

STANDARD SPECIFICATIONS

Standard Slope: Unless otherwise specified on the permit, the sidewalk grade shall be sloped upward from the existing curb at a rate of 2% (approx. ¼ inch per foot). New work required to join existing off-grade improvements may necessitate ramping or warping in order to construct the walk or driveway in a safe condition. (Consult Inspector or Permit Office).

Removals: When an existing curb is to be removed, the saw cut or joint shall be vertical and extend to the sub-soil. The curb that remains must be on grade, in good condition, and in proper alignment. For construction of a driveway, the curb shall be removed by saw cutting the gutter within 4 inches of the flow line. If the gutter is in poor condition, then it must be removed. When existing sidewalk or driveway is removed, cuts shall be made along scoring lines if the cut would fall within 12 inches of the scoring lines. If the saw cut would fall within 30 inches of a joint or edge, the concrete shall be removed to the joint or edge. The concrete shall be neatly sawed to a minimum depth of 1 ½ inches in straight lines parallel with, and/or right angles to, the alignment of the sidewalk and the concrete removed and reconstructed within the saw cuts.

Preparation of Subgrade: Remove all roots, broken concrete, trash, etc. Excavate soil to the required depth, thoroughly tamp the entire area, water the subgrade thoroughly the day before, and moisten the subgrade immediately before placing the concrete. Where existing improvements have been damaged by tree roots, the following procedures shall be used:

- 1) Cut roots causing damage at the tree trunk and remove to a depth of 10 inches below official subgrade.
- 2) Contact Bureau of Street Services, Service Request Section at (800) 996-2489 or the Street Tree Division, at (213) 485-5675 for a root trimming permit.
- 3) Backfill the excavated area with sand or aggregate.

In addition, where expansive soil is present a specified base material may be required.

CAUTION: If there are unusual circumstances or it appears that removal of the roots may endanger the tree, call the Street Tree Division, Bureau of Street Services, Street Tree Division at (213) 485-5675 and ask for instructions.

Fills: Any embankment or fill on which improvements are to be constructed shall be made using suitable material subject to approval by the Inspector. Clods or hard lumps of earth shall be broken up and no rocks or lumps of material over 2½ inches in size shall remain in the upper six inches of the fill. The relative compaction of the earthy material composing each layer of fill shall not be less than 90%.

Tools: The following tools are required to be on the job:

- 1) Carpenter's level
- 2) Wood float, steel trowel, edging tool, scoring tool
- 3) Grid or screen tamper, or other tamping device, to develop at least 3/8 inch of mortar
- 4) 1-inch x 6-inch x 10-foot straight edge, for use in checking grade and guiding scoring tool

Forms: Forms shall be nominal 2-inch lumber properly set and substantially held to the correct grade and line. Curb forms shall be full depth in back as well as in front. Front forms for driveway side slopes may be nominal 1-inch lumber. Freehand shaping of driveway side slopes is not permissible; the forms must be cut on an angle to the proper length.

Measurement of Concrete Materials: Transit Mixed Concrete is acceptable on all permit work, provided that Class 520-C-2500 concrete is furnished from an approved bunker. Each delivery transmit mixed concrete shall be accompanied by a delivery ticket, setting forth the weights of the material in the concrete. Class 520-C-2500 concrete shall be used for the construction of curbs, sidewalks, driveway gutters, catch basins, and local depressions.

Concrete Materials for Mixing at Job Site: Portland cement concrete shall consist of Portland cement (delivered in original sacks), washed concrete sand, and washed and graded screened gravel and/or crushed rock. Sand and rock shall be kept separate during delivery and when stock-piled at the job site. Consult the Inspector regarding the proportions of materials to be used in the mix and the method of measurement to be employed. Broken concrete shall not be mixed with or embedded in new concrete.

Thickness of Concrete:

Minimum thickness for sidewalk (see note below).....	3 inches
Minimum thickness for driveway in R-1 or R-2 Zone.....	4 inches
Minimum thickness for all other driveways.....	6 inches

Note: New sidewalk to be constructed in line with a new or existing driveway apron shall be of the same thickness as required for a new driveway at that location. Existing sidewalk in line with a new or existing driveway apron in an R1 or R2 zone may be left in place, provided such a sidewalk is in good condition and lies on standard slope, and the apron has adequate "Y" distance.

