

STATE OF VERMONT
PUBLIC SERVICE BOARD

Petition of Entergy Nuclear Vermont Yankee,)
LLC, and Entergy Nuclear Operations, Inc.,)
For a Certificate of Public Good Pursuant to)
30 V.S.A. § 248 and 10 V.S.A. § 6522 to) PSB Docket No. 8300
Construct a Second Independent Spent Fuel)
Storage Installation (“ISFSI”) at the Vermont)
Yankee Nuclear Power Station)

SUPPLEMENTAL PREFILED TESTIMONY AND EXHIBITS OF HARRY DODSON

Mr. Dodson’s supplemental testimony evaluates the impacts upon aesthetics associated with the construction of a second dry-fuel-storage pad, or Independent Spent Fuel Storage Installation (“ISFSI”), new diesel generator and related security barrier. Mr. Dodson introduces a revised aesthetic analysis based on updated project plans, specifically to address changes to the diesel generator and security barrier design.

Mr. Dodson sponsors the following exhibits:

- Exhibit EN-HLD-15 Updated Viewshed Analysis Map – Scenario 1
- Exhibit EN-HLD-16 Updated Viewshed Analysis Map – Scenarios 2 and 3
- Exhibit EN-HLD-17 Updated Terrain Model of the Proposed Project
- Exhibit EN-HLD-18 Updated Aerial Terrain Model of the Proposed Project Site
- Exhibit EN-HLD-19 Updated Photo Simulation of the Proposed Project – Scenario 1
- Exhibit EN-HLD-20 Updated Photo Simulation of the Proposed Project – Scenario 2
- Exhibit EN-HLD-21 Updated Photo Simulation of the Proposed Project – Scenario 3

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SUPPLEMENTAL PREFILED TESTIMONY AND EXHIBITS OF HARRY DODSON

- 1 Q1. Please state your name, occupation and business address.
- 2 A1. My name is Harry L. Dodson. I am a principal at Dodson and Flinker, Inc., landscape
3 architects and planners.
- 4
- 5 Q2. Are you the same Harry Dodson who submitted prefiled testimony in this matter on
6 June 30, 2014.
- 7 A2. Yes, I am.
- 8
- 9 Q3. What is the purpose of your testimony?
- 10 A3. I have been retained by Entergy Nuclear Vermont Yankee, LLC and Entergy Nuclear
11 Operations, Inc. (together, “Entergy VY”) to address impacts upon aesthetics and historic
12 sites under 30 V.S.A. § 248(b)(5) and the orderly development of the region under
13 30 V.S.A. § 248(b)(1) related to Entergy VY’s proposed second Independent Spent Fuel
14 Storage Installation (or “ISFSI”) storage pad and 200kW diesel generator and barrier

1 wall, which I will refer to as the “Project” or the “Second ISFSI.” I previously provided
2 testimony addressing the impacts of the Project. Since that time, Entergy VY has revised
3 its Project plans. I understand that the revised plans will not result in any visible
4 alterations to the Second ISFSI storage pad. However, the design of the new 200 kW
5 diesel generation has changed. Most significantly, the new diesel generator will now be
6 surrounded on three sides by an approximately 16-foot high by 8-foot thick barrier wall,
7 as explained further in the supplemental testimony of George Thomas. The barrier wall
8 will be approximately 59 feet long by 25 feet, 6 inches wide and will be open on its
9 southeastern side. My supplemental testimony introduces a revised aesthetic simulation
10 and analysis taking these Project changes into account.

11
12 Q4. Please describe the Project changes that may impact your aesthetic analysis.

13 A4. Since my initial analysis was filed, the location of the proposed diesel generator has been
14 moved approximately 51 feet closer to the proposed Second ISFSI storage pad, the
15 orientation of its longest side has been changed from east/west to northeast/southwest,
16 and a barrier wall is proposed to surround the generator on three sides. Due to the change
17 in orientation of the 200kW diesel generator, the side of the diesel generator enclosure
18 facing the primary viewing area has been reduced. This change will reduce the
19 generator’s visibility. On the other hand, the proposed approximately 16-foot high by 8-
20 foot thick barrier wall that will surround the generator on three sides will slightly increase
21 the Project’s visibility because it adds 4 feet in height and 13 feet, 6 inches in width to the
22 generator complex. On balance, the changes to the generator’s location and orientation,

1 as well as the addition of the barrier wall, will result in a negligible increase in the
2 visibility of the generator complex from the Connecticut River and the Hinsdale, New
3 Hampshire shoreline.

