Excavation Permit Application

City of Mountain View • Public Works Department • Land Development Section
Telephone (650) 903-6311 • FAX (650) 903-6499

An excavation permit is required from the City of Mountain View for work within the street right-of-way. The following information is needed to issue an excavation permit. If you need any assistance, please call the Land Development Section of the Public Works Department.

A. Application Form

Complete the attached excavation permit application form (see Page 13) and submit the application with the required materials (e.g., proof of payment of fees/business license, insurance w/endorsement, work/traffic control plans, etc.) to the Public Works Department Land Development Section. Please allow a minimum of 15 working days for the permit to be issued.

B. Plans of the Work (4 Sets)

Minor Projects: For services perpendicular to the street, the plans of the work must be legible and show:

- Location, size and pipe material of the proposed utility services.
- The location of the City mains in the street right-of-way if the proposed utilities are to connect to or cross over or under the City mains, except for the installation of a routine water or sewer service for a single-family home.
- Existing curbs, sidewalks and driveways that will be impacted by the proposed work.
- Existing trees, utility vaults, boxes and other structures within 10' of the proposed work.
- Location of existing traffic signal facilities (e.g., detector loops, conduits, etc.) that may be impacted by the proposed work.
- See attached sample plan.

Major Projects: For projects where underground utility lines are proposed to be installed parallel to the street, 24" by 36" size plans are to be prepared in accordance with Section R. (May require 8 sets.)

C. Traffic Control Plan (4 Sets)

1. A traffic control plan is required for all work that impacts traffic on an existing street. See attached examples. For routine work, such as for the installation of a water or sewer service at mid block, the attached examples may be used in lieu of a custom traffic control plan. For proposed utility line crossing a signalized intersection, the work must be completed in phases. Traffic control plans shall show the existing lane striping, traffic flow pattern with directional arrows, medians, delineators (cones), signs and other warning devices for each phase of the work.

2. Work on congested or signalized intersection may need to be completed in phases. Congested intersection may require the contractor to hire Police Officers or Community Service Officers to direct traffic. Work hours are typically restricted. In some cases, to minimize disruption, work may be required on Saturday or Sunday. See Section O.

D. Contractor's Insurance Certificate and Endorsement Naming the City as an Additional Insured

Provide an insurance certificate with the following:

- $1 million General Liability insurance.
- $1 million Automobile Liability insurance.
- $1 million Workers' Compensation.

Provide a Commercial General Liability Endorsement (CG 20 10 10 93 or CG 20 10 11 85) naming the City as additionally insured with the required three statements.

See the attached insurance requirements and examples. A fax of the certificate and

endorsement from the insurance company will be accepted, provided the insurance company concurrently mails the originals to the City.

E. **Contractor's Licenses**

Provide the following on the application:

- Contractor's State license number.
- Contractor's City business license number. (Please contact the Community Development Department at (605) 903-6313 for applications or information on obtaining a City business license.)

F. **Excavation Permit Fees**

Submit a check made out to the City of Mountain View for the excavation permit fees. The permit fees are based on the number of hours of inspection and are calculated from the itemized table listed in Section D on Page 15 of this application.

On large projects or where required by the City, plan check and inspection fee rates listed in Section E on Page 15 may be required instead of the hour excavation permit fee.

If the actual cost of inspection exceeds the inspection fee amount for large projects, the permittee shall pay the additional cost of inspection within 30 days of being invoiced by the City.

G. **USA Identification Number**

If the work is scheduled within the next two weeks, the contractor must provide the USA (underground service alert) identification number prior to issuance of the excavation permit. The telephone number of the USA regional notification center is (800) 642-2444 or (800) 227-2600.

H. **Water Service Application**

- A water service application is required for any new City water service, irrigation service, fire service, water meter and irrigation meter.
- The applicant may be required to pay water fees with the water service application.
- A separate permit, an approved backflow prevention device and a City meter are required for temporary construction water from fire hydrants and/or existing water services during construction. Contact the meter shop at (650) 903-6328 for further information.

I. **Sewer Service Application**

- A sewer service application is required for any new City sanitary sewer lateral.
- The applicant may be required to pay sewer fees with the sewer service application.

J. **Storm Drainage Fee**

For connections to the City storm drains and catch basins, the applicant will need to (1) request permission to connect to the storm drain (see Page 15 of application); and (2) pay the storm drainage fees, if the fees have not been paid in the past.

City-maintained storm drain lines in the public right-of-way shall be 12" minimum RCP.

K. **SCVWD Exploratory Boring Permit**

For soil borings that are 45' or more in depth, a copy of the Santa Clara Valley Water District exploratory boring permit is required.

L. **Bonds**

On large projects or when required by the City, a faithful performance bond may be required. The amount of the bond shall be equal to 100 percent of the approved construction estimate for the work. Use the enclosed faithful performance bond form for excavation permits.

The surety (bond company) must be listed as an acceptable surety on the most current Department of the Treasury's Listing of Approved Sureties on Federal Bonds, Department Circular 570. This list of approved sureties is available through the Internet at *www.fms.treas.gov/c570/index.html*.

The bond amount must be below the underwriting limitation amount listed on the Department of the Treasury's Listing of

Approved Sureties. The surety must be licensed to do business in California.

Additional bonds or different types of bonds may be required by a franchise or encroachment agreement/permit for the proposed work.

M. Encroachment Permit

An encroachment permit is required for private facilities located within the public right-of-way.

N. Street Construction Moratorium

Excavating within a street that was overlaid with AC or constructed within the last five years is prohibited, unless the City grants an exception.

O. Working Hours

1. Normal working hours are from 7:30 a.m. to 4:00 p.m., Monday through Friday, excluding holidays.

2. For congested street and intersections, it may be necessary to perform the work from 9:00 a.m. to 3:00 p.m., Monday through Friday, or on weekends from 9:00 a.m. to 3:00 p.m.

3. Night work is not allowed due to impact to adjacent residences and due to inspection availability and costs.

4. For work performed on weekends, the effect of construction noise on adjacent residences and organizations, such as churches, must be considered. For work next to a church, the work is typically prohibited on Sunday mornings. Work next to residences is limited from 9:00 a.m. to 3:00 p.m.

5. For work adjacent to a movie theater, school, Center for the Performing Arts, Shoreline Amphitheater, etc., the work is typically prohibited during the operating hours of these facilities.

6. No work shall be performed in the downtown area on days when special events are held in the downtown area.

P. Phased Construction

1. Large project over 2,000' to 3,000' in length along a street will need to be constructed in phases. The contractor will need to complete the work in the first phase, including the finished pavement surfacing and any correction work, before beginning work on the next phase.

2. For work in the downtown area, work must be completed in one or two block phases.

Q. Schedules

For large projects, the proposed number of working days to complete all of the work must be specified. Unnecessarily long schedules will not be allowed. The contractor must complete all work in a timely manner. Liquidated damages will be assessed for exceeding the number of working days. Issuance of future permits will be withheld, until the entire work is completed.

R. 24" by 36" Civil Engineering Plans

For projects where underground utility lines are proposed to be installed parallel to the street, the following applies.

1. The plans are to be drawn on 24" by 36" size sheets at a scale of 1"=20' with 1.5" borders and minimum 0.12" text height.

   One-half scale review sets may be submitted on 11" by 17" sheets at a scale of 1"=40'. Add a scale bar on all plan sheets. Please note that the final set of plans submitted to the City for signature must be 24" by 36" in size at a scale of 1"=20' with 1.5" borders and minimum 0.12" text height.

2. The plans are to accurately show all surface and subsurface improvements on both sides of the street. This includes all utilities, such as underground electric lines, telephone lines, gas lines, fiber optic lines, storm drains, sewer laterals, water services,

etc. The utility owner, number of lines and size of lines are to be shown.

3. The permittee shall draw the existing improvements based on as-built plans, surface field survey, and other available information to accurately show all surface and underground improvements on the plans.

4. Plans not drawn to proper scale, schematic plans, poorly drawn plans or incomplete plans submitted for review will be rejected.

5. Interim plans (e.g., drafts, preliminary drawings, Building Department review documents or other work-in-progress documents) must include the name and license number of the licensed civil engineer in responsible charge. These interim plans must also include a notation indicating their status (e.g., "preliminary" or "for plan check only" or "not for construction"). Civil engineers may place their stamp on interim plans to satisfy the requirement of including their name and license number.

   All final plans submitted to the City must be stamped and signed by a State of California registered civil engineer. Each sheet must be signed and stamped by the registered civil engineer.

6. A City title block (signature block) is required on the first sheet of the plans. A City revision block is required on all sheets. Use the enclosed City standard signature block.

7. Plans must be prepared in accordance with these requirements, City Standard Design Criteria and City Standard Provisions.

8. After the Public Works Department has approved and signed the original plans, 10 black line copies and one (4 mil) 24" by 36" Xerox mylar set of the signed originals are to be submitted to the City prior to the approval of the excavation permit. The engineer retains the signed originals and will need to as-built the 24" by 36" plans prior to acceptance of the work. As-built plans shall be submitted to the City within 30 days after completion of the work.

9. The engineer will also need to submit the as-built plans on electronic media, such as disks or CDs in AutoCAD Release 14 format, and the sheets must be provided as individual PDF files.

The City has GIS topographic maps of the surface improvements drawn at a resolution of 1"=100' in AutoCAD format that are available for the engineer's use, provided that the City's topographic information is not sold to others or copyrighted. These files include the City's GIS coordinate system. The City does not warrant the accuracy of the information contained on the City's topographic maps, record drawings, maps and plans on file with the City.

Because the City's topographic maps were drawn at resolution 1"=100' scale, the applicant will need to regenerate objects, such as arcs, turn off layers that are not needed, draw in missing information and redraw inaccurate information.

S. Telecommunication Lines

1. Master Encroachment Agreement:

   For public utility companies, a master encroachment agreement is required for the use of the right-of-way. After the master encroachment agreement is fully signed and executed, an excavation permit is required for each construction project. An encroachment agreement application for telecommunication companies is available at this office.

2. Bond:

   A faithful performance bond equal to 100 percent of the cost of the work is required by the encroachment agreement. Use the enclosed faithful performance bond form for excavation permits. A cost estimate of the work for the excavation, boring, trenching, paving, vaults, substructures, traffic control/staging, etc., shall be submitted with the excavation

permit application. See Section L for bond requirements.

3. Fees:

Plan check fee and inspection fee are each: 7.5 percent for work under $50,000; $3,750 plus 4.5 percent for work between $50,001 and $500,000; and $24,000 plus 3.5 percent for work over $500,000. The hourly excavation permit inspection fee rate that is noted on Page 1 is not applicable for large projects.

If the actual cost of inspection exceeds the inspection fee amount, the permittee shall pay the additional cost of inspection within 30 days of being invoiced by the City.

4. Joint-Build Projects

a. The Encroachment Agreement between the City of Mountain View and a telecommunications company for the installation of network facilities within public right-of-way provides that the same company will cooperate in the planning, locating and constructing of its network facilities in utility joint trenches or common duct banks by directional boring methods with other similar utilities providers and to participate in cost sharing for the joint trench and ducts, when two or more telecommunications service providers are proposing network facilities in the same public right-of-way or when an underground project is being planned by City. See Paragraph 37, Participation With Other Utilities," of the Encroachment Agreement.

b. While the installation of a fiber optics network system typically requires joint-build per the Encroachment Agreement, criteria for joint-build of fiber optics services to customers are not always clear. These guidelines, as depicted in the attached Exhibit 1, are intended to clarify the conditions that will trigger consideration for joint-build services.

c. Joint-build will be required for the following conditions:

- Fiber optics network system expansion (see Example A in Exhibit 1).
- Major service serving more than one customer and containing more than one conduit (see Example B in Exhibit 1).
- Single service exceeding 300' in length (see Example C in Exhibit 1).
- Service running parallel to streets with heavy concentration of existing utilities (see Example D in Exhibit 1).
- Single customer served by multiple telecommunications providers (see Example E in Exhibit 1).

5. Conceptual Route Approval

a. Prior to performing detailed design work, submit a written request with an 8.5" by 11" map of the proposed route of the utility line to this office. Include the telecommunication company's name, contact name, address, and telephone number and fax number. The City will determine if the route is acceptable and will then send the proposed route to other utility companies to see if joint construction work is required. (The City will not allow subsequent conduits to be installed along the proposed route for a period up to five years.)

b. The route should avoid residential areas, unless the lines will directly serve the residences.

c. For lines passing through the City, the route should be located on arterial streets.

6. Alignment within the Street

   a. The proposed utility lines are to be a minimum 5' clearance from existing parallel water, sewer or storm lines.

   b. Utility lines should be installed as close to the edge of the right-of-way line as practicable. Where the area behind the curb is fully occupied, the utility lines should be installed in the pavement area as close to the curb as possible in order to help preserve the remaining right-of-way.

   c. Telecommunication lines are typically required to be 3' to 4' on centers from other underground telecommunication lines in order to help preserve space within the existing right-of-way.

   d. Telecommunication lines are to be installed parallel to the street centerline, where practicable, and shall not meander along the street. Street crossings shall be at right angles to the street.

