

4 – TRANSPORTATION (draft rev. 10/01/10; Source Doc Draft 1-6-11)

Sections:

- 4.1 Background
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- 4.3 Standards for Discretionary Development
- 4.4 Miscellaneous Permits
- 4.5 Other

"Shall" (or similar) Statement	Implementing State/Federal Law, General Plan Policy, or County Ordinance
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4.1 Background

While this manual includes design standards for all County departments, as well as the El Dorado County fire protection districts, there are some processes and standards that are either unique to Department of Transportation (DOT), or that are its primary responsibility. This Chapter describes DOT’s application processes and the components of an application that **must** be submitted for discretionary projects. It also contains design and construction standards and is a companion chapter to the other chapters in this manual, as well as the County’s other Design Manuals (e.g., County of El Dorado Drainage Manual, Standards Plans, etc.). DOT also has responsibility for some miscellaneous permits that affect the County’s roads. These are described briefly in this Chapter, but for more information and application forms contact DOT. (See Chapter 7, Section 7.1 of this manual for contact and website information.) Note: If your project is in the Lake Tahoe basin or vicinity, it may also be subject to Tahoe Regional Planning Agency’s (TRPA’s) requirements. Contact TRPA for more information. (See Chapter 7, Section 7.1 of this manual for contact and website information.)

4.1.1 Primary Goal

DOT’s primary goal is to serve the transportation needs of residents and visitors to the County, and includes the following specific responsibilities:

- A. Reviewing and recommending conditions for proposed new development projects (e.g., Tentative Maps, Parcel Maps, Design Reviews, subdivision maps, etc.) to ensure they meet the County's standards related to road design, traffic operations, drainage, storm water quality, and erosion control.
- B. Reviewing, issuing, and monitoring permits that affect the County's roads and bridges (e.g., encroachment permits, road closure permits).
- C. Inspecting new development under construction to ensure it meets design, safety, and construction plans and requirements.

4.1.2 DOT Permits, Projects, and Other Processes

There are a number of different permits, projects, and other processes that DOT is either a party to, or has sole responsibility for. These are listed in the following sections.

4.1.2.1 Discretionary Projects

DOT is part of a County team, led by Development Services Department (DSD) Planning Services, that reviews and conditions discretionary projects including:

- Tentative Maps,
- Special Use Permits,
- Design Reviews,
- Planned Developments,
- *General Plan* Amendments, and
- Rezone Applications.

4.1.2.2 Miscellaneous Permits

Separate permits are issued for specific purposes. Some of these are stand-alone permits or are in conjunction with discretionary projects. These include:

- A. Grading:
 - Off-site (in the County’s right-of-way), and
 - Subdivision (related to roads and drainage).
- B. Utility Encroachments, and
- C. Miscellaneous Encroachments:
 - Driveway Access/Obstructions,
 - Timber Harvest Temporary Encroachments,
 - Oversized Loads, and
 - Special Functions/Events.

4.1.2.3 Other Processes

DOT is responsible for processing applicant’s requests to vacate and abandon existing easements that were granted to the County (not other parties). These are referred to as “General Vacations” (Vacations) and “Summary Abandonment of Easements” (AOEs). Vacations and AOEs are typically a by-product of some other type of change to the land in question, such as Parcel Maps, Tentative Maps, right-of-way acquisitions for roads, etc. They are not technically permits as they **require** approval by the Board of Supervisors (Board). When an applicant for a discretionary project is **required** to dedicate a portion of their real property to the County, typically for purposes such as road and other public infrastructures, DOT will assist the applicant with the “Irrevocable Offer of Dedication” (IOD) process.

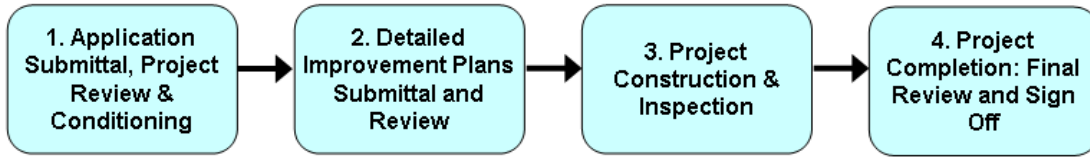
**General Property Rights law
Subdivision Map Act, Streets
and Highways Code
County Code???**

**Statement of application, not
requirement.
Standard practice**

4.2 General Process Description for Discretionary Projects

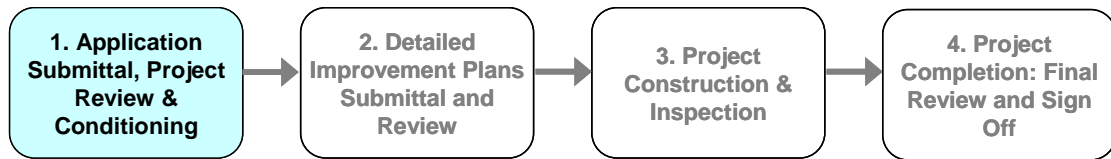
4.2.1 General Process Steps for Discretionary Projects (as applied to DOT)

A discretionary project goes through four steps before completion:



There is a County departmental (e.g., DSD, Environmental Management Department (EMD), DOT, Surveyor’s Office) and other agencies (e.g., fire protection districts, Community Service Districts) review process for each of the four steps as described generally in Chapter 1 of this manual. The steps, as pertains to DOT processes and requirements, are described below.

4.2.2 Step 1. Application Submittal, Project Review and Conditioning



Most construction in the County **requires** approval from DSD. Anyone interested in undertaking a discretionary project is encouraged to arrange a “Pre-Application” meeting with DSD. At this preliminary stage, a Pre-Application meeting allows for early review of a project to identify any potential issues the project may have in light of the *General Plan*, zoning, and CEQA.

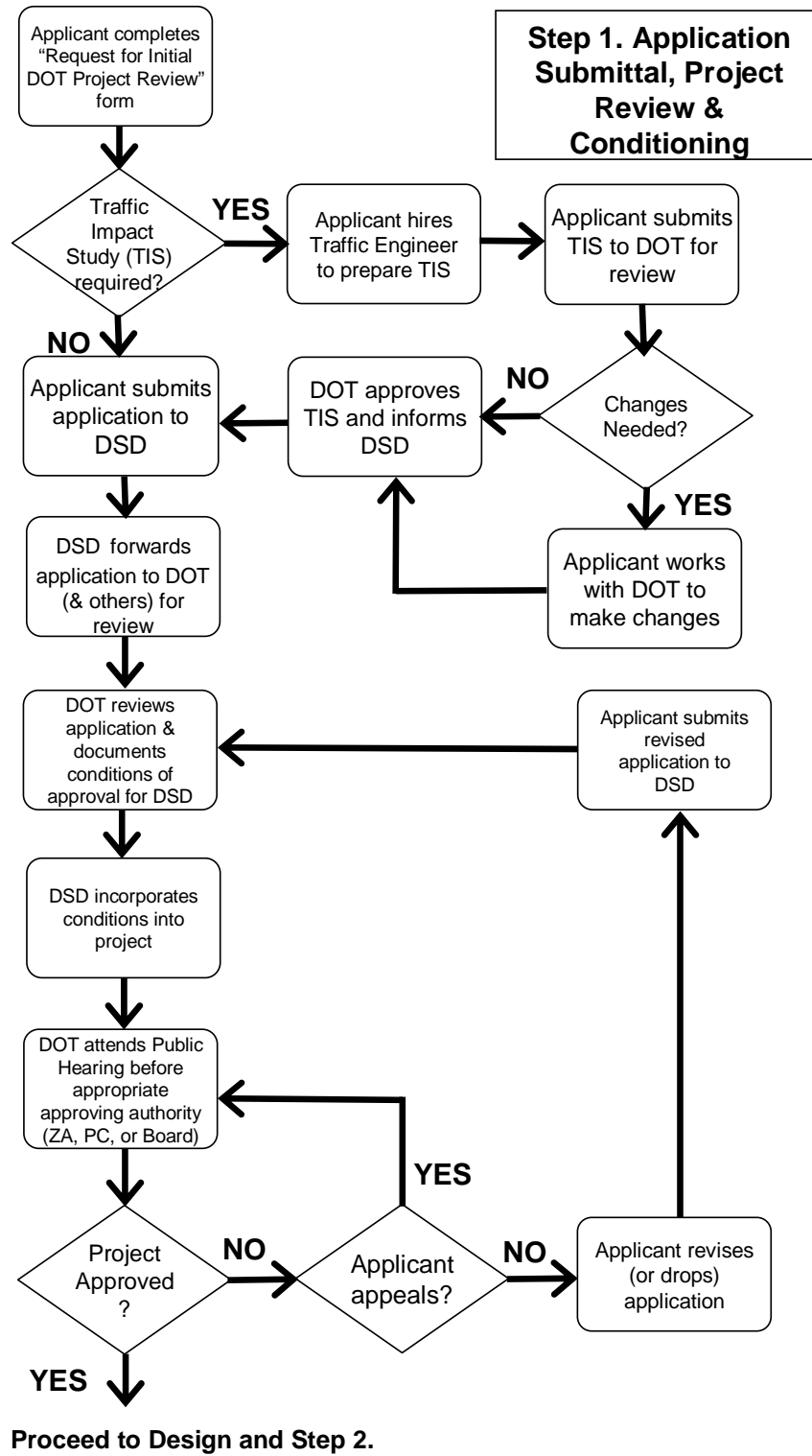
Standard practice
This is a statement, not a requirement.

