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DEPARTMENT OF TRANSPORTATION MISSION:
PROVIDE A SAFE, CONGESTION FREE HIGHWAY
SYSTEM THAT IS RESPONSIVE TO THE NEEDS OF THE
COUNTY'S CITIZENS, AND IS ENVIRONMENTALLY
SENSITIVE.

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 DOT, or that are the primary responsibility of DOT. This Chapter describes DOT's application processes and the components of an application that must be submitted for discretionary projects for which DOT has purview. 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., "Highway Design Manual", "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, call DOT (530) 621-5900 or see the DOT website <http://www.edcgov.us/DOT/index.html>. Following the processes outlined in this Chapter, as well as discussing a project early with DOT staff, will help facilitate the completion of a project in a timely and efficient manner. NOTE: If your project is in the Lake Tahoe basin or vicinity, your project may also be subject to TRPA's requirements. Please contact TRPA for more information.

4.1.1 Primary Goal

DOT's primary goal is to serve the transportation needs of residents and visitors to the County. One of DOT's areas of responsibilities includes oversight of land development, and includes the following specific responsibilities:

- A. Reviewing and recommending conditions for proposed new development projects (e.g., Tentative Maps, Parcel Maps, Design Reviews, etc.) to ensure they meet the County's standards related to road design, 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 below:

4.1.2.1 Discretionary Projects

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

- A. Tentative Maps,

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- B. Special Use Permits,
- C. Design Reviews,
- D. Planned Developments,
- E. *General Plan* Amendments, and
- F. Rezone Applications.

4.1.2.2 Miscellaneous Permits

DOT issues separate permits for specific purposes. Some of these are issued as stand-alone permits or in conjunction with discretionary projects. Included are

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

4.1.2.3. Other Processes

DOT is responsible for processing applicants' requests to vacate and abandon existing easements that were granted to the County (not other parties). These are referred to as "General Vacations" and "Summary Abandonment of Easements" or "AOE"s. Vacations and AOE's 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 technically not permits as they require approval by the Board of Supervisors (Board). DOT also processes "Irrevocable Offer of Dedications" or "IOD"s. 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 help the applicant with the IOD process.

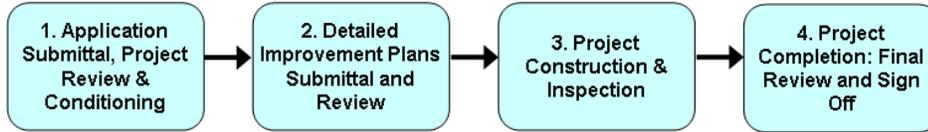
In order to provide its customers service quickly and efficiently, DOT maintains and staffs a service counter in DSD, as well as at DOT. Customers can come to the DSD counter to obtain information on DOT fees and apply for DOT permits and to the DOT counter to get more detailed information about road requirements related to new development, obtain clearances required by DOT, and receive information regarding DOT issues. For questions, please call DOT at (530) 621-5900.

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4.2 GENERAL PROCESS DESCRIPTION FOR DISCRETIONARY PROJECTS

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

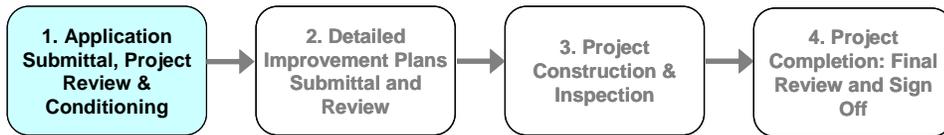
A discretionary project goes through four steps before completion:



There is an in-depth County departmental (e.g., DSD, EMD, DOT, Surveyor's Office) and other agency (e.g., Fire Protection Districts, Community Service Districts) review process for each of the four steps. A project cannot move from one step to the next without completing the prior step. The steps of the process are described below.

Depending on the complexity and size of the project, each step can take between several months and several years, and can incur fees from several thousands to several millions of dollars. Therefore, it is important that applicants educate themselves about the process(es) involved in land development pertaining to their specific project, and, to talk with staff for further clarification.

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.

