requested by the department to the District Permit Engineer for microfilming.

The city or county must maintain files on all permits issued on State highways. Federal regulations require the department to monitor permits on federal-aid highways. The District Permit Engineer may inspect these files to determine if the city or county is in compliance with the agreement.

Table 5.3 lists the procedures that shall be utilized by cities and counties in reviewing and processing permits issued on behalf of the Department. The following procedures shall be utilized in reviewing and processing encroachment permits issued by cities and counties:

Table 5.3
Caltrans' Procedures for Reviewing and Processing Permits Issued by Cities and Counties

Use these procedures in reviewing and processing encroachment permits issued by cities and counties:

1. The city or county reviews the permit application for completeness and sends it to the respective Caltrans' District Permit Engineer.
2. The permit application is then Simplex stamped in the District Office and a copy is sent back to the city or county to issue the permit.
3. The city or county then issues the permit and sends a copy to Caltrans. Caltrans retains a copy in the district permit office and sends a copy to the appropriate Caltrans permit inspector and the area maintenance superintendent for information purposes only.
4. Any Caltrans' administrative or permit processing charges are not billed on permits issued by cities or counties.
5. Any Caltrans' normal cursory inspection monitoring is not billed for permits issued by cities and counties.

501.10 Commercial Development
Permit Code CD

Commercial developments usually are associated with large shopping centers or office complexes. However, housing and apartment complexes often are included when they impact State highways. Work involved in commercial development generally is more than what can be classified under a single permit type or code. Curb, gutter, sidewalk, commercial driveways, drainage, and street lighting are common work in commercial development. Signal work sometimes is a required improvement in such developments, and an "SN" permit code should be considered if the work involves primarily signals and lighting.

501.10A Dedication of Public and Private Property to Caltrans

Dedications are the setting aside of properties for public use without compensation, as a condition prior to the granting of building licenses, permits, or zoning variances for land use. When development occurs or land use changes are proposed, local agencies, through their police powers, may require these dedications. Property owners must initiate the request that triggers the dedication. Valid dedications can be accepted throughout the project development process.

The dedication process is initiated when an owner applies to a governmental entity for an action on the part of that agency that will enhance the value of development potential of the applicant's property. Where this process impacts transportation facilities and a logical connection can be established between the development or land use change and a transportation project, the Department should encourage local agencies to impose reasonable dedication requirements. This process will typically involve the Department's Transportation Planning Branch with Right of Way acting in a review and advisory capacity.

When a property owner proposes to dedicate property to a local agency for the Departments use in conjunction with a permit project, the District Permit Engineer must not issue the

encroachment permit until the dedication is made and the property has been conveyed to the Department. District Right of Way will process the dedication and should be contacted from the outset to insure the dedication and any other realty issues are handled in the appropriate manner.

Caltrans must not accept parcels with hazardous contaminants, especially military sites, junkyards, landfills, and gasoline service stations. These parcels may contain known or unknown contaminants. The donor shall be required to furnish certification detailing known contaminants in the parcel or stating that no known pollutants are present.

The District Hazardous Waste Coordinator shall be consulted in all cases of suspected hazardous contaminates. Environmental clearance and utility clearance are necessary before acceptance of property dedications.

Property dedicated to Caltrans should only include that portion of property necessary to mitigate the development's impact on the highway. These impacts are often a result of increased traffic, drainage, or a need for safe access. Caltrans has no legal authority to require more property than necessary to satisfy the mitigation. Dedication to ultimate highway width along an entire property frontage cannot be mandated by the Department unless the local agency has placed that condition on the applicant. Requiring excessive dedications is a form of inverse condemnation where there is a loss of assets without proper compensation.

Imposing mitigation conditions as a requisite for a construction permit may be unconstitutional unless the conditions are directly related to the project. Relationship of conditions to the project must conform in nature and extent and be substantiated with quantifiable data.

Local agencies have elected authority over their jurisdiction, and by that authority can develop and implement general and specific plans. Permit engineers should work with district and local agency planning units to assist with plans that will ensure the future highway needs. Local agencies should be made aware that continued operational capacity of the highway relies on their effective plan implementation and management.

When private property is dedicated to the State as a mitigation measure, the applicant must supply the permit engineer the following information:

1. A copy of title report with its documents
2. A legal description
3. Parcel map of the area
4. Copies of any recorded maps referred to in the documents

Documentation for the area to be dedicated is checked, revised if necessary, and returned to the applicant. The applicant obtains required signatures and returns the deed to Caltrans for signature by the Deputy Director of Right of Way. The deed then is returned to the applicant for recording and returned to Caltrans for our files. An encroachment permit is not issued until the deed has been recorded.

501.11 Chain Installer Operations
Permit Code CN

Encroachment permits to allow chain installers on the right of way are necessary for the benefit of motorists traveling in snow areas. These permits are authorized by Section 670 of the Streets and Highways Code.

A permitted chain installer may apply for a second chain installer permit in another district, provided there is no established waiting list.

Districts issuing chain installer permits shall institute a training and testing program. Permit applicants must participate in an orientation session, pass a written test, and pass a performance test during which chains must be installed properly within five minutes. Testing is conducted by either the District Encroachment Permit office or the Maintenance Regional Managers office and must be completed before a permit is issued. All administrative work, permittee training, and inspection time should be charged to the Maintenance E.A. for snow removal.

The chain installer permit application form indicates the current fee and includes the permit conditions. This form is updated each year by District 03 and sent to all participating districts. Districts permit offices that do not administer the chain installer program should Simplex-stamp the applications and distribute them to the Maintenance Regional Managers for permit issuance upon completion of testing.

Each district issuing chain installer permits receives an annual set of consecutively numbered bibs from headquarters. Each permittee receives one bib with the permit.

Bibs not used during the year may be retained in storage for future use.

501.12 Curbs, Gutters, and Sidewalks
Permit Code CS

CS permits authorize construction and maintenance of curbs, gutters and sidewalks, which normally are used in urban areas to control drainage and provide pedestrian convenience. Except for medians and typical installations at right-turn channels, etc., curbs are not a traffic control device and should not be used solely for traffic channelization without approval by district Traffic (See Section 508.10, “Protection of Survey Monuments”).

The CS permit code applies to residential and small commercial proposals that involve more work than driveway openings classified as RS, RM, or RC permits. The work also could involve minor paving, handicapped ramps, minor signing, and installation of one or two luminaries that are owned and maintained by a city or county. Signal work and installation or relocation of State safety lighting are classified as SN or CD permits, and are not allowed under a CS permit because they require intensive review and inspection.

Designs for handicapped ramps that are proposed in new construction or as a retrofit must satisfy requirements shown in the standard plans.

Multi-year CS permits may be issued to local agencies (cities and counties) for up to two years. Should standards change during the term of the permit, the permittee shall comply with current State standards and specifications. CS permits authorize reconstruction, repair, and replacement of existing curbs, gutters, handicapped ramps and sidewalks. These structures shall conform to existing dimensions, configurations, alignments, and grades. Drainage facilities shall not be modified and healthy trees shall not be removed.

501.13 Commercial Use
Permit Code CU

501.13A Newspaper Vending Machines

No-fee permits are issued for placing newspaper vending machines within conventional highway right of way. Caltrans should work with servicing news organizations to select safe locations for vending machines and encourage placement of machines on private property. Permits are issued to news organizations for their individual vending machines when no practical location exists outside the right of way in the area requested.

Districts should not remove existing vending machines or cite them as illegal encroachments. Rather, they should contact the news organization to obtain an application. When vending machines obstruct pedestrians or present a traffic hazard, the news organization should have them relocated.

Coin-operated newspaper vending machines featuring sex-oriented magazines and newspapers shall not be permitted on State right of way [California Penal Code Section 313.1 (c) (1)].

Newspaper vending machines shall have a minimum 2' (0.60 m) horizontal clearance to the face of curb and provide 4' (1.21 m) of clear sidewalk. They should comply with standards for clear recovery zone and breakaway design if districts determine that the installation would constitute a fixed object. Vending machines displaying advertising for other than the newspaper shall be removed.

Newspaper vending machines are not authorized, and permits are not issued, in access controlled right of way except as provided in Section 501.13B. Maintenance should immediately remove machines located within the access controlled right of way, except for those statutorily authorized in roadside rest areas under a Newspaper Distribution Agreement (Appendix B) prepared by the Office of State Landscape Architecture.

501.13B Safety Roadside Rest Areas and Vista Points

The District Rest Area Coordinator coordinates all activities pertaining to safety roadside rest areas. Vista Points' operations are the responsibility of Landscape Architecture in each district. Applications for use that require an encroachment permit should be sent through the appropriate coordinator to the District Permit Engineer.

The coordinator performs all reviews, field studies, and document preparation before sending the completed package to the permit engineer for permit issuance. Applications for the placement of

Newspaper vending machines require a deposit/fee equal to four (4) hours of the encroachment standard hourly rate.

Solicitation and vending activities are illegal and not permitted in roadside rest areas and vista points except as described below.

Activities that require a permit and the responsible Headquarters jurisdiction are listed as follows:

• Newspaper Vending Machines	Landscape Architecture
• Vending Machines	Landscape Architecture
• Adopt - A - Rest Area	Maintenance
• Coin/Credit Card Telephones	Telecommunications
• Coupon Distribution	Maintenance

The placement of vending machines at roadside rest areas is authorized by the Streets and Highways Code, Section 220.5. One permit is issued for each site to the California Department of Rehabilitation for construction and maintenance of kiosk and vending machine installation. A double permit is issued to the contractor installing kiosk and vending machines.

For additional permitting information see the California Administrative Code, Chapter 20, Article 4.

Uses not requiring a permit and the responsible Headquarters jurisdiction are listed below:

• Agricultural Displays	Landscape Architecture
• Traveler Information Centers	Maintenance

Agricultural Displays and Traveler Information Centers are governed under the terms of agreements administered by the Maintenance and Landscape Architecture. Other proposed activities or uses may require an encroachment permit. For determinations contact Headquarters Office of Permits.

501.13B-1 Demonstration and Experimental Projects for Commercial Use of Right of Way

The Division of Right of Way is involved with demonstration or experimental projects involving commercial use of the right of way authorized by statute. The most apparent project type is a commercial kiosk used for advertising in roadside rest areas. This program involves placement of private property within the right of way. Right of Way manages these programs and coordinates all reviews. Permits are issued when applications are approved by Right of Way.

501.14 Double Permit
Permit Code DP

A permit must be issued to the owner of the encroachment. When encroachment work is performed by someone other than the owner, the contractor also may be required by the district to obtain a permit for the work. This practice is called double permitting and is required to recover inspection charges when the original permittee is a public corporation having its work performed by contract (Section 601).

When double permitting is required, the following clause is inserted in the original permit:

> "Notwithstanding General Provision #4, your contractor is required to apply for and obtain an encroachment permit prior to starting work. A fee/deposit of $_____ is required at the time of application."

The contractor must keep on site copies of both the owner's and the contractor's permits.

Routine encroachments normally do not require double permitting. Some examples of routine encroachments are residential driveways, sidewalks, and customary utility work. Double permitting for routine encroachments is only required when Caltrans previously had difficulty securing compliance with permit provisions by either the permittee or contractor.

Deviations from requirements for double permits occur in some specific permit types and are discussed in the appropriate specific sections of this manual.

502 DRAINAGE

Encroachment permits for constructing drainage facilities are classified as major or minor projects.
Diversion of drainage run-off onto highway rights of way shall not be allowed.

502.1 Major Drainage Facilities
Permit Code DD

Large drainage projects located within Caltrans' right of way can impact State drainage, traffic, and future highway design. Work can range from trenching for pipelines and boxes to new or modified multi-cell box culvert structures.

Districts should ensure that diversions in drainage are not proposed and that systems can adequately handle the drainage using Caltrans' design criteria. Connections to State systems are not authorized solely to carry the burden of increased runoff from a new development. When State facilities cannot carry the increased drainage, the applicant is responsible for enlarging the capacity of the State facility to handle the increased drainage generated by the proposed work. Preferably, applicants should place a closed system through the State right of way rather than enlarge the capacity of State facilities. However, no maintenance facilities (such as manholes, basins, etc.) are authorized in State right of way when a closed system is constructed unless such facilities are required by the State.

Structures Maintenance should review and approve plans for major drainage channel construction. Grading and channel lining can affect the foundations of existing State structures, and structure modifications may affect traffic. Persons working within one mile upstream or downstream of a State structure are required by statute to obtain Caltrans' approval. When protection to the State facility is necessary, a permit is required before starting work within the right or way.

Districts should require a performance bond, a payment bond is not necessary, for drainage improvements not owned or maintained by Caltrans. Bond amounts should equal potential highway damage during construction.

502.2 Minor Drainage Facilities
Permit Code DM

Some examples of minor drainage facilities are small-diameter or low-volume drainage outfalls, through curb drains, roof drains, and minor grading to improve a State outlet or inlet. These types of facilities generally require little review, but they should not affect the State system. If the applicant's proposal appears more involved or if hydraulic concerns are raised, districts may still classify the encroachment as minor and perform more extensive reviews with AX permit fees.

503 FILMING

Many permits are issued each year throughout the State for commercial filming, which typically involves motion pictures or television commercials in a single district. Film production companies submit applications to the California Film Commission (CFC) in Hollywood who in turn forwards the application to the Encroachment Permit Office. Encroachment permits for filming on State highways are issued by the Caltrans Statewide Film Coordinator (CSFC) and staff located in District 07, Los Angeles. The CSFC coordinates permit review conditions with the assistance of designated filming permit coordinators and ensures issued permits include permit conditions and requirements.

Standard Special Provisions for all filming permits shall not be modified. Changes in work authorized by a specific permit type which exceed the Standard Special Provisions for that permit type must be covered by a new permit type and by the Standard Special Provisions and district special requirements associated with the new permit.

503.1 Filming on the Interstate System

The Federal Highway Administration (FHWA) develops policy and assumes responsibility to ensure that the Interstate system is operated and maintained to enhance safety and minimize disruptions. While the control of activities that take place on a specific highway segment is Caltrans' sole responsibility, Caltrans' basic concern is the same as FHWA's.

Filming on freeways and expressways is strictly controlled and can require extensive review by Caltrans. Some filming activities have ramp closures and traffic control, which directly impact the system. Some filming activity moves over restricted portions of the Interstate system and could cause closure of the entire traveled way. Such activities on the Interstate system require FHWA approval when they may cause major disruption or negatively impact the safety and integrity of the system.

503.2 Caltrans/CHP Joint Policy Guidelines for Filming on State Highways

Caltrans, the California Highway Patrol (CHP), and the California Film Commission have developed an interagency agreement and joint guidelines which detail approved filming activities

and the responsibilities of each agency. The guidelines do not preclude the development of additional guideline criteria by local CHP commands and Caltrans districts covering specific problems of mutual concern or interest. A complete copy of the agreement and guidelines is included in Appendix E.

A completed encroachment package for a commercial filming permit shall be submitted to Caltrans by the California Film Commission for review and approval, and shall include the materials listed in Table 5.4.

Table 5.4
Encroachment Package for Filming Permits

The encroachment package submitted to Caltrans by the California Film Commission shall include:

1. A completed and signed application for a Caltrans filming encroachment permit.
2. If required, detour plans approved by the affected governments.
3. Resolutions from all impacted governments indicating formal approval of the filming activities and detour plans. Resolutions should conform to Caltrans' sample format. These resolutions are required when a directional road closure of a State highway (or local road) for filming exceeds five minutes. Sample resolutions and letters of approval are included in Appendix I. When time is of the essence, forms included in Appendix I may be completed by a local official in lieu of a resolution.
4. California Film Commission permit application.

503.3 Permit Types for Commercial Filming Activities

Commercial filming activities within State right of way are authorized by FO, FI, FL, and FS permits. FR permit riders are used to change permit conditions. The following discussion describes each type of permit.

503.3A Intermittent Traffic Control
Permit Code FI

FI permits authorize filming activities involving intermittent traffic breaks normally not to exceed five minutes, or rolling traffic breaks to allow clear highway conditions during filming.

FI permits are Set Fee, with charges consistent with average processing and review time on a Statewide basis. Inspection and fieldwork are not involved because the CHP (rather than Caltrans) provides inspection.

503.3B Traffic Control
Permit Code FL

FL permits authorize filming activities involving traffic breaks exceeding five minutes or involving lane closures.

