

City of Gilroy

GENERAL GUIDELINES

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# Section 1

## GENERAL

### 1. PURPOSE AND INTENT

The purpose and intent of this document is to clarify and consolidate present design criteria in the City of Gilroy. These standards are understood to be the minimum acceptable and more rigorous standards may be required depending on the nature of the development. These Standard Details, General Guidelines, and Technical Specifications (collectively, the “Standards”) apply to all new development, including streets, and utilities, within the City of Gilroy. Exceptions to these Standards are at the discretion of the City Engineer.

Per Resolutions [REDACTED] the City of Gilroy recommends that the most current Community Design and Transportation Guidelines published by the Santa Clara Valley Transportation Authority (VTA) be followed for design where possible. The Community Design and Transportation Guidelines emphasize a roadway design that encourages all to walk, bike, and to take transit as a viable choice as opposed to a means of last resort.

All projects shall be designed to Complete Streets standards, Complete Streets are designed, operated and maintained so they are safer, more comfortable, materially sustainable, and convenient for all users – pedestrians, bicyclists, transit users, commercial delivery services, and motorists, - of all ages and abilities. See Section 3 for further information.

All projects shall include a storm water control plan and detail how storm water quality, post-construction is being addressed. See Section 7 for further information.

### 2. SCOPE

The Design Standards as hereinafter specified shall be used as the basis of design for all development within the jurisdiction of the City of Gilroy.

### 3. FINAL AUTHORITY

The City Engineer is the final authority on all questions which may arise as to the interpretation of these standards. All exceptions to these General Guidelines, Technical Specifications, and Standard Details shall be requested in writing, clearly identified on the tentative map and/or improvement plans and shall be approved by the City Engineer prior to approval of the tentative map and/or improvement plans.

### 4. GENERAL NOTES

Required City General Notes for all improvement plans are included as Appendix A – Section 1 of these Design Standards.

### 5. DRAWINGS

#### 5.1 GENERAL

- Final original plans shall be mylar.
- Mylars shall be 24 in x 36 in.
- All construction documents shall be signed along with the Engineer’s seal by a qualified individual appropriately licensed in the State of California.
- All plans shall have a sheet index on the title (cover) page of the plans that

includes a sheet number, sheet name and description. (See example below)

<b>SHEET INDEX</b>		
<b>SHEET NO.</b>	<b>SHEET NAME</b>	<b>DESCRIPTION</b>
1	T-1	TITLE SHEET
2	K-1	KEY MAP
3	F-1	FENCING AND SIGNAGE PLAN
4	F-2	FENCE DETAILS
5	F-3	FENCE DETAILS
6	LGU-1	LAYOUT, GRADING & UTILITY PLAN - GRID B2
7	LGU-2	LAYOUT, GRADING & UTILITY PLAN - GRID B3
8	LGU-3	LAYOUT, GRADING & UTILITY PLAN - GRID B4
9	LGU-4	LAYOUT, GRADING & UTILITY PLAN - GRID C4
10	LGU-5	LAYOUT, GRADING & UTILITY PLAN - GRID D4
11	LGU-6	LAYOUT, GRADING & UTILITY PLAN - GRID E4

## 5.2 DRAWING SUBMITTALS

All Tract Maps, Parcel Maps, Improvement Plans, and Capital Project Plans will require submittal of AutoCAD and Mylar plans as follows:

<b>PLAN TYPE</b>	<b>WHAT IS SUBMITTED</b>	<b>WHEN PLANS ARE SUBMITTED</b>
Tract Maps and Parcel Maps	Mylar AutoCAD Site Plan	Mylar to be submitted after review is complete  AutoCAD files will need to be submitted with Mylar set.  8.5"x11" Site Plan to be submitted with final plan review set for addressing.
Improvement Plans	Mylar AutoCAD	Mylar to be submitted after review is complete  AutoCAD files will need to be submitted with Mylar set.
Capital Projects	Mylar AutoCAD	Mylar to be submitted after review is complete  AutoCAD files will need to be submitted with Mylar set.

## 5.3 SITE PLANS (ADDRESSING)

8.5" x 11 Site Plans shall be submitted so that addressing can be assigned to the project and shall show the following (Submitted in AutoCAD or PDF format):

1. Tract Number or Parcel Map Number
2. Tract Name or Parcel Map Name
3. Lot Numbers
4. Street Names
5. Property and Right of Way Lines
6. North Arrow

7. Curb Cuts for driveway (if possible)
8. Location of existing and proposed Fire hydrants
9. Vicinity Map

#### 5.4 RECORD DRAWINGS

The Contractor shall be responsible for regularly maintaining and a complete marked up “As-Built” job set of Contract Documents throughout the duration of the project construction. These plans shall indicate all approved deviations from original contract documents and precise physical layouts of exposed and concealed work. Before final inspection, the Contractor shall submit the marked up “As-Built” job set to the City for review (for Development Projects: See Appendix A – Section 3 “Development Project Closeout”).

For City Capital projects, once approved by the City, the Contractor shall submit a marked up “As-Built” job set to the Designer to draft on mylar with permanent ink. All deviations shall be outlined with a “cloud” with pertinent notations. Each sheet shall be stamped “Record Drawings” along with the Designer’s signature and date. After the Designer has incorporated all the Record drawing information, the “Record Drawing Set” shall then be submitted back to the City in mylar form.

In addition to the mylar form, AutoCAD files of the Record Drawing set shall be submitted. The AutoCAD file shall be submitted as single drawings via the “x-bind” command. Separate “x-reference” files shall not be allowed. Please call the City for the latest version of AutoCAD.

#### 5.5 AUTOCAD SUBMISSION STANDARDS

AutoCAD files shall be submitted for all Tract Maps, Parcel Map, Improvement Plans, and Capital Project Plans.

(A) Projection information – Drawing Environment

- U.S. Foot Units
- California State Plane Coordinates, Zone III, NAD83 Datum
- Reference monument with tie line

*Optional Drawing environment*

- U.S. Foot Units
- Start at 0,0 and proceed in a positive, Cartesian grid (World). For example, set drawing up on a standard 10,000 x 10,000 grid.
- Reference information of *at least two existing* points or features, separated onto a different layer. The reference points should be in opposite corners of the project area. This can take various forms. For example, two street intersections and their centerlines will usually work, or the original parcel boundaries that circumscribe the development.

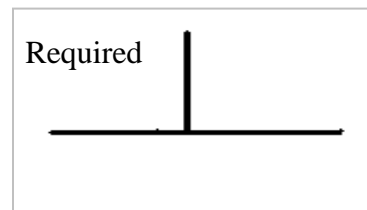
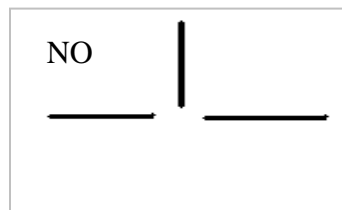
(B) File Parameters

- AutoCAD DWG or DXF file format, (contact City for version).
- Submit an index or graphical legend:
  - Layer Names and descriptions
  - Blocks with description and insertion point
- System Variables
- UCS = World
- DVIEW → Twist = 0, SNAP Angle = 0

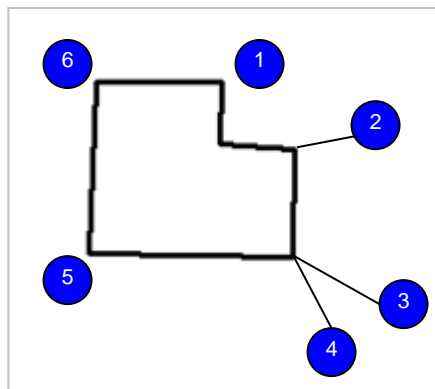
- Basepoint = 0,0
- No XREFS, Queries, or Cataloged Files, No Attached Images of any kind
- No BIG Fonts or shape files (SHX)
- No ARX or other Proxy Objects
- Purge all unused Blocks, Layers, Styles, etc
- Do an AUDIT before submittal
- Do not put any objects in Paper Space
- Test for 'UFOs' i.e. do a Zoom Extents; if the drawing disappears, you have a feature at the limits of the drawing that should be eliminated.

(C) Feature Element Parameters

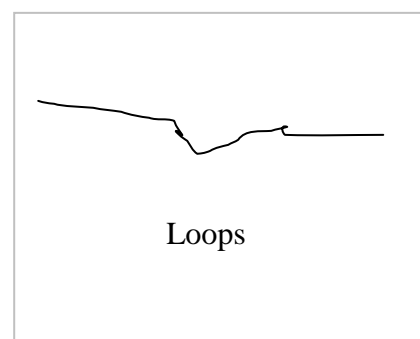
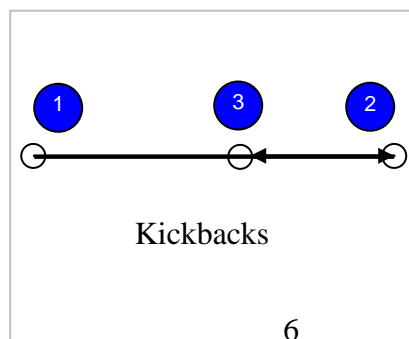
- No Ellipses
- No 3D Objects, Extruded features
- All features should be coplanar, no vertical curves, all with ELEV set to 0
- No Solids or hatching
- No Dimension Objects or Leaders
- Intersecting lines should meet at the same coordinate. For example, many survey-based documents use and iron pin (IP) at intersecting lots. When the IP is removed, it creates a whole as in the following figure:



- Polygons.
  - Should be closed (use the Close Option)
  - Do not contain vertices that have the same coordinate:



- Polylines should not have a thickness or custom linetype. Test and eliminate any kickbacks or loops.



- Sewer and Storm digitized in the direction of flow
- Streets digitized in the direction of increasing address range
- Use simple 2-point lines and true curves (no vertical curves)
- Test and eliminate any zero-length lines, polylines LWPolylines. Test for, and eliminate 'null' text.
- No Sketched linework
- Blocks.
  - Insertion point should be the centerpoint of the object
  - Unitless values, all with the same scale factor
  - Do not use blocks that represent anything other than a point feature. For example, model homes and condominiums are polygon features that can be represented as a block inserted into a drawing many times.
  - As an alternative, blocks can be represented as simple point features provided that each point feature class is placed on its own layer. For example, all fire hydrants are points on a FHYP layer and all water valves are points on a WTRV layer.
- Text.
  - Simple text strings or MTEXT (limited to 254 characters) only.
  - Do not use special characters or formatting options (e.g. %%d, %%u etc).

(D) Critical Layers/Features

The WBLOCK feature will be used for the following layers for GIS. All linear features can be drawn as simple lines, true curves polylines.

**Core Features**

- Parcels
- Street Centerlines
- R/W
- Easements (Ingress/Egress)
- Situs Address
- APN\*
- Street Name
- Building Footprint
- Fire Hydrants

**Structure – Target Hazards**

- Building Footprint
- Structural Load – bearing Walls
- Elevators
- Stairs
- Standpipes
- Shut-off valves
- Alarm Panels

**Utilities**

- Water, Sewer, Storm Utilities
- Street Lights
- Handicap Ramps

\* Could be supplied by Cross Table by Lot #

**5.6 SCANNING**

Contractor shall contact the City for file name convention. Scanning Specifications

are as follows:

File type: PDF  
Resolution: 300 dots per inch  
Media: CD, DVD, or Flash Drive

All PDF images shall be placed on a CD, DVD, or Flash Drive. The CD, DVD, or Flash Drive shall be labeled appropriately as shown below:

- Tract Map shall contain Tract # and Tract Name
- Parcel Map shall contain Parcel Map Name and Parcel Map # (book and page)
- Improvement Plans shall contain Tract# and Tract Name;
- Capital Projects shall contain the Project Number and name of the Capital project

Scanning shall occur at the following times:

<b>PLAN TYPE</b>	<b>WHEN PLAN IS SCANNED</b>
Tract Map	After the Final Map has been Recorded
Parcel Map	After the Map has been Recorded
Improvement Plans	After the plans have been approved AND after the project is completed and Record Drawings have been submitted.
Capital Projects	After the plans have been approved AND after the project is completed and Record Drawings have been submitted.

## **ELECTRONIC FILES**

All electronic files submitted to the City shall follow the following format:

<b>Type</b>	<b>Comments</b>
CD, DVD, or Flash Drive	CD, DVD, or Flash Drive shall be labeled appropriately. If necessary, large files may be compressed via "WINZIP"
Text	Microsoft Word – Contact City for latest minimum version
Spreadsheet	Microsoft Excel, – Contact City for latest minimum version.
CAD	AutoCAD – Contact City for latest minimum version

## **6. CHECK LISTS**

An Improvement Plan and Final Map checklist are included as Appendix A & B of these General Guidelines. Their purpose is to familiarize the development engineer with most of the items checked by the City to ensure compliance and completeness of improvement plans and Subdivision Final Maps submitted for review.

The development engineer shall provide a checked-off copy of the appropriate checklist when submitting the plans for initial review. Any areas not applicable, not in compliance or requiring a variance from these General Guidelines shall be so noted.

## **7. EXCEPTIONS**

All standards listed herein shall be followed unless an exception or deviation is approved in writing by the Public Works Director/City Engineer.



**8. FLOODPLAIN MANAGEMENT**

See City of Gilroy Floodplain Management Ordinance (Ordinance No. 98-17).

**9. STORM WATER MANAGEMENT**

Refer to the City of Gilroy Municipal Code, Chapter 27C (Municipal Storm Water Quality Protection and Discharge Control), Chapter 27D (Post-Construction Storm Water Pollution Prevention) Regional Storm Water Management plan (SWMP) and NPDES General Permit for City of Gilroy, and Storm Water Guidance.

## **Section 2**

# **TENTATIVE MAPS**

## Section 2

# TENTATIVE MAPS

## 1. FILING

- (a) No tentative map involving residential sites except for those specifically exempted by the residential development ordinances will be received for filing unless the city council, through competitive evaluation, has given the project a ranking and a build out schedule assignment. The number of copies required by the tentative map application of any proposed subdivision shall be filed with the planning department by the developer or by his agent.
- (b) The tentative map submitted shall not be considered to be complete or ready for filing until a completed environmental clearance document for the project has been approved.
- (c) Vesting tentative map submittals shall not be considered to be complete or ready for filing until submitted simultaneously with a completed application for architectural and site review. (Ord. No. 81-11, 1, 3-16-81; Ord. No. 85-15, 1, 8-19-85)

## 2. FORM

The tentative map shall show the following information:

- (a) The tentative map number (once assigned) and name, or designation;
- (b) Sufficient legal description of the land as to define the boundaries of the proposed tract;
- (c) Name and address of the owner, the developer, and of the registered civil engineer or licensed surveyor who prepared the map;
- (d) The location, names and widths of all adjoining highways, streets and roads;
- (e) The width and approximate grades of rights-of-way and roadways for all highways, streets and roads within such proposed development, with typical cross-sections showing proposed improvements;
- (f) The widths and approximate locations of all existing or proposed easements, whether public or private, for roads, drainage, sewers, slope, or public utility purposes;
- (g) Approximate radii of all curves;
- (h) The proposed lot layout and the approximate dimensions of each lot;
- (i) Approximate location, names and directions of flow of all watercourses and natural drainage channels; and approximate locations of all areas covered by water or subject to overflow by one percent flood;
- (j) Draft Storm Water Control Plan per the Storm Water Management Guidance Manual for Low Impact Development and Post-Construction Requirements;
- (k) Source of water supply and proposed distribution system;
- (l) Nearest source of recycled water, if available within 1,000' of project boundary or description of location if greater than 1,000' from the project boundary;
- (m) Proposed method of sewage collection and disposal;

- (n) Proposed route of drainage system;
- (o) Proposed use of property;
- (p) Proposed public areas, if any;
- (q) Identify any public landscape areas that will be dedicated to the city (the project will be conditioned to annex into the Citywide Landscape Maintenance Community Facilities District No. 2012-1 to fund new landscape maintenance);
- (r) Approximate contours where topography controls the street layout;
- (s) Date, north point, and scale;
- (t) Approximate location and outline to scale of each: Building, tree with six-inch or greater caliper trunk at a level of four and half (4.5) feet above existing ground, or structure on the site and the identification of which of the above will not be moved or removed by development;
- (u) Each street shown by its actual street name or by temporary name or letter for purpose of identification until the proper name of such street is determined. All names shall be as accepted by the street naming committee, the county communications agency and the fire chief and then approved by the city council. Duplication of existing names will not be allowed.
- (v) Identify phasing, if phasing is proposed.

The following information shall be required for all vesting tentative maps at the time of application submittal:

- (a) A soils report shall be prepared that examines the property of all phases from the proposed subdivision.
- (b) Proposed off-site routing plans for sewer, water, storm drainage, primary vehicular street access, and secondary emergency access shall be provided.
- (c) Complete grading plans shall be prepared that illustrate all proposed cuts and fills. (Ord. No. 85-15, 2, 8-19-85)

If it is impossible or impracticable to place upon the tentative map any matter hereinabove in this section required, such matter or information shall be furnished in a written statement which shall be submitted with such map. (Ord. No. 81-11, 1, 3-16-81; Ord. No. 85-15, 2, 8-19-85)

## **Section 3**

# **STREETS**

## Section 3

# STREETS

## 1. GENERAL

All streets shall be designed in accordance with accepted engineering principles and shall conform to these Design Standards, the Standard Details, and the Complete Streets Resolution approved by City Council. These standards apply equally to public and private streets and shall not be diminished by zoning ordinance changes through the PUD process.

The City of Gilroy recommends that the Community Design and Transportation Guidelines published by the Santa Clara Valley Transportation Authority (VTA) be followed for design where possible. The Community Design and Transportation Guidelines emphasize a roadway design that encourages all to walk, bike, and to take transit.

All projects shall be designed to Complete Streets standards, Complete Streets are designed, operated and maintained so they are safer, more comfortable, materially sustainable, and convenient for all users – pedestrians, bicyclists, transit users, commercial delivery services, and motorists, - of all ages and abilities.

Complete Streets, shall provide:

- Safer Conditions for all
- Choices for travel
- Cost effectiveness and sustainability
- Options to reduce climate change
- Encouragement toward healthy/active living

Consistent with 2013 City Council priorities, Complete Streets fulfill the desire of Gilroy residents to walk and bike more, to have streets accessible to everyone, to accommodate all users during all phases of a project, promote conservation of limited city resources including condition of pavement, and promote land use - transportation connections choices for all its residents. Complete Streets as outlined herein and in Section 3: Streets, is provided to assist the development community to fulfill the minimum standards of the Complete Streets Resolution, approved by City Council on November 5, 2012.

Ultimately, the safety and convenience of all users of the transportation system including pedestrians, bicyclists, transit users, and motor vehicle drivers, shall be accommodated and balanced in all types of transportation and development projects and through all phases of a project, so that even the most vulnerable – children, elderly, disabled veteran, and persons with disabilities – can travel safely within the public right-of-way.

All projects shall be designed to reduce pollutant discharge to the maximum extent practicable, after the construction of the project. Projects shall incorporate low impact development design strategies and treatment systems.

Underground Service Alert shall be contacted at 811 or (800) 227-2600 ([www.usanorth.org](http://www.usanorth.org)) a minimum of two working days prior to any work being done.

## 2. STREET RIGHTS OF WAY

- (a) Right-of-way widths and typical sections for various classes of streets, including private roads, shall conform to the latest edition of the City of Gilroy Standard Details.
- (b) Additional right-of-way and improved street width may be required at intersections for turn lanes. The need for turn lanes and the lengths of turn pockets and transitions will be based on anticipated traffic volumes, design speed, level of service, and other design factors.
- (c) Non Standard Street design shall comply with the intent of the Complete Streets Resolution.

## 3. ALLEY RIGHTS OF WAY

See City of Gilroy Code Section 2112.

## 4. STRUCTURAL SECTION

- (a) The top 8 inches of subgrade shall be compacted per the geotechnical recommendations but to not less than 95% maximum density. In areas of fill, a minimum of 24 inches from finished grade shall be compacted to not less than 95% maximum density.
- (b) The minimum Traffic Index shall be as follows:

	<u>T.I. (Minimum)</u>
• Local & Collector Streets	8.5
• Industrial	9.0
• Arterial	9.0
• Expressway	9.0

- (c) A qualified geotechnical engineer shall prepare the necessary soils report and shall recommend the pavement section and address the relative expansiveness of the soil.
- (d) The structural section shall be a minimum of 4-inches of asphalt concrete over 8-inches of aggregate base.

## 5. DESIGN SPEEDS

Design speeds will be as follows:

	<u>Speed</u>	<u>Minimum Normal Crown (Centerline Radius)</u>
Local Streets – (to a maximum of)	25 mph	290 ft
Collector and Industrial Streets	35 mph	610 ft
Arterial Streets	45 mph	1090 ft
Expressways	55 mph	1840 ft

Design criteria specified in the Caltrans Design Manual is applicable.

## 6. HORIZONTAL ALIGNMENT

- (a) Intersection Angle: Streets shall intersect at right angles. Curved streets shall have at least 50 feet of centerline tangent from the projected curb line of the intersecting street.
- (b) Opposing Streets: All streets entering upon opposite sides of any given street shall have their centerline directly opposite each other or separated by at least 100 feet.
- (c) Street Curvature: Design of curved arterial and collector streets shall be based on the State of California Department of Transportation Highway Design Manual.
- (d) There shall be a tangent between reversing curves of at least 150 feet on arterial and collector streets, and 50 feet on all other streets.
- (e) Cul-de-sac: The maximum number of lots on a cul-de-sac street, from center of intersecting street to center of turn-around, shall be 25. If cul-de-sac is longer than 500 feet, it shall require a mid-block turn around.
- (f) Curb Return Radii (Face of Curb)
  - 1. Residential and Non-Residential - Maximum radius shall be 12 feet.
  - 2. Commercial - Minimum radius shall be 25 feet.
  - 3. Industrial - Minimum radius shall be 30 feet.
- (g) Minor Streets: Minor streets shall be laid out in such a way that their use by through traffic is discouraged, but shall be designed to fit intended uses.

## 7. VERTICAL ALIGNMENT

- (a) Gutter Flowline Grades: Grades shall not be less than 0.5 percent from centerline of nearest intersection to centerline of next street intersection and not greater than 15 percent average. Where matching existing controls, the minimum grade may be reduced with the approval of the City Engineer.
- (b) Grades on opposite sides on the street shall be the same wherever practical.
- (c) Curves: Where the curb radius is less than 100 feet it shall have a grade of not less than 0.50 percent.
- (d) Curb Returns: The minimum fall around returns shall be 0.20 feet.
- (e) Cross Slope: The standard cross slope of the street shall be 2.0 percent. Where necessary when matching existing facilities, the cross slope may vary between 2 percent and 4 percent, as approved by the City Engineer.
- (f) Vertical Curves: Vertical parabolic curves shall be used to connect grade profiles where the algebraic difference in grade rates exceeds 1.5 percent. The length of vertical curve required shall be determined by the following:

<b>Class of Street</b>	<b>Minimum Stopping Sight Distance</b>	<b>Minimum Length of Curve</b>
Arterial and Industrial	350 feet	200 feet
Collector	200 feet	100 feet



Minor	100 feet	100 feet
Cul-de-Sac	100 feet	100 feet

\* The minimum length may be reduced in specific design situations upon approval of the City Engineer.

## 8. SIGNALIZED INTERSECTIONS and INTER-SIGNAL COMMUNICATIONS and CONTROL CONDUIT

- (a) Traffic signals shall be designed and installed in conformance with the latest Caltrans Standard Specifications and Plans unless otherwise specified by the City Engineer in writing.
- (b) Light emitting diode (LED) signal modules shall be used for all 8" & 12" red/yellow/green sections, red/yellow/green arrow sections and pedestrian signal faces. All LED signal modules shall meet Caltrans Standards.
- (c) A model 170E Traffic Controller Assembly unit with BI Tran Systems, Inc., 233 Program and internal modem (GDI Model 5M 2400SA) shall be installed in a Caltrans Model 332 cabinet. The front door shall face away from the intersection.
- (d) Type III-AF Service Equipment Enclosure shall conform to Caltrans Standard Plans.
- (e) One internally illuminated LED street name sign shall be mast arm mounted for each approach (a four-leg intersection would have four signs). Signs shall be Type A and "double sided." Lettering shall be series E, 8-inch uppercase and 6-inch lowercase. Refer to Caltrans Standard Plans for mounting and wiring requirements.
- (f) One pole mounted reflective street name sign with associated block numbers conforming to City of Gilroy Standards shall be provided per east-west and north-south direction. A four-leg intersection would have two signs, one installed at the northwest corner and one at the southeast corner.
- (g) At signalized intersections, street name signs shall follow the naming conventions:
  - First St
  - Church St
  - Wren Ave
  - Santa Teresa Blvd

Numbered Streets shall be spelled out and Street, Avenue, Drive, Boulevard, Place, Court, shall be abbreviated as St, Ave, Dr, Blvd, Pl, and Ct respectively (no period at end of abbreviation)
- (h) Traffic Signal Priority Control System for Emergency Vehicle Preemption shall be installed. The system shall be compatible with Type 170 Controller and existing Opticom components and software. Two Emergency Preemption Phase Selectors (Opticom Model 752, as manufactured by 3M Corporation) or approved equal, Four Optical 2-channel Detectors (Opticom Model 721) or equal, and 3-M 757 Auxiliary Wiring Harness shall be installed with the 3M Opticom Priority Control System/Model 170E controller.
- (i) Battery Backup System (BBS) shall be included in the controller cabinet. The BBS shall provide sufficient backup power to operate the intersection traffic signal equipment for a minimum of 4 hours.
- (j) Underground Conduit shall be provided to connect new traffic signals to closest practical existing traffic signal within paved street ROW. Conduit shall be Quad

Innerduct Schedule 40, consisting of one white 1.5 inch, one grey 1.5 inch, one pink 1.5 inch, and one sky blue 1.5 inch conduit held at uniform spacing by an innerduct lattice/banding of appropriate spacing as common in industry standard for underground work. Pull boxes shall join innerduct conduit together, preferably along street side planter strips at spacing no farther than 800 feet apart, or at one corner of major intersections, whichever occur sooner. Each conduit run shall include a nylon pull rope sufficient in design to act as a pull rope for up to 144 strand fiber optic cable. Pull box and trenching details are as outlined in traffic signal standard details.

- (k) All new traffic signal will be fitted with ADA compliant pedestrian activated call devices (PPB). Where necessary, a supplemental PPB may be provided for the ease of use of differently baled individuals.
- (l) All new traffic signals will be fitted with countdown pedestrian walking phase modules.

## **9. CURB, GUTTER, SIDEWALK, CURB RAMPS**

- (a) Curb, gutter and sidewalk shall be installed in conformance with the City of Gilroy Standard Details and in conformance with the latest version of the Caltrans Standard Specifications, Section 90 and consistent with Federal Guidelines of the Americans with Disabilities Act.
- (b) Curb and Gutter
  1. Rolled curb shall not be allowed.
  2. Depressed-type curb and gutter, 1" minimum height, shall be installed at all driveway locations.
  3. All private streets and commercial/industrial driveways shall have a standard driveway curb cut. Exceptions to be approved by the City Engineer.
- (c) Sidewalk
  1. Residential: Minimum sidewalk width shall be 5 feet (excluding curb width on monolithic curb, gutter, and sidewalk.)
  2. Industrial: Minimum sidewalk shall be 5 feet.
  3. Commercial: Minimum sidewalk width shall be 10 feet (excluding curb width on monolithic curb, gutter, and sidewalk).
  4. Sidewalk widths shall provide a minimum of a 4-foot clearance around street lights and fire hydrants.
- (d) Pedestrian Access Ramps

Pedestrian access ramps shall be installed according to the City of Gilroy Standard Details and in accordance with current Americans with Disabilities Act (ADA) Standard requirements
- (e) Replacement and Repair

Where existing curb, gutter, sidewalk and driveways do not meet the current City standards and are in need of repairs, it shall be the developer's responsibility to remove and replace the deficient curb, gutter and sidewalk. Where curb, gutter, sidewalk and/or driveways are removed, the concrete shall be removed to the

nearest expansion, weakened plane or construction joint or sawed at the nearest score line to a minimum depth of 1-1/2 inches.

(f) Street name Signs

The permanent street name signs shall be installed per City of Gilroy Standard Details and immediately after the curb and gutter construction is completed.

## 10. DRIVEWAY

(a) The following driveway approach standards are not applicable to freeway or controlled access highways where access is limited by deed restrictions or other controls.

1. The number and width of permitted driveway approaches is regulated by the Public Works Department and shall be based on the needs of the parcel served. They shall not be detrimental to the abutting streets capacity, safety, and/or efficiency.
2. Driveway approach width is measured at the curb line and includes only the width of the fully depressed section.

(b) The City Engineer may modify any of the following standards to improve traffic flow or because of special or unusual conditions.

1. Width
  - i. Residential - Maximum driveway approach width is 24 feet. Minimum driveway approach width is 16 feet or clear opening of garage space whichever is greater.
  - ii. Industrial/Commercial - Maximum driveway approach width is 45 feet. Minimum driveway approach width is 35 feet.
2. Driveway transitions are not permitted closer than 10 feet from the nearest BCR/ECR on residential streets and 7 feet on collectors and arterials.
3. Distance from Utility or Safety Devices: The driveway transition shall clear all public facilities such as electroliers, traffic signal standards, utility poles, fire hydrants, and street trees by a minimum of 5 feet in residential and 10-foot in commercial. Any relocation of public facilities required to maintain such clearance shall be at the expense of the owner who is installing the driveway.
4. Distance From Property Line: A minimum of 2 feet of full curb height shall be maintained between the property line and top of driveway transition.
5. Common Use Driveways: Common use driveways may be permitted in special cases.
6. Grade: Driveway grades shall be designed to keep the automobile from dragging or "bottoming out" on the street or driveway and to keep water collected in the street from flowing onto the lots.

## 11. FIRE ACCESS ROADWAYS

A. Required location, width, and vertical Clearance

A Fire Access Roadway greater than or equal to twenty feet (20') in width (inside of curb-to-curb with no parking) is applicable to all commercial, industrial, and residential building. A Fire Access Roadway shall also be provided within one-hundred and fifty feet (150') of other structures, public or private use areas, and combustible or hazardous

material storage areas. Access Roadways shall be constructed to City of Gilroy Engineering Standards. Vertical clearance shall not be less than thirteen feet-six inches (13'-6").

**Exception:**

1. Private roadways not exceeding one-hundred and fifty feet (150') in length and serving no more than two sprinkled single-family residences may be reduced to twelve feet (12') in width.
2. Temporary Fire Access Roadways may be provided under permit and approval until such time that the permanent road or driveway is installed.

A Secondary Access Roadway is required when there are twenty-five or more residents or more residential units.

**B. Parking Along Fire Access Roadways**

The required width of the fire access roadways shall not be obstructed in any manner. Parking shall not be allowed along roadways of less than twenty-eight feet (28') in width. Parking will be allowed along one side of the street for roadways twenty-eight feet (28') to thirty-five feet (35') in width. Roadway widths shall be measured face to face of curb. Parking is not allowed in required turnarounds. The entire area of required turnarounds shall remain unobstructed at all times.

**C. Transition and Driveways**

A curb cut and apron shall be provided pursuant to the City of Gilroy Standard Driveway design.

**D. Grade**

Maximum grade shall not exceed 15% (6.75 degrees). No total grade changes greater than 10% in a thirty-foot (30') length shall be allowed. In some cases, short runs of fifty-feet (50') or less with 16% to 20% grade may be allowed if approved by the Public Works Director/City Engineer and the approval of the Fire Chief.

**E. Turning Radius**

An inside turn radius of 32' (curb to curb) and an outside turning radius of 39' (curb to curb) shall be provided.

**F. Dead Ends and Turnarounds**

Dead End Public Street shall terminate in a cul-de-sac per the City of Gilroy City Standard Details. Dead end Private streets and roadways shall terminate in an approved turnaround when the street is in excess of one-hundred and fifty feet (150') in length.

**Exceptions:**

Private driveways longer than one-hundred and fifty feet (150') serving up to two single family dwellings may provide an eight foot wide, forty foot long turn out with tapered ends, at one-hundred and fifty feet (150') from a public hydrant way to accommodate fire apparatus as long as:

1. Turn pout is not more than one-hundred and fifty feet (150') from the most distant portion of the dwelling unit,
2. Residential fire sprinkler system is in the dwelling units, and
3. The driveway is straight with no bends or curves.

When the three conditions are not met than a full turn around shall be provided at the turn outpost.

G. Pavement Surface

Roadway shall be surfaced roads of asphalt, concrete, or another engineered surface acceptable to the Fire Chief and shall be designed to accommodate an imposed load of 40,000 pounds. When the access roadway is not a standard city street, the design shall be certified by a licensed soils engineer.

H. Bridges and Culverts

All bridges and culverts shall be designed to support a minimum of 75,000 pounds.

I. Marking of Roadways and Turnarounds

When parking is restricted, curb painting and signage is required as follows:

1. Curb top and side shall be painted red. Alternatively, if the roadway has no curbing, a twelve inch wide red stripe with the words "FIRE LANE" in white may be painted along and parallel with the edge of the roadway. The lettering shall be eight inches high with a  $\frac{3}{4}$ " stroke.
2. Signs shall be of metal construction measuring twelve inches wide, eighteen inches high and of a reflective type. Plastic or wooden signs are not acceptable.
3. Signs shall read, "No STOPPING – FIRE LANE 225000.1 CVC." Lettering shall be not less than one-inch in height and clearly visible from a vehicle.
4. Signs shall be in visible locations and mounted on galvanized metal poles at a height of 84". Signs shall be maintained unobstructed by foliage, trees, etc.
5. The first sign shall be posted within the first fifty-feet (50') of the restricted street area, and subsequent signage posted along the street shall not exceed one-hundred feet (100') from the center of the prior post. Not less than two signs shall be posed in each block. If traffic in two directions, signs must be posted to be readable from either direction.
6. Signage shall be provided in the cul-de-sac(s) and/or turn-around(s) if a nine-foot (9') wide parking strip is not provided in addition to the dimensions herein.

J. Enforcement of Fire Access Roads and Fire Lanes

The enforcement of fire access roads and fire lanes on private roads and property are the responsibility of the property owner. The development shall have "Covenants, Conditions, and Restrictions" (CC&Rs) to provide a Home Owner's Association's (HOA) implement parking enforcement program that shall utilize the services of towing firms to assist in keeping fire access roadway and fire lanes clear. The California Vehicle Code (CVC\_ Section 22500.1 provides for public safety agencies to enforce fire roads and lanes. If the HOA does not take actions to enforce fire access, the HOA can be cited.

K. Impairment of Access for Fire and Emergency Response

In Planned Unit Developments (PUDs), residential fire sprinklers systems shall be provided in the homes where firefighting operations will be impeded by:

- Lack of cul-de-sac street terminations
- Street widths that would limit application of fire flow to less than required (1,500 gallons per minute for up to 3,000 square feet).
- Excessive response time (port to Port) of greater than 4 minutes.

- Insufficient hydrant spacing and flow.
- Lack of adequate secondary access.

## SECONDARY ACCESS REQUIREMENTS

### A. When Required

Secondary access shall be provided for all residential projects of 25 units or more. In addition, secondary access may be required in Residential Hillside and/or Hazardous Fire Areas when determined by the Fire Chief as necessary to protect the area.

Secondary access will be provided by utilization of connected roadways that conform to City Of Gilroy Standards. Connections may be made to private or public way s along path of travel.

### B. Maintenance of Existing Emergency Vehicle Access (EVA)

Existing EVAs shall be maintained typical of fire access roadway requirements with the following modifications:

#### Required Turn-Around Areas:

Dead-end street terminating at the AVA shall be provided with an approved Fire Department turn around area.

#### Maintenance:

Maintenance of EVAs on commonly held lands shall be clearly stated in the CC&Rs or Landscape Maintenance Agreements of the development project. The CC&Rs shall mandate that the HOA shall retain professio0nal to oversee maintenance responsibilities.

#### Easement:

All EVAs shall be recorded as EVAs granted to the City of Gilroy.

#### Making and Identification

Approved signs or other approved notices shall be provided and maintained for EVAs to identify such and to prohibit the obstruction thereof.

#### Closure of Emergency Secondary Roadways:

Gates shall not be used to control traffic on EVAs unless the gate is electronic and provided with the Opticom Emergency Vehicle Preemption System compatible with the Gilroy Fire Department. Other means to discourage unwanted traffic can include removable bollards, combining private driveway access with EVA design, lessening of the street width, and elimination of curb and gutter.

## TEMPORARY ACCESS ROADWAYS

When approved by the Fire Chief, a temporary access road may be installed for Fire Department access to buildings under construction until such time that the permanent road or driveway is in place. A BLES Divisions application for a temporary road along with the detailed plans shall e submitted to the Fire Marshal for review and approval prior to installation.

The plan submitted shall also include timelines for use of the temporary roadway and acknowledgement that the integrity of the roadway will be maintained at all times. The width and turn radius dimensions shall be the same as required for the permanent roadway. As a minimum, the roadway shall consist of a compacted sub-base and 6-inches of road base material (Class 2 aggregate base rock) both compacted to a minimum 95%. The perimeter edges of the roadway shall be contained and delineated by curb and gutter or other approved method. The use of

Geotextile reinforcing fabric underlayment or soil lime-treatment may be required if so determined by the project civil engineer.

Provisions for surface drainage shall also be provided where necessary. Engineering certifications of the temporary roadway construction shall be documented and submitted to the Fire Department prior to or at the time of acceptance inspection of the temporary roadway.

## **12. STREET LIGHTING**

New Development shall include LED Street Lighting. All electroliers shall consist of a Light Emitting Diode (LED) luminaire with electrolier ownership dedicated to the City of Gilroy. Any proposed deviation on street light type must be approved by the City.

All residential, commercial, and industrial areas shall consist of a minimum of 27 WLED.

Streetlights shall be staggered maximum 300 feet on center. Wider streets may require closer spacing.

### **(a) LED LIGHTING GUIDELINES – General Requirements**

LED Streetlights shall meet or exceed these guidelines and as shown on the City of Gilroy Standards Details, and as minimum shall include:

1. Photometric Analysis – based on the existing streetlight electrolier placement standards, height, posted speed limit and street width, an analysis shall be done of the proposed replacement lights to show safe and adequate lighting levels per listed standards. This information shall be submitted to the City in both digital and hard copies as part of the requirements for the Installer to obtain a Notice to Proceed.
2. Removal and Disposal – removal and disposal of existing luminaire heads at locations where existing shall be replaced with LED, shall be in compliance with City of Gilroy current practice and all applicable laws and regulations in such a manner as to minimize potential adverse environmental impacts, and at no additional cost to the City.
3. Installation – installation of newest energy-efficient LED luminaire heads that meet or exceed City Guidelines.
4. Notifications and related work – provide notifications and process paperwork as necessary to update PG&E’s GIS inventory, revise the rate schedule for the new lights; and related work as necessary.
5. “As-Built” drawings – provide “as-built” drawings, and any applicable warranties, service, maintenance and operations manuals, and similar information.
6. Compliance with all laws – compliance with all laws, regulations and PG&E rebate requirements, and appropriate safety measures.
7. The City will consider any energy-efficient solution that achieves the goals of this project as specified in these LED Guidelines.

### **(b) DETAILED GUIDELINES**

#### **1. Photometric Analysis**

Provider shall conduct a photometric analysis to illustrate that optimal roadway lighting levels are met or exceeded by new fixtures in conformance with

ANSI/IESNA RP-8-00 Roadway Lighting standards. Provider shall provide the City with the analysis results in hard-copy and digital format. The hard copy must include an 11x17 or larger plot plan of the selected locations; showing the following:

- a) graphic representation and written description of light fixtures
- b) pole spacing
- c) roadway geometry to include median islands, sidewalks, and adjacent properties
- d) a point-by-point foot-candles diagram that indicates the foot-candles that cover the site and associated areas, including just beyond the property line to indicate the amount of light trespass
- e) Iso-foot-candle curve diagram (contours of the lighting levels)
- f) Photometric summary table showing maintained foot-candles, minimum, maximum and average levels, average to minimum uniformity ratio, maximum to minimum uniformity ratio.

## **2. Luminaire Efficacy**

Efficacy shall be determined as the total luminous flux emitted by the luminaire divided by the total power input to the luminaire, and is expressed in lumens per watt (lm/W). Luminaire shall allow for thermal and optical losses.

Minimum values of initial delivered lm/W are as follows:

- a) 60 Lumens per watt (lm/W) at 350mA drive current
- b) 50 Lumens per watt (lm/W) at 525mA drive current

Required values shall be verified by providing an independent testing lab certification per IESNA LM-79-08 requirements.

## **3. Lumen Depreciation**

Lighting instruments in the luminaire shall be rated for “life” in hours as defined by the Illuminating Engineering Society of North America (IESNA) standards (IESNA LM-80)

The following are minimum values required (based on LM-80 data from the LED chip manufacturer, in-situ junction temperature testing results need to be provided from the fixture manufacturer to determine L70 life):

- a) Delivered lumens for 350 mA drive current shall be 70% of initial delivered lumens after > 150,000 hours of operation at 15°C ambient
- b) Delivered lumens for 525 mA drive current shall be 70% of initial delivered lumens after 117,000 hours of operation at 15 °C ambient

## **4. Luminaire Classification and Light Distribution**

Light Distribution and Luminaire Classification (LCS) shall be in accordance with IESNA for a Type III distribution, and should also be commercially available in a Type II distribution. Fixture should have Forward Very High (FVH) and Back Very High (BVH) values of equal to or less than 0.5%, and Up Low (UL), Up High (UH) of 0%. The LCS values are intended to replace previous “Full Cutoff” designation



which is no longer printed on test reports per the Illuminating Engineering Society (IES) TM-15-07 standard. Luminaire should have independent photometric test reports and shall be "Dark Sky" (UC Santa Cruz – Mt. Hamilton Observatory) compliant.

**5. Maximum System Wattage (Including Driver Loss)**

LED only wattage will not be accepted. Installer shall provide calculation of delivered lumens/total wattage in the proposal.

If LED lumens/watt increases, between the time that the specifications are released and the time that the product is ordered, the additional benefit of more light for the same energy or the reduction in wattage usage to obtain the same delivered lumens shall not be a cause for a pricing increase or failure to deliver the required products.

**6. Correlated Color Temperature (CCT) And Color Rendering Index (CRI) Values**

Luminaire shall have a minimum CRI and maximum CCT values per IESNA LM-7908 as follows:

- a) CRI: 70
- c) CCT: 6,000 °Kelvin

**7. Power Supply And Driver Requirements**

Note: Provider shall verify the existing line power and wiring, and make any required modification necessary to provide optimum performance of the lighting.

- a) Driver shall be the Electronic type
- b) Voltage range (120 – 277V) +/- 10%, (347-480V) +/-10% optional
- c) Current .350 Adc (+/- 5%), .525 Adc (+/-5%), .700 Adc (+/-5%)
- d) Frequency 50/60 Hz
- e) Power Factor >90% at full load
- f) Total Harmonic Distortion (THD) < 20% at full load
- g) Load Regulation: +/- 1% from no load to full load
- h) Output ripple < 10%
- i) Output should be isolated
- j) Case temperature: rated for -40 through +80 °C
- k) Fully encased and potted
- l) Overheat protection, self-limited short circuit protection and overload protected.
- m) The luminaire shall contain circuitry that will automatically reduce the power to the lighting instrument to 50% of normal operating power, or to a level that will insure that the maximum junction temperature is not exceeded, when the ambient, outside air temperature is 100°F or greater.
- n) Primary Fused
- o) Driver Life Rating - less than 0.5% failure rate at 150,000 operating hours

(@ 350mA drive current and a minimum fixture operating ambient of 22°C)

- p) Electrical Safety - Wet listed in the US and Canada, ENEC, CE, ROHS and EMI. Class 1 rated. Internal surge protection – ≥9kV

**8. Mechanical Requirements**

- a) Tool-less entry
- b) Utilizes terminal block for power input suitable for #6 AWG wire
- c) Designed to mount on 1.25" IP and / or 2" IP horizontal tendon and is adjustable +/-5 Degrees to allow for fixture leveling.
- d) Bubble leveling
- e) Finish – Finish includes cleaning and preparing metal surface, electro-deposited epoxy primer and baked-on ultra-durable powder coat. Salt fog test data to validate corrosion residence performance to be provided in accordance with the ASTM B 117 standard @ ≥ 5,000 hours.

**9. Factory Installed Options**

At minimum, the following options shall be included:

- a) IP66 Rating
- b) Fuse
- c) NEMA photo control receptacle

**10. Photoelectric Controls Requirements**

Luminaires shall be provided with a photoelectric control receptacle, compatible with the new photo-electric controller

Contactors shall be the mechanical armature type.

Photoelectric control shall be installed in accordance with Section 86-6 of the State Standard Specifications.

The provider shall supply 15% of the total units provided under this project in photoelectric controls to be used as a spares. Spare photo-electric controls shall be new, unused, in original boxes.

**11. Fixtures**

Streetlight Fixtures shall comply with Section 1605 of the ARRA: Required Use of American Iron, Steel, and Manufactured Goods, and all other applicable provisions.

Luminaires heads shall be the slim, low-profile type, constructed from rugged extruded aluminum and cast aluminum components. The luminaire shall be a single, self-contained device, not requiring on site assembly for installation. The transformer for the luminaire shall be integral to the unit. LED or other drivers shall be mounted internally, and be replaceable. All components must be accessible without special or additional tools, and shall be suitable for wet listed operation (per UL 1508 requirements). The optical assembly of the luminaire shall be protected against dust and moisture intrusion per the requirements of Ingress Protection (IP)-66 minimum to protect all internal components. The

electronics/power supply enclosure shall be protected per the requirements of IP-65 (minimum).

Thermal management shall be passive by design. Units shall have a high performance aluminum heat-sink (minimum heat sink surface of 3.5 square inches per watt) with no fans, pumps, or liquids and shall be resistant to debris buildup. Fixture shall be designed for energy-efficient or LED 'Area Light' applications. Finish shall be gray in color, shall include an exterior E-coat epoxy primer with an ultra-durable powder topcoat to provide resistance to corrosion, ultraviolet degradation and abrasion. IP ratings must be provided.

The housing shall be designed to prevent the build-up of water or debris on the top of the housing. Exposed heat sink fins shall be oriented so that water can freely run off the luminaire, and carry dust and other accumulated debris away from the unit.

When the components are mounted on a down-opening door, the door shall be hinged and secured to the luminaire housing separately from the refractor or flat lens frame. The door shall be secured to the housing in a manner to prevent its accidental opening.

All screws shall be stainless steel. Captive screws are needed on any component that requires maintenance after installation. No parts shall be constructed of polycarbonate unless it is UV stabilized. Lens discoloration will be considered a failure under warranty.

Luminaires shall comply with the most current codes, standards and requirement relating to the installation and usage of solid-state lighting products, such as but not limited to NFPA-NEC, FCC (Title 47 CFR Part 15), and UL Standards (8750, 1598, 1012, 1310, 2108).

Individual LEDs shall be connected such that a catastrophic loss or the failure of one LED will not result in the loss of the entire luminaire.

Provider shall verify that the existing in-line fuse is sized appropriately for the new fixture per manufacturer's recommendations, or replace the in-line fuse with the appropriately sized item.

**(c) WARRANTIES**

A minimum five (5) year warranty shall apply to all lamps or LEDs, and the drivers. A minimum ten (10) year warranty shall apply to the paint finish of the fixtures, and overall luminaire head. Providers to provide warranties offered in writing. Any lamp not meeting all criteria during its expected life shall be deemed failed and must be replaced. No pro-rata warranty will be accepted.

**13. LANDSCAPING**

- (a) Planter strips on arterial roads adjacent to residential uses shall be a minimum of 6 to accommodate larger trees. Where sound walls are required, the planter strip will be adjacent to the sound wall and the sidewalk a minimum of 10' and monolithic with curb and gutter.
- (b) Two samples of all landscape materials (mulch, amendments, fertilizers, chemicals, etc.) are to be submitted to the City Engineer or his/her designee.
- (c) A list of all irrigation components (with cut sheet) to be used on the project are to be submitted to the City Engineer or his/her designee.

