



Office of the City Manager

CONSENT CALENDAR
September 11, 2007

To: Honorable Mayor and
Members of the City Council

From: *PK* Phil Kamlarz, City Manager

Submitted by: Claudette Ford, Director, Public Works

Subject: Tieback Encroachment Ordinance

RECOMMENDATION

Adopt first reading of an Ordinance amending Berkeley Municipal Code (BMC) sections 16.18.010, 16.18.025 and 16.18.080 to clarify the definitions of major and minor encroachments, to define tiebacks as minor encroachments, and establish tieback encroachment permit fees.

FISCAL IMPACTS OF RECOMMENDATION

The amending ordinance establishes that fees will be charged for the processing or issuance of tieback encroachment permits and that the fees will be incorporated into the public works master fee schedule. For expediency, these fees were included in the Planning and Development Master Fee Schedule which Council passed on July 10, 2007 by Resolution No. 63,774–N.S. after a duly noticed public hearing.

The fees could increase City revenue by a substantial amount each year, based on the proposed tieback fees of \$2,000 for shallow tiebacks, \$1,000 for deeper ones and \$500 for very deep ones. Revenues collected would offset the City's increased construction costs associated with removal of tiebacks during future sewer and street projects. The fees are expected to bring in about \$150,000 in revenue to the tieback fund (Fund 197) in revenue code 197-5201-341.81-70.

CURRENT SITUATION AND ITS EFFECTS

Certain subsurface development projects require shoring of walls during excavation. Tiebacks are a relatively new form of shoring that is becoming increasingly popular due to their effectiveness in reducing ground displacement and because they are more economical than traditional internal bracing shoring techniques. The use of tiebacks is rapidly becoming the dominant industry standard as it prevents damage to adjacent properties caused by other methods of shoring and is less expensive under many circumstances. The tiebacks are generally abandoned in place when the foundations are laid and poured with concrete.

Tiebacks frequently extend into the City's rights-of-way, which are usually the sidewalk or street area. While the use of tiebacks is economical for developers, their use

imposes costs on the City. These costs are associated with their removal as well as Engineering staff time involving referencing and record-keeping of the tieback locations and depths, and inspection during construction.

The City's encroachment ordinance (BMC chapter 16.18) does not define tiebacks or soil nails as encroachments. It thus provides no authority for permitting them or for recovering the costs incurred as a result of their use.

Only a few tiebacks have been used in the City to date, but we anticipate that many more requests to use them are likely. The City is currently using existing permitting mechanisms to handle requests for tiebacks, since the practice is new and existing ordinances covering encroachments were written before this practice emerged. The few permits that have been issued were classified as minor encroachment permits due to the fact that their use is temporary in that they are abandoned in place after use. To date, developers have been assessed an appropriate amount as part of the permit process, on a case-by-case basis. The amount charged to date was assessed to reimburse the City for anticipated future costs associated with the removal of tiebacks in the City's right-of-way where new infrastructure is built. Because they are becoming more common, it is necessary and appropriate to address the use of tiebacks and recovery of costs for allowing them by ordinance. The amounts proposed under this amendment are consistent with those developed during the past permitting processes.

BACKGROUND

On June 13, 2006, the Council authorized creation of a Tieback Mitigation Fund and requested staff to revise the existing encroachment language in the BMC to clarify that tiebacks constituted encroachments, and to establish fixed fees to cover the City's expected future costs associated with removal and mitigation of tiebacks during future excavation work. These fees were established by resolution on July 10, 2007 as part of the master fee schedule for engineering activities reviewed at the Permit Service Center, included in the Center's Master Fee Schedule update for FY 2008.

The proposed ordinance amendments would define tiebacks, regulate their installation as "minor" encroachments that may be approved by the City Engineer, and authorize the Council to impose a fee to recover the costs incurred as a result of the installation of tiebacks.

In addition, the proposed ordinance amendments clarify the definitions of major and minor encroachments to make them consistent with other provisions of the BMC in Titles 16 and 17.

The City's estimated costs were determined by a method that set costs per tieback in three zones of depth: 1) \$2000 for each tieback less than 12 feet below the surface; 2) \$1000 for each tieback between 12 and 24 feet below the surface; and 3) \$500 for each tieback more than 24 feet below the surface. This system accounts for the relative likelihood of encountering tiebacks during construction in the right of way. The \$2,000

covers the full cost the City would incur to document the location of a tieback in City records, brace trench, and remove the tieback (which involves removing concrete and cutting through steel, and disposing of the material).

The rationale for charging less as depth increases is, as the depth of construction in the right of way increases, the likelihood of encountering an abandoned tieback decreases geometrically. Thus, the City's potential expense is reduced by 50% for each doubling of depth below 12 feet. After about 36 feet the likelihood that trenching or other construction in the right of way would encounter a tieback is minimal because the City does not usually undertake projects at such depths due to the prohibitive cost of excavation and trenching. The \$2,000 cost is calculated as follows: \$900 for equipment rental consisting of backhoe with bucket, backhoe with hoe ram and a six-ton truck each at \$150 per hour rental for 6 hours; labor for 6 hours at \$83.33 per hour for a total of \$500; and trench shoring at \$600 lump sum which includes shoring equipment rental and labor for shoring. The \$1,000 and \$500 costs for deeper tiebacks factors in the affect of additional depths and the reduced likelihood the City will need to cut through these.

RATIONALE FOR RECOMMENDATION

See preceding discussion.