4
5 Q5. What color will the barrier wall be?

6 A5. The barrier wall will be constructed with a surface of Cor-Ten steel, which forms a stable
7 rust-like, dark brown appearance when exposed to weather.

8
9 Q6. Will the color of the barrier wall be suited to its surroundings?

10 A6. Yes. The primary backdrop of the Project as seen from the Connecticut River and the
11 Hinsdale shoreline northeast of the Project will be an existing mature pine forest and the
12 existing buildings of the reactor complex. The primary backdrop of the Project as seen
13 from the southeast will consist of the existing switching station backed by a wooded
14 hillside. The barrier wall's Cor-Ten material will blend in well with the dark understory
15 of the pine forest as well as with the existing buildings and security infrastructure.

16
17 Q7. Will the Project be visible from any additional areas as a result of the modifications?

18 A7. No. I refer to the area from which the Project will be visible as the "viewshed." The
19 viewshed consists of limited sections of the open water of the Connecticut River and
20 portions of the banks of the river in Hinsdale, New Hampshire. These are the only areas
21 from which the Project will be seen by the public. My colleagues and I have revised the
22 digital viewshed analysis (previous Exhibits EN-HLD-4 and EN-HLD-5) using

1 ArcMap 10.2 3-D Analyst in Visibility mode to account for the change in the location of
2 the diesel generator and addition of the barrier wall. An analysis of the data allowed us to
3 precisely determine the visibility of the Project, taking into account topography,
4 vegetation, water bodies and other factors relevant to the analysis. I am providing the
5 revised digital viewshed analysis as Exhibits EN-HLD-15 and EN-HLD-16. As shown in
6 Exhibits EN-HLD-15 and EN-HLD-16, the viewshed of the proposed ISFSI casks and
7 diesel generator complex has not changed since my previous testimony. The barrier
8 wall's Cor-Ten material will blend in well with the dark understory of the pine forest as
9 well as with the existing buildings and security infrastructure. As buildings are removed
10 during decommissioning, the visibility of the existing forest cover will increase, allowing
11 the dark brown barrier wall to blend in better with its new, more natural surroundings.

12
13 Q8. Have you updated the photo simulations you prepared to take the Project modifications
14 into consideration?

15 A8. Yes. The terrain model (previous Exhibit EN-HLD-6) was revised using ArcMap 10.2.3
16 and Rhino 3-D4 to model the site and the surrounding area in three dimensions. I am
17 providing the revised terrain model as Exhibits EN-HLD-17 and EN-HLD-18. The
18 terrain model allowed the digital model of the proposed Second ISFSI storage pad to be
19 viewed from any location, height or viewpoint in order to precisely determine the extent
20 and characteristics of the Project's visual impacts.

1 Based on the terrain model, I also revised the photo simulations of the proposed
2 Project from a viewpoint opposite the VY Station on the banks of the river in Hinsdale. I
3 am providing the following revised photo simulations as exhibits:

- 4 • Exhibit EN-HLD-19 contains an updated photo simulation of the proposed Project
5 under Scenario 1 (replacing previous Exhibit EN-HLD-8).
- 6 • Exhibit EN-HLD-20 contains an updated photo simulation of the proposed Project
7 under Scenario 2 (replacing previous Exhibit EN-HLD-9).
- 8 • Exhibit EN-HLD-21 contains an updated photo simulation of the proposed Project
9 under Scenario 3 (replacing previous Exhibit EN-HLD-10).

10
11 Q9. Have your assumptions about the condition of the surrounding area under each scenario
12 changed since your initial prefiled testimony?

13 A9. No. I have used the same assumptions.

14
15 Q10. Does the addition of the barrier wall change your conclusion with respect to the Project's
16 effect on the scenic or natural beauty of the area and aesthetics?

