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PROCEDURAL STEPS FOR PROPOSED IMPROVEMENT (E 800)

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E 800 PROCEDURAL STEPS FOR PROPOSED IMPROVEMENT

The design of a project is not the only function of the design office. To indicate some of the lines of action that should be taken, as well as the design functions, two diagrams are presented: Figure E 810, Assessment Act Project Flow Chart, and Figure E 820, Capital Improvement Project (C.I.P.) Flow Chart. These charts show some of the major steps or phases in the project proceed-
ings, from their initiation through their construction and final acceptance. The details of the administrative, operation, and control steps will be treated in two other Parts of the Manual — Part A, Administration, and Part C, Operations and Control, when these Parts of the Manual are printed.

E 810 ASSESSMENT ACT PROJECTS (STREET IMPROVEMENTS UNDER 1911 ACT AND 1941 ORDINANCE)

The City is primarily concerned with the provisions for public improvements contained in Division 7, The Improvement Act of 1911, Part 3, Chapter 1, of the Streets and Highways Code (see Section E 020E) and the City Ordinance of 1941, which is now seldom used. These improvements may be initiated either by the public through petition or by a Council resolution. All costs are usually borne by the benefitted property owners. See Section E 130, Street Improvement Policies, for details and exceptions.

E 811 PRELIMINARY PROJECT PROCESSING

In order for an assessment act project to have official status, it must be approved by the Council. If the project is originated by the Council, approval need not be sought by the design office unless such approval becomes necessary because of changes in design or other criteria. However, most assessment projects originate by a petition from the public. This means that the petition must be processed and a report submitted to the Council by the design office, indicating the recommendation of the City Engineer as to the feasibility, scope, and estimated cost of the project.

E 811.1 Preliminary Petition: Preliminary petition processing includes issuing the petition; making design investigations either prior to issuance of the petition or after the petition is returned; and the checking of the returned petition by the design office and the Coordinating Division, to ensure that the signatures represent a majority petition.

Basically, the proper approach and sequence of steps to be taken in issuing the petition and initiating the project investigation, and the proper time to make a field trip, where necessary, depend on the type and location of the proposed improvement, the extensiveness and completeness of office records of past jobs and petitions, and the judgment and experience of the designer. For example, there would be no point in making an extensive preliminary design investigation prior to issuance of the petition if it is obvious from existing records, or as a result of a field trip, that the project is unfeasible from the standpoint of design or economy. In this case, it is usually a matter of pointing this out to the petitioner.

Usually the first step in processing a petition is the office investigation. The designer should check all sources of information concerning the proposed improvement area for the following:

1. Prior studies, plans, or existing field work, and the type of terrain involved. This information may be found on drainage maps or design office records, or on other records which may be checked out of the vault.

2. Any interference or conflicts with proposed freeways, storm drain projects, or other improvements. These possible conflicts may be checked from freeway maps, the list of Bond Issue projects, monthly status and priority reports for Capital Improvement Projects, private improvement (“A” and “B” permit) projects, and other assessment act projects.

3. Previously circulated or outstanding petitions, or petitions recently processed, that involve areas close to or abutting the proposed assessment area. The file on these petitions should be available at each design office.
E 811.11 Necessity for Field Trip: Typical of some of the factors that dictate the need for a field trip prior to the issuance of the petition are the following:

1. Where office records or prior studies indicate design problems.

2. Where the designer or the petitioners are uncertain as to what the assessment boundary or project limits will be.

3. Where it is desirable to include facilities in conjunction with other divisions or agencies, such as street widening projects, street maintenance, traffic installations, street lights, parkway trees, water, sewers, storm drains, etc. Representatives from these agencies may be requested to accompany the designer for field investigations.

E 811.12 Field Observations: These are made for use in the preparation of the petition, the Preliminary Engineering Report (PER), the report to Council subsequent to the return of the signed petition, and the preliminary design investigation, and generally include the following:

1. An evaluation of the reliability of existing records and information. This may be done by comparing records with field observations, and a few measurements may be taken as a rough check. Evidence of changes may be noted as a result of earth or pavement settlement, new grading, and recent addition or removal of structures or improvements. Some of the old vault records indicate the need for the addition of 5.78 feet to elevations shown on old plans and profiles to bring them up to the new datum.

2. A determination of project feasibility with an approximate alignment and grade, covering the following questions:
   a. Will the proposed project, using required design criteria, fit the area?
   b. Will the cost of grading, removal of existing improvements, construction, and right of way be within reason, relative to the benefits received?

3. Taking preliminary measurements if needed to make a cost estimate in filling out the PER, the work order, and the Report to Council after receipt of petition. See Part C, Operations and Control, when this Part of the Manual is printed, for details of these items. Note the condition and determine the approximate location of existing improvements to be joined or removed, and drainage problems or encroachments that could create design or construction problems. Photographs, particularly of critical areas, are very useful for future office and design use.

A file of recent aerial photographs of many areas throughout the City, taken from a helicopter flying at different levels and presenting several views of each location, is available to the design offices upon request from the Advanced Planning and C.I.P. Section of the Coordinating Division of the Bureau of Engineering.

4. Observing any conditions, peculiarities, or design problems that would restrict, limit, enlarge, or in any way affect the assessment district. The criteria for setting up the assessment district are discussed in the Streets and Highways Code. See Section E 020E.

5. Personal contact in the field, if expedient, concerning any questions that may arise about the petition or proposed improvement with respect to the wishes of the petitioner or the design office.

The other details of petition preparation and further processing pertinent to both the designer and the petitioner will be covered more fully in Part C, Operations and Control, when this Part of the Manual is printed.

E 811.2 Project Report and Council Action: Project report processing will be dealt with in detail in Part A, Administration, and Part C, Operations and Control, when these Parts of the Manual are printed. A brief summary of some of the steps that are taken prior to design by the design office is covered in the following discussion.

After a petition is returned to the design office (the date it is stamped as being received by the design office is considered the “filing date”), it is checked to see whether the signatures represent a majority ownership of foot frontage within the proposed assessment district. Assuming the petition meets all of the requirements, the Division or District design office desiring a work order number should prepare a work order document, Form Eng. 3.351, Bureau of Engineering Work Order. See Figure E 811.2. This document should be signed by the Division or District Engineer and forwarded to the Administration Division.
total estimated cost is available at the time the document is prepared, the estimated-costs space may be left blank. If the design office submits an assessment project work order with no total estimated cost, that office should submit a completed and revised work order document as soon as the total estimated cost becomes available. At the very latest, this should occur with the submittal of the report to Council. The revised work order document should accompany the report to Council when it is forwarded to the Coordinating Division.

The Administration Division will issue a work order number only upon receipt of the work order document. A work order number will then be assigned to this document and copies will be returned to the initiating Division or District office. However, the design office may attach a written request to the work order document, asking the Administration Division to furnish the work order number by phone.

Exceptions to this procedure, in the event of an emergency or other contingency, may be made by contacting the Deputy City Engineer of the initiating office. If the Deputy City Engineer is not available, the Division Head of the Administration Division may be contacted. When work order numbers are so assigned, the initiating office must submit a work order document to the Administration Division within 5 working days.

