

PRESERVATION ALTERNATIVES ANALYSIS

# 1200-1310 Memorex Drive Santa Clara, California

David J. Powers & Associates, Inc. | September 2020

*Architecture  
Planning  
Conservation*



Architectural  
Resources Group



**Preservation Alternatives Analysis**  
**1200-1310 Memorex Drive**  
Santa Clara, California

**Draft – September 2020**

**TABLE OF CONTENTS**

<b>1. Introduction.....</b>	<b>1</b>
<i>Methodology.....</i>	<i>3</i>
<b>2. Summary of Significance .....</b>	<b>5</b>
<i>Statement of Significance.....</i>	<i>5</i>
<i>Period of Significance .....</i>	<i>6</i>
<i>Character-defining Features .....</i>	<i>6</i>
<b>3. Project Description .....</b>	<b>7</b>
<b>4. Alternative Considered But Rejected .....</b>	<b>8</b>
<b>5. Preservation Alternative #1 .....</b>	<b>8</b>
<i>Description of the Alternative .....</i>	<i>8</i>
<i>Impacts.....</i>	<i>9</i>
<b>5. Preservation Alternative #2 .....</b>	<b>9</b>
<i>Description of the Alternative .....</i>	<i>9</i>
<i>Impacts.....</i>	<i>10</i>
<b>6. Conclusion .....</b>	<b>10</b>
<b>7. Bibliography.....</b>	<b>11</b>

**Appendix**

Preservation Alternatives Graphics Package



## 1. INTRODUCTION

At the request of David J. Powers & Associates, Inc., Architectural Resources Group (ARG) has prepared this Preservation Alternatives Analysis for the proposed Memorex Data Center project at 1200-1310 Memorex Drive (APN 224-66-006) in Santa Clara. The subject property dominates an irregularly shaped block roughly bounded by Memorex Drive to the north, Ronald Street to the east, the Peninsula Subdivision MT2 rail line to the southwest, and light industrial properties to the west. Originally constructed in 1961 and expanded through various additions during the 1960s, the property features a multi-tenant office, warehouse, and paved surface parking (Figure 1). The complex was the original headquarters for Memorex Corporation, one of the many start-up electronics companies that catalyzed the Santa Clara Valley's transformation into Silicon Valley during the postwar era.



Figure 1. Site map of 1200-1310 Memorex Drive with construction dates for extant and demolished features (Google Earth, amended by author)

In December 2019, ARG prepared an Historic Resource Evaluation (HRE) Part 1 report for 1200-1310 Memorex Drive and found that the property qualifies for listing in the California Register of Historical Resources (California Register) under Criterion 1 for its association with the development of the modern electronics industry and the broader context of Silicon Valley's development in the 1960s and 1970s. Although currently occupied by several disparate commercial tenants, the former headquarters building retains a high level of integrity.<sup>1</sup> As such, the property is an individual historical resource for the purposes of environmental review under the California Environmental Quality Act (CEQA).

<sup>1</sup> Architectural Resources Group, "1200-1310 Memorex Drive, Santa Clara, California, Historic Resource Evaluation," prepared for David J. Powers & Associates, December 2019.

The proposed project includes the demolition of the existing buildings on the site and the construction of a four-story 472,920-square-foot data center building with an attached six-story 87,520-square-foot ancillary use office and storage component, totaling approximately 560,000 square feet in area. The project would also include the construction of 24 diesel-fueled engine generators on the southern portion of the site and an electrical substation on the eastern portion of the site. In April 2020, ARG prepared a preliminary impacts analysis for the demolition of the property, which concluded that the proposed project would result in a finding of a significant and unavoidable impact that could not be mitigated in the Memorex Data Center Environmental Impact Report (EIR) prepared under CEQA.

This report presents two preservation alternatives to the proposed project to be included in the Memorex Data Center EIR (see Table 1), as well as one alternative that was considered but rejected (see Section 4). Alternatives to a proposed project are developed to consider alternate schemes that would avoid or lessen significant project impacts resulting from demolition, additions, and related new construction. The following sections provide a description of the proposed project, the alternative considered but rejected, and the two preservation alternatives, as well as an evaluation of impacts associated with both preservation alternatives. Graphics illustrating the proposed project and the alternatives are appended.

<b>Table 1: Summary of 1200-1310 Memorex Drive under the Proposed Project and EIR Alternatives</b>			
		<b>EIR Alternatives</b>	
	<b>Proposed Project</b>	<b>Preservation Alternative #1</b>	<b>Preservation Alternative #2</b>
<b>Treatment of Historical Resources</b>	Demolish all existing improvements on site.	Retain entirety of historical resources along Memorex Drive to a depth of 210'0" (former headquarters building) and 125'0" (former warehouse building).	Retain former headquarters building along Memorex Drive to a depth between 30'0" and 82'0".
<b>New Construction</b>	New construction of a 4-story data center building with an attached 6-story ancillary use office and storage component, for a total of 560,440 sf. New construction of 24 three-MW diesel-fueled engine generators near the southern boundary of the site and a 150 MVA electrical substation on the eastern portion of the site.	New construction of 4-story data center to the rear of the retained portion of the former headquarters building. New construction of 12 three-MW diesel-fueled engine generators at the southwestern corner of the site and a 150 MVA electrical substation on the eastern portion of the site. Retained portions of historical resources will be repurposed for office and storage use.	New construction of 4-story data center to the rear of the retained portion of the former headquarters building. New construction of 20 three-MW diesel-fueled engine generators at the southwestern corner of the site and a 150 MVA electrical substation on the eastern portion of the site. Retained portions of historical resource will be repurposed for office use.
<b>Building Height</b>			
In Stories	Data Center Bldg: 4 stories Office/Storage Bldg: 6 stories	Data Center Bldg: 4 stories	Data Center Bldg: 4 stories
In Feet	87'0"	87'0"	87'0"
<b>Building Area</b>	Data Center Bldg: 472,920 sf Office/Storage Bldg: 87,520 sf Total: 560,440 sf	Data Center Bldg: 209,296 sf Office/Storage Bldg: 111,254 sf Total: 320,550 sf	Data Center Bldg: 444,513 sf Office/Storage Bldg: 46,185 sf Total: 490,698 sf

## Methodology

The preservation alternatives presented in this report were developed with input from ARG, David J. Powers & Associates, Inc., and project architects Corgan. This analysis focuses on the treatment of the existing historical resource at 1200-1310 Memorex Drive, proposed alterations and new construction under each alternative, and the impacts of these changes on the character-defining features of the property as delineated in Section 2. The alternatives are evaluated for conformance with the Secretary of the Interior's Standards for Rehabilitation.

### *California Environmental Quality Act*

This analysis examines the character-defining features that would be affected by each proposed alternative, and then determines whether the alternative would cause a significant impact to the historical resource per CEQA. To evaluate potential impacts of each alternative, this memorandum draws primarily on CEQA Guidelines Section 15064.5, "Determining the Significance of Impacts to Archaeological and Historical Resources." Relevant sections are presented below:

- (b) A project with an effect that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment.
  - (1) Substantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired.
  - (2) The significance of an historical resource is materially impaired when a project:
    - (C) Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA.
  - (3) Generally, a project that follows the *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings* or the *Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings* (1995, revised 2017), Weeks and Grimmer, shall be considered as mitigated to a level of less than a significant impact on the historical resource.<sup>2</sup>

---

<sup>2</sup> California Environmental Quality Act (CEQA) Guidelines, California Code of Regulations, Title 14, Division 6, Chapter 3, Article 5, Preliminary Review of Projects and Conduct of Initial Study (Sections 15060-15065), accessed August 28, 2020, <https://casetext.com/regulation/california-code-of-regulations/title-14-natural-resources/division-6-resources-agency/chapter-3-guidelines-for-implementation-of-the-california-environmental-quality-act/article-5-preliminary-review-of-projects-and-conduct-of-initial-study>.

### *Secretary of the Interior's Standards for the Treatment of Historic Properties*

The Secretary of the Interior's Standards (Standards) for the Treatment of Historic Properties are a series of concepts developed by the U.S. Department of the Interior to assist in the continued preservation of a property's historical significance through the preservation of character-defining materials and features. They are intended to guide the appropriate maintenance, repair, and replacement of historic materials and to direct the design of compatible new additions or alterations to historic buildings. The Standards are used by federal, state, and local agencies to review both federal and nonfederal rehabilitation proposals.

In California, properties listed in, or formally determined eligible for listing in, the California Register or a local historic register qualify as historical resources under CEQA and must be considered in the environmental review process. (Resources formally determined eligible for, or listed in, the National Register of Historic Places are automatically listed in the California Register.) In general, a project involving a historical resource that has been determined to comply with the Secretary of the Interior's Standards can be considered a project that will not cause a significant impact on the historical resource per CEQA.

The Standards offer four approaches to the treatment of historic properties—preservation, rehabilitation, restoration, and reconstruction. The Standards for Rehabilitation (codified in 36 CFR 67 for use in the Federal Historic Preservation Tax Incentives program) address the most prevalent treatment. Rehabilitation is defined as “the process of returning a property to a state of utility, through repair or alteration, which makes possible an efficient contemporary use while preserving those portions and features of the property which are significant to its historic, architectural, and cultural values.”<sup>3</sup> The ten Standards for Rehabilitation are:

- 1) A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.
- 2) The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.
- 3) Each property shall be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.
- 4) Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.
- 5) Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a historic property shall be preserved.
- 6) Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old

---

<sup>3</sup> National Park Service, Technical Preservation Services, “Standards for Rehabilitation,” *The Secretary of the Interior's Standards*, accessed September 16, 2020, <https://www.nps.gov/tps/standards/four-treatments/treatment-rehabilitation.htm>.

in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.

- 7) Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.
- 8) Significant archeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.
- 9) New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.
- 10) New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

## 2. SUMMARY OF SIGNIFICANCE

The following statement of significance, description of the period of significance, and list of character-defining features for 1200-1310 Memorex Drive have been adapted from the December 2019 HRE report prepared by ARG.

### **Statement of Significance**

The industrial complex at 1200-1310 Memorex Drive was constructed in 1961 as the first world headquarters for Memorex Corporation, one of the many start-up electronics companies that catalyzed the Santa Clara Valley's postwar transformation from a recently-industrialized, former agricultural region into a global center for technological innovation. Memorex Corporation holds particular significance within the context of the development of the modern electronics and computer industry due to its early innovations in the field of peripheral computer equipment. In 1968, while still headquartered at the subject property, Memorex released the first independently produced hard disk drives that were compatible with IBM computers. Because IBM dominated 71 to 83 percent of the global computer market at the time, its introduction of compatible computer equipment provided an important avenue for smaller electronics firms to establish themselves within the field.<sup>4</sup> Many other fledgling electronics companies released their own IBM-compatible plug-ins in subsequent years, and modern computer systems continue to accommodate singular components produced by disparate electronics companies.

Memorex Corporation's development of the first IBM-compatible hard drive had a significant impact on the early electronics industry, and it developed and manufactured the product at the subject property in the late 1960s. As such, the property is eligible for listing in the California Register under Criterion 1 for

---

<sup>4</sup> Ross Knox Bassett, *To the Digital Age: Research Labs, Start-up Companies, and the Rise of MOS Technology* (Baltimore, MD: Johns Hopkins University Press, 2002), 222.

its association with the development of the modern electronics industry and in the broader context of Silicon Valley's development in the 1960s and 1970s.

### Period of Significance

The period of significance for 1200-1310 Memorex Drive is 1961 through 1971, the period in which Memorex Corporation was headquartered at this location. Over this period, the original headquarters building (constructed in 1961) was expanded by the construction of a major addition across its eastern façade in late 1964; a second major addition across the eastern façade of the 1964 addition in 1966; an addition across the western façade of the 1961 building, also in 1966; and multiple rear additions constructed off the southern façade of the 1961 building and 1964 addition, constructed ca. 1966. A ca. 1960 warehouse building at the western edge of the property was also purchased by Memorex in October 1964 and connected to the main headquarters building by a breezeway in 1967. A smaller, freestanding storage building was constructed near the southwestern corner of the property ca. 1966. The subject property retains a relatively high degree of integrity with regard to the period of significance: the original buildings, major additions, and layout and circulation pattern of the site all remain intact.

### Character-defining Features

A character-defining feature is an aspect of a building or structure's design, construction, or detail that is representative of its function, type, or architectural style. Generally, character-defining features include specific building systems, architectural ornament, construction details, massing, materials, craftsmanship, site characteristics, and landscaping built or installed within the period of significance. In order for an important historical resource to retain its significance, its character-defining features must be retained to the greatest extent possible.

Character-defining features of 1200-1310 Memorex Drive include those pertaining to the overall site as well as the former headquarters building.

<b>Table 2. Character-defining Features</b>
<b>Site</b>
Vehicular access from Memorex Drive, along the northern property boundary
Vehicular and pedestrian circulation through the site along north/south-oriented alleyways on either side of the original 1961 building and its additions and along one northwest/southeast-oriented alleyway along the southern property boundary
Exposed aggregate walkways and shallow stairs linking the primary entrances on the northern façade to the sidewalk along Memorex Drive
Paved surfaces throughout the site
All extant buildings, including the original 1961 headquarters building and its additions; the ca. 1960 warehouse building that was purchased and added to the property in 1964; and the ca. 1966 gable-roofed building located at the southern end of the property
North/south orientation of major building elements
Low-profile, landscaped vegetation at the northern façade of the 1961 building and its 1964 addition
<b>Former Memorex Headquarters Building and Additions</b>
Rectangular plan of building and additions, with primary façades fronting Memorex Drive
Broad, horizontal profile, with verticality emphasized through fenestration
One- to three-story height



Flat roofs with simple parapets
Steel-frame construction
Smooth stucco finish on exterior walls
Aluminum fixed windows throughout
Curtain walls with glazing and metal spandrel panels centered in the northern façade of the 1961 building and 1964 addition
Curtain walls with glazing and metal spandrel panels dominating the northern and, to a slightly lesser extent, the eastern façades of the 1966 three-story addition
Near-continuous glazing across the northern façade of the 1966 three-story addition and the eastern façade of the 1964 addition
Symmetrical curvilinear porch hood over the primary entrance to the 1961 building
Asymmetrical curvilinear porch roof with angular columns at the primary entrance to the 1964 addition
Physical connection (i.e., the ca. 1967 breezeway) between the main building and the ca. 1960 warehouse building
Loading facilities on the western and southern façades

### 3. PROJECT DESCRIPTION

The following project description was provided by the City of Santa Clara in the Notice of Preparation of a Draft Environmental Impact Report for the Memorex Data Center, issued July 17, 2020:

The project proposes to demolish the existing improvements on the site to construct a four-story 472,920 square foot data center building with an attached six-story 87,520 square foot ancillary use office and storage component, for a combined square footage of 560,440 square feet. The data center portion of the building would house computer servers for private clients in a secure and environmentally controlled structure and would be designed to provide 60 megawatts (MW) of information technology (IT) power. Three floors of the data center portion of the building would consist of production data hall space, which requires backup power generation, while one floor would consist of development data hall space, which does not require backup power generation. The ancillary use portion of the building would be used for office (roughly 51,000 square feet) and storage uses.

The project would also construct a total of 24 three-MW diesel-fueled engine generators on the south side of the building, with 16 primary generators providing 48 MW of backup power generation capacity and eight additional generators providing redundancy for the primary generators. Mechanical cooling equipment would be located on the roof of the building, with metal panel perimeter screening above the building parapet.

The project would also construct a 150 megavolt amps (MVA) electrical substation on the eastern portion of the site. The substation would have three 50 MVA transformers, one of which would be redundant and would only become active if one of the other transformers fails. The substation capacity would be a nominal 100 MVA. The substation would have an all-weather asphalt surface underlain by an aggregate base. A 60 kilovolt (kV) overhead transmission line would be extended to the site to connect the substation to the existing electrical grid. The transmission line would form a loop, with the route starting on the east side of Lafayette Street and heading west on Shulman

Avenue to Memorex Drive. From there, the route would continue west to Ronald Street and then head south to Di Giulio Avenue to connect to the proposed substation. The route would then head east from the substation to Lafayette Street and turn north towards Mathew Street to close the loop. The transmission line would be supported by utility poles up to 85 feet in height.<sup>5</sup>

#### **4. ALTERNATIVE CONSIDERED BUT REJECTED**

Adaptive reuse of the historical resource, with no demolition of the exterior of the former Memorex headquarters building and ca. 1960 warehouse building, was considered but rejected due to this alternative's failure to meet project objectives. Reuse and interior alteration of these buildings (including the demolition of the mezzanines in the former headquarters building) would allow approximately 204,990 square feet of space for the proposed data center and ancillary office and storage uses, or about two-fifths of the approximately 560,000 square feet identified in project objectives. Additionally, reuse of the existing buildings would allow for the construction of only six generators, rather than the 24 identified in the project objectives. It is not a viable project alternative, because reuse of the former Memorex headquarters building and ca. 1960 warehouse building would greatly reduce the potential area of the proposed data center as well as the number of generators that the site could accommodate.

The graphics package detailing this alternative (identified as Alternative Considered but Rejected) is appended to this document. Due to its apparent inability to meet project needs, this alternative is not analyzed further in this report.

#### **5. PRESERVATION ALTERNATIVE #1**

##### **Description of the Alternative**

The following description of Preservation Alternative #1 was provided by the project sponsor. The graphics package detailing this alternative is appended to this document.

Preservation Alternative 1 proposes to retain the entirety of historic resources along Memorex Drive to depths of 210 feet (former headquarters building) and 125 feet (former warehouse building) from the project boundary. Overall, this alternative would demolish 93,736 square feet and retain 111,254 square feet of the existing buildings on the site. This alternative would construct a four-story, 209,296-square-foot data center building behind the retained historic structures. The historic structures would be utilized for office (89,000 square feet) and storage (22,254 square feet). The combined square footage of the facility would be 320,550 square feet. The project would include 12 three-MW diesel-fueled engine generators at the southwestern corner of the site and a 150 MVA electrical substation on the eastern portion of the site.

---

<sup>5</sup> City of Santa Clara Community Development Department, Planning Division, "Notice of Preparation of a Draft Environmental Impact Report for the Memorex Data Center and Notice of Public Scoping Meeting," July 17, 2020, 2-3.

## **Impacts**

The purpose of Preservation Alternative #1 is to consider a plan that would retain a substantial portion of the historical resource at 1200-1310 Mission Street and adapt it for use as office space, while also integrating a new addition to house the data center. The intent is to present a plan that reduces the impact on the historic property while attempting to achieve many of the project objectives.

Preservation Alternative #1 would maintain a majority of the character-defining features and form of the existing historical resource as visible from Memorex Drive, the public right-of-way which bounds the property to the north. The primary (north) façades of the former Memorex headquarters building and the ca. 1960 warehouse building to its west would be retained to a depth of 210 feet and 125 feet from the northern boundary, respectively. Vehicular access from Memorex Drive would be retained, as would the exposed aggregate walkways along the north façade of the former headquarters building and its addition. The smooth stucco finish, aluminum windows and metal spandrel panels, and curvilinear porch roofs of the headquarters building would be preserved, along with the primary façade of the ca. 1960 warehouse building to its east. While the ca. 1966 gable-roofed building located at the southern end of the property would be removed under this preservation alternative, the building is not readily visible from Memorex Drive. Additionally, as this building did not historically contain offices or research and development facilities, it is of comparatively lesser significance with regard to the property's role in the development of Memorex's IBM-compatible hard disk drives in the late 1960s.

The new four-story addition to the rear of the headquarters building would be taller than the retained portion; this would somewhat diminish the horizontality of the headquarters building, which has been identified as a character-defining feature. However, the potential visual impact of new construction on the building is reduced because the addition would be set back 210 feet from the northern project boundary. The massing and flat roof of the addition would echo the form of the retained portions of the headquarters building, while also being clearly differentiated from the historical resource. No addition would be constructed to the rear of the warehouse building, as this space would be given over to 12 three-MW generators. Alterations to the retained portions of the headquarters and warehouse buildings would be limited to the interior in order to repurpose them for offices and storage.

