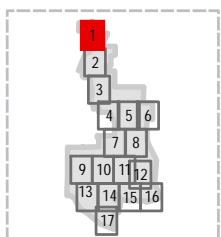
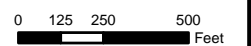


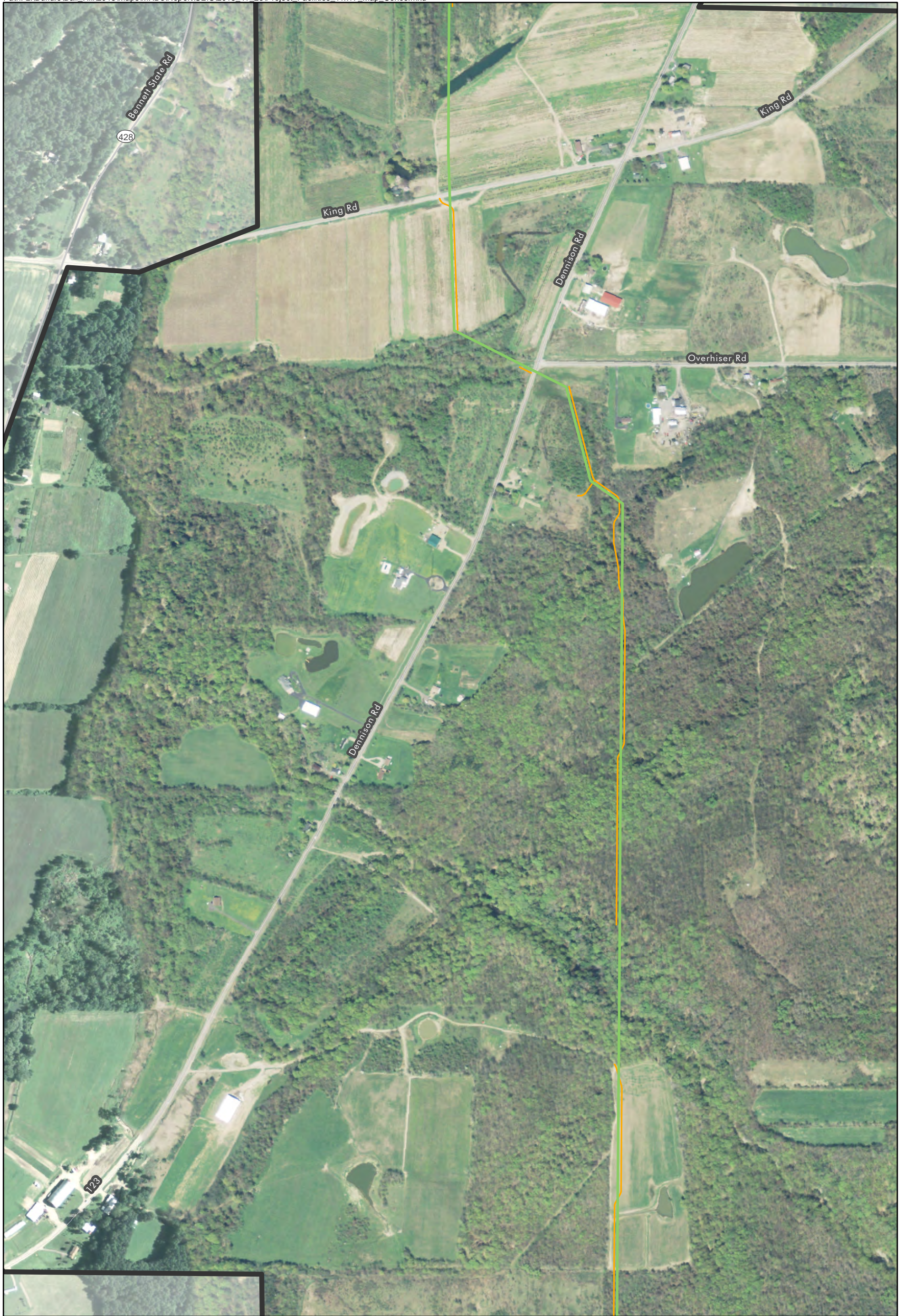
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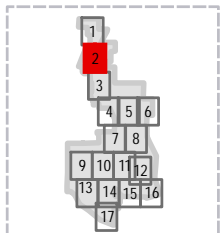
- Turbine
- Collection Line
- Access Road
- Transmission Line
- Town Boundary
- Local Street
- ▭ Project Area

Project Facilities: Page 1 of 17
 Ball Hill Wind Project
 Chautauqua County, New York
 Ball Hill Wind Energy, LLC



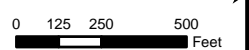


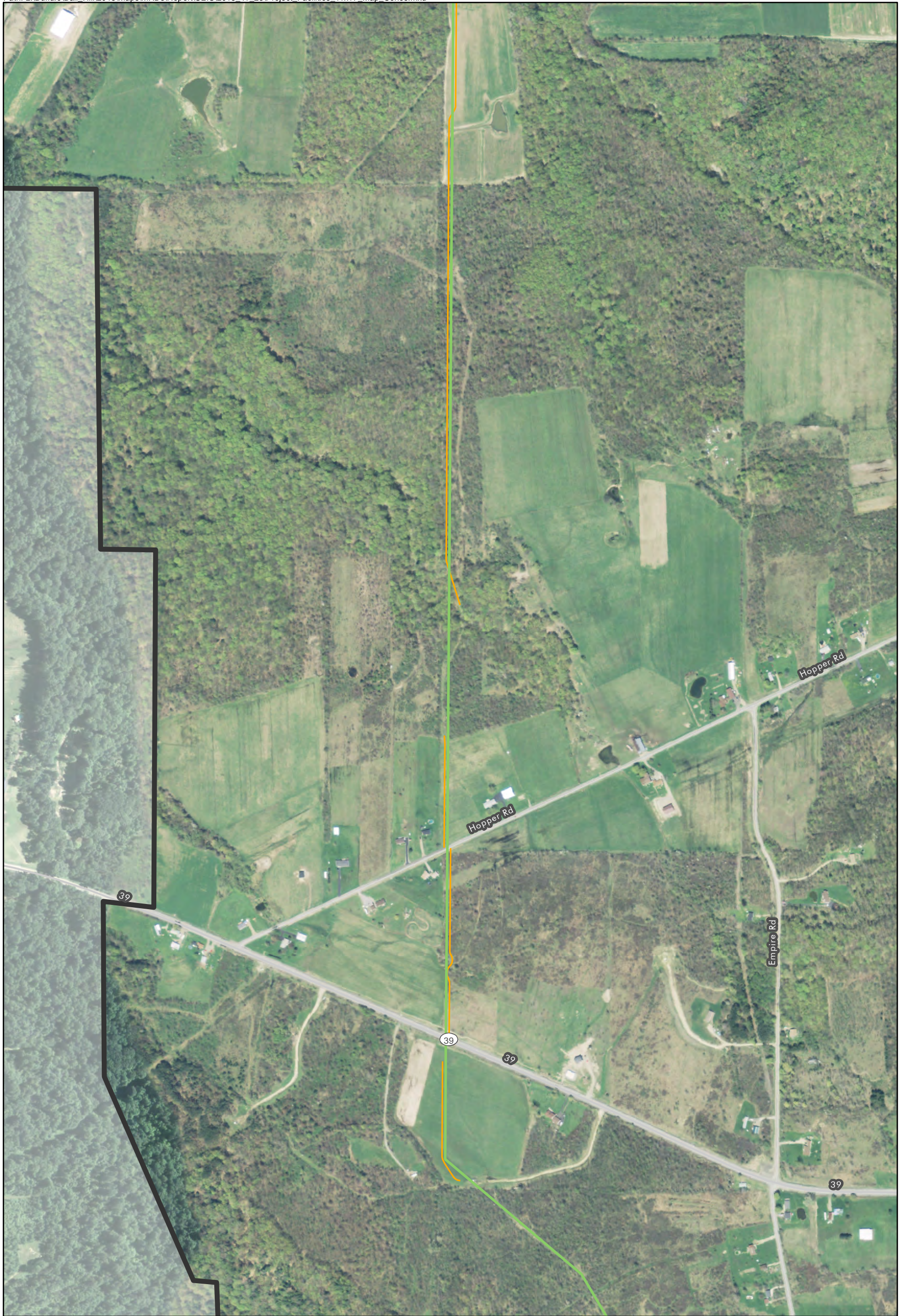
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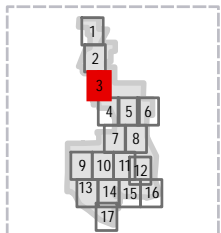
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Project Facilities: Page 2 of 17
Ball Hill Wind Project
Chautauqua County, New York
Ball Hill Wind Energy, LLC