17 A10. No, it does not. The addition of the barrier wall will slightly increase the visibility of the
18 Project, but the wall will visually blend in with the other industrial structures in the area.
19 In sum, the proposed Project meets the Quechee Analysis for lack of adverse visual
20 impacts. The proposed Project will be in harmony with its surroundings (the VY Station
21 and surrounding pine woodlands) and will fit into the context within which it will be
22 located. Its design, colors and materials will be compatible with its surroundings. It will

1 be a visually minor element seen from a limited area and a considerable distance by a
2 limited number of viewers. The Project will have no impacts on open space in the area
3 because it will be built on an existing industrial site.

4

5 Q11. Do the revisions to the Project affect your previous conclusion that the Project's impacts
6 are not undue, assuming *arguendo* that the impacts are adverse?

7 A11. No. My opinion that the impacts will not be undue has not changed.

8

9 Q12. Do the revisions to the Project impact the opinion stated in your previous prefiled
10 testimony regarding historic sites and orderly development?

11 A12. No. My opinion with respect to historic sites and orderly development has not changed.
12 The project will not have any impact on the historic sites in the area and will not unduly
13 interfere with the orderly development of the region.

14

15 Q13. Does this conclude your testimony?

16 A13. Yes.

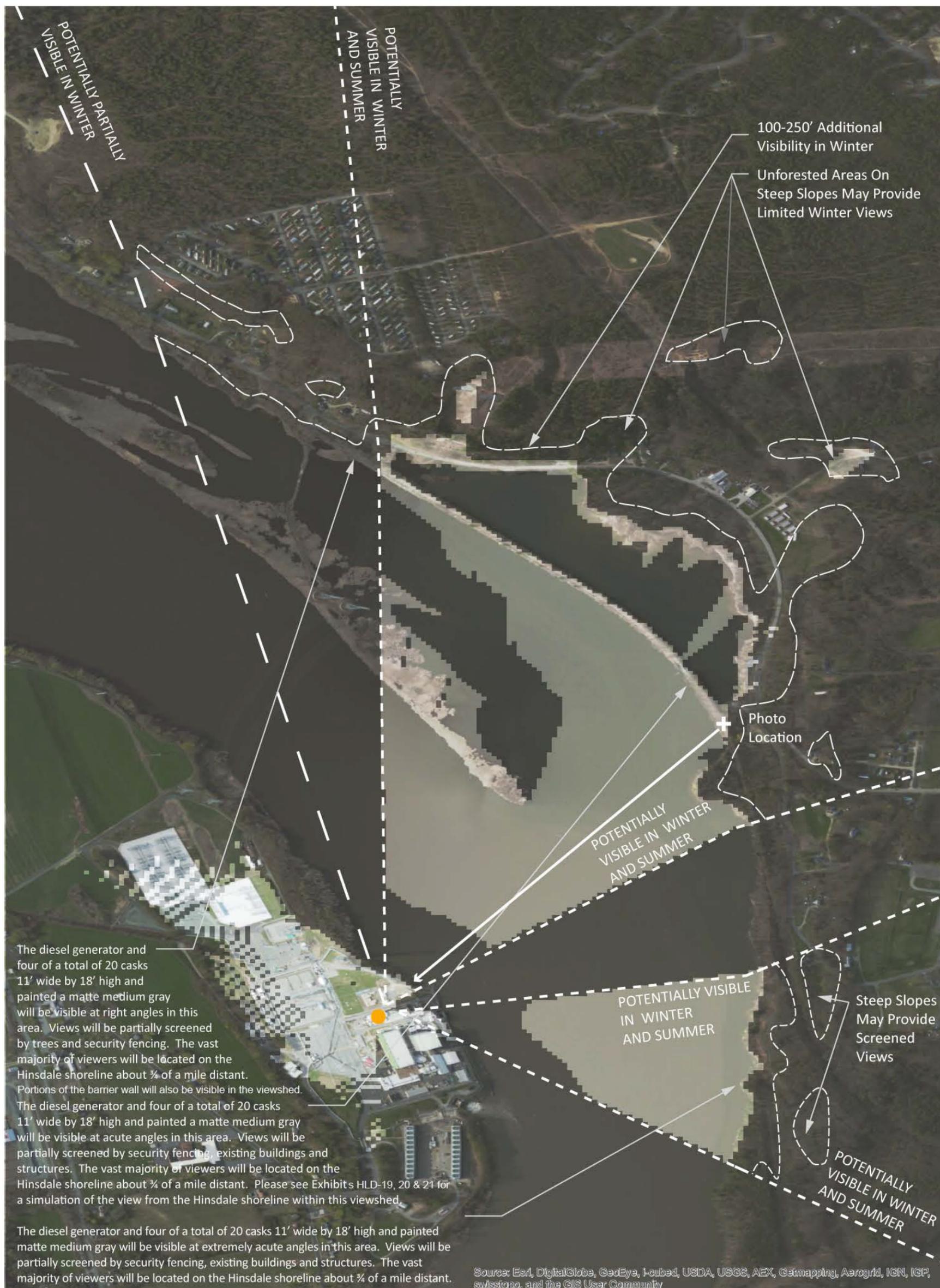
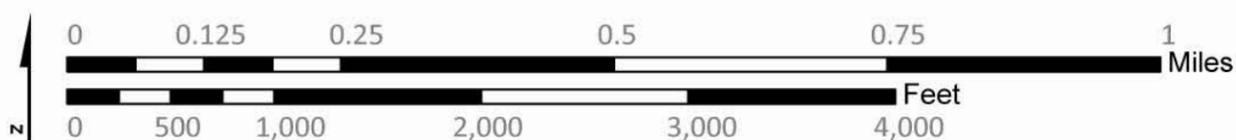


Exhibit HLD-15 Viewshed Maps

Scenario 1: SAFSTOR

Visibility analysis performed by Dodson & Flinker, Inc. in ArcMap 10.2, using 10M Digital Elevation Model from the USGS (c. 2010) and forest/building obstructions digitized in ArcMap 10.2 from 0.3 meter resolution ESRI World Imagery (c. 04/09/2011).



- Not Visible
- Visible
- Winter Visibility
- Cask Location

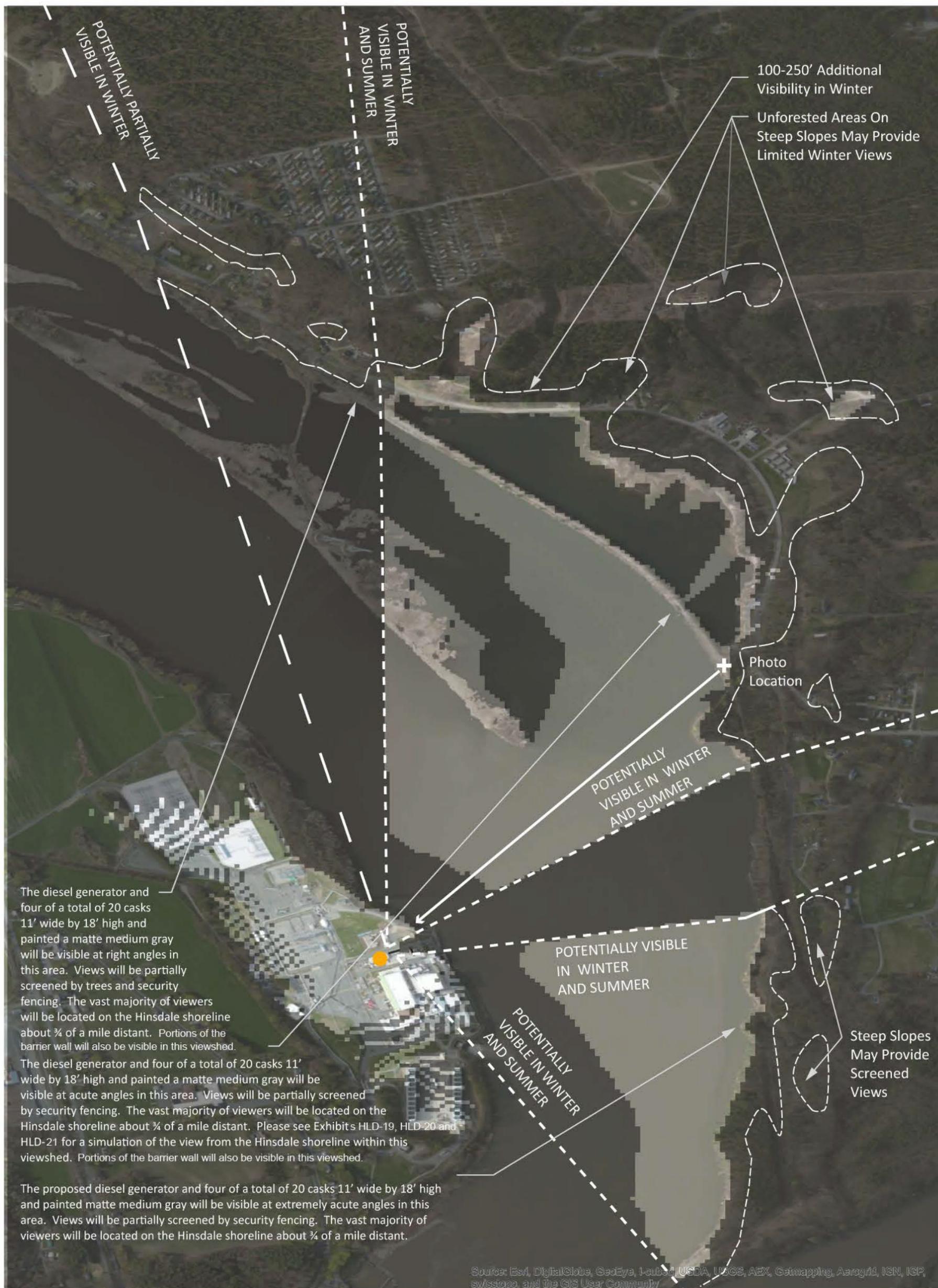
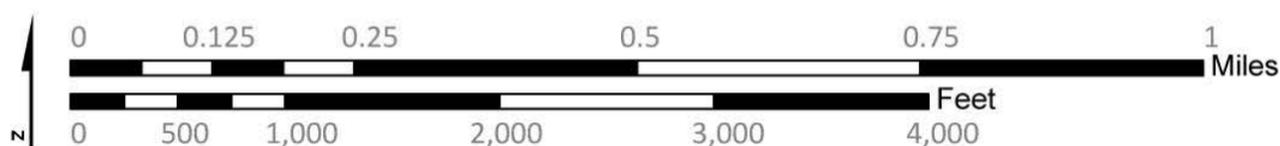


