Stormwater Wastewater Consolidation

November 15, 2017
Welcome – Stacey Smalls, Director, Wastewater Collection Division

Project Overview

Building and Site Walk

Questions and Answers
Stormwater Wastewater Consolidation

Background

Project Overview

- New Stormwater and Wastewater Consolidation Facility
- 23.7 Acres Total – Wastewater Collection Division Site & Concrete Plant Site
<table>
<thead>
<tr>
<th>Program</th>
<th>Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office and Support Areas</td>
<td>96,500 SF</td>
</tr>
<tr>
<td>Shops</td>
<td>29,000 SF</td>
</tr>
<tr>
<td>Warehouse</td>
<td>18,250 SF</td>
</tr>
<tr>
<td>Vehicle Wash Facility</td>
<td>4,300 SF</td>
</tr>
<tr>
<td>Covered Fuel Pump</td>
<td>3,500 SF</td>
</tr>
<tr>
<td>Covered Material Storage</td>
<td>18,300 SF</td>
</tr>
</tbody>
</table>
Stormwater Wastewater Consolidation

Existing Conditions: Zoning Compliance

LEGEND:

- 50’ TRANSITIONAL SCREENING (REQUIRED BY PROPPED CONDITION ON PARCEL 13 AND BY ORDINANCE ON PARCEL 11)
- EXISTING CONSERVATION/ENVIRONMENTAL QUALITY CORRIDOR
- 13’ RIGHT-OF-WAY DEDICATION (FREEDS OAK ROAD - REQUIRED BY PROPPED CONDITION)
- FIELD VERIFIED RESOURCE PROTECTION AREA

ZONING REQUIREMENTS:

- TOTAL GROSS SITE AREA (GSA): 23,710 sq. ft.
- PUBLIC USE (PERMITTED BY RIGHT): 1,050 sq. ft. (10% OF GSA)
- MINIMUM YARDS:
  - FRONT: 45° ANGLE OF BULK PLANE BUT NOT LESS THAN 40’
  - REAR: NO REQUIREMENT
- MAXIMUM BUILDING HEIGHT:
  - 100’ FOR FREE CANOPY
- TRANSITIONAL SCREENING:
  - ADJACENT TO RESIDENTIAL USES: 30’ TYPE III TRANSITIONAL SCREEN
  - ADJACENT TO INDUSTRIAL USES: NO REQUIREMENT
- BARIERS:
  - ADJACENT TO RESIDENTIAL USES: TYPE D, E, OR F**
  - ADJACENT TO INDUSTRIAL USES: NO REQUIREMENT

* 13% OF 1.5’ ZONE GSA – 10% OF 1-1/2 ZONE GSA
** TYPE D, 42’ 48’ CLAYLINK FENCE; TYPE E, BRICK OR ARCHITECTURAL BLOCK WALL; TYPE F, 6’ SOLID WOOD FENCE
Stormwater Wastewater Consolidation

Concepts – Option 1

CONCEPT OPTION 1
Stormwater Wastewater Consolidation
Concepts – Option 3

[Diagram of a plan showing various areas such as offices, warehouses, parking, and conservation easements.]
Fairfax County outdoor lighting standards designed to:

- Reduce the impacts of glare, light trespass and overlighting.
- Promote safety and security.
- Encourage energy conservation.

The Ordinance requires the use of full cutoff lighting fixtures for all walkways, parking lots, canopy and building/wall mounted lighting and all lighting fixtures. Fixtures adjacent to residentially zoned properties must conform to fixed mounting heights and provide supplemental opaque shielding to further reduce glare.
## Stormwater Wastewater Consolidation

### Noise Impact Analysis

<table>
<thead>
<tr>
<th>Location</th>
<th>Measured Ambient Noise, ( L_{dn} ) dBA</th>
<th>Combined Noise Levels, ( L_{dn} ) dBA</th>
<th>Increase in Noise Levels, dB</th>
</tr>
</thead>
<tbody>
<tr>
<td>M1</td>
<td>59</td>
<td>60</td>
<td>1</td>
</tr>
<tr>
<td>M2</td>
<td>50</td>
<td>51</td>
<td>1</td>
</tr>
<tr>
<td>M3</td>
<td>51</td>
<td>53</td>
<td>2</td>
</tr>
<tr>
<td>M4</td>
<td>56</td>
<td>69</td>
<td>13</td>
</tr>
<tr>
<td>M5</td>
<td>70</td>
<td>70</td>
<td>0</td>
</tr>
<tr>
<td>M6</td>
<td>55</td>
<td>55</td>
<td>0</td>
</tr>
</tbody>
</table>

### DPWES

**Vehicle Operation Noise Levels**

- **5 Feet Above the Ground**

![Map of Noise Levels](image)

- **Property Line**

![Map with Noise Levels](image)

- **Calculated Sound Level in dB(A)**
  - 75.0 <
  - 70.0 <
  - 65.0 <
  - 60.0 <
  - 55.0 <
  - 50.0 <
  - 45.0 <
  - 40.0 <
  - 35.0 <

[Propacorp Corp]
40 S. Bella Air Lane
Warrenton, VA 20186
T: 540.341.4988
F: 540.341.0800

[Google Earth Image]
Vactor Back Motor

- Fairfax County Noise Ordinance:
  - Maintenance and cleaning is exempted between 7:00 am to 9:00 pm, limited to 90 dBA.
  - Occasional maintenance and cleaning will only be performed during daytime hours.
Backup Alarm

- Fairfax County Noise Ordinance, impulse noise:
  - 100 dBA Daytime
  - 80 dBA Nighttime

- Alarm is very directional.

- Noise Ordinance will not be exceeded.
Building & Site Walk
Thank you!