

1 **DIRECT TESTIMONY**
2 **OF**
3 **WILLIAM PATRICK GIGLIO**

4
5 **ON BEHALF OF**
6 **LOUDOUN COUNTY, VIRGINIA**
7 **BEFORE THE**
8 **STATE CORPORATION COMMISSION OF VIRGINIA**
9 **CASE NOS. PUR-2024-00032 AND PUR-2024-00044**
10 **(COLLECTIVELY, THE CONSOLIDATED CASES)**

11
12 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

13 A. William Patrick Giglio. Loudoun County Department of Planning and Zoning, 1 Harrison
14 Street, Leesburg Virginia.

15 **Q. WHAT IS YOUR EDUCATION AND BACKGROUND?**

16 A. I have a Bachelor of Arts in History from the University of Mary Washington and
17 a Master of Fine Arts, specializing in Historic Preservation from the Savannah College of
18 Art and Design. I have more than 30 years of experience in land-use planning and
19 development and historical preservation. My resume is attached to this testimony as
20 **Exhibit WPG-1** for your reference.

21 **Q. WHERE DO YOU WORK? WHAT IS YOUR CURRENT ROLE?**

22 A. I am Senior Planner, in the Community Planning Division of the Loudoun County
23 Department of Planning and Zoning and have been employed as a land use planner with
24 the County for over 23 years. Prior to that I worked with a cultural resources management
25 firm doing preservation planning and architectural survey across the mid-Atlantic.

26 **Q. DESCRIBE WHAT YOU DO IN YOUR CAPACITY AS SENIOR PLANNER.**

27 A. My role as a Senior Planner includes a wide variety of projects and responsibilities
28 that include the review of legislative applications for conformance with the policies of the
29 Loudoun County 2019 General Plan (2019 General Plan). I serve as project manager and

30 author for amendments to the 2019 General Plan and am currently assisting in the County's
31 Data Center Locations and Design Comprehensive Plan and Zoning Ordinance
32 Amendment project. I also coordinate with County, state, federal, and local organizations
33 on the review of special projects related to transportation, water and wastewater
34 infrastructure, environmental permitting, and high voltage transmission corridors.

35 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

36 A. My testimony provides background and context for the County's policies governing
37 land use and development, heritage and environmental resources, and electrical
38 infrastructure. The County's long-range vision for the Route 7 Corridor has always been
39 for the development of high-quality office and employment uses to be integrated with
40 mixed-use commercial and residential communities. The quality development policies of
41 the 2019 General Plan identify anticipated characteristics that contribute to a sense of place
42 that include size, scale and configuration of buildings and their relationship to the
43 surrounding built environment and natural areas. These include views to and from
44 buildings and the relationship of other uses within the community.¹ The proposed
45 introduction of an overhead, high-voltage transmission corridor will significantly impact
46 the visual characteristics and sense of place of those existing communities within the Route
47 7 Corridor and is not in keeping with the community characteristics envisioned for the
48 Suburban Mixed Use or Residential Neighborhood Place Types. **See Exhibit WPG-2**
49 **(Place Types and relevant Quality Development Policies)**. Specifically, the County's
50 electrical policies in the 2019 General Plan call for electrical providers to minimize impacts
51 on roadways, heritage resources, and existing residential communities when proposing

¹ 2019 GP, Chapter 2, Quality Development, Place Types, text.

52 high-voltage transmission corridors and to consider undergrounding where possible.² See
53 **Exhibit WPG-3 (Electrical Policies)**. Dominion has not adequately considered options
54 for undergrounding a portion of the proposed route to mitigate impacts and to maintain the
55 visual characteristic and sense of place established by the existing employment, business
56 and residential uses in the Route 7 corridor.

57 My testimony is also intended to introduce a pilot program for undergrounding
58 high-voltage 500kV transmission lines. The pilot program as proposed has several
59 components, including selection criteria for three (3) to five (5) underground pilot projects,
60 a cost-shifting mechanism, and a planning component. I will speak more specifically about
61 the planning component of the proposed pilot program.

62 **Q. HAS YOUR ROLE AS SENIOR PLANNER ALLOWED YOU TO DEVELOP A**
63 **FAMILIARITY WITH THE 2019 GENERAL PLAN?**

64 A. I was a contributor, author, and facilitator for the development and adoption of the
65 2019 General Plan and use it almost daily in my review of applications. My familiarity and
66 knowledge of the policies of the 2019 General Plan and the history of previous iterations
67 of the County's Comprehensive Plans are important in understanding the land use pattern
68 and evaluating land use cases and projects based on County policies.

69 **Q. DESCRIBE HOW YOUR WORK INTERSECTS AND REQUIRES FAMILIARITY**
70 **WITH THE 2019 GENERAL PLAN.**

71 A. The Community Planning Division is responsible for the County's long-range
72 planning and growth management. We are responsible for providing guidance and
73 evaluating applications for conformance with the policies of the 2019 General Plan.

² 2019 GP, Chapter 6, Electrical, Action 6.1.C.

74 **Q. WHAT IS THE 2019 GENERAL PLAN? HOW WAS IT DEVELOPED?**

75 A. The 2019 General Plan is the culmination of a collaborative multiyear effort and
76 public outreach campaign that brought together Loudoun’s citizens, elected and appointed
77 officials, stakeholders, and County staff to create a new comprehensive plan for the County.
78 The process began in 2016 with the adoption of a Charter by the Board of Supervisors
79 (Board) that identified key issues to be addressed in the new comprehensive plan: Growth
80 Management, Land Use, Transportation, Natural, Environmental, and Heritage Resources,
81 Community Facilities and Amenities, Economic Development, and Fiscal Management.
82 The 2019 General Plan built on the County’s previous planning efforts and existing
83 policies, as well as introduced new planning concepts and approaches.

84 **Q. WHAT IS THE PURPOSE OF A COMPREHENSIVE PLAN?**

85 A. The Comprehensive Plan includes the 2019 General Plan and the Loudoun County
86 2019 Countywide Transportation Plan. It is a policy document that provides guidance for
87 elected officials and other governmental decision-makers as to where and how the
88 community will grow in the long-term. A comprehensive plan provides an opportunity for
89 a community to think collectively about its future and to develop a shared set of values and
90 strategies intended to achieve a unified vision. A comprehensive plan is a critical tool for
91 managing growth, the provision of capital facilities and infrastructure, and the fiscal health
92 of communities. It is especially important for high growth communities like Loudoun
93 County, where change can happen quickly, and a comprehensive plan is needed to guide
94 that change. In accordance with the Code of Virginia it must be reviewed at least every five
95 years. The County currently has several active comprehensive plan amendments that are

96 considering changes to the polices of the 2019 General Plan related to rural historic villages
97 and data center development and design.

98 **Q. WHAT HAS BEEN THE COUNTY’S PLANNING APPROACH?**

99 A. For decades, the County has supported the protection of its rural and agricultural
100 areas to the west and focused development in suburban areas to the east. The County has
101 accommodated growth near existing transportation networks and infrastructure in the east
102 to support development in a fiscally sound manner, where the market forces have been
103 strongest for new residential and employment development. Loudoun’s growth
104 management policies have resulted in some of the most highly valued residential
105 communities in the region, while also encouraging new business development.

106 The framework for land planning in Loudoun County consists of four types of
107 policy areas – Urban, Suburban, Transition, and Rural – and several smaller planning areas
108 designated as Joint Land Management Areas (JLMA) surrounding the incorporated Towns
109 and twelve Rural Historic Villages. These areas represent distinct planning communities
110 with specific policies, strategies, and actions that address the anticipated development
111 pattern and needs of each area.

112 **Q. IS HISTORIC CHARACTER IMPORTANT TO THE COUNTY AND THE**
113 **INCORPORATED TOWNS?**

114 A. Yes. Historic character is an important feature of the County, its part of the County’s
115 identity along with its rural landscape. Historic character and sites are important to our
116 tourism industry and contribute to the sense of place of residents.

117 **Q. WHAT IS A HERITAGE RESOURCE?**

118 A. Heritage resources are those resources, both man-made and natural, from the past
119 that exist to inform present and future generations of our history as a society. The 2019
120 General Plan includes the Loudoun County Heritage Preservation Plan, which includes
121 chapters and policy guidance on various topics such as archeological resources, historic
122 standing structure, historic districts, cultural landscapes, and heritage tourism.

123 **Q. WOULD YOU CLASSIFY PROTECTION AND PRESERVATION OF THE**
124 **COUNTY’S NATURAL, ENVIRONMENTAL, AND HERITAGE RESOURCES AS**
125 **IMPORTANT COMPONENTS OF THE 2019 GENERAL PLAN?**

126 A. Yes, very important. We have an entire chapter devoted to it in the 2019 General
127 Plan. The County’s policies are designed to protect and enhance the County’s natural,
128 environmental, and heritage resources, which are fundamental to the County’s unique sense
129 of place and character.

130 **Q. DO OVERHEAD TRANSMISSION LINES IMPACT HERITAGE RESOURCES**
131 **OR HISTORIC CHARACTER?**

132 A. Yes, overhead lines have a significant visual impact on the viewshed which
133 compromise the historic setting and character of historic resources as they relate to the
134 surrounding landscape.

135 **Q. WHAT ABOUT THE NEED FOR OVERHEAD TRANSMISSION LINES TO**
136 **ACCOMMODATE INCREASED ELECTRICAL DEMAND?**

137 A. Expanded electrical capacity is necessary; however, the vision for fiscal
138 management and public infrastructure as set forth in the 2019 General Plan is to provide
139 high quality, efficient, and *environmentally sensitive* infrastructure systems. The 2019

140 General Plan has specific policies related to the location and design of electrical generation
141 facilities, transmission corridors, and substations.

142 **Q. WHAT DO YOU MEAN BY ENVIRONMENTALLY SENSITIVE?**

143 A. As demand for electrical power continues, consideration should be given to the
144 appearance and location of electrical generation facilities, substations and power lines to
145 ensure these facilities are adequately screened and buffered to reduce the visual impact of
146 these facilities on neighboring uses and the community as called for in the policies of the
147 2019 General Plan.

148 **Q. ARE THERE ANY ACTION ITEMS IN THE PLAN RELATED TO THE**
149 **ELECTRICAL NEEDS OF THE COUNTY?**

150 A. Yes, the County’s Fiscal Management Policies in Chapter 6 of the 2019 General
151 Plan “support expanded electrical capacity through generation facilities that use clean
152 burning and environmentally sound fuel sources and energy efficient design.” Some of the
153 other supporting action items in the 2019 General Plan: encourage the safe grouping and
154 burying of utility lines and facilities; and calls for the County to work with electrical
155 providers to identify potential high voltage distribution substation locations that minimize
156 impacts on key travel corridors, sensitive cultural and historic resources, and existing
157 residential communities and to place high-voltage distribution lines underground when
158 approaching such areas where feasible. *See Exhibit WPG-3.*

159 **Q. CAN YOU TELL US MORE ABOUT THE COUNTY’S ENERGY POLICIES AS**
160 **RELATED TO TRANSMISSION LINE CORRIDORS GENERALLY?**

161 A. Over the past five years, the County has reviewed and/or provided comment on
162 numerous applications for high-voltage transmission corridors in Eastern Loudoun, which

163 included the rebuilt and reconductoring of existing transmission lines and the establishment
164 of new high-voltage transmission corridors in Data Center Alley. The majority of these
165 new transmission routes are located in areas designated in the 2019 General Plan as either
166 the Suburban Industrial/Mineral Extraction or Suburban Employment Place Type, where
167 the majority of the County’s manufacturing, warehousing, office, research and
168 development, contractor services, and data center uses are located. Both the Suburban
169 Industrial/Mineral Extraction and Suburban Employment Place Types *preclude* residential
170 development to ensure compatibility amongst these business uses and maintain the
171 commercial viability of these areas. Based on the types of uses within Suburban
172 Industrial/Mineral Extraction or Suburban Employment Place Type and the energy
173 demands associated with these business uses the County anticipates and has supported the
174 development of high-voltage transmission corridors to serve these areas.

175 In more residential and mixed-use Place Types, on the other hand, the 2019 General
176 Plan calls for identification of opportunities to underground high-voltage lines where
177 possible, in consultation with electrical providers. In practice, however, this consideration
178 has been perfunctory, and has not led to meaningful undergrounding of high-voltage lines
179 in locations rich in community assets.