Separation of Curb and Sidewalk: A curb and adjacent sidewalk shall not be constructed monolithically. When it is desired to construct an adjoining curb and sidewalk on the same day, the curb shall be constructed first then a layer of building paper - held in proper position and extending the full thickness of the sidewalk - shall

be used as a separator between the concrete of the curb and the concrete of the walk. Exception: The depressed curb for a driveway may be poured monolithically with the driveway.

Expansion Joints: Approved expansion joint filler material shall be placed only around utility poles located in the sidewalk. The expansion joint filler strips shall extend the full depth of the sidewalk being placed.

Weakened-Plane Joints: Only approved plastic control joints shall be placed at the following locations:

- 1) **Driveway:** Plastic control joints shall be installed on both sides of a driveway and at approximately 10-foot intervals within the driveway if the driveway exceeds 15 feet.
- 2) **Sidewalk:** Plastic control joints shall be perpendicular to the curb and at regular intervals not exceeding 10 feet. Joints for the full walk width shall be placed at the BCR (beginning of curb return), MCR (middle of curb return) and ECR (end of curb return) of all walk returns except at the BCR of alleys and the ECR of alleys if walk is not full width of parkway. They shall be located for the full walk width each side of tree wells.
- 3) **Curb and Gutter:** Plastic control joints shall be installed at regular intervals not exceeding 20 feet. They shall also be located at the ECR of alley returns where walk is full width of parkway and at the BCR, MCR, and ECR of all other returns. Where the gutter is adjacent to the concrete pavement, the joints shall be aligned with the pavement joints where practical. In lieu of plastic-control joints, 1-inch deep saw cuts may be used. Concrete sawing shall take place within 24 hours after the concrete is placed.

BCR = Beginning of Curb Return

MCR = Middle of Curb Return

ECR = End of Curb Return

Sidewalk Coloring: Coloring of a sidewalk or a driveway is permitted only when authorized by the permit. **A Revocable Permit is required.** Utility and other agencies may trench in the colored sidewalk, and they do not have to resurface with the same color concrete. Sidewalk coloring is not encouraged. When a colored sidewalk or driveway is authorized, only subdued colors such as lamp black, red oxide, slate blue, or similar colors may be used. The same solid color shall extend along the full frontage of the lot, including the driveway (if any). Partial coloring or checkerboard patterns of two or more colors will not be permitted.

Coloring of the full height curb will not be permitted, but authorization may be granted for coloring the depressed curb, which is poured monolithically with a colored driveway.

A colored sidewalk or driveway may be constructed in one or two courses. If constructed in one course, the coloring shall extend throughout the full thickness. Dusting the top surface of the concrete with the coloring material will not be permitted. If construction is to be in two courses, the second or top course shall be of colored mortar ½ inch thick (1 part cement to 1 ½ parts sand, with color added to suit). This mortar must be mixed in a concrete mixer. The second course shall be placed on the first course within one hour after placing the first course.

When reconstructing portions of a colored sidewalk or driveway, the existing color shall be matched as closely as possible.

Roof Drains: A drain shall be constructed beneath the sidewalk to connect the building drain to the curb outlet. Openings shall be provided in the new curb for all existing roof drains. Roof drains shall be 4-inch cast iron pipe, 4-inch iron ductile pipe, 4-inch asphalt impregnated fiber duct, rectangular drain pipe conforming to Standard Plan 5-503, 4-inch polyvinyl chloride pipe with joints, thickness and composition approved by the Engineer, 4-inch standard thickness galvanized steel pipe, 4-inch plain end vitrified clay pipe, 4-inch nonreinforced concrete pipe with tongue and groove mortared joints, or comparably sized conduit of other shape and material approved by the City Engineer. Outlets shall be laid on a straight grade from the property line to one inch back of the curb face, with a minimum slope of 1/8-inch per foot. A drainpipe shall have a minimum of 2-inch clearance from the top of the curb. The outlet invert shall be 1/2-inch above the gutter flow line. Where the curb face is 6 inches or less in height, the invert of the outlet may be placed at the elevation of the gutter flow line and/or a 3-inch pipe may be used. Two 3/8-inch or larger diameter reinforcing bars 18 inches long shall be imbedded in the curb centered over the roof drain.

