

# UCAT TRANSIT FLEET GARAGE/MAINTENANCE FACILITY SITE SELECTION & CONCEPT PLAN





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# 1.0 EXECUTIVE SUMMARY

Ulster County Area Transit (UCAT) has outgrown its current transit facility which is located at 1 Danny Circle on Golden Hill. This transit garage was built in 2005 and can house a maximum of 36 vehicles, leaving the rest of the fleet outdoors, exposed to the elements. As space has become tight in the existing facility, three outdoor storage facilities for spare parts have been constructed. The site also contains a refueling station. In addition, the County is conducting a study on the feasibility of converting its fleet to all electric vehicles. UCAT does not have the space to meet its current needs at the existing facility, and requires an expansion. This report is designed to determine the best site, weighting needs and cost, for the county to move forward with.

The County is looking to determine the best location on County-owned property to serve its transit program over the next 10 years. The additional needs include:

- ▶ The indoor housing of all transit buses including the addition of 13 more vehicles to a maximum count of 49
- ▶ The indoor storage of parts (in particular tires) which are temperature sensitive
- ▶ The potential to include a 100% electric facility
- ▶ Expanded training and driver services
- ▶ Meet county requirements for designs to be LEED certified, as well as provide green energy via a solar array.

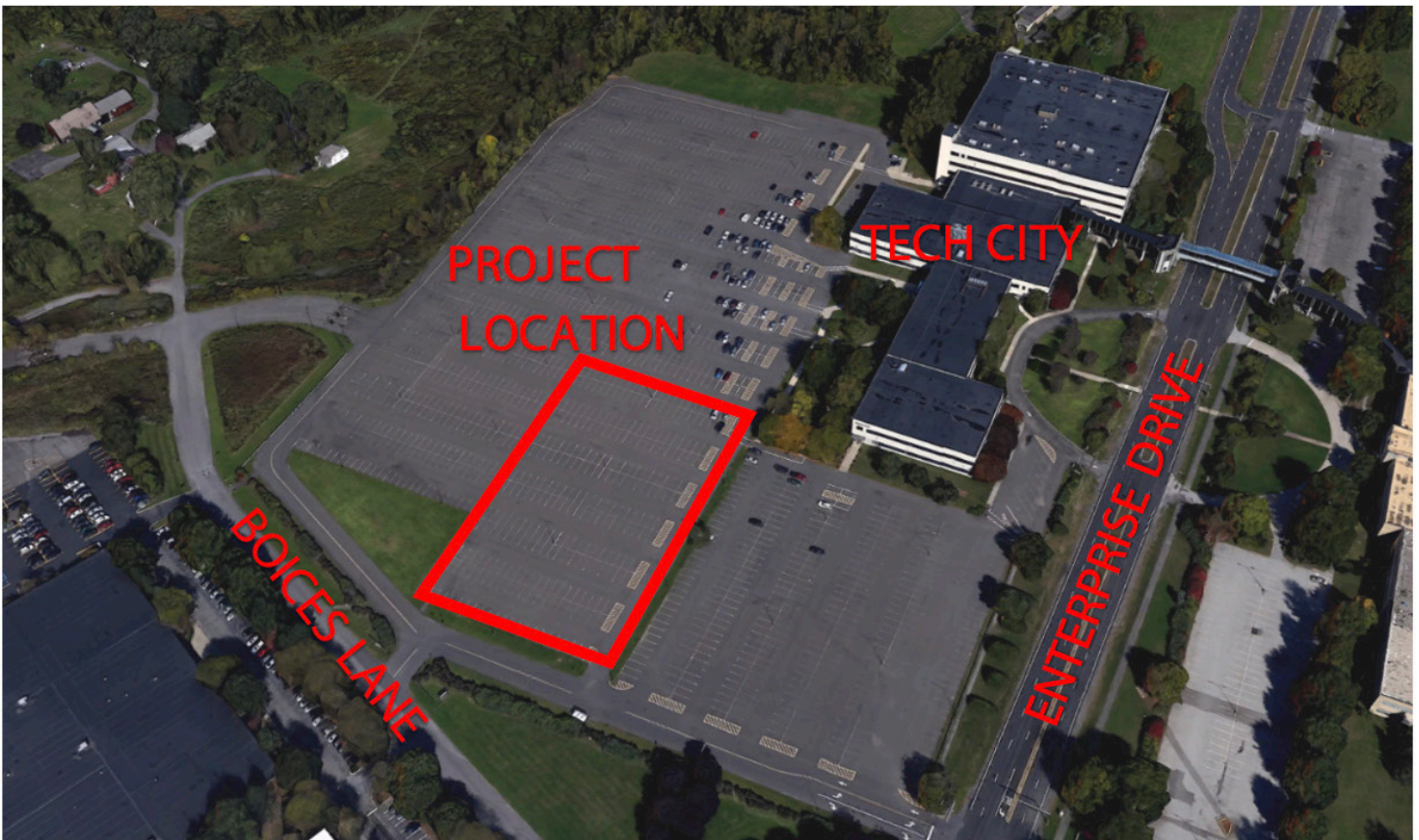
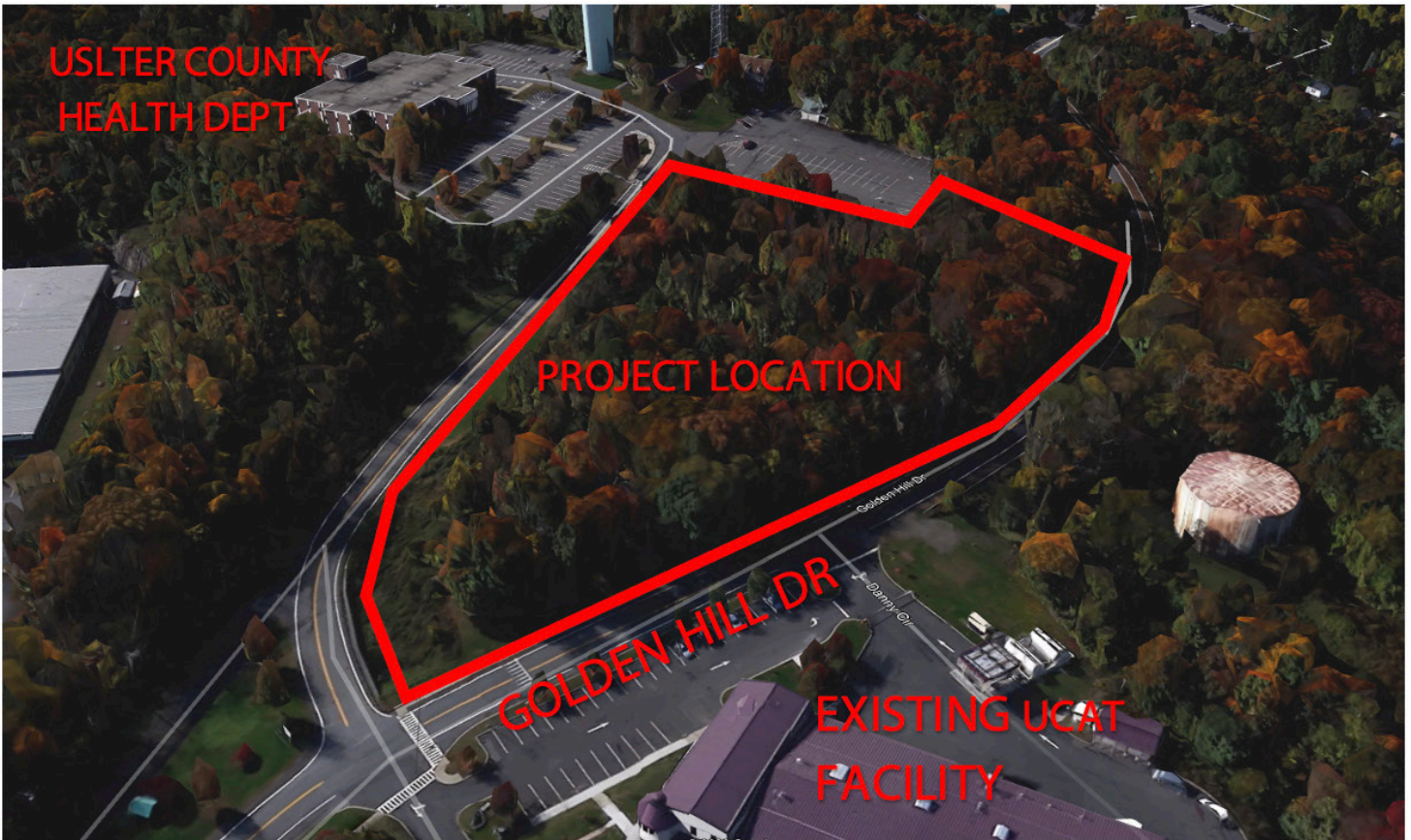
Three options for study were identified by the Technical Advisory committee (TAC). These include:

- ▶ 1. The expansion of the current transit garage to accommodate all projected space and program needs
- ▶ 2. This option has proven unfeasible due to existing site conditions`
- ▶ 3. The creation of a separate facility on the Golden Hill Complex
- ▶ 4. The creation of a satellite facility on the Tech City site

Onsite analysis of each location was conducted including the investigation of all technical data available including utility studies, soils and environmental reports and analysis, topographic information, traffic analysis, solar orientation, drainage analysis, wetland and flood plain considerations, bed rock limitations, as well as colocation assessment to the existing Golden Hill facility.

Concurrently, building and site plans were developed for each option to determine feasibility and to help identify construction limitation which would affect cost. Finally, a cost analysis of each option was created and added to the evaluation matrix. The results were then weighted for importance to the County and the community.

The conclusion, as will become evident in the following report, is that building a second storage building on the Golden Hill site near but not contiguous to the existing facility provides UCAT with the ability to address all the current issues and goals for the county.



## 2.0 INTRODUCTION

UCAT's transit facility on Golden Hill was built in 2005 for a bus fleet of 18 vehicles. UCAT currently has 36 vehicles with plans to expand to 49 vehicles in the next 20 years. The transit fleet has outgrown its current space. The lack of an adequately sized facility has caused difficulties and compromises for UCAT transit operations due to inefficiencies, lack of parts storage and reduced life expectancy for fleet vehicles exposed to the weather. This has necessitated the need for a Site Selection Study and Concept Plan that analyzes alternative site locations and develops a concept plan of the preferred location. The site selection process will include conceptual construction costs in order to prepare a capital program for implementation.

Passero Associates (PA) was retained to conduct the study. PA worked with UCAT, TAC and County staff throughout the study to provide comment and feedback. Three options were analyzed for the site selection: Expanding the current location; building a new facility on County-owned land at Golden Hill or building a new facility on County-owned land at Tech City. The site analysis investigated over 20 different criteria, from zoning, environmental, topography, utilities, access, and costs. To aid in this analysis, site selection checklists were used. After each site was thoroughly researched, the three options went through a comparative analysis using a decision matrix to arrive at a comprehensive, transparent selection for a preferred site.

PA's architects and engineers designed concept plans for each viable location that illustrates in 3D how a new transit building could fit on the site and how the buses could access it. A draft final recommended plan will be presented to the public for review and comment. The final plan will address the comments and be presented to the County Executive for adoption.

Ulster County is aggressively pursuing electrification of the existing bus fleet, which are expensive assets (\$1mil+) that should be properly maintained and protected in order to maximize effectiveness and efficiency.

An all indoor facility (in comparison to storing some buses outside like the current conditions) provides the following benefits to UCAT:

- ▶ Space for Buses to be protected from harsh NY winters.
- ▶ Space for Interior Electric charging stations to be protected from harsh NY winters.
- ▶ Less noise pollution onto residential neighborhoods during washing & maintenance work.
- ▶ Less light pollution onto residential neighborhoods due to the need for outside storage security grade lighting.
- ▶ All buses can be locked inside for proper security from vandalism.

## 3.0 SITE INVESTIGATION & RESEARCH

### 3.1 SITE VISIT

Passero Associates conducted a site visit of the current facility on Golden Hill on September 17, 2020. During the visit, PA staff walked through the existing facility and toured the area around the building. The site visit made it apparent the existing facility is inadequate to service the existing needs of UCAT in terms of code compliance, storage space, administrative space/capabilities, and bus storage bays. The site is too constrained by steep topography and property boundaries to expand the building. The proposed facility would need to provide the ability to store the projected 49 bus fleet for the County, provide ample storage for maintenance equipment & appropriate administrative space.



Site visits were also made for Option #2 (vacant site on Golden Hill adjacent to Mental Health) and Option #3 (Tech City). Option #2 is heavily wooded and has a hilly terrain. It is accessed off of Golden Hill Dr. and there are utilities to service the new building nearby. Option #3 is located in the large parking lot for the former Bank of America facility on the north side of the City of Kingston. The site offers excellent access to major highways from Enterprise Dr. and utilities are adjacent to the site. There is a 500-year floodplain restriction that crosses through the property, but there is ample room to locate a new transit facility on the property and remain out of the floodplain.



Additionally, Passero Associates has provided site checklists for all three possible site locations. These checklists designate the information required to properly assess the locations. These checklists are provided in **Appendix G**.

## 3.2 ENVIRONMENTAL DUE DILIGENCE

Passero Associates investigated the environmental impacts at all three site locations. Considering data from the following databases:

- ▶ US Department of Agriculture National Resources Conservation Service – Web Soil Survey
- ▶ NYSDEC Online Environmental Resource Mapper
- ▶ US Fish & Wildlife Service National Wetlands Inventory
- ▶ FEMA’s National Flood Hazard FIRMETTE Mapper
- ▶ NYD State Historic Preservation Office – Cultural Resource Information System
- ▶ County provided information on transit fleet

### 3.2.1 SOILS

Soils within the project area were reviewed for their hydrologic soil group in accordance with the USDA’s NRCS Soil Survey. The soil characteristics present on the sites are summarized below and the soils map can be found in **Appendix C**.

**Site #1:** The existing UCAT Facility is seated on the North Side of Golden Hill Drive. The site is entirely comprised of “Stockbridge-Farmington-Rock outcrop complex, hilly” soils. This means the site is likely to contain shallow bedrock outcrops which could require rock blasting. In order to provide an expansion for the existing facility, the existing large retaining wall would have to be removed and rebuilt farther north, with large quantities of soil imported to the site to fill in the steep downward slopes.

**Site #2:** The Golden Hill location is seated on the South Side of Golden Hill Drive. The site is comprised of “Stockbridge-Farmington-Rock outcrop complex, hilly” & “Farmington-Rock outcrop complex, steep” soils. This means the site is likely to contain shallow bedrock outcrops which could require rock blasting. In order to construct the proposed facility, reinforced slopes would be required to provide a flat area to develop the facility. The site topography makes it possible to design the site to minimize soil import/export.

**Site #3:** The Tech City location is seated on the West Side of Enterprise Drive, on the Northern side of the City of Kingston. This site is almost completely pre-developed, with most soils being classified as sandy-loams or unclassified cut/fill land. The tech city site project area is an existing parking lot, with no rock outcrops. The site topography makes it possible to design the site to minimize soil import/export.

### 3.2.2 WETLANDS / CREEKS

The sites were reviewed for the existence of federal and state regulated wetlands within the property boundaries. Federal wetlands were researched using the National Wetlands Inventory (NWI) using an online U.S. Fish and Wildlife website search. State regulated wetlands were researched using the NYSDEC’s online Environmental



Resource Mapper website.

**Site #1:** Review of the existing UCAT facility indicates there are not federal or state wetlands on the project site. The state has flagged this area as a potential home to rare plants and animals.

**Site #2:** Review of the golden hill site indicates there are not federal or state wetlands on the project site. The state has flagged this area as a potential home to rare plants and animals.

**Site #3:** Review of the Tech City indicates there are not federal or state wetlands in the project area. The state has flagged this area as a potential home to rare plants and animals.

Refer to **Appendix D** for the federal and state regulated wetlands mapping.

### 3.2.3 NYSDEC ENVIRONMENTAL RESOURCES

The NYSDEC has an Environmental Resource Mapper on its website. The Environmental Resource Mapper is an interactive mapping application that can be used to identify some of New York State's natural resources and environmental features that are state protected, or of conservation concern. It displays the following:

- ▶ Animals and plants that are rare in New York, including those listed as Endangered or Threatened (generalized locations). [Updated May 2008]
- ▶ Significant natural communities, such as rare or high-quality forests, wetlands, and other habitat types.
- ▶ New York's streams, rivers, lakes, and ponds; water quality classifications are also displayed

According to this database, all sites are flagged for potential rare and endangered animals in the vicinity of the project. This is due to the golden hill location vicinity to Rondout Creek and Lawton Park, and Tech City's vicinity to Esopus creek.

### 3.2.4 FLOODPLAIN

According to FEMA's National Flood Hazard FIRMette Mapper, the Golden Hill locations are located outside the 100 year floodplain per community panel no. 36111C0470G dated 11/18/2016.

The Tech City site is located close to Esopus Creek. Half of the western parking lot is within the 500-year floodplain. The proposed location of the bus facility is positioned outside of this floodplain.

Refer to **Appendix E** for the FIRM maps of the sites.

### 3.2.5 STATE HISTORIC PRESERVATION OFFICE REVIEW

The sites were reviewed for the presence of archaeological sensitive areas using online GIS tools found at the NYS Historic Preservation Office (SHPO). We have reached out to SHPO, who provided the following review for Golden Hill and Tech City:

Sites #1 & #2 located at Golden Hill are within an archaeologically sensitive location. Construction at the Golden

Hill site would therefore require a Phase 1A/1B archaeological survey conducted by a 36 CRF 61 qualified archaeologist.

Site #3 in Tech City has already seen significant ground disturbance, therefore SHPO has issued a Letter of No Impact for this location, and no further review is required.

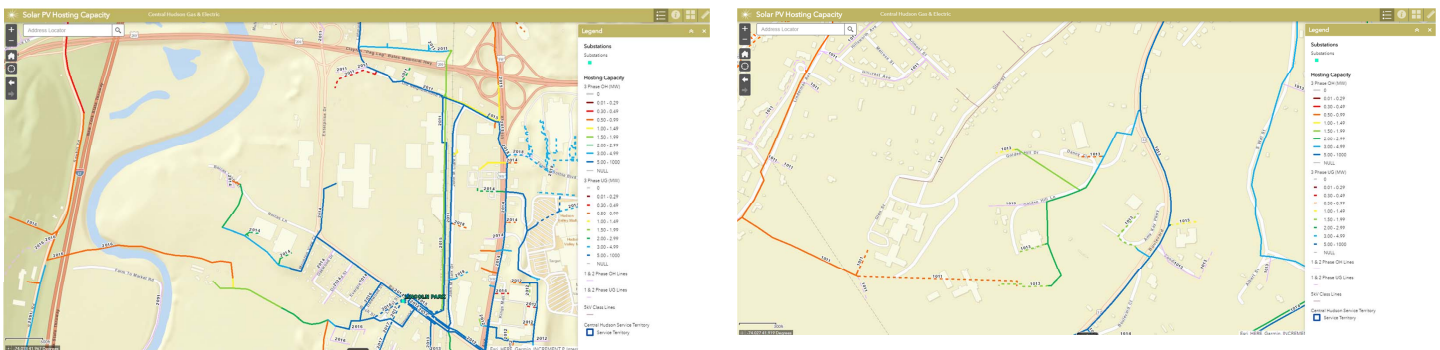
See **Appendix F** for the provided letters.

### 3.3 RESEARCH

Ulster County and local utility companies provided an array of record maps & information regarding the Golden Hill and Tech City sites. Architectural drawings for the existing UCAT facility, core samples from the nearby Ulster County Jail Site (now abandoned) & utility record maps were used to determine needs of each site. The site selection process also took advantage of the “Dig Safely New York” (DIGSAFE) program. This program is a government provided service which automatically notifies all appropriate utility providers in the project vicinity to provide record maps and/or paint their utilities in the area for a survey team to use.

The DIGSAFE requests are broken down in the site checklists provided in **Appendix G**.

The UCAT facility project has placed an importance on providing electric buses to the people of Ulster County. Therefore, the future site must be able to provide adequate electric infrastructure to charge the buses. Central Hudson Power has provided an online tool to track the power capacity of their overhead and underground wire network (ranged in mega-watts [MW] ).



### 3.4 TRAFFIC ANALYSIS

The scope of this study is to identify future options for UCAT bus fleet storage, anticipating a modest increase in bus storage capacity over the next 20 years. In 2019, UCTC staff conducted a preliminary analysis of traffic conditions in and around the Golden Hill facility, examining traffic volumes and crash history/crash type at various locations, including the intersection of Rte 32 and Golden Hill Drive. That analysis identified a total of eight reported crashes over a ten-year period (2009-2018) at this intersection, with five of those crashes attributable to animals.

Under present and future site conditions, it is believed that a new UCAT facility will not cause a significant increase in traffic volumes at the site, as staffing is not likely to increase by more than 5-10 persons during that time period.

**Intersection of Golden Hill Drive and Route 32 in the City of Kingston**

Under present site conditions, the intersection does not appear to meet any of the MUTCD warrants recommending a traffic signal and current data indicates UCAT staff increases alone will have no adverse impact on traffic conditions at the intersection. In the event that an expanded UCAT facility is constructed at Golden Hill, further analysis of the intersection will be performed prior to approvals. In addition, any other future development proposals at Golden Hill will need to conduct a traffic analysis in order to assess potential impacts to traffic safety.

Special consideration should be taken to address pedestrian safety on Golden Hill Drive. Where the proposed facility is across the street from the existing facility, personnel will need to regularly cross the street between the sites. This causes an increase in foot traffic, which has raised concern among Ulster County staff.

Upon entering the design phase of this project, provisions should be incorporated to mitigate the potential risk. Potential measures to be evaluated may include: evaluation of MUTCD standards for an updated pedestrian crossing warning (Refer to section 2B.11 of the MUTCD as well as In-street Pedestrian Crossing Sign R1-6); raised crosswalks; speed humps; solar powered flashing stop signs (pedestrian detecting or constant flash); or equivalent measures.

**3.5 ENVIRONMENTAL JUSTICE**

All options considered for this study were designed considering the FTA Circular C 4703.1. ENVIRONMENTAL JUSTICE POLICY GUIDANCE FOR FEDERAL TRANSIT ADMINISTRATION RECIPIENTS. The existing bus facility located at Golden Hill has been operating in the area for many years. The proposed project is converting outdoor storage of county assets to indoor storage. The quantity and quality of vehicular movement in the area will not be adversely affected. In addition, the desired conversion of the bus fleet to an electric fleet will enhance environmental quality, diminish air quality & noise levels for the area. Any potential environmental impacts can be mitigated through design.

The FTA could require a formal Environmental Justice Analysis should the area near the project be determined to have a majority of low-income and / or minority populations.

Distance		33ft of Intersection	
TOTAL_CRASHES		8	
Months		120	
Dates:		2/28/2009 2/28/2019	
Severity	FATAL	# ACC	%
	PROPERTY_DAMAGE_AND_INJURY	0	0.0%
	INJURY	2	25.0%
	PROPERTY_DAMAGE	0	0.0%
	NON_REPORTABLE	3	37.5%
		8	
Crash Type	REAR_END	0	0.0%
	OVERTAKING	0	0.0%
	HEAD_ON	0	0.0%
	RIGHT_ANGLE	1	12.5%
	SIDESWIPE	0	0.0%
	LEFT_TURN_AGAINST_OTHER_CAR	0	0.0%
	RIGHT_TURN_AGAINST_OTHER_CAR	0	0.0%
	RIGHT_TURN_WITH_OTHER_CAR	0	0.0%
	LEFT_TURN_WITH_OTHER_CAR	0	0.0%
	OTHER	7	87.5%
UNKNOWN	0	0.0%	
		8	
Time of Day	TOD_6_10	2	25.0%
	TOD_10_16	1	12.5%
	TOD_16_19	3	37.5%
	TOD_19_24	1	12.5%
	TOD_24_6	1	12.5%
		8	
Season	Spring_3_5	3	37.5%
	Summer_6_8	0	0.0%
	Fall_9_11	3	37.5%
	Winter_12_2	2	25.0%
		8	
Day of week	Sun	1	12.5%
	Mon	1	12.5%
	Tue	0	0.0%
	Wed	0	0.0%
	Thurs	0	0.0%
	Fri	3	37.5%
	Sat	3	37.5%
		8	
Collision Type	COLLISION_WITH_MOTOR_VEHICLE	1	12.5%
	COLLISION_WITH_FIXED_OBJ	2	25.0%
	COLLISION_WITH_BIKE_PED	0	0.0%
	COLLISION_WITH_ANIMAL	5	62.5%
	COLLISION_WITH_OTHER	0	0.0%
		8	

## 4.0 PROJECT COORDINATION & PUBLIC ENGAGEMENT

### 4.1 TAC MEETINGS

Present members of TAC committee:

- ▶ Brian Slack – Principal Transportation Planner, Ulster County Transportation Council
- ▶ Dennis Doyle – Director, Ulster County Planning Board, Ulster County Transportation Council
- ▶ Sajaa Ahmed – Director, Ulster County Area Transit
- ▶ Jacob Blosser – Projects Manager II, Ulster County Buildings and Grounds
- ▶ Nick Hvozda – Deputy Coordinator, Department of the Environment at Ulster County
- ▶ Evelyn Wright – Deputy Ulster County Executive
- ▶ Dan Coots – Coordinator, NYDOT Region 8
- ▶ Brian Atkinson – Building Supervisor, Ulster County Area Transit
- ▶ Robert Buser – Deputy Commissioner DPW-Maintenance, Ulster County Buildings and Grounds
- ▶ William Califano – UCAT Maintenance and Safety Coordinator
- ▶ Amanda Lavallo – Director, Ulster County Department of the Environment
- ▶ Toni Rose – Deputy Director, Ulster County Area Transit

Four progress meetings were conducted with the UCAT TAC on the following dates:

- ▶ 09/17/20 – UCAT – Site Selection & Data Gathering
- ▶ 10/15/20 – UCAT – Site Selection TAC Meeting
- ▶ 10/29/20 – UCAT Progress Meeting
- ▶ 11/12/20 – UCAT Progress Meeting

### 4.2 PUBLIC ENGAGEMENT

Ulster County Area Transit has created a website to provide public engagement on the site selection process.

A public notice for an online public engagement meeting will be sent out to the public. The meeting is planned to be held via ZOOM call in Mid January.

A presentation will be made to legislation at the county level should public leaders deem it necessary.

NOTE: This section of the report will be revised to reflect public participation as project progresses.

## 5.0 SITE SELECTION ANALYSIS & SITE LAYOUT FEASIBILITY

### 5.1 OPTION #1 – EXPAND / RENOVATE EXISTING SITE

The existing UCAT facility houses the existing 40 bus fleet and provides the maintenance bays, storage, fueling station and administrative services. However, the site is cramped and is running at capacity for its design. The site proposal to expand the existing facility to meet the current and future needs is summarized below.

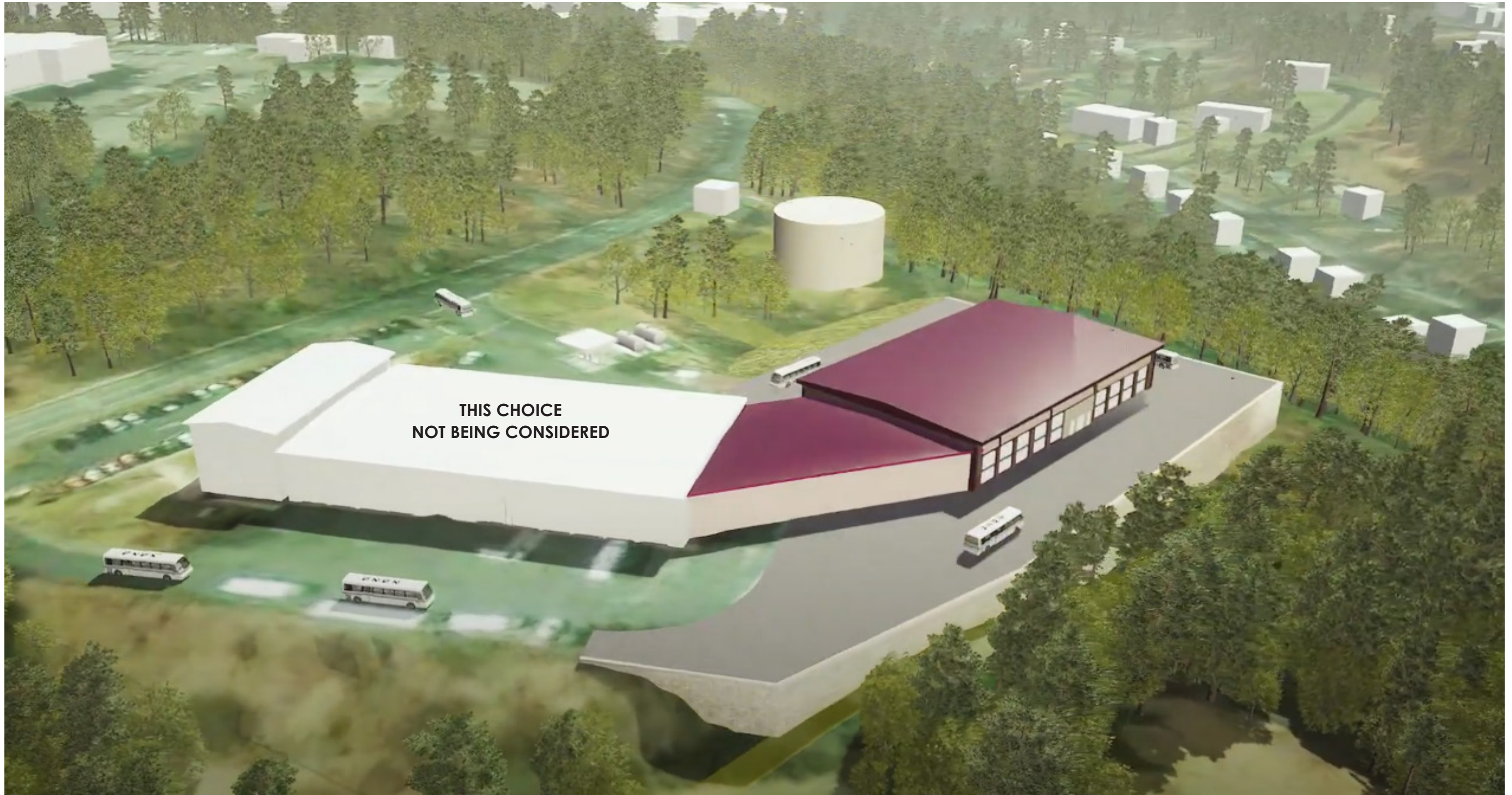
#### PROS

- ▶ Expansion of existing site keeps all departments / services in one central location.
- ▶ Expansion of existing facility would require the least amount of utility work, as utilities are already provided for the building.
- ▶ Would not be adjacent to the proposed housing project located on the abandoned Ulster County Jail Site.
- ▶ Would be the cheapest building construction option.

#### CONS

- ▶ The site has a very large retaining wall that would have to be torn down and pushed out to provide the necessary space. Further pushing the retaining wall will greatly increase its height and become extremely expensive.
- ▶ The existing site is close to a water tower / water main that runs down Golden Hill and into a residential area.
- ▶ This water main would limit how far the existing site could be expanded.

The existing topography and requirement to tear down and rebuild a very large retaining wall makes this site an unfeasible choice. As the cost for this portion of the project alone would add millions of dollars to the project. Secondly, expanding the site due to the water main is too limited to justify the work. This proposed site also includes updating the inside of the existing UCAT facility to provide more workspace, storage space and bring the building to current building codes.



**THIS CHOICE  
NOT BEING CONSIDERED**



## 5.2 OPTION #2 – GOLDEN HILL LOCATION

The proposed Golden Hill site is adjacent to the existing UCAT facility and Ulster County Department of Health. This site proposal is to construct a new facility with ample space to house the entire bus fleet, plus future needs. The proposal also includes some administrative space and maintenance bays for routine upkeep. The site proposal to meet the current and future needs is summarized below.

### PROS

- ▶ Development of this site keeps all departments / services in the same area.
- ▶ The site has access to all necessary utilities that are currently utilized by other county buildings.
- ▶ The site provides enough space to meet the needs and wants of UCAT.

### CONS

- ▶ Would be adjacent to the proposed housing project located on the abandoned Ulster County Jail Site.
- ▶ The site involves the most tree clearing and earth moving to create a level area for the facility. The Site will utilize slope reinforcement and could involve rock blasting of shallow bedrock / outcrops.

This site was compared to the other two options in a detailed site selection matrix located in Section 5.4. In both unweighted and weighted scenarios, this site selection came out with the highest score and is the site recommended by this report.

Traffic for the Golden Hill area is currently a public concern. This proposal has zero increase in traffic for the area, as the existing facility, staff, and resources are already located in the area, but need more space to be effective.

This site has two options for the size of the facility. A 23,000 SF facility that is designed to house the entirety of the current fleet would provide Ulster County with the space it requires today. However, this report is considering the needs of UCAT over the next decade and expansion of the bus fleet is expected. Therefore, a 30,000 SF facility was also created in order to house the 49 expected vehicles UCAT would possess. The proposed site would be designed to match both building sizes, meaning minimal site alterations would be required for UCAT to expand the facility in the future. The proposed building could be built as a “shell” with no insulation or heating to limit costs, with the potential to be heated at a later time as necessary.

This proposed site also includes updating the inside of the existing UCAT facility to provide more workspace, storage space and bring the building to current building codes.





### 5.3 SITE OPTION #3 TECH CITY SITE

The proposed Tech City site is located on Enterprise Drive, North of the city of Kingston and a 15 minute drive from the existing UCAT facility. This site proposal is to construct a new facility with ample space to house the entire bus fleet, plus future needs. The proposal also includes some administrative space and a fully equipped set of maintenance bays for routine and major upkeep.

The Tech City site would require a facility approximately 10,000 SF larger than one proposed for the Golden Hill site. This is due to requiring redundant facilities that are already provided for Golden Hill by the existing UCAT facility, such as maintenance bays, wash bays, administrative offices, enlarged parts storage, etc.

The Tech City alternative is illustrative to show how the area west of Enterprise Drive can accommodate the facility. Other portions of the Tech City campus on the east side of Enterprise Drive are similarly capable of such accommodation at similar cost, with the exception of acquisition costs, as the County does not own enough of the land for a suitable location.

