Date: Wednesday, October 1, 2014

To: Recreation and Park Commission
   Capital Committee

Through: Philip A. Ginsburg, General Manager
         Dawn Kamalanathan, Director, Capital & Planning Division

From: Stacy Bradley, Planner, Capital & Planning Division
      Meghan Hade, Capital & Planning Division

Subject: 777 Tennessee Street, Evaluation of Shadow on Esprit Park

Agenda Wording

Esprit Park – Shadow Impact from Proposed Project at 777 Tennessee Street. Discussion and possible action to recommend to the Planning Commission that the new shadow cast upon Esprit Park by the proposed project at 777 Tennessee Street will not have a significant or adverse impact on the use of the park pursuant to Planning Code Section 295 (the Sunlight Ordinance). (ACTION)

Background

Section 295 of the Planning Code, adopted in 1985 pursuant to the voter mandate of Proposition K and also known as the “Sunlight Ordinance,” requires the Planning Commission, prior to approving a project exceeding a height of 40 feet, to make a finding that any shadow cast by the project onto property under the jurisdiction of the Recreation and Park Department is “insignificant.” Under Section 295, the Planning Commission shall not make this determination until the General Manager of the Recreation and Park Department in consultation with the Recreation and Park Commission has had an opportunity to review and comment to the Planning Commission on the proposed project.

In 1989, the Recreation and Park Commission and Planning Commission jointly adopted a memorandum (the “1989 Memo”) which identified quantitative and qualitative criteria for determinations of significant shadows in parks under the jurisdiction of the Recreation and Park Department. (Planning Commission Resolution No. 11595)
The 1989 Memo provides the following qualitative criteria to analyze a building’s shadow on a park: time of day, time of year, size of shadow, duration of shadow, location of shadow and public good served by the shadow caster. The Memo states that for smaller parks (less than 2 acres) which are already shadowed 20% or more of the time during the year, it is recommended that no additional shadow be permitted. The Memo also states that for larger parks (greater than 2 acres) with existing shadow loads of less than 20%, an additional 1.0% of shadow is recommended as permitted if the specific shadow meets the additional qualitative criteria.

Project Description
The proposed 777 Tennessee Street project site, at the northeast corner of the intersection of 19th and Tennessee Streets, lies north and east of Esprit Park. See Attachment A for the Project Location Map. 777 Tennessee Street project will demolish an existing two-story light industrial building and construct a new five-story multi-family building that would include 60 residential units over below-grade parking. See Attachment B for an image of the proposed project.

Surrounding Properties and Neighborhood
Adjacent properties include a church immediately west across Tennessee Street, a 2-story apartment building located to the southwest across the intersection of 19th and Tennessee Streets is, and meat and produce mart to the south. The surrounding Dogpatch neighborhood is characterized by a mix of industrial, residential, and commercial space, and contains the Dogpatch Historic District.

Park Description
Esprit Park is a 1.83 acre park. It is located in the Dogpatch neighborhood and occupies the entire block between Minnesota, Indiana, 19th and 20th Streets. The park is made up of mostly meadow areas in the interior, with an athletic circuit circling the open space and benches and picnic tables along the path. The park is heavily planted with a variety of trees around the border. The park is used by people walking their dogs, exercising on the athletic circuit, and for non-organized recreational purposes, such as walking, picnicking and playing in the open field. See Attachment C for a Park Detail Map.

Esprit Park is used most intensely before and after workdays during the week and throughout the day on the weekends. The park is frequently used by dog walkers and is used year-round.

Esprit Park is one of the seven priority parks in the Eastern Neighborhoods Plan Area. The Eastern Neighborhoods Citizens Advisory Committee (ENCAC) is currently identifying improvements for priority parks to use impact fees from developments in the Eastern Neighborhoods.

Analysis of Project Impact on Esprit Park
A technical memorandum, prepared by Environmental Science Associates (ESA) and reviewed by the Planning Department, analyzed the potential shadow impacts of the 777 Tennessee Project. The ESA technical memorandum also relied on baseline information found in the
previous shadow study conducted by CADP for 650 and 800 Indiana, which would also add new shadow on Esprit Park. 650 Indiana, which would cast 147,734 sfh or 0.05% of the theoretically available annual sunlight (“TAAS”) on Esprit Park, was approved by this Commission on April 17, 2014. 800 Indiana is still undergoing its environmental review process.

Using CADP’s baseline information, the memorandum by ESA concluded that the project would cast approximately 17,171 square-foot-hours (sfh) of new shadow on Esprit Park, equal to approximately 0.0058% of the “TAAS” on Esprit Park.

Existing structures currently shade Esprit Park by 10.58% with an existing shadow load of 31,378,487 sfh. The existing shadows on the park are created primarily by the 2-story building at 654 Minnesota Street to the west of the 650 Indiana Street site and from the 2-story buildings along Pennsylvania Street which are elevated along the western flank of Potrero Hill, east of Highway 280 and Esprit Park. Existing shadows are also produced by the 20th Street overpass structure. The shadows move across Esprit Park from southeast to northwest during the afternoon hours.