Under Preservation Alternative #1, most of the character-defining features of the historical resource at 1200-1310 Memorex Drive would remain intact, such that the property would remain eligible for listing in the California Register. Because Preservation Alternative #1 retains a majority of the property's character-defining features and because new construction will be visibly differentiated from the existing buildings, this alternative appears to be in conformance with the Secretary of the Interior's Standards for Rehabilitation. Under CEQA, a project's impact will generally be considered mitigated below a level of significance and thus is not significant if it complies with the Standards.

## **5. PRESERVATION ALTERNATIVE #2**

### **Description of the Alternative**

The following description of Preservation Alternative #2 was provided by the project sponsor. The graphics package detailing this alternative is appended to this document.

Preservation Alternative 2 proposes to retain the former headquarters building along Memorex Drive to a depth of between 30 feet and 82 feet from the project boundary. Overall, this

alternative would demolish 158,202 square feet and retain 46,185 square feet of the existing buildings on the site. This alternative would construct a four-story 444,513 square foot data center building behind the retained historic structure. The historic structure would be utilized for office (36,000 square feet) and storage (10,185 square feet). The combined square footage of the facility would be 490,698 square feet. The project would include 20 three-MW diesel-fueled engine generators at the southwestern corner of the site and a 150 MVA electrical substation on the eastern portion of the site.

## Impacts

The purpose of Preservation Alternative #2 is to consider a plan that would lessen the significant impacts of the proposed project on the existing historical resource while achieving a majority of project objectives. It would retain a portion of the headquarters buildings behind the north (primary) and east façades and adapt this space for office and lobby use. The ca. 1960 warehouse and ca. 1966 gable-roofed building would be demolished. New construction would be located the south (rear) and west of the retained portion of the headquarters building.

Preservation Alternative #2 would maintain several of the character-defining features on the primary and east façades of the former headquarters building, including a portion of its smooth stucco finish, alternating aluminum windows and metal spandrel panels, and curvilinear porch roofs. However, the proposed four-story addition to the south and west portion of the building would substantially alter the appearance of the building and its characteristic broad, low profile. The proposed new construction would also mean substantial alteration or loss of additional character-defining features of the former headquarters building and wholesale loss of the warehouse and gable-roofed building. New construction would occupy a much larger footprint than the existing building and be immediately discernible from Memorex Drive, which is the public face of the property.

In contrast to the Proposed Project, this alternative would retain a portion of the historical resource and meet many of the project objectives. However, the Preservation Alternative #2 would not result in a project with a less than significant impact. It does not appear to be in conformance with the Secretary of the Interior's Standards for Rehabilitation and would result in a greater visual and physical impact on the character-defining features of 1200-1310 Memorex Drive than Preservation Alternative #1. Preservation Alternative #2 would materially impair the historical resource and would not result in a project with a less than significant impact under CEQA.

## 6. CONCLUSION

Originally constructed in 1961 as the headquarters for Memorex Corporation, one of the many start-up electronics companies that catalyzed the development of Silicon Valley's technology sector, the property at 1200-1310 Memorex Drive is the location of the development and production of the first IBM-compatible hard disk drive. This invention launched the development of an entire field of plug-compatible, peripheral computer equipment and diversified the early electronics industry. The property is therefore eligible for listing in the California Register under Criterion 1 for its association with the development of the modern electronics industry and in the broader context of Silicon Valley's development in the 1960s and 1970s.

The proposed project at 1200-1310 Memorex Drive would remove the existing buildings, including all of their historic materials, and alter the layout and circulation patterns of the site. As such, it would not comply with the Secretary of the Interior's Standards for Rehabilitation and constitutes a significant impact to this historical resource. Adaptive reuse of the historical resource, with no demolition of the exterior of the former Memorex headquarters building and ca. 1960 warehouse building, was an alternative considered but rejected due to its inability to provide the square footage and number of generators required to meet project objectives.

Two alternatives to the proposed project—Preservation Alternative #1 and Preservation Alternative #2—were developed and analyzed in this report. In ARG's professional opinion, Preservation Alternative #1 would maintain the majority of the character-defining features of the industrial complex despite a major southern addition, and this alternative would therefore result in a less-than-significant impact on the historical resource at 1200-1310 Memorex Drive. Preservation Alternative #2 would maintain the character-defining features of the former headquarters building along Memorex Drive, which bounds the property to the north, and along a portion of the east façade. However, the proposed new construction in the southern and western portions of the site would result in the demolition of the majority of the headquarters building as well as the ca. 1960 warehouse building and the ca. 1964 gable-roofed building. Although in contrast to the Proposed Project, the Preservation Alternative #2 would reduce impacts to the historical resource and meet several of the project objectives, it would not result in a project with a less than significant impact.

## 7. BIBLIOGRAPHY

Architectural Resources Group. "1200-1310 Memorex Drive, Santa Clara, California, Historic Resource Evaluation." Prepared for David J. Powers & Associates. December 2019.

Bassett, Ross Knox. *To the Digital Age: Research Labs, Start-up Companies, and the Rise of MOS Technology*. Baltimore, MD: Johns Hopkins University Press, 2002.

California Environmental Quality Act (CEQA) Guidelines, California Code of Regulations, Title 14, Division 6, Chapter 3, Article 5, Preliminary Review of Projects and Conduct of Initial Study (Sections 15060-15065). Accessed August 28, 2020, <https://casetext.com/regulation/california-code-of-regulations/title-14-natural-resources/division-6-resources-agency/chapter-3-guidelines-for-implementation-of-the-california-environmental-quality-act/article-5-preliminary-review-of-projects-and-conduct-of-initial-study>.

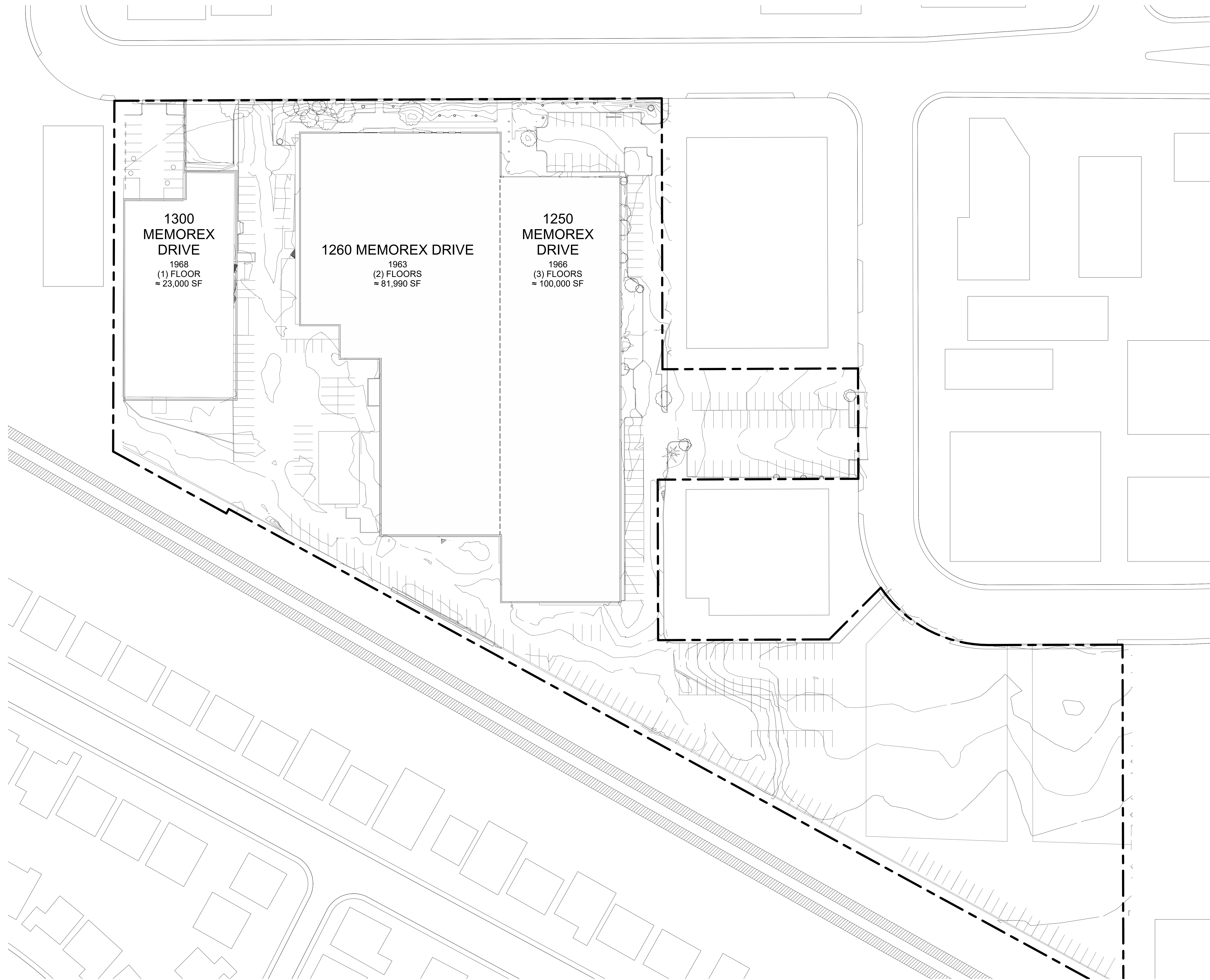
City of Santa Clara Community Development Department, Planning Division. "Notice of Preparation of a Draft Environmental Impact Report for the Memorex Data Center and Notice of Public Scoping Meeting." July 17, 2020.

National Park Service, Technical Preservation Services. "Standards for Rehabilitation," *The Secretary of the Interior's Standards*. Accessed September 16, 2020. <https://www.nps.gov/tps/standards/four-treatments/treatment-rehabilitation.htm>.



