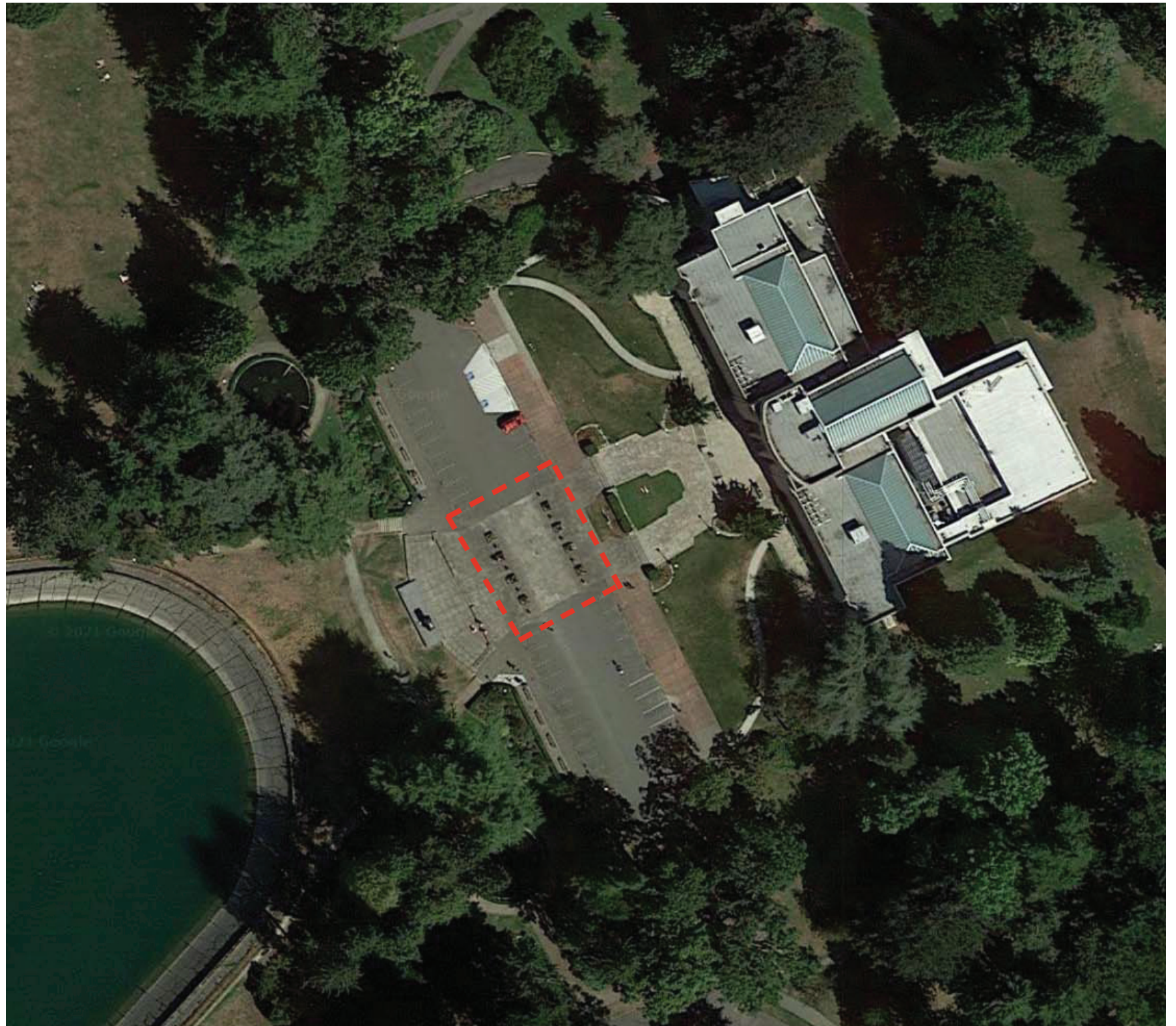


## OVERVIEW

The stone paving in the Plaza in front of SAAM has deteriorated significantly within the primary vehicle drive areas. Seattle Department of Parks and Recreation is investigating repair alternatives and is seeking input from the Architectural Review Committee on the method of repairs.

The existing stone within Volunteer Park Drive was installed in 1975 based on drawings by Richard Haag as an extension of the paving at the steps and entry to the Museum. Approximately 230 sf of stone pavers in the primary vehicle path were replaced with concrete previously (believed to be at least 10-15 years ago). Approximately 410 sf of the remaining stone in the primary vehicle drive area has failed and needs to be replaced. Together, the 640 sf of previously failed and currently failed stone represents 33% of all stonework within the primary vehicle drive area (1950 sf total). The overall stone area within the entire 1975 plaza area is over 7,000 sf, with relatively minor deterioration in the non-vehicular areas.



AERIAL VIEW (plaza area highlighted)

## VOLUNTEER PARK DRIVE PLAZA PAVING

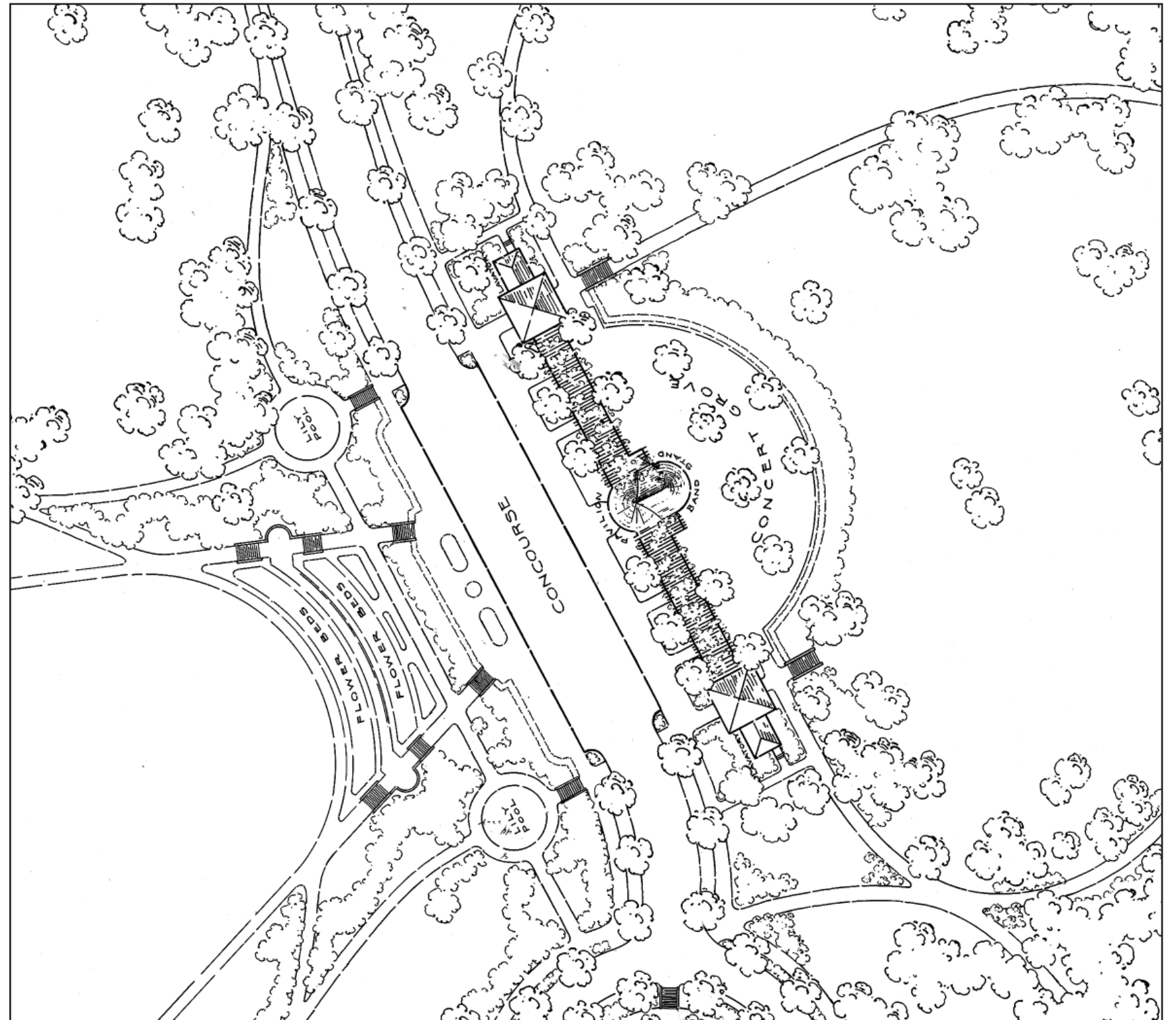


## BACKGROUND

Site plan and view of Volunteer Park Drive as original designed and constructed.