Drainage Outlets Through Existing Curbs and Sidewalks: A drain to be constructed through an existing concrete curb must be installed either through a drilled hole or by removing a section of curb down to subgrade and at least 7 inches from each side of the outside surface of the pipe. A drain to be constructed under existing concrete sidewalk requires removal (with sawcut edges) and reconstruction of full squares of the sidewalk or minimum width of 30 inches. All concrete curb or sidewalk which is cracked by the above operations must be removed and reconstructed.

Concrete Finishing:

Work Finish Required

Finish Required

Sidewalk finish on level or nearly level streets (where slope is less than 6% grade)

Fine hair-broom finish

Sidewalk on streets where slope is over 6%	Wood float finish
“Y” slope and “X” slope area of driveways, including top surfaces of curb	Wood float finish (roughen curb when depression is saw cut)
All curb except top of depressed curb	Fine hair-broom finish

NOTE: Side slope (X-slope) curb forms for all driveways shall be removed during or immediately after finishing the surface of the driveway. The curb face within the side slope area shall then be given a fine hair broom finish.

Scoring Lines: Scoring lines shall have a minimum depth of 1/4-inch and a radius of 1/8-inch. Sidewalks with a width of 20 feet or more, shall have a longitudinal center scoring line. The longitudinal scoring line shall be parallel to, or concentric with, the curb line. However, when new sidewalk is constructed adjacent to existing sidewalk, scoring lines shall correspond to existing scoring.

Parkway Fill-In (When Permitted under City Standards): The City reviews each case separately. In residential areas, parkway is preferred unless the entire street block will be filled-in. In commercial areas, full-width sidewalk (no parkway) is preferred.

- 1) Portland cement concrete is the most desirable material for paving in the parkway area. Any other material and type requires a Revocable Permit.
- 2) Existing sidewalk and curb, to be joined, must be on grade and in good condition.
- 3) The forms at each end shall be set at right angles to the curb and in line with scoring lines (if any) in the existing sidewalk. This may necessitate paving a small portion of the parkway in front of the adjoining property.
- 4) Case I side slopes at existing driveways may have to be reconstructed to Case II side slopes as part of the parkway paving operation.
- 5) Trees and tree wells may be required as a condition of allowing parkway fill-in.

Quality of Work: All work is to be done in accordance with the current edition of Standard Specification for Public Works Construction and Standard Plan No. [S-610](#), otherwise, it will not be accepted.

Curing: All new concrete shall be watered and kept moist for a minimum of five days, or an approved curing compound may be sprayed on the newly finished work. (Consult Inspector).

Waste: Wash-water or waste material from concrete mixers or trucks shall not be dumped into the gutter or into any sewer or storm drain. All form lumber, broken concrete, surplus dirt, sand, and rock shall be removed from the job site as soon as the construction work is completed.

Non-Standard Construction: When standard plans cannot be followed because of local conditions, a waiver must be signed by property owner before the permit is issued and the permit shall specify deviations from standard construction.

Layout of Driveways

Widths of Driveways The minimum width of an apron shall be 10 feet in the A, RE, RS, R1, R2, and RW zones and 12 feet in the RD, R3, R4, R6, C, M, P, and PB zones, measured along the existing or proposed curb line or, if neither exists, then measured as directed by the City Engineer. The maximum width of an apron shall be 18 feet, measured along the curb line, when serving a lot in the A or R zones and 30 feet when serving a lot in the C, M, P or PB zones, as said zones are provided for by Article 2, Chapter 1, of the Los Angeles Municipal Code. Exceptions to such limits may be granted by the Board of Public Works upon recommendation by the City Engineer.

Where a utility pole restricts an area in which a driveway is to be constructed, a Case 3 or Case 4 driveway may be constructed to abut the pole.

