G:\Projects2\NY\6239\MXD\11x17\Flicker\5-1_Shadow_Flicker_Modeling_Locations_Map_Series_11x17_20240917.mxd

LEGEND

- Proposed Wind Turbine
- Participating Receptor
- Non-Participating Receptor
- Switchyard
- Collector Substation
- Participating Parcel
- Non-Participating Parcel
- County Boundary
- City/Town Boundary
- State Route
- County Road

Scale 1:7,200
1 inch = 600 feet

0 300 600 Feet

Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

		1	2	3					
4	5	6	7	8	9	10			
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
			41		42	43	44	45	46

Hoffman Falls Wind **Madison County, NY**

Epsilon Associates Inc.

Figure 5-1, Map 45 of 46
Shadow Flicker Modeling Locations

G:\Projects2\NY\6239\MXD\11x17\Flicker\5-1_Shadow_Flicker_Modeling_Locations_Map_Series_11x17_20240917.mxd

LEGEND

- Proposed Wind Turbine
- Participating Receptor
- Non-Participating Receptor
- Switchyard
- Collector Substation
- Participating Parcel
- Non-Participating Parcel
- County Boundary
- City/Town Boundary
- State Route
- County Road

Scale 1:7,200
1 inch = 600 feet
0 300 600 Feet

Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

		1	2	3					
4	5	6	7	8	9	10			
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
			41		42	43	44	45	46

Hoffman Falls Wind **Madison County, NY**

Epsilon Associates Inc.

Figure 5-1, Map 46 of 46
Shadow Flicker Modeling Locations

5.2 Results

5.2.1 Shadow Flicker Modeling Results – V150-4.5, 120m HH

Table B-1 in Appendix B presents the modeling results of expected shadow flicker for the Project layout under conditions specified in Section 5.1 of this report for the V150-4.5 wind turbine with a hub height at 120 meters. Table B-1 includes sixteen tables, B-1a through B-1p, which presents expected hours per year of shadow flicker at the 2,333 receptors included in the analysis sorted by receptor ID and expected flicker and broken out by receptor category and participation.

The predicted expected annual shadow flicker at non-participating residences ranged from 0 hours, 0 minutes per year to 55 hours, 39 minute per year. Twenty-eight (28) residential receptors were predicted to experience more than 30 hours per year, of which nineteen (19) were non-participating. A summary of the predicted annual shadow flicker duration at the 1,522 non-participating residences for the V150-4.5 wind turbine is presented below:

- No shadow flicker: 1264 receptors (83%)
- 0 to 10 hours per year: 134 receptors (9%)
- 10 to 30 hours per year: 105 receptors (7%)
- Over 30 hours per year: 19 receptors (1%)

The maximum expected annual duration of shadow flicker at a residential receptor (#548) on a participating parcel is 56 hours, 16 minutes. The maximum expected annual duration of shadow flicker at a residential receptor (#1173) on a non-participating parcel is 55 hours, 39 minutes. As previously noted, these results do not consider the potential impact of obstacles such as trees or buildings. Therefore, the data overstates the potential amount of shadow flicker that will actually be experienced at certain receptors over the course of a year.

Graphical and tabular shadow flicker calendars for these nineteen (19) non-participating residential receptors are included in Appendix C of this report for the V150-4.5 wind turbine with a hub height of 120 meters. The calendars in Appendix C present numerically and graphically when shadow flicker at a given location has the potential to occur under worst-case conditions and which wind turbines generate the shadow flicker at that location. These graphical and tabular calendars are output directly from WindPRO.

5.2.2 Shadow Flicker Modeling Results – N149-4.X TS 108, 108m HH

Table B-2 in Appendix B presents the modeling results of expected shadow flicker for the Project layout under conditions specified in Section 5.1 of this report for the N149-4.X TS 108 wind turbine at a hub height of 108 meters. Table B-2 includes sixteen tables, B-2a through B-2p, which presents expected hours per year of shadow flicker at the 2,333 receptors included in the analysis sorted by receptor ID and expected flicker and broken out by receptor category and participation.

The predicted expected annual shadow flicker at non-participating residences ranged from 0 hours, 0 minutes per year to 55 hours, 46 minutes per year. Twenty-nine (29) residential receptors were predicted to experience more than 30 hours per year, of which twenty (20) were non-participating. A summary of the predicted annual shadow flicker duration at the 1,522 non-participating residences for the N149-4.X TS 108 wind turbine is presented below:

- No shadow flicker: 1266 receptors (83%)
- 0 to 10 hours per year: 139 receptors (9%)
- 10 to 30 hours per year: 97 receptors (6%)
- Over 30 hours per year: 20 receptors (1%)

The maximum expected annual duration of shadow flicker at a residential receptor (#548) on a participating parcel is 55 hours, 37 minutes. The maximum expected annual duration of shadow flicker at a residential receptor (#1173) on a non-participating parcel is 55 hours, 46 minutes. As previously noted, these results do not consider the potential impact of obstacles such as trees or buildings and so overstate the potential amount of shadow flicker that will actually be experienced at certain receptors over the course of a year.

Graphical and tabular shadow flicker calendars for these twenty (20) non-participating residential receptors are included in Appendix C of this report for the N149-4.X TS 108 wind turbine with a hub height of 108 meters. The calendars in Appendix C present numerically and graphically when shadow flicker at a given location has the potential to occur under worst-case conditions and which wind turbines generate the shadow flicker at that location. These graphical and tabular calendars are output directly from WindPRO.

5.2.3 Shadow Flicker Modeling Results – GE 158-6.1, 117m HH

Table B-3 in Appendix B presents the modeling results of expected shadow flicker for the Project layout under conditions specified in Section 5.1 of this report for the GE 158-6.1 wind turbine at a hub height of 117 meters. Table B-3 includes sixteen tables, B-3a through B-3p, which presents expected hours per year of shadow flicker at the 2,333 receptors included in the analysis sorted by receptor ID and expected flicker and broken out by receptor category and participation.

The predicted expected annual shadow flicker at non-participating residences ranged from 0 hours, 0 minutes per year to 61 hours, 8 minutes per year. Thirty-eight (38) residential receptors were predicted to experience more than 30 hours per year, of which twenty-nine (29) were non-participating. A summary of the predicted annual shadow flicker duration at the 1,522 non-participating residences for the GE 158-6.1 wind turbine is presented below:

- No shadow flicker: 1250 receptors (82%)
- 0 to 10 hours per year: 131 receptors (9%)
- 10 to 30 hours per year: 112 receptors (8%)
- Over 30 hours per year: 29 receptors (2%)

The maximum expected annual duration of shadow flicker at a residential receptor (#548) on a participating parcel is 61 hours, 46 minutes. The maximum expected annual duration of shadow flicker at a residential receptor (#1173) on a non-participating parcel is 61 hours, 8 minutes. As previously noted, these results do not consider the potential impact of obstacles such as trees or buildings and so overstate the potential amount of shadow flicker that will actually be experienced at certain receptors over the course of a year.

Graphical and tabular shadow flicker calendars for these twenty-nine (29) non-participating residential receptors are included in Appendix C of this report for the GE 158-6.1 wind turbine with a hub height of 117 meters. The calendars in Appendix C present numerically and graphically when shadow flicker at a given location has the potential to occur under worst-case conditions and which wind turbines generate the shadow flicker at that location. These graphical and tabular calendars are output directly from WindPRO.

The GE 158-6.1 wind turbine was modeled to generate the largest amount of annual shadow flicker amongst the three wind turbine generators being considered by the Applicant. Accordingly, this turbine model represents a worst-case scenario and flicker isolines were created for this turbine consistent with the procedure outlined in Section 5.1. Figure 5-2 displays the modeled flicker isolines over aerial imagery in relation to modeled wind turbine locations and receptors. This figure is accompanied by a series of forty-six (46) inset maps that provide a higher level of detail at all modeled receptors. These figures show the expected annual hours of shadow flicker around each wind turbine to where it drops to zero hours per year.

To address all twenty-nine (29) non-participating residential receptors that are currently predicted to exceed the limit of 30 hours per year, the Applicant will seek GNAs from each landowner. In the case that a GNA is unattainable, the Applicant will implement shadow flicker curtailments to ensure the limit is achieved at all locations. Details of the shadow flicker mitigation strategy are provided in Section 6.0 of this report. Table 5-3 summarizes the twenty-nine (29) non-participating residential receptors over 30 hours per year of shadow flicker without curtailment for the worst-case (GE 158-6.1) wind turbine being proposed and identifies the contributing wind turbines.

Table 5-3 Summary of Non-Participating Residences over 30 Hours/Year (GE 158-6.1)

Modeling Receptor ID	Tax Parcel ID	Participation Status	Annual Shadow Flicker (HH:MM)/Year	Contributing Wind Turbines	Annual Shadow Flicker Contribution (HH:MM)/Year
454	110.-1-4.1	Non-Participating	37:26	T-16	37:26
553	99.-1-44.1	Non-Participating	31:54	T-23	23:29
				T-21	4:32
				T-19	3:53
692	98.-3-14.2	Non-Participating	34:35	T-24	34:35
699	99.-1-4	Non-Participating	48:01	T-17	25:59
				T-18	18:08
				T-19	3:54
700	99.-1-31	Non-Participating	36:21	T-18	29:17
				T-21	4:19
				T-20	2:45
1173	99.-1-36.12	Non-Participating	60:44	T-23	22:53
				T-22	15:04
				T-21	12:55
				T-19	7:42
				T-20	2:10
1809	97.-2-3	Non-Participating	31:36	T-4	15:55
				T-3	15:41
1810	97.-2-2.22	Non-Participating	39:45	T-3	25:27
				T-4	14:18
1812	97.-2-2.21	Non-Participating	33:57	T-3	14:17
				T-4	13:35
				T-2	6:05
1818	88.-2-12.2	Non-Participating	32:10	T-3	24:22
				T-2	7:48
1832	87.-2-67.8	Non-Participating	33:18	T-1	13:36
				T-2	10:22
				T-7	9:20
1833	87.-2-67.3	Non-Participating	32:48	T-2	13:01
				T-1	11:54
				T-7	7:53

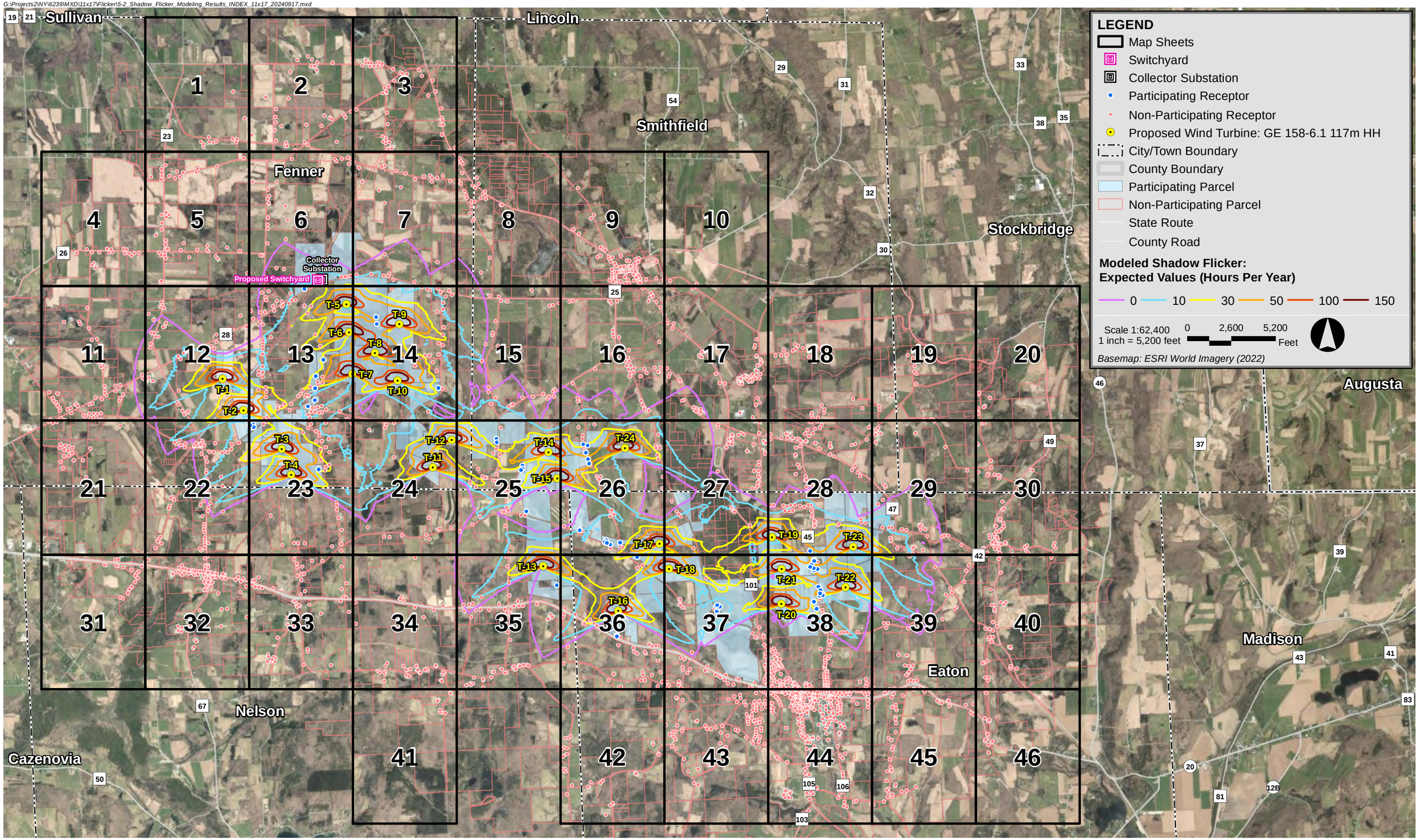
Table 5-3 Summary of Non-Participating Residences over 30 Hours/Year (GE 158-6.1) (Continued)

