



**METROPOLITAN ATLANTA RAPID TRANSIT AUTHORITY**

**INDUSTRY DAY  
FOR  
CNG FUELING FACILITY & INDUSTRIAL  
WASTEWATER TREATMENT PLANT AT  
HAMILTON BUS MAINTENANCE FACILITY**

# AGENDA

- 9:30 – 10:00 AM Participant Sign-In
- 10:00 – 10:05 AM Welcome – Keli Davis, Contract Specialist III
- 10:05 – 10:15 AM CIP Overview - David Springstead,  
AGM Capital Programs & Development
- 10:15 – 10:35 AM CNG Project Overview - Jeter Barnhill,  
Project Manager II
- 10:35 – 10:45AM Diversity & Equal Opportunity – Pamela Smith,  
EEO/DBE Analyst – Office of Diversity & Inclusion
- 10:45 – 10:55 AM Questions & Answers
- 10:55 – 11:00 AM Closing – Quintonia Darden, Contract Specialist III

# PURPOSE OF INDUSTRY DAY

To provide:

1. a high level overview of projects on the horizon at MARTA
2. an opportunity for proponents to meet and network
3. the construction activities for the CNG Fueling Facility & Industrial Wastewater Treatment Plant at the Hamilton Bus Facility.



# WELCOME TO ATLANTA & MARTA

- Started bus and rail combined service in 1979
- 9<sup>th</sup> largest transit system in the U.S.
- Approx. 500,000 passengers daily (bus and rail)
- 338 rail cars, 48 miles of service via four lines  
Gold, Red, Blue and Green
- 122 miles of track
- 565 buses, over 100 routes
- 211 Mobility (paratransit) vehicles



# CIP PROGRAM OVERVIEW

MARTA's Capital Improvement Program (CIP) provides for the rehabilitation, replacement and enhancement and expansion of the Authority's infrastructure, facilities, equipment and rolling stock.

The current Ten (10) Year CIP is approximately \$2.5 Billion, equating to roughly \$250 million per year.

MARTA is looking to expand and provide more service to the region however being 37 years old (middle aged) we have/will continue to be a state of renewal with heavy investment in “state of good repair” projects.

## ***SAFE-SECURE-SUSTAINABLE***

### Underway:

- CCTV & Video Analytics
- Audio Visual Information Systems (AVIS)
- Brady Mobility Facility
- Fire Protection System Upgrade (FPSU)
- Tunnel Ventilation System (TVS0)
- Uninterruptible Power Supply (UPS)
- Standby Power Generators
- Train Control/SCADA (TCSU)
- Bus, Mobility and Maintenance Fleet Procurements
- Elevators & Escalators
- Sustainability/Greening – ISO14001 cert.
- Transit Oriented Development (TOD)

# CIP PROGRAM OVERVIEW

## On the Horizon:

- Bus & Rail Facility Rehabilitation and Expansion  
3 Bus Facilities, 3 Rail Yards, 1 Heavy Maintenance Fac. (Plant)
- Bus Procurement
- Mobility Vehicles
- Rail Vehicle Procurement (250 - 350 rail cars)
- Traction Power (Rail Propulsion) System Upgrade
- Auxiliary Power System Upgrade
- Track Renovation IV (steel, switches and ties)
- Emergency Trip Stations (ETS)
- Art in Transit (AIT)
- Pavement & Bridges
- MARTA/COA Referendum



# PRIMARY GOAL

Primary Goal: to establish safe and efficient CNG fueling capacity at Hamilton Bus Facility as early as possible to minimize the impact to fueling efficiency.

The MARTA bus fleet is approx. 565 buses

- 23% diesel
- 77% CNG

2 of 3 facilities can provide CNG fueling (Laredo & Perry)

MARTA will start receiving new CNG buses in Spring/Summer 2018.