#### PROS

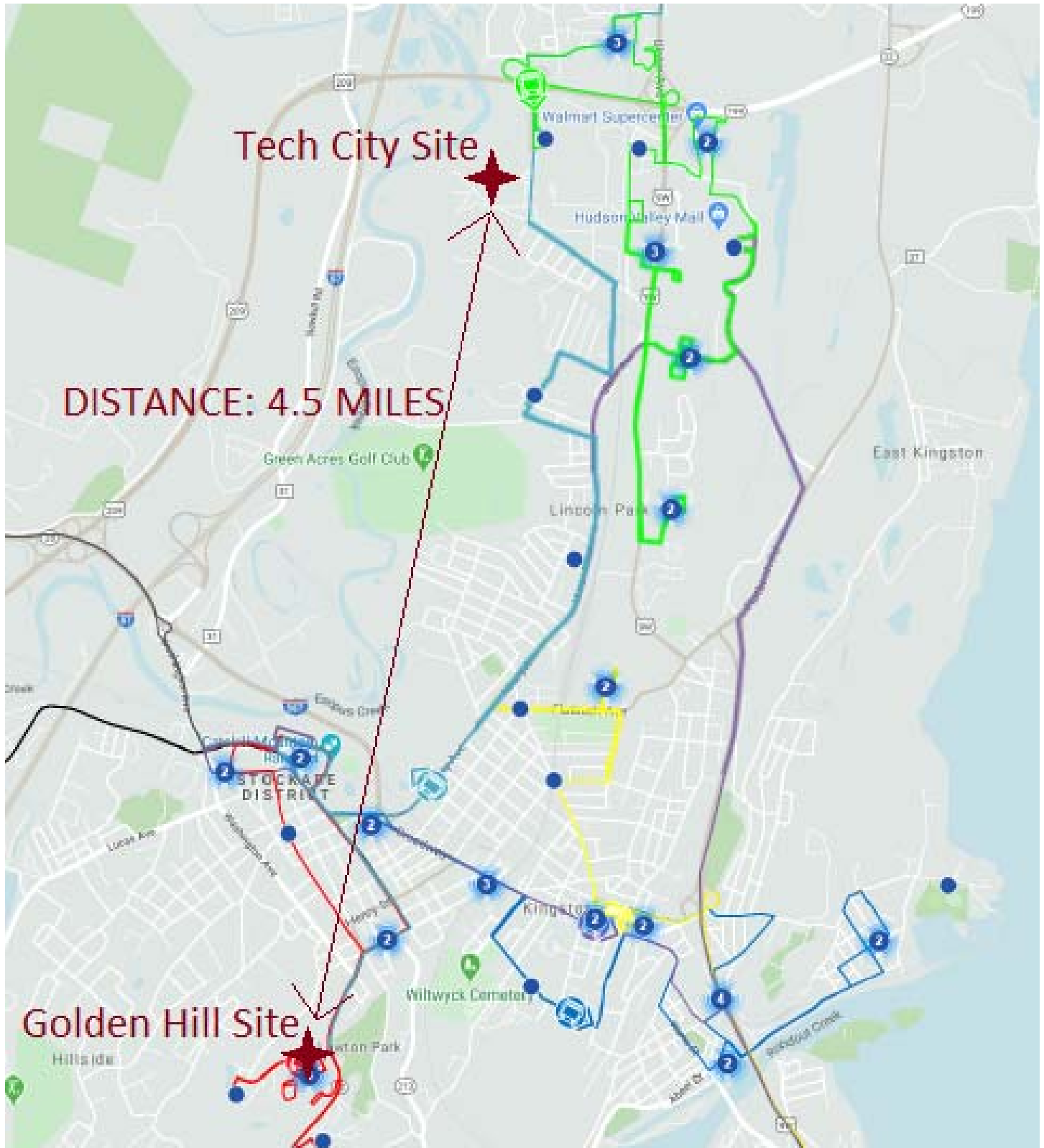
- ▶ The site is extremely flat and is almost entirely pre-developed. The facility would be placed in an existing parking lot and would require significantly less earthwork, no tree clearing, and some pavement alterations (creating islands, restriping, etc).
- ▶ The site has access to all necessary utilities that are currently utilized by other industrial centers, as well as the currently unused building on the property.
- ▶ The site provides enough space to meet the needs and wants of UCAT. This site is the most flexible due to the amount of space available.

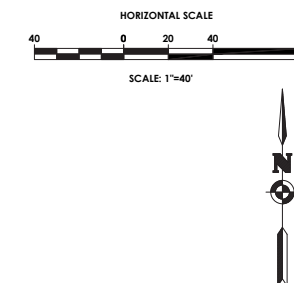
#### CONS

- ▶ The site would be on the other side of the city from the existing UCAT facility, unable to utilize existing services at Golden Hill. The building therefore needs to create redundant services and storage for equipment / parts.
- ▶ The site is located in an environmental easement to NYSDEC due to previous uses of the area by the IBM corporation. The site selection matrix and cost estimates consider money for site remediation as required by the state.
- ▶ The site would require the most expensive building option.
- ▶ The site is a potential location for other county projects to revitalize the Tech City area. The proposed bus facility may not align to the areas master plan.

This site was compared to the other two options in a detailed site selection matrix located in Section 5.4. In both unweighted and weighted scenarios, this site selection fell short for the Golden Hill location.

This proposed site also includes updating the inside of the existing UCAT facility to provide more workspace, storage space, and bring the building to current building codes.







## 5.4 SITE SELECTION MATRIX

Passero Associates created a detailed site selection matrix in order to compare all potential site locations based on twelve critical factors discussed with the TAC committee. The matrix divides each site into two scoring columns, unweighted and weighted.

The unweighted column values each of the twelve critical factors the same as all other factors. An example is “Compatible with adjacent uses” is just as important to this project as the cost to develop the site.

The weighted column incorporates a weight factor (WF) into the matrix, this weight factor causes some critical factors to be more important than others. An example is the weighted factor for “Utilities available nearby” of (0.5), this is because all sites have ample access to all utilities, so this critical factor is not as important to the decision process. Compare that to the weighted factor of “Cost to Develop Site” of (2.0). This means the site development costs are 4X as important in the decision-making process comparatively.

Based on this matrix in both unweighted and weighted scenarios, the new facility at golden hill came out with the highest score and is the site recommended by this report.

Project Name: UCAT Transit Facility Site Selection  
 Project No: 20202987.0001  
 Reviewed by: ABG



1: POOR	WF=WEIGHT FACTOR
2: BELOW AVERAGE	
3: AVERAGE	
4: ABOVE AVERAGE	
5: BEST	

SITE SELECTION DECISION MATRIX		SITE 1 (EXPAND EXISTING LOCATION)			SITE 2 (GOLDEN HILL)			SITE 3 (TECH CITY)			COMMENTS
		UNWEIGHTED	WF	WEIGHTED	UNWEIGHTED	WF	WEIGHTED	UNWEIGHTED	WF	WEIGHTED	
1	ACCOMMODATE TRANSIT PROGRAM/FLEET SIZE	1	0.75	0.75	4	0.75	3	5	0.75	3.75	<p>Tech City has a sprawling, flat parking lot behind an abandoned complex to work with.</p> <p>Both Golden Hill locations are located near other government facilities, but are not nearby major arterial roadways. Tech City is adjacent to Major Roadways, but is not adjacent to existing facilities.</p> <p>Using the existing site creates no travel to access existing-proposed facilities. Site #2 is across the street, creating minimal/negligible travel. Tech City is located on the opposite side of the City of Kingston, about 15 minutes drive time.</p> <p>All Locations are owned by Ulster County</p> <p>All locations possess full utility access</p> <p>Both Golden Hill locations are adjacent to other Ulster County Facilities, Tech City is an abandoned Tech Park that is being repurposed by the County for future development. Proposed affordable housing project is near site #2</p> <p>Both Golden Hill locations are contained within the area used for Ulster County Facilities, Tech City would utilize industrial space the county plans to revitalize over the next few years.</p> <p>The existing Golden Hill location is already cramped, expansion would further this issue. SITE #2 provides more space and ample turning room for all bus sizes. Tech City has a massive area to work with.</p> <p>All locations have electricity access to accommodate the program. All sites would need to place charge stations for the buses inside the facility.</p> <p>The existing golden hill location has no developable area without major site work, including a large retaining wall and importing massive quantities of soil. Site #2 would require clear cutting a large portion of the project area, earth work and stabilization of slopes greater than 1:3. The project also calls for the expansion of an existing storm water facility. The Tech City site is flat, existing parking lot and would be approx. \$1-1.5 million cheaper to develop the site. However, there is a significant potential cost to complete environmental remediation due to the NYSDEC environmental easement over the area.</p> <p>The existing golden hill location would be the easiest facility to construct as all the existing maintenance, storage and necessary equipment is already on site. Site #2 adjacent to the existing site is slightly more expensive as some basic maintenance equipment would be required, but all major work can be completed at the original location. Tech City would be the most expensive facility due to the need for maintenance equipment to be installed at the facility, likely offsetting the costs saved from site development.</p> <p>All three locations are flagged by NYSDEC for potential rare plants/animals. Both Golden Hill locations would require the clear cut of existing woodlands. The Tech City location is subject to an environmental easement to the DEC due to the IBM corporation's previous use of the area. The existing site has a large existing watermain that flows downhill from the existing water tower, right where the expansion of the existing facility would likely fit.</p>
2	ACCESSIBILITY FOR BUSES & STAFF	3	1	3	3	1	3	4	1	4	
3	PROXIMITY TO EXISTING FACILITIES	5	1	5	5	1	5	2	1	2	
4	PUBLIC OWNED LAND	5	0.5	2.5	5	0.5	2.5	5	0.5	2.5	
5	UTILITIES AVAILABLE NEARBY	5	0.5	2.5	5	0.5	2.5	5	0.5	2.5	
6	COMPATIBLE WITH ADJACENT USES	5	0.75	3.75	3	0.75	2.25	3	0.75	2.25	
7	COMPATIBLE WITH MASTER PLAN	5	1	5	5	1	5	2	1	2	
8	PROVIDES FLEXIBILITY TO MEET FUTURE NEEDS	1	1	1	3	1	3	5	1	5	
9	ABILITY TO ACCOMMODATE FLEET ELECTRIFICATION PROGRAM	4	1	4	4	1	4	4	1	4	
10	COST TO DEVELOP SITE	1	2	2	2	2	4	4	2	8	
11	COST TO DEVELOP FACILITY	5	1.5	7.5	3	1.5	4.5	1	1.5	1.5	
12	ENVIRONMENTAL CONCERNS	2	1.5	3	3	1.5	4.5	2	1.5	3	
SUBTOTAL		42		40	45		43.25	42		40.5	Based on this Decision Matrix, Site #2 Golden Hill Location is recommended
		UNWEIGHTED		WEIGHTED	UNWEIGHTED		WEIGHTED	UNWEIGHTED		WEIGHTED	

## 6.0 PREFERRED SITE

### 6.1 TRANSIT FACILITY

The new Transit facility would entail the combination of keeping the existing golden hill facility and constructing a new, primarily vehicle storage facility across the road. This new facility is projected to be approximately 30,800 gross square feet. The program for this facility would be 16 new storage bay to accommodate up to 41 busses indoors. The building would also house a small office suite, dispatch, break room for drivers, lockers, toilets a small maintenance area and utility space.

The building would be a one story high bay space with solar collectors on the roof and be able to accommodate an entire fleet of electric buses with indoor charging capability.

The existing transit facility would still house the majority of the maintenance, office and training functions. Two of the existing bus storage bays would be converted to indoor parts storage, training would be expanded and some outstanding accessibility issues would be addressed. There are also a few maintenance upgrades which have been incorporated. The roof would be retrofitted to accommodate solar collectors and the facility would be upgraded to provide complete electric charging to the fleet.

The mechanical system is envisioned to be as energy efficient and sustainable as possible in an effort to achieving net zero. Measures to study when the final design is created include geothermal with radiant floor slabs, super insulation, thermal mass storage and solar orientation.

As previously stated in section 3.4 Traffic, this site location requires consideration for pedestrian safety in crossing Golden Hill Drive. Upon entering the design phase of this project, provisions should be incorporated to mitigate the potential risk. Potential measures to be evaluated may include: evaluation of MUTCD standards for an updated pedestrian crossing warning (Refer to section 2B.11 of the MUTCD as well as In-street Pedestrian Crossing Sign R1-6); raised crosswalks; speed humps; solar powered flashing stop signs (pedestrian detecting or constant flash); or equivalent measures.

### 6.2 GOLDEN HILL SITE

The preferred golden hill site would incorporate new pedestrian access between the existing UCAT bus facility, the proposed facility, and the Ulster County Health Department. The proposed site includes a new sidewalk along the Golden Hill drive extension. This sidewalk will connect to the existing sidewalk at the intersection located in front of the existing UCAT facility. The project will also use a portion of the existing walkway that leads from Golden Hill Drive to the parking lot located at the top of golden hill. The project will demolish most of this path, however the northern end will connect to the proposed pavement of the new facility, providing an easy walking path between



both bus facilities for the staff.

The site has an existing storm water management area on the east side, this area will be expanded to provide ample storm water quality and quantity control for the proposed facility.

The site is mainly forested hills with shallow bedrock / potential rock outcrops. The project incorporates tree clearing and rock blasting to bring the site to grade for the proposed facility. The site will incorporate reinforced slopes and approximately 100' of retaining wall for steep slopes.

Preliminary cost estimates show about 32,000 cubic yards of soil will be moved around on site for the proposed design. The site will be designed to not import / export of soils for the project.

## 6.2 COST ESTIMATES

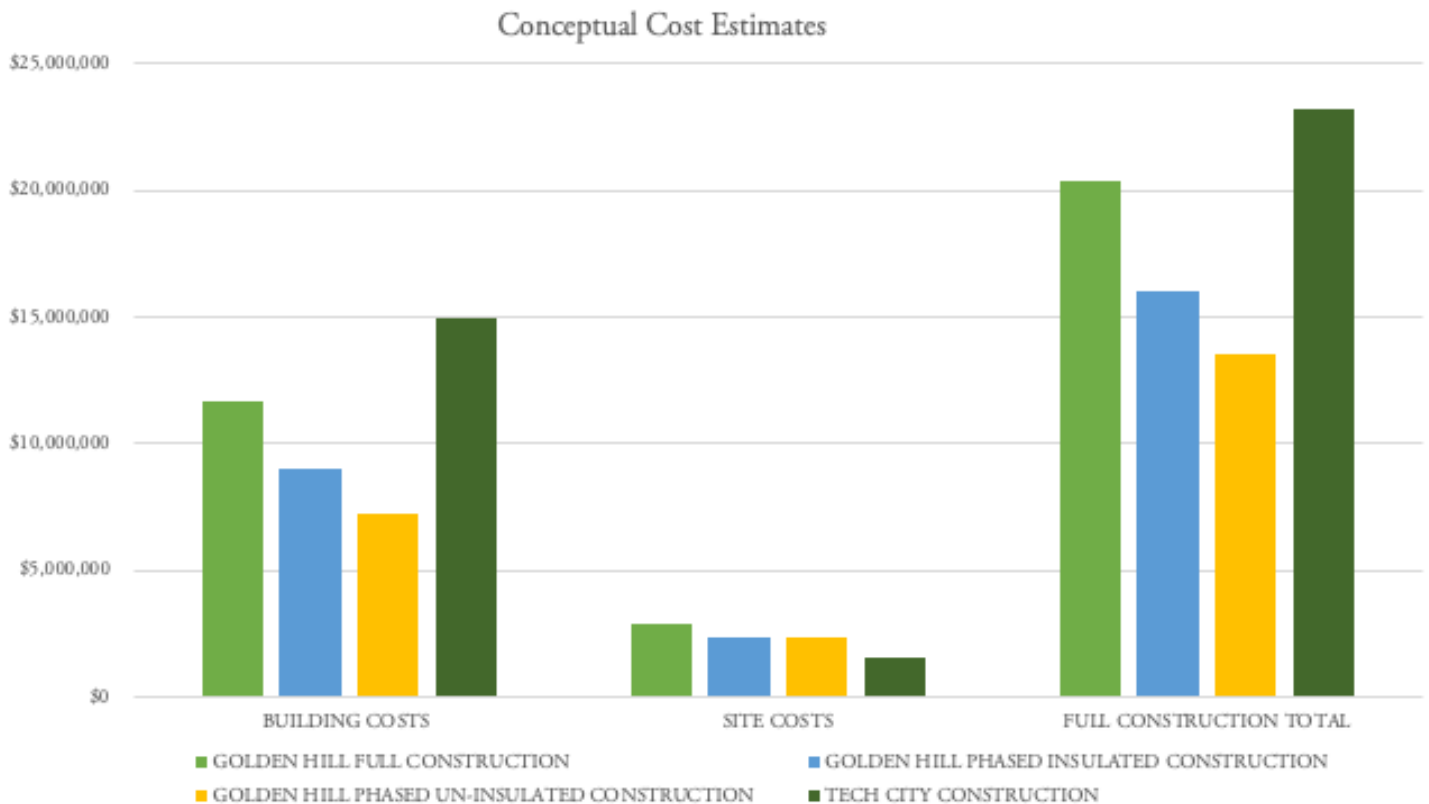
Preliminary Cost estimates for the Golden Hill site were developed to take into account demolition of existing features, site preparation, facility development, pavement and utilities. A breakdown of the total preliminary costs are shown below:

Building cost @ 30,000 SF = \$11,676,400

Site cost = \$2,889,560

Total Cost = \$20,392,344 (includes 30% in contingencies and soft cost)

Preliminary Cost Estimates for all the proposed sites are provided in Appendix L.



## 7.0 FINAL PLAN & RECOMMENDATIONS

The Golden Hill site provides UCAT with a new facility capable of housing the current and future needs of the fleet. With ample utilities and electricity available, the fleet will be able to embrace fleet electrification programs and maintain an easy flow of operation due to the adjacent sites. Use of the existing facility for administrative purposes, storage and major repair work allows for the continued operation of a relatively new facility.

The proposal for the Golden Hill location also included a “phased” design, where the facility is built out to ±23,000 sf instead of the full 30,000 sf. This design removes some bus bays, leaving expansion of the fleet in the future subject to another design project, but saves on site and building cost for a combined savings of approximately \$3,000,000.

The second phase of the storage facility can be planned and built as necessary when the fleet grows to the full 49 bus fleet. The site will be designed to accommodate this expansion and easily facilitate future expansion.

# APPENDIX A: PROGRAMMING SPACE ANALYSIS

**UCAT Transit Facility - EXISTING FACILITY SPACE ANALYSIS**



EXISTING BUILDING  
Ulster, NY

AREA NAME	QUANTITY	ROOM SIZE		ROOM SQUARE FOOTAGE	TOTAL SQUARE FOOTAGE	AREA SUB-TOTALS	AREA GRAND TOTALS	NOTES
		L	W					
<b>OFFICE BUILDING AREA</b>								
Reception area:								
Vestibule	1	7	6.5	46	46			
Lobby/ Waiting area	1	12	13	156	156			
Receptionist's desk	1	11.5	6.5	75	75			
						276		
Office areas:								
Asst. Manager	1	12.25	6.5	80	80			
Office	1	11.5	8	92	92			
Open Office Area	2	29	14	406	812			
Dispatch	1	17	11	187	187			
Administrator	1	15.5	15.5	240	240			
Bus Dispatcher	1	10.75	9.25	99	99			
Maintenance Office/Workshop	1	12	12	144	144			
						1,654		
Office support areas:								
Conference Room	1	13.5	7.75	105	105			
Train/Test	1	11.25	7.25	82	82			
Break Room/Vending	1	15	13.5	203	203			
Storage	2	7.75	5.75	45	89			
Break Room/Kitchen	1	14.5	11	160	160			
Closet	1	4	3	12	12			
						649		
Multi-purpose room areas:								
Training room	1	36.5	27.5	1,004	1,004			
Kitchenette	1	7.25	3	22	22			
Storage	1	19.5	2	39	39			
						1,065		
Restrooms:								
Lobby Restroom	1	6	7	42	42			
Office Restrooms	2	16.5	8	132	264			
Training Restrooms	2	7	6	42	84			
						390		
Additional areas:								
Elev. Mechanical	1	7.25	5.5	40	40			
Janitor Closet	1	7	4.25	30	30			
LAN.	1	8.75	5	44	44			
Electrical	1	11	7	77	77			
Mechanical Room/Vestibule	1	22	17	374	374			
						564		
AREA SUB-TOTAL						4,599		
ADD CIRCULATION SPACE						690		
<b>AREA GRAND TOTAL</b>						<b>5,289</b>		
<b>GARAGE BUILDING AREA</b>								
Storage Garage:								
Storage Bay	6	90	14	1,260	7,560			
Restrooms/ Showers	2	20	8.75	175	350			
Lockers	2	30	6.75	203	405			
						8,315		
Maintenance Garage:								
Maintenance Bay	3	90	17	1,530	4,590			
- Pit	1	44.5	3	134	134			
Managere's Office	1	21.75	8.75	190	190			
Forklift Charging Area	1	8.75	8.25	72	72			
Bulk Fluids	1	13	8.75	114	114			
Parts Storage	1	64.25	8.75	562	562			
						5,662		
Wash Bay:								
Wash Bay	1	90	20	1,800	1,800			
						1,800		
Additional areas:								
Mechanical Room/Vestibule	1	25	8.75	219	219			
HVAC Platform	1	34.5	13.75	474	474			
Tire shed storage	1	20	20	400	400			
						1,093		
AREA SUB-TOTAL						16,737		
ADD CIRCULATION SPACE						2,510		
<b>AREA GRAND TOTAL</b>						<b>19,247</b>		
OFFICE AREA TOTAL						5,289		
GARAGE AREA TOTAL						19,247		
<b>FACILITY SPACE (GRAND TOTAL)</b>						<b>24,536</b>		

**UCAT Transit Facility - PROPOSED FACILITY SPACE ANALYSIS**

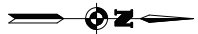
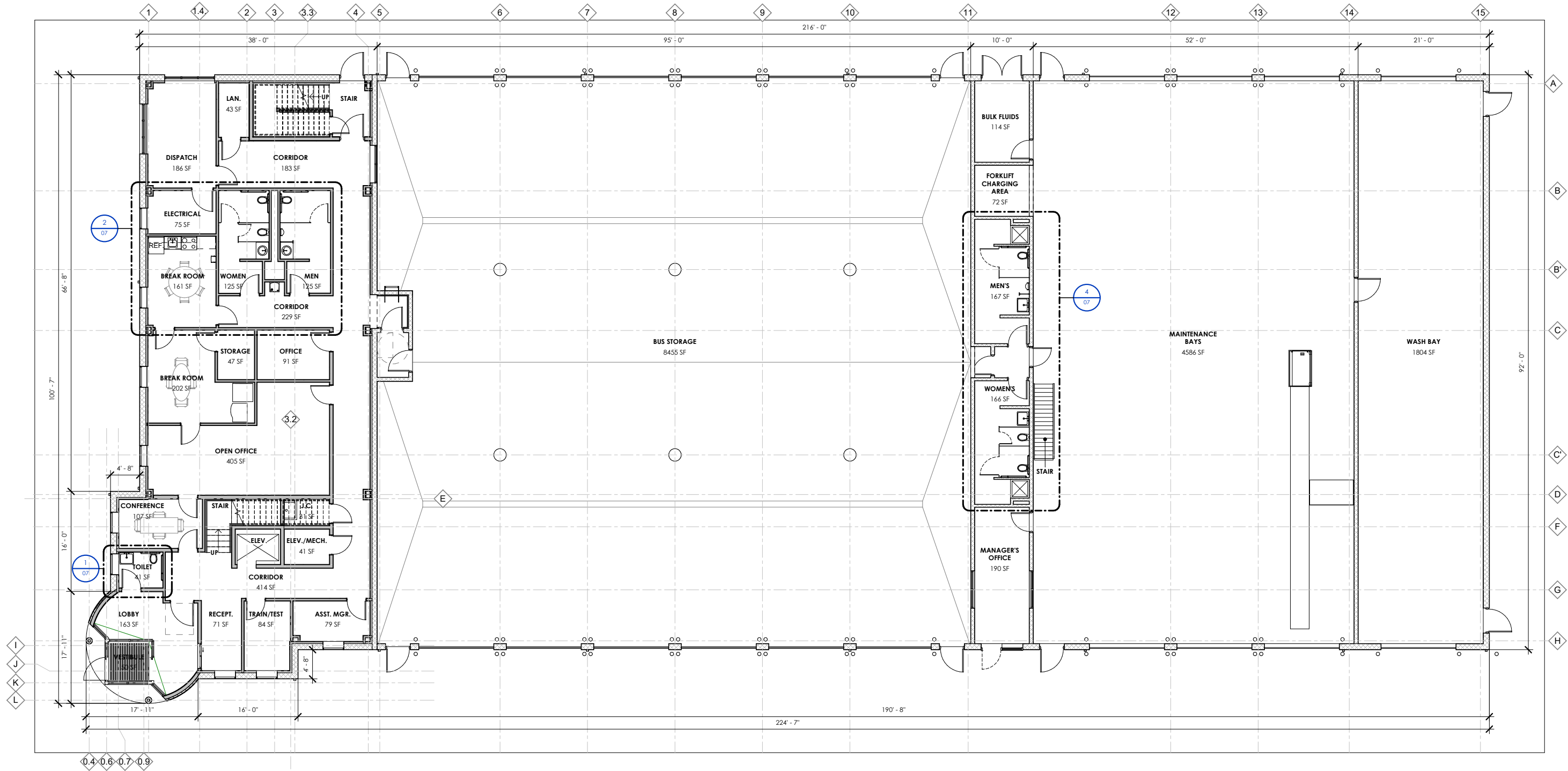
NEW BUILDING  
Ulster, NY



AREA NAME	QUANTITY	ROOM SIZE		ROOM SQUARE FOOTAGE	TOTAL SQUARE FOOTAGE	AREA SUB-TOTALS	AREA GRAND TOTALS	NOTES
		L	W					
<b>OFFICE BUILDING AREA</b>								
Reception area:								
Vestibule	1	10	8	80	80			
Lobby	1	12	12	144	144			
							224	
Office areas:								
Dispatch	1	17	11	187	187			
Administrator	1	15.5	15.5	240	240			
Bus Dispatcher	1	10.75	9.25	99	99			
Maintenance Office/Workshop	1	12	12	144	144			
							671	
Office support areas:								
Break Room	1	30	20	600	600			
Storage	2	7.75	5.75	45	89			
Closet	1	4	3	12	12			
							701	
Restrooms:								
Office Restrooms	2	7	7	49	98			
							98	
Additional areas:								
Janitor Closet	1	7	4.25	30	30			
LAN	1	8.75	5	44	44			
Electrical	1	11	7	77	77			
Mechanical Room/Vestibule	1	22	17	374	374			
							525	
AREA SUB-TOTAL							2,218	
ADD CIRCULATION SPACE							333	
<b>AREA GRAND TOTAL</b>							<b>2,551</b>	
<b>GARAGE BUILDING AREA</b>								
Storage Garage:								
Storage Bay	16	100	16	1,600	25,600			
Restrooms/ 1 Shower each	2	21	9	189	378			
Lockers	2	20	10	200	400			
Parts Storage	1	64.25	8.75	562	562			
							26,940	
Additional areas:								
Mechanical Room/Vestibule	1	25	9	225	225			
HVAC Platform	1	35	14	490	490			
							715	
AREA SUB-TOTAL							27,655	
ADD CIRCULATION SPACE							4,148	
<b>AREA GRAND TOTAL</b>							<b>31,803</b>	
OFFICE AREA TOTAL							2,551	
GARAGE AREA TOTAL							31,803	
<b>FACILITY SPACE REQUIREMENTS (GRAND TOTAL)</b>							<b>34,355</b>	



# APPENDIX B: ARCHITECTURAL LAYOUTS



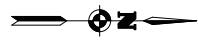
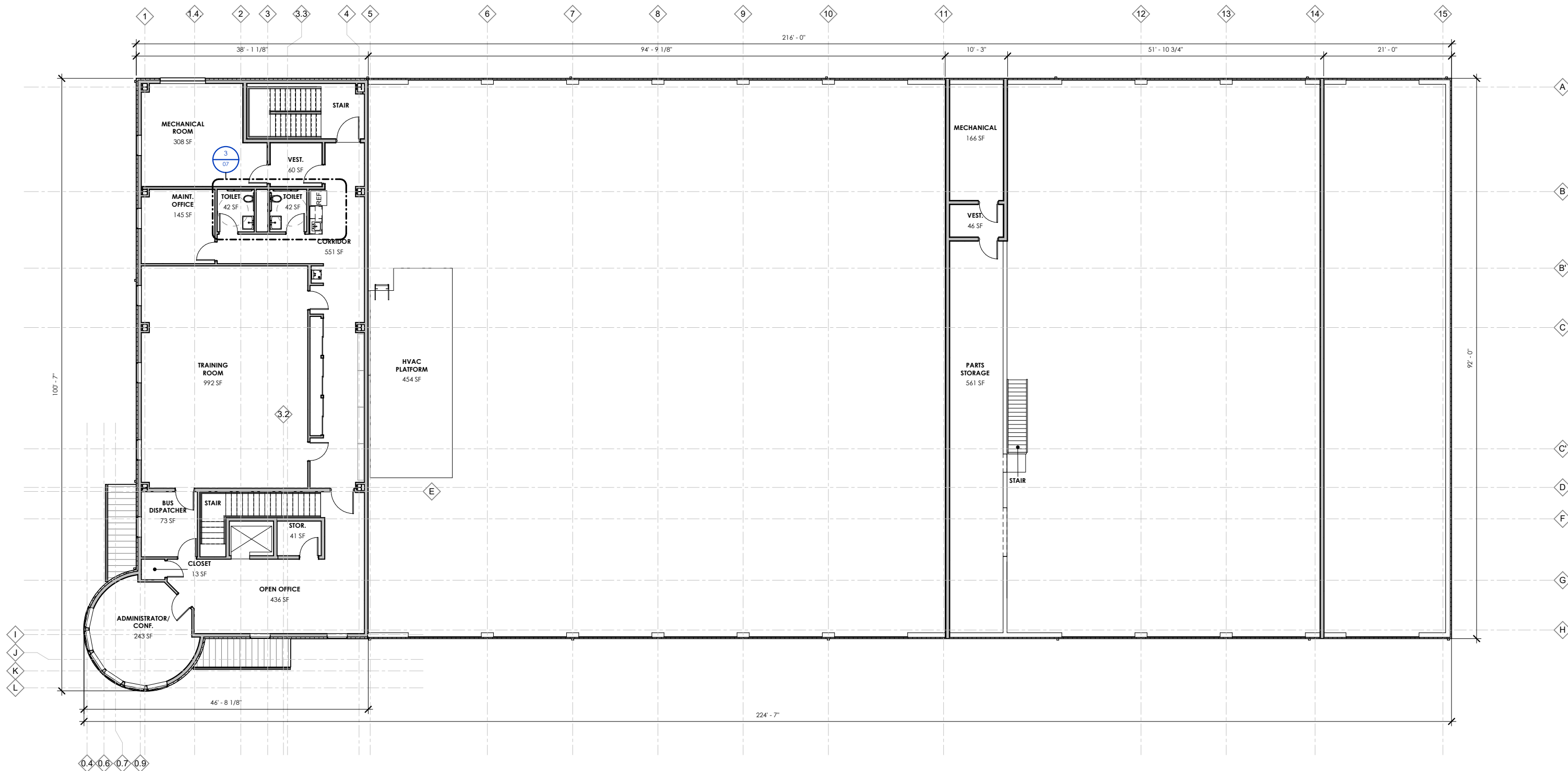
**PA** PASSERO ASSOCIATES engineering architecture

# EXISTING - FIRST FLOOR PLAN

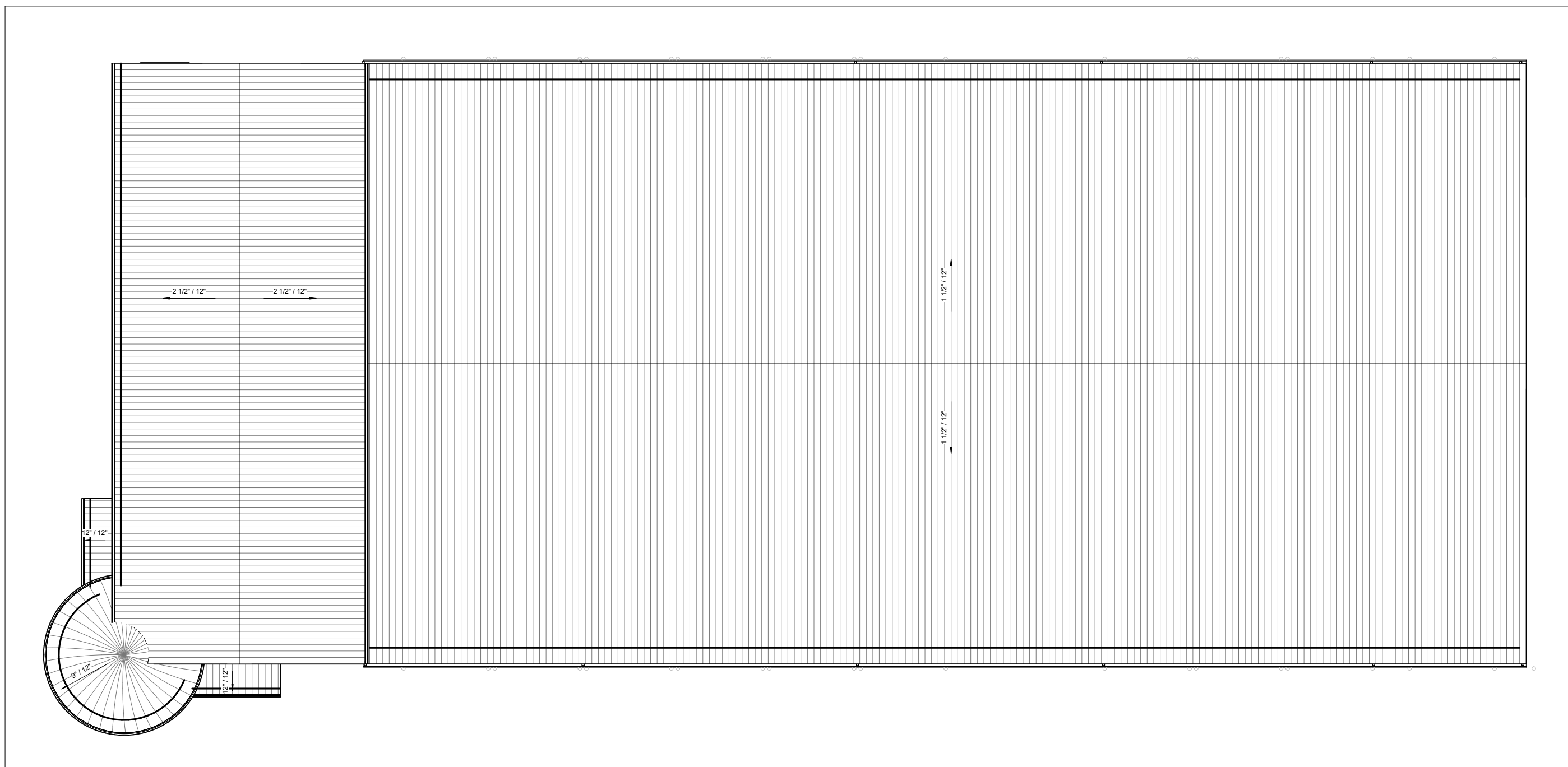
20202987.0001  
UCAT TRANSIT FACILITY  
OCTOBER 15, 2020

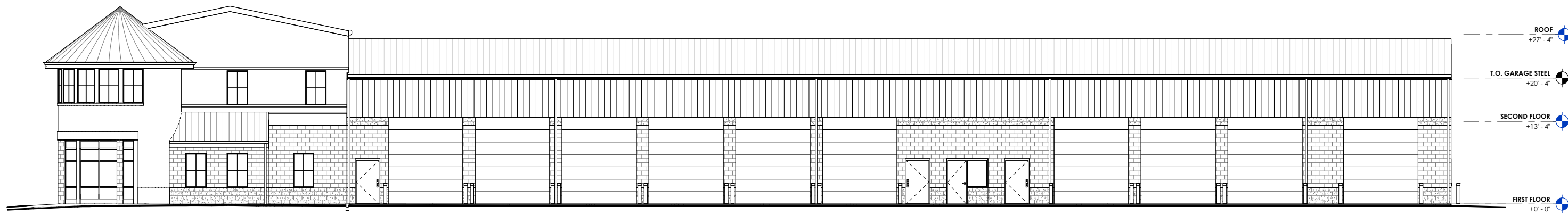
# 01





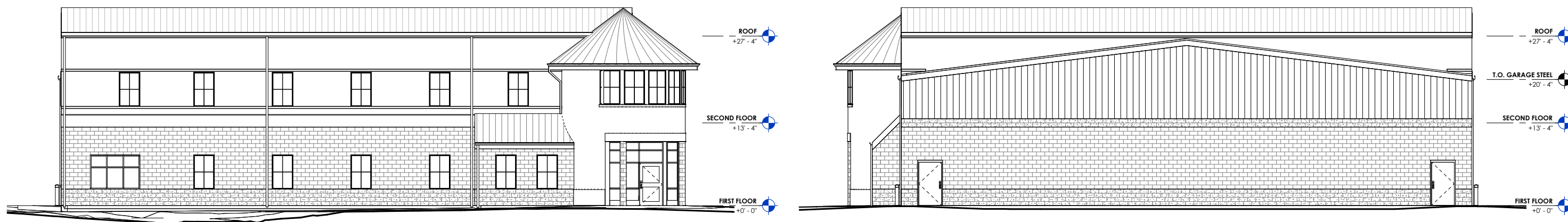
**EXISTING - SECOND FLOOR PLAN**





1 EXISTING EAST ELEVATION

0' 1' 2' 4' 8'  
1/8" = 1'-0"