Based on information obtained from the office and field investigations, the following forms and reports are prepared.

**E 811.21 Preliminary Engineering Report:** A preliminary engineering report (PER) includes the type of project, a total cost estimate, and information as to whether other agencies may be involved. A copy of this report is transmitted to each agency involved and to the Administration Division within 60 days after the petition filing date, or after the resolution date for projects initiated by Council resolution. All copies of the PER are then transmitted via the Administration Division to the various concerned offices. The information contained in the PER is used to provide better coordination between offices and to facilitate project processing.

**E 811.22 Project Cost Estimates:** In a project cost estimate the quantities involved are determined and the lump sum and unit prices for these amounts are obtained. See Section E 141, Cost Estimates. Where other facilities, such as storm drains, sewers, etc., are to be included in the project, a written request for a cost estimate, with a sketch if needed, should be sent to the appropriate design office.

A preliminary project total estimated cost, including right of way costs, is prepared and transmitted both in the report to the Council and in the work order request. This estimate is also used for the PER and any other preliminary project forms or reports that may be required. The costs of the assessable contingencies are limited by the Council to a maximum of 15 percent of the total estimated construction cost.

**E 811.23 Authorization for Projects:** To obtain authorization for the project, the design office submits a report to the Coordinating Division, which submits it to the Council. This report indicates the type and location of the project; installations required by other offices or agencies; the project limits; a project cost estimate (which would include the cost of the facilities of other offices, right of way costs, etc.); a recommendation by the City Engineer for project approval; and a sketch outlining the proposed assessment district.

When the proposed improvement is of more than local benefit, public funds may be appropriated by the Council. A statement to the effect that funds will be needed for this purpose should also be included in the report to Council. The Form CAO-39 used for making this request for public funds is kept on file by the design office. It is then forwarded on request to the Coordinating Division for use in budget preparation.

A situation for which either Council approval is sought or information for Council use or review is required (such information being included in the report) is one in which right of way is required and sufficient information is available at this preliminary stage. In such a case, a sketch indicating the limits of the right of way requirements is submitted to the Planning Department for their review and recommendation. The report to Council will then include also the following items:

1. A comment to the effect that either the required right of way is being reviewed or a recommendation for its acceptance or rejection has been
made by the Planning Department (whichever the case may be at the time the report is submitted).

2. A request for the use of Section 5102 of the Streets and Highways Code for the purpose of condemning the property needed for additional right of way. The use of this Section includes a provision for obtaining through legal action an Order of Immediate Possession (O.I.P.). (See Subsections E 814.1 and E 055.131, Order of Immediate Possession.

3. A request for the use of Section 5360.3. This Section is used when the property owner voluntarily dedicates the required right of way. An amount equal to the appraised value of the appropriated property is then used to offset all or part of the improvement cost to the property owner.

4. Instructions for the City Attorney to present a Condemnation Ordinance for acquisition under Section 5102 when the City Attorney is furnished a description of the property to be condemned.

After Council approval, a copy of its action to proceed is forwarded to all concerned offices.

E 811.3 Preliminary Assessment Map: After the City Council approves the preliminary engineering report on an assessment project, the Assessment Section of the Coordinating Division prepares a preliminary assessment map, which is then sent to the design office. This document is an original drawing on mylar or a photographic reproduction transparency of a print paste-up, and is usually to the scale of 1 inch equals 100 feet. It shows all the property to be included in the assessment district which will benefit by the proposed improvement. It is based on the preliminary sketch sent with the petition by the design office. The assessment map should show sufficient information so that a legal description can be written for the assessment bonds for all the involved parcels. This map is set aside by the design office until the design plans are completed. See Section E 813.

Whenever design is expected to be completed within 90 days of the City Council authorization of the project, a special request by phone for the preliminary assessment map should be made to the Assessment Section of the Coordinating Division.

E 812 PRELIMINARY DESIGN PROCEDURE

There are often several approaches to the solution of a given design problem. Early in the design these alternatives should be given consideration.

E 812.1 Field Data: Preliminary observations should have been made and needs for field data determined during the course of processing the petition. Field work should be ordered immediately upon receipt of an approved work order and favorable Council action.

E 812.11 Survey Division Field Data: If existing survey field work or records are available, they should be checked to determine whether the information is still accurate. Usually after a 5-year period, and in some cases less, previous survey work may be inaccurate due to pavement or ground settlement, new construction, street resurfacing, new private improvements, etc. A written description, indicating limits of field work; any special information or instructions; and a sketch, if this will make the instructions clearer, are included in the request to the Survey Division.

The field data required for street and alley design usually consist of a profile and topography of the existing areas within, and adjacent to, the proposed improvement. For profiles, the survey limits are defined on streets running generally north and south by mentioning the most northerly limit first, and the most easterly limit first on streets running generally east and west. On cross-sections, unless given specific instructions, the Survey Division will use its own judgment in determining the limits. Therefore, the specific limits desired should be indicated. For example, for a street running north and south, the limits should extend so many feet east of and west of a street property line, or any other reference line. For further details, refer to Part J, Survey, of the Manual. The designer should always request sufficient existing topography beyond the proposed improvement limits to ensure having the data necessary to provide for smooth transitions from proposed to existing improvements.

All of the affected agencies should combine their field work requests to eliminate duplication. Also, the best form for the survey information requested should be chosen; e.g., field book, AL topographical map, aerial photos, etc. A discussion
with the Survey Division personnel may aid in this decision.

**E 812.12 Bureau of Standards Field Data:** The condition of the subsurface has become increasingly important, as evidenced by many failures of structures and improvements due to the vertical subsidence or horizontal displacement of the soil substructure. Subsurface movements may be due to improper grading or compaction, presence of groundwater, poor soil, and other natural causes.

From the preliminary field study and a review of the project, it may be determined that a subsurface survey is also needed. These subsurface data should be available prior to design, or while the design is still in the preliminary stages. At the engineer’s request, the Bureau of Standards will make available such data as:

1. A soil analysis, groundwater conditions, etc.
2. A compaction test, which is indicative of the stability and bearing strength of the existing soil; the compaction required for the proposed improvement; the stability of existing slopes; and the maximum slopes permitted for a given soil.
3. The need for, and the thickness required for, select material subbase; and the pavement thicknesses.
4. Core tests to show the type and thickness of existing pavements or other subsurface information.

The first step is to interpret the field survey data and correlate it with the type and requirements of the project. Next, a decision should be made as to the layout of the construction plans, profile, and cross-sections; the need for worksheets; what scale sizes to use; etc. Details for these preparations are outlined in Section E 900, Construction Plan Preparation, which is under preparation. The next step is to check the field notes, correct any obvious errors, and initial and date the correction in the field book. Any doubtful questions should be resolved with the supervisor or the Survey Division and the corrected notes should then be used to plot and calculate the data for design use.

**E 812.2 Preliminary Design Controls and Alternative Routes:** Tentative horizontal and vertical control points for the alignment and grade are established. These controls are determined by considering all of the design criteria, policies, and existing conditions, as outlined in the various sections of this Part of the Manual.