As part of Step 1, a traffic study may be **required**. Before completing a formal project application, see DOT’s website for more information regarding when traffic studies are required.

General Plan Policy TC-Xg

Once a formal project application and the appropriate fees are submitted to DSD, the plans are routed to DOT’s Discretionary Review team, as well as to other County departments for review.

During the project review process, DOT reviews and evaluates traffic impacts of a project, including all aspects that involve roads and bridges, as well as facilities that affect the public right-of-way (i.e. traffic signals, in-ground and overhead utilities, streetlights, landscaping, etc.). DOT and DSD also review proposed grading.



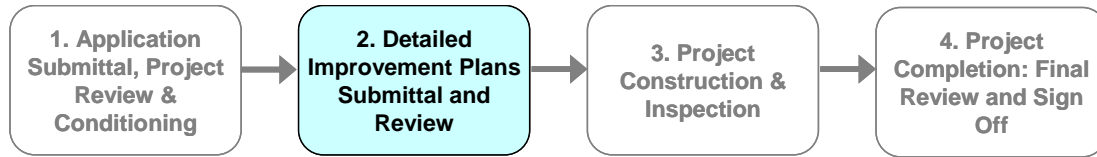
DOT will respond to DSD with a list of recommended conditions. If the applicant does not agree with certain conditions that DOT, or others, places on the project, the applicant may be able to apply for a “design waiver” to ask the approving authority to waive a particular standard. For more information on design waivers, see Chapter 1 of this manual.

- A. DOT staff reviews and analyzes a proposed project application for compliance with, or impact on, the following subject areas:
1. Traffic Impacts Analysis (TIA). The *General Plan* **requires** that all new **General Plan Policy TC-Xg** development fully mitigate all traffic impacts associated with the project. Thus, a traffic study may be **required**, **General Plan Policy TC-Xg**
 2. Consistency with the *General Plan’s* Transportation and Circulation Element,
 3. Right-of-Way,
 4. El Dorado County Bicycle Transportation Plan,
 5. Grading,
 6. Drainage and Water Quality,
 7. Easements,
 8. Street Improvements (e.g., surface improvements, storm and sanitary sewer, street lights, traffic signals, landscaping, etc.),
 9. Private Streets,
 10. Under-grounding of Overhead Utilities, and
 11. Existing Assessment Districts/Zones of Benefit.
- B. DOT primarily reviews the existing and proposed public infrastructure necessary for:
1. The ability to support the development application, and
 2. Any grading necessary to develop the site.

Note: Grading is a shared responsibility with DSD. Depending on the type of project, either DSD, DOT, or both, may review the grading of a proposed project. A current version of a “Preliminary Grading Plan Checklist” is available on DOT’s website.

To ensure a quick and effective review of an application, it is important that the plans detail all of the public improvements adjacent to the project as well as any necessary grading.

4.2.3 Step 2. Detailed Improvement Plans Submittal and Review



4.2.3.1 Preparing Improvement Plans

Once a project is approved by the approving authority, an applicant **shall** schedule a preparatory meeting with DOT before creating any detailed improvement plans. DOT may waive this requirement upon a signed request from the property owner. DOT will provide information as to what will be needed on the detailed improvement plans. After the preparatory meeting, the applicant then creates and submits the detailed plans for all of the specific improvements that are needed to construct a project, which may include road improvements in the County right-of-way. DOT staff will also work with the applicant to prepare any **required** agreements. As part of the detailed improvement plans, DOT is primarily concerned with items such as signing and striping, right-of-way, landscaping and fencing, traffic signals, drainage, erosion control, etc. These detailed improvement plans are submitted to DOT, along with the appropriate fees, for plan checking. Plans **shall** adhere to the conditions placed on the project as well as to all County Ordinances and design standards. If public improvements (e.g., road widening, addition of traffic signals) are required as part of a project approval, the applicant's Civil Engineer **shall** create these detailed improvement plans as well.

A. Improvement plans prepared for the construction of public improvements, in support of a private development, **shall** be completed at no cost to the County. All County services required for review, approval and inspection **shall** be paid for by cost recovery fees collected from the applicant.

B. Plans **shall** be adequate to bid and build the improvements at the correct location and elevation and **shall** be based on the County standards.

??? **DOT Policy**

Statement, not a requirement
Standard practice

Standard practice,
Subdivision Map Act, County
Subdivision Ordinance

Subdivision Map Act, County
Subdivision Ordinance
Standard practice

Public Finance Law
Standard practice
County Ordinance, Chapter
15.14.230 and 16.16.030,
County Engineer Fee
Resolution 20-97

Standard practice
??? **California Streets and**
Highways Code Section 942 -
Board of Supervisors may
adopt standards

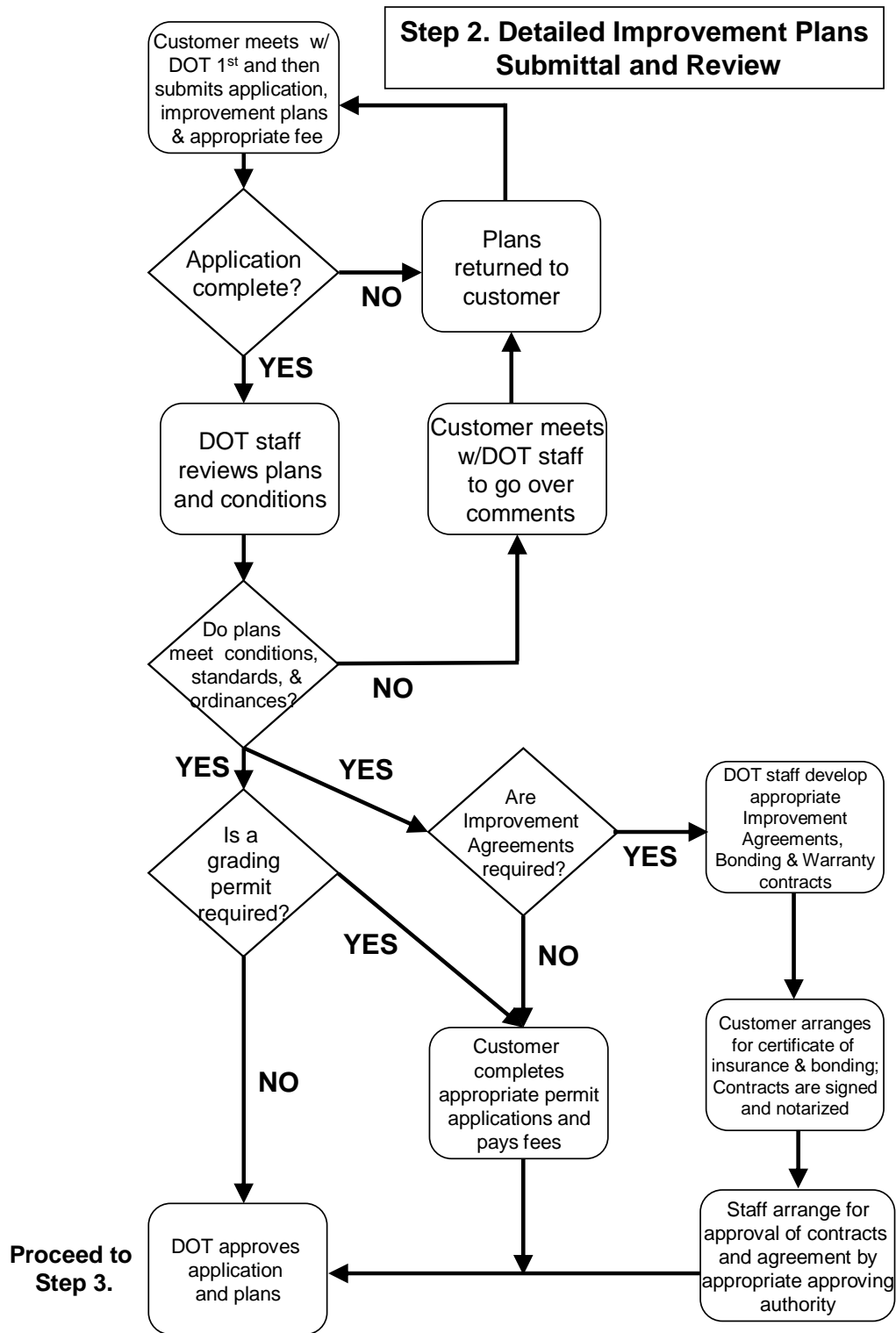
C. Plans **shall** be legible.