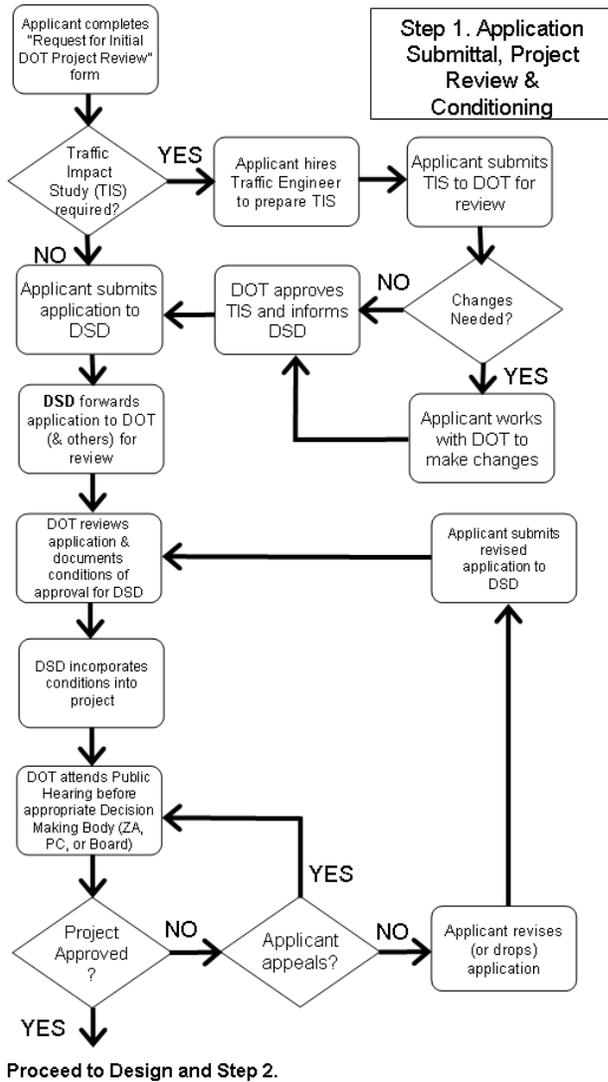
DSD applications for all discretionary development projects, as well as a "Pre-application Submittal Meeting application", are available on-line <http://www.edcgov.us/Planning/applications.html>.

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.

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Once a formal project application and the appropriate fees (<http://www.edcgov.us/Planning/fees.html>) are submitted to DSD, the plans are routed to DOT's Discretionary Review team, as well as 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.



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DOT will respond to DSD with a list of recommended conditions for approval of the permit. 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 applicable decision making body to waive a particular standard. For more information on design waivers, see Chapter 1.

- 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 development fully mitigate all traffic impacts associated with it. Thus, a traffic study may be required. See DOT’s website for more information <http://www.edcgov.us/DOT/TrafficStudy.html> or contact DOT at (530) 621-5900;
 - 2. Consistency with the *General Plan*’s “Transportation and Circulation Element” (<http://www.edcgov.us/Planning/GeneralPlanAdopted.html>);
 - 3. Right-of-Way;
 - 4. Bicycle Transportation Plan;
 - 5. Grading;
 - 6. Drainage (<http://www.edcgov.us/DOT/manuals.html>);
 - 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;
 - 11. Existing Assessment Districts / Zones of Benefit (<http://www.edcgov.us/DOT/special.html>.)
- B. DOT primarily reviews the existing and proposed public infrastructure necessary for:
 - 1. The ability to support the development application,
 - 2. Any grading necessary to develop the site.

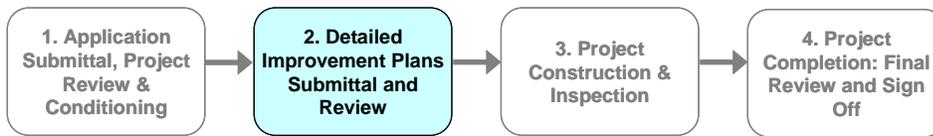
***IMPORTANT –
The more complete your
application, the easier and quicker it
is to review.***

Note: Grading is a shared responsibility with DSD. Depending on the type of project, either DSD or DOT, or both, may review the grading of a proposed project. A current version of a “Preliminary Grading Plan Checklist” is provided on DOT’s website (<http://www.edcgov.us/DOT/manuals.html>).

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 the onsite grading needed to develop the site.

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4.2.3. Step 2. Detailed Improvement Plans Submittal and Review