ALTERNATIVE ACTIONS CONSIDERED

One alternate course of action is to deny the use of tiebacks in the public right-of-way. This will impact adversely any underground excavations for buildings with basements or underground parking structures since other methods of shoring are much more costly and wholesale removal of the tiebacks is impractical. Another alternative is to make the contractor responsible in the long-term if extensive excavation is necessary to remove the tiebacks, requiring a long-term agreement between the City and the developer for the mitigation. This was also considered by staff to be impractical compared to the option of charging fees. Experience to date has shown that development costs are still much less using tiebacks and soil nails, even when paying fees of this magnitude.

CONTACT PERSONS:

Jeffrey L. Egeberg, Manager of Engineering, 981-6400

Attachments:

1: Ordinance

ORDINANCE NO. -N.S.

AMENDING BERKELEY MUNICIPAL CODE (BMC) SECTIONS 16.18.010 AND
16.18.080 TO CLARIFY THE DEFINITION OF MAJOR AND MINOR
ENCROACHMENTS AND TO DEFINE TIEBACKS AND SOIL NAILS AS
ENCROACHMENTS, AND AMENDING SECTIONS 16.18.025 TO AUTHORIZE THE
CITY MANAGER TO IMPOSE TIEBACK FEES

BE IT ORDAINED by the Council of the City of Berkeley as follows:

Section 1. That Berkeley Municipal Code (BMC) Section 16.18.010 is amended to read as follows:

Section 16.18.010 Definitions.

A. "Encroach" means constructing or placing permanent structures or improvements over, upon, under, or using any public right-of-way or watercourse in any manner other than its intended use.

B. "Encroachment" shall include any of the following acts:

1. Erecting or maintaining any flag, banner, decoration, post, sign, pole, fence, guard-rail, wall, loading platform, mailbox, pipe, conduit, wire, or other structure on, over, or under a public right-of-way;

2.

Constructing, placing, or maintaining, on, over, under, or within the public right-of-way any subsurface drainage structure or facility, any pipe, conduit, wire or cable;

C. "Major encroachment" means any permanent improvement attached to a structure or constructed in place so that it projects into the public right-of-way such as basement vaults, earth retaining structures over three feet above grade, structure connected planter boxes, ramps, or fences over six feet above grade Improvements identified in **chapters 16.04, 16.24 and 17.16**, and. any items conforming to the Berkeley Building Code, shall not be considered Major encroachments. Projections over any part of the public right-of-way that are not permitted by or which are in excess of the limitations specified in the Berkeley Building Code shall also be classified as major encroachments, including theatre marquees, signs suspended above the sidewalk, oriel windows, balconies, cornices and other architectural projections.

D. "Minor encroachment" means encroachment into the public right-of-way resting on or projecting into the sidewalk area such as subsurface tiebacks, soil nails, concrete stairs, disabled Access Ramps where more than six feet of sidewalk area is preserved, subsurface foundations extending less than 2 feet from the property line., level landings for garages, landscape features less than two feet in height, conduit for privately owned phone and data lines connecting buildings owned by the permittee, as flower pot, permanent planter boxes, clocks, bus shelters, phone booths, bike racks, fences less than six feet above grade, earth retaining structures less than three feet above grade,

benches, and curbs around planter areas. Any encroachment which is not a minor encroachment is a major encroachment.

E. "Assistant City Manager for Public Works" includes the Assistant City Manager for Public Works and his/her authorized delegate.

F. "Permittee" means any person(s) firm, company, corporation, association, public agency, public utility, or organization and the permittee's successors-in-interest which has been issued a permit for said encroachment by the Assistant City Manager for Public Works. All obligations, responsibilities, and other requirements of the permittee as herein described, shall be binding on successors in interest of the original permittee and subsequent owners of the property benefitted by the encroachment unless otherwise specified in the permit. (Ord. 5514-NS § 1, 1983)

Section 2. That Berkeley Municipal Code (BMC) Section 16.18.025 is amended to read as follows:

Section 16.18.025 Fees.

A. Fees for the processing or issuance of any permits issued pursuant to this section shall be as set forth in the public works master fee schedule, as adopted by resolution of the City Council. (Ord. 5935-NS § 1, 1989; Ord. 5529-NS § 1, 1983)

B. Mitigation Fees for tiebacks and soil nails shall be as adopted by resolution of the City Council.

Section 3. That Berkeley Municipal Code (BMC) Section 16.18.080 is amended to read as follows:

Section 16.18.080 Approval criteria.

No encroachment permit shall be approved unless it is determined that the subject encroachment conforms with the following standards:

A. The applicant will be substantially damaged by the refusal to grant the permit as requested.

B. No other reasonable method of obtaining the desired results is available except as proposed by the applicant.

C. The granting of the permit will not be materially detrimental to the public interest, safety, health and welfare or injurious to the other property.

D. The applicant has complied with the City of Berkeley's public works specifications.

E. No major or minor encroachment into a sidewalk may be granted unless a minimum clear space of six feet remains open for public use in the sidewalk area. For the purpose of determining the clear space, poles, parking meters, fire hydrants, regulatory signs and other such objects (street hardware) may not be considered as part of the minimum horizontal clear space reserved for public use. Except for subsurface encroachments of tiebacks and soil nails, in no event may a minor encroachment extend farther than two feet from the property line into the public right-of-way.

F. All encroachments, except for structures below the walkway such as basement vaults and sidewalk elevators, shall have a minimum height of twelve inches and no portion shall project beyond the base projection of the encroachment unless at a height of eight feet or more above the sidewalk.

G. There should be clear color differentiation between the sidewalk paving and objects placed or installed in the sidewalk area. (Ord. 5514–NS § 1, 1983)

Section 4. Copies of this Ordinance shall be posted for two days prior to adoption in the display case located near the walkway in front of Old City Hall, 2134 Martin Luther King Jr. Way. Within 15 days of adoption, copies of this Ordinance shall be filed at each branch of the Berkeley Public Library and the title shall be published in a newspaper of general circulation.