- (d) All trees must be inspected by the City Engineer or his/her designee. If the location of the trees precludes timely inspection, a picture showing height, structure, and trunk caliper must be submitted to the City Engineer or his/her designee for approval.
- (e) All plants are to be inspected by the City Engineer or his/her designee when they are received on site.
- (f) The City Engineer or his/her designee will coordinate submittal reviews by the Project Landscape Architect at the expense of the Project Proponent.
- (g) The City Engineer or his/her designee will coordinate submittal reviews by other City Staff.
- (h) Notify the City Engineer or his/her designee two working days prior to the application of any pesticide. Provide the City with a current specimen label and material safety data sheet for any pesticide to be applied. Follow all label directions.
- (i) On arterials and major thoroughfares, the water meter, backflow prevention device, and irrigation controller shall be located where accessible to service vehicles. Two service vehicles shall be able to park in proximity to the point of connection/irrigation controller. The vehicles shall be able to park out travel and bike lanes. The vehicle shall not be required to back into traffic to leave the site. If safe parking is not available, a vehicle turnout is required.
- (j) Possible new sections for Conduit for Fiber Optic and Conduit for Signal Interconnect

#### **14. EROSION CONTROL**

- (a) An Erosion Control Plan shall be required prior to any physical development of a property planned between October 15<sup>th</sup> and April 15<sup>th</sup>. There is currently an exception for non-hillside properties that disturb an area less than one (1) acre.
- (b) Erosion Control Plan shall be required for all Hillside development regardless of the time of year.
- (k) Erosion Control Bonds are required on all hillside development projects regardless of the time of year.

## **Section 4**

# **SOUND WALLS**

## Section 4

# SOUND WALLS

## 1. SOUND WALLS

1. Sound walls may be required on all expressways, and on divided arterials adjacent to residential areas. Sound wall shall follow the requirements of the Consolidated Landscaping Policy and the Guidelines for Sound Attenuation and Visual Preservation of the Santa Teresa Boulevard Corridor Policy.
2. The minimum design standard shall conform to the latest revision of the California Building Code as amended and adopted by the City of Gilroy.

# **Section 5**

# **WATER**

## Section 5

### WATER

#### 1. GENERAL

- (a) Water facilities shall be designed in accordance with accepted engineering principles and shall conform to these Design Standards and the Standard Details.
- (b) All materials shall conform to current American Water Works Association Standards.
- (c) The latest edition of the California State Department of Health Services "Criteria for the Separation of Water Mains and Sanitary Sewers" shall take precedence in horizontal and vertical alignment issues.
- (d) All water facilities shall be designed and installed with line and grade.

#### 2. VERTICAL ALIGNMENT

The minimum cover on water mains shall be 36 inches. When crossing a sanitary sewer it is required that the water main be installed crossing the sanitary sewer with a minimum clearance of 12 inches. It is preferred to have water mains over the sanitary sewer.

#### 3. HORIZONTAL ALIGNMENT

- (a) Water mains shall be installed within street rights-of-way 7 feet from face of curb. Alignment shall be parallel to the street centerline wherever possible.
- (b) The alignment may vary, but in no case shall there be less than 10 feet horizontal clearance to a sanitary sewer, or 6 feet horizontal clearance to a storm drain.

#### 4. PIPE

- (a) Water mains shall be sized according to the City's Master Water Plan and Grid system. For waterlines in residential and commercial areas the minimum diameter shall be 8 inches. For waterlines in industrial areas the minimum diameter shall be 12 inches.
- (b) All pipes shall be Ductile Iron Pipe. Strength of pipe shall depend on installation conditions.
- (c) Installation, inspection, and testing shall conform to 1999 NFPA 13 and 1995 NFPA 24.
- (c) All pipes shall be approved for use in Fire service systems (Class 150 minimum). Class 200 pipe shall be used where the pressure may exceed 150 PSI.
- (d) A 4" bed of clean fill sand shall be provided below and 12" above the pipe.

#### 5. WATER SERVICE

- (a) The minimum size service for potable water for residential is 1-1/2 inch except for hillside lots which shall be 2 inches. Irrigation service size may be 1 inch.
- (b) All pipe material shall be copper.
- (c) Commercial and industrial services shall be increased from the minimum and sized according to use.



## 6. FIRE HYDRANTS

- (a) All fire hydrants must be supplied from the largest available main, minimum 8 inch diameter.
- (b) Fire hydrant spacing and distribution shall be determined as follows:
  - 1. The maximum fire hydrant spacing in residential areas shall be 300 feet.
  - 2. The maximum fire hydrant spacing in commercial and industrial areas shall be 300 feet on both sides of the street.
  - 3. On divided streets, planned divided streets or state highway, the above spacing shall apply to both sides of the street.
  - 4. On-site hydrants may also be required by the Fire Marshal.
- (c) Fire flow and fire hydrant distribution, including the number of hydrants required and specific locations, shall be approved by the City Engineer and the Fire Marshal.
  - 1. Upon installation, a fire flow test must be performed prior to acceptance.
- (d) Fire hydrants are to be located at mid-block on cul-de-sac streets.
- (e) Fire Hydrants to be painted according to the following:
  - 1. **Public Fire Hydrants** shall be painted enamel safety yellow (KEL-GUARD #1700-63 paint inhibitive enamel by KELLY-MOORE or approved equal)
  - 2. **Private Fire Hydrants** shall be painted enamel safety red (KEL-GUARD #1700-62 paint inhibitive enamel by KELLY-MOORE or approved equal)

## 7. VALVES

Valves shall be spaced and located in conformance with the following criteria:

- 1. 700 foot maximum spacing in residential areas and 600 foot maximum spacing in commercial/industrial areas.
- 2. Water mains shall be valved on each side of railroad, freeway and canal right-of way crossings.
- 3. At "tees", 3 valves will be required.
- 4. At "crosses", 4 valves will be required.
- 5. At fire hydrant tees, only one valve, on the line to the fire hydrant is required or allowed.
- 6. At locations so that future tie-ins will not interrupt service and provide isolation and pressure testing of new systems.
- 7. Valves shall be located at the extension of the line of the face of curb.
- 8. All control valves shall be locked in the open position. Valves shall be monitored if they serve 20 or more fire sprinkler heads.
- 9. Provide conduit to both riser and control valves for a monitoring system even if system is below the monitoring level threshold. Future tenant improvements and/or code changes could require monitoring.

## 8. BLOW OFFS

Blow-offs shall be constructed at the end of all dead-end runs.

## **9. AIR VACUUM / AIR RELIEF VALVES**

Air vacuum/air relief valves shall be installed at high points. Air reliefs shall be installed above ground a minimum of 12".

## **10. THRUST BLOCKS**

- (a) Thrust blocks shall be installed in conformance with the City of Gilroy Standard Details.
- (b) Mechanically restrained joints will be allowed in place of thrust blocks.
- (c) All permits required prior to installation shall be obtained from the Public Works Department.
- (d) Thrust blocks, or other approved method of thrust restraint, shall be provided wherever pipe changes direction.
- (e) The trench shall be excavated for thrust blocks and inspected prior to pour. All corrosion protection shall be in place.

## **11. WATER LINE ACCEPTANCE TEST**

- (a) Water lines shall be pressure tested, disinfected, flushed, and tested for bacteria prior to final acceptance by the City of Gilroy. Flow shall be through a minimum of a 4" hose or pipe and achieve 10 feet per second velocity, unless otherwise approved by the City Engineer or his/her designee. A City Engineer or his/her designee shall witness the flush.
- (b) Schedule all inspections 48 hours in advance. Inspections canceled after 1 p.m. on the day before the scheduled date will be subject to a re-inspection fee.
- (c) A hydrostatic test (2000 psi for two hours or 50 psi over maximum static pressure, whichever is greater) shall be witnessed by the City Engineer or his/her designee. Joints shall remain exposed for the inspection. Tracer wire shall be installed at time of inspection.

## **Section 6**

# **SANITARY SEWER**

## Section 6

# SANITARY SEWER

## 1. GENERAL

- (a) Sanitary sewers shall be designed as a gravity system without the use of pump stations or siphons, unless approved by the City Engineer, in accordance with accepted engineering principles and shall conform to these Design Standards and the Standard Details.
- (b) Storm water shall not be connected or discharged into a sanitary sewer.
- (c) The latest edition of the California State Department of Health Services “Criteria for the Separation of Water Mains and Sanitary Sewers” shall take precedence in horizontal and vertical alignment issues.
- (d) Engineering calculations are required for the design of proposed sanitary sewer systems and shall be submitted to the City Engineer. The calculations shall include the following items:
  - 1. A plan showing the proposed street system, tributary sub-areas, existing and future tributary areas, outside the project limits, zoning, projected land use, and any features affecting the system design.
  - 2. Design flows at major junction points including flows coming from outside the project limits.
  - 3. Size, length, slope, and invert elevations of all proposed lines and locations of manholes.
  - 4. Engineering calculations may be waived by the City Engineer.
- (e) Design of sanitary sewers shall not require backflow devices to be installed on sewer laterals unless required by the City Engineer.
- (f) Sanitary sewer mains shall be designed and sized at a minimum, in compliance with the City’s Sanitary Sewer Master Plan. For commercial or industrial projects, project specific requirements shall be reviewed and used if they exceed the design assumptions in the Sanitary Sewer Master Plan.

## 2. AVERAGE FLOW

- (a) The average residential flows shall be computed on a per-capita basis using a minimum of 80 gallons per capita per day. Commercial and light industrial shall be computed at 500 gallons per acre per day. All other industrial shall be computed utilizing 2500 gallons per acre per day. When the exact density is not known, the zoning map and the General Plan shall be used to determine the appropriate densities. Multi-family residential shall be 2.5 persons per unit. All other uses shall be 3.5 persons per unit.
- (b) Schools and churches shall be computed at commercial/light industrial rates.
- (c) The averages indicated above are minimum flows and in some situations may have to be increased due to large point loads, higher densities or differing land uses.

### 3. DESIGN FLOW

The total design flow shall be determined by multiplying the average base water flow by a peak factor of 3.0.

Sewer size/capacity shall be determined using Manning's equation, with "n" value equal to 0.013.

$$Q = \frac{0.000039748 * D^{2.6667} \sqrt{S}}{n}$$

Where:

Q = the capacity in million gallons per day      n = the Manning roughness coefficient  
D = the diameter of the pipe in inches      S = the sewer slope in percent

Check downstream capacity of sewer using Sanitary Sewer Master Plan and computerized hydraulic sewer model.

### 4. VERTICAL ALIGNMENT

(a) The minimum cover on sanitary sewer lines shall be 36 inches. When minimum cover cannot be achieved, polyurethane-lined ductile iron, or PVC C900 shall be used.

(b) Vertical separation between potable water and sanitary sewers, building drains or storm drains shall be in accordance with regulations and criteria set forth by the State of California Department of Public Health.

Sewers shall have a minimum of 12 inches clearance when crossing drains, gas mains, and other unspecified utilities. If 12 inches cannot be maintained at crossings, provide encasement of sewer for the width of the utility trench.

(c) At points of convergence of pipes of various sizes, the crown of the pipe elevations shall match within a manhole structure.

### 5. HORIZONTAL ALIGNMENT

(a) Sanitary sewers shall be placed within street rights-of-way unless placement in an easement is specifically approved by the City Engineer.

(b) Alignment shall be parallel to the street centerline wherever possible.

(c) Curved sewers are not allowed, unless approved in writing by the City Engineer.

(d) Sanitary sewers shall not be constructed within 50 feet of any existing or proposed well site.

(d) Horizontal separation between potable water and sanitary sewers, building drains or storm drains shall be in accordance with regulations and criteria set forth by the State of California Department of Public Health.

### 6. SLOPE

(a) Sanitary sewer design capacity shall be sized as follows:

1. For sewers eight (8) and ten (10) inches in diameter, design capacity shall be based on pipes flowing two-thirds full ( $d/D < \text{or} = 0.67$ ).

2. For sewers twelve (12) inches and larger in diameter, design capacity shall be based on pipes flowing full without surcharging ( $d/D < \text{or} = 1.0$ ) to flow at

d/D=1.0.

- (b) Design the sewers to have a scour velocity of 2.5 ft/sec at half flow capacity and a maximum velocity of 10 feet per second. See Table below for acceptable pipeline slope.

Nominal Pipe Size In Inches	Minimum Design Flow (Cubic feet per second)	Maximum Design Flow (Cubic feet per second)	Minimum Slope In Feet Per Foot
8	0.0	0.81	0.0077
10	0.82	1.28	0.0057
12	1.29	1.57	0.0022
15	1.58	2.45	0.0015
18	2.46	3.53	0.0012
21	3.54	4.81	0.00095
24	4.82	6.28	0.0008

- (c) As required by the City Engineer for areas with known odor and corrosion problems, the system design shall consider the potential generation of hydrogen sulfide and include mitigation for such generation such as odor control and corrosion prevention.

## 7. PIPE

- (a) Pipe used for sanitary sewers shall have a minimum diameter of 8-inches when located in the street right-of-way. The pipe shall have rubber gasket joints or heat fused joints and shall conform to the latest edition of the following ASTM Standards. Unless other pipe materials are approved for a specific project by the City Engineer, acceptable pipe materials, for pipe up to 24" in diameter, are as follows:
- i. VITRIFIED CLAY PIPE (Extra Strength)
  - ii. PVC Solid Wall SDR 26
  - iii. PVC Solid Wall C900 or C905
  - iv. HDPE SDR 17
- (b) Other pipe material may be considered on a project by project basis by the City Engineer.
- (c) Pipe material for pipe over 24" shall be approved by the City Engineer.

## 8. BUILDING LATERALS

- (a) The minimum size lateral shall be 4 inches ABS Schedule 40 or PVC SDR 26 and installed per Standard Detail.
- (b) Lateral shall have a minimum of 2% slope. The minimum size of the 2-way cleanout shall be 4" and shall be accessible at all times.
- (c) A 2-way cleanout shall be installed at the back of walk, unless otherwise approved by the City Engineer.
- (d) Cleanout shall be topped with a removable sewer relieve valve and cap.
- (e) Other pipe material may be considered on a project by project basis by the City

Engineer.

**9. MANHOLES**

Manholes shall be placed at the intersections of all sanitary sewers, at all locations where there is change in size, grade or direction.

Manhole spacing shall not exceed the following limits:

<u>Diameter</u>	<u>Maximum Spacing</u>
8" to 24" .....	300 feet
> 24" .....	600 feet

Manholes shall be constructed at all service lateral connections where the main line is not at least 1.5 times the size of the service lateral.

## **Section 7**

# **STORM DRAIN & STORM WATER QUALITY**



## Section 7

# STORM DRAIN & STORM WATER QUALITY

### 1. GENERAL

All drainage facilities shall be designed in accordance with accepted engineering principles, and shall conform to these Design Standards and the Standard Details.

### 2. STORM WATER QUALITY

- (a) Projects shall incorporate Low Impact Development design strategies to minimize the post-construction impacts on storm water quality and shall conform to the water quality treatment, runoff retention and peak flow management per the Municipal Code Section 27.D.
- (b) Provide a copy of the SWPP, the WDID number, the name and phone number of the QSD and the QSP for the project.
- (c) An erosion control plan shall be required prior to any physical development of a property planned between October 15th and April 15.
- (d) Erosion control plans shall be required for all Hillside single family residential development regardless of time of year.
- (e) Erosion control bonds are required on all hillside single family residential development regardless of time of year.

### 3. STREET DESIGN FOR FLOOD CONTROL

Street gradients shall be designed to fall toward the nearest existing or proposed 100 year design capacity flood control facility.

Overland release shall be shown and clearly noted on the plans.

### 4. PAD ELEVATION AND LOT GRADING

House pad elevations shall be determined by the following criteria while assuming construction of a slab on grade foundation (first floor seven inches (7') minimum above pad). The latest Flood Insurance Rate map shall be used.