1913 VIEW OF DRIVE FROM SOUTHWEST



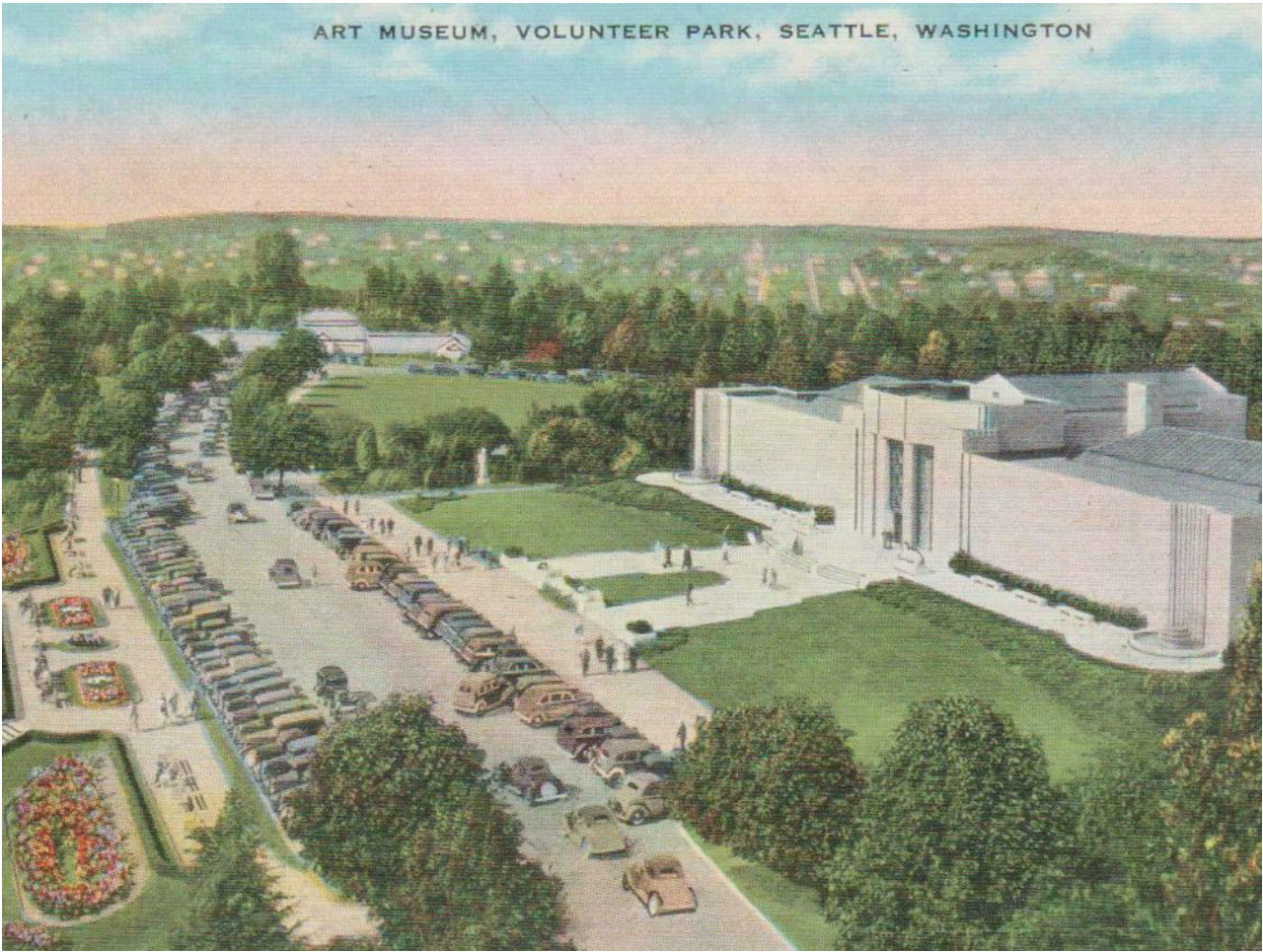
1909 OLMSTED PLAN

## VOLUNTEER PARK DRIVE PLAZA PAVING

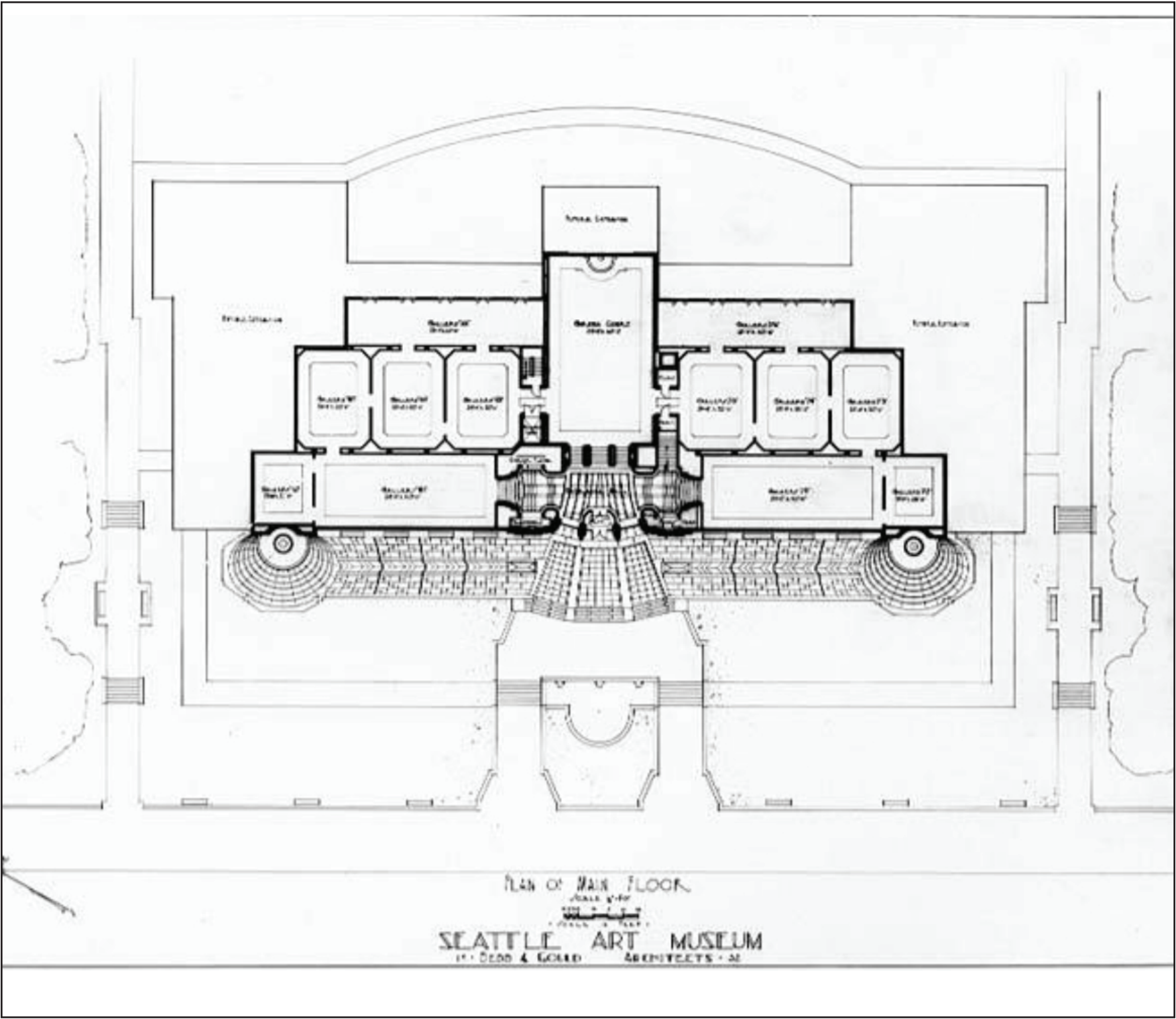


BACKGROUND

The 1931 Seattle Art Museum construction included stone paving at the exterior entry and stairs but did not include stone paving beyond the base of the stairs or within Volunteer Park Drive.



