DEPARTMENT OF THE ARMY
US ARMY CORPS OF ENGINEERS, NEW YORK DISTRICT
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7 July 2022

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SUBJECT: Final Historical Records Review, Supplemental Site Inspection at Four Known PFAS Sites and Preliminary Assessment/Site Inspection at Suspected PFAS Sites, Former Seneca Army Depot Activity in Romulus, NY; EPA Site ID# NY0213820830 and NY Site ID# 8-50-006

Dear Mr. Morse, Ms. Sweet, and Mr. Sergott:

Please find attached the Final Historical Records Review of potential sources of per- and polyfluoroalkyl substances (PFAS) at the former Seneca Army Depot Activity (SEDA) in Romulus, New York (EPA Site ID# NY0213820830 and NY Site ID# 8-50-006). This report documents areas of potential interest (AOPI) at SEDA where PFAS-containing materials may have been used, stored or disposed of, or where aqueous film-forming foam (AFFF) releases may have occurred. The evaluation provided in this document presents the historical information reviewed to identify if a site requires No Further Action, or if the site will be retained for further action to quantify the presence and extent of PFAS contamination on a site-by-site basis.

If you have any questions about the attached document, please call me at 917-575-1819.

Sincerely,

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HISTORICAL RECORDS REVIEW

SUPPLEMENTAL SITE INSPECTION AT FOUR KNOWN PFAS SITES AND PRELIMINARY ASSESSMENT/SITE INSPECTION AT SUSPECTED PFAS SITES
FORMER SENECA ARMY DEPOT
ROMULUS, NEW YORK

Contract No. W912DY-20-D-0017
Task Order No. W912DY21F0310

Prepared for

U.S. Army Corps of Engineers

U.S. Army Engineering Support Center, Huntsville

July 2022

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LIST OF ACRONYMNS AND ABBREVIATIONS

AFFF	aqueous film-forming foam
AOC	area of concern
AOPI	areas of potential interest
bgs	below ground surface
DoD	Department of Defense
ESI	Expanded Site Inspection
ft	feet
HRR	Historical Records Review
MW	Monitoring Well
NYSDEC	New York State Department of Environmental Conservation
PA	preliminary assessment
PFAS	per- and polyfluoroalkyl substances
PFOA	perfluorooctanoic acid
PFOS	perfluorooctane sulfonic acid
SEDA	Seneca Army Depot Activity
SEAD	Seneca Army Depot Site Identification
SI	Site Inspection
SO	Soil Sample
SW	Surface Water
SWMU	Solid Waste Management Unit
USEPA	U.S. Environmental Protection Agency

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1.0 INTRODUCTION

This Historical Records Review (HRR) report of potential sources of per- and polyfluoroalkyl substances (PFAS) at Seneca Army Depot Activity (SEDA) in Romulus, New York, was prepared under contract with the U.S. Army Corps of Engineers Huntsville District, Contract Number W912DY-20-D-0017, Delivery Order Number W912DY21F0310. This HRR was conducted on behalf of the Army to record potential historical sources of PFAS at SEDA. This HRR was completed in accordance with the U.S. Environmental Protection Agency (USEPA) Guidance for Performing Preliminary Assessments (PA) under the Comprehensive Environmental Response, Compensation and Liability Act (PA Guidance) (USEPA, 1991).

1.1 PROJECT BACKGROUND AND OBJECTIVES

This HRR documents areas of potential interest (AOPI) at SEDA where PFAS-containing materials may have been used, stored or disposed of, or where aqueous film-forming foam (AFFF) releases may have occurred. The list of AOPIs was compiled by reviewing the historic use for each site and identifying any potential PFAS source that may be associated with the known or suspected historic use for each site. The Army identified 34 AOPIs at SEDA where PFAS-containing material may have been used, stored, or disposed. The HRR provides a review of these 34 sites, plus an evaluation of an additional 78 Seneca Army Depot Site Identifications (SEAD) that were identified as part of previous environmental investigations and a review of former building uses. The evaluation provided in this document presents the historical information reviewed to identify if a site requires No Further Action, or if the site will be retained for further action to quantify the presence and extent of PFAS contamination on a site-by-site basis.

1.2 PFAS BACKGROUND

PFAS are a class of synthetic fluorinated substances that contain at least one fully fluorinated methyl or methylene carbon atom (without any H/Cl/Br/I atom attached to it), i.e., with a few noted exceptions, any chemical with at least a perfluorinated methyl group (–CF3) or a perfluorinated methylene group (–CF2–) is a PFAS (Organization for Economic Co-operation and Development, 2021). PFAS are used in a wide range of industrial applications and commercial products because of their unique properties, which provide operation across a wide range of temperature, ability to be both hydro- and oleophobic, and stable structure. Two of the most well-known and studied PFAS are perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS). Due to concerns regarding potential health effects and adverse environmental impacts, there have been

restrictions on the type of PFAS compounds that may be used and increased regulatory scrutiny of the entire class of PFAS compounds. PFAS can be transported to soil, surface waters, and groundwater (as a result of airborne deposition or runoff and leaching), and because of their stable C-F bond, are persistent in the environment. As a result, they can be transported long distances from the source site.

A main source of PFAS contamination in the environment is the use of AFFF. Developed in the mid-1960s, AFFF is a type of fluorinated Class B firefighting foam designed and used to combat Class B flammable fuel fires. AFFF is typically formed by combining hydrocarbon surfactants, organic solvents, fluorosurfactants, polymers, and other additives. AFFF concentrates are designed to be mixed with water to create either 3% or 6% foam. A typical 3% AFFF concentrate includes 60% water/diluent, 20% solvents, and 18% surfactants, of which less than 2% is fluorosurfactants. When the concentrate is mixed with water, the resulting solution achieves the interfacial tension characteristics needed to produce an aqueous film that spreads across the surface of a hydrocarbon fuel to extinguish the flame or reduce the hydrocarbon vapors (Interstate Technology Regulatory Council, 2021). AFFF releases may occur during fire training, emergency response actions, equipment testing, or accidental releases.

In addition to AFFF, a variety of potential PFAS sources may exist on military installations including wastewater treatment plants (and associated biosolids), metal plating and finishing shops, munitions disposal areas, and landfills (Exhibit 1.2; USEPA, 2021). Additionally, Glüge at al. (2020) was reviewed for other potential PFAS uses. This study provides 200 use categories and subcategories for more than 1,400 individual PFAS. A conservative assumption was made if a site's previous use corresponded to the site categories in the references (e.g., a paint shop was assumed to have PFAS-containing paint or coatings).

Exhibit 1.2 Potential PFAS Sources

AFFF fire-fighting foam
Wetting agent, mist suppression for harmful vapors, and surfactants in metal plating/electroplating and finishing
Hydraulic fluids additive in aviation and aerospace
Films and electrolytes in batteries and fuel cells
Anti-corrosives in various industrial operations (including Department of Energy Gaseous Diffusion Plants)
Finishing agents for textiles, including use in firefighting protective clothing and waterproofing tents/fabrics
Fillers and binders in munitions and munitions components
Research and development laboratories
Landfills
Wastewater treatment plants, industrial wastewater treatment plants, and associated drainage ditches
Paint shops, paint booths
Car and vehicle wash facilities
Open Burning/Open Detonation areas
Munitions filling areas

2.0 SITE BACKGROUND

2.1 SITE HISTORY

SEDA is a 10,587-acre former military facility located in Seneca County near Romulus, New York. It is located between Seneca Lake and Cayuga Lake in Seneca County and is bordered by New York State Highway 96 to the east and New York State Highway 96A to the west. Sparsely populated farmland surrounds SEDA. The site is located in an uplands area between the two lakes at an elevation ranging from approximately 760 feet (ft) in the southeast corner to a minimum of approximately 600 ft along the western boundary. The facility was wholly owned by the U.S. Government and was operated by the Department of the Army between 1941 and 2000; since 2000, nearly 10,000 acres of SEDA were transferred to other parties for reuse. The primary mission of SEDA was the receipt, storage, maintenance, and supply of military items.

2.2 ENVIRONMENTAL SETTING

2.2.1 Topography

SEDA lies on the western side of a series of north-to-south-trending rock terraces that separate Cayuga Lake on the east and Seneca Lake on the west. The rock terraces range in elevation from 490 ft above mean sea level in northern Seneca County to as much as 1,600 feet above mean sea level at the southern end of the lakes. SEDA's land surface generally slopes downward to the west and upward to the north.

2.2.2 Geology

SEDA geology is characterized by gray Devonian shale with a thin weathered zone where it contacts the overlying mantle of Pleistocene glacial till. This stratigraphy is consistent over the entire SEDA facility. The predominant surficial geologic unit present at the site is dense glacial till. The till is distributed across the entire facility and ranges in thickness from less than 2 ft to as much as 15 ft. The till is characterized by brown to gray-brown silt, clay, and fine sand with few fine-to-coarse gravel-sized inclusions of weathered shale. Larger diameter weathered shale clasts (as large as 6 inches in diameter) are more prevalent in basal portions of the till and are probably rip-up clasts created during the last glaciation. The bedrock underlying the northwestern half of the site is composed of the Ludlowville Formation of the Devonian age, Hamilton Group; gray-black, calcareous shale that is fissile and exhibits parting (or separation) along bedding planes. The southeastern half of the site is composed of the younger Moscow Formation, also of the Devonian age, Hamilton Group. The lower beds, which underlie most of SEDA, are soft gray calcareous shale with an abundance of fossils. Coring performed within bedrock underlying SEDA show that the upper 5 to 8 ft of bedrock exhibit low rock quality designations and suggest a distinct weathered zone beneath the till before competent bedrock is encountered (Mozola, 1951; Parsons, 2021; U.S. Geological Survey, 2021).

As described in historical literature, a conjugate joint set and a set of strike joints are predominant within the sedimentary rocks of Seneca County (Mozola, 1951). The conjugate joint set has orientations of N15-30°E and N30-45°W and the strike joints trend N60-70°E. Joint planes are typically steep with dips ranging from 46° to vertical. The strike joints are typically parallel,

narrow, and spaced 1 inch to 4 ft apart. Most of the joints and fractures within shale formations are filled with clay or fine silt.

A similar joint orientation pattern was observed by Merin (1992) in outcrops in Ithaca, New York, approximately 30 miles southeast of the site. This study observed jointing up to 152 ft below ground surface (bgs) (the maximum depth of their investigation was 175 ft bgs). Mineralization of joint surfaces tended to be related to depth. Joints in cores less than 21 ft bgs were stained with ferric oxide minerals; joints between 21 to 38 ft bgs lacked mineral staining or fill; and joints greater than 38 ft bgs were partially calcite-filled. Bedding plane fracture was apparent in this location with fracture frequency per foot decreasing with depth. The fracture frequency described for depths within the target screen (~45-60 ft bgs) zone of the background study ranges from four fractures per foot to zero fractures per 3 ft (at depths beginning ~55 ft bgs). Bedding plane fractures below 55 ft bgs were confined to intensely fractures zones less than 2 ft thick and spaced greater than 3 ft apart. These zones displayed fissility and were thought to be lithologically controlled. The maximum depth bedding fractures were observed was 145 ft bgs; however, 36 ft of unfractured rock was observed above this depth therefore bedding fracture below the maximum drilling depth (175 ft) are possible.

During the Remedial Investigations at the Ash Landfill and at SEAD 25, two predominant fracture orientations were observed during a bedrock fracture trace investigation: N75°E and N30°W. These orientations agree with the regional strike joints and conjugate fracture sets reported in the historical literature. During coring at both sites, except for the upper few feet of the competent shale, the fractures were generally free of silt and clay although some fractures were filled with a calcium carbonate material. Bedding plane fractures were present and tended to follow the frequency and spacing patterns observed by Merin (1992). Bedding plane fractures tended to be filled with silt and clay.

2.2.3 Hydrogeology

Regionally, four distinct hydrologic units were identified within Seneca County. These include two distinct shale formations, a series of limestone units, and unconsolidated beds of Pleistocene glacial till. Overall, the groundwater in the county is iron and manganese, is of poor quality, and is minimally acceptable for use as potable water (Mozola, 1951).

The geology beneath SEDA is a thin mantle of glacial till overlying shale bedrock. The overburden consists of a thin layer of high fines content soils (where undisturbed), underlain by glacial till (unsorted clay, silt, sand, and gravel) that is a few feet thick to approximately 15 ft thick and is poorly drained. The underlying bedrock consists of shale of the Ludlowville and Moscow Formations. The shale has poor intergranular porosity, and the flow of groundwater is expected to move through millimeter-scale horizontal and vertical zones of porosity (bedding plane fractures and joints) on a localized scale (inches to several feet) (Merin, 1992; Parsons ES, 1994a and 1994b). The upper 10 ft of the bedrock typically has low rock quality designations of less than 30%. Rock quality designation increased in the 30- to 50-ft depth range in most cores (Parsons, 2021).

Groundwater is found seasonally in the overburden/weathered bedrock zone (subject to precipitation); however, the water in the wells is not potable due to low well yield. Recharge of

the underlying shallow saturated zone is dependent on precipitation. Rainwater or snow melt slowly infiltrates into the till/weathered bedrock water bearing zone; however, during larger precipitation events, the infiltration rate is likely not high enough, and overland flow transports excess precipitation to local drainage ditches and low areas.

The regional recharge of precipitation through the upper (till/weathered bedrock) water-bearing zone to the underlying lower water-bearing zone (shallow bedrock) is poor and strongly affected by drought conditions. Vertical groundwater interaction between the upper and lower water bearing zones is not expected to be as significant as preferential groundwater flow within the shallow fractured and weathered bedrock zone along the top of bedrock. Within the bedrock, the predominant groundwater flow is expected to be along bedding planes and parallel to the regional jointing directions. Regional groundwater flow is predominantly westward towards Seneca Lake. In proximity to surface water features, localized groundwater flow may be towards the surface water body.

2.2.4 Surface Water Hydrology

Surface drainage from SEDA flows to five primary creeks that discharge to the west into Seneca Lake. Local flow in the northeast portion of SEDA collects in Duck Pond and discharges to Kendig Creek. Kendig Creek flows north and discharges in the Seneca-Cayuga Canal. Surface water flow from precipitation events throughout SEDA is controlled by man-made drainage features, which flow towards local creeks and wetland areas. In general, the topography of the area slopes west and most of the surface water will eventually discharge into one of the westerly flowing creeks. Streams and ponds are generally gaining except during periods of dry weather when they are losing. With the exception of a tributary of Indian Creek along the southern SEDA boundary, surface water bodies do not flow from off-site into SEDA therefore upgradient (background) sources of PFAS in surface water are not expected to be transported on-site.

2.2.5 Soils

Soils within SEDA are dominated by the Darien-Angola association. The soils formed in glacial till where the main rock constituent is the soft, dark, underlying shale with minor limestone and igneous erratics. The soils are described as deep and moderately deep, somewhat poorly drained with silty clay loam and clay loam subsoil. The areas with these soils are suitable for farming as well as industrial development where somewhat poorly drained soils are not a limitation and shallow bedrock provides stability to structures. Spatially, Darien silt loam, 0 to 3 percent slopes DaA overlies much of SEDA (U.S. Department of Agriculture, 1972; 2021).

2.2.6 Human and Ecological Receptors

Human receptors vary based on the land use for each parcel. Human receptors may include off-site residents, hunters, construction workers, industrial workers, warehouse workers, adolescent trespassers, farmers, prison inmates, and prison workers. A map of the Seneca Army Depot subdivided by land use parcels is presented in Figure 1.

SEDA is home to a diverse array of grassland and forest species commonly found throughout upstate New York. Ecological site characterizations conducted at the Depot were based on

compilation of existing ecological information and on-site reconnaissance activities. The methods used to characterize the ecological resources included site-walkovers for the evaluation of existing wildlife and vegetative communities; interviews with local, state, and SEDA resource personnel; and review of environmental data obtained from previous Army reports. Ecological communities identified at SEDA included successional old-field areas, successional shrub areas, and successional hardwoods areas. Recent changes in the land use at SEDA have introduced domestic animals within the former Depot boundary. Wildlife within SEDA will be assessed by an ecological survey which will confirm the presence or absence of threatened and endangered species. Vegetation across the Depot consists of successional old field, successional shrub, and successional hardwoods. SEDA has a strong wildlife management program that is reviewed by the New York State Department of Environmental Conservation (NYSDEC). More recently SEDA is home to domestic cattle in the farming areas.

2.2.7 Water Use

Drinking water for SEDA is supplied by the towns of Romulus and Varick and is part of their town water department supply. There are no groundwater wells at SEDA that are actively used for anything other than groundwater sampling. All indoor plumbing and irrigation throughout the SEDA utilize town water.