Modeling Receptor ID	Tax Parcel ID	Participation Status	Annual Shadow Flicker (HH:MM)/Year	Contributing Wind Turbines	Shadow Flicker Contribution (HH:MM)/Year
1834	87.-2-67.12	Non-Participating	32:09	T-2	17:25
				T-7	7:50
				T-1	6:54
1835	87.-2-67.21	Non-Participating	45:32	T-2	36:45
				T-3	8:47
1836	87.-2-67.13	Non-Participating	45:37	T-2	37:29
				T-3	8:08
1837	87.-2-65.1	Non-Participating	33:04	T-2	20:07
				T-3	12:57
1845	87.-2-67.62	Non-Participating	43:20	T-2	23:00
				T-1	20:20
1846	87.-2-64	Non-Participating	46:40	T-2	21:53
				T-1	21:25
				T-7	3:22
1847	87.-1-55.2	Non-Participating	48:36	T-1	31:01
				T-2	17:35
1848	87.-2-56.12	Non-Participating	32:20	T-2	14:35
				T-1	14:35
				T-7	3:10
1872	88.-1-5.3	Non-Participating	32:22	T-7	23:25
				T-8	3:22
				T-10	2:55
				T-2	2:40
1874	88.-1-5.111	Non-Participating	33:45	T-7	28:18
				T-10	3:29
				T-2	1:50
				T-8	0:08
1876	88.-1-5.12	Non-Participating	42:22	T-7	31:31
				T-8	5:49
				T-10	3:19
				T-2	1:43
1877	88.-1-5.23	Non-Participating	46:36	T-7	30:04
				T-8	12:05
				T-10	3:25
				T-2	1:02

Table 5-3 Summary of Non-Participating Residences over 30 Hours/Year (GE 158-6.1) (Continued)

Modeling Receptor ID	Tax Parcel ID	Participation Status	Annual Shadow Flicker (HH:MM)/Year	Contributing Wind Turbines	Shadow Flicker Contribution (HH:MM)/Year
1878	88.-1-5.112	Non-Participating	42:15	T-7	36:10
				T-10	3:47
				T-2	1:17
				T-8	1:01
2084	98.-3-11.12	Non-Participating	33:48	T-14	14:19
				T-24	11:57
				T-15	7:30
2085	98.-3-11.1	Non-Participating	40:10	T-14	15:23
				T-24	13:42
				T-15	11:05
2105	98.-3-5.112	Non-Participating	31:13	T-12	16:01
				T-14	7:31
				T-15	3:54
				T-11	3:47
2106	98.-3-5.12	Non-Participating	38:10	T-12	19:44
				T-14	10:06
				T-15	4:35
				T-11	3:45

G:\Projects2\NY\6239\MXD\11x17\Flicker\5-2_Shadow_Flicker_Modeling_Results_INDEX_11x17_20240917.mxd



Epsilon Associates Inc.

Figure 5-2, Index

Shadow Flicker Modeling Results - GE 158-6.1

G:\Projects2\NY\6239\MXD\11x17\Flicker\5-2_Shadow_Flicker_Modeling_Results_Map_Series_11x17_20240917.mxd

LEGEND

- Proposed Wind Turbine: GE 158-6.1 117m HH
- Participating Receptor
- Non-Participating Receptor
- Switchyard
- Collector Substation
- Participating Parcel
- Non-Participating Parcel
- County Boundary
- City/Town Boundary
- State Route
- County Road

Modeled Shadow Flicker: Expected Values (Hours Per Year)

- 0
- 10
- 30
- 50
- 100
- 150

Scale 1:7,200
1 inch = 600 feet

0 300 600 Feet

Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

1	2	3								
4	5	6	7	8	9	10				
11	12	13	14	15	16	17	18	19	20	
21	22	23	24	25	26	27	28	29	30	
31	32	33	34	35	36	37	38	39	40	
			41		42	43	44	45	46	

Hoffman Falls Wind **Madison County, NY**

Epsilon Associates Inc.

Figure 5-2, Map 1 of 46

Shadow Flicker Modeling Results - GE 158-6.1

G:\Projects2\NY\6239\MXD\11x17\Flicker\5-2_Shadow_Flicker_Modeling_Results_Map_Series_11x17_20240917.mxd

LEGEND

- Proposed Wind Turbine: GE 158-6.1 117m HH
- Participating Receptor
- Non-Participating Receptor
- Switchyard
- Collector Substation
- Participating Parcel
- Non-Participating Parcel
- County Boundary
- City/Town Boundary
- State Route
- County Road

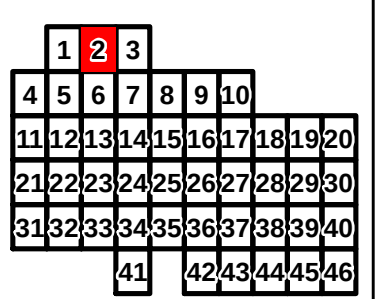
Modeled Shadow Flicker: Expected Values (Hours Per Year)

- 0
- 10
- 30
- 50
- 100
- 150

Scale 1:7,200
1 inch = 600 feet

0 300 600 Feet

Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



Hoffman Falls Wind **Madison County, NY**

Epsilon Associates Inc.

Figure 5-2, Map 2 of 46
Shadow Flicker Modeling Results - GE 158-6.1

G:\Projects2\NY\6239\MXD\11x17\Flicker\5-2_Shadow_Flicker_Modeling_Results_Map_Series_11x17_20240917.mxd

LEGEND

- Proposed Wind Turbine: GE 158-6.1 117m HH
- Participating Receptor
- Non-Participating Receptor
- Switchyard
- Collector Substation
- Participating Parcel
- Non-Participating Parcel
- County Boundary
- City/Town Boundary
- State Route
- County Road

Modeled Shadow Flicker: Expected Values (Hours Per Year)

- 0
- 10
- 30
- 50
- 100
- 150

Scale 1:7,200
1 inch = 600 feet

0 300 600 Feet

Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

		1	2	3						
4	5	6	7	8	9	10				
11	12	13	14	15	16	17	18	19	20	
21	22	23	24	25	26	27	28	29	30	
31	32	33	34	35	36	37	38	39	40	
			41		42	43	44	45	46	

Hoffman Falls Wind **Madison County, NY**

Epsilon Associates Inc.

Figure 5-2, Map 3 of 46

Shadow Flicker Modeling Results - GE 158-6.1

G:\Projects2\NY\6239\MXD\11x17\Flicker\5-2_Shadow_Flicker_Modeling_Results_Map_Series_11x17_20240917.mxd

LEGEND

- Proposed Wind Turbine: GE 158-6.1 117m HH
- Participating Receptor
- Non-Participating Receptor
- Switchyard
- Collector Substation
- Participating Parcel
- Non-Participating Parcel
- County Boundary
- City/Town Boundary
- State Route
- County Road

Modeled Shadow Flicker: Expected Values (Hours Per Year)

- 0
- 10
- 30
- 50
- 100
- 150

Scale 1:7,200
1 inch = 600 feet

0 300 600 Feet

Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

	1	2	3						
4	5	6	7	8	9	10			
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
			41		42	43	44	45	46

Hoffman Falls Wind **Madison County, NY**

Epsilon Associates Inc.

Figure 5-2, Map 4 of 46
Shadow Flicker Modeling Results - GE 158-6.1

G:\Projects2\NY\6239\MXD\11x17\Flicker\5-2_Shadow_Flicker_Modeling_Results_Map_Series_11x17_20240917.mxd

LEGEND

- Proposed Wind Turbine: GE 158-6.1 117m HH
- Participating Receptor
- Non-Participating Receptor
- Switchyard
- Collector Substation
- Participating Parcel
- Non-Participating Parcel
- County Boundary
- City/Town Boundary
- State Route
- County Road

Modeled Shadow Flicker: Expected Values (Hours Per Year)

- 0
- 10
- 30
- 50
- 100
- 150

Scale 1:7,200
1 inch = 600 feet
0 300 600 Feet

Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

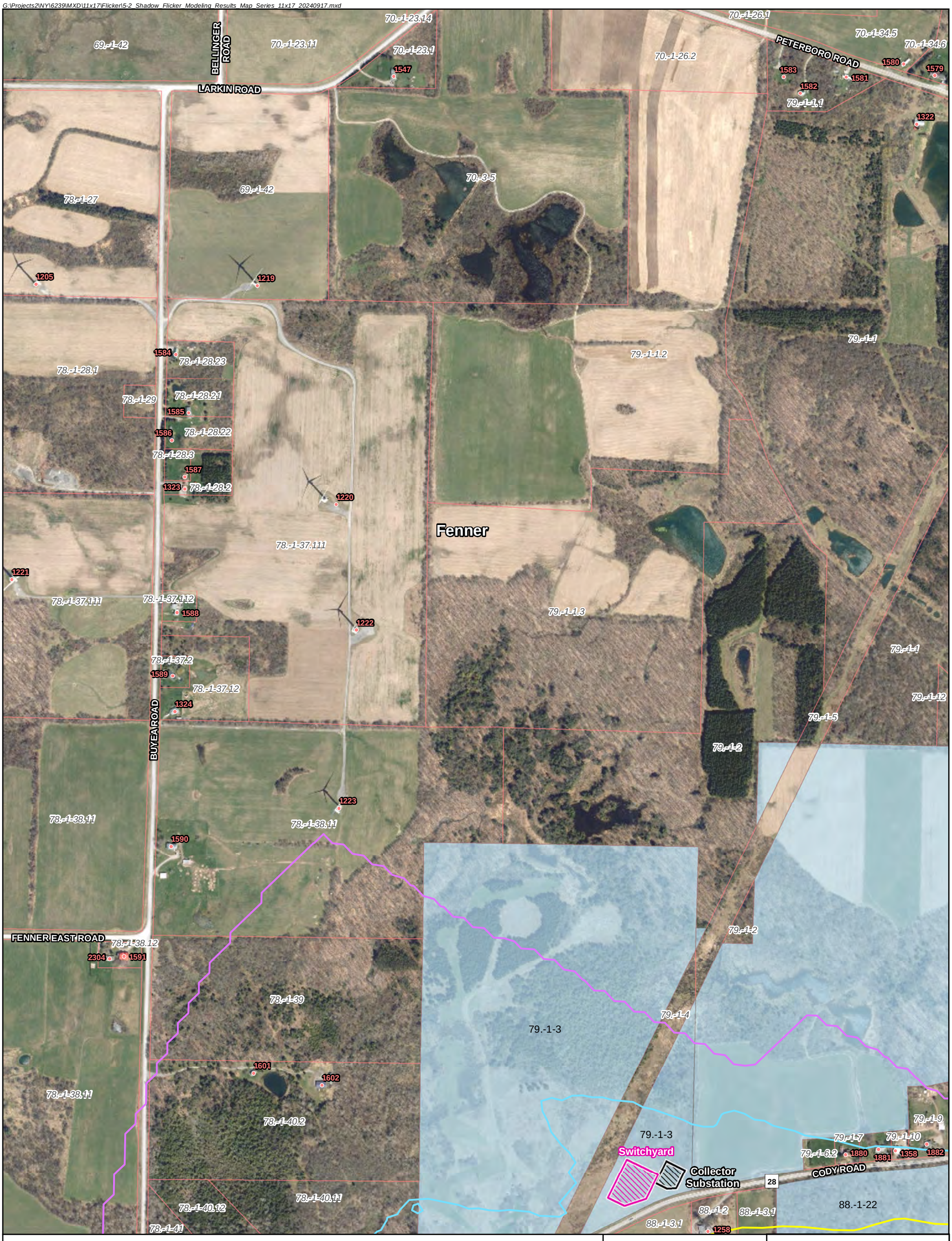
		1	2	3						
4	5	6	7	8	9	10				
11	12	13	14	15	16	17	18	19	20	
21	22	23	24	25	26	27	28	29	30	
31	32	33	34	35	36	37	38	39	40	
			41		42	43	44	45	46	

Hoffman Falls Wind **Madison County, NY**

Epsilon ASSOCIATES INC.

Figure 5-2, Map 5 of 46
Shadow Flicker Modeling Results - GE 158-6.1

G:\Projects2\NY\6239\MXD\11x17\Flicker\5-2_Shadow_Flicker_Modeling_Results_Map_Series_11x17_20240917.mxd



LEGEND

- Proposed Wind Turbine: GE 158-6.1 117m HH
- Participating Receptor
- Non-Participating Receptor
- Switchyard
- Collector Substation
- Participating Parcel
- Non-Participating Parcel
- County Boundary
- City/Town Boundary
- State Route
- County Road

Modeled Shadow Flicker: Expected Values (Hours Per Year)

- 0
- 10
- 30
- 50
- 100
- 150

Scale 1:7,200
1 inch = 600 feet

0 300 600 Feet

Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

		1	2	3						
4	5	6	7	8	9	10				
11	12	13	14	15	16	17	18	19	20	
21	22	23	24	25	26	27	28	29	30	
31	32	33	34	35	36	37	38	39	40	
			41		42	43	44	45	46	

Hoffman Falls Wind **Madison County, NY**

Epsilon Associates Inc.