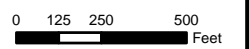


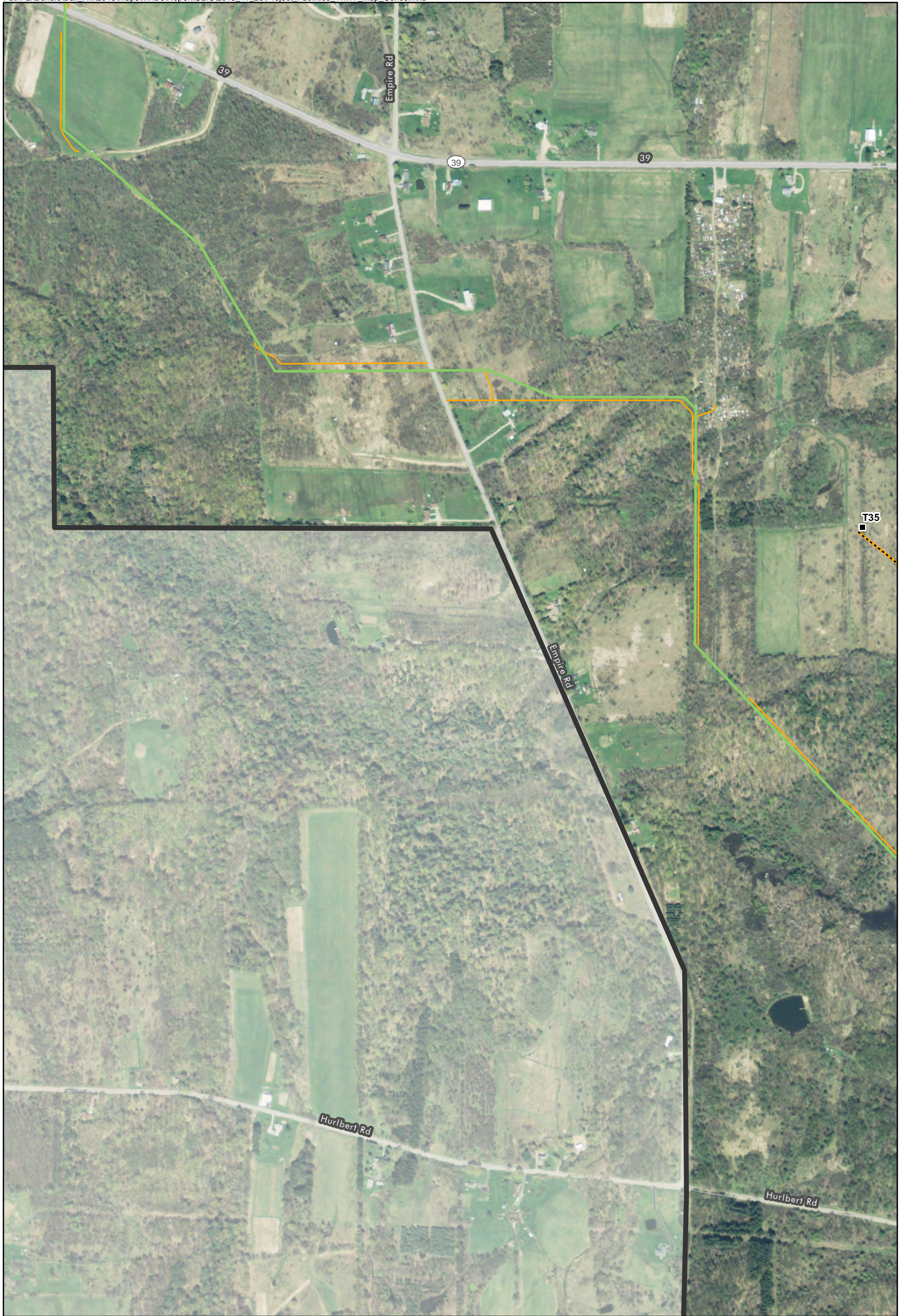
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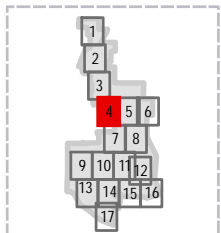
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Project Facilities: Page 3 of 17
Ball Hill Wind Project
Chautauqua County, New York
Ball Hill Wind Energy, LLC

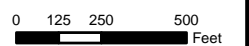




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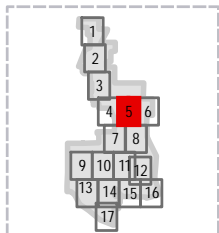


- Turbine
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- Transmission Line
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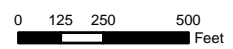




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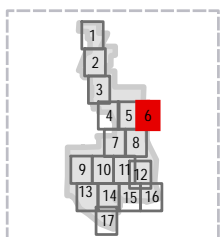


- Turbine
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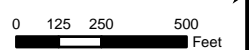


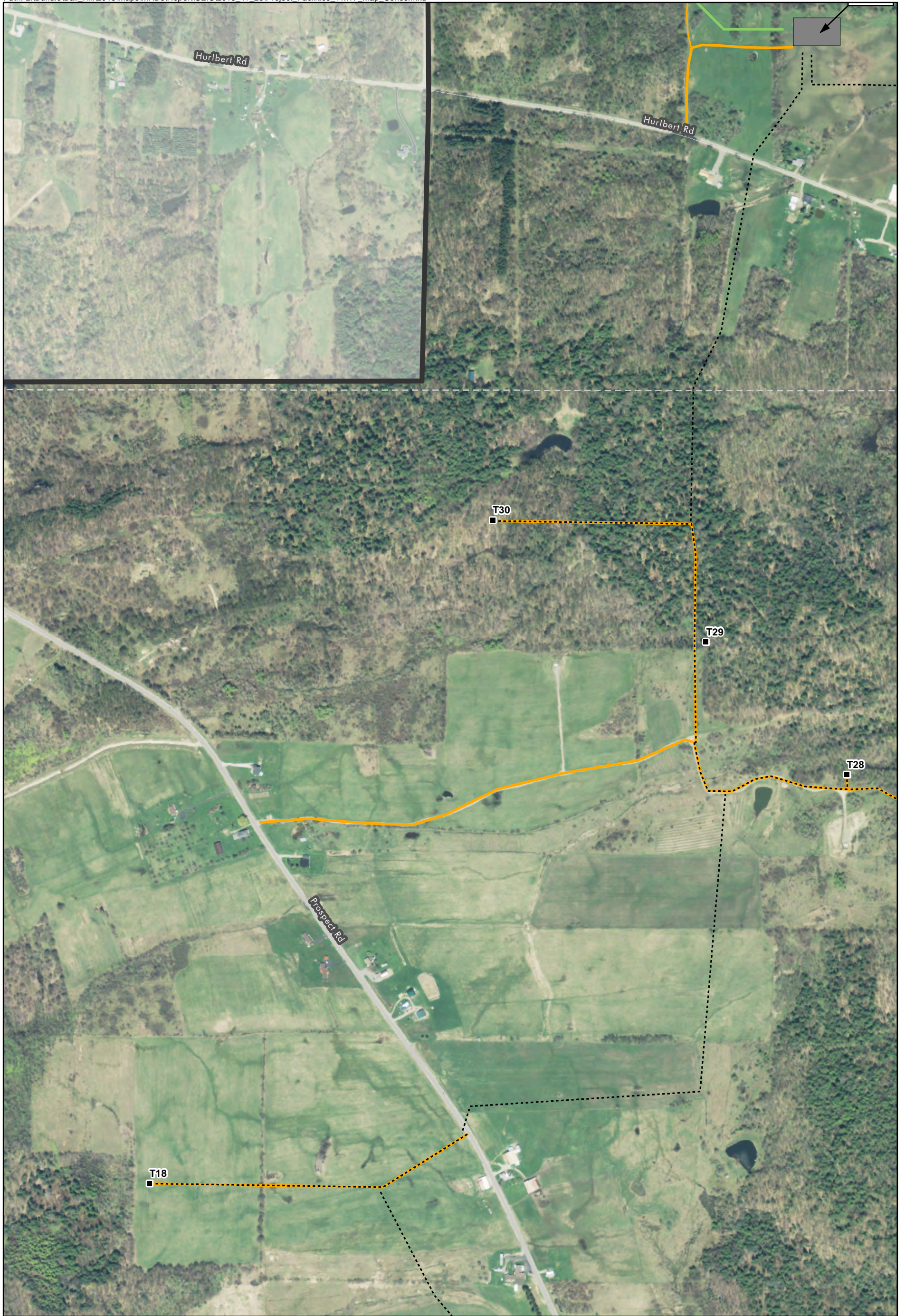
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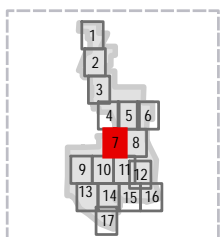
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Project Facilities: Page 6 of 17
Ball Hill Wind Project
Chautauqua County, New York
Ball Hill Wind Energy, LLC



