

TO: Kieulan Pham, David J. Powers and Assoc. DATE: July 21, 2014

FROM: Charles D. Anderson, PE JOB #: DPOW.74.14

SUBJECT: **Blockage Criteria Analysis for 2890 North First Street Site in San Jose**

We have evaluated proposed site grading and building plans for a Boston Properties office project at 2890 North First Street to ascertain whether the project as proposed meets the requirements of the North San Jose Floodplain Management Policy.

As presently configured the project does not meet those floodplain management policy requirements.

The project site is bound by North First Street to the west, Plumeria Drive to the south, Zanker Road to the east and Daggett Drive to the north. Areas to the east of a line that roughly bisects the site from north to south along the eastern limit of the bend in Daggett Drive (that is Buildings B4, B5, and B; and the two eastern parking structures) are within a 100% blockage area while areas to the west of that line (Buildings B1, B2, and B3; and the western parking structure) are located within a 90% maximum blockage area.

Within the 100% allowed blockage area (i.e. an area of ineffective floodplain flow) there are no requirements beyond establishing finished floor elevations that are one foot above the base flood elevation and lowest adjacent grades that are above the base flood elevation. The Draft Grading and Drainage Plan furnished by DJPA meets these requirements.

Within the 90% allowed blockage area, at least 10% of the site must remain unblocked to safely pass flows parallel to North First Street. Site blockage is defined by the North San Jose Floodplain Management Policy as areas on-site with elevations that are higher than the approximate elevation of the back edge of the street sidewalk surrounding the site. In other words at least 10% of the site must remain at existing grade.

The Draft Grading and Drainage Plan shows that approximately 630 feet of the site, as measured perpendicular to North First Street, lies within the 90% blockage zone. This means that a total of at least 63 feet within that zone needs to remain unblocked. The referenced grading and drainage plan shows that a path 67 feet in width is not blocked by buildings or parking structures from Plumeria Drive to Daggett Drive between Building B1 and Building B6. However, site grades are raised by up to two feet through this open corridor, meaning that in effect, the entire site is blocked. This does not meet the Policy requirement.

Bringing Project into Compliance with Floodplain Management Policy

Providing assistance with revisions to site development plans is not in the scope of our services. In general, however, the plans can be brought into compliance with the North San Jose Floodplain Management Policy by providing south to north open corridor(s) of the required width (at least 63 feet in total) that remain unblocked at existing grade. For other development within North San Jose, parking structures have also been design to pass floodwaters through the site. In this case Building P next to Building B3 could be designed to pass flow in the 65 feet wide corridor that is shown between Buildings B1 and B2.

Alternatively Building B3 could be set back from North First Street to allow flows to pass immediately adjacent to the street right of way. This is consistent with the original intent of the floodplain policy, as most of the flow is within the North First Street right-of-way.