FL permits are complex and require engineering expertise and extensive review or inspection by Caltrans. Permit fees are based upon actual review and inspection times, and are collected by the CFC before the CFC issues a permit. Caltrans' actual time expended is compiled after filming activities are complete, and CFC bills or refunds the difference.

Standard Special Provisions shall not be modified, although district conditions may be added to the text of FL permits.

503.3C No Moving Traffic
Permit Code FO

FO permits authorize filming activities involving no moving vehicles. Usually stationary camera equipment and "No Parking" signs are placed within the right of way.

FO permits are minimum cost (one hour review and processing) set fee, with charges consistent with average processing and review time on a Statewide basis. Inspection and fieldwork are not involved because the CHP (rather than Caltrans) provides inspection.

503.3D Film Rider
Permit Code FR

Riders for filming encroachment permits are issued by the CFC in District 07. Riders for permits cannot allow work that exceeds the special provisions for the issued permit. Caltrans' districts approve all requests for riders after review by appropriate units according to the guidelines. When time extensions are requested, permit applicants are charged fees for associated review. Time extensions are not issued when permits have expired and new permits are required.

503.3E Special
Permit Code FS

FS permits authorize filming on freeways and filming activities requiring detours, stunts, pyrotechnics, aircraft flying below 500' (152.4 m) in altitude, or other unique activities.

FS permits are complex, requiring engineering expertise and extensive review or inspection by Caltrans. Permit fees are based upon actual review and inspection times, and are collected before the CFC issues a permit. Caltrans' actual time expended is compiled after filming activities are complete, and CFC bills or refunds the difference.

503.4 Procedures for Issuing Filming Permits

Table 5.5 summarizes the procedures for reviewing and issuing filming permits.

District permit engineers should monitor closely FL and FS permits to minimize traffic congestion and delays during filming. The district Traffic Operations unit should be consulted before indicating district approval to the CSFC of permits at locations with substantial traffic volumes. As a minimum, consultation with Traffic Operations by telephone may be appropriate when the CFC requests review on very short notice.

Table 5.5
Procedures for Reviewing and Issuing Filming Permits

Procedures for reviewing and issuing encroachment permits for filming are:

1. The production company calls the CFC to discuss filming on a State highway. If the company contacts Caltrans directly, basic information and guidance should be provided if requested, and the company should be referred to the CFC for a permit application and issuance (**California Film Commission, 7080 Hollywood Boulevard, Suite 900, Hollywood, CA, 90028, 213/736-2465**).

2. The production company provides details about location, date, proposed activity, meeting locations, etc., to the CFC.

3. The CFC verifies that basic insurance is on file, and prepares the Caltrans' application.

4. The CFC sends the application via facsimile to the Caltrans Statewide Film Coordinator (CSFC), calls to verify receipt, and discusses the application with the CSFC.

5. The CSFC contacts the film permit coordinator in the district where filming is proposed. The coordinator checks with field inspectors and Traffic Operations (if appropriate) to determine the acceptability of the proposal and define any special requirements. If proposed activities are unique, headquarters Legal is consulted to determine if additional liability insurance is needed. The film coordinator provides this information to the CSFC verbally and in writing via facsimile.

6. The CSFC coordinates with the Film Media Relations Officer of the California Highway Patrol and establishes required involvement of the CHP, conditions, and requirements. SC-5 ("Special Event Ahead") signs are not to be used in traffic control for filming.

7. The CSFC prepares the encroachment permit and sends it to the CFC via facsimile. A copy is sent via facsimile to the field inspector in the district where filming is proposed. **The CSFC shall also facsimile a copy to Districts 3 and 8 Transportation Permits when a highway closure and/or detour is required.**

8. The CFC attaches Caltrans' encroachment permit to the CFC permit. The production company picks up the permit and pays Caltrans' permit fee to the CFC.

9. The CFC logs the permit and holds payment of the permit fee for monthly transmittal to District 07.

503.5 Liability Insurance for Commercial Filming

The CFC maintains continuing insurance policies on most film companies and will ensure that necessary insurance policies are submitted to it before permit issuance. Certificates of insurance name the State of California, its officers and employees as being additionally insured.

Insurance coverage required by the permit engineer normally ranges between the following two extremes shown in Table 5.6, depending on the risk. Special filming activities involving stunts, pyrotechnics, and aircraft flying below an altitude of 500' (152.4 m) may require additional insurance as set by headquarters Legal.

Table 5.6
Liability Insurance Required for Commercial Filming

Coverage	Minimum Amount	Maximum Amount
Bodily Injury	$1,000,000 each person $1,000,000 each occurrence	$10,000,000 each person $10,000,000 each occurrence
Property Damage	$1,000,000 each occurrence	$ 2,500,000 each person
Aggregate	$1,000,000	$10,000,000

503.6 Inspecting and Monitoring Filming Permits

Inspecting, monitoring, and controlling filming on State highways is a cooperative effort by the CHP and Caltrans. CHP officers normally are present on all filming permits. Inspection of No Moving Traffic (FO) and Intermittent Traffic Control (FI) permits has been delegated to the CHP through the interagency agreement (see Appendix E); Caltrans inspectors may monitor FO and FI permits on a random basis at no cost to the permittee. Caltrans' inspectors and CHP officers are present when filming activities begin for Traffic Control (FL) and Special (FS) permits.

After observing a smooth and effective operation of FL permit activities for a period of time, the Caltrans inspector may depart and leave the CHP in charge. In rural areas, where few potential problems exist, the CHP may handle FL filming with no Caltrans inspector involved. Similarly, FS permits that involve only aircraft flying under 500' (152.4 m) in altitude with no more than intermittent traffic control may be inspected by the CHP.

For FS permits, Caltrans inspectors normally are present throughout the activity and Traffic Operations personnel may be present to monitor and adjust traffic control as needed. The production company is required to hire a traffic control specialist to implement detours and lane closures.

504 FENCE (NEW OR MODIFICATION)
Permit Code FN

Caltrans owns and maintains all fences placed in the right of way to delineate controlled access. Fences generally are inset 0.5' (0.15 m) to 1' (0.3 m) inside the State's right of way. Private fences are allowed within controlled access areas to maintain the continuity of a fence during permitted work that removes an existing fence, or when placed around an excavation.

Alternate aesthetic fencing along controlled access highways is not authorized and replacement or new fences shall comply with State standards. Exceptions are allowed for soundwall construction and along short tangent sections that extend along local streets and are beyond freeway ramp returns. An alternate wall or fence may be installed in these locations if it also is an effective barrier to access. Minimum height of the alternate fencing shall be four feet (see Highway Design Manual).

When an unmaintainable gap of 4' (1.2 m) or less between the soundwall and the right of way fence exists, it may be in the best interest of Caltrans and the adjacent property owner for Caltrans to remove the right of way fence and allow the adjacent property owner to "own and maintain" that property. In order to do this, the districts can convey the underlying fee but reserve an easement for wall maintenance.

All adjacent owners within that property block must agree with the transaction. Caltrans recognizes the benefit of allowing these property owners to take over the continued maintenance of this property in this kind of situation and may waive Caltrans' administrative cost for this complete transaction. These requests are referred to the district Right of Way Excess Land Section. They will convey the property by the decertification process. No encroachment permit is necessary for this title transaction.

Abutting property owners may place extensions on the State's access control fences to increase fence height or to place barbed wire. Barbed wire placed on brackets must extend vertically or overhang the permittees' property. Razor and concertina wires are not authorized.

Local fire protection, law enforcement, and other emergency service agencies frequently request planned emergency access to freeways and expressways. Caltrans' policy is to prohibit planned emergency access to freeways and expressways for new or expanded land development projects. Emergency access shall be planned and provided from local streets and conventional highways outside the access control limits of freeways and expressways.

This prohibition of emergency access shall apply to any additional emergency access to existing development. Existing emergency access granted in the past, such as breakaway fence panels, gates, and sod-block surfaces, may remain if installed under a valid permit.

Fencing in conventional highway right of way is limited to protection of pedestrians and excavations. This includes temporary fences that close off construction sites adjacent to the right of way when pedestrian traffic is detoured or occurs on existing and temporary sidewalks. Private property fences are not allowed in conventional State highway right of way.

Fences along conventional highways generally are placed on the abutting property and are owned and maintained by the property owner. Caltrans has no control over pedestrian access through conventional right of way and the fences do not serve as a barrier. However, vehicular gates for private, agricultural, and commercial driveways must be approved as discussed in Section 510.

505 GEOPHYSICAL TESTING

GC or GV permits authorize geophysical testing within State right of way that involve cable crossings or vibration equipment.

Permittees conducting geophysical testing shall be responsible for property damage inside or outside highway right of way. A certificate of insurance in the minimum amount of $1,000,000 for property damage liability is required before permit issuance. Districts should encourage testing companies to include "the State of California, its officers and employees" as additionally insured in their annual policies, which will avoid them having to obtain a separate policy rider for

each permit. Districts can then keep a copy of the additionally insured notice on file for reference. The permit may be issued as a biennial.

505.1 Cable Crossing
Permit Code GC

Cables associated with geophysical testing preferably should not cross State right of way, but in some circumstances cable crossing may be required. Specific requirements for cable crossings are listed in Table 5.7.

Table 5.7
Requirements for Cable Crossings

These specific requirements apply to cable crossings of State highway right of way:

1. Equipment, work, or personnel shall not be allowed within controlled access rights of way. One exception to this policy may be cable crossings required for continuity, in which case cables shall cross controlled access rights of way in a culvert or on structures.

2. Holes shall not be drilled, and blasting is not allowed, on State right of way.

3. Nails, spikes, or other material shall not be driven into the traveled way.

4. Nails or spikes driven into the paved shoulder area shall be removed. Resulting holes shall be filled with waterproof compound that blends with the original pavement in color and grade.

5. Paint shall not be placed upon highway pavements, signs, or markers. Traffic tape, chalk, or crayon shall be used if pavement markings are necessary. All tape, stakes, and other obvious markers shall be removed upon completion of permitted work.

6. All mud, dirt, or gravel tracked onto the highway pavement shall be removed immediately and completely.

7. Personnel working within the State right of way shall wear safety glasses, hard hats, and orange jackets, shirts, or vests.

8. Standard signing and flagging procedures shall be employed according to the California Department of Transportation pamphlet entitled “Instructions to Flaggers.”

9. Permittees must comply with all requirements of the Vehicle Code and other applicable laws, except as specifically provided herein.

10. Grading must not harm the State. It is not authorized within controlled access highway right of way.

Cables shall be placed as close as possible to the right of way line, and shall be placed within 6" (152 mm) of the curb face or pedestrian sidewalk railing of an overcrossing structure. Longitudinal cables on freeways are not authorized, and therefore cables must be placed outside the right of way fence.

When cables are permitted to cross State right of way, they shall be attached securely to the traveled way with adhesive tape. Cables shall not remain on the State roadbed unless they are securely anchored with adhesive tape and approved by the permit inspector.

505.2 Seismic Vibrator
Permit Code GV

GV permits are issued for geophysical testing activities that use equipment to generate test waves.

505.2A Testing Method Allowed

Only geophysical testing using the "P-wave" method is allowed. Testing using the "Shear wave" method (S wave) is not allowed on State highway right of way because damage to State facilities and adjacent property may result. Permittees may place sensors in State right of way even though their test-wave generating equipment is located outside State right of way.

All work must comply with permit conditions. Any violations of permit conditions, complaints from adjacent property owners, or other problems should be communicated to the District Permit Engineer. Work shall be suspended immediately until satisfactory steps are taken to ensure compliance with the encroachment permit.

505.2B Vibrators

Truck-mounted vibrators commonly are used to generate test waves. They operate alone or in groups and stop to place a vibrating pad on the ground surface.

Vibrators shall be placed and operated as close to the right of way line as possible, with a minimum clearance of 4' (1.21 m) from the paved shoulder or toe of slopes on embankments. They shall not be operated on any paved surface, and shall not be operated within controlled access rights of way.

Vibrators shall be operated so that no damage will occur to: vegetation, wells, culverts, headwalls, structures, or other improvements. Districts concerned about underground utility damage may require proof of notification and approval by utility owners in the area before starting permitted work.

506 LANDSCAPE

The District Landscape Architect or Permits Landscape Architect and District Maintenance Landscape Specialist shall approve all requests to install planting, irrigation systems, landscape features, or to control roadside vegetation in the State right of way. All requests to place irrigation facilities or vines on new and existing structures must be approved by Structures Maintenance.

All landscape improvements and irrigation systems shall conform to Caltrans' policies and standards for design construction, and maintenance. Standard special provisions, district maintenance landscape standards, and permit clauses guide encroachment permits for highway planting and irrigation.

Planting and irrigation design shall be in accordance with the policies and procedures stated in the Caltrans Highway Design Manual and Project Development Procedures Manual, Landscape Architecture Chapters.

506.1 Purposes

The purposes of issuing landscape encroachment permits are to:

1. Provide a means to accomplish planting on transportation facilities, including, but not limited to, freeways, expressways, conventional highways, park and ride lots, safety roadside rest areas, vista points, and bicycle paths.

2. Relieve Caltrans from maintenance of new and existing planting on access controlled highways. Maintenance of all planting on conventional highways is the responsibility of others, at their expense (Project Development Procedures Manual, PDPM Chapter 3, Section 140.20, Article 10).

3. Ensure that work by others is designed to achieve a balance between safety, aesthetics, maintainability, cost effectiveness, and resource conservation.

4. Protect the traveling public, the public's investment, and the interests of adjacent land owners and businesses.

506.2 Responsibilities

The permittee is responsible for completing all work through construction as specified in the permit including plant establishment and maintenance (if required) and all costs involved. Performance bonds may be required to ensure that any installation, plant establishment, maintenance, and necessary restoration done by others will meet Caltrans standards. In lieu of the bond, a cash deposit is acceptable.

The city or county, by applying for the permit, will be held responsible for the planting and irrigation systems, plant establishment, maintenance, and all utility costs if the developer or other private entity fails to meet the permit requirements. This requirement applies only to freeways and expressways.

The city or county has the option to cause the planting and irrigation systems to be removed and the right of way restored to Caltrans' satisfaction at no cost to Caltrans in lieu of continuing establishment or maintenance, or water provision. The permit or Cooperative Agreement must spell out the conditions of such action.

When the permittee fully funds warranted (PDPM Chapter 3, Section 140.20, Article 10) planting projects, a four-year plant establishment period, including all water and utility cost, is also required; thereafter, Caltrans provides the maintenance. Exceptions may be granted by the District Landscape Architect or Permits Landscape Architect.

When the permittee provides highway planting that exceeds the allowable maximum cost per hectare (adjusted annually by the Office of State Landscape Architecture) or is unwarranted, the permittee must establish and maintain the planting, including all water and utility costs, for 20 years. Exceptions may be requested form the District Landscape Specialist for Caltrans to

maintain planting that exceeds the maximum cost per hectare when additional costs will not increase the plantable area (e.g., rock blanket, larger plants, etc.).

The permittee is responsible for replacement of (installed by Caltrans or others) damaged or removed plants resulting from construction activity, including irrigation modification and/or replacement and plant establishment.

Caltrans will replace highway planting installed by others that is damaged or removed by State highway construction activity, including irrigation modification and/or replacement. Damaged or removed planting that was provided by others will be replaced in kind. Trees and other vegetation will be replaced at a rate and size determined by the District Landscape Architect or Permit Landscape Architect.

When the permittee is responsible for maintaining planting, the plantings shall be maintained in a healthy, attractive, and safe condition.

506.3 Planting, Irrigation, and Landscape Features Provided by Cities and Counties or Private Entities

Highway planting may be provided by others, at their cost, on conventional highways and on controlled access highways. Additional planting may be provided by others in excess of the maximum cost per hectare for a warranted planting project (see Project Development Procedures Manual, Chapter 29--Landscape Architecture, Section 2 Highway Planting).

If a developer or other private entity is providing funds, Caltrans may issue a permit to the city, county, or agency involved, authorizing it to enter into an agreement with the private entity to do planting work.

On controlled access highways, when a developer or other private entity provides funds and desires an encroachment permit directly from Caltrans, a Highway Improvement Agreement (see Cooperative Agreement Manual) will be required if the project costs over $1 million for work within the State highway right of way. Projects costing less than $ 1 million will require a general agreement that at a minimum covers installation, establishment, and maintenance responsibilities.