2.2.8 Previous PFAS Investigations

In January 2016, USEPA requested the Army sample for PFAS in groundwater at specific sites. Three priority sites were identified and a PFAS Site Inspection (SI) was conducted at the Fire Training and Demonstration Pad (SEAD 25), the Fire Training Pit and Area (SEAD 26), and the former Airfield (SEAD 122E) (Parsons, 2018). The presence of PFAS in groundwater was confirmed during the SI at two sites, SEAD 25 and SEAD 26, where firefighting training activities were historically conducted. The airfield was recommended as No Further Action because the PFAS detections were below the screening criteria used at the time (Parsons, 2018). Based on the detections of PFOS and PFOA at concentrations above the USEPA lifetime Health Advisory of 70 parts per trillion (roughly equivalent to nanograms per liter, or ng/l) of PFOS and PFOA combined, the NYSDEC requested that the Army further investigate the nature and extent of impacts in the SEAD 25 and SEAD 26 areas (Parsons, 2018). The Expanded SI (ESI) was conducted in phases between May 2019 and March 2021. A chronological summary of PFAS investigations is presented in Exhibit 2.1.

Exhibit 2.1: Previous PFAS investigations

DOCUMENT NAME	DOCUMENT DATE	SAMPLING PROPOSED
SI Work Plan	February 2018	Initial PFAS SI at SEAD 25, SEAD 26, and Airfield
ESI Work Plan	February 2019	Added Firehouse (new Area of Concern) and dropped Airfield (below standards at the time). Added permanent MWs to the Firehouse, SEAD 25 and SEAD 26. Collected SW from SEAD 25.
ESI Memo	24 July 2019	Firehouse: additional shallow MWs to further delineate source area; added SW sampling. SEAD 25: additional shallow lateral and downgradient MWs to further define plume. SEAD 26: additional shallow MWs to define plume toe.
ESI Memo	08 April 2020	Firehouse: additional shallow and deep source area delineation; added source area SO sampling. SEAD 25: additional shallow lateral and downgradient groundwater sampling to further define plume; additional source and downgradient deep groundwater delineation; added source area SO sampling. SEAD 26: additional shallow and deep downgradient groundwater delineation; added downgradient SW sampling; added source area SO sampling All AOCs: Recommendation for second round of groundwater and SW sampling.
ESI Memo	03 December 2020	Recommendation for second round of groundwater and SW sampling to be conducted in Spring 2021.

AOC: Area of Concern
MW: Monitoring well
SI: Site Inspection
SO: Soil sample
SW: Surface water sample

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3.0 INVESTIGATION SUMMARY

3.1 SOURCES

The predominant sources used to identify former site uses during the HRR were:

- Previous environmental and site investigation reports; and
- Historical site drawings and geographic information system files.

These sources are discussed below along with the findings of the HRR, which are summarized in Table 1A and 1B and Figure 1.

3.1.1 Administrative Record

All available historical records were reviewed to assess each site for any potential presence of PFAS based on the historic use of each site. Most documents used were prepared by, or on behalf of, the U.S. Army Corps of Engineers for the purpose of the Base Realignment and Closure program. Documents reviewed included ESI, Remedial Investigation, Removal Action, and Record of Decision reports. These documents, while not necessarily looking at PFAS contamination specifically, include information regarding past site use that can be applied to this PA when cross referenced with industries and use cases that are known to include PFAS use. A list of documents utilized in this assessment is provided in Appendix A.

3.1.2 Internet Records

Internet searches were performed to find information on crashes, fires, and/or AFFF use at SEDA. Search terms included: Seneca Army Depot and "AFFF," "fires," "foam," "crashes." There was no evidence of airplane crashes, fires, use of AFFF, or spills of materials that potentially contained PFAS at Webster Field during the internet search.

3.1.3 Maps and Aerial Photographs

Historic maps, blueprints, and drawings of the SEDA were reviewed that provided additional details on former site locations and former site uses. All scanned maps and photographs relevant to this HRR are attached in Appendix B with a description explaining their relevancy. Aerial photographs from 1963, 1995, 2002, 2003, and 2018 were reviewed to confirm site features and locations. No evidence of airplane crashes, fires, use of fire-fighting foam, or spills were noted in the aerial photos. Between 2002 and 2003, a Seneca County fire training tower was constructed at the airfield, 280 feet southeast of Building 2305 (former firehouse, see below).

3.1.4 Site Reconnaissance

Site reconnaissance and visual surveys were not conducted at SEDA. Due to the length of time since closure (1995) and reuse or destruction of former buildings, no additional information regarding potential Department of Defense (DoD) PFAS sources would have been gained. AOPIs identified in this HRR will be screened for additional non-DoD PFAS sources during the SI.

3.2 SUMMARY OF AREAS EVALUATED

Prior to conducting this HRR, 34 AOPIs were previously identified by the Army as suspected, but not confirmed, to have potential PFAS contamination based on prior site usages (Table 1A). Except for one AOPI, all 34 AOPIs are previously identified SEADs that have past environmental investigation histories. The exception is Building 722, a former firehouse. These 34 AOPIs were assigned the following groups: MEC sites, Ash Landfill Related sites, Sewerage Related sites, and Disposal/Spill sites. After additional review during the HRR, there is no evidence to suggest these AOPIs should not be investigated further during an SI. Information on each of the 34 AOPIs is presented in Table 1A.

The HRR reviewed previous use and site history at all of the identified SEADs (previous environmental AOCs) within the Depot in addition to former building uses, historical spills, and potential non-DoD sources. All the SEADs at SEDA were previously the subject of environmental evaluation, investigation, and/or remediation, and each site was either closed (no action), remediated, or land use controls were applied, as necessary (Parsons, 2021). PFAS was not the subject of investigation in previous studies. Potential PFAS presence was based upon the categories presented in Exhibit 1.2 and information from Glüge et al. (2020). A summary of the sites evaluated in this HRR and their historic uses are provided in Tables 1A and 1B. The 34 sites suggested by the Army are presented in Table 1A, and additional sites that were considered are listed in Table 1B.

3.2.1 AFFF Use or Storage

Little information was found during review of historical information on the use or storage of AFFF at the SEDA. Historical information confirms Building 103 was a former firehouse and SEADs 25 and 26 were used for fire training activities. The results of the 2021 PFAS ESI conducted at these sites confirms that the use of AFFF was highly likely (Parsons, 2021). Additional information was found to confirm that Building 722 was a former firehouse and should be included as an AOPI (Appendix A and B). During the historical records review, potential firefighting activities were confirmed in the following areas:

- SEADs 9 and 10 (Scrap Wood sites). Fire training was noted in the Solid Waste Management Unit (SWMU) Report at both SEADs and a drawing noting SEAD 9 as a Fire Training School was found (Appendix B).
- SEAD 68 (Building S-335). The building as noted in the 1994 SWMU report, Building S-335 is currently being used for fire training exercises. Firefighting equipment also was noted in the building. Additional information was found in a site drawing, which identifies the building as a firehouse (Appendix B).
- Two mentions were found of the SEAD fire department having the ability to respond with 'foam' or 'foam equipment,' although the specific type of foam, or where it was deployed, is not known (Army, 1986).
- Two additional potential firehouse buildings were identified:
    - Building 729 in the northern administrative area of SEDA. Building 729 was shown as a firehouse in drawings as late as 1970 (SCAN150 and 613).

  - Building 2305 at the former airfield. Transfer of the former Sampson Air Force Base to the SEDA was in 1957, prior to the use of AFFF. Historical drawings (dated 1959) indicate a former firehouse adjacent to the airfield control tower. The initial use of the fire station predates AFFF use; however, the end of use as a fire station cannot be confirmed and may have extended into the time period when AFFF was in use. Additionally, recent photographs of Building 2305 were found on an online source, which states the firehouse was later used to house helicopters. The use of Building 2305 to house helicopters is confirmed in Woodward-Clyde (1997). AFFF may have been present onsite to respond to any aircraft crashes or fuel fires.

- A non-DoD fire training tower associated with the Seneca County Fire and Police Training Center was identified at the airfield. The tower is approximately 280 ft southeast of Building 2305 and was constructed between 2002 and 2003. Class B foam operations were included on the 2020 fire training schedule.
- Fire control systems within buildings were found to be "Rapid Response Deluge Systems," which were water sprinkler systems or the use of Halon in some areas. None of these systems are expected to have released PFAS-containing materials.

3.2.2 Munitions Use

Fluoropolymers are used within ammunition to make the product rubbery to reduce the occurrence of an unplanned explosion (USEPA, 2021; Glüge et al., 2020). Several former munitions sites were advanced to SI by the Army as areas that may have the potential for the presence of PFAS (Table 1A). Five additional AOPIs were identified during the HRR as sites where munitions were either tested, disposed, or disassembled (Table 1B). One of these sites, SEAD 43, is adjacent to SI site SEAD 69.

3.2.3 Other Potential PFAS Sources

AOPIs with other potential sources of PFAS were considered as described in Section 1.2. Most of these sites can be broadly categorized as non-AFFF disposal or spill sites where potential PFAS containing materials cannot be ruled out (Table 1B). Some of the disposed/spilled materials included: laboratory wastes, laundry rinse water from radioactive contaminated clothing, automobile maintenance, paints, and pesticides. No evidence for PFAS-containing paints, coatings, pesticides, or metal plating shops was found during the HRR; however, the sites in Table 1B were retained for potential further investigation because they have the potential to have used or disposed of materials, which may contain PFAS.

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4.0 CONCLUSIONS AND RECOMMENDATIONS

4.1 HRR SUMMARY AND RECOMMENDATIONS

This HRR looked at available historical records to determine historic uses of each site at SEDA. AOPIs were retained for the recommendation to potentially move forward to SI based on a historic use that has a higher likelihood of PFAS contamination. Those high-risk activities include potential for historic firefighting activities, munitions related activities, disposal areas, sewage related operations, and spills.

If any of those five activities were either suspected or confirmed to occur based on the finding of the HRR, the SEAD was identified as an AOPI (Table 1B). The result of the PA and HRR is that all 34 sites initially recommended by the Army to investigate are still recommended to proceed to the SI stage (Table 1A). Of the additional 78 identified SEADs evaluated and presented in Table 1B, 20 individual SEADs and two buildings are proposed as AOPIs for potential further investigation. The two building AOPIs, Buildings 729 and 2305, are recommended for SI due to their former use as fire stations. The remaining AOPIs are recommended for no action at this time pending the 34 SIs of similar type sites. These AOPIs will be reevaluated subsequent to results received from the SIs. If SI analytical results indicate a particular site type (e.g., disposal area) is not associated with a PFAS release, these AOPI site types may be recommended for no action.

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5.0 REFERENCES

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FIGURES

Figure 1 - AOPIs and Land Use

Note: AOPIs shown in yellow outline are proposed for further investigation (SI) based on their potential for PFAS presence. AOCs in grey were evaluated during the HRR, but are recommended for no further action for PFAS at this time.

INSTITUTIONAL AREA

DATA STORAGE / TELECOMMUNICATIONS

CONSERVATION / RECREATION

FARMING

PLANNED INDUSTRIAL / OFFICE DEVELOPMENT AND WAREHOUSING (PID) AREA

FORMER AIRFIELD COUNTY FIRE TRAINING & FACTORY

PRISON AREA

FED TO FED TRANSFER

SEAD-123E, SEAD-123A, SEAD-18, SEAD-29, Building 729, SEAD-120D, SEAD-19, SEAD-72, SEAD-12 DWDP, SEAD-120H, SEAD-12B & C, SEAD-21, SEAD-123F, SEAD-123D, SEAD-41, SEAD-32, SEAD-123B, Building 722, SEAD-123C, SEAD-47, SEAD-7, SEAD-61, SEAD-18, SEAD-35, SEAD-12A, SEAD-63, SEAD-120I, SEAD-120I, SEAD-51, SEAD 006-R-01, SEAD-23, SEAD-120G, SEAD 003-R-01, SEAD 007-R-01, SEAD 002-R-01, SEAD-13, SEAD-70, SEAD-46, SEAD-65A, SEAD-65B, SEAD-65C, SEAD-20, SEAD-67, SEAD-66, SEAD-58, SEAD-119A, SEAD-9, SEAD-31, SEAD-10, SEAD-36, SEAD-42, SEAD-120J, SEAD-120E, SEAD-121D, SEAD-24, SEAD-5, SEAD-71, SEAD-33, SEAD-59, SEAD-53, SEAD-16, SEAD-39, SEAD-30, SEAD-121E, SEAD-121H, SEAD-17, SEAD-121G, SEAD-121F, SEAD-27, SEAD-28, SEAD-25, SEAD-40, SEAD-2, SEAD-121C, SEAD-1, SEAD-34, SEAD-37, SEAD-47, SEAD-68, SEAD-14, SEAD-22, SEAD-6, SEAD-3, SEAD-121B, SEAD-15, SEAD-121I, SEAD-8, SEAD-54, SEAD-26, SEAD-50, SEAD-64A, SEAD-122B, SEAD-64D, SEAD-55, SEAD-49, SEAD-122E, SEAD-48, SEAD-121A, SEAD-44B, Building 2305, SEAD-122D, SEAD-11, SEAD-38, SEAD-120F, SEAD-69, SEAD-43, SEAD-56, SEAD-4, SEAD-60, SEAD-62, SEAD-122E, SEAD-122C, SEAD-122A, SEAD-122B, SEAD-64B, SEAD-52, SEAD-120A, SEAD-44A, SEAD-120B, SEAD-64C

Reeder Creek, Yale Farm Rd, Marsh Rd, Route 96A, Route 96, Silver Creek, Habbel Rd, White Rd, Deal Rd, Wilcox Creek, Kennedy Rd, Romulus, Cayuga St, W Romulus Rd, E Patrol Rd, W Patrol Rd, E Kendaia Rd, W Kendaia Rd, Nimitz Rd, Shooting Star Ln, E Lake Rd, Sampson State Park, Sabre Rd, Smith Vineyard Rd, Main Rd, East West Base Line Rd, US Government, Indian Creek, Vandenberg Rd, Ovid Rd, W Blaine Rd, State Route 96A, State Route 96, Willard Rd, Bonavista, Bonavista State Golf Course, Yerkes, Penn Yan, Dresden, Seneca Lake, Cayuga Lake, Cayuga Nation Tdsa, Romulus, Sampson State Park, ONTARIO, Bellona

730000, 735000, 740000, 745000, 750000, 755000

1020000, 1015000, 1010000, 1005000, 1000000, 995000, 990000, 985000, 980000, 975000

N, W, E, S

Legend

AOC Type

- AOPI (Label highlighted where recommended for SI)
- SI AOC
- RI AOC
- Other SEADs

Water Bodies

- Stream
- Drainage
- Former SEDA Boundary

0 2,500 5,000 10,000 Feet

PFAS Historical Records Review (HRR)
Seneca Army Depot Activity, Seneca County, NY
HydroGeoLogic, Inc., 08 February 2022

Path: \\MABOS07FS01\Projects\PIT\Projects\Huntsville - MEGA\Seneca_HGL_PFAS\Deliverables\05 GIS\HRR\Maps\SEDA_Landuse+SEADs_v2.mxd

TABLES

Table 1A
AOPIs Identified for SI
Historical Records Review
Seneca Army Depot

SI/RI Sites	Site Number	Site Name	Operable Unit (OU)	Classification Group	Potential PFAS Release Area (Yes / No)	Document (s) Referenced[1]	Rationale	Former Use / Site History
MEC Related Sites								
Yes	SEAD 002-R-01	Explosive Ordnance Disposal Areas #2 and #3	OU11	Munitions / Explosives	Yes	13, 14	Potential For Historic Firefighting Activities/Munitions Related Activities	Two areas (EOD-2 and EOD-3) previously utilized as explosive ordinance disposal ranges. Explosive devices were used at EOD-2. EOD-3 was a former EOD disposal area.
Yes	SEAD 003-R-01	Explosive Ordnance Disposal Area (#1) (SEAD 57)	OU11	Munitions / Explosives	Yes	2	Potential For Historic Firefighting Activities/Munitions Related Activities	Active from 1941 to the 1990s, this area was used as open detonation and explosive disposal area in past. More recently it was used for bomb squad training. Although no firefighting activities were recorded, based on the historic use, it is possible that firefighting activities occurred.
Yes	SEAD 007-R-01	Grenade Range	OU11	Munitions / Explosives	Yes	13	Potential For Historic Firefighting Activities/Munitions Related Activities	Active from 1980s to 1990s, used as a firing range for various grenades, small arms and small arms. No written record of high explosive (HE) grenades usage. Although no firefighting activities were recorded, based on the historic use, it is possible that firefighting activities occurred.
Yes	SEAD 16	Building S311, Abandoned Deactivation Furnace	OU4	Munitions / Explosives, Incinerator	Yes	2	Potential For Historic Firefighting Activities	Deactivation Furnace used from 1945- the mid 1960s. Small arms were destroyed by incineration. There is no record of firefighting activities inside or outside of the furnace; however, due to the operation of the deactivation furnace, AFFF may have been used in response to any uncontrolled burning or structure fires. AFFF could also have been stored on site.
Yes	SEAD 17	Building 367, Active Deactivation Furnace	OU4	Munitions / Explosives, Incinerator	Yes	2	Potential For Historic Firefighting Activities	Deactivation Furnace used from 1962 to the 1990s. Small arms were destroyed by incineration. There is no record of firefighting activities inside or outside of the furnace; however, due to the operation of the deactivation furnace, AFFF may have been used in response to any uncontrolled burning or structure fires. AFFF could also have been stored on site.
Yes	SEAD 23	Open Burning Ground	OU2	Munitions / Explosives	Yes	2	Potential For Historic Firefighting Activities/Munitions Related Activities	Active from 1950s to 1980s, was used as open detonation area. High likelihood of past firefighting activities.
Yes	SEAD 24	Abandoned Powder Burning Pit	OU13	Munitions / Explosives	Yes	2	Potential For Historic Firefighting Activities	Black powder and solid propellants were disposed of via open air incineration in the 1940s and 1950s. Firefighting activities likely took place on site during controlled burns.
Yes	SEAD 45 [SEAD 006-R-01]	Open Detonation Area	OU17	Munitions / Explosives	Yes	2	Potential For Historic Firefighting Activities/Munitions Related Activities	Active from 1941 to the 1990s, was used as open detonation area. High likelihood of past firefighting activities.
Yes	SEAD 46	Small Arms Range (aka 3.5-inch Rocket Range)	OU11	Munitions / Explosives	Yes	2	Potential For Historic Firefighting Activities/Munitions Related Activities	The range was used for testing fire tracers. An unknown number of rockets (3.5-inch) were also fired here. Due to the flammable nature of tracers firefighting activities potentially took place.
Ash Landfill Related Sites								
Yes	SEAD 3	Incinerator Cooling Water Pond	OU1	Disposal Area	Yes	2	Disposal Area	Cooling water and fly ash from the solid waste incinerator at SEAD 15 was dumped here. Fly ash was then removed and dumped in the Ash Landfill.
Yes	SEAD 6	Abandoned Ash Landfill	OU1	Disposal Area	Yes	2	Disposal Area	Fly ash was taken from the solid waste incinerator, cooled in the SEAD 3 pond, then disposed of here.
Yes	SEAD 8	Non-Combustible Fill Area	OU1	Disposal Area	Yes	2	Disposal Area	Non-combustible waste stored here. PFAS is fire-retardant so PFAS-coated waste likely disposed of here.
Yes	SEAD 14	Refuse Burning Pits (2 units)	OU1	Disposal Area	Yes	2	Potential For Historic Firefighting Activities	Active burning of refuse from 1941 to 1974, some firefighting activities likely occurred during open burning.
Yes	SEAD 15	Abandoned Solid Waste Incinerator (Building 2207)	OU1	Incinerator	Yes	2	Potential For Historic Firefighting Activities	Incinerator used from 1974-1979 solid waste destroyed by incineration. No recorded instance of fire outside of the furnace, but due to the usage there is a possibility parts of the building were fireproofed. AFFF could also have been stored on site. Although no firefighting activities were recorded, based on the historic use, it is possible that firefighting activities occurred.