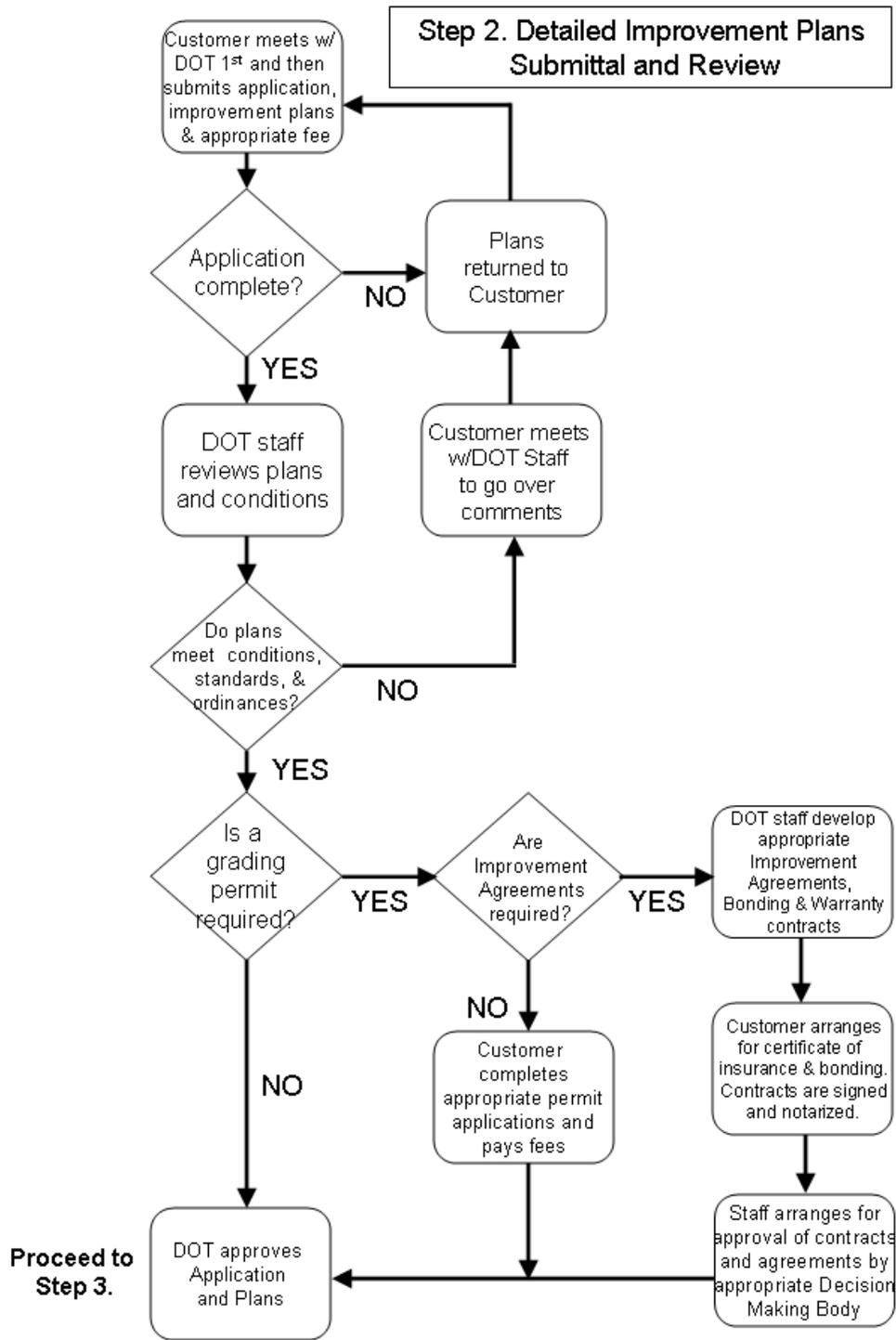
4.2.3.1 Preparing Improvement Plans

Once a project is approved by the appropriate decision making body, 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 to DOT the detailed plans for all the specific improvements that are needed to construct a project, which could 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. Changes may be required. 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 their review, approval and inspection shall be paid for by cost recovery fees collected from the applicant.
- B. The plans shall be adequate to bid and build the improvements at the correct location and elevation.
- C. The plans shall be legible.
- D. At initial submittal, the plans must be substantially complete, signed, 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.

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

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4.2.3.2 Initial Submittal

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

When submitting Improvement Plans, be sure to include the following:

- A. Application – See DOT’s website (<http://www.edcgov.us/DOT/forms.html>).
- B. Plans Prepared In Accordance With DOT Requirements – Plans shall follow requirements set forth in DOT’s Improvements Checklist. The coversheet on the plans shall include DOT’s “Standard Improvement Plan Notes” and “Erosion Control Notes”. The plans shall also follow DOT’s standard plan for symbols and legends, which are based on Caltrans’ standards. These documents can be obtained at the DOT Service Counter or from the website (<http://www.edcgov.us/DOT/forms.html>). 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 procedures;
 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 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 (sealed and signed);
 22. Soils report (sealed and signed);
 23. Structural/other calculations (sealed and signed);
 24. CEQA status with supporting documentation;

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25. Where new aerial surveys must be done in conjunction with a road improvement plan, that information shall be provided to the County (contact DOT for specifics);
 26. 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. DOT has unit price estimates available; contact DOT's Land Development Services' Division for this information. The engineer's estimate shall be signed and sealed prior to final approval.
- D. Plan Review Fee – Include a plan review fee; call DOT or refer to the DSD/DOT website for the current fee schedule.