Private entities desiring to fund planting on controlled access highways are encouraged to enter into funding agreements with a local agency to perform the work. Caltrans can issue a permit to the agency and hold it responsible if the private entity fails to meet permit requirements.

506.4 Landscape Permit Types

Installation and maintenance of planting and irrigation within State right of way is authorized by LC, LF, LM, and LT permits. Each type of permit is described in the following discussion.

506.4A Conventional Highways
Permit Code LC

LC permits authorize the placement of planting and irrigation systems on conventional highways. Guidelines for design of planting and irrigation systems on conventional highways are listed in Tables 5.9 through 5.14 (in addition to the policies and guidelines shown in the Highway Design Manual).

Caltrans encourages individuals and citizen groups to work through their local government when developing planting proposals. Permits for planting and irrigation that front individual properties are issued to the property owner. Local agencies are involved only when street trees, median planting, and maintenance are proposed and permits are issued to them. Improvement districts established by the local agency may also apply for a permit to rehabilitate and beautify areas along a conventional highway.

506.4B Freeways
Permit Code LF

LF permits authorize the placement of planting and irrigation systems on freeways and expressways. Planting within controlled access right of way shall be designed under the guidance of the District Landscape Architect and/or the Permits Landscape Architect and approved according to district procedures and the Project Development Procedures Manual. Clear recovery zone requirements are specified in the Highway Design Manual. The distance between the edge of traveled way and large trees shall not be less than the minimum required; however, the permit engineer should use clearances of a greater amount.

A copy of each LF permit, including plans, bid date, and completion date, shall be sent to Headquarters Office of State Landscape Architecture, Landscape Classifications, for record keeping, determination and designation of landscaped freeway relative to the regulation of outdoor advertising displays.

506.4C Maintenance
Permit Code LM

LM permits authorize maintenance of planting and irrigation systems within the State right of way. Only replacement and repairs are authorized by LM permits. When work is performed for the benefit of the State, encroachment permits are issued without charge.

Two-year LM permits for landscape maintenance may be issued to local agencies (cities and counties). Contractors may perform work for the local agency under a two year permit. Neither the contractor, city nor county is charged inspection fees.

LM permits also authorize roadside vegetation control by private property owners who have entered into an agreement with Caltrans Maintenance. All requests by private property owners to assume responsibility for roadside vegetation control shall be directed to the District Maintenance Landscape Specialist.

Chapter 6.5, Section 5501 to Section 5509 of the Food and Agricultural Code provides a voluntary mechanism by which private property owners and the Department may enter into mutually acceptable agreements to promote coordinated programs for roadside vegetation control. If such an agreement includes provisions whereby the property owner assumes responsibility for vegetation control, an encroachment permit is required for the work.

506.4D Trimming and Tree Removal
Permit Code LT

LT permits authorize tree trimming and removal within the State highway right of way.

Projects that would result in the removal of a healthy live tree(s) or pruning that changes the tree's character must have the consent of the city or county if that portion of the project cost is more than $500. All tree projects by the same applicant that are requested within a 12 month period will be considered as one project for determining project cost.

Before the permit process begins, the District Permit Office will write to the city or county manager (example letter in Appendix F) to seek their written consent for tree work. By law, a 30 day limit is set to obtain their response; otherwise no response deems their consent. The district permit office shall send this request by certified mail, return receipt required, on behalf of the requester. The date received by the city or county establishes the start of the 30 days.

Utility owners may apply for annual tree trimming permits, which are issued directly to the utility companies involved and **not** to the company's contractors. Annual tree trimming permits are issued for conventional highways and only in specific situations on expressways. They are not issued for freeways. The utility owner must furnish a list of contractors with its application. Additional agents are included only by a rider to an issued permit. A fee-exempt double permit (NDP) is required when the applicant lists a contractor that previously has been uncooperative. The permit does not include the NDP contractor as an agent unless the applicant and the NDP contractor provide written assurance that full cooperation will be provided.

Utility companies or their contractors may dispose of woodchips produced from tree trimming operations, within the right of way provided Caltrans Maintenance authorizes such disposal. This policy applies to trees located within or outside the right of way. Caltrans Maintenance Regional Managers may issue a Consent Letter to **any** requester desiring to place woodchips within the right of way without the need for an encroachment permit. Authorized disposals, under a Consent Letter, shall be accomplished within one working day. Disposals made without prior authorization are illegal.

Trimming or tree removal shall be done according to the requirements listed in Table 5.15.

506.5 Review of Proposals for Planting and Irrigation

All planting and irrigation plans shall be reviewed by the District Landscape Architect and/or Permits Landscape Architect, and the District Landscape Specialist. The permittee shall submit six copies of planting and irrigation plans, details, and specifications to the District Permit

Engineer for review. Review of the plans and construction inspection by Caltrans is performed at the permittee's expense.

Projects costing more than $1,000,000 that are sponsored by a local agency are not charged for plan review. A double permit is required when the local agency contracts for its permit work. Advance payment of review and inspection costs is required before the double permit is issued.

All proposed work is reviewed by the District Landscape Architect or Permits Landscape Architect and Maintenance Landscape Specialist in the same manner as projects designed by consultants. The project is designed under the supervision and guidance of a Caltrans project landscape architect through approval of final plans. Projects costing more than $1,000,000 are subject to the procedures outlined in Section 202.3.

As-built plans, including wiring diagrams for irrigation systems installed on controlled access highways, shall be provided to the District Permit Engineer and the District Landscape Architect or Permit Landscape Architect within thirty (30) days after completion of construction.

506.6 Standards for Planting and Irrigation Plans

Requirements and standards for planting and irrigation plans are described in Table 5.8.

Table 5.8
Requirements and Standards for Landscape Plans

Planting and irrigation plans must comply with these requirements and standards, unless exempted by the District Landscape Architect and/or Permits Landscape Architect:

1. Plans shall be prepared and signed by a registered landscape architect. They must show the name, registration seal and expiration date, and phone number of the landscape architect and irrigation designer (if appropriate).

2. Plans shall be in dual measurements drawn on 22" by 36" (559 mm by 914 mm) size sheets at 50' (1 : 600) scale { 20' (1 : 240) scale when appropriate}. Scale and north arrow shall be indicated on the plans.

3. A general location map should be provided with the plans. City limits, county lines, public roads, highways, limits of work, north arrow, scale, and other features should be shown.

4. Existing features shall be shown on the plans, such as high-hazard utilities, street names, guard rail, signs, edge of pavement (shoulder), vegetation, irrigation, curbs, sidewalks, slopes (2:1, etc.), ditch flow lines, walls, and fences. Existing features to be removed also should be noted on the plans. The permittee is required to submit copies of correspondence to verify utility information.

5. State right of way (property line) and when appropriate the centerline of the highway shall be shown and labeled. Stations {100' (30.48 m) on center} should be indicated on the centerline. All existing highway striping, except on controlled access highways, shall be shown.

6. Planting plans shall indicate botanical names and common names, quantities, size of plants [for example: #1 (1-gallon) flats], spacing (setbacks), and other planting descriptions.

7. Irrigation plans should indicate electrical and water source locations, when appropriate, and the name, address and phone number of the responsible utility service company. Water connection information should include:

   - Source (potable or reclaimed water)
   - Available water pressure
   - Meter size

8. The permittee may be required to use Caltrans' standard details, plant list, planting and irrigation standard specifications, and special provisions where applicable as approved by the District Landscape Architect or Permits Landscape Architect.

506.7 Design Guidelines for Highway Planting and Irrigation

Chapter 900 of the Highway Design Manual shall be followed in designing highway planting and irrigation. The design guidelines shown in Tables 5.9 through 5.13 supplement “Planting Design Standards” in Chapter 900.

Table 5.9
Design Guidelines for Highway Planting and Irrigation

These design guidelines supplement those in Caltrans' Highway Design Manual and the Permit Special Provisions:

General Design Guidelines

1. All designs are approved by the District Landscape Architect and/or Permits Landscape Architect.
2. Disturbed areas on State right of way that are not planted shall be treated with erosion control materials.
3. Erosion control also may be required on flat areas for dust control, etc.
4. All erosion control work shall be according to Caltrans Storm Water Quality Handbooks (available from Caltrans Publications Unit) and Standard Specifications, Section 20.

Planting Design – Conventional and Controlled Access Highways

1. Plants shall be located so they do not obstruct motorists' clear vision of any highway signs and signals.
2. Lighting directed at trees or plants is not allowed.
3. No planting should be located where it will interfere with sprinkler coverage.
4. Plants with thorns or known to be poisonous to humans and animals shall not be planted adjacent to areas used for grazing animals, equestrian activities, with high public exposure, and where children have access to the planting.
5. Plants should be located so the pruning will not be required.
6. Plant selection, spacing, and setbacks should conform to the “Plant Setback and Spacing Guide” (available through Caltrans Publications Unit and the Caltrans Website).
7. Plants should be located so that they will not obscure existing billboards or on-premise business identification signs.

Irrigation Design – Conventional and Controlled Access Highways

1. If Caltrans has water and electrical service available in the area, the new irrigation can be hooked into existing facilities if the permittee assumes the costs for the water and shut-off valves are provided for main/lateral lines. Otherwise, new separate utilities for the proposed irrigation systems must be provided.
2. Irrigation lines proposed under paved surfaces shall be installed in conduit.
3. Irrigation lines under continuous pressure are not allowed.
4. Provide separate control valves for supply lines operating overhead sprinklers at the top, intermediate, and toe of slopes.
5. Bubbler or low flow sprinklers used on slopes 4:1 or greater should be pressure-compensating or be equipped with pressure-compensating devices.
6. Design all systems to allow a water velocity of no more than 5 fps (1.52 meters per second).
7. Water each planting group (for example, ground cover, trees, and shrubs) with separate control valves.
8. Design and operate irrigation systems to minimize fogging and overspray of water onto paved surfaces.
9. Provide uniform water coverage when using overhead sprinklers.
10. Drip irrigation or subterranean irrigation may be used if approved by the district landscape architect or permits landscape architect.
11. Provide shut-off valves, with ID marker, to isolate groups of control valves or areas of the irrigation system for servicing or shutting-off sections of the system.
12. To minimize drainage at the toes of slopes, anti-siphon/anti-drain valves are required on supply lines and sprinklers located on slopes.
13. A gate valve, with ID marker, should be installed within State right of way where the supply line(s) enter the right of way. Valves and backflow preventer (if installed) should be installed outside the right of way unless they are not under pressure between watering.
14. When necessary, a subsurface drainage system shall be provided in irrigated medians to prevent water flowing onto the roadway. The drainage system should also prevent lateral infiltration of water into the structural section of roadway and shall be approved by the District Permit Engineer.

Table 5.10
Trees On Conventional Highways

Trees should not be approved for planting where their growth causes interference, obstruction, damage or injury--either directly or indirectly--to the use of a highway, sidewalk, overhead utilities, or State right of way. These conditions apply to trees:

1. Trees should not be planted within 100' (30.48 m) of the nearest intersecting public street or in positions that restrict sight distance. Distance is measured from the nearest intersecting right of way line.

2. Trees should be planted a minimum of 2.0' (0.6 m) behind the curb.

3. Trees should be planted a minimum of 5' (1.52 m) from any walkway between a curb and building entrance.

4. Trees should be located a minimum distance of 10' (3.04 m) from any driveway, utility pole, fire plug, or to the rear of any highway sign. Trees should be located so they do not restrict the motorist's clear vision of any highway sign.

5. Spreading trees should be planted a minimum of 30' (9.14 m) center to center.

6. When a tree requires support or protection, the tree should be staked by using one or more 2"x 2" x 8' (51 mm x 51 mm x 2.43 m) redwood stake(s).

7. Large trees that at maturity (10 years) will have a trunk 4" (102 mm) or greater in diameter [measured 4' (1.219 m) above the ground] are permitted within the 30' (9 m) of the traveled way provided all of the following conditions are met:

   - The existing speed zone is 35 mph (56.32 km/hr) or less.
   - There is a curb or other barrier between the traveled way and the trees.
   - The sight distance is not restricted.
   - Existing signs and signals are not obscured.
   - In a median the trees are at least 6' (1.82 m) from each curb.
   - Trees are at least 100' (30.48 m) from the end of any median strip and at least 20' (6.09 m) from existing manholes.

   If one or more of the above conditions is not met, the location of large trees must be a minimum of 30' (9 m) from the edge of the traveled way. Small trees and plants trained in tree form that are less than 4" (10.16 cm) in trunk diameter at maturity shall be planted at least 2' (0.5 m) as measured from the face of the curb to the tree. In the absence of a curb, placement shall be at least 20' (6.09 m) from the traveled way.

506.8 Tree Protection Requirements

Any permit work to be done on State right of way within conventional or controlled access highways that affects existing trees shall be performed according to the following requirements of this section and the special provisions.

Table 5.11
Tree Wells

Tree wells are individual openings located in paved areas such as sidewalks and parking lots. The following conditions apply to such installations:

1. Tree wells in paved areas should be a minimum of 3' x 3' (0.91 m by 0.91 m) square. The street side of tree wells should be parallel with the curb. Allow for a 4'x4' (1.21 m x 1.21 m) tree well where possible.

2. If irrigation is not available or not effective, two lengths of 4" (102 mm) diameter perforated plastic pipe or 4" (10.16 mm) diameter cardboard tubes should be installed vertically in opposite corners of each tree well. The pipe should be filled with 2" (51 mm) crushed rock to provide for deep watering.

3. Trees should be planted in the center of any tree well.

4. Tree wells should be made safe for pedestrians. Tree well covers flush with the grade of pavement are required.

5. Root barriers shall be installed to prevent sidewalk damage.

6. Permits for trees should be issued only to local public agencies, not to adjacent property owners.

7. Trees and tree wells in parking lots should be given a minimum of 64 square feet (5.94 square meter) of opening in the pavement. The alternative is deep watering pipes and deep root barrier installation in the root zone.

8. Maintain trees so that the lowest limbs are at least 7' (2.13 m) above the sidewalk surface.

Table 5.12
Shrubs

Shrubs are woody, multi-stemmed plants with each stem having less than a 4" (102 mm) diameter trunk at ten years.

1. Shrubs should be planted so that at maturity they will not grow closer than 3' (0.91 m) from the curb and 5' (1.52 m) from the right of way line.

2. Shrubs or high-growing ground cover may be in beds no longer than 50' (15.24 m) in length with at least a 5' (1.52 m) interval between beds to allow pedestrian traffic from the curb to the sidewalk.

3. Shrubs that naturally grow over 3' (0.91 m) high should not be allowed within 25' (7.62 m) of any driveway or intersecting road.

506.8A Pesticide Use

Pesticides may be used only with approval from the District Landscape Specialist. Use of pesticides (herbicides, insecticides, rodenticides, etc.) must be prescribed in writing by a pest control advisor licensed in California. Pesticide application may be performed only by a certified applicator in conformance with current laws, regulations, and Caltrans' policies.

506.8B Underground Work

Any underground work shall be performed so that tree roots are protected, and shall be as shown on a plan that is reviewed by the district landscape architect or permits landscape architect.

Table 5.13
Plants in Containers

The conditions applied to plant containers are the same as for planting trees and shrubs elsewhere (i.e., size and location of containers, cost of planting and maintenance, liability, etc.).

Plant containers are permitted only when all of the following conditions are met:

- The existing speed zone is 35 mph (56.32 km/hr) or less.
- There is a curb or other barrier between the traveled way and the container.
- The container and planting will not reduce sight distance.

Additional recommendations for containers are:

1. Square or circular plant containers made of wood, brick, metal, concrete, or other appropriate material may be used. Circular concrete containers are most desirable.

2. The size of plant containers shall not exceed the available space between a point 2' (0.60 m) back of the curb face (in medians, 6' (1.82 m) back of the curb face) and a point 5' (1.52 m) in front of the right of way line. In most cases, dimensions of the containers should not exceed 4'x 4' (1.21 m by 1.21 m) for a square container or a diameter of 4' (1.21 m) for circular containers.

3. Plant containers shall be secured to the sidewalk to prevent overturning or shifting and placed to avoid creating a hazard to pedestrian or vehicular traffic. The permittee shall be responsible for temporary relocation when necessary to install, repair, or replace underground facilities.

4. The type of tree or shrub desired in the container should be specified in the permit application.

5. Proper maintenance of the plant and container is a requirement of the permit. Containers frequently become unsightly because of litter or unkempt plants.