### Shadow with Proposed Project

<table>
<thead>
<tr>
<th></th>
<th>Existing Conditions</th>
<th>Conditions with Proposed Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAAS</td>
<td>296,706,366.08 sfh</td>
<td>296,706,366.08 sfh</td>
</tr>
<tr>
<td>Shadow</td>
<td>31,378,487.00 sfh</td>
<td>31,395,657.24 sfh</td>
</tr>
<tr>
<td>% of TAAS</td>
<td>10.5756%</td>
<td>10.5814%</td>
</tr>
<tr>
<td>% change</td>
<td>-</td>
<td>+0.0058%</td>
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The Shadow Analysis was based on a June 21st to December 20th solar year to provide a sample of representative sun angles throughout the solar year. In accordance with Section 295 and the 1989 Memo, the time of analysis starts one hour after sunrise and concludes one hour before sunset, or the “solar day”. The Shadow Analysis concluded the following findings:

- New shadows would appear on the northeast corner of Esprit Park for approximately 15 minutes or less beginning at the first Proposition K minute of the day, in the weeks of June 14th, June 21st, and June 28th. The project shadow would not reach the park on or before June 7th or on or after July 5th.
- The largest shadow cast by the proposed project is 7,193.82 sf, or 9.023% of the park. The shadow would occur at one hour after sunrise on June 14th and 28th. See Attachment E – Maximum Area Shadow Image.
- Total annual shadow coverage from the project would be 17,170.24 sfh, or 0.0058% of the theoretical annual available sunlight on Esprit Park during Prop K times of the day, year-round.
Impact Fees and other Public Benefits
The project sponsor will contribute a total of $556,500 in impact fees towards improving the neighborhood, with $440,000 going towards the Eastern Neighborhood Infrastructure, $109,000 for the School fee, a $5,000 donation to the San Francisco Parks Alliance on behalf of the Dogpatch Playground at 22nd and Minnesota St., and a $2,500 donation to the Daniel Webster School in the Dogpatch.

In addition, the project sponsor is proposing a green beltway, a continuous planting strip between sidewalk and street parking, along the Tennessee Street frontage. This project will be coordinated with the Dogpatch Neighborhood Association according to the San Francisco Better Streets Plan. The project sponsor also continues to be involved in the Green Benefit District, which would provide funding for infrastructure improvements for the Dogpatch and Potrero Hill neighborhoods.

Project Outreach
TRI Commercial has been working closely with Planning and the Dogpatch Neighborhood Association to address the community's concerns. The below chronology provides information we received from the project sponsor. See Attachment F – DNA Letter of Support.

The project sponsor has conducted meetings with neighbors and the Dogpatch Neighborhood Association from December 2013 to August 2014 when the project was unanimously approved by DNA members.

In order to address aesthetic concerns, the project sponsor has introduced a third façade cladding material (raw metal panels with patina) to make the building more harmonious with the existing fabric of the Dogpatch neighborhood. The window pattern was also modified to fit in with existing industrial patterns. Also, the residential entry set back was revised to offer a publicly accessible open area.

Other concerns were also addressed through the modifications, such as adding car share parking spaces, activating the ground floor, increasing bike parking to 2 spaces per unit and pulling building away from neighboring properties lot line windows to allow for additional light and air.

Environmental Review
The Planning Department is responsible for conducting any needed environmental review for the project. The Planning Department is issuing a Community Plan Exemption (CPE) (Case No. 2013.0312E) for the project. The CPE was published on July 21, 2014 and is included as Attachment G.
Cumulative Analysis – Potential Future Shadow on Esprit Park

As mentioned above, the Recreation and Park Commission has already approved the 650 Indiana project which will add a total of 147,734 sfh of new annual shadow on Esprit Park, or 0.05% of Esprit Park’s TAAS, increasing the existing percentage from 10.58% to 10.63%. With the addition of 777 Tennessee and 650 Indiana, a total of 164,904.24 sfh of new shadow would increase the TAAS percentage by 0.0556% for a total of 10.6312% of TAAS.

<table>
<thead>
<tr>
<th></th>
<th>650 Indiana</th>
<th>777 Tennessee</th>
<th>650 Indiana and 777 Tennessee</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Shadow</td>
<td>147,734.00 sfh</td>
<td>17,170.24 sfh</td>
<td>164,904.24</td>
</tr>
<tr>
<td>Percent Change</td>
<td>+0.05%</td>
<td>+0.0058%</td>
<td>+0.0556%</td>
</tr>
<tr>
<td>Total Shadow on</td>
<td>31,526,221.00 sfh</td>
<td>31,395,657.24 sfh</td>
<td>31,543,391.24 sfh</td>
</tr>
<tr>
<td>Esprit Park</td>
<td>10.6254%</td>
<td>10.5814%</td>
<td>10.6312%</td>
</tr>
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</table>

Existing TAAS: 31,378,487.00 sfh, 10.5756%

Esprit Park, less than 2 acres in size, is considered a small park and is currently shadowed 10.58% of the time. Both projects together, 650 Indiana and 777 Tennessee, would add an additional 0.0556% for a total of 10.6312% of the park’s TAAS.

