



CITY OF BENICIA
 DEPARTMENT OF PUBLIC WORKS
 ENGINEERING DIVISION
 250 EAST L STREET, BENICIA, CA 94510
 Phone: (707) 746-4240

CITY OF BENICIA IMPROVEMENT PLAN REVIEW CHECKLIST

Tract Map # _____

This checklist is submitted with improvement plans for review. They have been prepared by me or under my direction and checked for conformance with the approved Tentative Map or Plan, the Conditions of Approval, and the City of Benicia Municipal Code, including Chapter 15.28 (Grading Ordinance).

Engineer's Signature: _____

Firm Name: _____

Address: _____

Contact Person: _____

Phone No.: _____

Developer: _____

Address: _____

Contact Person: _____

Phone No. _____

Assessor's Parcel No. _____

FOR OFFICE USE ONLY:	
<input type="checkbox"/>	First Check
<input type="checkbox"/>	Recheck
<input type="checkbox"/>	No. of Sets of Plans
<input type="checkbox"/>	Hydrology/Hydraulic Calcs & Maps
<input type="checkbox"/>	(Prelim.) Bond Est. \$ _____
<input type="checkbox"/>	Plan Review Deposit \$ _____
<input type="checkbox"/>	Signing & Striping Plans
<input type="checkbox"/>	Structure Calculations
<input type="checkbox"/>	SWPPP Plan and Report
<input type="checkbox"/>	Erosion Control Plan
<input type="checkbox"/>	Final Map
<input type="checkbox"/>	Parcel Map
<input type="checkbox"/>	No Map required
Assigned to: _____	
Finance Control No.: _____	

INSTRUCTIONS: Place a check mark to indicate you comply or N/A to indicate Not Applicable next to each item. Any requests for exceptions shall be made in writing and attached herewith.

I.	GENERAL	COMPLY	NOT APPLY	CITY COMMENTS
1.	Applicable General Note included	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
2.	24" x 36" standard size used, including borders.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
3.	Title block/scale/north arrow shown.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
4.	Plans capable of microfilm reproduction; min. 1/8" letters or typewritten.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
5.	Engineer's name, number, exp. Date, stamp and signature included.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
6.	Vicinity Map shown.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
7.	Sheet Index and Key Map included for 3 or more sheets.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
8.	Pavement Design Chart shown with TI values for review.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
9.	Street light locations/legend.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
10.	Curb grade plans and cross sections @ 50' maximum intervals along road frontage and extending 150' beyond limits of work. Profile line, C/L and E/P.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
11.	Signature boxes for Utility Agencies and Fire Department	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
12.	Fire hydrant location shown.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
13.	Benchmark noted.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	

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I.	GENERAL (Cont'd)	COMPLY	NOT APPLY	CITY COMMENTS
14.	Signing and striping plan plus existing striping included in improvement plans (cat track note).	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
15.	Development number (subdiv., MS, etc.) shown on each sheet.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
16.	Permits required from other agencies (State Fish & Wildlife, RWQCB, US Army Corps. Of Engineers., etc.).	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
17.	Plans for landscaping within public right of way submitted for review.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
18.	City Engineer's signature block.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
19.	Substantial compliance with the approved tentative map and conditions of approval.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
20.	Symbol legend and abbreviations legend	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
II. ROADS				
A. Typical Sections				
1.	Structural section indicated per R-value shown (min. 2.5" AC on 8" AB).	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
2.	Curb type indicated.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
3.	R/W and street with dimensions shown. Width conforms to Final Map; layout conforms to Approved Tentative Map.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
4.	2:1 maximum cut/fill slope shown beginning at R/W lines; soils report verifying exceptions.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
5.	X-slope indicated- note relative difference in elevation of C/L and T/C when not the same.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
6.	On roads with slope greater than 6%, flatten x-slope to 2% through intersection.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
7.	Sidewalk width per Tentative Map and Conditions of Approval.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
8.	Typical utility trench shown.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
9.	Limits of Public Works Inspection shown (exp. On apartments/condo projects).	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
10.	Trench backfill detail and note.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
B. Plan Views				
1.	Curve data shown for all curves.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
2.	28' minimum curb return radii (35' for major thoroughfares & industrial streets).	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
3.	Cul-de-sac F/C radius (35' min.) shown.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
4.	Private road turnarounds shown.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
5.	Property corner returns shown to be a straight line from B/C to E/C and not concentric with curb returns.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
6.	R/W and street width dimensions shown.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
7.	C/L stationing shown @ 100' intervals & all curves, B/C, and E/C.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
8.	Lot/parcel lines & numbers/letters indicated.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
9.	Cul-de-sac all have 2% to 5% x-slope between gutter lip and high point.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
10.	Valley gutters indicated. Flag flow lines @ quarter points on valley gutter C/L.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
11.	Show trees of 12" or greater diameter to be removed or saved.	<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 and invert elevation shown for all drain structures.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
14.	Drainage easement and dimensions shown.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	