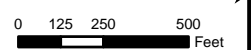


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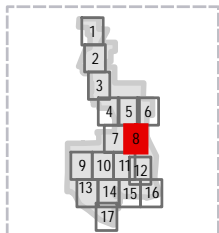
- Turbine
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Ball Hill Wind Project
Chautauqua County, New York
Ball Hill Wind Energy, LLC



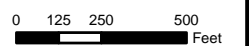


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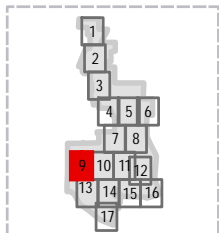
- Turbine
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Ball Hill Wind Project
Chautauqua County, New York
Ball Hill Wind Energy, LLC

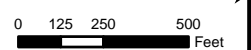


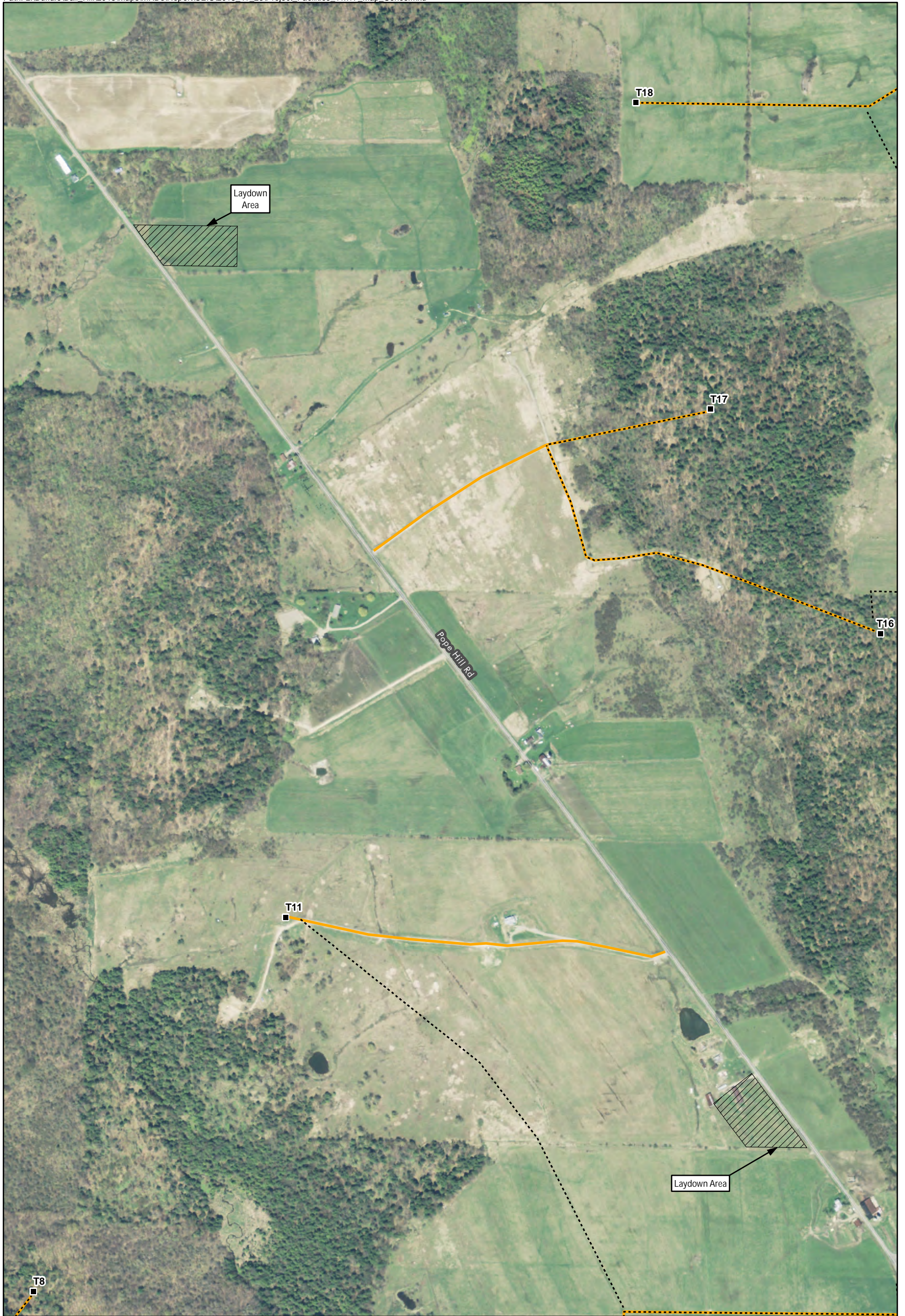


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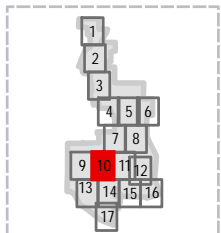


- Turbine
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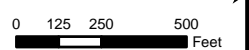




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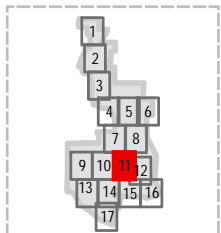


- Turbine
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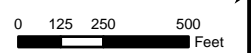


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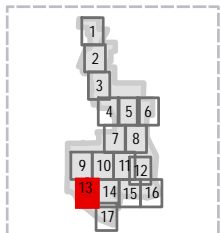
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Project Facilities: Page 11 of 17
 Ball Hill Wind Project
 Chautauqua County, New York
 Ball Hill Wind Energy, LLC