**Appendix**  
**Preservation Alternatives Graphics Package**

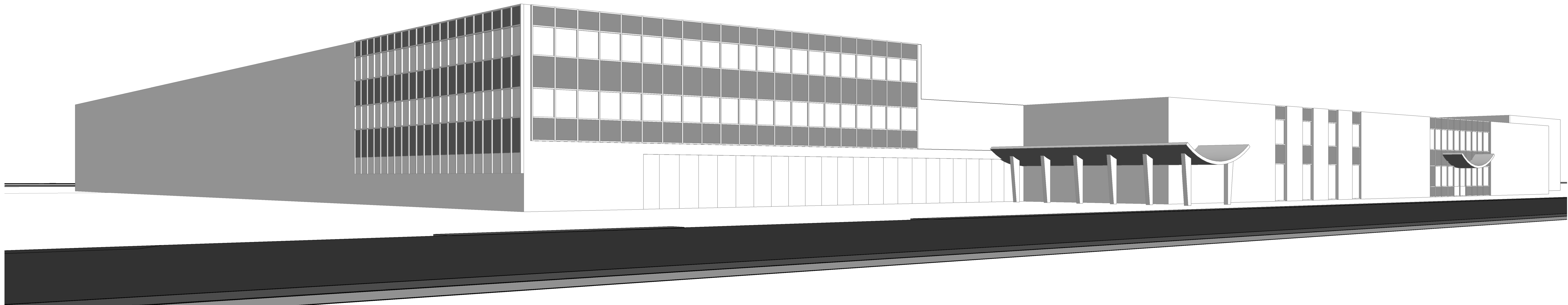




EXISTING CONDITIONS

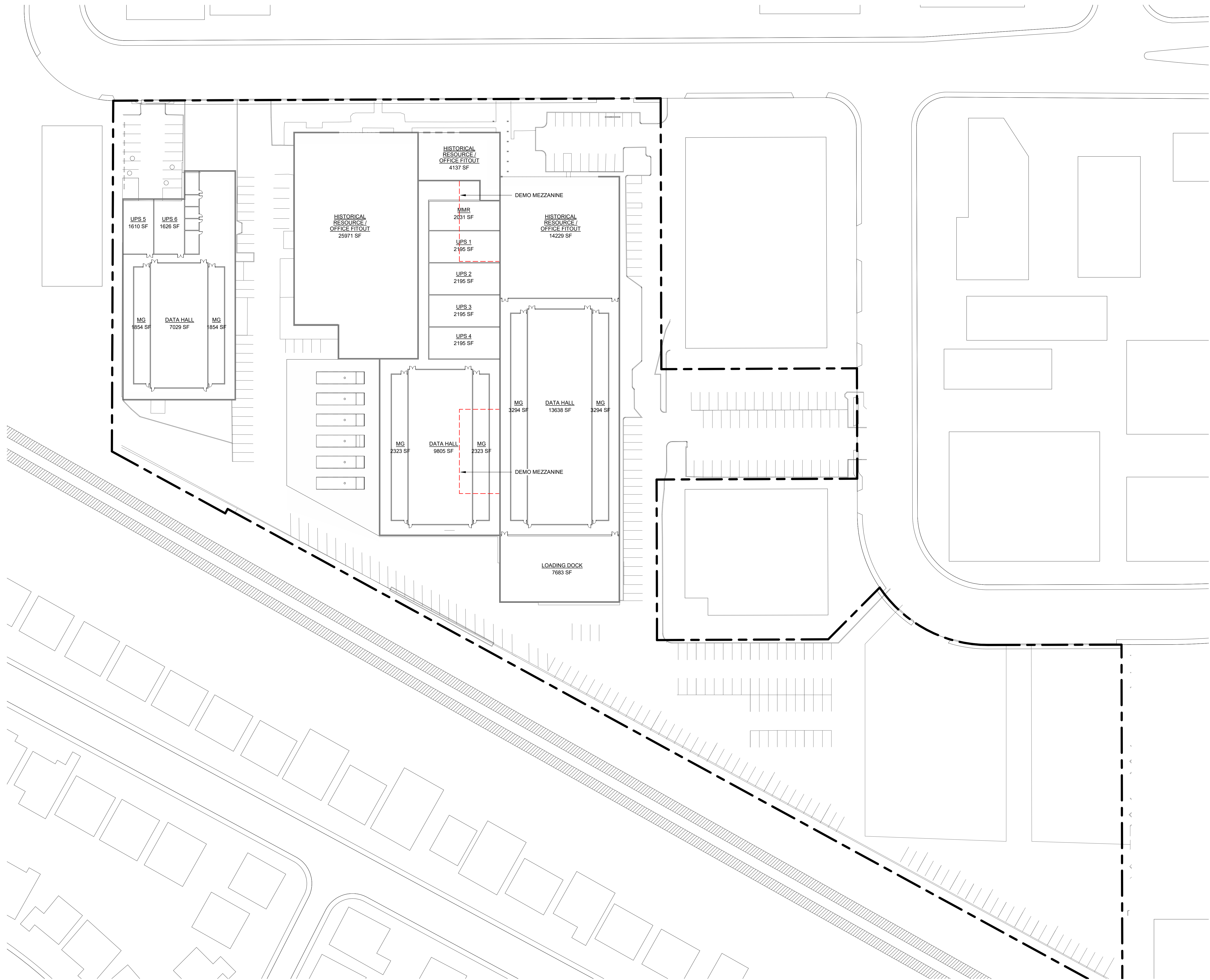
1" = 40'-0"  
09.11.2020

PROPOSED SCHEME	ALTERNATIVE
METRICS	METRICS
GROSS SF = 561,981 SF	GROSS SF = 204,990 SF
SF BUILDING RETAINED = 0 SF	SF BUILDING RETAINED = 199,410 SF
SF BUILDING DEMO = 204,990 SF	SF BUILDING DEMO = 5,580 SF
12 DATA HALLS = 227,064 SF	3 DATA HALLS = 30,472 SF
50 MW / 227,064 SF = 220 W/SF	6 MW / 30,472 SF = 196 W/SF
30 UPS ROOMS + 2 MMR ROOMS	6 UPS ROOMS + 1 MMR ROOM
24 GENERATORS	6 GENERATORS