1935 VIEW OF DRIVE



1931 SAM SITE PLAN

VOLUNTEER PARK DRIVE PLAZA PAVING



The stone paving extension of the SAAM entry paving was constructed in 1975, based on drawings prepared by Richard Haag in 1974.



# VOLUNTEER PARK DRIVE PLAZA PAVING



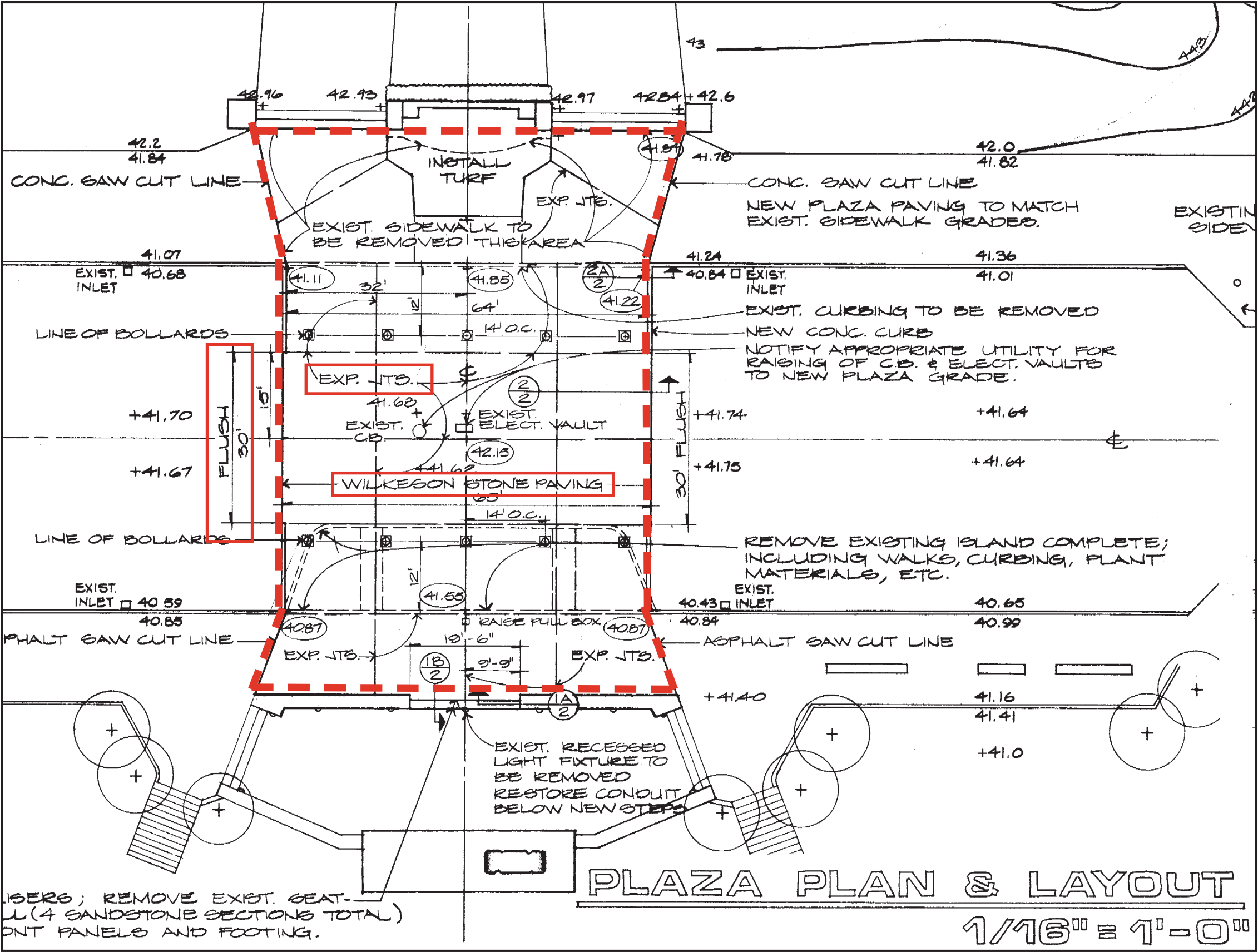


BACKGROUND

The extent of the 1975 stone paving is highlighted by the dotted red line.

The Haag plan shows a grid of expansion joints within Plaza and does not show a stone joint layout. As noted in the detail section on the following page, the expansion joints shown in plan refer only to the concrete below, since the details show the stones spanning the expansion joints.

The 30' wide center portion noted as "Flush" in plan is the primary vehicle drive area aligned with Volunteer Park Drive.



1974 PLAZA PLAN

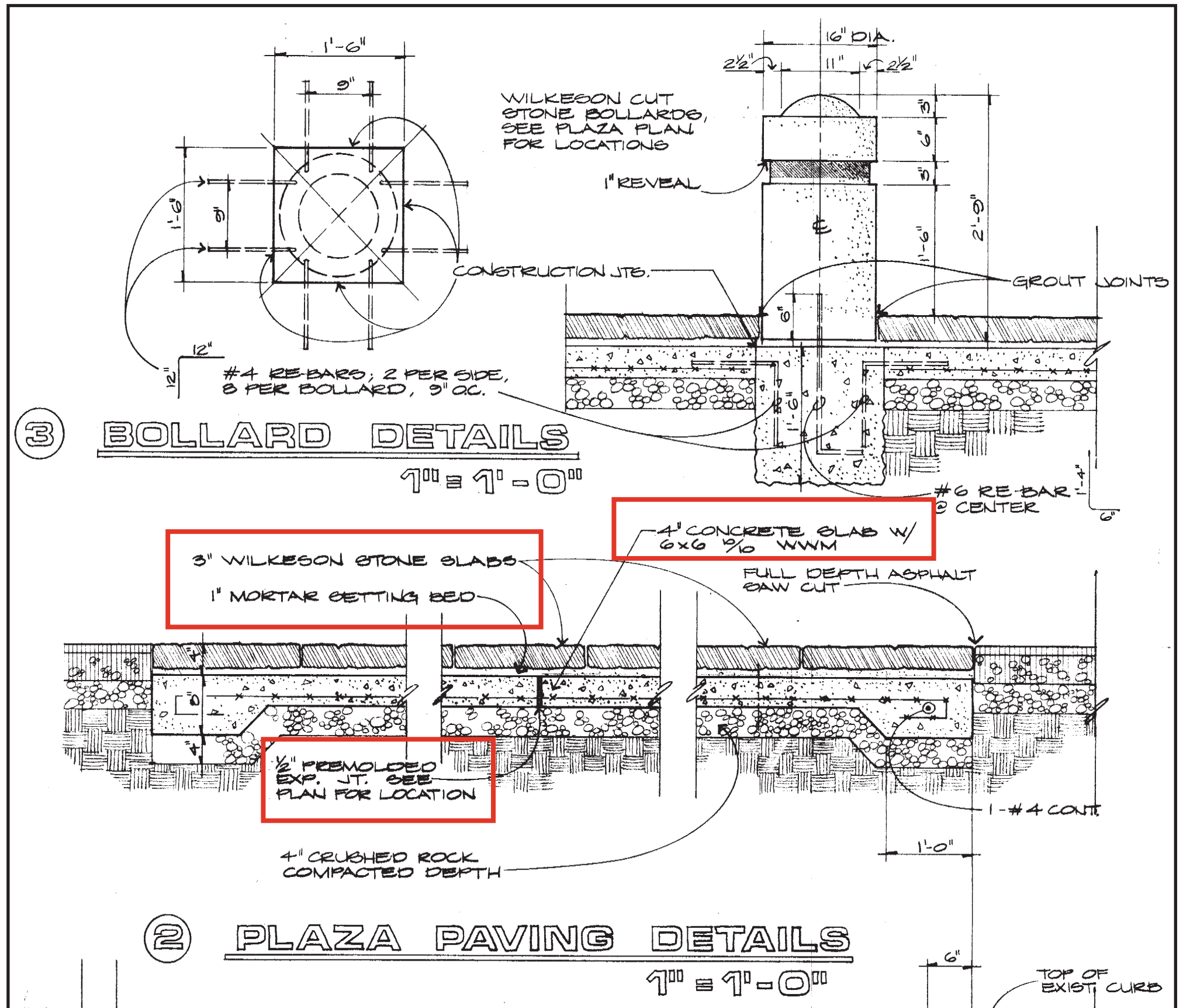
VOLUNTEER PARK DRIVE PLAZA PAVING



## BACKGROUND

The as-built conditions appear to match the 1974 details, with the exception that several of the original 10 stone bollards have been replaced with precast concrete bollards to match the original stonework.