New shadow from the 777 Tennessee Street project will never overlap the new shadow from 650 Indiana Street or the 800 Indiana Street projects. The new shadow coverage on Esprit Park from any of the three projects would independently add to the park’s total shadow. Other projects in the pipeline that will also affect potential future shadow on Esprit Park include 800 Indiana and 888 Tennessee. Please see Attachment H for a map of project locations and Attachment I for a Cumulative Analysis on 650 & 800 Indiana as well as 777 Tennessee.

800 Indiana is located across the southwest corner of Esprit Park. The proposed project is currently undergoing environmental evaluation. The project sponsor proposes to construct a three-building, five-story complex with up to 338 units of multi-family housing. 800 Indiana was analyzed with 650 Indiana in the aforementioned technical memorandum/shadow analysis by CADP. The shadow analysis concludes that 800 Indiana Street would contribute 0.21% of the TAAS in new shadow. The new shadows from 800 Indiana would occur from early October through the winter months to early March and would only occur within the last two hours prior to sunset.

888 Tennessee is located near the southeastern edge of the park. This project is currently undergoing environmental evaluation and is subject to Section 295. According to the application filed on July 18, 2013, the proposed project would construct two four-story, 45-foot tall, residential-over-retail buildings containing 110 dwelling units, 2,155 sq ft of retail use, and 10,073 sq ft of courtyard open space. The project would also
construct a 35,752 sf below grade parking garage with 93 parking spaces. This project has not yet completed a shadow analysis.

**Recommended Shadow Impact Finding**

Esprit Park is less than two acres in size and existing structures cast shadows on the park that total 10.58\% of the TAAS. The increase in shadow from the proposed project would be 0.0058\% of the current TAAS.

The additional new shadow cast on the park by the proposed project would occur in the morning within the last hour of the solar day from late April through early August. While the shadow is cast between 6 minutes and 45 minutes, the average new shadow lasts for approximately 15 minutes covering a portion of the northern quarter of Esprit Park. The northern portion of the park includes wooden park pathway, grassy area and exercise equipment.

The following tables summarize the quantitative and qualitative summary of the shadow analysis:

**Quantitative Summary of Shadow Findings**

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAAS</td>
<td>296,706,366.08 sfh</td>
</tr>
<tr>
<td>Existing Shadow</td>
<td>31,378,487.00 sfh (10.5756%)</td>
</tr>
<tr>
<td>New Shadow from 777 Tennessee</td>
<td>17,171 sfh (+0.0058%)</td>
</tr>
<tr>
<td>New Shadow from 650 Indiana</td>
<td>147,734.00 sfh (+0.0498%)</td>
</tr>
<tr>
<td>Total Shadow with 777 Tennessee and 650 Indiana</td>
<td>31,543,391.24 sfh (10.6312%)</td>
</tr>
</tbody>
</table>

**Park Size** 1.83 acres

**Percent Change with both 777 Tennessee and 650 Indiana** +0.0556\%

**Qualitative Summary of Shadow Findings for 777 Tennessee**

<table>
<thead>
<tr>
<th>Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time of Day</td>
<td>Early morning (approximately 7am) (within an hour and a quarter after sunrise)</td>
</tr>
<tr>
<td>Time of Year</td>
<td>Few weeks around summer solstice; Weeks of June 14th, June 21st and June 28th</td>
</tr>
<tr>
<td>Duration of Shadow</td>
<td>15 minutes or less</td>
</tr>
<tr>
<td>Size of Shadow</td>
<td>Largest shadow: 7,194 sf, or 8.99% of the park on June 28th.</td>
</tr>
<tr>
<td>Location of Shadow</td>
<td>Northeast corner of park</td>
</tr>
</tbody>
</table>
Due to the information presented above and in accordance with the guidance provided by the 1989 Memo, staff recommends that the amount of new shadow cast by the 777 Tennessee project on Esprit Park would not be significant and would not have an adverse impact on the use of the park.

**Staff Recommendation**

Staff recommends that the Commission recommend to the Planning Commission that the net new shadow cast on Esprit Park by the proposed project at 777 Tennessee Street will not be significant or adverse to the use of the park based on the facts set forth herein, as required by Planning Code Section 295 (the Sunlight Ordinance).

**Supported By:**
Dogpatch Neighborhood Association

**Opposed By:**
None Known

**Attachments:**
Attachment A: Project Location Map
Attachment B: Project Design
Attachment C: Park Detail Map
Attachment D: Shadow Analysis by ESA
Attachment E: Maximum Area Shadow Image
Attachment F: DNA Letter of Support
Attachment G: Community Plan Exemption
Attachment H: Pipeline Projects Near Esprit Park
Attachment I: Esprit Park Cumulative Analysis