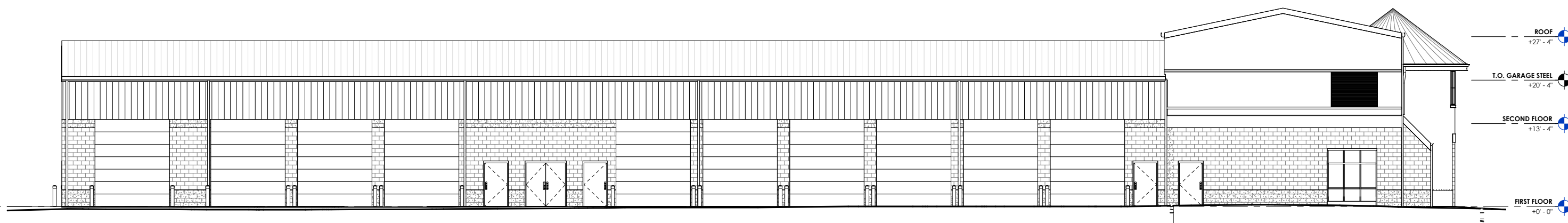


2 EXISTING SOUTH ELEVATION

0' 1' 2' 4' 8'  
1/8" = 1'-0"

3 EXISTING NORTH ELEVATION

0' 1' 2' 4' 8'  
1/8" = 1'-0"

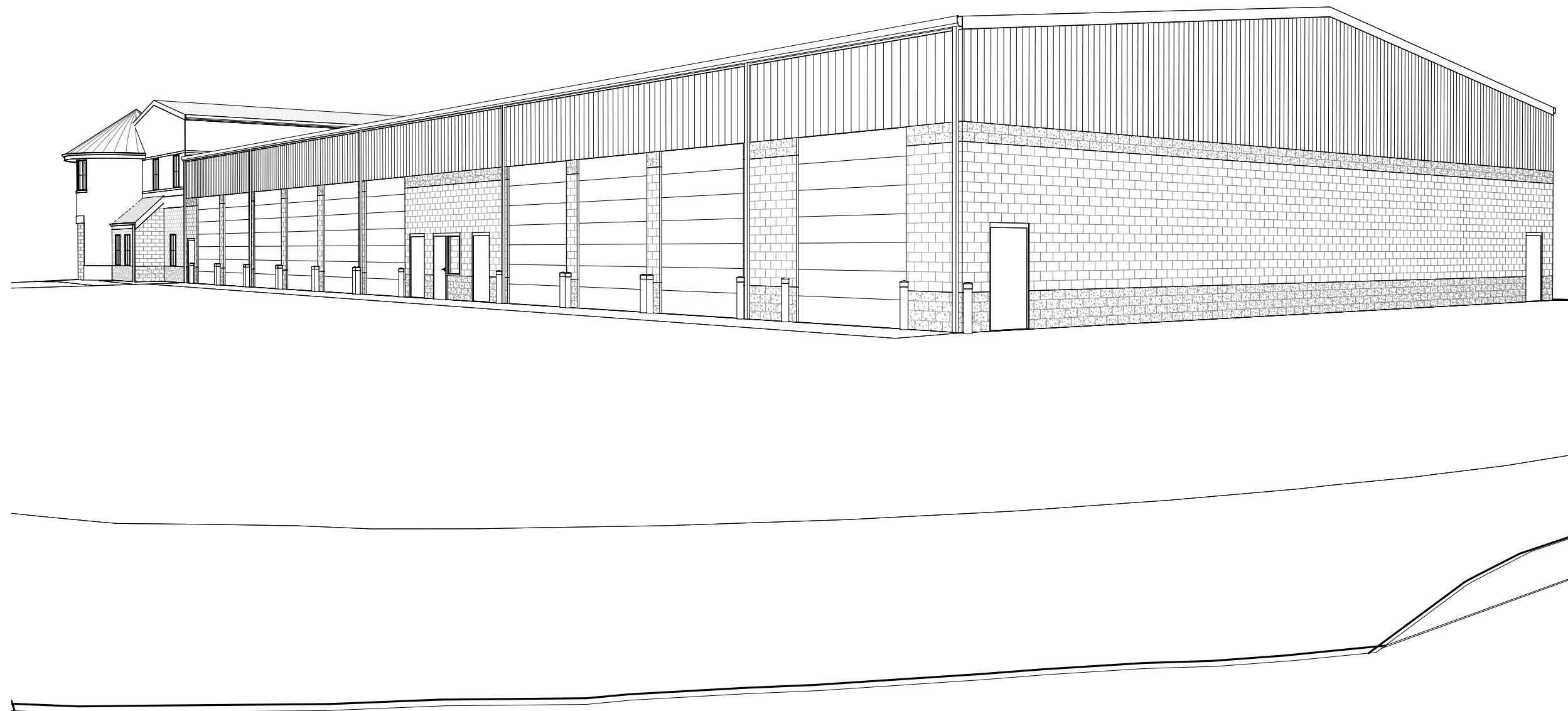


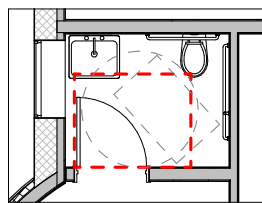
4 EXISTING WEST ELEVATION

0' 1' 2' 4' 8'  
1/8" = 1'-0"

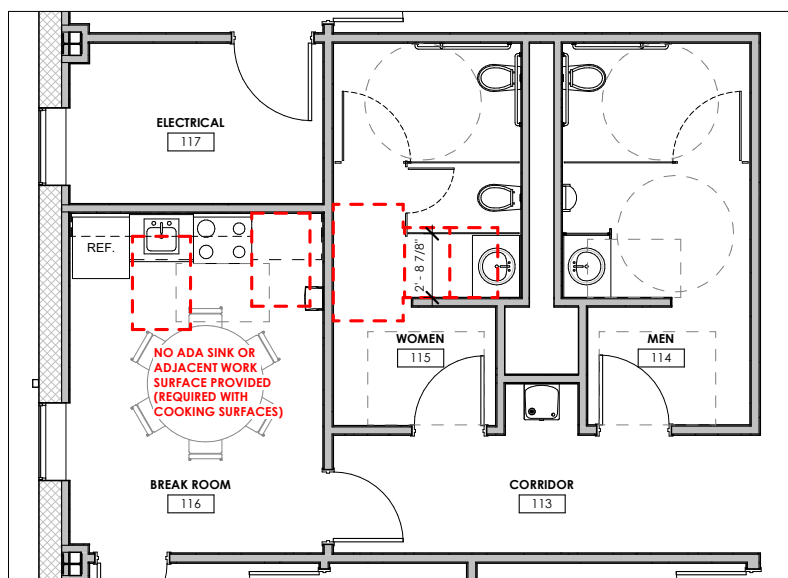
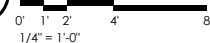


# EXISTING - EXTERIOR PERSPECTIVE

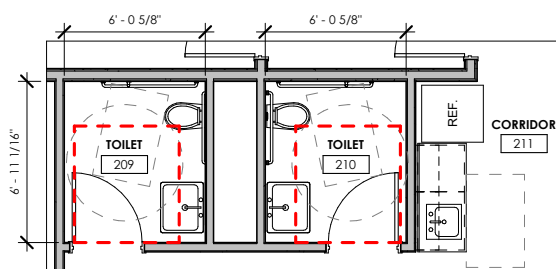
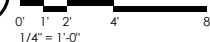




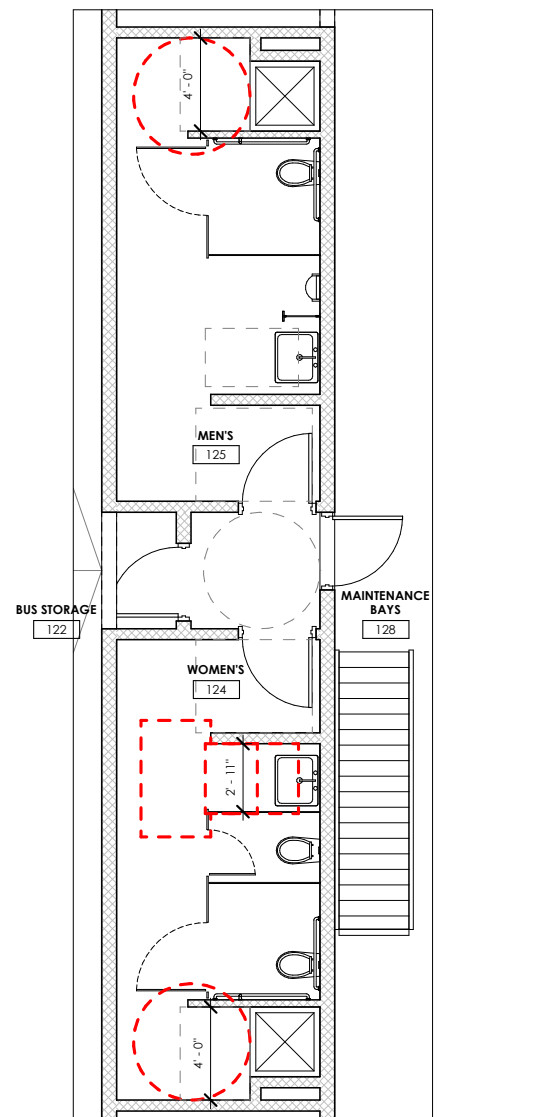
1 EXISTING FIRST FLOOR PLAN - LOOBY TOILET ROOM



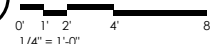
2 EXISTING FIRST FLOOR PLAN - ENLARGED PLAN

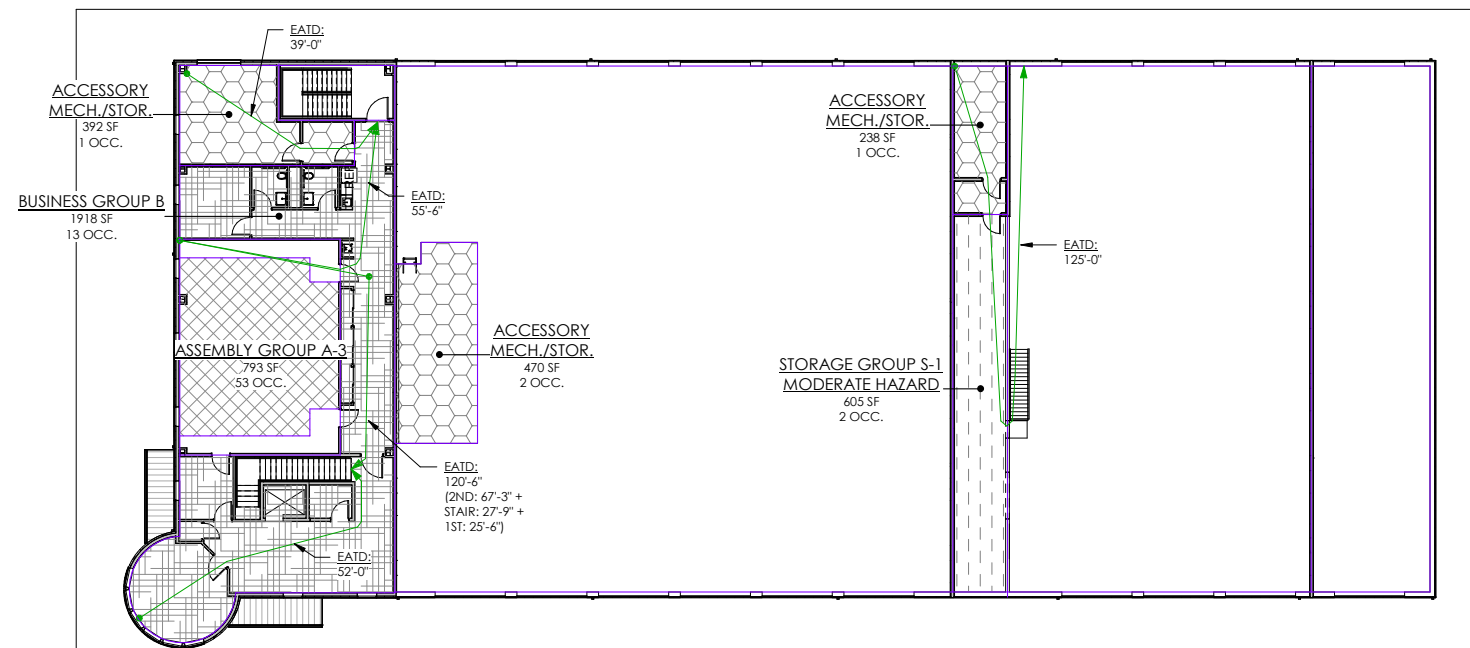


3 EXISTING SECOND FLOOR PLAN - TOILET ROOMS



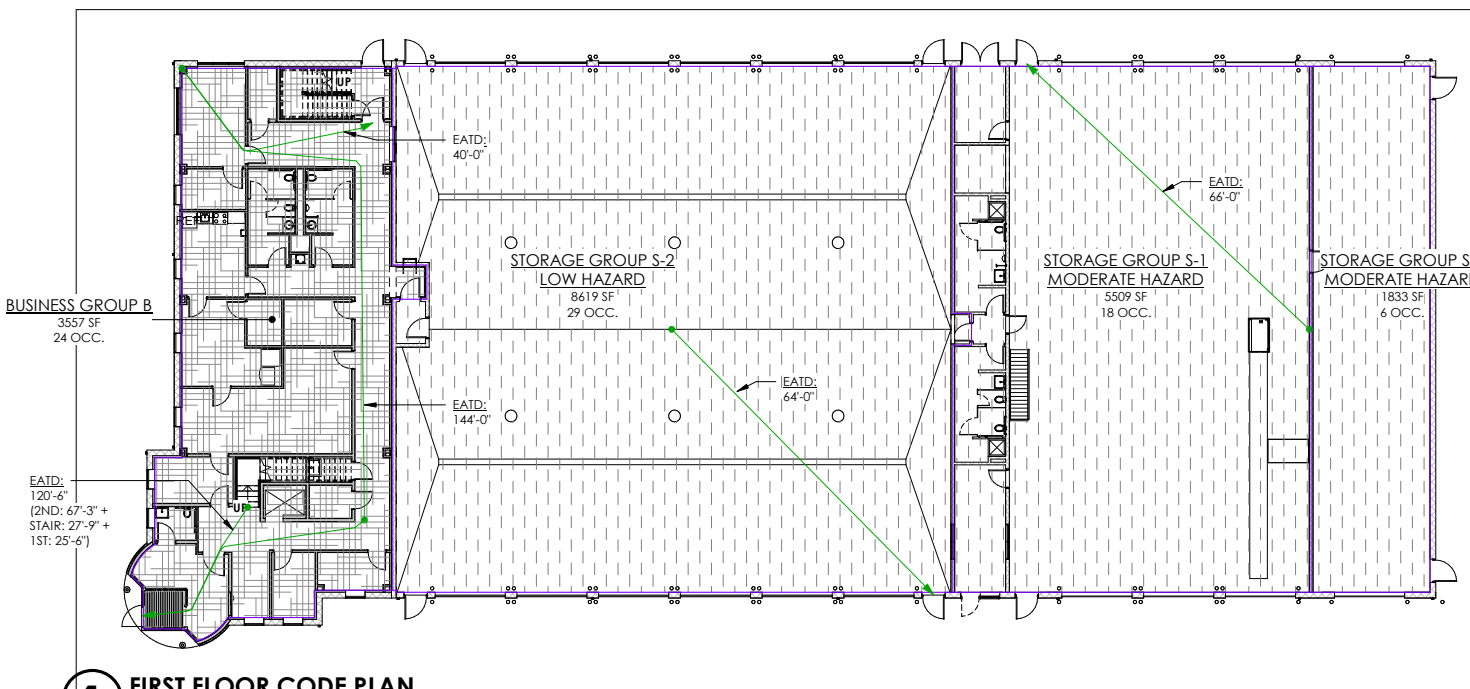
4 EXISTING FIRST FLOOR PLAN - ENLARGED RESTROOMS





**2 SECOND FLOOR CODE PLAN**

0' 4' 8' 16' 32'  
1/16" = 1'-0"



**1 FIRST FLOOR CODE PLAN**

0' 4' 8' 16' 32'  
1/16" = 1'-0"

**CODE LEGEND**

- ACCESSORY MECH./STOR.
- ASSEMBLY GROUP A-3
- BUSINESS GROUP B
- STORAGE GROUP S-1 MODERATE HAZARD
- STORAGE GROUP S-2 LOW HAZARD

**EXIT REQUIREMENTS:**

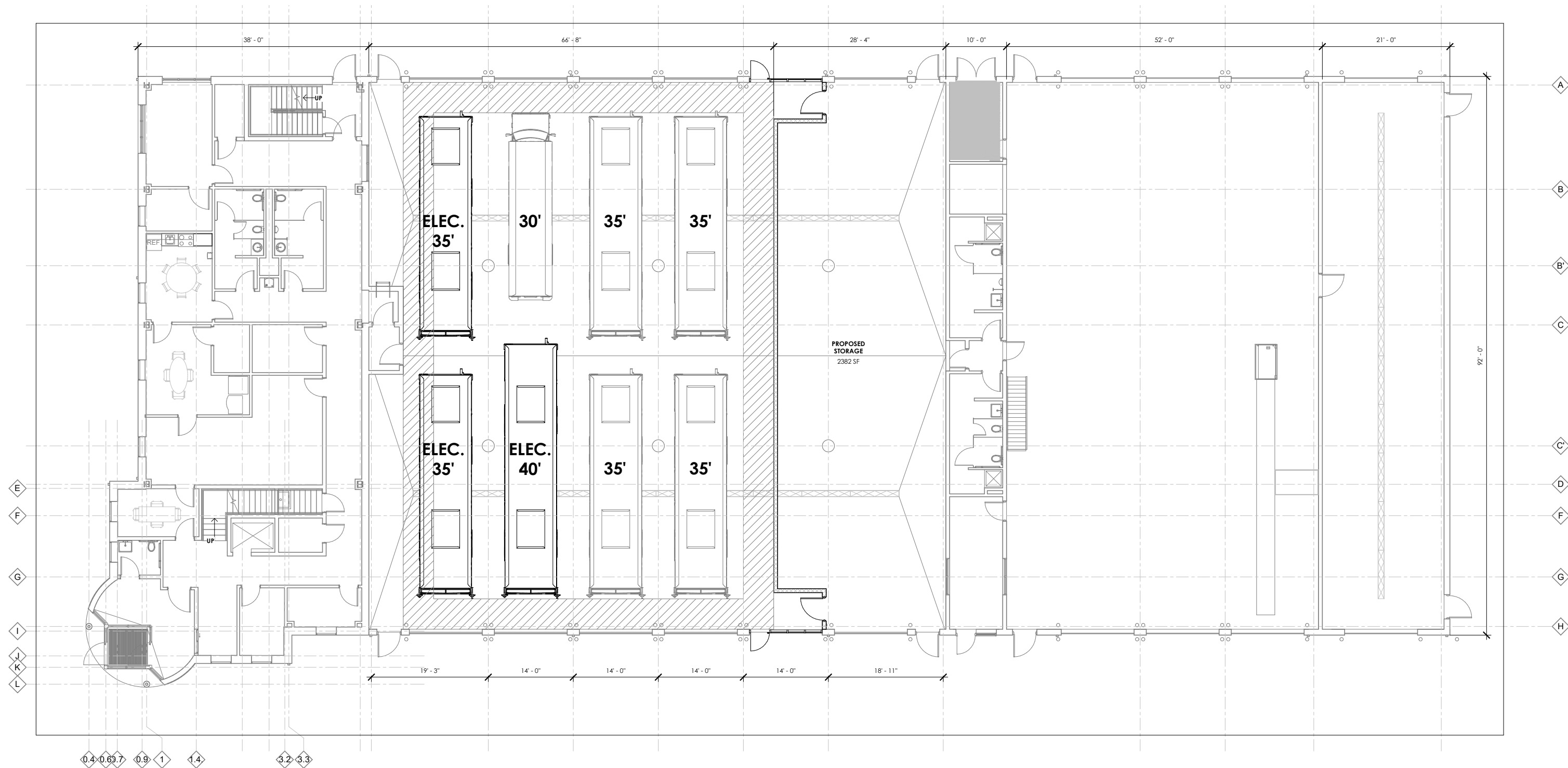
1. TWO EXITS REQUIRED FROM 2ND FLOOR WITH OVER 29 OCCUPANTS
2. EXIT ACCESS TRAVEL DISTANCE WITH SPRINKLERS
  - A. ASSEMBLY: 250'
  - B. BUSINESS: 250'
  - C. STORAGE: 250'
3. OPEN STAIR IS ACCEPTABLE AS EXIT ACCESS STAIRWAY IF UNDER 250' MAX EXIT ACCESS TRAVEL DISTANCE.

CODE - OCCUPANCY SCHEDULE OFFICE BUILDING			
AREA TYPE	AREA PER OCC.	AREA	OCC. LOAD
<b>FIRST FLOOR</b>			
BUSINESS GROUP B	150	3557 SF	24
<b>SECOND FLOOR</b>			
ACCESSORY MECH./STOR.	300	392 SF	1
ASSEMBLY GROUP A-3	15	793 SF	53
BUSINESS GROUP B	150	1918 SF	13
Grand total		6659 SF	91

- PLUMBING REQUIREMENTS:**
1. **ASSEMBLY:**
    - A. TOILETS: 1 PER 125 MALE/ 1 PER 65 FEMALE
    - B. LAVATORIES: 1 PER 200
    - C. DRINKING FOUNTAINS: 1 PER 500
    - D. SERVICE SINK: 1
  2. **BUSINESS:**
    - A. TOILETS: 1 PER 25 FOR FIRST 50, 1 PER 50 OVER 50
    - B. LAVATORIES: 1 PER 40 FIRST 80, 1 PER 80 OVER 80
    - C. DRINKING FOUNTAINS: 1 PER 100
    - D. SERVICE SINK: 1
  3. **PROVIDED/REQUIRED:**
    - A. TOILETS:
      - a. 3 MALE PROVIDED/ 2 REQUIRED
      - b. 3 FEMALE PROVIDED/ 2 REQUIRED
    - B. LAVATORIES:
      - a. 2 EACH PROVIDED/ 2 REQUIRED
    - C. DRINKING FOUNTAINS:
      - a. 2 PROVIDED/ 1 REQUIRED
    - D. SERVICE SINK:
      - a. 1 PROVIDED/ 1 REQUIRED

CODE - OCCUPANCY SCHEDULE GARAGE BUILDING			
AREA TYPE	AREA PER OCC.	AREA	OCC. LOAD
<b>FIRST FLOOR</b>			
STORAGE GROUP S-1 MODERATE HAZARD	300	7342 SF	24
STORAGE GROUP S-2 LOW HAZARD	300	8619 SF	29
<b>SECOND FLOOR</b>			
ACCESSORY MECH./STOR.	300	708 SF	3
STORAGE GROUP S-1 MODERATE HAZARD	300	605 SF	2
Grand total		17275 SF	58

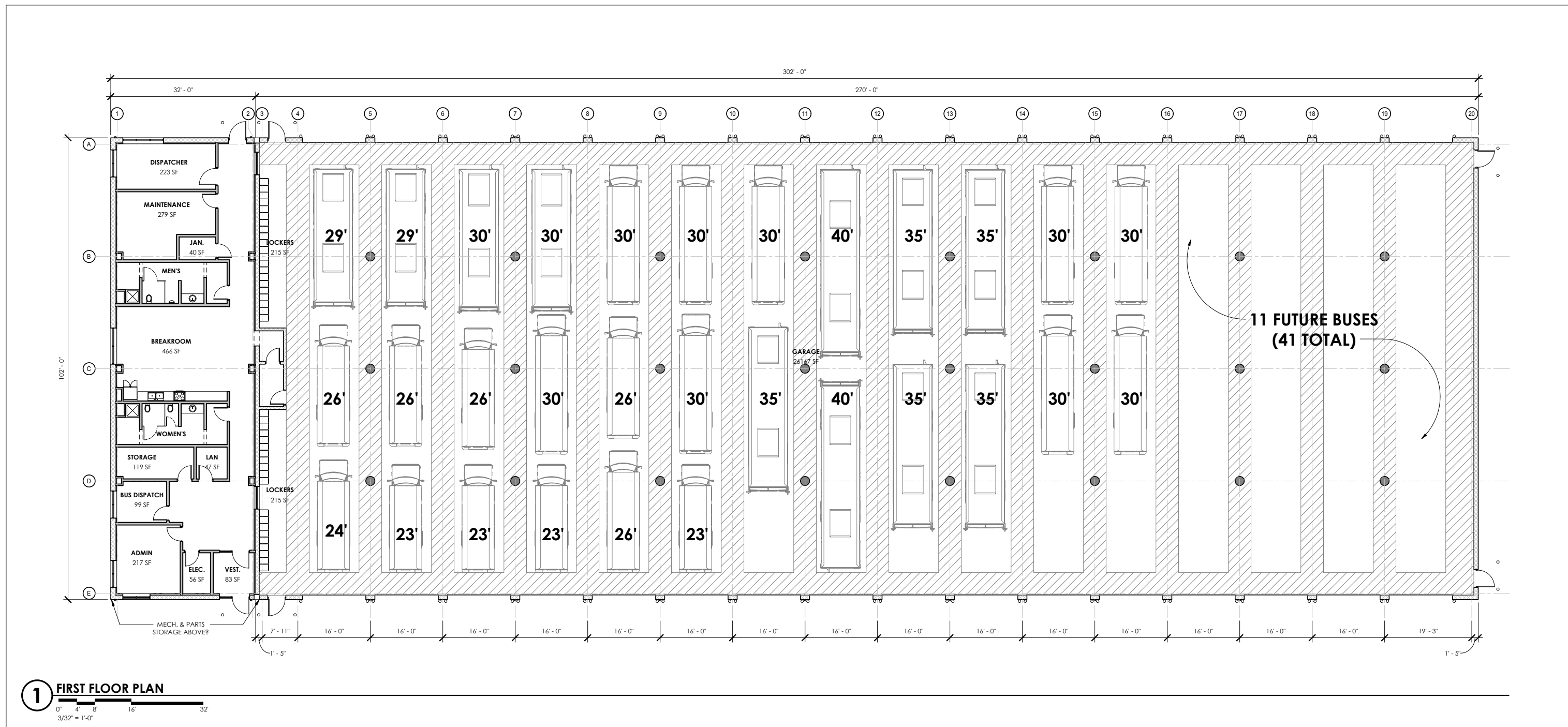
- PLUMBING REQUIREMENTS:**
1. **STORAGE:**
    - A. TOILETS: 1 PER 100
    - B. LAVATORIES: 1 PER 100
    - C. DRINKING FOUNTAINS: 1 PER 1,000
    - D. SERVICE SINK: 1
  2. **FACTORY:**
    - A. TOILETS: 1 PER 100
    - B. LAVATORIES: 1 PER 100
    - C. DRINKING FOUNTAINS: 1 PER 400
    - D. SERVICE SINK: 1
  3. **PROVIDED/REQUIRED:**
    - A. TOILETS:
      - a. 2 MALE PROVIDED/ 1 REQUIRED
      - b. 2 FEMALE PROVIDED/ 1 REQUIRED
    - B. SHOWERS:
      - a. 1 EACH PROVIDED/ 0 REQUIRED
    - C. LAVATORIES:
      - a. 1 EACH PROVIDED/ 1 REQUIRED
    - D. DRINKING FOUNTAINS:
      - a. 0 PROVIDED/ 1 REQUIRED
    - E. SERVICE SINK:
      - a. 0 PROVIDED/ 1 REQUIRED



1 FIRST FLOOR - LAYOUT

0' 2' 4' 8' 16'  
1/8" = 1'-0"

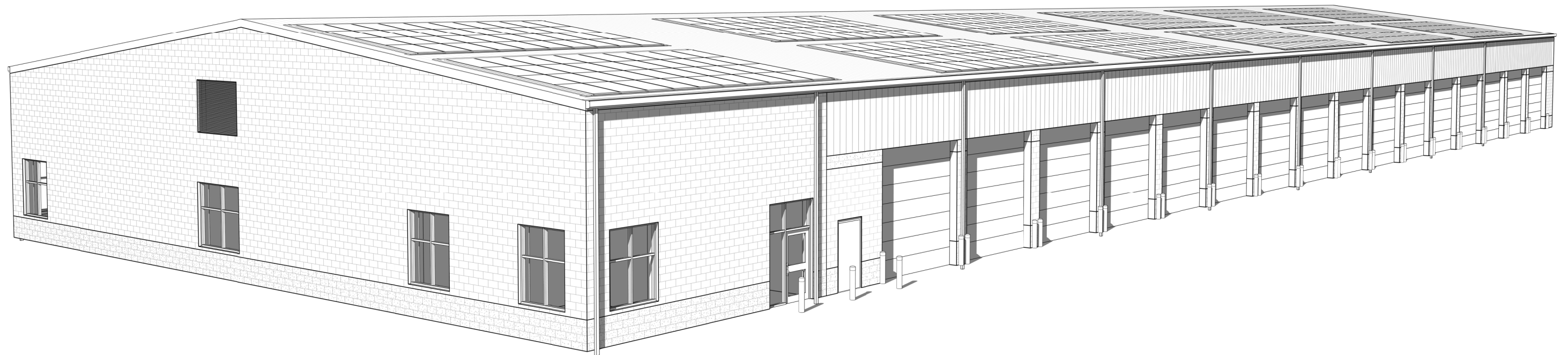




**PA** PASSERO ASSOCIATES engineering architecture

# NEW FACILITY PROGRAM

20202987.0001  
UCAT TRANSIT FACILITY  
OCTOBER 19, 2020





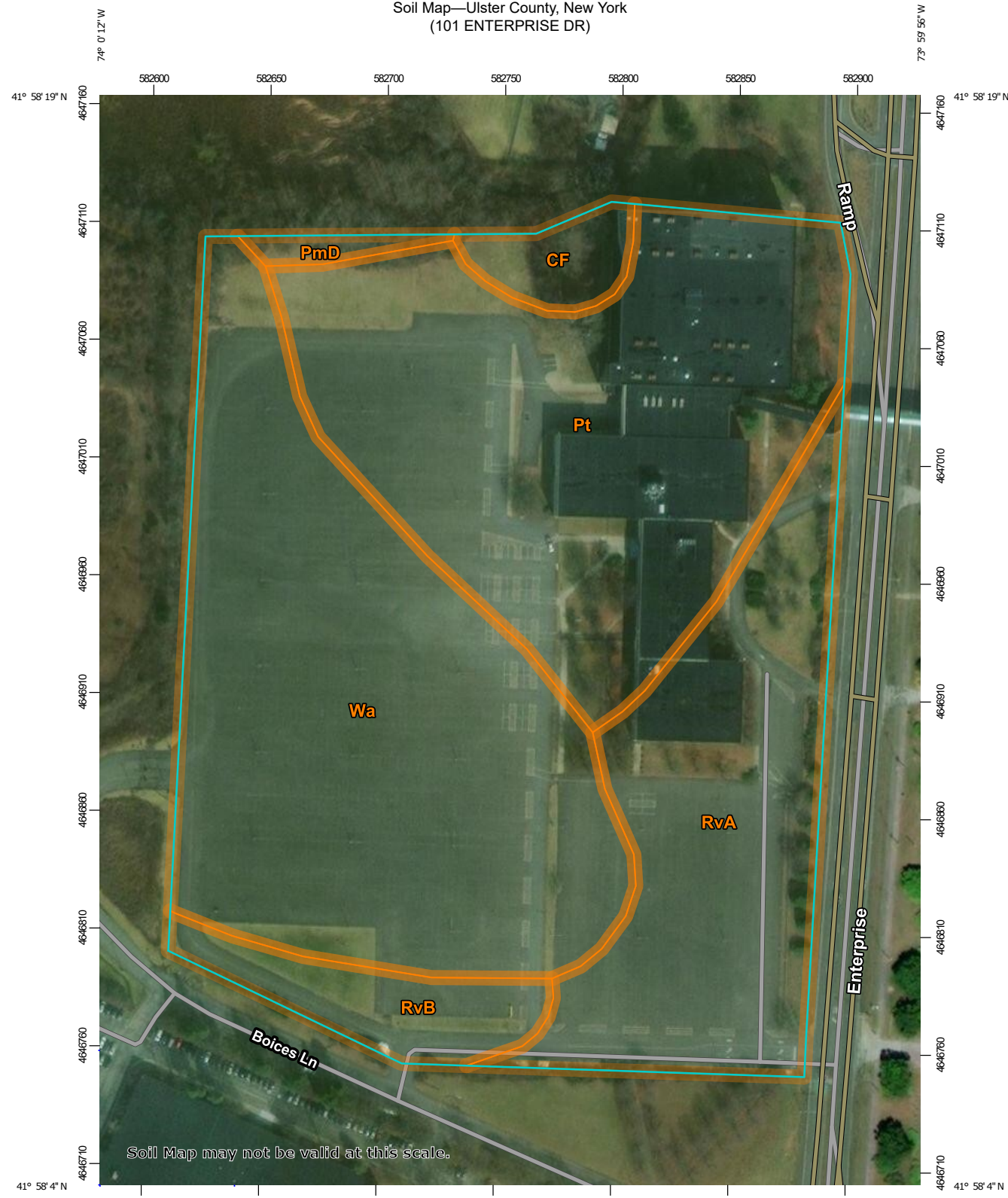
# APPENDIX C: SOILS MAP AND CORE SAMPLE DATA FROM JAIL SITE

Soil Map—Ulster County, New York  
(Site #1 Existing UCAT Facility)





Soil Map—Ulster County, New York  
(101 ENTERPRISE DR)



MAP LEGEND

- Area of Interest (AOI)**
  - Area of Interest (AOI)
- Soils**
  - Soil Map Unit Polygons
  - Soil Map Unit Lines
  - Soil Map Unit Points
- Special Point Features**
  - Blowout
  - Borrow Pit
  - Clay Spot
  - Closed Depression
  - Gravel Pit
  - Gravelly Spot
  - Landfill
  - Lava Flow
  - Marsh or swamp
  - Mine or Quarry
  - Miscellaneous Water
  - Perennial Water
  - Rock Outcrop
  - Saline Spot
  - Sandy Spot
  - Severely Eroded Spot
  - Sinkhole
  - Slide or Slip
  - Sodic Spot
- Water Features**
  - Spoil Area
  - Stony Spot
  - Very Stony Spot
  - Wet Spot
  - Other
  - Special Line Features
  - Streams and Canals
- Transportation**
  - Rails
  - Interstate Highways
  - US Routes
  - Major Roads
  - Local Roads
- Background**
  - Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.  
Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL:  
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Ulster County, New York  
Survey Area Data: Version 19, Jun 11, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

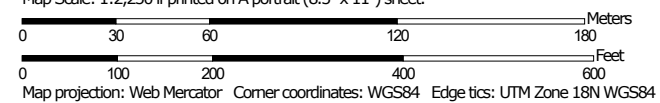
Date(s) aerial images were photographed: Oct 7, 2013—Sep 3, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
STD	Stockbridge-Farmington-Rock outcrop complex, hilly	3.9	100.0%
<b>Totals for Area of Interest</b>		<b>3.9</b>	<b>100.0%</b>

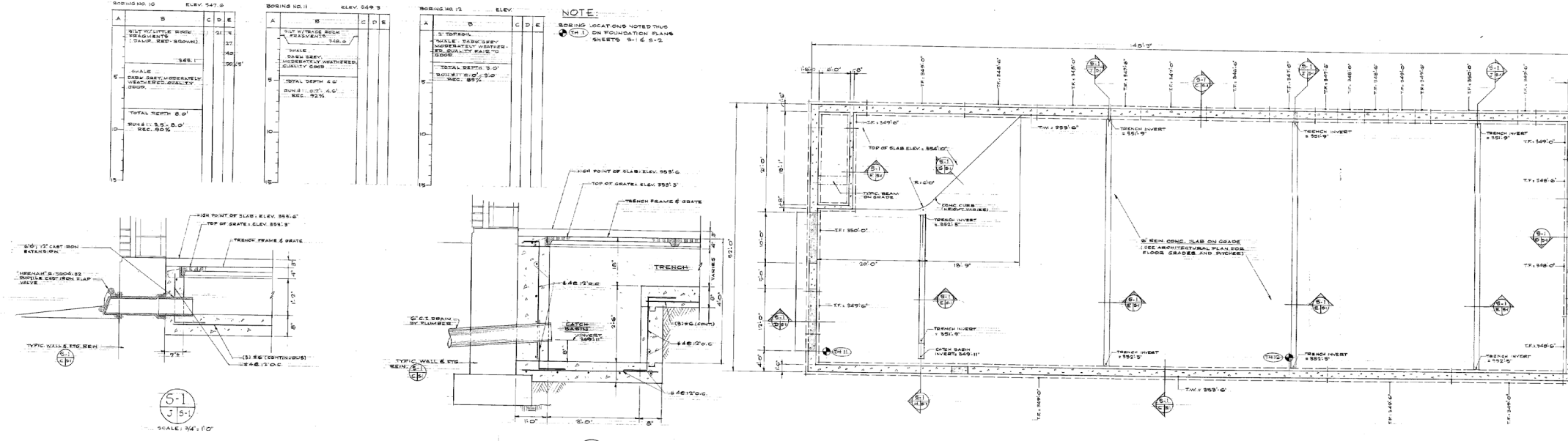
Map Scale: 1:2,250 if printed on A portrait (8.5" x 11") sheet.



