

# Air Monitoring System Project

Communicating timely information to residents in the City of Deer Park will be key in the process for taking action in data collection. Along with Toxicologist clearly defining actions for concentrations of chemicals that will be monitored, Public Affairs will create the information that can be distributed to the public as timely information.

The objective of this scope of work is to produce a guidance document on behalf of the City of Deer Park Emergency Management. This guidance document would include single-page summaries for each of the nine chemicals for which air monitoring sensors are being considered. These chemicals include VOCs, hydrogen sulfide, chlorine, ammonia, sulfur dioxide, nitrogen dioxide, methyl mercaptan, hydrogen chloride, and particulates. Each summary will include a table of relevant emergency response reference levels and a brief description of potential acute adverse health effects against which these levels are protective. Each summary will also include a table of proposed notification levels (concentrations and durations) for which Emergency Management may want to receive text/email alerts within the system and potentially issue and adjust community action notifications, such as shelter-in-place.









# System to Include

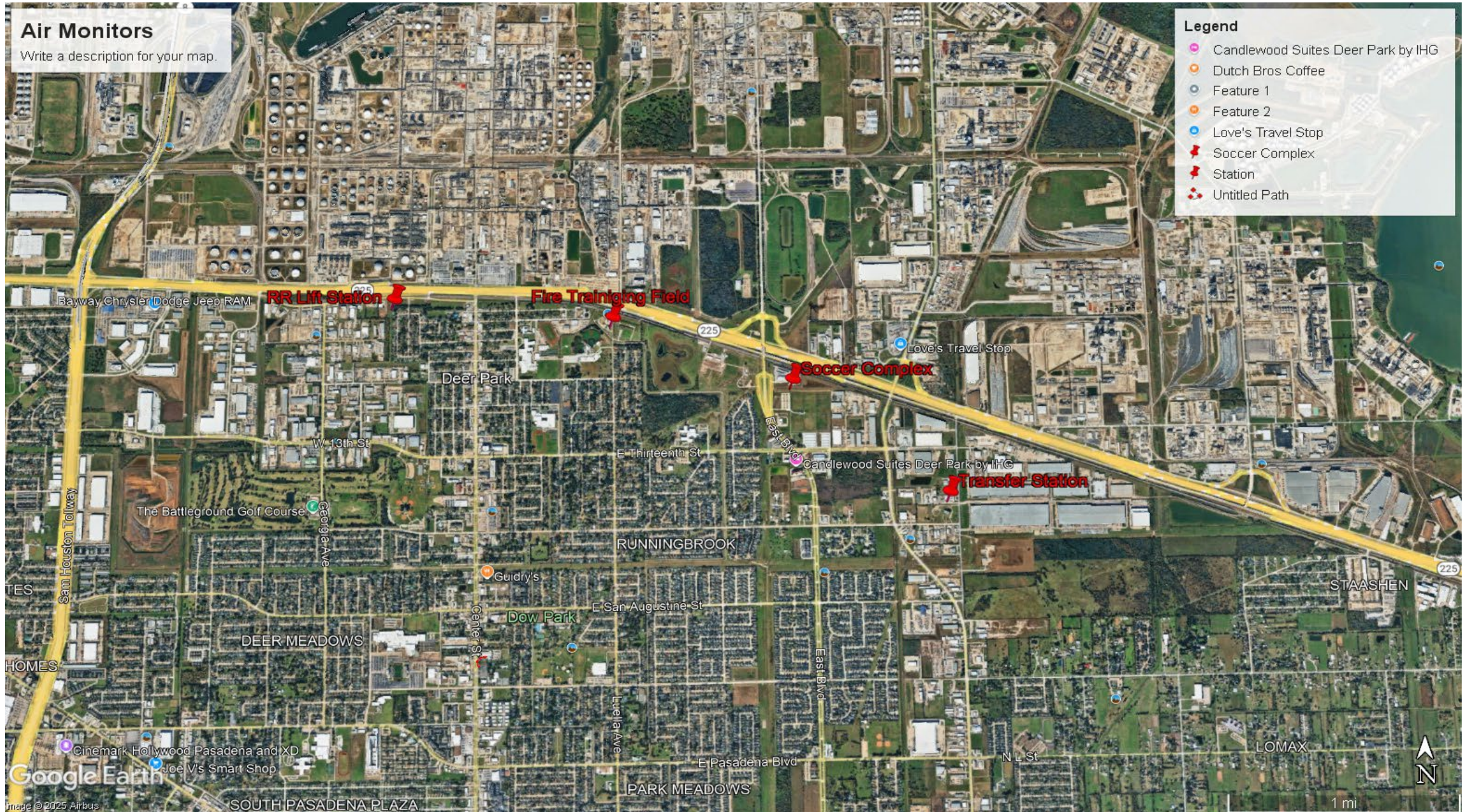
- Development of copy for the following (includes up to nine (9) chemicals of concern):
  - o Social media statements and graphic
  - o Text message alerts
  - o Website notifications
  - o Media holding statements
- Air Monitoring System Handbook -- Development and organization of comprehensive handbook that includes:
  - o Policies
  - o Procedures
  - o Community Messaging Statements
  - o Notification Process