In City streets and alleys, employing the ideal design standards and criteria for a proposed improvement may make the construction costs excessively high. It is usually expedient to effect a balanced design by choosing an alternative that modifies some of the least important design factors and permits maintenance of a reasonably safe standard for vehicular operation. This can be effected and the costs still kept within reasonable and justifiable limits. For example, in designing horizontal or vertical curvature, the choice of values from the “safe” charts instead of the “comfortable” charts may permit more flexibility in the design, which would be one step in the direction of economy.

**E 812.3 Involvement of Other Design and Non-design Agencies:** In previous discussions, the assumption was made that it is readily apparent that the use of other agencies or of other facilities, utilities, etc., is involved. This may be so because the property owner has requested their inclusion or as a result of preliminary office and field investigation. However, if this is not the case, the need may become more apparent after the field work is plotted and the preliminary design started. For example, in some hillside improvements, it may not be easily determinable in one case whether grading operations will require slope easements, or in another case whether an existing sump can be eliminated, until a tentative grade and alignment are established. In such cases of doubt, more design investigation may provide the answer. If a considerable amount of investigation is required, it may be better, because of the time element, and if the conditions so indicate, to assume that the Bureau of Right of Way and Land is involved in the first case, and that the Storm Drain Design Division or the Storm Drain Section of the District and probably the Bureau of Right of Way and Land are involved in the second case. After deciding that other agencies are involved, it is advisable to notify them without delay and arrange a joint field trip.

**E 812.31 Oral Agreements or Commitments:** Any oral agreements or commitments made during the joint field trip should be verified by a memor-
andum sent to the particular office making this commitment, indicating the terms of the agreement. For example, if a project involves a partially improved street in which the Bureau of Street Maintenance has accepted the maintenance responsibility for the existing pavement, and a curb, gutter, and sidewalk are to be constructed, the Bureau may indicate its willingness to construct some new pavement and/or resurfacing in joining the existing to the proposed improvement. A statement indicating the approximate extent and the date of the work to be done by the Bureau of Street Maintenance should be submitted to the Bureau for confirmation and for its use for advance planning and budgetary purposes.

E 812.32 Property Owners Contacted: Another duty of the design engineer is to contact the property owners in order to learn their wishes or needs with respect to the construction, alteration, or removal of driveways, fences, trees, etc. When additional right of way may be involved, it may be extremely helpful for the designer and the right of way agent to have some preliminary knowledge of the property owner’s attitude toward the City’s acquisition of slope easements or the disposition of garages, fences, or improvements that either exist on private property or encroach on the public street. See Subsections E 054.22, Right of Entry, and E 671.3, Private Improvements on Private Property.

E 812.33 Information and Data Given to Other Design Groups or Agencies: The other design groups or agencies that are involved, and that have participated in the joint field trip, receive a copy of the preliminary street design plans and of any survey work previously requested. These other offices are now in a position to plan intelligently their own phase of design. To officially start the action in the other offices, a memorandum requesting related design office or other work is sent from the street design office in the Central District to the other concerned offices. In the case of the District offices, it is usually done by an oral agreement between design sections within the district or by a memorandum to other concerned offices not in the district.

E 812.34 Additional Right of Way Required: It is extremely important that as early in the design procedure as possible, where additional right of way is deemed necessary, a sketch showing all additional right of way requirements be prepared and submitted to the Street Opening and Widening Division. See Part C, Operations and Control, when this Part of the Manual is printed. The Street Opening and Widening Division prepares a preliminary right of way map. The Bureau of Right of Way and Land makes title searches to ascertain the legal ownership of the involved properties. The Street Opening and Widening Division, using the information from the Bureau of Right of Way and Land, prepares a parcelled right of way map and transmits a copy to the design office. The title search may be significant to the design offices in certain respects; for example, the determination of prior rights of ownership of the involved right of way easements can affect the cost and design of the project. Therefore, it is important, in the course of making preliminary design studies, to receive a report on this matter from the Bureau of Right of Way and Land.

E 813 FINAL DESIGN STAGE COMPLETED AND APPROVED

Although there is no distinct line separating preliminary and final design, certain steps are completed which might be considered part of the final design stages. The construction plan preparation should be well under way toward completion. As for the design, the control points should have been determined, a final grade established, and the right of way requirements reasonably certain. All but a few of the relatively minor design details should have been worked out. See Figures E 813(1) and (2).

E 813.1 Final Design Completed: To save time, the streets should be designed concurrently with the design, installation, changes, or construction plan preparation of the other offices. Continual contact and coordinated efforts between the street design office and other offices should be such that when a final copy of the other offices’ plans is submitted, there should be little or no need for any plan changes. However, it is a good policy to check these other plans against the street design plans to ensure against possible conflicts. All phases of the other agencies’ and the street design plans should show the proper dovetailing of construction steps, detours, etc. After the pertinent data or information have been transferred onto the construction plans, the final design details are completed.
One of the last steps taken toward plan completion is the final field trip. This field trip is almost always necessary for a final inspection to tie up any loose ends of design. The design is checked against existing field conditions, making sure the existing conditions have not changed since either the field survey was taken or the designer's last previous trip was made. All join lines, removals, scoring lines, etc., are noted in the field and checked against the plans.

E 813.2 Assessment Information Completed on Construction Plans: The completed construction plans are checked by the design squad. A construction plan check list for the designer's use is included on Figure E 813. When the design is finished, the designer, by referring to the assessment map, should plot on the construction plans the frontage distances and the lot, parcel, and subdivision lines intersecting the frontage to be improved. Lot and tract numbers should also be shown. See Figures E 813.2(1) and (2).

Sidewalk and driveway quantities should be shown, as well as any work done on public or private property that is to be directly assessed to each lot within the assessment district, as shown or discussed in the following examples:

1. Sidewalk and driveway quantities should be indicated to the nearest square foot for each parcel benefitted except where uniform width sidewalk extends the full frontage of the interior lots. See Figures E 813.2(1) and (2).

2. The area of the top of the curb (0.50 feet x length) should not be included in the area of the sidewalk abutting a curb and in the area of the driveway approaches. See Figures E 813.2(1); E 813.2(2), Plate II; and E 630B (1) and (2), Nomenclature of Driveway Component Parts.

3. For corner parcels where there is a sidewalk return and the lot corner involves an arc, the sidewalk area should be calculated by multiplying the frontage distance (including the tangent distance of the arc) by the normal width of the sidewalk except where the curb line or the sidewalk line falls within the described area. See the shaded area on Figure E 813.2(2), Plate I. In the latter case, only the area bounded by the curb line or sidewalk line and the property line tangent should be included. See the shaded area on Figure E 813.2(2), Plate II.

4. Where the sidewalk is constructed on more than one side of a parcel, the amount on each frontage should be shown separately. See Figure E 813.2(2), Plates I and II.

5. In no case should a parcel show more sidewalk area than actually fronts on the parcel. See the shaded areas on Figure E 813.2(2), Plates I, II, and III. However, the excess area of the sidewalk on a corner return is taken care of by the Assessment Section of the Coordinating Division. Also, paragraph 6b might be considered an exception technically.