180 **Q. IN YOUR CAPACITY AS SENIOR PLANNER, PLEASE DESCRIBE THE**
181 **EXPERIENCE YOU HAVE HAD DEALING WITH PUBLIC UTILITIES AND**
182 **THE PLACEMENT OF TRANSMISSION LINES IN THE COUNTY.**

183 A. I have been the primary reviewer for the majority of the applications for electric
184 transmission corridors in the County for the past ten years and have prepared numerous
185 memos to both Dominion Energy and state agencies for the review of these proposed

186 electric transmission corridors. I am the project lead on the review of these application and
187 use a team approach relying on the the expertise of our Natural Resources Team and
188 Preservation Team for comments, as well as my land use planning and development
189 experience to provide comments.

190 **Q. IN YOUR EXPERIENCE, WHAT HAS THE COUNTY AND ITS PLANNING**
191 **STAFF’S ROLE HISTORICALLY BEEN IN THE ROUTING CHOICES OF**
192 **TRANSMISSION LINES WHEN A PUBLIC UTILITY IS DEVELOPING AN**
193 **APPLICATION TO SUBMIT TO THE COMMISSION?**

194 A. A lot of the early applications the County reviewed were for the replacement and/or
195 upgrading of existing transmission corridors. However, in recent years we have seen more
196 applications for the expansion of existing corridors to accommodate additional
197 transmission lines or greenfield routes proposing new construction to address electrical
198 demand.

199 **Q. HAVE YOU EVER WORKED WITH AN ELECTRICAL PROVIDER, PRE-**
200 **APPLICATION, ON IDENTIFYING UNDERGROUND PLACEMENT**
201 **ALTERNATIVES FOR PROPOSED TRANSMISSION LINES THE COUNTY**
202 **FEARED WOULD NOT BE SUFFICIENTLY “ENVIRONMENTALLY**
203 **SENSITIVE,” AS YOU PUT IT?**

204 A. No, the County has never had an application that proposed undergrounding of
205 transmission lines as part of the original proposal. The only location where we have
206 underground transmission lines in the County is along an approximately one-mile section
207 of the Washington and Old Dominion (W&OD) Trail near Clarks Gap west of Leesburg,

208 and that happened as a Pilot Program after extensive negotiations by elected officials from
209 the County and the State.

210 **Q. HAVE YOU REVIEWED DOMINION’S APPLICATION IN CASE NO. PUR-2024-**
211 **00032 (THE “ASPEN-GOLDEN LINE”)?**

212 A. I did a thorough review of the application and included comments in a memo to
213 Dominion Energy dated March 21, 2024, which is attached to this testimony as **Exhibit**
214 **WPG-4.**

215 **Q. DESCRIBE YOUR EXPERIENCE WITH THE ASPEN-GOLDEN LINE, BOTH**
216 **PRE-APPLICATION AND POST-APPLICATION.**

217 A. County staff was engaged in the preliminary review of the proposed transmission
218 route beginning in the Fall of 2022 and participated in periodic virtual and in-person
219 meetings with representatives from Dominion to review and discuss potential routes,
220 existing and future land uses, visual impacts, and potential impacts to environmental and
221 heritage resources. Since the SCC filing, County Staff has also participated in meetings to
222 propose undergrounding a portion of the route along Route 7 and routing related to Broad
223 Run Variation A and B on the Loudoun Water property.

224 **Q. DOES ANYTHING STAND OUT TO YOU AS UNIQUE ABOUT THE ASPEN-**
225 **GOLDEN ROUTE?**

226 A. The proposed Aspen-Golden Route is the first and only greenfield route in eastern
227 Loudoun that is proposed to bisect areas that are designated as the Suburban Mixed Use
228 and Suburban Residential Place Type in the 2019 General Plan. The affected area contains
229 existing vertically integrated mixed-use residential and commercial centers, traditional
230 residential neighborhoods, office parks, with additional neighborhood-serving retail

231 commercial centers planned adjoining Route 7. The proposed transmission poles will be
232 the tallest structures in the vicinity and will have a significant visual impact on residents
233 and businesses, heritage resources, as well as motorists utilizing the roadways within the
234 viewshed of the proposed overhead transmission route. For these reasons the County
235 supports undergrounding an approximately three-mile segment of the proposed
236 transmission corridor adjoining Route 7 from approximately the intersection of Belmont
237 Ridge Road to Ashburn Village Boulevard. The segment surrounding the area proposed for
238 undergrounding includes the master-planned residential communities of Lansdowne and
239 Belmont, Inova Loudoun Hospital, Howard Hughes Medical Institute Janelia Research
240 Campus, Community Church, as well office parks and commercial retail centers.
241 Significant heritage resources including Belmont Cemetery for the Enslaved
242 (44LD9578/053-6238), Belmont Manor (053-0106), Belmont Chapel and Cemetery (053-
243 0278), and Janelia (053-0084) are located in the area being proposed for undergrounding.

244 The request for consideration of undergrounding this segment of the proposed
245 transmission corridor is in keeping with the County’s electrical policies. Specifically the
246 electrical polices of the 2019 GP, state that the County will “work with electrical providers
247 to identify potential high voltage distribution lines and substation locations that minimize
248 impacts on key travel corridors, sensitive cultural and historic resources, and existing
249 residential communities or to place high voltage distribution lines underground when
250 approaching such areas; and where possible, use existing transmission corridors and
251 substation sites to expand capacity.”³ The proposed underground portion of the route was
252 specifically identified by the County for undergrounding because it contains the highest

³ 2019 GP, Chapter 6, Electrical, Action 6.1.B

253 concentration of existing residential uses and heritage resources within the viewshed of the
254 proposed route. Undergrounding this portion of the route will eliminate the visual impact
255 of the proposed above ground route on residents and heritage resources in conformance
256 with the electrical polices of the 2019 GP.⁴

257 **Q. CAN YOU DESCRIBE THE DOCUMENT ATTACHED TO THIS TESTIMONY AS**
258 **“EXHIBIT WPG-5”?**

259 A. It is a graphic depicting the Aspen-Golden Route with an overlay of Place Types
260 from the Comprehensive Plan. It shows that the segment the County proposes to
261 underground is in Suburban Mixed Use and Suburban Residential Place Types.

262 **Q. WHO CREATED THIS DOCUMENT?**

263 A. An outside consulting firm created this document under my guidance.

264 **Q. AND THE DOCUMENT IS A TRUE AND CORRECT COPY OF THE GRAPHIC**
265 **YOU HAD CREATED?**

266 A. It is.

267 **Q. ARE THERE ANY OTHER HERITAGE RESOURCES THAT WOULD BE**
268 **IMPACTED BY THE OVERHEAD TRANSMISSION LINES?**

269 A. The proposed route is within the viewshed of numerous historic resources listed on
270 the National Register of Historic Places and/or are deemed to have state or local
271 significance. The proposed route will have a visual impact on segments of the W&OD Trail
272 (053-0276), the remains of Houghs/Cook Mavins Mill (053-0339) on Goose Creek on the
273 western portions of the proposed route, and possibly the Broad Run Bridge and Toll House
274 (053-0110) near the intersection of Route 7 and Route 28.

⁴ 2019 GP, Chapter 6, Electrical, Action 6.1.B and 6.1.C

275 **Q. IS THERE ANY INTERACTION BETWEEN THE COUNTY'S**
276 **COMPREHENSIVE PLAN AND ZONING ORDINANCE RELATED TO**
277 **OVERHEAD TRANSMISSION LINES?**

278 A. The segment of Route 7 from Goose Creek to Route 28 has been identified in
279 iterations of the County's Comprehensive Plan as an important gateway corridor. Much of
280 the road frontage along Route 7 features larger parking and building setback that are
281 intended to provide a campus-like appearance with large areas of landscape buffering
282 framing views to buildings. The proposed transmission corridor associated with Aspen to
283 Golden Route adjoining Route 7 is located within an area designated by the County for a
284 required buffer adjoining the VDOT right-of-way. The Loudoun County Zoning Ordinance
285 (Zoning Ordinance) requires a 100-foot Gateway Corridor Buffer with enhanced
286 landscaping along this segment of Leesburg Pike, in addition to a 125-foot parking and
287 200-foot building setback from the roadway.⁵ The location of the proposed transmission
288 corridor proximate to the roadway and within the required buffers avoids direct impacts to
289 existing buildings and structures. However, while the County allows utilities within the
290 Gateway Corridor Buffer, the presence of the proposed 180-foot transmission poles
291 significantly compromises the visual quality of the roadway corridor and views from
292 adjoining properties. The proposed overhead route and the presence of the proposed 180-
293 foot transmission poles are in direct conflict with the intent and purpose of the County's
294 Gateway Corridor Buffer adjoining Route 7 which are to provide a landscaped buffer
295 between the roadway and existing uses.

⁵ Zoning Ordinance, Section 7.04.02

296 **Q. AS PART OF THE GATEWAY CORRIDOR CONCEPT—AND IN**
297 **FURTHERANCE OF THE GOALS OF THE COMPREHENSIVE PLAN AS YOU**
298 **ARTICULATED THEM—HAS THE COUNTY OR THE BOARD OF**
299 **SUPERVISORS ACQUIRED ANY INTERESTS IN LAND ALONG THE SECTION**
300 **OF ROUTE 7 ALONG WHICH THE PROPOSED UNDERGROUND SEGMENT**
301 **WILL RUN?**

302 A. My understanding is that the open spaces easements on the Lansdowne property
303 were established to maintain a forested buffer and protect views of the community from
304 the roadway. The Belmont Historic Viewshed easement was proffered to maintain the
305 historic viewshed of the Belmont manor house and views to the north towards Route 7.

306 **Q. IN YOUR OPINION, IS CONSTRUCTING THE ASPEN-GOLDEN LINE**
307 **ENTIRELY OVERHEAD IN CONFORMANCE WITH THE 2019 GENERAL**
308 **PLAN?**

309 A. No. The location, character, and extent of the overhead transmission lines is not in
310 accord with the County's adopted comprehensive plan or energy policies as these
311 transmission lines will negatively impact historic and environmental resources and
312 viewsheds of residential communities. The policies of the 2019 General Plan specifically
313 call for the County to work with electrical providers to place such high voltage distribution
314 lines underground when approach such areas.

315 **Q. HOW DID THE COMPANY JUSTIFY ITS UNWILLINGNESS TO CONSIDER AN**
316 **UNDERGROUND ALTERNATIVE ALONG ROUTE 7 IN DISCUSSIONS WITH**
317 **THE COUNTY?**

318 A. In several meetings while discussing undergrounding routes and options with the
319 Dominion staff the larger size of required transitions stations to place the above-ground
320 lines underground and then to bring the underground line back above ground where
321 identified as problematic. Dominion staff also identified the presence of diabase rock in
322 the area which would make trenching for the underground route more difficult and
323 expensive.

324 **Q. DO YOU FEEL THE IMPACTS TO SCENIC ASSETS, HISTORICAL ASSETS,**
325 **VIEWSHEDS, AND COUNTY EASEMENTS WERE ADEQUATELY**
326 **CONSIDERED BY THE COMPANY PRE-APPLICATION, IN ACCORDANCE**
327 **WITH THE 2019 GENERAL PLAN? EXPLAIN.**

328 A. No, Dominion in the routing process appears to have identified those areas where
329 there were sufficient unobstructed areas to accommodate the proposed transmission
330 corridor which primarily included the required setback adjoining Route 7. Some
331 consideration was given to the routing near the Belmont Cemetery for the Enslaved and
332 Freedom Center to maintain the existing forest cover to serve as a visual buffer. However,
333 other visual impacts to Belmont Manor and residential properties in Lansdowne and
334 Belmont, and adjoining businesses were not addressed.

335 **Q. IN THE COUNTY'S DISCUSSIONS WITH THE COMPANY PRE-APPLICATION,**
336 **DID THE COMPANY INDICATE THAT THE LOSS OF PROPERTY VALUES**
337 **ALONG HISTORIC ROUTE 7 HAD FACTORED INTO ITS COST-BENEFIT**
338 **ANALYSIS OF UNDERGROUNDING?**

339 A. I was not part of any of these discussions if they occurred.

340 **Q. IN LIGHT OF YOUR TESTIMONY THUS FAR, IN YOUR OPINION, DOES THE**
341 **PROCEDURE CURRENTLY UTILIZED BY PUBLIC UTILITIES—WHEREBY**
342 **LOCALITIES ARE CONSULTED PRE-APPLICATION AND UNDERGROUND**
343 **OPTIONS ARE INFORMALLY DISCUSSED—PROVIDE ADEQUATE**
344 **CONSIDERATION OF THE IMPACTS TO SCENIC, CULTURAL, AND**
345 **HISTORICAL ASSETS ALONG PROPOSED TRANSMISSION LINES,**
346 **SPECIFICALLY, HOW UNDERGROUNDING WOULD MITIGATE OR**
347 **ELIMINATE THESE NEGATIVE EXTERNALITIES?**

348 A. No.

349 **Q. CAN YOU ELABORATE?**

350 A. Sure. I believe that the process has historically only considered above ground
351 transmission routes as the only viable option for utility providers based on cost, the
352 complexity of engineering underground routes, and the need for the timely completion of
353 projects.

