

**SECTION 2**

**GENERAL PROCEDURES AND REQUIREMENTS**

**2-1. ENGINEER REQUIRED**

All plans and specifications for improvements which are to be accepted for maintenance by the City and private on-site drainage and grading shall be prepared by a Consulting Engineer of the appropriate branch of engineering covering the work submitted.

**2-2. PLANS REQUIRED**

Complete plans for all proposed streets, bikeways, grading, erosion control, drainage facilities, sanitary sewer, street lighting, traffic signals, water distribution systems, including any necessary dedications and easements, shall be submitted to the City for review and approval. Copies of rights-of-entry obtained from adjacent properties, if required, shall be provided to the City prior to approval of plans.

**2-3. WORK IN CITY RIGHTS-OF-WAY, EASEMENTS AND WATERWAYS**

The following shall govern work performed within City rights-of-way, easements, and waterways:

- A. Possession of a complete set of City-approved improvement plans shall allow a contractor, duly licensed by the State of California, to perform work specified on the plans in City right-of-ways, easements and waterways. The contractor shall be bonded as required and as specified in the City Code.
- B. Possession of a valid encroachment permit issued in accordance with City Code and the City encroachment permit policy, as adopted by the City Council will allow a contractor, duly licensed by the State of California, to perform work specified in the permit in City rights-of-way.

**2-4. PRELIMINARY PLAN SUBMITTAL REQUIREMENTS (ENTITLEMENTS)**

Projects requiring planning and/or zoning-related permits may require submission of preliminary engineered plans, drawings, or studies in accordance with the current version of the City's Planning Submittal Requirements. Please refer to the City's website ([www.elkgrovecity.org](http://www.elkgrovecity.org)) for the current version of the Planning Submittal Requirements.

Specific requirements vary based on planning permit or entitlement type and may include, but not be limited to, the following:

- Site Plan
- Tentative Map
- Preliminary Grading Plan
- Stormwater Quality Conceptual Plan
- Preliminary Drainage Study
- Traffic Impact Analysis

Plans and studies required as part of a development application shall conform to these Improvement Standards and as required by the City.

**2-5. IMPROVEMENT PLAN SUBMITTAL REQUIREMENTS**

Development Services shall act as the lead department in the submittal process for improvement plans. The submittal package shall be submitted as a whole directly to Development Services, per the requirements of the appropriate Submittal Requirements Form. Please refer to the City of Elk Grove web site ([www.elkgrovecity.org](http://www.elkgrovecity.org)) for current Submittal Requirements and Forms. These apply to all types of submittals including civil improvement plans, landscape plans, and grading plans for private and public improvements. Copies of the current Application Forms are also available directly from Development Services.

Once the submittal has been deemed complete by the City, the packets will be distributed by Development Services to the appropriate Departments/Divisions, including but not limited to:

- Building /Addressing
- Landscape Architectural
- Mapping
- Planning Environmental/Planner of the Day (POD)
- Construction Management
- Operations & Maintenance
- Public Works – Traffic Division
- Public Works – Drainage Division

Each department will review the improvement plans and forward comments to the Engineering Division of Development Services. The Applicant shall respond directly to Engineering Division of Development Services to address each department's comments. The City will not approve the plans until all other departments have accepted the plans along with any other agencies requiring approval.

Discretionary projects which have obtained approval of their entitlement(s) by the appropriate approval body may submit improvement plans for review. At the discretion of the City, projects pending approval of their entitlements may submit plans "at-risk" for concurrent review. Unless otherwise approved by the City, "at-risk" plans may only be submitted after Conditions of Approval have been made available by the Planning Division of Development Services and an "at-risk" letter has been provided by the Applicant to the satisfaction of the City.

Should there be required alterations or revisions to the plans as submitted, Development Services will return one copy with the corrections marked or indicated thereon. If the plans submitted are not prepared in accordance with these Improvement Standards or are not in keeping with the standards of the profession, Development Services may return them unmarked and unapproved. Separate submittal of plans to other agencies may be required for approval.

**2-6. MAPPING SUBMITTAL REQUIREMENTS**

Submittal of all mapping applications shall be made to the City in accordance with the respective Submittal Requirements Form. Please refer to the City of Elk Grove web site ([www.elkgrovecity.org](http://www.elkgrovecity.org)) for current Submittal Requirements Forms. This includes, but is not limited to, the following types of applications:

- Final Maps
- Easements
- Right-of-way Vacation / Abandonment
- Lot Mergers
- Certificate of Compliance and Correction
- Boundary Line Adjustments

**2-7. RESUBMITTAL REQUIREMENTS**

Development Services will indicate the number of plan sets to be resubmitted. The Applicant shall notify Development Services if plans being resubmitted contain revisions or alterations other than those required on previously corrected plans. Revision notations shall not be shown on the plans until after the City has formally approved the plans. Landscape plans, if applicable, are required with or before the second submittal.