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 shall be adhered to 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 covers the on-site work done.
 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; see DOT for more details.
1. Owner's name, type of entity (e.g., corporation, partnership, homeowner's association, etc.), and principal place of business;
 2. Subdivider's name, type of entity, and principal place of business;
 3. Total cost of all improvements;
 4. Current APN (Assessor's Parcel Number);
 5. Permit Name and Number;
 6. Date improvement plans signed.

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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 County’s “Standard Plans”.

- B. Sewage Collection & Disposal System – If the improvement plan includes provisions for an onsite system, see Chapter 3. If the improvement plan includes provisions for an offsite sewage collection and disposal system, the applicant shall submit to DOT, plans of the sewage collection and disposal system prepared by a Civil Engineer, of sufficient detail 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.

- C. Landscaping in the public right-of-way – Plans shall be consistent with Chapter 900 of the County’s “Highway Design Manual”, the County’s “Policy G-1” adopted 12/22/87, County “Ordinance 12.12.070 Prohibited Trees”, and the County’s “Water Conserving Landscape Standards” (“Resolution R-69-93”) adopted 2/23/93. A “Lighting and Landscaping District” (LLD) shall be created (or some other funding mechanism acceptable to the County) to pay for future maintenance requirements.

- D. Street Light construction or modification – Plans shall be prepared by a Civil Engineer and consistent with Chapter 2000 of the County’s “Highway Design Manual” and the associated Standard Plans referred to therein.

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 go over 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 to make the 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

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to get a building permit, grading permit, road improvement agreement, or other authority to move a project forward into construction.

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 (referred to as “mylars”) together with all County checkprints. The plans shall be signed and wet stamped by a Civil Engineer.
- B. Additional Plans / Map – 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. (For example, a narrative 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 County 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 forms necessary for the required agreement.

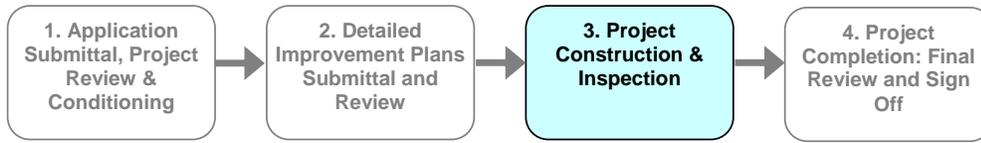
The County has rigorous requirements and it is best to work closely with County staff to ensure compliance with the County’s requirements. This will ensure a project moves as rapidly as possible through the permit approval process.

- 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. Refer to DOT for more information regarding insurance requirements.

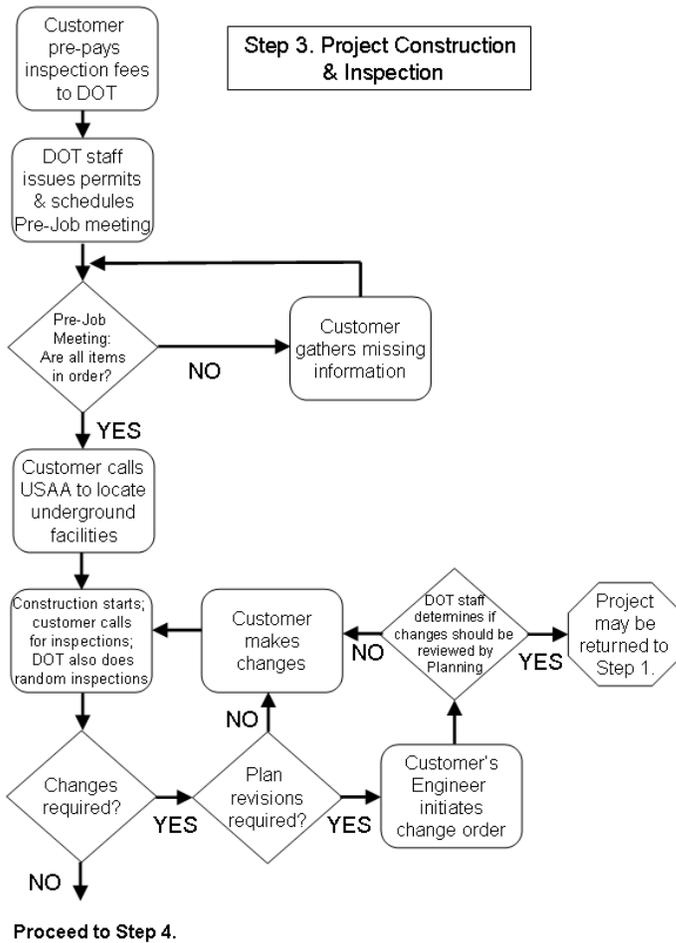
IMPORTANT
*DOT cannot approve permits
without the appropriate Security
and Insurance in place.*

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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 before construction can commence. Most permits have time limits; however, in certain circumstances, these time limits can be extended.