The Wilkeson quarry, the source of the original stone, is no longer in operation. SPR is currently seeking pricing and samples from Select Stone in Montana for replacement stone to match the existing stone as closely as feasible. The feasibility and cost of the stone replacement is still being determined. Replacement with concrete may need to be considered due to budget and could provide better durability if done properly, given the continuing issues with stone in this high traffic area.



1974 PLAZA DETAILS



The aerial survey plan was compiled from 70 stitched drone photographs to provide a high resolution plan, facilitating documentation of the extent of existing issues and necessary repairs. (The yellow X's visible in the survey are tape placed 40' apart by the survey company to facilitate scaling of the aerial photograph to a CAD drawing.)

Based on detailed site reviews, the plan highlights three areas as follows:

Red: stone pavers with significant deterioration and recommended to be replaced: (410 sf)

Blue: concrete paving with some cracking which is not as problematic as the disintegrating stones, but would ideally be replaced if feasible within the budget: (150 sf)

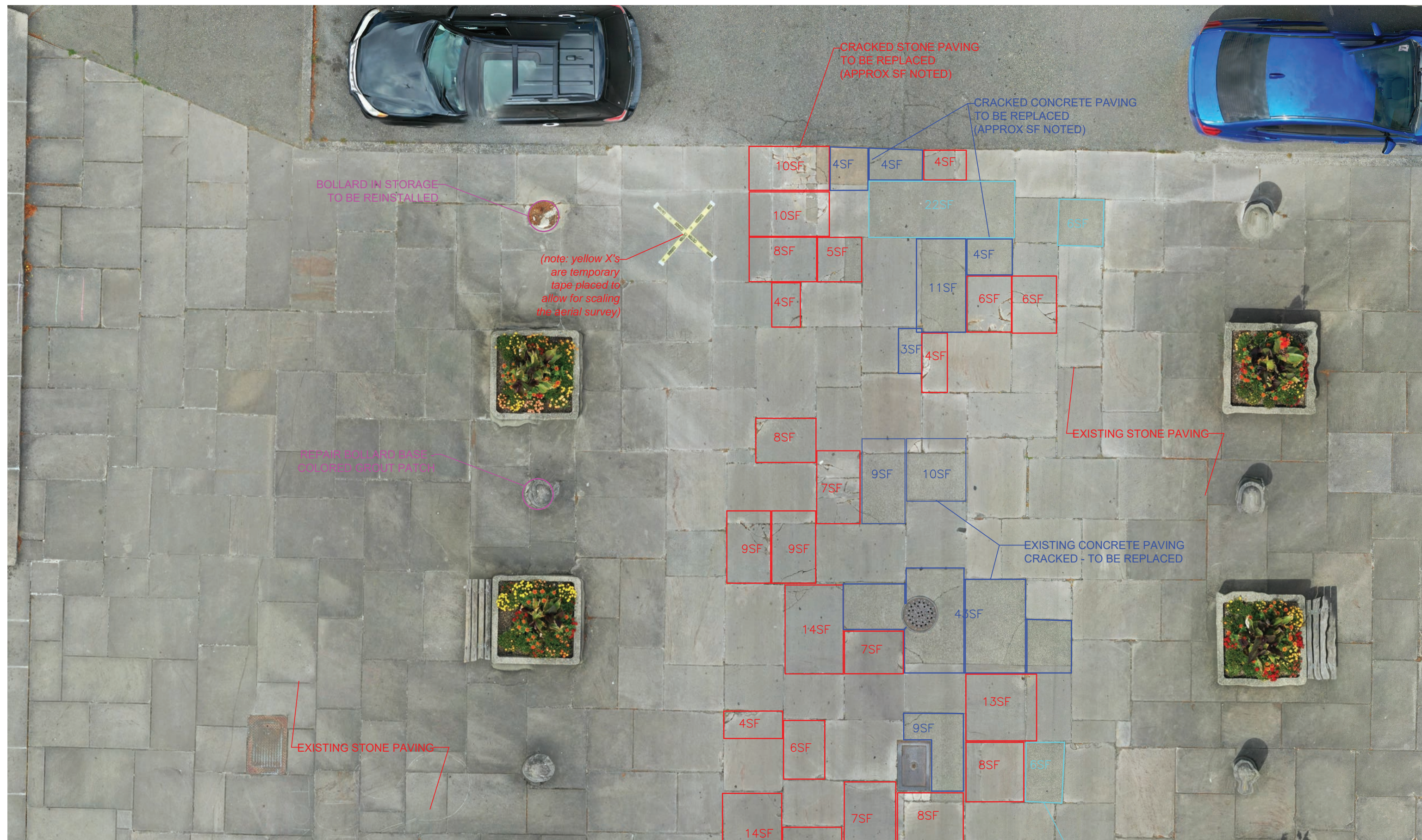
Light blue: other existing conc. paving infills without any cracking: (80 sf)