D. At initial submittal, the plans and supporting Engineering Reports **must** be substantially complete, sealed and marked “preliminary, not for construction” until the plan check process has been fully completed. At final plan check, the plans **shall** be complete, signed, sealed and ready for construction.

Professional Standard of Practice Standard practice and California Business and Professions Code.

California Business and Professions Code Standard practice

Incomplete plans will be returned for completion prior to any review taking place. See DOT’s website for a current checklist.



4.2.3.2 Initial Submittal

It is strongly recommended that you make an appointment to submit your detailed improvement plans to DOT, (530) 621-5900.

When submitting Improvement Plans, include the following:

A. Application.

B. Plans Prepared in Accordance with DOT

Requirements. Plans **shall** follow requirements **Standard practice**

set forth in DOT's Improvements Checklist. The coversheet on the plans **shall** include DOT's **Standard practice and SWMP**

"Standard Improvement Plan Notes" and "Erosion Control Notes". The plans **shall** also follow **Standard practice**

DOT's standard plan for symbols and legends, which are based on Caltrans' standards. These documents can be obtained from DOT's website.

See below for a sample list of plans and information needed for submittal:

1. Current title report showing any easements and boundaries,
2. Road plans, profiles and sight distance triangle profiles (40' scale), or as appropriate to convey the information,
3. Signing and striping plan,
4. Grading plan,
5. Storm drain plan,
6. Erosion control plan,
7. Post-construction run-off control facilities,
8. Wet utility plans (e.g., sewer, water, reclaimed water, etc.),
9. Dry utility plans (e.g., electricity, cable, phone, etc.),
10. Traffic control plan (if working in existing roadways),
11. Traffic signal plans and notes (marked "preliminary, not for construction" at initial submittal and sealed, signed and ready for construction at final submittal),
12. Landscape & entry plans,
13. Retaining wall plans, profiles & cross sections related to road improvements - other retaining walls **shall** have retaining **Professional Standard of practice** wall plans and typical cross sections,
14. Retaining wall structural calculations (sealed and signed),
15. Right-of-way plans, including monument setting to indicate right-of-ways,
16. Assessor's parcel book page(s),
17. Tentative Maps,
18. Conditions of approval (as a separate attachment),
19. Traffic study (sealed and signed),
20. Drawings of abutting/joining road & drainage improvements,
21. Drainage study (including Post-construction runoff control facilities) (sealed and signed),
22. Storm Water Mitigation Report (see Storm Water Management Plan),
23. Soils report (sealed and signed),
24. Structural/other calculations (sealed and signed),

25. CEQA status with supporting documentation,
 26. New aerial surveys when **required** to be done in conjunction with a road improvement plan (contact DOT for specifics), and
 27. Copies of permits from other agencies (e.g., U.S. Army Corp of Engineers, California Department of Fish & Game, Cal-EPA, Regional Water Quality Control Board, etc.).
- C. Engineer's Estimate.** Include a Civil Engineer's estimate showing unit prices, quantity and extensions for all construction items. Contact DOT for unit price estimates. The engineer's estimate **shall** be signed and sealed prior to final approval.
- California Business and Professions Code.**
- Standard practice**
- D. Plan Review Fee.** Include a plan review fee; refer to the DSD/DOT website for the current fee schedule or contact DOT for further assistance.

4.2.3.3 Improvement Agreements

- A. If an improvement agreement is required, it should be initiated with DOT as soon as feasible. An improvement agreement is a contract that the applicant enters into with the County to ensure that the applicant completes the improvements for the proposed project. The County has very specific requirements for improvement agreements that need to be executed before any work can commence. The required improvement agreements are identified by DOT as part of the plan check/review process. Examples of improvement agreements include:
1. **Subdivision Improvement Agreement (SIA).** For parcel splits into 5 or more lots. This agreement is **required** in accordance with the Subdivision Map Act to ensure construction of the required public improvements, and covers the on-site work done. **Subdivision Map Act Section 66462** ~~xxx~~
 2. **Road Improvement Agreement (RIA).** For work done in the County's right-of-way and/or for other off-site improvements.
 3. **Parcel Map Improvement Agreement (PMIA).** This agreement is similar to an SIA but applies to parcel splits of 4 or fewer lots if the lots are residential and 5 or more if non-residential.
- B. Below is a sample list of information needed by DOT to create improvement agreements:
1. Owner's name, type of entity (e.g., corporation, partnership, homeowner's association, etc.), and principal place of business,
 2. Applicant's name, type of entity, and principal place of business,
 3. Total cost of all improvements,
 4. Current Assessor's Parcel Number (APN),
 5. Permit name and number, and
 6. Date improvement plans signed.

4.2.3.4 Additional Plans

If the project includes any of the following, additional plans shall be prepared and submitted:

- A. **Traffic Signal Construction or Modification.** Plans shall be prepared by a Civil Engineer and consistent with the Standard Plans. California Business and Professions Code. Standard practice (Standard plans to be adopted at later date.)
- B. **Sewage Collection & Disposal System.** If the improvement plan includes provisions for an onsite system, see Chapter 3 of this manual. If the improvement plan includes provisions for an offsite sewage collection and disposal system, the applicant shall submit to DOT, sufficient detailed plans of the sewage collection and disposal system prepared by a Civil Engineer, to enable the County Engineer to ascertain whether such system conforms to the standards set forth herein and to standard acceptable engineering practices. Such plans and specifications shall also be reviewed and signed by the authorized representative of the entity that will operate the sewer system(s), certifying it has approved the final construction plans and specifications. A letter shall be provided to DSD Planning Services by the public entity’s engineer, stating that the provider is willing to maintain and operate the sewer system upon its completion. DISM Subdivision Map Act Must demonstrate conditions of approval have been met.
DISM Subdivision Map Act
DISM Subdivision Map Act
- C. **Landscaping in the Public Right-of-Way.** Plans shall be consistent with the Standard Plans, the Policy G-1 adopted 12/22/87, Ordinance 12.12.070 Prohibited Trees, and the Water Conserving Landscape Standards (“Resolution R-69-93”) adopted February 23, 1993. A “Lighting and Landscaping District” (LLD) shall be created (or some other funding mechanism acceptable to the County) to pay for future maintenance requirements. Policy G-1, County Ordinance Chapter 12.12.070, and BOS Resolution 69-93 (Standard plans to be adopted at later date.)
???
- D. **Street Light Construction or Modification.** Plans shall be prepared by a Civil Engineer and consistent with the Standard Plans. Standard practice California Business and Professions Code (Standard plans to be adopted at later date.)

4.2.3.5 Plan Review

Upon receipt of the initial package, County staff will review the plans for completeness.

- A. If the initial submittal is complete, staff will review the plans and call the applicant for an appointment, at the applicant's option, to review staff's comments. Any corrections or clarifications that are required **shall** be made. The applicant may make an appointment with DOT to review the revised plans. If all changes have been made as requested, the applicant is ready for final submittal.
- B. If the initial submittal is **incomplete** (incomplete design, missing plans, etc.) staff will return the plans to the applicant for completion prior to any review taking place. This can potentially delay DOT's approval, which is required to get a building permit, grading permit, road improvement agreement, or other authority to move a project forward into construction.

Professional Standard of Practice
~~Standard practice~~

4.2.3.6 Final Submittal

Upon final submittal, the applicant **shall** satisfy all of the following conditions prior to project improvement plans approval and permit issuance:

- A. **Original Improvement Plans.** Submit the original plans together with all County checkprints. The plans **shall** be signed and wet stamped by a Civil Engineer.
- B. **Additional Plans.** Any other plans (e.g., Landscaping, Non County-maintained roads, Traffic Signal, etc.) necessary for this project **shall** also be complete and ready for approval.
- C. **Discretionary Conditions.** Documentation **shall** be provided that demonstrates that the original conditions placed upon the project when it was approved have been satisfied. (e.g.: a narrative, table, or matrix describing how the plans meet the conditions.)
- D. **Improvement Agreements.** Execute and notarize any improvement agreements, security instruments, and permits prepared by DOT staff.
- E. **Security.** Projects and agreements (e.g., RIAs, SIAs) **require** some form of security (see Ordinance 16.16.050 Security to Guarantee Performance of the improvement agreement for more information on the forms of security the County will accept). County staff will provide the

Subdivision Map Act, County Subdivision Ordinance

California Business and Professions Code
~~Standard practice~~

Standard practice

??? County Land Division Ordinance

Isn't this done at final map stage? [Yes, however, this step is included to ensure that construction conditions are satisfied with the plans, agreement and bonding requirements of the Subdivision Map Act.]