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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 be sure all documents are in order before work commences. See DOT's website for a current checklist of what needs to be brought to the pre-job meeting and the topics that will be discussed.

Before any digging begins, call or check online with Underground Service Alert, known as "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 to prevent accidents, such as digging into an electrical line, water line or a gas pipeline. USA can be found online at <http://www.usanorth.org/> and toll free at 1-800-227-2600.

Some important items typically required for large 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 under construction.
- 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.
- 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 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 must be corrected and re-inspected.

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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. The number to call to schedule an inspection is (530) 621-5900.

IMPORTANT
48 hours advance notice is required for all inspection requests.

4.2.4.3 Plan Revisions

Revisions to plans may be required for various reasons.

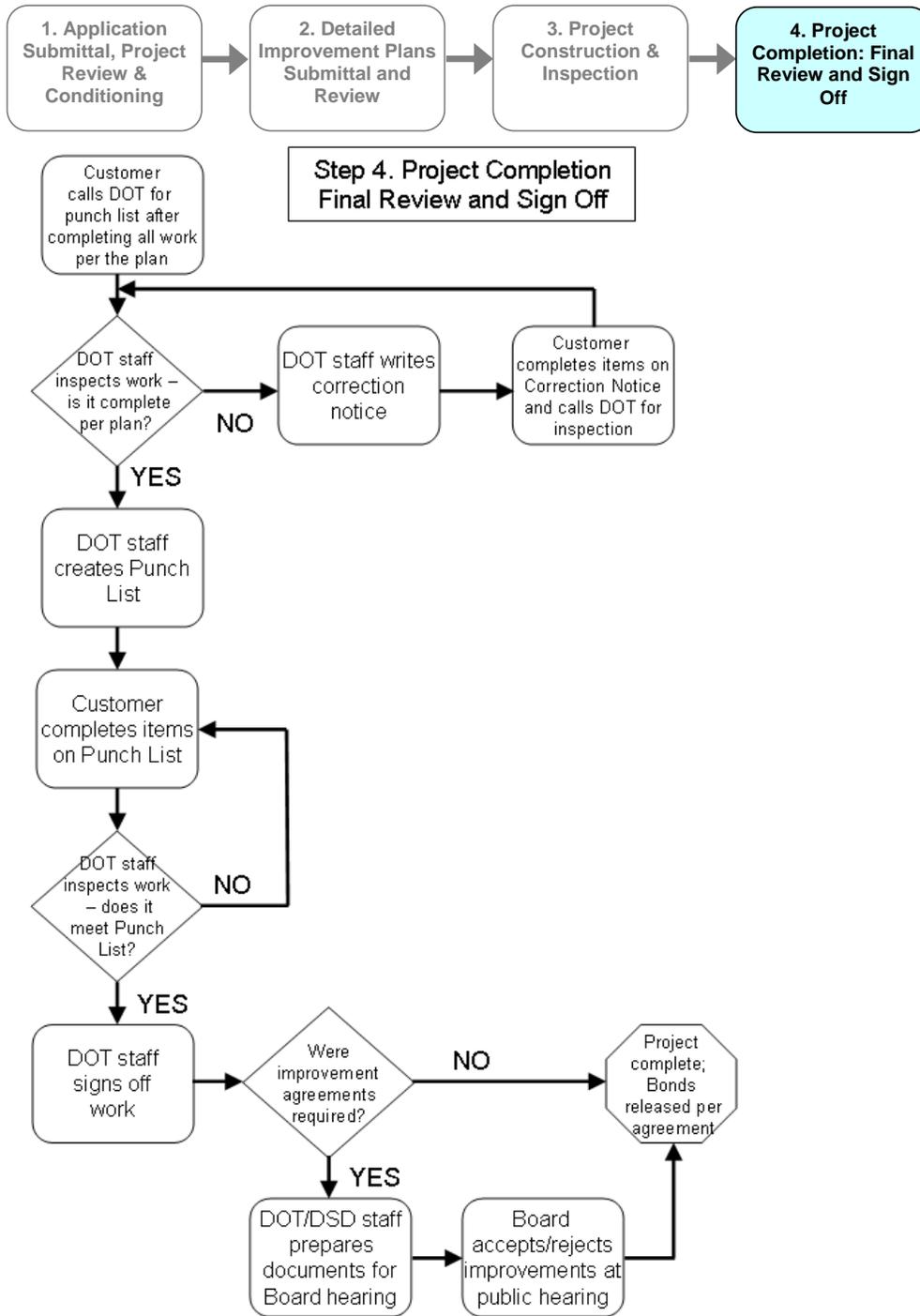
- A. The design change shall be based on recommendations made by the applicant's engineer and shall be approved by the County Engineer prior to revising the original plans.
- B. If changes may impact any of the original components that formed the basis for the project's approval, the project may have 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 the engineer.
- D. A duplicate set of plan sheets shall be submitted along with an explanation of the change and why it is being made.
- E. DOT's County Engineer will sign the plan revisions after everyone else has signed.