# VOLUNTEER PARK DRIVE PLAZA PAVING

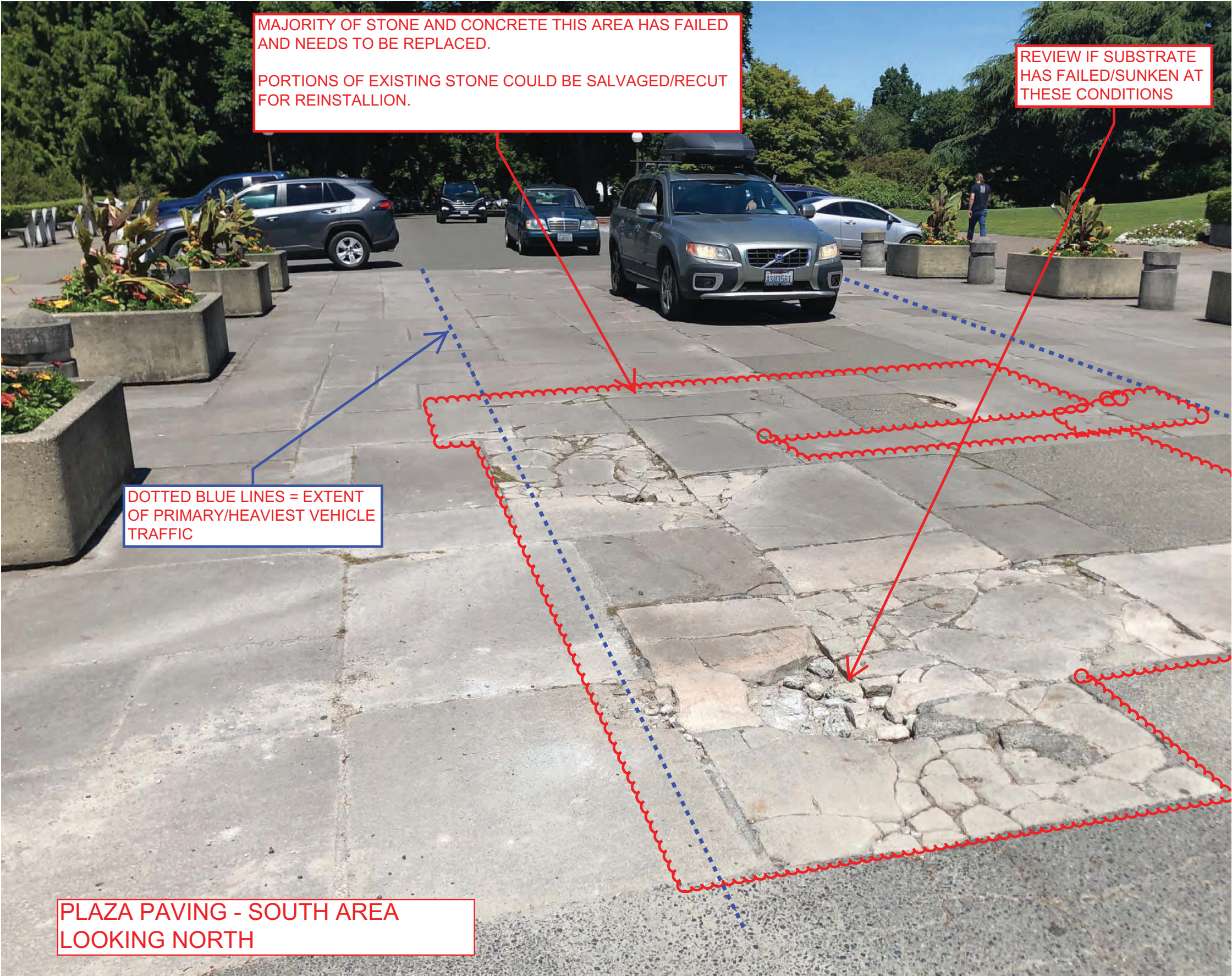


AERIAL SURVEY: PLAZA PLAN - NORTH



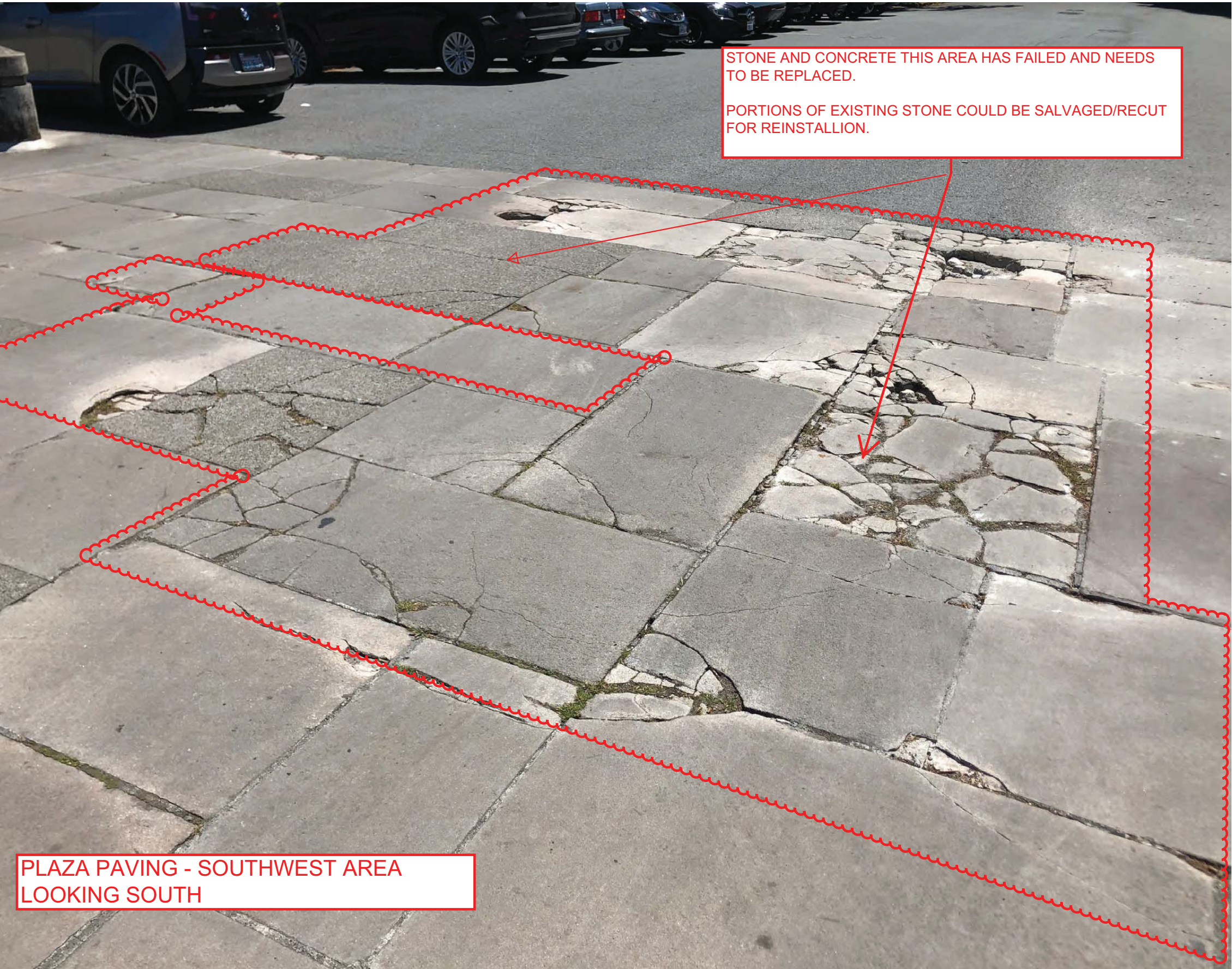
The Southwest portion of the plaza represents the most extreme area of deterioration, with numerous stones completely disintegrated.

The blue dotted lines show the primary vehicle pathway which is where nearly all deterioration has occurred.



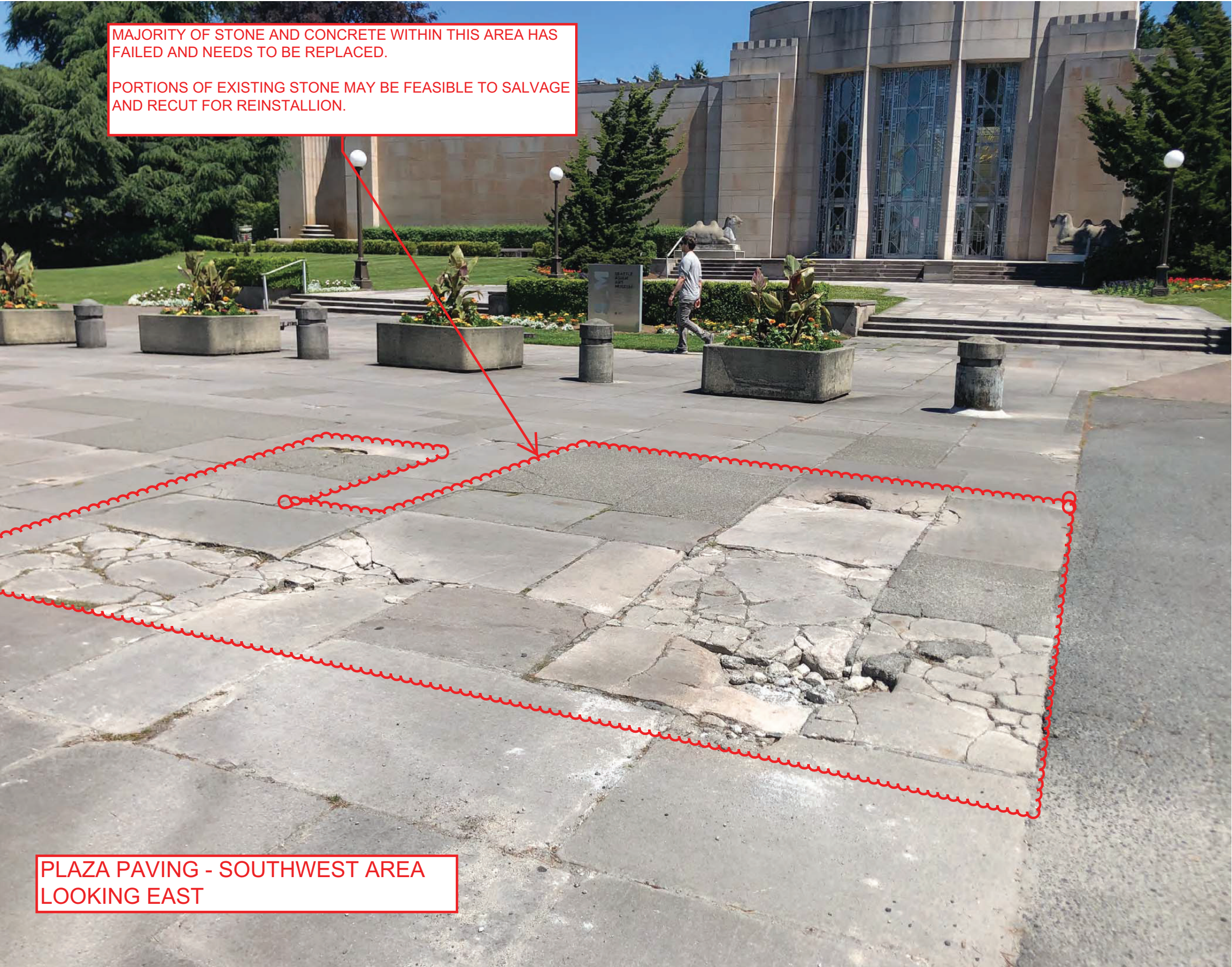


The Southwest portion of the plaza represents the most extreme are of deterioration, with numerous stones completely disintegrated.



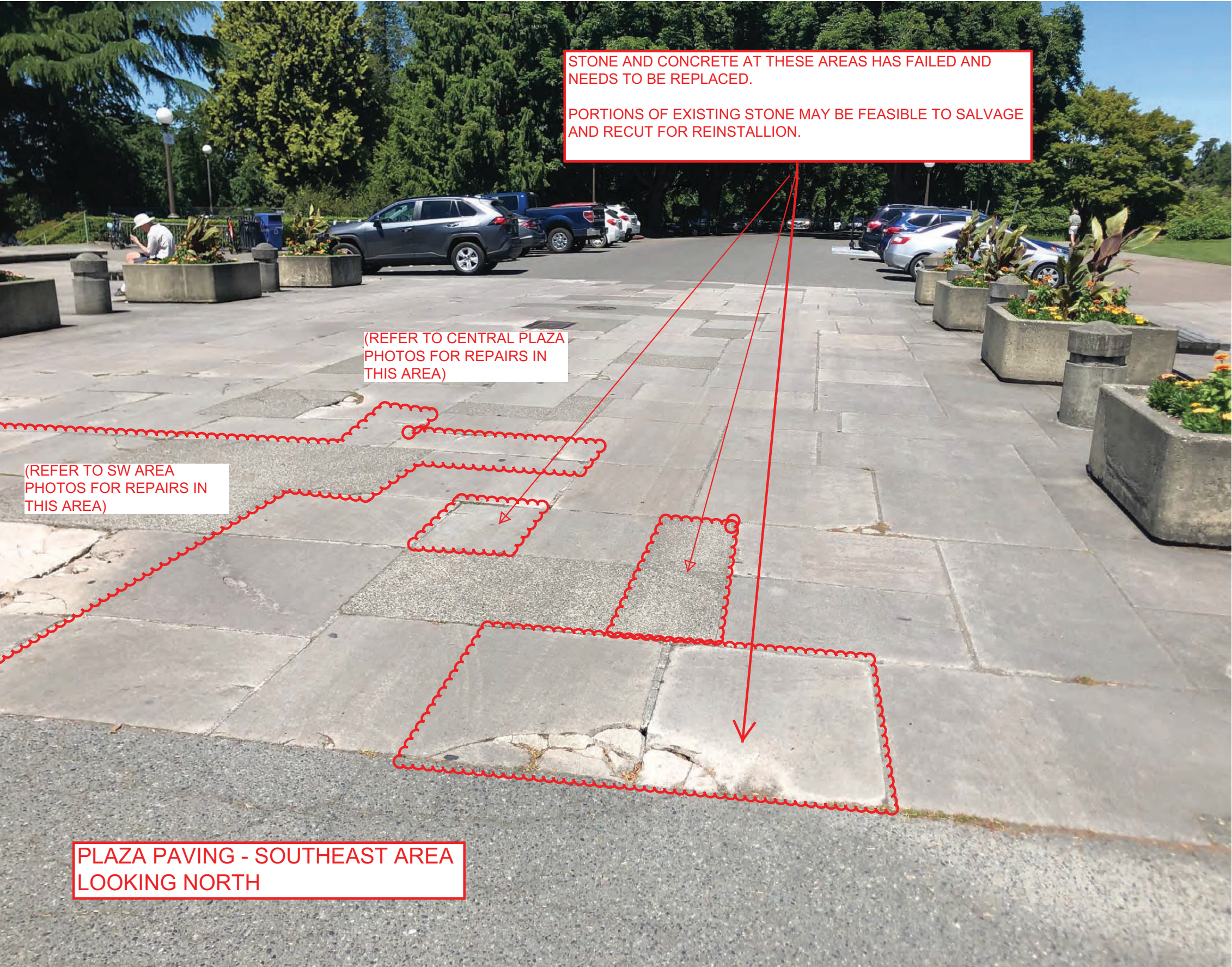


The Southwest portion of the plaza represents the most extreme are of deterioration, with numerous stones completely disintegrated.



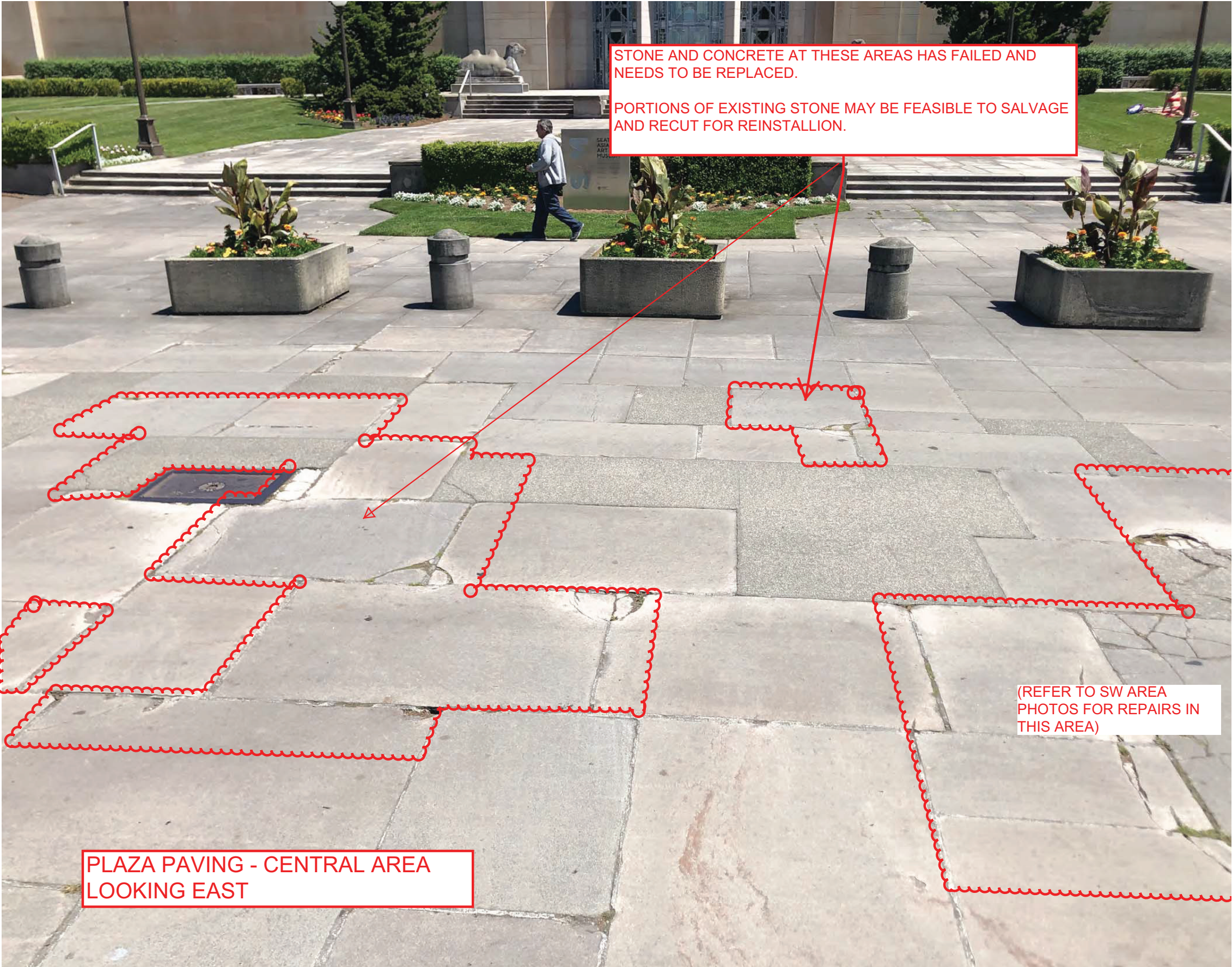


The Southeast portion of the plaza has less extensive deterioration than at Southwest, but the stones closest to asphalt have failed, notably along the edge of asphalt paving. An adjoining concrete infill has minor cracks so is noted to ideally be replaced if feasible within the budget.