County Ordinance Chapter 16.16.050

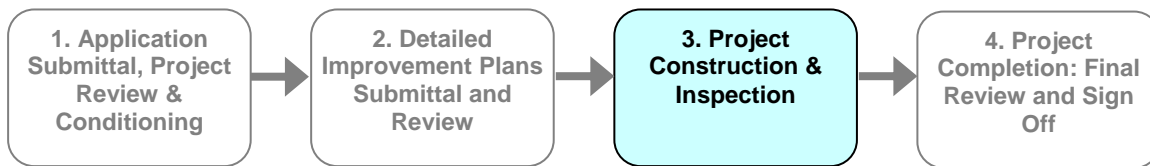
forms necessary for the required agreement.

|

F. **Policy of Insurance.** A policy of insurance which meets all County requirements **shall** be maintained throughout the course of an agreement. The policy of insurance **shall** explicitly name the County as an additional insured and a certificate evidencing this coverage **shall** be provided to the County. Contact DOT for more information regarding insurance requirements.

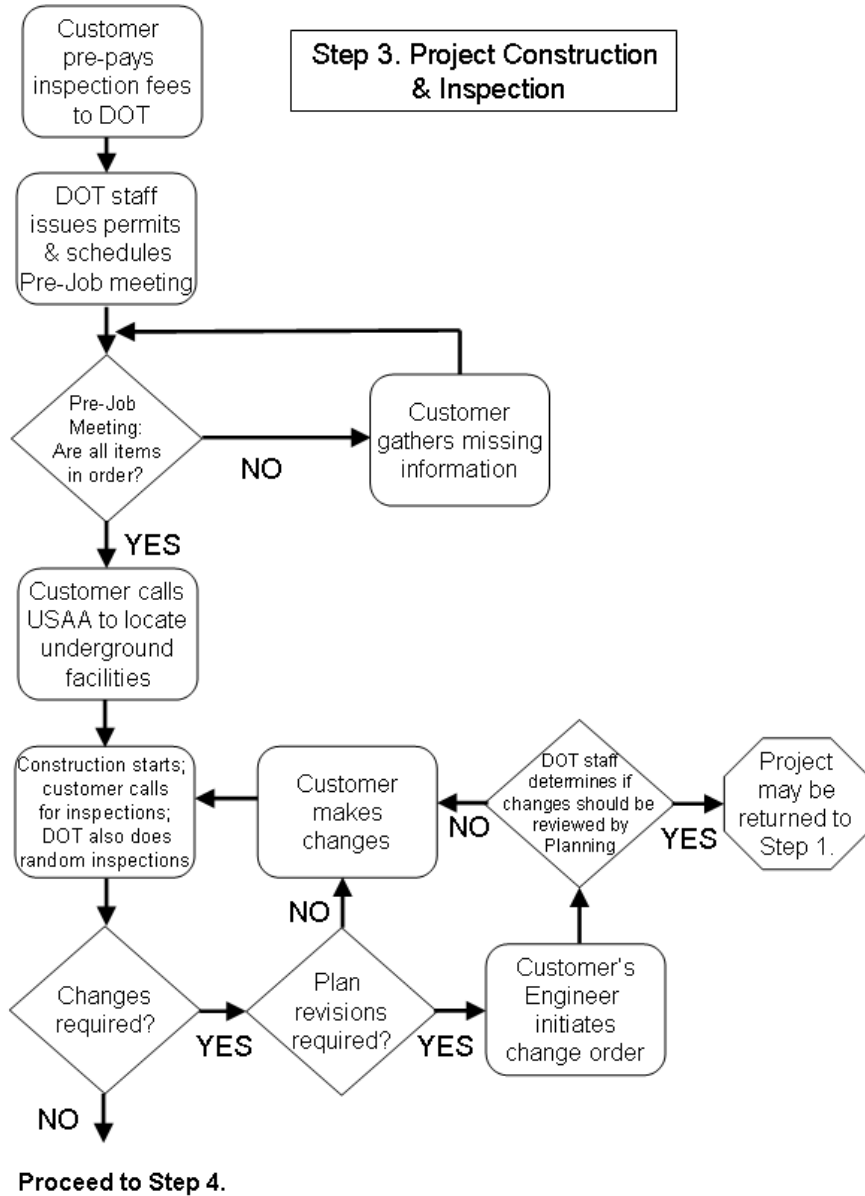
Standard practice as a result of a BOS Resolution? Subdivision Map Act, County Risk Management Policy.

4.2.4 Step 3. Project Construction and Inspection



The Construction phase is the actual implementation of a project. Prior to permits being issued, the applicant **shall** pay inspection fees and have any required insurance and bonding in place. Most permits have time limits; however, in certain circumstances, these time limits can be extended.

County Ordinance Chapters 15.xx.xxx and 16.16.050 County Engineer's Fee Resolution (Reso # 20-97)



4.2.4.1 Pre-Job Meeting

Once all documents have been provided, a pre-job meeting is scheduled before work begins and includes the applicant’s team (e.g., the applicant or designated representative, design engineers, soils engineers, etc.), County departmental inspectors (e.g., DOT, EMD, DSD), and various agencies (e.g., EID, PG&E, State Department of Fish & Game, etc.) to go over job site requirements related to safety, protective fencing, erosion control, dust mitigation, storm water quality, etc. The inspectors will also ask the applicant to bring approved plans and permits to ensure all documents are in order.

Before any digging begins, call or check online with Underground Service Alert (USA), to determine the location of any underground facilities that should be avoided. USA is an organization with the sole purpose to make people aware of the locations of USA's members' underground facilities (electrical line, water line, gas pipeline) to prevent accidents. USA can be found online. (See Chapter 7, Section 7.1 of this manual for contact and website information.)

Some important items typically **required** for large ~~Standard practice~~ **Statement, not a requirement** projects such as subdivisions and commercial projects include:

- A. **A Staging Plan** for how the proposed work will be done and over what time period. For example, for a proposed widening of an existing road, one lane may be closed first while a new adjacent lane is constructed.
- B. **A Traffic Control Plan** for work in County roads and right-of-ways. The County will review the plans and issue a Traffic Safety Order that **shall** be kept on-site. [**DOT Policy**]
- C. **Staking**. In most cases, all staking is done by the applicant/developer's survey crews, including monuments and streetlight locations.
- D. **Material Submittals for Traffic Signals**. If a traffic signal is to be designed by a consultant, the design and the material submittals are to be reviewed and stamped by the consultant's Civil Engineer prior to submittal to the County for review. (Note: Traffic signals cannot be staked until the County approves the material submittals.)
- E. **Utility Encroachment Permit(s)** may be required (discussed later in this Chapter).

4.2.4.2 Inspection

After completion of various phases of construction, work is inspected by County inspectors, as well as by other applicable agencies, to ensure it matches the detailed improvement plans. Rejected work **shall** be corrected and re-inspected.

Subdivision Agreement requires work completed in conformance with approved plans
Standard practice

The project inspector is an authorized representative of the County Engineer, acting exclusively for the benefit of the County, authorized to make all necessary inspections of the work performed and of the materials furnished for conformance to the improvement plans and contract documents.

At the time of this writing, DOT **requires** 48 hours advance notice for inspection services. To schedule an inspection, call (530) 621-5900.

DOT Policy?

4.2.4.3 Plan Revisions

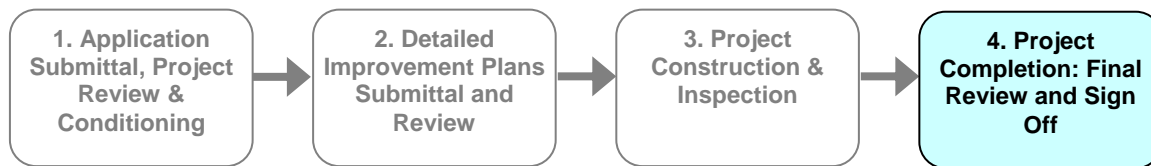
- A. The design change **shall** be based on recommendations made by the applicant's engineer and **shall** be approved by the County Engineer prior to revising the original plans. **Standard practice Business and Professions Code Standard practice**
- B. If changes may impact any of the original components that formed the basis for the project's approval, the project may have to be re-reviewed by DSD Planning Services.