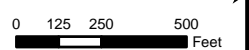


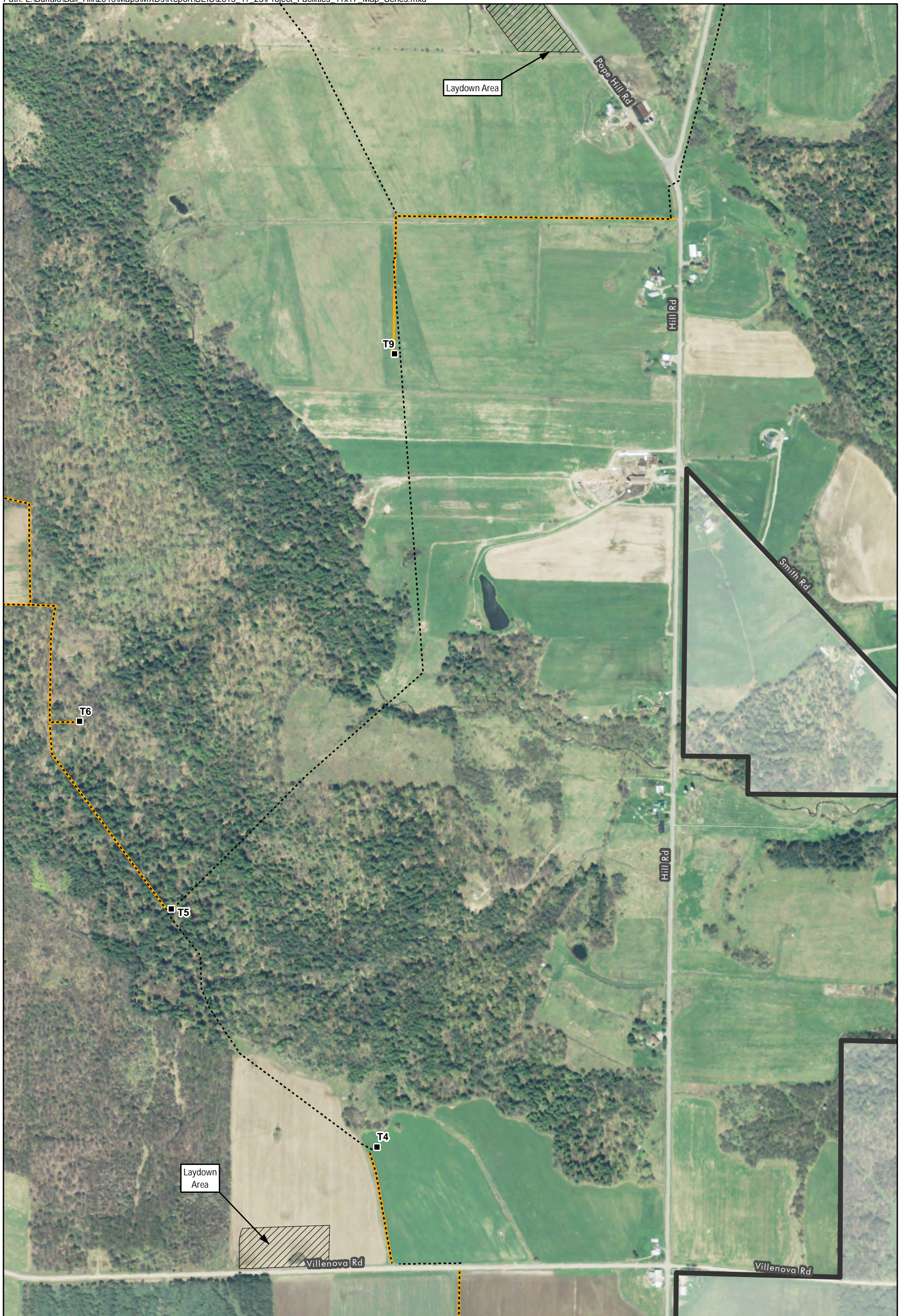
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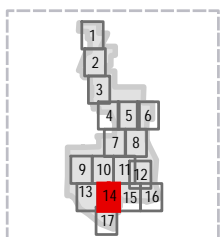
- Turbine
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Ball Hill Wind Project
Chautauqua County, New York
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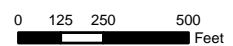




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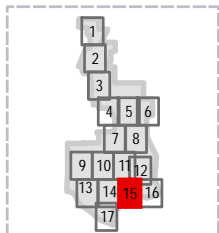


- Turbine
- Town Boundary
- Collection Line
- Local Street
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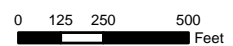


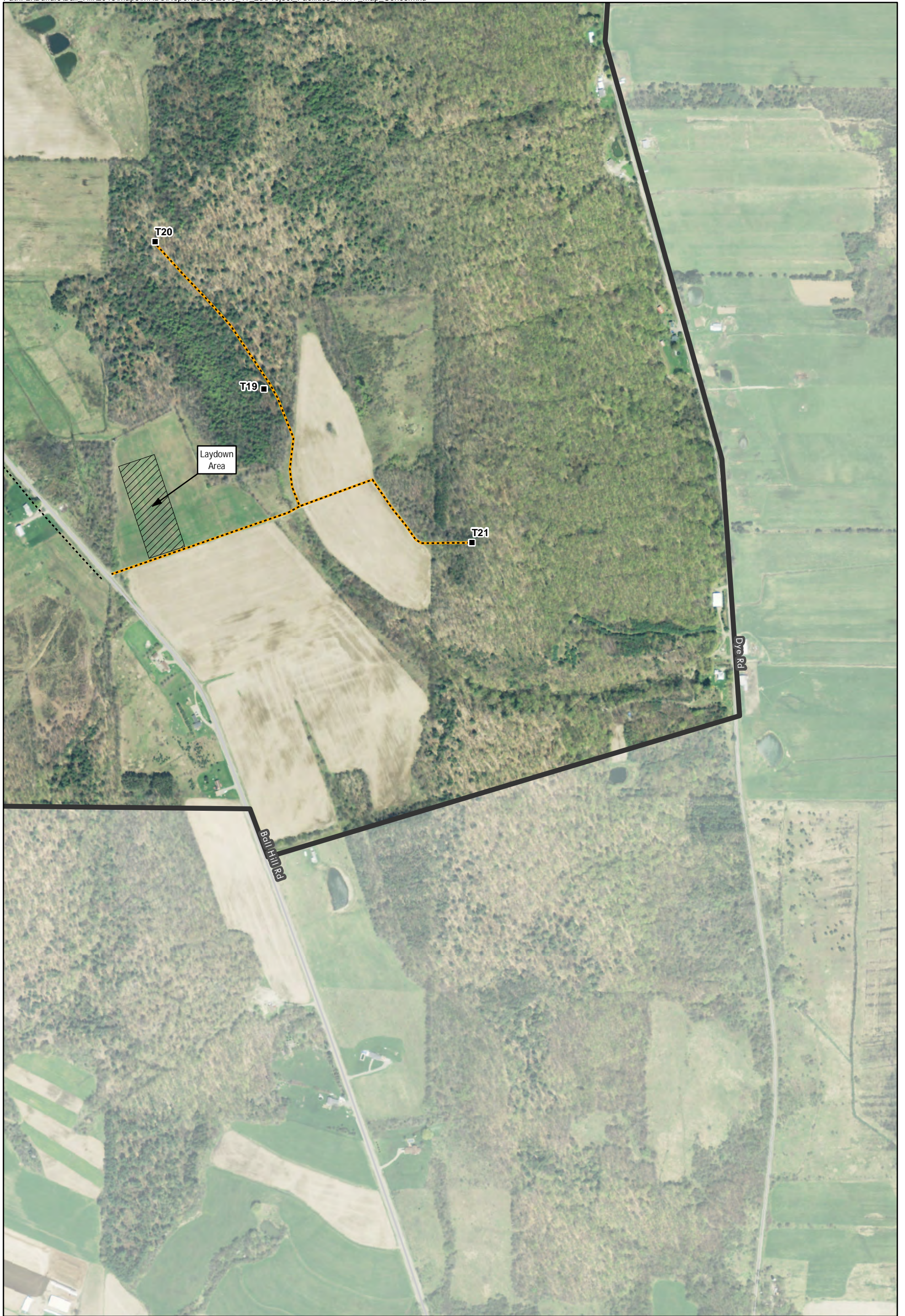


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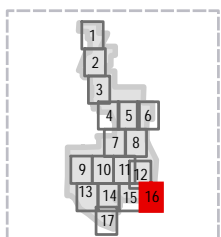


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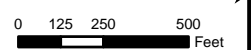


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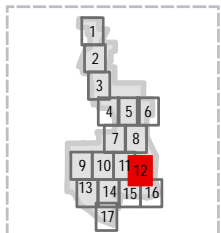
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Ball Hill Wind Project
Chautauqua County, New York
Ball Hill Wind Energy, LLC