Project Number: 19110.0000





Project Number: 19110.0000

PROPOSED SCHEME

ALTERNATIVE 1

METRICS

GROSS SF = 561,981 SF

SF BUILDING RETAINED = 0 SF

SF BUILDING DEMO = 204,990 SF

12 DATA HALLS = 227,064 SF

50 MW / 227,064 SF = 220 W/SF

30 UPS ROOMS + 2 MMR ROOMS

24 GENERATORS

METRICS

GROSS SF = 320,550 SF

SF BUILDING RETAINED = 111,254 SF

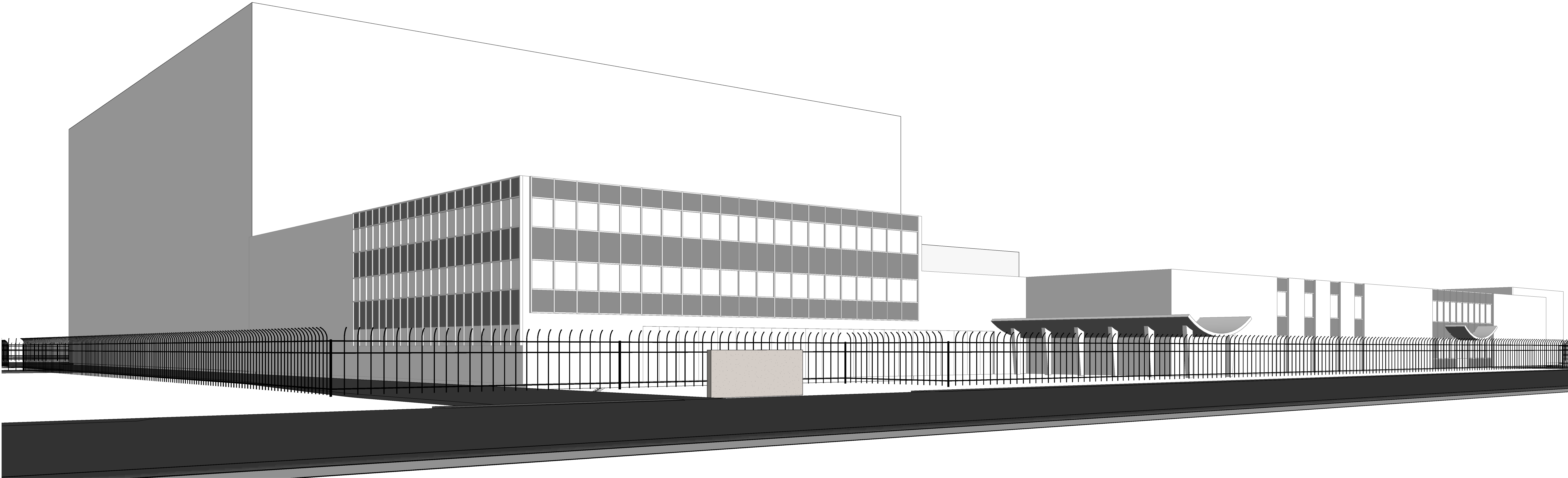
SF BUILDING DEMO = 93,736 SF