354 It's always plausible to claim that the visual impact to a residential neighborhood
355 or heritage resources aren't worth the additional project cost for undergrounding an entire
356 route or a portion of a route. The fact is that the presence of an overhead transmission routes
357 with towers more than 180-feet in height will forever change the visual landscape and the
358 way property owners and visitors perceive a community. The current application has an
359 opportunity to mitigate these visual impacts in an area where residential and planned
360 mixed-use developments, heritage resources and County viewshed and scenic easements
361 are present.

362 **Q. WHAT DOES THE COUNTY PROPOSE AS AN ALTERNATIVE?**

363 A. The County is proposing the Commission adopt a pilot program for undergrounding
364 500kV powerlines.

365 The pilot program would involve the Commission selecting between three (3) and
366 five (5) pilot projects with the express goal of learning about undergrounding, to support
367 its wider adoption. The County believes that its hybrid underground proposal in this case
368 will make a perfect first project selection in that cohort. The economic component of the
369 pilot program will be addressed by a different County witness in these proceedings.

370 Additionally, the pilot program will include a planning component designed to
371 develop protocols to allow the eventual approval of high-voltage underground transmission
372 lines through local planning processes, including substantial accord review and zoning
373 review. This approval pathway for underground transmission lines is already permitted
374 under state law but is not being utilized at present because planning departments do not
375 have the requisite tools, standards, or experience to review these projects. The pilot
376 program will encourage participating localities to engage in long-term comprehensive
377 planning regarding the placement of high-voltage transmission lines and criteria for
378 underground placement, with the goal of rolling out local approval of underground
379 transmission lines at a later date in the not-too-distant future.

380 While the pilot projects selected by the Commission under the County's proposal
381 will not benefit from local approval themselves, the County's belief is that using the pilot
382 projects to initiate long-term planning of transmission lines, facilitating the creation of local
383 processes for approval of transmission lines, will increase conformity with local
384 comprehensive plans, by syncing up long-term reliability projections with intentional

385 planning. Additionally, local approval of future underground transmission projects will
386 allow them to be placed in service much faster.

387 It is the County's hope that this sort of strategic planning will create the
388 administrative framework for preplanned underground projects to be approved directly by
389 localities. This will save time, money, and discord in the form of repeated public opposition
390 to increasingly frequent transmission line applications.

391 **Q. HOW WOULD THE APPROVAL PROCESS WORK UNDER THE PILOT**
392 **PROGRAM?**

393 A. An existing legal framework already exists for underground transmission line
394 projects to be approved through local planning review. In practice, these processes are
395 unused, with the preferred pathway being an application in the State Corporation
396 Commission. The County envisions a pilot program that, in addition to undergrounding all
397 or part of the pilot project under application, would initiate a long-term planning initiative
398 that would include comprehensive plan reform in the participating locality, to identify
399 future transmission corridors and specific criteria for selecting underground projects, which
400 would be favored in all cases. This will create a basis for Planning Staff and the Planning
401 Commission to review applications for substantial accord with the comprehensive plan and
402 applicable zoning, which can stand in place of Certificate of Public Convenience and
403 Necessity review in the SCC.

404 **Q. WHY IS LOUDOUN COUNTY A SUITABLE LOCALITY TO INITIATE A PILOT**
405 **PROGRAM WITH A PLANNING COMPONENT LIKE YOU ARE DESCRIBING?**

406 A. The County's planning apparatus is among the most sophisticated municipal
407 planning departments you will find and is accustomed to engagement in complex land use

408 and community development projects. As the county with the highest concentration of data
409 centers in the world, we have an obligation to find solutions to address increased energy
410 demands and proactively develop reliable energy infrastructure. The County is ready and
411 eager to work collaboratively with the Commission and stakeholders to conceptualize a
412 planning and approval process that will get underground lines in service faster, with less
413 time spent waiting for regulatory review. And in the process, more lines are placed
414 underground in corridors designated for such, which will be popular with citizens and in
415 the public interest. In this way, the pilot program benefits citizens in the here and now by
416 undergrounding the pilot project, and in the future by paving the way for faster local
417 approval of future projects.

418 **Q. IS THE COUNTY CURRENTLY WORKING ON COMPREHENSIVE PLAN**
419 **REFORM RELATED TO ELECTRICAL INFRASTRUCTURE**
420 **PLACEMENT? CAN YOU ELABORATE?**

421 A. The County has retained an outside consultant and just completed the first phase of
422 a project to identify and map all the existing high-voltage electric transmission corridors in
423 County. The County plans to use the mapping information as a component of a future
424 Comprehensive Plan Amendment (CPAM) to adopt a Countywide map that identifies all
425 the existing high-voltage corridors as a feature shown in the 2019 General Plan. The CPAM
426 will also amend the electrical polices in Chapter 6 of the 2019 General Plan to identify
427 these existing high-voltage transmission corridors as the County's preferred location for
428 the co-location and development of any future high voltage transmission corridors. The
429 CPAM will also include design policies related to techniques to minimize the visual impact
430 of electric transmission corridors on the community.

431 As I stated previously, this will lay the basis for review of underground transmission
432 line applications for substantial accord with the comprehensive plan.

433 **Q. WHAT IS SUBSTANTIAL ACCORD REVIEW?**

434 A. Based on State Code the County reviews certain applications for public utilities and public
435 service facilities to determine if the general location, character, and extent of the proposed
436 use is in substantial accord with the Comprehensive Plan. The applications, which are
437 referred to as “Commission Permits”, are reviewed through the legislative process by the
438 County’s Planning Commission for conformance with the applicable policies in the 2019
439 General Plan.

440 **Q. WHAT SORTS OF PROJECTS CURRENTLY UNDERGO SUBSTANTIAL
441 ACCORD REVIEW IN THE COUNTY?**

442 A. Basically any quasi-government use or public utility requires approval through the
443 Commission Permit process. These include Telecommunications Facilities, Public Water
444 and Wastewater Facilities, County Schools, Parks, Libraries, Recreational Facilities, Fire
445 and Rescue Facilities, and Electrical Substations to name a few. Some of these also are
446 identified as requiring Special Exception Approval in the County’s Zoning Ordinance.

447 **Q. SO, THE COUNTY REVIEWS THE PUBLIC UTILITY INFRASTRUCTURE
448 PROJECTS YOU JUST MENTIONED, BUT IT DOES NOT PRESENTLY
449 REVIEW TRANSMISSION LINE APPLICATIONS UNDER THAT SAME
450 REVIEW PROCESS?**

451 A. No, the County does not review proposed high-voltage transmission corridors through the
452 Commission Permit process. The only electrical infrastructure that is reviewed through the

453 Commission Permit process by the County is electrical substations and electric battery
454 storage facilities.

455 **Q. HOW LONG DOES THE APPLICATION AND SUBSTANTIAL ACCORD**
456 **REVIEW PROCESS TYPICALLY TAKE?**

457 A. The Commission Permit review process generally takes between six to nine months to
458 complete once the application is accepted by the County, gone through the referral review
459 process by County Departments, and then final action is taken by the Planning Commission
460 and the Board of Supervisors.

461 **Q. HOW LONG, IN YOUR EXPERIENCE, DO TRANSMISSION LINE APPROVAL**
462 **APPLICATIONS THAT GO THROUGH THE SCC TYPICALLY TAKE?**

463 A. I have only been involved in the initial stages of the review of proposed transmission lines
464 and preparation of comments for Dominion with the County's position. But this process
465 alone can take up to a year or more before the actual SCC filing for the proposed route has
466 occurred.

467 **Q. IN YOUR OPINION, WOULD DIRECTING APPLICATIONS, FOR**
468 **UNDERGROUND TRANSMISSION LINES IDENTIFIED IN CORRIDORS ON**
469 **THE COMPREHENSIVE PLAN, THROUGH COUNTY PLANNING, SUBJECT**
470 **TO SUBSTANTIAL ACCORD REVIEW AND APPLICABLE ZONING,**
471 **SIGNIFICANTLY SHORTEN THE REGULATORY PROCESS FOR APPROVAL?**

472 A. Without a doubt. The County through the adoption of a Comprehensive Plan Amendment
473 will have already identified existing high-voltage transmission corridors as the preferred
474 location for future high-voltage transmission corridors. Placing underground transmission

475 lines within these corridors mitigates any additional visual impact and should streamline
476 the entire review process.

477 **Q. IN YOUR OPINION, WILL UTILIZING SUBSTANTIAL ACCORD REVIEW AS**
478 **AN ALTERNATIVE PATHWAY TO APPROVAL FOR UNDERGROUND LINES**
479 **INCREASE THE CONFORMITY OF SUCH LINES WITH THE**
480 **COMPREHENSIVE PLAN?**

481 A. Yes, based on the size of the required right-of-way for an underground transmission line
482 these corridors can be incorporated into the existing development pattern throughout the
483 County without the negative visual impact on the community.

484 **Q. DO YOU HAVE ANY FURTHER QUESTIONS?**

485 A. Not at this time.

486 **Q. THANK YOU, MR. GIGLIO, FOR YOUR TESTIMONY.**

487 **Attachments:**

- 488 1) **Exhibit WPG-1 – Resume**
- 489 2) **Exhibit WPG-2 – 2019 General Plan, Chapter 2, Place Types and Quality**
490 **Development Policies**
- 491 3) **Exhibit WPG-3 – 2019 General Plan, Chapter 6, Electrical Policies**
- 492 4) **Exhibit WPG-4 – March 21, 2024, WPG Memorandum to Dominion with Comments**
493 **on Aspen-Golden Line**
- 494 5) **Exhibit WPG-5 – Graphic Showing Aspen-Golden Route Overlaid by Place Types**
495 **from 2019 General Plan**

**DIRECT TESTIMONY
OF
WILLIAM PATRICK GIGLIO**

**ON BEHALF OF
LOUDOUN COUNTY, VIRGINIA
BEFORE THE
STATE CORPORATION COMMISSION OF VIRGINIA
CASE NOS. PUR-2024-00032 AND PUR-2024-00044
(COLLECTIVELY, THE CONSOLIDATED CASES)**

Exhibit WPG-1 (Curriculum Vitae)

Pat Giglio

405 Dresden Court
Purcellville, VA 20132
(540) 247-5280
pat.giglio@aol.com

PROFESSIONAL SUMMARY

- Planner and project manager with over twenty years' experience in community and land use planning
- Proven aptitude in land use policy, environmental planning, zoning, building design, and historic preservation
- Strong interpersonal and communication skills with substantial experience coordinating among diverse stakeholders, including local, state, and federal government officials

EXPERIENCE

November 2002 - Present

Senior Planner/Planner III, Community Planning Division | Loudoun County Government – Leesburg, VA

- Contributing author and facilitator for the development and adoption of Comprehensive Plan
- Core Staff for Zoning Ordinance Rewrite, providing input for consistency with Comprehensive Plan
- Project Manager for comprehensive plan amendments, area plans, and historic preservation initiatives
- Reviews complex legislative land use applications for conformance with County plans and policies
- Manages, analyzes, and develops staff recommendations on legislative land use applications for presentation to the County Board of Supervisors and Planning Commission
- Develops plan policy and zoning ordinance amendments for deployment of broadband and wireless services
- Coordinates with county, state, federal, and stakeholders on special projects (i.e., transportation, water and wastewater infrastructure, natural gas pipelines, high-voltage electric transmission corridors, etc.)
- Representative to the County's Rural Economy Team and primary staff contact for rural planning issues
- Supports Historic District Review Committee and County agencies on issues related to historic resources
- Board-appointed representative to the County's Affordable Dwelling Unit Advisory Board

July 2001 – November 2002

Planner II, Zoning Administration | Loudoun County Government – Leesburg, VA

- Reviewed development applications for compliance with the County Zoning Ordinance
- Researched pertinent documents, site plans, and proffers for zoning determinations
- Worked collectively with staff in interpretation and application of County Zoning Ordinance

February 2000 - July 2001

Construction Project Manager | Lantz Construction – Winchester, VA

- Managed and administer adaptive reuse and commercial construction projects in excess of 2.5 million dollars
- Coordinated activities with owners, architects, engineers, subcontractors and job superintendents
- Managed contracts, budgets, inspections, construction schedules, and overall project to ensure timely completion

August 1993 – February 2000

Architectural Historian | R. Christopher Goodwin & Associates – Frederick, MD

- Conducted wide range of archeological and architectural investigative research, intensive architectural survey and documentation, preservation tax credit applications, impact assessment studies, and comprehensive preservation planning documents
- Knowledge of federal and state laws, regulations, guidelines and procedures related to historic resources and the environment

EDUCATION

1991–1993 | Savannah College of Art and Design, Savannah, GA

Master of Fine Arts- Historic Preservation

1986 - 1990 | University of Mary Washington, Fredericksburg, VA

Bachelor of Arts –History

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Exhibit WPG-2 (Place Types and relevant Quality Development Policies)

management and land use strategies. Policy areas in the General Plan include the Suburban Policy Area (SPA), Transition Policy Area (TPA), Rural Policy Area (RPA), Towns & Joint Land Management Areas (JLMAs), and newly-established Urban Policy Areas (UPA).

