## Project Drawings

## C-1 Project Drawings - Generation Portion

## BALL HILL WIND PROJECT PRELIMINARY PLANS <br> TOWNS OF HANOVER AND VILLENOVA CHAUTAUQUA COUNTY










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| BALL HILL WIND FARM CULVERT SUMMARY |  |  |  |  |  |  |
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| Culvert ID | ${ }_{\substack{\text { Drainge } \\ \text { Area (ac) }}}$ | Drainage Area (sq mi) | $\begin{gathered} \hline \text { Calculated } \\ \text { Culvert } \\ \text { Diameter (in) } \end{gathered}$ | $\begin{aligned} & \text { Proposed } \\ & \text { Culver } \\ & \text { Dianeref } \\ & \text { (in) } \end{aligned}$ |  | $\underbrace{\text { cow }}_{\substack{\text { 25- Year Peak Flow } \\ \text { (ts) }}}$ |
| CUUVERT 11-1 | 15.82 | 0.02 | 30 |  | 1 | 31.98 |
| CULVERT 11-2 | 12.10 | 0.02 | 30 |  | 1 | 26.34 |
| CUUVERT 11-3 | 4.38 | 0.01 | 18 |  | 1 | 10.99 |
| CUUVERT 13-1 | 0.86 | 0.00 | 12 |  | 1 | 2.81 |
| CULVERT 13-2 | 16.67 | 0.03 | 30 |  | 1 | 32.96 |
| CUUVERET 15-1 | 0.44 | 0.00 | 12 |  | 1 | 1.37 |
| CUUVERT 16-1 | 17.26 | 0.03 | 30 |  | 1 | 31.49 |
| CUUVERT 17-1 | 3.82 | 0.01 | 18 |  | 1 | 9.84 |
| CUUVEERT 17-2 | 12.34 | 0.02 | 30 |  | 1 | 25.39 |
| CULVERT 2-1 | 15.35 | 0.02 | 30 |  | 1 | 30.90 |
| CUUVERT $21-1$ | 0.56 | 0.00 | 12 |  | 1 | 1.91 |
| CUUVERT $21-2$ | 70.92 | 0.11 | 48 |  | 1 | ${ }^{86.82}$ |
| CUULVERT 21-3 | 39.60 | 0.06 | 48 |  | 1 | 55.75 |
| CULVERT 2-2 | 1.01 | 0.00 | 12 |  | 1 | ${ }^{3.31}$ |
| CUULVER 23-1 | 9.72 | 0.02 | 24 |  | 1 | 21.42 |
| CULVEER 23 -2 | 11.19 | 0.02 | 30 |  | 1 | 23.52 |
| CUUVERER 23-3 | 3.47 | 0.01 | 18 |  | 1 | 8.97 |
| CULVERT 27-1 | 0.09 | 0.00 | 12 |  | 1 | 0.35 |
| CUUVERT 28.1 | 0.15 | 0.00 | 12 |  | 1 | 0.55 |
| CULVERT $28-2$ | 107.98 | 0.17 | 54 |  | 1 | ${ }_{130.34}$ |
| CULVERT 28-3 | 23.42 | 0.04 | 36 |  | 1 | 40.89 |
| CULVERT 30.1 | 1.18 | 0.00 | 12 |  | 1 | 3.70 |
| CULVERT $30-2$ | 4.17 | 0.01 | 18 |  | 1 | 10.60 |
| CUULVERT 30.3 | 3.68 | 0.01 | 18 |  | 1 | 10.60 |
| CUUVERT 30.4 | ${ }^{145.81}$ | 0.23 | 72 |  | 1 | 174.76 |
| CULVERT 30.5 | 72.68 | 0.11 | 48 |  | 1 | 99.61 |
| CULVERT 3-1 | 0.81 | 0.00 | 12 |  | 1 | 2.73 |
| CULVERT 31-1A | 0.04 | 0.00 | 12 |  | 1 | 0.14 |
| CUUVERT 31-2 | 0.23 | 0.00 | 12 |  | 1 | 0.84 |
| CUUVERT $31-3$ | 10.07 | 0.02 | 24 |  | 1 | 22.57 |
