



**Humber
Design
Group, Inc.**

March 8, 2024

Subject: Salem Apartments Land Use Stormwater Management Memo

This memo serves as the documentation for the stormwater report required as part of land use submittal requirements for the Salem Apartments new development located at 891 23rd St NE Salem, OR.

Per the City of Salem Department of Public Works Administrative Rules Chapter 109 Division 004 Section 4.2(a)(3) this project qualifies as a "large project" (greater than 10,000 sf of new or replaced impervious surface).

Per the City of Salem Stormwater Design Handbook for Developers and Large Projects Section 5, to meet the Green Stormwater Infrastructure (GSI) to the Maximum Extent Feasible (MFE), the site has been delineated into (4) stormwater drainage basins. These basins can be found in the attached catchment map. Each GSI facility (in this case, stormwater planters) has been preliminarily sized to be at least 10% of the contributing area of the combined new plus impervious surface area for the associated drainage basin. The stormwater planters will send overflow from large storm events to the existing stormwater-only sewer mains located in 23rd St NE and Center Street NE.

Sincerely,

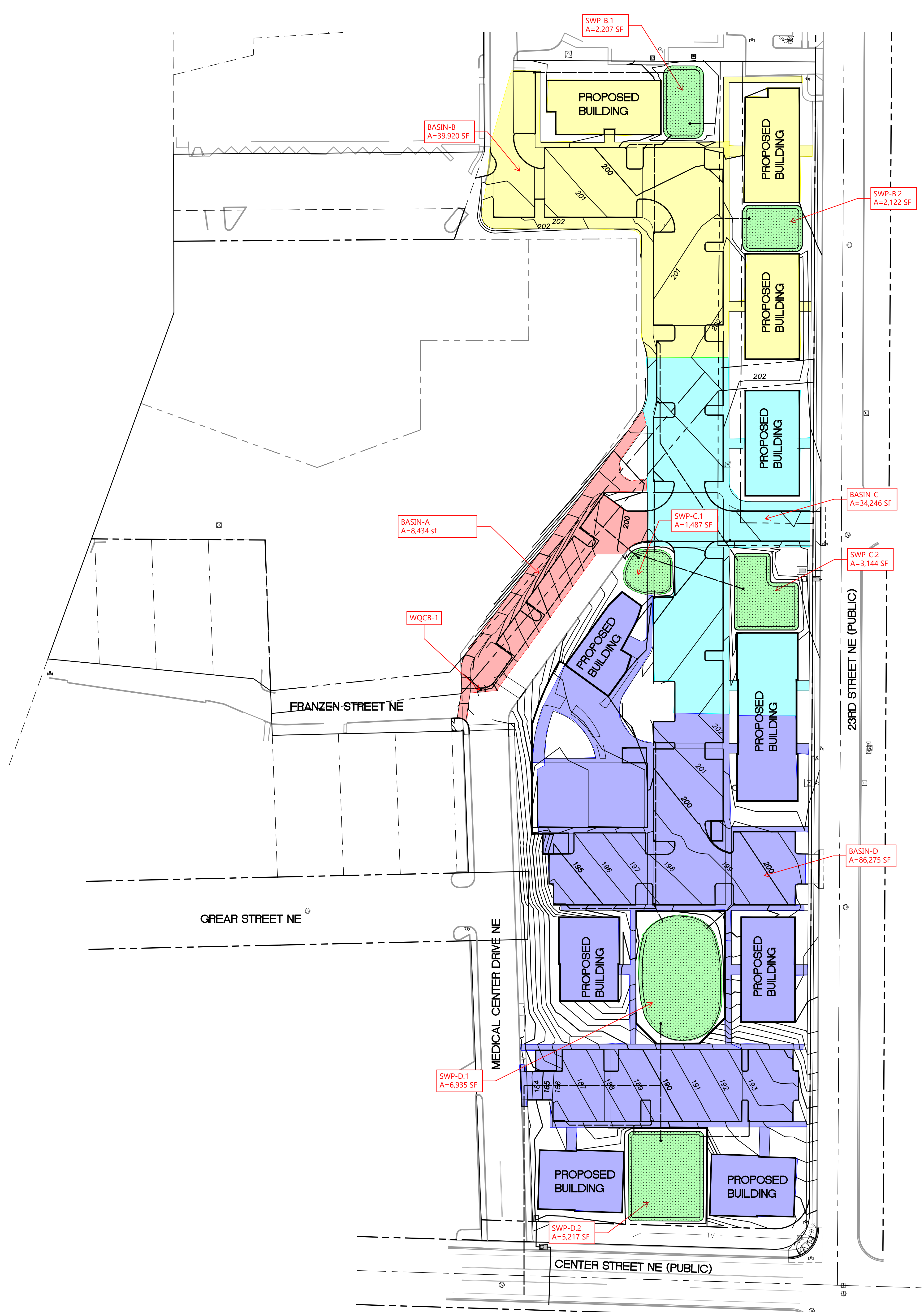
Humber Design Group, Inc.

Kristian McCombs, PE

Attachments:

Catchment Map

SALEM APARTMENTS LAND USE CATCHMENT MAP



BASIN-A AREA = 8,434 SF

EXISTING SITE SLOPES DO NOT ALLOW FOR THE USE OF A GSI POND FOR THIS BASIN. STORMWATER WILL BE MANAGED THROUGH THE USE OF A MANUFACTURED FILTER CATCH BASIN (WQCB-1)

BASIN-B AREA = 39,920 SF

BASIN-B STORMWATER PLANTERS

SWP-B.1 AREA = 2,207 SF

SWP-B.2 AREA = 2,122 SF

TOTAL AREA = 4,329 SF

IMPERVIOUS AREA TO PLANTER AREA RATIO = 4,329 / 39,920 = **10.8%**

BASIN-C AREA = 34,246 SF

BASIN-C STORMWATER PLANTERS

SWP-C.1 AREA = 1,487 SF

SWP-C.2 AREA = 3,144 SF

TOTAL AREA = 4,631 SF

IMPERVIOUS AREA TO PLANTER AREA RATIO = 4,631 / 34,246 = **13.5%**

BASIN-D AREA = 86,275 SF

BASIN-D STORMWATER PLANTERS

SWP-D.1 AREA = 6,935 SF

SWP-D.2 AREA = 5,217 SF

TOTAL AREA = 12,152 SF

IMPERVIOUS AREA TO PLANTER AREA RATIO = 12,152 / 86,275 = **14.1%**

TOTAL RATIO OF SITE IMPERVIOUS AREA MANAGED THROUGH THE USE OF GSI PONDS:

SITE IMPERVIOUS AREA = 168,875 SF

IMPERVIOUS AREA NOT MANAGED BY GSI POND (BASIN A)=8,434 SF

$$8,434/168,875 = 5.0\%$$

THEREFORE 95% OF THE SITE IS MANAGED THROUGH THE USE OF GSI PONDS