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B.	Plan Views (Cont.)	COMPLY	NOT APPLY	CITY COMMENTS
15.	Location of existing underground pipes and utilities shown.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
16.	Street monuments are not in sewer or utility trenches.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
17.	Handicap ramps provided at all crosswalks and intersections.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
18.	Right of Entry submitted for all off-tract work.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
19.	Horizontal curves & sight distance designed per Highway Design Manual.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
20.	Blue dot reflector @ FH shown on signing and striping plans.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
21.	Street names, property lines and lot numbers	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
C.	Profiles			
1.	Minimum vertical curves designated according to Caltrans Highway Design Manual.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
2.	Curb returns & cul-de-sac profiles shown (high and/or low points indicated).	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
3.	Vertical curve used for grade breaks greater than 2% (3% on sag curves).	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
4.	6% maximum gradient observed @ intersection.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
5.	Maximum street grades per design guidelines.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
6.	Underground pipes & utilities shown with inverts, street lights, size, types, and lengths indicated.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
7.	Existing ground on C/L shown. Where topo is steep existing ground left & right of C/L has been shown. X-sections may be required.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
8.	Finished grade profile for C/L and TC shown (left and right) if grades are required	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
9.	C/L profiles of intersecting streets shown to their point of intersection. (The showing of curb return or other profiles in lieu of the C/L profile is not an adequate or correct representation.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
10.	Off-tract profile to catch point shown where road is constructed to subdivision boundary.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
11.	C/L stations and elevations shown 100' min. intervals and @ all BVC, EVC, PIVC, and grade breaks.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
12.	Curb returns w/ ¼ pt. T/C elevations and grades shown.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
13.	1% min. grade observed on all public streets.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
14.	Super elevation grades shown where required by Highway Design Manual.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
15.	Profile slopes indicated.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
16.	Vertical Scale 1:4 minimum and horizontal scale 1:40 minimum	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
III. DRAINAGE (Ref. Hydrology and Hydraulics Criteria Summary "Solano County Hydrology Manual.")				
A. Hydrology/Hydraulics				
1.	Hydrology Map (Contour Map) continuing for min. 100'± beyond property or to boundaries of the drainage area, whichever is greater.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
2.	Drainage area map with on & off site topo, points of concentration & subareas with designations that are matched with hydrology calcs.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
3.	Provide hydrology & hydraulic calcs that follow latest edition of the "Hydrology & Hydraulics Criteria Summary" prepared by the Solano County hereinafter known as the "Drainage Manual."	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
4.	Freeboard in channels, structures, pipes available.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	

Improvement Plan Review Checklist

A.	Hydrology/Hydraulics (Cont.)	COMPLY	NOT APPLY	CITY COMMENTS
5.	Show area within FEMA flood hazard area.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
6.	Drainage swale and bio-retention profiles shown.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
7.	Calculations are to contain EGL, HGL, FL, Q, freeboard @ structure losses, hydraulic control assumptions super or subcritical flow.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
8.	All starting HGL calcs adequately verified. When computing beginning HGL in natural watercourse & no obvious point of control is available, begin upstream or down-stream 500' as control dictates to point in question.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
9.	Gutter flow does not exceed inlet capacity.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
10.	N=0.015	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
11.	Provisions for lot-to-lot drainage and accepting off site drainage (run on)	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
12.	Overland drainage release route shown	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
B. Easements				
1.	Off-development drainage improvement (plan & profile) & accompanying easements shown. Off tract offers of dedication for drainage easement submitted for review.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
2.	Min. 43' C/L radius for access easements shown. Off tract offers of dedication for drainage easement submitted for review.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
3.	Off-development work to be done but no easement requirements.	<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 to verify easement widths for open channels submitted.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
6.	Access & ingress easements to be graded to be useable.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
7.	Min. 15' ingress easement to provide to all access easements.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
8.	Structure setback line indicated & location verified with X-sections where unimproved channel.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
9.	Fences shown as required where street crosses watercourse or drainage structure.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
10.	Fences shown as required @ outside boundaries of open lined channel easements.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
11.	Type and dimensions of existing and proposed easements shown such as P.U.E.s	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
C Structures				
1.	Structures comply with latest revision Standard Details by City of Benicia Public Works.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
2.	Pipe & box inlet have rounded lip radius of 0.1 diameter.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
3.	Structures required where lateral pipe diameter is greater than 1/3 the main diameter	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
4.	Structures shall be channelized for velocities of 14 fps or greater.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
5.	CB's or MH's @ max. of 400' or when the flow in gutter extends 7' from the F/C.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
6.	Structures calculations and details for non-standard structures.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
7.	Energy dissipator provided where needed.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
8.	Outfalls satisfactory.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
9.	1.25' minimum freeboard in inlets & manholes, HGL shown @ all structures.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
10.	NPDES stencil on C/B (Standard Placard).	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	