- (a) In a Flood Zone "AO", the lowest floor shall be at least 12" higher than the depth number specified on the FIRM or 12" above the nearest high point in the drainage release path, or 2 feet higher than lowest top of curb, whichever is greater.
- (b) In a Flood Zone "A", the lowest floor shall be at least 12" higher than the base flood elevation, as determined by this community or 12" above the nearest high point in the drainage release path, or 2 feet higher than lowest top of curb, whichever is greater.
- (c) In all other zone the lowest floor shall be at least 12" higher than the base flood elevation, as determined by this community or 12" above the nearest high point in the drainage release path, or 2 feet higher than lowest top of curb, whichever is greater.
- (d) Minimum finish floor grade of lots shall be 1%. No slopes shall be greater than 2:1 unless allowed by the soils report and approved by the Public Works Director/City Engineer.

## 5. HYDRAULIC GRADE LINE

All storm drains shall be designed for the 10 year flow storm water entering the drain at the point of concentration and shall have a minimum of 1 foot of freeboard between the top of curb and the Hydraulic Grade Line at the 10 year event.

## 6. VERTICAL ALIGNMENT

- (a) The minimum cover on main line storm drains shall be 3 feet from finished grade.
- (b) Catch basin laterals that have less than 36 inches of cover from finished grade shall be encased in concrete.
- (c) A minimum vertical clearance of 6 inches shall be maintained between a sanitary sewer, water main, and other underground utility.
- (d) At points of convergence of pipes of various sizes, the crowns of the pipe elevations shall match unless specifically approved by the City Engineer.

## 7. HORIZONTAL ALIGNMENT

- (a) Storm drains shall be placed within street rights-of-way.
- (b) Alignment shall be parallel to the street centerline wherever possible.
- (c) Curved storm drains are not allowed unless special approval is given by the City Engineer.

## 8. SLOPE

- (a) Storm drains shall have minimum slopes equal to that necessary to give a velocity of 2.0 feet per second when flowing full regardless of the slope of the Hydraulic Grade Line.
- (b) Catch basin laterals shall have a minimum fall of 0.30 feet between the catch basin and manhole.

## 9. PIPE

- (a) The minimum size for storm drains shall be 18-inch diameter.
- (b) All catch basin laterals shall have a minimum diameter of 15 inches.
- (c) All pipes shall conform to the following ASTM specifications:

### CONCRETE PIPE

Reinforced pipe with rubber gasket joint	C 76
Rubber Gasketed Joints	C 361 Joint & C 443 Gasket

- (d) Cast-in-place concrete pipe may be used for pipelines 24 inches and larger.
- (a) Corrugate Metal Pipe (CMP) is not allowed, except outfall to SCVWD, as required by the SCVWD.

## 10. MANHOLES

- (a) Manholes shall be placed at the intersections of all storm drains, at all locations where there is a change in size, change in horizontal or vertical alignment and at the ends of all permanent lines.
- (b) Manhole spacing shall conform to the following limits:

<u>Diameter</u>	<u>Maximum Spacing</u>
18" to 36".....	400 feet
> 36".....	600 feet

- (c) All storm drain manholes shall be constructed in conformance with the Standard Details.

**11. CATCH BASINS**

- (a) Side inlet catch basins shall be located at all low points and shall be spaced in such a manner that design flows will be contained within the gutter pan.
- (b) The total gutter run contributing to any catch basin shall not exceed 350 feet. It is desirable to locate catch basins on the BCR or ECR which will intercept the most runoff and also keep the main pedestrian crossing as dry as possible. Additional catch basins may be required at the direction of the City Engineer.
- (c) Side inlet catch basins shall be used for all new storm drain inlets, except on steep roads where a combination side opening and vaned grate inlet should be used. Except as noted, no grated inlets are allowed on new installations.

**12. ON-SITE DRAINAGE**

All developed areas larger than one acre shall tie on-site drainage into the City of Gilroy storm drain system.

**13. DETENTION BASINS FOR FLOOD CONTROL**

Detention basins for flood control on private or public property shall be designed using the following criteria:

- (a) A 24-hour, 25-year storm, total rainfall of 4.79 inches shall be used if a reasonable outlet is provided (detention). If no disposal other than evaporation, percolation or irrigation is provided (retention), a 24-hour, 100-year storm, total rainfall of 5.59 inches, shall be used. 25% of the total basin volume shall be considered as freeboard.
- (b) The maximum water surface of the basin shall be 1 foot below the elevation of the top of curb at the lowest catch basin inlet within the tributary area and a maximum of one foot above the design hydraulic grade line at the basin.
- (c) Fencing with gates shall be provided around all basins greater than 3 feet in depth.
- (d) Adequate "all weather" access shall be provided.
- (e) The tributary drainage system shall be designed to connect to the City's future storm drainage system.
- (f) The maximum slope ratio for turfed or landscaped side slopes shall be 4:1.

## **Section 8**

# **HILLSIDE DEVELOPMENT**

## Section 8

### *HILLSIDE DEVELOPMENT*

#### **1. GENERAL**

All projects within the RH (Residential Hillside) zone shall meet the requirements of Section 9 of the Zoning Code and the Community Development Department's Hillside Development Guidelines.

The purpose of the Hillside Development Guidelines is to provide specific requirements and guidelines for development in the City's hillside areas. These guidelines are incorporated by reference into the RH (Residential Hillside) zone and shall be used in conjunction with the City of Gilroy Standard Specifications and Details as criteria for design review of all projects within the RH zone.

## **Section 9**

# **LANDSCAPING**

## Section 9

# LANDSCAPING

### 1. PURPOSE

All projects shall include landscaping in conformance with Zoning Code Section 38 and the City of Gilroy Consolidated Landscape Policy. In the case that a discrepancy is identified, the Zoning Code Section 38 and the City of Gilroy Consolidated Landscape Policy shall take precedence over these General Guidelines.

The purpose of the Landscaping guidelines is to provide specific requirements and guidelines for all Landscaping within the City of Gilroy. These guidelines are to be incorporated into all new developments within the City of Gilroy's Residential, Commercial, and Industrial areas. These guidelines shall be used in conjunction with the City of Gilroy Standard Specifications and Details and Technical Specifications as criteria for design review of all projects within the City of Gilroy.

### 2. LANDSCAPE MEDIANS IN PUBLIC RIGHT-OF-WAY

1. If a median is less than three feet wide from face of curb to face of curb, no landscape shall be installed. Areas that are less than three feet from face of curb to face of curb shall be covered with dyed red, stamped concrete.
2. All public landscaped medians shall include an eighteen inch maintenance strip inside curb constructed of red dyed, stamped concrete.
3. Trees shall only be planted in medians that are more than ten feet in width from face of curb to face of curb.

### 3. GENERAL DESIGN GUIDELINES

1. Residential Development
  - A. Multi-family residential developments shall landscape all yard areas, which are not specifically used for driveways, walkways, patios or similar purposes. At least 35% of the required landscaped area shall be designed to be usable as open recreational area.
  - B. All residential development in the RH Zoning District shall provide landscaping plans consistent with the following criteria:
    1. Native vegetation shall be thinned of all dead limbs to reduce foliage mass, and all dead plants and plant litter shall be removed within a distance of thirty (30) feet from all proposed structures and fifteen (15) feet from the main access drive to a dwelling.
    2. New landscaping introduced to the site, which is within thirty (30) feet from any structure, shall be fire-resistant and shall be augmented with an irrigation system.
    3. New landscaping within fifteen (15) feet from any structure shall consist of selected vegetation with low-growing characteristics;
    4. New trees shall be kept a minimum distance of twenty (20) feet from all proposed chimneys.

5. New landscaping within twenty (20) feet from a publicly dedicated street shall consist of selected vegetation with low-growing and fire-resistant characteristics.
2. Commercial Development
    - A. All commercial development shall provide landscaping within the areas of the development most visible from adjacent streets.
    - B. A minimum twenty-one (21) foot wide planter area, measured from the face of curb, shall be provided along each street frontage.
    - C. At least eight percent (8%) of the gross land area in addition to the public right-of-way shall be landscaped, except in the Downtown Specific Plan districts where front and side yard setbacks are not utilized.
    - D. All portions of a site over forty (40) square feet in area not specifically used for parking, driveways, walkways or similar access shall be landscaped.
    - E. Landscaped islands shall be located in parking lots at the rate of fifty (50) square feet for every twelve (12) stalls, and shall be evenly distributed throughout the parking area.
    - F. All planter areas shall be at least five (5) feet wide, except as approved by the Director of Planning due to a specific site situation where the minimum width is impractical.

3. Industrial Development

All industrial developments are required by City Zoning Ordinance to landscape the front and side yard areas adjacent to streets that are not specifically used for parking, driveways, walkways, or similar paved access. Such paved areas shall not exceed fifty percent (50%) of the area of said setbacks. In no case shall landscaping planters adjacent to a street be less than 18.5 feet wide (measured from the face of curb). Additional landscaping shall be required to fully screen exposed storage yards. Industrial development in the CI (Campus Industrial) zoning district shall provide a minimum of 15 percent of the gross land area in landscaping. In all industrial zones, planter areas shall be at least five (5) feet wide.

#### 4. IRRIGATION

(Per Zoning Ordinance Section 38)

1. Dedicated landscape water meters shall be provided for landscape areas greater than 5,000 square feet, except where irrigation water is provided by recycled water or an onsite well.
2. A minimum 2" water service line shall be provided for all landscape irrigation systems that are to be owned and maintained by the City.
3. Automatic irrigation controllers utilizing either evapotranspiration or soil moisture sensor data for irrigation scheduling are required.
4. Sensors (rain, freeze, wind, etc.), either integral or auxiliary, that suspend or alter irrigation operation during unfavorable weather shall be provided on all irrigation systems.
5. The irrigation hardware for each hydrozone shall include a separate valve. Where feasible, trees shall be placed on separate valves from shrubs, groundcover, and turf.



6. The irrigation system shall be designed to prevent runoff, low head drainage, overspray, or other similar conditions.
7. Low-volume irrigation shall be required in mulched areas, in areas with slopes greater than 25%, within 24" of non-permeable surface, or in any narrow or irregularly shaped areas that are less than 8' in width in any direction.
8. Average irrigation efficiency is assumed to be 70%. Irrigation systems shall be designed, maintained and managed to meet or exceed an average landscape irrigation efficiency of 70%.
9. Irrigation shall be scheduled between 8:00 p.m. and 10:00 a.m., unless unfavorable weather prevents it or otherwise renders irrigation unnecessary. Operation of the irrigation system outside the normal watering window is allowed for auditing and system maintenance.
10. For all utility design and installation, contact the following (contact information can be found in the Reference section on page four of the Landscape Standards):
  - (a) City of Gilroy Water and Sewage to obtain the correct static water pressures and the correct locations and elevations of water and sanitary sewer lines.
  - (b) Pacific Gas and Electric for all electrical applications, such as line placement, regulations, etc.

## **5. STREET TREES**

Street trees shall be specified on the landscape improvement plans per the City of Gilroy Master Street Tree Planting and Tree Removal Policy and Chapter 26 for the City of Gilroy Municipal Code.

## **6. PLAY AREA IMPROVEMENTS**

All components of the play equipment shall be International Play Equipment Manufacturers Association (IPEMA) certified, and conform to the California Health and Safety Code.

## **7. SPORT & RECREATION SITE IMPROVEMENTS**

Mandatory park amenities include the following item and shall be in compliance with approved mater plans and as may be determined by the Gilroy City Council.

- A. Mandatory Amenities
  - Play structures (applicable to age types).
  - Picnic area with tables and seating.
  - Shade structures (all weather).
  - Benches.
  - Trash Receptacles.
  - Park trial (with lighting).
  - Turf area.
  - Trees.
- B. Acceptable Amenity Options

- Basketball Court (non-lighted).
  - Tennis Court (non-lighted).
  - Bocce/Petanque Court
  - Volleyball Court.
  - Horseshoe Court.
  - Game Table (chess).
  - Fitness Stations.
  - Drinking Fountain.
  - Barbecue Grill
  - Bike Racks.
  - Climbing Wall.
  - Additional Shade Structure.
- C. Acceptable Amenities with a Public Art Flair: Consider including a public art flair to the acceptable amenities already being installed, such as:
- Include Decorative bike racks with vibrant colors in cool and creative shapes (i.e. Gilroy's Library red bike rack shaped like a stack of books).
  - Include colored or textured concrete walkways.
  - Include curved or playful walks (rather than just straight).
  - Include permanent hop-scotch lining the walkways or concreted areas.
  - Include decorative trash receptacles.
  - Include decorative water faucets where their foundations or lower portions can include decorative tiles, colored concrete and/or textures.
  - Include colorful, decorative rounded tables with attached round benches that may include accent tiles or other interesting features.
  - Include a vibrant, colorful and creative park sign.
- D. Unacceptable Amenity Options
- Skateboard, BMX Park.
  - Water Feature.
  - Restrooms.
  - Dog Park.
  - Off Street Parking.
  - Other Amenities with Regional Appeal.
  - Lighting other than on Park Trail.

## 8. OTHER LANDSCAPE FACILITIES

All other Landscape Facilities, such as pump stations, parking lots, etc. must comply with the standard specifications and details presented by the City of Gilroy. Any designs which do not comply will be reviewed in a case by case manner.

## **Appendix A**

# **IMPROVEMENT PLANS**

## Appendix A – Section 1

# IMPROVEMENT PLAN REQUIRED GENERAL NOTES

The following General Notes are required on all improvement plans submitted for approval to the City of Gilroy Public Works Department, Engineering Division, and shall not be modified. Additional notes may be added under the title of Project Notes. However, conflicts between the City's required General Notes and the Project Notes shall be resolved by the City Engineer.

1. Temporary Bench Mark - Based on a City approved benchmark as shown on these plans.  
Elevation\_\_\_\_\_ Location\_\_\_\_\_
2. All existing elevations shall be field verified by contractor unless otherwise noted.
3. All survey monuments shall be installed at locations shown on the corresponding final map before acceptance of the subdivision.
4. Contractor shall not destroy existing permanent survey monuments. Any monuments destroyed shall be replaced at the contractor's expense.
5. All work shall conform to the latest edition of the City of Gilroy Standards which is hereby made a part of these plans. Deviations from the Standards must be approved by the City Engineer in writing.
6. Developer shall arrange for a pre-construction meeting with the City Engineer (Municipal Code 17.32.250b) prior to commencing any construction. An encroachment permit shall be obtained from the City of Gilroy Public Works Department, Engineering Division upon completion of said meeting and prior to construction of any improvements within an existing or offered for dedication right-of-way, public utility easement or public service easement. A completed set of plans signed by the City Engineer is equal to an encroachment permit.
7. A grading permit shall be obtained from the City of Gilroy Building Division prior to any grading of building pads. Applicant for the grading permit shall provide a plan review letter from the Soils Engineer. A grading permit does not give contractor permission to commence off-site (street) grading. Only upon City approval (plans signed by City Engineer) of the improvement plans and completion of a pre-construction meeting, shall contractor commence off-site grading.
8. The final lot grading shall be confirmed by letter by the project engineer prior to the final inspection of the building.
9. Contractor shall notify the Public Works Department two (2) working days prior to commencement of any work phase.
10. Contractor shall preserve all surrounding property by confining operations to within the "Limits of Work" and/or within site property lines. Contractor shall be responsible for maintaining access for all adjoining residents, places of business, and properties at all times and in a safe manner. Contractor shall make proper notification two weeks in advance and again three days in advance of any interruption in access or service to the above property owners as well as to the City Engineer's Representative.
11. Contractor shall only use equipment provided with a spark arrestor device to reduce a potential fire hazard.
12. Right of Modification:
  - a. Approval of this plan does not release Developer of the responsibility for correction of mistakes, errors, or omission, contained therein. If during the course of construction, public interest requires a modification of or a departure from these improvement plans or

the City Standards, the City Engineer shall have the authority to require such modifications and departures and to specify the manner in which the same is to be made.