Figure 5-2, Map 6 of 46
Shadow Flicker Modeling Results - GE 158-6.1

G:\Projects2\NY\6239\MXD\11x17\Flicker\5-2_Shadow_Flicker_Modeling_Results_Map_Series_11x17_20240917.mxd

LEGEND

- Proposed Wind Turbine: GE 158-6.1 117m HH
- Participating Receptor
- Non-Participating Receptor
- Switchyard
- Collector Substation
- Participating Parcel
- Non-Participating Parcel
- County Boundary
- City/Town Boundary
- State Route
- County Road

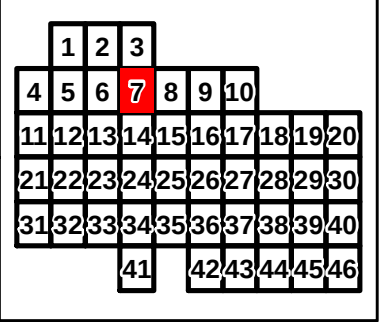
Modeled Shadow Flicker: Expected Values (Hours Per Year)

- 0
- 10
- 30
- 50
- 100
- 150

Scale 1:7,200
1 inch = 600 feet

0 300 600 Feet

Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



Hoffman Falls Wind **Madison County, NY**

Epsilon Associates Inc.

Figure 5-2, Map 7 of 46
Shadow Flicker Modeling Results - GE 158-6.1

G:\Projects2\NY\6239\MXD\11x17\Flicker\5-2_Shadow_Flicker_Modeling_Results_Map_Series_11x17_20240917.mxd

LEGEND

- Proposed Wind Turbine: GE 158-6.1 117m HH
- Participating Receptor
- Non-Participating Receptor
- Switchyard
- Collector Substation
- Participating Parcel
- Non-Participating Parcel
- County Boundary
- City/Town Boundary
- State Route
- County Road

Modeled Shadow Flicker: Expected Values (Hours Per Year)

- 0
- 10
- 30
- 50
- 100
- 150

Scale 1:7,200
1 inch = 600 feet

0 300 600 Feet

Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

		1	2	3						
4	5	6	7	8	9	10				
11	12	13	14	15	16	17	18	19	20	
21	22	23	24	25	26	27	28	29	30	
31	32	33	34	35	36	37	38	39	40	
			41		42	43	44	45	46	

Hoffman Falls Wind **Madison County, NY**

Epsilon Associates Inc.

Figure 5-2, Map 8 of 46

Shadow Flicker Modeling Results - GE 158-6.1

G:\Projects2\NY\6239\MXD\11x17\Flicker\5-2_Shadow_Flicker_Modeling_Results_Map_Series_11x17_20240917.mxd

LEGEND

- Proposed Wind Turbine: GE 158-6.1 117m HH
- Participating Receptor
- Non-Participating Receptor
- Switchyard
- Collector Substation
- Participating Parcel
- Non-Participating Parcel
- County Boundary
- City/Town Boundary
- State Route
- County Road

Modeled Shadow Flicker: Expected Values (Hours Per Year)

- 0
- 10
- 30
- 50
- 100
- 150

Scale 1:7,200
1 inch = 600 feet
0 300 600
Feet

Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

		1	2	3					
4	5	6	7	8	9	10			
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
			41		42	43	44	45	46

Hoffman Falls Wind **Madison County, NY**

Epsilon Associates Inc.

Figure 5-2, Map 9 of 46
Shadow Flicker Modeling Results - GE 158-6.1

G:\Projects2\NY\6239\MXD\11x17\Flicker\5-2_Shadow_Flicker_Modeling_Results_Map_Series_11x17_20240917.mxd

LEGEND

- Proposed Wind Turbine: GE 158-6.1 117m HH
- Participating Receptor
- Non-Participating Receptor
- Switchyard
- Collector Substation
- Participating Parcel
- Non-Participating Parcel
- County Boundary
- City/Town Boundary
- State Route
- County Road

Modeled Shadow Flicker: Expected Values (Hours Per Year)

- 0
- 10
- 30
- 50
- 100
- 150

Scale 1:7,200
1 inch = 600 feet
0 300 600 Feet

Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

		1	2	3						
4	5	6	7	8	9	10				
11	12	13	14	15	16	17	18	19	20	
21	22	23	24	25	26	27	28	29	30	
31	32	33	34	35	36	37	38	39	40	
			41		42	43	44	45	46	

Hoffman Falls Wind **Madison County, NY**

Epsilon Associates Inc.

Figure 5-2, Map 10 of 46
Shadow Flicker Modeling Results - GE 158-6.1

G:\Projects2\NY\6239\MXD\11x17\Flicker\5-2_Shadow_Flicker_Modeling_Results_Map_Series_11x17_20240917.mxd

LEGEND

- Proposed Wind Turbine: GE 158-6.1 117m HH
- Participating Receptor
- Non-Participating Receptor
- Switchyard
- Collector Substation
- Participating Parcel
- Non-Participating Parcel
- County Boundary
- City/Town Boundary
- State Route
- County Road

Modeled Shadow Flicker: Expected Values (Hours Per Year)

- 0
- 10
- 30
- 50
- 100
- 150

Scale 1:7,200
1 inch = 600 feet
0 300 600 Feet

Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

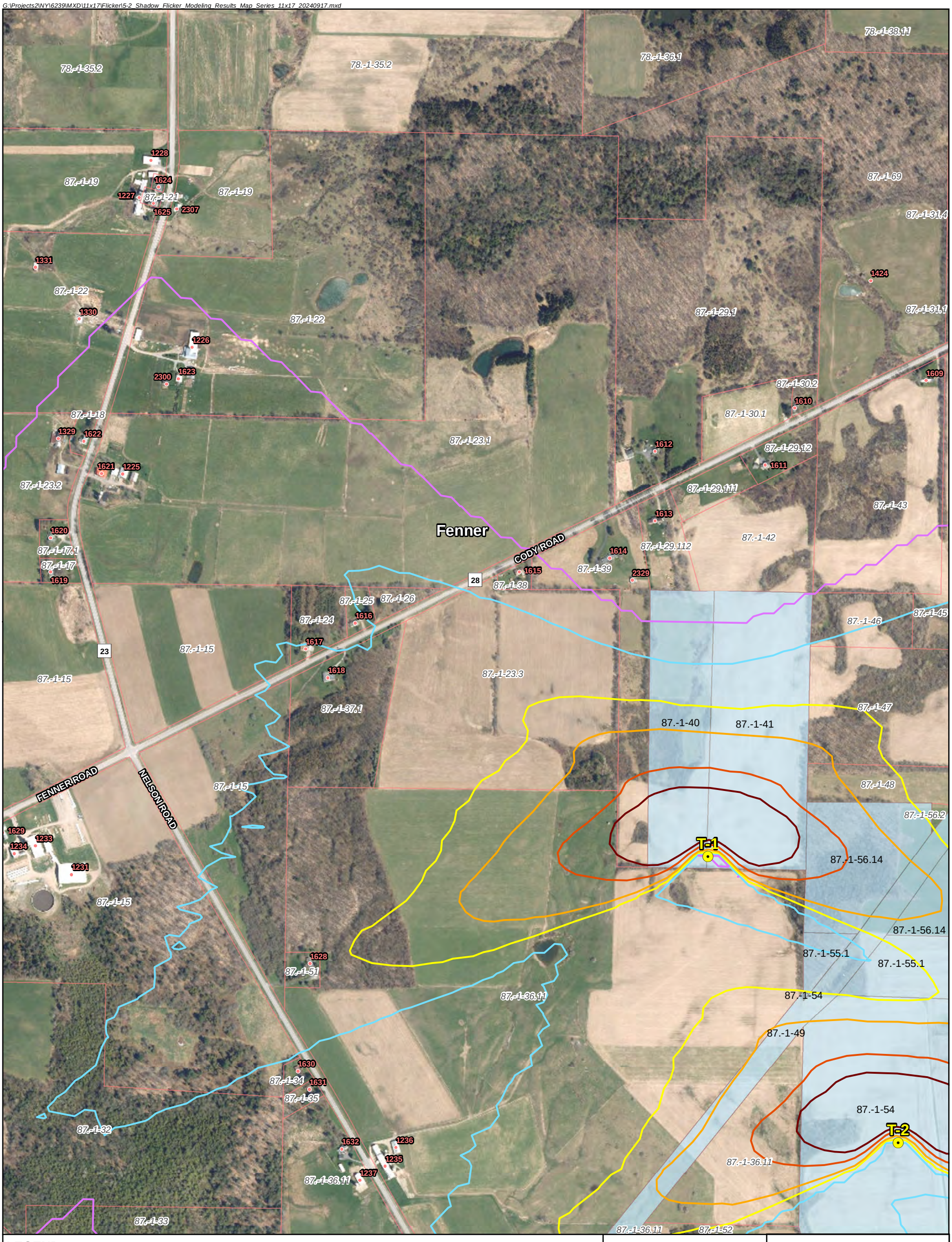
	1	2	3							
4	5	6	7	8	9	10				
11	12	13	14	15	16	17	18	19	20	
21	22	23	24	25	26	27	28	29	30	
31	32	33	34	35	36	37	38	39	40	
			41		42	43	44	45	46	

Hoffman Falls Wind **Madison County, NY**

Epsilon ASSOCIATES INC.

Figure 5-2, Map 11 of 46
Shadow Flicker Modeling Results - GE 158-6.1

G:\Projects2\NY\6239\MXD\11x17\Flicker\5-2_Shadow_Flicker_Modeling_Results_Map_Series_11x17_20240917.mxd



LEGEND

- Proposed Wind Turbine: GE 158-6.1 117m HH
- Participating Receptor
- Non-Participating Receptor
- Switchyard
- Collector Substation
- Participating Parcel
- Non-Participating Parcel
- County Boundary
- City/Town Boundary
- State Route
- County Road

Modeled Shadow Flicker: Expected Values (Hours Per Year)

- 0
- 10
- 30
- 50
- 100
- 150

Scale 1:7,200
1 inch = 600 feet
0 300 600 Feet

Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

		1	2	3						
4	5	6	7	8	9	10				
11	12	13	14	15	16	17	18	19	20	
21	22	23	24	25	26	27	28	29	30	
31	32	33	34	35	36	37	38	39	40	
			41		42	43	44	45	46	

Hoffman Falls Wind **Madison County, NY**

Epsilon Associates Inc.

Figure 5-2, Map 12 of 46
Shadow Flicker Modeling Results - GE 158-6.1

G:\Projects2\NY\6239\MXD\11x17\Flicker\5-2_Shadow_Flicker_Modeling_Results_Map_Series_11x17_20240917.mxd

LEGEND

- Proposed Wind Turbine: GE 158-6.1 117m HH
- Participating Receptor
- Non-Participating Receptor
- Switchyard
- Collector Substation
- Participating Parcel
- Non-Participating Parcel
- County Boundary
- City/Town Boundary
- State Route
- County Road

Modeled Shadow Flicker: Expected Values (Hours Per Year)

- 0
- 10
- 30
- 50
- 100
- 150

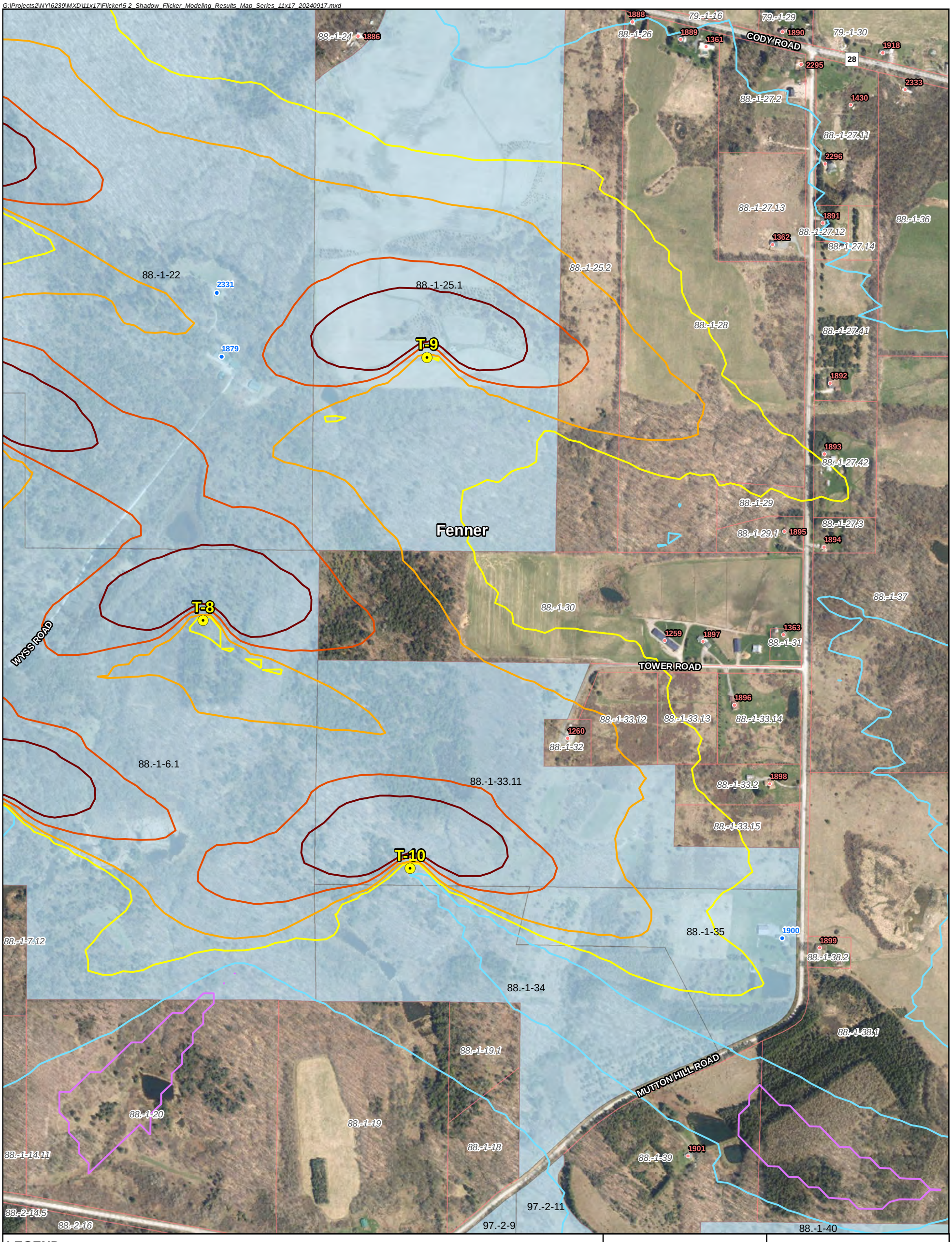
Scale 1:7,200
1 inch = 600 feet
0 300 600 Feet

Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Hoffman Falls Wind Madison County, NY

Figure 5-2, Map 13 of 46
Shadow Flicker Modeling Results - GE 158-6.1

G:\Projects2\NY\6239\MXD\11x17\Flicker\5-2_Shadow_Flicker_Modeling_Results_Map_Series_11x17_20240917.mxd



LEGEND

- Proposed Wind Turbine: GE 158-6.1 117m HH
- Participating Receptor
- Non-Participating Receptor
- Switchyard
- Collector Substation
- Participating Parcel
- Non-Participating Parcel
- County Boundary
- City/Town Boundary
- State Route
- County Road

Modeled Shadow Flicker: Expected Values (Hours Per Year)

- 0
- 10
- 30
- 50
- 100
- 150

Scale 1:7,200
1 inch = 600 feet

0 300 600 Feet

Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

		1	2	3						
4	5	6	7	8	9	10				
11	12	13	14	15	16	17	18	19	20	
21	22	23	24	25	26	27	28	29	30	
31	32	33	34	35	36	37	38	39	40	
			41		42	43	44	45	46	

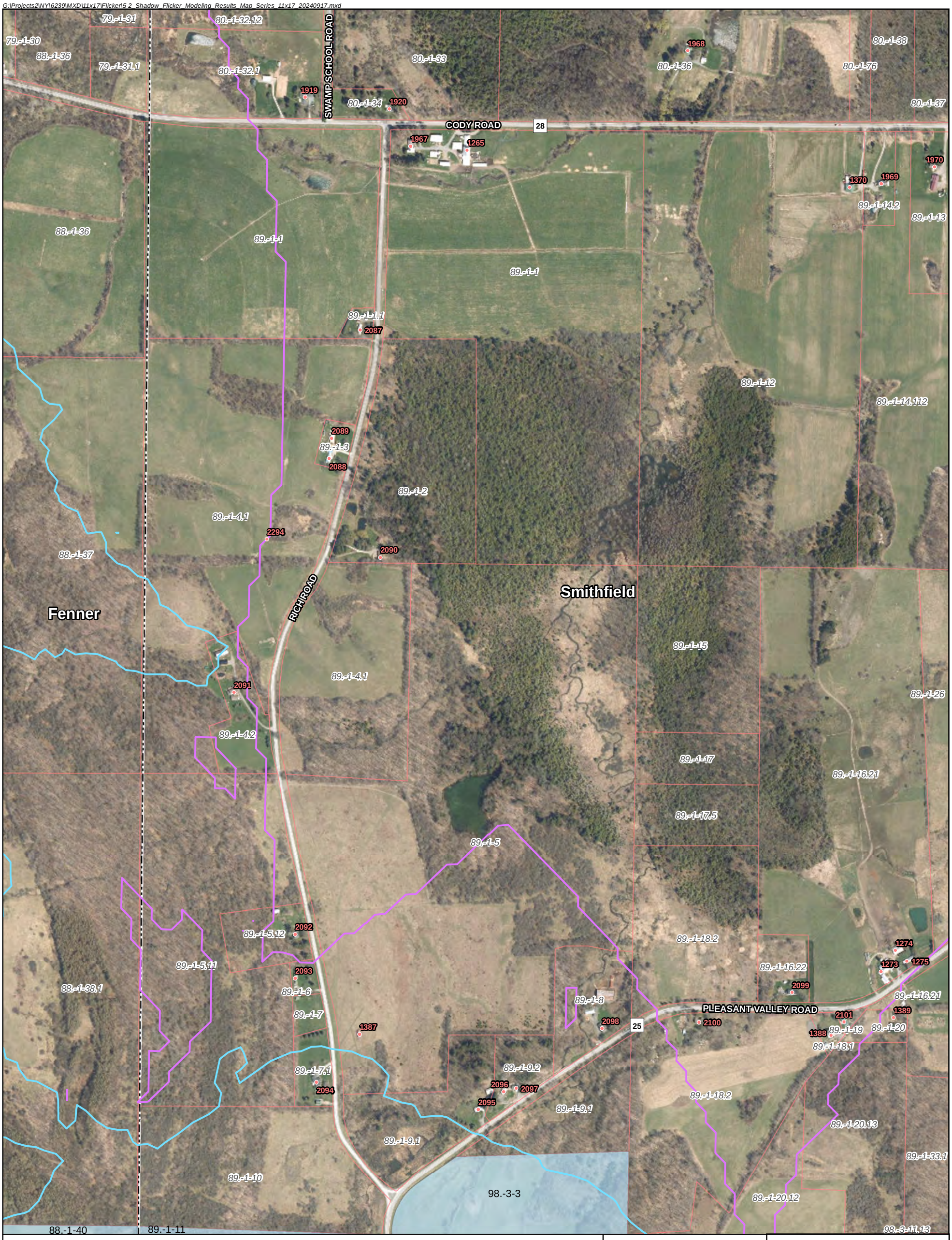
Hoffman Falls Wind **Madison County, NY**

Epsilon Associates Inc.

Figure 5-2, Map 14 of 46

Shadow Flicker Modeling Results - GE 158-6.1

G:\Projects2\NY\6239\MXD\11x17\Flicker\5-2_Shadow_Flicker_Modeling_Results_Map_Series_11x17_20240917.mxd



LEGEND

- Proposed Wind Turbine: GE 158-6.1 117m HH
- Participating Receptor
- Non-Participating Receptor
- Switchyard
- Collector Substation
- Participating Parcel
- Non-Participating Parcel
- County Boundary
- City/Town Boundary
- State Route
- County Road

Modeled Shadow Flicker: Expected Values (Hours Per Year)

- 0
- 10
- 30
- 50
- 100
- 150

Scale 1:7,200
1 inch = 600 feet

0 300 600 Feet

Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

		1	2	3						
4	5	6	7	8	9	10				
11	12	13	14	15	16	17	18	19	20	
21	22	23	24	25	26	27	28	29	30	
31	32	33	34	35	36	37	38	39	40	
			41		42	43	44	45	46	

Hoffman Falls Wind **Madison County, NY**

Epsilon Associates Inc.

Figure 5-2, Map 15 of 46
Shadow Flicker Modeling Results - GE 158-6.1

G:\Projects2\NY\6239\MXD\11x17\Flicker\5-2_Shadow_Flicker_Modeling_Results_Map_Series_11x17_20240917.mxd

LEGEND

- Proposed Wind Turbine: GE 158-6.1 117m HH
- Participating Receptor
- Non-Participating Receptor
- Switchyard
- Collector Substation
- Participating Parcel
- Non-Participating Parcel
- County Boundary
- City/Town Boundary
- State Route
- County Road

Modeled Shadow Flicker: Expected Values (Hours Per Year)

- 0
- 10
- 30
- 50
- 100
- 150

Scale 1:7,200
1 inch = 600 feet

0 300 600 Feet

Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

		1	2	3					
4	5	6	7	8	9	10			
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
			41		42	43	44	45	46

Hoffman Falls Wind **Madison County, NY**

Epsilon Associates Inc.

Figure 5-2, Map 16 of 46

Shadow Flicker Modeling Results - GE 158-6.1

G:\Projects2\NY\6239\MXD\11x17\Flicker\5-2_Shadow_Flicker_Modeling_Results_Map_Series_11x17_20240917.mxd

LEGEND

- Proposed Wind Turbine: GE 158-6.1 117m HH
- Participating Receptor
- Non-Participating Receptor
- Switchyard
- Collector Substation
- Participating Parcel
- Non-Participating Parcel
- County Boundary
- City/Town Boundary
- State Route
- County Road

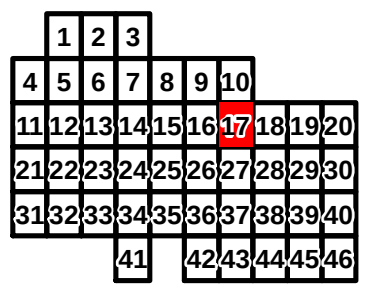
Modeled Shadow Flicker: Expected Values (Hours Per Year)

- 0
- 10
- 30
- 50
- 100
- 150

Scale 1:7,200
1 inch = 600 feet

0 300 600 Feet

Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



Hoffman Falls Wind **Madison County, NY**

Epsilon Associates Inc.

Figure 5-2, Map 17 of 46
Shadow Flicker Modeling Results - GE 158-6.1

G:\Projects2\NY\6239\MXD\11x17\Flicker\5-2_Shadow_Flicker_Modeling_Results_Map_Series_11x17_20240917.mxd

LEGEND

- Proposed Wind Turbine: GE 158-6.1 117m HH
- Participating Receptor
- Non-Participating Receptor
- Switchyard
- Collector Substation
- Participating Parcel
- Non-Participating Parcel
- County Boundary
- City/Town Boundary
- State Route
- County Road

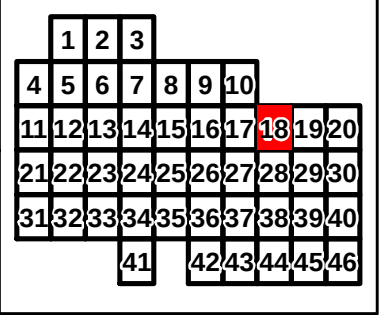
Modeled Shadow Flicker: Expected Values (Hours Per Year)

- 0
- 10
- 30
- 50
- 100
- 150

Scale 1:7,200
1 inch = 600 feet

0 300 600 Feet

Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



Hoffman Falls Wind **Madison County, NY**

Epsilon Associates Inc.

Figure 5-2, Map 18 of 46
Shadow Flicker Modeling Results - GE 158-6.1

G:\Projects2\NY\6239\MXD\11x17\Flicker\5-2_Shadow_Flicker_Modeling_Results_Map_Series_11x17_20240917.mxd

LEGEND

- Proposed Wind Turbine: GE 158-6.1 117m HH
- Participating Receptor
- Non-Participating Receptor
- Switchyard
- Collector Substation
- Participating Parcel
- Non-Participating Parcel
- County Boundary
- City/Town Boundary
- State Route
- County Road

Modeled Shadow Flicker: Expected Values (Hours Per Year)

- 0
- 10
- 30
- 50
- 100
- 150

Scale 1:7,200
1 inch = 600 feet
0 300 600 Feet

Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

		1	2	3						
4	5	6	7	8	9	10				
11	12	13	14	15	16	17	18	19	20	
21	22	23	24	25	26	27	28	29	30	
31	32	33	34	35	36	37	38	39	40	
			41		42	43	44	45	46	

Hoffman Falls Wind Madison County, NY

Epsilon Associates Inc.

Figure 5-2, Map 19 of 46
Shadow Flicker Modeling Results - GE 158-6.1

G:\Projects2\NY\6239\MXD\11x17\Flicker\5-2_Shadow_Flicker_Modeling_Results_Map_Series_11x17_20240917.mxd

LEGEND

- Proposed Wind Turbine: GE 158-6.1 117m HH
- Participating Receptor
- Non-Participating Receptor
- Switchyard
- Collector Substation
- Participating Parcel
- Non-Participating Parcel
- County Boundary
- City/Town Boundary
- State Route
- County Road

Modeled Shadow Flicker: Expected Values (Hours Per Year)

- 0
- 10
- 30
- 50
- 100
- 150

Scale 1:7,200
1 inch = 600 feet

0 300 600 Feet

Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

		1	2	3						
4	5	6	7	8	9	10				
11	12	13	14	15	16	17	18	19	20	
21	22	23	24	25	26	27	28	29	30	
31	32	33	34	35	36	37	38	39	40	
			41		42	43	44	45	46	

Hoffman Falls Wind **Madison County, NY**

Epsilon Associates Inc.

Figure 5-2, Map 20 of 46

Shadow Flicker Modeling Results - GE 158-6.1

G:\Projects2\NY\6239\MXD\11x17\Flicker\5-2_Shadow_Flicker_Modeling_Results_Map_Series_11x17_20240917.mxd

LEGEND

- Proposed Wind Turbine: GE 158-6.1 117m HH
- Participating Receptor
- Non-Participating Receptor
- Switchyard
- Collector Substation
- Participating Parcel
- Non-Participating Parcel
- County Boundary
- City/Town Boundary
- State Route
- County Road

Modeled Shadow Flicker: Expected Values (Hours Per Year)

- 0
- 10
- 30
- 50
- 100
- 150

Scale 1:7,200
1 inch = 600 feet

0 300 600 Feet

Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

		1	2	3					
4	5	6	7	8	9	10			
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
			41		42	43	44	45	46

Hoffman Falls Wind **Madison County, NY**

Epsilon Associates Inc.