## Air Monitors

Write a description for your map.

### Legend

-  Candlewood Suites Deer Park by IHG
-  Dutch Bros Coffee
-  Feature 1
-  Feature 2
-  Love's Travel Stop
-  Soccer Complex
-  Station
-  Untitled Path



# Real Time Data: Example Sensors



ENMET eGC



Teledyne H2S



Aeroqual AQM65



American Ecotech Detect



PAMS GC

Price per month	~\$3k	~\$9k	~\$6k	~\$25-30k	~\$30-40k
Data Quality	EPA Accepted	EPA Accepted	Non-FEM	EPA Accepted for all except BTEX	EPA Accepted
Pro	Runs off solar and is easily portable when trailer mounted	Highest data quality available	Many analytes and compact, BTEX system is non-Aeroqual manufactured	Highest data quality available, Montrose has verified BTEX system in GC collocation study	Highest data quality available for many speciated VOCs in real-time
Con	1 reliable analyte	Requires existing infrastructure and small footprint	Lowest data quality, not EPA accepted	Requires existing infrastructure and small footprint	Requires substantial power and footprint
Analytes	Benzene	H2S	BTEX, H2S, criteria	BTEX, H2S, criteria	59 VOCs including BTEX
Detection Limits	<1 ppb	<1 ppb	<1-10 ppb depending on analyte	<1 ppb	<1 ppb

# Galena Park system by OIZOM

## Patented Technology

Works on innovative e-Breathing technology for higher data accuracy



## Solar Powered

The system works 100% on solar power, making it ideal for off-grid locations



## Tamper Proof

Comes with a security system to avoid tampering / malfunction / sabotage



## Network Agnostic

Supports a wide range of connectivity options like GSM / GPRS / WiFi / LoRa / NBIoT / Ethernet / Modbus / Relay / Satellite



## Over-The-Air Update

Automatically upgradeable from a central server without any onsite visit



## Internal Storage

Internal data storage capacity of up to 8 GB or 90 days



## Compact

Light-weight and compact system installed at 12-15 feet (3.5-5 m) height



## Relay Based Automation

Relay-based automation allows activating odour neutralizers when an odour level crosses thresholds



## Real-Time Data

Continuous monitoring and real-time data transfer at configurable intervals



## Retrofit Design

Plug and play design for ease of implementation



## Weather Resistant (IP 66)

IP66 Grade (certified) enclosure for endurance against harsh weather conditions



## 3-Level Calibration

Our devices go through 3-level calibration, including factory, multi-span calibration & collocation calibration as per the U.S. EPA guidelines





QUESTIONS?