1. INTRODUCTION

Background

The University of Washington is planning a project to install fall protection for the roof patio above the pumphouse on the east side of the Harris Hydraulics Laboratory. This addendum provides additional information specific to this project that was not included in an earlier Historic Resources Addendum, dated 14 December 2012.

This Addendum to the HRA was developed by James Cary, Architect pc of Seattle, Washington in March, April and May 2013.

2. HISTORY & ARCHITECTURAL DESCRIPTION

The pump room was added to the Hydraulics Laboratory sometime after its completion in 1920. It is not shown in the original architectural drawings, nor does it appear in photographs taken shortly after the laboratory’s completion. The earliest record of the pump room occurs in a 1938 photograph of a Puyallup River flood control model. The pump room was therefore constructed between 1920 and 1938. Since no drawings are available, the architect for the pump room addition (if any) is unknown.

Architecturally, the pump room and patio are a direct extension of the original 1920 building designed by Bebb & Gould. The stone veneer on the south wall of the Laboratory building was continued onto the south face of the pump room, and the terra cotta parapet cap on the south and east sides of the patio above is a similar design to the cap on the parapet of the main building.
Parapet Wall – Existing Conditions

The parapet wall on the south and east sides of the existing patio measures approximately 1’-1” from the high point of the patio, which slopes slightly to a point in the center of its eastern edge. The parapet is constructed of concrete with a stone veneer on its south and east faces, and the concrete face on the north and west sides (patio sides) is covered by stainless steel flashing that follows the slope of the patio paving. The parapet wall is capped with a terra cotta cap that measures approximately 13 1/2” wide by 8” tall at its highest point. The parapet meets the east wall of the 1920 laboratory building approximately 30” below the terra cotta transition detail that marks the transition from stone to brick on the south façade of the building.
3. PROJECT RECOMMENDATIONS

The following diagrams show the existing parapet condition and three recommended options for installing fall protection to the code-required 42” height.

Option 1 installs a full-height railing behind the existing low parapet wall and leaves all existing construction intact. Two railing alternatives are shown for this option. Option 1A is a modern steel railing design with historic references to the interior stair guardrail in the Harris Hydraulics Lab. Option 1B is a practical, steel railing design.

Option 2 shows raising the entire parapet by 2 stone courses, which would bring the top of the parapet cap above the required 42” height. The addition of the new stone-faced parapet will include new Tenino stone blending with historic Tenino stone. There may be a historic preservation concern that the new construction will mimic the construction from the 1920s - 1930s, and there will not be enough differentiation between the two. The appearance of the new Tenino stone, however, will be different enough to relieve this concern.

Option 3 raises the parapet by 1 stone course, allowing for a railing to be mounted to the inside vertical face of the new parapet wall. The addition of the new stone-faced parapet will include new Tenino stone blending with historic Tenino stone. There may be a historic preservation concern that the new construction will mimic the construction from the 1920s - 1930s, and there will not be enough differentiation between the two. The appearance of the new Tenino stone, however, will be different enough to relieve this concern.
The traditional mortar joint for Tenino stone is a small raised beaded joint that is created with a bead joint tool. The joint provides the best weather protection by pushing water off the face of the stone and protecting the exposed, cut stone edge. The existing mortar joint, however, appears to be a small concave joint. This existing joint is performing adequately, and should be used for new stone mortar joints and for repointing. If repointing all of the building stone is considered as a future project, the University may consider using the small, raised beaded joint.
EXISTING PARTIAL ELEVATIONS

SCALE: 3/32" = 1'-0"

EXISTING TILES
SLOPED TO DRAIN
EXISTING CONCRETE ROOF STRUCTURE
NEON STEEL RAILING, POWDER COATED,
BRONZE COLOR
NEON ESCUTCHEON
NEON BASE PLATE FASTENED TO
EXISTING CONCRETE ROOF/CEILING
EXISTING TERRA COTTA
PARAPET CAP
EXISTING STAINLESS STEEL
THROUGH FLASHING
EXISTING STONE VENEER
EXISTING CONCRETE WALL & PARAPET

PARAPET SECTION ABOVE PUMP HOUSE
OPTION IA - FLAT BAR RAILING BEHIND EXISTING PARAPET

SCALE: 3/4" = 1'-0"
EXISTING PARTIAL ELEVATIONS

SCALE: 3/32" = 1'-0"

EXISTING TILES, SLOPED TO DRAIN
EXISTING CONCRETE ROOF STRUCTURE
NEW STEEL RAILING, POWDER COATED, BRONZE COLOR
NEW ESCUTCHEON
NEW BASE PLATE FASTENED TO EXISTING CONCRETE ROOF/CEILING
EXISTING TERRA COTTA PARAPET CAP
EXISTING STAINLESS STEEL THROUGH FLASHING
EXISTING STONE VENEER
EXISTING CONCRETE WALL & PARAPET

PARAPET SECTION ABOVE PUMP HOUSE
OPTION 1B - 2' PIPE RAILING BEHIND EXISTING PARAPET

SCALE: 3/8" = 1'-0"
REPAIR EXISTING TERRA COTTA CORNER, NEW TERRA COTTA PARAPET CAP AT THIS LOCATION FOR WEATHER PROOF TRANSITION HOLD PUMP HOUSE PARAPET CAP 2" FROM WALL BASE TERRA COTTA

EXISTING PARTIAL ELEVATIONS

REINSTALL EXISTING TERRA COTTA PARAPET CAP
NEW COPPER THROUGH FLASHING

EXISTING TILES SLOPED TO DRAIN
EXISTING CONCRETE ROOF STRUCTURE
NEW STATE VENEER TO MATCH EXISTING, (2) COURSES 8 11" & 14"
NEW WEATHER PROTECTION
NEW CAST IN PLACE CONCRETE PARAPET WITH STEEL REINFORCING EMBEDDED IN EXISTING CONCRETE BELOW & EXISTING PARAPET CAP ABOVE
NEW COPPER FLASHING

REPLACE & REINSTALL THIS COURSE OF EXISTING STONE VENEER
EXISTING CONCRETE WALL & PARAPET

PARAPET SECTION ABOVE PUMP HOUSE
OPTION 2 - EXTEND PARAPET HEIGHT TO 42" MINIMUM
EXISTING PARTIAL ELEVATIONS

SCALE: 3/32" = 1'-0"

- EXISTING TILES
- SLOPED TO DRAIN
- EXISTING CONCRETE ROOF STRUCTURE
- NEW STEEL RAILING, POWDER COATED, BRONZE COLOR
- REINSTALL EXISTING TERRA COTTA PARAPET CAP

NEW COPPER THROUGH FLASHING

NEW STONE VENEER TO MATCH EXISTING:
(1) 16-1/2" COURSE TO ALIGN BOTTOM OF FLASHING
(4) STONE COURSE ON MAIN BUILDING
NEW ESCUTCHEON

NEW BASE PLATE FASTENED TO EXISTED CONCRETE ROOF/CEILING

NEW CAST IN PLACE COLOR CONCRETE PARAPET WALL, COLOR TO MATCH EXISTING STONE STEEL REINFORCING EMBEDDED IN EXISTING CONCRETE BELOW 4 EXISTING PARAPET CAP ABOVE

EXISTING STONE VENEER

EXISTING CONCRETE WALL 4 PARAPET

PARAPET SECTION ABOVE PUMP HOUSE
OPTION B - EXTEND PARAPET HEIGHT W/ RAILING BEHIND

SCALE: 3/4" = 1'-0"