6. Maintain trees so that the lowest limbs are at least 7' (2.13 m) above the sidewalk surface.

7. A minimum of $10,000 liability insurance is required when permits are issued for installing plant containers. Governmental agencies are exempt from the insurance requirement, but a bond may be required under certain circumstances.

8. Containers with trees or shrubs are not to be used for an advertising display.

506.8C Tree Trimming or Removal

All tree trimming must be performed according to current arboricultural standards, using ANSI A-300 Standards. Requirements for tree trimming or removal are outlined in Table 5.15. A field review should be made before the permit is issued to obtain clearance for longitudinal facilities within State right of way. Hazardous conditions for trimmers or highway traffic must be avoided.

The applicant should indicate the location of the work (county, route, and post mile), the height of utility lines, and the height, kind, condition, and number of trees.

Utility lines shall be of sufficient height to clear the tops of trees that may be maintained at a 40' (12.19 m) height. This is especially true of species whose normal development precludes trimming to less than 40' (12.19 m) [for example, conifers, single central leader trees of natural conical or pyramidal-type crown development]. Exceptions to this requirement may be permitted when:

1. The trees can be maintained in healthy condition and present a natural, worthwhile appearance after repeated pruning and thinning operations. Trees in this category include open, round crowned types, with several leaders or main branches forming their crown framework.
2. Utilities lines can be placed through or below the crowns of the tree with a minimum of pruning and without the removal of main leaders or limbs that would cause a permanent disfiguration of their crowns.
3. Top trimming under utility lines has been done for years and reconditioning of the trees to establish their natural growth is not cost effective.
4. Trees are on portions of routes that are included in realignment projects, after which the pole lines will be moved or the trees will be outside the right of way.
5. Volunteer growth from stumps and roadside seedlings is determined by the District Landscape Architect to have little or no value to the desired condition of the roadside.

The district shall notify the utility owner involved when further trimming or pruning is not desired, either at the height of 40' (12.9 m) or at the height established for a particular tree species. This notification allows the utility owner time to modify their facility before additional trimming for clearance becomes harmful to the trees. Under normal circumstances, the utility owner is allowed two growing seasons to complete these modifications, with light trimming permitted in the interim.

In allowing top pruning for utility line clearance, it is desirable to have an open crown rather than a dense canopy of small growth that is caused by repeated cutting of young growth at an even distance under the utility lines. Allow heavier cuts for the removal of “crows' nests” or “brooms.” Locate these cuts at laterals in older wood so that the next season’s growth will form new crown structure free of disfiguring growth.

An open, naturally shaped crown can be maintained by heading back or removing the taller growth every other year and thinning out dense growth that forms after large wood is removed. Limbs larger than 2" (51 mm) in diameter may be removed when necessary for reshaping the crown or removing undesirable growth.

Table 5.14
Ground Cover

Ground cover includes low-growing plant material used for a variety of landscaping purposes.

1. Grass or an approved ground cover may be planted under permit between the curb and right of way line, provided it is maintained for safe pedestrian traffic.

2. No ungrouted decorative stone, gravel, or other loose material is allowed for ground cover.

Table 5.15
Requirements for Tree Trimming or Removal

1. Consent of the adjacent property owner is not required if the tree trunk is entirely within State right of way.

2. A limb overhanging the right of way may be trimmed without the adjacent owner's consent if it is interfering with highway usage or endangering traffic.

3. Trees on the right of way line are joint property and shall not be disturbed without consent of the joint owners. An exception to this requirement is when a hazardous condition exists or the tree is interfering with safe highway operations.

4. The permit applicant is responsible for making necessary arrangements when consent of an adjacent property owner is required.

5. Provisions of the right of way deed should be checked when there is a question about the title of the trees. If the district cannot make a conclusive determination based on the right of way deed, the matter should be referred to Headquarters Encroachment Permits.

6. Disfiguring cuts and tree topping are not allowed.

7. Districts shall be aware of, and sensitive to, the concerns that local community groups might have regarding trees.

8. Live trees are removed only with approval of the District Landscape Architect and/or Permits Landscape Architect.

9. Letter to city or county, when required, requesting written consent for tree work (Section 506.4D).

507 MAIL AND NEWSPAPER BOXES
Permit Code MB

MB permits are issued for installation and maintenance of mailboxes and newspaper delivery boxes.

Rural mailboxes must conform to Caltrans encroachment permit policies and Federal postal regulations (these requirements also apply to newspaper delivery boxes). Policy is to permit mailboxes at locations where they are convenient to mail carriers without interfering with

highway safety, maintenance, operations, or signing. These postal regulations apply to rural mailboxes:

> "Rural boxes must be placed so that they may be conveniently served by carriers without leaving their conveyances, and must be located on the right hand side of the road in the direction of travel of the carriers in all cases where traffic conditions are such that it would be dangerous for the carriers to drive to the left in order to reach the boxes, or where their doing so would constitute a violation of traffic laws and regulations. On new rural routes, all boxes must be located on the right of the road in the direction of travel of the carrier. Boxes must be placed to conform to State laws and highway regulations. Customers must remove obstructions, including snow, that make delivery difficult."

(Source: POSTAL MANUAL, U.S. Post Office Department, Section 156.54--"Location")

The permittee shall provide suitable all weather surfacing between the roadway and the mailbox. The surfacing shall conform to the adjoining shoulder grade.
Rural mailboxes are not permitted on new expressways or full freeways except on a rural expressway with driveway access openings and no frontage road. Rural mailboxes on new expressways and full freeways may be placed at a convenient location near an interchange or grade separation structure. The most desirable location at an interchange would be on the county road section off the State right of way, but should be determined cooperatively with the Postmaster who is authorized to cease mail delivery to unauthorized mailboxes.

AASHTO's "Guide for Erecting Mailboxes on Highways" (May 24, 1984) offers model guidelines and standards for the installation of rural mailboxes. Supports for mailboxes should be of a breakaway or a crash-worthy design, such as the V-Loc system. Generally, a wood support, if without breakaway modification, should be no larger than 4" x 4" (102 mm by 102 mm). The maximum permitted inside diameter of a steel pipe support is 1.5" (38 mm). Axles, ploughs, crankshafts, and similar large and heavy objects should not be used because potential collisions with them would be severe. Multiple-box installations should be located off the State highway; if that is not possible, individual supports for each mailbox shall be used.

Neighborhood Delivery and Collection Box Units (NDCBU's) do not meet the breakaway requirements and should not be placed within the clear zone as described in the Highway Design Manual.

508 MISCELLANEOUS
Permit Code MC

MC permits authorize a variety of activities within State right of way that are not covered by other specific permit types addressed in this manual. These activities are described in the following discussion.

508.1 Contractor's Yards and Plant Sites

A State contractor's plant and yard sites require an encroachment permit unless they are located within contract limits. (Guidelines are described in the Project Development Procedures Manual.)

1. Sites Described in Special Provisions of State Highway Construction Contracts.

   These rules and regulations apply to sites specified in State contracts if:

   - The site is excess land, (a Category 2B or 2C hold is required), and the Right of Way Excess Lands unit processes the hold.
   - The site is airspace property, see the Right of Way Handbook. Analysis must be approved by the district Airspace Review Committee, and an encroachment permit is required.
   - The property is being held for future construction, see the Right of Way Handbook.

   The project engineer notifies District Right of Way of the proposed use and the target date for advertising the construction contract, and also informs district Permits that the contractor will be applying for an encroachment permit. No permit is required if the site is within the contract limits.

   The project engineer is responsible for ensuring that local and environmental approvals are
   obtained and that appropriate language is placed in the Special Provisions for the contract.
   The resident engineer ensures that the contractor properly protects, maintains, and leaves the property in a satisfactory condition at the end of the use, as required by the Special Provisions.

2. Requests by Contractors to Use Non-Designated State Property Located Outside Project Limits.

   An encroachment permit is required to use non-designated State highway right of way outside project limits. Other Caltrans property is managed by a lease or rental agreement.

   Upon receipt of a contractor's request to use State property outside of the contract limits and not designated in the Special Provisions, the resident engineer directs the contractor to the appropriate district Right of Way unit (Airspace, Property Management, or Excess Land). For excess land rentals, a Category 2B or 2C hold is required, and the analysis must be approved by the Excess Lands Branch (see Right of Way Handbook.) For rental of property held for future construction, see the Right of Way Handbook.

   District Right of Way assists the contractor, as needed, in securing local approvals and environmental clearance. It also coordinates its activities with district Permits to ensure that the encroachment permit contains appropriate wording.

   Payment for use of State property is based on fair market value.

508.2 Fire Hydrant Markers and Signs

Placement of blue reflective markers and signs to identify fire hydrant locations shall conform to criteria described in "Guidelines for Fire Hydrant Markings Along State Highways and Freeways" (This publication was prepared by the Office of the Fire Marshal in cooperation with Caltrans for the Calif. State Board of Fire Services--May, 1988).

Encroachment permits for placing such markers and signs are issued at no cost to the fire agency.

508.3 Fire Protection Signing

Fire Safe Regulations adopted by the Board of Forestry establish requirements for roadway name and building address signs. Caltrans authorizes such signs under permits issued to property owners and developers when the signs are set outside the clear zone or as close to the right of way as possible. County sign standards for height, color, and reflectivity will be accepted, but breakaway sign posts conforming to current State Standard Plans are required.

508.4 Guide Signs to Points of Local Interest

Local agencies may place guide signs to points of local interest on State (conventional) highways which also function as local community streets when approved by Traffic Operations (policies governing placement of destination signs on freeways are located in the Traffic Manual, Section 4-04.13). Signs may indicate directions to locations that do not meet minimum qualifications or to those places of community interest which normally do not warrant signing. Examples of destinations that may receive signing include:

* Business Districts
* City Halls
* Civic Centers
* Community Swimming Pools
* Libraries
* Museums
* Parks and Zoos
* Police Agencies
* Public Parking
* Visitor Information Centers
* Hospitals (emergency service)

Placement shall be by the local agency through the normal permit process at no cost to the State. Sign locations should be limited to areas where they do not block or interfere with warning, regulatory, or other guide signs necessary for the safe and efficient operation of the highway. Signs shall not be placed if more than one turn is required to reach the destination. Sign panels should be clearly marked as to city or county ownership.

508.5 Grading

Grading work occurs frequently in numerous permit categories, and grading requirements are associated with those other permit codes. Occasionally, a permit is issued solely for grading work; in this case a MC permit is issued for authorized work. The permit may be issued as a biennial.

The following conditions apply to authorized grading work:

GRADING BY PRIVATE ENTITIES IN FREEWAY RIGHT OF WAY

Permit applications to perform earthwork not associated with a highway improvement within a freeway right of way may be approved only by the Program Manager, Design & Local Programs (DLP). Private use of freeway right of way is not allowed except by a variance issued by the Program Manager, DLP. Provisions shall be made to: dispose of soil [located within 15' (4.7 m) of traveled way] contaminated from air-borne lead, protect environmentally sensitive resources, protect historical and cultural resources, trees, and vegetation, and prevent erosion (see Caltrans publications on Storm Water Quality).

APPROVED GRADING IN HIGHWAY RIGHT OF WAY

Excluding improvements to sight distance or highway improvements, developers of adjacent property shall not remove earth or deposit fill within the right of way to improve their property unless approved by the Program Manager, DLP. When approved, the State should be reimbursed for the market value of removed materials. This amount should be calculated as the value of excavated borrow, less the value of improvement to the right of way as determined by Project Development.

508.6 Mowing Grass by Adjacent Property Owners

District permit engineers may issue no-fee permits to adjacent property owners to allow cutting dry grass for weed abatement and preventing cattle from breaking through fences onto State right of way, or in areas which pose a potential fire hazard to the permittee's property. This permit may be issued as a biennial.

A Consent Letter can be issued by Maintenance for one-time activities.

Permits require assignment of a State maintenance worker to supervise the mowing to assure no damage occurs to State facilities. The permittee shall be responsible for removing all cut grass or hay. Plowing cuttings into the ground is prohibited because of potential erosion.

508.7 Removing Hay, Sand, and Other Materials of Commercial Value

The Maintenance unit reviews applications for removing materials of commercial value from State highway right of way. It is responsible for assuring that the proposal complies with policy, obtaining formal bids, advertising for bids in newspapers, and approving and issuing permits.

Permit policy pertaining to harvesting of hay or sand removal or other similar activities where a product of commercial value may be obtained within State right of way is as follows:

1. Where the value of the service to the Department or the value of the product exceeds $500, the permit will be issued to the high bidder following an informal bidding procedure. In the case of hay mowing, when hay is baled and removed by the permittee, competitive bidding will be used when parcels of 20 acres (8.09 ha) or more are involved. A permit is issued to the high bidder.

2. When the value of the service and the commercial value of the product both are less than $500, permits will be issued on a "first come, first served" basis. This would be the case with haying areas under 20 acres (8.09 ha). The district estimates the value of the

service based on current labor, equipment, and overhead rates for appropriate work classifications. Current market values should be used to estimate the product value.

3. When issuing permits for the purposes noted above, consider the following:

   A. Operations should conform to the safety provisions of the Maintenance Manual.
   B. Permittee must submit operation plans and schedule well in advance of work start to allow review and approval of details by Caltrans.
   C. There shall be no storage of the harvested product in the right of way.
   D. There shall be no selected harvesting unless specifically allowed in the conditions of the permit. The permittee must all mow hay and remove sand from all specified areas.
   E. Permittee should be advised in advance of permit approval of pesticide use or other action that could impact the marketability or use of the product sought.
   F. The minimum acceptable bid will be the standard permit fee plus the cost of administering the competitive bidding process.
   G. A permit is issued as a miscellaneous permit at actual cost.
   H. When a product of value is removed from the right of way the standard permit fee will be charged, except for the case where an adjacent property owner mows and harvests hay in an area less than 20 acres (8.09 ha) in size. In the case of the adjacent property wner, as described herein, or if an individual wishes to mow the hay, without harvesting, the permit fee may be waived in accordance with Chapter 2 of the Encroachment Permit Manual.

Competitive bids should be sought by Right of Way for removing, harvesting, or pruning of State highway plants, with leases not to exceed 20-acre (8.09 ha) parcels. Successful bidders need an encroachment permit before starting work; the permit is fee-exempt.

508.8 Parking Meters

Local agencies may adopt an ordinance to install and service parking meters and mark parking spaces on conventional highways under a MC Encroachment Permit with the approval from the District Director, or his representative, However, the ordinance adopted by a local authority for the establishment of these zones shall not become effective until the local legislative body submits the draft ordinance to the District Director for approval (Vehicle Code 22508 & Traffic Manual).

Where maintenance of a State highway is delegated to a city, the District Director may delegate authority to regulate parking on that highway to the city (Vehicle Code 22506).

Parking meter zone plans shall be reviewed by District Traffic and Maintenance.

508.9 Structures

Encroachment permits for structures work are usually identified as Miscellaneous Permits Code (MC), although they also may occur in other permit code categories.

Design plans for work involving construction or modification of structures (for example, bridges, tunnels, retaining walls, soundwalls, etc. (see Structure Work in Appendix K), shall be approved by Structures. Structures Maintenance shall review all encroachment work not reviewed by Structures Office of Special Funded Projects (OSFP) and must approve all work to place irrigation facilities and lines on existing structures, including outside surfaces of retaining walls. Special funded projects are reviewed by Structures OSFP through the project development oversight process as indicated in Section 202.3, 205.2, 206, 206.2A, and special provision for Structure Work in Appendix K; construction and as-built requirements shall be subject to conditions of the cooperative agreement.

Whenever proposed work involves structures, in addition to the five (5) sets* of plans normally required by the District Permit Engineer for district use, the encroachment permit application shall include the number of contract document sets as shown below:

Number of sets	Send to:
11 OR 13 to 17 if specialties involved (contact OSFP Liaison Engineer)	Caltrans Engineering Service Center Structures, Office of Special Funded Projects 1801 30th Street, MS #12 Sacramento, CA 95816 OR P.O. Box 168041 Sacramento, CA 95816-8041

* More copies maybe required as determined by the District Encroachment Permit Engineer.

Bonds are required on all permits (except public agency permits) authorizing work on signals or structures. The bond shall be a minimum of $10,000 and shall be retained until the permittee furnishes accurate as-built plans and other final completion records for the permit work.