The UPAs are intended to accommodate living, working, shopping, and playing in a dense urban environment, creating complete communities that will serve as centers of activity for the County. The Plan designates two areas around the Silver Line Metro stations as UPAs, envisioning these areas to develop as dense urban centers. Both areas represent major growth opportunities for the County and are planned to provide for walkable mixed-use and transit-oriented development that will more efficiently absorb much of the County’s anticipated growth, offer a diversity of housing to meet changing housing needs, and offer flexible land use policies to allow for innovation and changing market demands.

The SPA continues to be planned for additional growth and development though at a lesser intensity than the Urban Policy Areas. However, rapid growth in the SPA in recent decades has significantly reduced the amount of developable land and subsequently reduced this area’s capacity to accommodate substantial growth. This represents a significant juncture in the County’s planning and development history as development efforts will increasingly emphasize infill development on the few remaining undeveloped parcels in the SPA as well as the redevelopment and adaptive reuse of existing buildings.

The TPA is intended to be visually distinct from the Suburban and Rural Policy Areas with a development pattern focused on retaining substantial open space within the context of an assortment of community designs. The open spaces serve as dominant landscape and development features that provide opportunities for public recreation and facilities interwoven through a land use pattern that is predominantly residential with limited commercial and industrial uses.

The RPA comprises nearly two thirds of Loudoun’s land area in the western portion of the County and contains twelve historic Rural Villages. This area is planned as an enduring rural landscape of working agricultural lands, rural economy uses, and limited residential development. Protection of the RPA helps to ensure the preservation of farmland, natural, environmental, and heritage resources, open space, and vistas that are vital aspects of Loudoun’s identity.

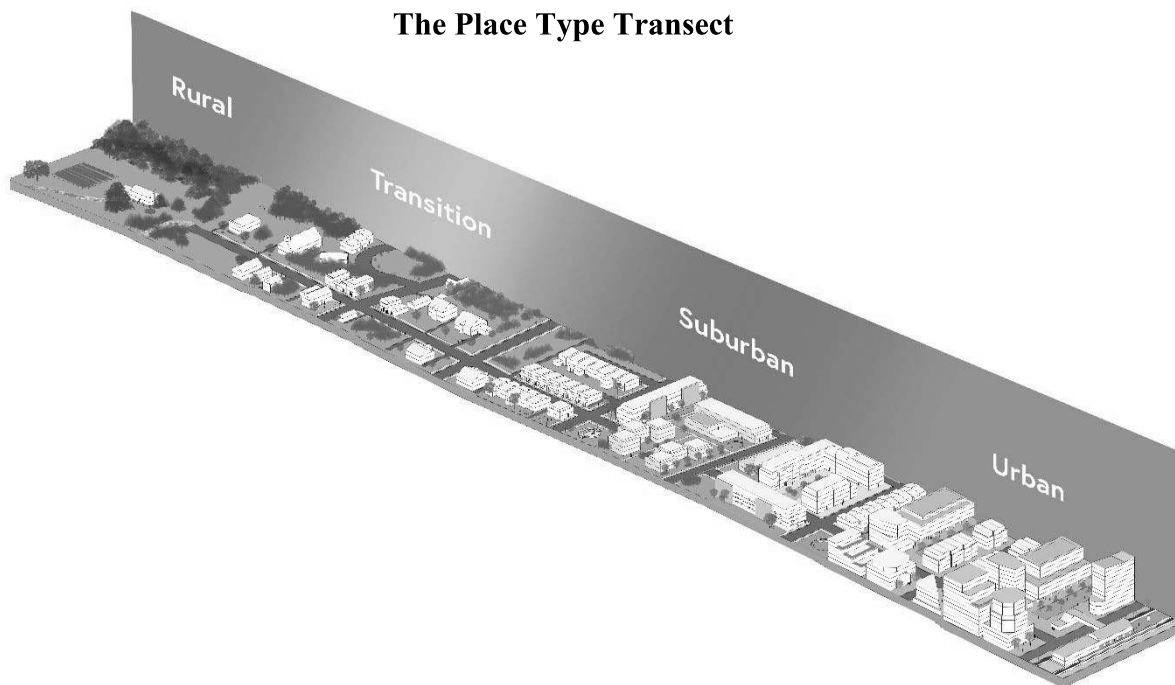
Place Types

While the policy areas described in this chapter provide the geographic foundation for the County’s growth management and land use strategies, the Plan refines the County's policies to better adapt to rapid changes in technology, demographics, and market factors without losing sight of the County's vision and goals. Central to this more adaptable, enduring approach to land use is the “place type” concept.

The place type approach differs from the County’s previous approach to land use planning in that it provides a way to shape the future of Loudoun by concentrating on context – the look and feel of places, their form and their character – instead of focusing only on conventional land use categories and specific uses. Place type categories define not only the basic expected land uses for

specific areas in the County, but also preferred development patterns, streetscapes, and design features that make places and environments visually distinctive and functional for people.

The place type approach is intended to create distinct and “complete” residential neighborhoods, employment centers, open spaces, and other areas. By providing greater flexibility in development types and uses while providing additional guidance on design expectations, place types can also facilitate more dynamic, livable neighborhoods and allow for established areas to evolve and improve. In the next graphic you will find the transect of the County, which transitions from rural to increasingly urban place types. A transect defines a series of place types that transition from sparse rural farmhouses to the dense urban core. Each place type contains a similar transition from the edge to the center of the neighborhood. The transect does not show all place types found in the plan, but rather a few to show the transition at a higher level. Through the use of place types in the General Plan, the County aims to achieve Loudoun’s vision for a prosperous and inclusive community consisting of great places in a variety of settings.



What Makes a Place?

Many characteristics of the natural and built environment contribute to an area's sense of place, or the impression a particular place leaves on residents and visitors. These factors include:

- The size, scale, and configuration of the buildings and the spaces between and surrounding them,
- The uses in the buildings (although these may change over time),
- The patterns of activity in the spaces between buildings,
- Views to and from the buildings and spaces, and
- Special details such as historic structures, landscape elements, and public artwork.

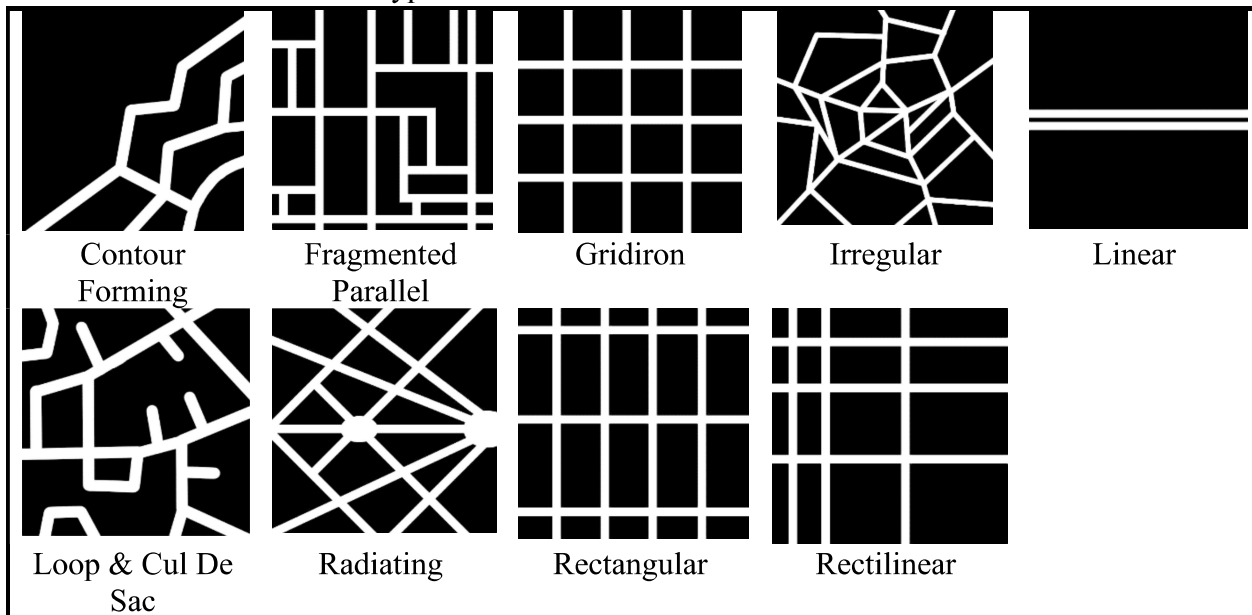
These elements help define a place in our minds and give it a distinct identity. It is this human dimension of place types – their relationship to the way we experience our environment – that makes them such a useful tool in describing the type of development desired in Loudoun County.

Using Place Types

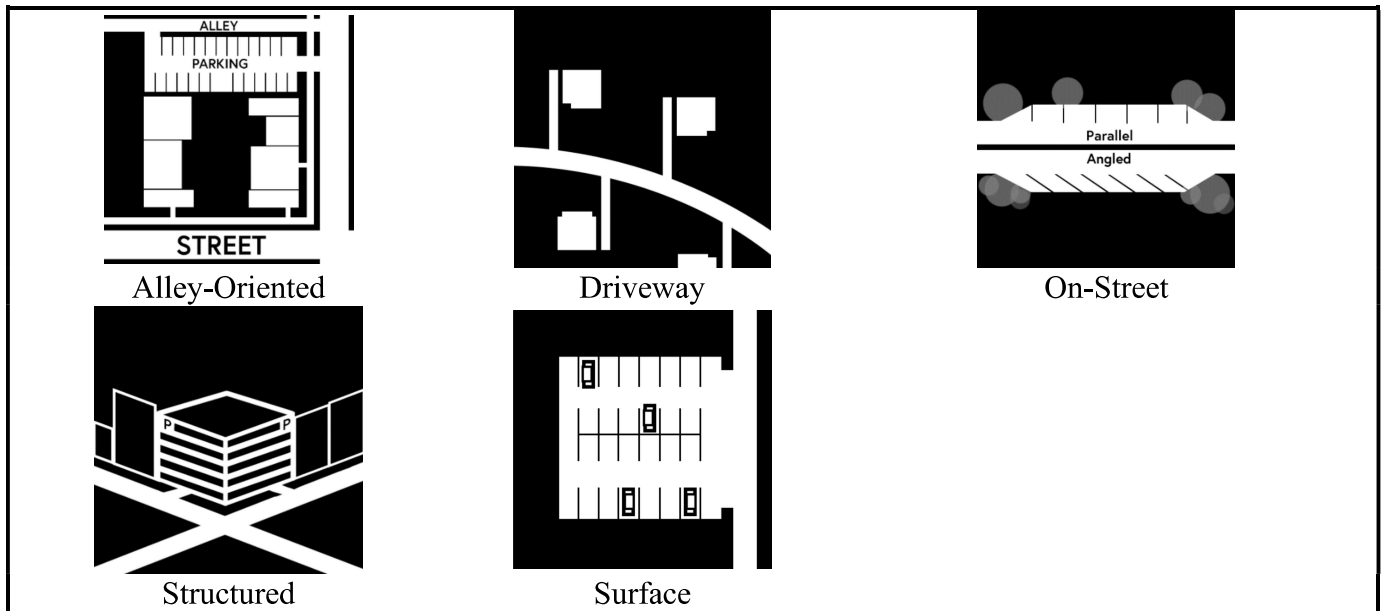
The Place Types described in this chapter have been carefully chosen to complement the current built and natural environment of the County while fulfilling the land use patterns and community characteristics envisioned for each policy area. Place types emphasize form and function in addition to expected land uses. This makes place types especially useful tools to guide future decisions regarding growth and development in each community, taking into account variable priorities such as: economic development, land preservation, protection of natural, environmental, and heritage resources, efficient transportation options, and the provision of public facilities and services.