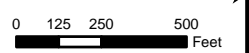


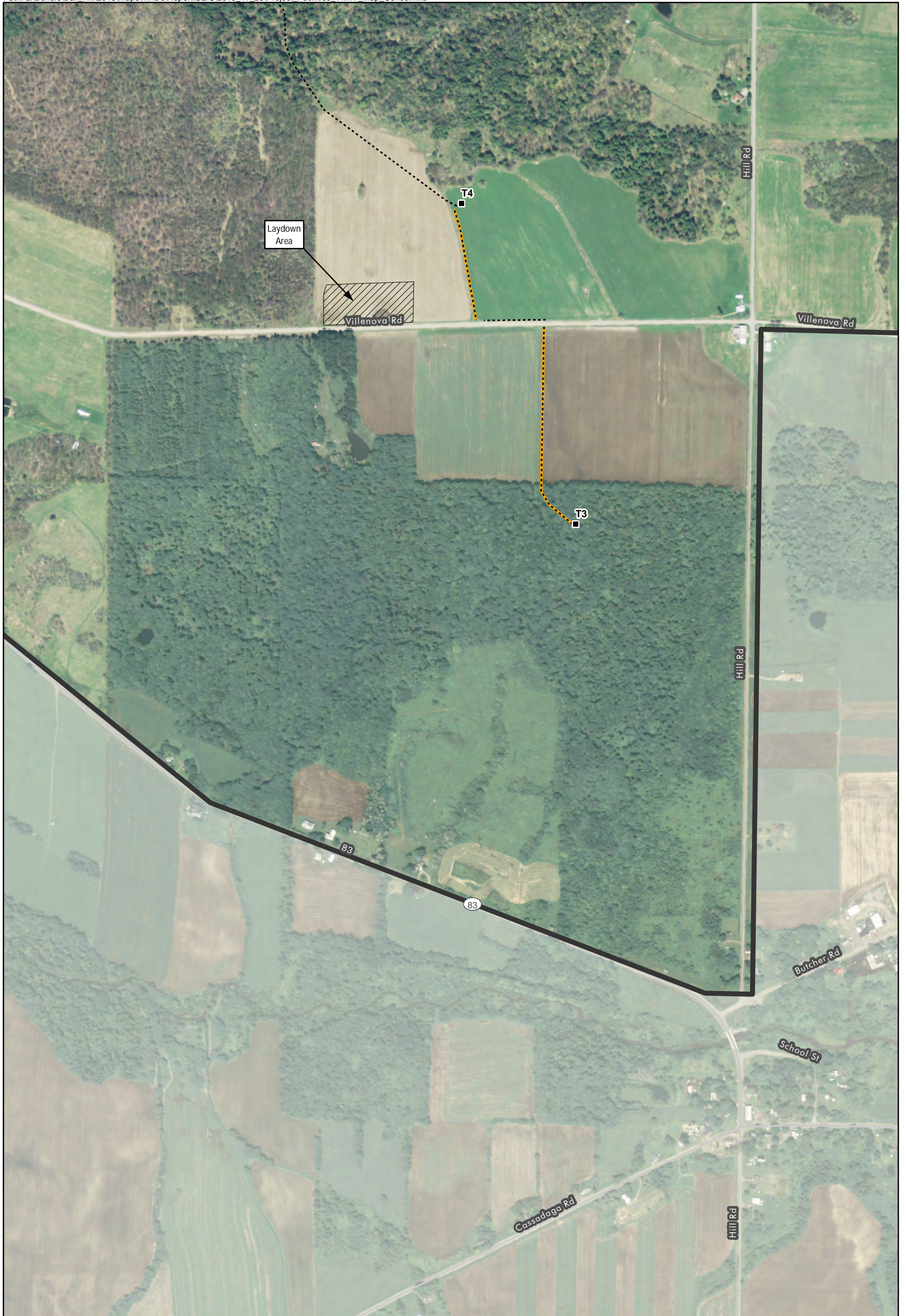
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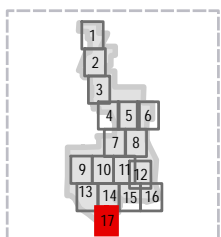
- Turbine
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Ball Hill Wind Project
Chautauqua County, New York
Ball Hill Wind Energy, LLC



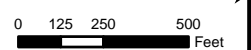


Source: NAIP 2011.



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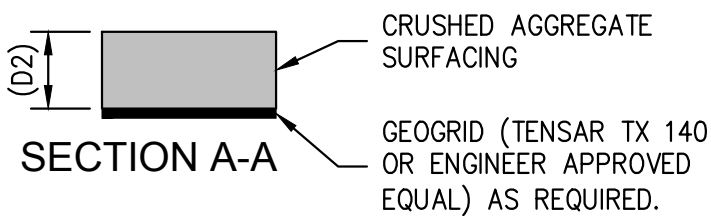
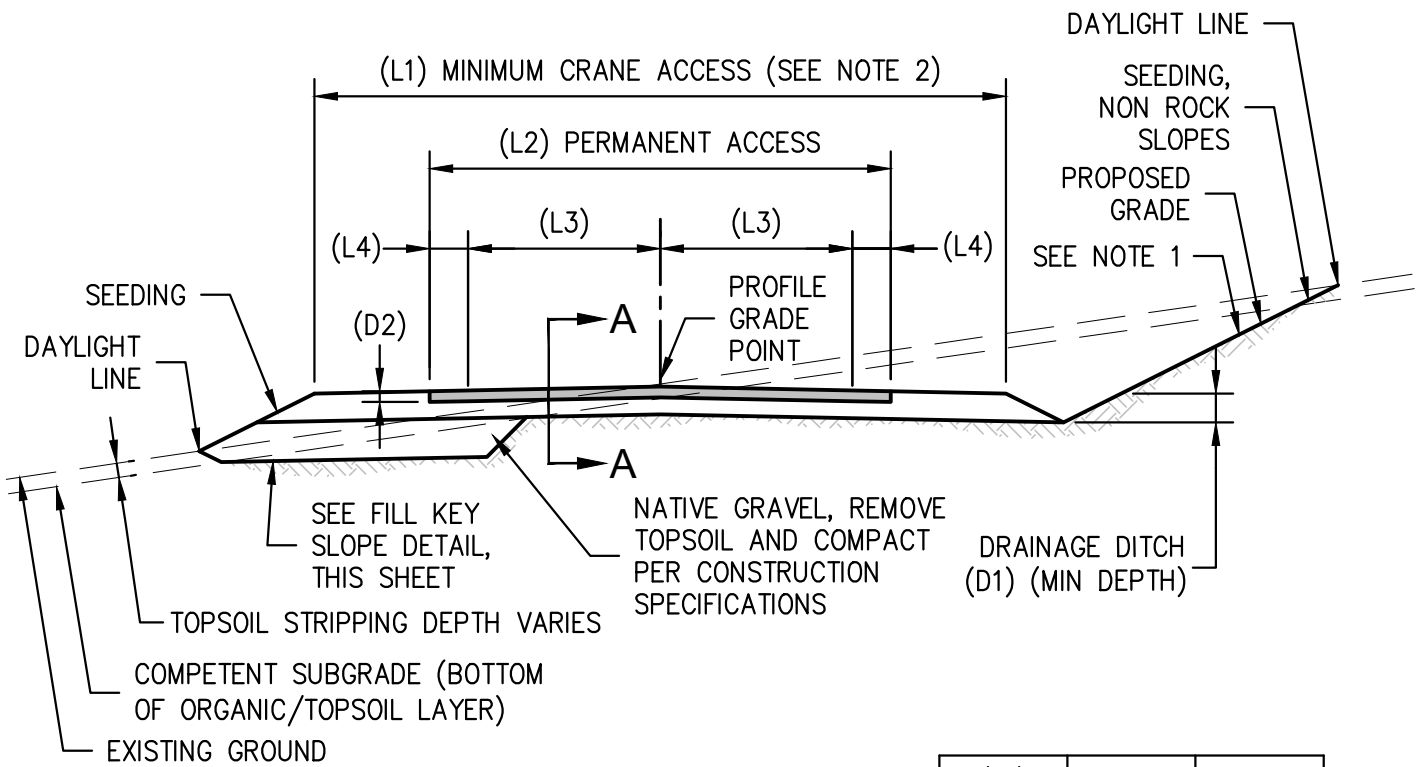
Project Facilities: Page 17 of 17
Ball Hill Wind Project
Chautauqua County, New York
Ball Hill Wind Energy, LLC



Typical Access Road Drawings

NOTES:

1. DITCH BACKSLOPE 2:1 MAXIMUM, UNLESS OTHERWISE APPROVED BY THE SOILS OR GEOTECHNICAL ENGINEER.
2. ADDITIONAL WIDENING ON CURVES AND INTERSECTIONS REQUIRED AS SHOWN ON ROAD DETAIL SHEET.
3. MINIMUM 0.5% ROADWAY CROSS SLOPE TO ALLOW DRAINAGE.
4. ALL ROADS TO BE CONSTRUCTED IN LIFTS OF A MAX. THICKNESS OF 6 INCH [150mm] (AFTER COMPACTION).
5. ROAD MATERIAL SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY AND WITHIN 2% OF OPTIMUM MOISTURE CONTENT AS DETERMINED IN ACCORDANCE WITH ASTM D 1557.
6. ROAD THICKNESS IS SUBJECT TO CHANGE UPON ACTUAL SITE CONDITIONS.