All materials used in the permanent construction shall be individually tagged as inspected by Caltrans, or shall be accompanied by a certificate indicating compliance with the permit. These shall be furnished by the permittee on a timely basis. This requirement does not preclude Caltrans from testing materials when deemed necessary.

The permittee shall provide field engineering for line and grade controls, and shall furnish Caltrans with final completion records including reproducible as-built plans upon completion of the work. As-built plans furnished to Structures shall be original-quality, full-size reproducible.

508.10 Protection of Survey Monuments

Pre-inspection by Permits should include a search for known or suspected survey monuments.

When grading **or construction and maintenance of curbs, gutters and sidewalks** is approved, existing survey monuments must not be disturbed, destroyed, or obliterated. Districts shall

include the following statements in all encroachment permits allowing grading, earthwork, or curb, gutter and sidewalk work:

"Your attention is directed to Standard Specification, Section 7-1.11 Preservation of Property, and Business and Professions Code, Section 8771. Permittee shall physically inspect the work site and locate survey monuments before work commencement. Monuments that might be disturbed shall be referenced or reset in accordance with Business and Professions Code."

"If feasible, monuments should not be set within the traveled way. All monuments that must be set or perpetuated in paved surfaces, shall be constructed in accordance with Caltrans Standard Specification Section 81 'monuments' and Standard Plan A74, Type D, or equal with prior approval of the District Surveys Engineer."

"Copies of Corner Records filed or Record of Surveys recorded in compliance with the Business and Professions Code shall be forwarded to the District Surveys Engineer."

509 OUTDOOR ADVERTISING VISIBILITY IMPROVEMENT
Permit Code OA

509.1 General

Visibility improvements for legal outdoor advertising displays are permitted in accordance with Section 670 of the Streets and Highways Code. Section 5226 of the Business and Professions Code establishes outdoor advertising as a legitimate commercial use of property adjacent to roads and highways. Remedy is afforded a commercial establishment when foliage in the right of way obstructs the view of a building or sign from the adjacent highway (see Table 5.16).

509.2 Building Obscured From Highway Visibility

When a building, not an advertising sign, of a commercial enterprise (e.g. a restaurant) is obscured from highway visibility, the applicant applies directly to the District Permit Office for a Tree Trimming and Removal (LT) Permit. The Office of Outdoor Advertising is not involved; therefore, the applicant does not prepare a Visibility Improvement Request (VIR).

509.3 Advertising Display Obscured From Highway Visibility

Applicants desiring to modify highway planting for the purpose of improving or enhancing the traveling public's view of either an off premise or on premise advertising display, must first complete the Visibility Improvement Request (VIR) Form. The District Outdoor Advertising Manager, Right of Way, provides the initial review. If the display qualifies, the applicant prepares a Standard Encroachment Permit Application.

509.4 Visibility Improvement Request (VIR)

The Visibility Improvement Request will only be considered when the work to be performed is within 500' (152.4 m) from the display, as measured along the traveled roadway, starting from a line that is from the display perpendicular to the traveled roadway (see Figure 5.1). This

limitation does not apply to median trimming; consult with the district landscape architect for additional information.

A VIR allows pruning of vegetation, however destruction or topping of healthy trees is not permitted. VIR's to remove healthy trees must have the consent of the city or county if that portion of the project cost is more than $500. All VIR tree projects for one display that are within a 12 month period will be considered as one project for determining project cost.

Before the permit process begins, the District Permit Office will write to the city or county manager (suggested letter in Appendix F) and attach the VIR form to seek their written consent for tree work. By law, a 30 day limit is set to obtain their response, otherwise no response deems their consent. The District Permit Office shall send this request by certified mail, return receipt required, on behalf of the requester. The date received by the city or county establishes the start of the 30 days. A copy of the VIR form should be kept before mailing in case there is no response.

An encroachment permit application is then completed and the standard permit process is followed. The mandatory reviewers are:

Outdoor Advertising Inspector,
District Landscape Architect,
District Maintenance Landscape Specialist, and
District R/W Planning & Management

No permit should be issued if the display is illegally in place or Caltrans is in the process of acquiring the land where the display is located. When approved, biennial (two year) visibility improvement permits may be issued.

All work shall be performed by a qualified contractor under an encroachment permit, at the permittee's expense. Work shall be performed in accordance with current standards of the Western Chapter of the International Society of Arboriculture and as directed by a Caltrans' representative. Mitigation requirements as a condition of permit approval may be required such as: replanting, irrigation, and a plant establishment period.

Definitions for this section are as follows:

Tree: A plant species that at maturity (10 years) will have a trunk 4" (102 mm) or greater in diameter, measured 4' (1.219 m) above the ground.

Top/Topping: A pruning practice that alters the natural structure or form of a tree, including, but not limited to removal of the central leader, shearing or stubbing to a uniform height, or severe crown reduction. An exception to this would be for trees that have been previously maintained in a shrub form.

Table 5.16
Guidelines for VIR's

General Guidelines

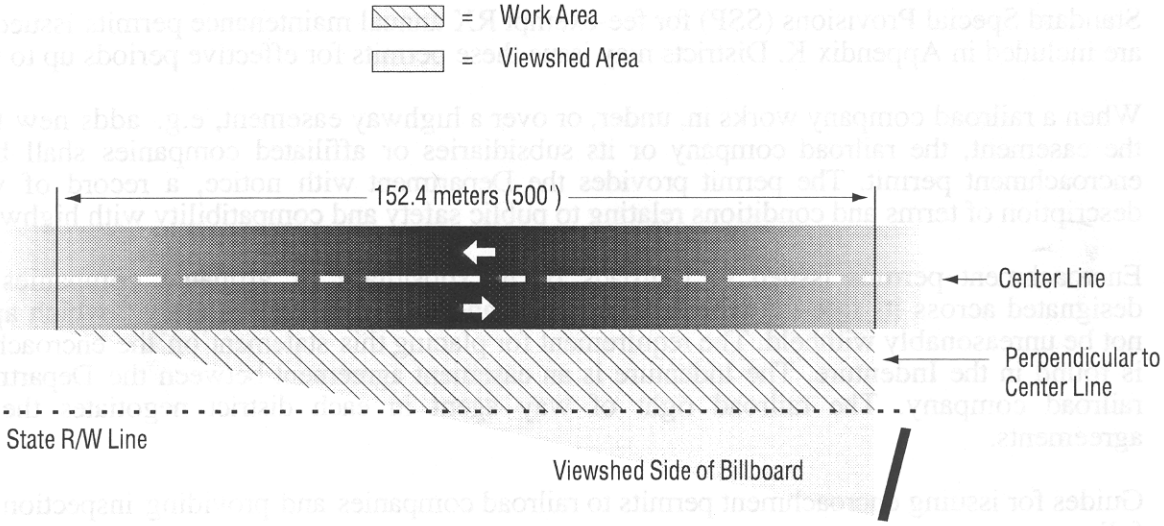
1. Work shall be performed in accordance with the guidelines of the International Society of Arboriculture--current ANSI A300 Standards.
2. Visibility improvement modification shall not detract from appearance, compromise function, or adversely affect the maintainability or longevity of the vegetation. Within these limitations, the intent is to maintain:
   Visibility of off-premise displays; and,
   Identity of on-premise business establishments adjacent to the freeway. Pruning or removal of vegetation to provide showroom visibility of businesses, being able to view window or exterior displays of merchandise or services, is not allowed.
3. Frequent light pruning of vegetation is the preferred method of achieving visibility improvement. Pruning shall not disfigure or compromise the plant's health.
4. Removal of more than 25% of the tree's canopy is not allowed.
5. Removal of obstructing vegetation will only be considered if replacement vegetation is installed and maintained until established by the permittee as directed by Caltrans. Replacement vegetation may be installed in the location of the removed vegetation or at other locations in the vicinity as directed by Caltrans. Where replacement vegetation is to be installed, the overall aesthetic quality of the existing landscaping should not be changed. The District Landscape Architect will evaluate the need for coordination with the local community when vegetation is to be removed and replaced.
6. Installation of new irrigation systems or modification of existing systems necessary to accommodate a change in type of plant material, additional plants, or for relocated plants shall be considered as integral to the requested work.
7. Where planting is owned and maintained by the local jurisdiction, e.g., on a conventional highway, visibility pruning and replacement planting should comply with the requirements of the local jurisdiction.
8. For displays on American Indian Reservations, Caltrans may issue permits for visibility improvement pruning according to these guidelines.
9. Pruning may be delayed until the horticultural appropriate time of year.
10. Bonding or a cash deposit may be required.
11. State agencies are required to preserve and protect native oak woodlands and to provide for replacement plantings whenever Blue, Engelmann, Valley or Coast Live Oak is removed from native woodlands (Senate Concurrent Resolution No. 17, passed September 1989).

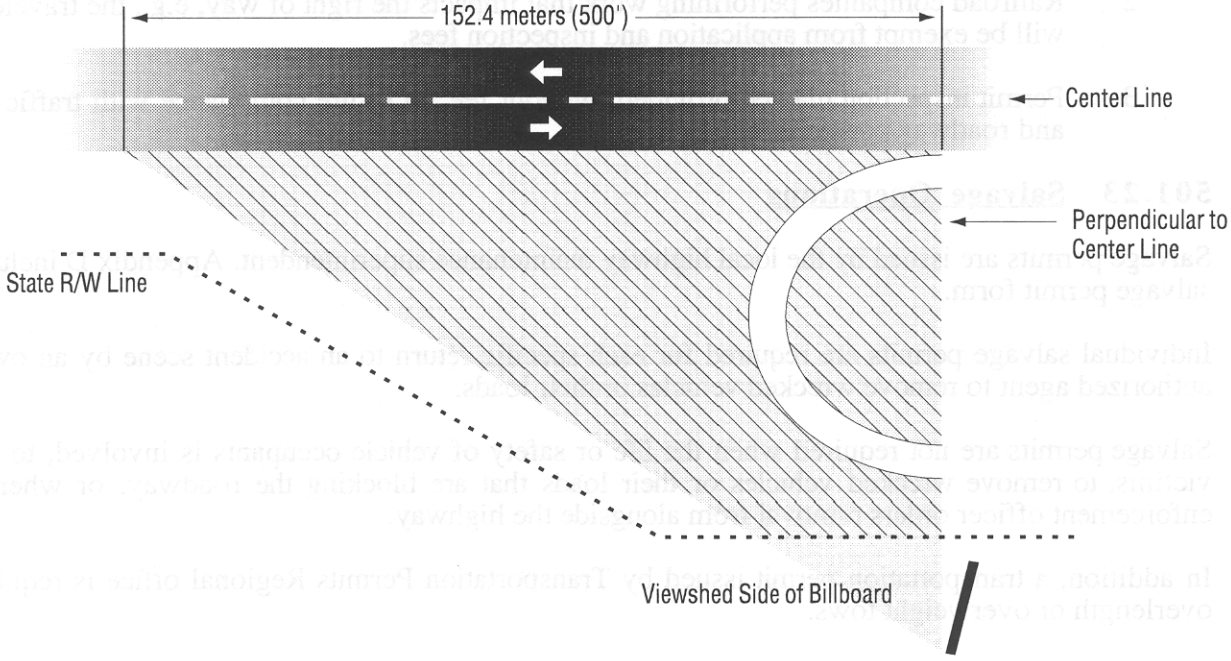
Median Plant Pruning

1. Permits to prune plants in the median are intended to be used on sections of highway that are currently being pruned, or need pruning for safety.
2. Reasonable starting and stopping points for the median pruning should be considered, such as:
   At overcrossings, undercrossings, bridges or similar structures.
   Beginning or ending of a planting or breaks in the planting of 200 ft. (61 m) or more.
3. The permit should specify traffic control and access requirements including access times, dates, and special access requirements. The permit should also include: the time of year to prune, the type of equipment to use and any special treatment required shall be based on the types of plants, site conditions, and geographical location of the project.
4. Plants are to be side-pruned to a width sufficient to provide clearance required for the safety of the traveling public. Plants shall be top-pruned to a height not lower than 5 ft. (1.5 meters) measured from the higher paved shoulder.

Typical Visibility Improvement Limits

Shaded Areas Show Maximum Work Areas to be Considered for Visibility Improvement





510 ROAD APPROACHES AND DRIVEWAYS

In granting a new public road connection, the California Transportation Commission action sets the terms and conditions of construction, which usually consist of specifying local and State responsibilities for right of way and construction costs of the new connection. These responsibilities usually are determined through negotiation, taking into consideration the California Transportation Commission's funding policy for interchanges adopted on April 26, 1984. New at-grade connections on existing expressways are approved only if the State pays no construction or right of way costs.

Cases will occur where it is not clear that a proposed connection would qualify as a "public road." The circumstances in each case must be evaluated and a determination made after consultation between the district and headquarters. Curb returns must have review consideration in a PEER or project report if the connection is not publicly owned and maintained.

Caltrans' policy is to use existing access safely and minimize the number of new access points to a State highway. Access on controlled access highways is limited by deed conditions. An increased use is not appropriate when the deed restricts access to a specific use. This usually applies to applicants wanting to use an agricultural or single-family access opening for commercial purposes.

The impacts of both initial and ultimate development must be assessed when a development requires a new connection to the State highway. The developer must mitigate adverse impacts on the State highway caused by the developer's initial and ultimate development. Add conditions to the permit that cause the developer to provide mitigation measures in a specific phase of future development if both initial and ultimate impacts are not mitigated in the first phase of development.

Growth inducement and its impact upon traffic generation must be evaluated. Environmental documents usually contain the information needed to make an evaluation. The permittee is responsible for mitigating conditions the proposal generates (such as increased traffic) which cause an existing private road approach to become unsafe. The permit may need to be updated and modified to address those unsafe conditions. Legal should be consulted to revoke the permit if the unsafe condition cannot be mitigated or the permittee fails to comply with the permit provisions. For information regarding unauthorized driveways see Section 206.3.

510.1 Commercial Driveways
Permit Code RC

RC permits authorize driveways for service stations and other commercial establishments. Access from the highway also is discussed in the Highway Design Manual. A clear distance of at least 10' (3.04 m) is required between a gasoline pump block and the right of way line (see the State Fire Marshal Administrative Code).

Permits shall not be issued for servicing vehicles parked on State right of way. These establishments should be set back on private property to allow for service outside the right of way.

510.2 Resurface/Reconstruct/Reissue Driveway Encroachments
Permit Code RM

RM permits allow resurfacing or reconstruction of single family and agricultural driveways that were authorized by a previous permit. RM permits are also issued to new owners of existing driveway encroachments.

510.3 Public or Private Road Approaches
Permit Code RP

RP permits authorize construction and maintenance of a public or private road approach to a State
highway facility.

City streets, county roads, and public highways are referred to collectively as public roads. A "public road" is defined to include:

- A road maintained for general public use that has dedicated right of way or easements and serves multiple property ownerships.
- A road maintained at public expense and that connects to a public agency facility serving the general public, such as a State park, a county government center, a city dump, an Indian reservation, etc.

A public road usually exceeds one-quarter mile in length. It functions as part of the local circulation system providing access to land uses indicated in local general plans. The California Transportation
Commission may require that construction of a public road be started when Caltrans grants a permit for connection of the road to the State highway. The California Transportation Commission also may require that authorization for a new road connection be voided if construction of the public road is not undertaken within a specified period.

A private road connection to the State highway system is any connection other than public road connections and driveways. For example, a private road connection includes a stub connection, which is a publicly used access opening. A stub connection usually is less than one-quarter mile in length, and serves privately-owned property which is (or is planned to be) used for commercial business or other development (for example, a shopping center, manufacturing plant, industrial park, condominium complex, etc.). This definition does not preclude a city or a county from having jurisdiction and maintenance responsibility over a proposed stub connection, but such would not relieve the property owners from paying compensation for the private access rights to be acquired from other private property owners.

New private road connections on controlled access highways are handled as right of way transactions using Director's Deeds, and are processed through the California Transportation Commission. Compensation is obtained for the enhancement of values, which is based on appraisals of the property with and without the new private connection less the appropriate costs of any required State highway modifications or mitigation. The compensation never is less than

the value of State highway modifications or mitigation measures required for Caltrans to accommodate the new access.

Descriptions of road approaches in the design manual are condensed. Complete and detailed procedures for review and approval by the California Transportation Commission are described in Caltrans' Project Development Procedures Manual.