Exhibit HLD-16 Viewshed Maps

Scenarios 2 and 3: Decommissioning and Dismantling

Visibility analysis performed by Dodson & Flinker, Inc. in ArcMap 10.2, using 10M Digital Elevation Model from the USGS (c. 2010) and forest/building obstructions digitized in ArcMap 10.2 from 0.3 meter resolution ESRI World Imagery (c. 04/09/2011).



- Not Visible
- Visible
- Winter Visibility
- Cask Location

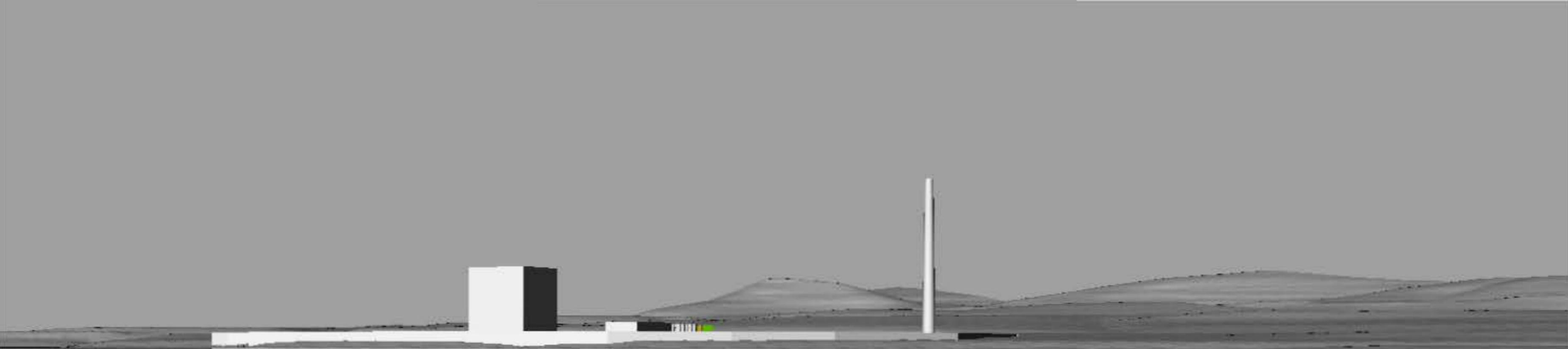