(L1)	36'	11.0m
(L2)	24'	7.3m
(L3)	10'	3.0m
(L4)	2'	0.6m
(D1)	1'	0.3m
(D2)	12"	0.3m

1 DETAIL: ACCESS ROAD (STEEP SITE WITH CRANE WALK)

Scale: N.T.S.

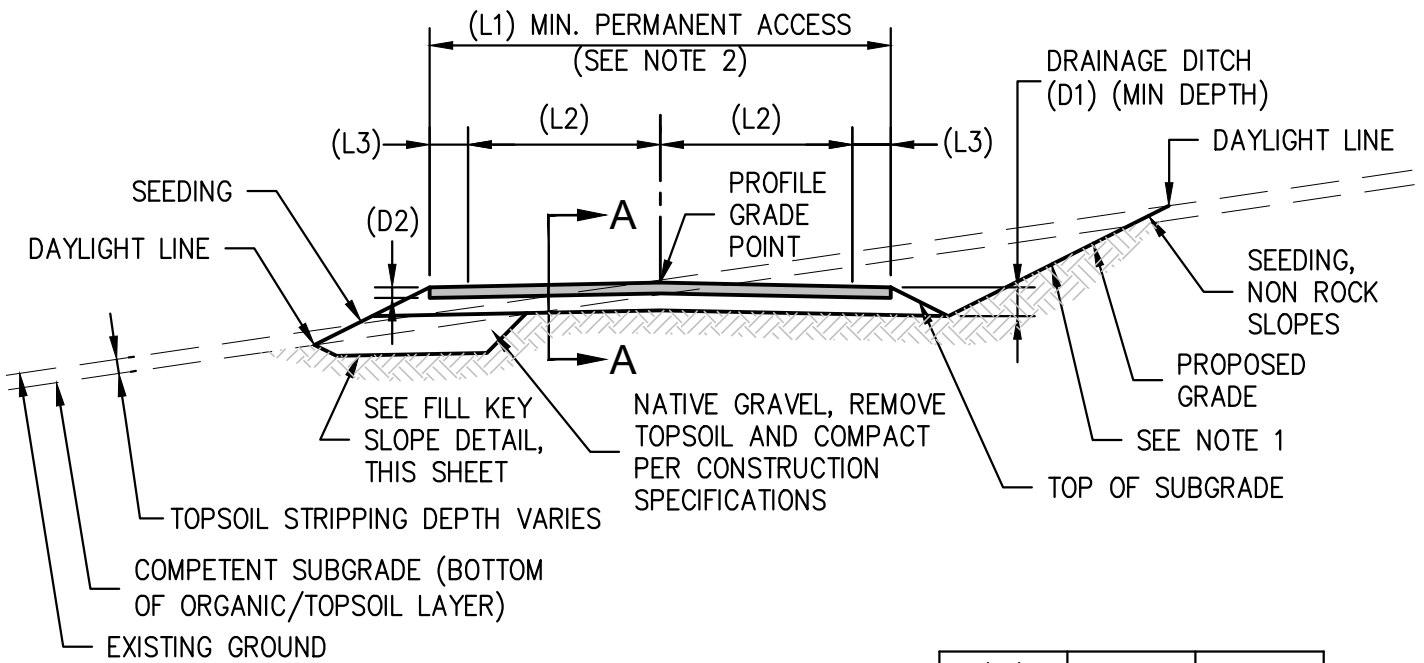


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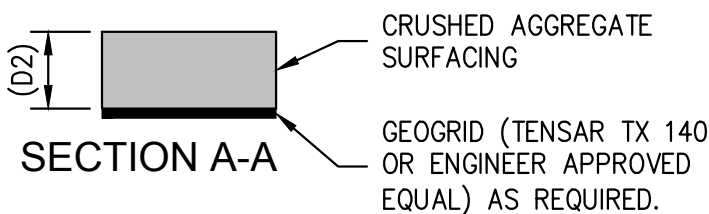
DRAWING NUMBER: **R3**

NOTES:

1. DITCH BACKSLOPE 2:1 MAXIMUM, UNLESS OTHERWISE APPROVED BY THE SOILS OR GEOTECHNICAL ENGINEER.
2. ADDITIONAL WIDENING ON CURVES AND INTERSECTIONS REQUIRED AS SHOWN ON ROAD DETAIL SHEET.
3. MINIMUM 0.5% ROADWAY CROSS SLOPE TO ALLOW DRAINAGE.
4. ALL ROADS TO BE CONSTRUCTED IN LIFTS OF A MAX. THICKNESS OF 6 INCH [150mm] (AFTER COMPACTION).
5. ROAD MATERIAL SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY AND WITHIN 2% OF OPTIMUM MOISTURE CONTENT AS DETERMINED IN ACCORDANCE WITH ASTM D 1557.
6. ROAD THICKNESS IS SUBJECT TO CHANGE UPON ACTUAL SITE CONDITIONS.



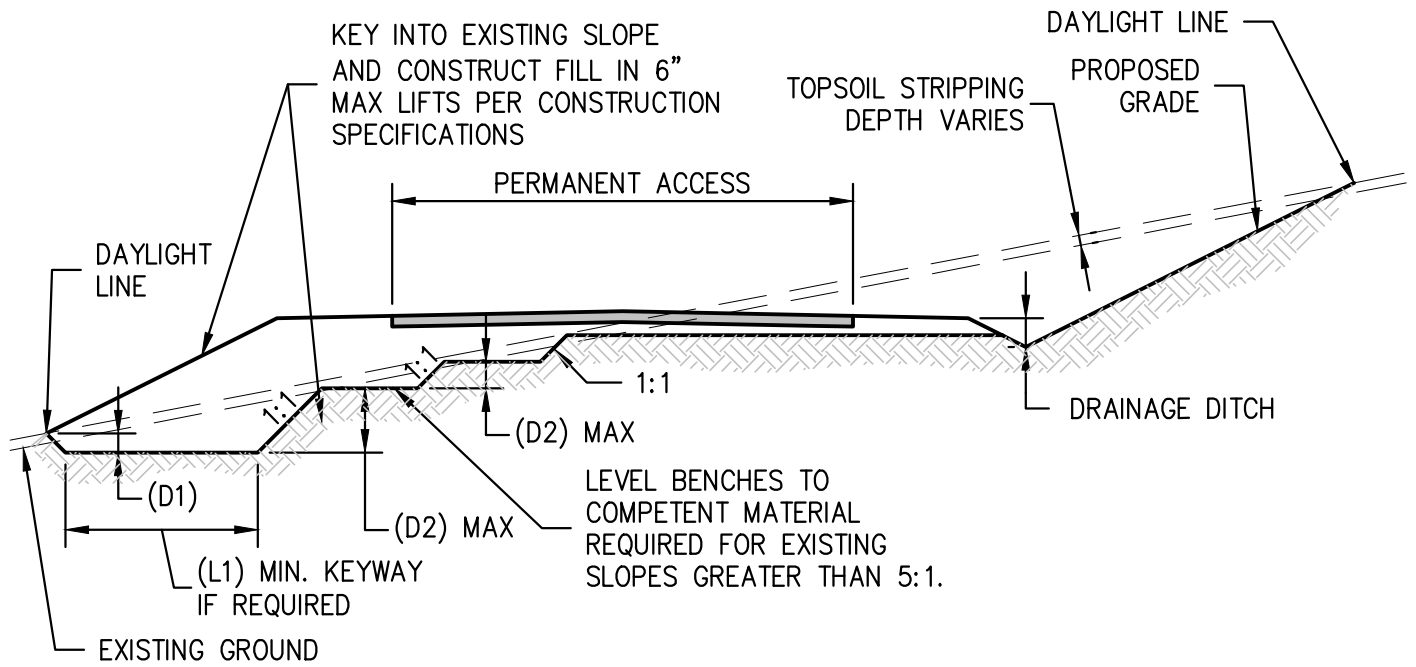
(L1)	24'	7.3m
(L2)	10'	3.0m
(L3)	2'	0.6m
(D1)	1'	0.3m
(D2)	12"	0.3m



1 DETAIL: ACCESS ROAD (STEEP SITE WITHOUT CRANE WALK)

Scale: N.T.S.

