

**CITY OF NAPA
PUBLIC WORKS DEPARTMENT
1600 First St., P.O. Box 660
Napa, CA 94559-0660**

Engineering Division
Phone: (707) 257-9520

Planning Division
Phone: (707) 257-9530

Building Division
Phone: (707) 257-9540
Inspections: (707) 257-1063

Facsimile: (707) 257-9522

**Napa Fire Department
Fire Prevention Division**
Phone: (707) 257-9590

ENGINEERING DIVISION - IMPROVEMENT PLAN CHECKLIST

PLEASE TYPE OR PRINT:

PROJECT ADDRESS	APN(S)			
PROJECT NAME	CITY OF NAPA PROJECT NUMBER			
APPLICANT/AGENT	PHONE	FAX	EMAIL	
MAIL ADDRESS	CITY	STATE	ZIP	
PROPERTY OWNER (IF OTHER THAN APPLICANT)	PHONE	FAX	EMAIL	
MAIL ADDRESS	CITY	STATE	ZIP	
ENGINEER	RCE NUMBER	PHONE	FAX	EMAIL
MAIL ADDRESS	CITY	STATE	ZIP	

- FINAL MAP (Associated with these plans)
- PARCEL MAP (Associated with these plans)
- NO MAP (Associated with these plans)

1. GENERAL

- 1 Sheet drawing size, 24"x36" (Architectural size is not allowed for engineering drawings)
- 2 Title block:
 - a. Engineering firm name, address, and telephone number
 - b. Title of project
 - c. Engineer's signature block in accordance with PE Act requirements
 - d. Date prepared
 - e. Sheet numbers
- 3 North arrow pointing to the top of the sheet or to the right
- 4 Engineering Scale (All sheets)
 - a. Minimum Horizontal Scale 1"=40'
 - b. Minimum Vertical Scale 1"=4'
- 5 Clear delineation of project boundaries
- 6 Clearly delineate City limit if adjacent to project site
- 7 Type and dimension of existing and proposed easements (PUE for Joint Trench not required)
- 8 Substantial compliance with the approved tentative map and conditions of approval

2. COVER SHEET REQUIREMENTS

- 9 Title of project
- 10 Vicinity map (with North arrow)
- 11 Reduced site plan (showing general layout of project with North arrow and scale)

- 12 Sheet index to plans
- 13 Symbols Legend (include all symbols used on plans and reference to standard plan numbers)
- 14 Abbreviation legend (include all abbreviations used on plans)
- 15 Benchmark (use benchmark listed in the City of Napa Control Network-Phase 1 & 2 Report 5-6-12 and Post-Earthquake Control Review 4-10-15)
- 16 City Engineer/Fire Depart. approval block. Napa Sanitation, if applicable

3. NOTES AND DETAILS

- 17 General Notes
 - a. Include all City STD notes (as listed in City of Napa Standard Specs.)
 - b. Include all Water Division Notes (as per STD detail W-12)
 - c. Project Specification Notes. Keep these under a separate heading.

4. TYPICAL STREET SECTIONS

- 18 Typical street sections:
 - a. Provide overall ROW width and curb-to-curb. Also show location of property line, planter, curb, gutter, and sidewalk.
 - b. Crown and centerline location
 - c. Pavement section and including base type and thickness. Include R-value and Traffic Index.
 - d. Street cross slope (maximum 6%)
 - e. Cut and fill slopes.

5. STREETS

- Plan View:**
- 19 Centerline and each face of curb curve data. (BC STA, EC STA, Radius, Delta, Arc length)

All forms and handouts are available on www.cityofnapa.org

5. STREETS (CONTINUED)

- 20 Street names (new street names require approval by Fire Department and U.S. Post Office.)
 - 21 Street widths (including right-of-way widths)
 - 22 Property line and lot numbers
 - 23 Centerline stationing:
 - a. Conform to existing stationing if previously set by adjacent project
 - b. Station all BCs, ECs, curb returns, grade breaks, driveway centerlines, utilities, etc.
 - 24 Gutter slopes including curb returns, knuckles and cul-de-sacs and flow arrows
 - 25 Top of curb elevations and stationing at curve points and grade breaks
 - 26 Required sidewalk and handicap ramps
 - 27 Monument locations at all ECs, BCs, and street intersections
 - 28 Length and location of all transitions in curb and gutter
 - 29 Redwood headers and barricades
 - 30 **Show all existing monuments with reference to protect or replace**
Profile View:
 - 31 Existing ground at centerline (100' beyond improvements, 200' for major and collector streets)
 - 32 Finished grade profile at centerline:
 - a. Stationing and elevation at all grade breaks
 - b. Vertical curve data (PIV, BC STA, EC STA, Radius, Delta, Length). Minimum Vertical Curve 100'. Also, dependent upon sight distance.
 - 33 Street centerline slope
 - 34 Station equation at street intersections
 - 35 Scale: vertical – minimum of 1"-4', horizontal – minimum 1"-40'
- Cross Sections:**
- 36 Cross sections (every 50 feet for all half streets)
 - 37 Stationing
 - 38 Existing and proposed grades (centerline TC, EP, grade breaks)
 - 39 Existing and proposed cross slopes (maximum 6%)
 - 40 Centerline, existing edge of pavement (conform) and top of curb elevations
 - 41 Scale: vertical – minimum of 1"-4', horizontal – minimum 1"-40'