Table 1A
AOPIs Identified for SI
Historical Records Review
Seneca Army Depot

SI/RI Sites	Site Number	Site Name	Operable Unit (OU)	Classification Group	Potential PFAS Release Area (Yes / No)	Document (s) Referenced[1]	Rationale	Former Use / Site History
Sewage Related Sites								
Yes	SEAD 5	Sewage Sludge Storage Piles	OU13	Sewage Related Operations	Yes	2	Sewage Related Operations	Disposal area for piles of sewage sludge from the sludge drying beds at Sewage Treatment Plant (STP) No. 4 and STP No. 715.
Yes	SEAD 20	Sewage Treatment Plant No. 4	OU14	Sewage Related Operations	Yes	2	Sewage Related Operations	Sewage treatment plant No.4. In use since 1942, sludge from drying beds disposed of at SEAD 5.
Yes	SEAD 21	Sewage Treatment Plant No. 715	OU14	Sewage Related Operations	Yes	2	Sewage Related Operations	Sewage treatment plant No. 715 with two sludge drying pads. In use since 1956, sludge from drying beds disposed of at SEAD 5. Effluent water discharged into Reeder Creek.
Yes	SEAD 22	Sewage Treatment Plant No. 314	OU14	Sewage Related Operations	Yes	2	Sewage Related Operations	Sewage treatment plant No. 314 In use from 1941 to 1978 then was converted into a lift station. Treated water was discharged into Kendaia Creek when still active.
Disposal/Spill Sites								
Yes	Building 722	Fire House (North Depot)	--	Disposal or Spill Area	Yes	5, B3	Potential For Historic Firefighting Activities	Constructed in 1956 and used as a Fire Station.
Yes	SEAD 7	Shale Pit	OU14	Disposal Area	Yes	2	Disposal Area	Area used for disposal of construction debris from 1980s to 1990s.
Yes	SEAD 9	Old Scrap Wood Site	OU14	Disposal Area	Yes	2, B10	Potential For Historic Firefighting Activities	Construction and demolition wastes deposited and occasionally compacted. Site also used to store scrap wood. Periodically, fire department held training exercises using the woodpile as fuel. No evidence AFFF was used to put out training fires, however AFFF was potentially used during training.
Yes	SEAD 10	Present Scrap Wood Site	OU14	Disposal Area	Yes	2	Potential For Historic Firefighting Activities	Periodically, the fire department held a training exercises using only the scrap wood pile as fuel. The State of New York was notified prior to any burning. No evidence AFFF was used to put out training fires, however AFFF was potentially used during training.
Yes	SEAD 11	Old Construction Debris Landfill	OU8	Disposal Area	Yes	2, 12	Disposal Area	Disposal area of construction debris in the 1940s. Utilized as training area.
Yes	SEAD 58	Debris Area near Booster Station 2131	OU14	Disposal Area	Yes	2, 3	Disposal Area	Booster station 2131 was used to pump drinking water from the lake on site. Anecdotal evidence indicates it was used to dump debris and potentially had DDT stored on site at one point.
Yes	SEAD 59	Fill Area West of Building 135	OU6	Disposal Area	Yes	2, 3	Disposal Area	The area was used for the disposal of construction debris and oily sludges.
Yes	SEAD 64A	Garbage Disposal Area, South of Storage Pad	OU12	Disposal Area	Yes	2, 9	Disposal Area	The area was used for garbage disposal during periods when the SEAD-15 solid waste incinerator was inoperable.
Yes	SEAD 64B	Garbage Disposal Area, South of Classification Area	OU14	Disposal Area	Yes	2, 9	Disposal Area	The area was used for garbage disposal during periods when the SEAD-15 solid waste incinerator was inoperable.
Yes	SEAD 64C	Garbage Disposal Area	OU14	Disposal Area	Yes	2, 9	Disposal Area	The area was used for garbage disposal during periods when the SEAD-15 solid waste incinerator was inoperable.
Yes	SEAD 64D	Garbage Disposal Area, West of Building 2203	OU14	Disposal Area	Yes	2, 9	Disposal Area	The area was used for garbage disposal during periods when the SEAD-15 solid waste incinerator was inoperable.
Yes	SEAD 67	Dump Site east of Sewage Treatment Plant No. 4	OU14	Disposal Area	Yes	2, 14	Sewage Related Operations	Used as a dumping area for waste from the nearby sewage treatment plant (STP No. 4).

Table 1A
AOPIs Identified for SI
Historical Records Review
Seneca Army Depot

SI/RI Sites	Site Number	Site Name	Operable Unit (OU)	Classification Group	Potential PFAS Release Area (Yes / No)	Document (s) Referenced[1]	Rationale	Former Use / Site History
Disposal/Spill Sites (cont.)								
Yes	SEAD 68	Building S-355, Old Pest Control Shop	OU14	Disposal or Spill Area, Pesticide/Herbicide Storage or Use	Yes	2	Potential For Historic Firefighting Activities	The building was used for fire fighting training exercises as recently as the mid-1990s. Fire fighting training equipment was observed in the south end of the building during the visual site inspection but the presence of AFFF cannot be confirmed.
Yes	SEAD 69	Building 606 Disposal Area	OU14	Disposal Area	Yes	2	Disposal Area	Used as disposal area, suspected to be used to dump fenceposts and pesticide cans. Full extent of debris disposed in this area is unknown.
Yes	SEAD 70	Former Building T-2110, Filled Area	OU11	Disposal Area	Yes	2, 4	Disposal Area	Building T-2110 was used to stable horses, fill area was used for disposal of construction debris.
Yes	SEAD 122D	Airfield Hot Pad Spill		Spill	Yes	6	Potential For Historic Firefighting Activities	Location of a JP-4 spill in 1990 that was never cleaned up. The spill was not originally reported and documented so it is possible that fire-retardant was sprayed on the flammable fuel to prevent fire instead of cleaning up spill.

Footnotes:

1) Full document references can be found in Appendix A.

Acronyms:

AFFF	Aqueous Film Forming Foam
DDT	Dichlorodiphenyltrichloroethane
EOD	Explosive Ordnance Disposal
PFAS	Per- and Polyfluoroalkyl Substances
STP	Sewage Treatment Plant

Table 1B
Additional AOPIs Evaluated for Potential PFAS
Historical Records Review
Seneca Army Depot

Site Number[4]	Site Name	Operable Unit (OU)	Document (s) Referenced[1]	Former Use / Site History	Classification Group	Recommended Path Forward	Rationale for Selection[3]	Proximity Sites (if applicable)
MEC Related Sites								
SEAD 4	Munitions Washout Facility Leach Field	OU7	2	Steam dissolved explosives out of munitions. Explosives were re-precipitated, but wastewater was disposed of in pond west of SEAD-4.	Munitions / Explosives	Remains an AOPI; no action at this time; re-evaluate based on results for SI sites with same classification group.	Potential for PFAS in explosives and munitions components (see note 2).	AOPI boundary envelopes SEAD-38 (a NA site) and partially overlaps SEAD-120A.
SEAD 43	Building 606 Old Missile Propellant Test Laboratory	OU14	2	Former use of Building 606 was missile lab; use changed in 1976 to herbicide/pesticide storage.	Munitions / Explosives		Potential for PFAS in explosives and munitions components (see note 2).	AOPI boundaries of SEADs 43, 56 and 69 are collocated. SEAD 69 is an SI AOC (Table 1A).
SEAD 44A	Quality Assurance Test Laboratory, West of Building 616	OU14	2	Quality assurance testing of CS grenades, firing devices, and pyrotechnics. Mines were detonated above ground.	Munitions / Explosives		Potential for PFAS in explosives and munitions components (see note 2).	
SEAD 44B	Quality Assurance Test laboratory, Brady Road	OU14	2	Quality assurance testing of CS grenades, firing devices, and pyrotechnics.	Munitions / Explosives		Potential for PFAS in explosives and munitions components (see note 2).	
SEAD 52	Building 608 and 612 Ammunition Breakdown Area	OU10 & OU14	2	Disassembly of munitions for reuse or storage. Obsolete materials sent to OB/OD Grounds.	Munitions / Explosives		Potential for PFAS in explosives and munitions components (see note 2).	AOPI boundary envelopes SEAD-60, a NA site.
Disposal/Spill Sites								
Building 729	Building 729 - Fire Station, North Depot	n/a	B2, B4	Former fire station identified on historic site plans.	Disposal or Spill Area	**Remains an AOPI; SI recommended.**	Potential PFAS presence based on use, disposal or spills of AFFF.	
Building 2305	Building 2305 - Fire Station, Airfield	n/a	B3	Former fire station; later used to hangar helicopters.	Disposal or Spill Area	**Remains an AOPI; SI recommended.**	Potential PFAS presence based on use, disposal or spills of AFFF.	Downgradient (west) of SEAD-122E, a RI AOC.
SEAD-12A (Burial Site)	Radioactive Waste Burial Site	OU5	3	Disposal of radioactive wastes. Burials between 1940 and 1980. Wastes excavated and shipped off-site in 1987.	Disposal or Spill Area	Remains an AOPI; no action at this time; re-evaluate based on results for SI sites with same classification group.	Various fluoropolymer (e.g. PTFE) and fluoroelastomer-based products (e.g. Viton) have been used in research laboratories.	
SEAD-12B (DWDP)	Dry Waste Disposal Pit (DWDP) Behind Building 813	OU5	3	5000 gallon storage tank designed for the storage of contaminated wastewaters from the washing of radioactive contaminated clothing. Dry waste pit was found to contain plywood.	Disposal or Spill Area		Military and lab clothing may have repellant coatings	
SEAD-12C (SEAD 120C)	Storage and Paint Spray Building (Bldgs. 813-817)	OU5	3	Paint shop and storage area. Evidence of release of chlorinated solvents.	Disposal or Spill Area		Paints and coatings may contain PFAS. Evidence of historical releases.	
SEAD 56	Building 606 Herbicide and Pesticide Storage	OU14	2	Former use of pesticide/herbicide storage.	Pesticide/Herbicide Storage or Use		Potential storage, spill and disposal of pesticides/herbicides that contain PFAS.	AOPI boundaries of SEADs 43, 56 and 69 are collocated. SEAD 69 is an SI AOC (Table 1A).
SEAD 63	Miscellaneous Components Burial Area	OU14	2, 4	Disposal area for miscellaneous classified components. Test pits found battery assemblies, accelerometers, lock mechanisms, fire/safe pins, baroswitches, wiring, quick connects, full trash bags, carpet, paint cans, and electronics components.	Disposal Area		Evidence of dumping and disposal. Some materials found may contain PFAS (wiring, electronic components, carpet, paint). Designated AOPI to be consistent with other burial sites identified for SI.	Site boundary envelopes SEAD-120I, a NA site.
SEAD 66	Pesticide Storage Area near Buildings 5 and 6	OU12	9	Pesticide Storage Area near Buildings 5 and 6. SMWU report documents evidence of release of pesticides and PCBs in soil.	Pesticide/Herbicide Storage or Use		Potential storage, spill and disposal of pesticides/herbicides that contain PFAS.	
SEAD 71	Alleged Paint Disposal Area	OU6	2	Disposal area with evidence of buried construction materials. RI results showed elevated polycyclic aromatic hydrocarbons (PAHs), toatal petroleum hydrocarbons (TPH), metals, pesticides in soil.	Disposal Area		Evidence of dumping of materials which may contain PFAS. Photographs of the area show 'junkyard' nature of the site. Designated AOPI to be consistent with other burial sites identified for SI.	Upgradient of SEAD-59, a SI AOC.
SEAD 120A	"50 Area" Dumping Area	n/a	6	Dumping area; two areas investigated contained concrete blocks, fill dirt, steel drums, railroad ties and scrap metal.	Disposal Area		Burial area of unknown items. Designated AOPI to be consistent with other burial sites identified for SI.	AOPI boundary overlaps with SEAD-4.
SEAD 121B	Building 325 PCB Oil Spill	n/a	6	Release of dielectric fluid confirmed by sampling; site recommended for further action.	Spill		Known spill. Dielectric fluids may contain PFAS.	
SEAD 121C	Defense Reutilization and Marketing Office (DRMO) Yard	OU16	10	Military junkyard. Vehicles and scrap materials (scrap metal, wood debris, ordnance components, batteries, tiles, oil filters, auto parts, paint cans, old tires, and other debris).	Disposal Area		Disposal area of potential PFAS containing materials (automotive related, paints, unknown debris).	Downgradient of SEAD-25, a PFAS RI AOC.
SEAD 121D	Building 306 and 308 Hazardous Materials Release	n/a	6	Inspectors workshop and boiler house. Sample results suggest fuel oil, paints and solvents may have been released.	Spill		Volitile Organic Compounds (VOCs), TPH, and PAHs detected in soils indicating potential release. Materials stored in Building 306/308 may contain PFAS (paints, coatings and solvents).	
SEAD 121F	Building 135 Stained Soil	n/a	6	Vehicle storage; dirt floor stained with oil, fuel, hydraulic fluid.	Spill		PFAS have been or are used in the car body, automobile engines, electronics, environmental systems, fuel systems, interiors, steering systems, suspension/brakes, and transmission.	Adjacent (east) of SEAD-5, a SI AOC.
SEAD 123C	Building 747 HM Spills	n/a	6	Building was used for storage of battery acids and paints; releases of petroleum and solvents reportedly occurred.	Auto Maintenance			400 ft, sidegradient of Building 722, a SI AOC.
SEAD 123D	Area West of Building 715	n/a	6	Several suspected mounding areas and a rusty drum protruding from a mound of soil. Did not advance past initial investigation (TPH and metals).	Disposal Area		Evidence of dumping of unknown materials. Designated AOPI to be consistent with other burial sites identified for SI.	Adjacent (west) of SEAD-21, a SI AOC. Opposite side of creek.
SEAD 123F	Mound North of Post 3	n/a	6	Suspected burial mound. No electromagnetic anomalies; limited analytical detections at low levels.	Disposal Area		Evidence of dumping of unknown materials. Designated AOPI to be consistent with other burial sites identified for SI.	