[manderson] [Nov 10, 2015 - 4:11pm] [T:\CAD\standard_details\01-Site_Details\R5.dwg]



(L1)	10'	3.0m
(D1)	1'	0.3m
(D2)	5'	1.5m

1

DETAIL: FILL KEY SLOPE

Scale: N.T.S.

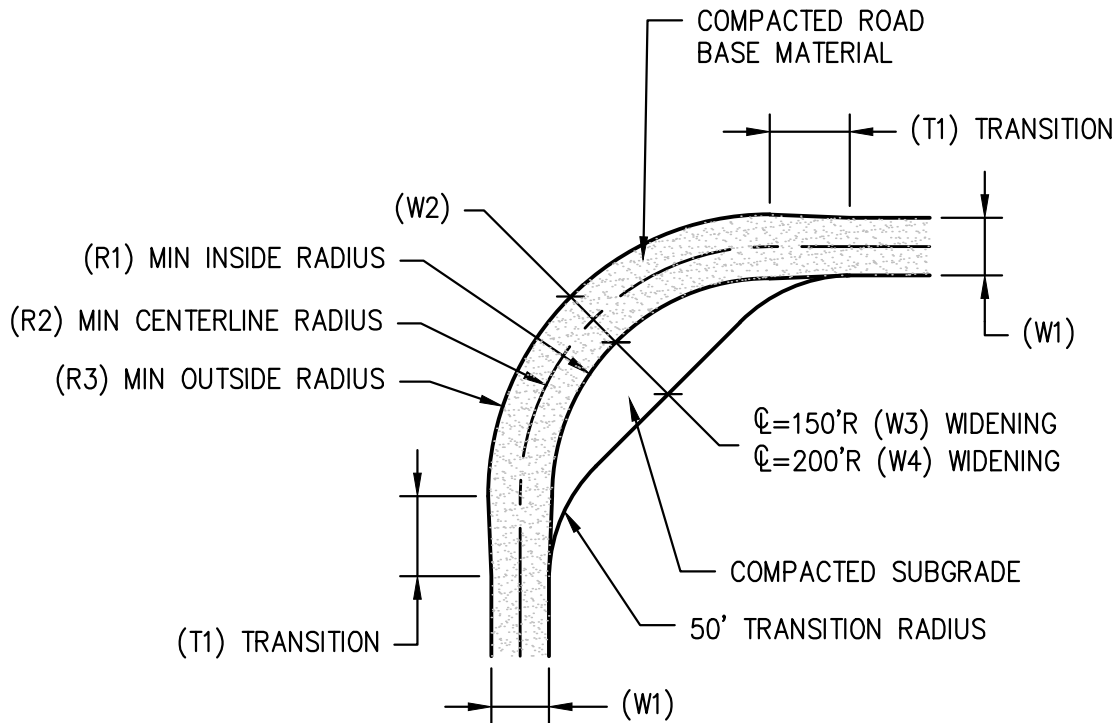


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DRAWING NUMBER: **R5**

NOTES:

1. CURVES SHARPER THAN 90 DEGREES AND REVERSE COMPOUND CURVES MUST BE CUSTOM DESIGNED IN DETAIL WITH REFERENCE TO THE ACTUAL TRANSPORT EQUIPMENT.
2. ASSUMPTIONS:
 - BLADE TRUCK MAXIMUM LENGTH = 185'
 - BLADE TRUCK REAR AXLE IS LOCKED



(T1)	25'	7.6m
(W1)	22'	6.7m
(W2)	24'	7.3m
(W3)	35'	10.7m
(W4)	28'	8.5m
(R1)	139'	42.4m
(R2)	150'	45.7m
(R3)	161'	49.1m

1 DETAIL: ROAD CURVE RADII

Scale: N.T.S.

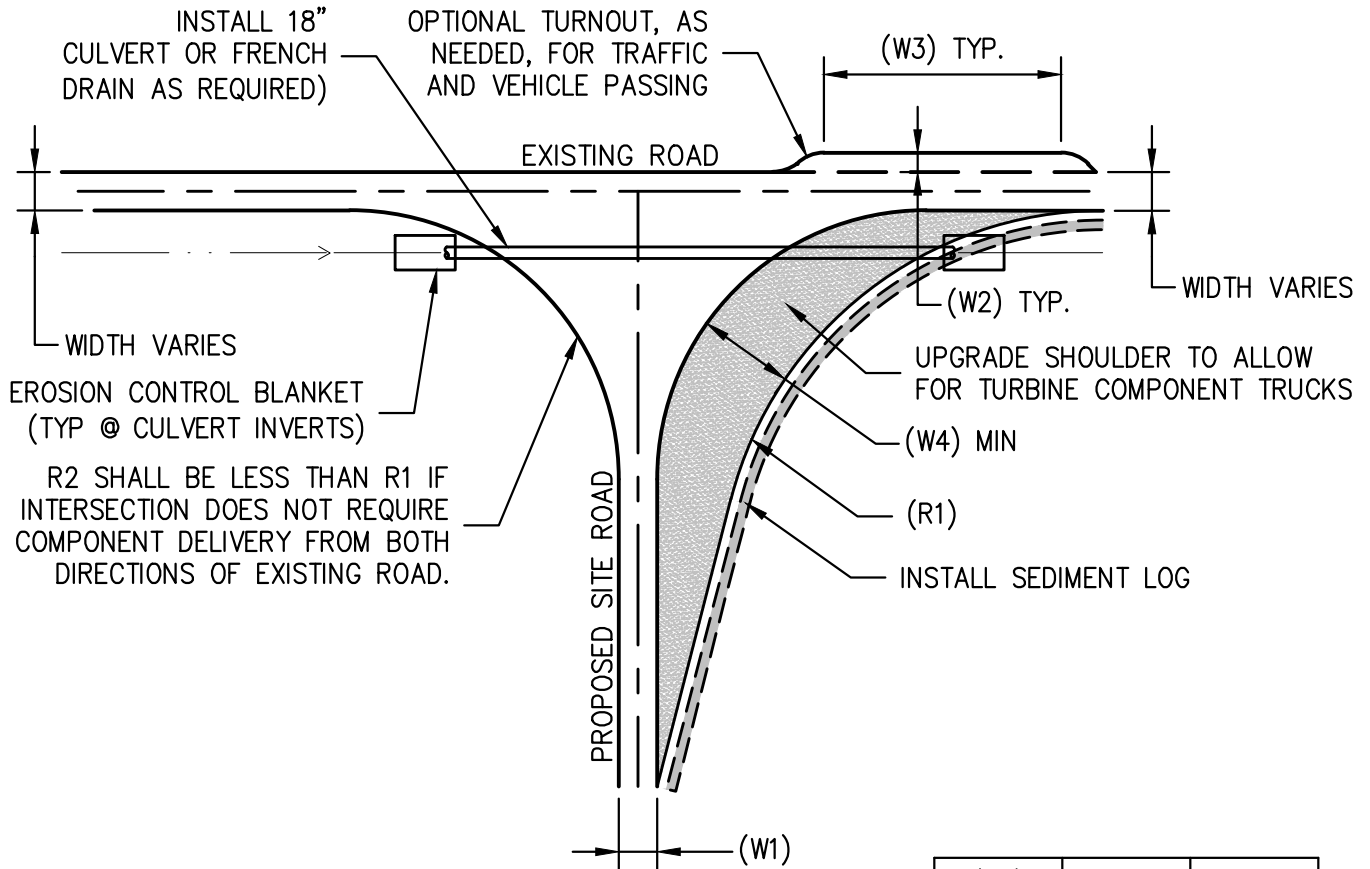


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DRAWING NUMBER: **R7**

NOTE:

AFTER COMPLETION OF DELIVERY AND TURBINE ERECTION, SHOULDERS SHALL BE RESTORED.



(W1)	22'	6.7m
(W2)	16'	4.9m
(W3)	400'	121.9m
(W4)	50'	15.2m
(R1)	150'	45.7m
(R2)	50'	15.2m

1

DETAIL: SITE TO EXISTING ROAD INTERSECTION

Scale: N.T.S.