7. Directional Bore Design and Construction

   a. Plan and Profile Sheets. Standard civil engineering plan/profile sheets are required for direction bores. The plan view is to be located on the top of the page and the profile below the plan view. All existing utilities must be shown on the plan and profile views.

   b. Alignment Review: Submit preliminary plans showing the existing surface and subsurface improvements in the plan view based on as-built plans and field reviews. Show all laterals and services in the street. Show the proposed horizontal and vertical alignment of the bore in plan and profile view.

   c. Excavation Pot Hole Permit. Obtain an excavation permit to pothole the underground lines and services along the approved alignment to verify location and depth. The entire route must be USA'ed. An air vacuum pothole excavator will be required.

   d. Profiles: Add the profiles to the directional bore plans based on the pothole excavation information. Verify the USA markings to what is shown on the plans for omissions. Submit directional bore plan and profiles to the City for review and approval. Profiles shall be drafted on the plans to scale under the direction of a civil engineer. All pothole excavation data, such as location, pipe diameter, type of pipe, depth of cover, and other relevant information shall be shown on the revised plans. Specify the boring entry angle (typically 8 to 20 degrees), exit angle, (typically 5 to 10 degrees), and maximum bending radius of the drill pipe (80' to 150' or more depending upon the diameter and wall thickness of the drill pipe) and bending radius of the pipe product on the plans.

   e. Vertical Clearance: Provide 3' minimum vertical clearance from all utilities. This ***also*** includes minor services, such as, water services, sewer laterals and gas services. For creek crossings and other deep crossings, provide a minimum of 5' clearance from utilities and structures.

   f. Minimum Cover: Minimum cover for directional boring shall be as follows:

Diameter	Minimum Cover
6" or less	4'
8" to 14"	6'
15" to 24"	10'
25" to 48"	15'

   g. Boring and Receiving Pits: Show the length, width, depth and location of the boring and receiving pits on the plan and profiles. The pits are to be located to minimize the construction impact to the adjacent properties. For example, the pits are not to be located in front of driveways, restaurants, bus

stops, fire hydrants, within street intersections, etc.

h. Conflicts with Trees: If trees are in the way of the directional bore, the utility line shall be deep bored underneath the tree roots rather than around the tree.

i. Excavation Permit to Bore: After the plans are approved, obtain an excavation permit to install the directional bore work.

j. Marking Drill Path: Before commencing construction, the entire drill path of the proposed bore shall be accurately surveyed and marked on the ground with traffic marking paint, or other approved method, and shall be approved by the City before commencing construction. The saw-cut line for the boring and receiving pits shall also be accurately marked on the ground.

k. Pilot Hole Accuracy: The pilot hole shall be drilled a minimum 5 percent horizontal and vertical accuracy based on the depth of the bore. For example, a 10' deep bore must be drilled within 0.5' of the horizontal alignment (drill path) and 0.5' of the vertical alignment. Pilot holes exceeding the 5 percent accuracy requirement shall be pulled back past the point of deviation and redrilled to comply with this accuracy requirement.

l. Location and Depth Markings: While boring, the location and depth of the bore must be accurately marked on the surface with traffic paint or other approved method.

m. Mud Fractures: In the event of a mud fracture or return loss (loss of circulation) occurs during pilot hole operations, the contractor shall cease progression of the drilling operations, notify the City, and assess damage to existing pipes and pavement.

8. Trench Design and Construction

a. For open trench construction, telecommunication lines are to have a minimum of 30" cover above the top of the conduits, at least 6" between the top of the conduits and the bottom of the street structural pavement section, and a maximum depth of 48".

b. For open trench construction, telecommunication lines are to have a minimum of 12" of vertical clearance from other utility lines and services. For shallow trenches, the proposed lines will typically need to go underneath the existing lines. The proposed lines shall not be installed within 6" below the street structural section.

c. A modified "T" trench cut design is required. See Standard Detail A-18 and standard construction notes on excavation, backfill and resurfacing.

d. Typical trench and pothole restoration details must be shown on the plans.

e. Control density fill (CDF) is typically required for use as backfill. The CDF specifications in Section 24-02.04 of the Standard Provisions specify a one- to two-sack cement mix. The use of CDF speeds up the work, minimizes the length of traffic disruptions, and does not require compaction tests.

f. The conduits must have a 2" minimum clearance from the sides and bottom of the trench in order to allow the CDF to flow to the bottom of the trench and around the conduits. The contractor must insert spacers on the sides and bottom of the trench. Conduit quad-ducts must have at least 1" spacing between other quad-ducts to allow CDF to flow around the quad-ducts.

g. The conduits must be secured to the bottom of the trench when CDF is used as backfill to prevent the floatation of the conduits in the CDF mix.

h. CDF cannot be used as temporary surfacing, as the CDF cannot hold up to vehicle traffic without spalling. Reduction of the thickness of the permanent AC is not allowed when CDF is used as aggregate base rock.

i. The typical sequence of trench and excavation work in the street includes: saw-cutting the existing AC pavement, excavating of the bottom portion (vertical portion) of the "T" trench, installing the conduits, backfilling the trench with CDF mixture up to the bottom of the existing AC, plating the trench, neatly installing AC around the edges of the plates, and opening up the travel lanes for the public.

The CDF must be allowed to cure a minimum of 24 hours before the steel plates are removed. Within 48 hours, the steel plates must be removed and AC installed over the CDF backfill up to the finished grade. Cutback AC is not allowed as the lower portion of the AC will be used as permanent surfacing and as the Standard Provisions prohibit its use.

The top 1.5" section of the AC (the top of the "T" trench) is removed by grinding. This includes the 1' wide band beyond the outside edge of the trench and manhole excavations, and the intervening pavement between the trench and lip of gutter (or edge of another trench) where the intervening pavement is 6' wide or less. A 1.5" thick AC overlay is then installed using an AC paving machine and steel rollers. Cutback AC is not allowed. If CDF is not used, the top of the "T" trench must be as thick as the existing AC pavement.

If manholes are installed in the trench, the top of the manhole frame and cover must be installed 1.5" below the finished grade. The temporary AC is to be placed over the manholes to finished grade, temporarily covering the manholes. After the final pavement has been installed over the manholes, the manhole frames and covers are raised to grade.

9. <u>Separate Excavation Permit to Install Cables</u>

For large projects, the excavation permit to install the conduits will not grant approval for the installation of any cables. A separate excavation permit must be obtained from the City to install cables within the underground conduits. Prior to obtaining a permit to install any cables, the lead utility company must complete all work to be performed under the initial excavation permit to install the conduits, including final restoration of the street and sidewalk. On joint build projects, the secondary utility companies will not be allowed to install cables until the restoration work is complete, except when the secondary utility company is only installing a service to a single site.

10. <u>Vaults</u>

a. Vaults shall be placed in the sidewalk, street planter strip or public utility easements. Vaults shall not be placed in the street, unless they are converted to manhole with a circular frame and cover. Vaults shall not be placed within a driveway approach.

b. Vaults shall be placed to minimize their impact on the adjacent property, such as placing the vault next to the side property line, or placing the vault away from main entrance features. For properties with small landscape areas or well-manicured landscaping, the vaults should be placed in the sidewalk to minimize their impact on the landscaping. Multiple vaults within a sidewalk area, fronting a single lot, will not be allowed.

c. Very large vaults should be placed on private property (within a private easement) and not within the street or sidewalk area.

d. Vaults and bore pits are to be at least 15' from a street corner or end of curb return. Street corners or curb returns are heavily used during construction and maintenance, are highly visible areas and are often heavily congested with facilities.

e. Where the proposed vault conflicts with small diameter line, such as street light conduit lines, and where there is no other room behind the curb to install the vault, the small diameter lines are to be relocated around the proposed vault.

f. Where vaults are installed on an earthen or landscaped slope, the frame and cover shall be sloped to match the existing grade. Retaining walls shall not be installed in the slope.

g. Vaults shall be designed to withstand at least H20 vehicle loads.

h. A detail of the vault must be shown on the plans. Aggregate base rock is to be placed on the bottom of the vault to help drain the vault.

11. Manholes

a. Manholes shall not be allowed in the street, unless an exception is granted by the City. An exception will only be allowed if there is no room to place the manhole outside of the street pavement.

b. Manholes that are located in the street must have cast iron frames and covers.

c. Manholes that are located in sidewalks shall have a concrete polymer frame and cover that matches the color and texture of the sidewalk.

d. All manholes must be rated for a minimum H20 wheel load.

e. The utility company's name shall be permanently cast into or engraved on the covers.

f. A detail of the manhole must be shown on the plans. Aggregate base rock is to be placed on the bottom of the manhole to help drain the vault.

g. RPM extension rings are required on manholes as follows:

(1) Pavement areas: at least one 6" and one 3" RPM extension ring is required to facilitate leveling of the manhole frame and cover, and to lower the vault structure so that it is out of the pavement structural section. Additional 3" and/or 6" RPM extension rings shall be installed as necessary to keep the vault structure out of the pavement structural section and 6" below the pavement structural section.

(2) Sidewalk areas: at least one 6" RPM extension ring is required to facilitate leveling of the manhole frame and cover.

(3) Landscape areas: at least one 6" RPM extension rings is required.

T. Groundwater Monitoring Wells

In addition to an excavation permit, an encroachment agreement is required for any wells constructed within the public right-of-way. The applicant should make every effort to install the wells on private property rather than the City right-of-way. If the wells must be located in the street right-of-way, the wells are generally not permitted within the street pavement as the well boxes interfere with the City's street asphalt overlay program. Further, the City prefers the wells to be located outside of the sidewalk, if possible. It is strongly recommended that the City conceptually approve the location of the wells before the legal description of the encroachment area is prepared. Wells are to be placed at least 5' from

other utilities. The following items are required to prepare the encroachment agreement.

1. A determination of whether the City has an easement for street purposes or owns the right-of-way in fee in the area where wells are proposed to be installed.

2. If the City's street right-of-way is in the form of an easement where a new well is proposed to be installed, the applicant will need to obtain written permission from the adjacent property owner to install the well. According to the City Attorney's Office, a street easement does not give the City the right to permit installation of a well as a well is not considered to be typical street or utility usage.

3. The number of years the wells are anticipated to be in place. The life of the encroachment agreement can be specified to be 5, 10, 15 and 20 years.

4. Legal description of the encroachment area prepared by a registered land surveyor or civil engineer. For wells, a 10' by 10' square area is typically defined as the encroachment area.

5. Plat (8.5" by 11" drawing of the encroachment area prepared by a registered land surveyor or civil engineer). The plat is to include the street centerline, point of beginning of the legal description, bearings and distances, street curb and sidewalk if applicable.

6. Current deed or title report of the property that will be responsible for the well or property for which the wells are required. The legal description of the property in the deed or title report will be used in the encroachment agreement.

7. Statement as to who is the lead regulatory agency in charge of the groundwater investigations.

8. Statement as to who will own and maintain the wells. The well owner's legal name, identity (such as ABC, Inc., a California corporation) and address are required.

9. Well owner's insurance certificate and endorsement. (This is in addition to the contractor's insurance certificate required by the excavation permit.)

10. Encroachment permit fee.

11. Encroachment agreement which must be signed and notarized by the owner before the City can issue an excavation permit.

12. If the wells are located on City property, securities, such as bonds, are required.

The excavation permit requirements are indicated on Pages 1 and 2. The following is also required with the excavation permit application:

a. Well construction typical details.

b. Well construction permit from the Santa Clara Valley Water District.

U. Groundwater Extraction Systems

Groundwater extraction systems require an encroachment agreement in addition to an excavation permit. The items needed to prepare an encroachment agreement are the same as those listed in the preceding section on monitoring wells, except that the following is also required:

1. Cost estimate of the improvements within the street right-of-way.

2. For minor extraction systems, such as an extraction line that crosses a street, bonds or securities are not required. For major extraction systems, such as an extraction line that is located parallel to the street and for encroachments located on City property (not street right-of-way), the following three securities are required:

   a. Faithful performance bond equal to 100 percent of the cost of the work.

   b. Labor and materials bond equal to 100 percent of the cost of the work.

c. In lieu of a faithful performance bond and labor and materials bond, a single letter of credit or certificate of deposit equal to 150 percent of the cost of the work may be submitted.

d. Closure certificate of deposit equal to 100 percent of the cost to remove the extraction system. The cost to remove and/or abandon the extraction system shall not be less than 40 percent of the construction cost.

3. Plan check and inspection fees are based on a percentage of the work. These fees replace the hourly inspection fees noted in Section D on Page 15.

4. The plans for extraction systems with piping parallel to the street shall be drawn on 24" by 36" size sheets. After the City has approved and signed the plans, 10 copies and one Xerox Mylar copy of the originals are to be submitted prior to the approval of the excavation permit.

5. The owner of the extraction system will need to become a member of Underground Service Alert. The telephone number of the USA regional notification center is (800) 642-2444.

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EXCAVATION PERMIT APPLICATION

City of Mountain View • Public Works Department • Land Development Section
500 Castro Street • P.O. Box 7540 • Mountain View, California, 94039-7540
Telephone (650) 903-6311 • FAX (650) 903-6499

Please see previous instructions for items to be submitted with this application.

INSURANCE CERTIFICATES WITH ADDITIONAL ENDORSEMENT MUST BE ATTACHED.

Excavation Permit No. _____

A. General Information (Please print or type)

Street Address: _____ Date: _____

Site location if different from address: _____

Description of the Work: _____

_____

_____

Work is scheduled to begin on _____ (date) and be completed by _____ (date).