Improvement Plan Review Checklist

C	Structures (Cont.)	COMPLY	NOT APPLY	CITY COMMENTS
11.	Stationing of all drainage structures	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
12.	Specified size & type of all drainage structures	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
13.	Top of curb, flow line and invert elevations at all drainage structures	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
D	Pipes			
1.	Closed conduit min. slope of .003 observed.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
2.	Water directed into inlet doesn't reverse direction of flow.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
3.	Beveled RCP lengths specified (bevel one or both ends) & stationing EC and BC indicated.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
4.	3' minimum cover over pipe observed (provided mfr. Spec does not require more) unless special design & calcs submitted.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
5.	Pipes curved in only one direction and show radius.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
6.	Design Q (cfs), direction of flow arrow, material, class, length, and slopes shown on pipe profile.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
7.	Pipes carrying 14.0 fps or higher shall have extra protection. Concrete pipe shall have protective cover of concrete from inner surface to the reinforcement of at least 2" and have rubber gasket joints.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
8.	Min. pipe diameter of 18" provided for all City-maintained pipes. Diameters shown for all pipes	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
9.	Min. velocity of 2 fps with 1/2 design flow observed.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
10.	Underground utility crossings shown in profile	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
11.	Existing ground surface and finished grade above pipe shown	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
E	Channels			
1.	Maximum velocity in unprotected earth channel shall be limited to 6 fps or verified by soils report – minimum velocity 2 fps.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
2.	Improved earth channel side slopes shown in cross sections to be 2: 1/2:1 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.	Profile of channel shown with slope and flow line elevations at grade breaks	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
5.	Note, areas to be cleared of structures, trees, brush, and debris within natural channels and watercourses.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
6.	Facilities to be dedicated to the public for maintenance shall comply with channel geometry specified in the Drainage Manual.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
7.	Creek cross section shown for establishing creek set back per City Ordinance	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
IV.	Grading Plans (Ref. Benicia Municipal Code Chapter 15.28 (Grading Ordinance))			
A	General			
1.	Contour lines of existing and proposed finished grades shown.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
2.	Contour intervals not greater than 5'.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
3.	Contours extend a minimum 50' beyond affected area.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
4.	Location, width, direction of flow and approximate location of tops and toes of banks of any water courses shown.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	

Improvement Plan Review Checklist

A	General (Cont.)	COMPLY	NOT APPLY	CITY COMMENTS
5.	On a case by case basis it may be necessary to have a field survey where obstructions may block an aerial topo.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
6.	Lot pads shown with elevation.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
7.	Driveway slopes shown.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
8.	Retaining wall details and engineering calculations.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
9.	Signature of Soils Engineer shown stating that the plans conform to the soils report.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
10.	Copy of soils report.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
B	Design			
1.	The slope of cut of fill structures of excavations shall not be steeper than 2:1 unless approved by the City Engineer and Soils Engineer.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
2.	Setbacks from property boundaries, buildings, and structures shall meet the latest Building Codes and as directed by the City Engineer.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
C	Erosion and Sediment Control			
1.	Grading plans shall be designed with short term and long term erosion and sedimentation control.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
2.	The ABAG erosion and sedimentation control handbook and Post-construction BMP Manual should be used as a guide in preparing plans.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
3.	Erosion and sediment control plan shall include an effective revegetation program to stabilize all distributed areas.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
4.	Grading shall be limited between October 1 and April 15 on a case by case basis.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
5.	Prepare SWPPP Plan and Report (including BMPs) – see State Handbook.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
V.	Utilities			
A	General			
1.	Existing utilities shown as dashed or screened	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
2.	Proposed utilities shown with type, size, length, material and slope	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
3.	Clear delineation between public and private utilities	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
4.	Potholing complete to show potential conflicts and relocations	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
B	Sewer System			
1.	Stationing and offsets to manholes and clean outs	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
2.	Structure rim elevation, invert elevation, type and size shown. Min. 0.1 foot drop between inverts in and out.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
3.	Design Q (cfs), direction of flow arrow, material, class, length, and slopes shown on pipe profile. Min. slope 0.0075.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
4.	Min. pipe diameter of 8" provided for all City-maintained pipes. Diameters shown for all pipes	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
5.	Min. velocity of 2 fps with ½ design flow observed.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
6.	Underground utility crossings shown in profile	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
7.	Existing ground surface and finished grade above pipe shown	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	

Improvement Plan Review Checklist

C	Water System	COMPLY	NOT APPLY	CITY COMMENTS
1.	Stationing and offsets to water valves, fire hydrants and service laterals shown.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
2.	Water valve rim elevation, invert elevation, type and size shown.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
3.	Pipe material, class, length, and slopes shown on pipe profile.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
4.	Min. pipe diameter of 8" provided for all City-maintained pipes. Diameters shown for all pipes	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
5.	Horizontal and vertical alignment shown with invert elevation at grade changes.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
6.	Underground utility crossings shown in profile	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
7.	Existing ground surface and finished grade above pipe shown.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	
8.	Water pipes have 12" vertical clearance over sewer pipe crossings.	<input type="checkbox"/> OK	<input type="checkbox"/> N/A	