7 DATA HALLS = 69,362 SF

18 MW / 69,362 SF = 260 W/SF

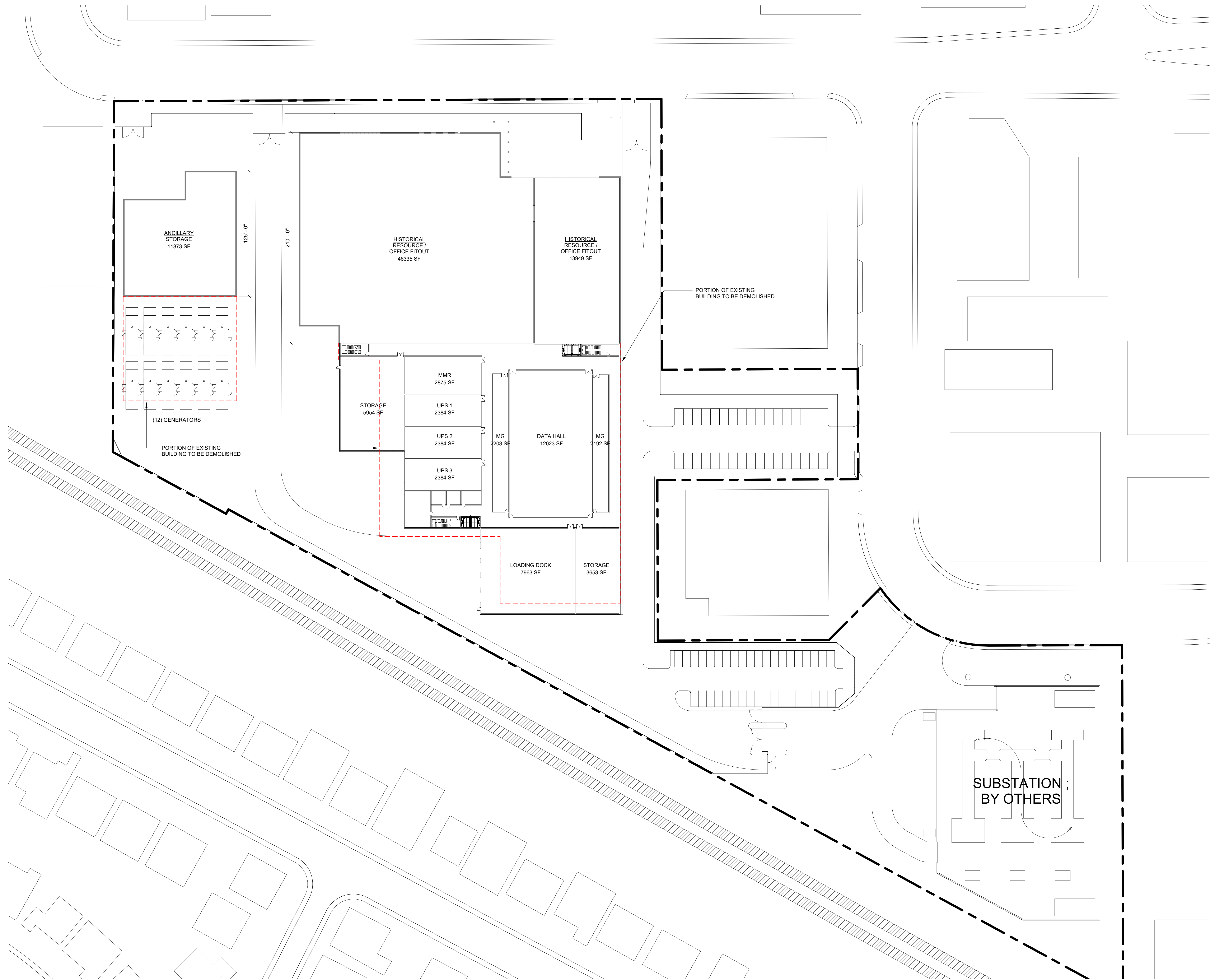
12 UPS ROOMS + 2 MMR ROOMS

12 GENERATORS



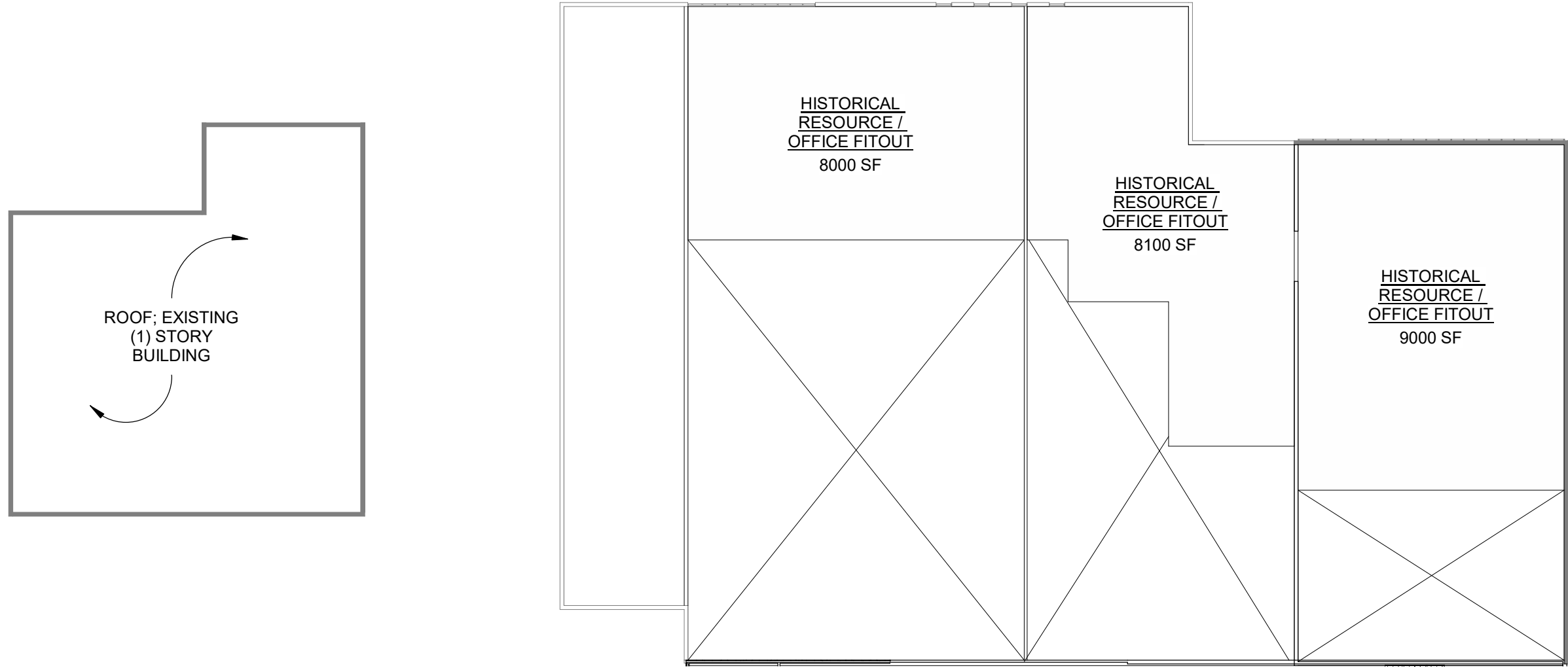
Project Number: 19110.0000



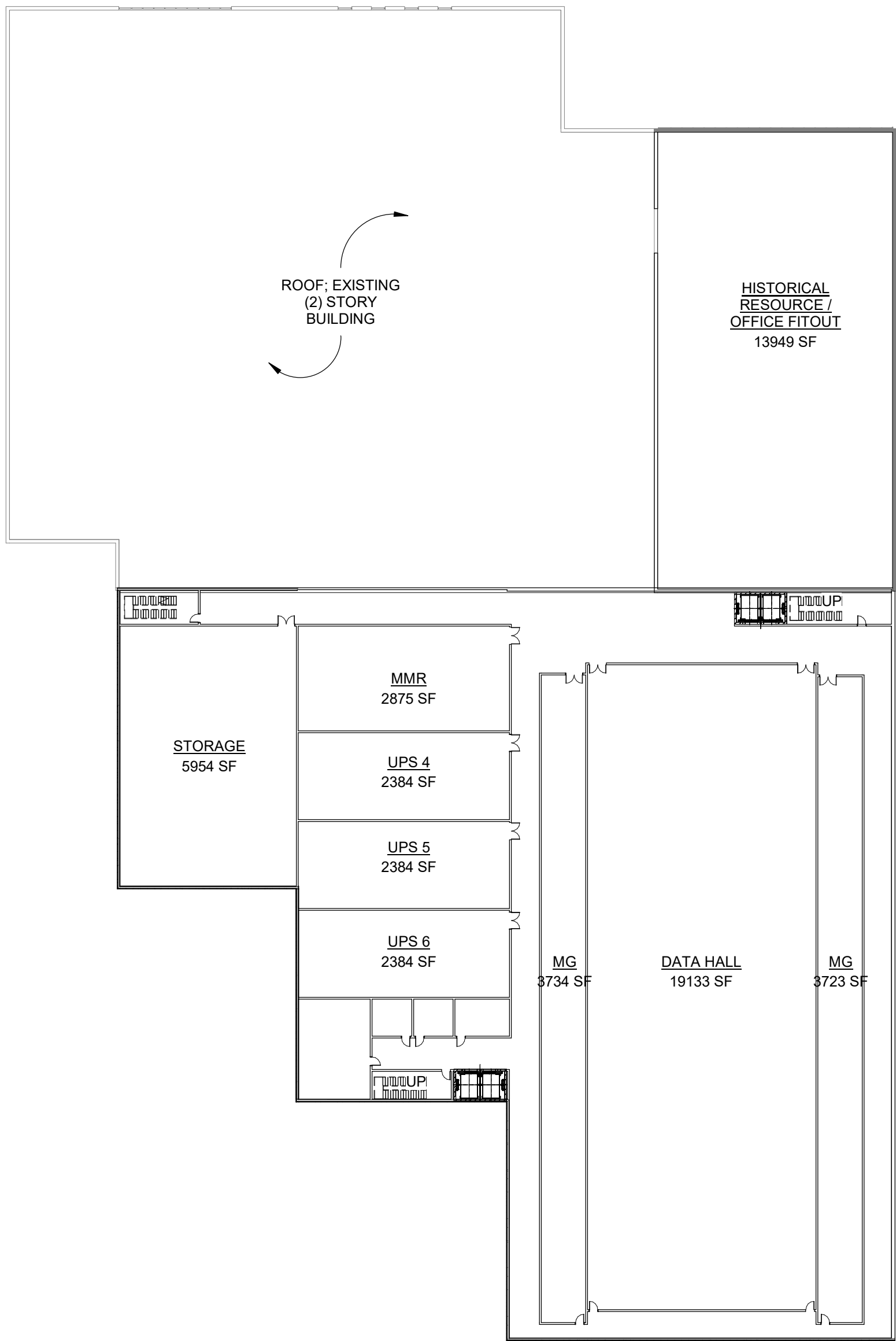


ALTERNATIVE 1 - SITE PLAN

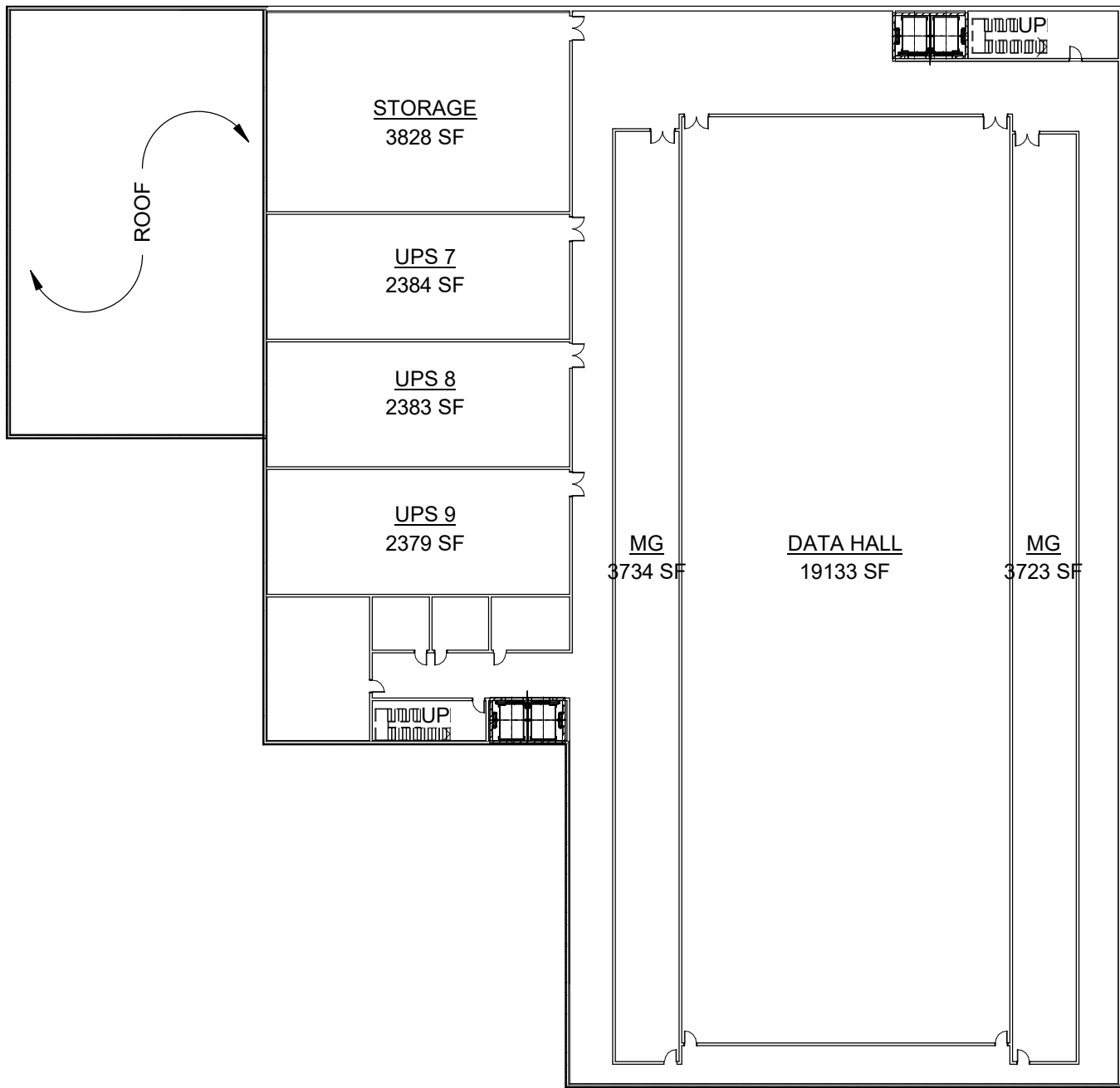
1" = 40'-0"  
09.11.2020



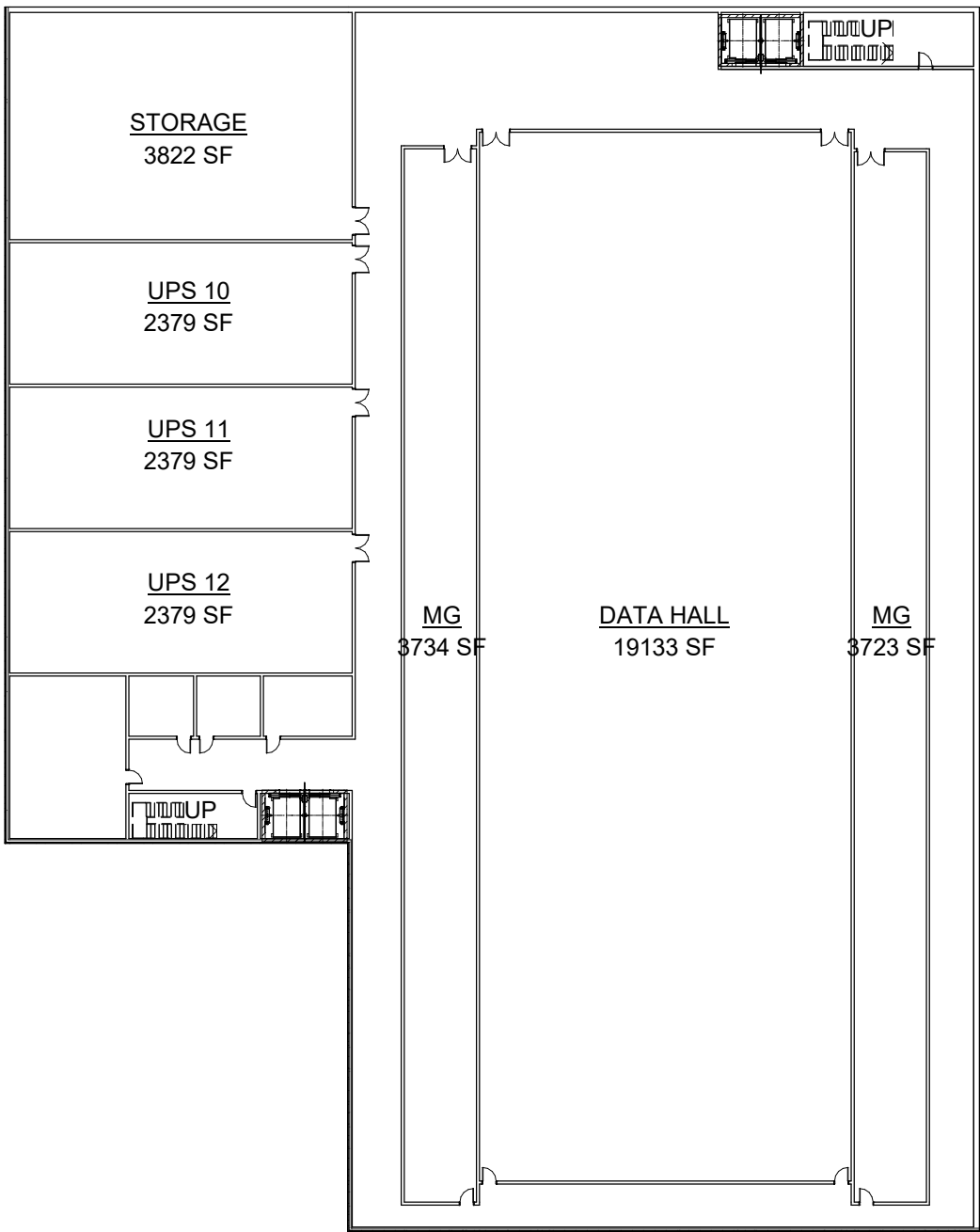
4 LEVEL 2 - HISTORICAL RESOURCE - ALT.1  
1" = 40'-0"



