GREEN PHOENIX
UPDATE (June 2005)

This is a brief update on Green Phoenix progress. We will be putting together a more detailed package about the project design and "green" performance as soon as possible.

Completed Design Process

The Integrated Design Process (IDP) is now complete, after four meetings with consultants and the development team, and input from the Church Design Committee. Revised plans for the project will be available on the project's web site late next week. Below is a brief summary of the design features.

Retrofit of Phoenix Place, 1355 King W.

An important result of the design process is the decision to include the upgrading of the existing 28-year-old high-rise in the design plans. So far, that means:

— a radiant heat retrofit has been sketched out to convert space heating from electricity;
— a way of collecting the apartment exhaust air so its heat can be recaptured;
— a way of insulating the floor slab exterior edges (the greatest source of heat loss);
— a way of capturing the heat from waste water with a module at the main sanitary drain;
— include line meters so heavy electricity use by individuals can be monitored for surcharge.

These changes were not part of the original plan, and will be financed in large part through utility cost savings.

Conversion of Shalom House, 1339 King W.

This commercial space will contain 8 bachelor and 1-bedroom units. The building will receive electricity, heating and cooling from Phoenix Place.

New construction

Layout: because of feedback from the community, more multi-bedroom and fewer bachelor units are being designed into the new construction portion. The layout shown on the plans on the project's website will be revised somewhat. Changes include moving all the "Church Parlour" spaces to the ground floor and relocating the church Coat Room to nearby the church street entrance.

New structure: will use slab-on-grade construction with precast panels for speed and economy. The panels pieces which will also hold mechanical and electrical runs within their horizontal channels.

Foundation: The new construction foundation will rest on piers or caissons – poured concrete tubes. This type of foundation avoids extensive excavation and has a minimum impact on services that are already in the ground. We can also save money by using the tubes as geothermal heat wells.

Heating and cooling: The geo-thermal sources mentioned above will provide enough heating and most of the cooling needed for the entire project, including the existing Phoenix Place building and a renovated Shalom House.

Solar water and air heating: The south wall of 1355 King W. will provide an ideal place for solar water heating and an apartment air pre-heat system that can contribute significantly to the project's use of hot water.

Heat recovery: Exchange air from peoples' apartments will be captured through a heat recovery system. Likewise, a portion of waste water heat will also be drawn off before the waste leaves the building.

Insulation and windows: The project will have energy efficiency values that will be almost half again better than the Model National Energy Code standards. Besides increased comfort, this will generate significant operating cost savings over the life of the building.

Electrical: because of various conservation measures over the past few years, it's now been determined that we have enough capacity in the existing electrical service to 1355 King for both the new construction and the conversion of 1339 to residential. 1339 will need to be completely rewired.

Other elements

Landscaping: All new roof surfaces will have green roofs: some will be intensive (deep soil, possible food production) and one will be extensive (thin soil, grasses and potted plants.) There will continue to be (potted) trees at sidewalk level.

Stormwater management: The project will collect and re-use much of the site's rainwater for toilet flushing, laundry, and plant irrigation.

Soil remediation: When the church was demolished in 1975, a layer of combusted coal and ash was spread over some of the loose brick backfill. This layer is not extensive or deep, but will have to be removed to a landfill licensed for this purpose. If remaining fill can stay clean during the remediation, it may provide an opportunity for stormwater retention.

Removals-retention-re-use plan: A considerable number of construction materials that will be gathered from renovating Shalom House and re-working the site can be re-used. These include existing fencing, signage, pavers, bricks, and the milling of the honey locust trees on the south side of King for use in the project.

Artistic and educational opportunities – these include:

- Developing content for the pixel board on King St. which will show information about the project and the church to the community.
- Incorporating some design in the solar water heating fins on the south wall.
- Programming — waste reduction approach for tenants?
- Articulation or decoration of major pillar at church entrance
- Programming — art program in amenity space?

Next steps

Site Planning Control (SPC) and Committee of Adjustment: The City will be receive the project's design for approval through the SPC process. Once this is underway, we will ask for a Committee of Adjustment date. The Committee of Adjustment looks at variances from City By-Laws that the project will require. Before the C of A meeting, the project will hold one or more community meetings to revisit the project design. This will be an important opportunity for community input.

Fundraising: With the preliminary design work completed, we are getting ready to apply for a number of funding sources, aimed especially at the green features of the project and at the capital costs of part of the amenity space. The funding will be a combination of grants, incentive money for energy savings, and low-to-zero interest loans that can be paid back by project operation savings.