6. Where a driveway fronts on two or more properties, the area should be apportioned according to lot frontage. In general, it is presumed that a parcel will not benefit if it has less than 7 feet of driveway frontage exclusive of the X distance.

   a. The benefit dividing line for a driveway or sidewalk area fronting on two properties is a line perpendicular or radial to the curb line and passing through the intersection of the parcels' common property line and the street property line. See Figure E 813.2(2), Plate III. Also, see Section E 630, Driveways.

   b. When a driveway fronts on two parcels and a sidewalk is involved but the driveway is all assessed to one parcel, the sidewalk area for the parcel not benefitting from the driveway shall be the lot frontage times the sidewalk width. The sidewalk area for the parcel receiving the driveway benefit shall be the lot frontage minus the entire driveway width times the sidewalk width.

7. Quantities for driveway or sidewalk construction on private property shall be shown separately from those for construction in the street area. The type and thickness of material should be shown. Examples are 4" R & O, 4" Conc., etc. See Figure E 813.2(1). In the event that the driveway apron in the area between the back of the sidewalk line and the property line is reconstructed in connection with the construction on private property, the quantity for this area should be included in the quantity for the driveway construction on private property if the type and thickness of material are the same. See Figure E 813.2(1). Grading quantities on private property (grading for unpaved access to private property, etc.) should be shown for each lot where grading is the only construction to be done. Grading quantities need not be shown.
where driveways or sidewalks are actually being constructed on private property.

8. Driveway quantities shall be shown on the plans at the driveway locations even though these quantities are shown elsewhere on the plans in a driveway schedule.

9. Reconstruction quantities shall be shown separately. See Figure E 813.2(1).

**E 813.3 Preliminary Assessment Map Completed:** The designer plots on the preliminary assessment map any additional permanent easements, dedications, or right of way that may be required for the project. These items must be located by tie-distances, bearings, etc. The assessment boundary is then plotted on the reverse side of the transparency to complete the preliminary assessment map.

**E 813.4 Final Document Review and City Engineer Approval:** After the construction plans have been checked, they are submitted to the Division or District Engineers or their assistants for their review and approval. This check includes coordinating the designs of other agencies with the final street design; reviewing the final street design to determine that it fits into the overall picture and fulfills all the basic purposes of the project; determining that the design is the one best suited to the given conditions at minimum cost; and checking to make sure that it does not violate any of the City's policies, codes, or ordinances. The plans are then signed by the Division or District Engineer.

Since the information on the preliminary assessment map and the construction plans is used by the Bureau of Assessments in making its assessment cost spread determination, it is very important that this information be complete and accurate. In addition, there are many situations where unusual circumstances may be involved in the design considerations that may particularly benefit one property owner over another. Since these situations may not be evident from the construction plans or the preliminary assessment map, the designer should be sure that this information is also transmitted.

The approved construction plans, the completed preliminary assessment map, and the Council File are then transmitted by memorandum to the Coordinating Division. The memorandum should contain any information pertinent to the project. If the right of way acquisition request was not included in the petition report to the Council, this should also be noted.

After the preliminary assessment map has been sent from the design office to the Coordinating Division, it is checked for accuracy. Any minor errors are corrected at this time. However, if there are extensive corrections necessary, it is returned to the design office by memorandum for these corrections. After all the corrections are made, it is sent to the Indexing Section of the Administration Division by the Assessment Section of the Coordinating Division.

To clarify the differences in the terminology in referring to the map of the assessment district, the following explanation is offered: The Streets and Highways Code requires an 18” x 26” map of the assessment district. See Section E 02OE. This size is referred to as the “A” series. For convenience only, after the map of the assessment district is indexed, it may be referred to as the A-Map or assessment map.

The plans are sent to the plans coordinator, who circulates them to the other offices and agencies for their review and approval. Finally, after all other approvals, the City Engineer’s signature is obtained on the plans.

**E 814 PROJECT FURTHER PROCESSED TO PERMIT CONSTRUCTION**

The remaining proceedings are basically non-design functions and, except for the final construction phase, do not normally involve the design office. Therefore, these proceedings will be only briefly covered in the following discussion, and those areas in which the design office may be involved will be stressed.

Certain other factors are sometimes introduced, such as the need for additional nonbudgeted funds, difficulties in right of way acquisition, or other extenuating circumstances. These factors may consume considerable time between the City Engineer’s construction plan approval and the project construction completion. During this interim, changes either in the proceedings or in construction may be instigated by the property owners, the City Council, public utilities, or other public agencies.
These changes which are initiated by others may affect the information on the street construction plans. The street design office is so notified and uses the procedures outlined in the subsequent discussion to make the necessary street construction plan changes. However, situations that may affect the plans may arise without the design office being informed. For example, a new property owner unaware that improvement is to take place shortly may construct part of the improvement under an “A” or “B” Permit. Or driveways, walls, fences, etc., may have been constructed with or without a permit. These private improvements may or may not encroach upon the street, alley, or right of way, but if permitted to remain in place will affect or interfere with the proposed construction.

If these improvements are not discovered until immediately before or during construction, the corrective measures taken may be costly to all concerned and may unnecessarily delay the completion of construction. Therefore, it is a good policy for the design office to plan one or more field trips to the proposed project site prior to this time. This is particularly applicable where the proceedings have been delayed and where construction is not scheduled to start until a year or more after the City Engineer has approved the construction plans.

When the design office determines that a change in conditions affects the information on the construction plans (such as design or right of way requirements), the Coordinating Division should be so notified. The type and magnitude of the change, as well as the stage in the proceedings in which the change was noted, can affect the method of making the necessary corrections or changes. Therefore, a discussion between the design office and the Coordinating Division may facilitate a decision as to whether certain set procedures must be followed or an optimum procedural time and method can be chosen to make the required changes.

For convenience of discussion, the period between the time the City Engineer signs the construction plans and the date the contract is awarded will be divided into two stages; namely, revision stage and modification stage. The procedural activity required of the various offices during each of these stages will also be briefly discussed.

E 814.1 Revision Stage: The revision stage is considered to be that period between the time that the City Engineer signs the construction plans and the time that the City Council adopts the Ordinance of Intention.

Upon receipt from the Coordinating Division of a set of prints of these signed plans, the Utility and Estimating Division prepares the construction cost estimates. See Section E 141, Cost Estimates. During this and subsequent stages, the Utility and Estimating Division also coordinates any construction, installation, abandonment, removals, relocation, or other activities of the public utility facilities with a proposed tentative street construction schedule.

E 814.11 Changes During Revision Stage: Changes in the street construction plans and the assessment district on the assessment map can be made by the design office during the revision stage. These revised items are then signed by the parties in charge of each involved office and by the City Engineer. The revised prints of the construction plans are then redistributed by the Coordinating Division to the Utility and Estimating Division for recalculation of estimates, to the Bureau of Right of Way and Land for any changes in right of way requirements (if right of way is involved), and to all other concerned offices.

