



City of Palo Alto

Public Works Engineering

Phone: 650/329-2151 FAX: 650/329-2240

www.CityofPaloAlto.org

Construction Dewatering System Policy and Plan Preparation Guidelines

A Construction Dewatering Plan must be submitted to Public Works for excavation activities that encounter groundwater or other water that needs to be removed from the excavation and disposed of into the City storm drain system. The plan must detail a system that will remove silt and other pollutants from this water in order to place clean water into the City storm drain system. The plan must comply with the following policy and guidelines and include the information listed below.

DEWATERING POLICY

1. Basement and underground parking garage excavations may require dewatering during excavation and/or construction. If dewatering is required, Public Works must review and permit the dewatering plans prior to commencement. Public Works only allows drawdown well dewatering of groundwater. Open pit dewatering of groundwater is disallowed. Open pit dewatering is allowed for rainwater that may accumulate at the bottom of an excavation. Dewatering is only allowed from April through October due to inadequate capacity in our storm drain system.
2. The geotechnical report for the site must list the highest anticipated groundwater level. We recommend a piezometer to be installed in the soil boring. The contractor must determine the depth to groundwater immediately prior to excavation by using the piezometer or by drilling an exploratory hole if the deepest excavation will be within 3 feet of the highest anticipated groundwater level. If groundwater is found to be within 2 feet of the deepest excavation, a drawdown well dewatering system must be installed, or alternatively, the contractor can excavate for the basement without a dewatering system in place and hope not to hit groundwater. However, if groundwater is hit, the contractor must immediately stop all work. Prior to resuming excavation, the contractor must submit a dewatering plan, be issued a permit, install the dewatering system, have it inspected, commence dewatering, and drawdown the groundwater below the deepest excavation.
3. Public Works may require water to be tested for contaminants prior to initial discharge and at intervals during dewatering. If testing is required, the contractor must retain an independent testing firm to test the discharge water for the contaminants Public Works specifies and submit the results to Public Works.
4. Public Works reviews and approves dewatering plans as part of a Street Work Permit. The applicant can include a dewatering plan in the building permit plan set in order to obtain approval of the plan during the building review, but the contractor will still be required to obtain a Street Work Permit prior to dewatering. A sample dewatering plan sheet and dewatering guidelines are available on Public Works' website. If the applicant decides to not include a dewatering plan in the building permit plan set, he must include the above dewatering requirements in a note on the site plan.

PLAN PREPARATION

1. The *Construction Dewatering Plan* must be prepared by an architect, engineer or contractor qualified to produce the required plan. The *Plan* must be presented on its own separate sheet and included with the *Building Permit* submittal, if required.
2. If the *Construction Dewatering Plan* is not required to be included in the *Building Permit* submittal and the implementation of a dewatering process becomes necessary during construction, then this *Plan* must be prepared and submitted with an application for a *Street Work Permit*.
3. The *Plan* must be drawn to scale or properly dimensioned and be legible.
4. The location for outletting the water shall be into the nearest, most practical catch basin of the City storm drain system. Disposal of this water into the City sanitary sewer system is prohibited unless specifically approved by the City Regional Water Quality Control Plant.

5. The attached documents need to be placed on the plan sheet. Refer to the attached sample “Construction Dewatering Plan” for how these may be placed. These documents may be “sticky-backed” onto the reproducible plan page. They should be trimmed around the box and placed full-sized on the plan sheet.

IMPLEMENTATION OF THE DEWATERING PLAN

1. The contractor must notify, in writing, the affected neighbors (particularly those in which the dewatering hose will pass along their frontage) of the proposed dewatering activities at least one week prior to the start of work, and submit a copy of the letter with the application for a *Street Work Permit*.
2. The installation of the dewatering system shall conform to the approved “Construction Dewatering Plan” contained in the permit document.
3. All construction in the street and sidewalk area, including drainage pipe placement and sidewalk restoration, shall be performed as per the City of Palo Alto Standard Specifications contained in an approved *Street Work Permit* issued by the Public Works Department. A licensed contractor is required to obtain the *Street Work Permit* for this work.
4. The Public Works Inspector* and Stormwater Investigator** shall be contacted for an inspection of the completed dewatering system. The Public Works Inspector will confirm that the piping and sidewalk modifications are installed per plan. The Stormwater Investigator will confirm that BMP's are in place to ensure the appropriate quality of the water to be discharged. The inspections must be prior to the commencement of discharge of water to the storm drain.