13. Off-Site Water & Dust Control:

- a. Contractor shall provide a water truck onsite at all times. Contractor will be allowed to draw water from the City of Gilroy Water Distribution System only after paying for construction water as a part of the Final Map and Improvement Plan approval or after obtaining a hydrant meter from the Public Works Department and an inspection of the water truck for a proper backflow device or air-gap filling pipe. Developer has paid for off-site construction water which shall be used for site grading only. Contractor shall keep down dust from construction activity to the maximum extent possible. Contractor shall clean all existing streets, curbs, gutters, and sidewalks affected by the project at the end of each working day.
- b. Water all active construction areas at least twice daily or as often as needed to control dust emissions.
- c. Cover all trucks hauling soil, sand, and other loose materials and/or ensure that all trucks hauling such materials maintain at least two feet of freeboard.
- d. Pave, place aggregate, apply water twice daily, or as often as necessary, to control dust, or apply non-toxic soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites.
- e. Sweep daily, or as often as needed, with water sweepers all paved access roads, parking areas and staging areas at construction sites to control dust.
- f. Sweep adjacent public streets daily, or as often as needed, to keep streets free of visible soil material.
- g. Hydroseed or apply non-toxic soil stabilizers to inactive construction areas.
- h. Enclose, cover, water twice daily or apply non-toxic soil binders to exposed stockpiles (dirt, sand, etc.).
- i. Limit vehicle traffic speeds on unpaved areas including roads to 15 mph.
- j. Replant vegetation in disturbed areas as quickly as possible.
- k. Install erosion control measures, per the erosion control plan, as necessary to prevent silt runoff to public roadways

14. Material Storage:

- a. No material shall be stored near the edge of pavement, traveled way, sidewalk, gutters, driveway, or shoulder line which may create a hazard for vehicular and pedestrian traffic, or wash into the storm drain system.

15. Traffic Control:

- a. If traffic control plans are not included with the Improvement Plans, traffic control plans shall be prepared in accordance with latest edition of the *California Manual on Uniform Traffic Control Devices (CA MUTCD)*. Plans shall be prepared by a California-licensed Professional Engineer with experience in preparing traffic control plans for approval a minimum of 10 working days prior to any work within the existing public street. Traffic control plan shall be designed to address specific site/project conditions. Examples, samples, or "typical" drawings are not allowed. Traffic control plan shall be submitted for each phase of work, particularly when phases alter traffic patterns/flow. Two traffic lanes (10' min.) shall be open to vehicular traffic during all hours, weekends, and holidays. One lane one way traffic, may be permitted under the control of not less than 2 (two) competent flagmen during construction operations. Lane closures, Street closures and detours shall only take place upon City Engineer approval. Improvement plans must be approved by the City before or concurrent with traffic control plan approval. The City

Engineer shall be notified of any closure date and its duration at least 5 working days in advance of closure.

16. Trench restoration shall be according to City of Gilroy Standards.

17. Trench Safety:

- a. It shall be Contractor's responsibility to provide all necessary trench safety measures for excavations. All trench safety measures shall be in accordance with the latest CAL-OSHA guidelines. Contractor shall provide evidence of a CAL-OSHA trenching permit at the pre-construction meeting for all trenching over 4 feet.

18. Excavations within the public right-of-way shall be backfilled, compacted, and temporarily paved with cold mix cut back type A.C. to allow for vehicular and pedestrian traffic prior to 4:00 P.M. The use of trench plates is allowed, provided the Contractor covers all edges of the plates with cold mix material. Non-skid trench plates shall be used in the pavement areas on all arterials. It shall be the Contractor's responsibility to maintain on a daily basis, including weekends, the amount of material necessary to maintain the trench surface flush with the existing street or sidewalk. In addition, the Contractor shall respond to and correct shifting trench plates regardless of the time of day. If Contractor fails to correct sinking backfill material or shifting trench plates in a timely manner, City shall reserve the right to correct the problem and back charge the contractor.

19. Joining Existing Pavement:

- a. Existing pavement which is to be joined by new pavement shall be saw cut vertical to provide straight, true and neat joints. Overlapping of existing pavement without saw cutting or grinding shall not be permitted. The vertical edges shall be tacked prior to paving. Terminals of all surfacing indicated on the plans shall join any existing surface in a smooth butt joint. Conform paving by method of abrasive grinding will be allowed upon approval of the City Engineer.

20. Sanitary Sewers:

- a. All manholes, sewer mains, and laterals must pass a leakage test as described in the City of Gilroy Standard Details for Construction. After all backfill, testing, and pavement restoration has been completed, the contractor shall flush and clean all sewer lines 24 inches or less in diameter by the Wayne Ball Method. After the leakage test, but prior to paving, a television inspection shall be performed at all locations of newly installed sewer mains at contractor's expense. The underground contractor must keep an accurate record of manholes and the distance between them and each wye branch lateral, and their direction.
- b. Before any upstream sewers are constructed, the contractor shall expose and verify the elevation and location of existing sewer lines to be connected.

21. Water Lines:

- a. All water lines shall be installed with line and grade.
- b. Contractor shall not turn off or on any valves belonging to the City's water system without permission of the Water Division. Only (Public Department) personnel shall open the necessary valves to connect new lines. Failure to follow this requirement shall be considered an "unlawful connection" and may result in issuing of a citation and fines as specified in Section 13.04 of the Gilroy Municipal Code. The Water Division may authorize the contractor to operate designated valves.
- c. If an existing water main is being replaced, all laterals shall be replaced if fed from the main being replaced. All laterals shall be copper.
- d. Connections requiring shut down of the system shall be done between the hours of Midnight and 6:00 AM, and only upon coordination with the Public Works Department.

- e. All water lines shall be tested after completion of the trench backfill and compaction of the final base material, but prior to placement of the final roadway surface.
- f. Contractor shall place marker posts adjacent to all air relief valves and blow off assemblies along water mains located in unimproved areas or fields. The markers shall be blue 72" curb-flex utility markers with an appropriate label.

22. Backfill & Compaction:

- a. Backfill material shall be in accordance with City Standards.
- b. Jetting and/or flooding of trench backfill material will **not** be permitted.
- c. Any excess excavation material may be deposited onsite in areas and at depths designated by the Owner, and with written approval of the City Engineer and the Soils Engineer.
- d. The minimum relative compaction for trench backfill, subgrade and base material shall be 95% throughout the project unless recommended otherwise in the Soils Report and approved by the City Engineer.
- e. Contractor shall provide compaction test results of the lifts specified in the soils report to the City Engineer from a certified testing laboratory at contractor's expense.
- f. Any aggregate base that becomes contaminated during construction shall be removed and replaced with uncontaminated base.

23. Erosion Control:

- a. An erosion control plan shall be required prior to any physical development of a property planned between September 15<sup>th</sup> and May 1<sup>st</sup>. Said plan shall meet the minimum standards and specifications of the City of Gilroy Code, Chapter 27C and NPDES General Permit for the City of Gilroy.. Contractor shall be responsible for initiating the required erosion control measures during the above time period.

24. Electroliers:

- a. All electroliers shall be installed per City Standards, at the locations shown on the approved plans. See Electrical Section of the Standard Details.

25. Streets:

- a. All work shall be installed in accordance with the latest edition of the State of California Department of Transportation (Cal-Trans) Standard Specifications and shall conform to the minimum standards and/or specifications of any applicable local, state, or federal governing codes.
- b. Permits required for any construction depicted in these plans shall be paid for and obtained by the contractor unless otherwise noted.
- c. The contractor shall verify the locations of all existing utilities, structures, and services before commencing work. The locations of utilities, structures and services shown in the contract documents shall be deemed to be approximations only. All discrepancies between what is shown and the actual field conditions shall be reported to the owner's representative. The contractor shall contact Underground Service Alert (USA) at 811/1-800-227-2600 a minimum of 2 working days prior to any demolition or excavation upon completion of USA marking operations, contractor shall record all utility markings on a separate set of drawings. This set shall be kept on-site for reference for duration of contract. Notify the owner's representative immediately should conflicts arise and redirect work to avoid delay.
- d. The contractor shall protect all existing utilities and features on and adjacent to the project site during construction. The contractor shall repair, at no additional cost to the owner, all damage resulting from construction operations or negligence. All repairs shall be made to an "as-was" or better condition per the discretion of the owner(s).

- e. The contractor shall be responsible for coordinating the work with the owner(s), owner's representative, utility companies, and other construction trades and governing agencies.
- f. For items of work requiring inspection or observation, the contractor shall give the owner's representative a minimum of two working day notice prior to the time of required inspection or observation.
- g. Prior to bidding, the contractor shall visit the site and familiarize themselves with the existing site conditions. Contractor shall immediately notify the owner's representative if discrepancy is suspected between the site and what is contained in the contract documents. No allowances will be made to the contractor due to their lack of familiarity with the site conditions.
- h. Contractor shall provide and maintain erosion control measures in conformance with the standard construction practices as required to protect the project and/or adjacent properties from damages due to natural or man-made erosive forces. Contractor shall be responsible for repairing or replacing damages or damaged areas to an "as-was" or better condition if it can be reasonably construed that such damages were due to the contractor's construction activity or lack of ample protective measures. Repairs shall be made subject to the discretion of the owner's representative.
- i. Upon completion of the work, the contractor shall certify that all work has been installed in accordance with the contract documents. All variations from the documentation must be presented to the owner's representative accurately and/or graphically on record drawings prior to final acceptance. Refer to specifications for additional closeout information and procedures.
- j. Contractor shall diligently strive to protect the project site and all construction materials from vandalism damage until project final acceptance. Contractor shall be responsible for all damages and/or losses due to vandalism until project final acceptance.
- k. Contractor shall develop and implement a Safety Program and diligently protect workers and the public from injury due to any construction activity. Protective measures shall conform to those described in Cal-Trans State specification section 7-1.09 "Public Safety" at a minimum.
- l. Contractor shall provide drinking water and portable restroom facilities for worker use during construction at contractor expense.
- m. All permanent street name signs shall be installed immediately after the curb and gutter construction is completed.

26. Landscaping:

- a. For those areas that will be planted with publicly maintained landscaping, after grading, but prior to planting, a horticulture suitability soil test shall be completed. Soil amendments will be based on lab recommendations from the tests. Testing shall be the Perry Laboratory Horticulture Appraisal Package or approved equal. Soil samples shall be a composite of the planting area. Contact the soil labor the city for information on the number of samples required based on the project area. Submit lab results to the city.



## Capital Improvement Projects shall include the following notes:

### 1. General Notes:

*These notes are for the general reference in conjunction with, and as a supplement to the written specifications and details associated with any city issued contract documentation.*

- a. The contractor shall visit the site prior to bid submittal to determine the exact extent of the site demolition required and verify compliance with drawings. The project manager shall be notified immediately of any discrepancies.
- b. The contractor shall perform all clearing, demolition, removal of obstructions and site preparations necessary for the proper execution of all work shown on the plans and as described within the specifications.
- c. Locations of Existing structures and utilities shown on the plans are based on the best available information. Contractor is responsible for the removal of all designated items per site conditions at direction of the City. The project manager and landscape architect assume no responsibility for the accuracy of this information or inadvertent omission of any such information.
- d. Prior to beginning of work, verify all existing utilities in the field. Failure to do so shall act as acceptance by the contractor of existing conditions and utilities in the field. Locations shown on the plans are approximate.
- e. The contractor shall become familiar with the locations of existing and future underground services and improvements which may affect the work being done. Contractor shall be responsible for notification of all the utility companies, 48 hours prior to beginning work. Contact the Underground Service Alert (USA) at 811/1-800-227-2600, a minimum of 48 working hours prior to start of construction. Notify the City Engineer or his/her designee immediately should conflict arise.
- f. The contractor shall be responsible for repairing and replacing at contractor's expense, any structure, paving, fencing, walls, or plant material damaged or destroyed by the subcontractor's operations. Contractor shall be responsible for repairing or replacing any and all damaged on site and adjacent properties. The damaged items will be restored to their original condition or replaced and to the satisfaction of the city.
- g. All existing items and/or structures are to remain unless otherwise noted on the plan.
- h. For protection of existing trees refer to tree protection specifications.
- i. Notify the project manager in writing two weeks prior to start of demolition phase, before removal of any items.
- j. When construction fencing is shown within limit of work, contractor shall provide and maintain full access as required. When work is required between limit of work and construction fencing, submit a written request to the owner stating work to be performed and approximate time of completion. No work shall be allowed within these areas without prior approval of the owner. Fencing shall be replaced promptly following completion of said work.
- k. Demolition shall include: Removal of item and any foundation or structural support related to item and to dispose of offsite in a manner acceptable to the owner and in compliance with all Federal, State and Local codes and ordinances.
- l. "Remove and Return" shall mean carefully disassemble or dismantle without damage. Any unnecessary damage, as deemed by the owner during removal, shall be repaired

and replaced by the contractor at no additional cost.

2. Demolition
3. The contractor shall perform all clearing, demolition, removal of obstructions and site preparations necessary for the proper execution of all work shown on the plans and as described within the specifications.
4. The contractor shall visit the site prior to bid submittal to determine the exact extent of the site demolition required and verify compliance with drawings. The project manager shall be notified immediately of any discrepancies.
5. The contractor shall verify the locations of all existing structures, utilities, and services prior to commencing work. Contractor is responsible for the removal of all designated items per site conditions at direction of the Public Works Director/City Engineer or his/her designee. The City Engineer or his/her designee and project design engineer or architect assume no responsibility for the accuracy of this information or inadvertent omission of any such information. The locations of structures, utilities, and services shown in the plans, specification, and contract documents shall be deemed to be approximations only. All discrepancies between what is shown and the actual field conditions shall be reported to the Public Works Director/City Engineer or their designee. The contractor shall contact Underground Service Alert (USA) at 811/1-800-227-2600, a minimum of 48 hours prior to any demolition or excavation. Upon completion of USA Marking operations, contractor shall record all utility markings on a separate set of drawings. This set shall be kept on site for reference for the duration of the contract/project. Notify the Public Works Director/City Engineer or their designee immediately should conflicts arise and redirect work to avoid delay.
6. All existing items are to remain unless otherwise noted. The contractor shall be responsible for repairing and replacing at contractor's expense, any existing item damaged or destroyed by construction operations. Contractor shall be responsible for repairing or replacing any and all damages to adjacent properties. The damaged items shall be restored to an "as-was" or better condition or replaced per the discretion of the owner's representative.
7. Prior to any demolition work, contractor shall install self-supporting interlocking chain-link temporary construction fencing to enclose and secure the project area limit of work. The fencing shall contain pedestrian and/or vehicular access gates as necessary and shall be minimum 6 feet high with a top and bottom rail with knuckled top and bottom selvage (no barbed wire permitted). The construction fencing work shall be subject to the discretion of the Public Works Director/City Engineer or their designee.
8. Prior to any demolition work, contractor shall protect all existing plant material not scheduled for removal by installing temporary 4-foot high "Blaze Orange" construction safety fencing at the drip line or perimeter. The fencing shall be secured with driven metal stakes. All tree protection work shall be subject to the discretion of the Public Works Director/City Engineer or their designee.
9. Contractor shall verify location of all exiting utilities and provide the required coordination for their temporary disconnection, protection, removal and/or storage as may be required during construction. Contractor shall coordinate with the owner to determine whether temporary services are necessary.
10. Demolition shall include the removal of item(s) and any foundation or structural support related to the item(s) for plan material. This shall include stumps and roots over 2 inches in diameter. Disposal shall be off site in a legal manner acceptable to the City Engineer or his/her designee and in compliance with all Federal, State and Local codes and ordinances.
11. Refer to specifications for additional clearing, grubbing, topsoil, stockpiling and other pertinent

information.

## 12. Grading & Drainage Notes

- a. Existing grades are based on information provided by a surveyor. Contractor shall verify existing grades for accuracy prior to the start of grading. Contractor shall notify the City Engineer or his/her designee immediately should conflict arise and should redirect work to avoid delay.
- b. The contractor shall verify the locations of all existing structures, utilities, and services prior to commencing work. The locations of structures, utilities and services shown within the plans, specifications and contract documents shall be deemed to be approximations only. All discrepancies between what is shown and the actual field conditions shall be reported to the Public Works Director/City Engineer or their designee. The contractor shall contact Underground Service Alert (USA) at 811/1-800-227-2600, a minimum of 48 hours prior to any demolition or excavation. Upon completion of USA Marking operations, contractor shall record all utility markings on a separate set of drawings. This set shall be kept on site for reference for the duration of the contract/project. Notify the City Engineer or his/her designee immediately should conflicts arise and redirect work to avoid delay.
- c. Proposed grades shall meet existing grades with a smooth and continuous transition as to avoid trapping water. Contractor shall notify Public Works Director/City Engineer or his/her designee if puddling is suspected and redirect work so as to avoid delay while awaiting response.
- d. All existing drainage structures, boxes, utility vaults, etc., shall be brought to final finish grade prior to final surface treatment.
- e. Any conditions not specifically noted or detailed on the plans shall be called to the attention of the Public Works Director/City Engineer or his/her designee for review prior to installation.
- f. Contractor shall be responsible for adjusting all existing drainage structures and existing utilities to finished grades. If final grades differ from those noted on plans, contact district representative for approval. Any changes to grades shown shall be recorded on as-built plans.
- g. Contractor shall be responsible for cleaning all existing drainage structures and pipes to remain.