When the revised construction cost estimate is received from the Utility and Estimating Division, the Coordinating Division updates the Ordinance of Intention (O.I.). It then transmits the Ordinance of Intention to the City Attorney for approval and requests a preliminary assessment spread from the Bureau of Assessments. After this ordinance is reviewed and approved as to legality and form by the City Attorney, the Coordinating Division transmits these items to the City Clerk, who transmits them to the Council.

E 814.12 Public Financing Required: The Ordinance of Intention includes a public fund cost estimate if public financing is required. The routing of these items is then changed, in that the Coordinating Division sends them for approval to the Board. The Board then sends them to the City Clerk, who sends them to the Mayor, the City Administrative Officer, and the Council.

E 814.13 Right of Way Required: The Bureau of Right of Way and Land, using the previously
prepared right of way data, and upon receipt of a set of signed construction plans and the final right of way map, proceeds to negotiate and acquire the right of way where it is required. Before completing the Ordinance of Intention, the Coordinating Division requests from the Bureau of Right of Way and Land the status of the right of way acquisitions. The status will include a list of parcels acquired through voluntary dedication and through Authority for Expenditures (AFE's, purchases of not more than $500), and a cost estimate of those parcels requiring acquisition through purchase by negotiation or condemnation proceedings under Section 5102 of the Streets and Highways Code. See Section E 020B.

The Coordinating Division then sends a copy of the preliminary assessment spread and the final right of way map to the design office.

**E 814.14 Condemnation Before Acquisition:** When the right of way status list contains parcels requiring condemnation action before acquisition, the Coordinating Division requests the Street Opening and Widening Division to prepare a Condemnation Ordinance (C.O.). It also requests from the Bureau of Right of Way and Land an appraisal of the parcels to be condemned. This appraisal is sent directly to the Street Opening and Widening Division and is used in the Preparation of the Condemnation Ordinance and the Order of Immediate Possession. See Subsection E 055.131, Order of Immediate Possession. This ordinance preparation is the responsibility of the City Attorney, and is delegated to the Street Opening and Widening Division for writing and clarification.

The Street Opening and Widening Division then submits a copy of the right of way map, the appraisal cost, and the Condemnation Ordinance to the City Attorney. After review and approval of these items by the City Attorney, they are returned to the Street Opening and Widening Division, which sends them to the Planning Department. If these items are approved by the Planning Department, they are returned to the Street Opening and Widening Division, where they are forwarded by each of the offices in the following sequence: They are sent to the City Attorney, to the City Clerk, and to the Council, where the Condemnation Ordinance is adopted.

**E 814.15 Public Hearing:** When the following items are prepared and reviewed, the Council adopts the Ordinance of Intention, the assessment map, and the acquisition map. The Council then appropriates public funds for right of way or for those improvements that are considered to be of more than local benefit, and sets a date for a public hearing.

**E 814.2 Modification Stage:** This stage starts after the Council's adoption of the Ordinance of Intention and can extend beyond the time that the City receives bids for the project construction. However, other provisions are normally used to accommodate required changes during construction, and these are discussed in the last stage.

**E 814.21 Changes During Modification Stage:** At the public hearing, if the property owners offer no protests or if the protests are denied by the Council, the Council orders the work to proceed. If at this time, the design office or other offices require a change in the project construction plan, assessment district, etc., as previously discussed, the Council may accept changes in the proceedings of up to 20 percent of the estimated total project cost (this includes right of way, construction, etc.). Since this change can be effected during the hearing, it is usually referred to as instant modification. However, if the cost changes exceed 20 percent, the project must be abandoned and reinstated. If an addition has to be made to the assessment district, the modification is made by resolution by the Council. However, at the new hearing the Council may sustain the protests (if there are any in regard to the project or the change in the proceedings) and abandon the proceedings. In the event of any modification, a resolution is presented for adoption by the Council to conform to the changed information.

**E 814.22 Final Ordinance:** Upon the adoption of the Ordinance of Intention, the Coordinating Division completes the Final Ordinance (F.O.) and submits it for approval to the City Attorney. The City Attorney submits the Final Ordinance to the City Clerk, who sends it to the Council for adoption at the conclusion of a successful hearing. If a modification is involved, the Final Ordinance is rewritten by the Coordinating Division and resubmitted by the City Attorney for subsequent Council adoption. After Council adoption of the Final Ordinance, the City Clerk has it published in a local daily newspaper. The project then acquires legal status and permits further processing.
toward awarding the contract and commencing the construction.

**E 814.23 Order of Immediate Possession:** Immediately after the Council adopts the Final Ordinance, the Coordinating Division requests the City Attorney to obtain an Order of Immediate Possession (O.I.P.). This gives the City legal as well as subsequent physical possession of those properties subject to condemnation. Having possession is important where the lack of access rights will interfere with the clearance of existing buildings or other obstructions within the proposed right of way, and where these obstructions will materially delay the start of the project construction. The City Attorney, to comply with the legal requirements, obtains funds from the Bureau of Accounting for deposit with the Court. The Order of Immediate Possession is then obtained by adjudication. The City Attorney notifies the Bureau of Right of Way and Land and the Coordinating Division of the effective date of the Order of Immediate Possession. At this time all other right of way should be available, and the Coordinating Division is so notified by the Bureau of Right of Way and Land.

When the Final Ordinance is adopted, the Coordinating Division should notify the design office of its intention to recommend to the Board that the construction contracts be advertised for bid. If in the designer's judgment, possibly based on a recent field inspection of the proposed project area, the project site is cleared for construction, this is noted and the Coordinating Division makes the recommendation.

**E 814.24 Removal of Encroaching Improvements:** At this point, the Coordinating Division sends a set of the construction plans to the Street Use Inspection Division of the Bureau of Street Maintenance. The plans show the private existing improvements that encroach on the street, alley, or right of way. The designer determines which encroachments are to be removed by the contractor and which are to remain in place, and their disposition is designated on the plans. Those encroachments not designated to remain are to be removed by others, usually the property owners. See Section E 671, Interference of Existing Improvements.

A memorandum transmitting the plans requests the Street Use Inspection Division to serve the property owners notice to remove these obstructions. Under the provisions of Section 6201 of the Municipal Code, the property owner, upon receiving notice, must commence removal within 10 days after receipt of the notice and complete it within another 20 days, or a total of 30 days. See Section E 020A. The inspector of the Street Use Inspection Division examines the plans, notes the removals to be made, and serves notice to the property owners to make the removals. The inspector may serve a notice to property owners at any time, but unless the improvement appears hazardous, or presents some particular problem, the notice is not usually served until it is reasonably certain that the project will be approved. Unless there are additional complications that may delay the project, the time to serve the notice is after the public hearing is held and the Council gives the order to proceed. The optimum time is 30 days prior to advertising a project for bid. This is usually early enough in the proceedings to permit the property owner to take the full 30 days and complete the removals prior to the start of construction.

When the owner fails to make the removal in time and where the existing improvement interferes with construction, the contractor will generally make the removal. See the Standard Specifications, 1970 Edition, as referred to in Section E 020B.

**E 814.241 Where Right of Way is Involved:** Where right of way acquisition is not involved, the removals to be made by the property owner are usually of a minor nature, such as trees, fences, lawn sprinklers, etc. However, where right of way is involved, there may be existing buildings or other structures that require removal prior to the start of the construction. When these existing improvements are of major size, sometimes neither the property owner nor the construction contractor is in a position to effect these removals. In such cases, the Coordinating Division usually releases a separate contract prior to construction for demolition and salvage, for shoring and partial removal, or for other operations to provide a clear right of way.

**E 814.25 Construction Contract Processing:** After receiving notification from the Coordinating Division that either all outstanding problems are cleared up or those pending will not interfere with
proceedings, the Board notifies the City Clerk that the advertising for the invitation to bid for the construction contract is to be published in a local daily newspaper.

After the Board receives the sealed bids, they are opened at a public session. The bids are then referred to the Coordinating Division to see that the costs are in line with the previously made Utility and Estimating Division estimate. The City Attorney examines the qualifications of the lowest bidder as to the adequacy of the contractor's performance bond, as well as the terms of the contract. After a satisfactory recommendation by the Coordinating Division and the City Attorney, the Board reviews and executes the contract. The award of the contract is not made until after publication of the Final Ordinance. The construction must commence within 15 days of the contract execution.

E 815 PROJECT CONSTRUCTION

During construction, the Bureau of Contract Administration has its inspectors check the construction. The designers of the Bureau of Engineering follow the progress of the job. If field conditions require a change in the information on the construction plans, the plan change must be accounted for by the submitting of a change order by the designer. See Subsection E 733.1, Change Orders.

When construction is completed, a joint final inspection is made by the designers and the inspector. If the project is properly constructed and conforms to all of the required standards, individual reports to this effect are submitted by these two bureaus to the Coordinating Division. Reference is made to Chapter E 700, Project Construction, for detailed information on how to make joint inspections.

E 815.1 Change Order Stage: The change order stage may be considered that period in which change orders may be issued. This period extends from the date the construction contract is awarded (Section E 815, Project Construction) to the date in the final project processing stage when the Board accepts the project construction (Section E 816, Final Project Processing). See Section E 730, Changes in Documents.

E 816 FINAL PROJECT PROCESSING

The Coordinating Division prepares the Certificate of Completion and the final assessment diagram, bringing it up to date if any changes affecting the improvement were made. The Bureau of Accounting reports on incidental costs of proceedings to date. The Bureau of Assessments compiles the final assessment roll. The Board approves the Certificate of Completion. The City Clerk schedules a final appeal hearing date which is Council approved. The City Clerk notifies the property owners in the assessment district, advising them of the final assessment amounts and the date of the hearing. The Council hears final appeals on corrections of work or assessment amount. If any phase of the construction is appealed and if the appeal is upheld by the Council, corrective measures must be taken. Despite the fact that the construction has been approved by the Board, the contractor may still be held liable, particularly where he has been found to be remiss or negligent, and he may be required to take any necessary corrective measures. This is true because the assessment has not been confirmed. After all adjustments have been made, the Council confirms the final assessment.

E 816.1 Change Order Stage: Subsection E 815.1 applies to this stage also.
Public Works activities requiring public fund financing are considered to be capital improvement projects. The Bureau of Engineering is primarily concerned with street improvements and reconstruction, sewers and sewage disposal facilities, storm drains and flood control projects, bridges and appurtenant structural work, and landscaping. These projects may originate by request of City councilmen, various City offices including the Bureau of Engineering, private citizens, and developers. They may evolve in coordination with other improvements, such as freeway construction and flood control bond issue programs, or in cooperation with other governmental agencies and private organizations.

E 821 PRELIMINARY PROJECT PROCESSING AND APPROVAL

Regardless of who actually conceives of the project, the district or division design office is principally responsible for initiating the “paperwork” and for successful project administration. City policy requires that any proceeding with design and engineering for any proposed project (except assessment projects) be contingent upon the availability of public funds. With financing available, the authority to proceed is then subject to Board of Public Works approval extended through the Departmental “work order” process. In order to gain this authority for capital improvement projects, the design office must first request the necessary funding. This is accomplished through preparation of a Capital Improvement Project Request (Form CAO-39, Figure E 821A), a Preliminary Estimate Sheet (Form Eng. 3.352, Figure E 821B), and a project sketch. These three sheets collectively constitute the “CAO-39 Package”. Only the Mayor and the City Council in conjunction with the City Administrative Officer as fiscal adviser may allocate public funds. These documents are transmitted to them for funding consideration through the Board of Public Works by formal Board Report.

The funding request (Form CAO-39) basically conveys three types of data and information. These pertain to project justification, project cost summary, and the type and amount of funding required. A project may be financed by City public funds, funds held in trust, bond funds, private funds, other public agency funds, or a combination of these sources. The design office in preparing the Form CAO-39 should recommend the type of funds (Gas Tax, P.L., etc.) needed. The criteria for funding and eligibility of the various components of a proposed project are discussed in greater detail under Section E 120, Financing. The cost estimate sheet and its preparation are more explicitly discussed in Section E 141, Cost Estimates. The project sketch depicts existing and proposed improvements, cross-sections, right of way boundaries, bridges, and railroads, and includes other necessary and appurtenant visual descriptions.

To make these determinations, it is usually necessary for the design office to conduct a preliminary field trip and other site reconnaissance. These observations, in conjunction with a comprehensive area-wide plan, engineering studies, and other fact-gathering media, are used in the project initiation process. To complete the CAO-39 Package satisfactorily, it is most often necessary to request estimate information from other Bureaus and offices. This must be accomplished as soon as possible in order not to delay submission of a project, especially with regard to estimates of right of way, traffic, and street-lighting facilities.

The Five Year Capital Program serves as the planning and programming medium for the Mayor and Council as assisted by the City Administrative Officer for development of the annual budget. A CAO-39 Package for each and every proposed project is normally updated by each District design office once a year. This is in connection with the annual review and updating of the Five Year Capital Program between July and September of each year. Projects not submitted during this period are to be held over for funding consideration and subsequent request for design authority until the ensuing Five Year Capital Program review period. There are exceptions, however, provided the project is necessary in connection with an agreement, a commitment, coordination required with other agencies, a contemplated substantial cost saving, an emergency, or other justifiable reason connoting immediacy.

After preparation, each CAO-39 Package is submitted for a funding recommendation to the Mayor’s Budget by the City Administrative Officer,
who is chairman of the Technical Committee for Capital Programming. The Technical Committee, of which the City Engineer is a member, provides the City Administrative Officer with the technical counsel, planning input, priority data, and other pertinent information for the development of the Five Year Capital Program. The Coordinating Division is responsible for the compilation and development of the engineering portion of the proposed program, and transmits the CAO-39 Packages to the Board, which in turn submits them to the City Administrative Officer. Project priorities for all street projects are predicated on an analysis embracing the principles of street and highway economy, certain socioeconomic criteria, and other evaluative concepts. The need, urgency, and fund availability of the projects are also examined.