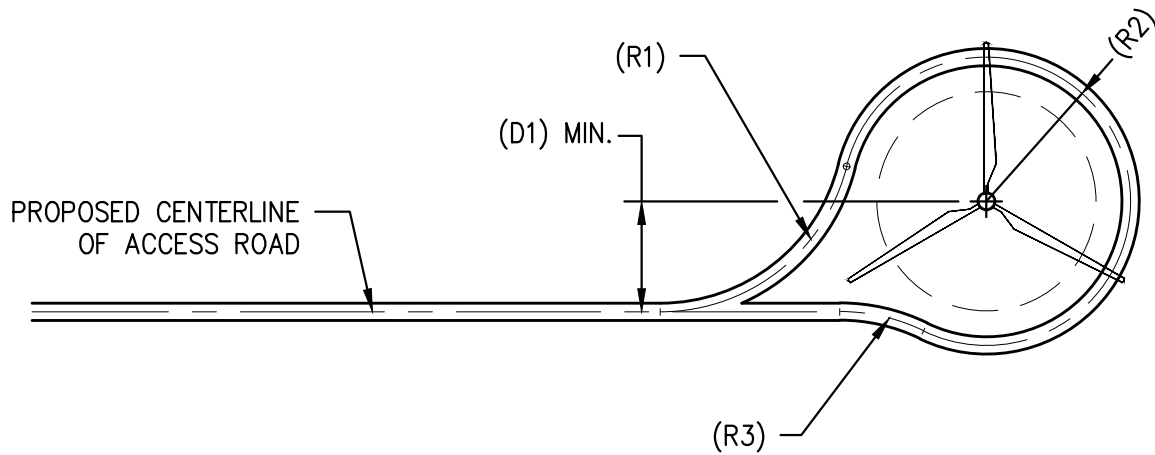
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 11101 W 120TH AVE, SUITE 400 BROOMFIELD, CO 80021
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DRAWING NUMBER: **R9**

[manderson] [Nov 10, 2015 - 4:11pm] [T:\CAD\standard_details\01-Site_Details\R9.dwg]

NOTES:

1. SUB-CONTRACTOR TO REMOVE TEMPORARY TURN-AROUND AFTER PROJECT COMPLETION AND RESTORE AREA TO THE DESIGN CRITERIA.



(D1)	110'	33.5m
(R1)	200'	61.0m
(R2)	150'	45.7m
(R3)	200'	61.0m

1

DETAIL: TEMPORARY TURN-AROUND

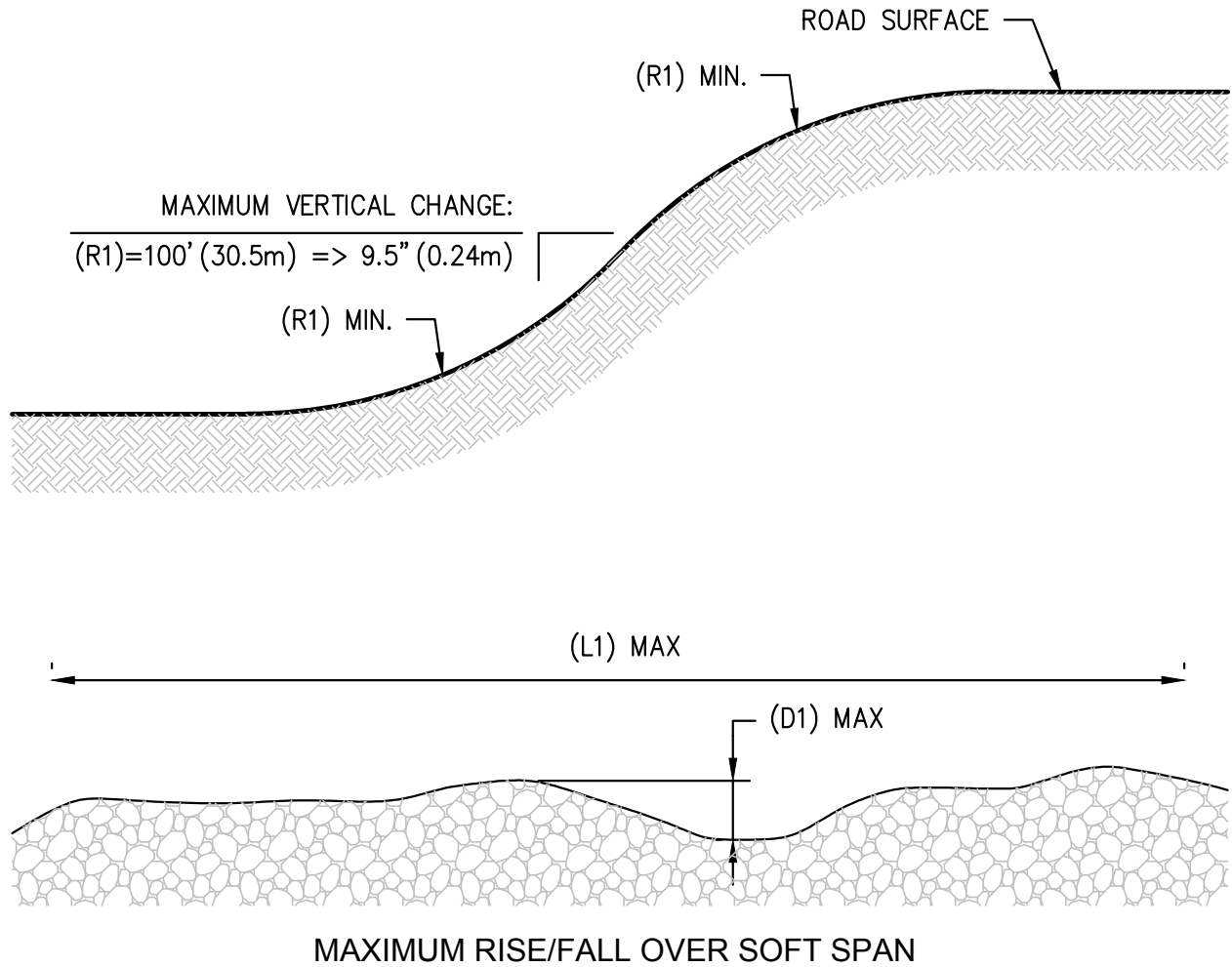
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DRAWING NUMBER: **R10**

[manderson] [Nov 10, 2015 - 4:12pm] [T:\CAD\standard details\01-Site Details\R12.dwg]



(R1)	1640'	500m
(L1)	50'	15.2m
(D1)	6"	0.15m

1

DETAIL: VERTICAL CURVE AND BUMP/DIP REQUIREMENTS

Scale: N.T.S.

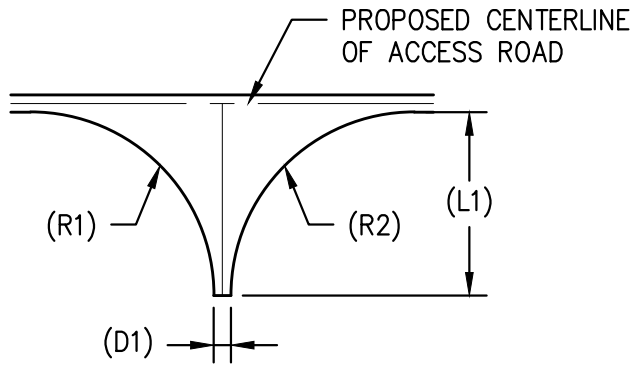


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DRAWING NUMBER: **R12**

NOTES:

1. SUB-CONTRACTOR TO REMOVE TEMPORARY TURN-AROUND AFTER PROJECT COMPLETION AND RESTORE AREA TO THE DESIGN CRITERIA.



(D1)	18'	5.5m
(R1) FORWARD ¹	148'	45.1m
(R2) REVERSE ²	170'	51.8m
(L1)	210'	64.0m

1. 4% MAXIMUM LATERAL SLOPE.
2. 1.5% ALLOWABLE GRADIENT REVERSE DRIVE WITHOUT PULLING.

1 DETAIL: TEMPORARY (HAMMERHEAD) TURN-AROUND

Scale: N.T.S.

[manderson] [Nov 10, 2015 - 4:12pm] [T:\CAD\standard_details\01-Site_Details\R13.dwg]



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DRAWING NUMBER: **R13**