Each of Loudoun's policy areas is divided into distinct place types that reflect their unique form and character. Collectively, the defined elements of each place type help to ensure that future development creates the desired character and function of each respective policy area. Each policy area section in the Plan provides a detailed description of each corresponding place type, including:

- A summary of the general development pattern, scale, form, function, and how the place type complements or fulfills the larger visions or policies described elsewhere in the Plan
- Use categories expected in the area
 - Including core and complementary uses that will fulfill the intent of the place type
 - Appropriate conditional uses
 - Special Activity and Parks and Recreation are listed as conditional uses in all place types and will be reviewed on a case by case basis
- The expected physical form of each place type in terms of
 - Street pattern—shown below are all configurations that will be found in the Place Types



- Block length consistent with the *Loudoun County 2019 Countywide Transportation Plan*
- Setbacks based on roads and pedestrian features
- Parking
 - Accessory – a parking facility that provides parking for a specific use or uses. The facility may be located on or off the site of the use or uses to which it is accessory.
 - Short-term – lots and/or spaces designed for people who are dropping off and picking up passengers and/or goods.
 - Shared – a parking facility that may have spaces reserved and other spaces open to another use
 - Garage – a building or room, common to single-family residential neighborhoods, used to park vehicles or store items. Garages can be attached to a residence or located in an adjacent standalone building, and are typically accessed via a residential driveway.
 - Shown below are other types of parking:



- Design amenities
 - Including sidewalks, street trees, street furniture, shade trees, bike racks, lighting, crosswalks, plazas, pedestrian malls, network of green space, and public art
- Retail and service
 - Retail commercial development in residential and employment place types will be designed to respond to the particular characteristics of the place type. In residential areas, retail and service uses will be characterized as Neighborhood or Community serving dependent upon the size of the area

being served and the characteristics of the site (i.e. access, location, function). They will be located internal to the areas that they serve and will provide convenience or routine shopping and personal services. Retail and service uses in the employment place types are intended to provide convenient retail and personal services supporting the employment uses and are based on a percentage of the uses they will serve.

- Open space in terms of the following
 - Recreational – for both passive and active recreation
 - Passive - trails (hiking, biking, walking, or equestrian), picnic, community gardens, camping, or fishing areas
 - Active - ballfields, tennis or basketball courts, swimming pools, tot lots, golf courses, dog parks, and other areas for recreational sports and games
 - Community – plazas, playgrounds, pocket parks, gardens, public art, amphitheater
 - Natural, Environmental, and Heritage – forests, stream valleys, wildlife habitats, floodplains and their buffers, steep slopes and ridge tops, meadows, hedgerows, wetlands, heritage resources, and land contributing to the context of heritage resources, which may be incorporated into publically accessible parks and preserves.
 - Agricultural land including fallow land and working lands (agriculture, horticulture, and silviculture)
- The expected development intensity in terms of floor area ratio (FAR) and/or residential density (dwelling units per acre) to better define the anticipated massing, scale, and level of activity expected
- A discussion of how design elements, variations in land use, and changes in density can be applied to ease transitions among different place types and uses, ideally minimizing the need for intrusive screening or other structural mitigation measures

Place Type Implementation

Place types are not meant to directly parallel use-based zoning districts, but rather are a direct way of connecting the day-to-day experiences and preferences of the community with the more specialized and technical discipline of land use planning. The place types in the General Plan are:

1. Used to describe the desired future condition, environment, and development of our community's places;
2. Mapped similarly to a traditional future land use map and used to guide future development; and
3. Linked to a future comprehensive Zoning Ordinance revision, which will create enhanced design standards and may include new districts that better align with the desired character of the place.

See Appendix A for general place type considerations – prompts that should be considered while devising and developing a project to assess whether a proposal is compatible with the place type and improves the site and its surroundings.

Policies, Strategies, and Actions

Unless otherwise specified, the following Policies, Strategies, and Actions apply countywide.

QD Policy 1: Provide flexible design guidelines in all policy areas and in priority areas of the County to create more specific design guidelines that encourage innovation and appropriate architectural, site, and landscape design in all development.

Strategy

- 1.1. Identify and prioritize areas in the County where more specific design guidelines are desired.

Actions

- A. Develop user-friendly, illustrative design guidelines. The design elements will promote an overall sense of place through design elements that in-part relate to block size, circulation and connectivity, streetscape and street sections, building form, placement (setbacks), orientation, articulation, parks and open spaces, public and civic uses, landscaping, and sustainability that give a high quality form to the built environment.
- B. Create incentives that provide the opportunity to implement design guidelines.
- C. The County will consider the development of zoning regulations and design standards that implement the design guidelines of this plan and any design guidelines that may be created in the future.

Strategy

- 1.2. Encourage the submission of site development and architectural guidelines for new developments.

QD Policy 2: Where appropriate to the Place Type, create compact, walkable development patterns characterized by smaller blocks, shorter distances among uses, inter-parcel connectivity, greater diversity of uses on the same street, and connected open spaces that facilitate social interaction and offer affordable and convenient lifestyles.

Strategy

- 2.1. Ensure County guidelines, zoning regulations, and design standards encourage a compact, walkable development pattern in areas where pedestrian activity should be welcomed.

Action

- A. Develop and implement zoning regulations or design guidelines that support a

compact, walkable development pattern in areas that are appropriate for pedestrian activity.

QD Policy 3: Provide diverse environments and experiences in all development.

Strategy

- 3.1. Ensure that context and development potential are considered by integrating uses with the natural environmental features of the site.

Actions

- A. Develop flexible guidelines, regulations, and design standards that support diverse environments and experiences.
- B. Create incentives to ensure a mix of environments and experiences within a development.
- C. Use a design process that integrates natural environmental features into the development.

QD Policy 4: When appropriate for the Place Type, design spaces to maximize pedestrian, bicyclist, and other multimodal activity, comfort, and convenience.

Strategy

- 4.1. Development must ensure pedestrian and bicyclist connectivity and safety in areas appropriate for multi-modal activity while pursuing high-quality design to include establishing easements and right of ways.

Actions

- A. Create guidelines, zoning regulations, and/or design standards that ensure bike lanes, shared spaces, and paths of travel are created in areas where multimodal activity should be encouraged.
- B. Create guidelines, zoning regulations, and/or design standards that ensure traffic calming designs.

QD Policy 5: Ensure greater interaction between activity inside buildings and the public realm where appropriate to the Place Type.

Strategy

- 5.1. Ensure that design emphasizes the quality of the pedestrian experience in public spaces within mixed use developments and residential communities.

Action

- A. Develop design guidelines, zoning regulations and/or design standards, and additional design elements that contribute to the quality of the human experience in the built environment.

QD Policy 6: Within mixed use developments and residential communities, promote high-quality design and a mix of uses to encourage activity and longer stays in spaces, in order to create vibrant areas and a sense of place.

Strategy

- 6.1. Ensure the development of inviting public spaces that encourage longer stays and increase the vibrancy of the area, such as public/civic gathering spaces, outdoor rooms, public art spaces, and passive/active recreation spaces.

Action

- A. Create guidelines that address public seating, art, landscaping, outdoor rooms, safety, and other innovative elements that can maximize opportunities for the public.

QD Policy 7: Ensure high quality development where the natural and built environment contribute to an area's "sense of place."

Strategy

- 7.1. Ensure the place types complement the current built and natural environment of the County, while fulfilling the land use patterns and community characteristics envisioned for each policy area.

Actions

- A. The density or development potential of a place type designated for a site will be defined by gross area of the site. Development potential can be transferred within a project to protect natural and cultural features and to meet the design objectives of the place type. When density is based on floor area ratio (FAR), the buildable area as used in the FAR calculation does not include portions of land for roadways, wetlands, floodplains, and buffers.
- B. Structured parking and open space areas are not included within the floor area ratio of a site when assessing it by the designated place type.
- C. The open space requirement for each respective place type will be measured as a percentage of gross area.
- D. The three use lists of a place type are a guide where: core uses are most prevalent in the place type, complementary uses support the core uses, and conditional uses are to be considered on a case-by-case basis.
- E. Follow the preferred mix of uses for each place type which is an approximate amount that would be needed to achieve the full intent of the place type. Allow the use mix of a development to differ from the preferred ranges noted in the place type, when street and open space network, project size, surrounding context or other factor supports flexibility to achieve the development objectives of the Plan.
- F. Amend zoning regulations and design standards to implement place types. It may be necessary to utilize incentive provisions in order to achieve the maximum development

intensity or residential density stated in this Plan for any individual place type.

- G. Within the Urban Policy Area, projects less than 5 acres in size will not be strictly held to the use mix specified for that place type if the effect of the proposed development is to shift the use mix for an area within $\frac{1}{4}$ mile of its boundaries closer to the preferred mix for the place type. Such projects will be evaluated by Policy 3, Strategy 3.1 in the Infill and Redevelopment section.
- H. Within the Suburban Policy Area, projects less than 20 acres in size will not be strictly held to the use mix specified for that place type if the effect of a proposed development is to shift the use mix for an area within $\frac{1}{2}$ mile of its boundaries closer to the preferred mix for the place type. Such projects will be evaluated by Policy 3, Strategy 3.1 in the Infill and Redevelopment section.

Strategy

- 7.2. Consider allowing interim uses that contribute to the community and are planned to efficiently and easily evolve to more intense uses called for by *the Loudoun County 2019 Comprehensive Plan*, when market forces support additional development.

Actions

- A. Ensure interim development uses, design, locations, ownership, or intensities are not a deterrent or barrier to implementing the long-term community vision for Loudoun County, as well as the policies and objectives of the *Loudoun County 2019 Comprehensive Plan*.
- B. Require projects that are proposing a phased development program or an interim use to commit to a plan that achieves the ultimate development of the site, consistent with the intent of *the Loudoun County 2019 Comprehensive Plan*.
- C. Require development proposals for interim uses to design and build infrastructure, buildings, parking lots, and parks and landscaped areas to support the ultimate, higher density development.
- D. Determine acceptability of interim development phases and land uses against:
 - i. Location, site constraints, relationship to surrounding uses,
 - ii. How well the interim use complements and supports community life and activity of the surrounding development, and
 - iii. How well the project retains the capacity to achieve the ultimate development pattern and meet the policies and objectives of the *Loudoun County 2019 Comprehensive Plan*.
- E. Encourage development in its ultimate condition to rely on structured parking but consider a mix of structured parking, on-street parking, and surface parking as an interim land use.

QD Policy 8: Development should utilize universal design principles to increase functionality, usefulness, and marketability to persons with diverse abilities.

Strategy

- 8.1. Promote equitable access to streets, sidewalks, public and private buildings, civic spaces, and transportation facilities.

Actions

- A. Amend zoning regulations and design standards to require the provision of continuous, accessible, step-free paths of travel throughout new employment, retail, and mixed use development proposals.
- B. Amend zoning regulations and design standards to incorporate accessible and inclusive design features into public and civic spaces such as community centers, parks, plazas, and playgrounds.
- C. When reviewing new proposals, favor accessibility features that encourage universality of access and utility as seamlessly as possible.
- D. Review and revise county sign regulations to facilitate signage and way-finding at appropriate heights that incorporate Braille, tactile markings, and other accessibility improvements.

Strategy

- 8.2. Promote the use of universal design features at the site and building level.

Actions

- A. Incentivize the use of design mechanisms that ensure universal functionality within new construction.
- B. Examine the feasibility of establishing a technical and financial assistance program that assists property owners and tenants of older structures in removing impediments to accessibility and incorporating universal design elements into renovation projects.

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Exhibit WPG-3 (Electrical Policies)

Leesburg, Hamilton, and Round Hill have extended utilities into the surrounding Joint Land Management Areas (JLMA). The Comprehensive Plan does not recommend extending municipal systems into adjacent rural areas except when necessary to resolve public health issues in existing communities.