510.4 Single Family and Agricultural Driveways
Permit Code RS

RS permits authorize construction and maintenance of driveways that provide access to private single-family residential and agricultural properties along conventional highways. The driveway permit should be issued to the property owners responsible for continued maintenance. These driveways may serve more than one resident when an easement for joint use is established. However, districts may determine that a driveway serving more than three residents is a private road, and require the facility to meet higher design standards.

Driveway standards are described in Caltrans' Highway Design Manual. Proposals located in areas having curbs, gutters, and sidewalks shall conform to the Standard Plans. Rural driveways shall meet the minimum standards shown in Appendix J, but districts can require additional standards to protect the highway and the public.

The portion of a permanent rural driveway located within Caltrans' right of way shall be surfaced with AC paving to the right of way line or 33' (10.05 m) from the edge of traveled way, which ever is less. The remaining portion located on private property does not require AC surfacing.

Districts may encourage, but cannot require, additional paving beyond the maximum 33' (10.05 m) from the edge of traveled way. Unless AC surfaces are required for safety of operation, districts may approve aggregate base driveways for intermittent farm field access for plowing and harvesting, or for construction, logging, and other driveways that are obliterated and removed after the work.

Before issuing an encroachment permit to establish a driveway for a logging operation, the permit engineer should review the California Department of Forestry's (CDF) timber harvest plans. These plans are sent from the IGR Coordinator to the permit office.

510.5 Standards for Road Approaches and Driveways

Any issued permit that does not meet the minimum standards shown in Table 5.17 must include written documentation from the district traffic or project development engineer explaining the reasons for allowing any deviation. The permanent file for the permit shall include such written documentation.

Fire Safe Regulations adopted by the California Board of Forestry affect construction along roadways in unincorporated State Responsibility Areas. These regulations affect encroachment permit work on some State highways. Except for signs, Caltrans' standards for driveway and roadway connections exceed the standards in the Fire Safe Regulations and must be maintained.

The regulations include mandatory signing standards, which Caltrans has approved, and Caltrans will authorize the permittee to install and maintain signs mandated by the regulations.

Table 5.17
Minimum Standards for Road Approaches and Driveways

Road approaches and driveways generally must comply with these minimum standards:

1. Standard private and commercial road approaches in rural areas with unimproved frontage on conventional State highways shall conform to requirements shown in Appendix J.

   Exceptions may be made on low-traffic highways or where a highway is non-standard or is to be soon abandoned. Such exceptions are approved by DLP.

2. Design of urban driveways with improved frontage, and design of access openings on expressways, shall be in conformance with Caltrans' Highway Design Manual.

3. Public road connections to freeways, and the crossing of freeways, must conform to the provisions of Caltrans' Project Development Procedures Manual.

4. Wheelchair ramps at curbed public road connections must conform to Caltrans' Standard Plans.

511 RIDER

A permit rider is issued to amend an approved encroachment permit. Districts may issue a rider if the permittee seeks to modify authorized work or cannot complete the authorized work by the date specified in the permit. Caltrans also may initiate a rider to modify permit requirements. Applicants amending their approved encroachment permit must comply with Caltrans' requirements and pay additional fees as necessary for review, processing, and increased inspection.

The rider form must be Simplex-numbered and cross-referenced to the original permit.

511.1 Rider Initiated by Caltrans
Permit Code RD

RD permit riders may be initiated by Caltrans to modify permit requirements. The rider also can concurrently extend permit expiration. Riders should not be initiated solely to change the name of a permit inspector; that change is made by letter.

When a permittee cancels a permit before starting work, Caltrans should issue a RD rider to terminate the permit and close the file. Inspection costs are refunded according to accounting procedures described in Chapter 2.

511.2 Rider for Time Extension
Permit Code RT

RT permit riders are issued for time extensions that commonly are requested by the permittee. They are issued after payment of a fee, normally a minimal one-hour charge. The permits office

should ensure that the requested time extension would not affect planned maintenance or construction by Caltrans. Time expended to coordinate a permittee's request when it affects Caltrans' work is charged to the permittee before the rider is issued.

Caltrans may initiate time extension riders to extend a contractor's permit when the owner's permit has been extended at the owner's request; this action ensures that the contractor has a valid permit for the approved work. Caltrans also may initiate time extension riders to correct errors.

511.3 Rider to Modify Work
Permit Code RW

RW permit riders are issued at the permittee's request to modify work and only after review and approval by appropriate Caltrans' units. Generally, the modification must be an integral part of work authorized under the original permit. Reviews for modified work are coordinated in the same way as permit applications and are not started until the permittee provides a deposit to cover estimated review costs.

After plan approval, the permittee must submit a fee to cover any additional review and estimated inspection costs associated with new work. When the new work is substantial and may require extensive inspection, the permit engineer has the option of changing an "As Set" permit to "Actual Cost" inspection when the rider is issued.

512 RAILROAD GRADE CROSSING
Permit Code RX

All new railroad grade crossing applications are sent to headquarters Division of Rail, Design and Local Programs (DLP), and Structures for review, and must include full details and the district's recommendation. Details include:

1. Service to be rendered.
2. Commercial development dependent on proposal.
3. Engineering features.
4. Railroad operation.
5. Volumes of traffic.
6. Description and sketch of crossing location.
7. Effect on highway operation.
8. Railroads property rights and CPUC action.
9. Construction requirements, etc., considered necessary by the district for protection of public traffic.

These details are incorporated in special provisions for railroad construction projects.

Fee-exempt permits are issued to railroad companies for constructing or maintaining their existing grade crossings even though the work impacts the highway. In almost all cases where railroad bridges cross State highways, Caltrans does not own the right of way but crosses the railroad property by easement or agreement. These agreements control how Caltrans can utilize

railroad property for highway purposes. However, State statutes also give Caltrans authority to permit activities within the area dedicated to highway use, including railroad maintenance operations that affect the highway or traveling public.

Standard Special Provisions (SSP) for fee-exempt RX annual maintenance permits issued to railroads are included in Appendix K. Districts may issue these permits for effective periods up to two years.

When a railroad company works in, under, or over a highway easement, e.g. adds new tracks within the easement, the railroad company or its subsidiaries or affiliated companies shall be issued an encroachment permit. The permit provides the Department with notice, a record of work, and a description of terms and conditions relating to public safety and compatibility with highway purpose.

Encroachment permits issued to railroads or its subsidiary or affiliated companies shall have designated across its face the words "For Notice and Record Purposes Only," which approval shall not be unreasonably withheld. The requirement for placing this statement on the encroachment permit is found in the Indenture. The Indenture is an easement agreement between the Department and the railroad company. The railroad right of way agent in each district negotiates these easement agreements.

Guides for issuing encroachment permits to railroad companies and providing inspection are listed as follows:

1. Permits issued to railroad companies performing construction or maintenance work, whether or not the work is limited to within the easement, shall be fee exempt. Fee exemption pertains to permit preparation and inspection.
2. Railroad companies performing work that impacts the right of way, e.g., the traveled way, will be exempt from application and inspection fees.
3. Permit inspection may be provided, without fee, to insure compliance with traffic control and roadway construction.

Additionally, railroad companies enter into lease agreements with communication service providers to install fiber optic cables within their right of way. Some of these cables pass through easements (e.g., grade crossings or grade separations) acquired by the Department from the railroads. Although the Department is under an easement agreement to use their property for highway purposes, the railroad retains the right to allow other uses of their property provided the lessee's activities do not conflict with highway safety or operation.

A fee exempt encroachment permit should be issued to the provider for installing fiber optic cable within the Department's easement. Permits are marked "For Record Purposes Only." The railroad company controls the location and inspection of the cable installation while the district performs inspection to mitigate potential highway and traffic impact.

513 CALTRANS CONSTRUCTION CONTRACT (EARLY ENTRY)
Permit Code SC

On rare occasions, district Construction allows a contractor to start work before signing a State highway contract. An encroachment permit must cover this early entry into the right of way. As a condition of early entry, a contractor shall have bonds and insurance policies in force before permit issuance.

A contractor on a State highway contract must file a statement regarding workers' compensation insurance before starting work (see Appendix D). All Caltrans construction contracts contain this statement, so that compliance is met upon receipt of an executed contract. The contractor must sign and submit the form with the permit application. The form reads:

> "ATTACHMENT NO. 1 TO APPLICATION FOR ENCROACHMENT PERMIT
> CERTIFICATION BY CONTRACTOR FOR CONTRACT NO._____
>
> I am aware of the provisions of Section 3700 of the Labor Code which requires every employer to be insured against liability for worker's compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this contract.
>
> _____
> Contractor
>
> Licensed in accordance with an act providing for the registration of contractors
> License No. _____."

The permit engineer must contact district Construction before issuing the permit to ensure the contractor's request is acceptable and obtain the resident engineer's name for inspection purposes.

Encroachment permits issued to State contractors for borrow or disposal areas outside the contract limits are similar to a Notice to Relocate and are exempt from permit fees when those locations are designated in the contract. If locations are not designated in the contract, the contractor must obtain a lease from Right of Way and an encroachment permit.

514 SPECIAL EVENTS
Permit Code SE

The term "special events" as used in this Section refers to a marathon, bike-a-thon, walk-a-thon, parade, or other local celebration to be held on a State highway facility in such a way as to directly impact vehicular traffic on a State highway facility. Generally, a special event is an activity that is not consistent with the primary use of the State highway system and, therefore, closing a portion of a State highway and/or using special traffic control by Caltrans is necessary. However, the definition of what is (and what is not) a special event is subject to interpretation.

Because of the wide variety of requests that may be received, no attempt is made to develop a definition of "special event" that could cover all possible situations. In most cases, the District Permit Engineer should be able to decide if a proposed event falls within the above definition of

"special event." If a proposed event does not clearly fall within the definition in this Section, the District Permit Engineer should discuss the proposal with the Headquarters Permit Engineer.

Hundreds of permits are issued each year throughout the State for special events. Special events can cover a wide range of activities and may involve one or more districts. Typical events include parades, marches, bicycle events, running events, sidewalk sales, and other activities. When several districts are involved, a lead district is designated by headquarters Permits and a single permit is issued by the lead district after coordination with the other district(s).

Not more than 4 (four) permits for the same activity at the same location shall be issued in any calendar year (Section 682.5 of the Streets and Highways Code).

Permittees are responsible for all traffic control and fees for special events, and shall independently coordinate all activities with other affected jurisdictions.

Special event activities that conform to the California Vehicle Code and do not interfere with public traffic do not require a permit, or are handled by the Traffic unit as an incident-response, as for example, high-density traffic before and after a major football game.

Whenever a special event is allowed, the Department may restrict the use of or close any State highway whenever the Department considers such closing or restriction of use necessary (Streets & Highway Code Section 124):

(a) For the protection of the public.

(b) For the protection of such highway from damage during storms or during construction, improvement, or maintenance operations thereon.

The Department's authority to issue encroachment permits for special events on State highways is derived from Streets and Highways Code Section 124, 670, and 682.5.

Legal authority for a local legislative body, e.g., city or county to close portions of State highways for special events comes from Sections 21101 and 21104 of the California Vehicle Code. These sections read in part:

> **Section 21101** Local authorities may adopt rules and regulations by ordinance or resolution on the following matters:
>
> (e) Temporarily closing a portion of any street for celebrations, parades, local special events, and other purposes when in the opinion of local authorities having jurisdiction such closing is necessary for the safety and protection of persons who are to use that portion of the street during the temporary closing.
>
> **Section 21104** No ordinance or resolution proposed to be enacted under Section 21101 or subdivision (d) of Section 21100 is effective as to any highway not under the exclusive jurisdiction of the local authority enacting the same, except that an ordinance or resolution which is submitted to the Department of Transportation by a local legislative body in complete draft form for approval prior to the enactment thereof is

effective as to any State highway or part thereof specified in the written approval of the Department.

In addition, districts should consider the following questions before deciding to issue or deny an encroachment permit for a special event. At the discretion of the District Permit Engineer, issued permits may include provisions to resolve these questions:

- Is there a staging area for event participants, and is there the potential for traffic operational problems at the staging area?
- Has the applicant obtained the cooperation of local law enforcement?
- Has the applicant made arrangements for emergency services for participants if needed?
- Has the applicant established clear rules for event participants, and have these been communicated to the participants?
- Are pets allowed in the event?
- Are sweep vehicles needed to pick up any stragglers at the end of the event?
- Are there any restrictions such as no bicycles, no skates, or other wheeled contrivances?
- Are there any restrictions on the age and physical condition of the participants?
- Have public transit agencies been notified of the event if it might affect transit operations or schedules?
- Is it necessary to notify emergency services such as police and fire departments? Have arrangements been made for passage of these vehicles through or around an event?
- Clean up

514.1 Conditions and General Requirements for Special Events

Unsafe special event activities are not permitted on State highways. Caltrans approves specific events only when all concerns are mitigated.

Caltrans' general policy requires traffic control for permitted special events be provided by a competent traffic control specialist retained by the permittee. The District Director is authorized to specify State personnel for traffic monitoring and control.

Permit Standard Special Provisions require notification of State legislators and local elected officials that serve the area affected by special events having significant traffic impacts.

Each special event permit shall include the General Provisions, which are attached to all SE encroachment permits.

An event may be canceled, postponed, or terminated at any time if, in the opinion of Caltrans, weather or other conditions present unacceptable hazards. This clause shall be included in the permit:

> "If rain, fog, or other elements significantly affect safety for event participants or vehicular traffic, Caltrans may take whatever action is necessary to protect the public.

Also, if for some unforeseen reason the traffic demand for the State facility significantly exceeds the anticipated demand, it may be necessary to terminate the event."

The permittee shall pay required fees and charges. These fees include review and analysis of traffic handling proposals, answering correspondence, coordinating with law enforcement agencies, etc. In addition, the California Transportation Commission has established the following requirement by Resolution G-18 (8-25-78):

" . . . that a toll charge equal to that charged for a 7-axle truck be and it is hereby established for each such event involving the use of a state-owned toll bridge . . ." The event sponsor shall provide a bridge toll receipt as proof of payment prior to permit issuance.

Encroachment permit fees are not required of nonprofit organizations possessing a resolution for conducting municipal parades that are considered a civic event. For example, to qualify for fee exemption, parades are held on legal holidays such as: Independence Day, Veterans Day, etc., and conducted by veterans' organizations, schools, and youth organizations.

The applicant shall provide proof that the responsible enforcing agency is aware of the special event and that special enforcement will be provided if it is necessary. This proof shall be documented.

Caltrans issues encroachment permits to cities, counties, and nonprofit organizations for special events and cooperates with a special event sponsor, but shall not be considered a sponsor or cosponsor of any event. Permits are issued only when:

1. The event is sponsored by a nonprofit organization.
2. Local interest and support for the activity is evidenced by an ordinance, resolution, or written consent (see Appendix I) from all local governments impacted directly. Local resolutions are required for all special events unless a prior resolution clearly shows the intent to cover repeat events. For example:
    - If a previously-adopted resolution (still in effect) shows the intent to hold the special event on an annual basis, or
    - Written approval is provided from an individual delegated authority by the elected body by ordinance (see Appendix I).
3. The time and date of the event are acceptable to Caltrans and are specified on the permit to maximize safety and minimize traffic disruption. Event sponsors are required to schedule events at a time when traffic volumes are low. If the event requires lane closures, an analysis must be made to determine whether remaining lanes can carry expected traffic volumes. A lane closure shall be limited to the shortest period of time necessary to hold the event.
4. The proposed use will not significantly detract from the safe operation of the highway, unreasonably delay or inconvenience the traveling public, or expose participants to unusual hazards. Safe operation for the motoring public and the event participants is a

primary concern when planning special events. If the event requires using a lane next to high-speed traffic, it is desirable to provide a buffer lane between the event lane and live traffic lanes.

When a buffer lane cannot be provided, detouring traffic around the event should be considered. A detour route should take into account traffic volumes, length of detour, and impact on emergency vehicles. The encroachment permit shall define the route for event participants and include the detour plan.

5. The applicant provides insurance to cover the State's potential liability.

514.2 Nonprofit Organizations

For the purpose of allowing special events on State highways, Caltrans issues encroachment permits only to nonprofit organizations as defined in Title 26, United States Code under Section 501(c)(3), (4), (6), (7), (8), and 501 (d) [IRS Publication 557]. Political organizations and other special interest groups **do not** qualify as nonprofit.