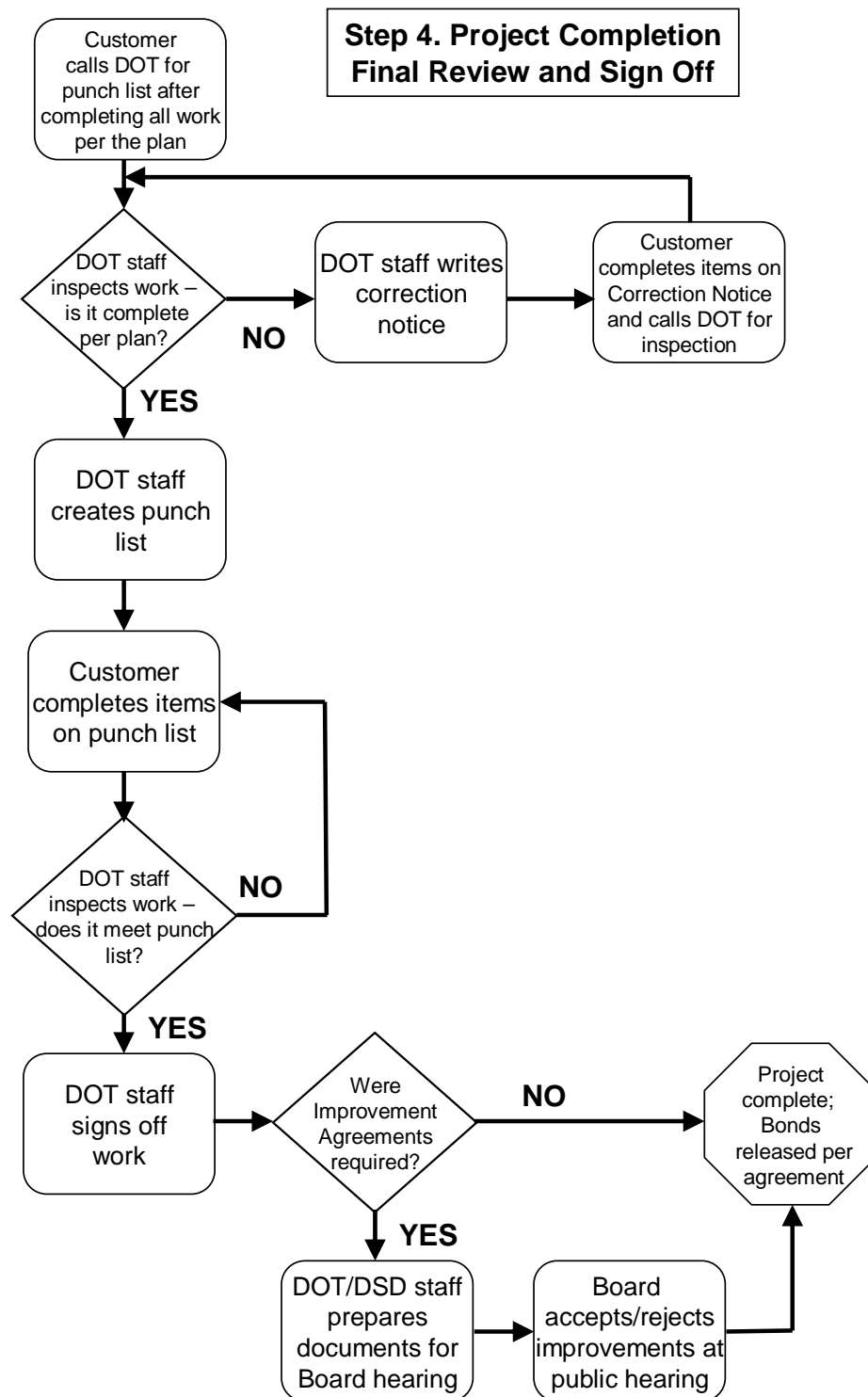
- C. All changes to the original plans **shall** be made by the applicant’s Civil Engineer, signed by the owner, contractor and engineer. **Business and Professions Code and Standard practice**
- D. A duplicate set of plan sheets **shall** be submitted along with an explanation of the change and why it is being made. **Standard practice**
- E. DOT’s County Engineer will be the final signature on the plan revisions.

The applicant’s Civil Engineer will discuss the change with DOT’s County Engineer and/or submit a check set indicating the proposed change.

- A. When making changes to the original, cross out or shade the old so that it is still legible and add the new, together with a revision number inside a diamond symbol.
- B. Add a cloud bubble to denote the change. Return the changed plan to DOT.
- C. If the proposed change is acceptable to DOT, the County Engineer will sign the plan revisions. At that time, the applicant’s engineer **shall** provide DOT with copies of the revised sheet(s). **Standard practice**
- D. Note that for substantial changes, the bonding requirements may need to be changed as well.

4.2.5 Step 4. Project Completion: Final Review and Sign Off





4.2.5.1 Punch Lists for the Project

When a project is nearing completion, the DOT inspector will prepare a short list (“punch list”) of the items that remain to be completed before a project can be finalized. DOT’s “punch list” includes all administrative requirements that need to be completed associated with a project. A punch list will not be created until everything has already been done on the approved plans. After all items on the punch list have been completed to the satisfaction of the DOT inspector, the project will be signed off (“finalized”). Below is a sample punch list of items. For more information, refer to DOT’s website or contact DOT’s Land Development Services team.

Sample Punch List (sent to owner and person who signed agreement):

- A. All improvement plans, change orders, terms of subdivision agreements, engineer’s estimates, and conditions of approval are complete,
- B. Compliance certifications completed by the Civil and Geotechnical engineers for any lots that required them,
- C. Acceptance and completion letters from all applicable parties (e.g., Community Service Districts (CSDs) or Homeowner’s Associations, utility companies, Resource Conservation Districts, etc.),
- D. Record drawing checkprints (including utility composites, landscaping plans, and grading plans). Record drawings **shall** be stamped, certified and signed by the applicant’s Civil Engineer, **Business and Professions Code Standard practice**
- E. All Plan Revisions signed off and noted in the “Revision” Block on the plans and labeled at the site of the change,
- F. If asbestiform-containing soils are present and mitigation has been completed, documentation that test results, reports, and locations have been submitted and a completion and acceptance letter from Air Quality Management District (AQMD),
- G. Drainage ditches built within their easements and operational per the plans, and
- H. All fees and bills paid current including inspection fees and Zone of Benefit taxes.

Note: All record drawing checkprints, including dry utilities and landscaping plans, and acceptance letters, **shall** be submitted together at the same time.

DOT Policy

4.2.5.2 Road Acceptance

- A. A project that includes a RIA or SIA **shall** be approved and accepted by the Board before the County will take ownership and responsibility for maintenance of the improvements. **California Streets and Highways Code Sections 941 and 941.1 and County Ordinance Chapter xxx General Plan Policy TC-1s**
- B. A Zone of Benefit may be **required** to be formed by the applicant so that the residents pay for the ongoing maintenance of the improvements.
- C. In those instances in which the applicant proposes non County-maintained improvements (e.g., non-County-maintained streets), the applicant **shall** set up a governing body (e.g., Homeowners’ Association, Road Association, Zone of Benefit, CSD) which will be responsible for ongoing maintenance of these improvements. **General Plan Policy TC-1s**

- D. All proposed County-maintained and non-County-maintained facilities **shall** meet applicable County standards. **County Ordinance Chapter 16.36.040**

4.2.5.3 Board of Supervisors Acceptance

In addition to items listed above on the sample punch list, the following **shall** be completed and verified by DOT before preparation begins for the Board's acceptance of improvements: **Standard practice and compliance with various applicable regulations.**

- A. All items shown on improvement plans, change orders, subdivision agreements, engineer's estimate, and Tentative Map conditions of approval,
- B. All slopes, drainage facilities and utilities within rights-of-way or easements,
- C. Driveways placed per plans and where cuts/fills are greater than six feet,
- D. Tentative Map conditions met,
- E. Landscaping acceptance, if applicable, by CSD or other like entity,
- F. Acceptable post-construction Best Management Practices (BMPs) in place to address California's water quality requirements,
- G. Drainage walk-through with Zone of Benefit maintenance representative,
- H. Street grading within right-of-way of slope easements,
- I. All documentation (e.g., contracts, agreements, legal descriptions, etc.) for the developer or the County to acquire necessary offsite property or easements, and
- J. All fees paid current.

Note that items may differ for each project. This list serves as the starting basis for applicants and DOT. For questions related to your particular project, contact DOT.

4.2.5.4 Occupancy

No occupancy will be allowed until the following are complete and operational and have been approved by the County: roadways; storm, sanitary, and water facilities; driveways and sidewalks; and streetlights and/or traffic signals.