Table 1B
Additional AOPIs Evaluated for Potential PFAS
Historical Records Review
Seneca Army Depot

Site Number[4]	Site Name	Operable Unit (OU)	Document (s) Referenced[1]	Former Use / Site History	Classification Group	Recommended Path Forward	Rationale for Selection[3]	Proximity Sites (if applicable)
Other								
SEAD 1	Hazardous Waste Container Storage Facility (Building 307)	OU13	14	Temporary storage of containerized hazardous waste.	Storage Area	No Action	No evidence of historical release and/or use of PFAS-containing materials.	
SEAD 2	PCB Transformer Storage Facility (Building 301)	OU13	2, 14	Temporary storage of suspected PCB-contaminated electrical equipment.	Storage Area	No Action		
SEAD 13	Inhibited Red Fuming Nitric Acid (IRFNA) Disposal Site	OU9 & OU14	2	Disposal of nitric acid in limestone lined pits.	Disposal Area	No Action		Portions of SEAD-13 overlap or are side gradient to SEADs 46 and 002-R-01 which are SI AOCs.
SEAD 18	Building 709, Classified Document Incinerator	OU14	8	Classified document incinerator.	Incinerator	No Action		
SEAD 19	Building 801, Classified Document Incinerator	OU14	8	Classified document incinerator.	Incinerator	No Action		
SEAD 27	Steam Cleaning Waste Tank (Building 360)	OU12	9	Steam cleaning to degrease metal working machines. No evidence that groundwater infiltrated the accumulation pit. Belowground, concrete tank above which track-mounted cars loaded with equipment requiring cleaning can be positioned and steam cleaned.	Cleaning	No Action		SEAD-27 is upgradient (east) and adjacent to SEAD-121C, an AOPI and downgradient of SEAD-25, a RI AOC.
SEAD 28	Building 360, Underground Waste Oil Tanks (2)	OU14	8	2,000 gallon UST of used oil removed. No chemical impacts were detected and no leaks were observed.	Petroleum Storage	No Action		SEAD-28 is upgradient (east) and adjacent to SEAD-121C, an AOPI and downgradient of SEAD-25, a RI AOC.
SEAD 29	Building 732, Underground Waste Oil Tank	OU14	8	550 gallon UST of used oil removed. No chemical impacts were detected and no leaks were observed.	Petroleum Release	No Action		SEAD-29 is adjacent to SEAD-123E, a NA site.
SEAD 30	Building 118, Underground Waste Oil Tank	OU14	8	550 gallon UST of used auto oil removed. No chemical impacts were detected and no leaks were observed.	Petroleum Storage	No Action		SEAD-30 is downgradient (SW) of Building 103, a RI AOC.
SEAD 31	Building 117, Underground Waste Oil Tank	OU14	8	Removal of 2,000 gallon UST. Waste oil was stored in the tank for subsequent use as a fuel supplement in the boilers located at Building 718 (SEAD-35). Previously, it was also used as a fuel supplement in the boilers located in Buildings 319 (SEAD-37) and 121 (SEAD-36). No chemical impacts were detected and no leaks were observed.	Petroleum Storage	No Action		SEAD-31 is adjacent to and upgradient (east) of SEAD-71, an AOPI.
SEAD 32	Building 718, Underground Waste Oil Tanks (2)	OU14	8	Former 40,000 and 20,000 gallon USTs of No. 6 fuel oil and later waste oil for reuse. Minor soil chemical impacts were detected, no detections in groundwater. No leaks were observed.	Petroleum Storage	No Action		SEAD-32, SEAD-35 and SEAD-61 are collocated
SEAD 33	Building 121, Underground Waste Oil Tank	OU14	8	Removal of 30,000 gallon UST with fuel oil. Minor soil chemical impacts were detected and no leaks were observed.	Petroleum Storage	No Action		SEAD-33 is downgradient (SW) of Building 103, a RI AOC.
SEAD 34	Building 319, Underground Waste Oil Tank	OU14	8	Two USTs for storage of fuel. Surficial staining noted, minor soil chemical impacts.	Petroleum Storage	No Action		SEAD-34 is adjacent to, and downgradient (SW), of SEAD-37.
SEAD 35	Building 718, Waste Oil Burning Boilers (3 units)	OU14	8	Oil fired boilers for heat and hot water.	Heating Plant	No Action		SEAD-32, SEAD-35 and SEAD-61 are collocated
SEAD 36	Building 121, Waste Oil Burning Boilers (2 units)	OU14	8	Oil fired boilers for heat and hot water.	Heating Plant	No Action		
SEAD 37	Building 319, Waste Oil Burning Boilers (2 units)	OU14	8	Oil fired boilers for heat and hot water.	Heating Plant	No Action		SEAD-37 is adjacent to, and upgradient (northeast), of SEAD-34.
SEAD 38	Building 2079, Boiler Plant Blowdown Leach Pit	OU7	2	Blowdown liquid from boiler. Originally discharged to ground; in 1979 connected to sanitary sewer.	Heating Plant	No Action	Blowdown occurs when water is removed from a steam boiler while the boiler is operating. Boilers are "blown down" to remove suspended solids and bottom sludge from steam boilers. No evidence was found to suggest the water and solid inside the boiler may contain PFAS.	Completely enveloped by SEAD-4
SEAD 39	Building 121 Boiler Plant Blowdown Leach Pit	OU14	2	Blowdown liquid from boiler. Originally discharged to ground; in 1979 connected to sanitary sewer.	Heating Plant	No Action		
SEAD 40	Building 319 Boiler Plant Blowdown Leach Pit	OU14	2	Blowdown liquid from boiler. Originally discharged to ground; in 1979 connected to sanitary sewer.	Heating Plant	No Action		
SEAD 41	Building 718 Boiler Plant Blowdown Leach Pit	OU14	2	Blowdown liquid from boiler. Originally discharged to ground; in 1979 connected to sanitary sewer.	Heating Plant	No Action		
SEAD 42	Building 106, Preventive Medicine Laboratory	OU14	8	Medical and dental services. Sanitary discharges treated in STP #4.	Preventative Medicine Laboratory	No Action	No evidence of historical release and/or use of PFAS-containing materials.	
SEAD 47	Building 321 and 806, Radiation Calibration Source Storage	OU14	8	Radiation calibration sources were stored. No wastes generated.	Storage Area	No Action		
SEAD 48	Pichblende Ore Storage Igloos	OU13	2	Storage of pitchblende (uranium ore).	Storage Area	No Action		
SEAD 49	Building 356, Columbite Ore Storage	OU14	8	Columbite ore storage. Naturally occurring material consisting of a mixture of the oxides of iron, manganese, niobium, and tantalum.	Storage Area	No Action		
SEAD 50	Tank Farm	OU15	2	Above ground solid storage. Some tanks contained antimony, rutile, asbestos and silicon carbide.	Storage Area	No Action		SEAD-50 and SEAD-54 are collocated.
SEAD 51	Herbicide Usage, Perimeter of High Security Area	OU14	B9	Herbicide treatment area.	Pesticide/Herbicide Storage or Use	No Action		
SEAD 53	Munitions Storage Igloos	OU14	8	Storage of military munitions.	Storage Area	No Action		
SEAD 54	Asbestos Storage	OU15	2	Above ground solid storage; asbestos.	Storage Area	No Action		SEAD-50 and SEAD-54 are collocated.
SEAD 55	Building 357, Tannin Storage	OU14	8	Columbite ore and tannin storage. Natural materials, no PFAS.	Storage Area	No Action		
SEAD 60	Oil Discharge adjacent to Building 609	OU10 & OU14	8	Release of oil from heating plant building.	Petroleum Release	No Action		SEAD-60 is enveloped by the boundary of SEAD-52, an AOPI.
SEAD 61	Building 718, Underground Waste Oil Tank	OU14	8	Former 10,000 gallon UST for waste oil prior to burning in boiler plant.	Petroleum Storage	No Action		SEAD-32, SEAD-35 and SEAD-61 are collocated

Table 1B
Additional AOPIs Evaluated for Potential PFAS
Historical Records Review
Seneca Army Depot

Site Number[4]	Site Name	Operable Unit (OU)	Document (s) Referenced[1]	Former Use / Site History	Classification Group	Recommended Path Forward	Rationale for Selection[3]	Proximity Sites (if applicable)
Other								
SEAD 62	Nicotine Sulfate Disposal Area near Building 606 and 612	OU14	7	Rumored disposal of two drums of nicotine sulfate.	Disposal Area	No Action	No evidence of historical release and/or use of PFAS-containing materials.	The boundary of SEAD-62 envelopes SEAD-52 and SEAD-60.
SEAD 65A	Acid Storage Area	OU14	8	Unconfirmed acid storage; no evidence of release.	Storage Area	No Action		
SEAD 65B	Acid Storage Area	OU14	8	Unconfirmed acid storage; no evidence of release.	Storage Area	No Action		
SEAD 65C	Acid Storage Area	OU14	8	Unconfirmed acid storage; no evidence of release.	Storage Area	No Action		
SEAD 72	Building 803, Mixed Waste Storage Area	OU5	2	Store solid radioactive and mixed wastes.	Storage Area	No Action		
SEAD 119A	Building 2409 Sewage Spill	n/a	6	Sewage spill observed in 1995. Sewage source is residences in lake side housing area and is pumped to Seneca County Treatment Plant to the south.	Sewage Related Operations	No Action		
SEAD 120B	Ovid Road Small Arms Range	n/a	6	Small arms range. Minor potential for fires.	Small Arms Use	No Action		
SEAD 120D	Military Police Refueling Station	n/a	6	Minor petroleum spills. Site did not progress to SI.	Petroleum Release	No Action		
SEAD-120E	Possible DDT Disposal near Building 2131	n/a	6	No evidence for buried containers; minor pesticide detections. Did not proceed to SI.	Disposal Area	No Action		
SEAD 120F	Munitions Burial Sites, South End of the Main Depot	n/a	6	No electromagnetic anomalies or evidence of disposal. Site did not proceed to SI for further munitions investigation.	Disposal Area	No Action		
SEAD 120G	Mounds at the Duck Ponds	n/a	6	Stockpiles of top soil for road and facility construction.	Stockpile Area	No Action		
SEAD 120H	Building 810	n/a	6	Transfer area for military items entering and exiting.	Storage Area	No Action		
SEAD 120I	Building 819	n/a	6	Quality assurance inspection laboratory.	Laboratory	No Action		
SEAD 120J	Farmer's Dump	n/a	6	Minor disposal area related to local farm. General farm refuge and animal carcasses found. Not related to former Department of Defense use.	Disposal Area	No Action		
SEAD 121A	Un ited States Coast Guard (USCG) Halon Discharge	n/a	6	100-lb Halon (halogenated hydrocarbon) discharge in control building. Not considered a PFAS.	Spill	No Action		
SEAD 121E	Building 127 UST Petroleum Release	n/a	6	Diesel fuel UST; soil staining.	Spill	No Action		Adjacent (south) of SEAD-71, an AOPI.
SEAD 121G	Rumored Coal Ash Disposal Area	n/a	6	Coal ash disposal; inorganics, no PFAS present.	Disposal Area	No Action		Potentially impacted by Building 103 or SEAD-25 RI AOCs.
SEAD 121H	Rumored Coal Disposal Area	n/a	6	Coal disposal, no PFAS present.	Disposal Area	No Action		
SEAD 121I	Rumored Cosmoline Disposal Area	OU16	6, 10	Equipment unloaded that may be coated in brown, wax-like petroleum-based corrosion inhibitors.	Disposal Area	No Action		
SEAD 122A	Skeet/Trap Range	n/a	6	Skeet shooting area. Small potential for fires or use of PFAS in munitions.	Small Arms Use	No Action		
SEAD 122B	Small Arms Range, Airfield and Building 2302	OU14	2	Small arms range. Small potential for fires or use of PFAS in munitions. Building 2302 used for storage of targets.	Small Arms Use	No Action		
SEAD 122C	Building 2311 Conex with Unknown Contents	n/a	6	Storage of small arms targets.	Small Arms Use	No Action		
SEAD 123A	Building 744 Indoor Firing Range	n/a	6	Small arms range. Small potential for fires or use of PFAS in munitions.	Small Arms Use	No Action		
SEAD 123B	Building 716 and 717 Petroleum Releases	n/a	6	Soil staining; site did not proceed further than initial investigation.	Petroleum Release	No Action		
SEAD 123E	Rumored DDT Burial at Ice Rink	n/a	6	Electromagnetic anomaly identified. Located south of SEAD-58.	Disposal Area	No Action		SEAD-123E is adjacent to SEAD-29, a NA site.

Footnotes:

1) Full document references can be found in Appendix A.

2) PFAS polymers are used as binders in plastic/polymer bonded explosives (PBX) and in munition components such as gaskets, wiring sheaths, tubing and seals. Most prevalent compounds are PTFE, vinylidene difluoride/hexafluoropropylene copolymer (Viton A and Viton B), and polychlorotrifluoroethylene (Kel-F 800) (Olsavsky et. al, 2020). Fluoropolymers have been added to ammunition to make the final product rubbery. The fluoropolymers in ammunition reduce the likelihood of an unplanned explosion due to shock (Glüge et. al, 2020).

3) PFAS sources adapted from Glüge et al., (2020); ITRC (2021).

4) All sites with a SEAD identifier were previously the subject of environmental investigation. The sites were determined to need no further action, were remediated, or were subject to land use controls. Please reference the latest Five-Year Review for more information (Parsons, 2021).

Acronyms:

AFFF	Aqueous Film Forming Foam
AOC	Area of Concern
AOPI	Area of Potential Interest
DDT	Dichlorodiphenyltrichloroethane
n/a	Non-applicable
NA	No Action
PCB	Polychlorinated Biphenyls
PFAS	Per and Polyfluoroalkyl Substances
SI	Site Investigation
STP	Sewage Treatment Plant
UST	Underground Storage Tank

Appendix A
Compiled Research Log

Appendix A
Compiled Research Log
Historical Records Review
Seneca Army Depot

Administrative Records			
Number	**Document Name**	**Prepared by**	**Year**
1	New York State, Part 373, RCRA Part B Permit Application for Seneca Army Depot	United States Army	1986
2	Final SWMU Classification Report Seneca Army Depot Activity	Engineering Science, Inc.	1994
3	Draft Final Expanded Site Investigation Eight Moderately Low Priority AOCs: SEADs 5, 9 12(A AND B), (43,56,69), 44(A AND B), 50, 58, AND 59	Parsons Engineering Science Inc.	1995
4	Draft Final Expanded Site Investigation Seven Low Priority AOCs: SEADs 60, 62, 63, 64(A, B, C, AND D), 67, 70, AND 71	Parsons Engineering Science Inc.	1996
5	Environmental Baseline Survey Report	Woodward-Clyde Federal Services	1997
6	Investigation of Environmental Baseline Survey Non-Evaluated Sites: SEAD 199A, SEAD 122(A,B,C,D,E), AND SEAD 123(A,B,C,D,E,F) SEAD 46, SEAD 68, AND SEAD 120(A,B,C,D,E,F,G,H,I,J) SEAD 121 (A, B, C, D, E, F, G, H, I,)	Parsons Engineering Science Inc.	1999
7	Completion Report for Six Areas of Concern: SEADs (43, 56, 69), 44A, 44B, 52, 62, and 120B	Parsons Engineering Science Inc.	2001
8	Record of Decision (ROD) Twenty No Action SWMUs (SEADs 7, 9, 10, 18, 19, 20, 21, 22, 33, 35, 36, 37, 42, 47, 49, 51, 53, 55, 65, and 68) And Eight No Further Action SWMUs (SEADs 28, 29, 30, 31, 32, 34, 60, and 61)	Parsons	2003
9	Final Record of Decision (ROD) Sites Requiring Institutional Controls in the Planned Industrial/Office Development or Warehousing Areas	Parsons	2004
10	Remedial Investigation Report. Two EBS Site in Planned Industrial Development Area (SEAD-121C and SEAD 121I)	Parsons	2006
11	Final Record of Decision for Seventeen SWMUs Requiring Land Use Controls (SEADs 13, 39, 40, 41, 43/56/69, 44A, 44B, 52, 62, 64B, 64C, 64D, 67, 122B and 122E.	Parsons	2007
12	Record of Decision The Old Construction Debris Landfill (SEAD-11)	Parsons	2009
13	Record of Decision SEAD 46, SEAD 003-R-01 (SEAD 57), SEAD 002-R-01 and SEAD 007-R-01 (Seneca AD Munitions Response Sites) and SEAD 70	Parsons	2017
14	Final Five-Year Review SEADs 1, 2, 5, 12, 13, 16, 17, 23, 25, 26, 27, 39, 40, 41, 43, 44A, 44B, 46, 52, 56, 59, 62, 64A, 64B, 64C, 64D, 66, 67, 69, 71, 121C, 121I, 122B, 122E, 002-R-01, 003-R-01, 007-R-01, and The Ash Landfill Operable Unit (SEADs 3, 6, 8, 14 and 15)	Parsons	2021

Online Resources	
Description	**URL**
Abandoned and little known airfields: New York State	http://www.airfields-freeman.com/NY/Airfields_NY_Rochester.htm
Cornell University Library Digital Collections, New York State Aerial Photographs	https://digital.library.cornell.edu/?view=maps
Google Earth Satellite Images 1994, 2002, 2015, 2018	https://www.google.com/earth/versions/
New York State, Discover GIS Data NY 1994, 2002, 2015, 2018	https://orthos.dhses.ny.gov/
New York State Homeland Security and Emergency Services fire training programs informational catalog	http://www.co.seneca.ny.us/wp-content/uploads/2020/01/trainingcatalog.pdf
Seneca County fire training schedule and contact information	https://www.co.seneca.ny.us/gov/safety/emergency/fire-training/
Seneca White Deer Inc. organization information	https://www.senecawhitedeer.org/index.cfm?Page=Military%20History

Scanned Maps, Blueprints, and Drawings				
Figure	**Description**	**Prepared By**	**Year**	**Comments**
B1	Ordnance Storage Area Location and Grading Plan	Black and Veatch	1955	Building 722 labeled as MHE Maintenance Shop instead of Firehouse.
B2	Forest Management Plan (Fire Communications Systems)	Office of the Post Engineer	1965	Buildings 103 and 729 labeled Firehouse.
B3	Landscape Plan: Airport Administration Area	USA Ordnance Department	1959	Shows Building 2305 as Firehouse.
B4	Landscape Plan: North Depot Administrative Area	USA Ordnance Department	1959	Building 729 labeled as Firehouse.
B5	General Supply Area Fire Station Type F-3	William S Lozier Inc.	1942	Shows Building S-335 in SEAD 68 designs, planned for use as Firehouse.
B6	General Supply Area Fire Station Type F-3 Electrical Layout	William S Lozier Inc.	1942	Shows Building S-335 in SEAD 68 designs, planned for use as Firehouse.
B7	General Supply Area: Water and Sewer Plan	William S Lozier Inc.	1942	Shows Building S-335 labeled as Firehouse.
B8	General Supply Area: Water and Sewer Plan	William S Lozier Inc.	1943	Shows Building S-335 labeled as Firehouse.
B9	Pesticide Storage Documentation	Unknown	1988	Documentation of pesticide storage in Building 606.
B10	Fire Zone	Unknown	Unknown	Shows SEAD 9 labeled as Fire School.