**2-8. PLAN REVIEW AND INSPECTION FEE**

When a submittal package is submitted to the City for review, an initial plan review and inspection fee/deposit is required to initiate City plan review. Fees shall be based on the type of application in accordance with the City's current established fee schedule. For the most current fee schedule, please visit the City of Elk Grove website at: [www.elkgrovecity.org](http://www.elkgrovecity.org).

For Fixed Fee type projects, payment 50% of plan check and inspection fees are required at time of initial submittal. Fixed Fees are based on an Engineering cost estimate of the proposed improvements. The cost estimate shall be submitted to the City for review prior to the Applicant providing their submittal package for review. The remaining balance, which will be based on the signed, final construction contract bid price, shall be due upon plan approval, unless authorized by the City to defer payment prior to the City scheduling a pre-construction meeting. For deposit-based projects, the Applicant shall be responsible for payment of actual costs incurred by the City in providing plan check and inspection services. All deposits will be held against actual time and materials billing for the project. Should the development not be carried to completion, any portion of the required deposit over and above the accumulated costs expended by the City on the development will be refunded to the Applicant. If at any point the deposit falls below the thresholds established in the City's Deposit Replenishment Policy, all work will be stopped until an additional deposit is made in accordance with this policy.

Failure of an Applicant to complete a project does not relieve the Applicant of paying all costs incurred by the City. Applicant is obligated to pay for all outstanding charges.

The City shall be notified of any change of billing address. The Consulting Engineer shall notify the City immediately upon change of owner and/or Applicant.

**2-9. PLAN APPROVAL**

No plans will be approved nor construction authorized until the City signifies approval by signing the cover sheet of the full set of plans and all other pre-construction requirements have been satisfied, including but not limited to holding a pre-construction conference, payment of any outstanding fees, and providing required advanced notice to City inspection staff. Revisions, corrections or additions shall be resubmitted to the Development Services for approval. At such time as the Consulting Engineer preparing the plans has made the necessary revisions and signed and stamped the original plans, and fees have been paid, as provided under the provisions of the City Code and amendments thereto, a designated representative of the City will sign the plans in the space provided. The plan approval is valid for a period of twelve (12) months. Should construction not commence within the 12-month period, the plans shall be resubmitted for re-approval. The City shall order any Contractor to cease work on any project if said Contractor does not have properly approved plans in his possession.

**2-10. APPROVED PLANS REQUIRED**

The Consulting Engineer shall deliver the requested number of sets of prints from the approved original plans to the City, which is typically six (6) full size sets and four (4) half size sets as well as one electronic file in PDF format. Additional copies of improvement plans may be required by the Director in certain circumstances and these shall be furnished to the City without cost.

Copies of the final utility letters required by this Section shall be included with the approved plans delivered to the City.

**2-11. IMPROVEMENT PLAN REVISIONS DURING CONSTRUCTION**

Should changes become necessary during construction, the Consulting Engineer shall first obtain the consent of the City and shall then resubmit the title sheet and the plan sheets affected for approval. The changes on the plans shall be made in the following manner:

- A. The original proposal shall not be eradicated from the plans but shall be lined out.
- B. For changes affecting 25% or more of detail on sheet (plan or profile), the original proposal shall be omitted.
- C. In the event that eradicating the original proposal is necessary to maintain clarity of the plans, approval must first be obtained from the City.
- D. The changes shall be clearly shown on the plans with the changes and approval noted on the revision signature block.
- E. After three (3) or more revisions have been approved, the City may require complete reproduction of the plan set.

- F. The changes shall be identified by the revision number in a triangle delineated on the plans adjacent to the change and on the revision signature block.

Minor changes that do not affect the basic design or contract may be made, with the authorization of the City, upon completion of the work before final acceptance of the completed improvements.

Certification by the Consulting Engineer of the finished pad elevations of subdivision lots shall be required prior to final acceptance of the subdivision improvements. Certification shall be in accordance with Section 10-8 of this Manual.