4.2.6 Fees

DOT services required for review, approval, permitting, inspection, or recordation associated with discretionary projects, **shall** be paid for by cost recovery fees collected from the applicant. For more information, contact DOT's Land Development Services Team. **County Ordinance Chapter 15.xx.xxx**
County Engineer Fee Resolution (Reso # 20-97)

4.3 Standards for Discretionary Development

These standards shall apply to all discretionary development, except where specifically noted. ??? County Policy by adoption of Standards

The terms “streets”, “roads”, “highways”, “boulevards”, and “routes” are used interchangeably to refer to means of circulating various types of traffic but primarily the automobile.

4.3.1 Streets

4.3.1.1 Access

See Chapter 2, Section 2.5.3 of this manual.

4.3.1.2 Drainage

- A. All drainage improvements shall conform to the Drainage Manual. Drainage Manual???
- B. Roads shall have well-defined roadside ditches or inlets directing surface water away from the roadway to an adequate drainage system. Standard practice Drainage Manual
- C. Water shall not cross the road surface but shall be conveyed through a culvert of adequate size to accommodate storm water without flooding the roadway. Standard practice Drainage Manual
- D. If a history of roadway flooding or damage caused by inadequate drainage facilities exists, the existing road shall not be approved for an access road unless sufficient improvements are made to eliminate the flooding problem. Standard practice, although there should be reasonable nexus to the project

4.3.1.3 Gates

Gates are not permitted across any public roads (non-County-maintained or County-maintained). Gates may be permitted with a special use permit across private roads.

4.3.1.4 Improvement Requirements

- A. Any development that requires improvements to existing roads and/or the addition of new roads shall include the setting of monuments placed by a licensed land surveyor, to indicate the road right-of-way. A Record of Survey may also be required under Section 8762 of the California Business and Professions Code. Standard practice
Standard practice
- B. All survey work shall be done on horizontal datum NAD83 (California State Plane Coordinates, Zone 2, U.S. Survey Feet) and vertical datum NGVD 1929 or NAVD 88, or as approved by DOT. The epoch shall be specified. Any existing survey Standard practice

information available from the National Geodetic Survey or from DOT **shall** also be used. (See Chapter 7, Section 7.1 of this manual for contact and website information.) All plans and maps **shall** include a statement on the cover sheet confirming which horizontal and vertical datums have been used.

Standard practice

Standard practice

- C. Other improvement requirements **shall** be as identified in the Standard Plans.

??? Details to be vetted with the individual Standard Plans.

4.3.1.5 Erosion Control

For erosion control construction requirements and standard notes for improvement plans, see the Resource Conservation District website. (See Chapter 7, Section 7.1 of this manual for contact and website information.)

4.3.1.6 Street Signage

- A. Street name signs of a type and construction approved by the County Engineer **shall** be placed at each intersection (refer to the Standard Plans).
- B. Traffic control signs **shall** be placed where designated by the County Engineer and **shall** meet the appropriate standard plan in the Standard Plans and the California Manual of Uniform Traffic Control Devices
- C. A sign at each access of a development reading, “This Road is Not County Maintained” (or a DOT-approved equivalent), **shall** be placed in a prominent location for developments which include non-County-maintained roads.
- D. Street names **shall** be approved by the County’s Surveyor’s Office. See Chapter 6 of this manual and the Surveyor’s website for more information on street names. (See Chapter 7, Section 7.1 of this manual for contact and website information.)

California Manual on Uniform Traffic Control Devices

Standard practice

California Manual on Uniform Traffic Control Devices

Standard practice

California Manual on Uniform Traffic Control Devices

Standard practice

County Ordinance Chapters 15.04.060 through .090

4.3.1.7 On-Street Parking

- A. Pursuant to the 2007 California Fire Code and amendments as ratified by the Board February 2008, and where **required** by the fire protection district having jurisdiction, roads **shall** be marked with permanent “NO PARKING—FIRE LANE” signs complying with the figures below.
- B. Signs **shall** have a minimum dimension of 12 inches wide by 18 inches high and have red letters on a white reflective background.
- C. Signs **shall** be posted on one or both sides of the road as follows:
1. Roads from 20 to 29 feet in width **shall** be

Fire Code Chapter xxx?

Fire Code Chapter xxx?

Fire Code Chapter xxx?

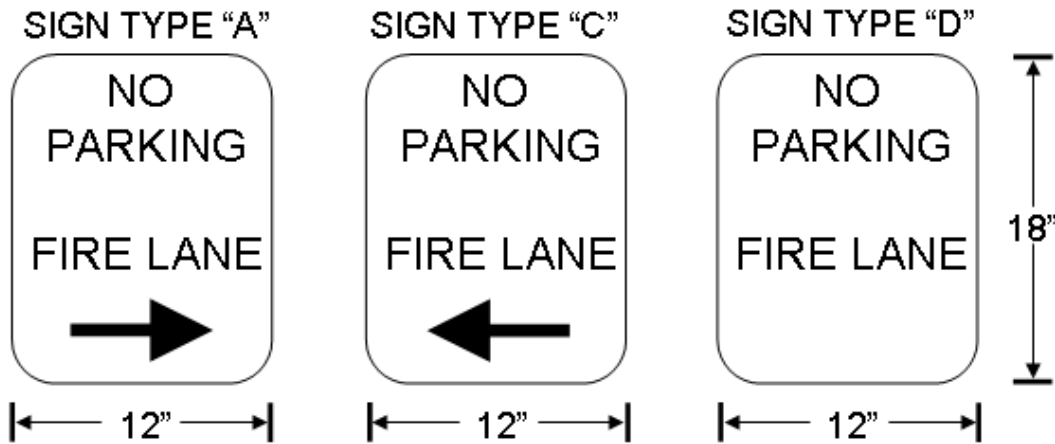
Fire Code Chapter xxx?

posted on both sides as a fire lane, with no parking allowed on either side of the roadway.

- 2. Roads from 30 to 35 feet in width **shall** be **Fire Code Chapter xxx?** posted on one side as “No Parking, Fire Lane”, with parking allowed only on the opposite side of the roadway.

- 3. Roads 36 feet and greater width may allow parking on both sides of the roadway.

- D. When signs are required, the applicant **shall** **??? County Policy** arrange for a funding mechanism, such as a Homeowners Association or Lighting and Landscaping District, to pay for the ongoing maintenance of these parking restrictions.



(Fire Safe Regulations: not applicable)

4.3.1.8 Other Requirements

The County Engineer may require additional design and construction requirements as determined to be necessary to prevent excessive operating costs, protection against deterioration, and obsolescence.

4.3.1.9 Staged Developments

There are some exceptions to these standards associated with phased or staged developments. The following exceptions may be applied to the County's road standards in phased developments, with the approval of the County Engineer:

Exceptions

A. Some proposed streets may be **required** to extend to the boundary line of the development. Temporary turnarounds **shall** be created in compliance with the standards for permanent turnarounds. Temporary turnarounds may be created with temporary easements shown on the map. A barrier approved by the County Engineer **shall** be installed at the end of the improved street (refer to the Standard Plans). A temporary turnaround easement **shall** be removed by a "Certificate of Correction" completed by the applicant, upon the improvement of the road that changes the dead-end road to a through road.

??? **Standard Practice**

??? **Standard Practice**

California Manual on Uniform Traffic Control Devices Standard practice

??? **Surveyor's Office determination of professional practice.**

B. Streets that are one-half the width of the applicable standard road plan are not allowed unless they are planned as part of staged construction of a four lane street and two travel lanes, one in each direction, are constructed.

4.3.1.10 Weight

A. Street structural sections **shall** be designed using normal pavement design methods found in the Caltrans Highway Design Manual, Chapters 600-670, Pavement Engineering for Roadways. Bridges **shall** be designed using the California Amendments to the AASHTO LRFD Bridge Design Specifications HL93 and P15 (permit) for bridges. Reference the following Caltrans documents:

??? **Standard Practice, DOT desires to maintain cost effective roadways over the life of the pavement.**

???

AASHTO Recommendation

1. Bridge Design Specifications,
2. Bridge Design Aides,
3. Bridge Design Details,
4. Bridge Design Detail Sheets, and
5. Bridge Design Memo to Designers.

B. The above referenced standards will provide adequate structures to support all legal commercial vehicles as set forth in the California Vehicle Code, Sections 35550 – 35558, and for fire trucks as set forth in the California Code of Regulations, Title 21, Division 2, Chapter 7.

