

COMMUNITY DESIGN + ARCHITECTURE

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Memorandum

November 7, 2003

To: Wende Edde, EOA, Inc.

From: Phil Erickson and Thomas Kronemeyer

sent by fax, total of 1 pages

Re: SCVURPP — *Use of Narrow Roadways in Community Design – Case Study: Holly Park – Phase III, Seattle*

Use of Narrow Roadways in Community Design

Streets with roadways as narrow as 25 feet in width and parking on both sides have the potential to significantly slow down vehicular travel speeds, discourage cut-through traffic, and result in residential environments that increase pedestrian safety and comfort. At the same time, if carefully conceived a network of narrow neighborhood streets can provide sufficient access for emergency service providers. Furthermore, streets with narrower roadways help to free up limited right-of-way resources for the incorporation of (newly) required design elements related to treatment, conveyance, or attenuation of storm water runoff (i.e. swales, or infiltration strips).

Case Study: Holly Park, Phase III, Seattle

Holly Park, Phase III is the third phase of a major redevelopment project by the Seattle Housing Authority (SHA) under the federal HOPE VI program. The 20-plus acre site is located adjacent to a future Sound Transit light rail station in the Rainier Valley in Southeast Seattle and will eventually accommodate about 400 new mixed-income homes and several mixed-use buildings. After an extensive master use planning and design review process, construction on roadways and utilities is currently under way.

During the planning process the Holly Park III Design Team proposed a roadway network predominantly consisting of two types of streets.

1. Roads with 32-foot roadways (56-foot R.O.W.) with parking on both sides; and,
2. Roads with 25-foot wide roadways (50-foot R.O.W.) with parking on both sides.

While streets in the first category were designed to provide principal access to the development off of two adjacent arterials, the second type comprised most of the internal residential streets. In addition, the street network was rounded out by roads with site-specific cross sections and the frequent incorporation of alleys. Curb radii at corners of internal residential streets with 25- and 32-foot wide roadways were set at 20 feet. A lesser diameter would have been desirable to further shorten pedestrian crossing distances but could not be achieved because of the narrow roadway widths, and requirements for specific curb radii contained in the City of Seattle's Street Design Manual.

The street network was designed to facilitate emergency vehicle access and operation by providing emergency vehicle staging zones of 30 to 40 feet length (and a width that would accommodate the outriggers of larger vehicles). These staging zones were provided either through designated ‘No-Parking Zones’ or by virtue of driveways that create a sufficiently long gap in on-street parking on one or both sides of the street.

The Seattle Fire Department reviewed plans of the proposed roadway network and determined that a sufficient number of staging areas had been provided and that the use of 25-foot roadways was acceptable under the condition that no bulb-outs (which initially were included in the plans) would be constructed at the corners of narrow residential streets. The Fire Department’s approval was mainly based on precedents for streets with 25-foot wide roadways and parking on both sides that can be found in many of Seattle’s older residential neighborhoods. In addition, the City’s Street Design Manual contains a standard cross section for a street with a 25-foot roadway, applicable to particular residential zoning categories. The Fire Department, however, did comment that it thought roadway widths of more than 25 feet would be desirable in order to provide optimal emergency vehicle access. Another key step in gaining acceptance of the proposed narrow streets was that the design plans matched cross section parameters with actually proposed densities (and related access requirements) and not the maximum densities theoretically possible under the zoning for parcels involved. This would inevitably have led to increased access requirement and streets with significantly wider roadways.

Oregon legislation that stipulates the treatment of all storm water runoff created by a project did apply to the Holly Park III development. Although some vegetated swales for the treatment of storm water runoff will be included in a residential park at the center of the new neighborhood, the majority of the runoff will be taken through a conventional system of storm drains to an off-site pond for detention and treatment.

The following two cross sections illustrate the two key roadway designs used for the Holly Park III development:

