

Casa Grande Ruins National Monument Landscape Assessment



CASA GRANDE
NATIONAL MONUMENT
PREHISTORIC RUINS
NATIONAL PARK SERVICE
U.S. DEPARTMENT OF INTERIOR

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Plant Inventory

An inventory of plant materials at the Visitor Center and Operations Complex at Casa Grande Ruins National Monument was conducted between February and May 2019 to identify plant types and the presence of native/non-native species. In addition, an analysis of landscape plans completed in 1932, 1958 and 1964 suggests extant trees which may date to one of these early landscape plans. The Complex is divided into sub-areas for ease of description. All plants listed below are native to Arizona except those called out on the list by bolded initials. The region of origin follows in those cases. Mesquites are considered native although most plants are likely to have some amount of hybridization with non-native Chilean mesquites. Plant lists include the scientific name, common name and number of plants of that type found in a given area.



Areas Surveyed

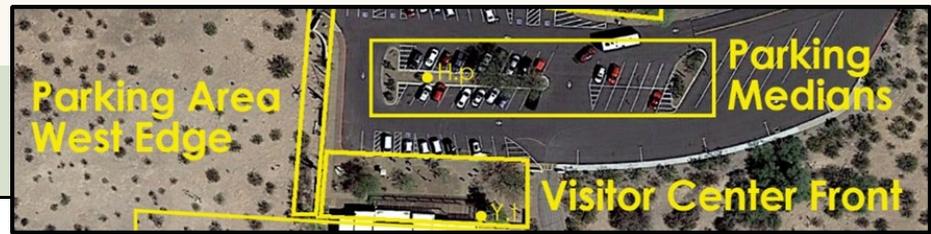
Picnic Area



Plant	Common Name	#	Notes (native/near/non)
<i>Vachellia constricta</i> , <i>Acacia constricta</i>	Whitethorn acacia	1	Pinal Native
<i>Atriplex polycarpa</i>	Cattle saltbush	1	Pinal Native
<i>Carnegiea gigantea</i>	Saguaro	5	Pinal Native
<i>Ferocactus cylindraceus</i>	Fire barrel cactus	1	Pinal Native
<i>Fouquieria splendens</i>	Ocotillo	7	Pinal Native
<i>Lycium exsertum</i>	Gray wolfberry	2	Pinal Native
<i>Olneya tesota</i>	Ironwood	8	Pinal Native
<i>Parkinsonia florida</i> and <i>Parkinsonia microphylla</i>	Blue palo verde and Foothill palo verde	7	Pinal Natives
<i>Opuntia engelmannii</i>	Engelmann prickly pear	1	Pinal Native
<i>Prosopis glandulosa</i>	Honey mesquite	1	Pinal Native
<i>Prosopis velutina</i> (and hybrids)	Velvet mesquite (and hybrids)	~10	Pinal Native
<i>Tephrocactus articulatus</i> var. <i>papyracanthus</i>	Paper spine cactus	1	Non-Native (Argentina)
<i>Yucca torreyi</i>	Torrey's yucca	1	Near Native (New Mexico, West Texas) Y.t on map



Parking Area



Parking Medians

Plant	Common Name	#	Notes (native/near/non)
<i>Opuntia ficus indica</i>	Barbary fig	3	Near Native (Mexico) though distributed in SW
<i>Pachycereus schottii</i>	Senita cactus	2	Pinal Native
<i>Carnegiea gigantea</i>	Saguaro	2	Pinal Native
<i>Hesperaloe parvifolia</i>	Red yucca	1	Near Native (Texas) H.p on map
<i>Prosopis chilensis</i>	South American hybrid mesquite	1	Non Native/hybrid with <i>Prosopis velutina</i>

Parking West Edge

<i>Carnegiea gigantea</i>	Saguaro	4	Pinal Native
<i>Fouquieria splendens</i>	Ocotillo	14	Pinal Native
<i>Opuntia santa-rita</i>	Santa Rita prickly pear	1	Pinal Native
<i>Ferocactus wislizeni</i>	Fishhook barrel cactus	2	Pinal Native

Visitor Center – Front Entrance

<i>Agave chrysantha</i>	Yellow flowered century plant	4	Pinal Native
<i>Agave murpheyi</i>	Murphey's agave	1	Arizona Native
<i>Caesalpinia gilliesii</i>	Yellow bird of paradise	1	Arizona Native
<i>Carnegiea gigantea</i>	Saguaro	2	Pinal Native
<i>Ferocactus cylindraceus</i>	Fire barrel cactus	1	Pinal Native
<i>Fouquieria splendens</i>	Ocotillo	3	Pinal Native
<i>Ferocactus wislizeni</i>	Fishhook barrel cactus	2	Pinal Native
<i>Opuntia basilaris</i>	Beavertail prickly pear	1	Pinal Native
<i>Opuntia erinacea var. ursina</i>	Grizzly bear or hairy prickly pear	1	Arizona Native (Mohave County)
<i>Opuntia aciculata</i>	Chenille prickly pear	1	Near Native (South Texas)
<i>Opuntia santa-rita</i>	Santa Rita pricklypear	1	Pinal Native
<i>Pachycereus schottii</i>	Senita cactus	2	Arizona Native (Pima County)
<i>Parkinsonia florida</i>	Blue palo verde	1	Pinal Native
<i>Prosopis velutina (and hybrids)</i>	Velvet mesquite and hybrids	4	Pinal Native (or hybrid)
<i>Yucca torreyi</i>	Torrey's yucca	2	Near-Native (New Mexico, West Texas) Y.t on map

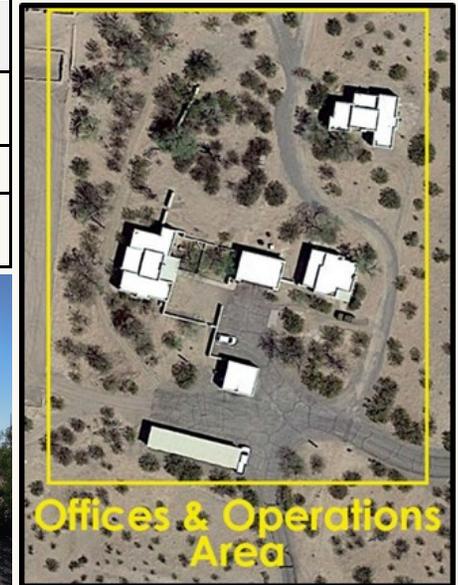
Visitor Center South Area



Plant	Common Name	#	Notes (native/near/non)
<i>Agave murpheyi</i>	Murphey's agave	1	Arizona Native - rare in nature
<i>Agave palmeri</i>	Palmer's agave	1 planter	Pinal Native
<i>Atriplex polycarpa</i>	cattle saltbush	Secondary matrix plant	Pinal Native
<i>Carnegiea gigantea</i>	Saguaro	6	Pinal Native
<i>Cylindropuntia leptocaulis</i>	Christmas cactus	1 planter	Pinal Native
<i>Echinocereus sp</i>	Hedgehog cactus	1 planter, 1 west side	Pinal Native
<i>Ferocactus cylindraceus</i>	Fire barrel cactus	1	Pinal Native
<i>Ferocactus wislizeni</i>	Fishhook barrel cactus	2	Pinal Native
<i>Fouquieria splendens</i>	Ocotillo	3	Pinal Native
<i>Larrea tridentata</i>	Creosotebush	Primary matrix plant	Pinal Native
<i>Lycium berlandieri</i>	Berlandier wolfberry	1 courtyard	Pinal Native
<i>Mammillaria grahamii</i>	Arizona fishhook cactus	1 planter	Pinal Native
<i>Opuntia santa-rita</i>	Santa Rita pricklypear	1 planter	Pinal Native
<i>Pachycereus schottii</i>	Senita cactus	2	Pinal Native
<i>Parkinsonia florida and/or Parkinsonia microphylla</i>	Blue palo verde and/or Foothill palo verde	3	Pinal Native
<i>Peniocereus greggii</i>	Night Blooming Cereus, Queen of the Night	1 courtyard	Pinal Native
<i>Prosopis velutina (and hybrids)</i>	Velvet mesquite and hybrids	3	Pinal Native
<i>Yucca torreyi</i>	Torrey's yucca	1	Near Native (New Mexico, West Texas) Y.t on map

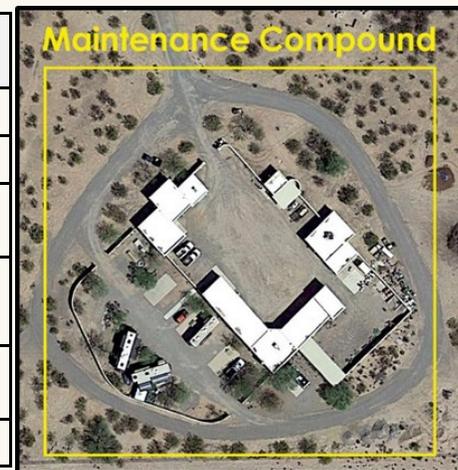
Office & Operations Area (formerly Residential Compound)

Plant	Common Name	#	Notes (native/near/non)
<i>Larrea tridentata</i>	Creosotebush	Primary matrix plant	Pinal Native
<i>Olneya tesota</i>	Ironwood	3	Pinal Native
<i>Parkinsonia florida</i> and/or <i>Parkinsonia microphylla</i>	Blue palo verde and/or Foot-hills palo verde	7	Pinal Native



Maintenance Area

Plant	Common Name	#	Notes (native/near/non)
<i>Baccharis sarothroides</i>	Desert broom	1	Pinal Native
<i>Carnegiea gigantea</i>	Saguaro	8	Pinal Native
<i>Larrea tridentata</i>	Creosote bush	Primary matrix plant	Pinal Native
<i>Opuntia erinacea</i> var. <i>ursina</i>	Grizzly bear or hairy prickly pear	1	Near Native (Texas)
<i>Pachycereus schottii</i>	Senita cactus	5	Arizona Native (Pima County)
<i>Baccharis sarothroides</i>	Desert Broom	13	Pinal Native

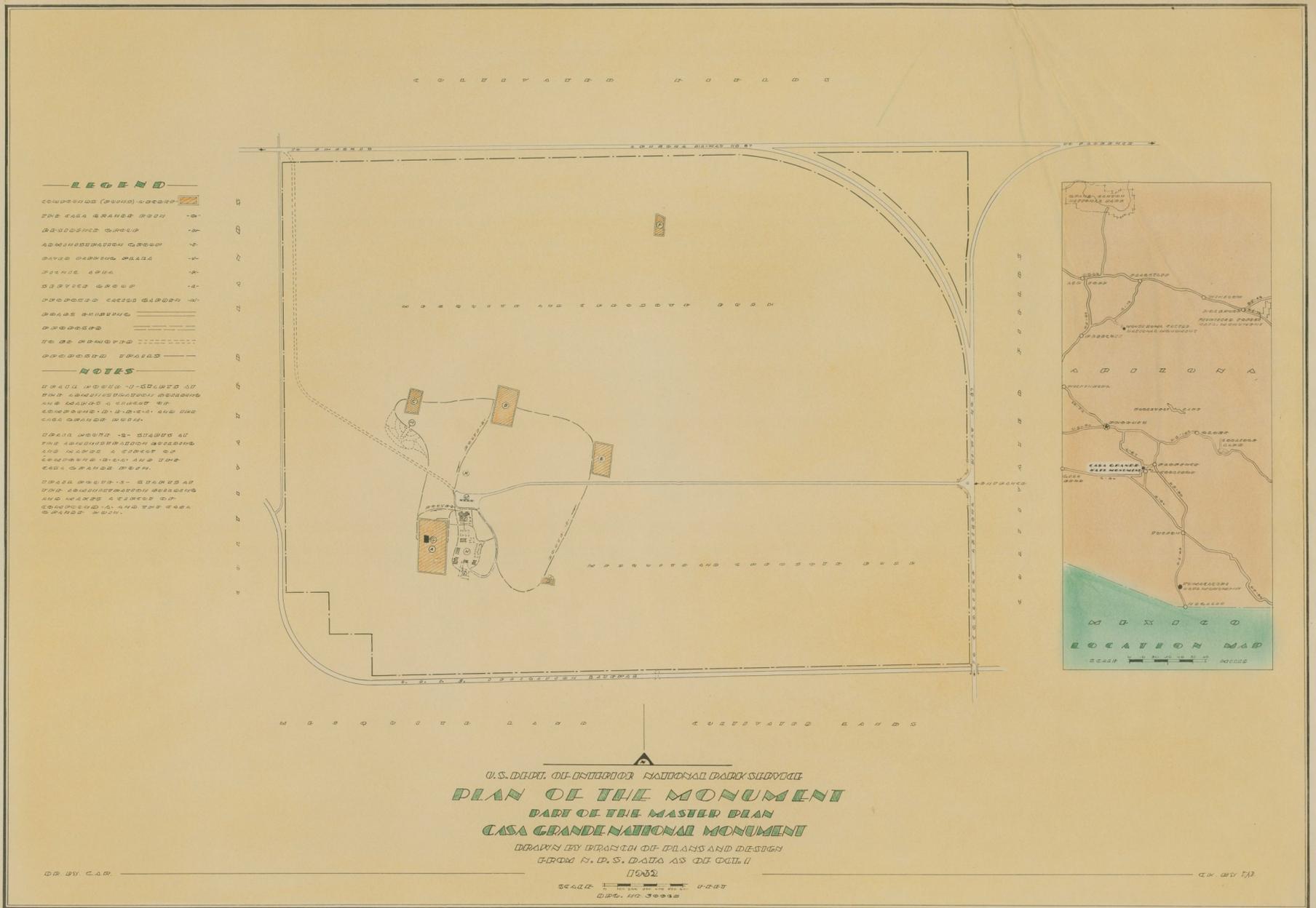


Historic Landscape Plans: 1932 Master Plan

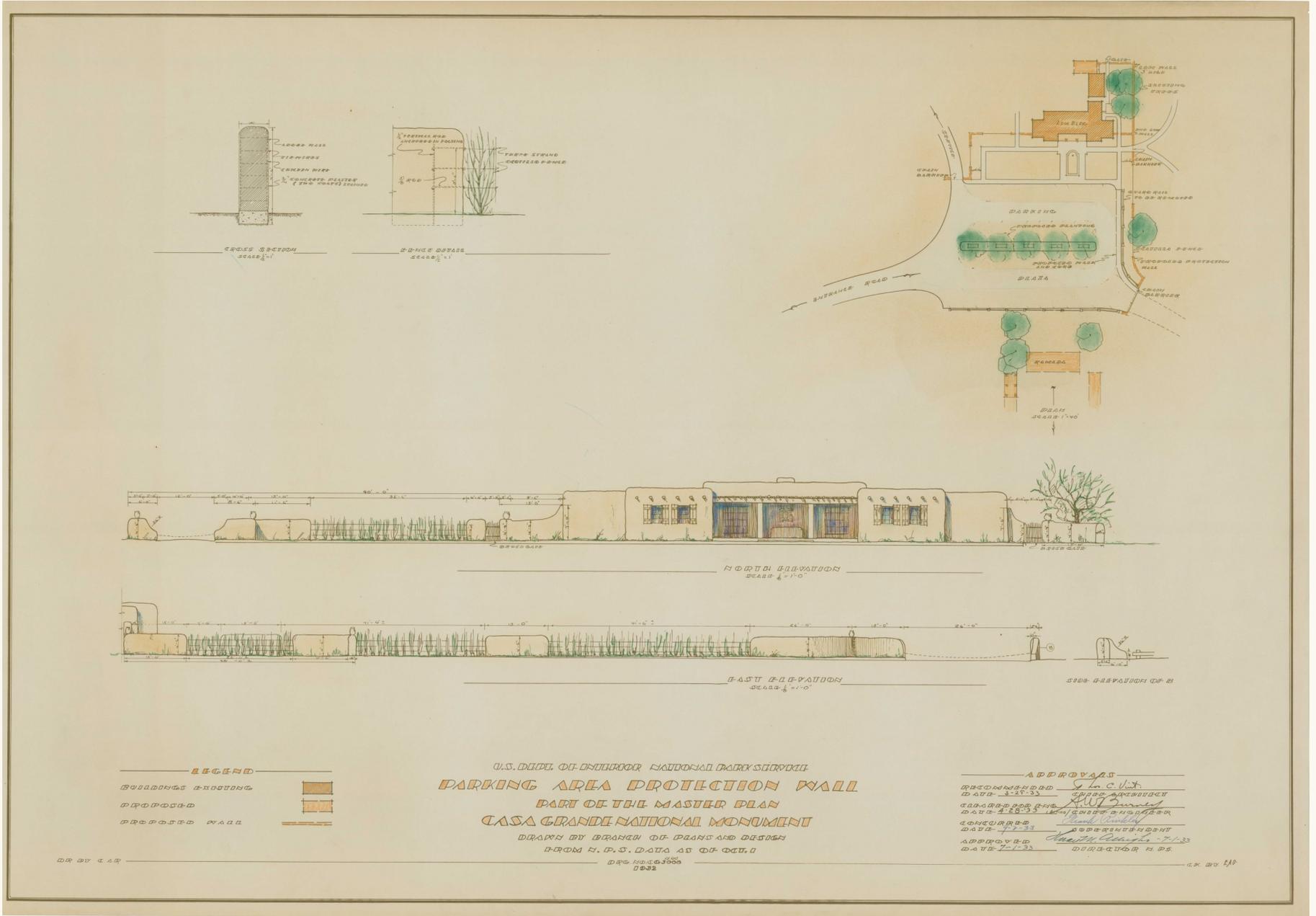
Between 1928 and 1933, NPS landscape architect Thomas C Vint and Southwestern National Monument (SWNM) Superintendent Frank Pinkley drafted a series of master plans for buildings, roads, and signs within the Monument to create the Visitor and Operations Complex. The following slides include the original plans.



1932 Master Plan

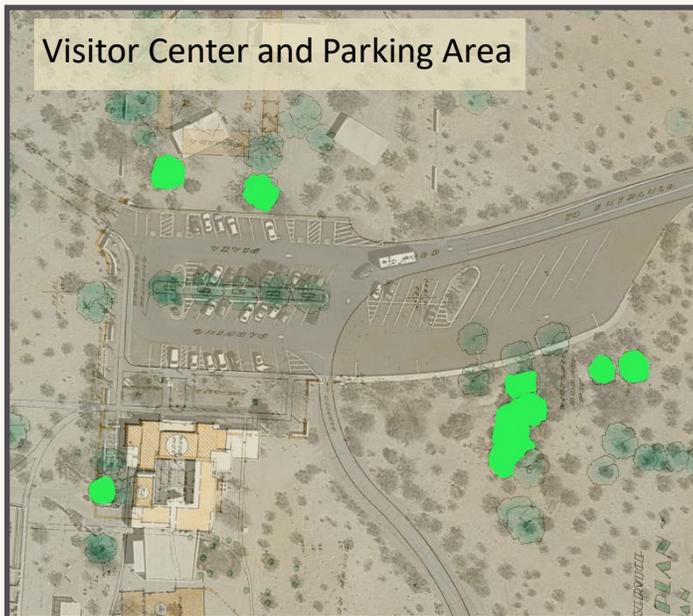
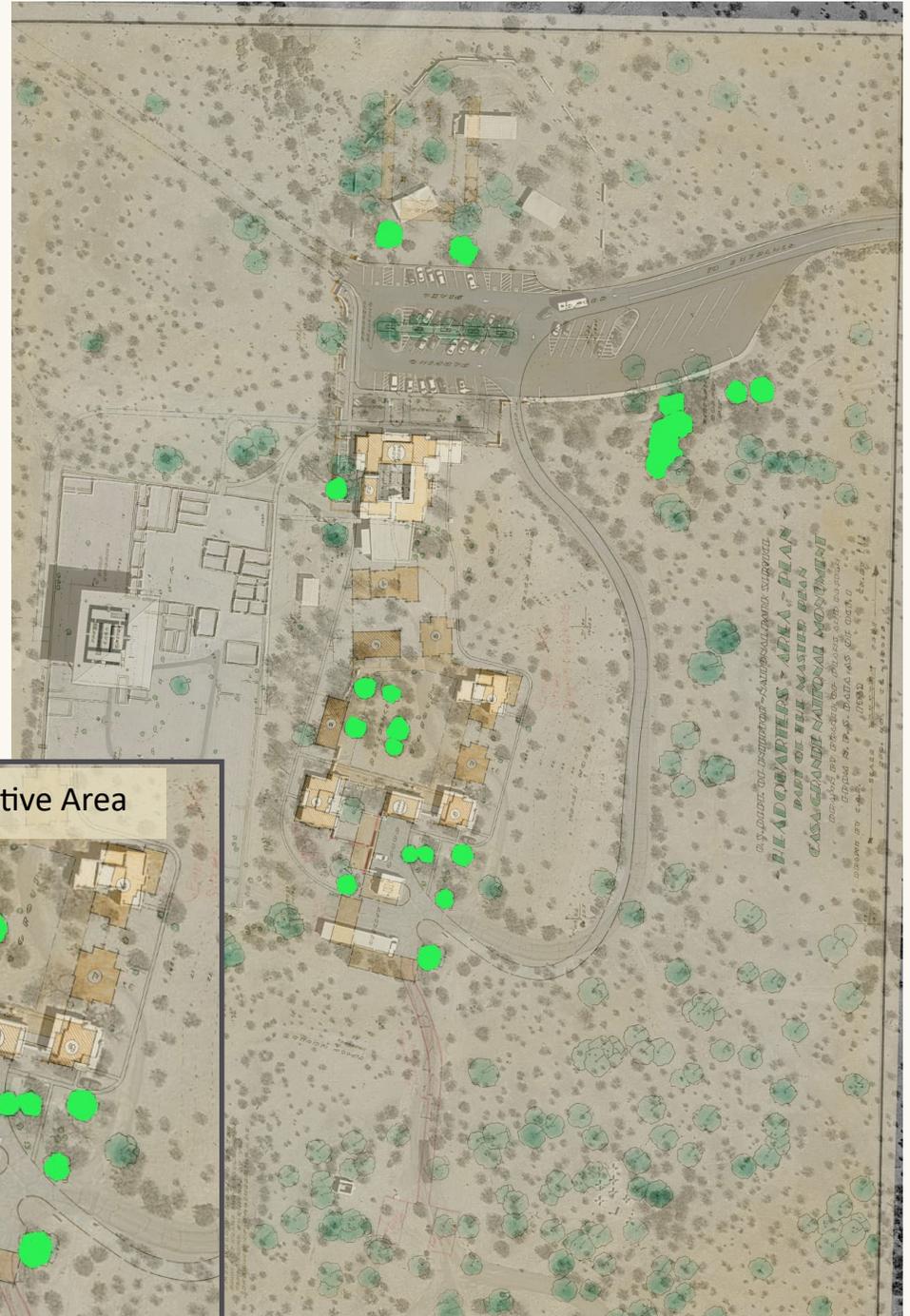


1932 Master Plan



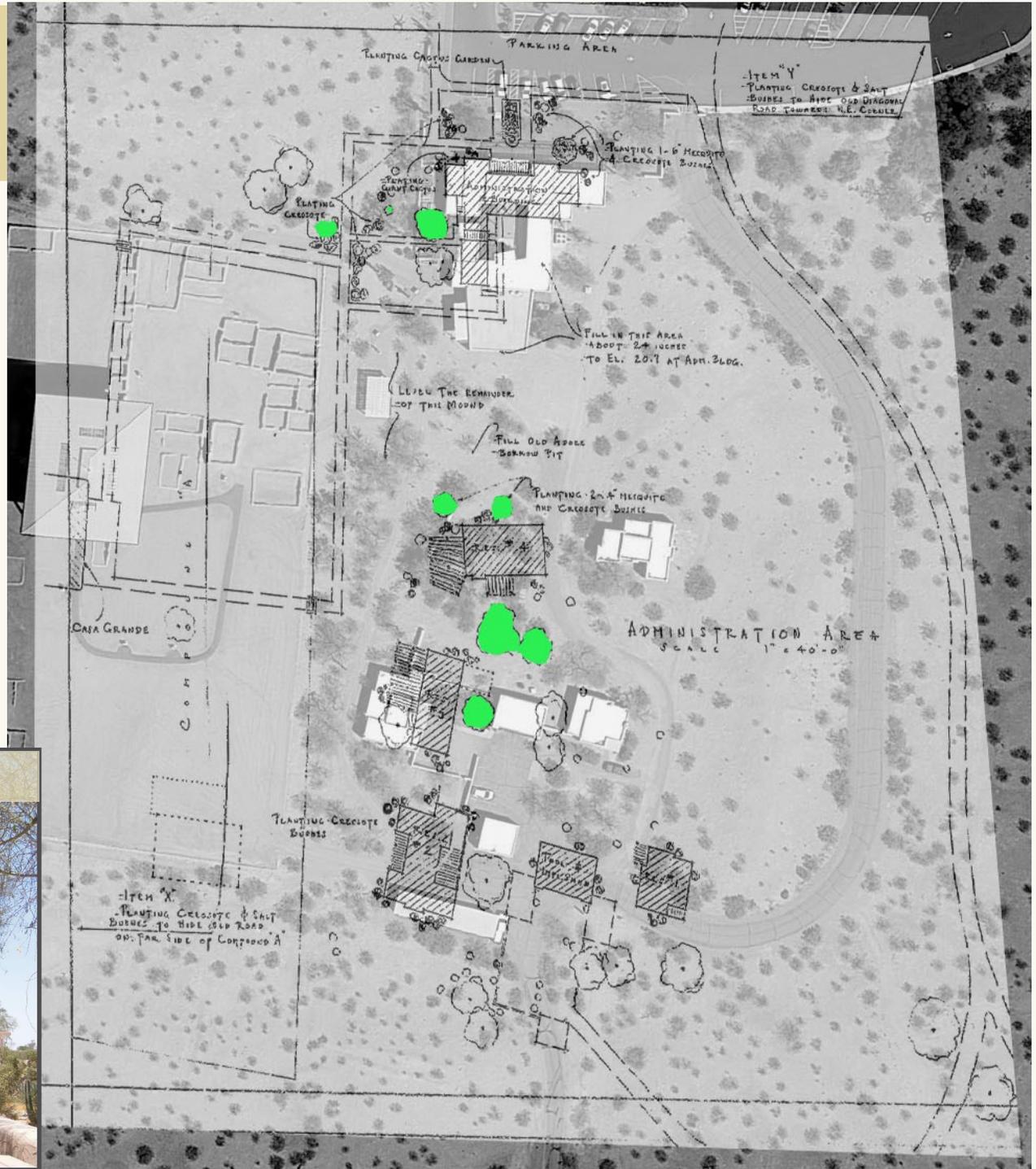
1932 Master Plan Overlay

A comparison of the 1932 master plan with a contemporary aerial photograph (2019) illustrates overlap between the two and can provide a “best guess” as to which plants may have been planted at the time of the original plan. Due to inconsistencies in the scale of the drawings vis-à-vis the aerial photos, the images do not line up perfectly so the identifying the location of historic trees from the map are estimates. The bright green trees indicate a location where the plan dictated the planting of a tree and where there currently is a tree.



1932 Landscape and Planting: Plan Overlay

The 1932 Landscape Plan indicates the planned location of mesquite trees, creosote, saguaro cactus, and salt bush. The green shapes indicate the current location of trees, shrubs and a saguaro which matches the locations shown on the plan. Major construction and landscape work was completing during the Mission 66 improvements and likely many of the plants that were installed in the 1930s were removed or relocated during the 1960s.

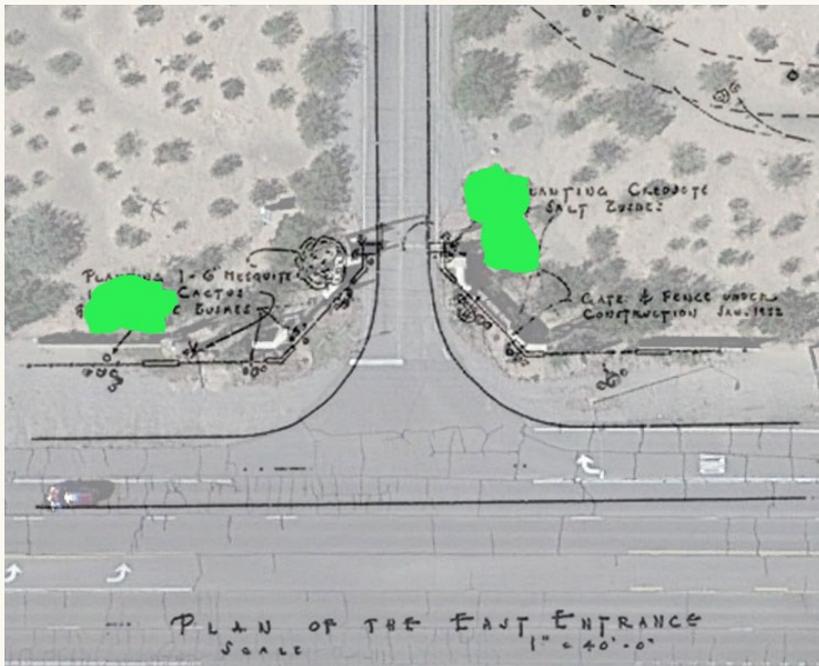
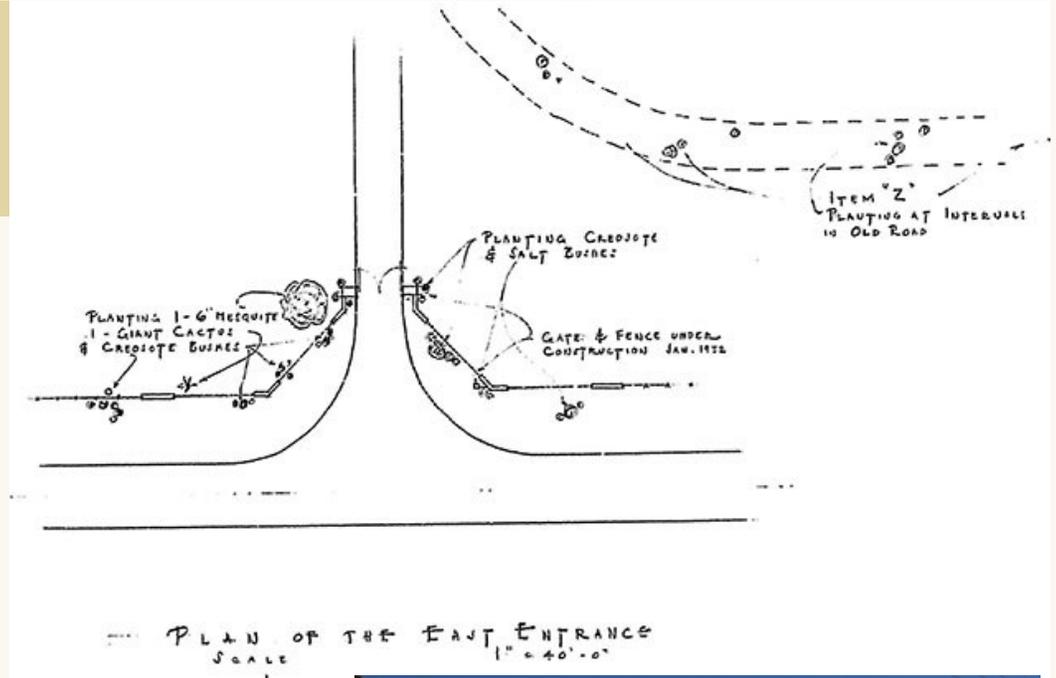


Picnic area on east side of visitor's center



1932 Landscape and Planting Plan: Monument Entrance

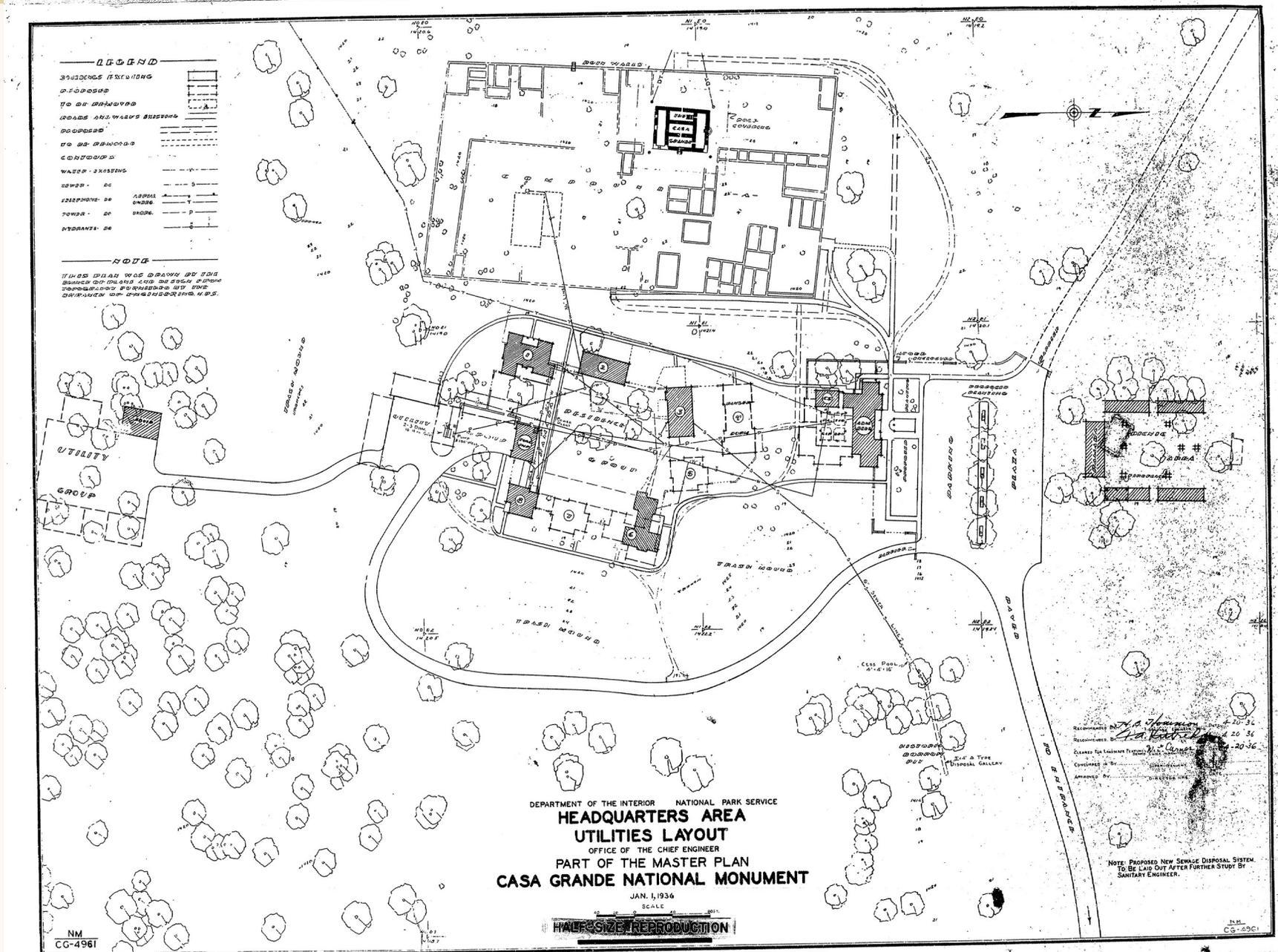
The 1932 Landscape & Planting Plan for the monument entrance called for the installation of a mesquite tree, several creosote bushes and one saguaro cactus. Mature creosote can be found behind the entrance monument wall and may well be from the 1930s period. The saguaro cactus, while mature and likely quite old, do not line up with the location indicated on the plan. It's possible that the planting of the saguaro did not follow the plan or that the existing ones were planted at another time. The mesquite tree is not evident.



Monument entrance

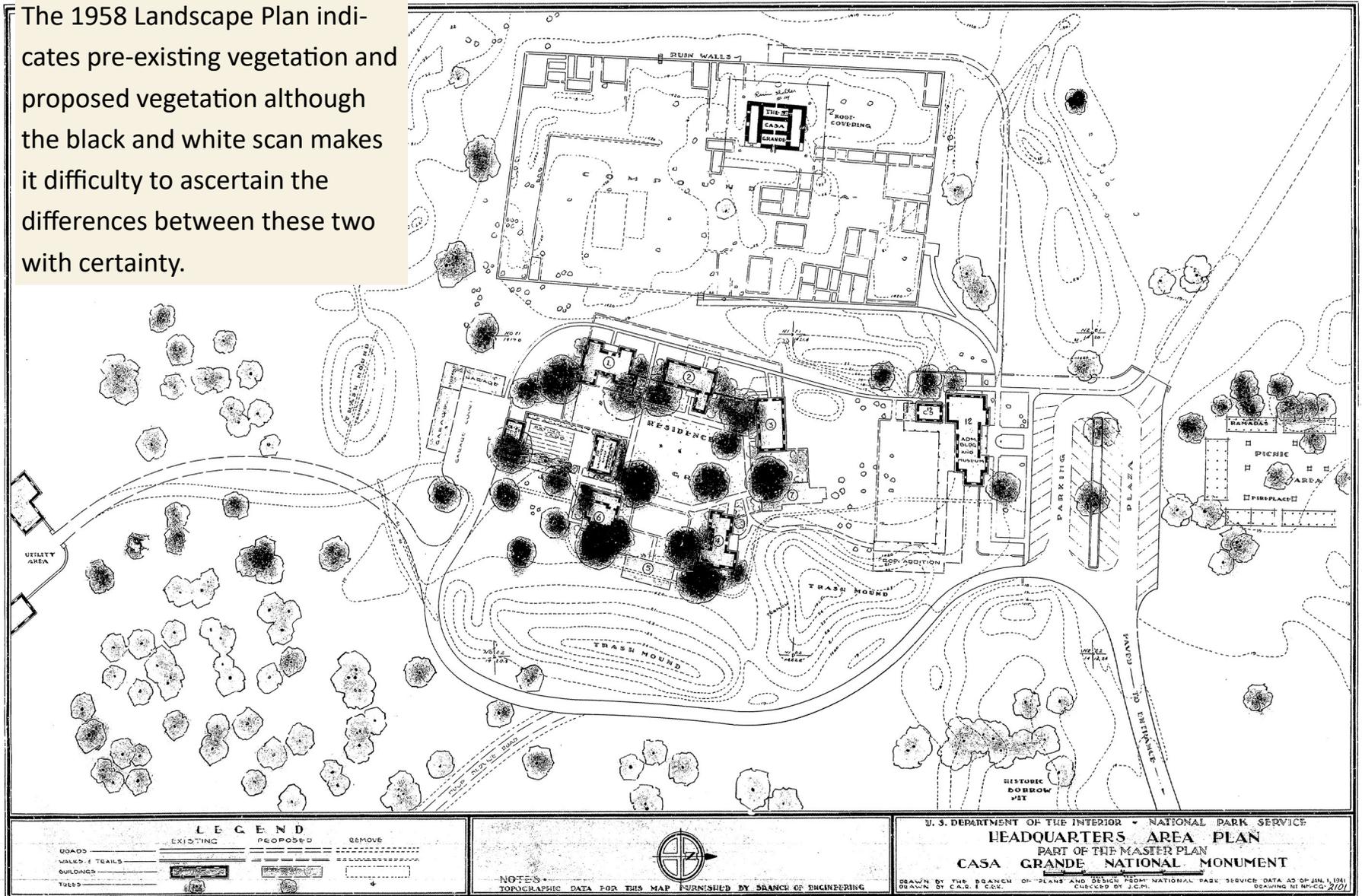


1958 Plan: Utilities Layout



1958 Plan: Landscape

The 1958 Landscape Plan indicates pre-existing vegetation and proposed vegetation although the black and white scan makes it difficult to ascertain the differences between these two with certainty.



1958 Plan: Landscape Plan Overlay

As it was difficult to distinguished pre-existing trees from proposed trees on the 1958 plan due to the black-and-white scans, the location of any trees shown on the plan which roughly correspond with the location of trees on the current aerial photograph are highlighted in green.

Visitor Center and Picnic Area

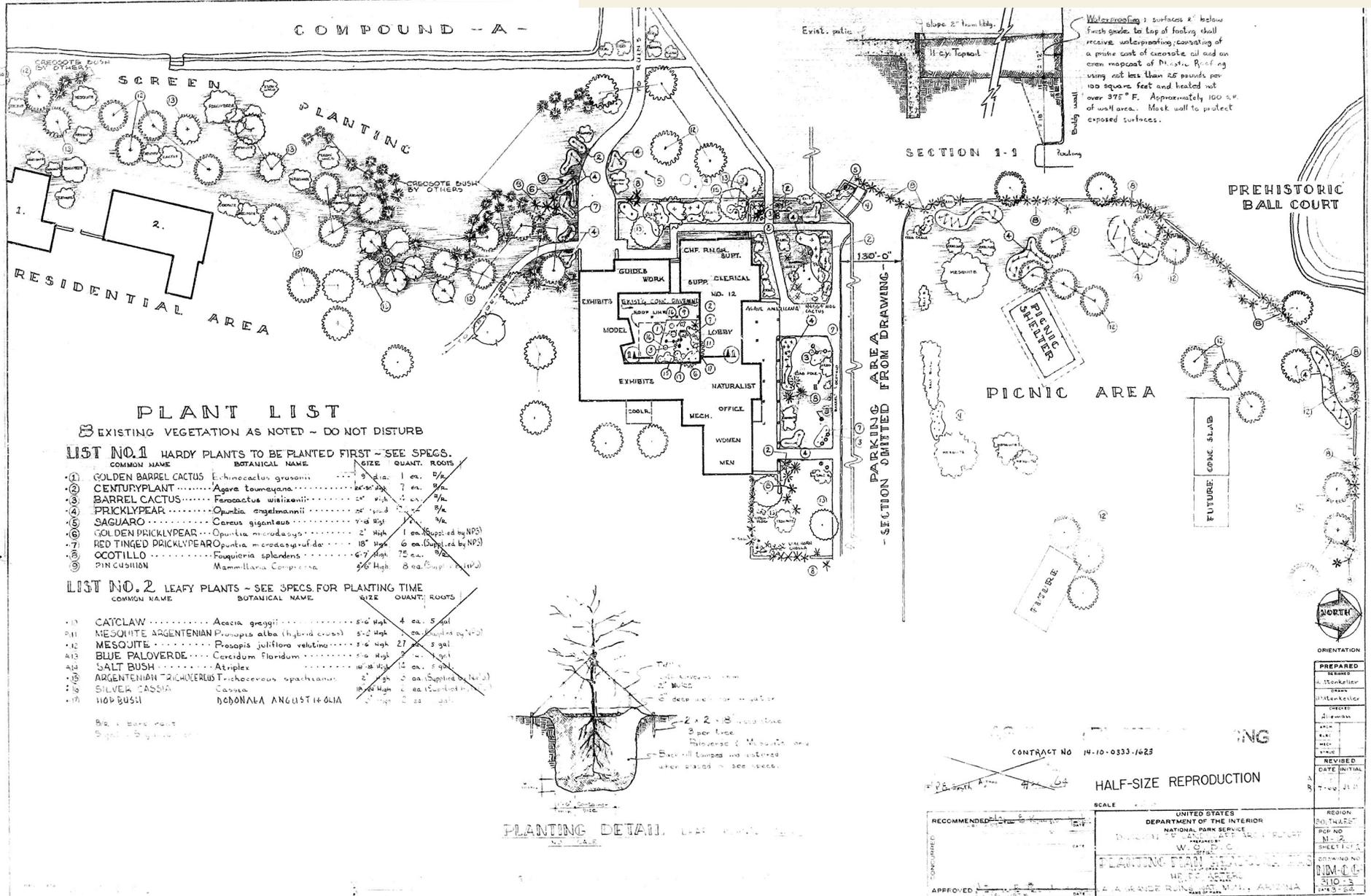


Residential Compound



1964 Landscape Plan

The 1964 landscape plan was prepared as part of the NPS Mission 66 program. Improvements included expanding and remodeling the visitor's center, improvements to the picnic area, the installation of new plant materials and enhancement of the picnic area.



Conclusion

The Plant Inventory details landscape plants currently found in the Visitor and Operations Complex, calling out those that are non-native to the area. A review of previous master and landscape plans dating from 1932, 1958 and 1964 illustrate the on-going historic interest in enhancing landscape features in the National Monument. As plans do not necessarily reflect “as built” conditions, a comparison of the location of current mature vegetation with the plans may highlight the existence of historic trees. If the management team wishes to recreate the conditions from a particular historic period, the early landscape plans can be used to provide guidance for the rehabilitation of the landscape.