# HAMILTON CNG FUELING FACILITY PROJECT

## Staffing

- Project Manager – Jeter Barnhill
- Resident Engineer – Patrick Brown
- Contract Specialist –Quintonia Darden & Keli Davis
- Mechanical Engineers
  - Design Lead – Samir Sheth
  - CNG System – Rob Adams (Marathon)
  - IWTP – Lara Thurn (AECOM)

# HAMILTON CNG FUELING FACILITY PROJECT

## General Information

- \$12M construction estimate
- 12 months construction schedule
- Design completed by MARTA
- IFB process - low responsive and responsible bid
- Federally funded – Buy America
- 20% DBE participation
- Active bus maintenance facility

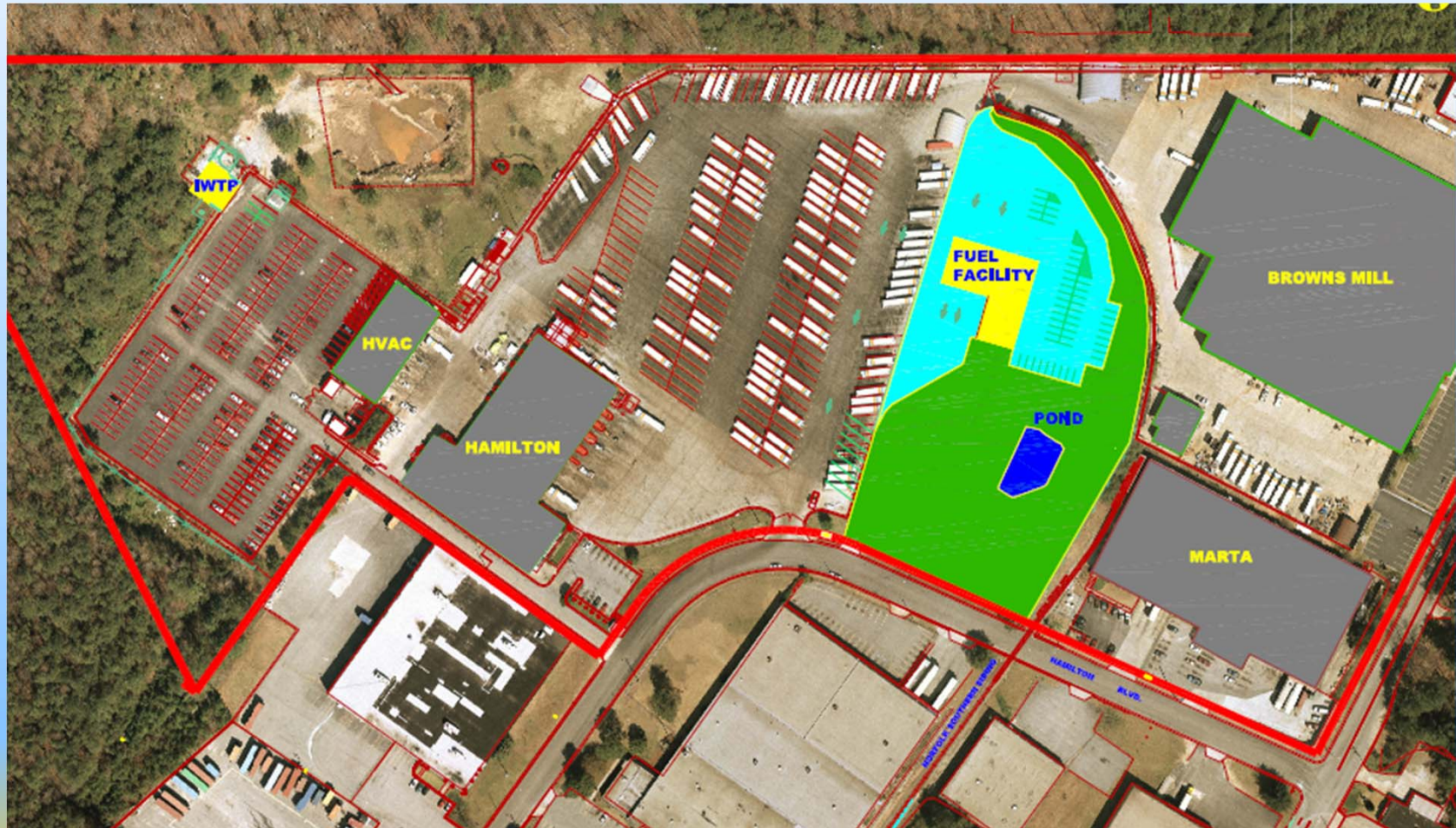
# HAMILTON CNG FUELING FACILITY PROJECT

## Important Tentative Dates

- 17 Nov – Project advertisement
- 8 Dec – Pre-bid conference and site visit  
(attendance not required by strongly encouraged)
- 8 Feb 2017 – Bid receipt
- 9 Feb 2017 – Bid opening
- Late Spring 2017 – ANTP
- Summer 2017 – SNTP

# HAMILTON CNG FUELING FACILITY PROJECT

## Project Site Plan



# HAMILTON CNG FUELING FACILITY PROJECT

## General Scope of Work

- Demolition
- Install utilities (some with directional drilling)
- Construct bio-detention pond
- Construct CNG Fueling Facility
- Construct Industry Wastewater Treatment Plant
- Install site lighting
- Place concrete and asphalt

# HAMILTON CNG FUELING FACILITY PROJECT

## Construction Team

- General Contractor
  - Self perform work
  - Various trade subcontractors
  - Specialty contractors
    - CNG Fueling
    - Industrial Wastewater Treatment Plant