6. UTILITIES

- 42 Existing utilities, shown dashed or screened (if known). Including but not limited to:
 - a. Joint trench
 - b. Gas mains and valves
 - c. Electric
 - d. Telephone and Cable TV
 - e. Utility poles
 - f. Fiber optic cables and conduit structures
 - g. Water
 - h. Sewer
 - i. Storm drain
- 43 Existing and proposed utilities (sewer, water, etc.)
 - a. Location
 - b. Type, size, length, class, and slope
 - c. Material (can specify in a general note for proposed)
 - d. Clear delineation between public and private utilities
- 44 Potholing
 - a. Joint trench
 - b. Gas mains and valves
 - c. Electric
 - d. Telephone and Cable TV
 - e. Utility poles
 - f. Fiber optic cables and conduit structures
 - g. Water
 - h. Sewer
 - i. Storm drain

7. SEWER SYSTEM

- Plan View:
- 45 Manhole/cleanout numbers corresponding to profile view and type and size of manholes
 - 46 Stationing and offset of structures
 - 47 Direction of flow arrows
 - 48 Lateral locations (include invert at upstream end of lateral)
- Profile View:**
- 49 Existing and finished surface grade at the sewer line
 - 50 Invert elevations (in and out)
 - 51 Check min. 0.10' drop between inverts in and out
 - 52 Pipe size, length, and scope
 - 53 Manhole/cleanout numbers corresponding to plan view

8. WATER SYSTEM

- Plan View:**
- 54 Horizontal alignment and size of both existing and proposed mains
 - 55 Size and location of surface laterals
 - 56 Valve locations
 - 57 Fire hydrants and service lateral
- Profile View:**
- 58 Existing and finished surface grade at the sewer line
 - 59 Verify sewer is below water line

9. STORM DRAIN SYSTEM

- Plan View:**
- 60 Direction of flow arrows
 - 61 Stationing of all drainage structures
 - 62 Specified size/type for all drainage structures
 - 63 Pipe diameter and length (radius for curved section)
 - 64 Pipe material and class; specified in general note or shown on profile)
- Profile View:**
- 65 Invert elevations/flowlines at all drainage structures
 - 66 Existing ground surface and finished grade
 - 67 Pipe diameter and length
 - 68 Pipe slopes
 - 69 Utility crossings (possible conflicts)
 - 70 Profile and cross-sections of open channels (as necessary)

10. GRADING

- 71 Existing and finished contours (and spot elevations at all grade breaks)
- 72 Grades for all improvements (minimum slope is 1% over asphalt and landscape and 0.5% over concrete)
- 73 Existing and proposed structures (i.e. houses, wells, septic systems)
- 74 Flow arrows
- 75 Existing trees noted as to whether to be saved or removed (base elevations for trees to be saved with drip line shown)
- 76 Topographic information will extend a sufficient distance beyond project boundaries to determine existing drainage patterns
- 77 Erosion and sediment control plan
- 78 Creek cross-sections to establish setback per City ordinance
- 79 Provisions for any lot-to-lot drainage
- 80 Provisions for accepting off-site drainage
- 81 Top of curb elevation and stationing at property lines
- 82 Retaining wall details and engineering calculations (two copies)
- 83 Soil Engineer signature block
- 84 Lot drainage with spot elevations
- 85 Pad elevations and finish floor elevations
- 86 Driveway slopes
- 87 Overland drainage release route
- 88 Open channels and swales:
 - a. Flowline elevation at all grade breaks

10. GRADING (CONTINUED)

- b. Slope of swale
- c. Typical cross sections
- d. Existing and proposed improvements clearly delineated as such

11. SIGNING AND STRIPING

- 89 Compliance with City Standard Specifications and Caltrans Traffic Manual
- 90 Required signing and striping with callouts

12. STREET LIGHTING

- 91 Street Lighting:
 - a. Compliance with City Standard Specifications
 - b. Light locations and stationing
 - c. Pull box locations (including conduit and conductor sizes)

DEPARTMENT USE ONLY

DATE CHECKLIST RECEIVED	CHECKLIST RECEIVED BY	ENGINEERING PLAN CHECK FEES:
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I HAVE READ THE FOREGOING AND HAVE SUPPLIED ALL THE INFORMATION REQUESTED (OR HAVE PROVIDED A WRITTEN EXPLANATION THAT ACCOMPANIES THIS CHECKLIST AND EXPLAINS ANY OMISSIONS).

SIGNATURE OF PROJECT ENGINEER

DATE