Figure 5-2, Map 21 of 46
Shadow Flicker Modeling Results - GE 158-6.1

G:\Projects2\NY\6239\MXD\11x17\Flicker\5-2_Shadow_Flicker_Modeling_Results_Map_Series_11x17_20240917.mxd

LEGEND

- Proposed Wind Turbine: GE 158-6.1 117m HH
- Participating Receptor
- Non-Participating Receptor
- Switchyard
- Collector Substation
- Participating Parcel
- Non-Participating Parcel
- County Boundary
- City/Town Boundary
- State Route
- County Road

Modeled Shadow Flicker: Expected Values (Hours Per Year)

- 0
- 10
- 30
- 50
- 100
- 150

Scale 1:7,200
1 inch = 600 feet
0 300 600 Feet

Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

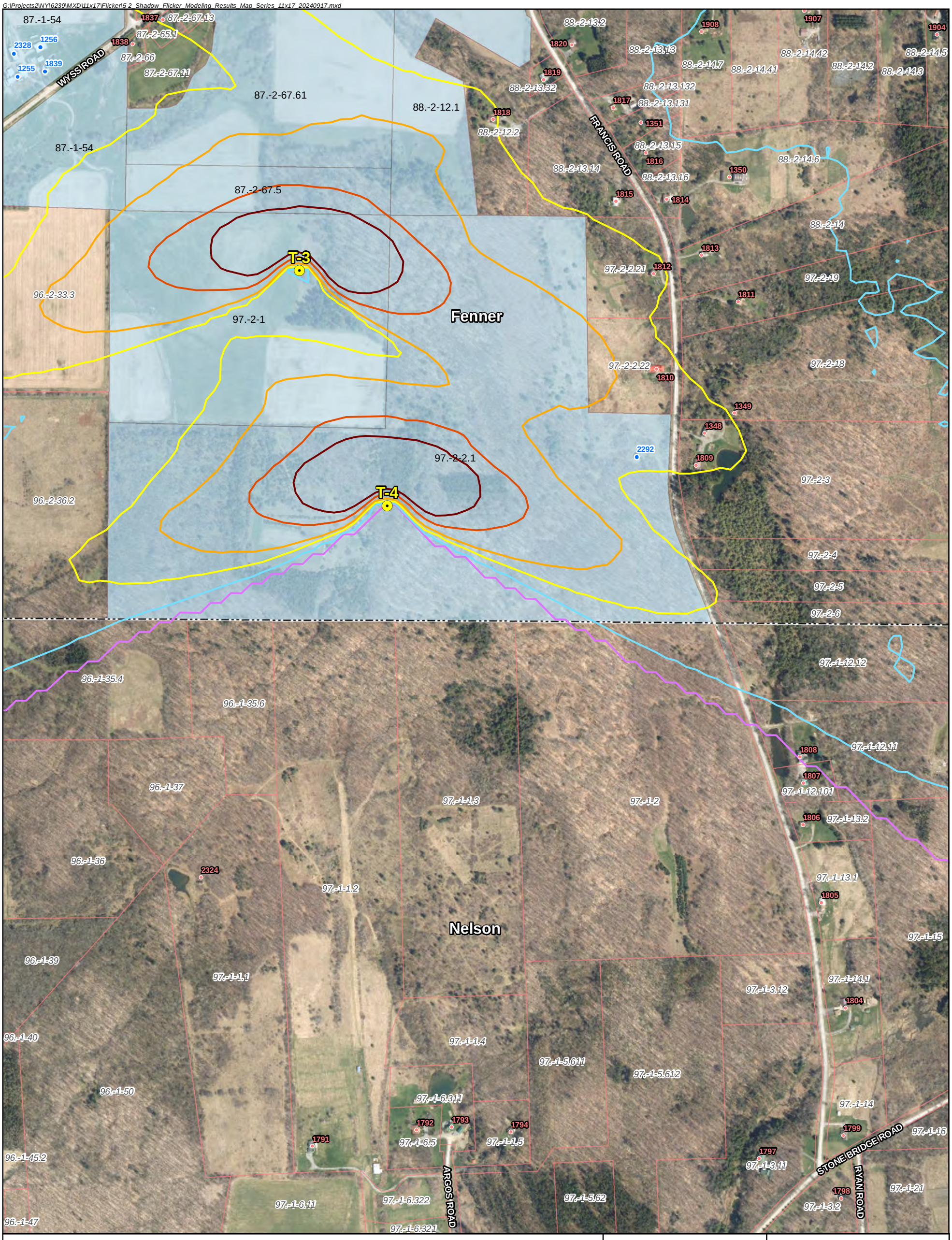
		1	2	3					
4	5	6	7	8	9	10			
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
			41		42	43	44	45	46

Hoffman Falls Wind **Madison County, NY**

Epsilon ASSOCIATES INC.

Figure 5-2, Map 22 of 46
Shadow Flicker Modeling Results - GE 158-6.1

G:\Projects2\NY\6239\MXD\11x17\Flicker\5-2_Shadow_Flicker_Modeling_Results_Map_Series_11x17_20240917.mxd



LEGEND

- Proposed Wind Turbine: GE 158-6.1 117m HH
- Participating Receptor
- Non-Participating Receptor
- Switchyard
- Collector Substation
- Participating Parcel
- Non-Participating Parcel
- County Boundary
- City/Town Boundary
- State Route
- County Road

Modeled Shadow Flicker: Expected Values (Hours Per Year)

- 0
- 10
- 30
- 50
- 100
- 150

Scale 1:7,200
1 inch = 600 feet
0 300 600 Feet

Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

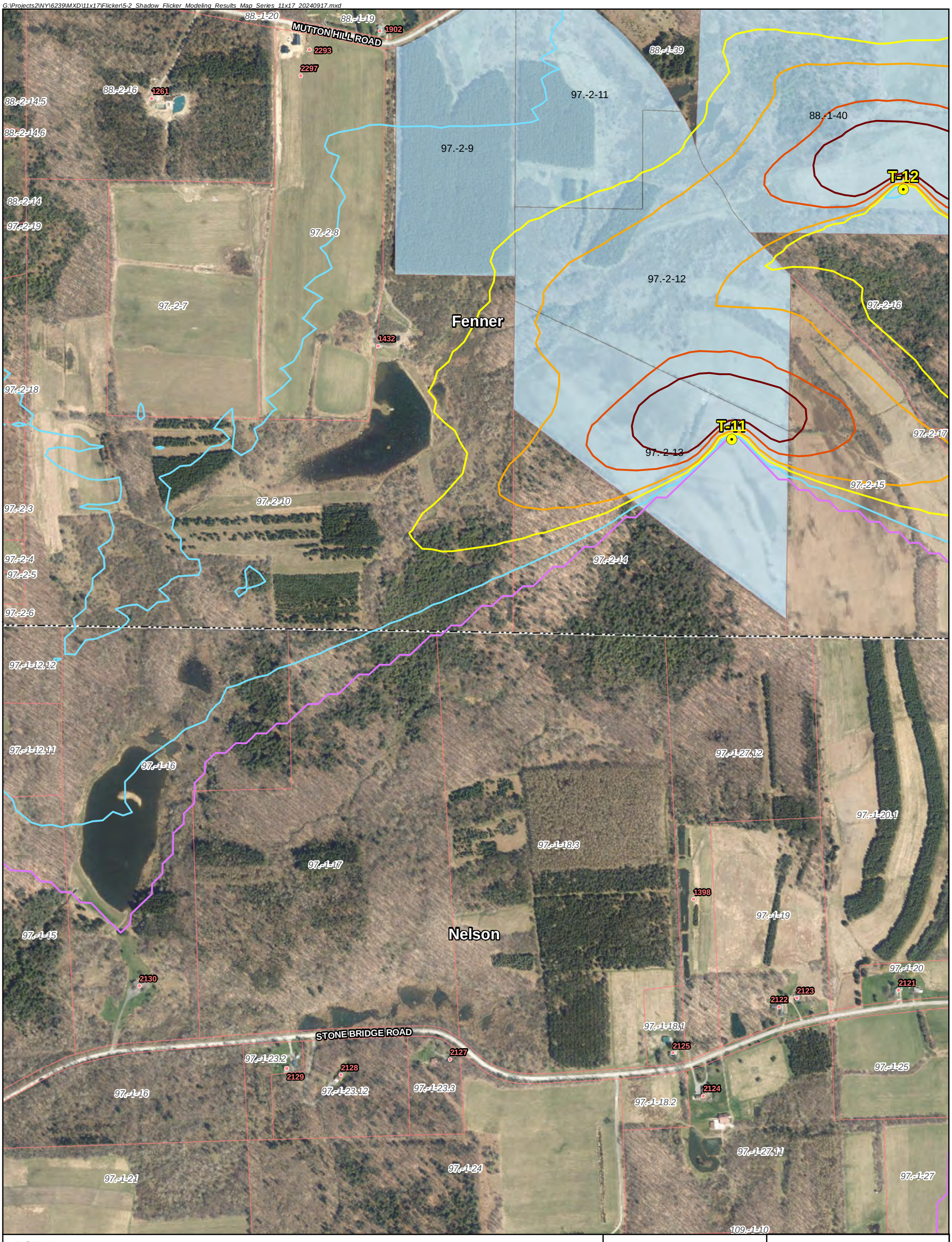
		1	2	3						
4	5	6	7	8	9	10				
11	12	13	14	15	16	17	18	19	20	
21	22	23	24	25	26	27	28	29	30	
31	32	33	34	35	36	37	38	39	40	
			41		42	43	44	45	46	

Hoffman Falls Wind **Madison County, NY**

Epsilon Associates Inc.

Figure 5-2, Map 23 of 46
Shadow Flicker Modeling Results - GE 158-6.1

G:\Projects2\NY\6239\MXD\11x17\Flicker\5-2_Shadow_Flicker_Modeling_Results_Map_Series_11x17_20240917.mxd



LEGEND

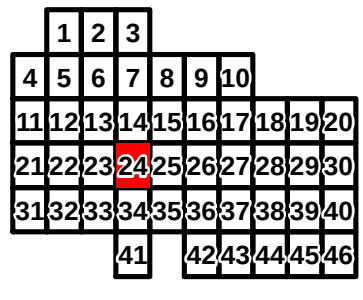
- Proposed Wind Turbine: GE 158-6.1 117m HH
- Participating Receptor
- Non-Participating Receptor
- Switchyard
- Collector Substation
- Participating Parcel
- Non-Participating Parcel
- County Boundary
- City/Town Boundary
- State Route
- County Road

Modeled Shadow Flicker: Expected Values (Hours Per Year)

- 0
- 10
- 30
- 50
- 100
- 150

Scale 1:7,200
1 inch = 600 feet
0 300 600 Feet

Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



Hoffman Falls Wind **Madison County, NY**

Epsilon Associates Inc.

Figure 5-2, Map 24 of 46
Shadow Flicker Modeling Results - GE 158-6.1

G:\Projects2\NY\6239\MXD\11x17\Flicker\5-2_Shadow_Flicker_Modeling_Results_Map_Series_11x17_20240917.mxd

LEGEND

- Proposed Wind Turbine: GE 158-6.1 117m HH
- Participating Receptor
- Non-Participating Receptor
- Switchyard
- Collector Substation
- Participating Parcel
- Non-Participating Parcel
- County Boundary
- City/Town Boundary
- State Route
- County Road

Modeled Shadow Flicker: Expected Values (Hours Per Year)