# HAMILTON CNG FUELING FACILITY PROJECT

## CNG Fueling Facility

Design Lead  
Samir Sheth



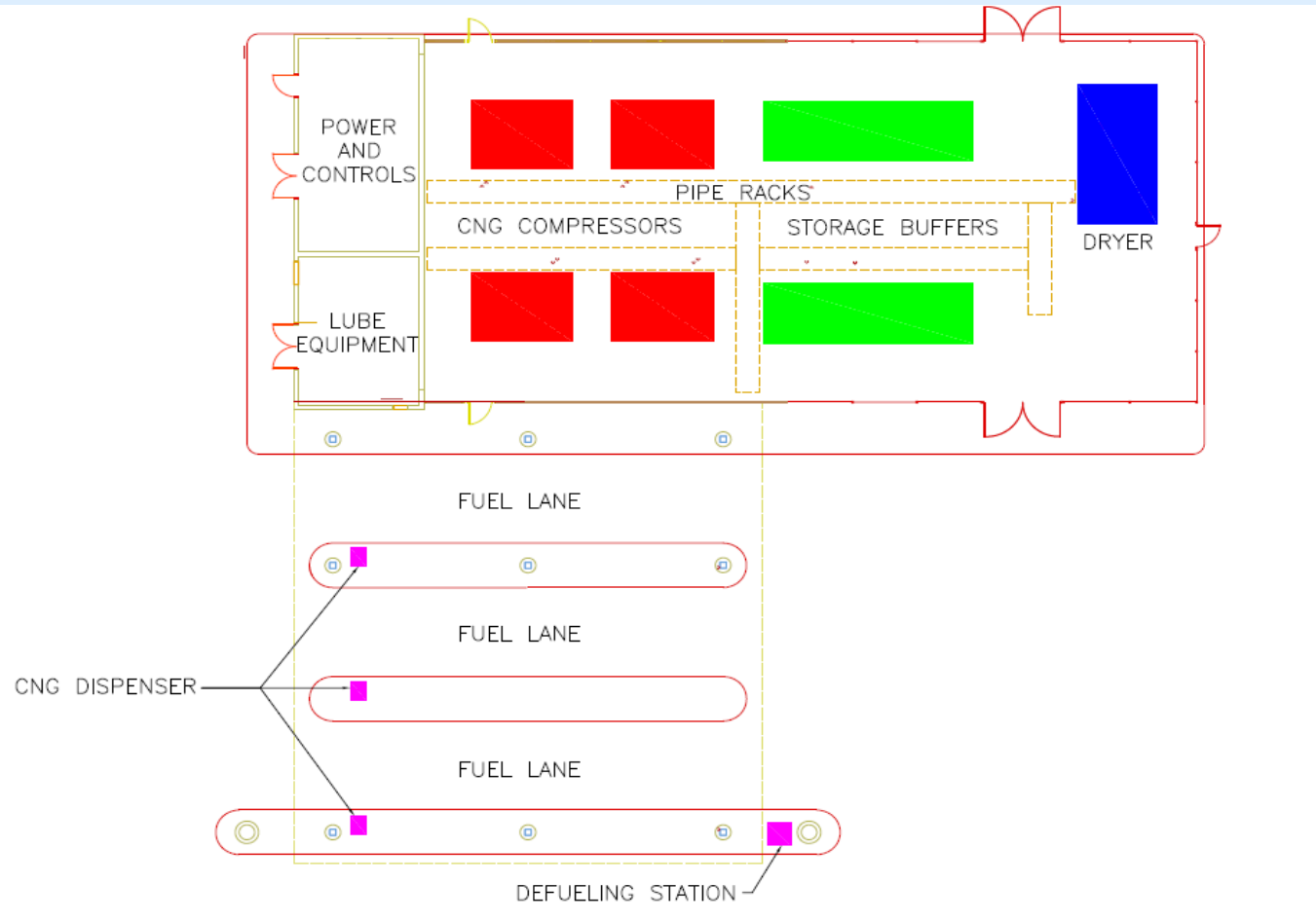
# HAMILTON CNG FUELING FACILITY PROJECT

## Fueling Facility Rendering



# HAMILTON CNG FUELING FACILITY PROJECT

## Site Plan



# HAMILTON CNG FUELING FACILITY PROJECT

## CNG Major Components

- Desiccant Twin Tower Dryer
- Four CNG Compressors
- Two Buffer Storage
- Two Heavy Duty Dispensers (buses)
- Dual Hose Dispenser (cars and buses)
- De-fueling Station
- Overhead Pipe Rack

# HAMILTON CNG FUELING FACILITY PROJECT

## Incoming Services

- Natural Gas
  - Atlanta Gas Light
  - 140 psig pressure
- Electrical
  - Georgia Power
  - 2500 amps, 480 volt/3 Phase

# HAMILTON CNG FUELING FACILITY PROJECT

## CNG Equipment

### Twin Tower Desiccant Gas Dryer

- Minimum inlet flowrate – 3500 scfm at 140 psig
- Minimum days between automatic regeneration – 7 days
- Maximum regenerating time – 8 hours
- Maximum outlet pressure dew point – -50 degree F
- Outlet moisture content – Less than 0.25 lbs/MMScf
- Minimum design pressure – 300 PSIG

# HAMILTON CNG FUELING FACILITY PROJECT

## CNG Equipment

### Simplex Aerial Multi Stage Reciprocating Compressors

- Four
- 250 HP main electric motor
- Skid mounted with enclosure
- Sound Attenuating Insulation – 75 dBA at 15 feet
- VFD on two compressors
- Buffer matrix panels

# HAMILTON CNG FUELING FACILITY PROJECT

## CNG Equipment

### Buffer Storage Tanks

- Two
- Six pack assemblies with minimum 70,000 scf each
- Design pressure of 5,500 psig
- ASME Section VIII, Division 1
- “UV” stamped
- ESD panels



# HAMILTON CNG FUELING FACILITY PROJECT

## CNG Equipment

### CNG Dispensers and De-Fueling Station

- Two heavy duty dispensers (buses)
- One dual hose dispenser (cars and buses)
- De-fueling station
- Three land fueling canopy
- Interface with “Asset Works” fuel management system