Appendix B
Scanned Documents

B1

Ordnance Storage Area Location and Grading Plan

CORPS OF ENGINEERS

STORAGE AREA

PARKING AREA

STORAGE AREA

LUMBER & PIPE STORAGE SHED
FIN. FL. ELEV. 640.50

PAINT STORAGE BLDG.
FIN. FL. ELEV. 640.25

VEHICLE STORAGE BLDG.
FIN. FL. ELEV. 640.0

EQUIP. FUEL STORAGE & DISPENSING BLDG.
FIN. FL. ELEV. 640.5

POST ENGINEERS SHOP & WAREHOUSE
FINISH FLOOR ELEV. 641.0

SUPPLY WAREHOUSE
FINISH FLOOR ELEV. 640.0

MHE MAINTENANCE SHOP
FINISH FLOOR ELEV. 641.0

MOTOR VEHICLE SHOP
FINISH FLOOR ELEV. 641.0

WASH RACK

OIL STORAGE BLDG.
FIN. FL. ELEV. 640.75

DISPATCHERS BLDG.
FIN. FL. ELEV. 640.75

GASOLINE DISPENSING

CENTRAL HEATING PLANT
FIN. FL. ELEV. 635.0

ACCESS ROAD

SOFTBALL DIAMOND

TENNIS COURTS

SPECIAL SERVICES Auto Hobby Shop

CHANGE HOUSE

POOL

GRASS AREA

CONCRETE PAD

ADMINISTRATION AREA

FOR CONTINUATION OF GRADING SEE ADMINISTRATION AREA DWG'S. Y4-104 & Y4-105

DRIVE 'B'

GATE

JERSEY BARRIER

ROAD

CHAIN LINK FENCE

BITUMINOUS PAVEMENT

CONCRETE PAVEMENT

TOP OF SLOPE

TOP OF CUT

NOTE:

1. FOR BITUMINOUS DRIVE & PARKING AREA SECTION SEE TYPICAL SERVICE ROAD SECTION, DWG. Y1-113
2. FOR GASOLINE DISPENSING, WASH RACK, PARKING ISLAND & RAMP DETAILS SEE DWG. Y4-110
3. FOR GUARD POST DETAIL SEE DWG. Y2-103
4. FOR STANDARD HEADWALL DETAILS SEE DWG. Y1-110
5. FOR LOCATION & GRADE OF CONCRETE PIPE TRENCH SEE DWG. Y4-627 & Y4-628
6. CONCRETE SIDEWALK TO BE 4" THICK, WIDTH AS SHOWN.

RECORD DRAWING AS BUILT

SYMBOL	DESCRIPTION	DATE	APPROVAL
	Record Drawing as Built	6-9-71	
3	General Revisions	6-30-65	
	Record Work as Built	6-1958	
2	Revised Supply Warehouse & Grading	7-29-55	A.B.R.
1	Relocated Fire Storage Bldg. & Lumber-Pipe Storage Shed	7-22-55	A.B.R.

REVISIONS

BLACK & VEATCH
CONSULTING ENGINEERS
KANSAS CITY, MISSOURI

DEPARTMENT OF THE ARMY
OFFICE OF THE CHIEF OF ENGINEERS
MILITARY CONSTRUCTION — ENGINEERING DIVISION
WASHINGTON, D.C.

DRAWN BY: R.J.
TRACED BY: R.J.
CHECKED BY: A.B.R.
SUBMITTED:
APPROVED:
CHIEF ENGR.
APPROVED FOR:
DATE:

ORDNANCE STORAGE AREA
SENECA ORDNANCE DEPOT, N. Y.
SERVICE AREA
LOCATION AND GRADING PLAN

APPROVED:
COLONEL, C.E.
DATE: 12 May 1955

SCALE: 1" = 40'
SPEC. NO.
DRAWING NUMBER
Y4-106
SHEET OF

B2

Forest Management Plan (Fire Communications Systems)

LEGEND

- ◉ FIRE HOUSES
- ▲F FIRE PHONES
- ● PULL BOXES
- ▲G GUARD PHONES
- ▲ TELEPHONES
- ■ RADIO TRANSMITTERS

1000 0 1000 2000 3000

SCALE IN FEET

NUMBER	SYMBOL	DESCRIPTION	DATE	BY
		REVISIONS		

DEPOT FACILITIES DIVISION--PROJECTS & PLANS SERVICES

DRAWN BY: ROBERT G. MARSHALL

SUBMITTED BY: DEPUTY POST ENGINEER

RECOMMENDED BY: LT.COL. P.E. POST ENGINEER

APPROVED: James O. Green, COLONEL ORDNANCE CORPS, COMMANDING

SENECA ARMY DEPOT
ROMULUS, NEW YORK

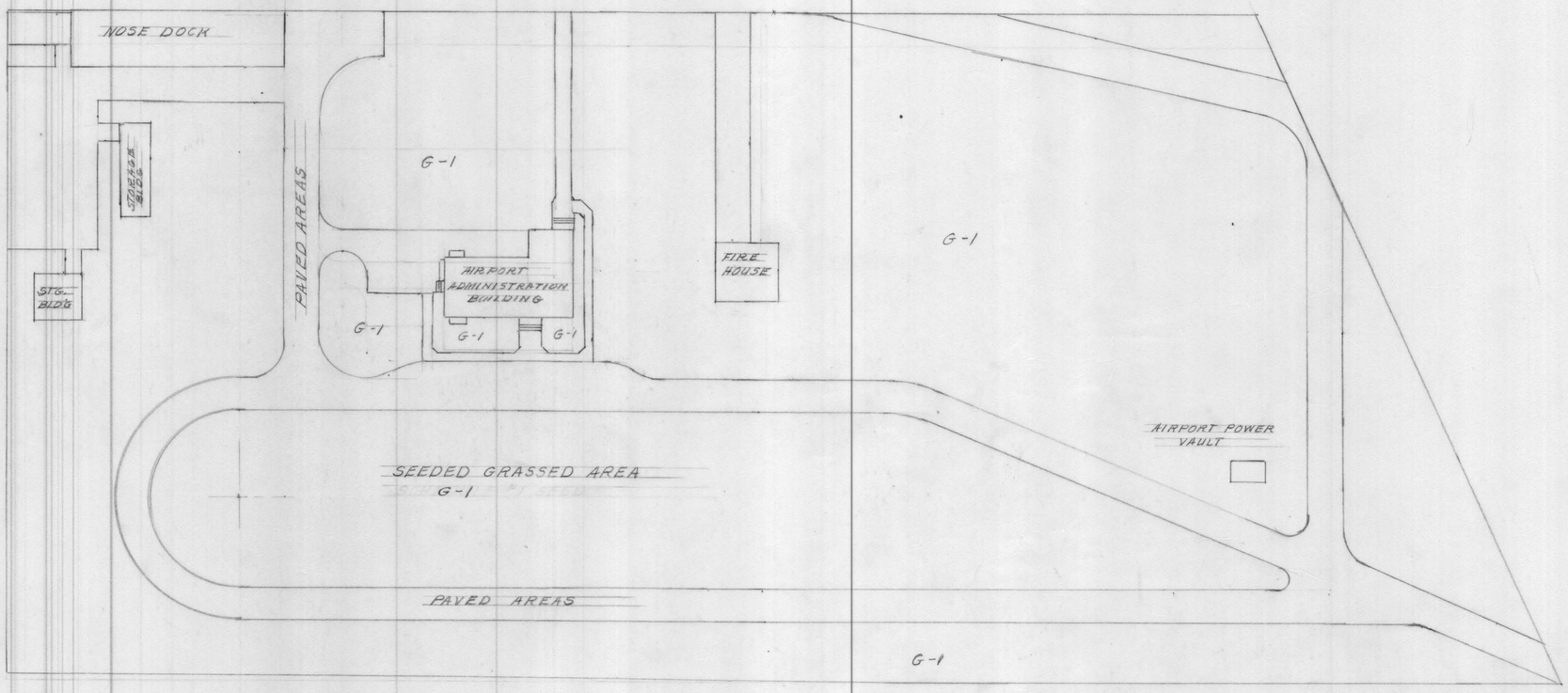
WOODLAND MANAGEMENT PLAN
FIRE COMMUNICATION SYSTEMS

SCALE	DATE	DRAWING NUMBER	SHEET
AS NOTED	19 MARCH, 1965	3-65	3 OF 4

File with "LANDSCAPING"

B3

Landscape Plan: Airport Administration Area



AREA No. 9
SCALE 1" = 50 FT.

AIR STRIP ADMINISTRATION AND CONTROL AREA

LEGEND

BLDG'S

GRASSED AREA

TREES & SHRUBS

PLANTING LEGEND

PROPOSED PLANTING EXISTING PLANTING

- TREE TO 60 FT
- TREE TO 40 FT
- TREE TO 25 FT
- S- SHRUBS — TREE TO BE REMOVED
- G- GROUND COVER — SHRUBS TO BE REMOVED
- V- VINES — SHRUBS TO REMAIN
- GROUND COVER G-

PLANT LIST

KEY	SCIENTIFIC NAME	COMMON NAME
G-1		Sch "1 Grass Cover

LANDSCAPE PLAN
AIRPORT ADMINISTRATION AREA
SENECA ORDNANCE DEPOT
ROMULUS N.Y.

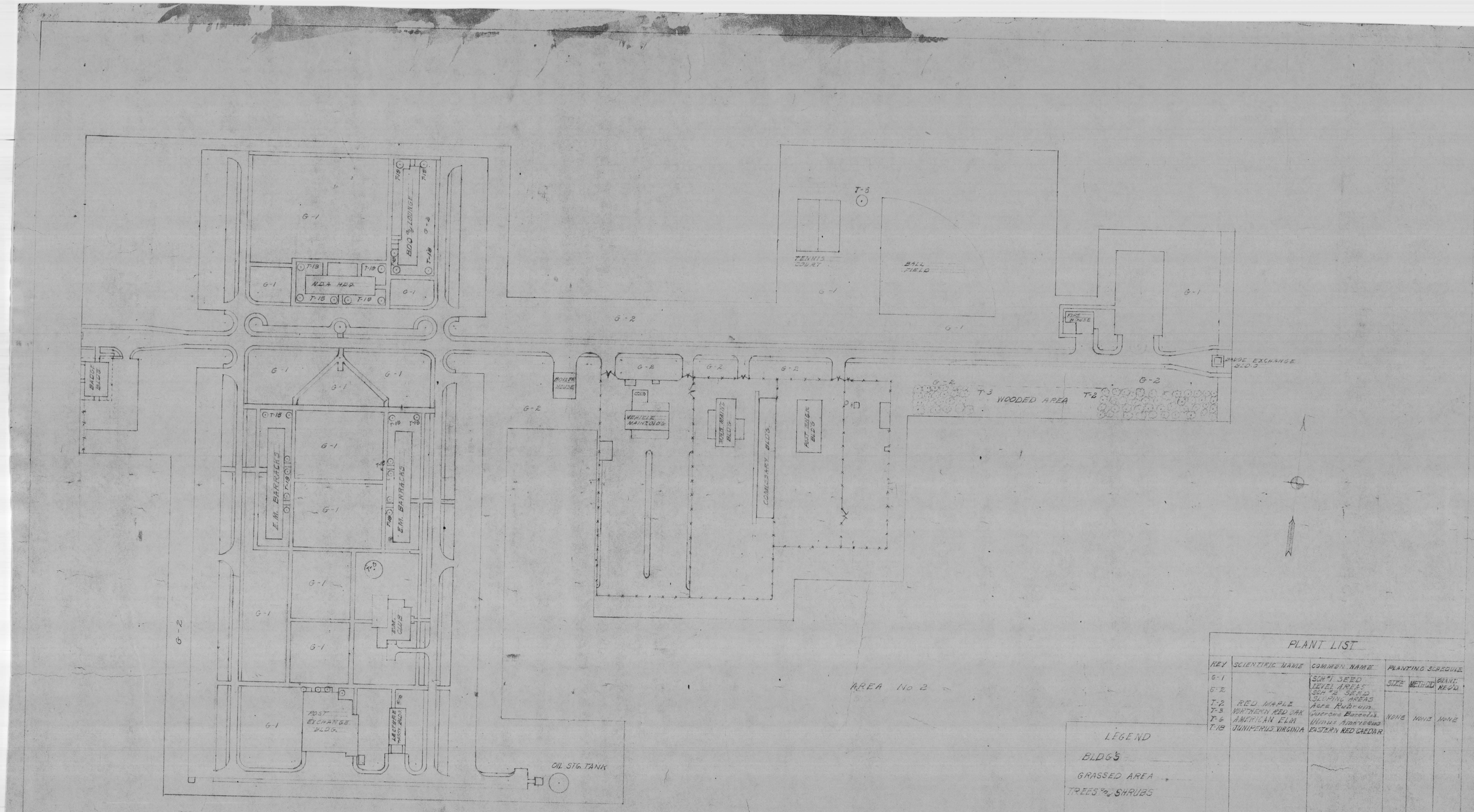
ENG. SECTION	UTILITIES	DIV.
"LANDSCAPING" SUBMITTED		DRAFTSMAN K.J. DICKER
ENGINEER	EXAMINED	APPROVED
Kenneth A. Stanton MAJOR CE	POST ENG.	COL. ORD.

SCALE 1" = 50 ft | DRAWING 4-59

File with "Landscaping"

B4

Landscape Plan: North Depot Administrative Area



PLANT LIST

KEY	SCIENTIFIC NAME	COMMON NAME	PLANTING SCHEDULE		
			SIZE	METHOD	QUANT. REQ'D
G-1		SOW'N SEED			
G-2		LEVEL AREAS SOW'N SEED			
		SLOPING AREAS			
T-2	RED MAPLE	Acer Rubrum			
T-3	NORTHERN RED OAK	Quercus Borealis	NONE	NONE	NONE
T-6	AMERICAN ELM	Ulmus Americana			
T-18	JUNIPERUS VIRGINIA	EASTERN RED CEDAR			

LEGEND

BLDGS

GRASSED AREA

TREES & SHRUBS

PLANTING LEGEND

PROPOSED PLANTING EXISTING PLANTING

TREE TO 60 FT

TREE TO 40 FT

TREE TO 25 FT

TREE TO BE REMOVED

SHRUBS & GROUND COVER — SHRUBS TO BE REMOVED

VINES — SHRUBS TO REMAIN

GROUND COVER

LANDSCAPE PLAN
NORTH DEPOT ADMINISTRATIVE AREA
SENECA ORDNANCE DEPOT
ROMULUS N.Y.