- 0
- 10
- 30
- 50
- 100
- 150

Scale 1:7,200
1 inch = 600 feet
0 300 600 Feet

Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

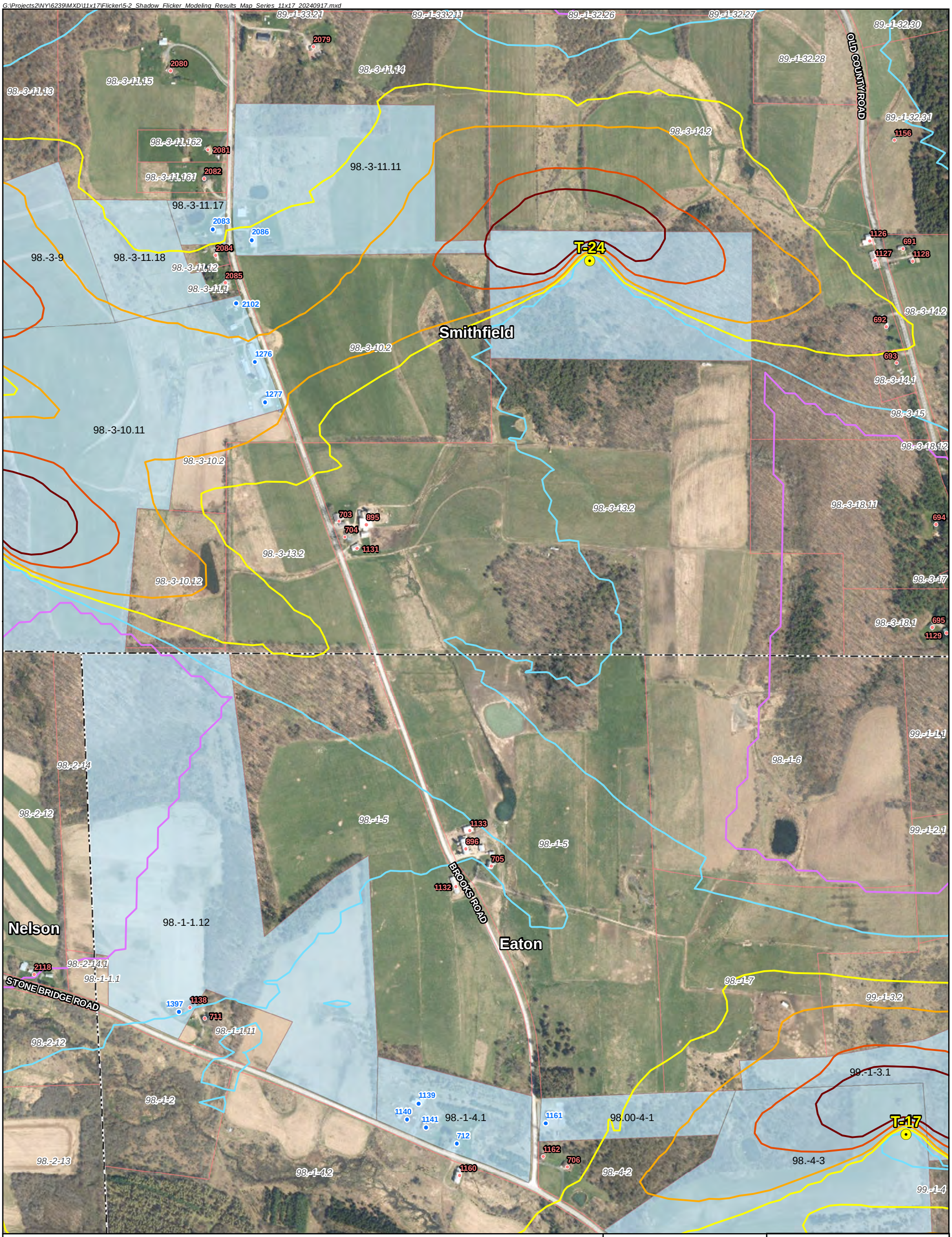
		1	2	3						
4	5	6	7	8	9	10				
11	12	13	14	15	16	17	18	19	20	
21	22	23	24	**25**	26	27	28	29	30	
31	32	33	34	35	36	37	38	39	40	
			41		42	43	44	45	46	

Hoffman Falls Wind **Madison County, NY**

Epsilon Associates Inc.

Figure 5-2, Map 25 of 46
Shadow Flicker Modeling Results - GE 158-6.1

G:\Projects2\NY\6239\MXD\11x17\Flicker\5-2_Shadow_Flicker_Modeling_Results_Map_Series_11x17_20240917.mxd



LEGEND

- Proposed Wind Turbine: GE 158-6.1 117m HH
- Participating Receptor
- Non-Participating Receptor
- Switchyard
- Collector Substation
- Participating Parcel
- Non-Participating Parcel
- County Boundary
- City/Town Boundary
- State Route
- County Road

Modeled Shadow Flicker: Expected Values (Hours Per Year)

- 0
- 10
- 30
- 50
- 100
- 150

Scale 1:7,200
1 inch = 600 feet

0 300 600 Feet

Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

		1	2	3						
4	5	6	7	8	9	10				
11	12	13	14	15	16	17	18	19	20	
21	22	23	24	25	**26**	27	28	29	30	
31	32	33	34	35	36	37	38	39	40	
			41		42	43	44	45	46	

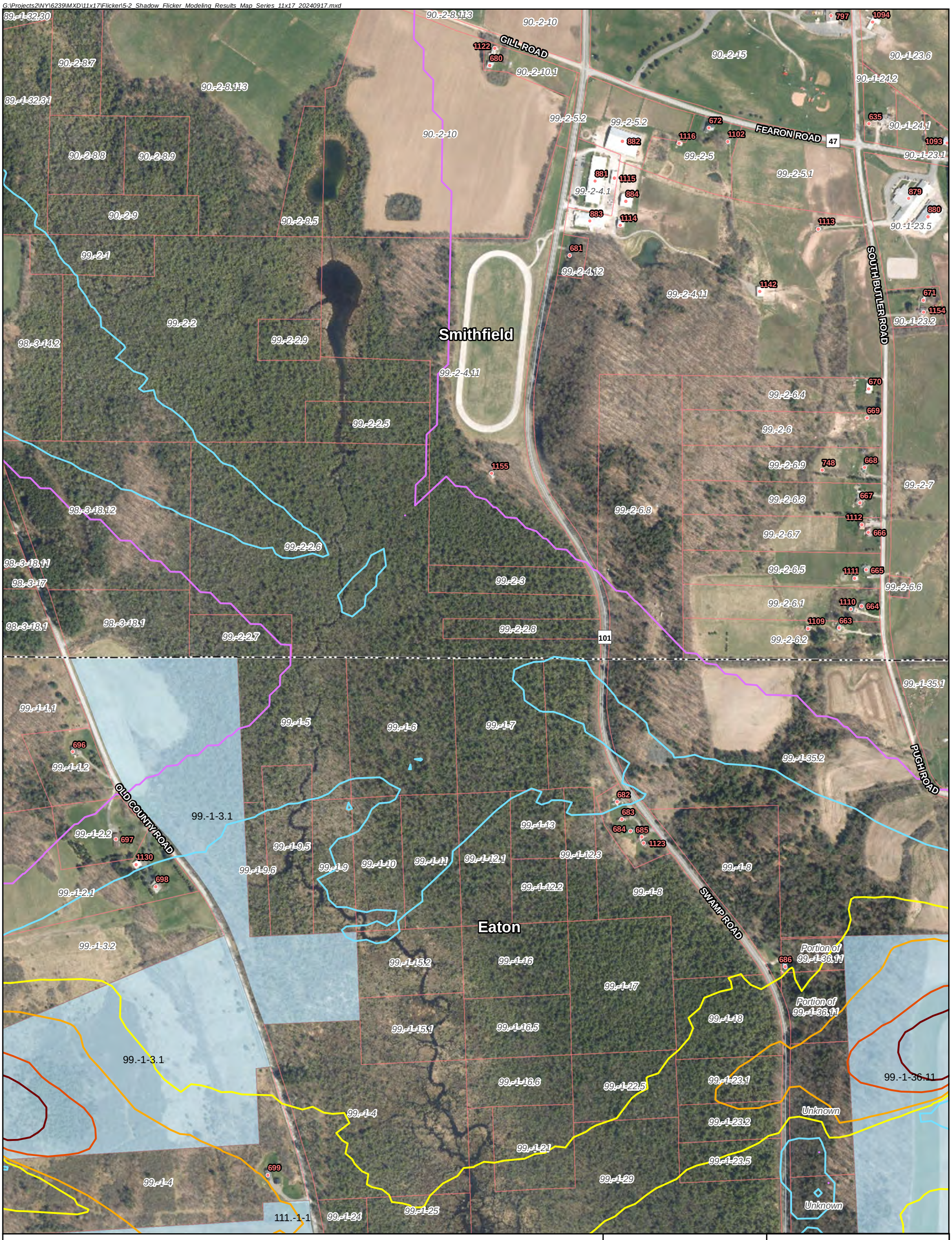
Hoffman Falls Wind **Madison County, NY**

Epsilon Associates Inc.

Figure 5-2, Map 26 of 46

Shadow Flicker Modeling Results - GE 158-6.1

G:\Projects2\NY\6239\MXD\11x17\Flicker\5-2_Shadow_Flicker_Modeling_Results_Map_Series_11x17_20240917.mxd



LEGEND

- Proposed Wind Turbine: GE 158-6.1 117m HH
- Participating Receptor
- Non-Participating Receptor
- Switchyard
- Collector Substation
- Participating Parcel
- Non-Participating Parcel
- County Boundary
- City/Town Boundary
- State Route
- County Road

Modeled Shadow Flicker: Expected Values (Hours Per Year)

- 0
- 10
- 30
- 50
- 100
- 150

Scale 1:7,200
1 inch = 600 feet
0 300 600 Feet

Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

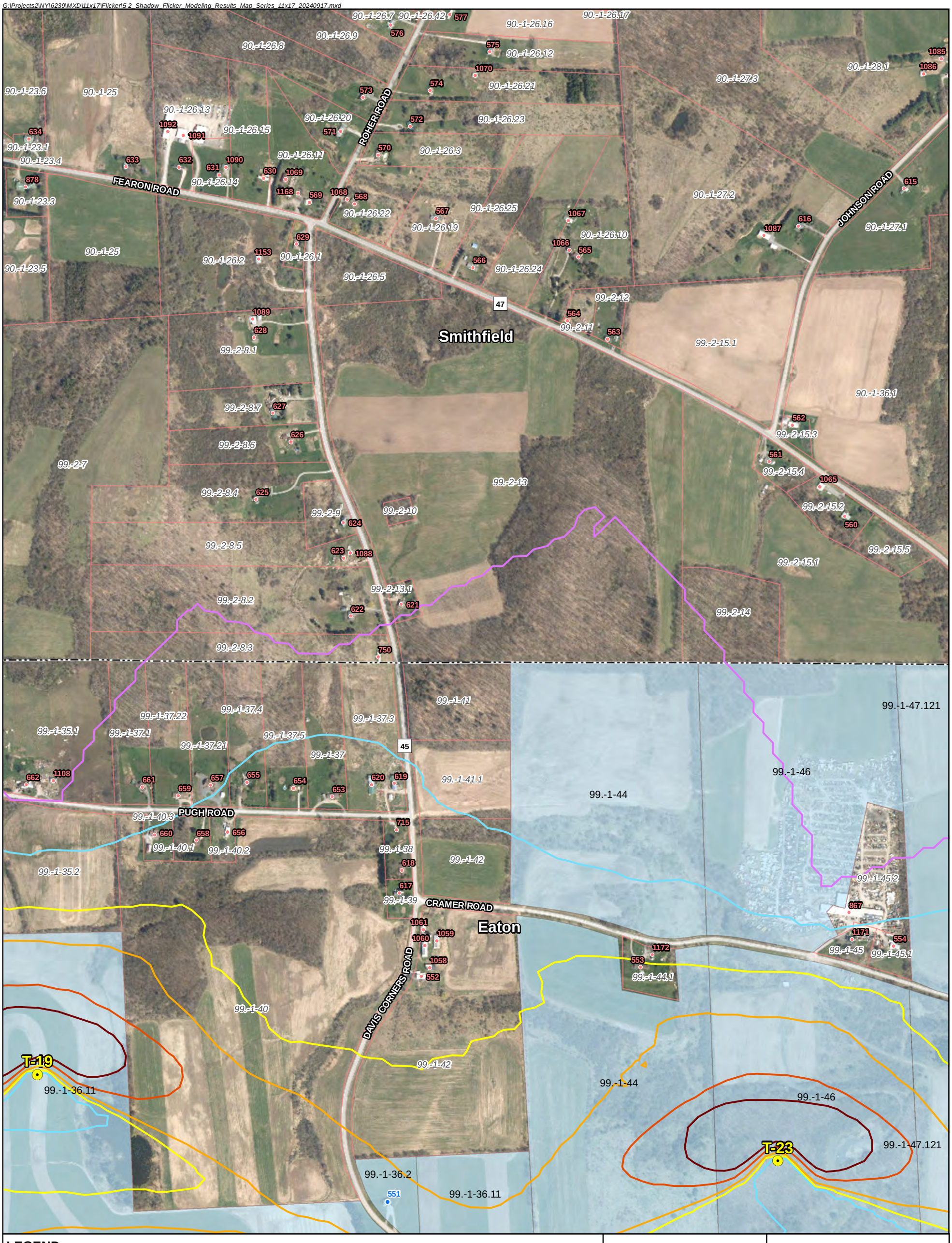
		1	2	3						
4	5	6	7	8	9	10				
11	12	13	14	15	16	17	18	19	20	
21	22	23	24	25	26	27	28	29	30	
31	32	33	34	35	36	37	38	39	40	
			41		42	43	44	45	46	

Hoffman Falls Wind **Madison County, NY**

Epsilon Associates Inc.

Figure 5-2, Map 27 of 46
Shadow Flicker Modeling Results - GE 158-6.1

G:\Projects2\NY\6239\MXD\11x17\Flicker\5-2_Shadow_Flicker_Modeling_Results_Map_Series_11x17_20240917.mxd



LEGEND

- Proposed Wind Turbine: GE 158-6.1 117m HH
- Participating Receptor
- Non-Participating Receptor
- Switchyard
- Collector Substation
- Participating Parcel
- Non-Participating Parcel
- County Boundary
- City/Town Boundary
- State Route
- County Road

Modeled Shadow Flicker: Expected Values (Hours Per Year)

- 0
- 10
- 30
- 50
- 100
- 150

Scale 1:7,200
1 inch = 600 feet

0 300 600 Feet

Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

		1	2	3					
4	5	6	7	8	9	10			
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
			41		42	43	44	45	46

Hoffman Falls Wind **Madison County, NY**

Epsilon Associates Inc.