The applicant's Civil Engineer will discuss the change with DOT's County Engineer and/or submit a checkset showing 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. Also 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).
- D. Note that for substantial changes, the bonding requirements may need to be changed as well.

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



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4.2.5.1 Punch Lists for the Project

When a project is nearing completion, the DOT inspector will prepare a short list (typically referred to as a “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 or “finalized”. Below is a sample punch list of items typically checked by DOT inspectors when a project is nearing completion. For a current version, please call DOT (ask for the Land Development Services team) or see the DOT website.

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., 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;
- 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 AQMD (Air Quality Management District);
- G. Drainage ditches built within their easements and are operational per the plans;
- H. All fees and bills paid current including inspection fees and Zone of Benefit taxes.

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

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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.
- 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, Community Service District) which will be responsible for ongoing maintenance of these improvements.
- D. All proposed County-maintained and non County-maintained facilities shall meet applicable County standards.

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 staff can prepare for the Board's acceptance of improvements:

- 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 BMPs (Best Management Practices) in place to address California's water quality requirements
<http://www.edcgov.us/DOT/manuals.html>;
- G. Drainage walk-through with Zone of Benefits 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

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easements;

- J. All fees paid current.

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

4.2.5.4 Occupancy

- A. 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 and recordation, shall be paid for by cost recovery fees collected from the applicant. See the current fee schedule at the County website.

IMPORTANT
No occupancy will be allowed until all primary infrastructure is inspected & operational.

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4.3 STANDARDS FOR DISCRETIONARY DEVELOPMENT

These standards shall apply to all discretionary development, except where specifically noted.

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. Roads shall have well-defined roadside ditches or inlets directing surface water away from the roadway to an adequate drainage system.
- B. 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.
- C. 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. Refer to the County’s “Drainage Manual” for more information.

4.3.1.3 Gates

Gates are not permitted across any public roads (non County-maintained or County-maintained).

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”.
- 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 information available from the National Geodetic Survey (www.ngs.noaa.gov/cgi-bin/datasheet.prl) or from DOT shall also be used. All plans and maps shall include a statement on the cover sheet confirming which horizontal and vertical datums have been used.

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- C. Other improvement requirements shall be as is identified in the County's "Highway Design Manual" and "Standard Plans".

4.3.1.5 Erosion Control

For erosion control construction requirements and standard notes for improvement plans, see both the Resource Conservation District website <http://www.eldoradorcd.org/nodes/techassist/erosion.htm> and Chapter 5 of this manual.

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. See the applicable standard plans in the "Standard Plans" manual.
- B. Traffic control signs shall be placed where designated by the County Engineer and shall meet the appropriate standard plan in the "Standard Plans" manual 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 <http://www.edcgov.us/surveyor/>.

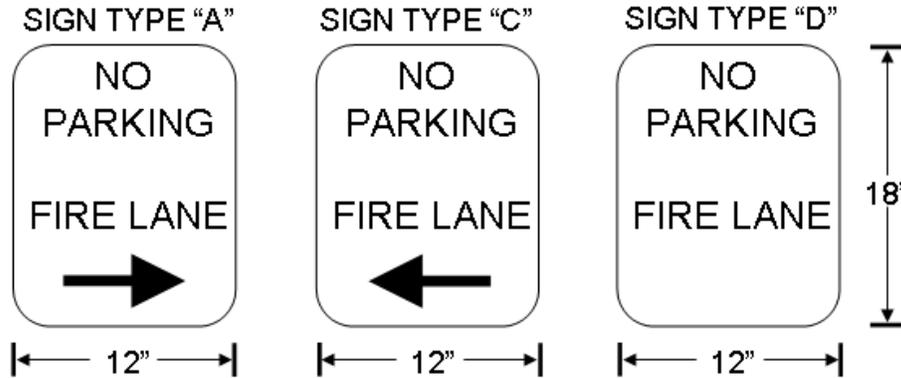
4.3.1.7 On Street Parking

- A. ***Pursuant to the "2007 California Fire Code" and amendments as ratified by the Board on February 26, 2008, and where required by the applicable 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 posted on both sides as a fire lane, with no parking allowed on either side of the roadway.***
 - 2. ***Roads from 30 to 39 feet in width shall be posted on one side as "No Parking, Fire Lane", with parking allowed only on the opposite side of the roadway.***

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- 3. Roads 40 feet and greater width may allow parking on both sides of the roadway.
- D. When signs are required, the applicant shall 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)

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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:

- 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. See the County’s “Standard Plans” for the appropriate 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.
- 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

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four lane street and two travel lanes, one in each direction, are constructed.