ENG. SECTION | UTILITIES DIV. | DATE 30 JAN 59

SUBMITTED | DRAFTSMAN R.J. DICKERSON | CHECKED BY J.G. Marino

ENGINEER Harold DeRuke | APPROVED

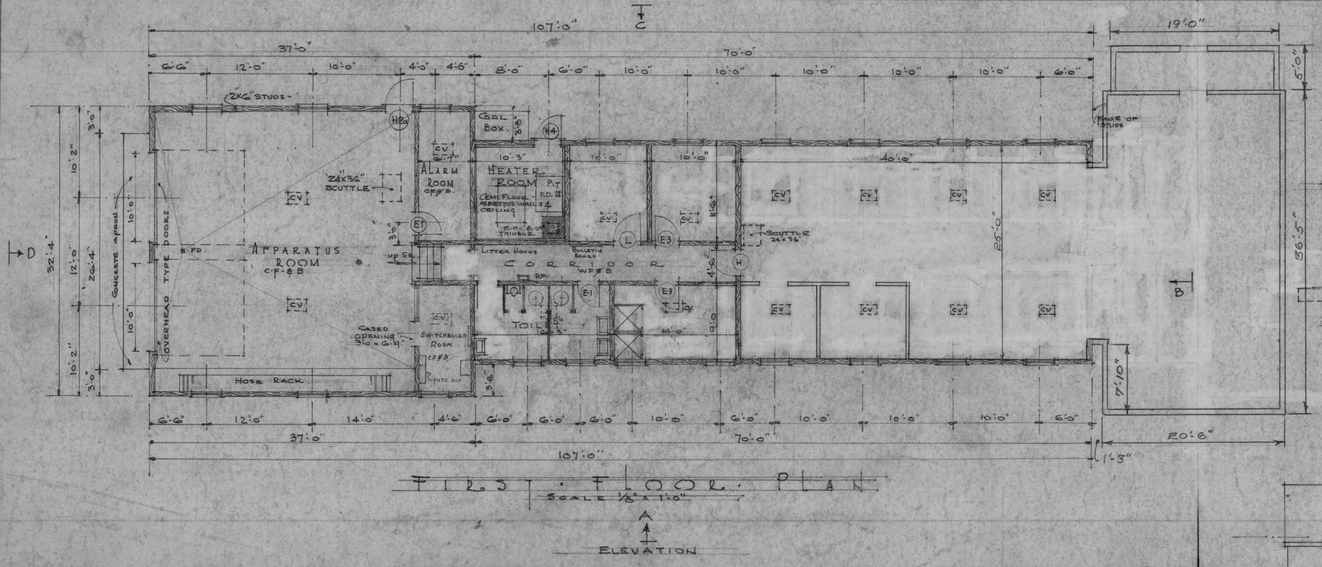
EXAMINED

MAJOR GE POST ENG. | COL. ORD. CORPS COMM.

SCALE 1" = 100 ft. | DRAWING 3-59 | FILE SEN. O.D.

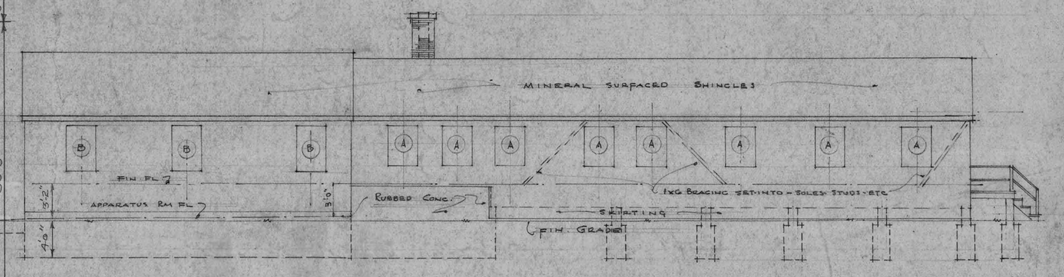
B5

General Supply Area Fire Station Type F-3

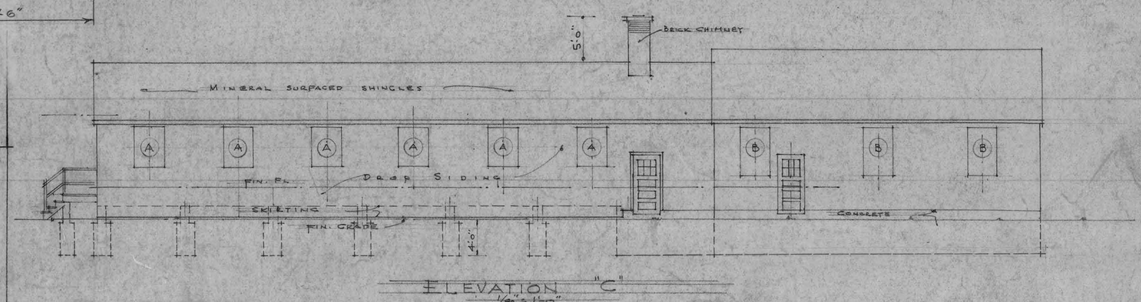


FIRST FLOOR PLAN
SCALE 1/8" = 1'-0"

ELEVATION



ELEVATION "A"
1/8" = 1'-0"



ELEVATION "C"
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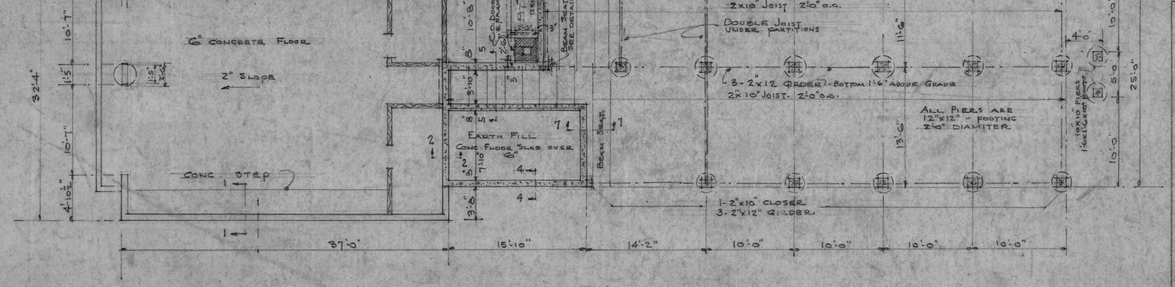
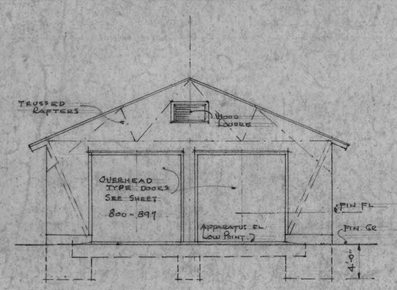


FOUNDATION & FIRST FLOOR FRAMING
SCALE 1/8" = 1'-0"



ELEVATION "D"
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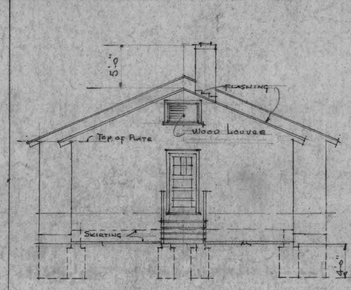


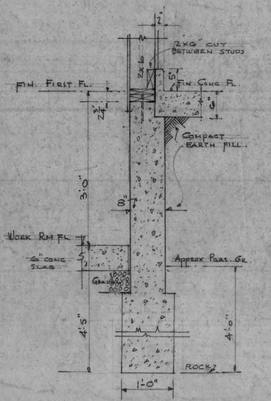
ELEVATION "B"
1/8" = 1'-0"

ROOM FINISH SCHEDULE

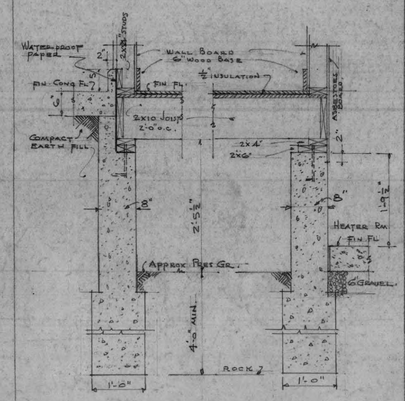
RM. NO.	NAME	FLOOR	CEILING	INT. WALLS	EXT. WALLS
	APPARATUS ROOM	CONC.	INS. BOARD	GYP. BOARD	INS. BOARD
	ALARM ROOM	CONC.	do	do	INS. BOARD
	WORK ROOM	CONC.	do	do	INS. BOARD
	HEATER ROOM	CONC.	GYP. BOARD	GYP. BOARD	GYP. BOARD
	STORE ROOM	WOOD	INS. BOARD	WOOD	WOOD OVER INS.
	TOILET ROOM	CONC.	do SEE SP. DWG.	GYP. BOARD FIBRE BD. W.P.	SYP. ED. WORK INS. FIBRE BD. W.P.
	N.C.O. ROOM	WOOD	INS. BD.	GYP. BOARD	INS. BOARD
	OFFICERS ROOM	WOOD	do	do	INS. BOARD
	DORMITORY	WOOD	do	do	do
	CORRIDOR	WOOD	do	do	—

GENERAL NOTES

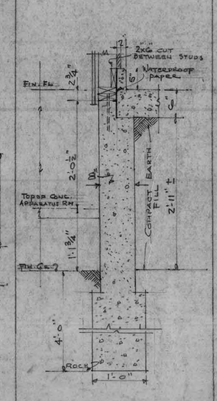
1. DIMENSIONS ARE TO OUTSIDE FACE OF WALL STUDS & ℄ OF PARTITIONS
2. UNLESS NOTED OTHERWISE STUDS ARE 2X4 - 2'-0" O.C.
3. PROVIDE FULL LENGTH INSECT SCREENS FOR ALL WINDOWS EXCEPT IN APPARATUS, WORK, ALARM AND HEATER RMS. STORE ROOM TO SCREEN & HINGED WIRE GUARD.
4. PROVIDE SHELF & MIRROR OVER LAVATORY.
5. INSTALL OBSCURE GLASS IN LOWER SASH OF TOILET ROOM.
6. PROVIDE LADDER WITH REQUIRED BRACKETS - DETAIL # 7 - SHEET 800-188
7. PROVIDE CYLINDER LOCK ON DOORS MARKED CL.
8. EAVES IS DETAILED # 5 - SHEET 800-898.
9. PARTITION MARKED BP IS TO BE BRACED DIAGONAL.
10. THE FOLLOWING DRAWINGS APPLY TO THIS BUILDING
    6982 - 6983 -
    800 SERIES 898, 124, 125, 140, 151, 154, 155, 157, 186, 187.



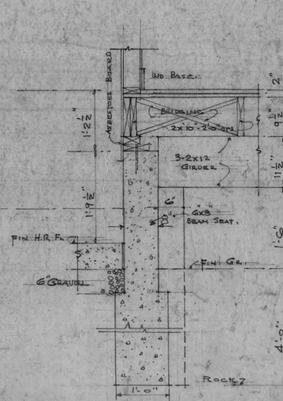
SECTION 2-2
SCALE 3/4" = 1'-0"



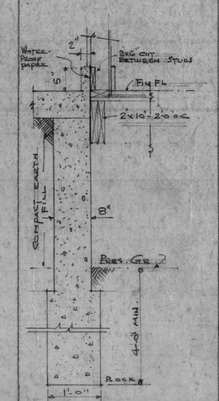
SECTION 5-5
SCALE 3/4" = 1'-0"



SECTION 4-4
3/4" = 1'-0"



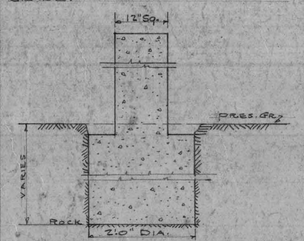
SECTION 6-6
3/4" = 1'-0"



SECTION 7-7
3/4" = 1'-0"

NOTE

ALL FOOTINGS SHALL REST ON SOLID BEARING, AND IN ALL CASES SHALL EXTEND 1'-6" MIN. BELOW NATURAL GRADE.



PIER CONSTRUCTION
SCALE 3/4" = 1'-0"

WARNING - RESTRICTED

NOT TO BE REPRODUCED IN WHOLE OR IN PART.
NOT TO BE DISPLAYED EXCEPT TO BONA FIDE SUBCONTRACTORS AND MATERIAL DEALERS.
FAILURE TO OBSERVE THESE RESTRICTIONS MAY LEAD TO PROSECUTION UNDER THE PROVISIONS OF THE ESPIONAGE ACT.

WARNING - RESTRICTED

RECORD DRAWING OF WORK AS BUILT
Joseph J. Quinlan
1ST LIEUT. C.E. CORPS OF ENGINEERS
AREA ENGINEER

NOTE: REVISION TO FLOOR PLAN - THIS SHEET ONLY.
CHANGES TO HEATING, PLUMBING, and ELECTRICAL LAYOUTS NOT KNOWN OR REVISED.

U. S. ENGINEER OFFICE
SENECA AREA
ROMULUS, N. Y.

SENECA ORDNANCE DEPOT

GENERAL SUPPLY AREA

FIRE STATION - TYPE F-3

PLANS - ELEVATIONS & SECTIONS

DATE	REVISIONS	
8-24-42	DUMP PIT & F.D. IN HEATER ROOM	F.J.H.
6-14-43	GEN. REV. AS BUILT	F.J.H.
3-8-45	WINDOW IN SWITCH ROOM	J.E.B.

A PROVAL RECOMMENDED: CAPTAIN, CORPS OF ENGINEERS, ENGINEER OFFICER
APPROVED: MAJOR, CORPS OF ENGINEERS, AREA ENGINEER

DRAWN BY: H.
TRACED BY:
CHECKED BY:

WILLIAM S. LOZIER, INC.
ARCHITECT ENGINEER

SUBMITTED: CHIEF ENGINEER

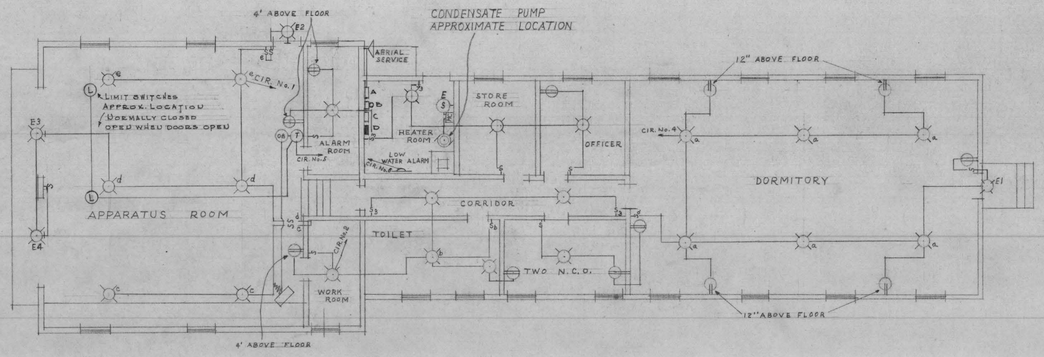
SCALE: AS NOTED
DRAWING NO. 6981
DATE: JULY 6, 1942

380

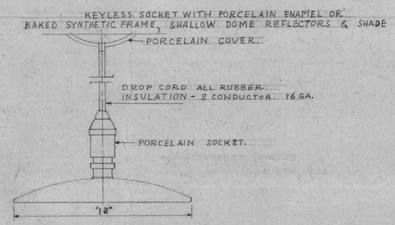
BLDG. S-335

B6

General Supply Area Fire Station Type F-3
Electrical Layout



FIRST FLOOR PLAN
SCALE - 1/8" = 1'-0"



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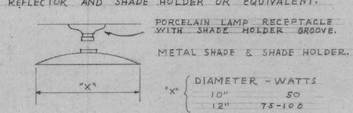

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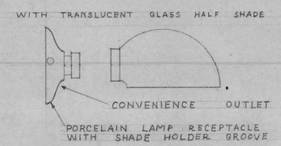

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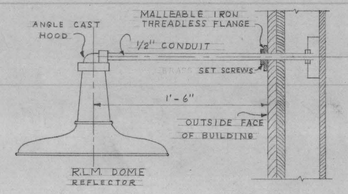

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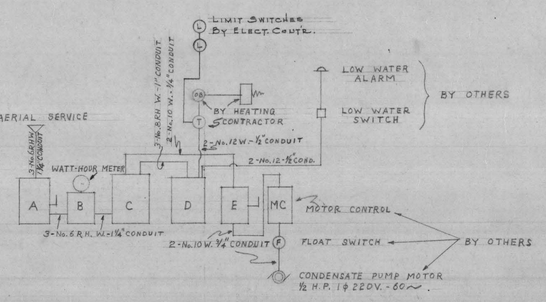
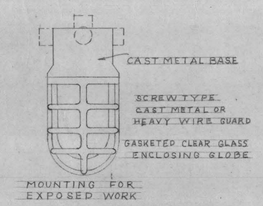




TYPE "J"
NO SCALE

LIGHTING FIXTURE SCHEDULE			
ROOM	TYPE	WATTS	
APPARATUS ROOM	CS	100	
ALARM ROOM	AS	100	← OMIT SHADE
HEATER ROOM	J - DUST PROOF	100	
STORE ROOM	CS	75	
OFFICER	CS	100	
DORMITORY	CS	75	
N. C. O.	CS	75	
TOILET CEILING	CS	50	
TOILET SIDE	COS	40	
EXTERIOR E1 - E2	FS	50	
EXTERIOR E3 - E4	FS	100	
WORK ROOM	AS	100	← OMIT SHADE
CORRIDOR	A	50	

~ NOTES ~

ALL WIRING TO BE WITH No. 12 NON METALLIC SHEATHED CABLE CONCEALED EXCEPT AS NOTED.
ALL WIRING IN HEATER ROOM TO BE WITH R.H. CONDUCTORS IN RIGID CONDUIT.
SERVICE - 3 WIRE 1 φ 60 CYCLE - 120/240 VOLTS.
A - MAIN SWITCH - TYPE "C" - 60 AMP. 3 P.S.N - 250 VOLT FUSED.
B - METER & CONN. BOX - METER 15 AMP. SELF CONTAINED 1 φ 3 WIRE - 120/240 VOLTS.
C - MAIN DISTRIBUTION PANEL - 4 CIRCUIT - PULFUZ TYPE.
D - LIGHTING PANEL - 8 CIRCUIT - Sw. & PLUG FUSE TYPE.
E - MOTOR DISCONNECT SWITCH - 30 AMP. 2 POLE - 250 VOLT FUSED - TYPE C. UNIT HEATER - THERMOSTAT - OVERLOAD BREAKER & MOTOR CONTROL TO BE FURNISHED BY HEATING CONTRACTOR - WIRING TO BE DONE BY ELECTRICAL CONTRACTOR.
LOW WATER ALARM TO BE FURNISHED BY HEATING CONTRACTOR AND INSTALLED BY THIS ELECTRICAL CONTRACTOR.
FIXTURE OUTLET BOXES TO BE SHEET STEEL - BLACK ENAMEL.