FEES FOR DEWATERING

1. The Permittee is required to pay a “Dewatering Fee” for the impact and use of the public storm drain system. The Permittee shall provide an estimate of the anticipated number of months of discharge. This fee is currently (FY 2014) \$142 plus \$82 per month of discharge. This fee is payable at the time of *Street Work Permit* issuance.
2. The Permittee is required to contact the Public Works Inspector and the Stormwater Investigator prior to start of water discharge. Once the plan implementation has been approved, the investigator or inspector will document the start date of discharge. No discharge is allowed until the implementation of the plan has been approved and the initial discharge date is noted.
3. The Permittee shall contact the Stormwater Investigator when the construction dewatering system has been permanently shut off. If the discharge of water has extended beyond the time period estimated at the time of permit issuance, the Permittee shall be directed to submit additional payment. The Public Works Inspector will not grant final approval of the *Street Work Permit* and *Building Permit* until all appropriate fees have been paid and the sidewalk, curb and gutter have been properly restored.

Construction dewatering activities are subject to City and State regulations. Ultimately, the Permittee is responsible for keeping sediment and contaminated groundwater out of the storm drain system throughout the construction activity. Violation of this requirement may result in a \$5,000 per day fine. The approved *Construction Dewatering Plan* is a general guideline only and does not relieve the Permittee of satisfying the above responsibilities. Additional guidance on appropriate best management practices is available in the booklet entitled *Dewatering from Construction Sites and In-Ground Utilities Maintenance Projects* available at the Development Center and on the Public Works Department web site (www.cityofpaloalto.org/depts/pwd/forms_permits.asp).

* PW Inspector (650) 496-6929

**Stormwater Investigator (650) 329-2598

Dewatering Plan Implementation Inspection Contacts

Public Works Inspector: (650) 496-6929

Stormwater Investigator: (650) 329-2598

Procedure for the Installation of the Construction Dewatering System

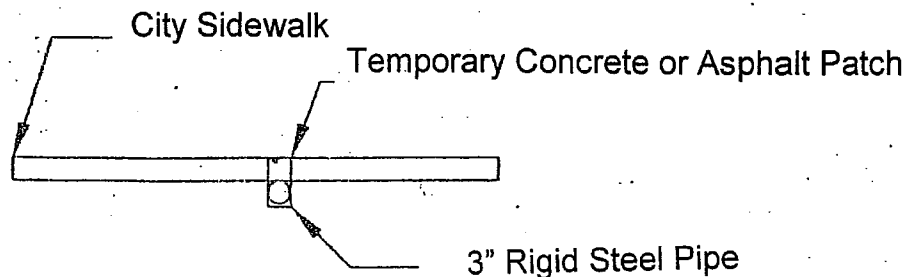
1. The installation of the dewatering system shall conform to the approved "Construction Dewatering Plan" contained on this sheet.
2. The Public Works Inspector* and Stormwater Investigator** shall be contacted for an inspection of the completed dewatering system. They must approve the installation prior to the commencement of discharge of water to the storm drain and/or sanitary sewer.
3. All construction in the public right-of-way, including sidewalk cutting and associated restoration, shall be performed as per the City of Palo Alto Standard Specifications in an approved *Street Work Permit* issued by the Public Works Department. A licensed contractor is required to obtain this permit to do this work.
4. The Permittee is required to pay a "Dewatering Fee" for the impact and use of the public storm drain system. The current fee (FY 2014) is \$140 plus \$82 per month of discharge. This fee is payable, in advance, at the time of the *Street Work Permit* issuance.
5. The Permittee is required to contact the Public Works Inspector* and the Stormwater Investigator** prior to start of water discharge. The Public Works Inspector will confirm that the piping and sidewalk modifications are installed per plan. The Stormwater Investigator will confirm that BMP's are in place to ensure the quality of the water to be discharged. The Stormwater Investigator writes the dewatering start date on the Special Conditions sheet of the *Street Work Permit Job Copy* and signs it.
6. The Permittee shall keep sediment and contaminated groundwater out of the storm drain system throughout the construction activity in accordance with the approved *Construction Dewatering Plan* and the appropriate best management practices as described in the booklet entitled *Dewatering from Construction Sites and In-Ground Utilities Maintenance Projects*, available at the Development Center and on the Public Works Department web site (www.cityofpaloalto.org/depts/pwd/forms_permits.asp).
7. The Permittee shall contact the Stormwater Investigator** when the construction dewatering system has been permanently shut off. If the discharge of water has extended beyond the time period estimated at the time of permit issuance, the Permittee shall be directed to submit additional payment. The Public Works Inspector will not grant final approval of the *Street Work Permit* until all appropriate fees have been paid.

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****Stormwater Investigator (650) 329-2598**

GENERAL NOTES:

1. A drawdown well dewatering system must be used for groundwater within 2 feet of the deepest excavation.
2. Open pit dewatering is only allowed for rainwater that accumulates at the bottom of the excavation.
3. Dewatering is only allowed April through October.
4. Public Works may require the water discharged to the storm drain system to be tested for contaminants. If testing is required, the contractor must retain an independent testing firm to test the water for the contaminants Public Works specifies and submit the results to Public Works.



Detail "A-A"
Drain Pipe @
Sidewalk

(A) SECTION THROUGH SIDEWALK
N.T.S.