## 2-12. RECORD DRAWINGS

**SPECIAL NOTE:** Water-line connections must be made prior to final paving to prevent utility cuts through the final lift of paving. Sacramento County may not allow final water-line connections until they have received the underground as built information. To insure that water-line connections can be made prior to final paving, Developers must submit Record Drawings of underground work (particularly water utilities) to Sacramento County.

The Applicant shall maintain an accurate record of all approved deviations from the plans before and during construction. Upon completion of work, one set of red-lined plans reflecting all such deviations shall be submitted to the City for review. Following the City's review and approval, the redlined sets shall be converted to Record Drawings. The cover sheet shall include the following statement signed by the engineer in responsible charge: "These record drawings reflect the original City approved design and City approved revisions thereto, along with all field modifications reported by the contractor". Each sheet shall be marked "RECORD DRAWING" and shall contain the Consulting Engineer's original registration stamp and signature.

The following shall be submitted to the City in consideration of improvement acceptance:

- A. Grid coordinate data for plans, maps, data, and exhibits shall be submitted in California State Plane, Zone II, North American Horizontal Datum of 1983 (NAD 83), and National Geodetic Vertical Datum of 1929 (NGVD 29) grid projection in US survey feet. CAD files shall incorporate these grid data.
- B. Electronic plan submittal acceptable to the City containing the following:
- C. Record Drawings of all improvements in a PDF File. The format shall be Adobe Acrobat, most recent or second most recent published software version. The resolution of improvement plan images shall be at least 400 dpi.
- D. A separate copy of the Record Drawing sheets for streetlight and traffic signal improvements in a PDF file. The file shall contain all sheets pertaining to streetlight improvements, including streetlight locations and circuit diagrams. The format shall be Adobe Acrobat, most recent or second most recent published software version. The resolution of improvement plan images shall be at least 400 dpi.

- E. The most up-to-date Computer-Aided Drafting file reflecting the original approved design and any approved revisions that were made electronically. The format shall be AUTOCAD, most recent or second most recent published software version.

**2-13. DEVIATION FROM STANDARDS**

All requests for approval of exceptions from the design requirements contained within these Improvement Standards shall be submitted in writing to Development Services. Approval for exceptions shall be sought as early as possible in the project development process, particularly where the project concept and/or cost estimate depend on the proposed design exceptions.

Requests for design exceptions shall include the following:

- A. A statement of the specific standard for which a design exception is requested.
- B. A thorough but brief description of the reason for the request for the design exception.
- C. A description of any non-standard safety enhancements to be provided such as median barriers, guardrail updates, etc.
- D. An estimate of the additional cost required to conform to the required standard.
- E. The request must be sealed and signed by a California Registered Civil Engineer.

The approval of all deviations from these standards shall be made by the City Engineer.

**2-14. CONFLICTS, ERRORS AND OMISSIONS**

Acceptance of improvement plans by the City is based on the assumption that the information contained on the plans and supporting documents is correct and does not subrogate the Consulting Engineer's responsibility for this project. Any and all errors and omissions related to the design are the responsibility of the Consulting Engineer.

Excepted from approval are any features of the plans that are contrary to, in conflict with, or do not conform to any California State Law, City Code or Resolution, conditions of approval, or generally accepted good engineering practice in keeping with the standards of the professions, even though such errors, omissions or conflicts may have been overlooked in the City's review of the plans.

**2-15. CHANGE IN CONSULTING ENGINEER**

If the Applicant elects to have a registered civil engineer or licensed land surveyor other than the engineer who prepared the plans provide the construction staking, he/she shall provide to the City in writing, the name of the individual or firm one week prior to the staking of the project for construction. The Applicant shall be responsible for:

- verifying all construction,
- the preparation of revised plans for construction changes, and
- the preparation of record drawings upon completion of the construction.

In the Applicant's notification of a change in the firm providing construction staking, he/she shall acknowledge that he/she accepts responsibility for design changes and record drawing information as noted above.

**2-16. BORING AND JACKING SAFETY REQUIREMENTS**

Any boring or jacking operation involving an opening greater than 30 inches in diameter is subject to the State of California Division of Industrial Safety's tunnel safety requirements. If the design plans require any boring and jacking, the Consulting Engineer shall submit to the State Division of Industrial Safety plans and specifications applicable to the tunnel operation, with a letter requesting tunnel classification, prior to bidding the project. This procedure is also recommended to avoid project delay if there is the possibility of any personnel entering the tunnel, regardless of diameter and length. The letter shall identify the agency responsible for the project and the agency's mailing address. The plans shall identify underground utilities and tanks or areas for storing fuel and toxic gases in the vicinity of the tunnel site and a description of the historical land use in the area. The request for classification shall be submitted allowing ample time for the Division of Industrial Safety's review in order that any special requirements can be included in the project plans and specifications. The Consulting Engineer shall also attend the required pre-construction meeting.