For large projects, specify the number of working days to complete all work: _____

USA Identification No. (if work is scheduled to begin within the next two weeks): _____

Is this work related to a building permit? Y/N ____ If yes, date issued: _____ Building Permit No. _____

APPLICANT'S SIGNATURE: _____ Company Name: _____
(Print)

B. Permittee/Contractor's Information (if separate, provide both)

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Contact Person's Name: _____ Telephone No. _____

Emergency Telephone No. _____ Fax No. _____

State Contractor License No. _____ **City Business License No.** _____

E-Mail: _____

C. Owner's Information

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Contact Person's Name: _____ Telephone No. _____

E-Mail: _____ Fax No. _____

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D. **Hourly Plan Check and Inspection Fee Calculation** **Excavation Permit No.** _____

Quantity	Item	Plan Check/Inspection Hours/Each			Total
_____	Water Service	x	6	=	_____
_____	Water Meter	x	4	=	_____
_____	Water Meter Manifold	x	4	=	_____
_____	Backflow Preventor	x	4	=	_____
_____	Fire Service	x	8	=	_____
_____	Abandonment of 2" or smaller water service	x	5	=	_____
_____	Abandonment of 4 or larger water service	x	6	=	_____
_____	Sanitary Sewer Lateral	x	7	=	_____
_____	Sanitary Sewer Manhole	x	7	=	_____
_____	Abandonment of Sanitary Sewer Lateral	x	4	=	_____
_____	Face of Curb Drain	x	5	=	_____
_____	Storm Lateral to Main	x	7	=	_____
_____	Storm Lateral to Back of Drainage Inlet	x	5	=	_____
_____	Storm Manhole	x	7	=	_____
_____	Monitoring or Extraction Well	x	5	=	_____
_____	Soil Boring, Soil Gas Probe	x	4	=	_____
_____	Private Street Utility Crossing	x	8	=	_____
_____	Utility Company (General Permit Work)	x	3	=	_____
_____	_____	x	____	=	_____
_____	_____	x	____	=	_____
	Total Hours (three-hour minimum)			=	_____

Finance Department
Date Fee Paid

Receipt No. _____

Fee = Total Hours _____ x $115.00/hr = _____
Account No. 223595-41415 (PWEXLD) (50%) = _____
Account No. 223057-41415 (PWEXCI) (50%) = _____

Full Cost Recovery Permits (e.g., fiber-optic)
Fee = Total Hours _____ x $115.00/hr = _____
Account No. 223595-41415 (PWFCLD) (50%) = _____
Account No. 223057-41415 (PWFCCI) (50%) = _____

Public Sidewalk Permit Fee (attach calculation sheet) = _____
Account No. 223057-42704 (PWSDWK)

E. **Plan Check and Construction Inspection Fees (when required)**

Plan check fee (based on construction cost estimate $_____) = _____
7.5% of Construction Cost (CC) under $50,000; $3,750 + 4.5% of CC between $50,001 and $500,000; and $24,000 + 3.5% of CC over $500,000 Account No. 223595-42703 (PWPC)

Construction inspection fee (based on construction cost estimate $_____) = _____
7.5% of Construction Cost (CC) under $50,000; $3,750 + 4.5% of CC between $50,001 and $500,000; and $24,000 + 3.5% of CC over $500,000 Account No. 223057-42706 (PWCONS)

F. **Request to Connect to City Storm Drain (Code Section 35.31.6)**

❑ Applicant must pay storm drainage fee. Fee = Net Sq. Ft. of Lot _____ x $0.24 = _____
Account No. 741200-43601 (PWSTRM)

G. **Encroachment Permit Fee**

_____ number of applications multiplied by $834 for residential; $1,525 for nonresidential; or $658 for temporary = _____
Account No. 223595-41414 (PWENCR)

_____ number of debris box permits at $89 each = _____
Account No. 223595-41414 (PWENDB)

TOTAL FEES DUE = _____

Insurance Requirements

August 27, 2001

City of Mountain View ◦ Public Works Department ◦ Land Development Engineering
Tele (650) 903-6311 ◦ FAX (650) 903-6499 ◦ www.ci.mtnview.ca.us

The following insurance requirements apply to permits and agreements used by Land Development Engineering of the Public Works Department. These insurance requirements do not apply to City contract construction projects, which have more stringent requirements. For excavation permits, the Permittee must provide the insurance. For agreements, the entity that signs the agreement must provide the insurance. Major construction projects require higher insurance coverage limits than the $1,000,000 noted above.

1. Workers' Compensation Insurance:

   APPLICANT shall obtain statutory Workers' Compensation insurance and Employer's Liability insurance in the amount of One Million Dollars ($1,000,000) per accident.

2. Commercial General Liability/Automobile Liability Insurance:

   APPLICANT shall obtain Commercial General Liability insurance, including operations, products and completed operations, and Automobile Liability insurance in the amount of One Million Dollars ($1,000,000) per occurrence. If a general aggregate limit is used, either the general aggregate limit shall apply separately to *this AGREEMENT/PERMIT* or the general aggregate limit shall be twice the required occurrence limit. *APPLICANT's* insurance coverage shall be written on an occurrence basis.

3. Acceptability of Insurers: Insurance is to be placed with insurers with a current *Best* rating of A: VII unless otherwise acceptable to CITY.

4. Verification of Coverage: Insurance, deductibles or self-insurance retentions shall be subject to CITY's approval. Original Certificates of Insurance with Endorsements shall be received and approved by CITY before work commences, and insurance must be in effect for the duration of *this AGREEMENT/PERMIT*. The absence of insurance or a reduction of stated limits shall cause all work on the project to cease. Any delays shall not increase costs to the CITY or increase the duration of the project.

5. Other Insurance Provisions

   a. The City of Mountain View, its officers, officials, employees and volunteers are to be covered as additional insured by Endorsement CG 20 10 10 93, for commercial general liability coverage.

   b. For any claims related to this project, *APPLICANT's* insurance coverage shall be primary.

   c. Each insurance policy required shall be endorsed that a thirty (30) day notice be given to CITY in the event of cancellation or modification to the stipulated insurance coverage.

   d. It shall be the responsibility of *APPLICANT* to ensure that all subcontractors comply with the same insurance requirements that are stated in this *AGREEMENT/PERMIT*.

Insurance Certificate Example

August 27, 2001

ACORD™ CERTIFICATE OF LIABILITY INSURANCE — DATE (MM/DD/YY)

PRODUCER
Name of Producer *(Insurance Agent)*
Address
Telephone No.

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

INSURERS AFFORDING COVERAGE

INSURED
Name of Insured *(Permittee, Contr., Developer *)*
Address
** As required by permit, agreement, etc.*

INSURER A:	Name of Insurer *(Insurance Companies must*
INSURER B:	Name of Insurer *have a minimum Best's Rating*
INSURER C:	Name of Insurer *of A and a Financial*
INSURER D:	*Performance Rating of VII.)*
INSURER E:	

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
A	GENERAL LIABILITY [X] COMMERCIAL GENERAL LIABILITY [ ] CLAIMS MADE [X] OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: [ ] POLICY [X] PRO-JECT [ ] LOC	GL00000000 *(Gen. Liability Policy No.)*	Begin Date	Expiration Date	EACH OCCURRENCE FIRE DAMAGE (Any one fire) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 1,000,000 $ $ $ 1,000,000 $ 2,000,000 $
B	AUTOMOBILE LIABILITY [X] ANY AUTO [ ] ALL OWNED AUTOS [ ] SCHEDULED AUTOS [ ] HIRED AUTOS [ ] NON-OWNED AUTOS	AL00000000 *(Auto Liability Policy No.)*	Begin Date	Expiration Date	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 1,000,000 $ $ $
	GARAGE LIABILITY [ ] ANY AUTO				AUTO ONLY - EA ACCIDENT OTHER THAN AUTO ONLY: EA ACC AGG	$ $ $
	EXCESS LIABILITY [ ] OCCUR [ ] CLAIMS MADE [ ] DEDUCTIBLE [ ] RETENTION $				EACH OCCURRENCE AGGREGATE	$ $ $ $ $ $
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY	WC0000000 *(Workers Comp. Policy No.)*	Begin Date	Expiration Date	[X] WC STATU-TORY LIMITS [ ] OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	 $ 1,000,000 $ 1,000,000 $ 1,000,000
	OTHER					

Must be "occurrence"

Large projects may require higher coverage.

$1,000,000 general aggregate limit is required is if the limit is applied separately to the permit, agreement, etc. $2,000,000 general aggregate limit is required for insurance written on an occurrence basis.

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/EXCLUSIONS ADDED BY ENDORSEMENT/SPECIAL PROVISIONS

Job: City of Mountain View; All California Operations.

The certificate holder should be made out to the attention of the "Public Works Dept.-Land Development". This will help prevent your certificates from being sent to the wrong department within the City.

CERTIFICATE HOLDER | Y | ADDITIONAL INSURED; INSURER LETTER: A

City of Mountain View
P.O. Box 7540
Mountain View, CA 94039-7540
Attn: Public Works Dept - Land Development

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

© ACORD CORPORATION 1988

Commercial General Liability Endorsement Example

August 27, 2001

POLICY NUMBER: GL00000000 COMMERCIAL GENERAL LIABILITY

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED -- OWNERS, LESSEES OR CONTRACTORS (FORM B)

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART.

SCHEDULE

Name of Person or Organization:

City of Mountain View
PO Box 7540
Mountain View, CA 94039-7540
Attn: Public Works Dept. - Land Development

(If no entry appears above, the information required to complete this endorsement will be shown in the Declaration as applicable to this endorsement.)

WHO IS AN INSURED (Section II) is amended to include as an insured the person or organization shown in the Schedule, but only with respect to liability arising out of your ongoing operations performed for that insured.

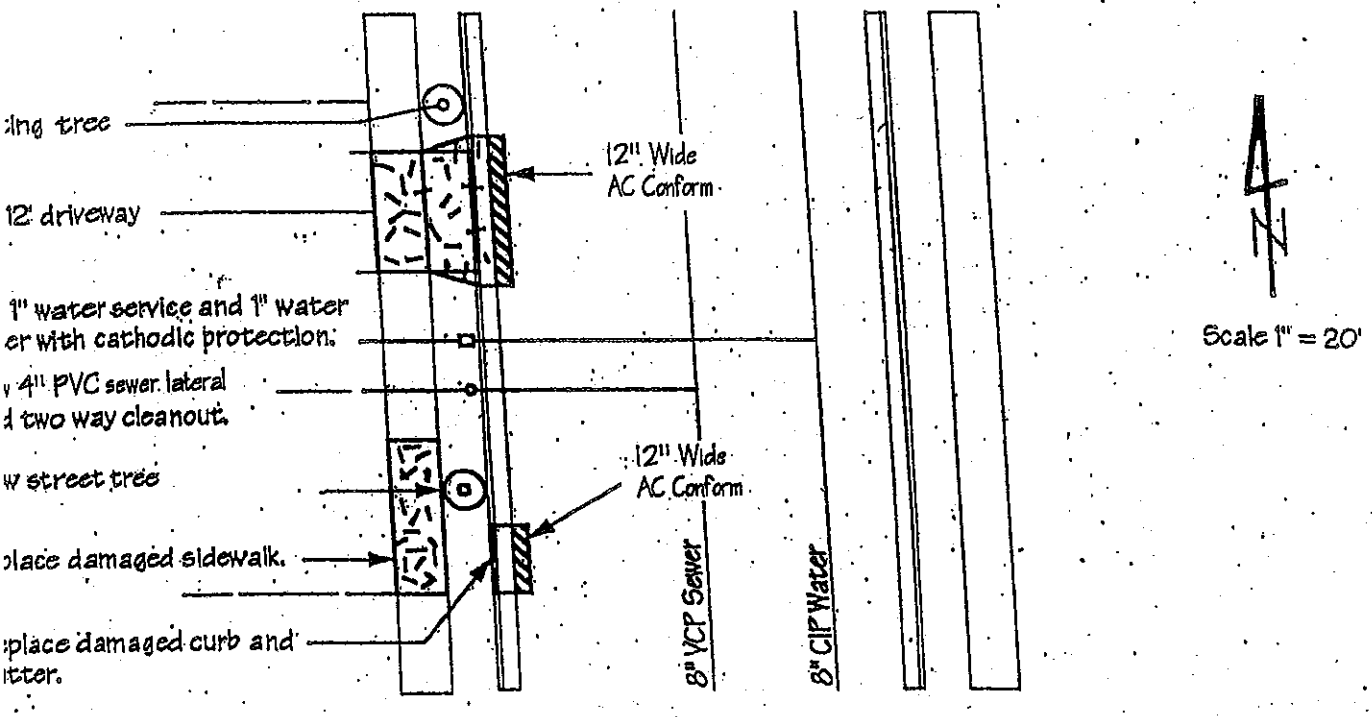
a. **The City of Mountain View, its officers, officials, employees and volunteers are to be covered as additional insureds.**

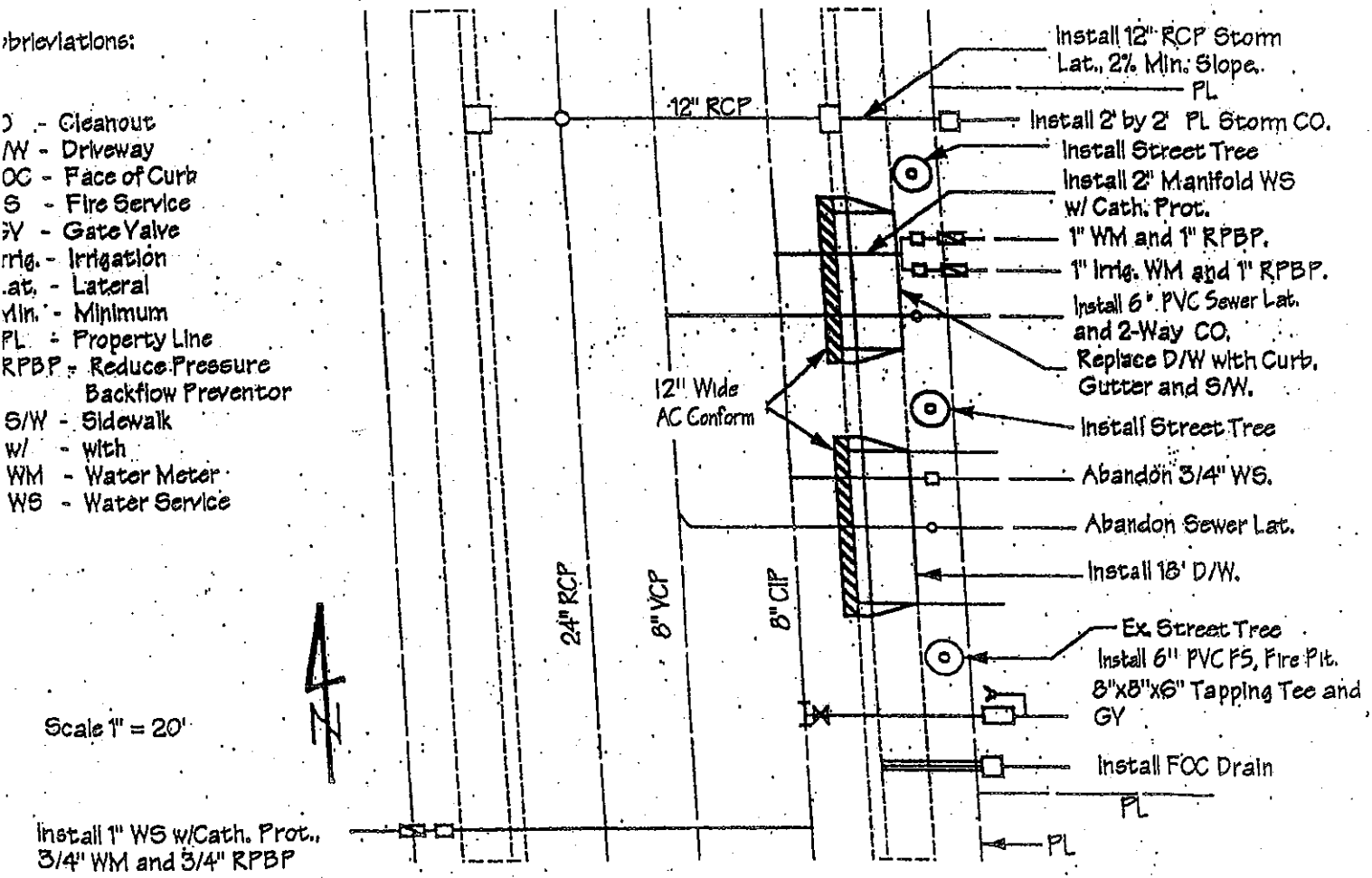
b. **For any claims related to this project, named insured's insurance coverage shall be primary.**

c. **Each insurance policy required shall be endorsed that a thirty (30) day notice be given to CITY in the event of cancellation or modification to the stipulated insurance coverage.**