## 13. Layout/Material

- a. The contractor shall coordinate all construction elements including utility locations and required sleeving prior to installation. Verify critical dimension, reference point locations and construction conditions prior to initiating construction. Temporary benchmarks or reference points shall be set by the contractor as necessary. Notify the City Engineer or his/her designee immediately should discrepancy arise and redirect work to avoid delays.
- b. All dimensions shall be verified in field and chalked, string-lined or flagged by the contractor prior to construction. Any minor adjustments made to achieve overall design layout shall be accepted by the City Engineer or his/her designee prior to construction.
- c. Layout is based on the point(s) of beginning (P.O.B.) and baseline(s) or grid system as shown. Dimensions shown are rounded to the nearest inch.

Appendix A – Section 2

CHECKLIST FOR IMPROVEMENT PLANS

Planning Division Name: \_\_\_\_\_ Tentative Map No: \_\_\_\_\_

Subdivision Name: \_\_\_\_\_ Tract No: \_\_\_\_\_

Assessor's Parcel No: \_\_\_\_\_

Tentative Map Approval Date: \_\_\_\_\_

Engineering Firm: \_\_\_\_\_ Job Number: \_\_\_\_\_

Project Engineer: \_\_\_\_\_ Telephone Number: \_\_\_\_\_

(Appropriate sections to be checked off by the Engineering firm and provided along with 1st submittal)

Engineers Checklist

( ) 1st Check ( ) 2nd Check ( ) 3rd Check \_\_\_\_\_

4 Sets of Improvement Plans (including all utilities, streets, Landscaping, irrigation, and joint trench) \_\_\_\_\_

2 copies of Irrigation Water Budget Calculations \_\_\_\_\_

2 Sets of Hydrology Map and Calculations \_\_\_\_\_

2 Sets of Storm Water Control Plans \_\_\_\_\_

2 Copies of Engineer's Estimate \_\_\_\_\_

2 Copies of Soils Report and Pavement Design Calculations \_\_\_\_\_

2 Sets of Sewer Map and Calculations \_\_\_\_\_

2 Sets of Water System Analysis (MDD & MDD+Fire), including phasing if applicable \_\_\_\_\_

1 Copy of Final Conditions of Approval (Resolutions) \_\_\_\_\_

Copies of Fireflow Calculations (commercial) \_\_\_\_\_

Accompanying list of requested deviations from the City's General Guidelines, Technical Specifications, and/or Standard Details \_\_\_\_\_

REVIEWED BY:

1. Planning Division \_\_\_\_\_

2. Engineering Division \_\_\_\_\_

3. City of Gilroy Fire Marshal \_\_\_\_\_

4. Sent to PG&E, Telephone & Cable TV by Engineer \_\_\_\_\_

5. Other Agency Review – by Engineer \_\_\_\_\_

a. Santa Clara Valley Water District \_\_\_\_\_

b. Other (specify) \_\_\_\_\_

SECTION 1 -- DRAWINGS

A. GENERAL (Applicable to every sheet)

1. Sheet size is 24"x36" with 2" space on left side of border and 1" space on right side 

---
2. Title Block/Border of each sheet (contains as a minimum):
  - a. City Engineer's signature block (Sheet 1 only) 

---
  - b. Design Engineer's signature block (Sheet 1 only) 

---
  - c. Design Engineer's seal, R.C.E. number and original signature
  - d. (stamped signatures are not acceptable on final submittal) 

---
  - e. Horizontal scale (1"=40' max) & Vertical scale (1"=4' max) 

---
  - f. Name of Subdivision or Project and Sheet Name 

---
3. Stationing referenced to nearest intersection 

---
4. All offset distances measured from centerline 

---
5. City Standard Details referenced correctly & unchanged (with border) 

---
6. Details other than standard, properly detailed 

---

**B. TITLE SHEET**

1. Project Area Diagram:
  - a. Project limits shown as well as any City-County boundaries 

---
  - b. Phase boundaries (if applicable) 

---
  - c. Lots and lot numbers 

---
  - d. New/existing abutting right of ways, easements & street names 

---
  - e. New electroliers 

---
  - f. TBM shown with reference to an approved City benchmark 

---
  - g. Plan Sheet references 

---
2. Sheet Index 

---
3. Symbol/Abbreviations Legend 

---
4. Location Map with North Arrow 

---
5. Construction quantities/Scope of Work shown and itemized 

---
6. Required City General Standard Notes - can be on separate sheet 

---

**SECTION 2 -- GRADING PLANS**

1. Erosion control plan. 

---
2. Existing elevations or contours shown 

---
3. Existing and proposed storm drain lines and structures shown 

---
4. Proposed pad grades & lot numbers shown 

---

- a. Minimum grade of lots 1% - Commercial & Multifamily \_\_\_\_\_
- b. Minimum finish grade of residential lots 1% (shown on plot plans) \_\_\_\_\_
- 5. Lowest Floor shall be minimum 1' above calculated high water point or FIRM base flood elevation, whichever is greater. See Design Standards for further details. \_\_\_\_\_
- 6. Retaining walls and sound walls shown \_\_\_\_\_
- 7. Section of typical lot shows property lines and slopes/grades \_\_\_\_\_
- 8. Elevations at rear of lots shown – Commercial & Multifamily (Elevations at rear of lots for residential shown on plot plan) \_\_\_\_\_
- 9. Elevation of surrounding lots shown within 50' or as needed to show area wide drainage \_\_\_\_\_
- 10. Show grading required to manage existing off-site drainage \_\_\_\_\_
- 11. Profile shows back-of-curb/sidewalk and original ground \_\_\_\_\_
- 12. Grading conforms to adjacent properties per LID design concepts \_\_\_\_\_
- 13. Drainage does not occur across lot lines. Lots shall drain to streets where practicable \_\_\_\_\_
- 14. All slopes are maximum 2:1 or per Soils Report \_\_\_\_\_
- 15. Show overland drainage release \_\_\_\_\_

**SECTION 3 -- STREETS**

**A. PLAN VIEWS**

- 1. Access ramps are designed per Standard Details and meet ADA req. \_\_\_\_\_
- 2. Property corner cutoffs used where handicap ramps installed otherwise concentric with curb. \_\_\_\_\_
- 3. Curb curve data given-central angle, length, and radius. \_\_\_\_\_
- 4. Phase boundary shown (if applicable). \_\_\_\_\_
- 5. R/W and street width dimensions shown. \_\_\_\_\_
- 6. Centerline stationing at 100' and at BC & EC of horizontal curves. \_\_\_\_\_
- 7. Lot/parcel lines and numbers/letters shown. \_\_\_\_\_
- 8. Cul-de-sac cross slopes from high point to gutter lip-.020 min. \_\_\_\_\_
- 9. Rim and invert elevation and station given at all drainage structures. \_\_\_\_\_
- 10. TC elevation and station at property line extensions. \_\_\_\_\_
- 11. TC elevation and station at grade breaks and at curb returns. \_\_\_\_\_
- 12. 0.0050 minimum slope observed on all streets at curb line with minimum 0.2 foot fall around returns. \_\_\_\_\_
- 13. Location of underground pipes and utilities shown. \_\_\_\_\_

- 14. Fire hydrant and electrolier per Standard Detail \_\_\_\_\_
- 15. Street monuments shown. \_\_\_\_\_
- 16. Street names shown. \_\_\_\_\_
- 17. All notes and standard symbols conform to legend. \_\_\_\_\_
- 18. All ex. utility poles, manholes, valves, signs, mail, boxes, trees, etc. shown. Indicates those to be removed, relocated or adjusted to grade. \_\_\_\_\_
- 19. Continuations and cross streets properly referenced i.e. (see sheet #\_\_\_\_) \_\_\_\_\_
- 20. Street signs, traffic signs and barricades shown in proper locations. \_\_\_\_\_
- 21. Driveway locations & stationioning shown. Width 16'-24' (residential). \_\_\_\_\_
- 22. Shows existing manholes, water valves and other facilities to be adjusted to grade. \_\_\_\_\_
- 23. North arrow shown for each plan view area. \_\_\_\_\_

**B. PROFILES**

- 1. Vertical curves designed for proper speeds per Highway Design Manual. \_\_\_\_\_
- 2. Minimum vertical curve lengths observed. \_\_\_\_\_
- 3. Vertical scale 1" = 2' or 1" = 4' \_\_\_\_\_
- 4. Vertical curves used for grade-breaks where algebraic difference exceeds 1%. (Except at crown of two intersecting streets; grade-break shall not exceed 4%) \_\_\_\_\_
- 5. Cul-de-sacs, show profiles @ centerline through radius point to TC at end of cul-de-sac (dashed line). \_\_\_\_\_
- 6. 2% maximum grade observed across intersections. \_\_\_\_\_
- 7. All underground pipes and utilities shown; including storm drain, water and sewer. \_\_\_\_\_
- 8. Existing grade on centerline shown. \_\_\_\_\_
- 9. Finished grade profile at centerline or crown. \_\_\_\_\_
- 10. Centerline profiles of intersecting streets shown to their point of intersection. \_\_\_\_\_
- 11. New road profile conforms to off-site existing road profile. \_\_\_\_\_
- 12. Centerline stations and elevations shown @ all BVC, EVC, PIVC, grade breaks, low points and high points. \_\_\_\_\_
- 13. All slopes in profile shown. \_\_\_\_\_
- 14. Shows all utility crossings with clearances indicated, 12"min \_\_\_\_\_
- 15. Manhole invert, rim, and flowline elevations shown. \_\_\_\_\_
- 16. Elevation at high and low points of water mains shown. \_\_\_\_\_

**SECTION 4 -- WATER**

- 1. Design conforms to City of Gilroy Design Standards and the Standard Details. \_\_\_\_\_
- 2. Design conforms to Water Master Plan, water system analysis w/  
recent fire flow test from City, including phasing if applicable \_\_\_\_\_
- 3. Show minimum distances to sanitary sewer and storm lines maintained. \_\_\_\_\_
- 4. Length shown as distance between crosses or tees. \_\_\_\_\_
- 5. Air relief valves at high points. \_\_\_\_\_
- 6. Invert elevations shown at all grade breaks and air relief valves. \_\_\_\_\_
- 7. Sizes of all existing lines shown. \_\_\_\_\_
- 8. Fire services shown. *(if applicable)* \_\_\_\_\_
- 9. Size and type of pipe shown in profile. \_\_\_\_\_
- 10. Blowoffs at dead-end lines. \_\_\_\_\_
- 11. Valves on all legs of a "cross" or "tee" (except at fire hydrants). \_\_\_\_\_
- 12. Minimum cover 36 inches. \_\_\_\_\_
- 13. Minimum water service size 1 inch. \_\_\_\_\_
- 14. Size and location of water services laterals and meter boxes shown. \_\_\_\_\_
- 15. Fire Hydrant spacing per General Guidelines Section 5.6. \_\_\_\_\_
- 16. Valves spaced per General Guidelines Section section 5.7. \_\_\_\_\_

**SECTION 5 -- SANITARY SEWERS**

- 1. System in agreement with approved tentative map and master plan. \_\_\_\_\_
- 2. Design conforms to City Design Standards and Details. \_\_\_\_\_
- 3. Adequate cover. 3' min to top of pipe finished grade. \_\_\_\_\_
- 4. Minimum horizontal and vertical clearances from water main. \_\_\_\_\_
- 5. Pipe size, type, slope, and length between structures shown. \_\_\_\_\_
- 6. Connection to existing facilities shown. Manhole installed when tying  
to existing lines. \_\_\_\_\_
- 7. Extend sewer lines to subdivision boundary \_\_\_\_\_
- 8. Station and invert & rim of manhole elevations shown. \_\_\_\_\_
- 9. Sizes of existing lines shown. \_\_\_\_\_
- 10. 300' maximum distance from manhole to manhole for pipe  
less than or equal to 24", 600' spacing for manholes on  
trunk lines greater than 24" and 150' from manhole to  
clean out (at end of line). \_\_\_\_\_
- 11. Scour velocity shall be 2.5 fps half flow capacity, 10 fps maximum



velocity \_\_\_\_\_

- 12. 0.1' drop around corner through manhole, or matches soffit elevation. \_\_\_\_\_
- 13. Points of convergence of pipes shall be crown to crown. \_\_\_\_\_
- 14. Lockable manhole covers for any off street manholes. \_\_\_\_\_
- 15. In unimproved areas, manholes extended 1' above ground. \_\_\_\_\_
- 16. Elevations, slopes and distances all mathematically correct. \_\_\_\_\_
- 17. Minimum vertical and horizontal distances to water lines maintained. \_\_\_\_\_

**SECTION 6 -- DRAINAGE**

**A. HYDROLOGY-HYDRAULICS REPORT**

- 1. Calculations conform to City Design Standards. Underground system designed to handle a 10-year storm, streets designed to carry a 100 year storm. \_\_\_\_\_
- 2. Tributary drainage system designed to connect to City's future storm drainage system and conforms to Storm Drainage Master Plan. \_\_\_\_\_
- 3. Calculations shall include: HGL, FL EI, Q, A, S, V, freeboard at structures, structure losses, & tailwater assumptions. \_\_\_\_\_
- 4. All starting water surface calculations adequately verified. \_\_\_\_\_
- 5. Drainage map showing street system, existing and proposed drainage system, slope arrows, tributary sub-areas in acres, peak flow in all pipes (1" = 100' preferred) \_\_\_\_\_
- 6. All pipe in tributary areas labeled to correspond with calculations. \_\_\_\_\_
- 7. Base Flood Elevation verified for the project area. \_\_\_\_\_
- 8. Show overland storm water release path. \_\_\_\_\_

**B. EASEMENTS**

- 1. Off-tract improvements (plan and profile) and accompanying easements shown. \_\_\_\_\_
- 2. Prior to final approval, executed grant deed, plan, and legal description for off-tract offers of dedication for drainage easement or right of way submitted for review. \_\_\_\_\_
- 3. Off-tract work to be done but no easement required; right-of-entry submitted for review. \_\_\_\_\_
- 4. Easement widths indicated. \_\_\_\_\_

**C. STRUCTURES**

1. 1.00' minimum HGL to TC at DIs and manholes for 10 year storm. \_\_\_\_\_
2. Special structure calculations provided. \_\_\_\_\_

**D. PIPE**

1. Minimum slope for flow of 2 fps. Size (15" min. laterals & 18" min. mains), class, slope, length, and, type of pipe (RCP) shown in profiles. \_\_\_\_\_
2. Indicate clearly on plans where non-standard pipes are used. \_\_\_\_\_
3. Elevations, slopes and distances all mathematically correct. \_\_\_\_\_
4. Matches hydraulic/hydrology calculations. \_\_\_\_\_
5. Manhole inverts and rim elevations shown along with catch basin invert elevations. \_\_\_\_\_

**E. CHANNELS**

1. Maximum velocity in earth channel verified by soils report. \_\_\_\_\_
2. Channel side slopes as specified by soils report. \_\_\_\_\_
3. Channel design per City Specific Plan (if applicable) \_\_\_\_\_

**F. STORM DRAIN DETENTION BASINS FOR FLOOD CONTROL**

1. Runoff and volume calculations per City Design Standards. \_\_\_\_\_
2. High water level shown on basin section. \_\_\_\_\_
3. Basin bottom 5' above water table unless statement from soils engineer indicates range of depths, then 2' minimum allowed. \_\_\_\_\_
4. Outfall protection using rip-rap required. \_\_\_\_\_
5. Chain link fence with slats required around basins greater than 3 feet in depth. \_\_\_\_\_
6. Basins have an access road around the basin. \_\_\_\_\_
7. Easement boundary shown. \_\_\_\_\_
8. Maximum sloped ratios for turfed or landscaped side slopes = 4:1 \_\_\_\_\_

**SECTION 7 – STORM WATER QUALITY FOR POST-CONSTRUCTION**

1. Storm Water Control Plan per Municipal Code Chapter 27.D.
2. Storm Water Control Plan Checklist
3. Performance Requirement Certifications
4. Show overland release path.