Loudoun Water’s Capital Improvement Plan (CIP) is a 10-year roadmap for creating, maintaining, and funding present and future infrastructure needs.¹ The Loudoun Water CIP is approved by the Loudoun Water Board of Directors. Capital water and wastewater improvements are complex and interrelated and often require a great deal of planning over many years to define their extent, location, and cost. The underlying strategy of the CIP is to plan for facilities necessary for the safe and efficient delivery of water, wastewater, and reclaimed water services in accordance with policies, goals, and objectives adopted by Loudoun Water. A critical element of a balanced Capital Improvement Plan is to preserve and enhance existing facilities as well as provide new assets to respond to growth of the community and changing service needs as outlined in the Comprehensive Plan and other Board policies.

Waste Management

The Loudoun County Department of General Services, Waste Management Division operates the Solid Waste Management Facility (“landfill”) and provides recycling opportunities for residents and businesses. Landfill operations are fee-supported. The County also offers recycling drop-off centers, household hazardous waste collection events, collection of seven materials for recycling or diversion at the landfill, and educational programs. The County anticipates continuing operations at the Evergreen Mills Road landfill site and relying on continued recycling and commercial facilities to redirect a significant amount of waste material. International demand for recycled material is, however, a key factor in the success of recycling programs. Continued review and updating the County’s Solid Waste Management Plan will provide the more detailed management and planning necessary to meet State requirements to anticipate future needs.

Energy and Communication

Electrical demand in the County has grown dramatically in recent years with the development of data centers in eastern Loudoun. Demand is expected to continue to grow with new data center construction, the operation of the Silver Line Metrorail, and other land development. Changes in data center technology have resulted in electrical demand increasing from 100 watts up to 300 watts per square foot. Demand for data center development within the County is anticipated to be strong for the foreseeable future.

Electrical and communication services are provided under the purview of state and federal agencies. This limits the County’s ability to mitigate certain impacts. For example, the County regulates the location of electrical substations but not the high voltage distribution lines to and from the substations. Similarly, the County may review the location of cell towers and monopoles for impacts on surrounding properties, but cannot prescribe locations and, therefore, cannot require broadband or communication service in underserved areas. The County does, however, work with the providers to encourage improved service and locations.

¹ The Loudoun Water Capital Improvement Plan can be accessed at www.loudounwater.org.

Rather than a centralized, regional substation to serve the County’s growing electrical demands, smaller substations have been constructed for individual providers. As demand for electrical power continues, consideration should be given to the appearance of substations and power lines and adequate screening of these facilities to reduce the visual impact upon the community.

Broadband internet service is an increasingly important asset to business in Loudoun as e-commerce grows throughout the nation. The lack of broadband service in western Loudoun is cited as a major constraint on the rural economy. It also puts western households and students in particular at a disadvantage. County efforts to extend broadband service have included regulatory changes to support new technologies. With limited control over market factors and federal regulation, the County will encourage landowners to put in place the conduits and other infrastructure to help minimize the cost of extending the service, and will explore other incentives to encourage network expansion.

Fiscal Management

Loudoun County uses an integrated approach to land use and fiscal planning. This approach uses economic and demographic forecasting models, as well as service and facility standards, to help determine current and future capital facilities needs in the County. The Board established Loudoun County’s Fiscal Impact Committee (Committee) in 1992. This advisory committee reviews assumptions about future growth and capital facility needs. The Committee provides recommendations to the Board on four key documents that the County uses to coordinate land use and financial planning: 1) long-range forecasts and demographic, economic, and financial information included in the Fiscal Impact Committee Guidelines; 2) Capital Facility Standards (CFS); 3) CNA; and 4) Capital Intensity Factors (CIF).

The capital facility planning and budgeting processes are different, but completely interrelated. CFS, CNA, and CIF are the three main aspects of the capital facility planning process that shape the CIP budget. The capital planning processes are integral in the development of:

1. Capital-facility-related cash, land, and other in-kind proffer dedications to the County as a result of land use applications;
2. The development of the type, timing, and geographical placement of capital projects to be considered for funding in the CIP; and
3. The programmed use of proffers for capital facility development in the CIP.

Capital Needs Assessment

The CNA divides the County into ten planning subareas and uses the County’s forecasted population growth and adopted CFS to identify the type and quantity of facilities needed in each subarea. The CNA time period extends for ten years beyond the most recent CIP period. Using the population standards set by the CFS and factoring in facilities that already exist or are funded in the CIP, the CNA determines which facilities are needed to meet the adopted CFS standards. The CNA is generally updated every two years.

The population within each subarea drives the demand for facilities. In this way the County can identify more accurately where the demand is greatest and plan accordingly. The subareas define broad communities such as Leesburg and its environs or the three western towns along Route 7.

- G. Require financing of community water and wastewater systems by the developer or by those who will be directly served by the system. A financing plan will be required to address initial capital costs and operating costs. The system must be designed, organized, and operated to be financially self-sustaining to pay all costs incurred by Loudoun Water for operation and maintenance and to provide appropriate reserves. The County may provide financial assistance in the form of loans or grants to assist in the construction of such a facility for existing rural communities if the system is needed to solve a significant public health threat.

Solid Waste Management

Fiscal Policy 5: Continue to implement an integrated solid waste management strategy that prioritizes reduction, reuse, and recycling of solid waste above resource recovery, incineration, and disposal into landfills.

Strategy

- 5.1 The County Solid Waste Management Plan will identify the type and level of service to be provided in the community.

Actions

- A. Continue to ensure that the County always has an acceptable means of local waste disposal through the County landfill operations, should other waste disposal alternatives fail or become ineffective.
- B. Continue to seek private sector support for the provision of current and future Solid Waste Management Services.
- C. Develop a hazardous waste education program and increase residential access to the safe disposal of hazardous waste to protect groundwater resources.
- D. Reduce landfill waste by promoting recycling and composting.

Electrical

Fiscal Policy 6: Support expanded electrical capacity through generation facilities that use clean burning and environmentally sound fuel sources and energy efficient design.

Strategy

- 6.1 Encourage local electrical generation in appropriate locations throughout the County.

Actions

- A. Establish zoning regulations and design standards that permit alternative electrical generation such as wind and solar generation by and for individual users.
- B. Encourage the safe grouping and burying of utility lines and facilities.
- C. Work with electrical providers to identify potential high voltage distribution lines and substation locations that minimize impacts on key travel corridors, sensitive cultural

and historic resources, and existing residential communities or to place high voltage distribution lines underground when approaching such areas; and where possible, use existing transmission corridors and substation sites to expand capacity.

- D. Encourage the use of design techniques that will minimize the visual impact of electrical substations adjacent to major travel corridors or residential communities including the use of stealth design techniques.
- E. Continue to monitor and minimize energy use in County facilities and create a program that would encourage benchmarking energy use in private buildings.

Communication

Fiscal Policy 7: Support the development of a high-quality wired and wireless telecommunications network to serve businesses, residents, and visitors.

Strategy

- 7.1 The County's *Strategic Land Use Plan for Telecommunication Facilities* and other regulations and standards will be regularly updated to address emerging technologies, to create an environment attractive to businesses, and provide high-quality services to meet the demands of the County.

Actions

- A. Review and update the County's *Strategic Land Use Plan for Telecommunication Facilities* to facilitate the expansion of fiber and broadband service throughout the County.
- B. Adopt zoning regulations and design standards requiring open access conduit to all development projects to facilitate future broadband extensions.
- C. Establish performance standards for wireless communication facilities to minimize the need for legislative action.
- D. Incorporate the capacity to locate broadband and wireless facilities into the design, approval, and construction of all public facilities.
- E. Locate telecommunications facilities and equipment associated with public safety agencies in accordance with communication utility standards and the Comprehensive Plan.

Fiscal Management

Fiscal Policy 8: Link the goals of the Board of Supervisors' adopted Fiscal Policy and the County's Comprehensive Plan.

Strategy

- 8.1 Maintain a diversified and stable revenue structure by balancing residential and non-residential development.

Actions

**DIRECT TESTIMONY
OF
WILLIAM PATRICK GIGLIO**

**ON BEHALF OF
LOUDOUN COUNTY, VIRGINIA
BEFORE THE
STATE CORPORATION COMMISSION OF VIRGINIA
CASE NOS. PUR-2024-00032 AND PUR-2024-00044
(COLLECTIVELY, THE CONSOLIDATED CASES)**

Exhibit WPG-4 (Memo to Dominion Energy dated March 21, 2024)

March 21, 2024

Ms. Laura Meadows, Sr. Siting and Permitting Specialist
Dominion Energy Virginia
10900 Nuckols Rd, 4th Floor
Glen Allen, VA 20177

**Re: Dominion Energy Virginia's Proposed 500-230kV Aspen to Golden Transmission Line,
Loudoun County, Virginia, Notice Pursuant to VA Code 15.2-2202 E.**

Ms. Meadows:

Enclosed are Loudoun County's Department of Planning and Zoning comments regarding Dominion Energy Virginia's Proposed 500-230kV Aspen to Golden Transmission Line.

Our understanding is that the proposed electrical transmission lines and substations are needed to meet current and future electrical demand for the area, and to comply with mandatory North American Electric Reliability Corporation Standards (Figure 1). County staff from the Department of Planning and Zoning (DPZ), Department of Building and Development (B&D), and Parks, Recreation and Community Services (PRCS) participated in periodic virtual and in-person meetings beginning in the Fall of 2022 with representatives from Dominion Energy Virginia to review and discuss potential routes, existing and future land uses, visual impacts, and potential impacts to environmental and heritage resources.

County staff has reviewed the proposed 500-230kV Aspen to Golden primary route and four alternative routes provided with your letter dated February 6, 2024. A Commission Permit is required for the proposed Aspen and Golden substations, which will be reviewed separately by Loudoun County (the County) through the legislative process. County policies support the establishment of the proposed 500-230kV Aspen to Golden Transmission Line to meet electric demand for the area while ensuring the structural integrity and reliability of the transmission system. The County supports the construction of the primary route, Belmont Park Variation A route, and the Broad Run Variation A route which parallel Leesburg Pike (Route 7) and Loudoun County Parkway (Route 607) for most of the proposed route because it has the least potential impact on environmental resources. The County offers the following comments on the project and proposed transmission line routes pertaining to land use and potential impacts to environmental and heritage resources.

COMPREHENSIVE PLAN CONFORMANCE

The proposed transmission line project bisects properties that are governed under the policies of the *Loudoun County 2019 General Plan* (2019 GP). The proposed transmission line project bisects areas identified in the 2019 GP as the Leesburg Joint Land Management Area (JLMA) and the Suburban Policy Area which have developed with a variety of land use patterns that include industrial parks, existing and developing data center campuses, office parks, commercial retail centers, traditional residential developments, and vertically

integrated mixed use residential and commercial centers. Loudoun County views electrical service as an essential component of daily life and supports the construction of necessary electrical transmission infrastructure to ensure the structural integrity and reliability of the electrical transmission system to support existing and future business and residential uses.¹ Specifically, the electrical policies call for the County to work with electrical providers to identify potential high voltage transmission/distribution lines and substation locations to minimize impacts on key travel corridors, sensitive cultural and historic resources, and existing residential communities; and where possible, use existing transmission corridors to expand capacity.²

As the demand for electrical power continues to grow, Loudoun County seeks to minimize the negative visual impacts of substations and power lines on the community. While Loudoun County supports the safe grouping and burying of utility lines, in this case the County recognizes that the majority of high voltage transmission lines that are 230kV and 500kV throughout the County have been constructed above-ground in the past.³ The proposed new structures are a single-shaft galvanized steel monopole that will be constructed to a height up to 180 feet within a 100-foot transmission corridor. The proposed transmission poles will be the tallest structures in the vicinity and will have a significant visual impact on all roadways and properties within the viewshed of the proposed transmission route. Dominion Energy Virginia included photo-simulations from various vantage points along the proposed route on their webpage and as part of presentations to better illustrate the potential visual impact of the proposed transmission corridor and transmission poles that demonstrate said impact on roadways and properties.

The primary route, referenced as Route 1, for the proposed 500-230kV Aspen to Golden transmission corridor originates at its western terminus within the Leesburg JLMA in an area developed with industrial and future data center uses before crossing the stream channel of Goose Creek and its associated floodplain to the north of the Luckstone Quarry pit. Route 1 then proceeds north on the upland slope above the Goose Creek Floodplain within a forested area before turning east to cross Belmont Ridge Road (Route 659). Construction of the proposed transmission corridor requires clearing and ground disturbing activities that impacts wetlands, forest cover, vegetation, wildlife habitats, and river and stream corridor resources which are discussed in more detail in a separate section.