SAMPLE EXCAVATION PERMIT PLANS

City of Mountain View
Public Works Department- Operations Section





4/22/94

SPECIFICATIONS FOR CONSTRUCTION SIGNS

	Standard Size	Acceptable Reduced Size	HEIGHT OF LETTERS	
			Standard	Reduced Size
	48" x 48" (1.2m x 1.2m)	36" x 36" (.9m x .9m)	8" (200mm)	5" (125mm)
	48" x 30" (1.2m x .75m)	36" x 24" (.9m x .6m)	8" (200mm)	5" (125mm)
	—	48" x 24" (1.2m x .6m)	6"-5"-4" (150-125-100mm)	5"-4"-3" (125-100-75mm)
	—	48" x 24" (1.2m x .6m)	4"-3" (100mm x 125mm)	3"-3" (75-125mm)
	24" x 24" (.6m x .6m)	—	6" (125mm)	—
	48" x 18" (1.2m x .5m)	—	6" (150mm)	—
	30" x 30" (.75m x .75m)	—	5" (125mm)	—
	30" x 18" (.75m x .5m)	—	5" (125mm)	—
	36" x 36" (.9m x .9m)	30" x 30" (.75m x .75m)	5"	4" (100mm)
	48" x 48" (1.2m x 1.2m)	36" x 36" (.9m x .9m)	—	—
	30" x 30" (.75m x .75m)	—	5" (125mm)	—
	48" x 48" (1.2m x 1.2m)	—	7" (180mm)	—
	60" x 24" (1.5m x .6m)	42" x 18" (1.1m x .5m)	6" (150mm)	5" (125mm)
	42" x 18" (1.1m x .5m)	—	5" (125mm)	—
	48" x 48" (1.2m x 1.2m)	36" x 36" (.9m x .9m)	7" (180mm)	5" (125mm)
7 (Front)	24" x 24" (.6m x .6m)	—	3" - 18" (75 x 250mm)	—
(Back)	24" x 24" (.6m x .6m)	—	4"-4"-3" (100-200-75mm)	—
1	48" x 48" (1.2m x 1.2m)	36" x 36" (.9m x .9m)	7" (180mm)	5" (125mm)
0 (RL or LL)	48" x 48" (1.2m x 1.2m)	36" x 36" (.9m x .9m)	6" (150mm)	5" (125mm)
1	48" x 48" (1.2m x 1.2m)	36" x 36" (.9m x .9m)	7" (180mm)	5" (125mm)
22B	30" x 30" (.75m x .75m)	—	—	—
23	30" x 30" (.75m x .75m)	—	5" (125mm)	4" (100mm)
24	30" x 30" (.75m x .75m)	—	4" (100mm)	—
25	30" x 30" (.75m x .75m)	—	5" (125mm)	4" (100mm)
27	24" x 24" (.6m x .6m)	—	4" (100mm)	—
28A	18" Diameter (.5m)	—	6" (150mm)	—
28B	18" Diameter (.5m)	—	6" (150mm)	—
29	36" x 9" (.9m x .2m)	24" x 7" (.6m x .2m)	7" (180mm)	5" (125mm)
30	36" x 36" (.9m x .9m)	30" x 30" (.75m x .75m)	6" (150mm)	5" (125mm)
36	48" x 48" (1.2m x 1.2m)	36" x 36" (.9m x .9m)	7" (180mm)	5" (125mm)

(Note: C1, C3, C9, C16, C18, C19, C20 and C21 signs may be used with the appropriate C29 sign.)

CONSTRUCTION SIGNS

C1

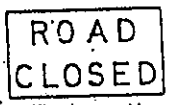
Use when traffic is diverted to a temporary roadway or route.

C3

Use where detour is provided. Use plate to show distance.

C3A

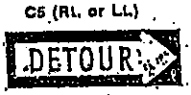
C2



Use where road is closed to through and local traffic.

C4

C5 (RL or LL)



Use only where traffic is diverted to an alternate route.

C5 (SL)

CONSTRUCTION SIGNS

C6

C7

C8

C9A

C10

C12

C13

C14

CONSTRUCTION SIGNS

C16

Use where two-way traffic must use the same lane. Provide flaggers. See C9A.

C17

FRONT

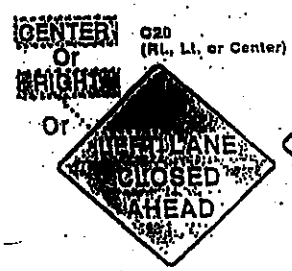
BACK

Placement and speed limit to be determined by Agency authorization.

C19

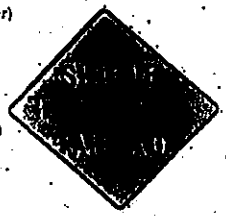
Use with C1 if detour is provided.

CONSTRUCTION SIGNS



C20 (RL, LL or Center)

C21



Not for use where two-way traffic must use the same lane. (See C16)

C22B

C23

Use for minor construction or maintenance.

C24

C25

CONSTRUCTION SIGNS

C27

C28B

C29

The 500 feet (150m), 1000 feet (300m), 1500 feet (450m) plate (C29) may be used to cover the word "AHEAD" on construction signs when a definite distance to the posted condition is desirable.

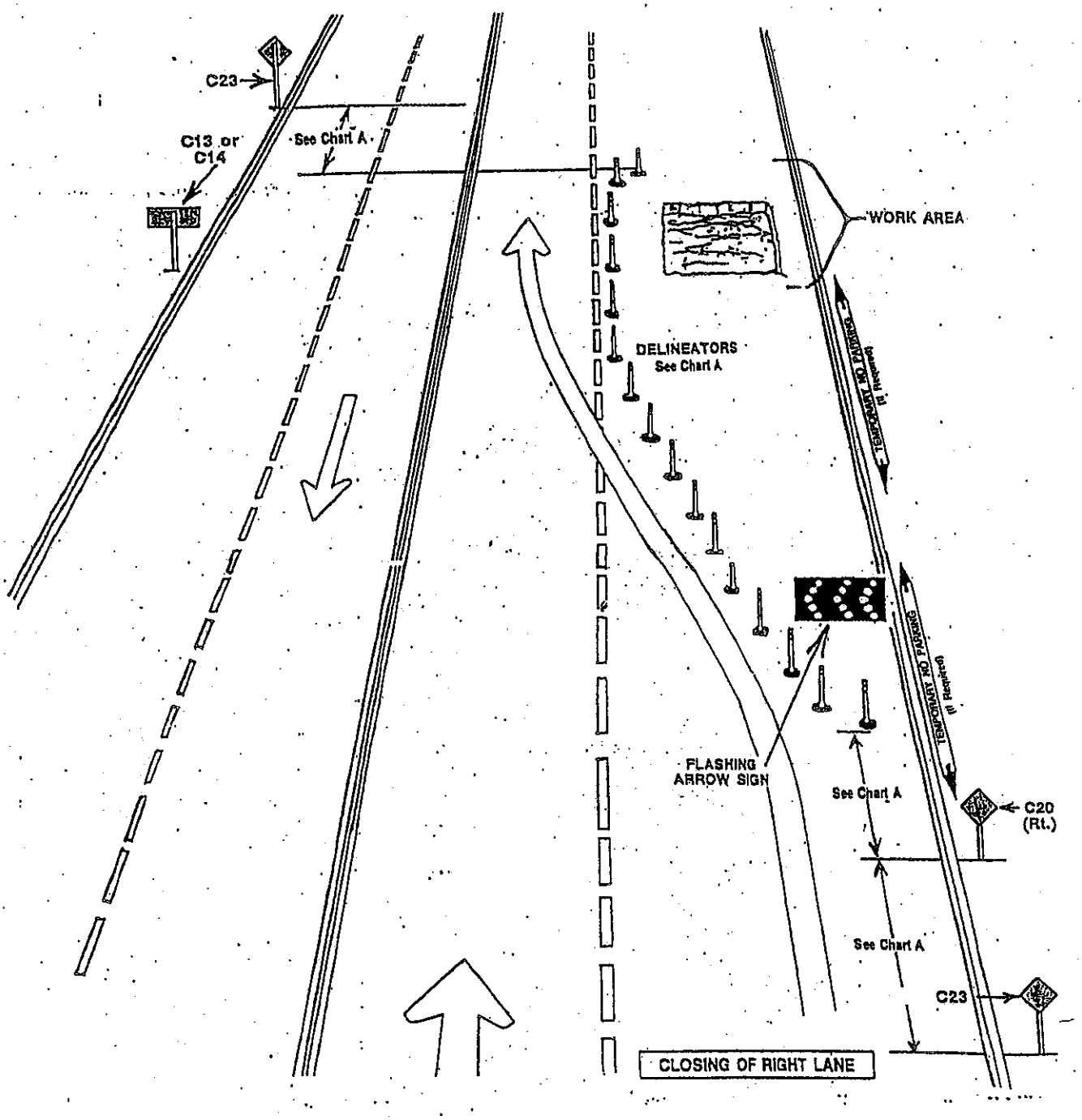
C30

Mount on barricade in head-on position at point of closure.

C36

8/8/08

TRAFFIC CONTROL PLAN EXAMPLE
FOUR LANE STREET -- CLOSING OF RIGHT LANE



— CHART A —
MINIMUM RECOMMENDED DELINEATOR AND SIGN PLACEMENT

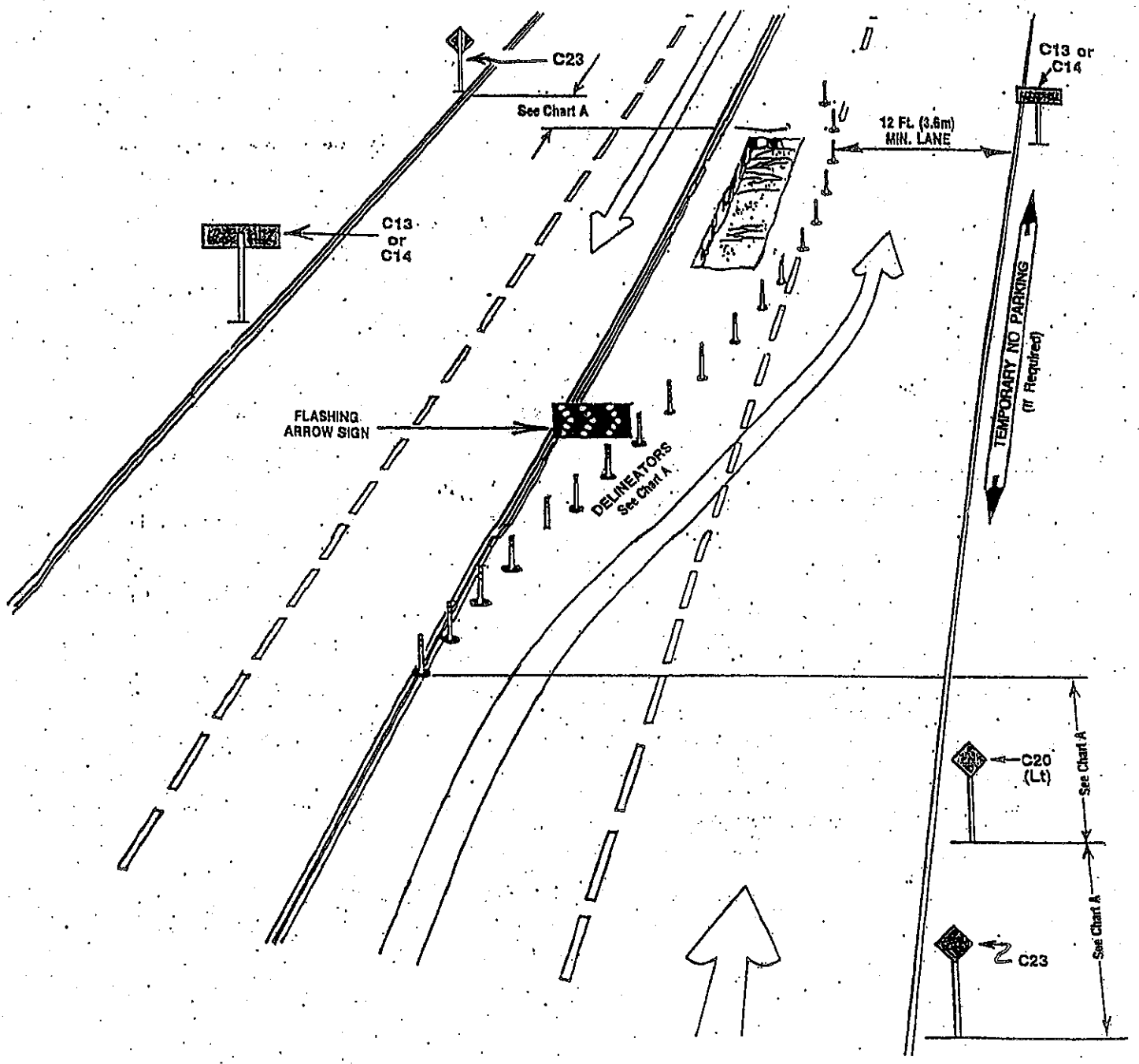
TRAFFIC SPEED	TAPER LENGTH (Each Lane)	DELINEATOR SPACING (Taper)	DELINEATOR SPACING (Tangent)	SIGN SPACING (Advance of Taper & Between Signs)
25 MPH (40 Km/h)	150 Ft. (50m)	25 Ft. (8m)	50 Ft. (15m)	150 Ft. (50m)
30 MPH (45 Km/h)	200 Ft. (60m)	30 Ft. (9m)	60 Ft. (18m)	200 Ft. (60m)
35 MPH (50 Km/h)	250 Ft. (75m)	35 Ft. (11m)	70 Ft. (21m)	250 Ft. (75m)
40 MPH (60 Km/h)	350 Ft. (110m)	40 Ft. (12m)	80 Ft. (24m)	350 Ft. (110m)
*45 MPH (70 Km/h)	550 Ft. (170m)	45 Ft. (14m)	90 Ft. (27m)	550 Ft. (170m)
*50 MPH (80 Km/h)	600 Ft. (180m)	50 Ft. (15m)	100 Ft. (30m)	600 Ft. (180m)
*55+MPH (85 Km/h)	1000 Ft. (300m)	50 Ft. (15m)	100 Ft. (30m)	1000 Ft. (300m)

*Notes: -See Section 8 for high speed situations.
-Distances shown in parentheses are approximate.