MAIN DISTRIBUTION PANEL - MAINS - 60 AMP.		
CIR. No.	BRANCH SWITCH	PURPOSE
1	60 AMP. 3 PSN - 120/240 V.	LIGHTING PANEL
2	30 AMP. 2 P - 250 V.	CONDENSATE PUMP
3	30 AMP. 3 PSN - 120/240 V.	SPARE
4	60 AMP. 3 PSN - 120/240 V.	SPARE

RECORD DRAWING OF WORK AS BUILT
Joseph J. Carnathan
MANAGER CORPS OF ENGINEERS
AREA ENGINEER

U. S. ENGINEER OFFICE
SENECA AREA
ROMULUS, N. Y.

SENECA ORDNANCE DEPOT

GENERAL SUPPLY AREA
FIRE STATION - TYPE F-3

ELECTRICAL LAYOUT

DATE	REVISIONS	BY
7-29-42	NOTES ON FIXTURE SCHEDULE	M.Z.R.
8-7-42	RE-LOCATE SERVICE EQUIPMENT	C.J.C.
6-14-43	REV. AS BUILT.	

APPROVAL RECOMMENDED: [signature] CAPTAIN, CORPS OF ENGINEERS ENGINEER OFFICER
APPROVED: [signature] (ACTING) CORPS OF ENGINEERS AREA ENGINEER

DRAWN BY A.G.M.
TRACED BY
CHECKED BY M.Z.R.
SUBMITTED BY [signature] CHIEF ENGINEER

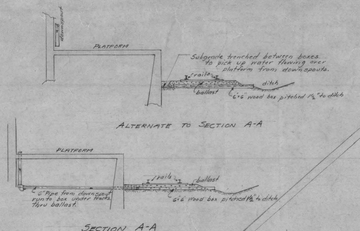
WILLIAM S. LOZIER, INC. ARCHITECT ENGINEER

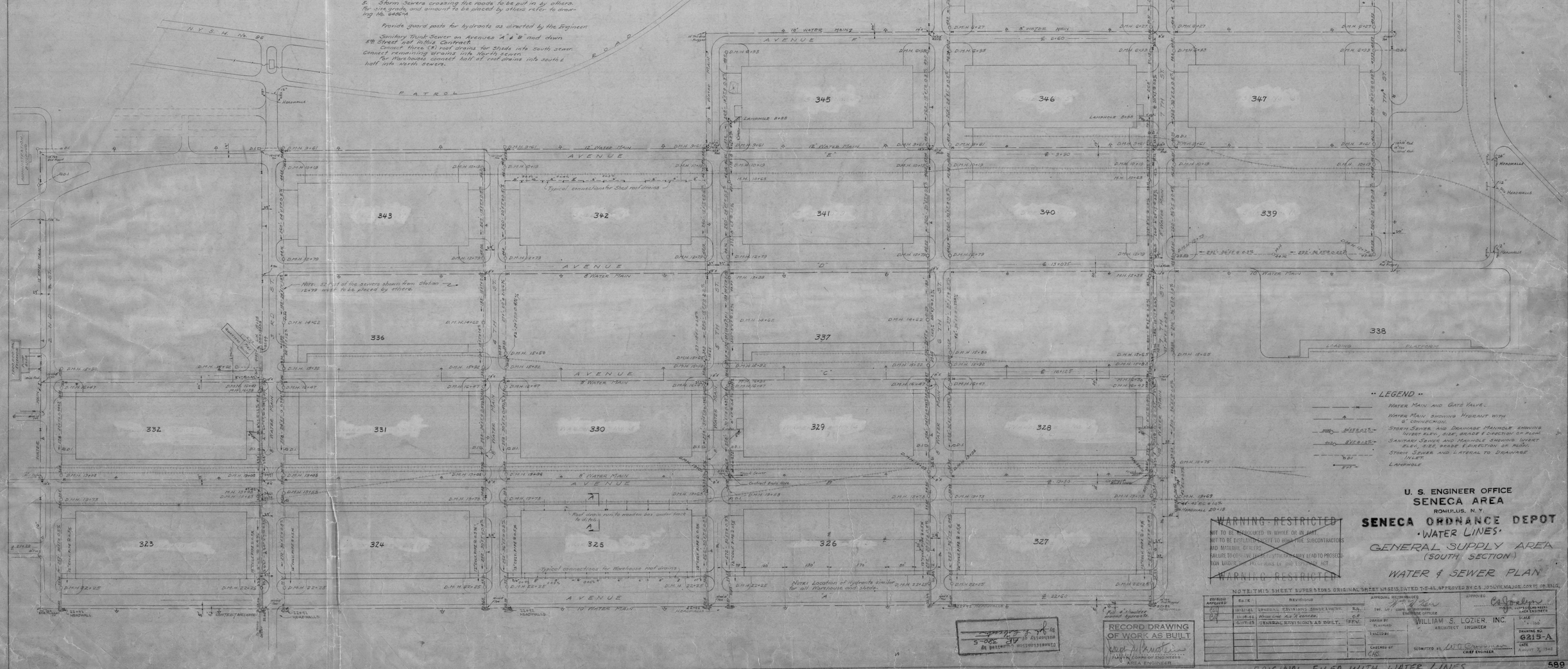
SCALE AS NOTED
DRAWING NO. 6982
DATE 7-6-42

BL06, S-335

B7

General Supply Area: Water and Sewer Plan





÷NOTE÷

1. For ground elevations, floor elevations, and elevations of tops of Manholes and Inlets, refer to Drawing No. 6951-A.
2. Add 700.00 feet to all elevations shown on this drawing.
3. For details of Sewer construction, refer to Drawing No. 6217.
4. This drawing is to be used for the construction of Sewers and Water only.

WATER
1. Water Mains shall be depressed, where necessary, to clear sewer lines.
2. Valves on North & South Water Mains shall be located 40 feet South of the centerline of the East & West roads.
3. Valves on East & West Water Mains shall be located 40 feet West of the centerline of the North & South roads unless shown otherwise.
4. Water Mains shall be located as shown or as directed by the Engineer.
5. Hydrants shall be 6" with a 6" connection and shall have a gravel drain of not less than 4 c.f. or as directed by the Engineer.
6. 6" Gate Valves shall be provided in the 6" hydrant connection line if and where required by the Contracting Officer.

SEWERS
1. Sanitary Sewers shall be located 48 feet from the centerline of the East-West roads.
2. Storm Sewers shall be located 33 feet from the centerline of the East-West roads.
3. Concrete Pipe may be used as an alternate to the vitrified tile pipe for storm drains only.
4. Laterals to Drainage Inlets shall be 8" Pipe, 5 feet long unless otherwise noted.
5. Storm Sewers crossing the roads to be put in by others. For size, grade, and amount to be placed by others refer to drawing No. 6486-A

Provide guard posts for hydrants as directed by the Engineer.

Sanitary Trunk Sewer on Avenues "A" & "B" and down 5th Street not in this Contract.

Connect three (3) roof drains for Sheds into south sewer. Connect remaining drains into North sewer.

For Warehouses connect half of roof drains into south & half into North sewers.

·· LEGEND ··

——— ——— —⋈—	Water Main and Gate Valve.
——— ——— ———	Water Main showing Hydrant with 6" connection.
— 39.35 ○ — 30" V.T. @ 0.7% →	Storm Sewer and Drainage Manhole showing Invert Elev., size, grade & direction of flow.
40.9 ○ —— 8" V.T. @ 1.2% →	Sanitary Sewer and Manhole showing Invert Elev., size, grade & direction of flow.
— — — ◻ D.I. — — —	Storm Sewer and Lateral to Drainage Inlet.
●—— 8" V.T. →	Lamphole

U. S. ENGINEER OFFICE
SENECA AREA
ROMULUS, N. Y.

SENECA ORDNANCE DEPOT
·WATER LINES·
GENERAL SUPPLY AREA
(SOUTH SECTION)
WATER & SEWER PLAN

~~WARNING - RESTRICTED~~
~~NOT TO BE REPRODUCED IN WHOLE OR IN PART.~~
~~NOT TO BE DISPLAYED EXCEPT TO BONA FIDE SUBCONTRACTORS AND MATERIAL DEALERS.~~
~~FAILURE TO OBSERVE THESE RESTRICTIONS MAY LEAD TO PROSECUTION UNDER THE PROVISIONS OF THE ESPIONAGE ACT.~~
~~WARNING RESTRICTED~~

NOTE: THIS SHEET SUPERSEDES ORIGINAL SHEET No 6215, DATED 7-5-42, APPROVED BY C. S. JOSLYN, MAJOR, CORPS OF ENG.

Revision Approved	Date	Revisions	
CSJ	10-21-42	General Revisions Sewer & Water	R.G.
CSJ	11-14-42	Water Line Ave "A" Revised.	C.R.
	6-17-43	General Revisions as Built.	F.F.W.

Approval Recommended: Wm H. Kerr, 1st. Lt., Corps of Engineers, Engineer Officer
Approved: C S Joslyn, Major, Corps of Engineers, Area Engineer
Drawn by: Playford
Traced by:
Checked by: CHS.
WILLIAM S. LOZIER, INC.
ARCHITECT ENGINEER
Submitted by: W O Crossman, Chief Engineer
Scale: 1" = 100'
Drawing No. 6215-A
Date: August 7, 1942

RECORD DRAWING OF WORK AS BUILT
Joseph J. Bernstein
Major, Corps of Engineers
Area Engineer

Classification Cancelled by authority of AR 380-5
By [illegible]

ORIGINAL FILED WITH WATER LINES

589

B8

General Supply Area: Water and Sewer Plan

CONFIDENTIAL

CONFIDENTIAL

Existing gate. Remove and erect in new location. (Completion Contract)

Existing stock piles. Material may be either borrowed from, or spoiled in, these areas. (Completion Contract)

Borrow pit. Capacity = 100 C.Y. (Completion Contract)

Existing stock pile. Material may be either borrowed from, or spoiled in, this area. (Completion Contract)

NOTE: CONNECTIONS TO WAREHOUSE SPURS MAYBE REVERSED IN DIRECTION TO MEET OPERATING REQUIREMENTS

(1) Existing gate. Remove and erect in new location. (Completion Contract)

ROAD TO BE ABANDONED

(2) Remove this fence and relocate as shown to south. (Completion Contract)

(3) Existing Gate. To remain.

(4) Existing 7 row barbed wire fence. To remain.

Borrow pits (Completion Contract)

Install Gate (Completion Contract)

Extend 7 row barbed wire fence from Combat Equipment Storage to existing chain link fence - 8600 Lin. Ft. & 2 sets of gates. (Completion Contract)

Install Gate (Completion Contract)

(17) NOTE: See Table for amount of ditches.

Work to be done under Item 13 (completion contract) See dwg. No. 6225-A

WEST SHORE CONCRETE CONSTRUCTION CO.
DRAINAGE DITCHES - LOCATION AND YARDAGE

NUMBER	LOCATION	YARDAGE
1	Ninth St. ditch from Ave. H to Ave. D	1169
2	Ditch from Ave. D southwest 1980'	1966
3	east of Ave. D to track D 800'	426
4	" from track D to " 400	213
5	" east of track B - 18th St. to end Ord.	364
6	" from Ave. A to culvert, 3rd St. ext.	2849
7	Main Ditch South branch	923
8	" " Middle branch	4152
9	" " " "	3781
10	" " " "	1154
11	" " North branch	5028
12	" " from Ave. A & 7th St. westerly	7321
13	Ditch from 2nd St. & Optical R. westerly	1881
14	Ditch on west side of Ave. A	18,267
15	Ditch on south side of Seventh St.	5373
16	Ditches west of new Classification yard	600
	DITCHES OUTSIDE COMBAT FENCE	
17	Main ditch from E. Loop Rd. east	1493
18	" " South branch	4829
19	" " conn. for N.-S. branches	6408
20	Ditch from Ave. A & 7th St. westerly	1895
21	" from 1st St. & Ord. Rd. westerly 300'	421
	TOTAL	68,153 C.Y.

Classification cancelled by authority of AR-380-5
By J. H. SEIFERT
15 - May - 1957

NOTE:
THIS DRAWING APPLIES TO THE COMPLETION CONTRACT ONLY FOR LOCATION OF SUCH FENCING, BORROW PITS AND STOCK PILES AS ARE LABELLED "COMPLETION CONTRACT".

CONFIDENTIAL

RECORD DRAWING OF WORK AS BUILT
Joseph J. Bernstein
MAJOR CORPS OF ENGINEERS
AREA ENGINEER

U. S. ENGINEER OFFICE
SENECA AREA
ROMULUS, N. Y.

SENECA ORDNANCE DEPOT

GENERAL SUPPLY AREA

GENERAL LAYOUT FENCES
"FENCE LINES & BOUNDARIES"

DATE	REVISIONS	BY

APPROVAL RECOMMENDED: W. W. Kerr, CAPTAIN CORPS OF ENGINEERS, ENGINEER OFFICER
APPROVED: Joseph J. Bernstein, CAPTAIN CORPS OF ENGINEERS, AREA ENGINEER
DRAWN BY: R.G.
TRACED BY:
CHECKED BY:
SUBMITTED BY: CHIEF ENGINEER
WILLIAM S. LOZIER, INC. ARCHITECT ENGINEER
SCALE: 1" = 400'
DRAWING NO. 6950-A
DATE: MARCH 2, 1943

WARNING RESTRICTED
NOT TO BE REPRODUCED IN WHOLE OR IN PART
NOT TO BE DISPLAYED EXCEPT TO BONA FIDE SUBCONTRACTORS AND MATERIAL DEALERS
FAILURE TO OBSERVE THESE RESTRICTIONS MAY LEAD TO PROSECUTION UNDER THE PROVISIONS OF THE ESPIONAGE ACT.
WARNING RESTRICTED

CONFIDENTIAL

525
FILE WITH FENCE LINES & BOUNDARIES

B9

Pesticide Storage Documentation

PRE-FIRE PLAN

BUILDING NO.	AREA
606	CONVENTIONAL AREA

☐ FLIGHT LINE ☐ AIRCRAFT TRAFFIC AREAS
☐ OPEN STORAGE ☐ OTHER
☐ POL FACILITIES PESTICIDE STORAGE

LOCATION
SOUTH CONVENTIONAL AREA
E OF BRADY STREET

EQUIPMENT REQUIRED (Include length of ladders)	EXTERIOR STRUCTURE	INTERIOR STRUCTURE
24' LADDER ENTRY TOOLS BREATHING APPARATUS	MASONRY BLOCK	MASONRY BLOCK CONCRETE FLOORS

WATER HYDRANT OR OTHER WATER SOURCE	AMOUNT AVAILABLE	PRESSURE	ADJACENT EXPOSURES	LOCATION	HAZARDS
N HYD # 161 W " # 163			NONE		

ACCESSIBILITY OF BUILDING		UTILITIES CUT OFF			INSTALLED SYSTEMS
APPROACHES	TERRAIN	UTILITY	LOCATION	METHOD	
N S E W	LEVEL " " "	ELECTRIC POWER	BOILER ROOM	SQUARE D SWITCH	NONE
		OIL ???	E OUTSIDE OF BLDG	SHUT-OFF ON TANK	

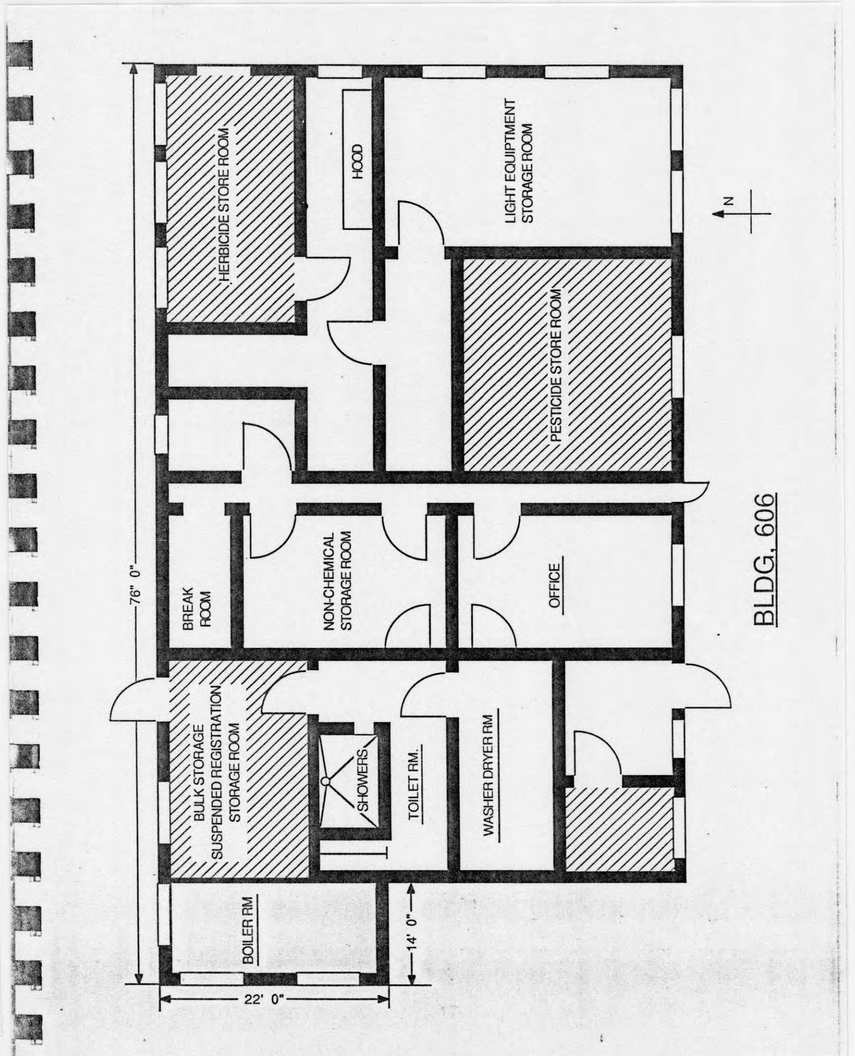
VENTILATION PROCEDURES	MATERIAL STORED/USED IN BUILDING OR AREA
ROOF WINDOWS DOORS	SEE APPENDIX III

OCCUPANT CAPACITY	SPECIAL SEASONAL CONSIDERATION
4	SNOW PROBLEM IN WINTER

OTHER FACTORS
SCOTT AIR PACK REQUIRED
CYANO GAS (CYANIDES) STORED IN METAL CONTAINER OUTSIDE ON EAST SIDE OF BLDG.