4.3.1.11 Access Management

- A. Access management is a set of techniques that State and local governments use to control access to highways and roadways. It includes several techniques designed to:
 - 1. Increase the capacity of these roads,
 - 2. Manage congestion, and
 - 3. Reduce accidents.
- B. This is often done by designating an appropriate level of access control for each of a variety of facilities. Local residential roads are typically allowed full access, while major highways and freeways allow very little.
- C. Depending on the type of project proposed and the existing traffic volume and safety conditions in the surrounding area, DOT may **require** the applicant **??? DOT Encroachment Policy and Encroachment Ordinance** to do any of the following:
 - 1. Increase spacing between signals and intersections,
 - 2. Alter driveway location, spacing, and design,
 - 3. Install new, or modify existing, exclusive turning lanes,
 - 4. Install median treatments, including two-way left turn lanes that allow turn movements in multiple directions from a center lane and raised medians that prevent movements across a roadway,
 - 5. Provide service and frontage roads,
 - 6. Implement land use policies that limit right-of-way access to highways, and
 - 7. Add recordation of vehicular access restrictions.

4.3.2 Driveways

The following standards apply to driveways:

- A. A driveway **shall** serve no more than two buildings with no more than three dwelling units on a single parcel, and any number of accessory buildings (Reference California Fire Safe Regulations, Section 1271.00 of Article 1). A road is **required** where more than one parcel **shall** be served. **California Fire Safe Regulations, Section 1271, Article 1???**
- B. Distance between driveways **shall** be consistent with requirements shown in the Standard Plans and safe traffic engineering practices. **??? DOT Encroachment Policy and Professional Standard of Practice**

See the Standard Plans for details of driveway encroachment construction requirements.

4.3.3 Street Lighting

- | | | |
|----|---|---|
| A. | Street lighting may be allowed or required by Specific Plans or as part of Planned Developments. Street lighting may also be required by the County Engineer as needed for traffic safety purposes (e.g., intersections with high pedestrian usage at night). | <u>Standard practice</u> <u>Not a requirement – allows flexibility</u> |
| B. | Where street lighting is required or proposed, its construction shall meet the standards described in the Standard Plans. | <u>Standard practice</u>
<u>California MUTCD</u> |
| C. | Where street lighting is required or proposed, a funding/maintenance entity (such as a Lighting and Landscaping District) shall be formed to pay for the ongoing energy costs and maintenance, subject to review and approval by DOT. | <u>California MUTCD and DOT Policy???</u> |
| D. | Electric service and system wiring for new streetlights shall be underground except where conditions prohibit such installation. | <u>???</u> <u>County Policy</u> |
| E. | All existing streetlights, including those on the site frontage(s) on both sides of the street and 100 feet beyond the property lines, shall be shown on developer-submitted improvement plans. Street lights mounted on utility poles shall also be shown. | <u>Standard practice</u>
<u>Subdivision Map Act, County Subdivision Ordinance</u>
<u>Standard practice</u>
<u>Standard practice Dittos</u> |

4.3.4 Traffic Signals

The construction of new traffic signals is a condition that may be placed on a project during the discretionary review phase. The requirement for new traffic signals often comes about through a traffic impact analysis report that is prepared in support of the permit application.

If the traffic impact analysis report determines the need for a new traffic signal at an intersection, the applicant **shall** construct the traffic signal or, contribute a fair share amount toward the future construction of the traffic signal, at the discretion of the County.

General Plan Policy TC-Xg
xxx and/or Measure Y???

4.3.4.1 Guidelines

- A. Installation of traffic signals is determined through an operational and safety study.
- B. "Signal warrant studies" are part of a traffic impact analysis report. Signal warrant studies are performed to substantiate the need for the installation of a traffic signal at an intersection. The warrants are those included in the California Manual on Uniform Traffic Control Devices, Chapter 4, Section C.
- C. When it is determined that the installation of a traffic signal is necessary for public safety at those locations where development results in a new intersection or access point, or adds a new leg to an existing intersection, that intersection or access **shall** be signalized prior to use and always prior to completion of the first phase of construction.
- D. Traffic signals are coordinated and reviewed through DOT (refer to the Standard Plans).

General Plan Concurrency Policy
~~??? - Depends on signal warrant analysis?~~

4.3.5 Sidewalks, Curb, and Gutter

Standards regarding sidewalks are in Chapter 2, Section 2.5.3 of this manual and in the Standard Plans.

4.3.6 Onsite Improvement Requirements

Parking areas **shall** be sloped at least two percent in at least one direction to prevent ponding and icing. Areas subject to Americans with Disabilities Act (ADA) guidelines may slope at a minimum of one percent. Also see the Title 17 Zoning Ordinance for off-street parking requirements and Standard Plans for on-street parking standard plans.

Standard practice and ADA

4.3.7 Underground Power, Communication, and Other Utility Systems

4.3.7.1 Standards of Construction

- A. Utility plans indicating exact location of trenches, crossings and structures **shall** be approved before any utility placement.
- B. Gas, electrical and communication systems **shall** have 30 inch minimum cover to finished grade when in a public street.
- C. Gas, electrical and communication systems in public streets **shall** be placed before pavement is constructed and **shall** be accurately constructed in conformance with the plans.
- D. Surface facilities that will be located in paved areas **shall** have traffic frames and lids conforming to the Standard Plans.

Encroachment Ordinance, Public Utility Standards and Standard practice

Modified DISM - Standard Practice
~~(standard used to be 24")~~

Standard practice
Standard practice

Traffic Safety Practice
~~??? - Standard Plans are not being adopted at this time~~

- E. Surface facilities that extend above the finished grades **shall** be located so that they will not cause a hazard. **DISM and AASHTO Roadside Design Guide**
- F. The final improvement plans and specifications **shall** show the work to be performed by the applicant, normally consisting of conduit, pull boxes and transformer pads. Wires are normally supplied by the utility entity and need not be shown on the plans. **Subdivision Map Act, County Subdivision Ordinance, and Standard practice**
- G. No non-yielding obstructions, including transformers, splice boxes, and other structures, may be placed within 20 feet of edge of pavement unless vertical curb and gutter has been placed, in which case 6 feet from the top back of curb will be the minimum limit. Structures may also **require** protection posts. **“May” be required by entity owning the structure.**
Standard practice
- H. Water service installations in roadways with cuts or fills greater than six feet in height and slopes steeper than three to one **shall** have the meter box set at finish grade next to the road in the location directed by the district. The service line **shall** then be extended five feet beyond the slope catch-point with PVC schedule 40, sized to match the service. Ends of lines **shall** be marked with an acceptable permanent marker, for example steel T-posts, painted blue. **Per E.I.D. utility purveyors?**
Per E.I.D. utility purveyors?
Per E.I.D. utility purveyors?
- I. Water meter boxes, sewer clean-outs and other utility boxes **shall** be set flush with the grade if in a walk area such as behind the curb. **Liability Concerns with tripping hazards - Standard practice**
- J. Structural backfill for all manholes in streets **shall** conform to Section 19-3.06 of the Caltrans Standard Specifications. **Standard practice**

4.3.7.2 Plans and Specifications

- A. Prior to County acceptance, the applicant **shall** submit to the County Engineer, plans showing the location of the electrical and communication systems prepared by a Civil Engineer, of sufficient detail to enable the County Engineer to ascertain whether such systems conform to the standards set forth herein and to standard acceptable engineering practices. **County Ordinance Chapter 16.16.010 and DISM**
- B. Such plans and specifications **shall** be approved by the authorized representative of the entity operating the electrical or communication systems and **shall** be accompanied by a letter from the entity stating that the entity and applicant have entered into an agreement that will provide the utility's service to the lot line at each lot in the subdivision. **County Ordinance Chapter 16.16.010 and DISM**
- C. A letter **shall** be provided to the County Engineer by each service provider, stating that the provider is willing to maintain and operate the system upon its completion. **County Ordinance Chapter 16.16.010 and DISM**

4.3.8 Storm Water Quality and Drainage

The County is subject to State and Federal laws, as well as its own ordinance, prohibiting the discharge from any property of anything except clean rainwater into the County’s storm drains and waterways.

- A. All types of potential contaminants from jobsites are prohibited, including
 - 1. Sediment,
 - 2. Oil,
 - 3. Other vehicle fluids,
 - 4. Concrete washout,
 - 5. Paint,
 - 6. Landscaping materials,
 - 7. Fertilizers,
 - 8. Pesticides, and
 - 9. Trash.
- B. Sites which involve one acre or more of disturbed soil area, or are part of a larger common plan of development that encompasses one acre or more of disturbed soil, are **required** to file a “Notice of Intent” (NOI) with the Regional Water Quality Control Board. (See Chapter 7, Section 7.1 of this manual for contact and website information.) **NPDES Small Municipal and Construction General Permits**

This requirement applies in the Tahoe region as well.