CLOSING OF RIGHT LANE

8/8/08

TRAFFIC CONTROL PLAN EXAMPLE
FOUR LANE STREET -- CLOSING OF CENTER OR LEFT LANE



— CHART A —
MINIMUM RECOMMENDED DELINEATOR AND SIGN PLACEMENT

TRAFFIC SPEED*	TAPER LENGTH (Each Lane)	DELINEATOR SPACING (Taper)	DELINEATOR SPACING (Tangent)	SIGN SPACING (Advance of Taper & Between Signs)
25 MPH (40 Km/h)	150 Ft. (50m)	25 Ft. (8m)	50 Ft. (15m)	150 Ft. (50m)
30 MPH (45 Km/h)	200 Ft. (60m)	30 Ft. (9m)	60 Ft. (18m)	200 Ft. (60m)
35 MPH (50 Km/h)	250 Ft. (75m)	35 Ft. (11m)	70 Ft. (21m)	250 Ft. (75m)
40 MPH (60 Km/h)	350 Ft. (110m)	40 Ft. (12m)	80 Ft. (24m)	350 Ft. (110m)
*45 MPH (70 Km/h)	550 Ft. (170m)	45 Ft. (14m)	90 Ft. (27m)	550 Ft. (170m)
*50 MPH (80 Km/h)	600 Ft. (180m)	50 Ft. (15m)	100 Ft. (30m)	600 Ft. (180m)
*55+MPH (85 Km/h)	1000 Ft. (300m)	50 Ft. (15m)	100 Ft. (30m)	1000 Ft. (300m)

*Notes: –See Section 8 for high speed situations.
–Distances shown in parentheses are approximate.

CLOSING OF LEFT LANE

AND

CLOSING OF CENTER OF STREET

Note: The closing of center of street may be accomplished by using the left lane closure in both directions of traffic.

8/8/08

TRAFFIC CONTROL PLAN EXAMPLE
TWO LANE STREET – WORK AREA IN PARKING OR SHOULDER

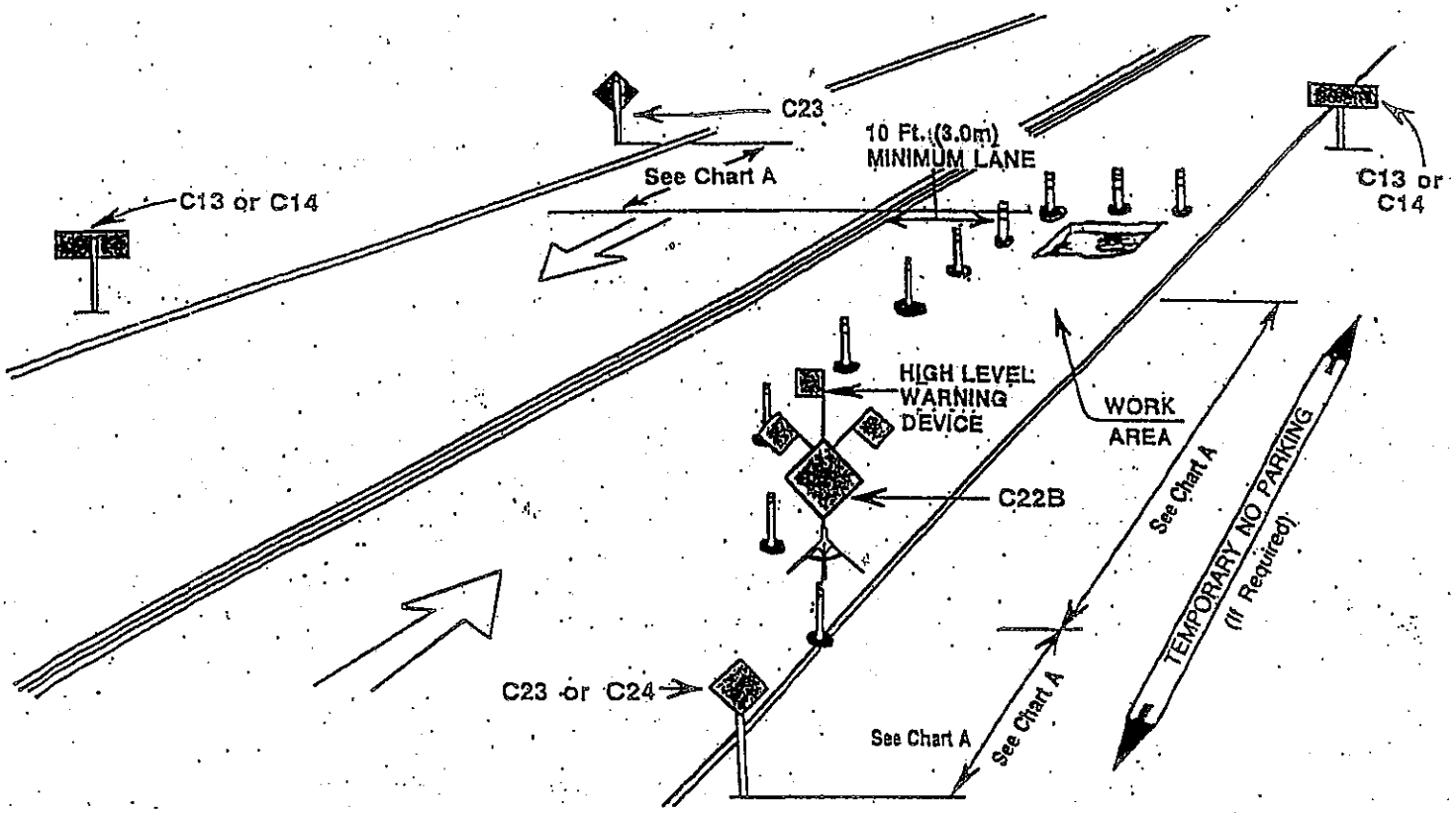


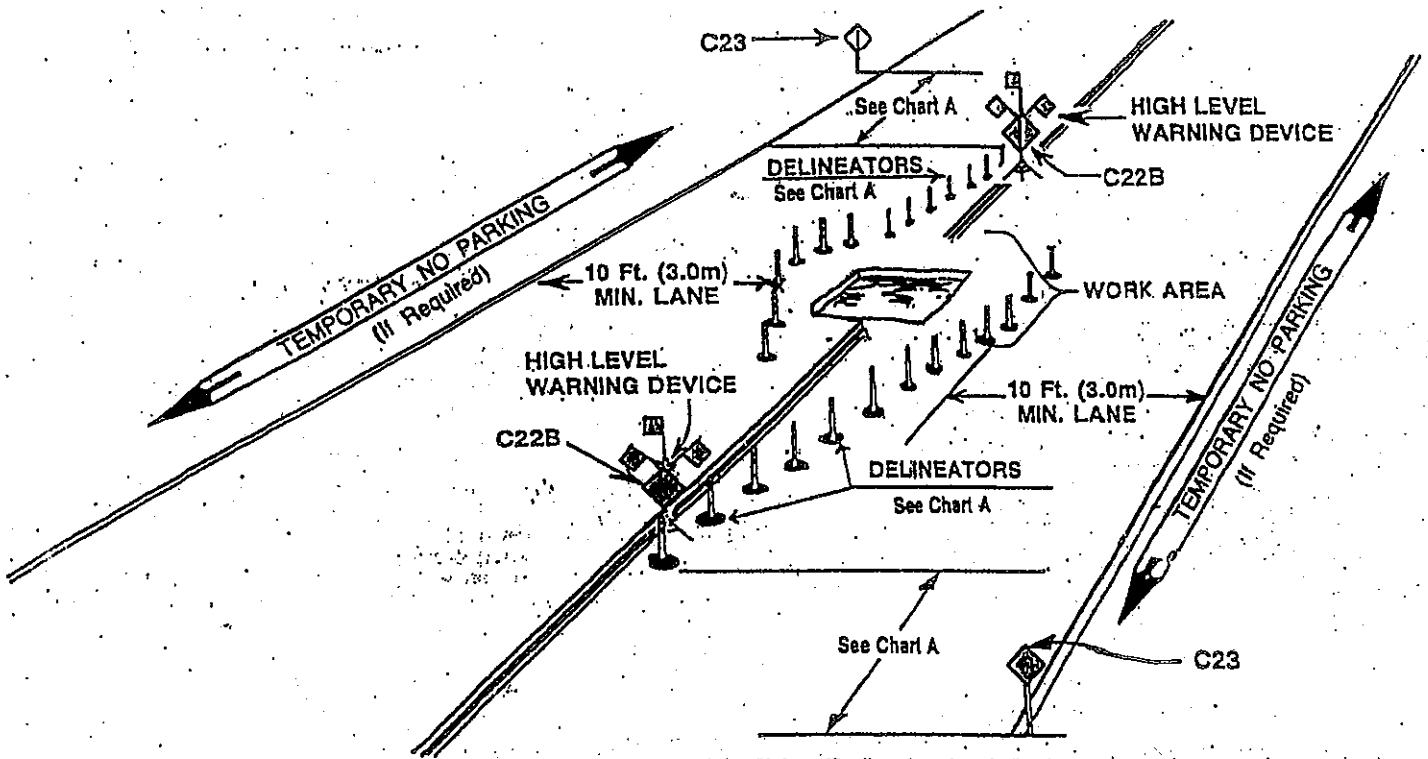
CHART B — PARKING LANE OR SHOULDER				
TRAFFIC SPEED	TAPER LENGTH (Each Lane)	DELINEATOR SPACING (Taper)	DELINEATOR SPACING (Tangent)	SIGN SPACING, (Advance of Taper & Between Signs)
25 MPH (40 Km/h)	50 Ft. (15m)	25 Ft. (8m)	50 Ft. (15m)	50 Ft. (15m)
30 MPH (45 Km/h)	66 Ft. (20m)	25 Ft. (8m)	50 Ft. (15m)	66 Ft. (20m)
35 MPH (50 Km/h)	83 Ft. (25m)	25 Ft. (8m)	50 Ft. (15m)	83 Ft. (25m)
40 MPH (60 Km/h)	116 Ft. (35m)	25 Ft. (8m)	50 Ft. (15m)	116 Ft. (35m)
*45 MPH (70 Km/h)	183 Ft. (56m)	25 Ft. (8m)	50 Ft. (15m)	183 Ft. (56m)
*50 MPH (80 Km/h)	200 Ft. (61m)	25 Ft. (8m)	50 Ft. (15m)	200 Ft. (61m)
*55+MPH (85 Km/h)	333 Ft. (100m)	25 Ft. (8m)	50 Ft. (15m)	333 Ft. (100m)

*Notes: –See Section B for high speed situations.
–Distances shown in parentheses are approximate.

WORK AREA IN PARKING LANE OR SHOULDER

8/8/08

TRAFFIC CONTROL PLAN EXAMPLE
TWO LANE STREET – WORK AREA IN CENTER OF LOW SPEED STREET



Note: This traffic diversion plan shall only be used when work is in progress.

— CHART A —
MINIMUM RECOMMENDED DELINEATOR AND SIGN PLACEMENT

TRAFFIC SPEED	TAPER LENGTH (Each Lane)	DELINEATOR SPACING (Taper)	DELINEATOR SPACING (Tangent)	*SIGN SPACING (Advance of Taper & Between Signs)
25 MPH (40 Km/h)	150 Ft. (50m)	25 Ft. (8m)	50 Ft. (15m)	150 Ft. (50m)
30 MPH (45 Km/h)	200 Ft. (60m)	30 Ft. (9m)	60 Ft. (18m)	200 Ft. (60m)
35 MPH (50 Km/h)	250 Ft. (75m)	35 Ft. (11m)	70 Ft. (21m)	250 Ft. (75m)
40 MPH (60 Km/h)	350 Ft. (110m)	40 Ft. (12m)	80 Ft. (24m)	350 Ft. (110m)

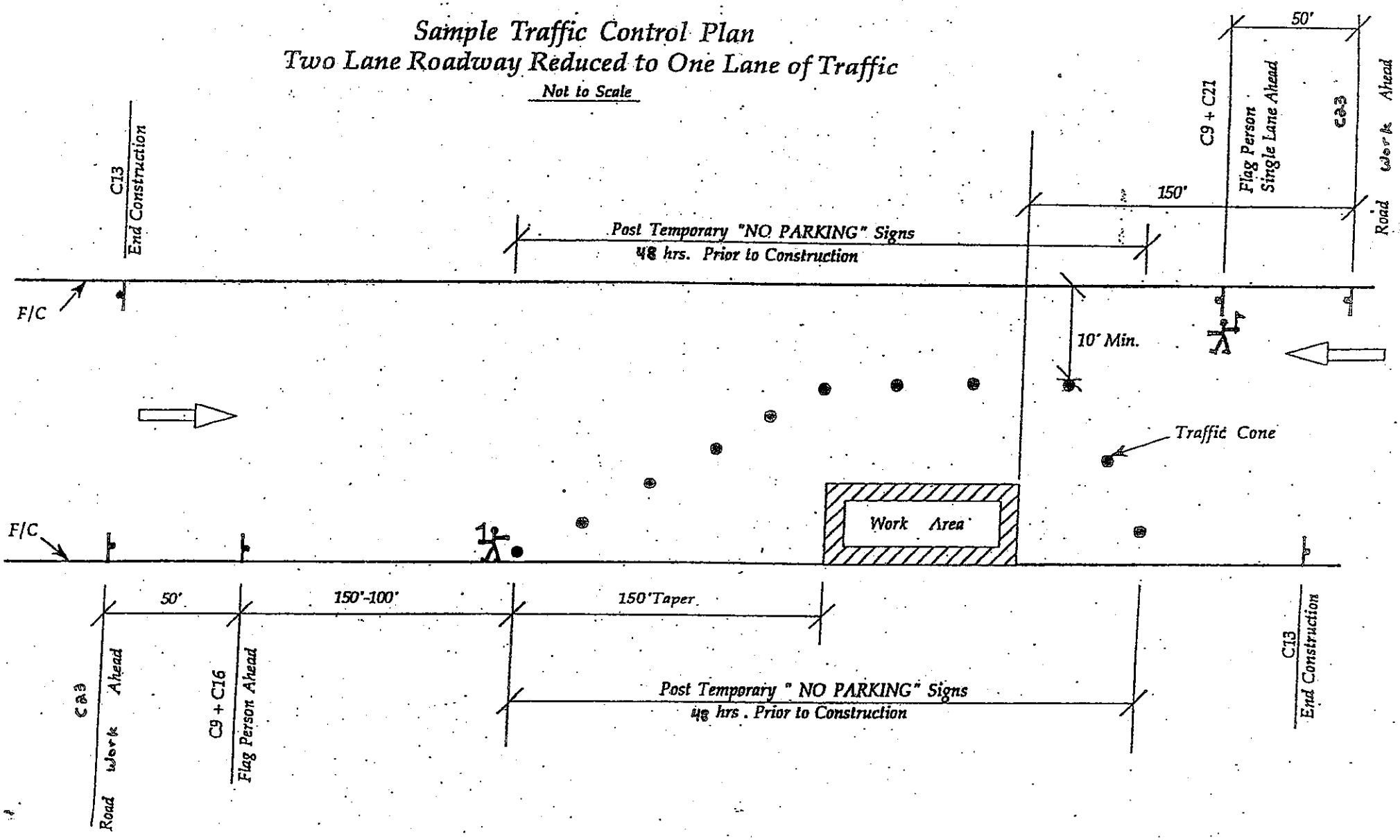
*Notes: –See Section 8 for high speed situations.
–Distances shown in parentheses are approximate.