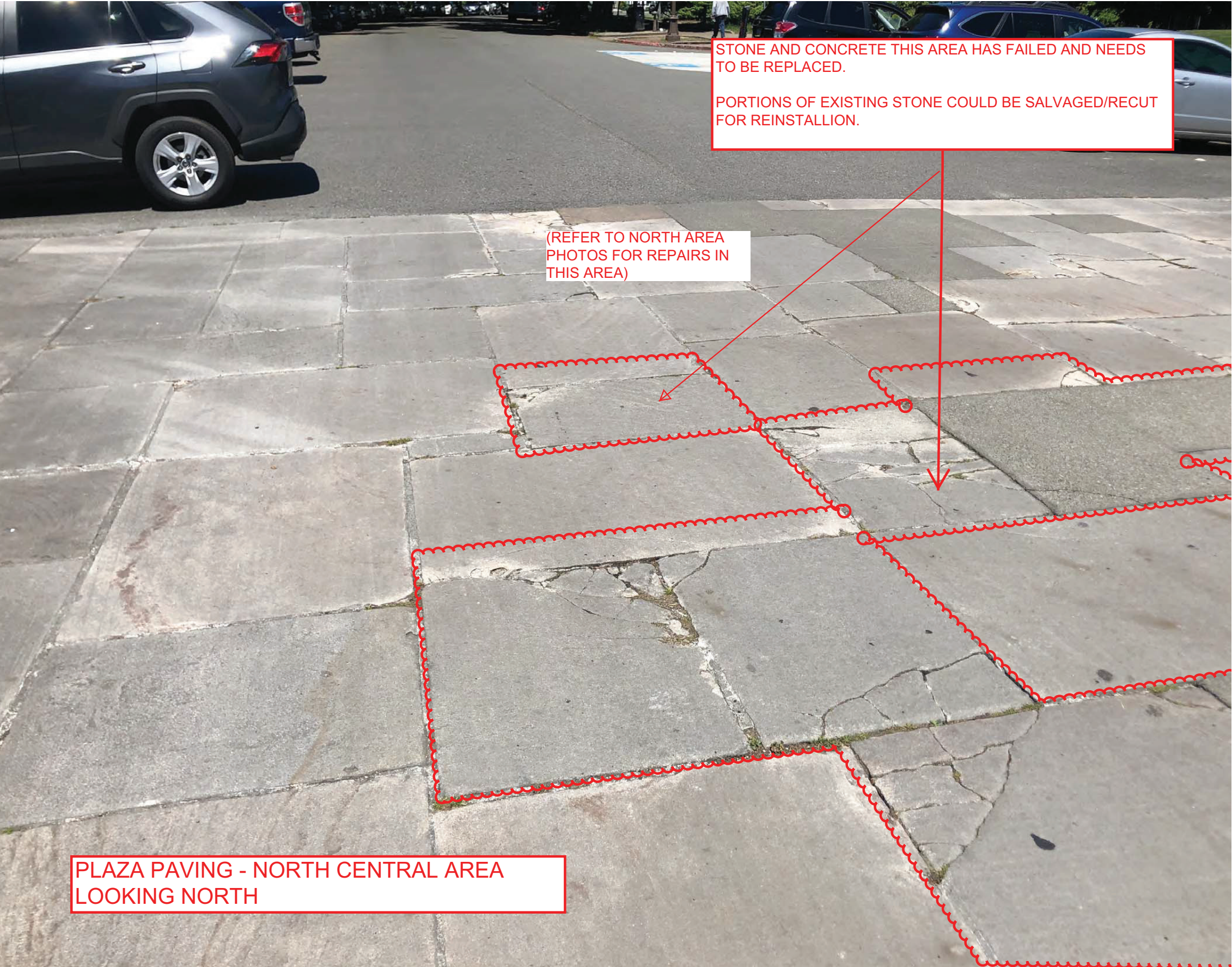
The central plaza area has numerous stones with edges and corners that have eroded or cracked to the extent that water accumulates in the pockets, resulting in further erosion and water infiltration below the stones, contributing to accelerated deterioration. The deterioration is exacerbated in winter by freeze thaw of ice and when snow removal has resulted in further damage to irregular stone edges.





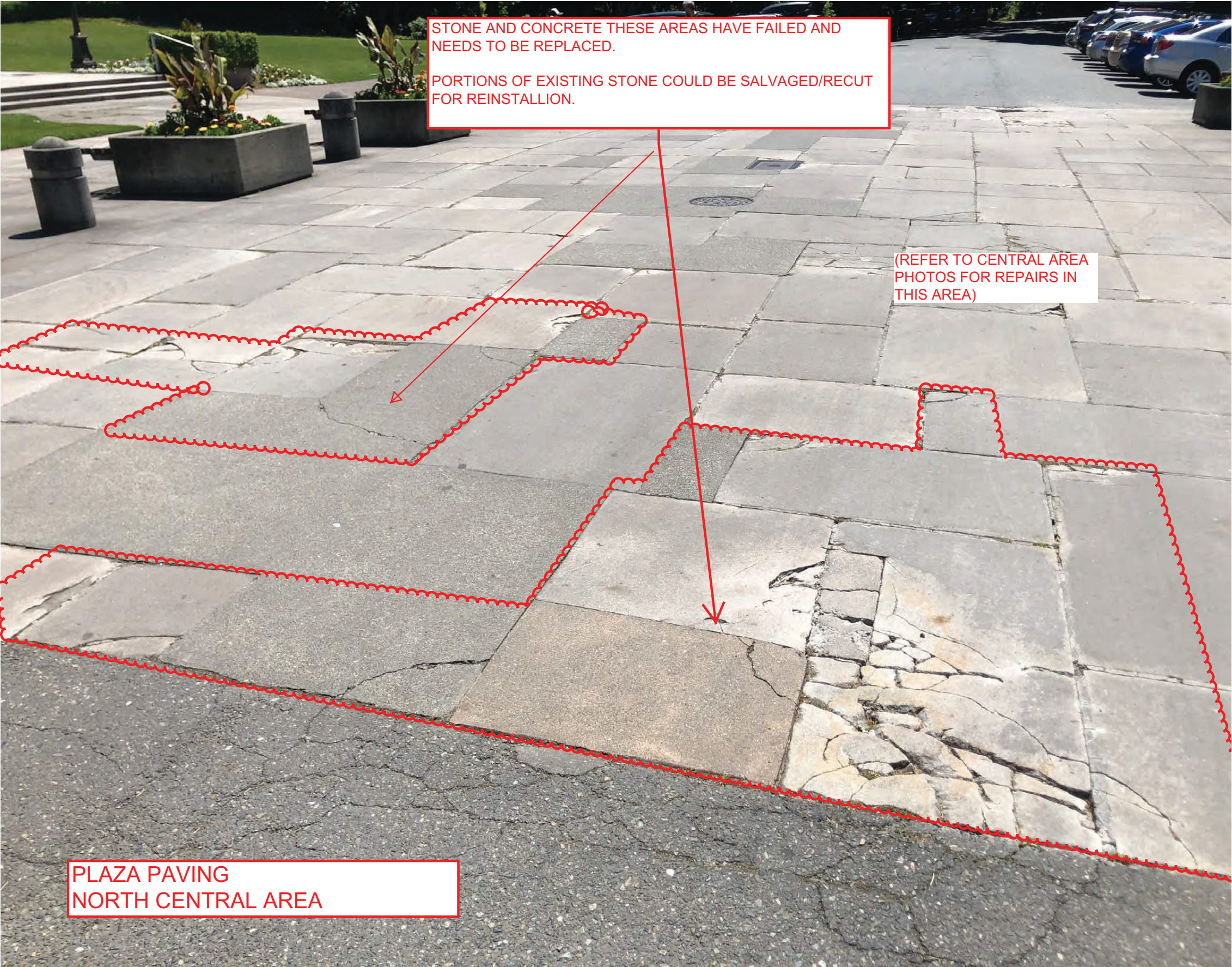
The North central plaza area also has extensive stone areas with edges and corners that have eroded or cracked to the extent that water is accumulating in the pockets and infiltrating below the stone, resulting in accelerated cracking and deterioration.

The concrete on the right-hand side of photo has some minor cracks which are not as problematic as the cracks in stone, but the concrete is proposed to be replaced here as well, if feasible within the budget.