| CULVEER $31-4$ | 3.09 | 0.00 | 18 |  | 1 | 7.78 |
| CULVEER 31.5 | 19.67 | 0.03 | 36 |  | 1 | 37.67 |
| CULVEER 31-6 | 6.97 | 0.01 | ${ }^{24}$ |  | 1 | 14.97 |
| CUUVERT $31-7$ | 0.76 | 0.00 | 12 |  | 1 | 2.30 |
| CULVERT 3 -2 | 4.43 | 0.01 | 18 |  | 1 | 11.02 |
| CUUVERT $33-1$ | 76.96 | 0.12 | 54 |  | 1 | 112.14 |
| CUUVERET $33-2$ | 8.30 | 0.01 | ${ }^{24}$ |  | 1 | 19.69 |
| CUUVERT $33-3$ | 16.57 | 0.03 | 30 |  | 1 | 33.99 |
| CUUVERT $33-4$ | 50.47 | 0.08 | 48 |  | 1 | 81.15 |
| CULVERT 33.5 | 1.43 | 0.00 | 18 |  | 1 | 4.49 |
| CULVERT 34.1 | 10.42 | 0.02 | 24 |  | 1 | 21.59 |
| CUUVERT $35-1$ | 28.15 | 0.04 | 36 |  | 1 | 47.08 |
| CUUVERT $35-2$ | ${ }^{11.33}$ | 0.02 | 30 |  | 1 | 23.51 |
| CUUVERT 36.1 | 31.92 | 0.05 | 48 |  | 1 | 57.63 |
| CUUVERT 36-2 | 309.79 | 0.48 | 84 |  | 1 | 316.61 |
| CUUVERT $36 \cdot 3$ | 10.81 | 0.02 | 30 |  | 1 | 26.14 |
| CUUVERT $36 \cdot 4$ | 914.53 | 1.43 | 96 |  | 1 | 427.15 |
| CUUVERT 37.1 | 5.68 | 0.01 | 24 |  | 1 | 13.52 |
| CUUVERT 39.1 | 5.11 | 0.01 | 24 |  | 1 | 12.53 |
| CULVERT 4-1 | 4.44 | 0.01 | 18 |  | 1 | 10.29 |
| CULVERT 5-1 | 8.41 | 0.01 | 24 |  | 1 | 16.89 |
| CULVERT 5-2 | 14.09 | 0.02 | 30 |  | 1 | 24.91 |
| CuIVERT 5-3 | 3.18 | 0.00 | 18 |  | 1 | 7.86 |
| Culvert 5-4 | 9.23 | 0.01 | 24 |  | 1 | 18.89 |
| CULVERT 5-5 | 7.15 | 0.01 | 24 |  | 1 | 18.41 |
| CULVERT 7 -1 | 3.29 | 0.01 | 18 |  | 1 | 8.79 |
| CULVERR 8 -1A | 0.27 | 0.00 | 12 |  | 1 | 0.98 |
| CULVERT 8-2 | 45.59 | 0.07 | 48 |  | 1 | 65.08 |
| CuIVERT 8 -3 | 79.40 | 0.12 | 48 |  | 1 | 105.23 |
| CULVERT 9-1 | 4.29 | 0.01 | 18 |  | 1 | 10.21 |
| CULVERT 9-2 | 1.59 | 0.00 | 18 |  | 1 | 4.62 |







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CONCRETE WASHOUT AREA


BIORETENTION AREA DETAIL


DEWATERING ENERGY DISSAPATOR OUTLET OPTION


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DAN VEW


SEDIMENT BASIN DETAIL


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 (ind PUMPED DISCHARGE SEDIMENT CONTROL DEVICE ("DIRT BAG") CONTROL DEVICE
TYPICAL SWAMP MAT DETAIL


DEWATERING OPERATION WITH SURFACE STABILIZED OUTLET OPTION



SLOPE BREAKER DETAIL



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$\frac{\text { RUBBER BAR DETAIL }}{\text { Not To scale }}$


PERMANENT CULVERT AT REGULATED STREAM CROSSINGS


## C-2 Project Drawings - Transmission Portion