1 LEVEL 2 - NEW BUILD - ALT.1  
1" = 40'-0"



2 LEVEL 3 - NEW BUILD - ALT. 1  
1" = 40'-0"



3 LEVEL 4 - NEW BUILD - ALT. 1  
1" = 40'-0"

PROPOSED SCHEME

METRICS

GROSS SF = 561,981 SF

SF BUILDING RETAINED = 0 SF

SF BUILDING DEMO = 204,990 SF

12 DATA HALLS = 227,064 SF

50 MW / 227,064 SF = 220 W/SF

30 UPS ROOMS + 2 MMR ROOMS

24 GENERATORS

ALTERNATIVE 2

METRICS

GROSS SF = 490,698 SF

SF BUILDING RETAINED = 44,115 SF

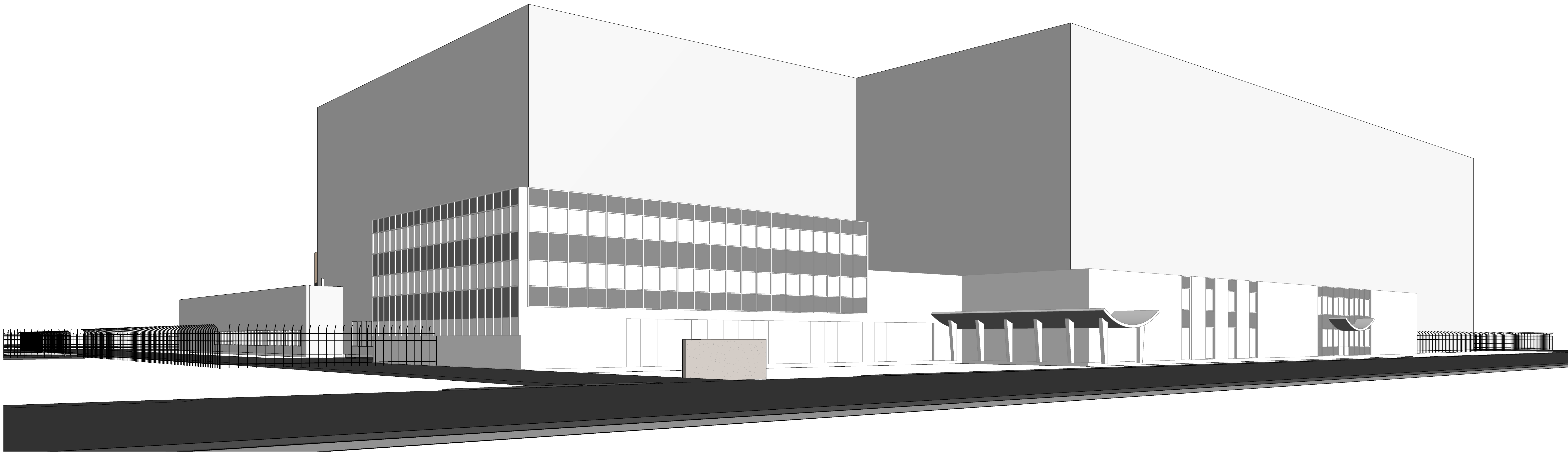
SF BUILDING DEMO = 160,875 SF

9 DATA HALLS = 172,190 SF

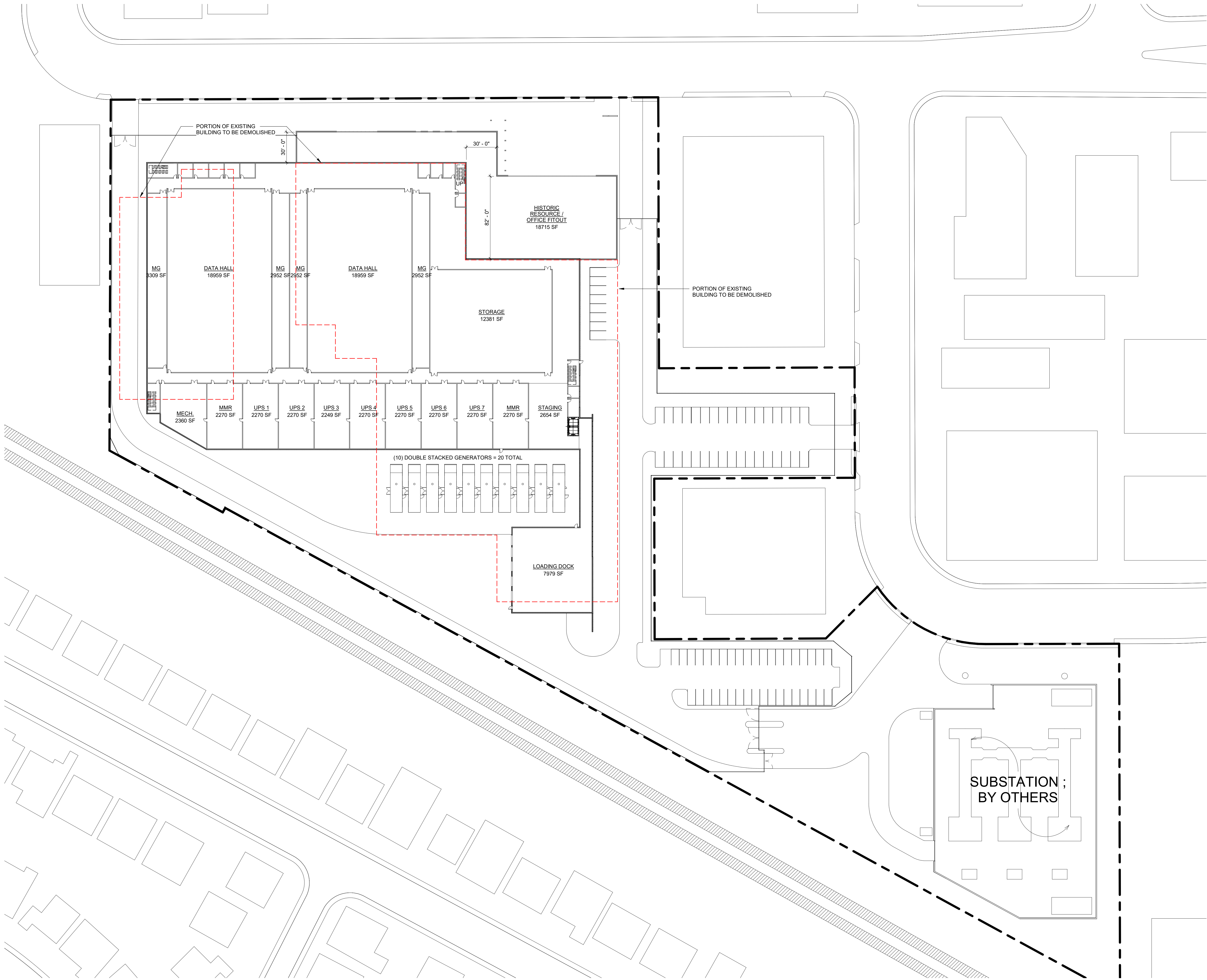
40 MW / 172,190 SF = 232 W/SF

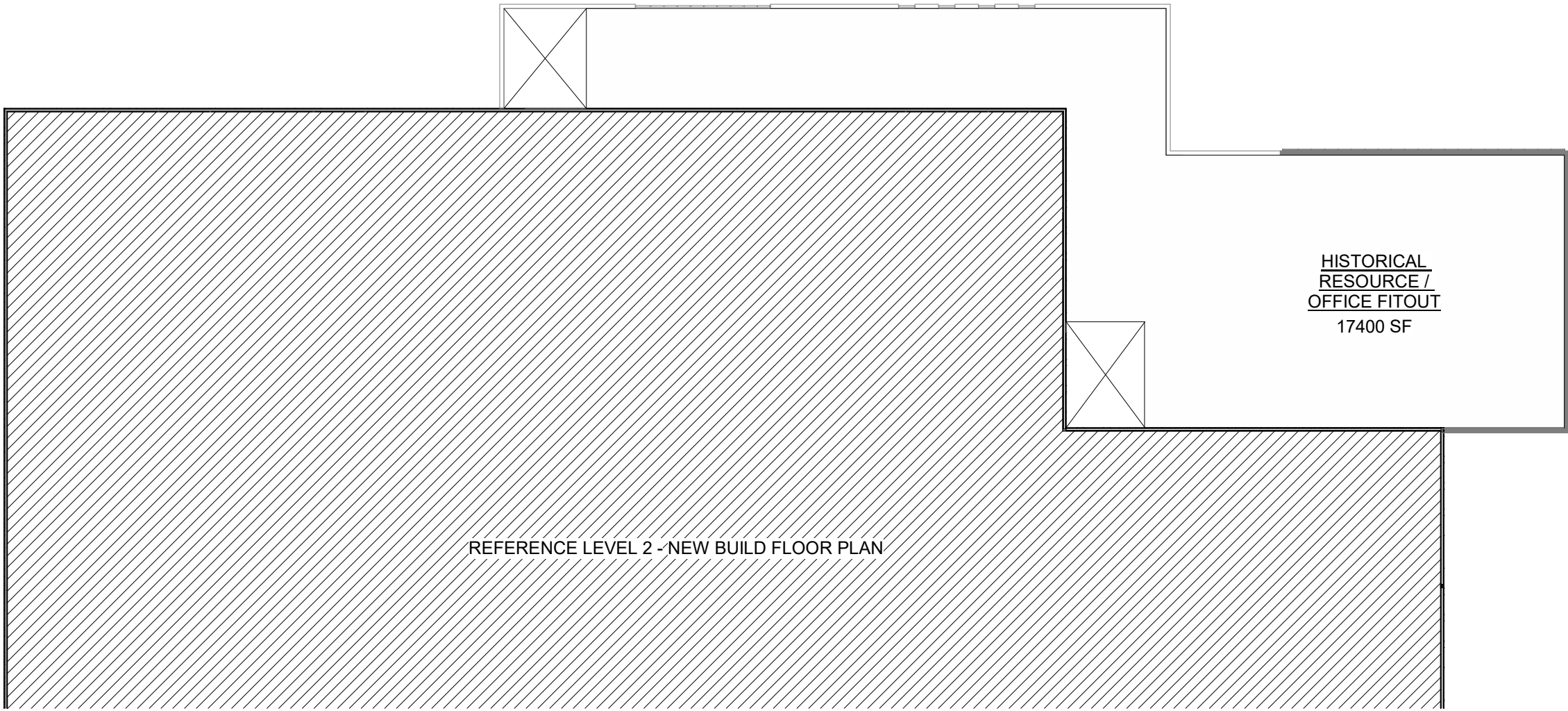
20 UPS ROOMS + 2 MMR ROOMS

20 GENERATORS

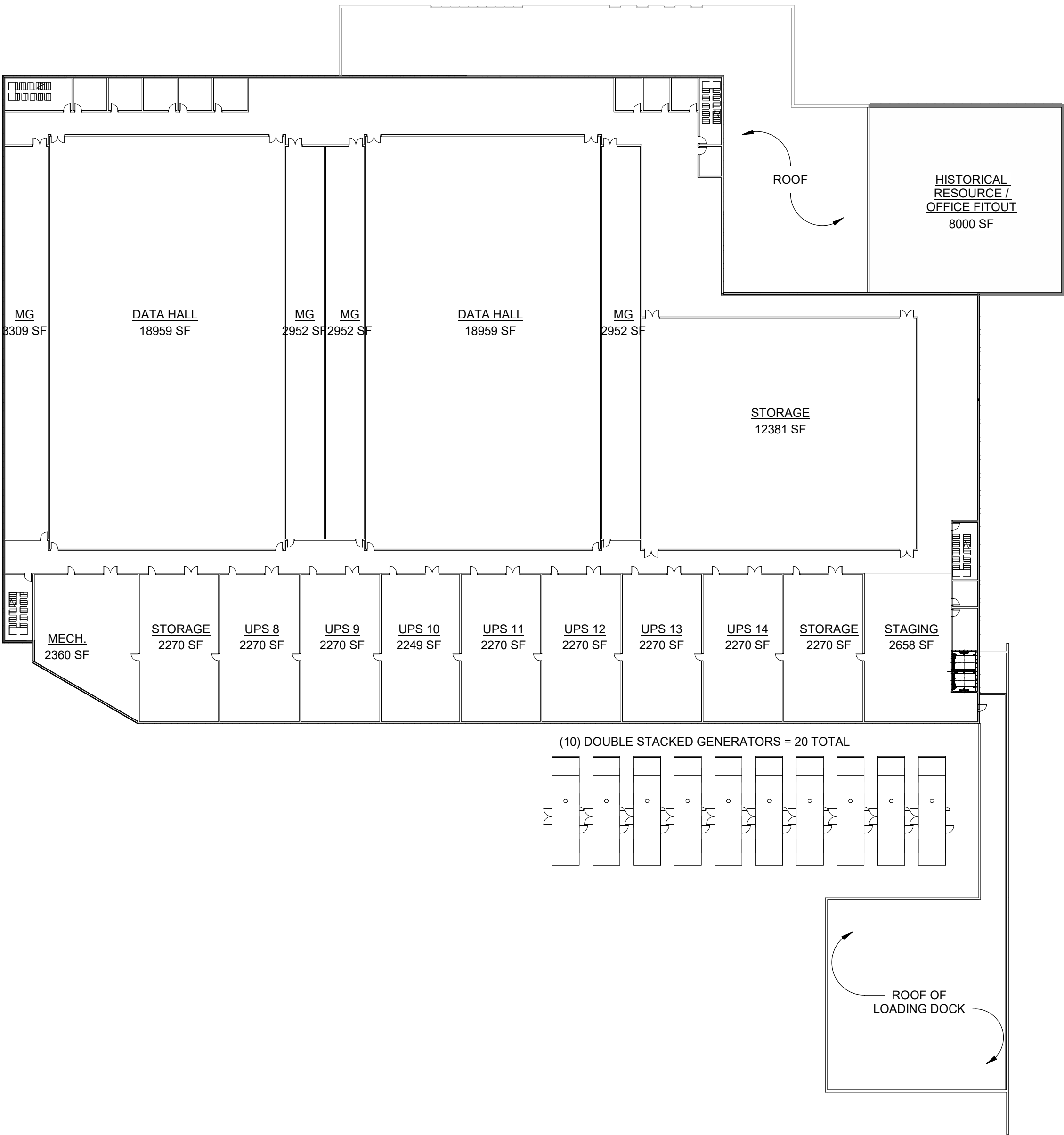