- C. DSD, Agriculture Department, and DOT review the majority of “Erosion Control Improvement Plans” submitted through the permit and project process. The El Dorado County & Georgetown Divide Resource Conservation District has been contracted through the County to review certain “Erosion Control Improvement Plans”. More information can be found on-line at EMD’s website. (See Chapter 7, Section 7.1 of this manual for contact and website information.)
- D. See Chapter 5 of this manual for more information on BMPs for grading in general. In addition, BMPs specific to agricultural grading can be found by contacting the Agriculture Department.
- E. See the Drainage Manual and Storm Water Management Plan for requirements and standards related to stormwater drainage.
- F. See the Standard Plans for standards related to manholes, inlets, etc.

4.3.9 Design Waivers and Design Exceptions Policy

Design waivers are discussed in Chapter 1 of this manual. In addition, DOT has a “Design Exceptions Policy” that applies in any situations where a deviation from a DOT design standard is requested.

4.4 Miscellaneous Permits

There are several permits that are issued directly by DOT either in conjunction with a discretionary project, or separately for a specific, stand-alone purpose. For example, a commercial project to build a new shopping center may trigger a Design Review process that will ultimately include not only improvement plans as part of the discretionary review process, but also DOT-issued permits for grading, utility, and driveway encroachments after project approval. Another example is when a homeowner wants to add an additional driveway encroachment onto a County road from his/her property; the applicant would submit a stand-alone encroachment permit to DOT. DOT permits include the following:

4.4.1 Grading Permits

At the time of this writing, grading is a joint responsibility between DSD and DOT. Depending on the project, one or both organizations may need to review the grading plan. (See Chapter 5 of this manual for a description of which department is responsible for the various types of grading permits.)

Pursuant to Section 15.14.130 of the Grading Ordinance, when applicable, a grading permit is **required** for earth moving activities conducted on private property within the unincorporated area of the County in order to protect neighboring properties, public welfare, and water quality of streams, rivers and lakes.

??? Grading Ordinance
(One of the Policy Issues)

In order for a permit to be issued, a proposed grading project **shall** be consistent with:

??? General Plan, CEQA, Standard Practice (One of the Policy Issues)

- The *General Plan*,
- Any applicable Specific Plan,
- The Grading, Erosion and Sediment Control Ordinance,
- Chapter 5 of this manual, and
- The Building Code currently in force.

The grading permits that DOT issues typically are requirements associated with the conditions of approval of discretionary projects. Specifically:

- A. “Off-site” grading in the County right-of-way, usually in conjunction with roadways or drainage around roadways.
- B. Any grading associated with new subdivisions (including Parcel Maps) for all land use types (e.g., residential, commercial, etc.).
- C. Grading in subdivisions which includes inspection of roadways and drainage.
- D. Drainage encompasses, among other things, the grading required to create lots and ensure that they drain properly. One form of grading used to create lots is called “mass pad” grading. Examples of when a DOT-issued grading permit may be **required** include:
 - 1. A new commercial building on a County-maintained road which requires grading in the County right-of-way to widen the roadway and create a turn-in to the parking lot for the new building;
 - 2. A new subdivision development, where new roads will be developed and/or where drainage needs to be reviewed.

??? Explanation of applicability of other codes – not a requirement of this section.

Grading plans prepared for the moving of soil, in support of private development, **shall** be completed at no cost to the County. All County services required for the review, approval and inspection of grading plans and operations **shall** be paid for by cost recovery fees collected from the applicant.

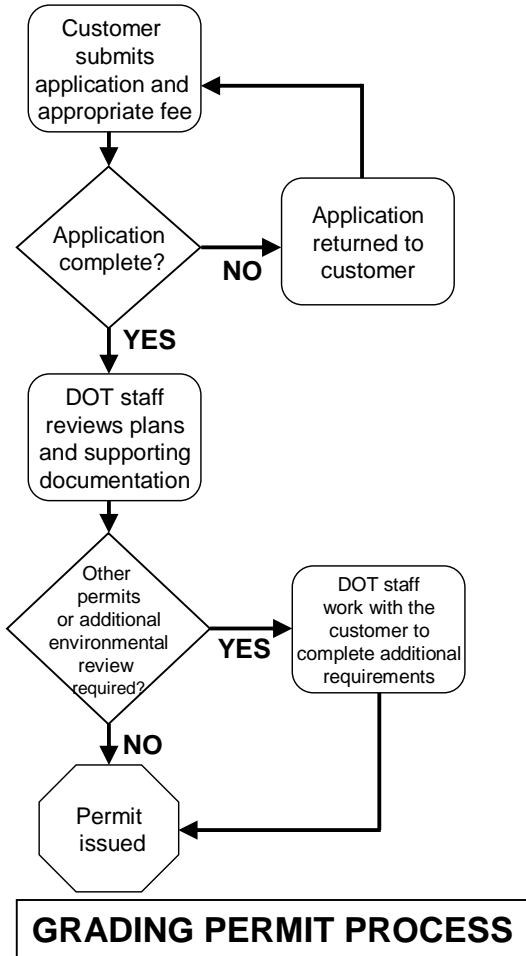
Public Finance Laws, County Engineer Fee Resolution #20-97 Standard practice

County Ordinance Chapter 15.xx.xxx County Engineer Fee Resolution #20-97

4.4.1.1 Submittal Instructions

For any grading permit, submit the items as outlined in Chapter 5 of this manual.

After a discretionary project has been approved:



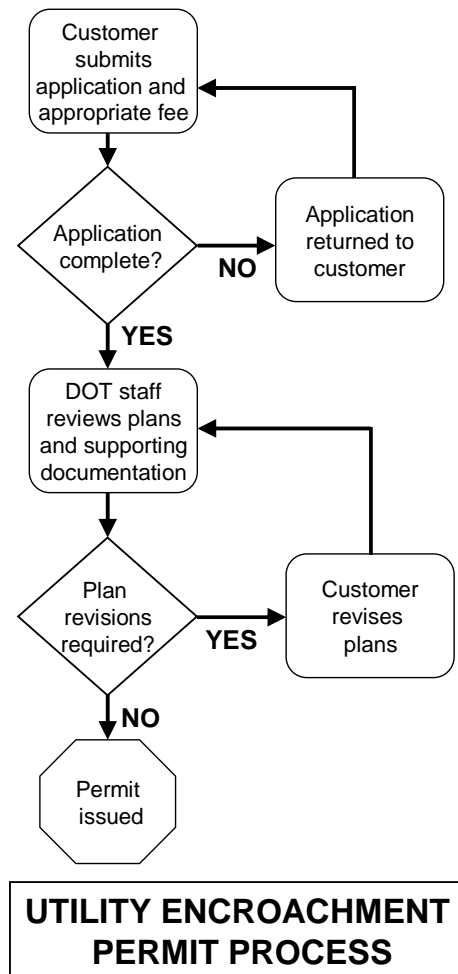
4.4.2 Utility Encroachment Permits

Utility permits follow the rules and process described in the County's Ordinance Title 12, Chapter 12.08 Road Encroachments. This permit is **required** whenever temporary use of the public right-of-way is requested for utility trench construction, for improvements to a maximum value of \$100,000. (Above this threshold, a RIA is required.)

County Ordinance Chapter 12.08

Typical examples of when a utility encroachment is required include:

- A. Installation of a utility trench in a residential or industrial subdivision,
- B. Installation of utility services to a new use (e.g., commercial, residential, or industrial building),
- C. Installation or upgrading of utility service to an existing structure, and
- D. Expansion or modification of transmission or distribution facilities by a public utility.



4.4.3 Miscellaneous Encroachments

4.4.3.1 Driveway/Obstruction Encroachment Permits

This permit is required when:

- A. A property owner wants to modify, replace or construct a new or additional driveway, or
- B. A property owner wishes to put a fixed object in the County's right-of-way.

4.4.3.2 Timber Harvest Temporary Encroachment Permits

Encroachments onto County-maintained roads for the purposes of timber harvesting, **shall** follow the rules and process described in the County's Ordinance Title 12, Chapter 12.08 Road Encroachments. This permit is required whenever temporary use of the public right-of-way is requested for timber harvesting.

County Ordinance Chapter 12.08

4.4.3.3 Oversized Load Permits

Oversized load permits are **required** for any vehicles, or ??? their loads, that are equal to or greater than eight feet County Ordinance Chapters 12.20 and 12.24 wide. An application and appropriate fee **shall** be ??? submitted to DOT.

4.4.3.4 Special Function Permits

A Special Function Permit is needed for any special events such as parades, foot or bicycle races that use the County's roads (reference County Ordinance Title 12, Chapter 12.37 Parades).

4.5 Other

4.5.1 General Vacations and Summary Abandonment of Easements (AOE)

General Vacations and Abandonment of Easements may ??? **Standard Practice** be **required** as part of a land development project.

4.5.2 Irrevocable Offer of Dedication (IOD)

IODs are typically used when an applicant either desires, or is required, to convey right-of-way, in fee, or an easement to the County, usually as a condition of approval for a discretionary project.