Figure 5-2, Map 28 of 46
Shadow Flicker Modeling Results - GE 158-6.1

G:\Projects2\NY\6239\MXD\11x17\Flicker\5-2_Shadow_Flicker_Modeling_Results_Map_Series_11x17_20240917.mxd

LEGEND

- Proposed Wind Turbine: GE 158-6.1 117m HH
- Participating Receptor
- Non-Participating Receptor
- Switchyard
- Collector Substation
- Participating Parcel
- Non-Participating Parcel
- County Boundary
- City/Town Boundary
- State Route
- County Road

Modeled Shadow Flicker: Expected Values (Hours Per Year)

- 0
- 10
- 30
- 50
- 100
- 150

Scale 1:7,200
1 inch = 600 feet

0 300 600 Feet

Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

		1	2	3						
4	5	6	7	8	9	10				
11	12	13	14	15	16	17	18	19	20	
21	22	23	24	25	26	27	28	29	30	
31	32	33	34	35	36	37	38	39	40	
			41		42	43	44	45	46	

Hoffman Falls Wind **Madison County, NY**

Epsilon Associates Inc.

Figure 5-2, Map 29 of 46
Shadow Flicker Modeling Results - GE 158-6.1

G:\Projects2\NY\6239\MXD\11x17\Flicker\5-2_Shadow_Flicker_Modeling_Results_Map_Series_11x17_20240917.mxd

LEGEND

- Proposed Wind Turbine: GE 158-6.1 117m HH
- Participating Receptor
- Non-Participating Receptor
- Switchyard
- Collector Substation
- Participating Parcel
- Non-Participating Parcel
- County Boundary
- City/Town Boundary
- State Route
- County Road

Modeled Shadow Flicker: Expected Values (Hours Per Year)

- 0
- 10
- 30
- 50
- 100
- 150

Scale 1:7,200
1 inch = 600 feet
0 300 600 Feet

Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

		1	2	3						
4	5	6	7	8	9	10				
11	12	13	14	15	16	17	18	19	20	
21	22	23	24	25	26	27	28	29	30	
31	32	33	34	35	36	37	38	39	40	
			41		42	43	44	45	46	

Hoffman Falls Wind Madison County, NY

Epsilon Associates Inc.

Figure 5-2, Map 30 of 46
Shadow Flicker Modeling Results - GE 158-6.1

G:\Projects2\NY\6239\MXD\11x17\Flicker\5-2_Shadow_Flicker_Modeling_Results_Map_Series_11x17_20240917.mxd

LEGEND

- Proposed Wind Turbine: GE 158-6.1 117m HH
- Participating Receptor
- Non-Participating Receptor
- Switchyard
- Collector Substation
- Participating Parcel
- Non-Participating Parcel
- County Boundary
- City/Town Boundary
- State Route
- County Road

Modeled Shadow Flicker: Expected Values (Hours Per Year)

- 0
- 10
- 30
- 50
- 100
- 150

Scale 1:7,200
1 inch = 600 feet

0 300 600 Feet

Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

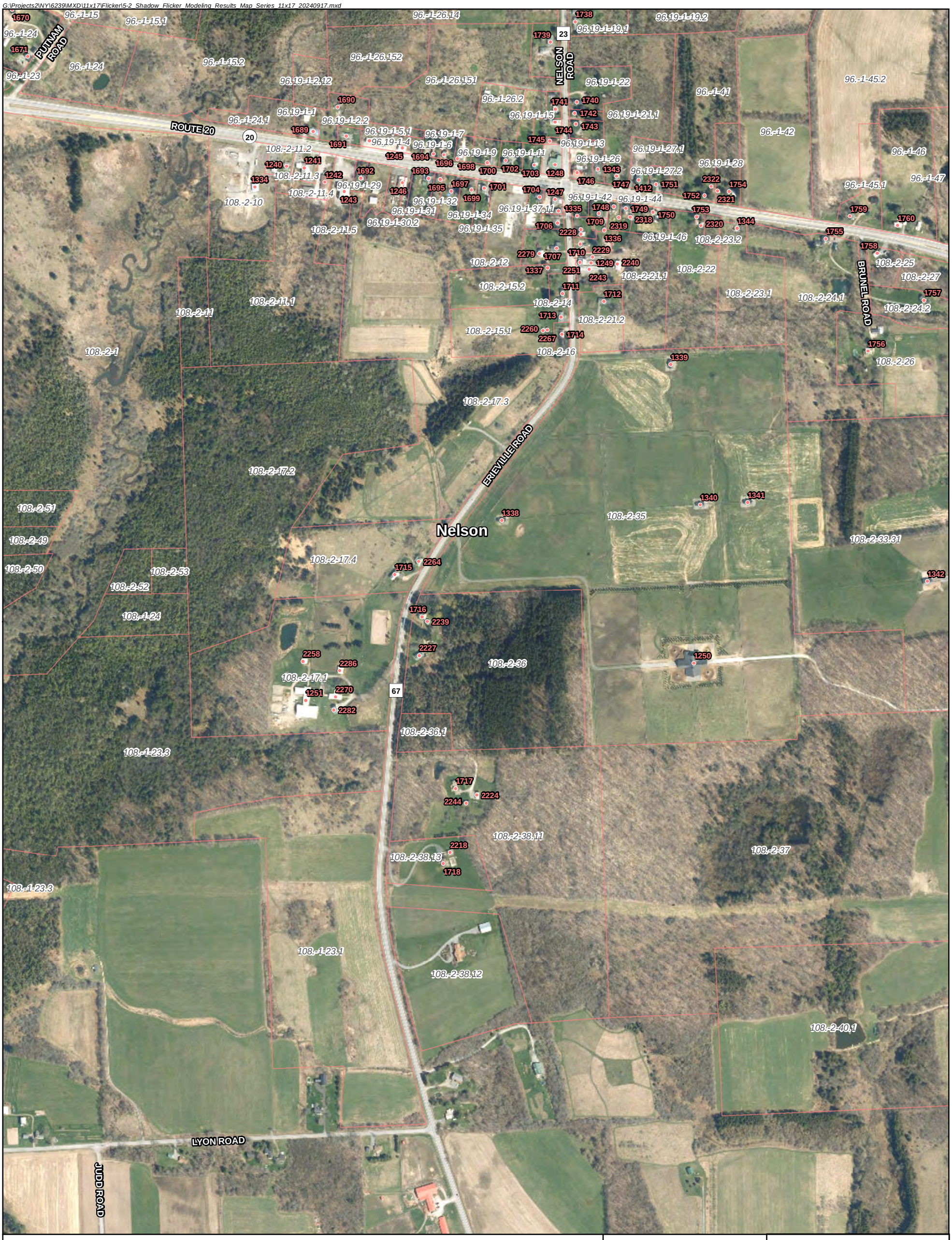
		1	2	3					
4	5	6	7	8	9	10			
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
			41		42	43	44	45	46

Hoffman Falls Wind **Madison County, NY**

Epsilon Associates Inc.

Figure 5-2, Map 31 of 46
Shadow Flicker Modeling Results - GE 158-6.1

G:\Projects2\NY\6239\MXD\11x17\Flicker\5-2_Shadow_Flicker_Modeling_Results_Map_Series_11x17_20240917.mxd



LEGEND

- Proposed Wind Turbine: GE 158-6.1 117m HH
- Participating Receptor
- Non-Participating Receptor
- Switchyard
- Collector Substation
- Participating Parcel
- Non-Participating Parcel
- County Boundary
- City/Town Boundary
- State Route
- County Road

Modeled Shadow Flicker: Expected Values (Hours Per Year)

- 0
- 10
- 30
- 50
- 100
- 150

Scale 1:7,200
1 inch = 600 feet

0 300 600 Feet

Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

		1	2	3						
4	5	6	7	8	9	10				
11	12	13	14	15	16	17	18	19	20	
21	22	23	24	25	26	27	28	29	30	
31	32	33	34	35	36	37	38	39	40	
			41		42	43	44	45	46	

Hoffman Falls Wind **Madison County, NY**

Epsilon Associates Inc.

Figure 5-2, Map 32 of 46

Shadow Flicker Modeling Results - GE 158-6.1

G:\Projects2\NY\6239\MXD\11x17\Flicker\5-2_Shadow_Flicker_Modeling_Results_Map_Series_11x17_20240917.mxd

LEGEND

- Proposed Wind Turbine: GE 158-6.1 117m HH
- Participating Receptor
- Non-Participating Receptor
- Switchyard
- Collector Substation
- Participating Parcel
- Non-Participating Parcel
- County Boundary
- City/Town Boundary
- State Route
- County Road

Modeled Shadow Flicker: Expected Values (Hours Per Year)

- 0
- 10
- 30
- 50
- 100
- 150

Scale 1:7,200
1 inch = 600 feet
0 300 600 Feet

Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

		1	2	3						
4	5	6	7	8	9	10				
11	12	13	14	15	16	17	18	19	20	
21	22	23	24	25	26	27	28	29	30	
31	32	33	34	35	36	37	38	39	40	
			41		42	43	44	45	46	

Hoffman Falls Wind **Madison County, NY**

Epsilon Associates Inc.

Figure 5-2, Map 33 of 46
Shadow Flicker Modeling Results - GE 158-6.1

G:\Projects2\NY\6239\MXD\11x17\Flicker\5-2_Shadow_Flicker_Modeling_Results_Map_Series_11x17_20240917.mxd

LEGEND

- Proposed Wind Turbine: GE 158-6.1 117m HH
- Participating Receptor
- Non-Participating Receptor
- Switchyard
- Collector Substation
- Participating Parcel
- Non-Participating Parcel
- County Boundary
- City/Town Boundary
- State Route
- County Road

Modeled Shadow Flicker: Expected Values (Hours Per Year)

- 0
- 10
- 30
- 50
- 100
- 150

Scale 1:7,200
1 inch = 600 feet

0 300 600 Feet

Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

		1	2	3						
4	5	6	7	8	9	10				
11	12	13	14	15	16	17	18	19	20	
21	22	23	24	25	26	27	28	29	30	
31	32	33	34	35	36	37	38	39	40	
			41		42	43	44	45	46	

Hoffman Falls Wind **Madison County, NY**

Epsilon Associates Inc.

Figure 5-2, Map 34 of 46

Shadow Flicker Modeling Results - GE 158-6.1

G:\Projects2\NY\6239\MXD\11x17\Flicker\5-2_Shadow_Flicker_Modeling_Results_Map_Series_11x17_20240917.mxd

LEGEND

- Proposed Wind Turbine: GE 158-6.1 117m HH
- Participating Receptor
- Non-Participating Receptor
- Switchyard
- Collector Substation
- Participating Parcel
- Non-Participating Parcel
- County Boundary
- City/Town Boundary
- State Route
- County Road

Modeled Shadow Flicker: Expected Values (Hours Per Year)

- 0
- 10
- 30
- 50
- 100
- 150

Scale 1:7,200
1 inch = 600 feet

0 300 600 Feet

Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

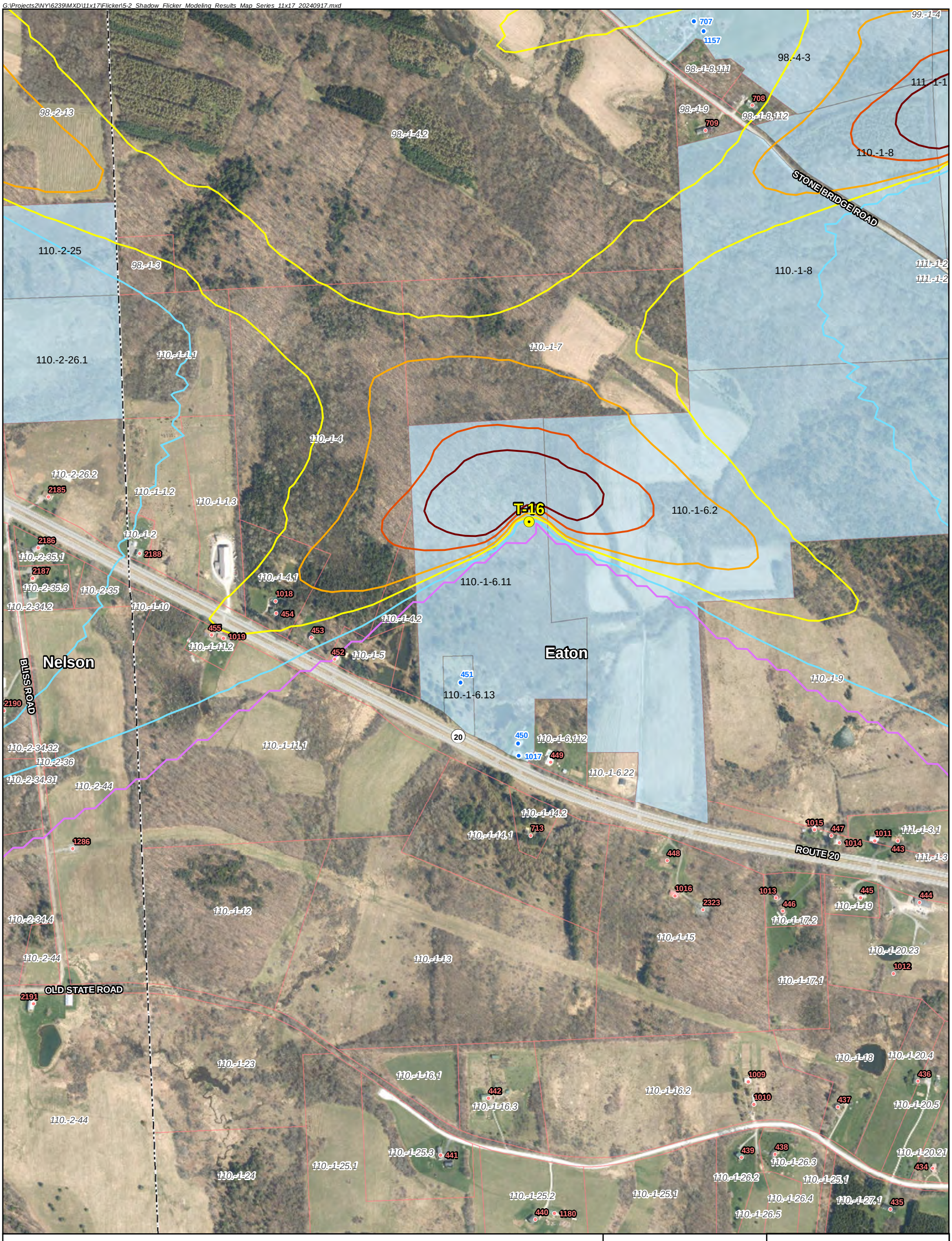
		1	2	3						
4	5	6	7	8	9	10				
11	12	13	14	15	16	17	18	19	20	
21	22	23	24	25	26	27	28	29	30	
31	32	33	34	35	36	37	38	39	40	
			41		42	43	44	45	46	

Hoffman Falls Wind **Madison County, NY**

Epsilon Associates Inc.