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4.3.1.10 Weight

- A. Pursuant to the “2007 California Fire Code” and Code amendments, as ratified by the Board on February 26, 2008, all roads and bridges shall meet a 75,000 pound load. This requirement can be met by using normal pavement design methods found in the Caltrans “Highway Design Manual, Chapters 600-670”, “Pavement Engineering for Roadways”, and the California Amendments to the AASHTO “LRFD Bridge Design Specifications HL93 and P15” (permit) for bridges. Reference the following Caltrans documents (<http://www.dot.ca.gov/hq/esc/techpubs/>):
1. “Bridge Design Specifications”,
 2. “Bridge Design Aides”,
 3. “Bridge Design Details”,
 4. “Bridge Design Detail Sheets”,
 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 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;
 7. Add recordation of vehicular access restrictions.

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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.
- B. Distance between driveways shall be consistent with requirements shown in the County's "Standard Plans" and safe traffic engineering practices.

See the County's "Highway Design Manual" and "Standard Plans" for details of driveway encroachment construction requirements and the "Standard Plans" for driveway requirements.

4.3.3 Street Lighting

- A. Street lighting may be required by Specific Plans or as part of Planned Developments.
- B. 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). In areas where street lighting is required, it shall meet the standards described in the County's "Highway Design Manual" and "Standard Plans".
- C. Where street lighting is required, 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.
- D. Electric service to new streetlights shall be underground except where conditions prohibit such installation.
- 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.
- F. Where the developer provides lighting, it shall meet the design standards and adhere to the standard plans in the County's "Highway Design Manual" and "Standard Plans".



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4.3.4 Traffic Signals

The construction of new traffic signals is conditioned 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 towards the future construction of the traffic signal, at the discretion of the County.

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. See the County's "Highway Design Manual" and "Standard Plans" for more details.

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

- A. Parking areas shall be sloped at least two percent in at least one direction to prevent ponding and icing. Areas subject to ADA guidelines may slope at a minimum of one percent. Also see the County's "Title 17 Zoning Ordinance" for off-street parking requirements and "Standard Plans" for on-street parking standard plans.

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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" manual.
- E. Surface facilities that extend above the finished grades shall be located so that they will not cause a hazard.
- 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.
- 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.
- 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.
- 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.
- J. Structural backfill for all manholes in streets shall conform to "Section 19-3.06" of the Caltrans "Standard Specifications".

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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.
- 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 a lot line at each lot in the subdivision.
- 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.

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,
 9. and trash.

See <http://www.edcgov.us/DOT/manuals.html>.

- 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 (916) 464-4764 or (http://www.waterboards.ca.gov/centralvalley/business_help/permit.html).

This requirement applies in the Tahoe region as well.

- C. DSD, Department of Agriculture, and DOT review the majority of "Erosion Control Improvement Plans" submitted through the permit and project

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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 on the review process of “Erosion Control Improvement Plans” can be found at <http://www.edcgov.us/emd/solidwaste/storm.html>.

- D. See Chapter 5 for more information on Best Management Practices (BMPs) for grading in general. In addition, BMPs specific to agricultural grading can be found [by](#) contacting the Agriculture Department.
- E. See the County’s “Drainage Manual” for requirements and standards related to stormwater drainage.
- F. See the County’s “Highway Design Manual” and “Standard Plans” for standards related to manholes, inlets, etc.

4.3.9 Design Waivers and Design Exceptions Policy

Design waivers are discussed in Chapter [2, section 2.3.5.6 B.](#) 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. See DOT for the most current version of the policy.

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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:

4.4.1 Grading:

- Off-site (in the County's right-of-way)
- Subdivision (related to roads and drainage)

4.4.2 Utility Encroachments

4.4.3 Miscellaneous Encroachments:

- Driveway Access/Obstructions
- Timber Harvest Temporary Encroachments
- Oversized Loads
- Special Functions/Events.