**2-17. UTILITIES**

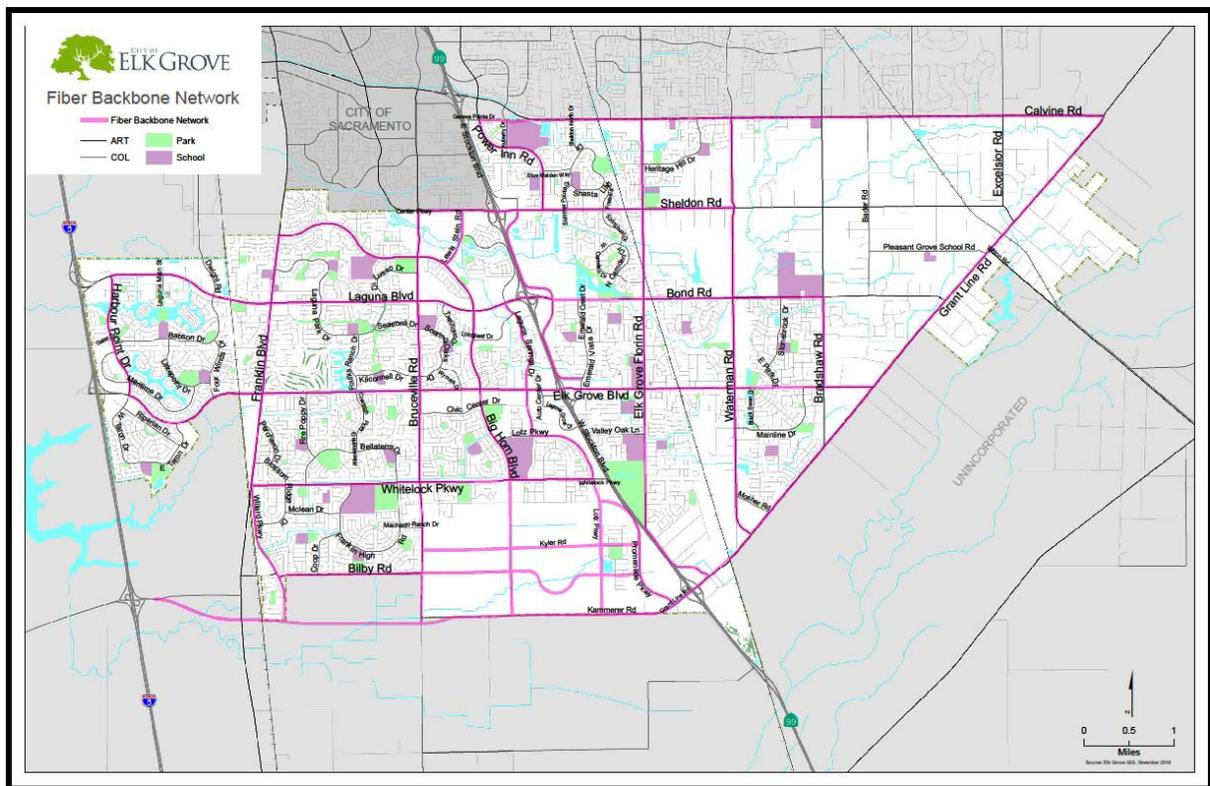
- A. All new sidewalk construction adjacent to roadways shown on Figure 1 – Fiber Backbone Network (below) shall install a minimum of 2ea 2-inch diameter and 1ea 4-inch diameter plastic ducts for future use by the City. Each conduit shall include a pull-wire and have a Type 6 Pull Box installed at a maximum spacing of 500 feet.
- B. All known existing utilities are to be shown on the plans. In addition, the Consulting Engineer shall submit prints of the preliminary and approved plans to the utility companies involved. This is necessary for the utilities to properly plan their relocation projects and needed additional facilities. Copies of the transmittal letters to the utility companies shall be provided to the City. In addition, the following note shall appear on the first page of the plans:

*"No pavement work will occur within existing public right-of-way prior to completion of any necessary utility pole relocation within the public right-of-way."*

- C. Existing and new dry utilities (low and high voltage electrical, gas, telephone, cable, fiber optics and similar) fronting new development shall be placed underground except for very high voltage (69 kV or greater). Relocated power poles for very high voltage, which cannot feasibly be placed underground, shall be placed behind the back of the sidewalk. All lower voltage lines shall be removed from these poles and placed underground. Once placed underground in an area, no new overhead lines shall be installed, even if power poles exist.