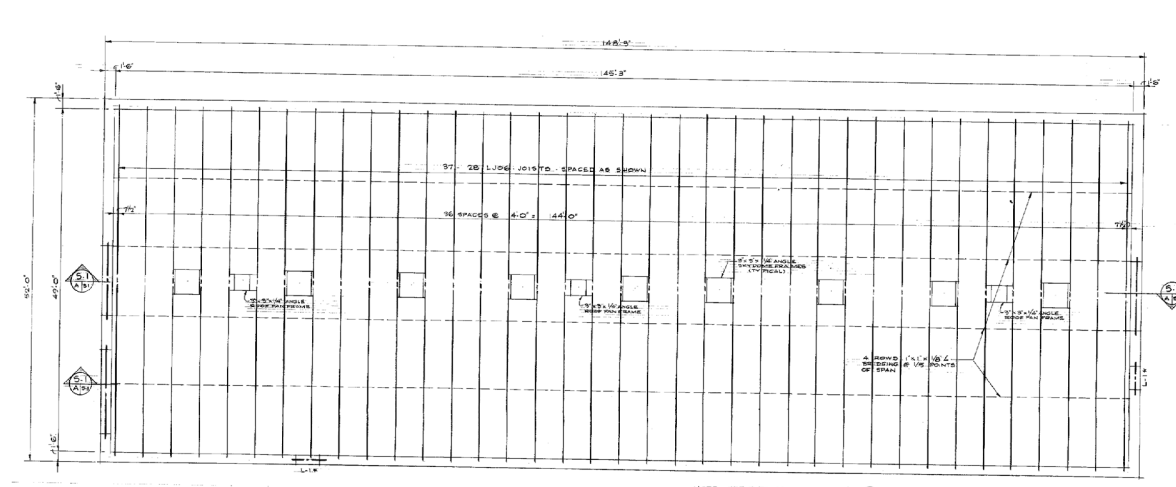
SOIL BORING LOGS

NOTE: SOIL BORING LOGS ARE FOR CONTRACTORS' INFORMATION ONLY. INTERPRETATION IS CONTRACTOR'S RESPONSIBILITY. VARIATIONS FROM SOIL TESTS SHALL NOT AFFECT THIS CONTRACT.  
BORINGS MADE AUGUST 17, 1970 BY GEORGE W. HARRIS, INC., ALBANY, NY.

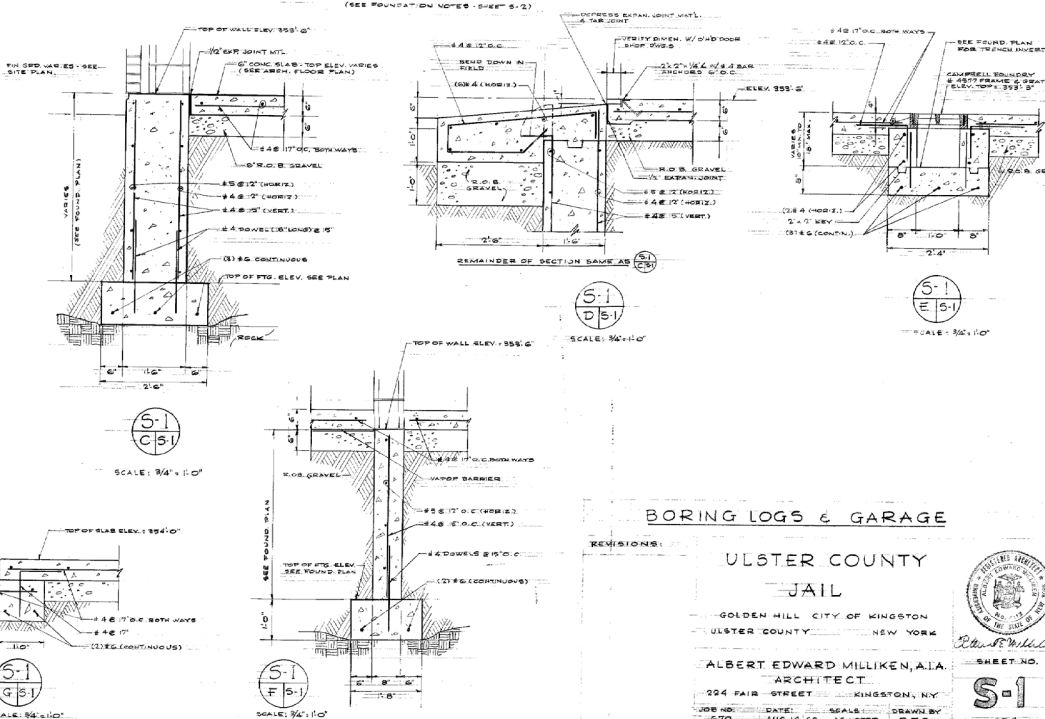
KEY TO BORING LOGS		BORING NO. 1 ELEV. 356.2		BORING NO. 2 ELEV. 355.1		BORING NO. 3 ELEV. 352.2		BORING NO. 4 ELEV. 352.3		BORING NO. 5 ELEV. 352.7		BORING NO. 6 ELEV. 351.0		BORING NO. 7 ELEV. 351.6		BORING NO. 8 ELEV. 349.9		BORING NO. 9 ELEV. 348.9	
COLUMN	DESIGNATION	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D	A	B
A	DEPTH BELOW FINISH GRADE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B	VISUAL CLASSIFICATION OF SOIL ENCOUNTERED	MILT, DAMPED, BLEN.				SHALE				SILT				SHALE				SILT	
C	DEPTH FROM SAMPLE NUMBER	0	10	20	30	0	10	20	30	0	10	20	30	0	10	20	30	0	10
D	BLOWS OF 140 LB. HAMMER FALLING 30 IN. REQUIRED TO ADVANCE 1 IN. IN 30 SECONDS	10	15	20	25	10	15	20	25	10	15	20	25	10	15	20	25	10	15
E	BLOWS OF 140 LB. HAMMER FALLING 30 IN. REQUIRED TO ADVANCE 1 IN. IN 30 SECONDS	10	15	20	25	10	15	20	25	10	15	20	25	10	15	20	25	10	15
NOTE: NO WATER OBSERVED AT ANY BORING																			



SHERIFF'S GARAGE FOUNDATION PLAN  
SCALE: 1/8" = 1'-0"



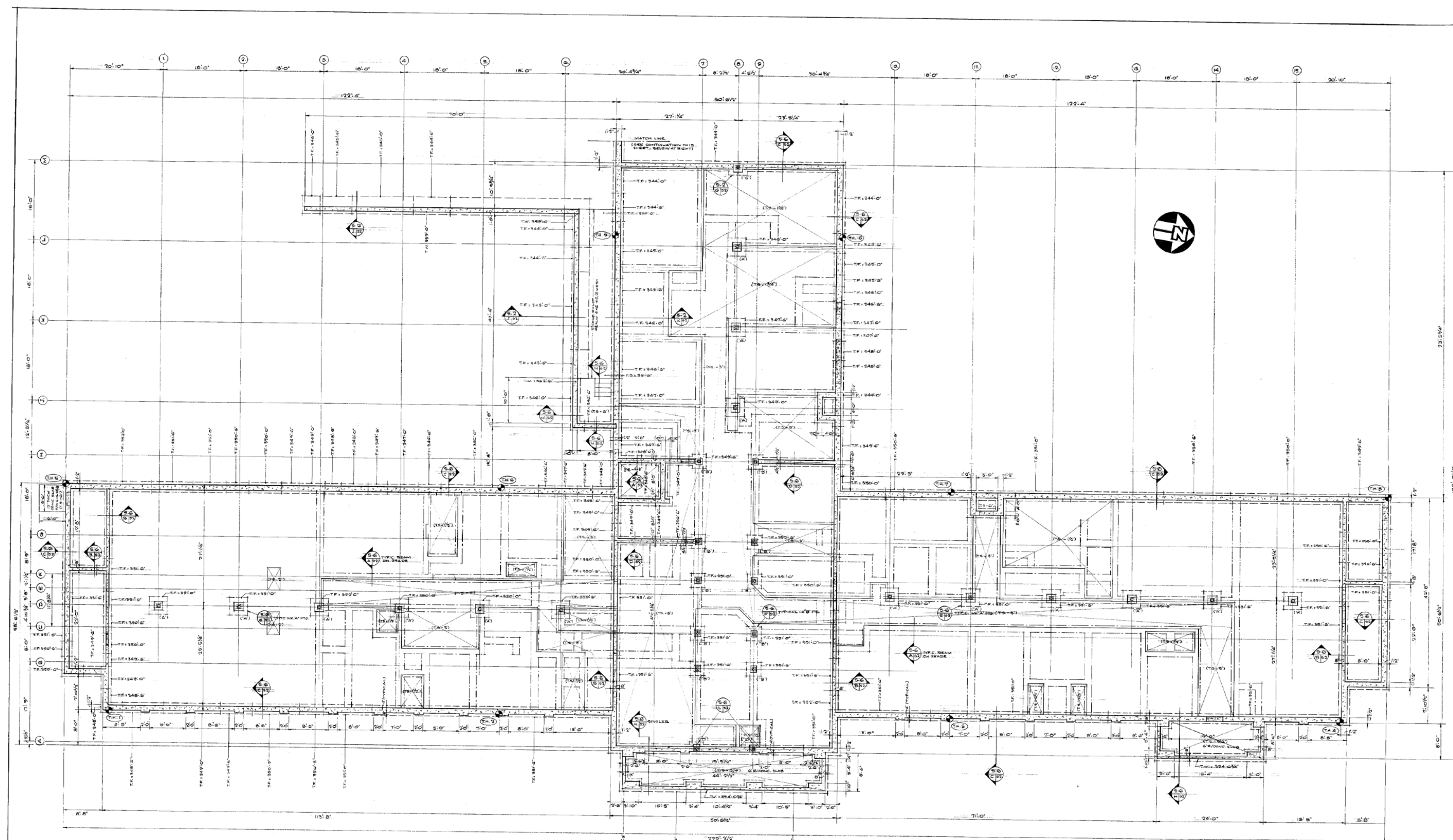
SHERIFF'S GARAGE ROOF FRAMING PLAN  
SCALE: 1/8" = 1'-0"



BORING LOGS & GARAGE

ULSTER COUNTY  
JAIL  
GOLDEN HILL CITY OF KINGSTON  
ULSTER COUNTY NEW YORK  
ALBERT EDWARD MILLIKEN, AIA  
ARCHITECT  
224 FAIR STREET KINGSTON, NY  
JOB NO. 670 DATE: AUG-14-69 SCALE: DRAWN BY: R.T.S.  
SHEET NO. 5-1 OF 5



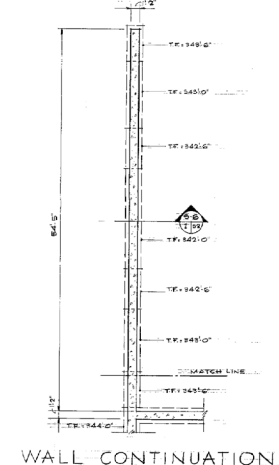
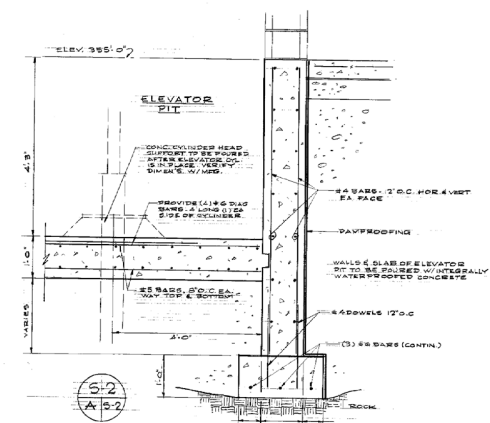


FOUNDATION NOTES:

1. SUB STRUCTURE AND SUPERSTRUCTURE DIMENSIONS ARE BASED ON ADJACENT AREAS IN PLACE. IF FOUNDATION WALLS, SLABS, ETC. CONTRACTOR SHALL PROVIDE THE NECESSARY FORM AND ON SHEDDING FOR THE DETENTION OF SAME DURING CONSTRUCTION AND UNTIL ADJACENT AREAS ARE INSTALLED.
2. ALL PERFORMING AND BEARING WALL FOOTINGS SHALL BEAR ON CLEAN, SOLID ROCK. NOTIFY ENGINEER BEFORE PLACING FOOTING CONCRETE, SO THAT HE MAY VERIFY AND APPROVE BEARING CAPACITY. FOUNDATION DESIGN BASED ON ASSUMED BEARING CAPACITY OF 8,000 P.S.F. (S.F.).
3. ELEVATION OF TOP OF FOOTING IS NOTED (T.F. ...).
4. ALL CONCRETE SHALL BE OF THE STRENGTH INDICATED IN THE DRAWINGS. ALL CONCRETE SHALL BE PLACED IN PLACE AND VIBRATED TO THE REQUIRED DENSITY. ALL CONCRETE SHALL BE CURVED AND PROTECTED BY A MINIMUM OF 2" OF MOISTURE CURING PAPER OR EQUIVALENT. ALL CONCRETE SHALL BE PROTECTED BY A MINIMUM OF 2" OF MOISTURE CURING PAPER OR EQUIVALENT.
5. REINFORCING BARS SHALL BE CONTINUOUS AND LAPPED A MINIMUM OF 40 BAR DIAMETERS OR AS DETAILLED.
6. ALL DETAILS REGARDING FINISHES AND TRACING OF REINFORCING BARS AND WELDED WIRE MESH SHALL FOLLOW THE A.C.I. MANUAL OF REINFORCING PRACTICE FOR DETAILING UNREINFORCED CONCRETE STRUCTURES (A.C.I. 318-89).
7. ALL SLABS ON GRADE TO BE 4" THICK UNLESS OTHERWISE NOTED. ALL FOOTINGS SHALL BE 12" WIDE UNLESS OTHERWISE NOTED. ALL WALLS SHALL CONFORM TO SECTION S-2 OF THESE DRAWINGS UNLESS OTHERWISE NOTED. ALL WALLS SHALL BE FINISHED WITH INTERIALLY WATERPROOFED CONCRETE.
8. ELEVATION OF TOP OF SLAB, TOP OF CHIMNEY WARE UNLESS OTHERWISE NOTED (T.F. ...).
9. SEE ARCHITECTURAL PLANS FOR LOCATIONS OF TYPICAL BEAMS ON GRADE UNDER UNFINISHED JANITORY PARTITIONS.
10. THE FOLLOWING INFORMATION CONCERNING FINISHES SHALL BE MAINTAINED OVER BEARING BARS, FOOTINGS, WALLS, BEAMS, ETC.
11. THE CONTRACTOR SHALL INSTALL IN THE FLOOR ALL SLOPE, SLEEVES, ANCHOR BOLTS, ANCHORS, WELDS, ETC. AS MAY BE REQUIRED BY OTHER TRADES.
12. REINFORCING WELDED WIRE MESH (W.W.M.) NOTED (W.W.M. ...). DEPRESS SECTIONS AREAS MARKED BY SHADING UNLESS OTHERWISE NOTED. REFER TO ARCHITECTURAL PLANS FOR LOCATIONS AND DIMENSIONS.

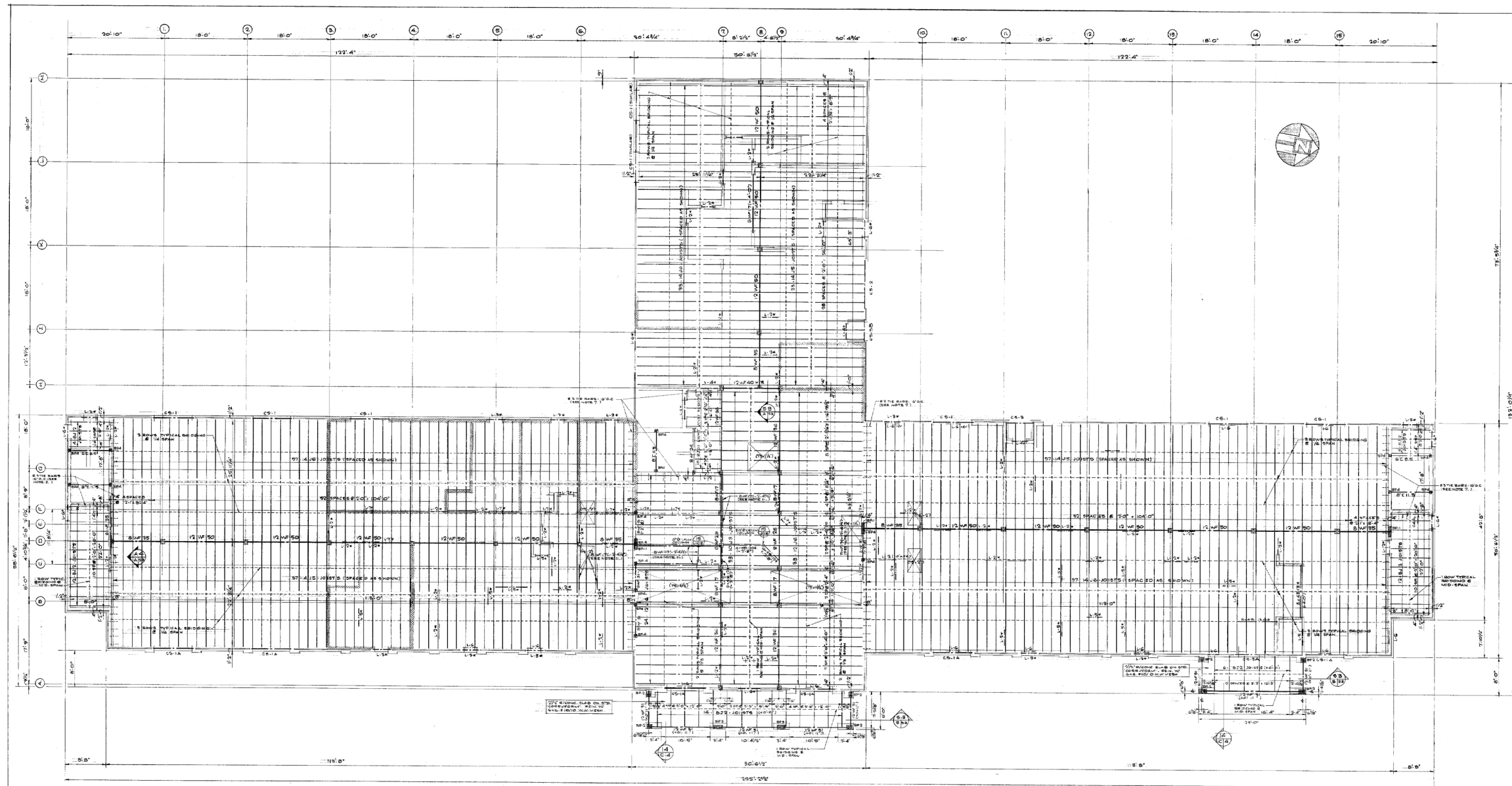
FOUNDATION PLAN

SCALE: 1/8" = 1'-0"



WALL CONTINUATION  
SCALE: 1/8" = 1'-0"

<p>FOUNDATION PLAN</p> <p>REVISIONS:</p>		
<p>ULSTER COUNTY JAIL GOLDEN HILL, CITY OF KINGSTON ULSTER COUNTY, NEW YORK</p> <p>ALBERT EDWARD MILLIKEN, A.I.A. ARCHITECT 724 FAIR STREET, KINGSTON, N.Y.</p>		
<p>DATE: AUG. 14, 1979</p> <p>SCALE: 1/8" = 1'-0"</p> <p>DESIGNED BY: R.T.S.</p>	<p>SHEET NO. S-2</p> <p>OF 5</p>	<p>SCALE: 1/8" = 1'-0"</p>

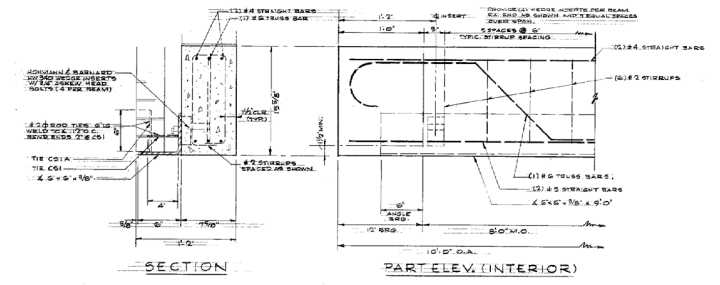


SECOND FLOOR FRAMING PLAN

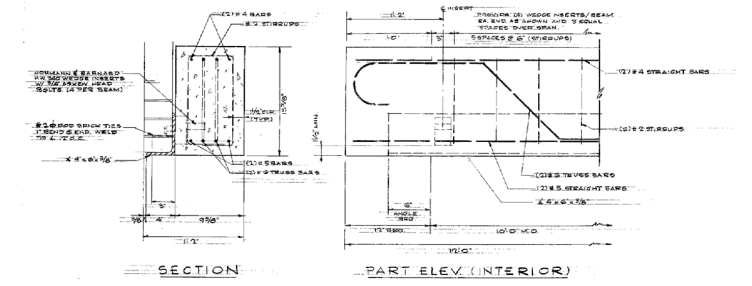
SCALE: 1/8" = 1'-0"

NOTES:

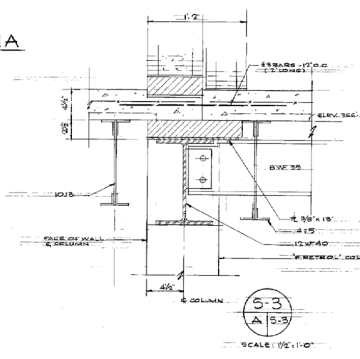
1. ELEVATION OF TOP OF OPEN WEB JOISTS: SEE 05, UNLESS NOTED (05-0).
2. ELEVATION OF TOP OF STEEL BEAMS: SEE 05, UNLESS NOTED (05-0).
3. LINTELS (L.I.) NOTED WITH ASTERISK (\*) ARE TO BE SET AT DOOR HEAVE HEADS OR WINDOW HEADS.
4. ALL SLAB JOINTS TO BE 1/2" P.C. SLABS OVER STANDARD CONCRETE (EXCEPT AS NOTED). SEE 05 FOR 1/2" P.C. SLAB OVER PUMBED SLAB AT ELEV. 502.11', EXCEPT WHERE DISPARSED (NOTED "DISP. 1/2").
5. SPINDLE JOINT JOISTS SHALL BE HORIZONTAL, TOP & BOTTOM CHORDS AND BRIDGES, LOCATED AS SHOWN, SEE PLANETS TO BE 50'-0".
6. PROVIDE MINIMUM OF 2 COURSES OF SOLID BRICK UNDER ALL BEAM JOINT BEARINGS. BRICK TO HAVE MIN. COMPRESSIVE STRENGTH OF 800 P.S.I.
7. WHERE LINTELS ARE NOTED, BRICK TO BE 10" P.C. BRICK, WITH 1/2" P.C. SLAB TO WATERPROOF WALL. BRICK SPACED AS SHOWN.
8. INTERIOR NON-BEAR PARTITIONS SHALL BE SET TO BE BUILT UP TO TOP OF FLOOR SLAB ABOVE. ALL OTHERS (NON-BEAR) TO BE BUILT UP TO BOTTOM CHORDS OF JOISTS AS DETAILLED.
9. MATCH CORNER OF INNER Joints OF ALL EXTERIOR WALLS & ALL INTERIOR WALLS TO BE FILLED BOLD WITH SETTING MORTAR.
10. CURB WALLS BROWN CROSS-MATCHED TO HAVE 1/2" P.C. BRICK VERTICAL-FULL HEIGHT OF WALL SPACED 16" O.C., PLUS ALL BLOCK CORERS SOLID W/ SETTING MORTAR. LINTEL OR WALLS, BRICK SET AT SECOND FLOOR LEVEL.
11. SEE SAN. EQUIPMENT SCHEDULE FOR DETAIL OF BEAMS AT TOP OF PLATE & SKATING PARTITIONS.



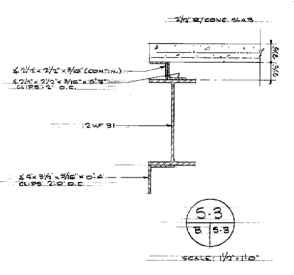
CONCRETE SPANDRELS CS-1 & CS-1A  
SCALE: 1/2" = 1'-0"



CONCRETE SPANDREL CS-2  
SCALE: 1/2" = 1'-0"




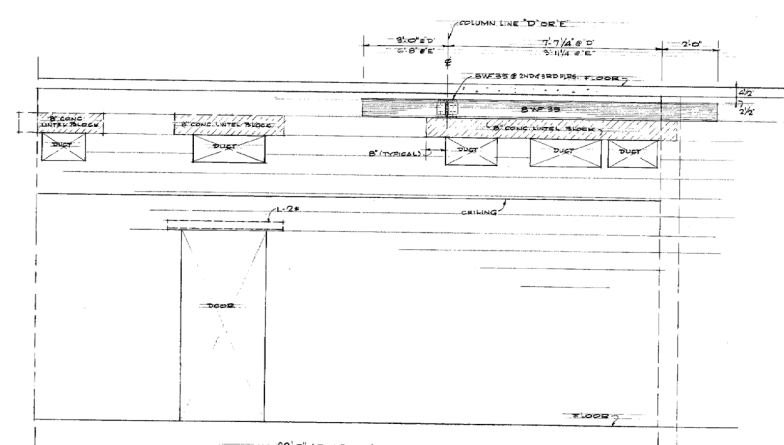
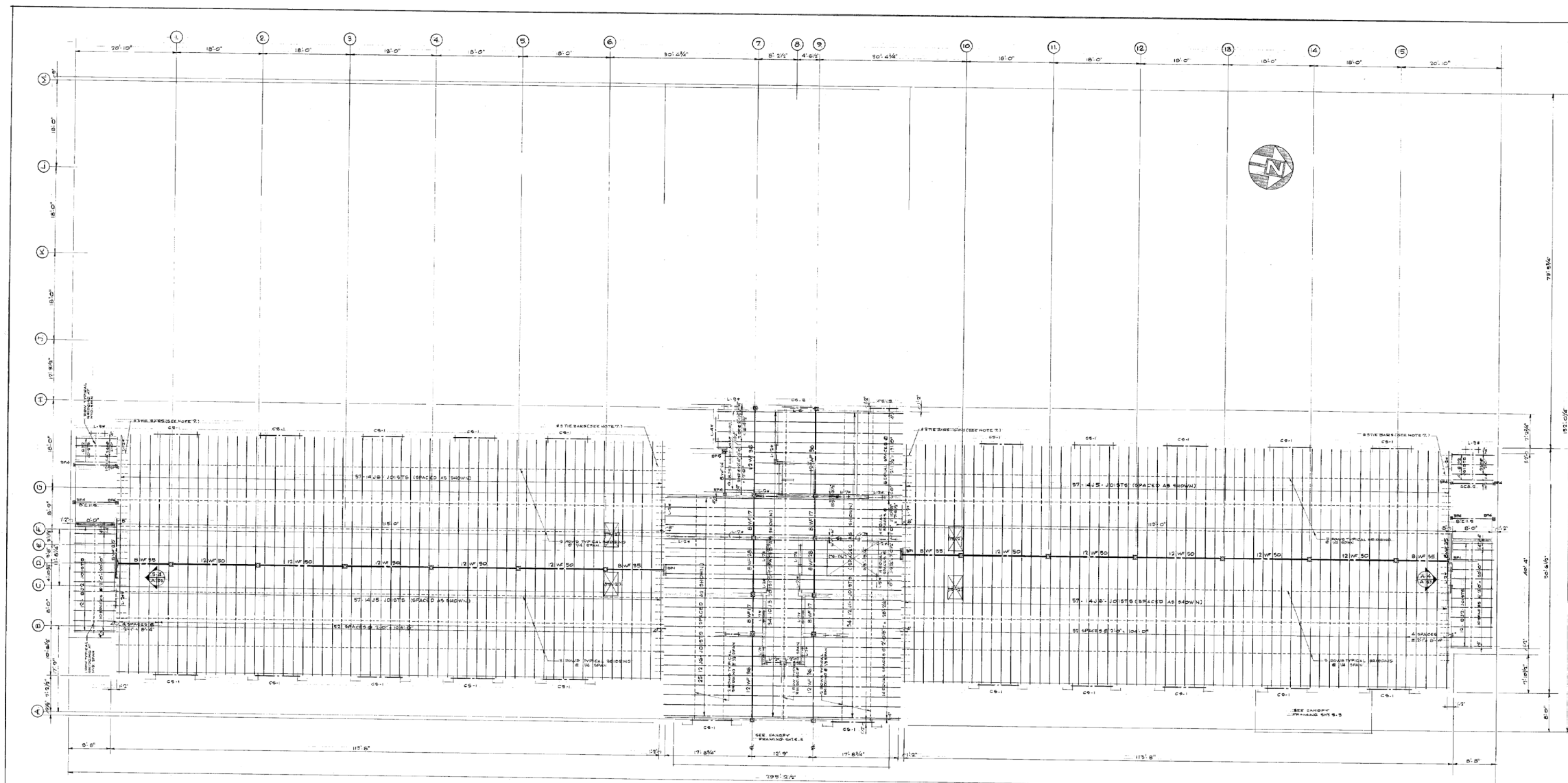
5-3  
A 15-3  
SCALE: 1/2" = 1'-0"



5-3  
B 15-3  
SCALE: 1/2" = 1'-0"

SECOND FLOOR FRAMING PLAN

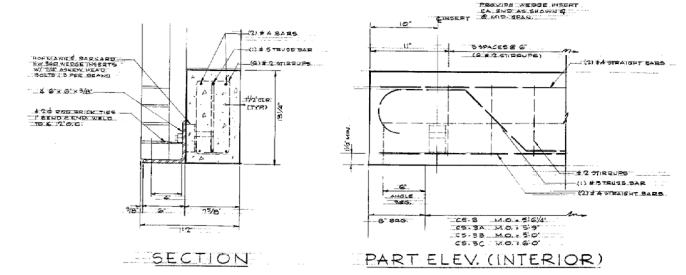
REVISIONS		<p><b>ULSTER COUNTY</b> <b>JAIL</b> GOLDEN HILL, CITY OF KINGSTON ULSTER COUNTY, NEW YORK</p> 	
<p>ALBERT EDWARD MILLIKEN, AIA ARCHITECT 124 FAIR STREET KINGSTON, N.Y.</p>		<p>SHEET NO. <b>5-3</b> OF 8</p>	
<p>DATE AUG 14, 69</p>	<p>SCALE 1/8" = 1'-0"</p>	<p>DRAWN BY R.T.S.</p>	<p>DATE AUG 14, 69</p>



5-A  
A-B-B  
TYPICAL ELEVATION-FAN RM. WALL  
(SEE REV. SHEETS FOR DOOR SIZES & VARYING CONDITIONS)  
SCALE: 3/8" = 1'-0"

THIRD FLOOR FRAMING PLAN  
SCALE: 1/8" = 1'-0"

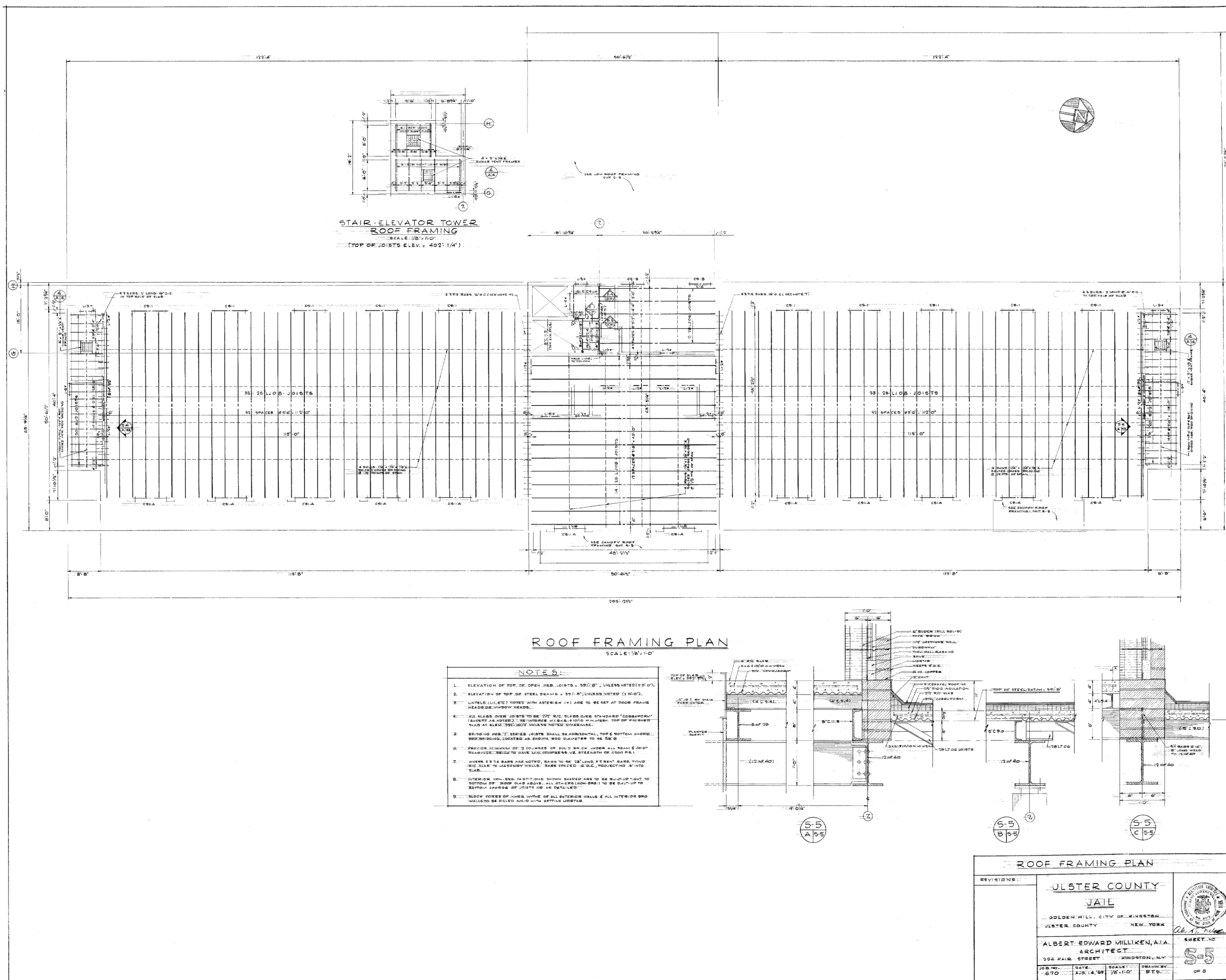
- NOTES:
- ELEVATION OF TOP OF OPEN WEB JOISTS: 8'-0" UNLESS NOTED (5'-0")
  - ELEVATION OF TOP OF STEEL BEAMS: 8'-0" UNLESS NOTED (5'-0")
  - LIMITS (U, ETC) NOTED WITH ASTERISK (\*) ARE TO BE SET AT TRUSS FRAME HEADS OR WINDOW HEADS.
  - ALL SLABS OVER JOISTS TO BE 4" RC SLAB OVER STANDARD CORRUGATED DECK (EXCEPT AS NOTED). SEE NOTES W/ AUG. 4" DIA. HOLLOW TOP OF FRAMED SLAB AT ELEV. 8'-0" UNLESS OTHERWISE NOTED (5'-0").
  - BRIDGING FOR 7" SERIES JOISTS SHALL BE HORIZONTAL, TOP & BOTTOM CHORDS AND BRIDGING, LOCATED AS SHOWN. SEE 3-DIMENSION TO BE 5/8" DIA.
  - PROVIDE MINIMUM 2" COLUMNS OF 4" DIA. BARS UNDER ALL BEAM & JOIST BEARING. BEAMS TO HAVE MIN. COMPRESSIVE STRENGTH OF 30,000 PSI.
  - WHERE 4" RC BARS ARE NOTED, BARS TO BE 2" LONG 4" BARS WITH 2" DIA. ETC. SEE TO WAREHOUSE WALLS. BARS SPACED 12" O.C. PARALLEL TO SLAB.
  - INTERIOR NON-WOOD PARTITIONS SHALL BE 2" THICK 4" BARS WITH 2" DIA. ETC. SEE TO WAREHOUSE WALLS. ALL OTHERS (NON BRG.) TO BE BUILT WITH 2" BOTTOM CHORDS OF JOISTS OR AS DETAILLED.
  - TRUSS JOISTS OF WAREHOUSE OF ALL EXTERIOR WALLS & ALL INTERIOR WALLS TO BE FILLED SOLID WITH SETTING MORTAR.