Route 1 crosses Belmont Ridge Road near the intersection of future Russell Branch Parkway (Route 1061) and parallels the southern edge of a natural drainage before intersecting the southern boundary of the Virginia Department of Transportation (VDOT) right-of-way of Leesburg Pike then proceeding east. The existing drainage and forest cover serve as a visual buffer separating the proposed transmission corridor from the Burial Ground for the Enslaved at Belmont which is located to the northeast. The proposed 100-foot transmission corridor associated with Route 1 is located within a required buffer adjoining the VDOT right-of-way of Leesburg Pike. The *Loudoun County Zoning Ordinance* (Zoning Ordinance) requires a 100-foot Gateway Corridor Buffer with enhanced landscaping along this segment of Leesburg Pike, in addition to a 125-foot parking and 200-foot building setback from the roadway.⁴ The area on either side of Leesburg Pike adjoining the proposed transmission corridor has developed with a mix of existing residential, commercial, institutional and entertainment uses that are setback from the roadway. The location of the proposed transmission corridor proximate to the roadway and within the required buffers avoids direct

¹ 2019 GP, Chapter 6, Energy and Communication, text

² 2019 GP, Chapter 6, Electrical, Action 6.1.C

³ 2019 GP, Chapter 6, Electrical, Action 6.1.B

⁴ Zoning Ordinance, Section 7.04.02

impacts to existing buildings and structures. However, the County acknowledges the proposed development of the 180-foot transmission poles and lines will have a significant visual impact on historic resources, roadway corridors, and existing and future uses within the immediate viewshed. Coordination between the County and Dominion Energy Virginia are recommended to consider options for burying portions of the proposed transmission route adjoining Leesburg Pike to reduce and mitigate potential visual impacts on historic resources, roadways and existing and future uses proximate to the proposed transmission corridor in conformance with the electrical polices of the 2019 GP.⁵

The proposal includes two alternative routes for the proposed transmission corridor near the clover leaf intersection of Leesburg Pike, Claiborne Parkway (Route 901) and Lansdowne Boulevard (Route 2400). The Belmont Park Variation A route is located on the south side of Leesburg Pike and bisects a portion of an undeveloped parcel approved for residential development. The Belmont Park Variation B route proposes placing a segment of the transmission corridor on the north side of Leesburg Pike. The Belmont Park Variation B route requires two crossings of Leesburg Pike and places the transmission corridor in close proximity to existing residential apartments within the Lansdowne community and the helicopter landing pad associated with Inova Loudoun Hospital Lansdowne. The County has identified the Belmont Park Variation A route, which proposes a continuance of the transmission route on the south side of Leesburg Pike, as the preferred route to minimize visual impacts on the roadway and existing residential uses.

The eastern portion of Route 1 proceeds on the southern boundary of Leesburg Pike past existing office uses, a church, commercial retail centers, and undeveloped residential portions of One Loudoun. The route crosses Loudoun County Parkway (Route 607) and the existing entertainment uses in Commonwealth Center before turning south between existing commercial and office buildings to follow the northern portion of the Broad Run floodplain where it encroaches into a portion of a County-owned open space easement. Representatives from Dominion Energy Virginia are in discussions with the County Attorney's Office regarding the proposed encroachment into the easement. Route 1 then turns south to follow the eastern boundary of the VDOT right-of-way of Loudoun County Parkway until it reaches property occupied by Loudoun Water's Broad Run Facility.

Two alternative routes (Broad Run Variation A and B) begin on the Loudoun Water property. Broad Run Variation A is located proximate to the eastern boundary of the VDOT right-of-way of Loudoun County Parkway where portions of the route are located within the existing required setbacks of properties adjoining the roadway. Broad Run Variation A follows Loudoun County Parkway south to the intersection of the Washington and Old Dominion (W&OD) Trail where the route turns east to parallel an existing 230kV transmission corridor which crosses the stream channel of the Broad Run and its floodplain. The location of the route parallel to the existing W&OD 230kV transmission corridor minimizes visual impacts on the surrounding area and potential environmental impacts. The area adjoining the majority of Broad Run Variation A is developed with flex-industrial, data center and a sports training facility. The southern terminus of the Broad Run Variation A route passes through several properties that are developed or are being developed with data center uses before reaching the proposed Golden substation located near the intersection of the W&OD Trail and Sully Road (Route 28).

Broad Run Variation B begins on the Loudoun Water property and proceeds east through a forested area within the Broad Run floodplain before intersecting and proceeding south along an existing sewer easement

⁵ 2019 GP, Chapter 6, Electrical, Action 6.1.B and 6.1.C

within the Broad Run floodplain before crossing the stream channel. The route then parallels a portion of the approved but unconstructed Dulles Town Center (DTC) 230kV transmission corridor within the Broad Run floodplain that is subject to a County-owned open space easement. The southern terminus of the Broad Run Variation B route passes through properties that are identified as the Suburban Mixed Use Place Type in the 2019 GP that have been developed with by-right commercial and data center uses before reaching the proposed Golden substation.

The Broad Run Variation B route is located within the floodplain of the Broad Run for most of the route and has the potential for significant impacts on river and stream corridor resources as discussed below. The County has identified the Broad Run Variation A route, which follows Loudoun County Parkway for most of the route, as the preferred option to avoid and minimize impacts to environmental features associated with the Broad Run and its floodplain.

River and Stream Corridor Resources

County policies limit development and uses in river and stream corridors that support or enhance the biological integrity and health of the river and stream corridor. Permitted uses are intended to have minimal adverse effects on wildlife, aquatic life, and their habitats; riparian forests, wetlands, and historic and archaeological sites; and will complement the hydrologic processes of the river and stream corridors, including flood protection and water quality.⁶ The proposed Aspen to Golden transmission corridor will impact river and stream corridor resources associated with Goose Creek, a designated State Scenic River, and the Broad Run. Impacts to existing riparian forest, streams, drainage ways, very steep slopes (slopes greater than 25%) and moderately steep slopes (slopes 15%-25%), wetlands, and major and minor floodplain are anticipated with the construction of the proposed transmission corridor. Coordination with the Federal Emergency Management Agency and the Virginia Department of Conservation and Recreation (DCR) are recommended regarding compliance with federal and state floodplain regulations.

The western portion of Route 1 proposes a direct east/west crossing of Goose Creek near the mouth of Sycolin Creek. Based on discussions with representatives from Dominion Energy Virginia it is County staff's understanding that the transmission poles would be located outside the floodplain of Goose Creek and on the upland slopes on either side of the creek. Route 1 then proceeds north on the upland slope on the western side of the Goose Creek Floodplain but outside the County's 300-foot no build buffer before turning east to cross Belmont Ridge Road (Route 659). Construction of the proposed 100-foot transmission corridor will require clearing and ground disturbing activities that will impact forest cover, vegetation, wildlife habitats, and natural drainages on the upland slopes adjoining Goose Creek. Areas impacted and disturbed by the proposed construction should be replanted and/or reforested with native species to support wildlife habitat and protect the water quality of the Goose Creek from the harmful effects of increased stormwater runoff and sediment.

The Broad Run Variation A route proposes a crossing of the Broad Run which closely parallels portions of the existing W&OD 230 kV transmission corridor. The proposed crossing of the Broad Run in this location provides the most direct route and may be the least impactful on river and stream corridor resources. As previously stated, new transmission poles should be sited outside the limits of the floodplain where possible to mitigate impact to the river and stream corridor resources. The proposed

⁶ 2019 GP, Chapter 3, River and Stream Resources, Strategy 2.2, and Permitted Uses in the RSCR

utilization and expansion of the existing 230kV transmission corridor proposed with the Broad Run Variation A route reduces impacts on existing forest cover and associated wildlife habitat and vegetation, while minimizing habitat fragmentation created by the establishment of a new transmission corridor. In total approximately 0.3 miles of the Broad Run Variation A route is located within the Broad Run floodplain.

The Broad Run Variation B route is predominately located within the Broad Run floodplain. The northern portion of the proposed route bisects upland and riparian forest areas within the Broad Run floodplain before turning south to parallel an existing sewer easement within the floodplain. The route then crosses the stream channel of the Broad Run to parallel a portion of the approved but unconstructed Dulles Town Center (DTC) 230kV transmission corridor within the floodplain that is subject to a County-owned Open Space Easement that extends south of Gloucester Parkway (Route 2150) adjoining the Beco Substation. The proposed route continues south within the floodplain behind several existing commercial uses before exiting the floodplain near Pacific Boulevard (Route 1036). In total approximately 1.5 miles of the Broad Run Variation B route is located within the Broad Run floodplain. While portions of the route parallel an existing sewer line and future 230kV transmission corridor, additional clearing of forest cover and vegetation will be required for the proposed construction. The overall health and quality of the Broad Run, which is listed as impaired for aquatic life by the Virginia Department of Environmentally Quality (DEQ), is dependent upon the protection and buffering of the wetlands and intermittent streams, along with the riparian forests and vegetated areas that surround the corridor and comprise the floodplain. Reducing the forest cover and wetland areas could lead to a decrease in water quality as the forest cover and wetland areas are not present to filter the sediments and nutrients before they enter Broad Run.

County staff notes that Broad Run Variation B is located proximate to a large heron rookery located on the eastern side of the Broad Run within the natural open space associated with the Kincora development which adjoins the Loudoun Water property. Further coordination between Dominion Energy Virginia and the Virginia Department of Wildlife Resources (DWR) is recommended to ensure there are no effects on the Great Blue Heron nesting area and/or rookery should Broad Run Variation B be considered for construction.

The County's policies recognize stream corridors and the associated floodplains as important natural systems and seek to protect these corridors by preserving, conserving, and restoring their water quality, flood protection, aquatic and wildlife habitat and scenic value. The County has identified the Broad Run Variation A route as the preferred option to avoid and minimize impacts to environmental features associated with the Broad Run and its floodplain. County staff encourages further coordination between Dominion Energy Virginia, Loudoun Water, VDOT, and the County as potential routes and construction plans are refined to ensure protection of environmental resources, consistent with policy goals outlined above. County staff recommends that the transmission corridor rights-of-way be managed as natural habitat with actions to promote the growth of native vegetation to support wildlife habitat in keeping with the policies of the 2019 GP.

Heritage Resources

The 2019 GP calls for the conservation and preservation of the County's cultural and scenic resources. Land development applications are expected to provide an archaeological and historic resources survey to identify resources, and if warranted, measures for recordation, preservation, mitigation, and adaptive reuse.⁷

The County's Archaeologist reviewed the proposed 500-230kV Aspen to Golden route and provided comments under a separate cover dated March 5, 2024 (Figure 2). The proposed route has potential impacts on archaeological features and identified above ground historic resources. Much of the route has been the subject of Phase I cultural resources surveys as part of land development application process, however some undeveloped parcels and areas within the Goose Creek and the Broad Run floodplain remain unsurveyed. Phase I cultural resources surveys of these previously unsurveyed areas are recommended. Additionally, previously identified archaeological sites deemed of significance should be avoided as construction and engineering plans are developed by Dominion Energy Virginia.

The proposed route is within the viewshed of numerous historic resources listed on the National Register of Historic Places and/or are deemed to have state or local significance. The proposed route will have a visual impact on segments of the W&OD Trail (053-0276), the remains of Houghs/Cook Mavins Mill (053-0339) on Goose Creek, the Belmont Cemetery for the Enslaved (44LD9578/053-6238), Belmont Manor (053-0106), Belmont Chapel and Cemetery (053-0278), Janelia (053-0084), and the Broad Run Bridge and Toll House (053-0110). Future coordination between the County and Dominion Energy Virginia is recommended to evaluate and develop mitigation strategies for any potential impacts to archaeological sites and historic resources.

SUMMARY RECOMMENDATION

Loudoun County policies support the establishment of the proposed 500-230kV Aspen to Golden Transmission Line to meet electric demand for the area while ensuring the structural integrity and reliability of the transmission system. County staff reviewed the primary Route 1 and four alternative routes. The County supports the construction of Route 1, Belmont Park Variation A, and the Broad Run Variation A route which parallel Leesburg Pike (Route 7) and Loudoun County Parkway (Route 607) as it provides the most direct route and results in the least impact on environmental resources. DPZ recommends that Dominion Energy Virginia work with the County to consider options for burying portions of the proposed transmission route adjoining Leesburg Pike to reduce and mitigate potential visual impacts on historic resources, roadways, and existing and future uses proximate to the proposed transmission corridor in conformance with the electrical policies of the 2019 GP.⁸ DPZ also recommends that Dominion Energy Virginia continue to work with the County to achieve policy goals regarding the protection of environmental and heritage resources as outlined in the 2019 GP and discussed in this correspondence.