WORK AREA IN CENTER OF LOW SPEED STREET

8/8/08

Sample Traffic Control Plan
Two Lane Roadway Reduced to One Lane of Traffic

Not to Scale



NOTES:

1- When a bicycle lane is delineated on the roadway, contractor shall provide a seperate bike lane through the construction zone.
2- Cone spacing is 20' Maximum.
3- This is generic sample of a construction zone, contractor shall provide their own traffic control plan based on specific project.
4- Use Caltrans manual of traffic controls for construction and maintenance work zones, as a reference for traffic control in construction areas.

8/10/94

Bond No. _____
Premium _____
Exc. Permit No. _____

CITY OF MOUNTAIN VIEW
FAITHFUL PERFORMANCE BOND FOR EXCAVATION PERMIT

KNOW ALL MEN BY THESE PRESENT;

That _____
_____ (hereinafter called "Principal") as Principal,
whose address is _____
_____
and _____
_____ (hereinafter called "Surety"),
whose address is _____
_____
incorporated under the laws of the State of _____, and duly authorized to do business in the State of California, as Surety, are held firmly bound unto the City of Mountain View, a California Charter City and municipal corporation of the State of California in the sum of _____
_____ DOLLARS, ($_____).
For payment whereof, well and truly to be made, said Principal and Surety bind themselves, their administrators, successors and assigns, jointly and severally, firmly by these presents.

The condition of the foregoing obligation is such that, whereas, the above bounden Principal has applied to the City of Mountain View for an excavation permit to perform certain work described as follows:

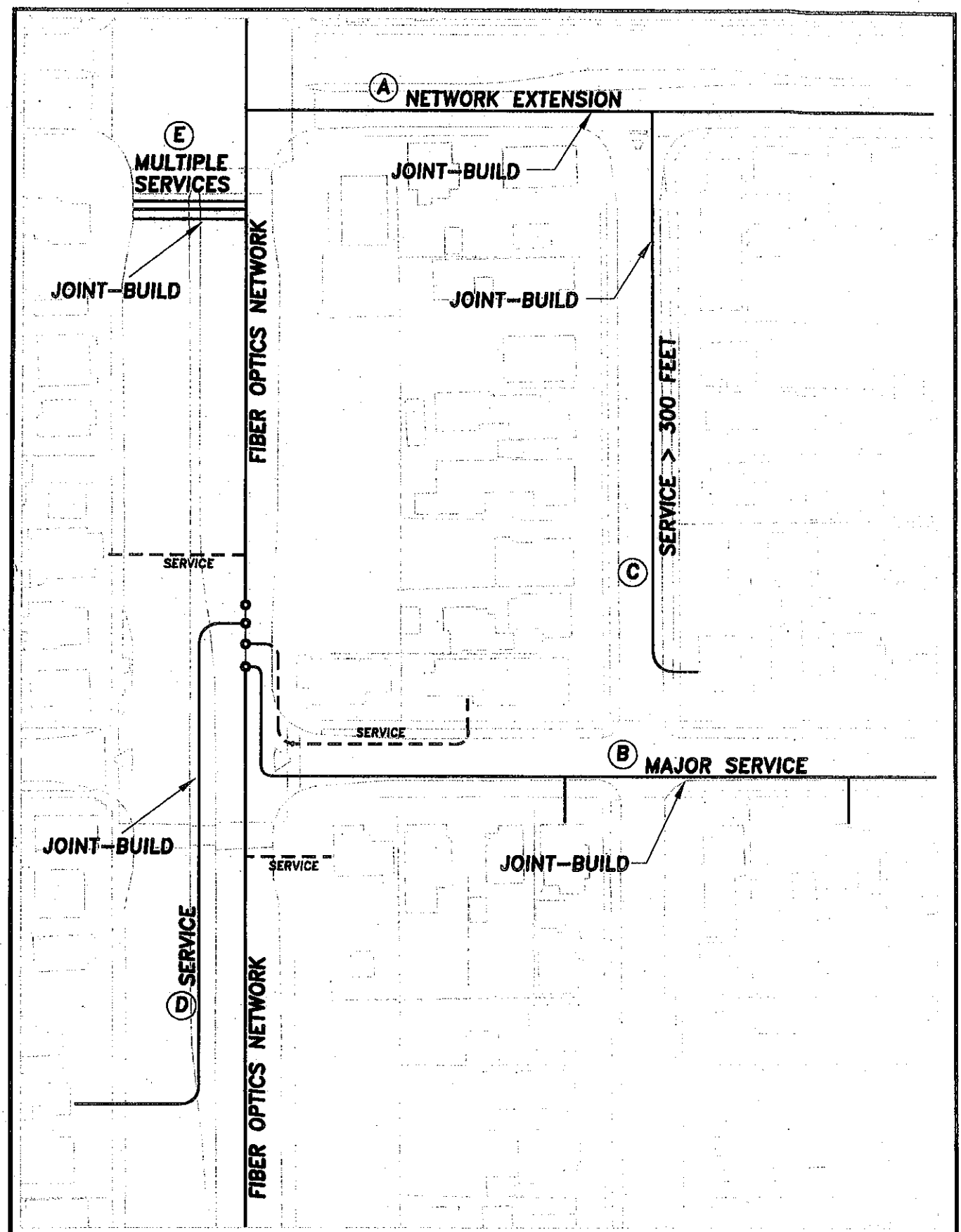
_____
_____
_____
_____

NOW, THEREFORE, if the above bounden Principal shall well and truly perform the work and maintain said improvements to the satisfaction of the City of Mountain View and shall comply with all provisions of the excavation permit and of Article III "Excavations" of Chapter 27 of the Mountain View City Code, then this obligation shall become null and void; otherwise to remain in full force and effect.

Signed and sealed this _____ day of _____, 19____.

"PRINCIPAL":	"SURETY":
_____	_____
_____	_____
_____	_____
By: _____	By: _____
Title: _____	Title: _____

Attachments: Notary of Principal
Notary of Surety
Power of Attorney of Surety



GUIDELINES FOR JOINT–BUILD FIBER OPTICS SERVICES

CITY OF MOUNTAIN VIEW

Notice of Changes to New and Re-development Requirements for Permanent Storm Water Treatment Measures (C.3 Requirements)

Why are storm water treatment controls required?
The State of California's San Francisco Bay Regional Water Quality Control Board issued a storm water discharge permit to the City of Mountain View, the 13 other cities in Santa Clara County, the County of Santa Clara, and the Santa Clara Valley Water District. The permit includes a number of requirements that are intended to reduce storm water pollution discharging into San Francisco Bay, including requirements for new and re-development projects to install permanent treatment control measures. The new and re-development runoff treatment requirements are known as the "C.3 requirements."

Which projects are required to comply with the C.3 requirements?
Beginning *August 15, 2006*, projects that create or replace 10,000 square feet or more of impervious surface must comply with the C.3 requirements (previously required for projects adding or replacing 1 acre or more of impervious surface). Impervious surfaces include building roof, parking lot, driveway, walkway, plaza, patio, and courtyard areas. Complete the "Impervious Surface Calculation Worksheet" on the back of this Notice to determine the impervious surface for a project.

What storm water treatment control measures should be installed on projects?
Landscape areas can be effective locations for storm water infiltration and treatment. The first step to designing storm water treatment measures for a project site is to evaluate the proposed landscape areas, which can be incorporated into the site's drainage as storm water treatment measures. Examples of storm water treatment measures that can be installed in landscape areas include vegetated swales, and bioretention areas.

If sufficient landscape area is not available to adequately treat runoff from a site, manufactured storm water treatment devices may be installed. Please note that all storm water treatment measures be sized to treat a specified amount of runoff.

Are there exemptions from this requirement?
Projects may be exempt from the C.3 requirements if 1) the project is below the 10,000 square foot impervious surface threshold; 2) the project is one single family home that includes appropriate storm water control measures; 3) the project is interior remodeling, routine maintenance or repair, and any other reconstruction work within a public street or road right-of-way.

Resources on the Web

- **C.3 Stormwater Handbook**, SCVURPPP 2004. http://www.eoainc.com/c3_handbook_final_may2004
- **Developments Protecting Water Quality: A Guidebook of Site Design Examples**, SCVURPPP, 2004. http://www.scvurppp-w2k.com/permit_c3_docs/SCVURPPP_Site_Design_Manual.pdf
- **Stormwater BMP Handbook – New Development and Redevelopment**, California Stormwater Quality Association, 2003. http://www.cabmphandbooks.org/Development.asp

STANDARD CONDITIONS FOR EXCAVATION PERMITS
August 8, 2001

City of Mountain View • Public Works Department • Land Development Section
500 Castro Street • Post Office Box 7540 • Mountain View, California 94039-7540
Telephone (650) 903-6311 • FAX (650) 903-6499

ADMINISTRATION

A. **Start Work In 30 Days**: Permittee shall begin work within 30 days following the issuance of the excavation permit and shall diligently prosecute the work to completion.

B. **Permit Expiration**: All excavation permits shall expire one year from the date of issue.

C. **Documents at Job Site**: A copy of this excavation permit, attachments, conditions, plans and Standard Provisions shall be available at the job site at all times the Permittee is doing the work mentioned above.

D. **Parties Authorized to Work**: No party other than the named Permittee or Permittee's authorized agent is allowed to work under this permit.

E. **Acceptance of City Requirements**: Permittee understands and agrees to acceptance of the provisions and all attachments to this permit for any work to be performed under this agreement. This permit is issued with the understanding that it does not establish a precedent.

F. **Hold Harmless**: Permittee hereby agrees to and shall hold City, its elective and appointive boards, commissions, officers, agents and employees harmless from any liability for damage or claims for damage for personal injury, including death, as well as from claims for property damage which may arise from Permittee or Permittee's contractors', subcontractors', agents' or employees' operations under this permit, whether such operations be by Permittee or by any of Permittee's contractors, subcontractors, or by any one or more persons directly or indirectly employed by, or acting as agent for Permittee or any of Permittee's contractors or subcontractors. Permittee agrees to and shall pay City's costs of defense (or, at the sole option of City, shall defend with counsel approved by the City Attorney) and indemnify City and its elective and appointive boards, commissions, officers, agents and employees from any suits or actions at law or in equity rising out of the execution, adoption or implementation of this permit (exclusive of any such actions brought by Permittee), such indemnification to include all costs of defense, judgments and any awards of attorneys' fees.

G. **Insurance**: The insurance certificate and endorsement naming the City as additional insured that is required by the excavation permit or by a franchise or ancillary agreement shall be maintained in full force during the term of the excavation permit. Where work is being done pursuant to a franchise or encroachment agreement, the utility company and contractor must provide and maintain an insurance certificate and endorsement.

H. **Permit Revocation**: All excavation permits shall be revocable at any time by the Public Works Director upon written notification.

I. **Site Restoration Upon Termination of Permit**: Upon written notice of cancellation or revocation of the excavation permit for any cause whatsoever, Permittee shall restore City right-of-way and structures to their condition prior to the issuance of the permit unless indicated otherwise by City. Should Permittee neglect to restore the site or structures to a satisfactory condition, the City may perform such work or have work performed, and Permittee agrees to reimburse the City for all costs of the work performed.

J. **Additional Conditions**: City may require additional conditions for changes in work and field conditions.

K. **Stoppage of Work Due to Permit Violations**: Violations of the conditions and requirements of the excavation permit may result in the stoppage of work until the violation is resolved between the Permittee and the City.

L. **Responsibility for Damage**: The Permittee shall be responsible for all damage caused by the Permittee's operations, including work performed by Permittee's contractor and subcontractor. Any damage to public and private facilities

caused by or as a result of the Permittee's operations shall be replaced by the Permittee at Permittee's own expense, including payment for additional City inspections.

GENERAL

1. **Standard Provisions and Standard Specifications**: All work shall be in accordance with the August 1999 Standard Provisions of the City of Mountain View and the latest edition of the State of California Standard Specifications and Standard Plans.

2. **Maintenance of Site Documents**: The Contractor shall keep and make available a copy of the approved plans and City Standard Provisions at the job site at all times when work is in progress. The Standard Provisions may be purchased at the City of Mountain View, Public Works Department counter, 500 Castro Street, P.O. Box 7540, Mountain View, CA, 94039-7540, telephone (650) 903-6311, fax (650) 903-6499. The Standard Provisions, which include the Standard Details, costs ten dollars at the counter or fifteen dollars by mail, as amended.