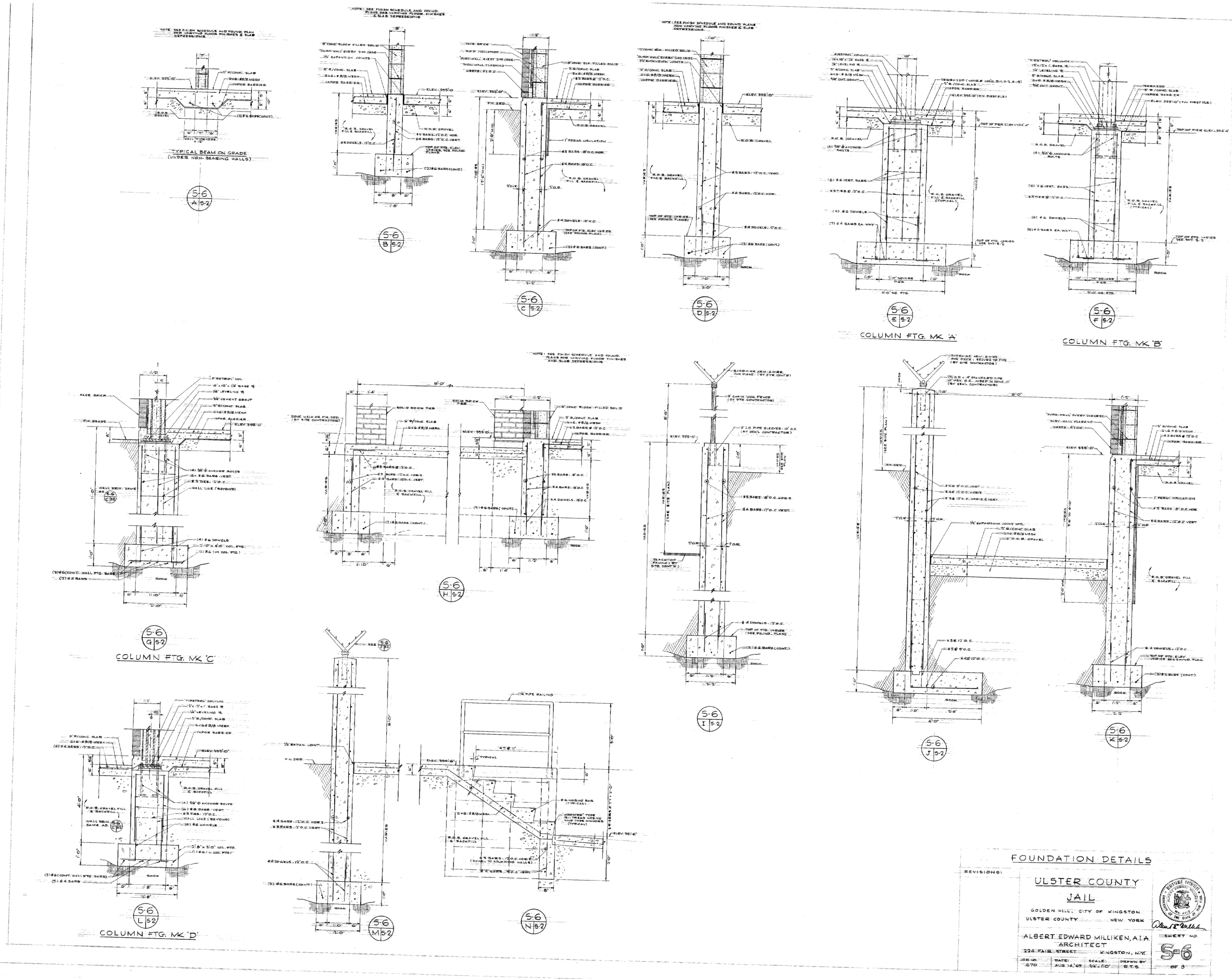


SECTION PART ELEV. (INTERIOR)  
CONCRETE SPANDREL C5-3, C5-3A, B & C  
SCALE: 3/8" = 1'-0"

THIRD FLOOR FRAMING PLAN

REVISIONS:	ULSTER COUNTY JAIL GOLDEN HILL, CITY OF KINGSTON ULSTER COUNTY NEW YORK	
	ALBERT EDWARD MILLIKEN, A.I.A. ARCHITECT 234 FAIR STREET KINGSTON, N.Y.	SHEET NO. S-4 OF 8
JOB NO. 670	DATE AUG 16 '09	SCALE 1/8" = 1'-0"
	DRWN BY R.T.B.	





FOUNDATION DETAILS

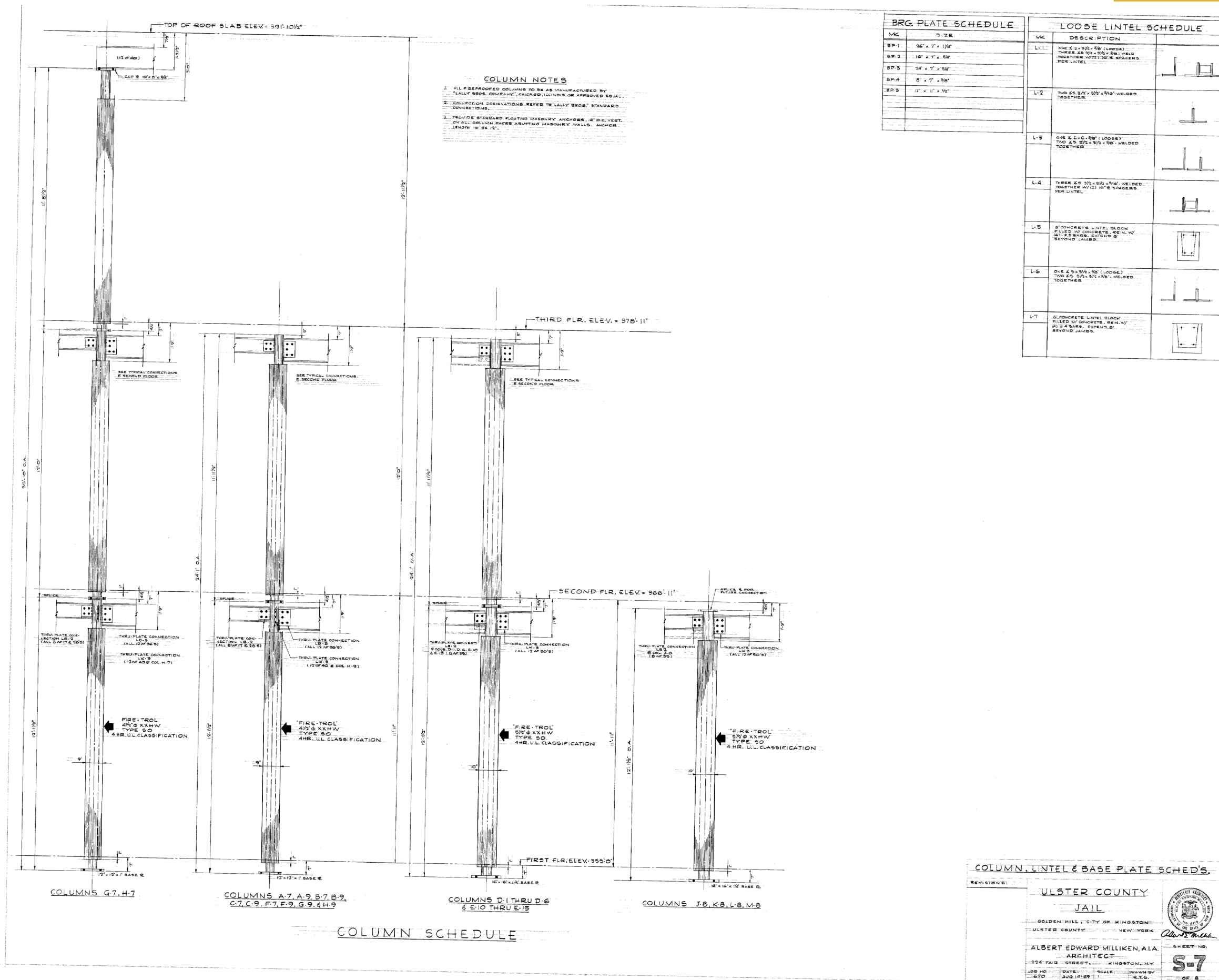
REVISIONS:

ULSTER COUNTY  
JAIL  
GOLDEN HILL, CITY OF KINGSTON  
ULSTER COUNTY NEW YORK

ALBERT EDWARD MILLIKEN, AIA  
ARCHITECT  
224 FAIR STREET KINGSTON, N.Y.

JOB NO. DATE: SCALE: DRAWN BY: SHEET NO. OF 5

5-6  
R.T.S.



**COLUMN, LINTEL & BASE PLATE SCHED'S.**

REVISIONS:

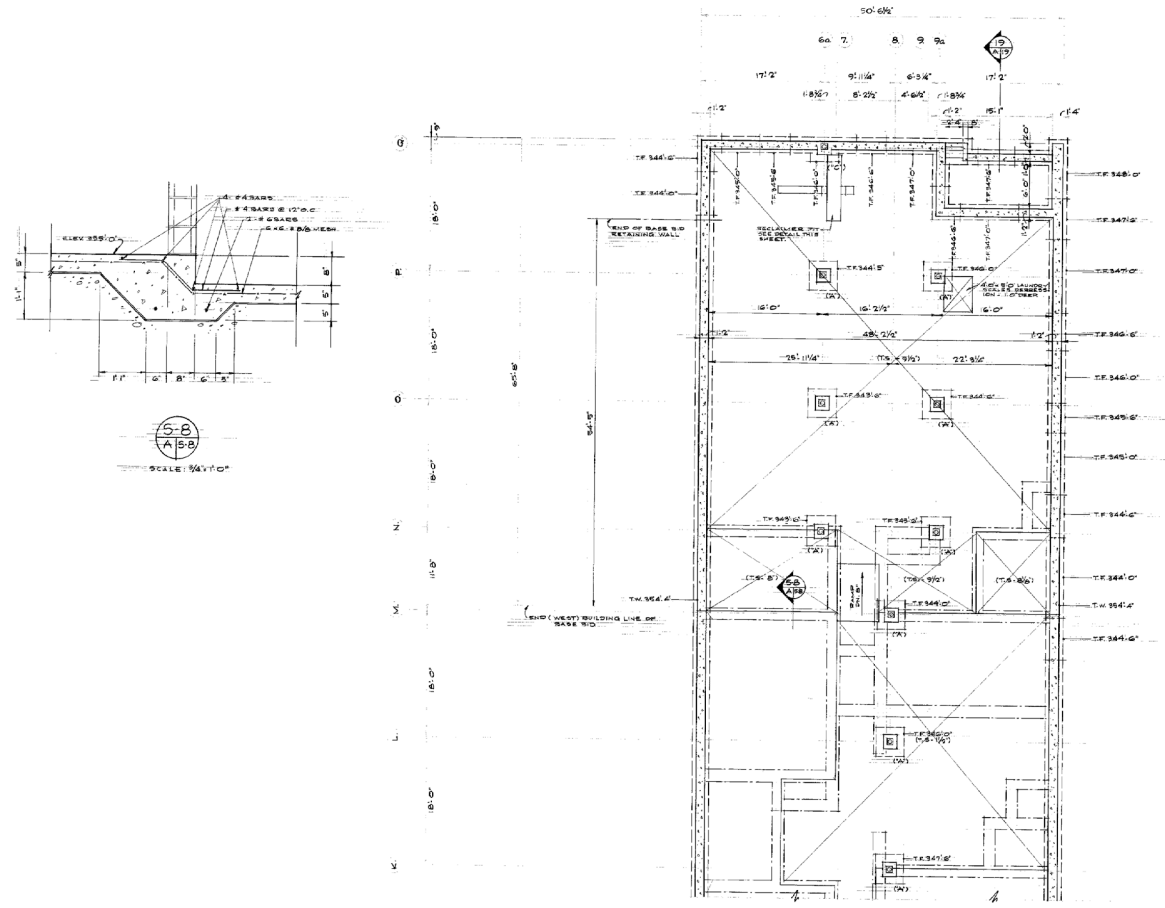
ULSTER COUNTY  
 JAIL

GOLDEN HILL, CITY OF KINGSTON,  
 ULSTER COUNTY, NEW YORK

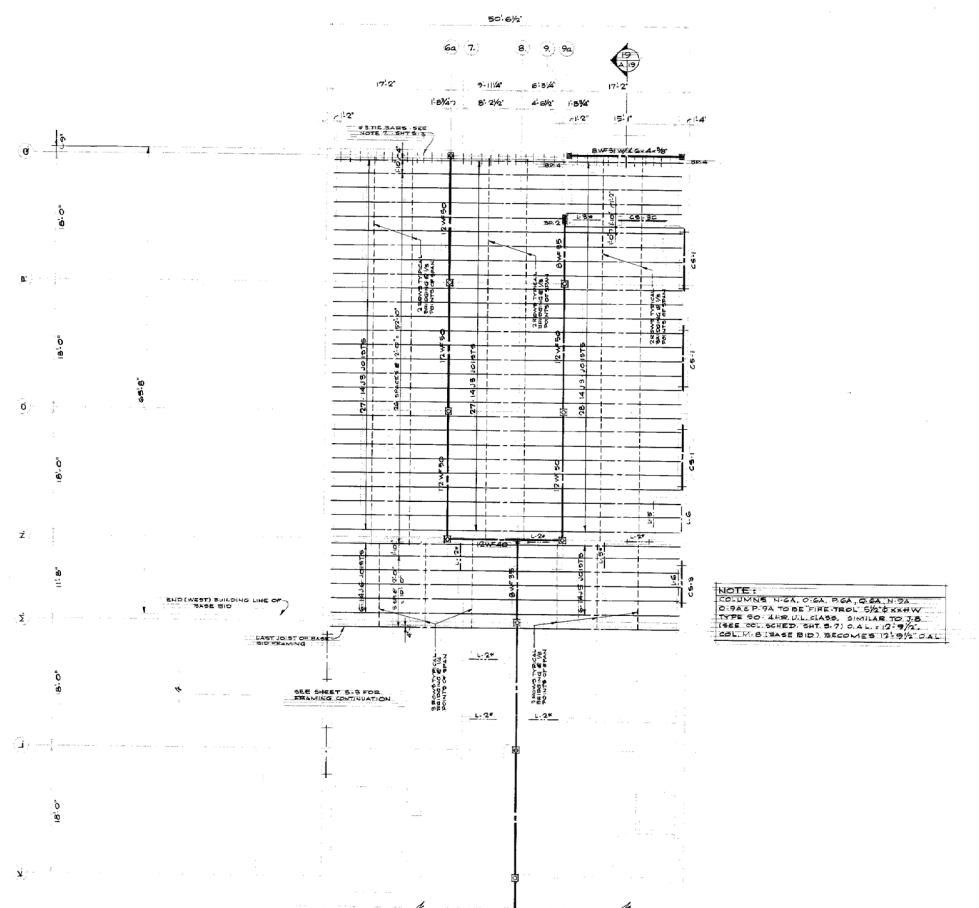
ALBERT EDWARD MILLIKEN, AIA  
 ARCHITECT

374 FAIR STREET, KINGSTON, N.Y.  
 JOB NO. 470 DATE: AUG. 14, 1970 SCALE: DRAWN BY: R.T.S.

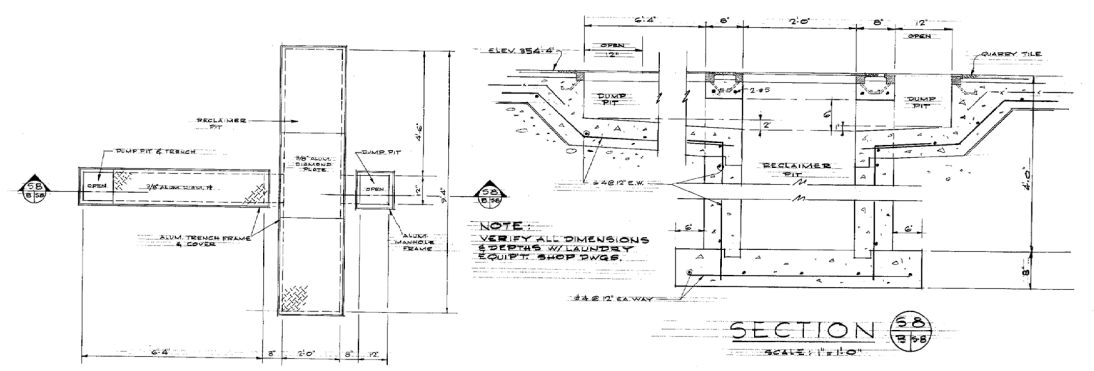
SHEET NO. **S-7**  
 OF 8



**FOUNDATION PLAN-ALTERNATE NO. 1**  
SEE FOUNDATION NOTES - SHEET 6.2  
SCALE: 1/8" = 1'-0"



**ROOF FRAMING PLAN-ALTERNATE NO. 1**  
SEE FRAMING NOTES - SHEET 6.5  
SCALE: 1/8" = 1'-0"



**RECLAIMER PIT PLAN**  
SCALE: 1/4" = 1'-0"

**SECTION SB**  
SCALE: 1/2" = 1'-0"

**FOUNDATION & FRAMING PLANS - ALTER. NO. 1**

REVISIONS

**ULSTER COUNTY**  
**JAIL**  
GOLDEN HILL, CITY OF KINGSTON  
ULSTER COUNTY, NEW YORK

ALBERT EDWARD MILLIKEN, A.I.A.  
ARCHITECT  
224 FAIR STREET KINGSTON, N.Y.

SHEET NO. **S-8**

JOB NO. DATE: SCALE: DRAWN BY:  
570 AUG. 14, 69 R.T.S. G.E.B.





# APPENDIX D: STATE AND FEDERAL WETLANDS











# GOLDEN HILL DRIVE



September 28, 2020

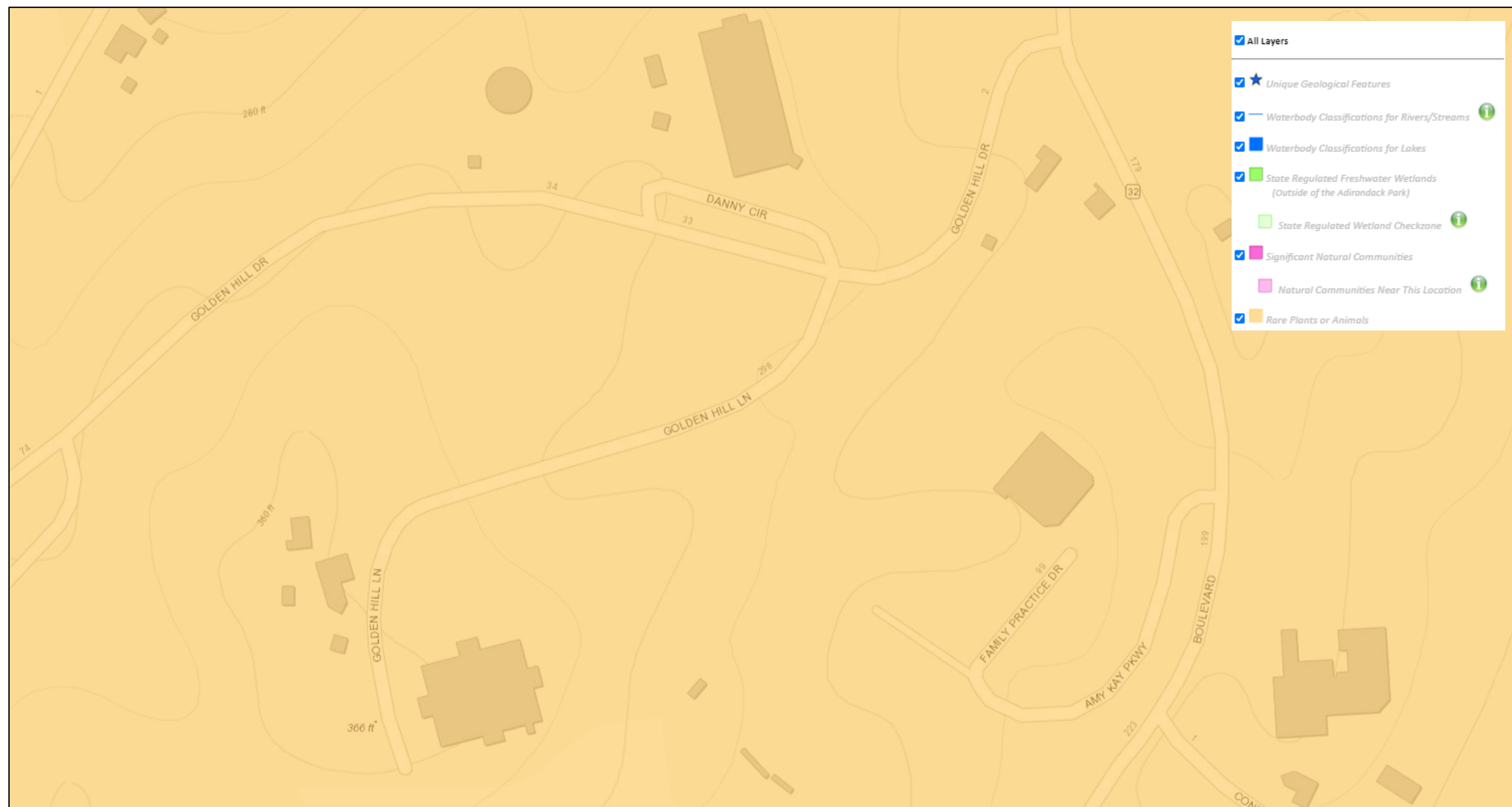
**Wetlands**

- |  |   |  |
|--|---|--|
|  Estuarine and Marine Deepwater |  Freshwater Emergent Wetland       |  Lake     |
|  Estuarine and Marine Wetland   |  Freshwater Forested/Shrub Wetland |  Other    |
|  |  Freshwater Pond                   |  Riverine |

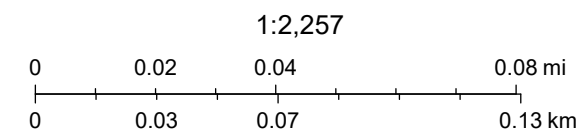
This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)  
This page was produced by the NWI mapper

# GOLDEN HILL DRIVE



September 28, 2020



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

NYS Department of Environmental Conservation  
Not a legal document



# 101 ENTERPRISE DR



September 28, 2020

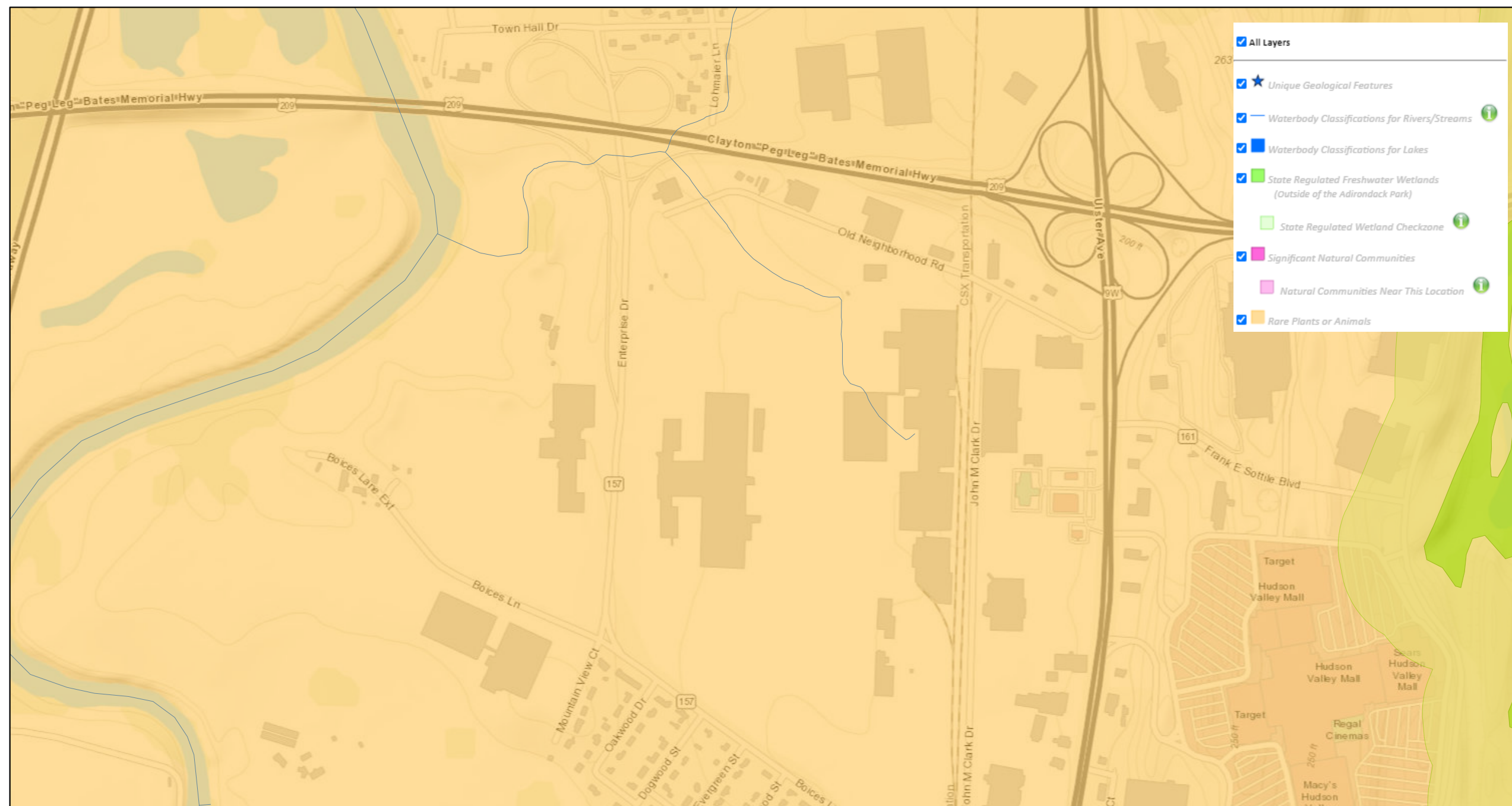
**Wetlands**

- |                                |                                   |          |
|--------------------------------|-----------------------------------|----------|
| Estuarine and Marine Deepwater | Freshwater Emergent Wetland       | Lake     |
| Estuarine and Marine Wetland   | Freshwater Forested/Shrub Wetland | Other    |
|                                | Freshwater Pond                   | Riverine |

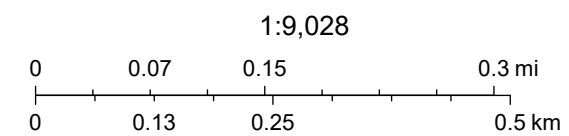
This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)  
This page was produced by the NWI mapper

# 101 ENTERPRISE DR



September 28, 2020



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

NYS Department of Environmental Conservation  
Not a legal document

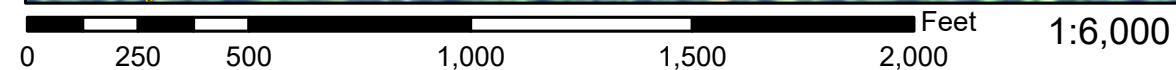


# APPENDIX E: FEMA MAP

# National Flood Hazard Layer FIRMette



74°1'24"W 41°55'16"N



74°0'47"W 41°54'49"N

## Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

<b>SPECIAL FLOOD HAZARD AREAS</b>		Without Base Flood Elevation (BFE) <i>Zone A, V, A99</i>
		With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i>
		Regulatory Floodway
<b>OTHER AREAS OF FLOOD HAZARD</b>		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile <i>Zone X</i>
		Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i>
		Area with Reduced Flood Risk due to Levee. See Notes. <i>Zone X</i>
		Area with Flood Risk due to Levee <i>Zone D</i>
<b>OTHER AREAS</b>		NO SCREEN Area of Minimal Flood Hazard <i>Zone X</i>
		Effective LOMRs
<b>GENERAL STRUCTURES</b>		Area of Undetermined Flood Hazard <i>Zone D</i>
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
<b>OTHER FEATURES</b>		Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
<b>MAP PANELS</b>		Digital Data Available
		No Digital Data Available
		Unmapped
		The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 9/28/2020 at 3:28 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

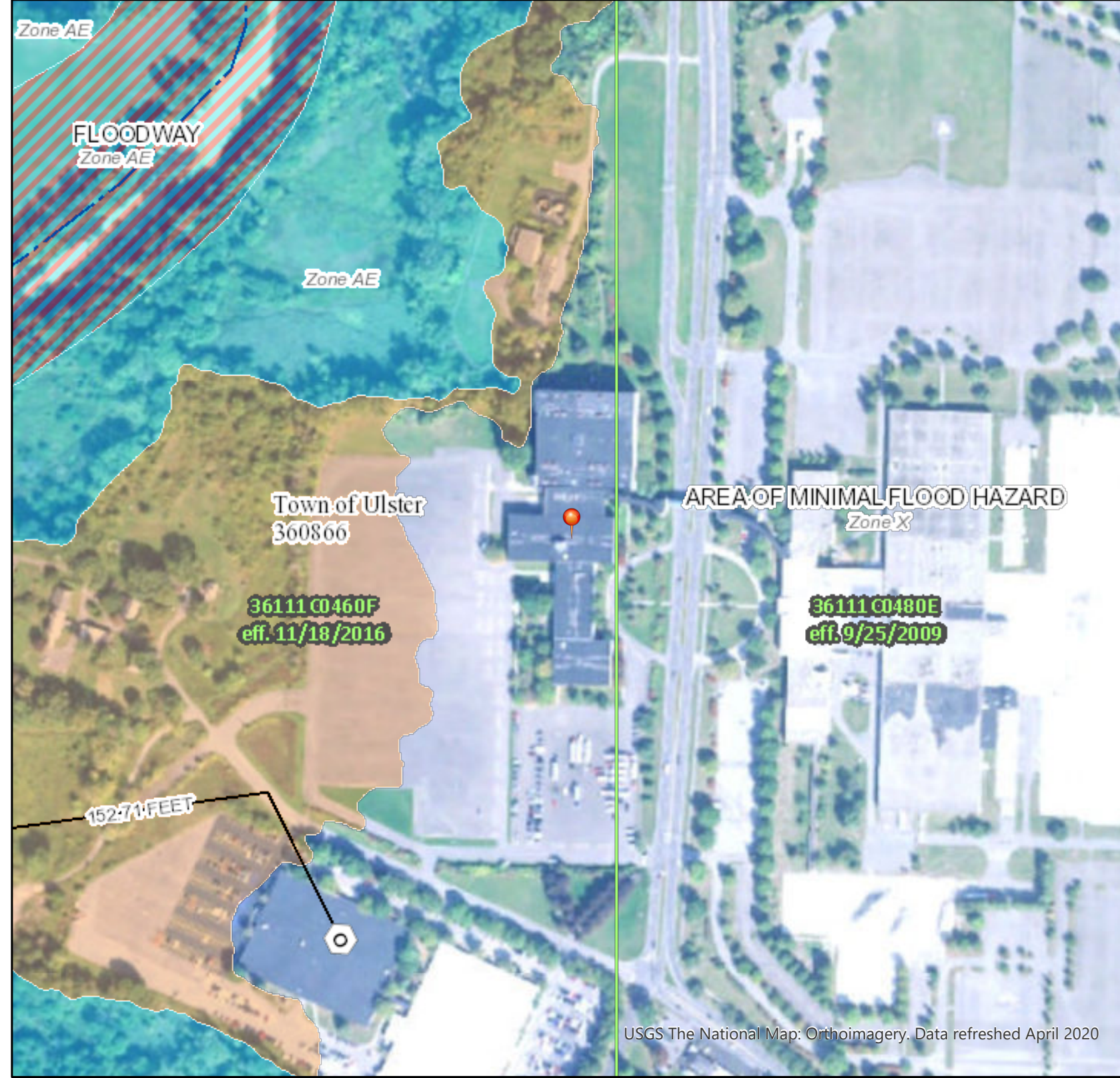
This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



# National Flood Hazard Layer FIRMette



74°0'20"W 41°58'28"N



## Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard Zone D
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
MAP PANELS		Jurisdiction Boundary
		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
		Digital Data Available
		No Digital Data Available
		Unmapped

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 9/28/2020 at 3:25 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



# APPENDIX F: ARCHAEOLOGICAL SENSITIVE AREA AND SHPO LETTERS



**ANDREW M. CUOMO**  
Governor

**ERIK KULLESEID**  
Commissioner

## **ARCHAEOLOGY COMMENTS**

### **Phase IA/IB Archaeological Survey Recommendation**

**Project: UCAT Golden Hill Bus Facility: New Construction**

**PR#: 20PR06544**

**Date: 27 October 2020**

Your project is in an archaeologically sensitive location. Therefore, the State Historic Preservation Office/Office of Parks, Recreation and Historic Preservation (SHPO/OPRHP) recommends a Phase IA/IB archaeological survey for components of the project that will involve ground disturbance, unless substantial prior ground disturbance can be documented. A Phase IA/IB survey is designed to determine the presence or absence of archaeological sites or other cultural resources in the project's Area of Potential Effects (APE).

If you consider the entire project area to be disturbed, documentation of the disturbance will need to be reviewed by SHPO/OPRHP. Examples of disturbance include mining activities and multiple episodes of building construction and demolition. Documentation of ground disturbance typically consists of soil bore logs, photos, or previous project plans. Agricultural activity is not considered to be substantial ground disturbance.

Please note that in areas with alluvial soils or fill archaeological deposits may exist below the depth of superficial disturbances such as pavement or even deeper disturbances, depending on the thickness of the alluvium or fill. Evaluation of the possible impact of prior disturbance on archaeological sites must consider the depth of potentially culture-bearing deposits and the depth of planned disturbance by the proposed project.

Our office does not conduct archaeological surveys. A 36 CFR 61 qualified archaeologist should be retained to conduct the Phase IA/IB survey.

Please also be aware that a Section 233 permit from the New York State Education Department (SED) may be necessary before archaeological fieldwork is conducted on State-owned land. If any portion of the project includes the lands of New York State, you should contact the SED before initiating survey activities. The SED contact is Christina Rieth and she can be reached at [christina.rieth@nysed.gov](mailto:christina.rieth@nysed.gov). Section 233 permits are not required for projects on private land.