Capital improvement projects submitted for Mayor and Council financing consideration outside of the Five Year Capital Program are regarded as "mid-year" projects. These normally are to be held until the following year's Five Year Capital Program review, unless situations arise which warrant immediate financing considerations, as previously discussed. The design office in these instances should prepare a work order request with a commensurate design priority along with the CAO-39 Package to be forwarded to the Board. The request is reviewed by the Coordinating, Administration, and Executive Divisions and if it is approved by the City Engineer, the Board has the prerogative to authorize the project. The Capital Improvement Project Request is then referred to the Mayor and the Council.

E 822 PRELIMINARY DESIGN

Much of the procedure in the following discussion has been previously covered under Section E 810 and will be covered in Part C, Operations and Control, when this Part of the Manual is printed. In order to avoid unnecessary duplication, reference is made to these portions for additional details.

E 822.1 Investigation and Reports: The approved work order is received by the design office, and preliminary design investigation begins. This means a review of the files, records, and previous studies. From this investigation a preliminary engineering report (PER) is prepared. This report is submitted within 30 calendar days after receipt by the design office of the approved work order. The work order is then routed through the Administration Division to the Special Services Division of the Board of Public Works. The information contained therein is used to keep the Board informed of the various projects in the improvement program and to expedite the project completions. The data required on the PER form may not be readily available at this early stage in the design, particularly for large, complex projects. However, it is presumed that the information gleaned from the investigation, together with good engineering judgment by the designer, should provide relatively accurate answers.

E 822.2 Field Data Requests: These requests must be made to the Survey Division within 30 calendar days after the receipt of an approved work order. Every effort should be made to coordinate the survey needs of the other design offices that may be involved, in order to avoid undue duplication of survey work. In order for the Survey Division to set up its work schedule adequately at the beginning of each fiscal year, each District or Division should assign a priority number (e.g., No. 1, 2, 3) to each project when requests for survey are submitted. Where projects require extensive alignment studies, the survey request may be withheld until sufficient information is available to permit the request to be made.

As discussed in Section E 812, at this design stage, information concerning the subsurface data, soil conditions, and maximum permissible side slopes should be obtained, along with core tests for existing pavement thicknesses. The Bureau of Standards, at the designer's request, will provide these data as well as act in an advisory capacity on related matters.

Prior to receipt of field work, some projects will permit certain preliminary steps to be taken, such as setting up work sheets; preparing preliminary plans, sketches, and miscellaneous requests; and preparing for the joint field trip where other design offices or additional right of way are involved. Field work received may be in the form of aerial photos, AL Maps, or field books. Projects that did not permit any preliminary work without the field work should now be started by plotting the existing improvement. Control points should be determined and a preliminary grade and alignment established.
E 822.3 Involvement of Other Design Offices or Agencies: The design office initiating the project is usually responsible for carrying the job through. Therefore, design decisions and preliminary work should proceed fast enough to determine whether or not other design offices or agencies may be involved in the completion of the proposed improvement. If other offices are involved, enough advance information should be supplied to them in the form of sketches, field notes, or other materials so that they can adequately prepare for a joint field trip. For capital improvement projects, the joint field trip must be conducted within 60 days after the commencement of design.

Although the importance of the joint field trip has been previously discussed under Section E 812, the field trip may assume even greater significance in capital improvement projects. Many of these projects require extensive areas of additional right of way. Since the proportion of right of way costs to the total project costs is always increasing, the importance of joint right of way decisions between engineering and right of way personnel cannot be overstressed. For example, in a street opening or widening project, an agreement should be reached as to whether it is more economical to take property from one side of the street or take equal or unequal amounts from both sides of the street.

Another type of right of way decision concerns public utilities. There are several factors that have to be considered where the relocation or removal of these services may be involved. Usually, in street opening or widening jobs, the presence of surface utilities such as telephone poles is obvious and their possible interference with the proposed improvement is readily determinable. Other projects, usually major realignment and grade changes, may involve subsurface utilities, which may not be so obvious. Where the disturbance of the services of the public utilities is of a minor nature, prior rights are not an important consideration as far as costs are concerned. See Section E 052.32, Prior Rights. However, where extensive work is involved in changing these utility lines, prior rights are a definite consideration. Although in the usual situation, public utilities have prior rights in easements on private property rather than in public streets, and the City has these rights within the public thoroughfares, this situation should not be taken for granted. Many public utilities have had their services and prior rights established within an area that was subsequently dedicated and improved as a public street. In the redesign or further improvement of these streets to bring them up to present-day standards, the altering of these public utility lines may involve a considerable cost, sometimes to the City in capital improvement projects and sometimes directly to the taxpayer in assessment projects. Moving a single utility pole is obviously not as critical as moving several hundred of them. If an action of the latter type is being considered, the prior rights status must be known immediately. In such a case, the right of way agent, upon request from the design office, routed through the Street Opening and Widening Division, may provide this information after a special investigation. When only a minor expense is involved, the information is not needed immediately, and the agent will provide it upon request during the normal course of a title search.

If utility companies or railroads are involved, they should have representatives present during the joint field trip. It will enable them to anticipate and plan their own program, possibly furnish the prior rights status of their services, and act in a mutual advisory capacity for all parties concerned.

E 822.4 “For Grade Only” Plans: A capital improvement project “for grade only” plan is usually a combination of a plan and a profile in which the profile shows the proposed street grades. The plan portion shows the existing improvements and the removals to be made in connection with the proposed improvement. This “for grade only” plan, after approval by the City Engineer, constitutes the official street grade for the proposed improvement.

The decision as to whether the design office should prepare a “for grade only” plan is generally based on the needs of the various other offices involved. Their requests for such a plan are generally based on the results of the joint field trip. However, in some cases they may be based on information obtained from preliminary studies or from subsequent design investigations. The circumstances that dictate the need for this type of plan may include some or all of the following factors:
1. Where the design may require major grade changes between the proposed and the existing street and/or property line grades.

2. Where a considerable lapse of time is anticipated between the establishment of the final grade and the final City Engineer approved construction plans.

3. Where these grade changes will or may affect the services of the utility companies or the design of the other design offices.

These observations, plus the discussion previously outlined under the joint field trip in Section E 812, should cover most of the actions taken during the capital improvement project joint field trip.

After the field trip is completed, written communications should be exchanged by all interested parties to confirm any conclusions, agreements, or commitments of consequence that might be overlooked, might be subject to interpretation, or should be on file. The other design offices, having previously received their field work and participated in the joint field trip, are now able to start or continue their phase of the design.

E 822.5 Additional Right of Way: If additional right of way or easements are required, the Division or District, within 30 calendar days after the joint field trip, forwards to the Street Opening and Widening Division a preliminary right of way request form and sketch of property over which it is anticipated that easements or rights will be required. See Figures E 822.5A and B. Sufficient information should be supplied to properly identify the involved property. However, the dimensions of the right of way are unimportant at this time, as this sketch is used only to obtain title searches. In addition, the proposed alignment (or approximate alignment if it is only generally known) is also desired. Any buildings located in the proposed right of way should be delineated.

The Street Opening and Widening Division prepares a right of way map from the results of the title search and legal descriptions and parcels the map. Prints of this map are then sent to the design office.

The Street Opening and Widening Division requests from the Bureau of Right of Way and Land an appraisal of parcels on which buildings are located in the right of way and a determination of the disposition of the building — whether it should be demolished, remodeled, or relocated. A copy of this information is transmitted to the design office and to any other interested agencies.