3. **Private Development Specifications**: For private developments, the City does not review or recognize private development project specifications.

CONTROL OF WORK

4. **Changes to Plans**: The following applies to plans approved by the Public Works Department. Major changes in the approved plans must be approved by the Assistant Public Works Director on the original signed plans per Section 5-02 of the Standard Provisions. Each change is to be delineated by marking the changed area of the plan with a numbered triangle or other acceptable method. The engineer must date and initial each revision in the revision block. The engineer shall submit a cover letter explaining the requested change and two copies of the revised sheets. After the City approves and initials the revision block, the engineer shall submit one 24" by 36" Xerox Mylar set (4 mil) and three black line copies of the signed revised sheets to the City. For minor changes, the Contractor may "red line" the proposed minor change on the plan and submit them to the City for review and approval. The Contractor is responsible for coordinating the changes with the engineer who prepared the plans and shall keep approved changes at the job site when work is in progress. All changes shall be shown on the as-built plans submitted to the City at the end of the job. The City shall have the sole discretion to determine what is a minor change. Relocation of a manhole from the sidewalk to a landscaped area or into the street is considered a minor change that requires approval from the Public Works Operations Section.

5. **As-Built Plans**: The following applies to plans approved by the Public Works Department. The Contractor shall keep complete and accurate record drawings of all new work, utility pothole data and existing conditions that have changed or are different than shown on the originally approved plans. Upon completion of the work, the Contractor's record drawings shall be submitted to the City inspector for review and comment. The engineer shall make the necessary revisions to the original drawings to show all field changes. The engineer shall verify final grading and shall sign the grading certificate, if applicable, when satisfied that the grading is per approved plans. Each sheet of the plans shall be stamped "as-built" or "record drawing" and signed by the engineer. The revised originals shall be submitted to the City for review and approval. Prior to the acceptance of the work by the City, the engineer shall provide one 24" by 36" Xerox Mylar set (4 mil) of the approved "as-built" plans to the City. The electronic file of the approved as-built drawings in AutoCAD Release 14 format shall also be submitted to the City.

6. **Construction Safety Orders for Excavations**: The Contractor shall conform to the rules and regulations of the Construction Safety Orders of the State Division of Occupational Safety and Health pertaining to excavation and trenches per Section 5-03 of the Standard Provisions. For deep trenches, the Contractor shall submit a copy of their annual or single project permit for trench and excavations from the State Department of Industrial Relations Division of Occupational Safety and Health located at 2010 North First Street, Suite 401, San Jose, CA, 95131, telephone (408) 452-7288.

7. **Normal Working Hours**: Normal working hours is defined as the time from 7:30 a.m. to 4:00 p.m., Monday through Friday, excluding legal holidays. The Contractor shall not work on the project outside the normal working hours, unless prior approval is obtained from the City or when specifically required by the City. Work outside normal working hours will only be allowed if a City inspector is available. The Contractor shall pay the City for the cost of overtime for City inspection performed outside of normal working hours per Section 5-09 of the Standard Provisions.

8. **Coordination With Other Agencies**: The Contractor shall be responsible coordinating inspection performed by other governmental agencies, as prescribed in their permits and approvals.

9. **Airborne Dust**: At all times during construction and until final completion and acceptance of the work, the Contractor shall prevent the formation of an airborne dust nuisance in such a manner that it will contain dust particles to the immediate surface of the work per Section 5-10 of the Standard Provisions. The Contractor shall perform such treatment within 2 hours after notification by the City that an airborne nuisance exists.

10. **Maintenance of Equipment**: All equipment and plant shall be maintained in good order per Section 5-13 of the Standard Provisions. Substandard or unsuitable paving equipment will not be allowed.

11. **Final Inspection**: The City will not perform the final inspection until the Contractor completes all work and final cleanup of the site per Sections 4-05 and 5-14 of the Standard Provisions.

12. **Maintenance of Work Site**: The Contractor shall keep the street and work site clean and free from rubbish and debris per Section 5-15 of the Standard Provisions. This provision requires preventing spillage on haul routes, cleaning up spillage, sweeping all streets of mud, dirt and debris that are a result of the Contractor's work, and keeping the work site in a clean and neat appearance. Any spillage on haul routes shall be immediately removed and cleaned up.

13. **Cleaning Site Upon Notice From City**: Regarding Section 5-15 of the Standard Provisions, when ordered by the City, the Contractor shall clean up the work site within 24 hours after receiving notice.

14. **Residential Occupancy Release**: For residential developments, no residential units will be released for occupancy unless the improvements to be constructed to City standards and/or to be accepted for maintenance by the City, including water meters and sanitary sewer cleanouts, are substantially complete per the City of Mountain View Standard Provisions for Public Works construction. For phased developments, portions of the units may be released for occupancy, at the City's sole discretion, provided that all public and private improvements, conditions of approval, and building code requirements that are necessary to support the units to be released for occupancy have been completed as determined by the City. When all of the improvements are complete and/or ready for acceptance for maintenance by the City Council, the remaining units may be released for occupancy, provided that all other conditions of approval and building codes requirements have been met. The Public Works Director shall make the determination of what public improvements are substantially complete.

15. **Non-Residential Occupancy Release**: For commercial and office developments, no buildings will be released for occupancy until the off-site improvements to be constructed to City Public Works standards and/or accepted for maintenance by the City are complete and ready for acceptance.

16. **Acceptance of Work, Bond Reduction and Release**: For improvements that are installed by a developer with an improvement agreement, the improvement securities may, at the discretion of the City, be reduced up to 25% of their values upon acceptance of the improvement by the City Council in accordance with the improvement agreement. After acceptance of the improvements by the City, completion of the one-year maintenance and guarantee provisions (or longer if stipulated in the conditions and agreement), and completion of all other obligations and requirements, the remaining improvement securities shall be released by the City in accordance with the improvement agreement. See Section 4-06 of the Standard Provisions regarding the one-year maintenance and guaranty period relating to street and utility improvements.

CONTROL OF MATERIAL

17. **Compaction Tests**: The Contractor shall hire a testing laboratory, approved by the City, to perform compaction tests of aggregate base, aggregate sub-base and sub-grade to the satisfaction of the City. The test results shall be submitted to the City prior to any AC or PCC paving. AC paving shall be tested with a nuclear gage. The Contractor shall be responsible for the cost of all testing.

18. **Concrete Material Tags**: Plant material tags for Portland Concrete Cement shall be submitted to the City per Section 6-01 of the Standard Provisions.

LEGAL RELATIONS AND RESPONSIBILITY

19. **State and City Licenses**: All Contractors and subcontractors shall be licensed in accordance with the laws of the State of California and shall have and maintain a valid City Business license, per Section 7-01.c and 8-01 of the Standard Provisions.

20. **Compliance With Environmental Documents**: The Contractor shall comply with the provisions of all permits, licenses or other authorizations applicable to the work with respect to the Environmental Quality Act per Section 7-02 of the Standard Provisions.

21. **Public Convenience and Access**: All work shall be planned and carried out so that there will be the least possible inconvenience to the traveling public, and traffic shall not be unreasonably delayed per Section 7-04 of the Standard Provisions. Driveway access shall be maintained to each property at all times.

22. **Maintain Traffic Control Devices**: The Contractor shall install and maintain fences, barriers, lights and signs that are necessary to give adequate warning to the public at all times per Section 7-05 of the Standard Provisions.

23. **Remove Material and Equipment at End of Day**: No material or equipment shall be stored in the public right-of-way after "normal working hours". See Sections 5-15 and 7-05 of the Standard Provisions. At the end of each day's work and at other times when construction operations are suspended for any reason, the Contractor shall remove all equipment and other obstructions from the pubic right-of-way.

24. **Hazardous Materials and Waste**: All work shall be conducted in a manner which prevents the release of hazardous materials or hazardous waste to the soil or groundwater, and minimizes the discharge of hazardous materials, hazardous wastes, polluted water and sediments to the storm drain system per Section 7-08.01 of the Standard Provisions.

25. **Coordination with Other Contractors**: Where two or more contractors are working in the same area, each shall conduct their operations in such a manor as not to cause any unnecessary delay or hindrance to the other per Section 7-09 of the Standard Provisions. Where conflicts cannot be avoided, the City will determine which contractors have construction priority over the other contractors and the terms of such construction priority.

26. **Noise Working Hour Restrictions**: In order to limit disturbing noises, construction work shall occur only between the hours of 7:30 a.m. and 4:00 p.m., Monday through Friday, excluding holidays. Work outside of these hours is prohibited, unless the City grants an exception. Exceptions will be considered only when, in the opinion of the Public Works Director, construction during the above period would inconvenience the public and neighboring residents more than working at other hours. Exceptions will not be granted merely to expedite the construction work.

NOTIFICATION

27. **Dangerous Situations, Call 911**: If any damage occurs to an underground facility that results in the escape of any flammable, toxic or corrosive gas or liquid or endangers life, health, or property, the Contractor shall immediately notify the utility owner and call the 911 emergency telephone number to notify local public safety officials.

28. **Provide Superintendent Information Before Start of Work**: The Contractor shall provide the name and telephone number of the authorized representative (superintendent) of the work to the City in writing prior to the start of work per Section 5-07 of the Standard Provisions. Public Works Construction Section: Tele. (650) 903-6311 and Fax (650) 903-6499.

29. **Call Public Works Inspectors Prior to Start of Work:** Contractor shall notify the Public Works Director at least two working days prior to commencing work, resuming suspended work, or resuming work after three days of no work so that inspection can be arranged per Sections 5-09 and 10-01.01 of the Standard Provisions. Public Works Construction Section: Tele. (650) 903-6311 and Fax (650) 903-6499.

30. **Road Detours, Notify Emergency Communication Center**: Contractor shall leave an emergency phone number with the City emergency communications center at (650) 903-6395 and keep the center informed daily regarding detours per Sections 10-01.02 and 10-01.03 of the Standard Provisions.

31. **Contact USA**: Contractor shall contact USA (Underground Service Alert) at (800) 642-2444 at least two working days but not more than 14 days prior to commencing excavation work to verify existing underground utilities, per Section 5-11.02 of the Standard Provisions and Chapter 3.1, Division 5, Title 1 of the Government Code.

32. **Notify Utility Owners**: Contractor shall notify all public or private utility owners forty-eight hours prior to commencement of work adjacent to the utility per Sections 5-11.02 and 10-01 of the Standard Provisions.

33. **Notify Adjacent Properties**: Contractor shall notify the adjacent residences and business in writing describing the nature of the work, schedule of the work, when parking will be prohibited (if any), and who to call at the Contractor's office if they have questions about the work. The notice must be approved by the City prior to its distribution. The Contractor must distribute the notice to the adjacent residences and business at least 7 days prior to the start of the construction work. For large projects, the work area, parking prohibition requirements and schedule shall be divided up into smaller, more manageable areas. In the event the parking prohibition schedule changes after the notification, Contractor shall post a new notice of the revised schedule at least 48 hours in advance of construction. For work requested by the property owner, a notice to the property owner is not required.

34. **No Parking Sign Notification**: Upon posting temporary no parking signs on a street, Contractor shall notify the Emergency Communications Center at 650-903-6395 of streets that have been posted with no parking signs.

35. **Street Closure Notification**: In the event of a street closure and detour that is three or more consecutive days in duration and is caused by the Contractor's operations, the Contractor shall notify the U.S. Postal Services customer services manager at (650) 967-5721 twenty four hours prior to the street closure.

STREET IMPROVEMENTS

36. **Grading Notes**: The City shall be provided with grading notes showing cuts and fills for all improvements to be inspected by the City.

37. **Place Utilities Before Base Rock**: All underground utilities shall be completed before placing of base rock, unless the City grants an exception.

38. **5 Days to Replace Concrete Improvements**: All existing curbs, gutters, sidewalks and driveways that are to be reconstructed shall be replaced within 5 days after their removal, unless the City grants an exception. See Section 22-04 of the Standard Provisions.

39. **Pedestrian Access**: Where practicable as determined by the City, the Contractor shall maintain pedestrian access along walkways, including public sidewalks, at all times. Sidewalk closures must be approved in advance by the City's Public Works Inspector. Walkways shall be reopened at the end of each working day. Well-compacted base rock may be used as a temporary walking surface.

40. **Inspection of Concrete Forms**: The City must approve concrete forms, before the pouring of concrete per Section 22-06 of the Standard Provisions. Concrete poured prior to inspection is subject to rejection and removal.

41. **"S" and "W" Curb Markings**: During concrete placement, the Contractor shall mark face of curb with a letter "S" for sewer laterals and a letter "W" for water services per Section 22-09.01 of the Standard Provisions.

42. **AC Gutter Conforms**: New gutter requires a hairline AC sawcut along the edge of the pavement or a 1' wide AC pavement conform per Section 22-09.01, as directed by City Inspector.

43. **Sidewalk Replacement**: Sidewalks shall be replaced by sawcutting along score marks, then removing and replacing the entire width of the sidewalk over 3" aggregate base and installing No. 4 dowels (9" maximum length) at 3' on centers, per Section 22 of the Standard Provisions. The dowels are to be drilled 3" into the existing curb and remaining sidewalk and epoxied in place.

EXCAVATIONS

44. **Utility Inspection Requirement**: All City appurtenances must be inspected by the City prior to backfilling any trenches or pouring any concrete.

45. **Excavations**: At the end of the each work day, all excavations within the street and travel way shall be: (1) backfilled and paved with temporary paving such that the finished surface is flush with the existing pavement, (2) adequately covered with steel plate bridging, or (3) backfilled and paved with permanent paving. If steel plate bridging is used, the steel plate bridging must be removed within 48 hours after its installation. Control Density Fill shall not be use as temporary AC paving.

46. **"T" Trench Cut**: A "T" trench cut is required per Detail A-18 of the Standard Provisions. Street pavement removed shall be replaced in kind or with a minimum section of 2.5"AC on 12" AB, which ever is greater, with respect to the permanent paving.

47. **Pipe Bedding and Backfill**: Uniformly graded sand shall not be used for pipe bedding or excavation backfill, as this material will fail upon re-excavation. Pipe bedding material shall conform to select (initial) backfill material, and subsequent trench backfill material shall be Class 2 aggregate base per Sections 24-02.01 and 24-04.03 and Detail A-18 of the Standard Provisions.

