

**CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION
70 North First Street, Campbell, CA 95008
Ph. (408) 866-2150 ; Fx. (408) 376-0958**

CHECKLIST FOR STREET IMPROVEMENT PLANS

APPLICATION NO(S):

ADDRESS:

Instructions: This checklist provides advance notification to applicants of the City of Campbell's final street improvement plans and submittal requirements. Using this checklist will expedite your application through the City's review process.

Prior to submitting a final street improvement plan list to the City Engineer, please place an "X" in the space to the right of each item below to indicate you have complied with, or place "N/A" to indicate that the particular item doesn't apply. Review applicable sections, which are referenced in parentheses, before checking off each item.

SEAL AND SIGNATURE OF ENGINEER OF WORK

I HEREBY DECLARE THAT I AM THE ENGINEER OF WORK FOR THIS PROJECT, THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE DESIGN OF THE PROJECT, AND COMPLETION OF THIS CHECKLIST, AS DEFINED IN SECTION 6703 OF THE BUSINESS AND PROFESSION CODE, AND THAT THE DESIGN IS CONSISTENT WITH CURRENT STANDARDS.

Signature	Date
Printed Name:	<input style="width: 360px; height: 25px;" type="text"/>
RCE #:	<input style="width: 360px; height: 25px;" type="text"/>
Expiration Date:	<input style="width: 360px; height: 25px;" type="text"/>

(SEAL)

	ITEMS	COMPLY	NOT APPLY	CITY COMMENTS
I.	GENERAL			
1.	City standard off-site title sheet with applicable notes.	<input type="checkbox"/> OK		<hr/>
2.	24"X36" sheet size used, including City Standard borders and Blueprint for a Clean Bay Plan Sheet.	<input type="checkbox"/> OK		<hr/>
3.	Title Block/Scale/North Arrow Shown.	<input type="checkbox"/> OK		<hr/>
4.	Plans capable of microfilm reproductions - minimum 1/8 inch lettering.	<input type="checkbox"/> OK		<hr/>
5.	Engineer's name, number, expiration date and signature included on all sheets.	<input type="checkbox"/> OK		<hr/>
6.	Vicinity Map shown (must be microfilmable).	<input type="checkbox"/> OK		<hr/>
7.	Sheet Index and key map included for 3 or more sheets.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	<hr/>
8.	Limits of Public Works inspection clearly shown on plan, typical section, and bond estimate.	<input type="checkbox"/> OK		<hr/>
9.	Street Light locations/legend/Electric Service Connection Location shown.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	<hr/>
10.	Elevation tied to City benchmark. Reference City benchmark.	<input type="checkbox"/> OK		<hr/>

		COMPLY	NOT APPLY	CITY COMMENTS
11.	Curb grade plans prepared by Public Works have been incorporated into improvement plans and verified as adequate.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
12.	Curb grade plans prepared by Engineer for review by Public Works and cross-sections @ 50' max. intervals along road frontage and extending 150' min. beyond limits of work. Profile line, centerline, & EP	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
13.	Signing and striping plan plus existing striping included in improvement plans.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
14.	Development No. (SUB, MS, LUP, DP) shown on each sheet.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
15.	Verification and land rights for off-tract work (title report, recorded easement, etc.)	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
16.	Permits required from other agencies (Fish & Game CalTrans, Army Corps of Engrs, Flood Control, etc.)	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
17.	Right of entry submitted for review for all off-tract work.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
18.	Landscaping within the public right-of-way included in improvement plans.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
19.	Fence required along water district canals.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____

II. ROADS
A. TYPICAL SECTIONS

1.	Street cross-section shown at 50' intervals maximum (closer intervals may be necessary per the City Engineer). Cross sections slopes shown.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
2.	Structural pavement design calculations submitted (per Caltrans Highway Design Manual) and correspond to plans.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
3.	Sidewalk, curb and gutter indicated with details included on plans.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
4.	Right-of-Way and street width dimensions shown.	<input type="checkbox"/> OK		_____
5.	2:1 max. cut/fill slopes shown beginning at R/W lines - Soils Report verifying exceptions.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
6.	Crown Slope indicated.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
7.	Pedestrian or bike paths shown.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
8.	Pavement Design Chart shown with T.I. and R-values for review.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____

B.	PLAN VIEWS	COMPLY	NOT APPLY	CITY COMMENTS
1.	Radius of curvature shown on all curves.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
2.	20' curb return radii shown for major thoroughfares and industrial streets.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
3.	24' min. curb opening for private road intersection.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
4.	Horizontal curves and sight distance designed per Highway Design Manual.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
5.	Cul-de-sac radii (35' min.) shown.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
6.	Private road turnarounds shown.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
7.	R/W and street width dimension shown.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
8.	Centerline stationing shown at 50' intervals.	<input type="checkbox"/> OK	<input type="checkbox"/> OK	_____
9.	Curve info provided in table format (i.e. BC/EC station, offset, radius, and delta).	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
10.	Lot/parcel lines and numbers/letters indicated.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
11.	Valley gutters indicated. Flag flow line elevations at quarter points on curb returns and valley gutter centerline.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
12.	Stationing and offsets of all drainage structures shown.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
13.	TC/RIM elevations at all drain structures w/ invert and FL elevations shown. (Invert and FL elevations may be shown on profile if preferred. If profile is not on same sheet as plan view, TC/RIM, invert, and FL elevations must be shown on plan and profile.)	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
14.	Drainage easements shown and dimensioned.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
15.	Location of underground pipes and utilities shown for laterals and main lines (i.e. sanitary sewer, gas, water, etc.).	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
16.	Street monuments shown.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
17.	Off-tract slope easement shown, with x-sections, topo and offer of dedication for slope easement submitted for review.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
18.	Pedestrian Paths shown. Basic grade shown.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
19.	Wheelchair ramps shown at returns with details.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
C. PROFILES				
1.	Vertical curves designed for proper speeds per Highway Design Manual.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
2.	Minimum vertical curve lengths observed.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
3.	Curb returns and cul-de-sac profiles shown (high and or low points indicated when vertical curve is used).	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____