Figure 5-2, Map 35 of 46
Shadow Flicker Modeling Results - GE 158-6.1

G:\Projects2\NY\6239\MXD\11x17\Flicker\5-2_Shadow_Flicker_Modeling_Results_Map_Series_11x17_20240917.mxd



LEGEND

- Proposed Wind Turbine: GE 158-6.1 117m HH
- Participating Receptor
- Non-Participating Receptor
- Switchyard
- Collector Substation
- Participating Parcel
- Non-Participating Parcel
- County Boundary
- City/Town Boundary
- State Route
- County Road

Modeled Shadow Flicker: Expected Values (Hours Per Year)

- 0
- 10
- 30
- 50
- 100
- 150

Scale 1:7,200
1 inch = 600 feet
0 300 600 Feet

Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

		1	2	3						
4	5	6	7	8	9	10				
11	12	13	14	15	16	17	18	19	20	
21	22	23	24	25	26	27	28	29	30	
31	32	33	34	35	**36**	37	38	39	40	
			41		42	43	44	45	46	

Hoffman Falls Wind **Madison County, NY**

Epsilon Associates Inc.

Figure 5-2, Map 36 of 46
Shadow Flicker Modeling Results - GE 158-6.1

G:\Projects2\NY\6239\MXD\11x17\Flicker\5-2_Shadow_Flicker_Modeling_Results_Map_Series_11x17_20240917.mxd

T-18
111.-1-1
99.-1-24
99.-1-25
99.-1-29
Unknown
99.-1-33.1
99.-1-30
99.-1-34
111.-1-1
99.-1-32
99.-1-34
99.-1-36.11
99.-1-33.2
99.-1-31
700
99.-1-34
99.-1-34
110.-1-8
111.-1-2
111.-1-1
SWAMP ROAD
101
111.-1-18
1137
1159
710
1134
1158
1135
1136
STONE BRIDGE ROAD
110.-1-6.2
894
891
893
892
701
111.-1-1.3
702
Eaton
111.-1-2
111.-1-20
111.-1-18
UNNAMED STREET
111.-1-4
111.-1-5
OLD COUNTY ROAD
267
111.-1-43
111.-1-6
110.-1-9
266
111.-1-1.1
111.-1-21
1144
844
1145
111.-1-7
843
111.-1-22
111.-1-23.13
111.-1-3
111.-1-1
111.-1-3.1
111.-1-23.12
111.-1-8
264
265
111.14-1-1.4
111.14-1-1.3
111.14-1-13
262
111.14-1-1.11
394
263
111.-1-9.2
111.-1-11
794
396
395
110.-1-20.23
110.-1-20
111.14-1-1.2
111.14-1-14
110.-1-21
111.14-1-17
111.-1-9.1
393
213
212
994
211
110.-1-20.5
111.14-1-11
210
398
397
110.-1-20.3
111.-1-10.1
852
206
111.-1-11.2
111.-1-1.2
20
111.14-1-8
110.-1-20.21
399
111.14-1-3
205
111.-1-10.2
111.-1-12
204
389
111.14-1-6.13
392
391
203
110.-1-20.6
993
390
202
749
111.14-2-2
WILLIAMS CORNERS ROAD
388
851
111.-1-14
MYERST CIRCLE
433
110.-1-20.22
400
111.-1-10.11
ROUTE 20
201
110.-1-22
111.-1-13
387
384
111.14-1-6.11
OLD STATE ROAD
402
111.-1-15.1
111.14-2-3
963
110.-1-28
995
386
964
432
111.-1-15.18
111.-1-15.11
111.18-2-1
111.-1-10.12
401
850
1008
123.-1-1
111.-1-15.13
385
110.-1-27.1
123.-1-2.11
111.-1-15.17
111.18-2-3
111.18-1-1

LEGEND

- Proposed Wind Turbine: GE 158-6.1 117m HH
- Participating Receptor
- Non-Participating Receptor
- Switchyard
- Collector Substation
- Participating Parcel
- Non-Participating Parcel
- County Boundary
- City/Town Boundary
- State Route
- County Road

Modeled Shadow Flicker: Expected Values (Hours Per Year)

- 0
- 10
- 30
- 50
- 100
- 150

Scale 1:7,200
1 inch = 600 feet
0 300 600 Feet

Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

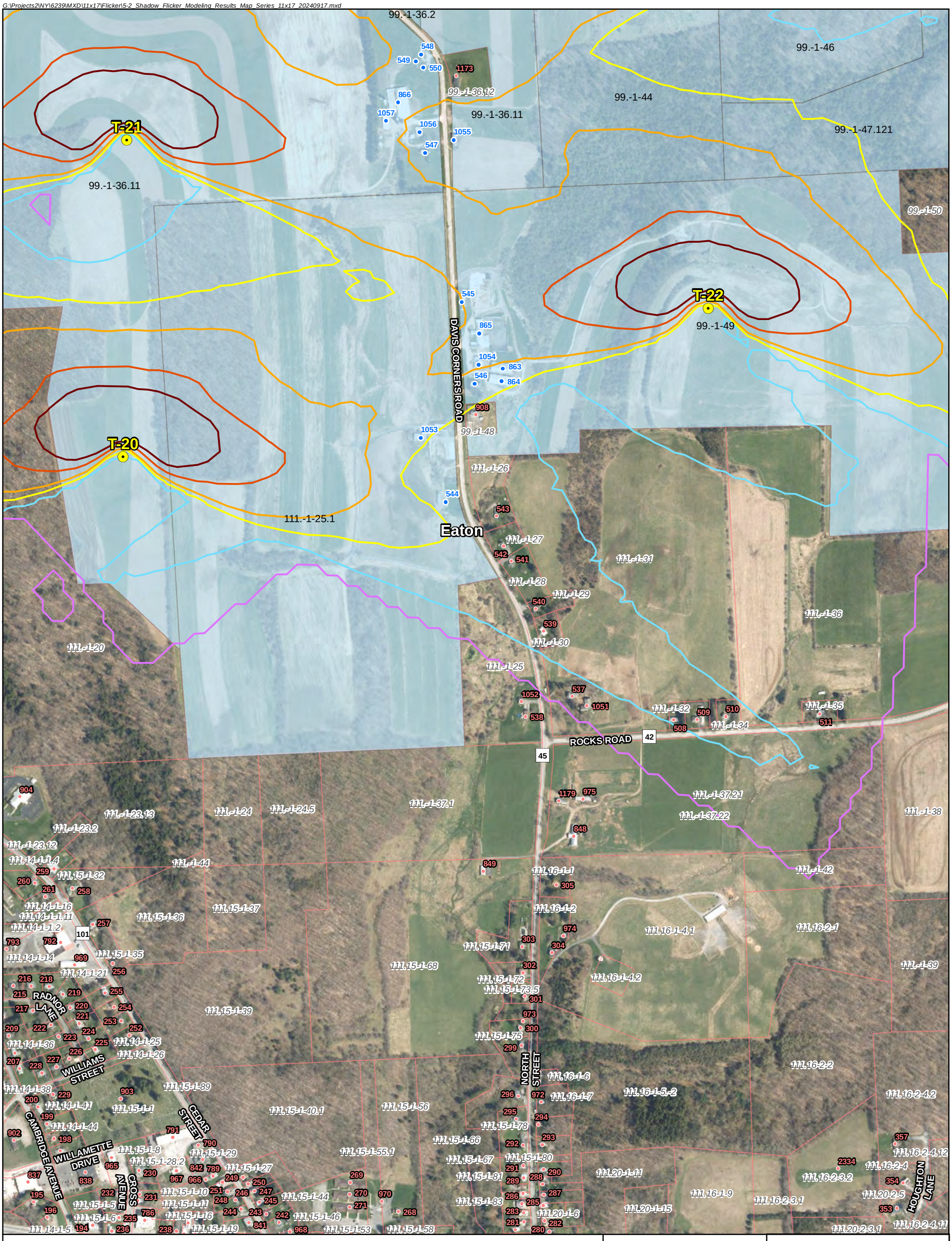
		1	2	3						
4	5	6	7	8	9	10				
11	12	13	14	15	16	17	18	19	20	
21	22	23	24	25	26	27	28	29	30	
31	32	33	34	35	36	37	38	39	40	
			41		42	43	44	45	46	

Hoffman Falls Wind **Madison County, NY**

Epsilon ASSOCIATES INC.

Figure 5-2, Map 37 of 46
Shadow Flicker Modeling Results - GE 158-6.1

G:\Projects2\NY\6239\MXD\11x17\Flicker\5-2_Shadow_Flicker_Modeling_Results_Map_Series_11x17_20240917.mxd



LEGEND

- Proposed Wind Turbine: GE 158-6.1 117m HH
- Participating Receptor
- Non-Participating Receptor
- Switchyard
- Collector Substation
- Participating Parcel
- Non-Participating Parcel
- County Boundary
- City/Town Boundary
- State Route
- County Road

Modeled Shadow Flicker: Expected Values (Hours Per Year)

- 0
- 10
- 30
- 50
- 100
- 150

Scale 1:7,200
1 inch = 600 feet

0 300 600 Feet

Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Hoffman Falls Wind **Madison County, NY**

Epsilon Associates Inc.

Figure 5-2, Map 38 of 46
Shadow Flicker Modeling Results - GE 158-6.1

G:\Projects2\NY\6239\MXD\11x17\Flicker\5-2_Shadow_Flicker_Modeling_Results_Map_Series_11x17_20240917.mxd

LEGEND

- Proposed Wind Turbine: GE 158-6.1 117m HH
- Participating Receptor
- Non-Participating Receptor
- Switchyard
- Collector Substation
- Participating Parcel
- Non-Participating Parcel
- County Boundary
- City/Town Boundary
- State Route
- County Road

Modeled Shadow Flicker: Expected Values (Hours Per Year)

- 0
- 10
- 30
- 50
- 100
- 150

Scale 1:7,200
1 inch = 600 feet

0 300 600 Feet

Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

		1	2	3						
4	5	6	7	8	9	10				
11	12	13	14	15	16	17	18	19	20	
21	22	23	24	25	26	27	28	29	30	
31	32	33	34	35	36	37	38	39	40	
			41		42	43	44	45	46	

Hoffman Falls Wind **Madison County, NY**

Epsilon Associates Inc.

Figure 5-2, Map 39 of 46

Shadow Flicker Modeling Results - GE 158-6.1

G:\Projects2\NY\6239\MXD\11x17\Flicker\5-2_Shadow_Flicker_Modeling_Results_Map_Series_11x17_20240917.mxd

LEGEND

- Proposed Wind Turbine: GE 158-6.1 117m HH
- Participating Receptor
- Non-Participating Receptor
- Switchyard
- Collector Substation
- Participating Parcel
- Non-Participating Parcel
- County Boundary
- City/Town Boundary
- State Route
- County Road

Modeled Shadow Flicker: Expected Values (Hours Per Year)

- 0
- 10
- 30
- 50
- 100
- 150

Scale 1:7,200
1 inch = 600 feet

0 300 600 Feet

Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

		1	2	3						
4	5	6	7	8	9	10				
11	12	13	14	15	16	17	18	19	20	
21	22	23	24	25	26	27	28	29	30	
31	32	33	34	35	36	37	38	39	40	
			41		42	43	44	45	46	

Hoffman Falls Wind **Madison County, NY**

Epsilon ASSOCIATES INC.

Figure 5-2, Map 40 of 46
Shadow Flicker Modeling Results - GE 158-6.1

G:\Projects2\NY\6239\MXD\11x17\Flicker\5-2_Shadow_Flicker_Modeling_Results_Map_Series_11x17_20240917.mxd

LEGEND

- Proposed Wind Turbine: GE 158-6.1 117m HH
- Participating Receptor
- Non-Participating Receptor
- Switchyard
- Collector Substation
- Participating Parcel
- Non-Participating Parcel
- County Boundary
- City/Town Boundary
- State Route
- County Road

Modeled Shadow Flicker: Expected Values (Hours Per Year)

- 0
- 10
- 30
- 50
- 100
- 150

Scale 1:7,200
1 inch = 600 feet
0 300 600 Feet

Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

		1	2	3					
4	5	6	7	8	9	10			
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
			41		42	43	44	45	46

Hoffman Falls Wind **Madison County, NY**

Epsilon Associates Inc.

Figure 5-2, Map 41 of 46
Shadow Flicker Modeling Results - GE 158-6.1