APPENDIX II

Pesticide Storage Building Floor Plan



(1) Pesticide storage room
- Diazinon 4E spray
- Ortho Hornet & Wasp Killer
- D-phenothrin aerosol
- FICAM-W WWP
- OFF aerosol
- Synthrin liquid concentrate
- Pegeon-9 strychnine grain bait
- Diazinon dust
- Phostoxin tablets, gas
- Marlate 2-MR emulsifiable concentrate
- Sythion 5E emulsifiable concentrate
- Vaposector liquid concentrate
- Sevin Carbaryl WWP
- Malathion liquid concentrate
- Warfarin Anticoagulant
- Diphacin paraffin anticoagulant
- Cutter insect repellent aerosol
- Tree wound dressing aerosol
- D-Con flea fogger

(2) Herbicide storage room
- Round-up liquid concentrate
- Low Vol 2, 4-D liquid concentrate
- Liquid concentrate
- Princep 80W WWP
- UROX-B-water sol. concentrate
- Attrex
- Arsenal

(3) Bulk and suspended registration storage room
- Tordon 10K pellets
- Borcil IV granular
- Weed & Feed/Lawn

(4) Storage in SW corner room
- 15-15-15 garden fertilizer
- Ottenal (grub treatment)
- Tree spikes 5-10-15
- Grub-Out

APPENDIX III

Pesticide Storage Building Inventory

01 / NOV / 88 — DAY MONTH YEAR

PESTICIDE STORAGE

HERBICIDE — TYPE PESTICIDE

BUILDING 606
SENECA ARMY DEPOT
ROMULUS, N.Y. 14541

PRODUCT	FORMALATION	EPA.REG.NO.	% ACTIVE ING.	UNIT	QUANTITY
ROUNDUP	Liquid Concentrate	USDA Reg. No. 524-308-AA	41%	Gal.	46 Gals.
LOW VOLUME 2,4-D	Liquid Concentrate	NONE	69.50%	Gal.	510 Gals.
TORDON 10K	Pellets	E.P.A. 464-320	11.6$	Lb.	1,240 Lbs.
PRINCEP 80W	W.W.P.	100-437-2B	43%	Lb.	0-Bal.
BORCIL IV	Granular	7001-340	98%	Lb.	450 lbs.
UROX-B	Liquid Concentrate	2393-293-7273	40.8%	Gal.	0-Bal.

Nov / 88
MONTH YEAR

PESTICIDE STORAGE

BUILDING 606
SENECA ARMY DEPOT
ROMULUS, N.Y. 14541

Herbicide
TYPE PESTICIDE

UCT	FORMALATION	EPA.REG.NO.	% ACTIVE ING.	UNIT	QUANTITY
-9 nine d grain	Bait	8612-32	.6%	oz.	320 oz.
CARBARYL	Powder W.W.P.	1016-43	80%	lbs.	60 lbs.
HALENE	Balls	GSA-FSS	Technical	lbs.	40 lbs.
OXIN num hide	Pellets	5857-1	55%	Pellets, ea.	540 Ea.
HNINE oid r	Powder	52131-2	100%	oz.	14 oz.
SID JETS vacide)	Briquets	20954-13-50809	7.9%	ea. 7.14 Lbs.	600 Ea. 7.14 Lbs.

01 / NOV / 88
DAY MONTH YEAR

PESTICIDE STORAGE

BUILDING 606
SENECA ARMY DEPOT
ROMULUS, N.Y. 14541

HERBICIDE
TYPE PESTICIDE

PRODUCT	FORMALATION	EPA.REG.NO.	% ACTIVE ING.	UNIT	QUANTITY
SIMAZINE 80W	W.W.P.	2749-163-AA	80%	Lbs.	85 Lbs.
ARSENAL	Liquid Concentrate	241-273	27.6%	Gal.	20 Gals.
BROMAX 4L (Bromacil)	Liquid Concentrate	2392-298	40.8%	Gal.	43 Gals.

01 / NOV / 88
DAY MONTH YEAR

PESTICIDE STORAGE

BUILDING 606
SENECA ARMY DEPOT
ROMULUS, N.Y. 14541

INSECTICIDE
TYPE PESTICIDE

PRODUCT	FORMALATION	EPA.REG.NO.	% ACTIVE ING.	UNIT	QUANTITY
FICAM-W	W.W.P.	45639-1	76%	Lb.	41 lb. 3 oz.
D'PHENOTHRIN	Aerosol	9143-69	2.0%	Can	81 cans
ORTHO HORNET AND WASP KILLER	Aerosol	239-2390-2B	84.93%	Can	12 cans
DIAZINON AG4E	Liquid Concentrate	904-306	84%	Gal.	4.7 Gals.
DIAZINON 4E	Liquid	7273-131	73.99%	Gal.	4 Gals.
MARLATE 2-MR	Emulsifiable Concentrate	USDA Reg. No. 352-167	93%	Gal.	10 Gals.

01 / NOV / 88
DAY MONTH YEAR

PESTICIDE STORAGE

BUILDING 606
SENECA ARMY DEPOT
ROMULUS, N.Y. 14541

INSECTICIDE
TYPE PESTICIDE

PRODUCT	FORMALATION	EPA.REG.NO.	% ACTIVE ING.	UNIT	QUANTITY
CYTHION 5-E	Emulsifiable Liquid	476-2022	88.88%	Gal. Oz.	7 Gals. 96 oz.
SYN-PY-3-LV 3% Resmethrin	Multipurpose Spray	8612-102	99.88%	Gal. Oz.	2 Gals.
FINAL WarFarin Anticoagulant	Bait	12455-15AA	.050%	Lbs. Oz.	32 Lbs. 6 Oz.
"RODENT CAKE" Diphacinone	Bait	12455-5AA	.005%	Ea.	12 Ea.
CUTTER REPELLENT	Aerosol Spray	121-15	32%	Ea.	96 Ea.
MALATHION Tech. Grade B	Concentrate	USDA 241-110	95%	Gal.	52 Gals.

APPENDIX IV

Informational Disposition Forms

DISPOSITION FORM

For use of this form, see AR 340-15; the proponent agency is TAGO.

REFERENCE OR OFFICE SYMBOL	SUBJECT
SDSSE-HB	Initial Work Day Entry Building #606

XX THRU DEH FROM C, BG&U DIV DATE 13 Apr 87 CMT 1
JQuill/sm/376

TO C, Roads & Grounds Branch
Pest Controllers

1. The following procedures will be followed for the initial work day entry to building, 606:

   a. Prior to entering building, put on respirator.
   b. Open main door to building, turn on exhaust fans.
   c. Check all storage rooms for leaks or spills.
   d. If a leak or spill is detected, leave building and vicinity immediately, and notify C, Roads & Grounds Branch by radio.

2. Respirators will be kept clean and serviceable and stored on the pest controllers vehicle. Respirators for entry to building 606 will be approved by the Industrial Hydenist, Safety Office and fit tested.

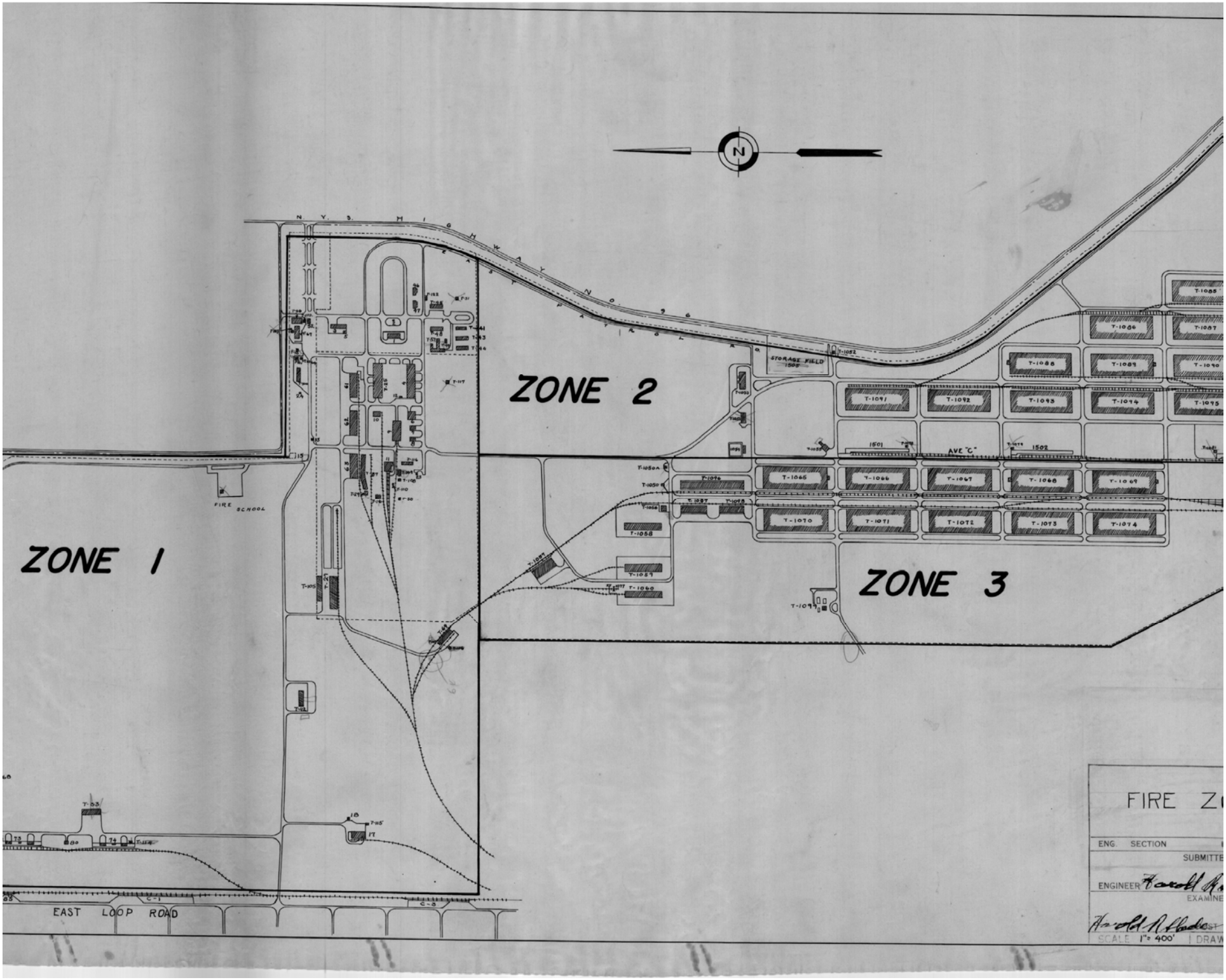
3. There will be no deviation to this procedure for the initial daily access to building 606.

JOHN QUILL
C, Buildings, Grounds & Utilities Division

CF:
DEH
Safety

B10

Fire Zone


N
N. Y. 3. HIGHWAY NO. 96
EAST PATTERSON
ZONE 1
ZONE 2
ZONE 3
FIRE SCHOOL
STORAGE FIELD
1500
AVE "C"
1501
1502
T-1082
T-1085
T-1086
T-1087
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T-1140
T-1141
T-1142
T-1143
T-1144
EAST LOOP ROAD
C-1
C-3
FIRE Z
ENG. SECTION
SUBMITTE
ENGINEER
EXAMINE
SCALE 1"= 400'
DRAW

Appendix C
Regulator Comments

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Remedial Bureau A
625 Broadway, 12th Floor, Albany, NY 12233-7015
P: (518) 402-9625 I F: (518) 402-9627
www.dec.ny.gov

June 14, 2022

Christopher Gallo
Environmental, InterAgency &
International Services Branch
US Army Corps of Engineers
New York District
26 Federal Plaza, Room 17-401
New York, NY 10278-0090
Christopher.T.Gallo@usace.army.mil

Re: Draft Final Historical Records Review, Supplemental Site Inspection at Four Known PFAS Sites and Preliminary Assessment/ Site Inspection at Suspected PFAS Sites. Seneca Army Depot, NYSDEC Site 850006

Dear Chris Gallo:

The New York State Department of Environmental Conservation and New York State Department of Health (referred to as the "State") have reviewed the Draft Final Historical Records Review, Supplemental Site Inspection at Four Known PFAS Sites and Preliminary Assessment/ Site Inspection at Suspected PFAS Sites at the Seneca Army Depot, dated April 2022. We have no comments and accept this document.

If you have any questions on the matter, please contact me at (518) 402-9614 or melissa.sweet@dec.ny.gov.

Regards,
Melissa L, Sweet, PE
Project Manager

ec: J. Swartwout – NYSDEC
M. Sergott, J. Deming – NYSDOH
B. Morse – USEPA
J. Moore, C. Heaton, B. Hodges – USACE
B. Badik – Parsons

From:	Morse, Bob
To:	Gallo, Christopher T CIV USARMY CENAN (USA); Belanger, Todd [US-US]; Sweet, Melissa L (DEC); Sergott, Mark S (HEALTH); Heaton, Charles H Jr CIV USARMY CEHNC (USA); Hodges, Barry A CIV USARMY CEHNC (USA); Moore, James T CIV USARMY CEHQ (USA)
Cc:	Badik, Beth [US-US]; John Blaum PE
Subject:	[EXTERNAL] RE: Submittal: Seneca Army Depot PFAS Historical Records Review
Date:	Tuesday, June 28, 2022 11:25:27 AM
Attachments:	image001.png

Chris,

EPA has no comments on the PFAS HRR. Please let me know if you have any questions. Thank you.

Bob

Bob Morse
Remedial Project Manager
USEPA Region 2
Superfund and Emergency Management Division
Federal Facilities Section
290 Broadway 18th Floor
New York, NY 10007-1866
Phone: Office (212) 637-4331
Cell: 908-581-3791

From: Gallo, Christopher T CIV USARMY CENAN (USA) <Christopher.T.Gallo@usace.army.mil>
Sent: Tuesday, June 7, 2022 9:25 AM
To: Todd.Belanger@parsons.com; Sweet, Melissa L (DEC) <melissa.sweet@dec.ny.gov>; Morse, Bob <Morse.Bob@epa.gov>; Sergott, Mark S (HEALTH) <mark.sergott@health.ny.gov>; Heaton, Charles H Jr CIV USARMY CEHNC (USA) <Charles.H.Heaton@usace.army.mil>; Hodges, Barry A CIV USARMY CEHNC (USA) <Barry.A.Hodges@usace.army.mil>; Moore, James T CIV USARMY CEHQ (USA) <James.T.Moore@usace.army.mil>
Cc: Beth.Badik@parsons.com; John Blaum PE <jblaum@hgl.com>
Subject: RE: Submittal: Seneca Army Depot PFAS Historical Records Review

Good morning all,

Melissa/Mark/Bob – do we have any updates on when the Army might see comments on this HRR?

Please let me know and I thank you all for your time.

-Chris

Christopher T. Gallo