If you have any questions concerning archaeology, please contact Philip Perazio at [philip.perazio@parks.ny.gov](mailto:philip.perazio@parks.ny.gov).

**Parks, Recreation,  
and Historic Preservation****ANDREW M. CUOMO**  
Governor**ERIK KULLESEID**  
Commissioner

October 29, 2020

Austin Goodwin  
Civil Engineer  
Passero Associates  
242 W. Main St Suite 100  
Rochester, NY 14614Re: DEC  
Ulster County Area Transit Tech City Site  
Town of Ulster, Ulster County, NY  
20PR06545

Dear Austin Goodwin:

Thank you for requesting the comments of the Office of Parks, Recreation and Historic Preservation (OPRHP). We have reviewed the project in accordance with the New York State Historic Preservation Act of 1980 (Section 14.09 of the New York Parks, Recreation and Historic Preservation Law). These comments are those of the OPRHP and relate only to Historic/Cultural resources. They do not include potential environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8) and its implementing regulations (6 NYCRR Part 617).

Based upon this review, it is the opinion of OPRHP that no properties, including archaeological and/or historic resources, listed in or eligible for the New York State and National Registers of Historic Places will be impacted by this project.

If further correspondence is required regarding this project, please be sure to refer to the OPRHP Project Review (PR) number noted above.

Sincerely,

R. Daniel Mackay

Deputy Commissioner for Historic Preservation  
Division for Historic Preservation




# APPENDIX G: SITE SELECTION CHECKLISTS

**Project Name:** UCAT Transit Facility Site Selection

**Site No:** 1: Existing Facility Expansion

**Reviewed by:** ABG



SITE SELECTION CHECKLIST		SITE #1
1	TAX ID #	YES
2	PROPERTY BOUNDARY AREA-FROM TAX MAPS	YES
3	PARCEL ZONING INFORMATION	YES
4	AERIAL MAPPING (LIDAR)	YES
5	COMPATIBLE USE WITH ADJACENT PROPERTIES	YES
6	KNOWN EASMENTS – REQUESTS ABSTRACTS DEEDS	REQUESTED
7	COMPATIBLE WITH TOWN MASTER PLAN	YES
8	ACCESSIBILITY FROM EXISTING STREETS/ROADWAYS	YES
9	WOODLOT OR SENSITIVE VEGETATION	WOODS / ROCK OUTCROP
10	FLOOD PLAIN- ELEVATION	NONE
11	WETLANDS -DEC/USACE	NONE
12	ARCHEO SENSATIVE AREAS/SHPO	PHASE 1A/1B
13	SANITARY SEWER – RECORD MAPS	REQUESTED
14	SANITARY SEWER CAPACITY TO SERVE	REQUESTED
15	WATER SERVICE – RECORD MAPS	REQUESTED
16	WATER SERVICE CAPACITY TO SERVE	YES
17	GAS/ELECTRIC/TELECOM – RECORD INFO	REQUESTED
18	GAS/ELECTRIC/TELECOM CAPACITY TO SERVE	YES
19	NYSDEC SPILL DATA BASE	NONE
20	SOIL SURVEY – GEOTECH REPORT - DEPTH OF BEDROCK	RECOMMENDED
21	SPECIAL USE PERMITS REQUIRED	NONE
22	FEASIBLE SATELLITE FACILITY?	N/A

**REMARKS**

Tax ID# is shown on the plans.

Total parcel is over 41 acres encompassing a large portion of Golden Hill, the plans show a "project area" instead.

Zoning information is shown on the plans

Aerial mapping and topographic LIDAR are shown on the plans

Golden Hill is a group of Ulster County buildings.

DIGSAFE submitted, County/City contacted to provide record maps

Golden Hill is used for Ulster County Buildings

Project area is adjacent to Golden Hill Road

Golden Hill is subject to possible rock outcrops/shallow bedrock

No Floodplains are located on Golden Hill

No Wetlands are within the project area

Reconnaissance level survey was performed for original construction

DIGSAFE submitted, County/City contacted to provide record maps

DIGSAFE submitted, County/City contacted to provide record maps

Large water line from existing tower is likely in place

DIGSAFE submitted, County/City contacted to provide record maps

DIGSAFE submitted, County/City contacted to provide record maps

DIGSAFE submitted, County/City contacted to provide record maps

Due to outcrop soils, a geotechnical survey is HIGHLY recommended.


Site is cramped as is, expansion would require a massive retaining wall and massive amounts of imported soil.



**Project Name:** UCAT Transit Facility Site Selection

**Site No:** 2: Golden Hill Site

**Reviewed by:** ABG



SITE SELECTION CHECKLIST		SITE #2
1	TAX ID #	YES
2	PROPERTY BOUNDARY AREA-FROM TAX MAPS	YES
3	PARCEL ZONING INFORMATION	YES
4	AERIAL MAPPING (LIDAR)	YES
5	COMPATIBLE USE WITH ADJACENT PROPERTIES	YES
6	KNOWN EASMENTS – REQUESTS ABSTRACTS DEEDS	REQUESTED
7	COMPATIBLE WITH TOWN MASTER PLAN	YES
8	ACCESSIBILITY FROM EXISTING STREETS/ROADWAYS	YES
9	WOODLOT OR SENSITIVE VEGETATION	WOODS / ROCK OUTCROP
10	FLOOD PLAIN- ELEVATION	NONE
11	WETLANDS -DEC/USACE	NONE
12	ARCHEO SENSATIVE AREAS/SHPO	SUBMITTED
13	SANITARY SEWER – RECORD MAPS	REQUESTED
14	SANITARY SEWER CAPACITY TO SERVE	REQUESTED
15	WATER SERVICE – RECORD MAPS	REQUESTED
16	WATER SERVICE CAPACITY TO SERVE	YES
17	GAS/ELECTRIC/TELECOM – RECORD INFO	REQUESTED
18	GAS/ELECTRIC/TELECOM CAPACITY TO SERVE	YES
19	NYSDEC SPILL DATA BASE	NONE
20	SOIL SURVEY – GEOTECH REPORT - DEPTH OF BEDROCK	RECOMMENDED
21	SPECIAL USE PERMITS REQUIRED	NONE
22	FEASIBLE SATELLITE FACILITY?	N/A

**REMARKS**

Tax ID# is shown on the plans.

Total parcel is over 41 acres encompassing a large portion of Golden Hill, the plans show a "project area" instead.

Zoning information is shown on the plans

Aerial mapping and topographic LIDAR are shown on the plans

Golden Hill is a group of Ulster County buildings.

DIGSAFE submitted, County/City contacted to provide record maps

Golden Hill is used for Ulster County Buildings

Project area is adjacent to Golden Hill Road

Golden Hill is subject to possible rock outcrops/shallow bedrock

No Floodplains are located on Golden Hill

No Wetlands are within the project area

Reconnaissance level survey was performed for original construction

DIGSAFE submitted, County/City contacted to provide record maps

DIGSAFE submitted, County/City contacted to provide record maps

Large water line from existing tower is likely in place

DIGSAFE submitted, County/City contacted to provide record maps

DIGSAFE submitted, County/City contacted to provide record maps

DIGSAFE submitted, County/City contacted to provide record maps


Due to outcrop soils, a geotechnical survey is HIGHLY recommended.

Golden Hill location outweighs the steep grading costs due to its proximity to the existing facility

**Project Name:** UCAT Transit Facility Site Selection

**Site No:** 3: Tech City Site

**Reviewed by:** ABG



SITE SELECTION CHECKLIST		SITE #3
1	TAX ID #	YES
2	PROPERTY BOUNDARY AREA-FROM TAX MAPS	YES
3	PARCEL ZONING INFORMATION	YES
4	AERIAL MAPPING (LIDAR)	YES
5	COMPATIBLE USE WITH ADJACENT PROPERTIES	YES
6	KNOWN EASMENTS – REQUESTS ABSTRACTS DEEDS	YES
7	COMPATIBLE WITH TOWN MASTER PLAN	SORT OF
8	ACCESSIBILITY FROM EXISTING STREETS/ROADWAYS	YES
9	WOODLOT OR SENSITIVE VEGETATION	NONE
10	FLOOD PLAIN- ELEVATION	500yr floodplain
11	WETLANDS -DEC/USACE	NONE
12	ARCHEO SENSATIVE AREAS/SHPO	SUBMITTED
13	SANITARY SEWER – RECORD MAPS	REQUESTED
14	SANITARY SEWER CAPACITY TO SERVE	REQUESTED
15	WATER SERVICE – RECORD MAPS	REQUESTED
16	WATER SERVICE CAPACITY TO SERVE	YES
17	GAS/ELECTRIC/TELECOM – RECORD INFO	REQUESTED
18	GAS/ELECTRIC/TELECOM CAPACITY TO SERVE	YES
19	NYSDEC SPILL DATA BASE	NONE
20	SOIL SURVEY – GEOTECH REPORT - DEPTH OF BEDROCK	RECOMMENDED
21	SPECIAL USE PERMITS REQUIRED	NONE
22	FEASIBLE SATELLITE FACILITY?	FEASIBLE

**REMARKS**

Tax ID# is shown on the plans.

The Parcel boundaries are shown on the plans

Zoning information is shown on the plans

Aerial mapping and topographic LIDAR are shown on the plans

The parcel is an abandoned complex within tech city. Not in proximity to existing transportation buildings.

NYSDEC Environmental easement covers the area due to previous use by IBM corporation.

TECH CITY is "ours to play with" in words of UCAT but the county has plans to revitalize the area

The site is surrounded by access roads and adjacent to a US highway

Site is a flat existing parking lot

Back half of site is within 500 year floodplain

Site is not within floodplains, site is marked for potential rare plants/animals

Site was submitted to SHPO for archeological significance

DIGSAFE submitted, County/City contacted to provide record maps

DIGSAFE submitted, County/City contacted to provide record maps

DIGSAFE submitted, County/City contacted to provide record maps

DIGSAFE submitted, County/City contacted to provide record maps

DIGSAFE submitted, County/City contacted to provide record maps

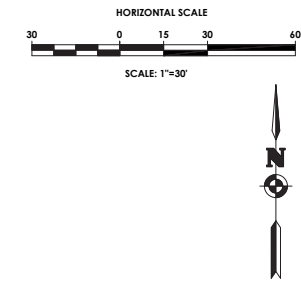
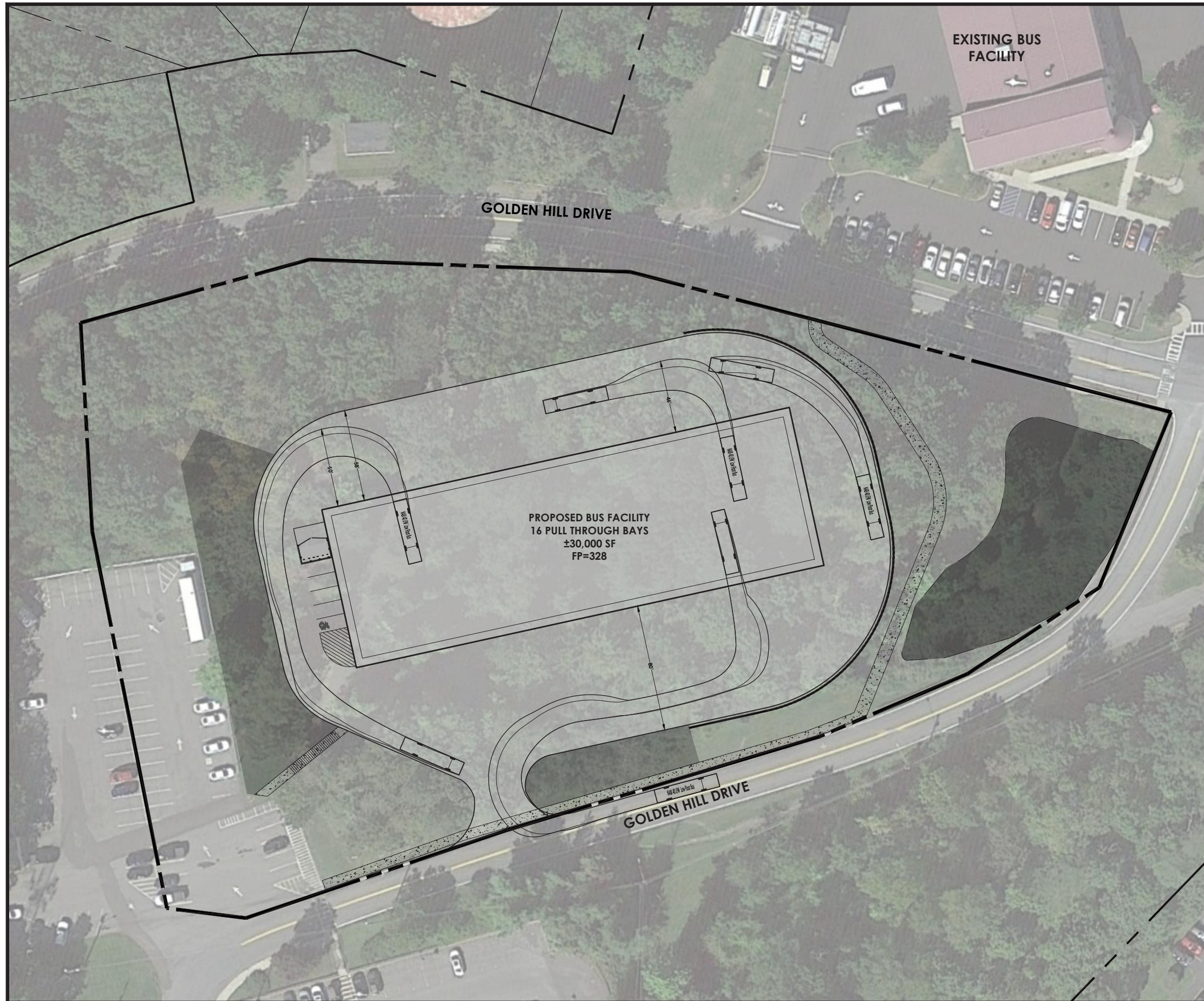
DIGSAFE submitted, County/City contacted to provide record maps

Due to unknown condition of existing pavement, survey recommended

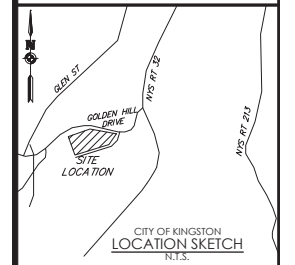
Site is likely to encounter setbacks due to the floodplain & existance of an environmental easement from NYSDEC.



# APPENDIX H: BUS TURNING ANALYSIS



**PA**  
**PASSERO ASSOCIATES**  
 engineering architecture



Client:  
**ULSTER COUNTY**  
 1 DANNY CIRCLE  
 KINGSTON, NY 12401

**PASSERO ASSOCIATES**  
 242 West Main Street Suite 400  
 Rochester, New York 14614  
 (585) 325-1000  
 Fax: (585) 325-1691  
 Principal-in-Charge: Dan Savage, P.E.  
 Project Manager: Dan Savage, P.E.  
 Designed by: Austin Goodwin, EIT



Revisions			
No.	Date	By	Description
1			

UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DRAWING IS IN VIOLATION OF STATE EDUCATION LAW ARTICLE 145 SECTION 7209 AND ARTICLE 147 SECTION 7307. THESE PLANS ARE COPYRIGHT PROTECTED.

**GOLDEN HILL  
 LOCATION CONCEPT  
 ULSTER COUNTY FLEET  
 GARAGE FACILITY**

Town/City: ULSTER  
 County: ULSTER State: NEW YORK

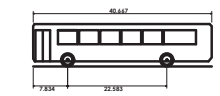
Project No.  
**20202987.0001**

Drawing No. <b>C 101</b>	Sheet No. <b>1</b>
-----------------------------	-----------------------

Scale:  
**1" = 30'**

Date  
**OCTOBER 2020**

NOT FOR CONSTRUCTION



NABI 40 LFW Low Floor Bus  
 Overall Length 40.647ft  
 Overall Width 8.49ft  
 Overall Body Height 9.66ft  
 Min Body Ground Clearance 1.158ft  
 Track Width 8.49ft  
 Lock-to-lock time 6.00s  
 Wall to Wall Turning Radius 44.00ft

40.647ft  
 8.49ft  
 9.66ft  
 1.158ft  
 8.49ft  
 6.00s  
 44.00ft



# APPENDIX I: UCAT VEHICLE INVENTORY

Vehicle Inventory for Ulster County - Ulster County Area Transit  
Active Fixed

Operator Veh ID	Model Year	Body Mfg.	Model	Service	Length	Seats	Bike Rack	Fuel	Chassis Model	Trans Model	Bus Del Date	Fund Source	PIN	Vehicle Cost New	Last Miles
42	2005	ORION	ORION 7	Fixed	40	34	TRUE	HYBRID/D	ORION VII	ELECTRIC DRIVE	12/19/2009	NY-03-450,X549,X553	8TRU30.001	\$ 468,509.00	287,670
55	2010	ORION	ORION 7	Fixed	35	32	TRUE	HYBRID/D	ORION VII	ELECTRIC DRIVE	7/29/2010	ARRA-NY-96-X021-00	8TRU30	\$ 553,192.75	372,630
56	2010	ORION	ORION 7	Fixed	35	32	TRUE	HYBRID/D	ORION VII	ELECTRIC DRIVE	10/7/2010	ARRA-NY-96-X021-00	8TRU30	\$ 553,192.75	402,860
57	2010	ORION	ORION 7	Fixed	35	32	TRUE	HYBRID/D	ORION VII	ELECTRIC DRIVE	10/14/2010	NY-90-X614-00	8TRU30	\$ 553,192.75	374,426
58	2010	ORION	ORION 7	Fixed	35	32	TRUE	HYBRID/D	ORION VII	ELECTRIC DRIVE	10/21/2010	NY-90-X614-00	8TRU30	\$ 553,192.75	368,821
59	2010	ORION	ORION 7	Fixed	35	32	TRUE	HYBRID/D	ORION VII	ELECTRIC DRIVE	10/14/2010	NY-90-X654-00	8TRU30	\$ 553,192.75	404,918
60	2012	GILLIG	LOW FLOOR	Fixed	29	26	TRUE	DIESEL	Low Floor	B400R	1/9/2012	NY-90-X654-00	8TRU53	\$ 353,009.00	283,373
61	2012	GILLIG	LOW FLOOR	Fixed	29	26	TRUE	DIESEL	Low Floor	B400R	1/10/2012	NY-90-X654-00	8TRU53	\$ 353,009.00	277,059
62	2014	EL DORADO	PASSPORT	Fixed	30	25	TRUE	DIESEL	HC/TC	3000 pts	7/12/2013	NY-90-X668-00	8TRU28	\$ 223,226.00	174,111
63	2014	EL DORADO	PASSPORT	Fixed	30	25	TRUE	DIESEL	HC/TC	3000 pts	7/12/2013	NY-90-X668-00	8TRU28	\$ 223,226.00	192,081
67	2015	EL DORADO	PASSPORT	Fixed	30	25	TRUE	DIESEL	HC/TC	3000 pts	12/29/2014	NY-90-X720-00	8TRU62	\$ 238,600.00	221,190
69	2015	EL DORADO	PASSPORT	Fixed	30	25	TRUE	DIESEL	HC/TC	3000 pts	11/24/2015	NY-90-X752-00	8TRU62	\$ 198,627.00	174,658
70	2015	EL DORADO	PASSPORT	Fixed	30	25	TRUE	DIESEL	HC/TC	3000 pts	11/24/2015	NY-90-X752-00	8TRU62	\$ 198,627.00	189,526
71	2015	EL DORADO	PASSPORT	Fixed	30	25	TRUE	DIESEL	HC/TC	3000 pts	11/24/2015	NY-90-X752-00	8TRU62	\$ 198,627.00	167,336
72	2015	ARBOC	SPIRIT	Fixed	24	17	TRUE	Unleaded	CG33803	6L90	07/23/2015	Local Funds	8TRU82	\$ 142,000.00	111,903
73	2017	EL DORADO	PASSPORT	Fixed	30	25	TRUE	DIESEL	HC/TC	B400R	01/25/2017	NY-90-X765-00	8TRU64	\$ 247,855.00	144,261
74	2017	EL DORADO	PASSPORT	Fixed	30	25	TRUE	DIESEL	HC/TC	B400R	01/27/2017	NY-34-0016-00	8TRU84	\$ 247,855.00	137,429
75	2017	EL DORADO	PASSPORT	Fixed	30	25	TRUE	DIESEL	HC/TC	B400R	01/27/2017	NY-34-0016-00	8TRU84	\$ 247,855.00	160,537
76	2017	EL DORADO	PASSPORT	Fixed	30	25	TRUE	DIESEL	HC/TC	B400R	01/25/2017	NY-34-0016-00	8TRU84	\$ 247,855.00	126,470
78	2018	GILLIG	LOW FLOOR	Fixed	30	26	TRUE	DIESEL	Low Floor	B400R	03/12/2018	2017-045	8TRU78	\$ 407,803.00	57,681
79	2018	GILLIG	LOW FLOOR	Fixed	30	26	TRUE	DIESEL	Low Floor	B400R	03/16/2018	2017-045	8TRU78	\$ 407,803.00	50,058
80	2018	ARBOC	SPIRIT	Fixed	26	21	TRUE	Unleaded	CG33803	6L90	10/03/2018	2018-009	8TRU	\$145,500.00	32,100
81	2018	ARBOC	SPIRIT	Fixed	26	21	TRUE	Unleaded	CG33803	6L90	10/03/2018	2018-009	8TRU	\$145,500.00	25,278
82	2018	ARBOC	SPIRIT	Fixed	26	21	TRUE	Unleaded	CG33803	6L90	10/03/2018	2018-009	8TRU	\$145,500.00	36,810
83	2019	GILLIG	LOW FLOOR	Fixed	40	31	TRUE	DIESEL	Low Floor	B400R	03/15/2019	2018-009	8TRU	\$ 433,166.00	13,532
84	2019	ARBOC	LOW FLOOR	Fixed	26		TRUE	GAS	CG33803	6L90	10/02/2018	2019-073	8TRU	\$ 145,540.00	3,923
85	2019	ARBOC	LOW FLOOR	Fixed	26		TRUE	GAS	CG33803	6L90	02/27/2020	2019-073	8TRU	\$ 148,492.00	4,416
86	2019	COACH/FORD	PHOENIX	Fixed	23	18	TRUE	GAS	E-450	Z-TYPE	06/03/2020	2019-038	8TRU	\$ 66,511.00	359
87	2019	COACH/FORD	PHOENIX	Fixed	23	18	TRUE	GAS	E-450	Z-TYPE	06/03/2020	2019-038	8TRU	\$ 66,511.00	368
9072	2007	GILLIG	LOW FLOOR	Fixed	35	32	TRUE	DIESEL	Low Floor	B400R	09/15/2007	NY-03-0425	8TRU22	\$ 307,160.00	330,404
9073	2007	GILLIG	LOW FLOOR	Fixed	35	32	TRUE	DIESEL	Low Floor	B400R	09/15/2007	NY-90-X552-00	8TRU22	\$ 307,160.00	319,877
9111	2011	GILLIG	LOW FLOOR	Fixed	35	32	TRUE	DIESEL	Low Floor	B400R	04/01/2012	NY-96-X024 NY-90-X552	8TRU22	\$ 378,295.00	239,187
9112	2011	GILLIG	LOW FLOOR	Fixed	35	32	TRUE	DIESEL	Low Floor	B400R	04/01/2012	NY-90-X67-00 NY-96-X024	8TRU22	\$ 378,295.00	237,915
9161	2016	FORD	Phoenix	Fixed	23	14	TRUE	GAS	E-450	Z-TYPE	06/20/2016	NY-90-x769-00	8TRU74	\$ 66,511.00	44,915
9162	2016	FORD	Phoenix	Fixed	23	14	TRUE	GAS	E-450	Z-TYPE	06/20/2016	NY-90-x769-00	8TRU74	\$ 66,511.00	46,259





# APPENDIX J: UCAT EV CHARGING ASSUMPTIONS

## **Assumptions for EV Charging Equipment at UCAT Storage Facility**

**11/18/2020**

[ABB Model HVC-C](#) can serve up to 3 depot-box dispensers from one 150KW power cabinet in sequential charging mode. Note: the ABB model is provided as an example, alternate make/models may be used

### **Chargers**

- Assume two (2) HVC 150C power cabinets needed per three (3) parking bays (i.e. six buses).
- Each power cabinet requires 1x 250A circuit breaker (3 phase, 480V) and an external disconnect
- Budgetary estimate for each HVC 150C with three (3) dispensers installed (from the point of connection at the power cabinet): \$180,000
- Power cabinets and depot boxes may be installed overhead or ground mounted

### **Electrical Infrastructure**

- The building service should be sized for the additional peak load for EV charging
- Assume all upgrades to primary service to site are offset by utility incentives

### **Generator/Backup Power**

- Backup power should be provided via automatic transfer for all building loads

### **Attachments:**

ABB HVC-C Data Sheet

HVC-C 150KW Preliminary One-Line Drawing



PRODUCT LEAFLET

# Electric Vehicle Infrastructure

## HVC-C UL depot charging for electric fleets



— HVC Depot Boxes and power cabinets, lined up at a depot site.

### A practical solution for busy depots

ABB Heavy Vehicle Charger (HVC) products enable electric buses and trucks to charge at the depot ensuring flexibility and scale for every fleet operation that is transitioning to zero-emission transportation.

#### Key Benefits

- + Smart charging
- + Small infrastructure footprint at vehicle interface
- + Flexible design for roof and floor mounting
- + SAE J1772 CCS and OCPP 1.6 compliant
- + Remote diagnostics and management tools

### Sequential Charging

Improving total cost of ownership is easy using the sequential charging feature offered by ABB's depot chargers. This feature allows connection of up to three depot charge boxes with a single power cabinet and vehicles are charged sequentially over time. The system can follow an embedded, predefined charging process or remote triggers sent by a fleet management system via OCPP 1.6.

- Vehicles are charged with high power, maximizing vehicle availability
- The required grid connection is smaller, reducing upfront investments and operational costs
- The compact depot box is easy to install at sites with space constraints
- Optimal utilization of installed infrastructure meaning lower investments in charging equipment.

ABB HVC-C UL Depot Charging systems offer a highly reliable, intelligent and cost-effective solution to charge large EV fleets such as buses, trucks and other commercial vehicles.

### Buy America

ABB can offer the HVC-C Depot Charging Solution with compliance to the Buy America Act Rule 49 CFR Part 661.5.

### Future-proof modular design

Power cabinets can be upgraded from 100 or 150 kW in the field, as well as add additional depot charge boxes, allowing operators to scale their operation and to spread investments over time.

### Safe and reliable operation

ABB fast chargers are designed to the highest international electrical, safety, and quality standards, and are certified by notified bodies - guaranteeing safe and reliable operation.

### Connectivity and remote services

ABB chargers come with an extensive suite of connectivity features including remote services such as monitoring, management, diagnostics and software upgrades. These advanced services provide equipment owners with powerful insights into their charging operations while enabling high uptime.

### ABB is your experienced partner

ABB HVC products are based on a decade of high power experience in EV charging solutions. ABB has installed over 13,000 fast charging systems in more than 80 countries – and is the leading EV infrastructure technology supplier globally.

## Overnight charging 100 kW - 150 kW

A field upgradeable system with future proof reliability

HVC 100C



HVC 150C



Upgrade  
→

HVC 150C\*



\* 150 kW overnight charging system with three depot charge boxes; shown mounted on pedestal option.

A power upgrade can be done in the field by adding an extra power module. No groundworks, digging and disturbance to the site are required.

### Technical specifications

Configurations	HVC 100C	HVC 150C
Maximum output power	100 kW	150 kW
AC Input voltage	UL: 3-phase, 480Y/277 VAC +/- 10% (60 Hz) CSA: 3-phase, 600Y/347 VAC +/-10% (60 Hz)	
AC Input connection	L1, L2, L3, GND (no neutral)	
Rated input power	117 kVA	170 kVA
Rated input current	UL: 132 A / CSA: 108 A	UL: 198 A / CSA: 168 A
Recommended upstream circuit breaker(s)	UL: 1 x 200 A / CSA: 1 x 150 A	UL: 1 x 250 A / CSA: 1 x 250 A
Output voltage range	150 – 850 VDC	
Maximum DC output current	166 A	200 A
Vehicle connection interface	CCS/Combo Type 1 Connector	
Cable length	3.5 m (11.5 ft) standard; 7 m (23 ft) optional	
DC connection standard	SAE J1772 - IEC 61851-23 / DIN 70121 - ISO 15118	
Environment	Indoor/Outdoor	
Operating temperature	Standard: -10 °C to +50 °C (de-rating characteristic applies) Optional: -35 °C to +50 °C	
Protection	Power Cabinet: IP54 – IK10 (equivalent to NEMA 3R) Depot Charge Box: IP65 - IK10	
Network connection	GSM/3G modem   10/100 base-T Ethernet	
Compliance and Safety	CSA No. 107.1-16 and UL 2202 certified by TUV BA Rule 49 CFR Part 661.5 (Optional)	
<b>Dimensions</b>		
Power Cabinet	Dimensions (H x W x D)	2030 x 1170 x 770 mm / 79.9 x 46.1 x 30.3 in
	Weight	1340 kg / 2954 lbs
Depot Charge Box (without pedestal)	Dimensions (H x W x D)	800 x 600 x 210 mm / 31.5 x 23.6 x 8.3 in
	Weight	61 kg / 134.5 lbs (with 7 m / 23 ft cable)
Depot Charge Box (with pedestal)	Dimensions (H x W x D)	1914 x 600 x 400 mm / 75.4 x 23.6 x 16.3 in
	Weight	181 kg / 398 lbs (with 7 m / 23 ft cable)

#### ABB Inc.

4050 E. Cotton Center Blvd  
Phoenix, AZ 85040  
United States  
Phone: 800-435-7365  
E-mail: US-evci@us.abb.com

#### ABB Inc.

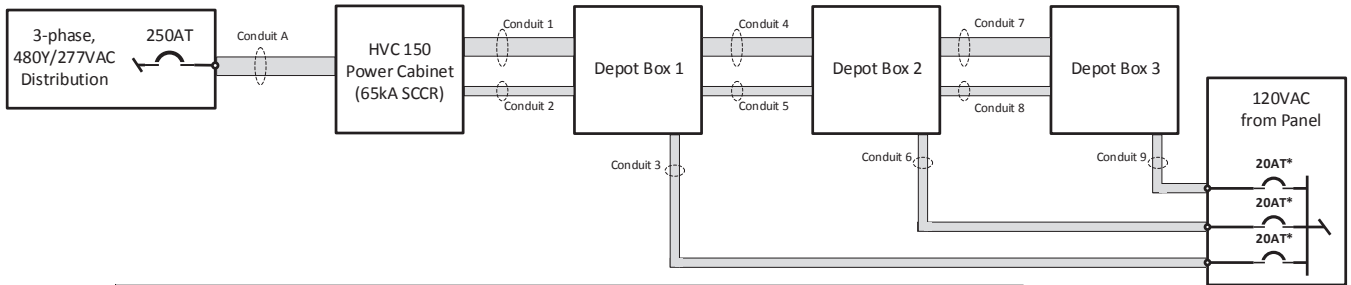
800 Hymus Boulevard  
Saint-Laurent, QC H4S 0B5  
Canada  
Phone: 800-435-7365  
E-mail: CA-evci@abb.com

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[abb.com/evcharging](http://abb.com/evcharging)

**PRELIMINARY (FOR INFORMATION ONLY)**

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CONDUIT IDs	FUNCTION OF INTERNAL CABLES	CABLE SELECTION
A	AC PRIMARY POWER	(3) 250 MCM TO 500 MCM (CU, 75°C, 600V) + (1) #4 AWG (CU, 75°C, 600V, EGC)
1	DC POWER (200A)	(2) 3/0 AWG TO 350 MCM (CU, 75°C, 1KV) + (3) #2 AWG (CU, 75°C, 600V, EGC)
4	DC POWER (200A)	(2) 3/0 AWG TO 350 MCM (CU, 75°C, 1KV) + (2) #2 AWG (CU, 75°C, 600V, EGC)
7	DC POWER (200A)	(2) 3/0 AWG TO 350 MCM (CU, 75°C, 1KV) + (1) #2 AWG (CU, 75°C, 600V, EGC)
2	INTERLOCK	(1) CABLE THAT HAS (1) TWISTED PAIR OF #18 AWG (SHIELDED, 600V, 120Ω CHAR. IMPEDANCE)
	FIBER CAN FIBER ETHERNET	(1) MULTIMODE FIBER (OM3, 8 STRANDS, PCF OR FIBERGLASS, WITH ST CONNECTORS, SEE MANUAL)
5, 8	FIBER CAN	(1) MULTIMODE FIBER (OM3, 4 STRANDS, PCF OR FIBERGLASS, WITH ST CONNECTORS, SEE MANUAL)
	ETHERNET	(1) ETHERNET (S/FTP, CAT6/CAT5e, 600V, 100Ω CHAR. IMPEDANCE, WITH RJ45 CONNECTORS)
	INTERLOCK	(1) CABLE THAT HAS (2) TWISTED PAIRS OF #18 AWG (SHIELDED, 600V, 120Ω CHAR. IMPEDANCE); EACH DC GUARD PAIR SHOULD HAVE TWO WIRES AND THE CABLE SHOULD HAVE FOUR TOTAL WIRES
3, 6, 9	120VAC CONTROL POWER	(1) CABLE THAT HAS (2) #12 AWG (CU, 75°C, 600V) + (1) #12 AWG (CU, 75°C, 600V, EGC)

\* Control power feeds to depot boxes must have 30mA Ground Fault Circuit Interrupter and support max inrush current of 100A for < 5ms

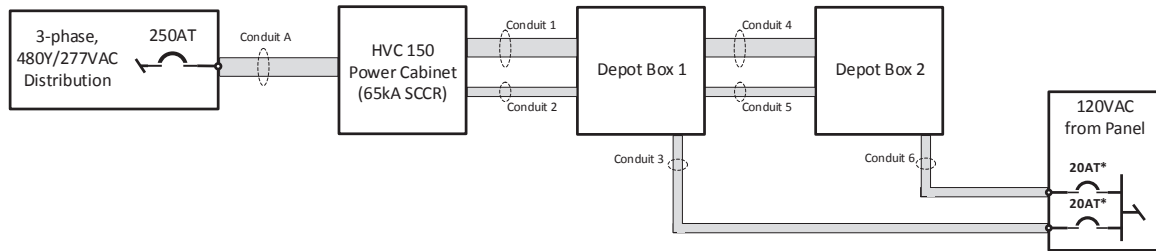
- N1. Equipment enclosures must be externally labeled according to local codes by the installing contractor to notify service personnel to verify absence of voltage from more than one power source.
- N2. Customer must ensure wire sizes for main AC input (in conduit A), DC power (in conduits 1, 4, & 7), and control power (in conduits 3, 6, & 9) maintain an acceptable voltage drop based on their lengths and account for other application specific requirements. There shall be no greater than 2% voltage drop on the complete DC cabling between the HVC power cabinet and the depot box which has the farthest total DC cable distance from the HVC power cabinet. Voltage drop calculations for the DC cable runs shall be performed using 200ADC and the lowest expected electric vehicle battery voltage from the HVC power cabinet output as assumptions. Typically 300VDC is a sufficient worst case assumption for the lowest expected electric vehicle battery voltage, however, it is the customer's responsibility to ensure this is sufficient for each specific application. Voltage drop assumptions and calculations for the AC cables must be defined by the customer.
- N3. Each depot box must have an equipment ground conductor directly connected to the HVC 150 power cabinet. As a result conduit IDs 1 & 4 show more than one equipment ground conductor.
- N4. It is recommended to consider installing conduits for the future use case if applicable. For example, if on Day One only one or two depot boxes are installed and there is a possibility the site owner would want two or three depot boxes installed in the future, consider installing the conduits for the future possible depot boxes on Day One also. See ABB's conduit and cable concept for the future use case scenario if applicable.
- N5. This concept does not show the presence of ground electrodes. It is the responsibility of the customer to determine if a ground electrode per each HVC power cabinet and depot box is required. See the product installation manual for more details.