There must be a minimum of 20 feet of full-height curb between driveways that serve the same lot. There must be a minimum of 20 feet of full-height curb in front of each lot where street frontage of the property served is greater than 40 feet. Where such frontage is 40 feet or less, continuous curb space shall be retained in front of each lot equal to one-half the length of the frontage, except that this provision shall not be applied to prevent the construction of one driveway having a minimum width of 10 feet in the A, R, RS, R1, R2, and RW zones and 12 feet in the RD, R3, R4, R5, C, M, P and PB zones.

Where driveways serve separate lots, and are so located that at least two feet of full-height curb cannot be constructed separating said driveways, then the two driveways shall be merged into one. This necessitates removal of the entire existing side slope.

The City Engineer shall enumerate any exceptions to the above listed requirements on the permit.

Effect of Side Lot Lines on Driveways The side slope of a Case I or Case II driveway, or the 3-foot radius curb return of a Case III or Case IV

driveway, may extend in front of an adjoining lot without the consent of the owner of the adjoining lot. No other portion of a driveway approach may extend in front of an adjoining lot without the written consent of the owner of said adjoining lot. For this purpose, the division between two lots shall be a line passing through the common lot corner at right angles or radial to the curb line regardless of the direction of the side lot line.

All driveways shall be constructed at right angles to the curb. Where the curb line is curved, the driveway shall be constructed on a line radial to the curb.

Prohibited Locations for Driveways:

- 1) No portion of a driveway shall be constructed between the prolonged intersecting property lines at any street or alley intersection or between the points of curvature of any curb return having a radius of 20 feet or less. The permit shall enumerate any exceptions. Under certain conditions a driveway may be merged with an adjacent alley intersection. Consult Permit Office.
- 2) No driveway shall be located where only ingress of vehicles onto private property is possible. (Examples are loading docks or doorways adjoining the public sidewalk, where vehicles parked across the sidewalk would prevent full and free use of the sidewalk by pedestrians).
- 3) No driveways shall be located where ingress of vehicles onto private property is impossible.
- 4) No driveways shall be permitted for front yard parking.

Abandoned Driveway: Driveways or depressed curbs, abandoned and no longer in use, shall be removed and replaced with full-height curb and sidewalk. Class "A" permits for new improvements will not be valid until all abandoned driveways at the job location are closed as outlined above.

Existing Depressed Curb: The existing depressed curb must be in conformance with the latest standard plan before a new approach may be constructed adjacent thereto. A nonconforming existing depressed curb shall be rebuilt in accordance with current standards.

Driveways on Unimproved and Partially Improved Streets:

Curb Only – Street Not Paved: At locations where the curb has been constructed but the street is not paved, the driveway depression shall be constructed 7 ½ inches below the top of the curb, unless otherwise

specified by the permit. The front form for the driveway depression shall extend to the bottom of the depressed curb across the full width of the driveway.

Street Paved – No Curb: At locations where streets are surfaced but no curb has been installed, concrete is not permitted. If asphalt or rock and oil are used, a recorded waiver signed by the owner is required at the time he applies for the permit. (Consult Permit Office.) Driveways of this type are considered temporary improvements. Such permits are issued on a revocable basis.

No Curb – Street Not Paved: Consult the Permit Office for the established elevation and grade of the street abutting your property. The driveway shall then be constructed to the elevations furnished by the Bureau of Engineering.

Curb with Street Paved: Construct depressed portion of the curb $\frac{1}{2}$ inch above the existing pavement. Where the curb face is 6 inches or less, if the pavement adjacent to the curb is asphalt or rock and oil, construct the depressions flush with the pavement, omitting the $\frac{1}{2}$ inch lip.

Where the full height or a depressed curb for a driveway is constructed next to an existing asphalt surface, the permittee will be responsible for paving the slot resulting from the removal of the curb form.

Where no sidewalk exists, unless otherwise specified on the permit, the back edge of the driveway (the top of the “Y” slope) shall be set at a grade upward from the existing curb at a rate of an inch per foot (2%).

The elevation of the back of a driveway (at the property line) shall be above the top of the curb to prevent flooding of the property when the storm water in the street is at the top of the curb.

According to the American Disability Act, the width of the sidewalk behind a driveway shall not be less than 4 feet. The slope across the sidewalk shall not be greater than 2% downward toward the curb.