If you have any questions regarding these comments, please contact Pat Giglio, Senior Planner, Loudoun County Department of Planning and Zoning, at 703-737-8563 or patrick.giglio@loudoun.gov.

⁷ 2019 GP, Chapter 3, Historic, Archaeologic, and Scenic Resources, Action 5.1.C

⁸ 2019 GP, Chapter 6, Electrical, Action 6.1.B and 6.1.C

Thank you for the opportunity to provide comments.

Sincerely,



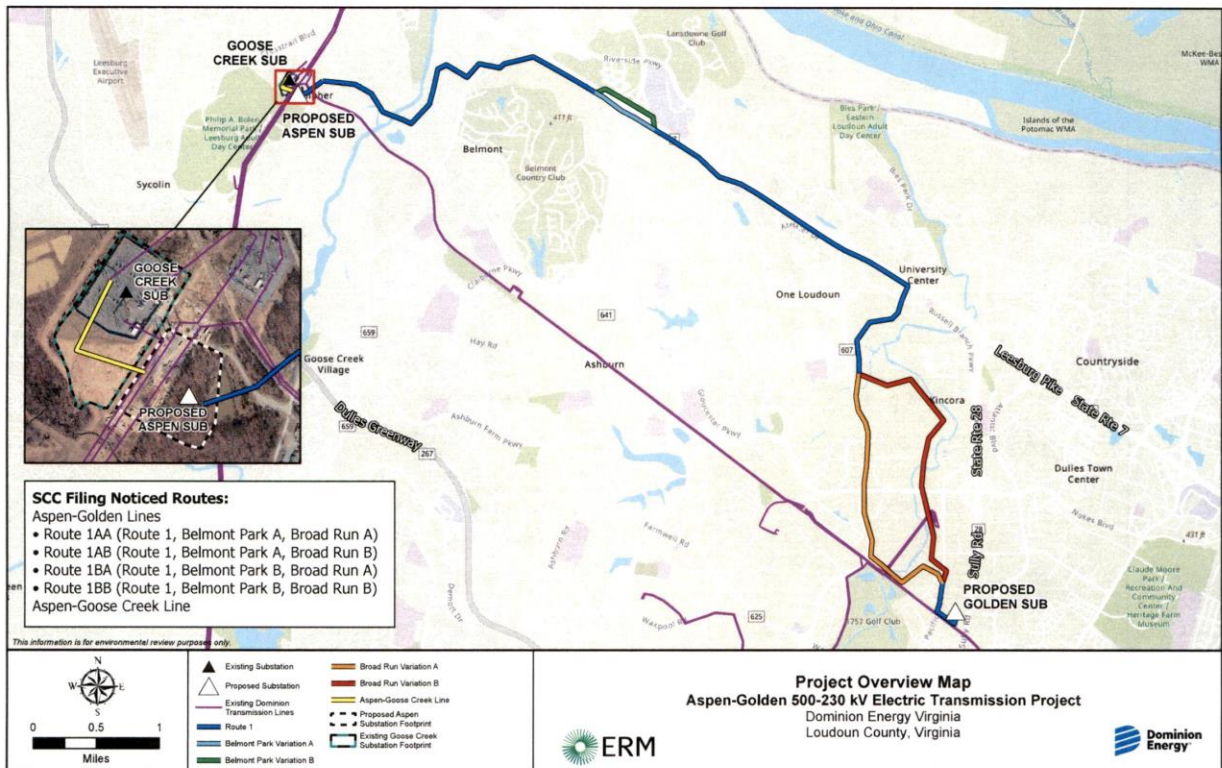
Daniel Galindo, Director
 Department of Planning and Zoning

cc: *via email only*
 Tim Hemstreet, County Administrator
 Joe Kroboth, III, PE, Deputy County Administrator
 Leo Rogers, County Attorney
 Buddy Rizer, Director, Economic Development
 Betsy Smith, Director, Building and Development

Enclosure: Figure 1. Vicinity map depicting proposed Transmission Routes and Substation, provided by Dominion Energy Virginia.

Figure 2. County Archaeologist Memorandum, Aspen to Golden

Figure 1.



MEMORANDUM

To: Laura Meadows, Dominion Energy
From: Steve Thompson, County Archaeologist, Community Planning
Date: March 5, 2024
Re: Dominion Energy's Aspen to Golden project

Aspen to Golden

Dominion Energy proposes construction of two new 500-230 kV substations (Aspen, Golden) and transmissions lines between these facilities, in Loudoun County. Comments follow regarding this project's potential to impact both known and unknown significant historic resources.

Proposed Aspen Substation Footprint

- The Aspen substation footprint is located less than 500 feet from the Washington & Old Dominion (W&OD) Trail and adverse visual and auditory effects to this National Register of Historic Places (NRHP)-listed resources should be considered.

Aspen Substation to Goose Creek

- The corridor crosses the W&OD Trail and adverse effects, both direct and visual, to this NRHP-listed resource should be considered.
- Portions of Route 1 along the north side of Cochran Mill Road have not received Phase I cultural resources survey; therefore, impacts to potentially significant historic resources in these unsurveyed cannot be evaluated. Phase I cultural resources survey is recommended in these locations.

Goose Creek to Belmont Ridge Road

- The corridor passes approximately 550 feet from the remains of Houghs/Cookes/Mavins Mill (053-0339), a site that contains elements of the mid-nineteenth-century Goose Creek and Little River Navigation system and of the early twentieth-century Leesburg Electric Company plant. The NRHP-eligibility of this site should be evaluated and potential visual effects upon the resource considered.

Belmont Ridge Road to Belmont Park

- The corridor passes approximately 500 feet from the Belmont Cemetery for the Enslaved (44LD9578/053-6238). The NRHP eligibility of this resource should be evaluated and potential visual impacts upon this locally important property should be considered.

- The northern portion of 44LD0581 within the proposed corridor is considered NRHP eligible and should be avoided.
- The corridor passes within one-half mile of Belmont Manor (053-0106) and potential visual impacts to the viewshed of this NRHP-listed property should be considered.
- The corridor passes within one-half mile of Janelia (053-0084) and potential visual impacts to the viewshed of this NRHP-listed property should be considered.

Belmont Park Variations A & B

- Both corridors pass within one-half mile of Belmont Manor (053-0106) and within one-quarter of the Belmont Chapel and Cemetery (053-0278) and potential visual impacts to the viewsheds of these NRHP-listed and eligible properties should be considered.

Belmont Park to Rt 7/George Washington Blvd

- Previously unstudied and undeveloped portions of the corridor between Ashburn Village Blvd and Lexington Road should receive Phase I cultural resources survey to identify potentially significant historic resources.
- The corridor passes within one-half mile of the Broad Run Bridge and Toll House (053-0110) and potential visual impacts to the viewshed of this NRHP-listed property should be considered.

Rt 7/George Washington Blvd to Loudoun Water Broad Run Facility

- Existing Phase I cultural resources reporting should be evaluated to ensure that Phase I coverage within the Route 7 corridor meets current standards because many are old.

Broad Run Variation A

- 44LD0649 is NRHP eligible and should be avoided or receive Phase III impact mitigation;
- Corridor south of the Loudoun Water tract and north of the W&OD Trail has not received Phase I cultural resources survey, thus impacts to potential resources cannot be evaluated.

Broad Run Variation B

- The corridor traverses flood plain that has not received previous Phase I cultural resources survey to current standards. All areas of ground disturbance need Phase I coverage, with possible deep testing of Holocene alluvium.

Eastern Terminus and Proposed Golden Substation Footprint

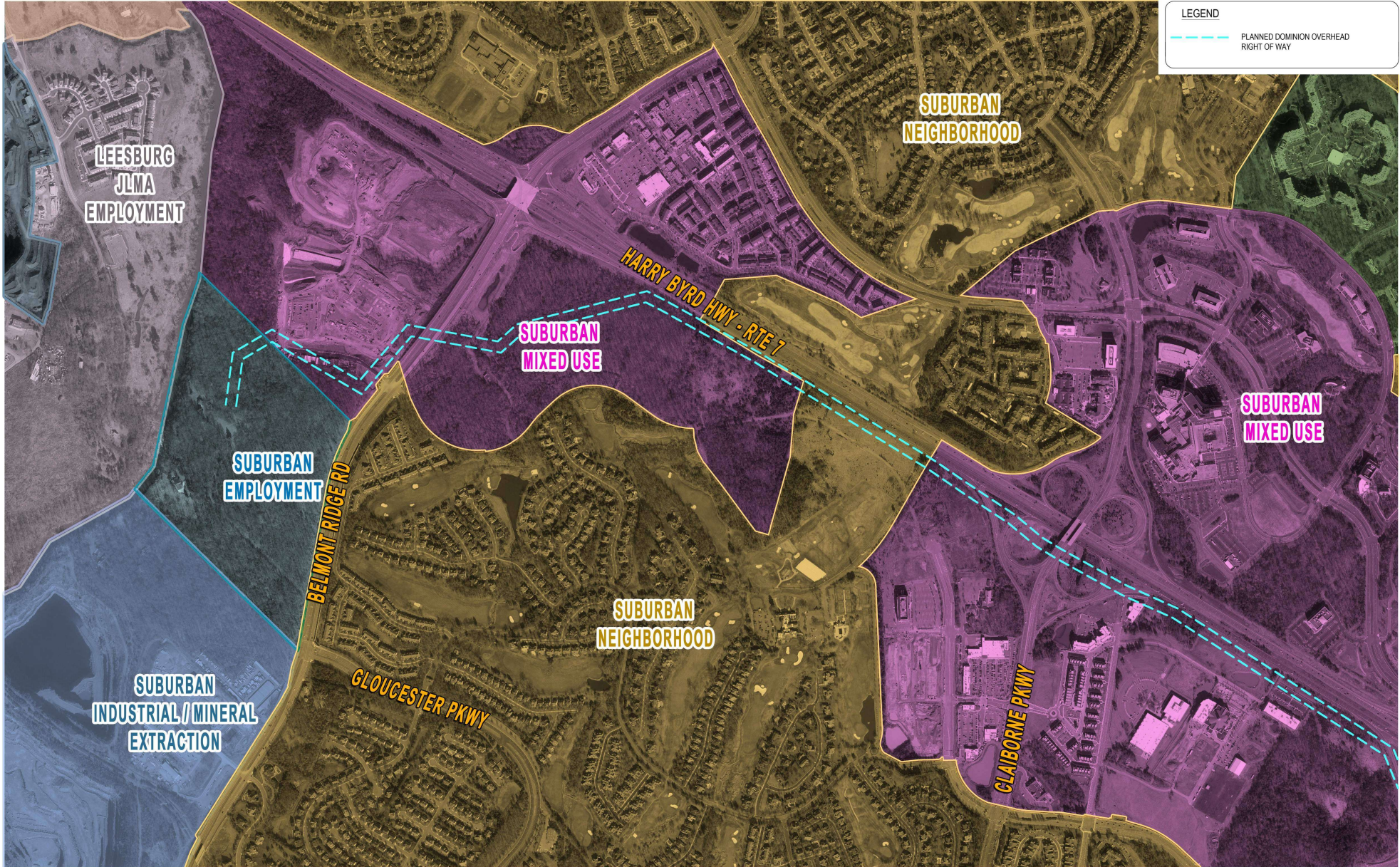
- The substation footprint is located approximately 500 feet of the W&OD Trail and visual and auditory impacts to this NRHP-listed resource should be considered.

cc: Heidi Siebentritt, Principal Planner, Community Planning (via e-mail)

**DIRECT TESTIMONY
OF
WILLIAM PATRICK GIGLIO**

**ON BEHALF OF
LOUDOUN COUNTY, VIRGINIA
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Exhibit WPG-5 (Graphic Image with Place Type Overlay)



LEGEND

PLANNED DOMINION OVERHEAD
RIGHT OF WAY

ASPEN TO GOLDEN - POTENTIAL UNDERGROUND ROUTE

Loudoun County, Virginia



08.09.2024