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4.4.1 Grading Permits

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

- A. Pursuant to Section “15.14.130” of the County Grading Ordinance (<http://www.edcgov.us/building/>), 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.
- B. In order for a permit to be issued, a proposed grading project shall be consistent with:
 1. The *General Plan*,
 2. Any applicable Specific Plan,
 3. The County’s “Grading, Erosion and Sediment Control Ordinance”,
 4. Chapter 5 of this manual, and
 5. 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. DOT is responsible for the issuance of permits and inspection of any “off-site” grading in the County right-of-way, usually in conjunction with roadways or drainage around roadways.
- B. DOT is also responsible for the issuance of permits and inspection of any grading associated with new subdivisions (including Parcel Maps) for all land use types (e.g., residential, commercial, etc.).
- C. DOT’s responsibility related to grading in subdivisions 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.

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

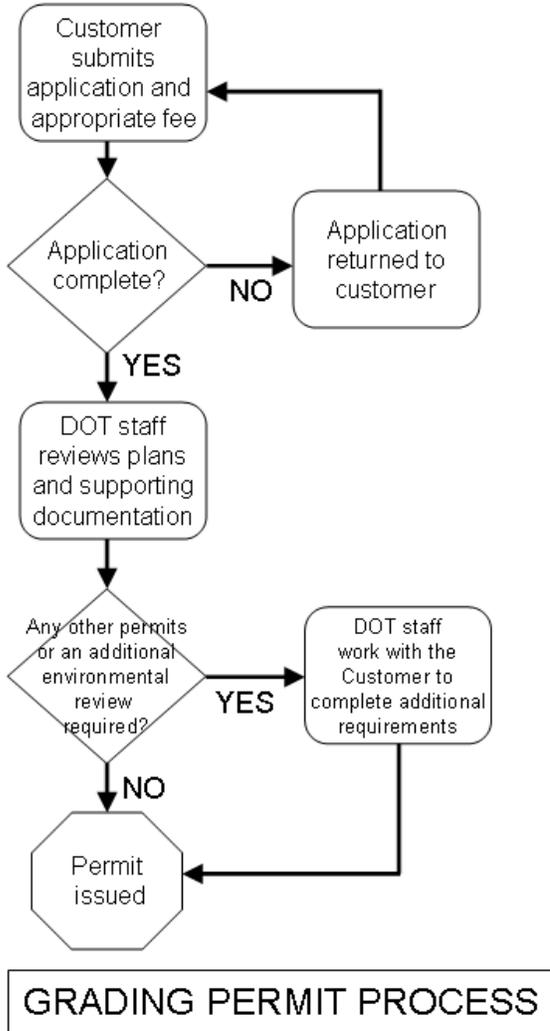
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review, approval and inspection of grading plans and operations shall be paid for by cost recovery fees collected from the applicant.

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:



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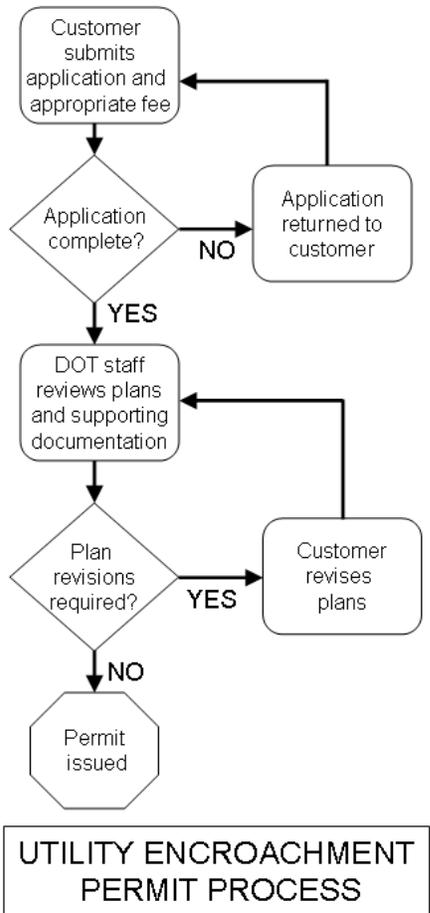
4.4.2 Utility Encroachment Permits

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.)

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;
- D. Expansion or modification of transmission or distribution facilities by a public utility.

For more information, application forms, and instructions, contact DOT.



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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.

Contact DOT for more information and application forms and instructions.

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. See the DOT website for the application form and instructions.

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 wide. An application and appropriate fee shall be submitted to DOT. (See the DOT website for an application form and instructions.)

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".) Call DOT for more information and an application form.

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4.5 OTHER

4.5.1 General Vacations and Summary Abandonment of Easements (AOE)

General Vacations and Abandonments of Easements may be required as part of a land development project. Please contact DOT for more information.

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.

See the DOT website or call DOT for an application, fee schedule, or more information. Please call DOT to schedule an appointment before completing the application.

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