



3.9 Utilities

Arora Engineers has performed an initial review of legacy utility data and documentation provided by LNAA. The goal of the utility inventory is to support an airport campus-wide assessment of utility needs, which is an important component of the airport master planning processes. **Figure 3.9.1** depicts the initial Utility data inventory. Overall the information received can be categorized as follows:

- Utility drawings as part of the original post-World War II airport construction plans, such as Electric Distribution and Field Lighting plans from 1948. While these are a valuable reference in terms of historical information, they are not in a digital geospatial format, and will be of limited value in terms of developing an authoritative utility inventory map.
- More recent project-specific drawings, computer-aided design (CAD) files, and data, particularly from airside construction projects over the past several years. This includes, for example:
 - Runway centerline lighting plans as part of the Runway 6-24 rehabilitation.
 - FAA Airports Geographic Information System (AGIS) data collection as part of the Runway 13-31 Safety Area project
 - Economy Parking Lot as-builts

Project-specific data sets may be useful for specific areas and are more likely to be timely, or at least authoritatively dated. However, some data may only be design or construction drawing-related data, and as-builts may or may not have been actual field-collected data.

- Campus-wide utility data. While this type of data is the most useful for facility planning across the airport, it is also often the rarest. LNAA does have a single electrical utility CAD file covering the airport, largely in and around the airfield.

As part of this Master Plan, standard AGIS mapping of utility features is included. However, due to the subsurface nature of utilities, the standard AGIS data, by itself, cannot provide a comprehensive view. The LNAA is currently cataloguing all hardcopy flat-files at the Airport to create an inventory list of drawings, with the goal of depicting as much utility information electronically that can be imposed into AutoCAD where recent electronic files are not available.

The next steps in investigating the Airport's utilities will be to prioritize data sets for quality and breadth, and investigate capacities where available. These will be eventually mapped into a Utility Plan. Data will need to be structured and standardized to the extent practical, along with categorization and annotation. The data sources noted above have various data structures and level of detail, not necessarily consistent across the airport.



Legend

- Master Plan AGIS Airfield Light Features
- Master Plan AGIS Utility Point Features
- LVIA Electrical Master CAD Lines
- Economy Parking Lot As-Built CAD Lines

Runway 13-31 RSA AGIS Point Data

- Airfield Light
- Utility Point

Runway 13-31 RSA AGIS Utility Line Data

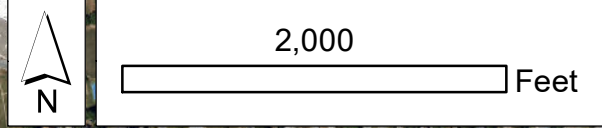
- Utility Line; Utility Polygon



Lehigh Valley International Airport
Master Plan Update

Utility Geospatial Data Initial Inventory

Figure 3.9.1



Sources: Lehigh-Northampton Airport Authority, Quantum Spatial, Inc.