**SECTION 8 – LANDSCAPE PLANS**

1. Specify all planting materials \_\_\_\_\_

- 2. Specify irrigation system \_\_\_\_\_
- 3. Provide water budget calculations \_\_\_\_\_
- 4. Show point of connection to water system \_\_\_\_\_
- 5. Show point of connection to electrical power \_\_\_\_\_

**SECTION 9 – JOINT TRENCH INTENT PLANS**

- 1. Show all utility box locations \_\_\_\_\_
- 2. Show all conduit runs \_\_\_\_\_
- 3. Show all points of connection \_\_\_\_\_
- 4. Provide PG&E approval (prior to final approval) \_\_\_\_\_
- 5. Project Engineer shall review improvement plans, landscape plans, and Joint Trench and attest there are no conflicts \_\_\_\_\_

**SECTION 8 - GENERAL**

- 1. Shows winterization procedures and erosion control measures. \_\_\_\_\_
- 2. SWPPP with QSP name and phone number, & WDID Number \_\_\_\_\_
- 3. Santa Clara Valley Water District Well Map/Site must be checked \_\_\_\_\_
- 4. Trash can pad for roads less than 30' wide \_\_\_\_\_
- 5. Street Names approved by Street Naming Committee \_\_\_\_\_
- 6. Lot numbers on improvement plans match lot numbers on Final Map \_\_\_\_\_
- 7. Tract number on First Plan Sheet \_\_\_\_\_

## Appendix A – Section 3

# Development Project Closeout

***The following information serves as an informational checklist for contractors and/or developers to identify the process for the completion of a new development.***

1. City of Gilroy, Engineering Division provides a Punch List of final items required for completion and acceptance of the project.
2. Developer/Contractor shall complete all field work identified on the Punch List to the City of Gilroy, Engineering Division.
3. Developer shall provide the contractor's final pay request in Excel format, and copies of all invoices.
4. Developer shall provide electronic files of all job site mark-ups and "as-built" plans and maps.
5. Developer shall provide operation and maintenance manual for storm water quality structural control measure maintenance.
6. Engineering Division will review contractor's final pay request cost and compare with Engineer's Estimate of Probable Costs included with Improvement Plans, and determine final plan check and inspection fee.
7. Upon the determination of the fees, If they are:
  - i. Due by the Developer to the City of Gilroy, a request for payment is sent to Developer.
  - ii. Owed to the Developer by the City of Gilroy, a refund will be processed for the over-payment.
8. The Engineering Division shall review electronic files as-built to determine completeness.
9. Developer requests final inspection.
  - i. Final inspection by City includes a review by ALL City Departments. All Departments are to make comments at which time, comments will be forwarded to the Developer to address.
10. After Final Inspection is complete, Developer to shall submit within 14 days Record Drawings, prepared per job site mark-up, for Improvement Plans as per General Guidelines Section 1.5 of Standards. Submittal shall include:
  - i. Mylar set of plans
  - ii. Electronic set of plans in the following format:
    1. Autocad - DWG format, Autocad (call city for latest version)
11. Items 1-9 to be completed prior to sending the Notice of Completion of Project to the City Council.
12. Once approved by Council, the NOC is recorded.

13. Developer to request a partial release of their bond (bond release cannot occur until 35 days after county notification of recording of the Notice of Completion and no liens have been filed against the City).
14. City sends Developer in writing the determination of the bond reduction.
  - i. If approved, Bond reduction released in exchange for maintenance bond. Maintenance bond is to be for a one-year period (one year from the Council meeting date of acceptance), automatically renewable.
15. Inspectors review project one month prior to expiration of maintenance bond and advises contractor/developer of any deficiencies to be completed prior to release of maintenance bond.
  - i. This inspection by City includes a review by ALL City Departments. All Departments are allotted two weeks (Minimum) to make comments at which time, comments will be forwarded to the Developer to address

## **Appendix B**

# **FINAL MAPS**

# CHECKLIST FOR FINAL MAPS

Date: \_\_\_\_\_

Subdivision No. \_\_\_\_\_

**A. GENERAL**

Engineers Checklist

- 1. Agrees with the approved Tentative Map. \_\_\_\_\_
- 2. Compliance with conditions of approval:  
(i.e. survey, dedications, notes). \_\_\_\_\_
- 3. Easements and monuments correspond with Improvement Plans. \_\_\_\_\_
- 4. Title Report current (within six months) \_\_\_\_\_

**B. DEDICATION AND CERTIFICATION**

- 1. Owner's Statement. \_\_\_\_\_
- 2. Trustee's Statement. Note: Check signature requirements,  
Land Development. \_\_\_\_\_
- 3. Surveyor's/Engineer's Statement, including signature, seal and number. \_\_\_\_\_
- 4. Name of person authorizing map. \_\_\_\_\_
- 5. All certificates signed and acknowledged with signatures and  
Notary seals legible, using black India ink (final submittal). \_\_\_\_\_
- 6. Statement of the Planning Commission. \_\_\_\_\_
- 7. Certificate of the City Clerk. \_\_\_\_\_
- 8. Recorder's Certificate \_\_\_\_\_
- 9. City Engineer's Statement \_\_\_\_\_

**C. MONUMENTATION**

- 1. All found monuments tied by survey and described with tag  
numbers and recorded reference. \_\_\_\_\_
- 2. Basis of Bearings, two found monuments of record must appear  
in a statement and be labeled on each sheet of the map. \_\_\_\_\_
- 3. Tie to Basis of Bearings. \_\_\_\_\_
- 4. Monument R/W at B.C., E.C. and property line, if necessary. \_\_\_\_\_
- 5. A monumented line shall be shown on all new subdivision streets,  
with ties to right-of-way. \_\_\_\_\_
- 6. Chiseled "+" at the prolongation of property line to curb or  
back of walk, whichever applies \_\_\_\_\_

**D. MATHEMATICAL ACCURACY AND GEOMETRY**

- 1. All bearings, distances and curve information shown to  
nearest .01 ft. and nearest second. \_\_\_\_\_
- 2. Curve data (Delta, Radius, Length). \_\_\_\_\_
- 3. Radial bearing, non-tangent curve. \_\_\_\_\_
- 4. Sum of increments equals total distance or delta. \_\_\_\_\_
- 5. Areas net and gross (as required to nearest .01 of area). \_\_\_\_\_
- 6. Minimum road centerline radius; 750, 500, 250. Street width  
setback lines, and/or required widening must be shown on map. \_\_\_\_\_
- 7. Math closures must be correct to 1 part in 20,000 and they  
must be certified. \_\_\_\_\_

8. Individual parcel area, table form or per lot.

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**E. MAP BODY**

**Engineers Checklist**

2. Full map size 18" x 26" on mylar with 1" border (16" x 24" inside border). Should have scale 40 ft., 50 ft., or 60 ft. to 1"; other scales must have Engineering Division's approval.
3. Legend: Found mon., solid; set mon., open; show corner monument type, size and tag no.; show on each map sheet.
4. Distinctive border.
5. Map tie to next street intersection or a vicinity map.
6. Road names, spelling R/W width, setback lines and/or required widening.
7. Parcel designation, lots designated by numbers; parcels designated by letters.
8. City boundaries must appear on the map, when applicable.
9. Future street lines and original property lines.
10. Each lot/parcel must be shown completely on one sheet. If more than one sheet is required, the first sheet shall contain a small-scale, undimensioned map of the parcel.
11. Key or index map showing sheet numbers.
12. Chiseled "+" at the prolongation of property line to curb or back of walk, whichever applies

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## Appendix B – Section 2

# Requirements for Council Approval

***Upon completion of Final Map the following listed items are to be provided. When all items have been received the project will be agendized for City Council approval.***

1. Property Improvement Agreement signed, sealed, notarized and returned to the City of Gilroy.
2. Payment of plan check and inspection fees and storm impact fee, street tree fee, and construction water per the Final Development Cost Schedule.
3. Performance Bond and Payment Bond to be provided to the City of Gilroy. Amounts outlined within the Development Cost Schedule.
4. A check made payable to the County of Santa Clara Recorder. This will cover the recording fee for the Property Improvement Agreement and Tract Map.
5. Subdivision Guarantee.
6. Current City of Gilroy Business License.
7. Developer's liability insurance certificates and Additional Insured form specifically naming the City of Gilroy as additionally insured.
8. Provide two (2) Mylar sets of the Improvement Plans. Both complete sets will be signed by the City Engineer. Once signed/approved, one set will be given to the developer/owner and one will be for the City of Gilroy.
9. Provide two (2) original Mylar sets of the Final map. Both Council approved sets will be sent to the title company for recording. One recorded copy will be returned to the City of Gilroy.
10. Provide on the same CD, as an Autocad File and PDF, for both Improvement Plans and Final Maps that conform to the Digital Standard Requirements.
11. An 8-1/2 x 11 paper copy and AutoCad Drawing of the site plan for the Final Map showing fire hydrants, lot numbers (in the upper right hand corner), street names and Tract number and name.
12. An 11 x 17 reduced paper copy of the final project improvement plans and final map.

**Note:**

- A. **After Council Approves Final Map**, Developer to submit to City within 30 days a mylar copy of the **Recorded** map.

**At the End of the Project**, Developer to submit Improvement Plan **Record Drawings** as a Mylar and Autocad file and contractor's final pay request (see Appendix A – Section 3).

## **Appendix C**

# ***TRAFFIC CONTROL PLANS***

## Appendix D

# TRAFFIC CONTROL PLANS

Traffic control plans shall be submitted to the Engineering Division for all work conducted within City right-of-way and shall meet the minimum requirements outlined below.

### **GENERAL**

1. Traffic control plans shall be prepared in accordance with latest edition of the *California Manual on Uniform Traffic Control Devices (CA MUTCD)*
2. Plans shall be prepared by a California-licensed Professional Engineer with experience in preparing traffic control plans
3. Traffic control plan shall be designed to address specific site/project conditions. Examples, samples, or “typical” drawings are not allowed.
4. Traffic control plan shall be submitted a minimum of 10 working days prior to work commencing, for each phase of work, particularly when phases alter traffic patterns/flow
5. Improvement plans must be approved by the City before traffic control plan can be approved
6. Place all “Notes” on traffic control plan (see below for required notes)

### **PERMITS**

1. Submit copy of approved Caltrans Encroachment Permit if any portion of plan is within state right-of-way. Traffic control plan cannot be finalized and approved by the City until receipt of approved Caltrans permit.
2. Submit copy of approved Santa Clara County Encroachment Permit if any portion of plan is within county right-of-way. Traffic control plan cannot be finalized and approved by the City until receipt of approved county permit.

### **TRAFFIC PLAN**

1. Identify north point and scale
2. Identify/shade construction area(s)
3. Identify area(s) where parking will be prohibited
4. Identify all symbols in a legend
5. Identify all signs and striping; provide key for sign and striping designations
6. Construction signs shall be black on orange (not black on yellow or black on pink)
7. Indicate sign designation and spacing
8. Indicate type and spacing of delineators, where applicable
9. Specify type(s) of barricade(s) to be used, where applicable
10. Identify and dimension all travel lanes
11. Show, identify, and provide/maintain access to existing driveways, cross streets, alleys, etc.

12. Provide pedestrian detour for sidewalk closures
13. Depending on duration of work, temporary striping may be required instead of delineators
14. For signalized intersections, the following shall apply:
  - a) All active travel lanes shall have temporary or permanent detection
  - b) All permanent detection shall be installed within 48 hours of end of temporary traffic control

## **NOTES**

*Including the following notes:*

1. Specify working days and hours.
2. Construction signs shall be black on orange (not black on yellow or black on pink).
3. Access to all private properties shall be maintained at all times during construction.
4. Temporary traffic control signs shall not block fire hydrants and/or driveways at all times.
5. All traffic control devices (signs, channelizers, etc.) shall be retroreflective and/or illuminated during nighttime traffic control.
6. All existing roadway signs conflicting with traffic control plan shall be covered for duration of work and uncovered when roadway is reopened.
7. For signalized intersections, all active travel lanes shall have temporary or permanent detection. All permanent detection shall be installed within 48 hours of end of temporary traffic control.
8. Contractor shall post temporary “No Parking,” “No Stopping,” and/or “Tow Away” signs along roadway frontage, where applicable, a minimum three (3) working days prior to commencement of work. Signs shall state days and hours when restrictions apply.
9. Contractor shall display on its barricades company name and 24-hour emergency telephone number in case of emergency callouts.
10. Contractor shall furnish, erect, and maintain barricades, lights, signs, flagmen, fencing, and other safety measures to give adequate protection to the public at all times. Contractor shall provide access to all areas in the vicinity of the encroachment and shall provide necessary temporary sidewalk and warning signs.
11. The parking of any construction-related vehicles or storage of any material is not allowed on a public street or sidewalk unless approved in advance by the City Engineer.
12. Any traffic striping, pavement markings, pavement surface, etc. damaged or destroyed by Contractor’s work shall be replaced by Contractor to the satisfaction of the City Engineer at Contractor’s sole expense.
13. Contractor shall notify all private property owners in writing a minimum three (3) working days prior to any construction that may affect access. Notice shall contain
  - a) Company Name
  - b) Contact Name

c) Company and/or Contact Phone Number

14. Contractor shall notify City of Gilroy Engineering Division in writing a minimum five (5) working days prior to beginning of work.

### **HAUL ROUTES**

Haul routes shall be identified prior to the start of construction and shall conform to all city and state regulations.

**Appendix E**

***GENERAL  
REFERENCES***

# City of Gilroy References

## **Governmental Agencies**

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### **City of Gilroy**

7351 Rosanna Street  
Gilroy, CA 95020  
Ph: (408) 846-0450  
Fax: (408) 842-0451  
Website: [www.ci.gilroy.ca.us](http://www.ci.gilroy.ca.us)

### **County of Santa Clara (County Government Center)**

70 West Hedding Street, Tenth Floor  
San Jose, CA 95110  
Ph: (408) 299-2323  
Fax: (408) 298-8460  
Website: [www.sccgov.org](http://www.sccgov.org)

### **Flood Control and Waterways**

Santa Clara Valley Water District (SCVWD)  
5750 Almaden Expressway  
San Jose, CA 95118-3686  
Ph: (408) 265-2600  
Fax: (408) 266-9751  
Website: [www.valleywater.org](http://www.valleywater.org)

### **State of California-Department of Fish and Wildlife (Bay Delta Region, Region 3)**

7329 Silverado Trail  
Napa, CA 94558  
P.O. Box 47  
Yountville, CA 94599  
Ph: (707) 944-5500  
F: (707) 944-5563  
Website: [www.dfg.ca.gov](http://www.dfg.ca.gov)

### **California Department of Transportation - District 4**

111 Grand Ave.  
Oakland, CA 94612  
Ph: (510) 286-4444  
Website: [www.dot.ca.gov](http://www.dot.ca.gov)

### **U.S. Army Corps of Engineers**

333 Market Street  
San Francisco, CA  
Ph: (415) 977-8618  
Website:

## **Utility Companies**

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### **Pacific Gas and Electric**

Service and Planning  
Ph: (408) 494-1700  
Toll Free: (800) 743-5000

### **Water and Sewage**

City of Gilroy  
7351 Rosanna Street  
Gilroy, CA 95020  
Ph: (408) 846-0400  
Fax: (408) 842-0429  
Website: [www.ci.gilroy.ca.us](http://www.ci.gilroy.ca.us)

### **Telephone**

Verizon  
7373 Monterey Street  
Gilroy, CA 95020  
Ph: (800) 483-4000 (RES)  
Ph: (800) 483-5000 (COM)

### **Garbage Removal**

Recology South Valley  
1351 Pacheco Pass Highway  
Gilroy, CA 95020  
Ph: (408) 842-3358  
Website:  
<http://recologysouthvalley.com>

### **Cable Television**

Charter Communications  
8100 Camino Arroyo  
Gilroy, CA 95020  
Ph: (408) 842-5653  
F: (408) 842-5664