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4.	Vertical curve used for grade breaks greater than 2%. (3% on sag curves).	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
5.	6% maximum gradient observed @ intersecting streets.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
6.	6% maximum grade observed across intersections.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
7.	1% minimum grade observed on all streets.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
8.	Maximum street grades per ordinance.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
9.	Underground pipes and utilities shown.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
10.	Existing ground at centerline shown. Where topography is steep, existing ground left and right of centerline has been shown.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
11.	Finish grade profile for centerline and for top of curb shown (left & right) if special grades required.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
12.	Cul-de-sacs all have 1% to 4% cross slope between gutter lip and high point.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
13.	Super elevation grades shown where required by Highway Design Manual.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
14.	Back of curb flow diverters indicated on proposed county streets with grades over 5% when no sidewalk installed.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
15.	Centerline profiles of intersecting streets shown to their point of intersection. (Showing curb return or other profiles in lieu of the centerline profile is not an adequate or correct representation.)	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
16.	Off-tract profile to catch point shown where road is constructed to subdivision boundary.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
17.	Centerline stations and elevations shown @ 50' minimum intervals and @ all BVC, EVC, PIVC, and grade breaks.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
18.	Profile slopes indicated.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____

III. DRAINAGE
A. HYDROLOGY - HYDRAULICS

1.	Contours shown for 100 feet + beyond property.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
2.	100 year water surface calculations completed when natural watercourse or drainage facility flows through or adjacent to subdivision or the property lies within flood hazards or flood prone area and water surface shown on plans.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
3.	EGL, HGL, F1, E1, Q, A, S, V, freeboard at structures, structure losses, tailwater assumptions, super or subcritical flow all indicated.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
4.	Adequacy of in-tract drainage system verified.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
5.	All starting water surface calculations adequately verified. (When computing beginning water surface in natural watercourse and no obvious point of control is available, begin 500' downstream and work up to point in question.)	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____

		COMPLY	NOT APPLY	CITY COMMENTS
6.	Adequacy of off-tract drainage system verified.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
B. EASEMENTS				
1.	Easements shown on map are shown on plans.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
2.	Off-tract drainage improvements (plan and profile) and accompanying easements shown. Off-tract offers of dedication for drainage easement submitted for review.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
3.	Off-tract work to be done but no easement requirements. Right of entry submitted for review.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
4.	Easement widths indicated for (a) closed conduits, (b) open channels.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
5.	Sufficient X-sections submitted to verify easement width and Development rights for open channels.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
6.	Access and ingress easements shown, graded to be useable.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
7.	Minimum 12' ingress easement to public way provided to all access easements.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
8.	Minimum 40' centerline radius for access easements shown.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
9.	Structure setback line indicated and location verified with X-sections for unimproved channel.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
10.	Fences shown as required where street crosses watercourse or drainage structure.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
11.	Fences shown as required at outside boundaries of open lined channel easements and water district canals.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
C. STRUCTURES				
1.	Inlet detail shown for new inlet installation.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
2.	Inlet depths without manhole bases and max. dia. Pipes through inlets observed. Type A 6' CC 3011 36" front 30" side Type B 12' CC3012 36" front 30" side Type C 4' CC3013 36" front 24" side Type D 6' CC3016 36" front 24" side Type E 4' CC3017 36" front 24" side	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
3.	Max. diameter pipes through manholes observed. Type I 24" CC 3020 Type II 42" CC 3021 Type III 60" CC 3022	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
4.	1.25" minimum freeboard in inlets and manholes.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
5.	HGL shown in all structure profiles.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
6.	Structure type indicated on plan or on structure list on same plan sheet.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____

		COMPLY	NOT APPLY	CITY COMMENTS
D.	PIPES			
1.	Closed conduit minimum slope of 0.005 observed.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
2.	Natural watercourses are placed in closed conduits for flows less than 80 cfs.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
3.	Storm drain calculations submitted and correspond with plans.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
4.	Water directed into inlet does not reverse the direction of flow.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
5.	Minimum centerline radii of pipe checked. Beveled RCP lengths specified (bevel one or both ends) and stationing of EC and BC indicated.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
6.	Outlet protection for closed conduits or lined channels provided.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
7.	2' minimum cover over pipe observed (provided manufacturer specs does not require more) unless special design and calcs.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
8.	Design Q shown on pipe profile.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
9.	Minimum cleansing velocity of 2 FPS with half design flow observed.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
10.	18" minimum pipe size.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
E.	CHANNELS			
1.	Maximum velocity in earth channel verified by soils report - minimum velocity 3 FPS.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
2.	Improved earth channel side slopes shown to be 2:1 or less steep as specified by soils report.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
3.	Lined channel side slopes as specified by soils report.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____
4.	Areas noted to be cleared of structures, trees, brush, and debris within natural channel and watercourses.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	_____