Exhibit EN-HLD-17
Terrain Model of Proposed Diesel Generator

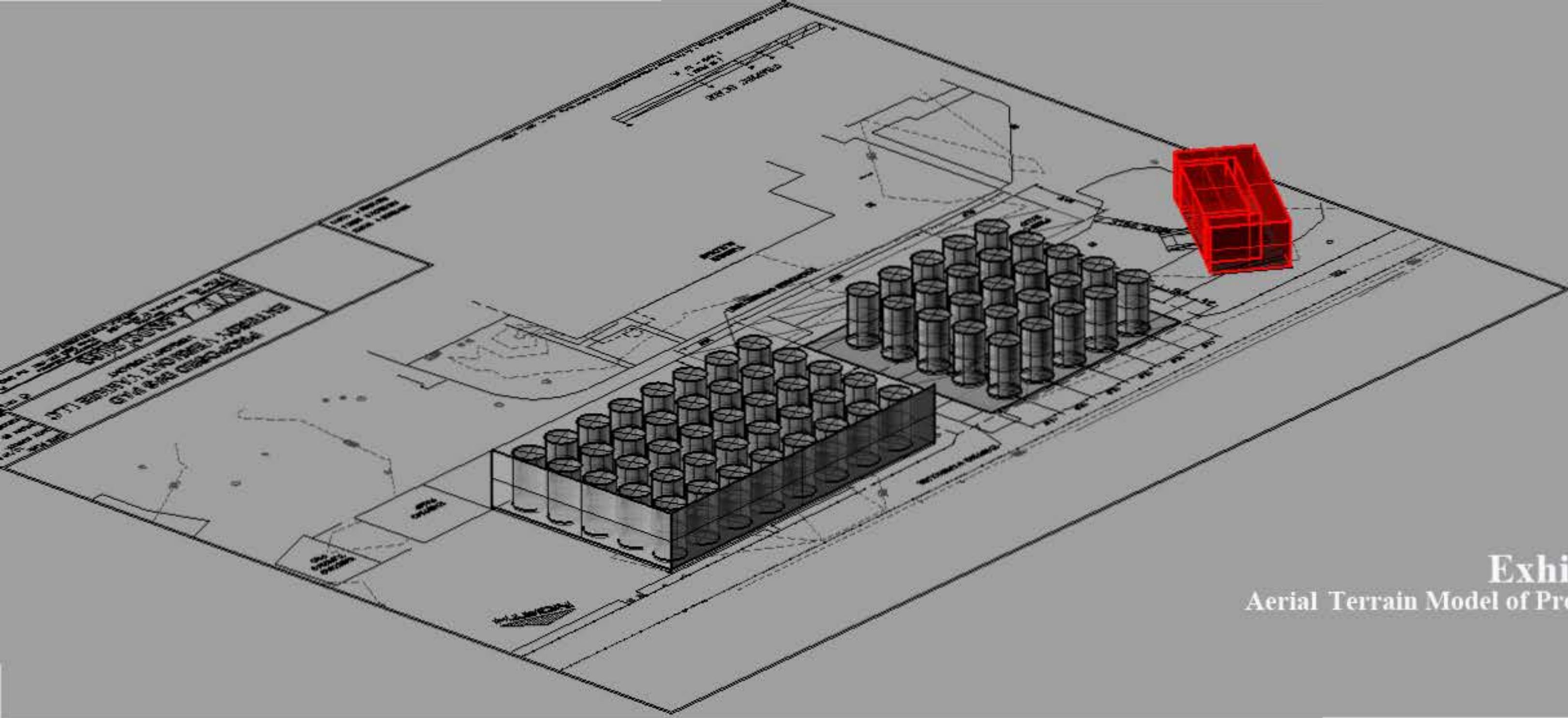


Exhibit EN-HLD-18
Aerial Terrain Model of Proposed Diesel Generator



Exhibit EN-HLD-19

Photo Simulation of the Proposed Project - Scenario 1

March 3, 2015



Exhibit EN-HLD- 20
Photo Simulation of the Proposed Project - Scenario 2



Exhibit EN-HLD-21

Photo Simulation of the Proposed Project - Scenario 3