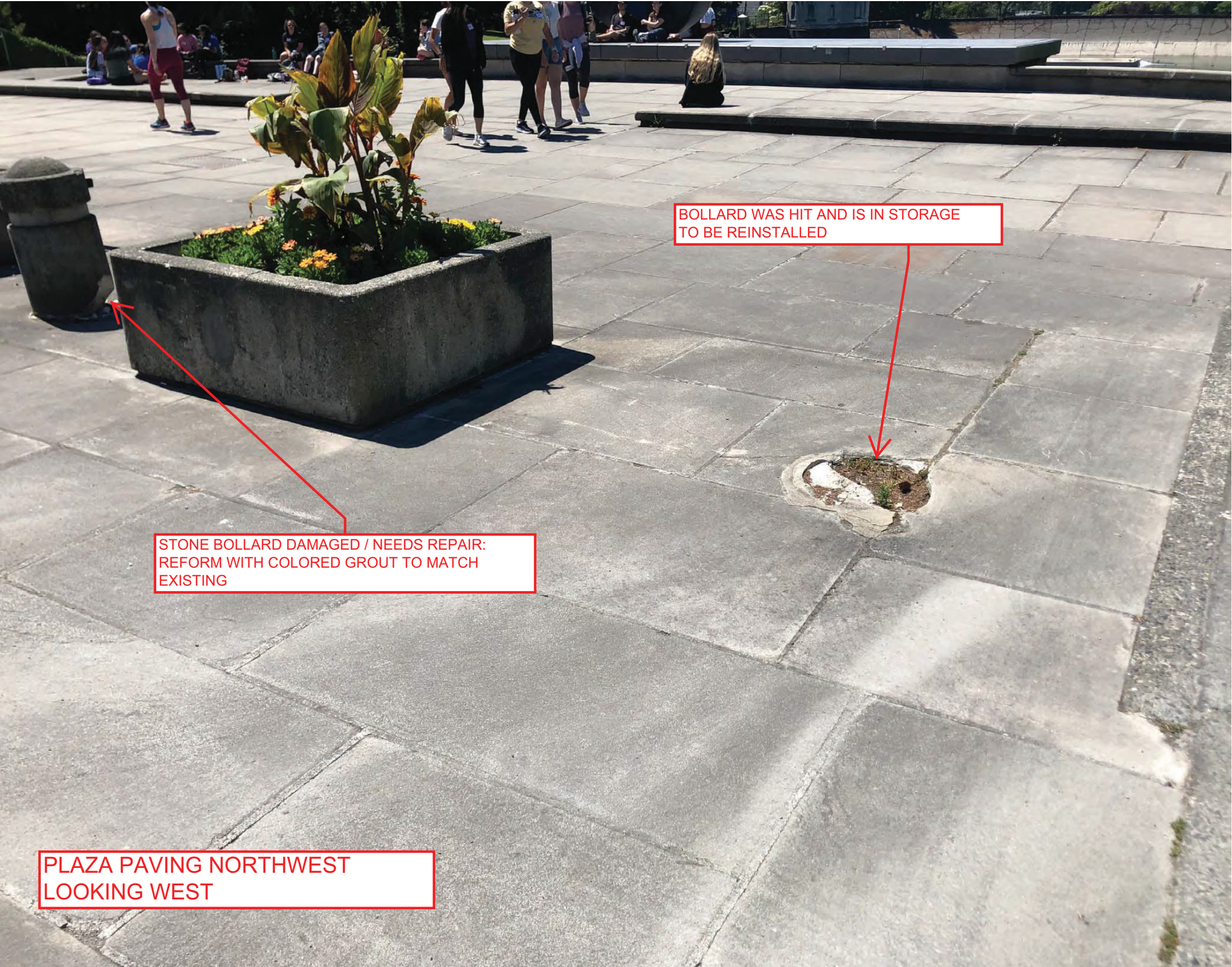


The condition of the North plaza area is similar to the south area, with more extreme deterioration at the transition from asphalt. Note the previously replaced concrete sections evidently done at different times (one portion is colored brown while the remainder is gray.)





One existing bollard was knocked over by a vehicle and another was damaged by a vehicle. These will be reinstalled and restored to original condition.





## Notes Regarding Potential Repairs:

1) Pioneer Masonry, the contractor who recently completed repairs to the SAAM pedestrian paving indicated that the repairs to cracked stones, as implemented in the pedestrian paving areas, are not feasible within the vehicle drive areas. They advised that full replacement of damaged stones is the only repair they see as feasible given the high traffic use. They noted that the relatively soft Wilkeson stone, as well as potential matching replacement stone, are not typically recommended for vehicular roadways.

2) SPR is currently seeking pricing and samples from Select Stone in Montana to determine the cost of replacement of the failed stone with new stone. Replacement with concrete may also be explored if stone is infeasible due to costs, and given the poor performance of stone in the vehicle traffic areas.

### Summary of Impacted Areas:

Red: stone needing replacement: 410 sf

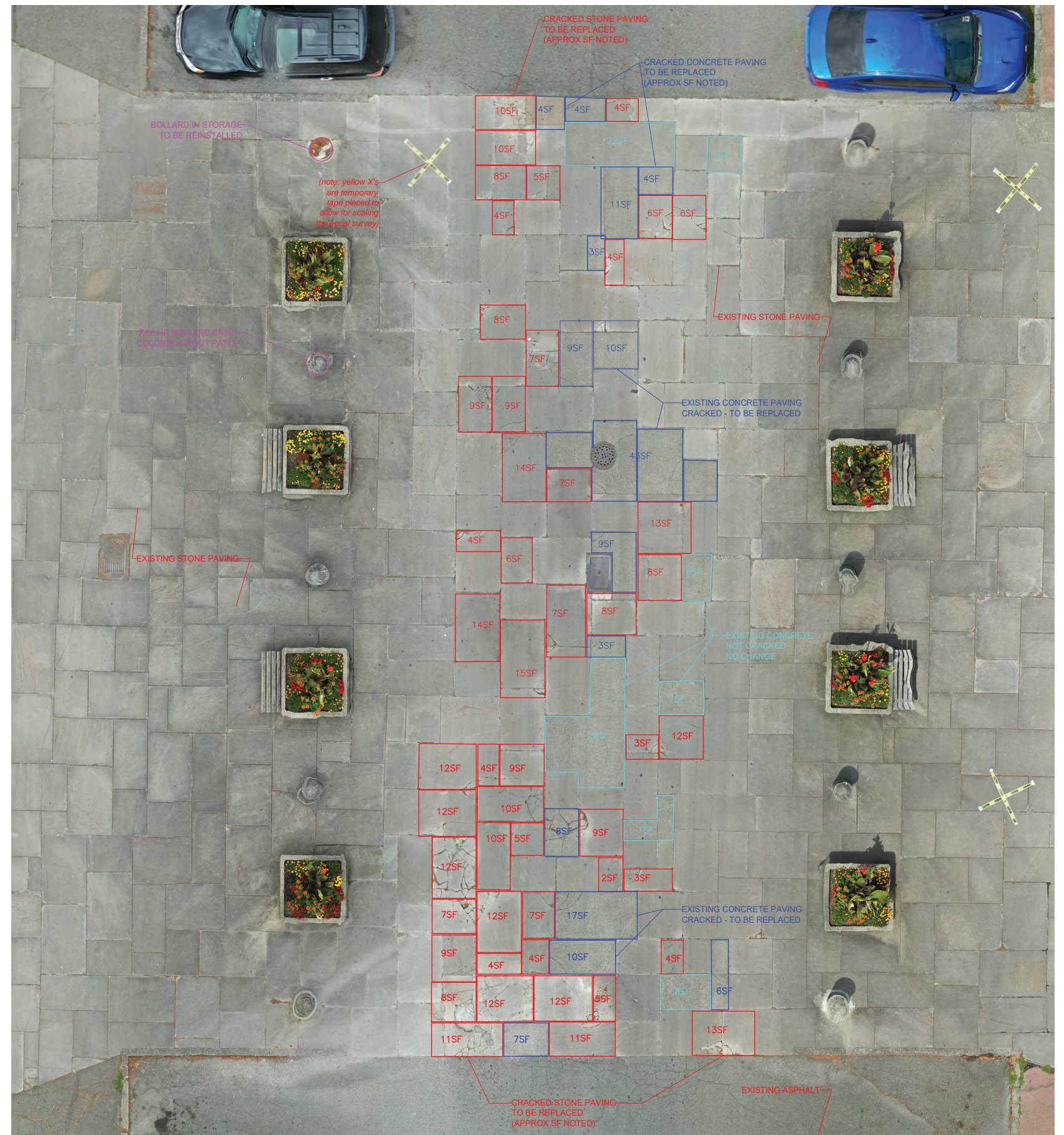
Dark Blue: concrete needing replacement: 150sf

Light Blue: other concrete infills with no cracks: 80sf

Drive area total area: 1950 sf

Total Plaza stone area: over 7,000 sf

## VOLUNTEER PARK DRIVE PLAZA PAVING



AERIAL SURVEY: PLAZA PLAN