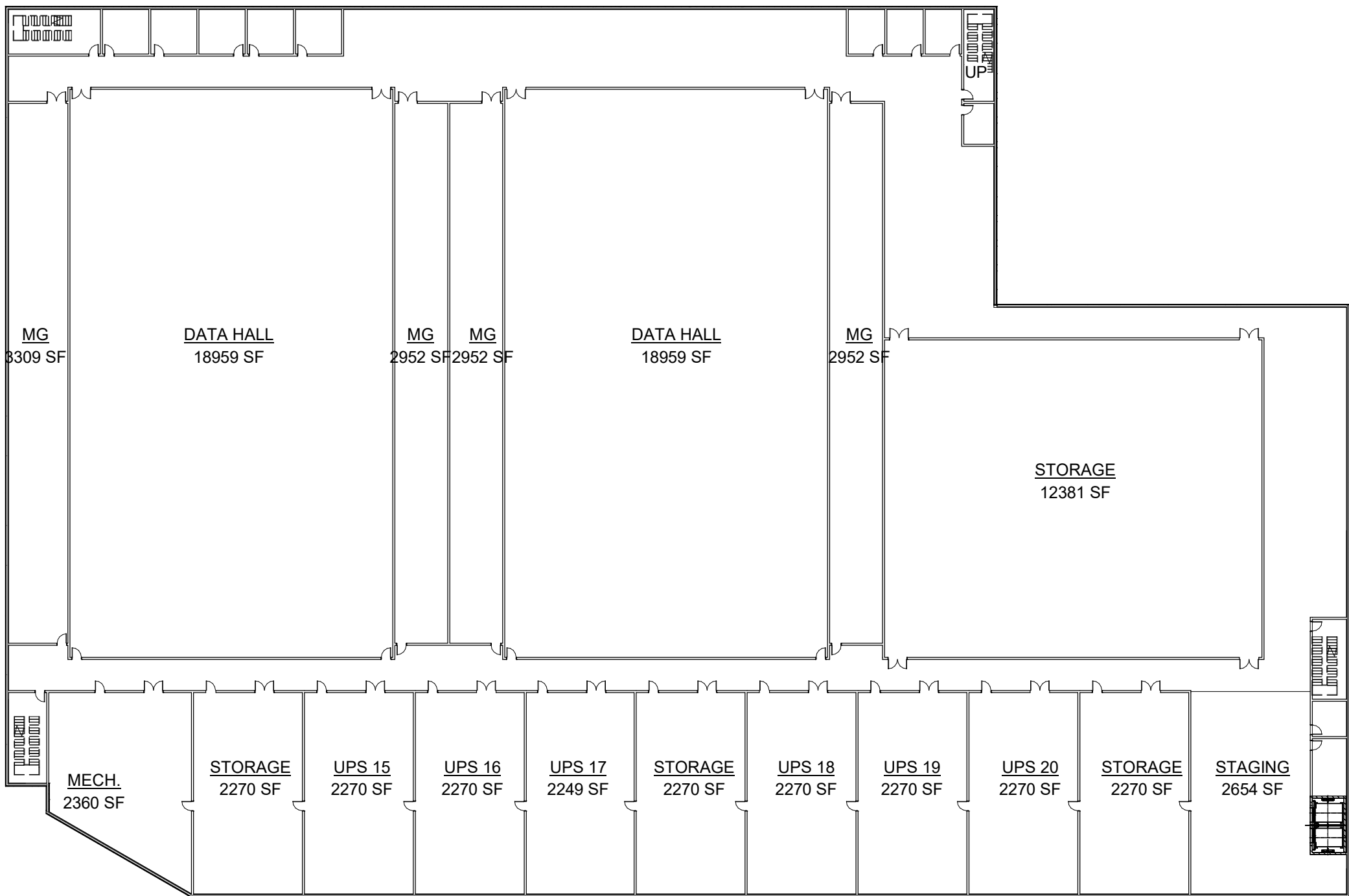




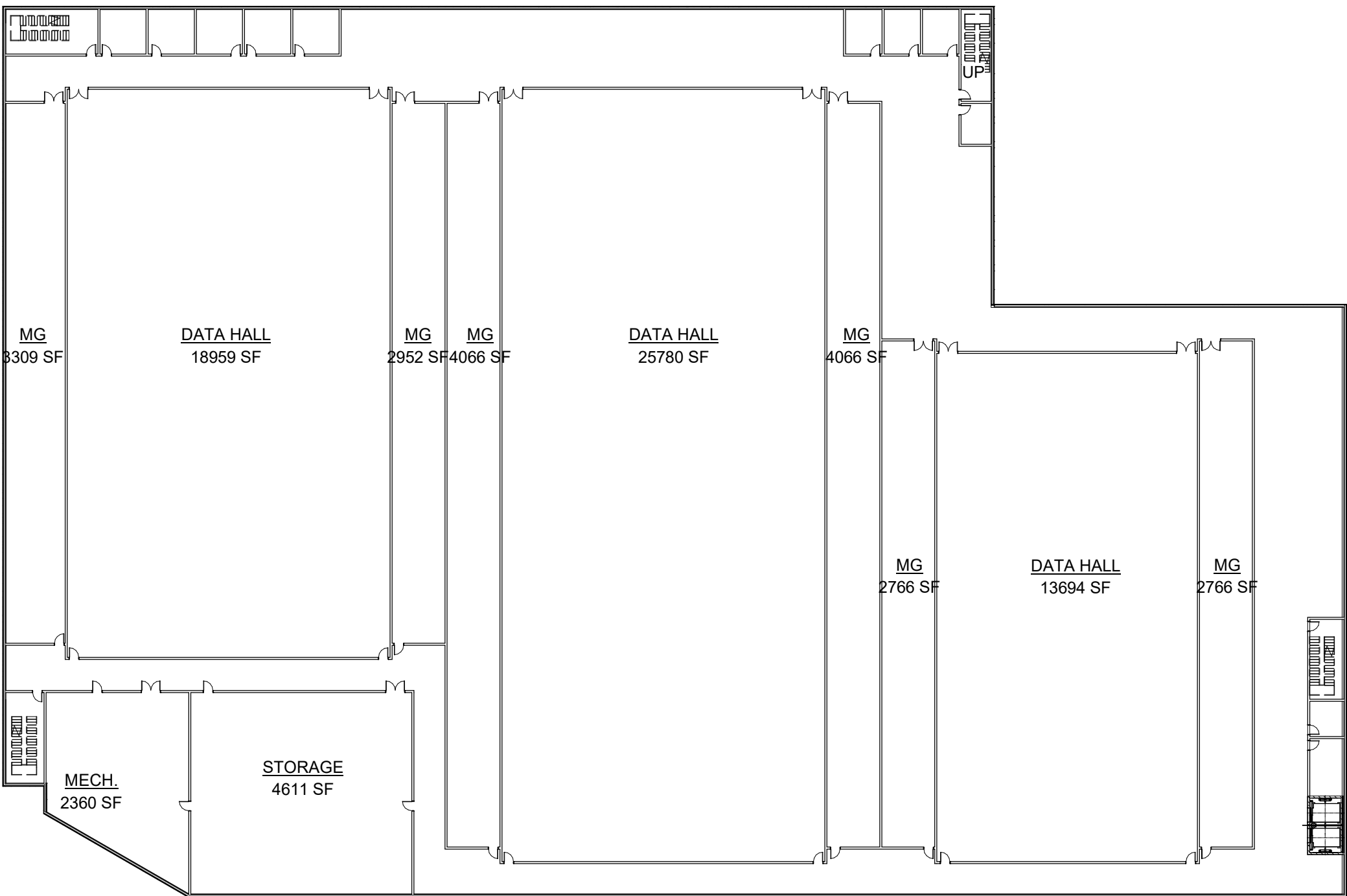
4 LEVEL 2 - HISTORICAL RESOURCE - ALT. 2  
1" = 40'-0"



1 LEVEL 2 - NEW BUILD - ALT. 2  
1" = 40'-0"



2 LEVEL 3 - NEW BUILD - ALT. 2  
1" = 40'-0"



3 LEVEL 4 - NEW BUILD - ALT. 2  
1" = 40'-0"

Project Number: 19110.0000



---

**SAN FRANCISCO**

Pier 9, The Embarcadero, Suite 107  
San Francisco, California 94111

T: 415.421.1680

F: 415.421.0127

*[argsf.com](http://argsf.com)*

**LOS ANGELES**

360 E. 2nd Street, Suite 225  
Los Angeles, CA 90012

T: 626.583.1401

F: 626.583.1414

*[arg-la.com](http://arg-la.com)*

**PORTLAND**

720 SW Washington Street, Suite 605  
Portland, OR 97205

T: 971.256.5324

*[arg-pnw.com](http://arg-pnw.com)*