48. **Control Density Fill**: Controlled Density Fill (Section 24-02.04 of the Standard Provisions) may be used as subsequent backfill material only when specifically approved by the City. Controlled Density Fill shall not be used as pipe bedding material, unless an exception is granted by the City.

49. **Steel Plate Bridging**: Steel plate used for trench bridging must have a nonskid surface with a minimum coefficient of friction of 0.35 and must extend a minimum of 12 inches beyond the edge of a trench. Steel plate bridging shall be installed to operate with minimum noise. Where more than one plate is used, the plates shall be butted flush to each other and attached together by welding or other method approved by the City. For longitudinal placement, the approach plate(s) and ending plate(s) shall be attached to the roadway by a minimum of two dowels predrilled into the corners of the plate and drilled 2 inches into the pavement. When steel plates are removed, the dowel holes in the pavement shall be backfilled with either graded fines of asphalt concrete mix, concrete slurry or equivalent slurry approved by the City. Steel plate bridging shall be steel plate designed for HS20-44 truck loading per Caltrans Bridge Design Specification Manual.

Trench Width	Minimum Steel Plate Thickness
1.0'	1/2"
1.5'	3/4"
2.0'	7/8"
3.0'	1"
4.0'	1-1/4"

The trench shall be adequately shored to support the bridging and traffic loads. Temporary paving with hot asphalt concrete shall be used to feather the edges of the plates. Fine graded asphalt concrete shall be compacted to form ramps with a maximum slope of 8.5 percent and with a minimum 12 inch taper to cover all edges of the steel plates. The Contractor shall maintain the steel plates, shoring and asphalt concrete ramps in good order. The steel plates bridging shall be removed within 48 hours after their installation.

50. **Replacement of AC Between Excavation and Edge of Pavement**: On arterial streets, collector streets, streets that have been resurfaced with AC within the last five years, or when required by City, the Contractor shall remove and replace all intervening AC paving for trenches and excavations located within 6 feet of the edge of the pavement. On minor streets, the Contractor shall remove and replace all intervening AC paving for trenches and excavations located within 3 feet of the edge of the pavement pursuant to Section 24.03.01 of the Standard Provisions.

51. **Replacement of AC Between Two Excavations**: Where trenches or excavations are adjacent to each other, the intervening pavement located between the edges of the "T" trench shall be replaced if the width of the intervening pavement is less than 6'.

52. **Vault Excavation and Backfill**: Vault excavations shall not be backfilled with sand. The distance between the vault and side of the excavation shall be sufficiently wide to allow proper compaction of the aggregate base backfill material. Compaction tests of the backfill material are required, particularly on large vaults, except when Control Density Fill material is approved and used as backfill material. Uneven paving around new manholes located within the street or sidewalk will not be accepted. The grade of the paving surface around the manholes shall be flat, matching the existing grade, and shall be no worse then the existing grade of the street or sidewalk before manhole was installed.

53. **Vault Lids and Frames**: All boxes and vaults placed in the sidewalk area shall have a concrete type of finish (polymer lids and frames are acceptable). Boxes and vaults located within driveways shall be traffic rated boxes and lids for at least H20 traffic loads.

54. **Vaults, Utility Relocation**: Where proposed vaults conflict with minor lines, such as a street light conduit, the conflicting conduit may, at the discretion of the City, need to be relocated in lieu of relocating the vault.

55. **AC Paving Machine**: For excavations within paved areas that are more than 8 feet wide, the AC surfacing shall be installed with an AC paving machine.

56. **Cover Requirements**: A minimum cover of 30" within travelways and 18" within sidewalk areas as measured from the top of pipe to ground surface is required for the proposed excavation within the right-of-way. Provide additional cover to place the utility below the pavement structural section.

57. **Pavement Striping Damage**: Pavement striping damaged as a result of the Contractor's operations shall be replaced in kind by the Contractor.

SIGNS

58. **Street Name Signs**: Street name signs shall be installed on all public and private streets per Standard Detail A-13 and Section 29 of the Standard Provisions. Public street name signs shall have 4-inch white reflective, type B letters on blue reflective background on a 6-inch tall, 0.080-inch thick aluminum plate. Private street name signs shall have 4-inch white reflective, type B letters on a green reflective background on a 0.080-inch thick aluminum plate. Private street name signs shall include the phrase "Private St". Private street names must be approved in advance by the City Traffic Engineer.

WATER FOR CONSTRUCTION

59. **Construction Water Permit**: A permit for the use of City water is required per Section 30-01 of the Standard Provisions. Permits, backflow prevention devices and meters are issued at the Municipal Operations Center at 231 North Whisman Road. Contact the meter shop at (650) 903-6329 for further information.

STORM DRAINS

60. **Storm Line Video Taping**: In addition to other requirements specified in Section 31 of the Standard Provisions, the Contractor shall video tape new storm drains per Sections 31-03.07 of the Standard Provisions. The video taping requirements also requires the video tape and log sheets to be submitted to and approved by the City prior to the installation of the final lift of AC paving. Approval of the tapes and log sheets does not relieve the Contractor of his obligation to repair defective work and materials.

SANITARY SEWERS

61. **PVC Sanitary Sewer Laterals**: All new sanitary sewer laterals shall be constructed of PVC in accordance with Section 32-02.02 of the Standard Provisions, unless the City authorizes the use of VCP.

62. **Testing, Cleaning and Video Taping Sewer Lines**: The Contractor shall complete all testing of sanitary sewer pipes per Section 32 of the Standard Provisions. This provision requires the Contractor to perform exfiltration and infiltration testing, flush and clean the lines, video tape the new sanitary sewer pipes prior to the installation of the final lift of AC paving per Section 32-03.10 of the Standard Provisions, and perform other requirements as well. The video taping requirements also requires the video tape and log sheets to be submitted to and approved by the City prior to the installation of the final lift of AC paving. Approval of the tapes and log sheets does not relieve the Contractor of his obligation to repair defective work and materials.

WATER MAINS AND SERVICES

63. **Water Interruptions and Notifications**: Service in existing water mains can be interrupted only upon authorization of the City per Sections 33-03 and 33-03.09 of the Standard Provisions. The Contractor shall schedule a valve closure at least two working days in advance with the City construction inspectors, at (650) 903-6311. These provisions require the Contractor to notify all affected users in writing at least forty-eight hours in advance of service interruption using printed forms provided by the City. Manipulation of water valves shall only be done by Water Division personnel.

64. **PVC Water Mains and Services**: All 4-inch (100 mm) through 12-inch (300 mm) water mains and services shall be constructed of PVC in accordance with Sections 33-02.02 and 34-02.03 of the Standard Provisions, unless the City authorizes the use of DIP.

65. **Water Fittings**: New fittings on DIP and PVC water and fire mains and services shall be fusion epoxy-coated in lieu of the cement interior lining required in Sections 33-02.03, 33-02.04 and 34-02.03 of the Standard Provisions.

66. **Meter Boxes**: One-inch water meter boxes shall be used for water meters that are smaller than one-inch. See Section 34-02.08 of the Standard Provisions.

STREET LIGHTS

67. **Non-galvanized Streetlight Poles**: Electrolier standards (type-15 street light poles) shall not be galvanized. See Section 35-02.03 of the Standard Provisions.

68. **Post Top Streetlight Paint Color**: Post top (Type B) streetlights in the downtown area shall painted semi-gloss black (Tresco Satin Aqualloy Black # 1156) or as required by City.

TREES

69. **Tree Removal Permit**: A tree removal permit is required before any street tree can be removed, and a heritage tree removal permit is required before any heritage tree can be removed. For development related tree removals, contact the Community Development Department at (650) 903-6306. For non-development related tree removals, contact the Community Services Department, Forestry and Roadway Landscape Division, at (650) 903-6273.

CATHODIC PROTECTION

70. **Cathodic Protection of New Services and Mains**: All new copper and DIP water services, DIP fire services and DIP water mains shall be cathodically protected per Section 38 of the Standard Provisions and Standard Details D-18 through D-38.

TRAFFIC SIGNALS

71. **Work Near Traffic Signal, Notification**: The contractor shall notify the City Traffic Engineer two working day prior to doing any work near signalized intersection that is maintained by the City to determine if the signal needs to be switched from automatic to manual mode. This also applies to non-excavation work where the contractor's equipment effects the operation of the detector loops.

72. **Traffic Signal Loop Replacement**: Traffic signal detector loops that are damaged as a result of the Contractor's operations shall be replaced with new detector loops in accordance with Caltrans Standard Specifications and Provisions. The detector loop replacement work shall be performed by a local qualified contractor with experience in the installation of detector loops. (Peek Signal Maintenance Inc., St. Francis Electric, Mike Brown Electric or other City approved contractor.) Prior to the start of construction, the Contractor shall make arrangements with one or more of the above traffic signal contractors to replace the damaged detector loops.

73. **Traffic Signal Loop Replacement Within 72 Hours**: All damaged traffic signal detection loops shall be replaced within 72 hours of their damage, unless the City grants an exception. This requires permanent paving of trenches to be installed prior to replacement of the detector loops.

BUS STOPS

74. **Bus Stop Operations**: The Contractor's work shall not interfere with the operations of existing bus stops, unless the City and Valley Transportation Agency grant an exception. In order for an exception to be granted by the City, the Contractor must apply for the bus stop closure well in advance of the closure and show good cause at to why the closure of the bus stop is necessary. The Contractor may be required to construct a temporary bus stop or install appropriate detour signs.

GARBAGE COLLECTION ROUTES

75. **Garbage Route Operations**: For any work on or adjacent to garbage and recycling collection routes, the Contractor shall allow garbage trucks to safely pass through the Contractor's site at all times, unless an exception is granted by the City.

UNDERGROUND CONDUITS-TELECOMMUNICATIONS, ETC.

76. **Utility Company Name Required on Lids or Covers**: All utility company vaults and manholes must have the utility company's name on the lid or cover.

77. **As-built Depths and Location**: The actual depth and horizontal offsets of new utility conduits shall be shown on the as-built plans at intervals of 20 feet or less. All final profiles with existing pipe and depth information shall be shown on the "as-built" drawings. All pot-hole excavation location and data shall be shown on the as-built plans.

78. **One-Half Foot Placement Accuracy**: All conduits installed by trenching, directional boring and micro tunneling methods shall be installed within one-half foot of the horizontal alignment shown on the plans, unless the City approves an exception.

79. **Conduit Locator or Tracer Wire**: A tracer cable, wire or shielded cable shall be installed with conduits for fiber optic lines, and other similar non-traceable conduits, in such a manor that the exact location of the conduits can be determined by the utility owner using field locating equipment. For joint trench utility work, each company must have their own tracer cable, wire or shielded cable, so that each company can locate their own conduits. For plastic gas and ground water extraction system pipes, a tracer tape may be used in lieu of a tracer cable or wire, as a tracer cable or wire cannot be inserted in these types of pipe.

80. **Vault Surface Finishing and Traffic Rating**: All boxes and vaults placed in the sidewalk area shall have a concrete type of finish (polymer lids and frames are acceptable). Boxes and vaults located within driveways shall be traffic rated boxes and lids for at least H20 traffic loads.

81. **Replacement of Sidewalk Between Vaults**: Where large vaults or manholes are installed within an existing sidewalk and the distance between the vaults or manholes is less than 20 feet on center, all of the existing sidewalk located between the vaults or manholes shall be replaced.

MONITORING AND EXTRACTION WELLS

82. **SCVWD Requirements**: All well work shall comply with the Santa Clara Valley Water District's "Standards for the Construction and Destruction of Wells and other Deep Excavations in Santa Clara Valley."

83. **Well Clearance from Utilities**: Wells are to be located a minimum distance of 5' from all service laterals, mains and manholes.

84. **Removal of Drilling Wastes**: All drilling fluid and waste material shall be removed from the site and disposed of in a legal manner.

85. **Submittal of Reports**: A copy of all reports sent to the governing regulatory agency, such as the State Regional Water Quality Control Board or Santa Clara Valley Water District, for the subject exploratory borings, monitoring wells and extraction wells shall be sent to the Public Works Department.

SOIL BORINGS

86. **Removal of Boring Wastes**: All boring waste material shall be removed from the site and disposed of in a legal manner.

87. **Boring Sealing Requirements**: Exploratory borings shall be destroyed in accordance with the Santa Clara Valley Water District's Well Destruction Standards. All borings 45' deep or deeper require a permit from the Santa Clara Valley Water District.

88. **Borings Backfilled Within 24 Hours**: All exploratory borings, regardless of depth, must be backfilled within 24 hours of the completion of testing activities.

89. **Boring Sealing Mix Requirements**: All exploratory borings, regardless of depth, must be backfilled with acceptable sealing materials. Acceptable sealing materials include: (1) a 27-sack neat cement (27 sacks of cement per cubic yard for dry mix), where the neat cement mixture is composed of one bag of Portland cement to five to seven gallons of clean water and where up to 5 percent bentonite clay can be added to the cement mixture; (2) a 10-sack cement/sand slurry (10.4 sacks of cement per cubic yard for dry mix), where the cement/sand mixture is composed of not more than

two parts sand and one part of Portland cement to five to seven gallons of clean water; and (3) 20 percent, high solids bentonite slurry. The solid-form bentonite (pellets/chips) is not an acceptable sealing material in Santa Clara County.

90. **Boring Sealing, Use of Tremie Pipe**: Sealing materials must be placed using a Tremie pipe in borings greater than 30' in depth or in borings that contain water. If a driven probe boring is being destroyed, the probe tubing can be used as a Tremie pipe.

91. **Small Diameter Boring, Pavement Restoration**: For small diameter holes (3" and smaller) drilled within the AC pavement, the holes shall be backfilled with a cement grout mixture and capped with a 3" thick AC cold patch (cut-back asphalt) and leveled to match the existing surface.

SITE RESTORATION

92. **Minimize Damage to Landscape**: Existing landscape within the area of work shall be carefully removed and replaced with minimal damage.

93. **Site Restoration**: The Contractor shall return the private yards, sidewalks, planters, irrigation systems, and any other facilities, public or private, disturbed by the work to the same or better condition that existed prior to commencement of the work. The Contractor shall make a reasonable effort to restore each private yard disturbed by the work within one week after the work is completed on the same yard except where the City's inspector agrees that for construction reasons, the 1 week requirement may be extended.