TITLE					
HVC-C 150kW Charging System - Conduits & Cables for (3) Depot Boxes					
REV	DATE	BY	DESCRIPTION	DRAWING	REV
A	28/AUG/20	-	PRELIMINARY FOR DISCUSSION	-	A
-	-	-	-	-	-
-	-	-	-	-	-

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\* Control power feeds to depot boxes must have 30mA Ground Fault Circuit Interrupter and support max inrush current of 100A for < 5ms

CONDUIT IDs	FUNCTION OF INTERNAL CABLES	CABLE SELECTION
A	AC PRIMARY POWER	(3) 250 MCM TO 500 MCM (CU, 75°C, 600V) + (1) #4 AWG (CU, 75°C, 600V, EGC)
1	DC POWER (200A)	(2) 3/0 AWG TO 350 MCM (CU, 75°C, 1KV) + (2) #2 AWG (CU, 75°C, 600V, EGC)
4	DC POWER (200A)	(2) 3/0 AWG TO 350 MCM (CU, 75°C, 1KV) + (1) #2 AWG (CU, 75°C, 600V, EGC)
2	INTERLOCK	(1) CABLE THAT HAS (1) TWISTED PAIR OF #18 AWG (SHIELDED, 600V, 120Ω CHAR. IMPEDANCE)
	FIBER CAN FIBER ETHERNET	(1) MULTIMODE FIBER (OM3, 8 STRANDS, PCF OR FIBERGLASS, WITH ST CONNECTORS, SEE MANUAL)
5	FIBER CAN	(1) MULTIMODE FIBER (OM3, 4 STRANDS, PCF OR FIBERGLASS, WITH ST CONNECTORS, SEE MANUAL)
	ETHERNET	(1) ETHERNET (S/FTP, CAT6/CAT5e, 600V, 100Ω CHAR. IMPEDANCE, WITH RJ45 CONNECTORS)
	INTERLOCK DC GUARD	(1) CABLE THAT HAS (2) TWISTED PAIRS OF #18 AWG (SHIELDED, 600V, 120Ω CHAR. IMPEDANCE); EACH PAIR SHOULD HAVE TWO WIRES AND THE CABLE SHOULD HAVE FOUR TOTAL WIRES
3, 6	120VAC CONTROL POWER	(1) CABLE THAT HAS (2) #12 AWG (CU, 75°C, 600V) + (1) #12 AWG (CU, 75°C, 600V, EGC)

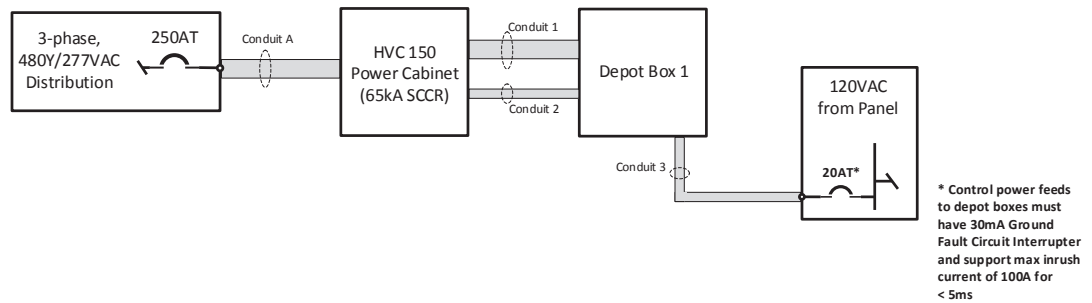
- N1. Equipment enclosures must be externally labeled according to local codes by the installing contractor to notify service personnel to verify absence of voltage from more than one power source.
- N2. Customer must ensure wire sizes for main AC input (in conduit A), DC power (in conduits 1, 4, & 7), and control power (in conduits 3, 6, & 9) maintain an acceptable voltage drop based on their lengths and account for other application specific requirements. There shall be no greater than 2% voltage drop on the complete DC cabling between the HVC power cabinet and the depot box which has the farthest total DC cable distance from the HVC power cabinet. Voltage drop calculations for the DC cable runs shall be performed using 200ADC and the lowest expected electric vehicle battery voltage from the HVC power cabinet output as assumptions. Typically 300VDC is a sufficient worst case assumption for the lowest expected electric vehicle battery voltage, however, it is the customer's responsibility to ensure this is sufficient for each specific application. Voltage drop assumptions and calculations for the AC cables must be defined by the customer.
- N3. Each depot box must have an equipment ground conductor directly connected to the HVC 150 power cabinet. As a result conduit IDs 1 & 4 show more than one equipment ground conductor.
- N4. It is recommended to consider installing conduits for the future use case if applicable. For example, if on Day One only one or two depot boxes are installed and there is a possibility the site owner would want two or three depot boxes installed in the future, consider installing the conduits for the future possible depot boxes on Day One also. See ABB's conduit and cable concept for the future use case scenario if applicable.
- N5. This concept does not show the presence of ground electrodes. It is the responsibility of the customer to determine if a ground electrode per each HVC power cabinet and depot box is required. See the product installation manual for more details.



TITLE				
HVC-C 150kW Charging System - Conduits & Cables for (2) Depot Boxes				
REV	DATE	BY	DESCRIPTION	DRAWING
A	28/AUG/20	-	PRELIMINARY FOR DISCUSSION	-
-	-	-	-	-
-	-	-	-	-

**PRELIMINARY (FOR INFORMATION ONLY)**

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CONDUIT IDs	FUNCTION OF INTERNAL CABLES	CABLE SELECTION
A	AC PRIMARY POWER	(3) 250 MCM TO 500 MCM (CU, 75°C, 600V) + (1) #4 AWG (CU, 75°C, 600V, EGC)
1	DC POWER (200A)	(2) 3/0 AWG TO 350 MCM (CU, 75°C, 1KV) + (1) #2 AWG (CU, 75°C, 600V, EGC)
2	INTERLOCK	(1) CABLE THAT HAS (1) TWISTED PAIR OF #18 AWG (SHIELDED, 600V, 120Ω CHAR. IMPEDANCE)
	FIBER CAN	(1) MULTIMODE FIBER (OM3, 8 STRANDS, PCF OR FIBERGLASS, WITH ST CONNECTORS, SEE MANUAL)
FIBER ETHERNET		
3	120VAC CONTROL POWER	(1) CABLE THAT HAS (2) #12 AWG (CU, 75°C, 600V) + (1) #12 AWG (CU, 75°C, 600V, EGC)

- N1. Equipment enclosures must be externally labeled according to local codes by the installing contractor to notify service personnel to verify absence of voltage from more than one power source.
- N2. Customer must ensure wire sizes for main AC input (in conduit A), DC power (in conduits 1, 4, & 7), and control power (in conduits 3, 6, & 9) maintain an acceptable voltage drop based on their lengths and account for other application specific requirements. There shall be no greater than 2% voltage drop on the complete DC cabling between the HVC power cabinet and the depot box which has the farthest total DC cable distance from the HVC power cabinet. Voltage drop calculations for the DC cable runs shall be performed using 200ADC and the lowest expected electric vehicle battery voltage from the HVC power cabinet output as assumptions. Typically 300VDC is a sufficient worst case assumption for the lowest expected electric vehicle battery voltage, however, it is the customer's responsibility to ensure this is sufficient for each specific application. Voltage drop assumptions and calculations for the AC cables must be defined by the customer.
- N3. Each depot box must have an equipment ground conductor directly connected to the HVC 150 power cabinet. As a result conduit IDs 1 & 4 show more than one equipment ground conductor.
- N4. It is recommended to consider installing conduits for the future use case if applicable. For example, if on Day One only one or two depot boxes are installed and there is a possibility the site owner would want two or three depot boxes installed in the future, consider installing the conduits for the future possible depot boxes on Day One also. See ABB's conduit and cable concept for the future use case scenario if applicable.
- N5. This concept does not show the presence of ground electrodes. It is the responsibility of the customer to determine if a ground electrode per each HVC power cabinet and depot box is required. See the product installation manual for more details.



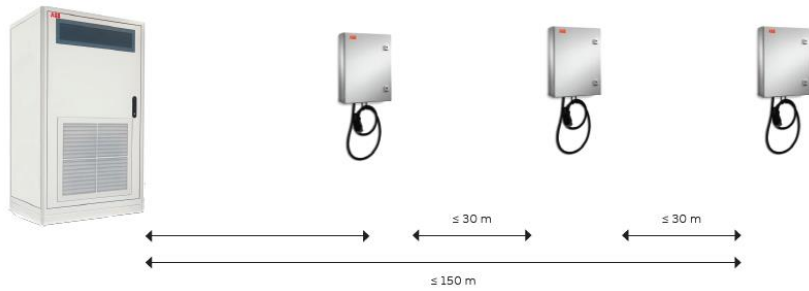
TITLE				
HVC-C 150kW Charging System - Conduits & Cables for (1) Depot Box				
REV	DATE	BY	DESCRIPTION	REV
A	28/AUG/20	-	PRELIMINARY FOR DISCUSSION	
-	-	-	-	
-	-	-	-	
				DRAWING
				A



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**Distance limitation**



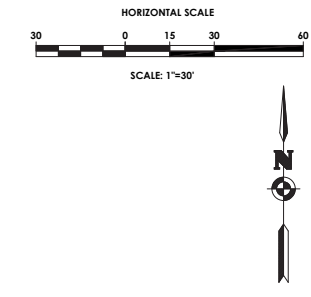
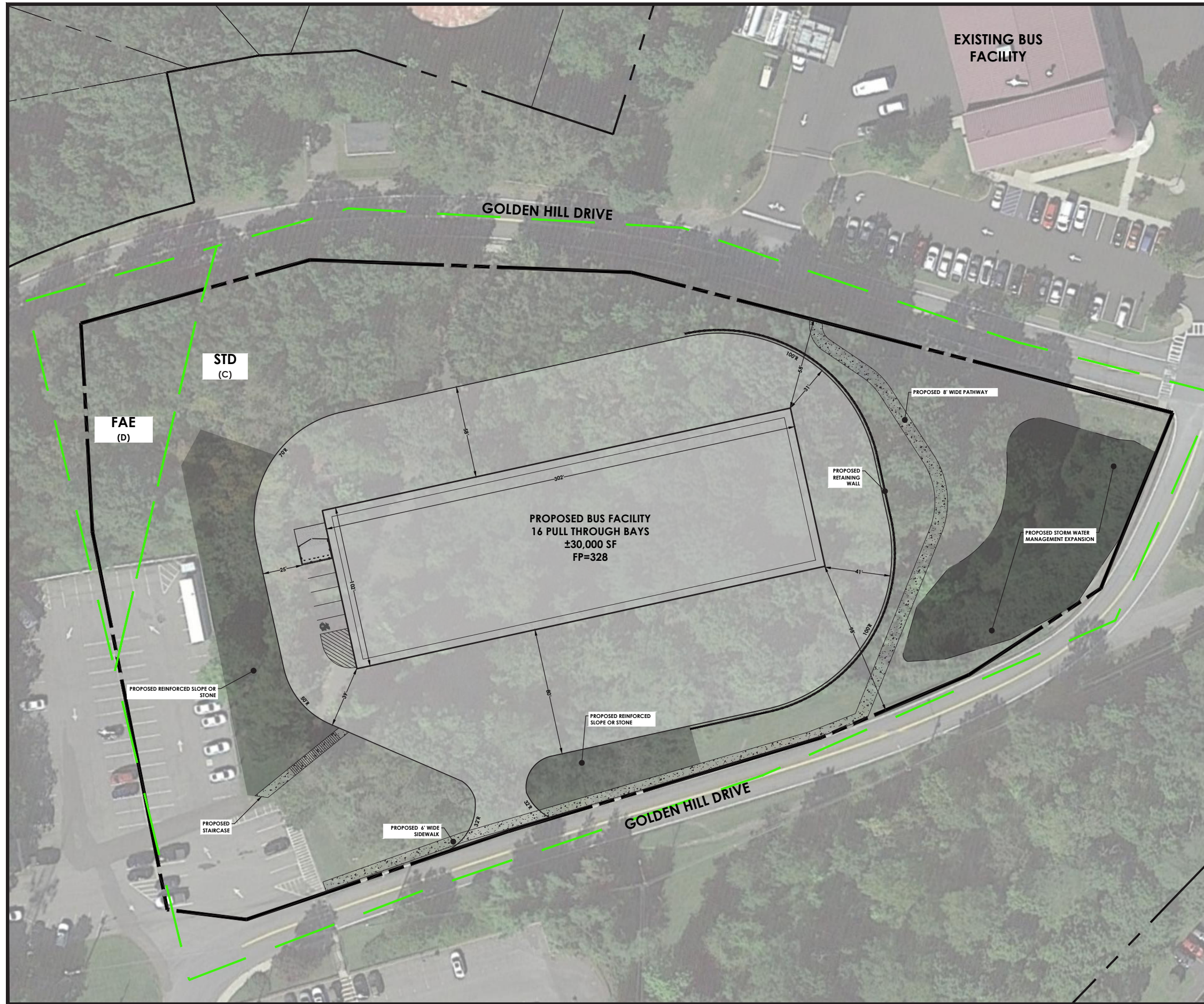
**More details on cable entry into the depot box coming soon...**



TITLE					
HVC-C 150kW Charging System – Misc. Install Considerations					
REV.	DATE	BY	DESCRIPTION	DRAWING	REV.
A	28/AUG/20	-	PRELIMINARY FOR DISCUSSION		A
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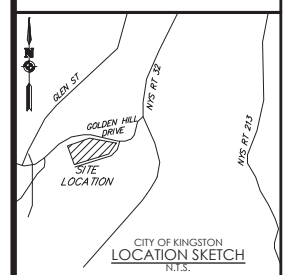
# APPENDIX K: PREVIOUS CONCEPT ITERATIONS / ALTERNATIVES





**SITE DATA**

1. TAX ACCOUNT NUMBER: 56.40-1-19.300
2. PARCEL ADDRESS: GOLDEN HILL DRIVE
3. TOTAL PARCEL AREA: 41.02 ACRES (1,786,828 SF)  
TOTAL PROJECT AREA: 4.41 ACRES (192,070 SF.)  
TOTAL PROJECT IMPERVIOUS AREA: XX ACRES (XX SF.)  
TOTAL PROJECT GREENSPACE AREA: XX ACRES (XX SF.)
4. EXISTING ZONING: RRR ONE-FAMILY RESIDENTIAL
5. PROPOSED ZONING: RRR ONE-FAMILY RESIDENTIAL
6. EXISTING USE: VACANT
7. PROPOSED USE: BUS FACILITY
8. THERE ARE NO FEDERALLY REGULATED WETLANDS ON THIS PARCEL ACCORDING TO THE USACOE FEDERAL WETLAND INVENTORY.
9. THERE ARE NO STATE REGULATED WETLANDS ON THIS PARCEL ACCORDING TO NYSDEC WETLAND INVENTORY. THERE IS RARE PLANTS AND / OR ANIMALS REPORTED.
10. PROPERTY IS LOCATED IN FLOOD PLAIN X PER FIRM MAP COMMUNITY PANEL NO. 36111C0470F DATED 11/18/2016.
11. STORM SEWER AND DRAINAGE FACILITIES WILL BE PRIVATE.
12. ALL IMPROVEMENTS SHALL BE MADE IN ACCORDANCE WITH THE CURRENT DEVELOPMENT STANDARDS AND SPECIFICATIONS OF THE MUNICIPALITY.



Client:  
**ULSTER COUNTY**  
1 DANNY CIRCLE  
KINGSTON, NY 12401

**ZONING REQUIREMENTS - ONE-FAMILY RESIDENTIAL (RRR)**

	REQUIRED	PROPOSED
<b>LOT</b>		
WIDTH	100'	>100'
DEPTH	125'	>125'
AREA	12,500	1,786,828 SF
<b>BUILDING SETBACK</b>		
FRONT	30' (25' OF FRONT BUILDING FACE IS >25° ANGLED FROM ROAD)	58' TO GOLDEN HILL ROAD
SIDE	27' FOR ONE SIDE >15' FOR OTHER SIDE	>27'
REAR	30'	98' TO GOLDEN HILL ROAD
<b>BUILDING</b>		
HEIGHT	35'	28'-0"
LOT COVERAGE	30%	15.6% OF PROJECT AREA
<b>PARKING</b>		
STALL SIZE (PERPENDICULAR)	9'X18'	9'X18'
DRIVE AISLE WIDTH	24'	24'

**PASSERO ASSOCIATES**  
242 West Main Street Suite 100  
Rochester, New York 14614  
Tel: (585) 325-1891  
Principal-in-Charge: Dan Savage, PE.  
Project Manager: Dan Savage, PE.  
Designed by: Austin Goodwin, EIT.



Revisions

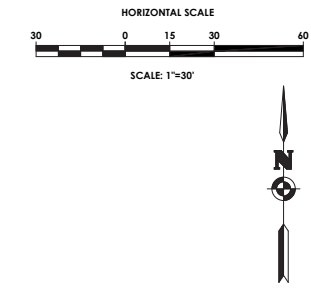
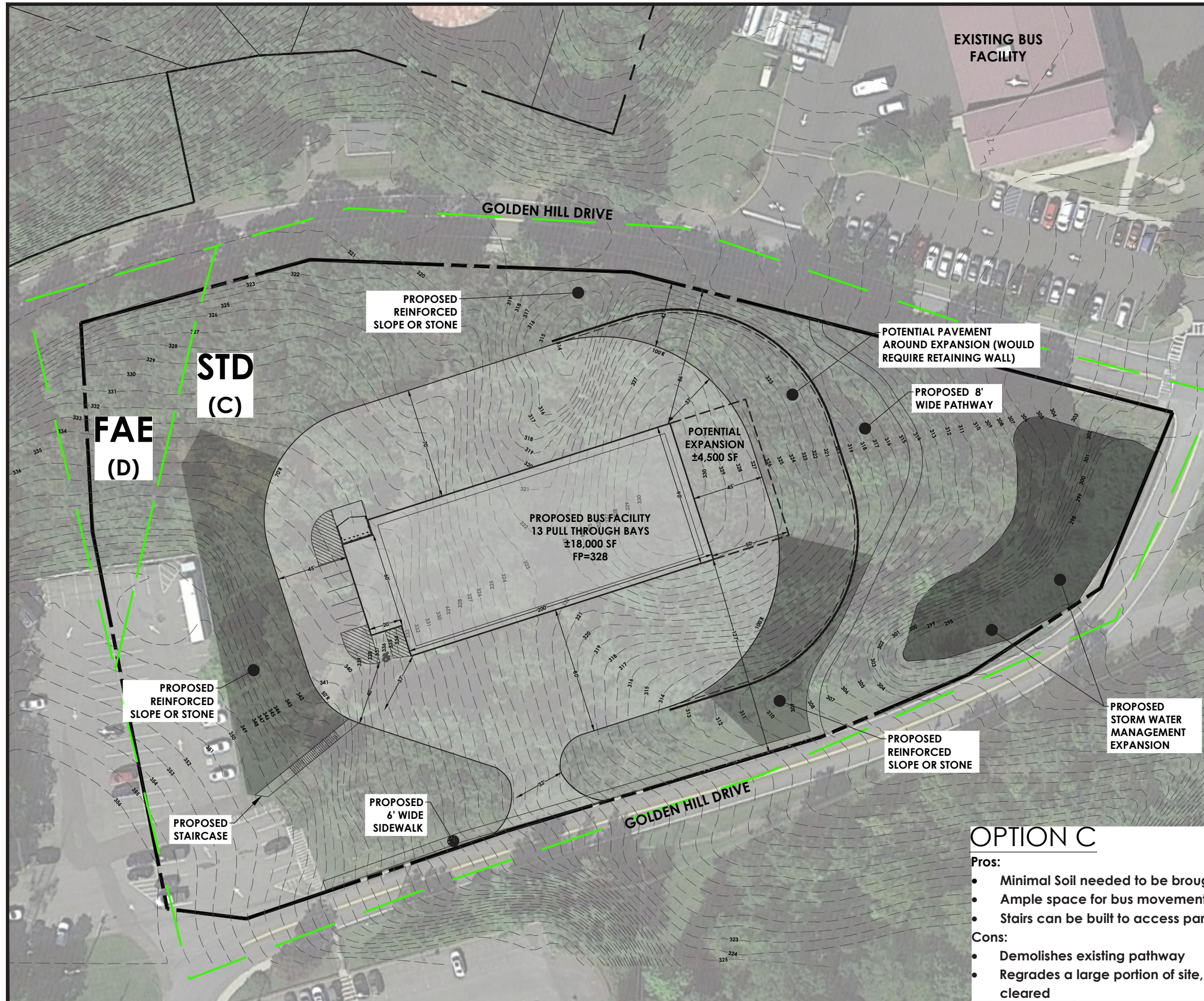
No.	Date	By	Description
1			

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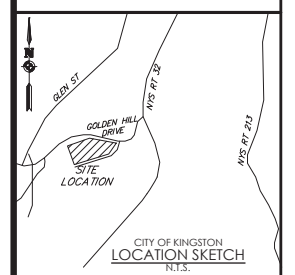
**GOLDEN HILL LOCATION CONCEPT  
ULSTER COUNTY FLEET GARAGE FACILITY**

Town/City: ULSTER  
County: ULSTER State: NEW YORK  
Project No:  
**20202987.0001**  
Drawing No. Sheet No.  
**C 101 1**  
Scale:  
**1" = 30'**  
Date:  
**OCTOBER 2020**

NOT FOR CONSTRUCTION



- SITE DATA**
- TAX ACCOUNT NUMBER: 56.40-1-19.300
  - PARCEL ADDRESS: GOLDEN HILL DRIVE
  - TOTAL PARCEL AREA: 41.02 ACRES (1,786,828 SF)  
TOTAL PROJECT AREA: 4.41 ACRES (192,070 SF.)  
TOTAL PROJECT IMPERVIOUS AREA: XX ACRES (XX SF.)  
TOTAL PROJECT GREENSPACE AREA: XX ACRES (XX SF.)
  - EXISTING ZONING: RRR ONE-FAMILY RESIDENTIAL
  - PROPOSED ZONING: RRR ONE-FAMILY RESIDENTIAL
  - EXISTING USE: VACANT
  - PROPOSED USE: BUS FACILITY
  - THERE ARE NO FEDERALLY REGULATED WETLANDS ON THIS PARCEL ACCORDING TO THE USACE FEDERAL WETLAND INVENTORY.
  - THERE ARE NO STATE REGULATED WETLANDS ON THIS PARCEL ACCORDING TO NYSDEC WETLAND INVENTORY. THERE IS RARE PLANTS AND / OR ANIMALS REPORTED.
  - PROPERTY IS LOCATED IN FLOOD PLAIN X PER FIRM MAP COMMUNITY PANEL NO. 36111C0470F DATED 11/18/2016.
  - STORM SEWER AND DRAINAGE FACILITIES WILL BE PRIVATE.
  - ALL IMPROVEMENTS SHALL BE MADE IN ACCORDANCE WITH THE CURRENT DEVELOPMENT STANDARDS AND SPECIFICATIONS OF THE MUNICIPALITY.



Client:  
**ULSTER COUNTY**  
 1 DANNY CIRCLE  
 KINGSTON, NY 12401

**ZONING REQUIREMENTS - ONE-FAMILY RESIDENTIAL (RRR)**

	REQUIRED	PROPOSED
<b>LOT</b>		
WIDTH	100'	>100'
DEPTH	125'	>125'
AREA	12,500	1,786,828 SF
<b>BUILDING SETBACK</b>		
FRONT	30' (25' OF FRONT BUILDING FACE IS >25° ANGLED FROM ROAD)	127'
SIDE	27' FOR ONE SIDE >15' FOR OTHER SIDE	>27'
REAR	30'	97'
<b>BUILDING</b>		
HEIGHT	35'	
LOT COVERAGE	30%	
<b>PARKING</b>		
STALL SIZE (PERPENDICULAR)	9'X18'	9'X18
DRIVE AISLE WIDTH	24'	24'

**PASSERO ASSOCIATES**  
 242 West Main Street Suite 100  
 Rochester, New York 14614  
 (585) 325-1000  
 Fax: (585) 325-1891  
 Principal-in-Charge: Dan Savage, PE.  
 Project Manager: Dan Savage, PE.  
 Designed by: Austin Goodwin, EIT.



**Revisions**

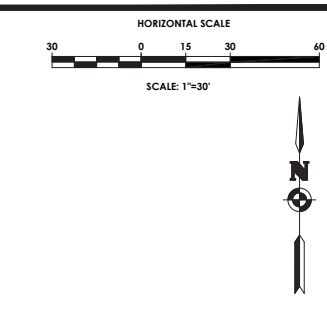
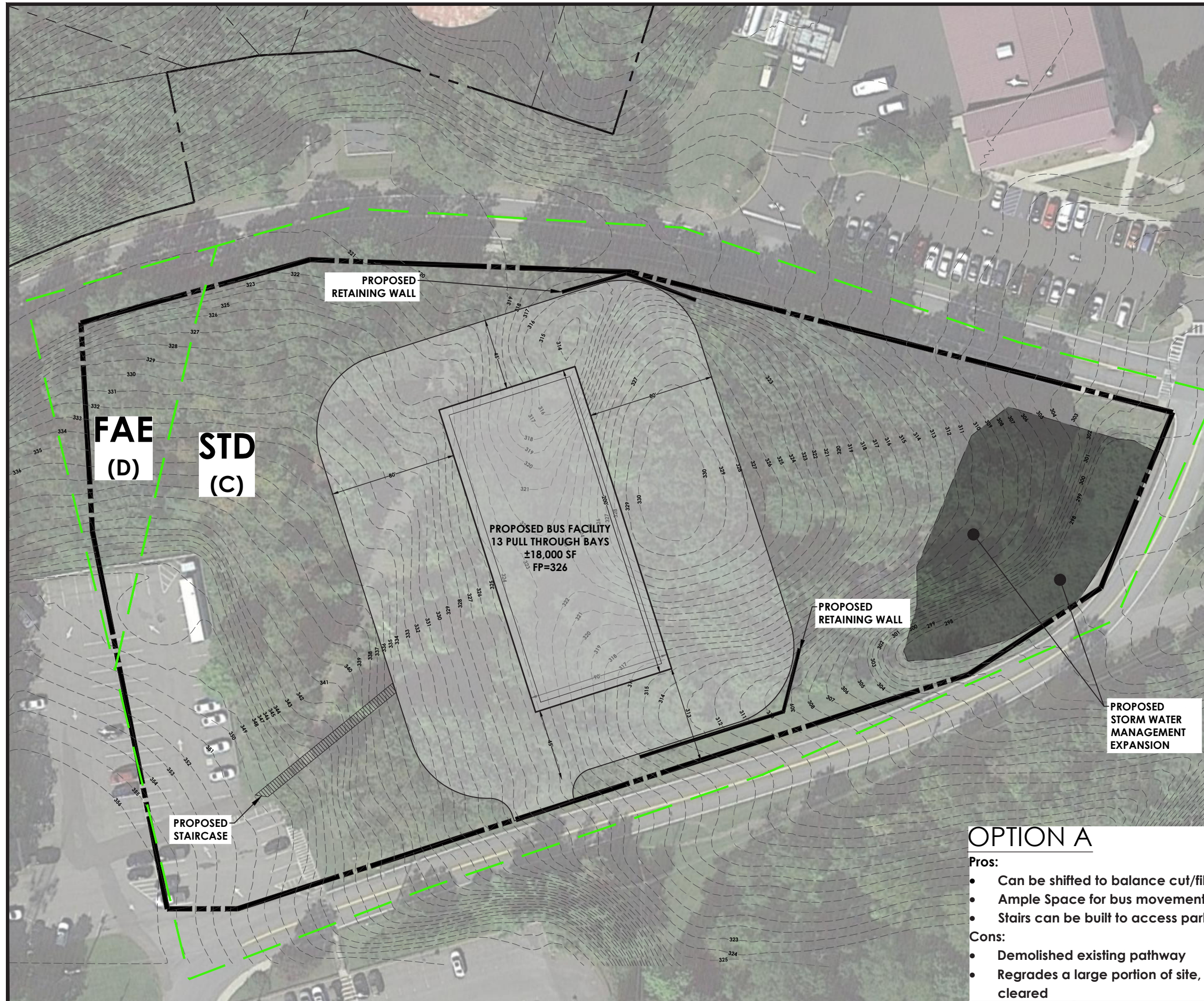
No.	Date	By	Description
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**GOLDEN HILL LOCATION CONCEPT  
 ULSTER COUNTY FLEET GARAGE FACILITY**

Town/City: ULSTER  
 County: ULSTER State: NEW YORK  
 Project No: 20202987.0001  
 Drawing No: C 101 Sheet No: 1  
 Scale: 1" = 30'  
 Date: OCTOBER 2020

**OPTION C**

- Pros:**
- Minimal Soil needed to be brought on/off site.
  - Ample space for bus movement.
  - Stairs can be built to access parking lot.
- Cons:**
- Demolishes existing pathway
  - Regrades a large portion of site, majority of trees on site will be cleared



- SITE DATA**
- TAX ACCOUNT NUMBER: 56.40-1-19.300
  - PARCEL ADDRESS: GOLDEN HILL DRIVE
  - TOTAL PARCEL AREA: 41.02 ACRES (1,786,828 SF)  
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  - THERE ARE NO FEDERALLY REGULATED WETLANDS ON THIS PARCEL ACCORDING TO THE USACE FEDERAL WETLAND INVENTORY.
  - THERE ARE NO STATE REGULATED WETLANDS ON THIS PARCEL ACCORDING TO NYSDEC WETLAND INVENTORY. THERE IS RARE PLANTS AND / OR ANIMALS REPORTED.
  - PROPERTY IS LOCATED IN FLOOD PLAIN X PER FIRM MAP COMMUNITY PANEL NO. 3611C0470F DATED 11/18/2016.
  - STORM SEWER AND DRAINAGE FACILITIES WILL BE PRIVATE.
  - ALL IMPROVEMENTS SHALL BE MADE IN ACCORDANCE WITH THE CURRENT DEVELOPMENT STANDARDS AND SPECIFICATIONS OF THE MUNICIPALITY.

ZONING REQUIREMENTS - ONE-FAMILY RESIDENTIAL (RRR)		
	REQUIRED	PROPOSED
<b>LOT</b>		
WIDTH	100'	>100'
DEPTH	125'	>125'
AREA	12,500	1,786,828 SF
<b>BUILDING SETBACK</b>		
FRONT	30' (25' OF FRONT BUILDING FACE IS >25° ANGLED FROM ROAD)	
SIDE	27' FOR ONE SIDE >15' FOR OTHER SIDE	
REAR	30'	
<b>BUILDING</b>		
HEIGHT	35'	
LOT COVERAGE	30%	
<b>PARKING</b>		
STALLS		
STALL SIZE (PERPENDICULAR)	9'X18'	9'X18'
DRIVE AISLE WIDTH	24'	24'

Client:  
ULSTER COUNTY  
1 DANNY CIRCLE  
KINGSTON, NY 12401

**PASSERO ASSOCIATES**  
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Principal-In-Charge: Dan Savage, PE.  
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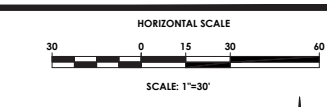
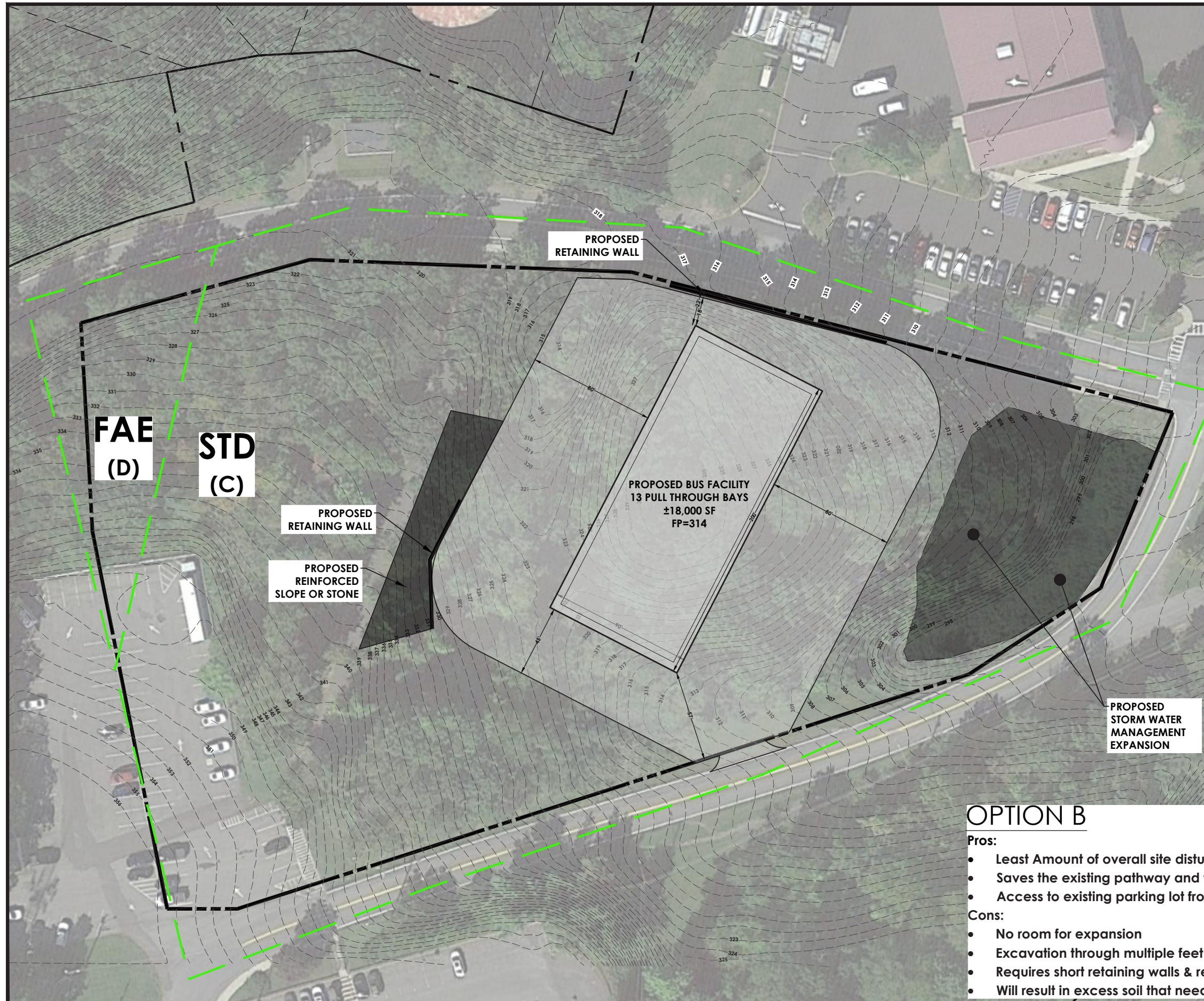
Revisions			
No.	Date	By	Description
1			

GOLDEN HILL  
LOCATION CONCEPT  
ULSTER COUNTY FLEET  
GARAGE FACILITY

Town/City: ULSTER  
County: ULSTER State: NEW YORK  
Project No: 20202987.0001  
Drawing No: C 101 Sheet No: 1  
Scale: 1" = 30'  
Date: OCTOBER 2020

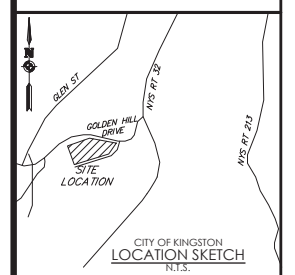
- OPTION A**
- Pros:**
- Can be shifted to balance cut/fill of soils.
  - Ample Space for bus movement
  - Stairs can be built to access parking lot
- Cons:**
- Demolished existing pathway
  - Regrades a large portion of site, majority of trees on site will be cleared

NOT FOR CONSTRUCTION



**SITE DATA**

1. TAX ACCOUNT NUMBER: 56.40-1-19.300
2. PARCEL ADDRESS: GOLDEN HILL DRIVE
3. TOTAL PARCEL AREA: 41.02 ACRES (1,786,828 SF)  
TOTAL PROJECT AREA: 4.41 ACRES (192,070 SF.)  
TOTAL PROJECT IMPERVIOUS AREA: XX ACRES (XX SF.)  
TOTAL PROJECT GREENSPACE AREA: XX ACRES (XX SF.)
4. EXISTING ZONING: RRR ONE-FAMILY RESIDENTIAL
5. PROPOSED ZONING: RRR ONE-FAMILY RESIDENTIAL
6. EXISTING USE: VACANT
7. PROPOSED USE: BUS FACILITY
8. THERE ARE NO FEDERALLY REGULATED WETLANDS ON THIS PARCEL ACCORDING TO THE USACE FEDERAL WETLAND INVENTORY.
9. THERE ARE NO STATE REGULATED WETLANDS ON THIS PARCEL ACCORDING TO NYSDEC WETLAND INVENTORY. THERE IS RARE PLANTS AND / OR ANIMALS REPORTED.
10. PROPERTY IS LOCATED IN FLOOD PLAIN X PER FIRM MAP COMMUNITY PANEL NO. 36111C0470F DATED 11/18/2016.
11. STORM SEWER AND DRAINAGE FACILITIES WILL BE PRIVATE.
12. ALL IMPROVEMENTS SHALL BE MADE IN ACCORDANCE WITH THE CURRENT DEVELOPMENT STANDARDS AND SPECIFICATIONS OF THE MUNICIPALITY.