- D. Utility manholes and boxes for dry utilities shall not be placed in sidewalks or curb ramps. All dry utility box covers shall be appropriately labeled “Telephone”, “Streetlight”, “Cable”, “Electric”, “Gas”, etc. If the Consulting Engineer approves the installation of a dry utility box in a sidewalk due to extraordinary circumstances, as determined by the City, such box and lid shall be traffic-rated and shall be placed flush with the sidewalk grade.
- E. Hydraulic jetting of utility trenches is not allowed within the City of Elk Grove.
- F. Tree preservation and protection shall be consistent with the City Code.

**Figure 1 – Fiber Backbone Network**



**2-18. PARTIAL PLANS**

Where the improvement plans submitted cover only a portion of ultimate development, the plans submitted shall be accompanied by the approved tentative plan or study plan of the ultimate development.

**2-19. OTHER AGENCY NOTIFICATIONS**

Prior to City approval, the Consulting Engineer is responsible for obtaining the approval and necessary permits of other governmental or municipal agencies when their facilities are involved and/or the plans include work within an agency’s jurisdiction.

**2-20. INSPECTION REQUIREMENTS**

Any improvement which will ultimately be maintained by the City will be inspected during construction by the City. Each phase of construction will be inspected and approved prior to proceeding to subsequent phases.

The City will inspect all grading and drainage during construction, including private stormwater quality improvements.

Any improvement constructed without inspection as provided above, or constructed contrary to the order or instruction of the City, shall be deemed as not complying with the Standard Construction Specifications and this Manual and may not be accepted by the City of Elk Grove for maintenance purposes.

The Applicant shall notify the City when the Contractor first calls for grades and staking and shall provide the City with a copy of all cut sheets.

Within ten (10) days after receiving the request for final inspection, the City shall inspect the work. The Contractor, Consulting Engineer, and/or Applicant will be notified in writing as to any particular defects or deficiencies to be remedied. The Contractor shall proceed to correct any such defects or deficiencies at the earliest possible date. At such time as the work has been completed, a second inspection shall be made by the City to determine if the previously mentioned defects have been repaired, altered, and completed in accordance with the plans. At such time as the City approves the work and accepts the work, the Contractor, Consulting Engineer and/or Applicant will be notified in writing as to the date of final approval and acceptance.

For assessment districts and projects where the City participates in the costs thereof, quantities shall be measured in the presence of the City, Consulting Engineer, and Contractor, and witnessed accordingly.

**2-21. COMMERCIAL / PRIVATE PROPERTY INSPECTION REQUIREMENTS**

- A. City staff will perform inspections on all improvements within City right-of-way or other public easements, including all stormwater quality improvements, whether public or private.
- B. The City and/or appropriate utility service providers will inspect sewer, water, and drainage connections within the public right-of-way and to the point of service for the respective utilities.

**2-22. SPECIAL NOTICES AND PERMITS**

The Consulting Engineer shall be responsible for advising the Contractor as follows:

- A. Contractors shall be in receipt of official City approved plans and shall participate in a pre-construction conference with City staff prior to construction.
- B. Contractor shall notify all utility companies involved in the development prior to beginning of work.

- C. Contractor shall notify Underground Service Alert two working days in advance before an excavation.
- D. Contractor shall be responsible for the protection of all existing monuments and/or other survey monuments and shall notify the City of any damaged or removed City, County, State or Bureau monuments.
- E. Contractor shall be responsible for conducting his operation entirely outside of any floodplain boundaries, unless otherwise approved. 100-year floodplain boundaries shall be clearly delineated in the field by the Contractor or Applicant prior to construction.
- F. Contractor shall be responsible for conducting his operation entirely outside of any no grading area. These areas shall be clearly delineated in the field by the Contractor or Applicant prior to construction.
- G. Where work is being performed in an off-site easement, the Contractor shall notify the property owner within two (2) working days prior to commencing work.
- H. Contractor shall not dispose of chlorinated water or any other non-stormwater discharge into the City drainage system unless an exception is granted in accordance with Chapter 15.12 of City Code.