Concurrently with the previously discussed activities, the street design should be in progress. As each successive stage is reached, a review should be made of the design and right of way requirements. If additional field trips seem to be expedient they should be made with the view of improving the design, reducing or eliminating the need for additional right of way, and supplementing or further coordinating the activities of the other involved agencies.

If any design concepts, alignments, or grades are established or changed as a result of this field trip, all other involved agencies should be so informed. For example, if the design is sufficiently advanced at this time, the design office may be able to send the Traffic Department an intersection channelization plan, enabling that department to make a study and a recommendation relatively early in the design stages.

E 823 FINAL DESIGN AND APPROVAL

Any design adjustments made necessary as a result of field trips, right of way costs, existing easements, and prior rights are made at this time, and the design advances to the point of 50 to 70 percent of completion. (If “for grade only” plans were requested, they are completed and a set of prints is kept for the use of the design office.) In the interim, the design office sends the tracings to the Street Opening and Widening Division, which sends them to the City Engineer’s office for approval. A set of approved plans is then transmitted to the Bureau of Right of Way and Land and any other offices that indicate a need for them.

Since the proposed grade changes between existing and proposed property lines are known at this
time, additional information should be furnished by means of the final right of way request form and sketch shown on Figures E 823A(1), E 823A-(2), and E 823B if additional right of way or easements are required. When completed, both the final right of way form and the sketch should be transmitted to the Bureau of Right of Way and Land and/or other interested agencies. The sketch should include the proposed cut or fill at each property corner. It should also show intermediate points if these are significant, and the maximum grade to which driveways are to be constructed. Further reference is made to Section E 050, Fundamentals of Real Property for Street Design Purposes, and Part C, Operations and Control, when this Part of the Manual is printed. The final right of way request, which is generally prepared during the final design stages, is covered in the following discussions.

E 823.1 Temporary or Permanent Rights in Private Property: In many capital improvement projects, particularly in street widening projects, it is necessary to acquire temporary or permanent rights in private property in order to construct the new street improvement. Normally, rights of entry, temporary easements, or construction easements are used to remodel existing driveways or sidewalks, and to reslope front yards on private property to meet the new street grade; to reslope a front yard to meet the new street grade; also, to use an area temporarily for the storage of construction material or equipment or as an operating area for construction equipment or personnel. See Section E 054.2, Types of Acquisition, Rights, and Use.

When requesting acquisition of temporary or permanent rights over an area, the responsible design office should specifically note the type of proposed use and its effect on the condition of the property. This information helps fulfill the City's duty to disclose fully any physical changes in property conditions to the owner. In addition, it facilitates the right of way acquisition (appraisals, negotiations, and proceedings). See also Section E 670, Realignment and/or Widening of Improved Streets.

E 823.2 Right of Way Requirements: To avoid any errors or omissions in indicating right of way requirements for a particular project, an overall check should be made by the initiating design office, for its own requirements as well as those of the other design offices. For example, in a street widening project, where the Bridge and Structural Design Division designs a curbing, coping, or retaining wall to be located on private property (supporting the private property), the responsible design office should make sure the right of way request includes a public retaining wall or public street easement. In this case the Street and Freeway Design Division or the District Office would be the responsible design office. This is particularly important where condemnation proceedings may be necessary. The written instructions and/or sketch should include a delineation of the longitudinal wall limits as well as the width required for the wall thickness. It should include any additional width required to accommodate the excavation for the footing and/or slope extending beyond the wall.

Where existing buildings are located within the proposed street easement or right of way, the design office, upon requesting the Street Opening and Widening Division to proceed with right of way acquisition, should note the building disposition as previously determined on the sketch accompanying the request.

At the earliest possible time that the right of way requirements can be determined with reasonable certainty, the District or Division delineates and dimensions the parcel right of way maps previously received. The right of way map and a request to begin acquisition of the indicated right of way are then directed to the Street Opening and Widening Division. In any event, the request should be made no later than 10 days after approval of the plans by the District or Division Engineer. A note should be made of any parcels intended to be dropped from the project requirements if not acquired by voluntary dedication.

E 823.3 Proceedings Initiated: Upon receipt of all of the right of way requirements and information for the proposed improvement, and at the recommendation of the Bureau and the approval of the Board, the Bureau of Right of Way and Land may initiate proceedings such as appraisals, negotiations, and proceedings. See also Section E 670, Realignment and/or Widening of Improved Streets.
the same time as, the street design. If the proper efforts were not made, it will be found that the street design construction plans may have been completed and that there is a delay of many months pending completion of the designs by these other offices and the final approval of the entire project by the City Engineer.

In the district offices the various design sections within the district complete their portions of the design and the entire project is then reviewed and approved by the District Engineer. In some cases, the responsible agency is the Street and Freeway Design Division, but parts of the improvement will be designed by other divisions, districts, or bureaus, such as the Bridge and Structural Design Division, the Bureau of Street Lighting, the Department of Traffic, etc. Or the improvement may be a joint project with another district. In such cases, the street design is first approved by the design engineer assigned to the project. If further coordination or corroboration of the final street design is required, the approved street plans are then transmitted to the other involved offices, such as the Storm Drain or Sewer Design Divisions, etc. These offices will review the street plans together with their own plans and after approving both, will return the plans to the office in charge of the project.

If an adequate exchange of information has been maintained throughout the design procedure, no design changes will be necessary as a result of the above processing, and only certain final design details and information may have to be delineated on the plans. All of the approved plans are then transmitted to the Street Opening and Widening Division for circulation to other offices, approval of the City Engineer, and further processing.

E 823.4 Receipt of Right of Way “Package”: Where additional right of way is required, the Bureau of Right of Way and Land requests and receives a set of the City Engineer approved construction plans. Certain right of way acquisition actions taken by the above Bureau are held in abeyance pending receipt of a “package”. The “package” consists of the following items:

1. City Engineer approved final construction plan.
2. The search of title.
3. The final right of way map showing the individual parcel ownerships.
4. Legal descriptions of the parcels to be taken.
5. Legal instruments for the securing of easements or right of entry where it has been determined that voluntary dedication should be solicited.

Reference is made to Section E 813 for a discussion of some of the aspects of the final design stages. Figure E 813 is a final design check list to be also used as a guide in completing capital improvement projects. Reference is also made to Subsection E 814.2 for the responsibilities of the design office concerning field trips prior to the construction contract being advertised for bid.

E 824 PROJECT FURTHER PROCESSED TO PERMIT CONSTRUCTION

As far as the design office is concerned, unless the design requires revision or some modification following the City Engineer’s signature, no further action is usually necessary until the commencement of construction. The intermediate steps on the flow chart (Figure E 820) are shown only superficially, merely to indicate some of the major steps that may be required of some of the other agencies, departments, bureaus, divisions, etc.

E 825 PROJECT CONSTRUCTION

The steps taken by the design office as shown in this phase of the flow chart are identical to those mentioned under Section E 815 for the assessment project flow chart discussion. Reference is also made to Chapter E 700, Project Construction.