Client:  
**ULSTER COUNTY**  
1 DANNY CIRCLE  
KINGSTON, NY 12401

ZONING REQUIREMENTS - ONE-FAMILY RESIDENTIAL (RRR)		
	REQUIRED	PROPOSED
<b>LOT</b>		
WIDTH	100'	>100'
DEPTH	125'	>125'
AREA	12,500	1,786,828 SF
<b>BUILDING SETBACK</b>		
FRONT	30' (25' OF FRONT BUILDING FACE IS >25' ANGLED FROM ROAD)	57'
SIDE	27' FOR ONE SIDE >15' FOR OTHER SIDE	>27'
REAR	30'	22'
<b>BUILDING</b>		
HEIGHT	35'	
LOT COVERAGE	30%	
<b>PARKING</b>		
STALLS		
STALL SIZE (PERPENDICULAR)	9'X18'	9'X18'
DRIVE AISLE WIDTH	24'	24'

**PASSERO ASSOCIATES**  
242 West Main Street Suite 100  
Rochester, New York 14614  
(585) 325-1000  
Fax: (585) 325-1891  
Principal-in-Charge: Dan Savage, PE.  
Project Manager: Dan Savage, PE.  
Designed by: Austin Goodwin, EIT.



Revisions			
No.	Date	By	Description
1			

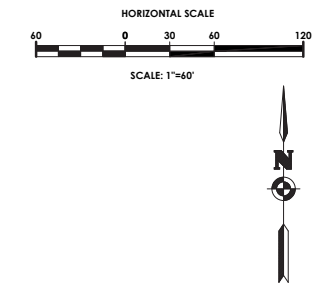
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**GOLDEN HILL LOCATION CONCEPT**  
**ULSTER COUNTY FLEET GARAGE FACILITY**

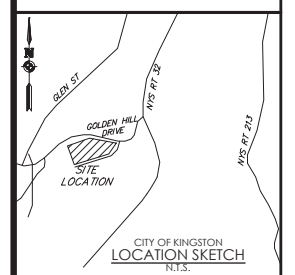
Town/City: ULSTER  
County: ULSTER State: NEW YORK  
Project No: 20202987.0001  
Drawing No: C 101 Sheet No: 1  
Scale: 1" = 30'  
Date: NOVEMBER 2020

**OPTION B**

- Pros:**
- Least Amount of overall site disturbance
  - Saves the existing pathway and trees to the west.
  - Access to existing parking lot from existing pathway
- Cons:**
- No room for expansion
  - Excavation through multiple feet of bedrock is highly likely
  - Requires short retaining walls & reinforced slopes or stone
  - Will result in excess soil that needs to be trucked off site



- SITE DATA**
- TAX ACCOUNT NUMBER: 48.7-1-29.100
  - PARCEL ADDRESS: 101-899 ENTERPRISE DRIVE, ULSTER, NY 12401
  - TOTAL PARCEL AREA: 24.64 ACRES (1,073,483 SF)
  - TOTAL PROJECT AREA: 2.59 ACRES (113,000 SF)
  - TOTAL IMPERVIOUS AREA: 17.48 ACRES (770,248 SF)
  - TOTAL GREENSPACE AREA: 6.96 ACRES (303,215 SF)
  - EXISTING ZONING: OFFICE AND MANUFACTURING DISTRICT (OM)
  - PROPOSED ZONING: OFFICE AND MANUFACTURING DISTRICT (OM)
  - EXISTING USE: VACANT
  - PROPOSED USE: BUS FACILITY
  - THERE ARE NO FEDERALLY REGULATED WETLANDS ON THIS PARCEL ACCORDING TO THE USACE FEDERAL WETLAND INVENTORY.
  - THERE ARE NO STATE REGULATED WETLANDS ON THIS PARCEL ACCORDING TO NYSDEC WETLAND INVENTORY. THERE IS RARE PLANTS AND / OR ANIMALS REPORTED.
  - PROPERTY IS LOCATED IN ZONE X PER FIRM MAP COMMUNITY PANEL NO. 36111C046F DATED 11/18/2016.
  - STORM SEWER AND DRAINAGE FACILITIES WILL BE PRIVATE.
  - ALL IMPROVEMENTS SHALL BE MADE IN ACCORDANCE WITH THE CURRENT DEVELOPMENT STANDARDS AND SPECIFICATIONS OF THE MUNICIPALITY.



ZONING REQUIREMENTS - OFFICE AND MANUFACTURING (OM)		
	REQUIRED	PROPOSED
<b>LOT</b>		
WIDTH	N/A	1,451'
DEPTH	N/A	953'
AREA	N/A	1,073,483 SF
<b>BUILDING SETBACK</b>		
FRONT	40'	143'-0"
SIDE	10'	217'-0"
REAR	10'	>10'
<b>PARKING SETBACKS</b>		
FRONT YARD SETBACK	10'	EXISTING
<b>BUILDING</b>		
HEIGHT	75'	28'-0"
GREEN SPACE	10%	EXISTING +11,200 SF ADDED GREENSPACE
LOT COVERAGE	50%	2.6% (NOT COUNTING EXISTING STRUCTURE)
<b>PARKING</b>		
STALL SIZE (PERPENDICULAR)	9'X18'	9'X18'
DRIVE AISLE WIDTH	24'	24'

Client:  
**ULSTER COUNTY**  
 1 DANNY CIRCLE  
 KINGSTON, NY 12401

**PASSERO ASSOCIATES**  
 242 West Main Street Suite 100  
 Rochester, New York 14614  
 (585) 325-1900  
 Fax: (585) 325-1491  
 Principal-in-Charge: Dan Savage, PE.  
 Project Manager: Dan Savage, PE.  
 Designed by: Austin Goodwin, EIT.



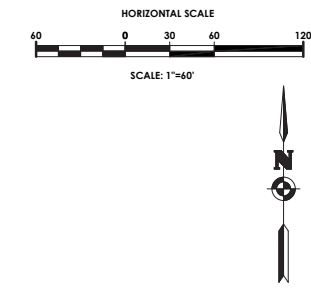
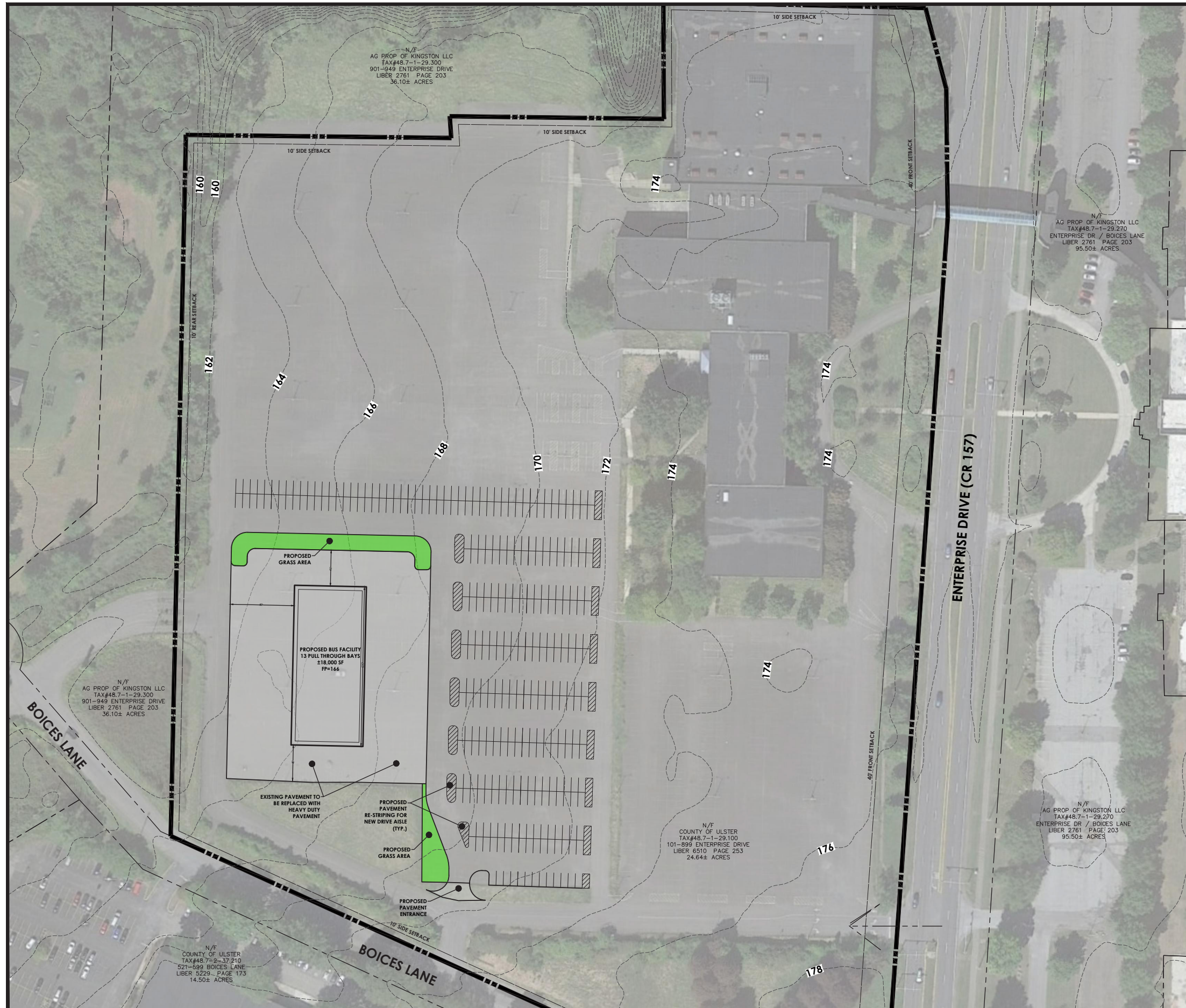
Revisions			
No.	Date	By	Description
1			

**SITE #1**  
**BASEMAP**  
**ULSTER COUNTY FLEET**  
**GARAGE FACILITY**

Town/City: ULSTER  
 County: ULSTER State: NEW YORK  
 Project No:  
**20202987.0001**  
 Drawing No. Sheet No.  
**C 101 1**  
 Scale:  
**1" = 60'**  
 Date:  
**OCTOBER 2020**

NOT FOR CONSTRUCTION





**SITE DATA**

1. TAX ACCOUNT NUMBER: 48.7-1-29.100
2. PARCEL ADDRESS: 101-899 ENTERPRISE DRIVE, ULSTER, NY 12401
3. TOTAL PARCEL AREA: 24.64 ACRES (1,073,483 SF)
4. TOTAL PROJECT AREA: XX ACRES (XX SF.)
5. TOTAL IMPERVIOUS AREA: 17.48 ACRES (770,268 SF.)
6. TOTAL GREENSPACE AREA: 6.96 ACRES (303,215 SF.)
7. EXISTING ZONING: OFFICE AND MANUFACTURING DISTRICT (OM)
8. PROPOSED ZONING: OFFICE AND MANUFACTURING DISTRICT (OM)
9. EXISTING USE: VACANT
10. PROPOSED USE: BUS FACILITY
11. THERE ARE NO FEDERALLY REGULATED WETLANDS ON THIS PARCEL ACCORDING TO THE USACOE FEDERAL WETLAND INVENTORY.
12. THERE ARE NO STATE REGULATED WETLANDS ON THIS PARCEL ACCORDING TO NYSDEC WETLAND INVENTORY. THERE IS RARE PLANTS AND / OR ANIMALS REPORTED.
13. PROPERTY IS LOCATED IN FLOOD PLAIN X PER FIRM MAP COMMUNITY PANEL NO. 36111 CD460F DATED 11/18/2016. A PORTION OF THE SITE IS WITHIN THE 500 YEAR FLOODPLAIN (PART OF ZONE X, MINIMAL HAZARD)
14. STORM SEWER AND DRAINAGE FACILITIES WILL BE PRIVATE.
15. ALL IMPROVEMENTS SHALL BE MADE IN ACCORDANCE WITH THE CURRENT DEVELOPMENT STANDARDS AND SPECIFICATIONS OF THE MUNICIPALITY.

**ZONING REQUIREMENTS - OFFICE AND MANUFACTURING (OM)**

	REQUIRED	PROPOSED
<b>LOT</b>		
WIDTH	N/A	1,451'
DEPTH	N/A	953'
AREA	N/A	1,073,483 SF
<b>BUILDING SETBACK</b>		
FRONT	40'	
SIDE	10'	
REAR	10'	
<b>PARKING SETBACKS</b>		
FRONT YARD SETBACK	10'	12'
<b>BUILDING</b>		
HEIGHT	75'	
GREEN SPACE	10%	
LOT COVERAGE	50%	
<b>PARKING</b>		
STALLS		
STALL SIZE (PERPENDICULAR)	9'X18'	9'X18'
DRIVE AISLE WIDTH	24'	24'



Client:  
 ULSTER COUNTY  
 1 DANNY CIRCLE  
 KINGSTON, NY 12401

**PASSERO ASSOCIATES**  
 242 West Main Street Suite 100  
 Rochester, New York 14614  
 (585) 325-1000  
 Fax: (585) 325-1891  
 Principal-in-Charge: Dan Savage, PE.  
 Project Manager: Dan Savage, PE.  
 Designed by: Austin Goodwin, EIT.



Revisions

No.	Date	By	Description
1			

**TECH CITY LOCATION CONCEPT  
 ULSTER COUNTY FLEET GARAGE FACILITY**

Town/City: ULSTER  
 County: ULSTER State: NEW YORK  
 Project No:  
 20202987.0001  
 Drawing No. C 101 Sheet No. 1  
 Scale:  
 1" = 60'  
 Date:  
 OCTOBER 2020

NOT FOR CONSTRUCTION



# APPENDIX L: PRELIMINARY COST ESTIMATES

PROJECT: Ulster County Area Transit Bus Facility Site Selection  
 LOCATION: City of Kingston, NY  
 CLIENT: Ulster County Area Transit

Project No.: 20202987.0001 By: ABG  
 Date: 12/15/2020 Reviewed By: JDS  
 Revised By: \_\_\_\_\_ Date: \_\_\_\_\_

**CONCEPTUAL ESTIMATE OF PROBABLE COSTS FOR GOLDEN HILL**

ITEM NO.	OPTION #2 GOLDEN HILL PHASED CONSTRUCTION SITE COST DESCRIPTION	ESTIMATE QUANTITY	UNIT	UNIT PRICE (REFLECT NON- PREVAILING WAGE)	EST. QUAN. X UNIT PRICE
<b>SECTION D - SITE PREP / GRADING</b>					
1	CLEARING AND GRUBBING	1	LS	\$50,000.00	\$50,000.00
2	BEDROCK BLASTING	2,000	CY	\$150.00	\$300,000.00
3	SITE GRADING	25,000	CY	\$27.00	\$675,000.00
<b>TOTAL SECTION D</b>					<b>\$1,025,000.00</b>
<b>SECTION U - UTILITIES</b>					
1	SANITARY (INCLUDES MH, SEWER, COMPLETE IN PLACE)	150	LF	\$300.00	\$45,000.00
2	STORM (MANHOLES, CBs, PIPE)	1,100	LF	\$200.00	\$220,000.00
3	WATER (SERVICE, HYDRANTS, VALVES)	150	LF	\$300.00	\$45,000.00
4	GAS & ELECTRIC	150	LF	\$200.00	\$30,000.00
5	FIBER / TELECOMMUNICATIONS	150	LF	\$150.00	\$22,500.00
<b>TOTAL SECTION U</b>					<b>\$362,500.00</b>
<b>SECTION L - LANDSCAPE AND LIGHTING</b>					
1	CONDUIT)	6	EA	\$4,000.00	\$24,000.00
2	LANDSCAPING (TREES, SHRUBS)	1	LS	2% OF UTILITIES + PAVEMENT	\$25,950.00
<b>TOTAL SECTION L</b>					<b>\$49,950.00</b>
<b>SECTION P - PAVEMENT</b>					
1	PAVEMENT (BOXOUT, BASE, ASPHALT, CURB STRIPING)	45,000	SF	\$18.00	\$810,000.00
2	SIDEWALKS	5,000	SF	\$25.00	\$125,000.00
<b>TOTAL SECTION P</b>					<b>\$935,000.00</b>
<b>SECTION R - RETAINING WALL</b>					
1	RETAINING WALL	250	SF	\$125.00	\$31,250.00
<b>TOTAL SECTION R</b>					<b>\$31,250.00</b>



242 West Main Street  
 Rochester, NY 14614-1122  
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[www.passero.com](http://www.passero.com)

PROJECT: Ulster County Area Transit Bus Facility Site Selection  
 LOCATION: City of Kingston, NY  
 CLIENT: Ulster County Area Transit

Project No.: 20202987.0001 By: ABG  
 Date: 12/15/2020 Reviewed By: JDS  
 Revised By: \_\_\_\_\_ Date: \_\_\_\_\_

**CONCEPTUAL ESTIMATE OF PROBABLE COSTS FOR GOLDEN HILL**

ITEM NO.	OPTION #1 GOLDEN HILL FULL CONSTRUCTION SITE COST DESCRIPTION	ESTIMATE QUANTITY	UNIT	UNIT PRICE (REFLECT NON- PREVAILING WAGE)	EST. QUAN. X UNIT PRICE
<b>SECTION D - SITE PREP / GRADING</b>					
1	CLEARING AND GRUBBING	1	LS	\$50,000.00	\$50,000.00
2	BEDROCK BLASTING	2,000	CY	\$150.00	\$300,000.00
3	SITE GRADING	32,180	CY	\$27.00	\$868,860.00
<b>TOTAL SECTION D</b>					<b>\$1,218,860.00</b>
<b>SECTION U - UTILITIES</b>					
1	SANITARY (INCLUDES MH, SEWER, COMPLETE IN PLACE)	150	LF	\$300.00	\$45,000.00
2	STORM (MANHOLES, CBs, PIPE)	1,100	LF	\$200.00	\$220,000.00
3	WATER (SERVICE, HYDRANTS, VALVES)	150	LF	\$300.00	\$45,000.00
4	GAS & ELECTRIC	150	LF	\$200.00	\$30,000.00
5	FIBER / TELECOMMUNICATIONS	150	LF	\$150.00	\$22,500.00
<b>TOTAL SECTION U</b>					<b>\$362,500.00</b>
<b>SECTION L - LANDSCAPE AND LIGHTING</b>					
1	LIGHT POLES (POLES, BASES, FIXTURES, CABLE, CONDUIT)	6	EA	\$4,000.00	\$24,000.00
2	LANDSCAPING (TREES, SHRUBS)	1	LS	2% OF UTILITIES + PAVEMENT	\$30,450.00
<b>TOTAL SECTION L</b>					<b>\$54,450.00</b>
<b>SECTION P - PAVEMENT</b>					
1	PAVEMENT (BOXOUT, BASE, ASPHALT, CURB STRIPING)	57,500	SF	\$18.00	\$1,035,000.00
2	SIDEWALKS	5,000	SF	\$25.00	\$125,000.00
<b>TOTAL SECTION P</b>					<b>\$1,160,000.00</b>
<b>SECTION R - RETAINING WALL</b>					
1	RETAINING WALL	750	SF	\$125.00	\$93,750.00
<b>TOTAL SECTION R</b>					<b>\$93,750.00</b>



242 West Main Street  
 Rochester, NY 14614-1122  
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[www.passero.com](http://www.passero.com)

PROJECT: Ulster County Area Transit Bus Facility Site Selection  
 LOCATION: City of Kingston, NY  
 CLIENT: Ulster County Area Transit

Project No.: 20202987.0001 By: ABG  
 Date: 12/15/2020 Reviewed By: JDS  
 Revised By: \_\_\_\_\_ Date: \_\_\_\_\_

**CONCEPTUAL ESTIMATE OF PROBABLE COSTS FOR GOLDEN HILL**

ITEM NO.	OPTION #1 GOLDEN HILL FULL CONSTRUCTION SITE COST DESCRIPTION	ESTIMATE QUANTITY	UNIT	UNIT PRICE (REFLECT NON-PREVAILING WAGE)	EST. QUAN. X UNIT PRICE
	SECTION D - DEMOLITION/GRADING				\$1,218,860.00
	SECTION U - UTILITIES				\$362,500.00
	SECTION L - LANDSCAPE AND LIGHTING				\$54,450.00
	SECTION P - PAVEMENT				\$1,160,000.00
	SECTION R - RETAINING WALL				\$93,750.00
	<b>GOLDEN HILL FULL BUILD CONCEPTUAL TOTAL</b>				<b>\$2,889,560.00</b>



242 West Main Street  
 Rochester, NY 14614-1122  
 T 585 325 1000  
 F 585 325 1691

PROJECT: Ulster County Area Transit Bus Facility Site Selection  
 LOCATION: City of Kingston, NY  
 CLIENT: Ulster County Area Transit

Project No.: 20202987.0001 By: ABG  
 Date: 12/15/2020 Reviewed By: JDS  
 Revised By: \_\_\_\_\_ Date: \_\_\_\_\_

**CONCEPTUAL ESTIMATE OF PROBABLE COSTS FOR GOLDEN HILL**

ITEM NO.	OPTION #1 FULL CONSTRUCTION BUILDING COST DESCRIPTION	ESTIMATE QUANTITY	UNIT	UNIT PRICE (REFLECT NON-	EST. QUAN. X UNIT PRICE
	<b>SECTION BS - BUILDING SHELL</b>				
1	FOUNDATIONS AND CONCRETE	30,000	SF	\$85.00	\$2,550,000.00
2	ENVELOPE	30,000	SF	\$135.00	\$4,050,000.00
3	MEP	30,000	SF	\$70.00	\$2,100,000.00
	<b>TOTAL SECTION BS</b>				<b>\$8,700,000.00</b>
	<b>SECTION BE - BUILDING EQUIPMENT</b>				
1	OVERHEAD DOORS	32	LS	\$2,500.00	\$80,000.00
2	FINISHES	8,000	SF	\$35.00	\$280,000.00
3	FIXTURES	12	LS	\$200.00	\$2,400.00
4	CHARGING STATIONS	30	LS	\$60,000.00	\$1,800,000.00
5	FIBER / TELECOMMUNICATIONS	20,000	SF	\$6.50	\$130,000.00
	<b>TOTAL SECTION BE</b>				<b>\$2,292,400.00</b>
	<b>SECTION BS - BUILDING SPECIALTIES</b>				
1	BATHROOMS/LOCKERS	6	EA	\$4,000.00	\$24,000.00
2	SOLAR COLLECTORS	12,000	SF	\$55.00	\$660,000.00
	<b>TOTAL SECTION BS</b>				<b>\$684,000.00</b>
	<b>SECTION BS - BUILDING SHELL</b>				<b>\$8,700,000.00</b>
	<b>SECTION BE - BUILDING EQUIPMENT</b>				<b>\$2,292,400.00</b>
	<b>SECTION BS - BUILDING SPECIALTIES</b>				<b>\$684,000.00</b>
	<b>SUBTOTAL</b>				<b>\$11,676,400.00</b>

PROJECT: Ulster County Area Transit Bus Facility Site Selection  
 LOCATION: City of Kingston, NY  
 CLIENT: Ulster County Area Transit

Project No.: 20202987.0001 By: ABG  
 Date: 12/15/2020 Reviewed By: JDS  
 Revised By: \_\_\_\_\_ Date: \_\_\_\_\_

**CONCEPTUAL ESTIMATE OF PROBABLE COSTS FOR GOLDEN HILL**

ITEM NO.	OPTION #2 GOLDEN HILL PHASED CONSTRUCTION SITE COST DESCRIPTION	ESTIMATE QUANTITY	UNIT	UNIT PRICE (REFLECT NON-PREVAILING WAGE)	EST. QUAN. X UNIT PRICE
	<b>SECTION D - SITE PREP / GRADING</b>				
1	CLEARING AND GRUBBING	1	LS	\$50,000.00	\$50,000.00
2	BEDROCK BLASTING	2,000	CY	\$150.00	\$300,000.00
3	SITE GRADING	25,000	CY	\$27.00	\$675,000.00
	<b>TOTAL SECTION D</b>				<b>\$1,025,000.00</b>
	<b>SECTION U - UTILITIES</b>				
1	SANITARY (INCLUDES MH, SEWER, COMPLETE IN PLACE)	150	LF	\$300.00	\$45,000.00
2	STORM (MANHOLES, CBs, PIPE)	1,100	LF	\$200.00	\$220,000.00
3	WATER (SERVICE, HYDRANTS, VALVES)	150	LF	\$300.00	\$45,000.00
4	GAS & ELECTRIC	150	LF	\$200.00	\$30,000.00
5	FIBER / TELECOMMUNICATIONS	150	LF	\$150.00	\$22,500.00
	<b>TOTAL SECTION U</b>				<b>\$362,500.00</b>
	<b>SECTION L - LANDSCAPE AND LIGHTING</b>				
1	CONDUIT)	6	EA	\$4,000.00	\$24,000.00
2	LANDSCAPING (TREES, SHRUBS)	1	LS	2% OF UTILITIES + PAVEMENT	\$25,950.00
	<b>TOTAL SECTION L</b>				<b>\$49,950.00</b>
	<b>SECTION P - PAVEMENT</b>				
1	PAVEMENT (BOXOUT, BASE, ASPHALT, CURB STRIPING)	45,000	SF	\$18.00	\$810,000.00
2	SIDEWALKS	5,000	SF	\$25.00	\$125,000.00
	<b>TOTAL SECTION P</b>				<b>\$935,000.00</b>
	<b>SECTION R - RETAINING WALL</b>				
1	RETAINING WALL	250	SF	\$125.00	\$31,250.00
	<b>TOTAL SECTION R</b>				<b>\$31,250.00</b>





242 West Main Street  
 Rochester, NY 14614-1122  
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[www.passero.com](http://www.passero.com)

**PROJECT:** Ulster County Area Transit Bus Facility Site Selection  
**LOCATION:** City of Kingston, NY  
**CLIENT:** Ulster County Area Transit

**Project No.:** 20202987.0001 **By:** ABG  
**Date:** 12/15/2020 **Reviewed By:** JDS  
**Revised By:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**CONCEPTUAL ESTIMATE OF PROBABLE COSTS FOR GOLDEN HILL**

ITEM NO.	OPTION #2 GOLDEN HILL PHASED CONSTRUCTION SITE COST DESCRIPTION	ESTIMATE QUANTITY	UNIT	UNIT PRICE (REFLECT NON- PREVAILING WAGE)	EST. QUAN. X UNIT PRICE
	SECTION D - DEMOLITION/GRADING				\$1,025,000.00
	SECTION U - UTILITIES				\$362,500.00
	SECTION L - LANDSCAPE AND LIGHTING				\$49,950.00
	SECTION P - PAVEMENT				\$935,000.00
	SECTION R - RETAINING WALL				\$31,250.00
	<b>GOLDEN HILL PHASED BUILD CONCEPTUAL TOTAL</b>				<b>\$2,403,700.00</b>



242 West Main Street  
 Rochester, NY 14614-1122  
 T 585 325 1000  
 F 585 325 1691

PROJECT: Ulster County Area Transit Bus Facility Site Selection  
 LOCATION: City of Kingston, NY  
 CLIENT: Ulster County Area Transit

Project No.: 20202987.0001 By: ABG  
 Date: 12/15/2020 Reviewed By: JDS  
 Revised By: \_\_\_\_\_ Date: \_\_\_\_\_

**CONCEPTUAL ESTIMATE OF PROBABLE COSTS FOR GOLDEN HILL**

ITEM NO.	OPTION #2 PHASED CONSTRUCTION BUILDING COST DESCRIPTION	ESTIMATE QUANTITY	UNIT	UNIT PRICE (REFLECT NON- PREVAILING)	EST. QUAN. X UNIT PRICE
	<b>SECTION BS - BUILDING SHELL</b>				
1	FOUNDATIONS AND CONCRETE	23,600	SF	\$85.00	\$2,006,000.00
2	ENVELOPE	23,600	SF	\$135.00	\$3,186,000.00
3	MEP	23,600	SF	\$70.00	\$1,652,000.00
	<b>TOTAL SECTION BS</b>				<b>\$6,844,000.00</b>
	<b>SECTION BE - BUILDING EQUIPMENT</b>				
1	OVERHEAD DOORS	24	LS	\$2,500.00	\$60,000.00
2	FINISHES	8,000	SF	\$35.00	\$280,000.00
3	FIXTURES	12	LS	\$200.00	\$2,400.00
4	CHARGING STATIONS	20	LS	\$60,000.00	\$1,200,000.00
5	FIBER / TELECOMMUNICATIONS	15,000	SF	\$6.50	\$97,500.00
	<b>TOTAL SECTION BE</b>				<b>\$1,639,900.00</b>
	<b>SECTION BS - BUILDING SPECIALTIES</b>				
1	BATHROOMS/LOCKERS	6	EA	\$4,000.00	\$24,000.00
2	SOLAR COLLECTORS	10,000	SF	\$55.00	\$550,000.00
	<b>TOTAL SECTION BS</b>				<b>\$574,000.00</b>
	<b>SECTION BS - BUILDING SHELL</b>				<b>\$6,844,000.00</b>
	<b>SECTION BE - BUILDING EQUIPMENT</b>				<b>\$1,639,900.00</b>
	<b>SECTION BS - BUILDING SPECIALTIES</b>				<b>\$574,000.00</b>
	<b>SUBTOTAL</b>				<b>\$9,057,900.00</b>



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PROJECT: Ulster County Area Transit Bus Facility Site Selection  
 LOCATION: City of Kingston, NY  
 CLIENT: Ulster County Area Transit

Project No.: 20202987.0001 By: ABG  
 Date: 12/15/2020 Reviewed By: JDS  
 Revised By: \_\_\_\_\_ Date: \_\_\_\_\_

**CONCEPTUAL ESTIMATE OF PROBABLE COSTS FOR TECH CITY**

ITEM NO.	OPTION #3 TECH CITY SITE COST DESCRIPTION	ESTIMATE QUANTITY	UNIT	UNIT PRICE (REFLECT NON- PREVAILING WAGE)	EST. QUAN. X UNIT PRICE
<b>SECTION D - SITE PREP / GRADING</b>					
1	SITE PREPARATION (MILLING, PAVEMENT BOXOUT)	1	LS	\$20,000.00	\$20,000.00
<b>TOTAL SECTION D</b>					<b>\$20,000.00</b>
<b>SECTION E - ENVIRONMENTAL REMEDIATION</b>					
1	UNKNOWN CONSERVATIVE COST SHOULD DEC REQUIRE SOIL REMEDIATION	1	LS	\$325,000.00	\$325,000.00
<b>TOTAL SECTION E</b>					<b>\$325,000.00</b>
<b>SECTION U - UTILITIES</b>					
1	SANITARY (INCLUDES MH, SEWER, COMPLETE IN PLACE)	150	LF	\$300.00	\$45,000.00
2	STORM (MANHOLES, CBs, PIPE)	1,300	LF	\$200.00	\$260,000.00
3	WATER (SERVICE, HYDRANTS, VALVES)	150	LF	\$300.00	\$45,000.00
4	GAS & ELECTRIC	150	LF	\$200.00	\$30,000.00
5	FIBER / TELECOMMUNICATIONS	150	LF	\$150.00	\$22,500.00
<b>TOTAL SECTION U</b>					<b>\$402,500.00</b>
<b>SECTION L - LANDSCAPE AND LIGHTING</b>					
1	LIGHT POLES (POLES, BASES, FIXTURES, CABLE, CONDUIT)	8	EA	\$4,000.00	\$32,000.00
2	LANDSCAPING (TREES, SHRUBS)	1	LS	2% OF UTILITIES + PAVEMENT	\$24,250.00
<b>TOTAL SECTION L</b>					<b>\$56,250.00</b>
<b>SECTION P - PAVEMENT</b>					
1	PAVEMENT (BOXOUT, BASE, ASPHALT, CURB STRIPING)	45,000	SF	\$18.00	\$810,000.00
<b>TOTAL SECTION P</b>					<b>\$810,000.00</b>
<b>SECTION D - SITE PREP / GRADING</b>					<b>\$20,000.00</b>
<b>SECTION E - ENVIRONMENTAL REMEDIATION</b>					<b>\$325,000.00</b>
<b>SECTION U - UTILITIES</b>					<b>\$402,500.00</b>
<b>SECTION L - LANDSCAPE AND LIGHTING</b>					<b>\$56,250.00</b>
<b>SECTION P - PAVEMENT</b>					<b>\$810,000.00</b>
<b>TECH CITY CONCEPTUAL TOTAL</b>					<b>\$1,613,750.00</b>

PROJECT: Ulster County Area Transit Bus Facility Site Selection  
 LOCATION: City of Kingston, NY  
 CLIENT: Ulster County Area Transit

Project No.: 20202987.0001 By: ABG  
 Date: 12/15/2020 Reviewed By: JDS  
 Revised By: \_\_\_\_\_ Date: \_\_\_\_\_

<b>CONCEPTUAL ESTIMATE OF PROBABLE COSTS FOR TECH CITY</b>					
ITEM NO.	OPTION #3 TECH CITY BUILDING COST DESCRIPTION	ESTIMATE QUANTITY	UNIT	UNIT PRICE (REFLECT NON-PREVAILING)	EST. QUAN. X UNIT PRICE
<b>SECTION BS - BUILDING SHELL</b>					
1	FOUNDATIONS AND CONCRETE	40,000	SF	\$85.00	\$3,400,000.00
2	ENVELOPE	40,000	SF	\$135.00	\$5,400,000.00
3	MEP	40,000	SF	\$70.00	\$2,800,000.00
<b>TOTAL SECTION BS</b>					<b>\$11,600,000.00</b>
<b>SECTION BE - BUILDING EQUIPMENT</b>					
1	OVERHEAD DOORS	32	LS	\$2,500.00	\$80,000.00
2	FINISHES	10,000	SF	\$35.00	\$350,000.00
3	FIXTURES	16	LS	\$200.00	\$3,200.00
4	CHARGING STATIONS	30	LS	\$60,000.00	\$1,800,000.00
5	FIBER / TELECOMMUNICATIONS	32,000	SF	\$6.50	\$208,000.00
<b>TOTAL SECTION BE</b>					<b>\$2,441,200.00</b>
<b>SECTION BS - BUILDING SPECIALTIES</b>					
1	BATHROOMS/LOCKERS	8	EA	\$4,000.00	\$32,000.00
2	SOLAR COLLECTORS	16,000	SF	\$55.00	\$880,000.00
<b>TOTAL SECTION BS</b>					<b>\$912,000.00</b>
<b>SECTION BS - BUILDING SHELL</b>					<b>\$11,600,000.00</b>
<b>SECTION BE - BUILDING EQUIPMENT</b>					<b>\$2,441,200.00</b>
<b>SECTION BS - BUILDING SPECIALTIES</b>					<b>\$912,000.00</b>
<b>SUBTOTAL</b>					<b>\$14,953,200.00</b>