A nonprofit organization must satisfy all of the 5 categories listed as follows:

1. Is the applicant one of the following?
   - A corporation
   - A community chest
   - A fund or foundation
   - A civic league or organization (boy scouts, veteran's organization, etc.)
   - A chamber of commerce or a business league
   - A recreational club
   - A fund or foundation, a fraternal beneficiary society, order or association (lodges--elks, moose, etc.)

2. Is the organization formed and operated exclusively for one or more of the following purposes?

   - Charitable
   - Religious
   - Scientific
   - Testing for public safety
   - Literary
   - Educational
   - The prevention of cruelty to children and animals
   - National or international amateur sports competition (only if none of its activities provide athletic facilities or equipment)

3. None of the organization's net earnings benefit private shareholders or individuals.

4. None of the organization's activities is propaganda, influencing legislation, or a political campaign.

5. None of the proposed activities can include vending within the State right of way (see Section 514.6) unless vending is an incidental part of the special event (authorized under Section 682.5 of the Streets and Highways Code).

514.3 Categories of Special Events

Special events are classified in one of the two following categories:

Category 1 —Events held on freeways, expressways, or toll bridges.

Written approval by the Program Manager Traffic Operations Program is required before issuing a permit for Category 1 events. Headquarters Permits obtains approvals, denials, or modifications with justification for new special events.

Headquarters approval is required for any event or activity on controlled access or toll facilities. Once an event or activity has been approved, subsequent approvals are not required unless the event or activity changes significantly or if operational conditions on the facility change considerably.

Category 2 —Events held on conventional State highway facilities or local facilities where special traffic control on a State highway is necessary.

The District Director or his representative may approve encroachment permits on conventional highways--Category 2.

514.4 Special Events on Freeways, Expressways, Toll Bridges, and the Interstate System

Special events are normally banned from freeways, expressways, and toll bridges. However, some events, such as marathons or nationwide events requiring lane closures, ramp closures, and traffic control are allowed under an encroachment permit. In some cases, e.g., the Olympic Torch Run and activities on toll bridges, the event moves over portions of controlled access highways.

FHWA approval is required for special events on the Interstate system and not required for non-interstate highways. The permit engineer should obtain FHWA approval when the event is defined sufficiently to establish impact on the Interstate facility.

The policy of the Federal Highway Administration (FHWA) is to ensure that operation and maintenance of the Interstate system enhances safety and minimizes disruptions. To ensure FHWA is aware of special events that affect the Interstate system, Caltrans' normal operating procedure is to provide information to FHWA by telephone at the earliest possible date.

Exchanging information regarding the event provides FHWA an opportunity for input and approval plus background for response to any inquiries it receives. FHWA engineers are assigned to districts and their names are available from district Project Development.

514.5 Joint Policy Guidelines for Special Events

Caltrans and the CHP have adopted joint policy guidelines for special events on conventional State highways to ensure consistent Statewide treatment of events and to provide criteria that can aid local agencies in their planning for similar activities (see Appendix E).

The guidelines apply only to highways over which both CHP and Caltrans have jurisdiction. The guidelines do not preclude the development of additional guideline criteria by local CHP commands and Caltrans districts covering specific problems of mutual concern or interest.

The applicant shall submit a completed encroachment package for a special event permit to Caltrans for review and approval. The package shall include the materials listed in Table 5.18.

Table 5.18
Encroachment Package for Special Events Permits

The final encroachment package submitted to Caltrans by the applicant shall include these materials:

1. A completed and signed application for an encroachment permit and the appropriate fee.
2. Traffic control plans.
3. If required, detour plans approved by the affected governments.
4. Resolutions or approvals from all impacted governments indicating formal approval of the special event and detour plans. Resolutions should conform to Caltrans' sample format (Appendix I).
5. A certificate of liability insurance naming the State of California, its officers and employees as additional insured and in an amount determined by Caltrans to be appropriate for the event.

   Cities, counties, public schools, local improvement districts, and other local or State agencies are exempt from insurance requirements.

514.6 Special Events Involving Vending

Street festivals involving vending and sidewalk sales within State highway right of way is allowable with city or county sponsorship or approval under Streets and Highway Code, Section 682.5.

Encroachment permits may be issued to cities and counties (not to the nonprofit organization) for the use of highways within their boundaries or to community-based nonprofit corporations for special events involving vending. A community-based nonprofit corporation is a corporation formed under the Nonprofit Corporation Law (Division 2, commencing with Section 5000, of the California Corporation Code) having an office located within the county where the special event is held.

A community-based nonprofit corporation must obtain an acknowledgment from the city or county before permit issuance. Acknowledgment refers to a city or county issued special event permit, road closure or detour permit, or letter of permission authorizing the special event for which an encroachment permit from the Department is sought.

Caltrans' permits for special events are issued in accordance with current Joint Operational Policy Statement adopted by the California Highway Patrol and Caltrans.

514.7 Liability Insurance for Special Events

The General Provisions that accompany the encroachment permit hold the permittee responsible for all liability for personal injury and property damages (see Section 203.3 and Appendix K).

Special events are classified as low, medium, or high risk and categorized as follows:

1. Low Risk Events

   - The event is held on a conventional highway with low traffic volume.
   - Traffic control forces are hired by the law enforcement agency having jurisdiction, or by a professional event sponsor.
   - An approved detour is available.
   - Event participants number less than 250.
   - Expected spectator draw is less than 2,000.
   - Event duration is normally one day.
   - The duration of the event is normal for that type of event.

2. Medium Risk Events

   - The event is held on a conventional highway with moderate traffic volume.
   - Traffic control is provided by: a law enforcement agency having jurisdiction, a professional traffic control company hired by the event sponsor, or by a non-professional furnished by the event sponsor.
   - An approved detour is available.
   - Event participants number between 250 and 500.
   - Expected spectator draw is between 2,000 and 5,000.
   - Event duration is one or two days.
   - The event's duration is normal for that type of event.

3. High Risk Events

   - The event is held on a conventional highway with high volume.
   - Any event held on controlled access highways or toll bridges.
   - The event requires rolling traffic closures.
   - The number of participants exceeds 500.
   - Expected spectator draw is greater than 5,000.
   - Grandstands, bleachers or other structures for spectators, participants, or officials are erected on State right of way.
   - Event duration continues for three or more consecutive days.

- The duration of the event is **not** normal for that type of event.

Although an event may not fit specifically into one of these three categories, the district determines the appropriate risk category and establishes insurance coverage accordingly. Freeway ramp closures normally do not require insurance for special events occurring outside the right of way.

Table 5.19 indicates the general criteria for the three risk categories. When the risk of an event is believed to be unusual, the districts should contact Headquarters Permits to obtain an insurance amount beyond those indicated in Table 5.19. District permit engineers should review high-risk special events and present the information to Headquarters Permits. Caltrans Legal will establish an insurance amount.

Table 5.19
Insurance Requirements for Special Events

	Low Risk		Medium Risk		High Risk *
Coverage	Dual Limit	Single Limit	Dual Limit	Single Limit	
Bodily Injury					
Each Person	$ 500,000	$1,000,000	$1,000,000	$2,000,000	*
Each Occurrence	$1,000,000	$1,000,000	$2,000,000	$2,000,000	*
Property Damage					
Each Occurrence	$ 250,000	$1,000,000	$ 500,000	$2,000,000	*
Aggregate	$ 500,000	$1,000,000	$1,000,000	$2,000,000	*

* *For high-risk events, consult Headquarters Permits regarding amounts for dual-limit and single-limit bodily injury and property damage.*

515 SIGNALS AND LIGHTING
Permit Code SN

SN permits are issued for new or modified traffic signals and street lighting. Most SN permits require a PEER before issuance.

515.1 New Facilities or Modifications to Existing Facilities

Local agencies and developers may propose new or modified traffic signal and street lighting facilities. New signals and State-owned safety lighting shall meet warrants and require agreements for cost and maintenance. Permits for these installations are issued only when a PEER or project report is approved and final plans are signed by a registered engineer and approved by Caltrans.

Local agencies, utilities, and developers often propose continuous lighting along improved highways for future ownership and maintenance by the local agency. Caltrans cannot authorize ownership by private entities and permits are not issued unless the application is made by a local agency. The permit to the agency either can mimic the permit issued to the private entity for the

installation, or it can include text stating “Own and maintain street lighting facilities installed by ‘X’ under Permit Number ___.”

Design and construction standards for signals and lighting shall conform to the Drafting and Plans Manual, State Standard Plans, Standard Specifications, Traffic Manual, and the Signal and Lighting Design Guide. For continuous street lighting, the installations may conform to local standards, but districts should ensure that the facilities meet minimum requirements for wind loading, breakaway, and location in the right of way. The district Traffic Electrical unit determines when lighting installations are considered safety lights that may require ownership by Caltrans.

When permit work for signals and State-owned lighting is completed, the as-built plans are signed by the appropriate inspector and copied for Traffic Electrical and Maintenance. Permit inspectors and Maintenance electrical staff should ensure that copies of as-built plans for signals are placed inside traffic signal controller cabinets.

Plans for installation of traffic signals and lighting designed by private and local agency engineers should be reviewed by the district Traffic unit. Caltrans’ Traffic Manual and the Signal and Lighting Design Guide provide current State standards. If roadwork is involved, the entire package shall be reviewed by Traffic Electrical (i.e., signal and lighting plans, striping plans, roadway plans, and any contract specifications or special provisions).

Minimum plan requirements for work involving or affecting signals, lighting, and electrical systems are shown in Table 5.20. The permittee shall provide Permits with one (1) 20' (1: 240) scale reproducible film and three (3) blueline prints of as-built plans within 30 days after completing authorized work.

Table 5.20
Minimum Plan Requirements for Signals, Lighting, and Electrical Systems

Plans for signals, lighting, and electrical systems must comply with these minimum requirements:

1. Separate 20' (1 : 240) scale plans on standard layout sheets 22"x 34" (559 mm x 864 mm) are required.
2. Reproducible film media, with blueline prints provided for review, are required.
3. Using an existing as-built reproduction as a plan base is not acceptable.
4. Design details (such as right of way lines, striping, crosswalks, and handicap ramps) shall be shown on the signal and lighting plans.
5. All supporting documentation must be provided (for example, draft environmental impact reports, traffic studies, and traffic warrants).
6. These are general requirements; districts may require additional submittals for approval.

515.2 Traffic Signal Controllers

The Department provides, from its warehouse inventory, Traffic Signal Controllers for encroachment permit projects on State highways. This policy applies to each new and existing traffic signal including those at the intersection of freeway ramps and local streets, whether they are maintained by the State or by a local agency.

The Department will, for cooperative agreement projects and other locally funded projects involving signal systems on State highways, provide controllers to local agency permittees as a part of the State's contribution to the project if that obligation is so stated in an executed agreement. Also, the Department supplies controllers as a State furnished item when stated in the Permit Engineers Evaluation Report (PEER) or the Project Study Report/Project Report (PSR/PR). When projects are privately funded, the State shall be reimbursed for controller assembly, inspection, delivery, and installation cost (see Guidelines for Controller Assembly distribution - Appendix E).

515.3 Payment for Signal Traffic Control Equipment

When the Department supplies equipment for signalization projects, the cost of this equipment shall be shown in the "Equipment & Materials" section of the "fee calculation" sheet, page 2 of the application, and collected in full prior to issuance of the permit. The amounts charged shall coincide with the prices listed on the Guidelines for Controller Assembly distribution - Appendix E.

516 SURVEYS
Permit Code SV

SV permits may be issued for property survey work, traffic counts, research and materials investigations, test wells, and preliminary surveys for highway improvements, depending upon accessibility, traffic conditions, available highway facilities, etc. Requests for survey assistance and an estimate of costs should be referred to the District Surveys Engineer or responsible unit.

516.1 Multi-year Survey Permits (Annuals)

Multi-year permits are issued for a two-year period only on conventional highways, for land surveys and research projects funded by FHWA. Districts may also issue multi-year permits for soil surveys, traffic counts, etc., when applicants have contracts for work district wide. Multi-year permits for individual companies with repeated permit violations will be canceled, therefore requiring individual permits for specific work locations.

516.2 Accident Reconstruction

Generally, Caltrans' policy is to prohibit accident reconstruction on State highways because of concerns about traffic impacts and liability. Encroachment permits shall not be issued for accident reconstruction except upon written recommendation by Caltrans Legal staff, or when required by court order. A court order allowing accident reconstruction does not exempt investigators from encroachment permit requirements. Table 5.21 outlines guidelines for issuing permits for accident reconstruction surveys.

Requests for accident reconstruction should not be referred to the California Film Commission.

Table 5.21
Guidelines for Issuing Permits for Accident Reconstruction Surveys

Permits authorizing accident reconstruction surveys shall conform to these guidelines:

1. Applications for accident reconstruction must supply:
   - Description of work.
   - Number of vehicles and support vehicles involved.
   - Number of persons involved in the investigation.
   - Filming or photography necessary.
   - Estimated time to complete the requested activity.
   - A certificate of liability insurance, as determined by Caltrans Legal, naming "The State of California, its officers and employees" as additionally insured.
2. Upon receipt of an application, the permit engineer shall request recommendations from district Legal.
3. Highway closures and detours shall be approved by Caltrans and the affected local agency. Closures not exceeding one hour are allowed if detours are unavailable and traffic volumes are low. Advance notification signs shall be placed a minimum of seven days before authorized closures.
4. Activities must be performed during daylight and conducted so that traffic in peak periods is not disrupted.
5. A preliminary meeting of Caltrans Permits, Caltrans Legal, and the permittee must be held before permit issuance to discuss proposed activities, required personnel, traffic control, timing, and other considerations. Local agencies, law enforcement, and legal representatives should attend when appropriate.
6. An operational meeting between Caltrans, the permittee, the private traffic control vendor, the California Highway Patrol (CHP), and others as appropriate is necessary before work begins to ensure that plans are finalized and participants are aware of individual responsibilities.
7. Reviews by district Traffic and Maintenance units are necessary to determine affects on State highway traffic, State-owned facilities, and the appropriateness of requested timing.
8. Unaltered accident reconstruction special provisions shall be attached to the permit, and permit text shall contain district special requirements. The accident reconstruction special provisions are located in Appendix K.
9. Estimated costs incurred by Caltrans shall be collected from the permittee before permit issuance.

516.3 Archaeological Surveys

Permits for archaeological surveys in State right of way are issued for site investigations at specific
locations. Applicants usually are colleges, universities, public agencies, and archaeology study groups hired to investigate sites identified in environmental impact reports. All applications are reviewed by district Environmental staff, with Maintenance and Traffic units often involved also.

Traffic and pedestrian safety is provided by the permittee when open excavations are proposed. Excavations are managed and protected in the same way as trenches adjacent to the traveled way.

An archaeological survey sometimes is required because finds are unearthed during the course of other permitted work. These investigations are approved by the original permit, and no other permit is issued.

516.4 Land Surveys

Land surveys within the freeway and expressway right of way are authorized only for future highway improvements and only for specific projects and locations. Permits shall specify the work involved and list a specific location for the work, and are not issued to cover numerous and varying work site locations. Annual or multi-year survey permits are not authorized for controlled access right of way, except for highway improvements funded by local agencies.

Permits for private surveys within controlled access rights of way are issued only for proposed highway improvements or when district Surveys indicates that it cannot provide information to surveyors for surveys outside right of way within a reasonable time. All survey permits on conventional highways must include unaltered special provisions. Districts shall cooperate with private surveyors by furnishing necessary information and survey reference points as needed to avoid work within controlled access right of way. Authorized surveys are restricted to areas of comparatively low traffic volume when the work can be performed safely and there is no interference to public traffic.

Surveys performed in areas of relatively heavy traffic volume, particularly in metropolitan areas, shall not include traffic control unless such measures are approved by Caltrans.

All encroachment permits involving land surveying shall contain the following statement:

> "If feasible, monuments should not be set within the traveled way. All monuments that must be set or perpetuated in paved areas, shall be constructed in accordance with Caltrans Standard Specification Section 81, 'Monuments' and Standard Plan A74, Type D, or equal with prior approval of the District Surveys Engineer."