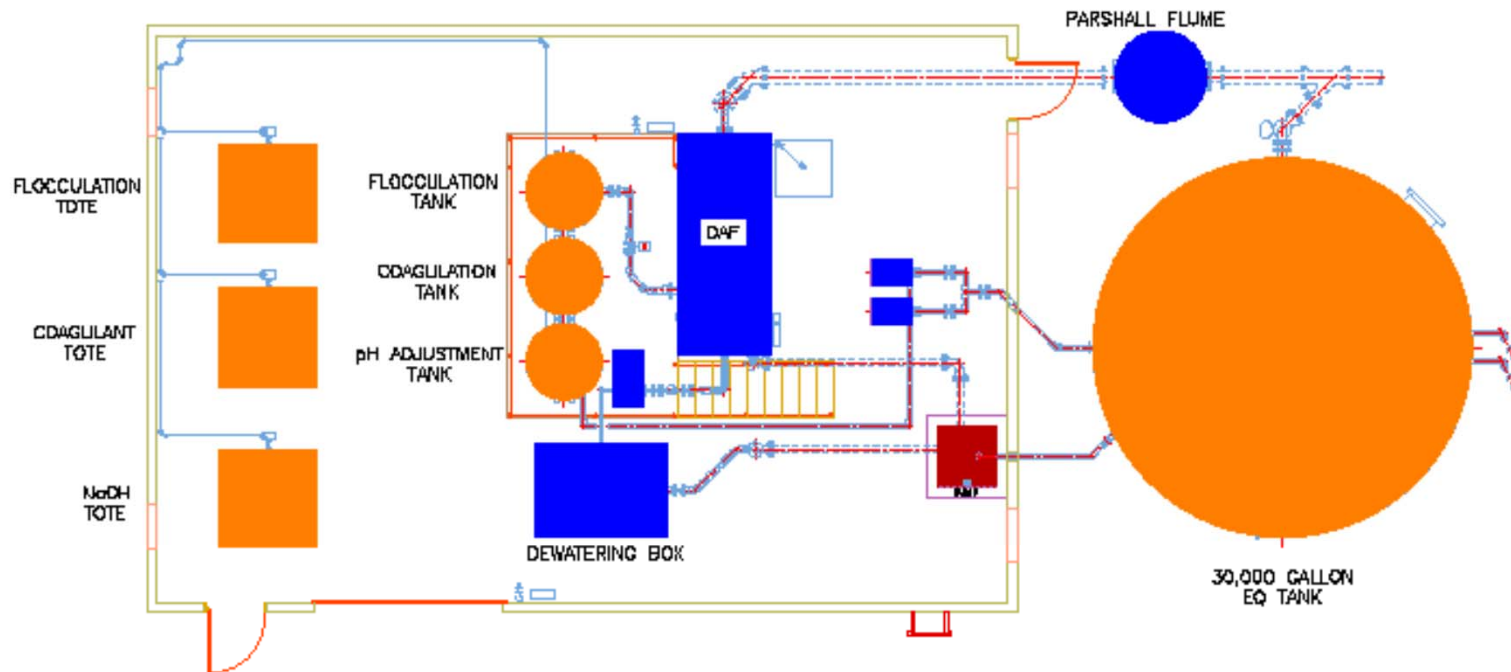
# HAMILTON CNG FUELING FACILITY PROJECT

## Industrial Wastewater Treatment Plant

IWTP Engineer  
Lara Thurn

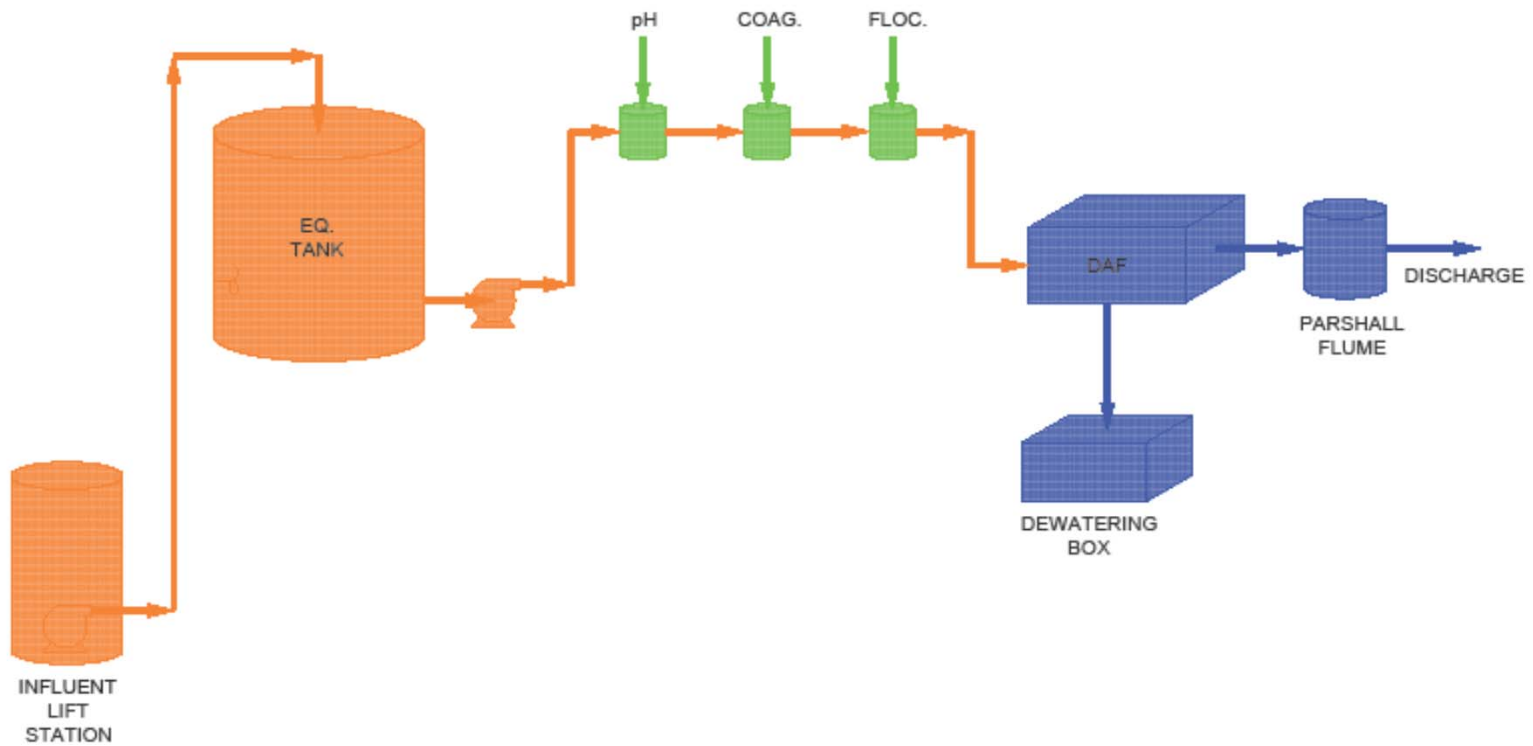
# HAMILTON CNG FUELING FACILITY PROJECT

## IWTP Plan



# HAMILTON CNG FUELING FACILITY PROJECT

## IWTP Schematic

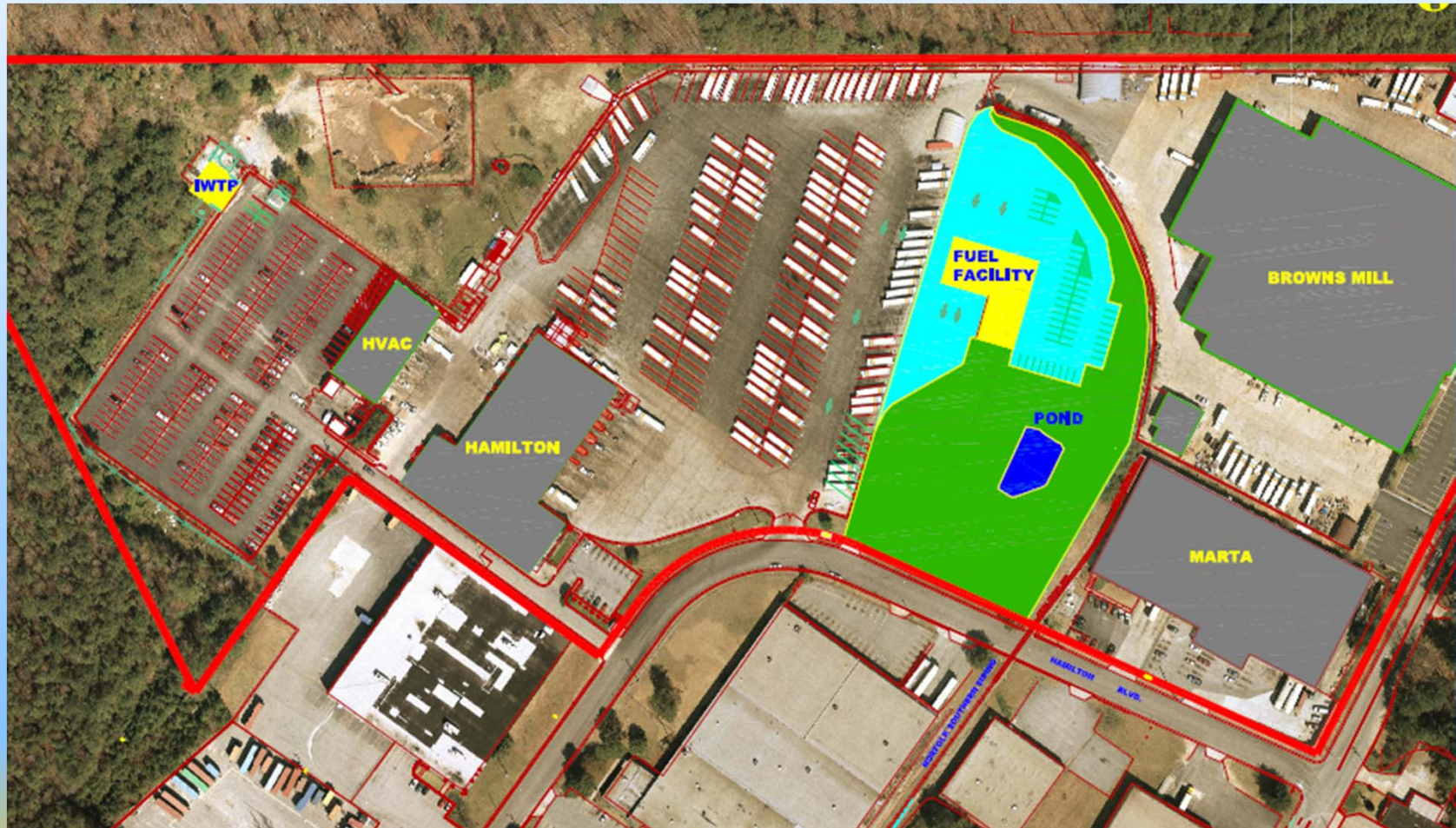


# HAMILTON CNG FUELING FACILITY PROJECT

## IWTP Major Equipment

- Influent Lift Station
- Equalization Tank (with submersible mixer)
- Centrifugal Pumps
- Chemical Feed Systems
- Dissolved Air Floatation Unit
- Dewatering Box
- Parshall Flume
- Automation/Instrumentation and Controls

# Hamilton CNG Fueling Facility Project Project Site Plan





# DIVERSITY & INCLUSION

- Project Specific DBE Goal
- Currently Certified DBEs (GAUCP Directory)
- Prime's Workforce Information
- Equal Employment Opportunity (EEO) Policy Statement or Affirmative Action Plan (AAP)



# QUESTIONS & ANSWERS

## PANEL