516.5 Literature Distribution at Toll Bridges, On Ramps, etc.

The distribution of traffic questionnaires, e.g., origin and destination inquiries, to motorists at toll bridges, freeway on ramps, etc., is allowable provided the survey is beneficial to the Department. Surveys conducted for non-transportation purposes do not qualify. Organizations applying for a permit shall meet the conditions listed below (all exceptions are forwarded to Headquarters Office of Permits):

1. The method of questionnaire distribution shall be such as to minimize traffic impact.
2. The applicant shall obtain a policy of liability insurance naming the State as additional insured before permit issuance. Headquarters Legal determines the policy amount.
3. Person(s) distributing questionnaires at toll bridges shall be positioned at a location designated by the toll sergeant or as described in the permit.
4. CHP shall be notified when surveys are conducted on freeway on ramps.

5. Distribution or collection is not allowed at off-ramps.

516.6 Test Wells for Monitoring Ground Water

Under State legislation, counties and regional water quality control boards may require the owners or operators of underground storage tanks and parties responsible for hazardous materials spills to test for ground water and soil contamination. Test wells are one of several methods used to determine
contamination. In those situations where placement of test wells in the right of way is unavoidable, an encroachment permit shall be issued. The underground storage tank owner or operator shall apply for the permit. However, an engineer or other representative may apply when properly authorized by the owner or operator.

The following policies apply to drilling wells, temporary conduits, and discharging treated water into State highway drainage facilities:

1. Permits may be issued for test wells on conventional highways located safely outside the traveled way when no reasonable alternative exists outside the right of way.
2. Permits are **not** issued for drilling observation wells within freeway right of way to test for ground water pollution.*
3. Permits are **not** issued for discharging treated ground water or effluent into the State drainage systems.*
4. Permits are **not** issued for temporary conduits or pipelines through culverts. A transverse underground crossing permit is required.*

* Requests for exceptions are submitted to Headquarters DLP

Regional water quality control boards and county representatives oversee the testing well operation, abandonment, and compliance with the Department of Water Resources' standards. Since cleanup and abandonment approval may take 5 years or more, the districts should approve permits of prolonged duration.

Bonds are not normally required since little or no damage to the right of way occurs. However, should the district determine a significant disturbance to the right of way is anticipated or when permittee previously failed to perform to Caltrans standards, a minimum $2,000.00 performance bond or cash deposit is required.

516.7 Research Projects Funded by FHWA

The Federal Highway Administration (FHWA) occasionally funds traffic research projects involving California highways. Contractors performing such research work are subject to the conditions listed in Table 5.22.

Encroachment permits are required for research work conducted by contractors within the freeway right of way when: any personnel or stopped vehicles are within the limits of the freeway

right of way, any traffic control measures are needed, or any work will be done (such as placing traffic counters or markings on the pavement). Permits also are required for research work conducted on conventional State highways when traffic control measures are needed or when any work will be performed on the traveled way or shoulders. This permit may be issued as a biennial for long term studies.

When there is a direct contract between FHWA and Caltrans to conduct federally funded research, all permit costs are waived and the contractor is not required to post a bond. When there is not a direct contract between FHWA and Caltrans, the contractor is required to pay all permit costs and to post a bond when there is a potential for damage to the highway.

Table 5.22
Conditions for Research Projects Funded by FHWA

Research projects funded by FHWA are subject to these conditions:

Safety Equipment

- Safety equipment shall conform to provisions of Caltrans' Safety Manual.

Traffic Operations

- The contractor, as part of the research project, shall not flag, direct, obstruct, or interfere with public traffic or close lanes or shoulders. Any such work that is necessary is done by State maintenance personnel. A Caltrans maintenance employee must be present at all times for research projects that involve traffic control, lane closures or shoulder closures, or any work on lanes.
- The contractor's vehicles shall not have activated rooftop flashing lights. They shall not be parked on traffic lanes and shall be parked off the paved shoulder where practical.
- The contractor's work shall be done according to conditions of the Maintenance Manual, except when the encroachment permit provides other restrictions.
- Work on lanes and crossing of freeway lanes usually shall be prohibited unless the lane is closed. Caltrans' policies regarding limited-time work on lanes along highways that have low volumes apply only if authorized by the permit and only if traffic volumes are low.
- The contractor's personnel shall not be closer than six feet to moving traffic at any time.

Technical Equipment

- Caltrans cannot loan or rent to the contractor any equipment needed for research operations, such as time-lapse cameras, radar sets, etc.

Fires

- The contractor must comply with all local, State, and federal fire regulations. Open flames or fires are permitted only in vehicles parked over bare ground or pavement or when vegetation is wet and the appropriate officials have declared the fire season ended.
- The contractor shall have one shovel per vehicle when any work is performed in grass, brush, or forests during the dry season.
- Vehicles shall not be parked on tall, dry grass.

516.8 Soil Surveys

Soil surveys and material investigations are needed for the design of proposed structures, and are associated most often with future highway improvements. They generally are performed by core boring. Use of open trenching is limited by trench depth and is acceptable only in rural areas.
Districts can authorize core boring outside improved highway surfaces where equipment and work do not affect public highway use. Permit inspectors should monitor access to locations on freeways and require traffic control or shoulder closures for work next to shoulders or the traveled way. This permit may be issued as a biennial.

516.9 Traffic Counts

Permits for traffic counts are issued to public agencies and engineering firms for work on conventional highways and at freeway ramp terminals. District traffic staff can provide the most recent information available for State count locations, thereby avoiding excessive counting. Traffic reviews ensure that unsafe practices or locations are not used for counting traffic. The permit may be issued as a biennial.

Permittees must firmly anchor count tubes to the traveled way with tape. Anchor nails or bolts are acceptable at the edges of shoulders or at the lips of gutters. Placing anchors in the traveled way or in Portland Cement Concrete is not authorized, unless they are placed in a joint at the lip of a gutter or at the centerline. Permittees shall not place straps around State facilities to protect their equipment from theft, unless no other facility or location is available to which equipment can be secured.

516.10 Trenching and Shoring

Permits involving trenching and shoring must conform to requirements of the California Department of Safety and Health. If a shoring system is different than provided by Title 8 of the California Administration Code (Construction Safety Orders), by law a professional civil or structural engineer must prepare and sign the shoring plan. The current California Trenching and Shoring Manual is available to the public from Division of Structures Construction.

The permit application should be forwarded to Division of Structures Maintenance and Investigation for review of proposed work close to State highway structures and for excavations not meeting Cal-OSHA requirements.

The permit application must include the following supplemental information:

1. Soil Profile

   In the absence of specific soil data, the reviewer must assume very conservative values. Therefore, the permittee should include information such as:

   - Basis of soil identification.
   - Surface observation of site.
   - Existing test borings and test pit information.
   - Observation of adjacent work in same type of material.

- Ground water table data.
- A minimum equivalent fluid pressure of 36 psf (1.72 kPa) and soil weight of 110 pcf (1785 kg/m^3) shall be used.

2. Loads

   All loads adjacent to the excavation are to be identified on the plan with pertinent dimensions (e.g., highways, railroad, and structures). A minimum 2' (0.60 m) surcharge [72 psf lateral pressure (3.44 kPa)] shall be used.

3. Trench and Shoring Plan – description of shoring system including:

   - Member sizes
   - Materials
   - Spacing
   - Details
   - Trench depth and width
   - Order of work to be done
   - Catalogs or engineering product data (specific items must be correlated to actual plan)

4. Engineering calculations signed by an engineer registered in California.

517 TRAFFIC CONTROL AND TEMPORARY SIGNALS AND SIGNS Permit Code TK

Traffic control measures (signing, temporary signals, ramp closures, etc.) are required to ensure the safety and convenience of the public when work is performed on or affects State highways.

517.1 Traffic Control on Conventional Highways

Traffic control on State highways is performed for the safety of the traveling public even when the work is outside State right of way. Districts should not accept traffic disruptions solely for the applicant's convenience, and should suggest that an applicant perform work so that impacts on the highway are minimized. Signing standards for traffic control shall conform to the Standard Plans or to a special plan designed by the applicant and approved by district Traffic.

517.2 Temporary Signals

Temporary signal installations are requested when work outside the right of way disrupts State highway traffic. Such work often involves highway crossings or access by construction vehicles. district Traffic Electrical must review and approve proposals for temporary signals and recommend feasible alternatives.

Temporary signal systems should have a minimum impact on highway traffic. Their operation should be limited to the permittee's work hours and hours approved by district Traffic Operations. When they are not in use, the permittee shall cover the signal faces and the advance warning signs or lock the signals on green for highway traffic.

517.3 Ramp Closures

Caltrans' policy is to provide for safety, convenience, and protection of public traffic and permittees. This policy is applied to requests for ramp closures as shown in Table 5.23. Ramp closures are not permitted solely for the convenience of the permittee. Traffic control is supervised by Caltrans, and the permittee is billed for Caltrans' costs.

Table 5.23
Policy Regarding Ramp Closures

High Volume Ramps	Avoid closure, if possible, to minimize disruption of traffic. Pipes should be bored and jacked in lieu of open cutting.
Low Volume Ramps	May be closed for the minimum amount of time required to perform the necessary work.

517.4 Planned Checkpoints on Conventional Highways

The California Highway Patrol (CHP) and other law enforcement agencies periodically conduct planned sobriety checkpoints on conventional State highways. Such checkpoints are considered planned work, similar to other work for which encroachment permits are issued and all law enforcement agencies must obtain permits. The CHP is exempt from permit requirements because it is authorized by statute to enforce laws on State highways.

In cooperation with other law enforcement agencies, Caltrans authorizes biennial (two-year) encroachment permits for planned sobriety checkpoints at pre-approved locations on conventional highways. Freeways are excluded from this surveillance. Planned checkpoints that have the potential of suspects attempting to avoid operations and eluding authorities thereby endangering public safety will not be permitted. Examples of such operations are drug interdiction and illegal immigration.

Permits require two days advance notice to the State's representative. If requested, checkpoint information furnished is confidential and the permit shall be stamped confidential.

Law enforcement agencies must first consult with the CHP and get their concurrence for the checkpoint operation before district Traffic review. Also, the enforcement agency must supply a completed encroachment permit application and a list of locations for the various checkpoints. Districts should cooperate with law enforcement in identifying checkpoint locations and establishing safe, effective traffic control. The district Traffic Operations unit shall review the proposed locations for safety and suggest alternatives for unacceptable locations. Locations may be added by permit rider after permit issuance.

State Standard Plans T-11 govern the use and placement of traffic control devices, and provisions of Section 12 of the Standard Specifications are required. Sign messages shown in T-11 may be modified to address the operation.

517.5 Portable Changeable Message Signs

Portable Changeable Message Signs (PCMS) are used to inform motorists of unexpected conditions and should display only real-time information that conveys current traffic safety and congestion information. Public service messages are not permitted. For additional information see publication titled, "Portable Changeable Message Sign Guidelines," Division of Traffic Operations, Department of Transportation, April 1995.

517.6 Snow Closures

Certain State highway segments are normally closed (with barriers) to prevent public access during the high snow season. When Caltrans has fee title ownership, encroachment permits are not issued for recreational use of the State right of way or for using snow removal equipment to keep the highway traversable beyond the closure point.

When Caltrans has not obtained right of way by fee title but is occupying land owned by others, such as the U.S. Forest Service or the Bureau of Land Management, it does not object to the use of that portion of closed highway provided that:

- The Forest Service issues the permit;
- The special use permit issued by the Forest Service has a specific provision naming Caltrans as an additional insured on liability insurance policies; and
- Caltrans is entitled to review any permit issued for this activity to determine if appropriate liability clauses are included.

Property owners that are unable to access their land because of a snow closure (locked gate), may apply for a key through the encroachment permit process. Permits are issued fee exempt. The permittee shall assume responsibility for maintaining a secure gate and agrees to indemnify and hold harmless the State against any and all claims arising out of any activity for which the permit is issued.

517.7 Temporary Directional Signing

To maintain safe highway operations, Caltrans sometimes allows nonprofit organizations sponsoring attractions or events conducted for nonprofit purposes, to place directional signing in the right of way. To qualify for sign placement, the attraction or event must have significant traffic generation as determined by the permit engineer. Also, traffic patterns must have local agency approval before permits are issued.

Directional signs within the State highway right of way shall be reviewed and approved by the district Traffic unit. They shall be placed and removed by the permittee at no cost to Caltrans, and covered until they are needed for actual event traffic. They shall be removed immediately or under certain situations within a maximum of one week after the event.

Permanent directional signs for points of local interest and fire protection signs required by the State Board of Forestry are discussed in Sections 508.4 and 508.3.

517.8 Project Construction Identification Signs

Project construction identification signs for State contracts are included in the PS&E.

Project construction identification signs may be provided when authorized and installed under permit for construction projects having an estimated contract cost of $1,000,000 or more and a contract duration of 50 or more working days. One sign in each direction shall be placed near the limits of each qualifying project. The sign format, message content, and letter size shall conform to standard sign detail sheets.

One or more of these local agency funding sources must be identified:

1. City or county road funds.
2. City or county traffic authority measure funds.
3. Private entity funding through a local agency.

The following information shall not be included on the sign:

1. Dollar cost figure.
2. Funding percentages of contributing sources.
3. Names of private firms, developers, or organizations.
4. Promotional information, such as identification of public officials, organizational affiliations, or related symbols or logos.

A State or local agency contractor often is required to post advance signs warning the traveling public of restricted clearances caused by falsework or other types of construction. These signs are required by Standard Specifications and usually are placed outside the project limits. Review by Regional Transportation Permits staff is required to ensure that the signs direct vehicles exceeding the restricted clearance to an approved detour. Caltrans issues permits for these signs at no charge, and inspection is performed by the resident engineer. The contractor and resident engineer are responsible for notifying Permits and other district staff for implementing Standard Specifications, Section 7-1.09.

518 TUNNEL UNDER ROAD
Permit Code TN

A tunnel is defined as any jacked casing, liner plate, or wood lagging work that is 30" (762 mm) in diameter or larger. A Cal-OSHA permit and tunnel classification is required for tunnels.

Tunneling must conform to the requirements for bore and jacked pipe (Section 623) and the additional requirements listed in Table 5.24. All tunnels (except for jacked casings) shall be reviewed by Structures Maintenance. Two soils reports shall accompany the submittal.

Table 5.24
Requirements for Tunneling

Tunneling must satisfy the requirements for bore and jacked pipe (see Section 623) and these additional requirements:

1. Tunneling is authorized when the permittee provides full-time inspection and is monitored by a Caltrans representative.
2. The permittee shall set and check a survey grid over the centerline of the pipe jacking or tunneling operation. Copies of the survey notes should be submitted to the Caltrans representative at the Department's discretion.
3. Caltrans may require sand shields as ground conditions change.
4. The method used to check the grade and alignment shall be approved by Caltrans' representative before work begins.
5. Pressure grouting for liner plates, rib and spilling, or rib and lagging tunnels shall be at every 8' (2.43 m) section or at the end of work shift before the next section is excavated. All grouting shall be completed by the end of each workday.
6. A method for securing the headway at the end of each workday is required. Breast plates shall be installed during working hours for running sand or super-saturated soil.

519 WALL
Permit Code WL

Retaining walls and soundwalls often are proposed by local agencies and developers as part of their work outside State right of way. Local agencies may perform advance construction of soundwalls inside State right of way when the project is in Caltrans' State Transportation Improvement Program (STIP) but funding is uncertain. In these cases, cooperative agreements between Caltrans and local agencies specify Caltrans' future participation in reimbursement, plan requirements, and construction standards.

The applicant is responsible for the design, construction, and future maintenance of walls constructed outside State right of way. Plans for construction inside the right of way are reviewed by district Project Development, Environmental, Landscape Architecture, Maintenance, and Headquarters Structures. Project plans should include access gates and fire hose openings. The Department shall maintain soundwalls built within the right of way. Structures Maintenance must approve plans for walls to be used for retaining purposes.

Applicants should store materials and provide access to the construction site from outside State right of way. When access from outside State right of way is limited, districts may allow work and materials storage within the right of way but must maintain the clear zone or require K-rail protection. Permittees may relocate access control fences to ensure continuity of the fencing and allow for permitted work.

Upon completion, permittees shall remove the fencing in front of the wall, set new end posts with bracing approximately 4" (102 mm) from the wall, and connect the remaining access fence. Salvaged fence is delivered to the nearest State maintenance facility. Retaining walls must have standard CL-6 fencing or a minimum 6' (1.82 m) soundwall above ground surface (see Section 504).